

Set No. _____

**Specifications, Proposal,
and Contract Documents for:**

124th Ave NE Roadway Improvements

CIP No. STC-059

Job No. 30-22-PW

Federal Aid No. STPUL-2053(002)



**City of Kirkland
Department of Public Works
123 Fifth Avenue
Kirkland, Washington 98033**



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CITY OF KIRKLAND

DEPARTMENT OF PUBLIC WORKS

124th Ave NE Roadway Improvements

CIP NO. STC-059

JOB NO. 30-22-PW

FEDERAL AID NO. STPUL-2053(002)

Certificate of Engineer:

The Special Provisions and drawings contained herein have been prepared by or under the direction of the undersigned, whose seal as a Professional Engineer licensed to practice in the State of Washington, is affixed below.



Erin Routledge, P.E.

Approved for Construction:



Rod Steitzer, P.E.
Capital Projects Manager



INVITATION TO BID

Notice is hereby given that the City of Kirkland will receive sealed Bids in the office of the Purchasing Agent, City Hall, 123 Fifth Avenue, Kirkland, Washington, at 2:00 p.m. local time on November 15, 2023 for the project hereinafter referred to as:

124th Ave NE Roadway Improvements CIP NO. STC-059 JOB NO. 30-22-PW FEDERAL AID NO. STPUL-2053(002)

At said time all Bids will be opened and publicly read aloud. Each Bid shall be accompanied by a Bid Proposal deposit in the form of a cashier's check or a bond issued on a form acceptable to your Surety made payable to the City of Kirkland for a sum of not less than five percent (5%) of the total Bid amount. No Bid shall be considered unless accompanied by such Bid Proposal deposit. Incomplete Proposals and Proposals received after the time stated above will not be considered. Faxed or emailed responses are not acceptable.

The Work to be performed under these Specifications consists of furnishing all labor, tools, materials, and equipment necessary for construction of the **124th Ave NE Roadway Improvements**. Specific Work includes, but is not limited to the improvement of 124th Ave NE from NE 116th St to NE 124th St including clearing and grubbing, traffic control and maintenance of traffic, temporary erosion and sedimentation control, construction of curbs, asphalt concrete paving, reconstruction of driveways, retaining walls, landscaping, installation of storm drainage pipe, catch basins, traffic signal and APS upgrades, roadway illumination, channelization, signing, and property restoration and other work. The estimated cost for this project is in the range of \$10,100,000 to \$12,330,000.

The time limit for completion of the Work is a total of 240 working days, in accordance with Special Provision Section 1-08.5.

The City will not sell Bid packages. Plans, Specifications, and Addenda may be viewed and obtained online at www.bxwa.com. Click on: "Posted Projects"; "Public Works", "City of Kirkland". The Bidders List is maintained by the Builder's Exchange of Washington, Inc. Registration for the Bidder's list may be made online, by phoning (425) 258-1303, or at Builder's Exchange of Washington located at 2607 Wetmore Ave, Everett, WA.

The City of Kirkland, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. 200d to 200d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Questions regarding this project shall be submitted in writing to the Project Engineer, James Waihenya, PE, PMP, via email at jwaihenya@kirklandwa.gov. Questions via phone will not be accepted. Bidders shall submit questions no later than 4:00 p.m. November 9, 2023.

The City reserves the right to reject any and all Bids, and to waive any informalities in the Bidding, and to make the Award to the lowest responsive Bid offered by a responsible Bidder as best serves the interests of the City.

No Bids may be withdrawn within forty-five (45) days after the actual date of the Bid opening.

Jay Gewin
Purchasing Agent

Published: The Seattle Times – October 24, 2023 and October 31, 2023

GENERAL INFORMATION, PROPOSAL, & CONTRACT



City of Kirkland



CITY OF KIRKLAND

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CITY OF KIRKLAND INFORMATION FOR BIDDERS

Bidders must bid on all items contained in the proposal.

The omission or deletion of any bid item will be considered non-responsive and shall be cause for rejection of the bid.

Submit your proposal on the Bid Proposal and other forms which are enclosed, or make a copy of the required forms and submit these documents.

The following forms must be executed in full with submittal of the bid:

1. BIDDER RESPONSIBILITY CRITERIA CHECKLIST
2. SUBCONTRACTOR RESPONSIBILITY CRITERIA CHECKLIST
3. PROPOSAL

The lump sum or unit prices must be shown in the spaces provided on the bid schedule.
Show total bid price in both words and figures on the Proposal.
The Proposal form must be completed in full, signed and dated.
4. BID BOND

A surety issued bid bond must be executed by the bidder and its surety company. The amount of the bid bond shall be not less than five percent (5%) of the total amount bid and may be shown in dollars or on a percentage basis. (A cashier's check payable to the City of Kirkland and issued for an amount not less than 5% of the total bid may be submitted in lieu of a bid bond.)
5. NONCOLLUSION AFFIDAVIT - Notarized
6. STATEMENT OF BIDDER'S QUALIFICATIONS

This form must be filled in and signed. The owner reserves the right to check all statements and to judge the adequacy of the bidder's qualifications.
7. SUBCONTRACTOR IDENTIFICATION LIST

This form must be completed in compliance with RCW 39.30.060 if the estimate exceeds \$1,000,000.
8. CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES
9. DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION CERTIFICATION
10. DISADVANTAGED BUSINESS ENTERPRISE WRITTEN CONFIRMATION DOCUMENT
11. LOCAL AGENCY CERTIFICATION FOR FEDERAL-AID CONTRACTS
12. DISADVANTAGED BUSINESS ENTERPRISE (DBE) BID ITEM BREAKDOWN FORM
13. DISADVANTAGED BUSINESS ENTERPRISE (DBE) TRUCKING CREDIT FORM

The following forms are to be executed after the contract is awarded:

1. CONTRACT

This agreement is to be executed by the successful bidder.
2. PERFORMANCE AND PAYMENT BOND

To be executed by the successful bidder and its surety company.
3. CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT OF STATUTORY RETAINED PERCENTAGE; RETAINED PERCENTAGE ESCROW AGREEMENT

To be executed by the successful bidder based on bidder's selection of option.
4. CERTIFICATES OF INSURANCE

To be executed by the successful bidder and by an acceptable insurance company. The City of Kirkland must be named as an additional insured.

5. STATEMENT(S) OF INTENT TO PAY PREVAILING WAGES

Affidavit certifying all employees of Contractor and Subcontractor shall be paid no less than the Prevailing Wage Rate(s) as determined by the Industrial Statistician of the Washington State Department of Labor and Industries.

SPECIAL NOTE: Prior to commencing work, the contractor and all subcontractors must have applied and paid for a City of Kirkland business license

**CITY OF KIRKLAND
BIDDER RESPONSIBILITY CRITERIA**

It is the intent of City to award a contract to the low responsible bidder. Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required by the City to submit documentation demonstrating compliance with the criteria. The bidder must:

- ☐ 1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal;
- ☐ 2. Have a current Washington Unified Business Identifier (UBI) number;
- ☐ 3. Have:
 - a. Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
 - b. A Washington Employment Security Department number, as required in Title 50 RCW;
 - c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
- ☐ 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3). **Meet responsibility criteria in RCW 39.04.350**
- ☐ 5. Until December 31, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.
- ☐ 6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.

**CITY OF KIRKLAND
SUBCONTRACTOR RESPONSIBILITY CRITERIA**

- ☐ A. The Contractor shall include the language of this section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.
- ☐ B. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
- ☐ 1. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
 - ☐ 2. Have a current Washington Unified Business Identifier (UBI) number;
 - ☐ 3. Have:
 - a) Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RC
 - b) A Washington Employment Security Department number, as required in Title 50 RCW;
 - c) A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
 - d) An electrical contractor license, if required by Chapter 19.28 RCW;
 - e) An elevator contractor license, if required by Chapter 70.87 RCW.
 - ☐ 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3). **Meet responsibility criteria in RCW 39.04.350**
 - ☐ 5. Until December 31, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.
 - ☐ 6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.

**CITY OF KIRKLAND
BID PROPOSAL**



124TH AVE NE ROADWAY IMPROVEMENTS
CIP NO. STC-059 JOB NO. 30-22-PW

To: Director of Finance
City of Kirkland
123 Fifth Avenue
Kirkland, Washington 98033

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this proposal are those named herein; that this proposal is in all respects fair and without fraud; that it is made without collusion with any official or employee of the City of Kirkland, hereinafter called the Owner; and that the proposal is made without any connection or collusion with any person making another proposal on this contract.

The bidder further declares that it has carefully examined the contract documents for the construction of the project; that it has satisfied itself as to the quantities involved, including materials and equipment and conditions of work involved, including the fact that the description of the quantities of work materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the contract documents; and that this proposal is made according to the provisions and under the terms of the contract documents, which documents are hereby made a part of this proposal.

The bidder further agrees that it has exercised its own judgment regarding the interpretation of subsurface information and has utilized all data which it believes pertinent from the engineer-architect, owner, and other sources in arriving at its conclusions.

The bidder agrees to hold its bid proposal open for 45 days after the actual date of bid opening and to accept the provisions of the Instructions to Bidders regarding disposition of bid bond.

The bidder agrees that if this proposal is accepted, it will, within ten (10) calendar days after notification of acceptance, execute the contract with the Owner in the form of contract included in the contract documents, and will, at the time of execution of the contract, deliver to the Owner the Performance and Payment Bond and all Certificates of Insurance required therein, and will, to the extent of its proposals, furnish all machinery, tools, apparatus, and other means of construction and do the work in the manner, in the time, and according to the methods as specified in the contract documents and required by the engineer or other project manager designated thereunder.

The bidder further agrees, if awarded the contract, to begin work within ten (10) calendar days after the date of the execution of the contract and to complete the construction within the time specified in Section 1-08.5 of the Special Provisions.

In the event the bidder is awarded the contract and shall fail to complete the work within the time limit or extended time limit agreed upon as more particularly set forth in the contract documents, liquidated damages shall be paid to the Owner per the specifications contained in the contract documents.

MUST BE SUBMITTED WITH PROPOSAL

The bidder further proposes to accept as full payment for the work proposed herein, the amounts computed under the provisions of the contract documents and based upon the lump sum and unit price amounts entered by the bidder for the various bid items included in the Bid Schedule. The bidder further agrees the lump sum and unit prices entered for the various bid items included in the Bid Schedule include all use taxes, overhead, profit, bond premiums, insurance premiums and all other miscellaneous and incidental expenses as well as all costs of materials, labor, tools and equipment required to perform and complete the work.

Within the three-year period immediately preceding the date of the bid solicitation for this Project, bidder has not been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.

The undersigned bids and agrees to complete all construction of the **124TH AVE NE ROADWAY IMPROVEMENTS; JOB NO. 30-22-PW** for the following:

Total Computed Price (*in figures*): \$ _____

Washington State Sales Tax 10.2% (*in figures*): \$ _____

Total Bid (*in figures*): \$ _____

Total Bid (*in words*): _____

Receipt of Addenda No(s). _____ is hereby acknowledged.

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct:

CONTRACTOR (Firm Name)

Location or Place Executed: (City, State)

By

Name and title of person signing

(Indicate whether Contractor is Partnership,
Corporation, or Sole Proprietorship)

Date

Washington State Contractor's
Registration Number

Contractor's Industrial Insurance
Account Number

MUST BE SUBMITTED WITH PROPOSAL

Employment Security Identification
Number

Uniform Business Identification
(UBI) Number

Contractor's Address:

Telephone Number

Fax Number

EMAIL

**** Bid proposal to be submitted in a sealed envelope marked "**Bid Enclosed**" for
124TH AVE NE ROADWAY IMPROVEMENTS, JOB NO. 30-22-PW.**

**CITY OF KIRKLAND
BID SCHEDULE**

124TH AVE NE ROADWAY IMPROVEMENTS
CIP NO. STC-059 JOB NO. 30-22-PW

Note: Unit prices for all items, all extensions, and the total amount of the bid must be shown. All entries must be typed or entered in ink.

Schedule A: Roadway Improvements

Item No.	Item Description	Spec Ref.	Est. Qty.	Unit	Unit Price	Amount
A-1	Unexpected Site Changes	1-04	1	EST	\$100,000	\$100,000
A-2	Roadway Surveying	1-05	1	LS		
A-3	ADA Features Surveying	1-05	1	LS		
A-4	Record Drawings (Minimum Bid \$1000)	1-05	1	LS		
A-5	SPCC Plan	1-07	1	LS		
A-6	Potholing	1-07	25	EA		
A-7	Notification	1-07	1	LS		
A-7	Type B Progress Schedule	1-08	1	LS		
A-8	Mobilization	1-09	1	LS		
A-9	Portable Changeable Message Sign	1-10	13,200	HR		
A-10	Flaggers	1-10	9,120	HR		
A-11	Traffic Control Supervisor	1-10	1	LS		
A-12	Pedestrian Traffic Control	1-10	1	LS		
A-13	Contractor Provided Uniformed Police Officer	1-10	420	HR		
A-14	Project Temporary Traffic Control	1-10	1	LS		
A-15	Work Zone Safety Contingency	1-10	1	FA		
A-16	Temporary Pedestrian Curb Ramp	1-10	16	EA		
A-17	Clearing and Grubbing	2-01	1.3	AC		
A-18	Roadside Cleanup	2-01	1	EST	\$5,000	\$5,000
A-19	Removal of Structures and Obstructions	2-02	1	LS		
A-20	Removal of Private Property Structures and Obstructions	2-02	1	FA	\$25,000	\$25,000
A-21	Tree Removal	2-02	39	EA		
A-22	Sawcutting Existing Pavement	2-02	2,360	LF		

A-23	Abandon Monitoring Well	2-02	3	EA		
A-24	Roadway Excavation Incl. Haul	2-03	8,300	CY		
A-25	Gravel Borrow Incl. Haul	2-03	1,900	TON		
A-26	Crushed Surfacing Top Course	4-04	5,690	TON		
A-27	HMA Cl. ½ In. PG 58H-22	5-04	5,200	TON		
A-28	HMA for Approach Cl. ½ In. PG 58H-22	5-04	320	TON		
A-29	Asphalt Cost Price Adjustment	5-04	1	CALC	\$24,570	\$24,570
A-30	Cement Conc. Pavement	5-05	130	SY		
A-31	Structural Earth Wall	6-13	4,690	SF		
A-32	Adjust Manhole	7-05	11	EA		
A-33	Replace Water Valve Box Top Section and Cover	7-12	3	EA		
A-34	Hydrant Assembly	7-14	5	EA		
A-35	Move Existing Fire Department Connection	7-14	1	EA		
A-36	Remove and Dispose of Existing Hydrant Assembly	7-14	5	EA		
A-37	Service Connection	7-15	6	EA		
A-38	High Visibility Silt Fence	8-01	1,970	LF		
A-39	ESC Lead	8-01	144	DAY		
A-40	Inlet Protection	8-01	38	EA		
A-41	Seeding, Fertilizing, Mulching	8-01	95	SY		
A-42	Erosion/Water Pollution Control	8-01	1	LS		
A-43	PSIPE – American Smoke Tree, 2" Cal.	8-02	4	EA		
A-44	PSIPE – Athena Classic Elm, 2" Cal.	8-02	8	EA		
A-45	PSIPE – Greensphere Manzanita, 5 Gal.	8-02	8	EA		
A-46	PSIPE – Martha Ewan Manzanita, 5 Gal.	8-02	96	EA		
A-47	PSIPE – Pacific Mist Manzanita, 5 Gal.	8-02	158	EA		
A-48	PSIPE – Grand Bleu Bluebeard, 5 Gal.	8-02	324	EA		
A-49	PSIPE – Icicle Plant, 1 Gal.	8-02	540	EA		
A-50	PSIPE – Russian Sage, 2 Gal.	8-02	914	EA		
A-51	PSIPE – Otto Luyken English Laurel, 2 Gal.	8-02	65	EA		
A-52	PSIPE – Dwarf Yeddo Hawthorne, 5 Gal.	8-02	19	EA		
A-53	PSIPE – Pinkie Indian Hawthorne, 2 Gal.	8-02	170	EA		
A-54	PSIPE – Red Mountain Flame Ice Plant, 4" Pots	8-02	1,559	EA		

A-55	PSIPE – Tufted Hair Grass, 2 Gal.	8-02	479	EA		
A-56	PSIPE – Blue Fescue, 1 Gal.	8-02	2,274	EA		
A-57	PSIPE – Creeping Red Fescue, 1 Gal.	8-02	1,465	EA		
A-58	PSIPE – Pacific Iris, 1 Gal.	8-02	350	EA		
A-59	PSIPE – Threadleaf Coreopsis, 1 Gal.	8-02	252	EA		
A-60	PSIPE – Oregon Sunshine, 1 Gal.	8-02	161	EA		
A-61	PSIPE – Mexican Evening Primrose, 1 Gal.	8-02	332	EA		
A-62	Topsoil Type A, and Soil Amendments	8-02	420	CY		
A-63	Mulch	8-02	110	CY		
A-64	Property Restoration	8-02	1	FA	\$50,000	\$50,000
A-65	Root Trim & Barrier	8-02	12	EA		
A-66	Irrigation Restoration	8-03	1	FA	\$5,000	\$5,000
A-67	Cement Conc. Pedestrian Curb	8-04	2,880	LF		
A-68	Cement Conc. Curb and Gutter, Type A	8-04	3,560	LF		
A-69	Cement Conc. Curb, Type E-2	8-04	950	LF		
A-70	Median Curb	8-04	340	LF		
A-71	Cement Conc. Banding	8-04	2,670	LF		
A-72	Extruded Cement Concrete Curb	8-04	780	LF		
A-73	Cement Conc. Valley Gutter	8-04	210	LF		
A-74	Cement Conc. Driveway Entrance Type 3	8-06	850	SY		
A-75	Raised Pavement Marker Type 2	8-09	1.3	HUND		
A-76	Raised Pavement Marker Type Blue	8-09	5	EA		
A-77	Monument Case and Cover	8-13	8	EA		
A-78	Cement Conc. Sidewalk	8-14	2,370	SY		
A-79	Detectable Warning Surface	8-14	860	SF		
A-80	Cement Conc. Depressed Sidewalk	8-14	430	SY		
A-81	Cement Conc. Raised Median	8-14	60	SY		
A-82	Cement Conc. Transition Sidewalk	8-14	150	SY		
A-83	Thickened Edge Sidewalk	8-14	240	SY		
A-84	Cement Conc. Landing Pad	8-14	270	SY		
A-85	Cement Conc. B-21 KC Footing	8-14	20	SY		
A-86	Finish Type 2 – Specialty Scored Paving Treatment	8-14	6,435	SF		

A-87	Finish Type 3 – Specialty Paving Treatment	8-14	3,450	SF		
A-88	Finish Type 4 – Tactile Separation Strip	8-14	4,015	SF		
A-89	ADA Ramp	8-14	1	LS		
A-90	Relocate Mailbox	8-18	1	EA		
A-91	Relocate Mailbox Shelter Unit	8-18	1	EA		
A-92	Metal Seat	8-19	6	EA		
A-93	Adjust Existing Junction Box	8-20	6	EA		
A-94	Temporary Illumination System	8-20	1	LS		
A-95	Illumination System Complete	8-20	1	LS		
A-96	Traffic Signal System – NE 124th St & 124th Ave NE	8-20	1	LS		
A-97	Traffic Signal System – 124th Ave NE & NE 120th St	8-20	1	LS		
A-98	Pedestrian Hybrid Beacon System – NE 118th St & 124th Ave NE	8-20	1	LS		
A-99	Traffic Signal System – NE 116th St & 124th Ave NE	8-20	1	LS		
A-100	ITS System, Complete	8-20	1	LS		
A-101	Temporary Traffic Signal System – NE 116th St & 124th Ave NE	8-20	1	LS		
A-102	Temporary Traffic Signal System – NE 120th St & 124th Ave NE	8-20	1	LS		
A-103	Temporary Traffic Signal System – NE 124th St & 124th Ave NE	8-20	1	LS		
A-104	Permanent Signing	8-21	1	LS		
A-105	Paint Line	8-22	4,060	LF		
A-106	Plastic 8" Yellow Diagonal Line	8-22	120	LF		
A-107	Plastic Bicycle Lane Symbol	8-22	18	EA		
A-108	Plastic Crosswalk Line	8-22	2,470	SF		
A-109	Plastic Stop Line	8-22	300	LF		
A-110	Plastic Traffic Arrow	8-22	18	EA		
A-111	Plastic Wide Lane Line	8-22	710	LF		
A-112	Painted Access Parking Space Symbol with Background	8-22	1	EA		
A-113	Bike Box Marking	8-22	2	EA		
A-114	Plastic White 12 In. Bike Lane Stop Bar	8-22	20	LF		
A-115	Plastic Crossbike Marking	8-22	560	SF		
A-116	Green MMA Pavement Marking	8-22	470	SF		

A-117	Temporary Pavement Marking – Long Duration	8-23	8,800	LF		
A-118	Modular Block Wall	8-24	5,730	SF		
A-119	Decorative Metal Barrier Element	8-26	11	EA		
A-120	Pedestrian Handrail	8-27	1,060	LF		
A-121	Metal Edge	8-28	470	LF		
A-122	Field Office Building (No Federal Participation)	8-30	1	LS		
A-123	Lean Bar	8-31	95	LF		
A-124	Bike Rack	8-32	2	EA		
A-125	Ramp Handrail	8-33	80	LF		
A-126	Bollard	8-35	6	EA		

SCHEDULE A TOTAL COMPUTED PRICE: \$ _____

Schedule B: Storm Drainage Improvements

Item No.	Item Description	Spec Ref.	Est. Qty.	Unit	Unit Price	Amount
B-1	Removing Drainage Structure	2-02	28	EA		
B-2	Removing Existing Drainage Pipe	2-02	2,520	LF		
B-3	Remove and Salvage StormFilter Catch Basin	2-02	2	EA		
B-4	Shoring or Extra Excavation Cl. B Incl. Haul	2-09	15,290	SF		
B-5	Drain Pipe 6 In. Diam.	7-01	440	LF		
B-6	Drain Cleanout	7-01	16	EA		
B-7	Schedule A Storm Sewer Pipe 4 In. Diam.	7-04	100	LF		
B-8	Schedule A Storm Sewer Pipe 12 In. Diam.	7-04	1,000	LF		
B-9	Schedule A Storm Sewer Pipe 18 In. Diam.	7-04	210	LF		
B-10	Schedule A Storm Sewer Pipe 24 In. Diam.	7-04	1,150	LF		
B-11	Schedule A Storm Sewer Pipe 36 In. Diam.	7-04	140	LF		
B-12	Ductile Iron Storm Sewer Pipe 36 In. Diam.	7-04	100	LF		
B-13	Adjust Catch Basin	7-05	11	EA		
B-14	Curb Inlet	7-05	1	EA		
B-15	Catch Basin Type 1	7-05	10	EA		
B-16	Catch Basin Type 1L	7-05	3	EA		
B-17	Catch Basin Type 2 48 In. Diam.	7-05	8	EA		
B-18	Catch Basin Type 2 72 In. Diam.	7-05	1	EA		

B-19	Catch Basin Type 2 54 In. Diam.	7-05	3	EA		
B-20	Catch Basin Type 2 60 In. Diam.	7-05	2	EA		
B-21	Connection to Drainage Structure	7-05	14	EA		
B-22	Replace Existing Storm Drain Manhole Ring and Cover with New Ring and Cover	7-05	1	EA		
B-23	Relocate Filterra Structure	7-05	1	EA		
B-24	Stormwater Vault	7-20	1	LS		
B-25	Filterra Unit 4 Ft. x 4 Ft. (Oil)	7-21	1	EA		
B-26	Filterra Unit 4 Ft. x 8 Ft. (Oil)	7-21	2	EA		

SCHEDULE B TOTAL COMPUTED PRICE: \$_____

Schedule C: Sanitary Sewer Improvements

Item No.	Item Description	Spec Ref.	Est. Qty.	Unit	Unit Price	Amount
C-1	Trench Safety System	App. E	1	LS		
C-2	PVC Sanitary Sewer Pipe 6 In. Diam	App. E	130	LF		
C-3	PVC Sanitary Sewer Pipe 8 In. Diam	App. E	100	LF		
C-4	Repair Existing Sewer Line	App. E	1	LS		
C-5	48" Manhole	App. E	1	EA		
C-6	48" Saddle Manhole	App. E	4	EA		
C-7	48" Sewer Manhole – Additional Depth	App. E	13	VF		
C-8	6" Sewer Cleanout	App. E	6	EA		
C-9	Crushed Rock	App. E	520	TON		
C-10	Remove and Replace Manhole Frame & Cover	App. E	3	EA		
C-11	Removal and Disposal of A.C. Pipe	App. E	20	LF		
C-12	Locate and Connect to Ex. Sewer System	App. E	5	EA		
C-13	Controlled Density Fill (If Required)	App. E	25	TON		
C-14	Asphalt Trench Patch and Paving	App. E	140	TON		
C-15	General Restoration	App. E	1	LS		

SCHEDULE C SUBTOTAL: \$_____

SALES TAX – 10.2% (SCHEDULE C ONLY): \$_____

SCHEDULE C TOTAL COMPUTED PRICE: \$_____

SCHEDULE A + SCHEDULE B + SCHEDULE C TOTAL COMPUTED PRICE:

\$_____



BID DEPOSIT

Herewith find deposit in the form of a cashier's check or certified check in the amount of \$ _____ which amount is not less than five percent (5%) of the total bid.

SIGN HERE _____

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the City of Kirkland, as Obligee, in the penal sum of _____ dollars, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for

_____ Project Name _____ Job Number _____

according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for faithful performance thereof, with Surety or Sureties approved by the Obligee; or if the Principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS _____ DAY OF _____, 20_____.

PRINCIPAL:

SURETY:

MUST BE SUBMITTED WITH PROPOSAL

Note: If a Bid Bond is provided, it must be accompanied by a power of attorney which appoints the Surety's true and lawful attorney-in-fact to make, execute, seal and deliver this Bid Bond.

**CITY OF KIRKLAND
NONCOLLUSION AFFIDAVIT
124TH AVE NE ROADWAY IMPROVEMENTS
CIP NO. STC-059 JOB NO. 30-22-PW**

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

The undersigned, being duly sworn, on oath deposes and says that the person(s), firm, association, partnership or corporation herein named has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.

Firm Name

Authorized Signature

Type Name

Title

Sworn to before me, this _____ day of _____, 20__.

Notary Public in and for the State of Washington
Residing at _____
My Commission Expires _____

NOTICE TO ALL BIDDERS

To report bid rigging activities call: 1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., ET. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

**CITY OF KIRKLAND
STATEMENT OF BIDDER'S QUALIFICATIONS**

Contractor Name: _____ Contact: _____

Business Address: _____

Business phone: _____ Fax: _____

Number of years the Contractor has been engaged in the construction business under the present firm name: _____

Describe the general character of work performed by your company: _____

List five projects of a similar nature which Contractor has completed within the last 10 years. Include contract amount and contact information for references:

Project Name	Amount	Owner/Agency	Contact	Phone	Year Completed

List major equipment anticipated to be used on this project; indicate whether Contractor-owned or to be leased from others: _____

Bank reference(s): _____

Washington State Contractor Registration No.: _____

Uniform Business Identification No.: _____

I certify that other contracts now in progress or hereafter obtained will not interfere with timely performance of the City of Kirkland project should I become the successful bidder.

Authorized Signature: _____

Print Name: _____ Title: _____

**CITY OF KIRKLAND
SUBCONTRACTOR IDENTIFICATION FOR CONTRACTS ESTIMATED TO BE
IN EXCESS OF ONE MILLION DOLLARS (\$1,000,000.00)**

RCW 39.30.060 requires the following:

“(1) Every invitation to bid on a prime contract that is expected to cost one million dollars or more for the construction, alteration, or repair of any public building or public work of the state or a state agency or municipality as defined under RCW 39.04.010 ... shall require each prime contract bidder to submit:

(a) Within one hour after the published bid submittal time, the names of the subcontractors with whom the bidder, if awarded the contract, will subcontract for performance of the work of: HVAC (heating, ventilation, and air conditioning); plumbing as described in chapter 18.106 RCW; and electrical as described in chapter 19.28 RCW, or to name itself for the work; or

(b) Within forty-eight hours after the published bid submittal time, the names of the subcontractors with whom the bidder, if awarded the contract, will subcontract for performance of the work of structural steel installation and rebar installation.

The prime contract bidder shall not list more than one subcontractor for each category of work identified, unless subcontractors vary with bid alternates, in which case the prime contract bidder must indicate which subcontractor will be used for which alternate. Failure of the prime contract bidder to submit as part of the bid the names of such subcontractors or to name itself to perform such work or the naming of two or more subcontractors to perform the same work shall render the prime contract bidder's bid non-responsive and, therefore, void."

Each bidder shall submit a list of:

1. HVAC, plumbing, electrical, structural steel installation, and rebar installation subcontractors; and
2. The specific items of work those subcontractors will perform on the contract; and
3. The specific items of work that will be performed by the bidder on the contract relating to work described in RCW 39.30.060.

**CITY OF KIRKLAND
SUBCONTRACTOR IDENTIFICATION LIST**

*REQUIRED IF ESTIMATE AMOUNT EXCEEDS \$1,000,000 (*Reference RCW 39.30.060 RCW*)

Proposed Subcontractors and items of work to be performed:

Subcontractor Name: _____

Item Numbers: _____

Subcontractor Name: _____

Item Numbers: _____

Subcontractor Name: _____

Item Numbers: _____

Subcontractor Name: _____

Item Numbers: _____

Subcontractor Name: _____

Item Numbers: _____

- make additional pages if necessary -

Work to be performed by Prime Contractor:

Item Numbers: _____

CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

This form must be submitted with the Bid Proposal or as a Supplement to the Bid no later than 24 hours after the time for delivery of the Bid Proposal, as provided for in Section 1-02.9 of the Contract Provisions.

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (November 17, 2022), the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Bidder’s Business Name

Signature of Authorized Official*

Printed Name

Title

Date

City

State

Check One:

Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

** If a corporation, this form must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, form must be executed by a partner.*

**DISADVANTAGED BUSINESS ENTERPRISE
UTILIZATION CERTIFICATION**

To be eligible for Award of this Contract the Bidder shall fill out and submit, as a supplement to its sealed Bid Proposal, an Underutilized Disadvantaged Business Enterprise (DBE) Utilization Certification. The Contracting Agency shall consider as non-responsive and shall reject any Bid Proposal that does not contain a DBE Utilization Certification which properly demonstrates that the Bidder will meet the DBE participation requirements in one of the manners provided for in the proposed Contract. **Refer to the instructions on Page 2 when filling out this form or the Bid may be rejected. An example form has been provided on Page 3.** The successful Bidder's DBE Utilization Certification shall be deemed a part of the resulting Contract.

Box 1: _____ certifies that the DBE firms listed below have been contacted regarding participation on this project. If this Bidder is successful on this project and is awarded the Contract, it shall assure that subcontracts or supply agreements are executed with named DBEs. (If necessary, use additional sheets.)

Box 2: _____

Column 1	Column 2	Column 3	Column 4	Column 5
Name of DBE (See instructions)	Project Role (See instructions)	Description of Work (See instructions)	Dollar Amount Subcontracted to DBE (See instructions)	Dollar Amount to be Applied Towards Goal (See instructions)

Underutilized Disadvantaged Business _____ Total DBE Commitment Dollar Amount _____
 Enterprise Condition of Award Contract Goal Box 3 Box 4

5 ☐ By checking Box 5 the Bidder is stating that their attempts to solicit sufficient DBE participation to meet the COA Contract goal has been unsuccessful and good faith effort will be submitted in accordance with Section 1-02.9 of the Contract

**Instructions for Underutilized Disadvantaged Business
Enterprise Utilization Certification Form**

Box 1: Name of Bidder (Proposal holder) submitting Bid.

Box 2: Name of the Project.

Column 1: Name of the Underutilized Disadvantaged Business Enterprise (DBE). DBE Firms can be found using the search tools under the Firm Certification section of the Diversity Management and Compliance System web page <https://wsdot.diversitycompliance.com>. Repeat the name of the DBE for each Project Role that will be performed.

Column 2: The Project Role that the DBE will be performing as follows;

- Prime Contractor
- Subcontractor
- Subcontractor (Force Account)
 - Work sublet as Force Account must be listed separately.
- Manufacturer
- Regular Dealer
 - Work sublet to a Regular Dealer must be listed separately.
 - Regular Dealer status must be approved prior to Bid submittal by the Office of Equal Opportunity, Washington State Department of Transportation, on each Contract.
- Broker
 - Work sublet to a Broker must be listed separately.

List each project role to be performed by a single DBE individually on a separate row(s). The role is used to determine what portion of the amount to be subcontracted (Column 4) may be applied toward meeting the goal (column 5).

Column 3: Provide a description of the Work to be performed by the DBE. The work to be performed must be consistent with the Certified Business Description of the DBE provided at the Diversity Management and Compliance System web page <https://wsdot.diversitycompliance.com>.

- A Bidder subletting a portion of a bid item shall state “**Partial**” and describe the Work that is included.
 - For example; “Electrical (Partial) – Trenching”.
- “Mobilization” will not be accepted as a description of Work.

Column 4: List the total amount to be subcontracted to each DBE for each Project Role they are performing.

Column 5: This is the dollar amount for each line listed in the certification that the prime intends to apply towards meeting the COA Contract goal. It may be that only a portion of the amount subcontracted to a DBE in Column 4 is eligible to be credited toward meeting the goal **See Note 1, Note 2, Note 3**. The Contracting Agency will utilize the sum of this column (Box 4) to determine whether or not the bidder has met the goal. In the event of an arithmetic error in summing column 5 or an error in making appropriate reductions in the amounts in column four, **See Note 1, Note 2, Note 3**, then the mathematics will be corrected and the total (Box 4) will be revised accordingly.

Note 1: For Work sublet as Force Account the bidder **may only claim 50%** of the amount subcontracted (Column 4) towards meeting the goal (Column 5). This information will be used to demonstrate that the DBE contract goal is met at the time that the bidder submits their bid. For example; amount sublet as force account = \$100,000 (Column 4) equates to $(\$100,000 \times 50\%) = \$50,000$ (Column 5) to be applied towards the goal.

Note 2: For Work sublet to a Regular Dealer the bidder **may only claim 60%** of the cost of the materials or supplies (Column 4) towards meeting the goal (Column 5). For example; Material cost = \$100,000 (Column 4) equates to $(\$100,000 \times 60\%) = \$60,000$ (Column 5) to be applied towards the goal.

Note 3: For Work sublet to a Broker the bidder **may only claim the fees** paid to a Broker towards meeting the goal (Column 4). For example; amount sublet to a broker = \$100,000 (Column 4) equates to $(\$100,000 \times \text{reasonable fee } \%) = \$$ (Column 5) to be applied towards the goal.

Box 3: Box 3 is the COA Contract goal which is the minimum required DBE participation. The goal stated in the Contract will be in terms of a dollar amount or a percentage in the Contract. When expressed as a percentage you must multiply the percentage times the sum total of all bid items as submitted in the Bidder's Proposal to determine the dollar goal and write it in Box 3. In the event of an error in this box, the Contracting Agency will revise the amount accordingly.

Box 4: Box 4 is the sum of the values in column 5. **This value must equal or exceed the COA Contract goal amount written in Box 3 or;**

Box 5: Check Box 5 if insufficient DBE Participation has been achieved and a good faith effort is required. Refer to the subsection titled, *Selection of Successful Bidder/Good Faith Efforts (GFE)* in the Contract.

See the Disadvantaged Business Enterprise Participation specification in the Contract for more information.

To be eligible for Award of this Contract the Bidder shall fill out and submit, as a supplement to its sealed Bid Proposal, a Disadvantaged Business Enterprise (DBE) Utilization Certification. The Contracting Agency shall consider as non-responsive and shall reject any Bid Proposal that does not contain a DBE Utilization Certification which properly demonstrates that the Bidder will meet the DBE participation requirements in one of the manners provided for in the proposed Contract. **Refer to the instructions on Page 2 when filling out this form or the Bid may be rejected. An example form has been provided on Page 3. The successful Bidder's DBE Utilization Certification shall be deemed a part of the resulting Contract.**

Box 2: US 395, Spokane City Limits to Stevens County Line - Paving and Safety

[illegible]

5 ☐ By checking Box 5 the Bidder is stating that their attempts to solicit sufficient DBE participation to meet the COA Contract goal has been unsuccessful and good faith effort will be submitted in accordance with Section 1-02.9 of the Contract

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
WRITTEN CONFIRMATION DOCUMENT**

See Contract Provisions: *DBE Document Submittal Requirements*
Disadvantaged Business Enterprise Participation

THIS FORM SHALL ONLY BE SUBMITTED TO A DBE THAT IS LISTED ON THE CONTRACTOR'S DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION CERTIFICATION.

THE CONTRACTOR SHALL COMPLETE PART A PRIOR TO SENDING TO THE DBE.

PART A: To be completed by the bidder

The entries below shall be consistent with what is shown on the Bidder's Disadvantaged Business Enterprise Utilization Certification. Failure to do so will result in Bid rejection.

Contract Title: _____

Bidder's Business Name: _____

DBE's Business Name: _____

Description of DBE's Work: _____

Dollar Amount to be Applied Towards DBE Goal: _____

Dollar Amount to be Subcontracted to DBE*: _____
*Optional Field

PART B: To be completed by the Disadvantaged Business Enterprise

As an authorized representative of the Disadvantaged Business Enterprise, I confirm that we have been contacted by the Bidder with regard to the referenced project for the purpose of performing the Work described above. If the Bidder is awarded the Contract, we will enter into an agreement with the Bidder to participate in the project consistent with the information provided in Part A of this form.

Name (printed): _____

Signature: _____

Title: _____

Address: _____ Date: _____

LOCAL AGENCY CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

DOT Form 272-040A EF
Rev. 07/2011

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) BID ITEM BREAKDOWN FORM

1. Contract Number		2. Contract Name	
3. Prime Contractor		4. Prime Contractor Representative Name	
5. Prime Contractor Representative Phone Number		6. Prime Contractor Representative Email	

Column 1 Name of UDBE (See Instructions)	Column 2 Bid Item # (See Instructions)	Column 3 Full/Partial (See Instructions)	Column 4 Quantity (See Instructions)	Column 5 Description (See Instructions)	Column 6 Unit Price (See Instructions)	Column 7 Total Unit Cost (See Instructions)	Column 8 Dollar Amount to be Applied Towards Goal (See Instructions)
Subtotal:							
Name of UDBE	Bid Item #	Full/Partial	Quantity	Description	Unit Price	Total Unit Cost	Dollar Amount to be Applied Towards Goal
Subtotal:							
Name of UDBE	Bid Item #	Full/Partial	Quantity	Description	Unit Price	Total Unit Cost	Dollar Amount to be Applied Towards Goal
Subtotal:							
Name of UDBE	Bid Item #	Full/Partial	Quantity	Description	Unit Price	Total Unit Cost	Dollar Amount to be Applied Towards Goal
Subtotal:							
Name of UDBE	Bid Item #	Full/Partial	Quantity	Description	Unit Price	Total Unit Cost	Dollar Amount to be Applied Towards Goal
Subtotal:							
TOTAL UDBE Dollar Amount:							

Instructions for Disadvantaged Business Enterprise (DBE) Bid Item Breakdown Form

Box 1: Provide the Contract Number as stated in the project information webpage.

Box 2: Provide the Name of the project as stated in the project information webpage.

Box 3: Provide the Name of the bidder (Proposal holder) submitting Bid.

Box 4: Provide the name of the prime contractor's representative available to contact regarding this form.

Box 5: Provide the phone number of the prime contractor's representative available to contact regarding this form.

Box 6: Provide the email of the prime contractor's representative available to contact regarding this form.

Column 1: Provide the Name of the Disadvantaged Business Enterprise (DBE) Firm. DBE Firms can be found using the search tools under the Firm Certification section of the Diversity Management and Compliance System (DMCS) webpage <https://wsdot.diversitycompliance.com>.

Column 2: Provide the Bid Item Number (as it appears in the engineer's estimate bid check report) available on the project information webpage.

Column 3: If the DBE is performing only part of the bid item, mark "Partial". If the DBE is performing the entire bid item, mark "Complete".

Column 4: Provide the estimated quantity for the specific bid item. For trucking firms, use hour or another unit of measure.

Column 5: Provide a description of the work to be performed by the DBE.

Column 6: Provide the price per unit and specify the type of unit used. For trucking firms, use hour or another unit of measure.

Column 7: Provide the estimated total unit cost amount per bid item.

Column 8: Provide the amount of the bid item being used to fulfil the DBE goal. The work to be performed must be consistent with the Certified Business Description of the DBE provided in the DMCS webpage <https://wsdot.diversitycompliance.com>. Mobilization up to 10% is acceptable. If mobilization is more than 10% additional information and/or justification may be requested. The total amount shown for each DBE shall match the amount shown on the DBE Utilization Certification Form.

Use Additional Sheets if necessary.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) TRUCKING CREDIT FORM**PART A: TO BE COMPLETED BY THE BIDDER**

This form is in support of the trucking commitment identified on the DBE Utilization Certification Form submitted with the proposal. Please note that DBE's must be certified prior to time of submittal.

Federal Aid #	Contract #	Project Name
If listing items by hours, or by lump sum amounts, please provide calculations to substantiate the quantities listed.		
Bid Item	Item Description	

Use additional sheets as necessary.

Bidder		Name/Title (please print)
Phone	Fax	Signature
Address		
Email		I certify that the above information is complete and accurate.
		Date

PART B: TO BE COMPLETED BY THE DBE TRUCKING FIRM

Note: DBE trucking firm participation may only be credited as DBE participation for the value of the hauling services, not for the materials being hauled unless the trucking firm is also recognized as a supplier of the materials used on the project and approved for this project as a regular dealer.

1. Type of Material expected to be hauled? _____
2. Number of fully operational trucks expected to be used on this project? _____ Tractor/trailers: _____ Dump trucks: _____
3. Number of trucks and trailers owned by the DBE that will be used on this project? _____ Tractor/trailers: _____ Dump trucks: _____
4. Number of trucks and trailers leased by the DBE that will be used on this project? _____ Tractor/trailers: _____ Dump trucks: _____

DBE Firm Name		Name/Title (please print)
Certification Number		
Phone	Fax	Signature
Address		
Email		I certify that the above information is complete and accurate.
		Date

MUST BE SUBMITTED WITH PROPOSAL

Submit this form to in accordance with section 1-02.9 of the Contract.

Instruction to Bidder: The Bidder shall complete and submit the Disadvantaged Business Enterprise (DBE) Trucking Credit Form in accordance with Section 1-02.9 of the Contract.

INSTRUCTIONS

Please note – All Fields are required

PART A: TO BE COMPLETED BY THE BIDDER

Federal Aid: Include the project federal-aid number.

County: Specify the County where the project will take place.

Contract #: Specify the Project Contract Number which can be found in the Engineer's estimate bid check report.

Bid Item: Provide the Bid Item Number (as it appears in the engineer's estimate bid check report) for which trucking services will be utilized.

Item Description: Provide description of the bid item (as it appears in the engineer's estimate bid check report) for which trucking will be utilized.

Bidder: In this section, provide the bidder's legal name, title, Business address, Phone and email.

The bidder's representative signature is required in addition to the date the form was signed.

PART B: TO BE COMPLETED BY THE DBE TRUCKING FIRM

Question 1: Specify type of material that will be hauled (i.e. Sand, HMA, gravel)

Question 2: Specify the total number of operational trucks that will be used on the project.

Question 3: Specify the total number of operational trucks and trailers owned by the DBE that will be used on the project.

Question 4: Specify the total number of operational trucks and trailers leased by the DBE that will be used on the project.

DBE Firm: In this section, provide the DBE Firm's legal name, DBE Firm's representative legal name and title, certification Number (Found in the firm's OMWBE Profile page in the OMWBE directory), Business address, Phone, fax and email.

The DBE Firm's representative signature is required in addition to the date the form was signed.

**CITY OF KIRKLAND
BIDDER'S CHECKLIST**

1. Have you reviewed the Bidder Responsibility and Subcontractor Responsibility Criteria?
2. Have you enclosed a bid bond or certified check with your bid? (Must be at least 5% of the total amount bid)
3. Have you entered a bid amount for all items and all schedules?
4. Do the written amounts of the proposal agree with the amounts shown in the figures?
5. Have you acknowledged receipt of addenda?
6. Has the proposal been properly completed and signed?
7. Have you completed the Statement of Bidder's Qualifications?
8. Have you completed the City of Kirkland Non-collusion Affidavit?
9. Have you completed the Subcontractor Identification List? (This is to be completed if the estimate amount exceeds \$1,000,000.)
10. Bid proposal to be submitted in a sealed envelope marked "Bid Enclosed" for:



CITY OF KIRKLAND PUBLIC WORKS AGREEMENT

124th Ave NE Roadway Improvements
CIP NO. STC-059 JOB NO. 30-22-PW

This agreement is made and entered into this _____ day of _____, 20__, by and between **CONTRACTOR NAME**, hereinafter called the "Contractor" and the City of Kirkland, hereinafter called the "City."

W I T N E S S E T H:

Whereas, pursuant to the invitation of the City extended through an officially published "Invitation to Bid," the Contractor did, in accordance therewith, file with the City a proposal containing an offer which was invited by said notice, and

Whereas, the City has heretofore determined that said offer was the lowest responsible bid submitted; now, therefore, it is agreed:

Section 1. That Contractor shall comply in every way with the requirements of those certain specifications entitled: "124th Ave NE Roadway Improvements, Job No. 30-22-PW"

The further terms, conditions and covenants of the contract are set forth in the following contract documents which are hereby made a part of this agreement by actual attachment or by this reference thereto as follows:

- A. Invitation to Bid, as published by the City.
- B. Specifications prepared for this project by the City and named above by title.
- C. Detailed Plans listed and described in said Specifications, together with those which may be issued as supplements thereof.
- D. The bid proposals submitted by the Contractor as to those items and/or alternatives accepted by the City.
- E. Any written change orders, additions or deletions, if any, issued by the City, pursuant to this agreement.
- F. Indemnification and insurance provisions included in the project documents shall apply to this agreement.

Section 2. In consideration of faithful compliance with the terms and conditions of this agreement, whether set forth herein or incorporated by reference, the Owner shall pay to the Contractor, at the times and in the manner provided in said specifications, the total sum of _____ dollars (\$_____) which sum is subject, however, to increase or decrease in such proportion as the quantities named in said proposal are so changed, all as in said specifications and proposal provided.

In witness whereof, said Contractor and said City have caused this agreement to be executed on the day and year first written above.

CONTRACTOR (Firm Name)

Signature of authorized officer

Name and title of officer (print or type)

WA Contractor's Registration Number

Industrial Insurance Account Number

Uniform Business Identification (UBI) Number

Phone Number

(For corporations, LLC's and other legal entities)

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this day before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared _____, to me known to be the _____ of _____, the legal entity that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said legal entity, for the uses and purposes therein set forth, and on oath stated that he/she was authorized to sign said instrument.

Given under my hand and official seal this _____ day of _____, 2_____.

Print Name: _____
NOTARY PUBLIC in and for the State of
Washington, residing _____
Commission expires: _____

(For individuals and d/b/a's)

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this day before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared _____ and _____ to me known to be the individual(s) described herein and who executed the foregoing instrument, and acknowledged that he/she/they signed the same as his/her/their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this _____ day of _____, 2_____.

Print Name: _____
NOTARY PUBLIC in and for the State of
Washington, residing _____
Commission expires: _____

CITY OF KIRKLAND

BY: _____
Beth Goldberg, Deputy City Manager



PERFORMANCE BOND

Surety to have an A.M. Best rating of A-:VII or better.

Bond No. _____

KNOW ALL PERSONS BY THESE PRESENTS, that **CONTRACTOR NAME**, as Principal, and _____, (insert name of surety), as Surety, a corporation duly organized under the laws of the State of _____, (insert Surety's state of incorporation), and authorized to do business as a surety in the State of Washington, are held and firmly bound unto the City of Kirkland (City) in the sum of _____ dollars (\$ _____), lawful money of the United States of America, plus the total amount of extra orders issued by the City to the Principal pursuant to the terms of the Contract referred to in the next succeeding paragraph hereof, for the payment whereof Principal and Surety bind ourselves, and our heirs, executors, administrators, representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has been awarded, and is about to enter into, a written Contract with the City for **124th Ave NE Roadway Improvements, Job # 30-22-PW**, which is hereby made a part of this bond as if fully set forth herein;

NOW, THEREFORE, the condition of this bond is such that:

1. If the Principal shall completely and faithfully perform all of its obligations under the Contract, including any warranties required thereunder, and all modifications, amendments, additions, and alterations thereto, including modifications which increase the contract price or time for completion, with or without notice to the surety; and
2. If the Principal shall indemnify and hold the City harmless from any and all losses, liability, damages, claims, judgments, liens, costs, and fees of any type that the City may be subject to because of the failure or default of the Principal in the performance of any of the terms, conditions, or obligations of the Contract, including all modifications, amendments, additions, and alterations thereto, and any warranties required thereunder;

THEN THIS obligation shall be null and void; otherwise to remain in full force and effect. If the City shall declare Principal to be in default of the Contract, and shall so notify Surety, Surety shall, within a reasonable time which shall not exceed 14 days, except for good cause shown, notify the City in writing of the manner in which surety will satisfy its obligations under this Bond.

Nonpayment of the Bond premium will not invalidate this Bond nor shall the City be obligated for the payment thereof. The Surety hereby waives notice of any modification of the Contract or extension of time made by the City.

Signed this _____ day of _____, 2____.

Principal: _____

Surety: _____

By: _____

By: _____

Title: _____

Title: _____

Address: _____

Address: _____

City/Zip: _____

City/Zip: _____

Telephone: () _____

Telephone: () _____

Note: A power of attorney must be provided which appoints the Surety's true and lawful attorney-in-fact to make, execute, seal and deliver this performance bond.



LABOR, MATERIAL AND TAXES PAYMENT BOND

Surety to have an A.M. Best rating of A-:VII or better.

Bond No. _____

KNOW ALL PERSONS BY THESE PRESENTS, that, **CONTRACTOR NAME**, as Principal, and _____, (insert name of surety), as Surety, a corporation duly organized under the laws of the State of _____ (insert Surety's state of incorporation), and authorized to do business as a surety in the State of Washington, are held and firmly bound unto the City of Kirkland (City) for the use and benefit of claimants as hereinafter defined, in the sum of _____ **Dollars (\$_____)**, lawful money of the United States of America, plus the total amount of any extra orders issued by the City, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has been awarded, and is about to enter into, a Contract with City of Kirkland for **124th Ave NE Roadway Improvements, Job # 30-22-PW**, which contract is by this reference made a part hereof;

WHEREAS, the contract is a public works contract, subject to the provisions of RCW Titles 39 and 60;

NOW, THEREFORE, the conditions of this obligation are such that, if the Principal shall promptly make payment to all claimants as hereinafter defined, for (a) all labor and material used or reasonably required for use in the performance of the contract and (b) all taxes, increases, and penalties incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due, then this obligation shall be void; otherwise, it shall remain in full force and effect, subject, however, to the following conditions: A claimant is defined as and includes (a) a person claiming to have supplied labor or materials for the prosecution of the work provided for in the contract, including any person having direct contractual relationship with the contractor furnishing the bond or direct contractual relationship with any subcontractor, or an assignee of such person, (b) the state with respect to taxes incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due and (c) any other person or entity as allowed or required by law.

3. The Principal and Surety hereby jointly and severally agree with the City that every claimant as herein defined, who has not been paid in full prior to Final Acceptance of the project, or materials were furnished by such claimant, has an action on this bond for such sum or sums as may be justly due claimant, and may have execution thereon. The City shall not be liable for the payment of any costs or expenses of any such suit or action.

(Form continues on next page)

4. No suit or action shall be commenced hereunder by any claimant (except the state with respect to taxes, increases, and penalties incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due) unless the claimant has sent the written notice required under RCW Title 39 to the Principal and to the City's Purchasing Agent by registered or certified mail, or by hand delivery, no later than 30 days after Final Acceptance of the Project.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against the improvement, whether or not claim for the amount of such lien be presented under and against this bond.

The Surety hereby waives notice of any modification of the contract or extension of time made by the City.

Signed this _____ day of _____, 2_____

Principal: _____ Surety: _____

By: _____ By: _____

Title: _____ Title: _____

Address: _____ Address: _____

City/Zip: _____ City/Zip: _____

Telephone: () _____ Telephone: () _____

Note: A power of attorney must be provided which appoints the Surety's true and lawful attorney-in-fact to make, execute, seal and deliver this performance bond.

END OF LABOR, MATERIAL AND TAXES PAYMENT BOND FORM

CITY OF KIRKLAND
CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT
OF STATUTORY RETAINED PERCENTAGE

124th Ave NE Roadway Improvements
CIP NO. STC-059 JOB NO. 30-22-PW

Monies reserved under provisions of Chapter 60.28 RCW, at the option of the Contractor, shall be:

*Select
One*

- ☐ (1) Retained in a fund by the City. No interest will be earned on the retained percentage amount under this election.
- ☐ (2) Retainage Bond
- ☐ (3) Placed in escrow with a bank or trust company by the City. When the monies reserved are to be placed in escrow, the City will issue a check representing the sum of the monies reserved payable to the bank or trust company and the Contractor jointly. Such check shall be converted into bonds and securities chosen by the Contractor and approved by the City and the bonds and securities held in escrow. (For the convenience of those Contractors choosing option (3) a City approved Form of Escrow Agreement is included on the next page and should be completed and submitted with the executed contract.)
- The Contractor in choosing option (3) agrees to assume full responsibility to pay all costs which may accrue from escrow services, brokerage charges or both, and further agrees to assume all risks in connection with the investment of the retained percentages in securities.*
- ☐ (4) Deposited by the City in an interest-bearing account at the FDIC insured bank currently providing contracted banking services to the City of Kirkland. Interest on such account shall be paid to the contractor. Any fees incurred shall be the responsibility of the contractor.

CONTRACTOR:

Signature: _____

Print or Type Name: _____

Title: _____

Date: _____

RETAINAGE BOND
RETURN THIS FORM IF RETAINAGE BOND OPTION IS SELECTED

Contract Title	_____
Contract Number	_____
Contractor Name	_____

The Undersigned, _____, existing under and by virtue of the laws of the State of Washington and authorized to do business in the State of Washington as Principal, and _____ organized and existing under the laws of the State of _____ and authorized to transact business in the State of Washington as Surety, are jointly and severally held and bound unto _____, hereinafter called Obligee, and are similarly held and bound unto the beneficiaries of the trust fund created by RCW 60.28, in the penal sum of

(\$ _____), Which is 5% of the principal's price on Contract ID _____.

WHEREAS, on the _____ day of _____, 2____, the said principal herein executed a contract with the Obligee, for the Contract specified above, Contract ID Number _____.

WHEREAS, said contract and RCW 60.28 require the Obligee to withhold from the Principal the sum of _____% from monies earned on estimates during the progress of the construction, herein after referred to as earned retained funds.

NOW WHEREAS, Principal has requested that the Obligee not retain any earned retained funds as allowed under RCW 60.28.

NOW THEREFORE, the condition of the obligation is such that the Principal and Surety are held and bound unto the beneficiaries of the trust fund created by RCW 60.28 in the penal sum of _____ percent (____%) of the final contract cost which shall include any increases due to change orders, increases in quantities of work or the addition of any new item of work. If the Principal shall use the earned retained funds, which will not be retained, for the trust fund purposes of RCW 60.28, then this obligation shall be null and void; otherwise, it shall remain in full force and effect until release is authorized in writing by the Obligee. This bond and any proceeds therefrom shall be made subject to all claims and liens and in the same manner and priority as set forth for retained percentages in RCW 60.28.

PROVIDED HOWEVER, that:

1. The liability of the surety under this bond shall not exceed 5% or 50% of the total amount earned by the Principal if no monies are retained by the Obligee on estimates during the progress of construction.
2. Any suit under this bond must be instituted within the time provided by applicable law.

Witness our hands this _____ day of _____, 2____.

SURETY

PRINCIPAL

By: _____
Name/Title

By: _____
Name/Title

OF: _____

OF: _____

Surety Name and Local Office of Agent: _____

Surety Address and Phone of Local Office and Agent: _____

CITY OF KIRKLAND
RETAINED PERCENTAGE ESCROW AGREEMENT

124th Ave NE Roadway Improvements
CIP NO. STC-059 JOB NO. 30-22-PW

Escrow No. _____

City of Kirkland
123 Fifth Avenue
Kirkland, Washington 98033

Contractor: _____

Address: _____

Project Description: _____

TO: Escrow Bank or Trust Company:

Name: _____

Address: _____

Attention: _____

The undersigned, _____, herein referred to as the Contractor, has directed the City of Kirkland to deliver to you its warrants, which shall be payable to you and the Contractor jointly. Such warrants are to be held and disposed of by you in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

1. Warrants or checks made payable to you and the Contractor jointly upon delivery to you shall be endorsed by you and forwarded for collection. The moneys will then be used by you to purchase, as directed by the Contractor, bonds or other securities chosen by the Contractor and approved by the City of Kirkland. Attached is a list of such bonds, or other securities approved by the City of Kirkland. Other bonds or securities, except stocks, may be selected by the Contractor, subject to the express written approval of the City of Kirkland. Purchase of such bonds or other securities shall be in a form which shall allow you alone to reconvert such bonds or other securities into money if you are required to do so at the direction of the City of Kirkland and Contractor.
2. When and as interest on the securities held by you pursuant to this agreement accrues and is paid, you shall collect such interest and forward it to the Contractor at its address designated below unless otherwise directed by the Contractor.
3. You are not authorized to deliver to the Contractor all or any part of the securities held by you pursuant to this agreement (or any moneys derived from the sale of such securities, or the

negotiation of the City of Kirkland's warrants) except in accordance with written instructions from the City of Kirkland. Compliance with such instructions shall relieve you of any further liability related thereto. The estimated completion date on the contract underlying this Escrow Agreement is_____.

4. The Contractor agrees to pay you as compensation for your services hereunder as follows:

Payment of all fees shall be the sole responsibility of the Contractor and shall not be deducted from any property placed with you pursuant to this agreement until and unless the City of Kirkland directs the release to the Contractor of the securities and moneys held hereunder whereupon you shall be granted a first lien upon such property released and shall be entitled to reimburse yourself from such property for the entire amount of your fees as provided for hereinabove. In the event that you are made a party to any litigation with respect to the property held by you hereunder, or in the event that the conditions of this escrow are not promptly fulfilled or that you are required to render any service not provided for in these instructions, or that there is any assignment of the interests of this escrow or any modification hereof, you shall be entitled to reasonable compensation for such extraordinary services from the Contractor and reimbursement from the Contractor for all costs and expenses, including attorneys fees occasioned by such default, delay, controversy, or litigation.

5. This agreement shall not be binding until executed by the Contractor and the City of Kirkland and accepted by you.
6. This instrument contains the entire agreement between you, the Contractor and the City of Kirkland, with respect to this escrow and you are not a part nor bound by any instrument or agreement other than this; you shall not be required to take notice of any default or any other matter nor be bound by nor required to give notice or demand, nor required to take any action whatever, except as herein expressly provided; you shall not be liable for any loss or damage not caused by your own negligence or willful misconduct.
7. The foregoing provisions shall be binding upon the assigns, successors, personal representatives, and heirs of the parties hereto.
8. The Contractor's Federal Income Tax Identification number is _____.

** Please note: Written release will be issued by the Director of Finance & Administration. For further information, contact the Purchasing Agent at (425) 587-3123.

The undersigned have read and hereby approve the instructions as given above governing the administration of this escrow and do hereby execute this agreement on this _____ day of _____, 2____.

CONTRACTOR:

CITY OF KIRKLAND:

By: _____
Signature

By: _____
Signature

Print or Type Name

Print or Type Name

Title

Title

Address: _____

123 Fifth Avenue
Kirkland, Washington 98033

The above escrow instructions received and accepted this _____ day of _____, 2____.

ESCROW BANK OR TRUST CO:

By: _____
Authorized Signature

Print or Type Name

Title

Securities Authorized by City of Kirkland (select one):

1. Bills, certificates, notes or bonds of the United States;
2. Other obligations of the United States or its agencies;
3. Obligations of any corporation wholly-owned by the government of the United States;
4. Indebtedness of the Federal National Mortgage Association; and
5. Time deposits in commercial banks.

RETURN THIS SIGNED AGREEMENT TO:

City of Kirkland
Attn: Purchasing Agent
123 Fifth Avenue
Kirkland, Washington 98033



CITY OF KIRKLAND RETAINAGE RELEASE REQUIREMENTS

DOCUMENTS REQUIRED TO BE ON FILE PRIOR TO RELEASE OF RETAINAGE

1. Intent to Pay Prevailing Wage (Contractor must generate including for subcontractors)

Department of Labor/Industries
Employment Standards Division
General Administration Building
Olympia, Washington 98504
(360) 956-5335
2. Notice of Completion of Public Works Contract (City generates)

Department of Revenue
Excise Tax Division
Olympia, Washington 98504
3. Affidavit of Wages Paid (Contractor must generate including for subcontractors)

Department of Labor/Industries
4. Certificate of Release - State Excise Tax by Public Works Contractor (Letter from State to City)

Department of Revenue
Department of Labor and Industries
Employment Security Department
5. Receipt for Payment in full or Release of Lien signed by Lien Claimant and filed with City
(Responsibility of Contractor to obtain)

Claims against retainage or Payment Bond filed with City by any such
subcontractor, workman, or material supplier.
6. Current insurance certificate through retainage release (Contractor generates)
7. Produce final invoice for retainage if bond is not selected (Contractor generates)

SPECIAL PROVISIONS



City of Kirkland

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(March 22, 2022 COK GSP)

INTRODUCTION

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, 2022 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications"). The Standard Specifications, as modified or supplemented by these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions supersede any conflicting provisions of the Standard Specifications.

The accompanying Plans and these Specifications and any Addenda thereto, show and describe the location and type of Work to be performed under the **124th Avenue NE Roadway Improvements** project.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The titles of headings of the Sections and subsections herein are intended for convenience or reference and shall not be considered as having any bearing on their interpretation.

Several types of Special Provisions are included in this Contract and are differentiated as follows:

General Special Provisions (GSPs) are similar to Standard Specifications in that they typically apply to many projects and are used by agencies throughout the State. Denoted as: **(date)**

- ☐ **Local Agency Approved GSPs** are modifications to the Standard Specifications prepared by the APWA Division 1 subcommittee, which is comprised of representatives of local agencies throughout the State of Washington. These GSPs are generally used throughout the state. APWA GSPs replace what was formerly referred to as "Division 1-99 APWA Supplement" in previous editions of the Standard Specifications for Road, Bridge and Municipal Construction. Denoted as: **(date APWA GSP)**
- ☐ **City of Kirkland GSPs** are modifications to the Standard Specifications prepared by the City of Kirkland Public Works Department, and commonly applicable to City of Kirkland projects. Denoted as: **(date COK GSP)**

1 **Project Specific Special** Provisions normally appear only in the Contract for which they
2 were developed. Denoted as: **(date COK SP)**.

3
4 Also incorporated into the Contract Documents by reference are:

- 5
- 6 ☐ Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted
- 7 edition, with Washington State modifications, if any
- 8 ☐ Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA, current
- 9 edition
- 10 ☐ City of Kirkland Public Works Department Pre-Approved Plans and Policies, current
- 11 year edition
- 12 ☐ Revised Draft Guidelines for Accessible Public Rights-of-Way, November 23, 2005
- 13 (commonly referred to as the 2005 PROWAG)
- 14

15 The Contractor shall obtain copies of these publications, at the Contractor's own expense.

16

**Division 1
General Requirements**

DESCRIPTION OF WORK

(March 13, 1995 WSDOT GSP)

This Contract provides for the improvement of *** 124th Avenue NE between NE 116th St. and NE 124th St. The Work to be performed shall include: demolition and reconstruction of the roadway and sidewalks; installation of walls; installation of stormwater detention vault, installation of stormwater structures and pipe; installation of Filterra© systems; installation of street trees and landscaping; installation of illumination system and traffic signal components; installation of site furnishings; installation of permanent signing and pavement markings *** and other Work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

1-01 Definition and Terms

1-01.3 Definitions

(January 19, 2022 APWA GSP)

Delete the heading **Completion Dates** and the three paragraphs that follow it, and replace them with the following:

Dates

Bid Opening Date

The date on which the Contracting Agency publicly opens and reads the Bids.

Award Date

The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

Contract Execution Date

The date the Contracting Agency officially binds the Agency to the Contract.

Notice to Proceed Date

The date stated in the Notice to Proceed on which the Contract time begins.

Substantial Completion Date

The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

Physical Completion Date

The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

1
2 **Completion Date**

3 The day all the Work specified in the Contract is completed and all the
4 obligations of the Contractor under the contract are fulfilled by the Contractor. All
5 documentation required by the Contract and required by law must be furnished
6 by the Contractor before establishment of this date.
7

8 **Final Acceptance Date**

9 The date on which the Contracting Agency accepts the Work as complete.

10
11 Supplement this Section with the following:

12
13 All references in the Standard Specifications or WSDOT General Special Provisions,
14 to the terms "Department of Transportation", "Washington State Transportation
15 Commission", "Commission", "Secretary of Transportation", "Secretary",
16 "Headquarters", and "State Treasurer" shall be revised to read "Contracting Agency".
17

18 All references to the terms "State" or "state" shall be revised to read "Contracting
19 Agency" unless the reference is to an administrative agency of the State of
20 Washington, a State statute or regulation, or the context reasonably indicates
21 otherwise.
22

23 All references to "State Materials Laboratory" shall be revised to read "Contracting
24 Agency designated location".
25

26 All references to "final contract voucher certification" shall be interpreted to mean the
27 Contracting Agency form(s) by which final payment is authorized, and final
28 completion and acceptance granted.
29

30 **Additive**

31 A supplemental unit of work or group of bid items, identified separately in the Bid
32 Proposal, which may, at the discretion of the Contracting Agency, be awarded in
33 addition to the base bid.
34

35 **Alternate**

36 One of two or more units of work or groups of bid items, identified separately in the
37 Bid Proposal, from which the Contracting Agency may make a choice between
38 different methods or material of construction for performing the same work.
39

40 **Business Day**

41 A business day is any day from Monday through Friday except holidays as listed in
42 Section 1-08.5.
43

44 **Contract Bond**

45 The definition in the Standard Specifications for "Contract Bond" applies to whatever
46 bond form(s) are required by the Contract Documents, which may be a combination
47 of a Payment Bond and a Performance Bond.
48

49 **Contract Documents**

50 See definition for "Contract".
51

1
2 **Contract Time**

3 The period of time established by the terms and conditions of the Contract within
4 which the Work must be physically completed.
5

6 **Notice of Award**

7 The written notice from the Contracting Agency to the successful Bidder signifying
8 the Contracting Agency's acceptance of the Bid Proposal.
9

10 **Notice to Proceed**

11 The written notice from the Contracting Agency or Engineer to the Contractor
12 authorizing and directing the Contractor to proceed with the Work and establishing
13 the date on which the Contract time begins.
14

15 **Traffic**

16 Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs,
17 and equestrian traffic.
18

19 **1-02 Bid Procedures and Conditions**

20
21 **1-02.1 Prequalification of Bidders**

22 Delete this Section and replace it with the following:
23

24 **1-02.1 Qualifications of Bidder**

25 *(January 24, 2011 APWA GSP)*
26

27 Before Award of a Public Works Contract, a Bidder must meet at least the minimum
28 qualifications of RCW 39.04.350(1) to be considered a responsible Bidder and
29 qualified to be awarded a Public Works project.
30

31 **1-02.2 Plans and Specifications**

32 *(June 27, 2011 APWA GSP)*
33

34 Delete this Section and replace it with the following:
35

36 Information as to where Bid Documents can be obtained or reviewed can be found in
37 the Call for Bids (Advertisement for Bids) for the Work.
38

39 After Award of the Contract, Plans and Specifications will be issued to the Contractor
40 at no cost as detailed below:
41

To Prime Contractor	No. of Sets	Basis of Distribution
Reduced Plans (11" x 17")	3	Furnished automatically upon Award.
Contract Provisions	3	Furnished automatically upon Award.

Large Plans (e.g., 22" x 34")	2	Furnished only upon request.
-------------------------------	---	------------------------------

Additional Plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

1-02.4 Examination of Plans, Specifications and Site of Work

Section 1-02.4(2) is supplemented with the following:
(September 3, 2019 WSDOT GSP)

The Reference Information for this project is available for review by the Bidder at the following location:

*** Appendix A of this Project Manual ***

The Reference Information includes the following:

*** Boring Logs ***

1-02.5 Proposal Forms

(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

1-02.6 Preparation of Proposal

(December 10, 2020 APWA GSP Option B)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.
5. Any correction to a bid made by interlineation, alteration, or erasure, shall be

initialed by the signer of the bid.

Delete the last two paragraphs, and replace them with the following:

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form, provided by the Contracting Agency. Failure to return this certification as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

1-02.7 Bid Deposit

(March 8, 2013 APWA GSP)

Supplement this Section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the Bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum Bid amount that could be awarded;
5. Signature of the Bidder's officer empowered to sign official statements. The signature of the person authorized to submit the Bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the Surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, the Bidder must use the bond form included in the Contract Provisions.

1 If so stated in the Contract Provisions, cash will not be accepted for a Bid deposit.

2 3 4 **1-02.9 Delivery of Proposal**

5 *(January 19, 2022 APWA GSP, Option A)*

6
7 Delete this section and replace it with the following:

8
9 Each Proposal shall be submitted in a sealed envelope, with the Project Name and
10 Project Number as stated in the Call for Bids clearly marked on the outside of the
11 envelope, or as otherwise required in the Bid Documents, to ensure proper handling
12 and delivery.

13
14 To be considered responsive on a FHWA-funded project, the Bidder may be required
15 to submit the following items, as required by Section 1-02.6:

- 16 ☐ DBE Utilization Certification (WSDOT 272-056)
- 17 ☐ DBE Written Confirmation Document (WSDOT 422-031) from each DBE firm
- 18 listed on the Bidder's completed DBE Utilization Certification
- 19 ☐ Good Faith Effort (GFE) Documentation
- 20 ☐ DBE Bid Item Breakdown (WSDOT 272-054)
- 21 ☐ DBE Trucking Credit Form (WSDOT 272-058)
- 22
- 23

24 **DBE Utilization Certification**

25 The DBE Utilization Certification shall be received at the same location and no later
26 than the time required for delivery of the Proposal. The Contracting Agency will not
27 open or consider any Proposal when the DBE Utilization Certification is received
28 after the time specified for receipt of Proposals or received in a location other than
29 that specified for receipt of Proposals. The DBE Utilization Certification may be
30 submitted in the same envelope as the Bid deposit.

31 **DBE Written Confirmation and/or GFE Documentation**

32 The DBE Written Confirmation Documents and/or GFE Documents are not required
33 to be submitted with the Proposal. The DBE Written Confirmation Document(s)
34 and/or GFE (if any) shall be received either with the Bid Proposal or as a
35 Supplement to the Bid. The documents shall be received no later than 48 hours (not
36 including Saturdays, Sundays and Holidays) after the time for delivery of the
37 Proposal. To be considered responsive, Bidders shall submit Written Confirmation
38 Documentation from each DBE firm listed on the Bidder's completed DBE Utilization
39 Certification and/or the GFE as required by Section 1-02.6.

40 **DBE Bid Item Breakdown and DBE Trucking Credit Form**

41 The DBE Bid Item Breakdown and the DBE Trucking Credit Forms (if applicable)
42 shall be received either with the Bid Proposal or as a Supplement to the Bid. The
43 documents shall be received no later than 48 hours (not including Saturdays,
44 Sundays and Holidays) after the time for delivery of the Proposal. To be considered
45 responsive, Bidders shall submit a completed DBE Bid Item Breakdown and a DBE
46 Trucking Credit Form for each DBE Trucking firm listed on the DBE Utilization
47 Certification, however, minor errors and corrections to DBE Bid Item Breakdown or
48 DBE Trucking Credit Forms will be returned for correction for a period up to five
49 calendar days (not including Saturdays, Sundays and Holidays) after the time for
50
51

1 delivery of the Proposal. A DBE Bid Item Breakdown or DBE Trucking Credit Forms
2 that are still incorrect after the correction period will be determined to be non-
3 responsive.

4 Proposals that are received as required will be publicly opened and read as specified
5 in Section 1-02.12. The Contracting Agency will not open or consider any Bid
6 Proposal that is received after the time specified in the Call for Bids for receipt of Bid
7 Proposals, or received in a location other than that specified in the Call for Bids. The
8 Contracting Agency will not open or consider any "Supplemental Information" (DBE
9 confirmations, or GFE documentation) that is received after the time specified above,
10 or received in a location other than that specified in the Call for Bids.
11

12 If an emergency or unanticipated event interrupts normal work processes of the
13 Contracting Agency so that Proposals cannot be received at the office designated for
14 receipt of bids as specified in Section 1-02.12 the time specified for receipt of the
15 Proposal will be deemed to be extended to the same time of day specified in the
16 solicitation on the first work day on which the normal work processes of the
17 Contracting Agency resume.
18

19 **1-02.12 Public Opening of Proposal**

20 Section 1-02.12 is supplemented with the following:
21

22 *(July 19, 2022 COK SP)*

23 **Date of Opening Bids**

24 Sealed Bids are to be received at the following location prior to the time specified:
25

26 At the City of Kirkland in the office of the City of Kirkland Council Chambers,
27 City Hall, 123 Fifth Avenue, Kirkland, Washington 98033 until 2:00 P.M. of the Bid opening date. The
28 Bid opening date for this project is November 15, 2023. Bids received will be publicly opened and read
29 after 3:00 P. M. on this date. Bids will not be received after this date and time.
30

31 **1-02.13 Irregular Proposals**

32 *(December 30, 2022 APWA GSP)*
33

34 Delete this section and replace it with the following:
35

- 36 1. A Proposal will be considered irregular and will be rejected if:
- 37 a. The Bidder is not prequalified when so required;
 - 38 b. The authorized Proposal form furnished by the Contracting Agency is not
39 used or is altered;
 - 40 c. The completed Proposal form contains any unauthorized additions,
41 deletions, alternate Bids, or conditions;
 - 42 d. The Bidder adds provisions reserving the right to reject or accept the
43 award, or enter into the Contract;
 - 44 e. A price per unit cannot be determined from the Bid Proposal;
 - 45 f. The Proposal form is not properly executed;
 - 46 g. The Bidder fails to submit or properly complete a subcontractor list
47 (WSDOT Form 271-015), if applicable, as required in Section 1-02.6;
 - 48 h. The Bidder fails to submit or properly complete a Disadvantaged
49 Business Enterprise Certification (WSDOT Form 272-056), if applicable,

- as required in Section 1-02.6;
- i. The Bidder fails to submit Written Confirmations (WSDOT Form 422-031) from each DBE firm listed on the Bidder's completed DBE Utilization Certification that they are in agreement with the bidder's DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
 - j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
 - k. The Bidder fails to submit a DBE Bid Item Breakdown (WSDOT Form 272-054), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
 - l. The Bidder fails to submit DBE Trucking Credit Forms (WSDOT Form 270-058), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
 - m. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
 - n. More than one Proposal is submitted for the same project from a Bidder under the same or different names.

2. A Proposal may be considered irregular and may be rejected if:
- a. The Proposal does not include a unit price for every Bid item;
 - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
 - c. Receipt of Addenda is not acknowledged;
 - d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
 - e. If Proposal form entries are not made in ink.

1-02.14 Disqualification of Bidders

(May 17, 2018 APWA GSP, Option B)

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory Bidder responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria 1-7 listed in this Section.

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1), and Supplemental Criteria 1-2. Evidence that the Bidder meets Supplemental Criteria 3-7 shall be provided by the

Bidder as stated later in this Section.

1. **Delinquent State Taxes**

- A. **Criterion:** The Bidder shall not owe delinquent taxes to the Washington State Department of Revenue without a payment plan approved by the Department of Revenue.
- B. **Documentation:** The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder does not owe delinquent taxes to the Washington State Department of Revenue, or if delinquent taxes are owed to the Washington State Department of Revenue, the Bidder must submit a written payment plan approved by the Department of Revenue, to the Contracting Agency by the deadline listed below.

2. **Federal Debarment**

- A. **Criterion:** The Bidder shall not currently be debarred or suspended by the Federal government.
- B. **Documentation:** The Bidder shall not be listed as having an “active exclusion” on the U.S. government’s “System for Award Management” database (www.sam.gov).

3. **Subcontractor Responsibility**

- A. **Criterion:** The Bidder's standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder's subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also “responsible” subcontractors as defined by RCW 39.06.020.
- B. **Documentation:** The Bidder, if and when required as detailed below, shall submit a copy of its standard subcontract form for review by the Contracting Agency, and a written description of its procedure for validating the responsibility of subcontractors with which it contracts.

4. **Claims Against Retainage and Bonds**

- A. **Criterion:** The Bidder shall not have a record of excessive claims filed against the retainage or payment bonds for public works projects in the three years prior to the bid submittal date, that demonstrate a lack of effective management by the Bidder of making timely and appropriate payments to its subcontractors, suppliers, and workers, unless there are extenuating circumstances and such circumstances are deemed

acceptable to the Contracting Agency.

- B. Documentation: The Bidder, if and when required as detailed below, shall submit a list of the public works projects completed in the three years prior to the bid submittal date that have had claims against retainage and bonds and include for each project the following information:
- Name of project
 - The owner and contact information for the owner;
 - A list of claims filed against the retainage and/or payment bond for any of the projects listed;
 - A written explanation of the circumstances surrounding each claim and the ultimate resolution of the claim.

5. Public Bidding Crime

- A. Criterion: The Bidder and/or its owners shall not have been convicted of a crime involving bidding on a public works contract in the five years prior to the bid submittal date.
- B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder and/or its owners have not been convicted of a crime involving bidding on a public works contract.

6. Termination for Cause / Termination for Default

- A. Criterion: The Bidder shall not have had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.
- B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder has not had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date; or if Bidder was terminated, describe the circumstances. .

7. Lawsuits

- A. Criterion: The Bidder shall not have lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency
- B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency)

1 that the Bidder has not had any lawsuits with judgments entered against
2 the Bidder in the five years prior to the bid submittal date that
3 demonstrate a pattern of failing to meet the terms of contracts, or shall
4 submit a list of all lawsuits with judgments entered against the Bidder in
5 the five years prior to the bid submittal date, along with a written
6 explanation of the circumstances surrounding each such lawsuit.
7 The Contracting Agency shall evaluate these explanations to determine
8 whether the lawsuits demonstrate a pattern of failing to meet of terms of
9 construction related contracts

10
11 As evidence that the Bidder meets the Supplemental Criteria stated above, the
12 Apparent low Bidder must submit to the Contracting Agency by 12:00 P.M. (noon)
13 of the second business day following the bid submittal deadline, a written
14 statement verifying that the Bidder meets the supplemental criteria together with
15 supporting documentation (sufficient in the sole judgment of the Contracting
16 Agency) demonstrating compliance with the Supplemental Criteria. The
17 Contracting Agency reserves the right to request further documentation as needed
18 from the low Bidder and documentation from other Bidders as well to assess
19 Bidder responsibility and compliance with all bidder responsibility criteria. The
20 Contracting Agency also reserves the right to obtain information from third-parties
21 and independent sources of information concerning a Bidder's compliance with the
22 mandatory and supplemental criteria, and to use that information in their
23 evaluation. The Contracting Agency may consider mitigating factors in determining
24 whether the Bidder complies with the requirements of the supplemental criteria.

25
26 The basis for evaluation of Bidder compliance with these mandatory and
27 supplemental criteria shall include any documents or facts obtained by Contracting
28 Agency (whether from the Bidder or third parties) including but not limited to: (i)
29 financial, historical, or operational data from the Bidder; (ii) information obtained
30 directly by the Contracting Agency from others for whom the Bidder has worked,
31 or other public agencies or private enterprises; and (iii) any additional information
32 obtained by the Contracting Agency which is believed to be relevant to the matter.

33
34 If the Contracting Agency determines the Bidder does not meet the bidder
35 responsibility criteria above and is therefore not a responsible Bidder, the
36 Contracting Agency shall notify the Bidder in writing, with the reasons for its
37 determination. If the Bidder disagrees with this determination, it may appeal the
38 determination within two (2) business days of the Contracting Agency's
39 determination by presenting its appeal and any additional information to the
40 Contracting Agency. The Contracting Agency will consider the appeal and any
41 additional information before issuing its final determination. If the final
42 determination affirms that the Bidder is not responsible, the Contracting Agency will
43 Not execute a contract with any other Bidder until at least two business days after
44 the Bidder determined to be not responsible has received the Contracting Agency's
45 final determination.

46
47 Request to Change Supplemental Bidder Responsibility Criteria Prior To Bid:
48 Bidders with concerns about the relevancy or restrictiveness of the Supplemental
49 Bidder Responsibility Criteria may make or submit requests to the Contracting
50 Agency to modify the criteria. Such requests shall be in writing, describe the
51 nature of the concerns, and propose specific modifications to the criteria. Bidders

shall submit such requests to the Contracting Agency no later than five (5) business days prior to the bid submittal deadline and address the request to the Project Engineer or such other person designated by the Contracting Agency in the Bid Documents.

1-02.15 Pre Award Information

(December 30, 2022 APWA GSP)

Revise this section to read:

Before awarding any contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.
7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

1-03 Award and Execution of Contract

1-03.1 Consideration of Bids

(December 30, 2022 APWA GSP)

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder's unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

1-03.3 Execution of Contract

(January 19, 2022 APWA GSP)

Revise this section to read:

Within 3 calendar days of Award date (not including Saturdays, Sundays and Holidays), the successful Bidder shall provide the information necessary to execute the Contract to the Contracting Agency. The Bidder shall send the contact information, including the full name, email address, and phone number, for the authorized signer and bonding agent to the Contracting Agency.

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of 10 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond *(July 23, 2015 APWA GSP)*

Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
 - a. Is registered with the Washington State Insurance Commissioner, and
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
 - a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
 - b. Of the Contractor (or the subcontractors or lower tier subcontractors of

the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;

4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

1-03.7 Judicial Review

(December 30, 2022 APWA GSP)

Revise this section to read:

All decisions made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

1-04 Scope of the Work

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

(December 30, 2022 APWA GSP)

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. Standard Specifications,
6. Contracting Agency's Standard Plans or Details (if any), and
7. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

1-04.4(1) Minor Changes

Section 1-04.4(1), including title, is revised to read as follows:

(July 19, 2022 COK SP)

1-04.4(1) Unexpected Site Changes

1 Payments or credits for changes amounting to \$15,000 or less may be made
2 under the Bid item "Unexpected Site Changes". At the discretion of the
3 Contracting Agency, this procedure for Unexpected Site Changes may be used
4 in lieu of the more formal procedure as outlined in Section 1-04.4, Changes.

5
6 The Contractor will be provided a copy of the completed order for Unexpected
7 Site Changes. The agreement for the Unexpected Site Changes will be
8 documented by signature of the Contractor, or notation of verbal agreement. If
9 the Contractor is in disagreement with anything required by the order for
10 Unexpected Site Changes, the Contractor may protest the order as provided in Section 1-04.5.

11
12 Payments will be determined in accordance with Section 1-09.6. For the purpose
13 of providing a common Proposal for all Bidders, the Contracting Agency has
14 entered an amount for "Unexpected Site Changes" in the Proposal to become a
15 part of the total Bid by the Contractor. Credits will be determined in accordance
16 with Section 1-09.4.

17
18 **1-04.11 Final Cleanup**
19 *(January 1, 2016 COK GSP)*

20
21 Section 1-04.11 is deleted in its entirety and replaced with the following: 20
22 From time to time or as may be ordered by the Engineer, the Contractor shall cleanup
23 and remove debris, refuse, and discarded materials of any kind resulting from the
24 Work. Failure to do so may result in cleanup done by the Contracting Agency and the
25 cost thereof charged to the Contractor and deducted from the Contractor's progress
26 estimate.

27
28 The Contractor shall perform final cleanup as provided in this Section. The Engineer
29 will not establish the Physical Completion Date until this is done. All public and private
30 property the Contractor occupied to do the Work, including but not limited to the street
31 Right of Way, material sites, borrow and waste sites, and construction staging area
32 shall be left neat and presentable. Immediately after completion of the Work, the
33 Contractor shall cleanup and remove all refuse and unused materials of any kind
34 resulting from the Work. Failure to do the final cleanup may result in the final cleanup
35 being done by the Contracting Agency and the cost thereof charged to the Contractor
36 and deducted from the Contractor's final progress estimate.

37
38 The Contractor shall:

- 39
40 1. Remove all rubbish, surplus materials, discarded materials, falsework, piling,
41 camp buildings, temporary Structures, equipment, and debris;
42 2. Remove from the project, all unneeded, oversized rock left from grading,
43 surfacing, or paving unless the Contract specifies otherwise or the Engineer
44 approves otherwise;
45 3. On all concrete and asphalt pavement Work, flush the pavement clean and
46 remove the wash water and debris;
47 4. Level and fine grade all excavated material not used for backfill where the
48 Contract requires;
49 5. Fine grade all slopes;
50 6. Upon completion of grading and cleanup operations at any privately-owned
51 site for which a written agreement between the Contractor and property owner

is required, the Contractor shall obtain and furnish to the Engineer a written release from all damages, duly executed by the property owner, stating that the restoration of the property has been satisfactorily accomplished.

All costs associated with cleanup shall be incidental to the Work and shall be included in the various Bid items in the Bid, and shall be at no additional cost to the Contracting Agency.

1-04.12 Water, Electrical Power, Telecommunications, and Sanitary Sewer Requirements

(January 27, 2021 COK GSP)

Add new Section 1-04.12.

Except where specifically indicated otherwise in the Contract Documents, the Contractor shall make all necessary arrangements and bear all costs as incidental to the Contract for permits, temporary hook-ups, and decommissioning of temporary services for all water, electrical power, telecommunications, and/or sanitary sewer services necessary for performance of the Work.

1-05 Control of Work

1-05.1 Authority of the Engineer

(January 27, 2021 COK GSP)

Section 1-05.1 is supplemented with the following:

When directed by the Engineer for purposes such as (but not limited to) maintaining unrestricted public access and use outside the Work area, maintaining an appropriate construction site appearance, and/or allowing full access to the Work by the Engineer or other City personnel, the Contractor shall cleanup and remove debris, refuse, and discarded materials of any kind resulting from the Work to meet those purposes.

1-05.4 Conformity with and Deviations from Plans and Stakes

Section 1-05.4 is supplemented with the following:

(January 13, 2021 WSDOT GSP)

Contractor Surveying - Roadway

The Contracting Agency has provided primary survey control in the Plans.

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the roadbed, drainage, surfacing, paving, channelization and pavement marking, illumination and signals, guardrails and barriers, and signing. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

1
2 The Contractor shall inform the Engineer when monuments are discovered that were
3 not identified in the Plans and construction activity may disturb or damage the
4 monuments. Additionally, the Contractor shall be responsible for all monuments noted on the Plans to
5 be removed and replaced. This Work includes filling out and submitting the Application and Permit to
6 Remove or Destroy a Survey Monument per RCW 58.24.040(8) and WAC 332-120-070 through the
7 Department of Natural Resources (DNR), removing the existing monument, placing new monuments,
8 placing new case and cover per C.O.K. Std. Plan CK-R.03 and lacing the control point on the brass
9 cap.

10
11 Detailed survey records shall be maintained, including a description of the work
12 performed on each shift, the methods utilized, and the control points used. The record
13 shall be adequate to allow the survey to be reproduced. A copy of each day's record
14 shall be provided to the Engineer within three working days after the end of the shift.

15
16 The meaning of words and terms used in this provision shall be as listed in "Definitions
17 of Surveying and Associated Terms" current edition, published by the American
18 Congress on Surveying and Mapping and the American Society of Civil Engineers.

19
20 The survey work shall include but not be limited to the following:

- 21
22 1. Verify the primary horizontal and vertical control furnished by the Contracting
23 Agency, and expand into secondary control by adding stakes and hubs as
24 well as additional survey control needed for the project. Provide
25 descriptions of secondary control to the Contracting Agency. The
26 description shall include coordinates and elevations of all secondary control
27 points.
- 28
29 2. Establish, the centerlines of all alignments, by placing hubs, stakes, or
30 marks on centerline or on offsets to centerline at all curve points (PCs, PTs,
31 and PIs) and at points on the alignments spaced no further than 50 feet.
- 32
33 3. Establish clearing limits, placing stakes at all angle points and at
34 intermediate points not more than 50 feet apart. The clearing and grubbing
35 limits shall be 5 feet beyond the toe of a fill and 10 feet beyond the top of a
36 cut unless otherwise shown in the Plans.
- 37
38 4. Establish grading limits, placing slope stakes at centerline increments not
39 more than 50 feet apart. Establish offset reference to all slope stakes. If
40 Global Positioning Satellite (GPS) Machine Controls are used to provide
41 grade control, then slope stakes may be omitted at the discretion of the
42 Contractor.
- 43
44 5. Establish the horizontal and vertical location of all drainage features, placing
45 offset stakes to all drainage structures and to pipes at a horizontal interval
46 not greater than 25 feet. At each drainage structure, place face of curb
47 control on either side of the structure. Contractor to pull string line between
48 the two control points when the structures are set to confirm frame and
49 grates are aligned to future curb and gutter placement. If any discrepancy is
50 found between drainage offset information with the face of curb, face of
51 curb will be used to set the drainage structures.

6. Establish roadbed and surfacing elevations by placing stakes at the top of subgrade and at the top of each course of surfacing. Subgrade and surfacing stakes shall be set at horizontal intervals not greater than 50 feet in tangent sections, 25 feet in curve sections with a radius less than 300 feet, and at 10-foot intervals in intersection radii with a radius less than 10 feet. Transversely, stakes shall be placed at all locations where the roadway slope changes and at additional points such that the transverse spacing of stakes is not more than 12 feet. If GPS Machine Controls are used to provide grade control, then roadbed and surfacing stakes may be omitted at the discretion of the Contractor.
7. Establish intermediate elevation benchmarks as needed to check work throughout the project.
8. Provide references for paving pins at 25-foot intervals or provide simultaneous surveying to establish location and elevation of paving pins as they are being placed.
9. For all other types of construction included in this provision, (including but not limited to channelization and pavement marking, illumination and signals, guardrails and barriers, and signing) provide staking and layout as necessary to adequately locate, construct, and check the specific construction activity.
10. Contractor shall determine if changes are needed to the profiles or roadway sections shown in the Contract Plans in order to achieve proper smoothness and drainage where matching into existing features, such as a smooth transition from new pavement to existing pavement. The Contractor shall submit these changes to the Engineer for review and approval 10 days prior to the beginning of work.

When requested by the Engineer, the Contractor shall provide the Contracting Agency copies of any calculations and staking data as well as the DNR permits for the removed monuments.

The Contractor shall ensure a surveying accuracy within the following tolerances:

	<u>Vertical</u>	<u>Horizontal</u>
Slope stakes	□0.10 feet	□0.10 feet
Subgrade grade stakes set 0.04 feet below grade	□0.01 feet	□0.5 feet (parallel to alignment) □0.1 feet (normal to alignment)
Stationing on roadway	N/A	□0.1 feet
Alignment on roadway	N/A	□0.04 feet
Surfacing grade stakes	□0.01 feet	□0.5 feet (parallel to alignment)

☐0.1 feet
(normal to alignment)

Roadway paving pins for
surfacing or paving

☐0.01 feet

☐0.2 feet
(parallel to alignment)

☐0.1 feet
(normal to alignment)

The Contracting Agency may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

When staking roadway alignment and stationing, the Contractor shall perform independent checks from different secondary control to ensure that the points staked are within the specified survey accuracy tolerances.

The Contractor shall calculate coordinates for the alignment. The Contracting Agency will verify these coordinates prior to issuing approval to the Contractor for commencing with the work. The Contracting Agency will require up to seven calendar days from the date the data is received.

Contract work to be performed using contractor-provided stakes shall not begin until the stakes are approved by the Contracting Agency. Such approval shall not relieve the Contractor of responsibility for the accuracy of the stakes.

Stakes shall be marked in accordance with Standard Plan A10.10. When stakes are needed that are not described in the Plans, then those stakes shall be marked, at no additional cost to the Contracting Agency as ordered by the Engineer.

Payment

Payment will be made for the following bid item when included in the proposal:

"Roadway Surveying", lump sum.

The lump sum contract price for "Roadway Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including the monument replacements, any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

(March 9, 2023)

Contractor Surveying – ADA Features

ADA Feature Staking Requirements

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, and grades necessary for the construction of the ADA features. Calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. The Contractor shall build the ADA features within the specifications in the Standard Plans and contract documents.

1
2 **ADA Feature Contract Compliance**

3 The Contractor shall be responsible for completing measurements to verify all ADA
4 features comply with the Contract in the presence of the Engineer.
5

6 **ADA Feature As-Built Measurements**

7 The Contractor shall be responsible for providing the latitude and longitude of each
8 ADA feature as indicated on the ADA Inspection Form(s) (WSDOT Form 224-020).
9

10 The completed ADA Inspection Form(s) (WSDOT Form 224-020) shall be
11 submitted as a Type 3 Working Drawing and transmitted to the Engineer within 30
12 calendar days of completing the ADA feature. After acceptance, the Contracting
13 Agency will submit the final form(s) to the WSDOT ADA Steward.
14

15 **Payment**

16
17 Payment will be made for the following bid item that is included in the Proposal:
18

19 "ADA Features Surveying", lump sum.
20

21 The lump sum Contract price for "ADA Features Surveying" shall be full pay for all the
22 Work as specified.
23

24 In the instance where an ADA feature does not meet accessibility requirements, all work
25 to replace non-compliant work and then to measure, record the as-built measurements,
26 and transmit the electronic forms to the Engineer shall be completed at no additional
27 cost to the Contracting Agency.
28

29 **1-05.7 Removal of Defective and Unauthorized Work**
30 *(October 1, 2005 APWA GSP)*
31

32 Supplement this Section with the following:
33

34 If the Contractor fails to remedy defective or unauthorized Work within the time
35 specified in a written notice from the Engineer, or fails to perform any part of the Work
36 required by the Contract Documents, the Engineer may correct and remedy such
37 Work as may be identified in the written notice, with Contracting Agency forces or by
38 such other means as the Contracting Agency may deem necessary.
39

40 If the Contractor fails to comply with a written order to remedy what the Engineer
41 determines to be an emergency situation, the Engineer may have the defective and
42 unauthorized Work corrected immediately, have the rejected Work removed and
43 replaced, or have Work the Contractor refuses to perform completed by using
44 Contracting Agency or other forces. An emergency situation is any situation when, in
45 the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might
46 cause serious risk of loss or damage to the public.
47

48 Direct or indirect costs incurred by the Contracting Agency attributable to correcting
49 and remedying defective or unauthorized Work, or Work the Contractor failed or
50 refused to perform, shall be paid by the Contractor. Payment will be deducted by the
51 Engineer from monies due, or to become due, the Contractor. Such direct and indirect

costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of Work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized Work.

No adjustment in Contract time or compensation will be allowed because of the delay in the performance of the Work attributable to the exercise of the Contracting Agency's rights provided by this Section.

The rights exercised under the provisions of this Section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the Work as required.

1-05.9 Equipment *(January 1, 2016 COK GSP)*

The following new paragraph is inserted between the second and third paragraphs of Section 1-05.9:

Use of equipment with metal tracks will not be permitted on concrete or asphalt surfaces unless otherwise authorized by the Engineer.

1-05.11 Final Inspection

Delete this Section and replace it with the following:

1-05.11 Final Inspections and Operational Testing *(October 1, 2005 APWA GSP)*

1-05.11(1) Substantial Completion Date

When the Contractor considers the Work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of Work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the Work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the Work is substantially complete and ready for its intended use, the Engineer, by written notice to the Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer does not consider the Work substantially complete and ready for its intended use, the Engineer will, by written notice, so notify the Contractor giving the reasons therefor.

Upon receipt of written notice concurring in or denying substantial completion, whichever is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized interruption, the Work necessary to reach substantial and physical completion. The Contractor shall provide the Engineer with a revised schedule

1 indicating when the Contractor expects to reach substantial and physical completion
2 of the Work.

3
4 The above process shall be repeated until the Engineer establishes the Substantial
5 Completion Date and the Contractor considers the Work physically complete and
6 ready for final inspection.
7

8 **1-05.11(2) Final Inspection and Physical Completion Date**

9
10 When the Contractor considers the Work physically complete and ready for final
11 inspection, the Contractor by written notice, shall request the Engineer to schedule a
12 final inspection. The Engineer will set a date for final inspection. The Engineer and
13 the Contractor will then make a final inspection and the Engineer will notify the
14 Contractor in writing of all particulars in which the final inspection reveals the Work
15 incomplete or unacceptable. The Contractor shall immediately take such corrective
16 measures as are necessary to remedy the listed deficiencies. Corrective Work shall
17 be pursued vigorously, diligently, and without interruption until physical completion of
18 the listed deficiencies. This process will continue until the Engineer is satisfied the
19 listed deficiencies have been corrected.
20

21 If action to correct the listed deficiencies is not initiated within 7 days after receipt of
22 the written notice listing the deficiencies, the Engineer may, upon written notice to
23 the Contractor, take whatever steps are necessary to correct those deficiencies
24 pursuant to Section 1-05.7.

25 The Contractor will not be allowed an extension of Contract time because of a delay
26 in the performance of the Work attributable to the exercise of the Engineer's right
27 hereunder.
28

29 Upon correction of all deficiencies, the Engineer will notify the Contractor and the
30 Contracting Agency, in writing, of the date upon which the Work was considered
31 physically complete. That date shall constitute the Physical Completion Date of the
32 Contract, but shall not imply acceptance of the Work or that all the obligations of the
33 Contractor under the Contract have been fulfilled.
34

35 **1-05.11(3) Operational Testing**

36
37 It is the intent of the Contracting Agency to have at the Physical Completion Date a
38 complete and operable system. Therefore when the Work involves the installation of
39 machinery or other mechanical equipment; street lighting, electrical distribution or
40 signal systems; irrigation systems; buildings; or other similar Work it may be
41 desirable for the Engineer to have the Contractor operate and test the Work for a
42 period of time after final inspection but prior to the Physical Completion Date.

43 Whenever items of Work are listed in the Contract Provisions for operational testing
44 they shall be fully tested under operating conditions for the time period specified to
45 ensure their acceptability prior to the Physical Completion Date. During and following
46 the test period, the Contractor shall correct any items of workmanship, materials, or
47 equipment which prove faulty, or that are not in first class operating condition.

48 Equipment, electrical controls, meters, or other devices and equipment to be tested
49 during this period shall be tested under the observation of the Engineer, so that the
50 Engineer may determine their suitability for the purpose for which they were installed.
51 The Physical Completion Date cannot be established until testing and corrections

1 have been completed to the satisfaction of the Engineer.

2
3 The costs for power, gas, labor, material, supplies, and everything else needed to
4 successfully complete operational testing, shall be included in the unit Contract
5 prices related to the system being tested, unless specifically set forth otherwise in
6 the Proposal.

7
8 Operational and test periods, when required by the Engineer, shall not affect a
9 manufacturer's guaranties or warranties furnished under the terms of the Contract.

10
11 **1-05.13 Superintendents, Labor and Equipment of Contractor**
12 *(August 14, 2013 APWA GSP)*

13
14 Delete the sixth and seventh paragraphs of this Section.

15 **1-05.14 Cooperation With Other Contractors**

16
17 Section 1-05.14 is supplemented with the following:

18
19 *(March 13, 1995 WSDOT GSP)*

20 ***Other Contracts Or Other Work***

21 It is anticipated that the following work adjacent to or within the limits of this project
22 will be performed by others during the course of this project and will require
23 coordination of the work:

24
25 Puget Sound Energy - Electric relocation work at SE corner of NE 120th St & 124th Ave NE
26 Slater Mixed Use Project, 12045 Slater Avenue NE

27
28 Add the following new Section:

29
30 **1-05.16 Water and Power**
31 *(October 1, 2005 APWA GSP)*

32
33 The Contractor shall make necessary arrangements, and shall bear the costs for
34 power and water necessary for the performance of the Work, unless the Contract
35 includes power and water as a pay item.

36
37 Add the following new Section:

38
39 **1-05.18 Record Drawings**
40 *(March 8, 2013 APWA GSP)*

41
42 The Contractor shall maintain one set of full size Plans for Record Drawings,
43 updated with clear and accurate red-lined field revisions on a daily basis, and within
44 2 business days after receipt of information that a change in Work has occurred.
45 The Contractor shall not conceal any Work until the required information is recorded.

46
47 This Record Drawing set shall be used for this purpose alone, shall be kept separate
48 from other Plan sheets, and shall be clearly marked as Record Drawings. These
49 Record Drawings shall be kept on-site at the Contractor's field office, and shall be
50 available for review by the Contracting Agency at all times. The Contractor shall
51 bring the Record Drawings to each progress meeting for review. The preparation and

upkeep of the Record Drawings is to be the assigned responsibility of a single, experienced, and qualified individual. The quality of the Record Drawings, in terms of accuracy, clarity, and completeness, is to be adequate to allow the Contracting Agency to modify the computer-aided drafting (CAD) Contract Drawings to produce a complete set of Record Drawings for the Contracting Agency without further investigative effort by the Contracting Agency.

The Record Drawing markups shall document all changes in the Work, both concealed and visible. Items that must be shown on the markups include but are not limited to:

- ☐ Actual dimensions, arrangement, and materials used when different than shown in the Plans.
- ☐ Changes made by Change Order or Field Order.
- ☐ Changes made by the Contractor.
- ☐ Accurate locations of storm sewer, sanitary sewer, water mains and other water appurtenances, Structures, conduits, light standards, vaults, width of Roadways, sidewalks, landscaping areas, building footprints, channelization and pavement markings, etc. Include pipe invert elevations, top of castings (manholes, inlets, etc.).

If the Contract calls for the Contracting Agency to do all surveying and staking, the Contracting Agency will provide the elevations at the tolerances the Contracting Agency requires for the Record Drawings.

When the Contract calls for the Contractor to do the surveying/staking, the applicable tolerance limits include, but are not limited to the following:

	Vertical	Horizontal
As-built sanitary & storm invert and grate elevations	± 0.01 foot	± 0.01 foot
As-built monumentation	± 0.001 foot	± 0.001 foot
As-built waterlines, inverts, valves, hydrants	± 0.10 foot	± 0.10 foot
As-built ponds/swales/water features	± 0.10 foot	± 0.10 foot
As-built buildings (fin. Floor elev.)	± 0.01 foot	± 0.10 foot
As-built gas lines, power, TV, Tel, Com	± 0.10 foot	± 0.10 foot
As-built signs, signals, etc.	N/A	± 0.10 foot

1 Making Entries on the Record Drawings:

- 2
- 3 ☐ Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to
- 4 the following color code:
- 5 ☐ Additions: Red
- 6 ☐ Deletions: Green
- 7 ☐ Comments: Blue
- 8 ☐ Dimensions: Graphite
- 9 ☐ Provide the applicable reference for all entries, such as the change order
- 10 number, the request for information (RFI) number, or the approved Shop Drawing
- 11 number.
- 12 ☐ Date all entries.
- 13 ☐ Clearly identify all items in the entry with notes similar to those in the Contract
- 14 Drawings (such as pipe symbols, centerline elevations, materials, pipe joint
- 15 abbreviations, etc.).
- 16

17 The Contractor shall certify on the Record Drawings that said drawings are an

18 accurate depiction of built conditions, and in conformance with the requirements

19 detailed above. The Contractor shall submit final Record Drawings to the

20 Contracting Agency. Contracting Agency acceptance of the Record Drawings is one

21 of the requirements for achieving Physical Completion.

22

23 Payment will be made for the following Bid item:

24

Record Drawings (Minimum Bid \$1,000)	Lump Sum
--	----------

25

26

27 Payment for this item will be made on a prorated monthly basis for Work completed

28 in accordance with this Section up to 75% of the lump sum Bid. The final 25% of the

29 lump sum item will be paid upon submittal and approval of the completed Record

30 Drawings set prepared in conformance with these Special Provisions.

31

32 A minimum Bid amount has been entered in the Bid Proposal for this item. The

33 Contractor must Bid at least that amount.

34

35 **1-06 Control of Material**

36

37 Section 1-06 is supplemented with the following:

38

39 ***Build America/Buy America***

40 ***(June 6, 2023)***

41

42 ***General Requirements***

43

44 In accordance with Division G, Title IX - Build America, Buy America Act (BABA), of Public

45 Law 117-58 (Infrastructure Investment and Jobs Act), the following materials must be

46 American-made:

47

1. All steel and iron used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
2. All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.
3. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

An article, material, or supply will be classified in one of three categories: 1) Steel and Iron, 2) Manufactured Product or 3) Construction Material. Only a single category will apply to an item and be subject to the requirements of the BABA requirements of that category. Some contract items are composed of multiple parts that may fall into different categories. Individual components will be categorized as a construction material, manufactured product, or steel and iron based on their composition when they arrive at the staging area or work site. When steel or iron are a component of a manufactured product or construction material, the steel and iron components will be subject to "Steel and Iron Requirements" of this Specification.

Definitions

1. Construction material: Defined as any article, material, or supply brought to the construction site for incorporation into the final product. Construction materials include an article, material, or supply that is or consists primarily of:
 - a. Non-ferrous metals;
 - b. Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
 - c. Glass (including optic glass);
 - d. Lumber; or
 - e. Drywall.

Construction Materials do not include items of primarily iron or steel; manufactured products; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

2. Manufactured Product: A Manufactured product includes any item produced as a result of the manufacturing process. Items that consist of two or more of the listed construction materials that have been combined together through a manufacturing

process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

3. Manufactured in the United States: A construction material will be considered as manufactured in the United States if all manufacturing processes have occurred in the United States.
4. Structural Steel: Defined as all structural steel products included in the project.
5. United States: To further define the coverage, a domestic product is a manufactured steel construction material that was produced in one of the 50 states, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

Steel and Iron Requirements

Major quantities of steel and iron construction materials that are permanently incorporated into the project shall consist of American-made materials only. BABA requirements do not apply to temporary steel or iron items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the foreign material used does not exceed one-tenth of one percent of the total contract cost or \$2,500.00, whichever is greater.

American-made material is defined as material having all manufacturing processes occurring domestically.

If domestically produced steel billets or iron ingots are exported outside of the area of coverage, as defined above, for any manufacturing process then the resulting product does not conform to the BABA requirements. Additionally, products manufactured domestically from foreign source steel billets or iron ingots do not conform to the BABA requirements because the initial melting and mixing of alloys to create the material occurred in a foreign country.

Manufacturing begins with the initial melting and mixing and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.

Due to a nationwide waiver, BABA requirements do not apply to raw materials (iron ore and alloys), scrap (recycled steel or iron), and pig iron ore processed, pelletized, and reduced iron ore.

The following are considered to be steel manufacturing processes:

1. Production of steel by any of the following processes:

- a. Open hearth furnace.
 - b. Basic oxygen.
 - c. Electric furnace.
 - d. Direct reduction.
2. Rolling, heat treating, and any other similar processing.
 3. Fabrication of the products:
 - a. Spinning wire into cable or strand.
 - b. Corrugating and rolling into culverts.
 - c. Shop fabrication.

A certification of materials origin will be required for all items comprised of, or containing, steel or iron construction materials prior to such items being incorporated into the permanent work. The Contractor will not receive payment until the certification is received by the Engineer. The certification shall be on WSDOT Form 350-109 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-109.

Manufactured Products

Due to a nationwide waiver, BABA requirements do not apply to manufactured products. Manufactured products that contain steel and iron, regardless of a nationwide waiver, will follow "Steel and Iron Requirements" of this Specification.

Construction Material Requirements

A Contractor provided certification of materials origin will be required before each progress estimate or payment. The Contractor will not receive payment until the certification is received by the Engineer. The Contractor shall certify that all construction materials installed during the current progress estimate period meets the Build America, Buy America Act. The certification shall be on WSDOT Form 350-110 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-110.

1-06.1 Approval of Materials Prior to Use *(January 1, 2016 COK GSP)*

Section 1-06.1 is supplemented with the following:

Approval of a material source shall not mean acceptance of the material. The material shall meet the requirements of the Contract.

1-06.1(2) Request for Approval of Materials (RAM) *(February 17, 2022 COK GSP)*

Revise the first paragraph to read:

The RAM shall be used for all submittals unless directed otherwise by the Engineer. The RAM shall be prepared by the Contractor in accordance with the instructions on Form 350-071 and submitted to the Engineer for approval before the material is incorporated into the Work.

1-06.6 Recycled Materials (January 4, 2016 APWA GSP)

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor's report shall be provided on DOT form 350-075 Recycled Materials Reporting.

1-07 Legal Relations and Responsibilities to the Public

1-07.1 Laws to be Observed (October 1, 2005 APWA GSP)

Supplement this Section with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to Work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor's plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the Work. This

requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Contractor's performance does not, and shall not, be intended to include review and adequacy of the Contractor's safety measures in, on, or near the project site. Section 1-07.1 is supplemented with the following:

(January 1, 2021 COK GSP)

The Contractor shall at all times eliminate noise to the maximum practicable extent. Air compressing plants shall be equipped with silencers, and the exhaust of all gasoline motors or other power equipment shall be provided with mufflers. Special care shall be used to avoid noise or other nuisances, and the Contractor shall strictly observe all Federal, State, and local regulations concerning noise.

The Contractor shall make an effort to reduce carbon emissions by turning off engines on construction equipment not in active use, and on trucks that are idling while waiting to load or unload material for five (5) minutes or more.

(January 1, 2016 COK GSP)

Contractor's Safety Responsibilities

These construction documents and the joint and several phases of construction hereby contemplated are to be governed at all times by applicable provisions of the Federal law(s), including but not limited to the latest amendments of the following:

Williams-Steiger Occupational Safety and Health Act of 1980, Public Law 91-596.

Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.

This project, the Contractor and its Subcontractors, shall, at all times, be governed by Chapter XIII of Title 29, Code of Federal Regulations, Part 1518 - Safety and Health Regulations for Construction (35 CFR 75), as amended to date.

To implement the program, and to provide safe and healthful working conditions for all persons, the construction superintendent or his/her designated safety officer shall conduct general project safety meetings at the site at least once each month during the course of construction.

The Prime Contractor and all Subcontractors shall immediately report all accidents, injuries, and health hazards to the Engineer, in writing. This shall not obviate any mandatory reporting under the provisions of the Occupational Safety and Health Act of 1970. This program shall become a part of the Contract Documents and the Contract between the Contracting Agency and the Contractor, and all Subcontractors, as though fully written therein.

Where the location of the Work is in proximity to overhead wires and power lines, the Contractor shall coordinate all Work with the utility and shall provide for such measures as may be necessary for the protection of the workers.

1 (April 3, 2006 WSDOT GSP)

2 3 **Confined Space**

4
5 Confined spaces are known to exist at the following locations:

6 Type 2 Catch Basins

7 Stormwater Detention Vault

8 Other utility vaults/structures shown in the Plans

9
10 The Contractor shall be fully responsible for the safety and health of all on-site
11 workers and compliant with Washington Administrative Code (WAC 296-809).

12
13 The Contractor shall prepare and implement a confined space program for each of
14 the confined spaces identified above. The Contractor's Confined Space program shall
15 be sent to the contracting agency at least 30 days prior to the Contractor beginning
16 Work in or adjacent to the confined space. No Work shall be performed in or adjacent
17 to the confined space until the plan is submitted to the Engineer as required. The
18 Contractor shall communicate with the Project Engineer to ensure a coordinated effort
19 for providing and maintaining a safe worksite for both the Contracting Agency's and
20 Contractor's workers when working in or near a confined space.

21
22 All costs to prepare and implement the confined space program shall be included in
23 the Bid prices for the various items associated with the confined space Work.

24 25 **1-07.2 State Taxes**

26
27 Delete this Section, including its sub-sections, in its entirety and replace it with the
28 following:

29 30 **1-07.2 State Sales Tax**

31 (June 27, 2011 APWA GSP)

32
33 The Washington State Department of Revenue has issued special rules on the State
34 sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The
35 Contractor should contact the Washington State Department of Revenue for answers
36 to questions in this area. The Contracting Agency will not adjust its payment if the
37 Contractor bases a Bid on a misunderstood tax liability.

38
39 The Contractor shall include all Contractor-paid taxes in the unit Bid prices or other
40 Contract amounts. In some cases, however, State retail sales tax will not be
41 included. Section 1-07.2(2) describes this exception.

42
43 The Contracting Agency will pay the retained percentage (or release the Contract
44 Bond if a "FHWA funded" project) only if the Contractor has obtained from the
45 Washington State Department of Revenue a certificate showing that all Contract-
46 related taxes have been paid (RCW 60.28.051). The Contracting Agency may
47 deduct from its payments to the Contractor any amount the Contractor may owe the
48 Washington State Department of Revenue, whether the amount owed relates to this
49 Contract or not. Any amount so deducted will be paid into the proper State fund.

1 **1-07.2(1) State Sales Tax — Rule 171**

2
3 WAC 458-20-171, and its related rules, apply to building, repairing, or improving
4 streets, roads, etc., which are owned by a municipal corporation, or political
5 subdivision of the State, or by the United States, and which are used primarily for
6 foot or vehicular traffic. This includes storm or combined sewer systems within and
7 included as a part of the street or road drainage system and power lines when such
8 are part of the Roadway lighting system. For Work performed in such cases, the
9 Contractor shall include Washington State Retail Sales Taxes in the various unit Bid item
10 prices, or other Contract amounts, including those that the Contractor pays on
11 the purchase of the materials, equipment, or supplies used or consumed in doing the
12 Work.

13
14 **1-07.2(2) State Sales Tax — Rule 170**

15
16 WAC 458-20-170, and its related rules, apply to the constructing and repairing of
17 new or existing buildings, or other Structures, upon real property. This includes, but
18 is not limited to, the construction of streets, roads, Highways, etc., owned by the
19 State of Washington; water mains and their appurtenances; sanitary sewers and
20 sewage disposal systems unless such sewers and disposal systems are within, and
21 a part of, a street or road drainage system; telephone, telegraph, electrical power
22 distribution lines, or other conduits or lines in or above streets or roads, unless such
23 power lines become a part of a street or Roadway lighting system; and installing or
24 attaching of any article of tangible personal property in or to real property, whether or
25 not such personal property becomes a part of the realty by virtue of installation.

26
27 For Work performed in such cases, the Contractor shall collect from the Contracting
28 Agency, retail sales tax on the full Contract price. The Contracting Agency will
29 automatically add this sales tax to each payment to the Contractor. For this reason,
30 the Contractor shall not include the retail sales tax in the unit Bid item prices, or in
31 any other Contract amount subject to Rule 170, with the following exception.

32
33 Exception: The Contracting Agency will not add in sales tax for a payment the
34 Contractor or a Subcontractor makes on the purchase or rental of tools, machinery,
35 equipment, or consumable supplies not integrated into the project. Such sales taxes
36 shall be included in the unit Bid item prices or in any other Contract amount.

37
38 **1-07.2(3) Services**

39
40 The Contractor shall not collect retail sales tax from the Contracting Agency on any
41 Contract wholly for professional or other services (as defined in Washington State
42 Department of Revenue Rules 138 and 244).

43
44 **1-07.5 Environmental Regulations**

45
46 **1-07.5(3) State Department of Ecology**
47 *(July 19, 2022 COK SP)*

48
49 Section 1-07.5(3) is supplemented with the following:
50
51

1 Protection of the Environment

2 No construction related activity shall contribute to the degradation of the
3 environment, allow material to enter surface or ground waters, or allow
4 particulate emissions to the atmosphere, which exceed State or Federal
5 standards. Any actions that potentially allow a discharge to State waters must
6 have prior approval of the Washington State Department of Ecology.
7

8 Supplement this section with the following:

9
10 *(January 1, 2021 COK GSP)*

11
12 Contractor shall comply with all requirements of the Construction Stormwater General Permit
13 (CSWGP), if this permit has been issued for this Work.

14
15 Additionally, Contractor shall comply with all applicable requirements of Kirkland
16 Municipal Code KMC 15.52, as this local code has been adopted to meet
17 Washington State Department of Ecology requirements for city stormwater
18 management.
19

20 CSWGP Permit Number (if issued): TBD (application pending)

21
22 CSWGP coverage is typically only issued by the State Department of Ecology
23 in the event the disturbed area for the Work is greater than one (1) acre. In the
24 event CSWGP coverage has been issued for this Work, Contractor shall
25 coordinate the Transfer of the permit from the Contracting Agency to the
26 Contractor prior to any ground disturbance commencing in the Work area.
27

28 Unless identified otherwise in the Contract Documents, compliance with all
29 requirements of this Section, the CSWGP, and the Kirkland Municipal Code
30 KMC 15.52 shall be incidental to Contract pay items.

31
32 Supplement this section with the following:
33 *(January 1, 2021 COK GSP)*
34

35 When a violation of the Construction Stormwater General Permit (CSWGP)
36 and/or Kirkland Municipal Code KMC 15.52 occurs, Contractor shall
37 immediately notify the City of Kirkland Spill Hotline (425) 587-3900.
38 Contractor shall also report to the Engineer and other agencies as identified
39 in the Contractor's Spill Prevention, Control, and Countermeasures (SPCC)
40 Plan (prepared in accordance with Section 1-07.15(1)).
41

42 **1-07.6 Permits and Licenses**

43
44 ***1-07.6(1) Permits for Sanitary Sewer Discharge for Construction***
45 ***Dewatering***
46

47 Add new Section 1-07.6(1).
48 *(January 1, 2021 COK GSP)*
49

50 The Contracting Agency has not obtained a King County Authorization for
51 Construction Dewatering or local sanitary sewer operating permits for this Work.

Contractor proposals for this method of construction stormwater disposal will be supported by the Contracting Agency only if, as determined by the Engineer, the proposal meets all the requirements indicated in Section 1-07.6 and this Section.

Contractors proposing to use sanitary sewer methods for construction dewatering and discharge are directed to the King County web page for "Construction Dewatering" for applications and information on the application process.

In addition to the requirements of Section 1-07.6, Contractor shall provide to the Engineer the written permission obtained by the Contractor from the local sanitary sewer operating agency for use of the sanitary sewer for construction dewatering discharge in advance of the Contractor applying for either general or individual King County Authorization for Construction Dewatering.

1-07.6(2) Permits for Off-site Staging and Storage Areas

Add new Section 1-07.6(2).3
(January 1, 2021 COK GSP)

The Contracting Agency has not obtained any City of Kirkland Temporary Use Permits for temporary use(s) of off-site areas or properties in the City of Kirkland for the purposes of staging, materials storage, and/or any other Contractor-desired temporary uses during the Work. A City of Kirkland Temporary Use Permit must be obtained by the Contractor for temporary use for the Work of any off-site areas or properties not located in a City of Kirkland right-of-way (ROW). This requirement is in addition to any permissions and/or agreements reached between the Contractor and the property owner(s) as required in Section 1-07.24.

"Off-site" will be taken to mean any area not designated as part of the Work in the Plans or other Contract Documents.

A City of Kirkland Temporary Use Permit is not required for additional use of areas located in a City of Kirkland right-of-way (ROW) and not indicated in the Plans or other Contract Documents. However, the Contractor shall not occupy additional City of Kirkland ROW not shown as part of the Work without advance written approval by the Engineer. Contractor shall photograph and/or video document the existing conditions of ROW used. Any damage or degradation of the existing conditions in these areas shall be repaired and/or replaced by the Contractor at no additional cost to the City of Kirkland.

Contractor shall apply for a City of Kirkland Temporary Use Permit from the City of Kirkland Planning and Building Department through <http://mybuildingpermit.com>. Contractor shall also notify the Engineer when the Temporary Use Permit application has been submitted.

Unless otherwise indicated in the Contract Documents or by the Engineer in writing, no claims for equitable adjustment of Contract Time will be allowed requesting additional time required for the Contractor to obtain a City of Kirkland Temporary Use Permit for temporary use of any off-site area or property not designated as part of the Work area in the Plans.

1 **1-07.9 Wages**

2
3 **1-07.9(1) General**

4
5 Section 1-07.9(1) is supplemented with the following:

6
7 (January 9, 2023)

8 The Federal wage rates incorporated in this contract have been established by the
9 Secretary of Labor under United States Department of Labor General Decision No.
10 WA20230001.

11
12 The State rates incorporated in this contract are applicable to all construction
13 activities associated with this contract.

14
15 **1-07.9(2) Posting Notices**

16
17 Item number 11 in Section 1-07.9(2) is revised to read:

18
19 (January 10, 2022 WSDOT GSP)

20 11. F700-074-000 – **Your Rights as a Worker in Washington State** by
21 Washington State Department of Labor and Industries (L&I). Post on all
22 projects.

23
24 **1-07.9(5)A Required Documents**

25 (December 30, 2022 APWA GSP)

26
27 This section is revised to read as follows:

28
29 All Statements of Intent to Pay Prevailing Wages, Affidavits of Wages Paid and
30 Certified Payrolls, including a signed Statement of Compliance for Federal-aid
31 projects, shall be submitted to the Engineer and to the State L&I online Prevailing
32 Wage Intent & Affidavit (PWIA) system.

33
34 **1-07.11 Requirements for Nondiscrimination**

35
36 Section 1-07.11 is supplemented with the following:

37
38 (October 3, 2022 WSDOT GSP)

39 Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive
40 Order 11246)

- 41
42 1. The Contractor's attention is called to the Equal Opportunity Clause and the
43 Standard Federal Equal Employment Opportunity Construction Contract
44 Specifications set forth herein.
- 45
46 2. The goals and timetables for minority and female participation set by the Office of
47 Federal Contract Compliance Programs, expressed in percentage terms for the
48 Contractor's aggregate work force in each construction craft and in each trade on
49 all construction work in the covered area, are as follows:
- 50
51

Women - Statewide

<u>Timetable</u>	<u>Goal</u>
Until further notice	6.9%

Minorities - by Standard Metropolitan Statistical Area (SMSA)

Spokane, WA:

SMSA Counties:

Spokane, WA 2.8
WA Spokane.

Non-SMSA Counties 3.0

WA Adams; WA Asotin; WA Columbia; WA Ferry; WA Garfield; WA Lincoln; WA Pend Oreille; WA Stevens; WA Whitman.

Richland, WA

SMSA Counties:

Richland Kennewick, WA 5.4
WA Benton; WA Franklin.

Non-SMSA Counties 3.6

WA Walla Walla.

Yakima, WA:

SMSA Counties:

Yakima, WA 9.7
WA Yakima.

Non-SMSA Counties 7.2

WA Chelan; WA Douglas; WA Grant; WA Kittitas; WA Okanogan.

Seattle, WA:

SMSA Counties:

Seattle Everett, WA 7.2
WA King; WA Snohomish.
Tacoma, WA 6.2
WA Pierce.

Non-SMSA Counties 6.1

WA Clallam; WA Grays Harbor; WA Island; WA Jefferson; WA Kitsap; WA Lewis; WA Mason; WA Pacific; WA San Juan; WA Skagit; WA Thurston; WA Whatcom.

Portland, OR:

SMSA Counties:

Portland, OR-WA 4.5
WA Clark.

Non-SMSA Counties 3.8

WA Cowlitz; WA Klickitat; WA Skamania; WA Wahkiakum.

1 These goals are applicable to each nonexempt Contractor's total on-site
2 construction workforce, regardless of whether or not part of that workforce is
3 performing work on a Federal, or federally assisted project, contract, or subcontract
4 until further notice. Compliance with these goals and time tables is enforced by the
5 Office of Federal Contract compliance Programs.
6

7 The Contractor's compliance with the Executive Order and the regulations in 41
8 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity
9 Clause, specific affirmative action obligations required by the specifications set
10 forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority
11 and female employment and training must be substantially uniform throughout the
12 length of the contract, in each construction craft and in each trade, and the
13 Contractor shall make a good faith effort to employ minorities and women evenly on
14 each of its projects. The transfer of minority or female employees or trainees from
15 Contractor to Contractor or from project to project for the sole purpose of meeting
16 the Contractor's goal shall be a violation of the contract, the Executive Order and
17 the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured
18 against the total work hours performed.
19

- 20 3. The Contractor shall provide written notification to the Office of Federal Contract
21 Compliance Programs (OFCCP) within 10 working days of award of any
22 construction subcontract in excess of \$10,000 or more that are Federally funded, at
23 any tier for construction work under the contract resulting from this solicitation. The
24 notification shall list the name, address and telephone number of the subcontractor;
25 employer identification number of the subcontractor; estimated dollar amount of the
26 subcontract; estimated starting and completion dates of the subcontract; and the
27 geographical area in which the contract is to be performed. The notification shall
28 be sent to:
29

30 U.S. Department of Labor
31 Office of Federal Contract Compliance Programs Pacific Region
32 Attn: Regional Director
33 San Francisco Federal Building
34 90 – 7th Street, Suite 18-300
35 San Francisco, CA 94103
36 (415) 625-7800 Phone
37 (415) 625-7799 Fax
38

- 39 4. As used in this Notice, and in the contract resulting from this solicitation, the
40 Covered Area is as designated herein.
41

42 Standard Federal Equal Employment Opportunity Construction Contract Specifications
43 (Executive Order 11246)
44

- 45 1. As used in these specifications:
46

- 47 a. Covered Area means the geographical area described in the solicitation
48 from which this contract resulted;
49 b. Director means Director, Office of Federal Contract Compliance
50 Programs, United States Department of Labor, or any person to whom
51 the Director delegates authority;

1 c. Employer Identification Number means the Federal Social Security
2 number used on the Employer's Quarterly Federal Tax Return, U. S.
3 Treasury Department Form 941;

4
5 d. Minority includes:

6
7 (1) Black, a person having origins in any of the Black Racial
8 Groups of Africa.

9
10 (2) Hispanic, a fluent Spanish speaking, Spanish surnamed person
11 of Mexican, Puerto Rican, Cuban, Central American, South
12 American, or other Spanish origin.

13
14 (3) Asian or Pacific Islander, a person having origins in any of the
15 original peoples of the Pacific rim or the Pacific Islands, the
16 Hawaiian Islands and Samoa.

17
18 (4) American Indian or Alaskan Native, a person having origins in
19 any of the original peoples of North America, and who maintain
20 cultural identification through tribal affiliation or community
21 recognition.

22
23 2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion
24 of the work involving any construction trade, it shall physically include in each
25 subcontract in excess of \$10,000 the provisions of these specifications and the
26 Notice which contains the applicable goals for minority and female participation
27 and which is set forth in the solicitations from which this contract resulted.

28
29 3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan
30 approved by the U.S. Department of Labor in the covered area either individually
31 or through an association, its affirmative action obligations on all work in the Plan
32 area (including goals and timetables) shall be in accordance with that Plan for
33 those trades which have unions participating in the Plan. Contractors must be
34 able to demonstrate their participation in and compliance with the provisions of
35 any such Hometown Plan. Each Contractor or subcontractor participating in an
36 approved Plan is individually required to comply with its obligations under the
37 EEO clause, and to make a good faith effort to achieve each goal under the Plan
38 in each trade in which it has employees. The overall good faith performance by
39 other Contractors or subcontractors toward a goal in an approved Plan does not
40 excuse any covered Contractor's or subcontractor's failure to take good faith
41 effort to achieve the Plan goals and timetables.

42
43 4. The Contractor shall implement the specific affirmative action standards provided
44 in paragraphs 7a through 7p of this Special Provision. The goals set forth in the
45 solicitation from which this contract resulted are expressed as percentages of the
46 total hours of employment and training of minority and female utilization the
47 Contractor should reasonably be able to achieve in each construction trade in
48 which it has employees in the covered area. Covered construction contractors
49 performing construction work in geographical areas where they do not have a
50 Federal or federally assisted construction contract shall apply the minority and
51 female goals established for the geographical area where the work is being

performed. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its action. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the

Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations

- e. Develop on-the-job training opportunity and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the U.S. Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and where reasonable, provide after school, summer and vacation employment to minority and female youth both on

the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of the obligations under 7a through 7p of this Special Provision provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensure that the concrete benefits of the program are reflected in the Contractor's minority and female work- force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrate the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in

violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspensions, terminations and cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of this Special Provision, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the government and to keep records. Records shall at least include, for each employee, their name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, the Contractors will not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
16. Additional assistance for Federal Construction Contractors on contracts administered by Washington State Department of Transportation or by Local Agencies may be found at:

Washington State Dept. of Transportation
Office of Equal Opportunity
PO Box 47314
310 Maple Park Ave. SE
Olympia WA
98504-7314
Ph: 360-705-7090
Fax: 360-705-6801
<http://www.wsdot.wa.gov/equalopportunity/default.htm>

(October 1, 2020 APWA GSP, Option B)

Supplement this section with the following:

Disadvantaged Business Enterprise Participation

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 and USDOT's official interpretations (i.e., Questions & Answers) apply to this Contract. Demonstrating compliance with these Specifications is a Condition of Award (COA) of this Contract. Failure to comply with the requirements of this Specification may result in your Bid being found to be nonresponsive resulting in rejection or other sanctions as provided by Contract.

DBE Abbreviations and Definitions

Broker – A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the Contract; or, persons/companies who arrange or expedite transactions.

Certified Business Description – Specific descriptions of work the DBE is certified to perform, as identified in the Certified Firm Directory, under the Vendor Information page.

Certified Firm Directory – A database of all Minority, Women, and Disadvantaged Business Enterprises currently certified by Washington State. The on-line Directory is available to Bidders for their use in identifying and soliciting interest from DBE firms. The database is located under the Firm Certification section of the Diversity Management and Compliance System web page at: <https://omwbe.diversitycompliance.com>.

Commercially Useful Function (CUF) – 49 CFR 26.55(c)(1) defines commercially useful function as: *“A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the*

1 *material itself. To determine whether a DBE is performing a commercially*
2 *useful function, you must evaluate the amount of work subcontracted,*
3 *industry practices, whether the amount the firm is to be paid under the*
4 *contract is commensurate with the work it is actually performing and the*
5 *DBE credit claimed for its performance of the work, and other relevant*
6 *factors.”*
7

8 **Disadvantaged Business Enterprise (DBE)** – A business firm certified by
9 the Washington State Office of Minority and Women’s Business Enterprises,
10 as meeting the criteria outlined in 49 CFR 26 regarding DBE certification.
11

12 **Force Account Work** – Work measured and paid in accordance with
13 Section 1-09.6.
14

15 **Good Faith Efforts** – Efforts to achieve the DBE COA Goal or other
16 Requirements of this part which, by their scope, intensity, and
17 appropriateness to the objective, can reasonably be expected to fulfill the
18 program requirement.
19

20 **Manufacturer (DBE)** – A DBE firm that operates or maintains a factory or
21 establishment that produces on the premises the materials, supplies,
22 articles, or equipment required under the Contract. A DBE Manufacturer
23 shall produce finished goods or products from raw or unfinished material or
24 purchase and substantially alters goods and materials to make them
25 suitable for construction use before reselling them.
26

27 **Reasonable Fee (DBE)** – For purposes of Brokers or service providers a
28 reasonable fee shall not exceed 5% of the total cost of the goods or services
29 brokered.
30

31 **Regular Dealer (DBE)** – A DBE firm that owns, operates, or maintains a
32 store, warehouse, or other establishment in which the materials or supplies
33 required for the performance of a Contract are bought, kept in stock, and
34 regularly sold to the public in the usual course of business. To be a Regular
35 Dealer, the DBE firm must be an established regular business that engages
36 in as its principal business and in its own name the purchase and sale of the
37 products in question. A Regular Dealer in such items as steel, cement,
38 gravel, stone, and petroleum products need not own, operate or maintain a
39 place of business if it both owns and operates distribution equipment for the
40 products. Any supplementing of regular dealers’ own distribution equipment
41 shall be by long-term formal lease agreements and not on an ad-hoc basis.
42 Brokers, packagers, manufacturers’ representatives, or other persons who
43 arrange or expedite transactions shall not be regarded as Regular Dealers
44 within the meaning of this definition.
45

46 **DBE Commitment** – The scope of work and dollar amount the Bidder
47 indicates they will be subcontracting to be applied towards the DBE
48 Condition of Award Goal as shown on the DBE Utilization Certification Form
49 for each DBE Subcontractor. This DBE Commitment amount will be
50 incorporated into the Contract and shall be considered a Contract
51 requirement. The Contractor shall utilize the COA DBEs to perform the work

and supply the materials for which they are committed. Any changes to the DBE Commitment require the Engineer's prior written approval.

DBE Condition of Award (COA) Goal – An assigned numerical amount specified as a percentage of the Contract. Initially, this is the minimum amount that the Bidder must commit to by submission of the Utilization Certification Form and/or by Good Faith Effort (GFE).

DBE COA Goal – The Contracting Agency has established a DBE COA Goal for this Contract in the amount of: 16%

Crediting DBE Participation

Subcontractors proposed as COA must be certified prior to the due date for bids on the Contract. All non-COA DBE Subcontractors shall be certified before the subcontract on which they are participating is executed.

DBE participation is only credited upon payment to the DBE.

The following are some definitions of what may be counted as DBE participation.

DBE Prime Contractor

Only take credit for that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE Prime Contractor performs with its own forces and is certified to perform.

DBE Subcontractor

Only take credit for that portion of the total dollar value of the subcontract that is equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces and is certified to perform. The value of work performed by the DBE includes the cost of supplies and materials purchased by the DBE and equipment leased by the DBE, for its work on the contract. Supplies, materials or equipment obtained by a DBE that are not utilized or incorporated in the contract work by the DBE will not be eligible for DBE credit.

The supplies, materials, and equipment purchased or leased from the Contractor or its affiliate, including any Contractor's resources available to DBE subcontractors at no cost, shall not be credited.

DBE credit will not be given in instances where the equipment lease includes the operator. The DBE is expected to operate the equipment used in the performance of its work under the contract with its own forces. Situations where equipment is leased and used by the DBE, but payment is deducted from the Contractor's payment to the DBE is not allowed.

When the subcontractor is part of a DBE Commitment, the following apply:

1. If a DBE subcontracts a portion of the Work of its contract to another firm, the value of the subcontracted Work may be counted toward the DBE COA Goal only if the Lower-Tier Subcontractor is also a DBE.

2. Work subcontracted to a Lower-Tier Subcontractor that is a DBE, may be counted toward the DBE COA Goal.
3. Work subcontracted to a non-DBE does not count towards the DBE COA Goal.

DBE Subcontract and Lower Tier Subcontract Documents

There must be a subcontract agreement that complies with 49 CFR Part 26 and fully describes the distinct elements of Work committed to be performed by the DBE.

DBE Service Provider

The value of fees or commissions charged by a DBE firm behaving in a manner of a Broker, or another service provider for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance specifically required for the performance of the contract will only be credited as DBE participation, if the fee/commission is determined by the Contracting Agency to be reasonable and the firm has performed a CUF.

Force Account Work

When the Bidder elects to utilize force account Work to meet the DBE COA Goal, as demonstrated by listing this force account Work on the DBE Utilization Certification Form, for the purposes of meeting the DBE COA Goal, only 50% of the Proposal amount shall be credited toward the Bidder's Commitment to meet the DBE COA Goal.

One hundred percent of the actual amounts paid to the DBE for the force account Work shall be credited towards the DBE COA Goal or DBE participation.

Temporary Traffic Control

If the DBE firm only provides "Flagging", the DBE firm must provide a Traffic Control Supervisor (TCS) and flagger, which are under the direct control of the DBE. The DBE firm shall also provide all flagging equipment for it's employees (e.g. paddles, hard hats, and vests).

If the DBE firm provides "Traffic Control Services", the DBE firm must provide a TCS, flaggers, and traffic control items (e.g., cones, barrels, signs, etc.) and be in total control of all items in implementing the traffic control for the project.

Trucking

DBE trucking firm participation may only be credited as DBE participation for the value of the hauling services, not for the materials being hauled unless the trucking firm is also certified as a supplier of those materials. In situations where the DBE's work is priced per ton, the value of the hauling service must be calculated separately from the value of the materials in order to determine DBE credit for hauling.

1 The DBE trucking firm must own and operate at least one licensed, insured
2 and operational truck on the contract. The truck must be of the type that is
3 necessary to perform the hauling duties required under the contract. The
4 DBE receives credit for the value of the transportation services it provides
5 on the Contract using trucks it owns or leases, licenses, insures, and
6 operates with drivers it employs.
7

8 The DBE may lease additional trucks from another DBE firm. The DBE who
9 leases additional trucks from another DBE firm receives credit for the value
10 of the transportation services the lessee DBE provides on the Contract.
11

12 The trucking Work subcontracted to any non-DBE trucking firm will not
13 receive credit for Work done on the project.
14

15 The DBE may lease trucks from a truck leasing company (recognized truck
16 rental center), but can only receive credit towards DBE participation if the
17 DBE uses its own employees as drivers.
18

19 **DBE Manufacturer and DBE Regular Dealer**

20 One hundred percent (100%) of the cost of the manufactured product
21 obtained from a DBE manufacturer may count towards the DBE COA Goal.
22

23 Sixty percent (60%) of the cost of materials or supplies purchased from a
24 DBE Regular Dealer may be credited towards the DBE Goal. If the role of
25 the DBE Regular Dealer is determined to be that of a Broker, then DBE credit
26 shall be limited to the fee or commission it receives for its services. Regular
27 Dealer status and the amount of credit is determined on a Contract-by-
28 Contract basis.
29

30 DBE firms proposed to be used as a Regular Dealer must be approved
31 before being listed as a COA/used on a project. The WSDOT Approved
32 Regular Dealer list published on WSDOT's Office of Equal Opportunity
33 (OEO) web site must include the specific project for which approval is being
34 requested. For purposes of the DBE COA Goal participation, the Regular
35 Dealer must submit the Regular Dealer Status Request form a minimum of
36 five calendar days prior to bid opening.
37

38 Purchase of materials or supplies from a DBE which is neither a
39 manufacturer nor a regular dealer, (i.e. Broker) only the fees or commissions
40 charged for assistance in the procurement of the materials and supplies, or
41 fees or transportation charges for the delivery of materials or supplies
42 required on the job site, may count towards the DBE COA Goal provided the
43 fees are not excessive as compared with fees customarily allowed for similar
44 services. Documentation will be required to support the fee/commission
45 charged by the DBE. The cost of the materials and supplies themselves
46 cannot be counted toward the DBE COA Goal.
47

48 Note: Requests to be listed as a Regular Dealer will only be processed if
49 the requesting firm is a material supplier certified by the Office of
50 Minority and Women's Business Enterprises in a NAICS code that
51 falls within the 42XXXX NAICS Wholesale code section.

Disadvantaged Business Enterprise Utilization

To be eligible for award of the Contract, the Bidder shall properly complete and submit a Disadvantaged Business Enterprise (DBE) Utilization Certification with the Bidder's sealed Bid Proposal, as specified in Section 1-02.9 Delivery of Proposal. The Bidder's DBE Utilization Certification must clearly demonstrate how the Bidder intends to meet the DBE COA Goal. A DBE Utilization Certification (WSDOT Form 272-056) is included in the Proposal package for this purpose as well as instructions on how to properly fill out the form.

The Bidder is advised that the items listed below when listed in the Utilization Certification must have their amounts reduced to the percentages shown and those reduced amounts will be the amount applied towards meeting the DBE COA Goal.

- Force account at 50%
- Regular dealer at 60%

In the event of arithmetic errors in completing the DBE Utilization Certification, the amount listed to be applied towards the DBE COA Goal for each DBE shall govern and the DBE total amount shall be adjusted accordingly.

Note: The Contracting Agency shall consider as non-responsive and shall reject any Bid Proposal submitted that does not contain a DBE Utilization Certification Form that accurately demonstrates how the Bidder intends to meet the DBE COA Goal.

Disadvantaged Business Enterprise Written Confirmation Document(s)

The Bidder shall submit an Disadvantaged Business Enterprise (DBE) Written Confirmation Document (completed and signed by the DBE) for each DBE firm listed in the Bidder's completed DBE Utilization Certification submitted with the Bid. Failure to do so will result in the associated participation being disallowed, which may cause the Bid to be determined to be nonresponsive resulting in Bid rejection.

The Confirmation Documents provide confirmation from the DBEs that they are participating in the Contract as provided in the Bidder's Commitment. The Confirmation Documents must be consistent with the Utilization Certification. A DBE Written Confirmation Document (WSDOT Form 422-031) is included in the Proposal package for this purpose.

The form(s) shall be received as specified in the special provisions for Section 1-02.9 Delivery of Proposal.

It is prohibited for the Bidder to require a DBE to submit a Written Confirmation Document with any part of the form left blank. Should the Contracting Agency determine that an incomplete Written Confirmation Document was signed by a DBE, the validity of the document comes into question. The associated DBE participation may not receive credit.

Selection of Successful Bidder/Good Faith Efforts (GFE)

The successful Bidder shall be selected on the basis of having submitted the lowest responsive Bid, which demonstrates a good faith effort to achieve the DBE

COA Goal. The Contracting Agency, at any time during the selection process, may request a breakdown of the bid items and amounts that are counted towards the overall contract goal for any of the DBEs listed on the DBE Utilization Certification.

Achieving the DBE COA Goal may be accomplished in one of two ways:

1. By meeting the DBE COA Goal

Submission of the DBE Utilization Certification, supporting DBE Written Confirmation Document(s) showing the Bidder has obtained enough DBE participation to meet or exceed the DBE COA Goal, the DBE Bid Item Breakdown and the DBE Trucking Credit Form, if applicable.

2. By documentation that the Bidder made adequate GFE to meet the DBE COA Goal

The Bidder may demonstrate a GFE in whole or part through GFE documentation ONLY IN THE EVENT a Bidder's efforts to solicit sufficient DBE participation have been unsuccessful. The Bidder must supply GFE documentation in addition to the DBE Utilization Certification, supporting DBE Written Confirmation Document(s), the DBE Bid Item Breakdown form and the DBE Trucking Credit Form, if applicable.

Note: In the case where a Bidder is awarded the contract based on demonstrating adequate GFE, the advertised DBE COA Goal will not be reduced. The Bidder shall demonstrate a GFE during the life of the Contract to attain the advertised DBE COA Goal.

GFE documentation, the DBE Bid Item Breakdown form, and the DBE Trucking Credit Form, if applicable, shall be submitted as specified in Section 1-02.9.

The Contracting Agency will review the GFE documentation and will determine if the Bidder made an adequate good faith effort.

Good Faith Effort (GFE) Documentation

GFE is evaluated when:

1. Determining award of a Contract that has COA goal,
2. When a COA DBE is terminated and substitution is required, and
3. Prior to Physical Completion when determining whether the Contractor has satisfied its DBE commitments.

49 CFR Part 26, Appendix A is intended as general guidance and does not, in itself, demonstrate adequate good faith efforts. The following is a list of types of actions, which would be considered as part of the Bidder's GFE to achieve DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

1. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the Work of the

Contract. The Bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The Bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

2. Selecting portions of the Work to be performed by DBEs in order to increase the likelihood that the DBE COA Goal will be achieved. This includes, where appropriate, breaking out contract Work items into economically feasible units to facilitate DBE participation, even when the Bidder might otherwise prefer to perform these Work items with its own forces.
3. Providing interested DBEs with adequate information about the Plans, Specifications, and requirements of the Contract in a timely manner to assist them in responding to a solicitation.
 - a. Negotiating in good faith with interested DBEs. It is the Bidder's responsibility to make a portion of the Work available to DBE subcontractors and suppliers and to select those portions of the Work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the Plans and Specifications for the Work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the Work.
 - b. A Bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as the DBE COA Goal into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a Bidder's failure to meet the DBE COA Goal, as long as such costs are reasonable. Also, the ability or desire of a Bidder to perform the Work of a Contract with its own organization does not relieve the Bidder of the responsibility to make Good Faith Efforts. Bidders are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
4. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the Bidder's efforts to meet the DBE COA Goal.
5. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Bidder.

- 1 6. Making efforts to assist interested DBEs in obtaining necessary
2 equipment, supplies, materials, or related assistance or services.
3
4 7. Effectively using the services of available minority/women community
5 organizations; minority/women contractors' groups; local, State, and
6 Federal minority/women business assistance offices; and other
7 organizations as allowed on a case-by-case basis to provide assistance
8 in the recruitment and placement of DBEs.
9
10 8. Documentation of GFE must include copies of each DBE and non-DBE
11 subcontractor quotes submitted to the Bidder when a non-DBE
12 subcontractor is selected over a DBE for Work on the Contract. (ref.
13 updated DBE regulations – 26.53(b)(2)(vi) & App. A)
14

15 **Administrative Reconsideration of GFE Documentation**

16 A Bidder has the right to request reconsideration if the GFE documentation
17 submitted with their Bid was determined to be inadequate.

- 18 • The Bidder must request within 48 hours of notification of being
19 nonresponsive or forfeit the right to reconsideration.
- 20 • The reconsideration decision on the adequacy of the Bidder's GFE
21 documentation shall be made by an official who did not take part in the
22 original determination.
- 23 • Only original GFE documentation submitted as a supplement to the Bid
24 shall be considered. The Bidder shall not introduce new documentation
25 at the reconsideration hearing.
- 26 • The Bidder shall have the opportunity to meet in person with the official
27 for the purpose of setting forth the Bidder's position as to why the GFE
28 documentation demonstrates a sufficient effort.
- 29 • The reconsideration official shall provide the Bidder with a written
30 decision on reconsideration within five working days of the hearing
31 explaining the basis for their finding.
32

33 **DBE Bid Item Breakdown**

34 The Bidder shall submit a DBE Bid Item Breakdown Form (WSDOT Form 272-
35 054) as specified in the Special Provisions for Section 1-02.9, Delivery of
36 Proposal.
37

38 **DBE Trucking Credit Form**

39 The Bidder shall submit a DBE Trucking Credit Form (WSDOT Form 272-058),
40 as specified in the Special Provisions for Section 1-02.9, Delivery of Proposal.

41 Note: The DBE Trucking Credit Form is only required for a DBE Firm listed
42 on the DBE Utilization Certification as a subcontractor for "Trucking"
43 or "Hauling" and are performing a part of a bid item. For example,
44 if the item of Work is Structure Excavation including Haul, and
45 another firm is doing the excavation and the DBE Trucking firm is
46 doing the haul, the form is required. For a DBE subcontractor that
47 is responsible for an entire item of work that may require some use
48 of trucks, the form is not required.
49
50

Procedures between Award and Execution

After Award and prior to Execution, the Contractor shall provide the additional information described below. Failure to comply shall result in the forfeiture of the Bidder's Proposal bond or deposit.

1. A list of all firms who submitted a bid or quote in attempt to participate in this project whether they were successful or not. Include the business name and mailing address.

Note: The firms identified by the Contractor may be contacted by the Contracting Agency to solicit general information as follows: age of the firm and average of its gross annual receipts over the past three years.

Procedures after Execution

Commercially Useful Function (CUF)

The Contractor may only take credit for the payments made for Work performed by a DBE that is determined to be performing a CUF. Payment must be commensurate with the work actually performed by the DBE. This applies to all DBEs performing Work on a project, whether or not the DBEs are COA, if the Contractor wants to receive credit for their participation. The Engineer will conduct CUF reviews to ascertain whether DBEs are performing a CUF. A DBE performs a CUF when it is carrying out its responsibilities of its contract by actually performing, managing, and supervising the Work involved. The DBE must be responsible for negotiating price; determining quality and quantity; ordering the material, installing (where applicable); and paying for the material itself. If a DBE does not perform "all" of these functions on a furnish-and-install contract, it has not performed a CUF and the cost of materials cannot be counted toward DBE COA Goal. Leasing of equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Contractor is not allowed. Lease agreements shall be provided prior to the Subcontractor beginning Work. Any use of the Contractor's equipment by a DBE may not be credited as countable participation.

The DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of DBE participation.

In order for a DBE traffic control company to be considered to be performing a CUF, the DBE must be in control of its work inclusive of supervision. The DBE shall employ a Traffic Control Supervisor who is directly involved in the management and supervision of the traffic control employees and services.

The following are some of the factors that the Engineer will use in determining whether a DBE trucking company is performing a CUF:

- The DBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on the contract. The owner demonstrates business related knowledge, shows up on site and is determined to be actively running the business.

- The DBE itself shall own and operate at least one fully licensed, insured, and operational truck used on the Contract. The drivers of the trucks owned and leased by the DBE must be exclusively employed by the DBE and reflected on the DBE's payroll.
- Lease agreements for trucks shall indicate that the DBE has exclusive use of and control over the truck(s). This does not preclude the leased truck from working for others provided it is with the consent of the DBE and the lease provides the DBE absolute priority for use of the leased truck.
- Leased trucks shall display the name and identification number of the DBE.

UDBE/DBE/FSBE Truck Unit Listing Log

In addition to the subcontracting requirements of Section 1-08.1, each DBE trucking firm shall submit supplemental information consisting of a completed Primary UDBE/DBE/FSBE Truck Unit Listing Log (WSDOT Form 350-077), copy of vehicle registrations, and all Rental/Lease agreements (if applicable). The supplemental information shall be submitted to the Engineer prior to any trucking services being performed for DBE credit. Incomplete or incorrect supplemental information will be returned for correction. The corrected Primary UDBE/DBE/FSBE Truck Unit Listing Log and any Updated Primary UDBE/DBE/FSBE Truck Unit Listing Logs shall be submitted and accepted by the Engineer no later than ten calendar days of utilizing applicable trucks. Failure to submit or update the DBE Truck Unit Listing Log may result in trucks not being credited as DBE participation.

Each DBE trucking firm shall complete a Daily UDBE/DBE/FSBE Trucking Unit Listing Log for each day that the DBE performs trucking services for DBE credit. The Daily UDBE/DBE/FSBE Trucking Unit Listing Log forms shall be submitted to the Engineer by Friday of the week after the work was performed.

Joint Checking

A joint check is a check between a Subcontractor and the Contractor to the supplier of materials/supplies. The check is issued by the Contractor as payer to the Subcontractor and the material supplier jointly for items to be incorporated into the project. The DBE must release the check to the supplier, while the Contractor acts solely as the guarantor.

A joint check agreement must be approved by the Engineer and requested by the DBE involved using the DBE Joint Check Request Form (form # 272-053) prior to its use. The form must accompany the DBE Joint Check Agreement between the parties involved, including the conditions of the arrangement and expected use of the joint checks.

The approval to use joint checks and the use will be closely monitored by the Engineer. To receive DBE credit for performing a CUF with respect to obtaining materials and supplies, a DBE must "be responsible for negotiating price, determining quality and quantity, ordering the material, installing and paying for the material itself." The Contractor shall submit DBE Joint Check Request Form to the Engineer and be in receipt of written approval prior to using a joint check.

1
2 Material costs paid by the Contractor directly to the material supplier are not
3 allowed. If proper procedures are not followed or the Engineer determines
4 that the arrangement results in lack of independence for the DBE involved,
5 no DBE credit will be given for the DBE's participation as it relates to the
6 material cost.
7

8 **Prompt Payment**

9 Prompt payment to all subcontractors shall be in accordance with Section
10 1-08.1. Prompt payment requirements apply to progress payments as well
11 as return of retainage.
12

13 **Subcontracts**

14 Prior to a DBE performing Work on the Contract, an executed subcontract
15 between the DBE and the Contractor shall be submitted to the Engineer.
16 The executed subcontracts shall be submitted by email to the following
17 email address:
18

19 *** NWRegionOEO@wsdot.wa.gov ***
20

21 The prime contractor shall notify the Engineer in writing within five calendar
22 days of subcontract submittal.
23

24 **Reporting**

25 The Contractor and all subcontractors/suppliers/service providers that utilize
26 DBEs to perform work on the project, shall maintain appropriate records that
27 will enable the Engineer to verify DBE participation throughout the life of the
28 project.
29

30 Refer to Section 1-08.1 for additional reporting requirements associated with
31 this contract.
32

33 **Changes in COA Work Committed to DBE**

34 The Contractor shall utilize the COA DBEs to perform the work and supply the
35 materials for which each is committed unless prior written approval by the
36 Engineer is received by the Contractor. The Contractor shall not be entitled to
37 any payment for work or material completed by the Contractor or subcontractors
38 that was committed to be completed by the COA DBEs in the DBE Utilization
39 Certification form.
40

41 **Owner Initiated Changes**

42 In instances where the Engineer makes changes that result in changes to
43 Work that was committed to a COA DBE the Contractor may be directed to
44 substitute for the Work.
45

46 **Contractor Initiated Changes**

47 The Contractor cannot change the scope or reduce the amount of work
48 committed to a COA DBE without good cause. Reducing DBE Commitment
49 is viewed as partial DBE termination, and therefore subject to the
50 termination procedures below.
51

Original Quantity Underruns

In the event that Work committed to a DBE firm as part of the COA underruns the original planned quantities the Contractor may be required to substitute other remaining Work to another DBE.

Contractor Proposed DBE Substitutions

Requests to substitute a COA DBE must be for good cause (see DBE termination process below), and requires prior written approval of the Engineer. After receiving a termination with good cause approval, the Contractor may only replace a DBE with another certified DBE. When any changes between Contract Award and Execution result in a substitution of COA DBE, the substitute DBE shall have been certified prior to the bid opening on the Contract.

DBE Termination

Termination of a COA DBE (or an approved substitute DBE) is only allowed in whole or in part for good cause and with prior written approval of the Engineer. If the Contractor terminates a COA DBE without the prior written approval of the Engineer, the Contractor shall not be entitled to payment for work or material committed to, but not performed/supplied by the COA DBE. In addition, sanctions may apply as described elsewhere in this specification.

Prior to requesting approval to terminate a COA DBE, the Contractor shall give notice in writing to the DBE with a copy to the Engineer of its intent to request to terminate DBE Work and the reasons for doing so. The DBE shall have five (5) days to respond to the Contractor's notice. The DBE's response shall either support the termination or advise the Engineer and the Contractor of the reasons it objects to the termination of its subcontract.

If the request for termination is approved, the Contractor is required to substitute with another DBE to perform at least the same amount of work as the DBE that was terminated (or provide documentation of GFE). A plan to replace the COA DBE Commitment amount shall be submitted to the Engineer within 2 days of the approval of termination. The plan to replace the Commitment shall provide the same detail as that required in the DBE Utilization Certification.

The Contractor must have good cause to terminate a COA DBE.

Good cause typically includes situations where the DBE Subcontractor is unable or unwilling to perform the work of its subcontract. Good cause may exist if:

- The DBE fails or refuses to execute a written contract.
- The DBE fails or refuses to perform the Work of its subcontract in a way consistent with normal industry standards.
- The DBE fails or refuses to meet the Contractor's reasonable nondiscriminatory bond requirements.
- The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to federal law or applicable State law.

- The DBE is ineligible to receive DBE credit for the type of work involved.
- The DBE voluntarily withdraws from the project and provides written notice of its withdrawal.
- The DBE's work is deemed unsatisfactory by the Engineer and not in compliance with the Contract.
- The DBE's owner dies or becomes disabled with the result that the DBE is unable to complete its Work on the Contract.

Good cause does not exist if:

- The Contractor seeks to terminate a COA DBE so that the Contractor can self-perform the Work.
- The Contractor seeks to terminate a COA DBE so the Contractor can substitute another DBE contractor or non-DBE contractor after Contract Award.
- The failure or refusal of the COA DBE to perform its Work on the subcontract results from the bad faith or discriminatory action of the Contractor (e.g., the failure of the Contractor to make timely payments or the unnecessary placing of obstacles in the path of the DBE's Work).

Decertification

When a DBE is "decertified" from the DBE program during the course of the Contract, the participation of that DBE shall continue to count as DBE participation as long as the subcontract with the DBE was executed prior to the decertification notice. The Contractor is obligated to substitute when a DBE does not have an executed subcontract agreement at the time of decertification.

Consequences of Non-Compliance

Breach of Contract

Each contract with a Contractor (and each subcontract the Contractor signs with a Subcontractor) must include the following assurance clause:

The Contractor, subrecipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the Contractor from future bidding as non-responsible.

1 **Notice**

2 If the Contractor or any Subcontractor, Consultant, Regular Dealer, or
3 service provider is deemed to be in non-compliance, the Contractor will be
4 informed in writing, by certified mail by the Engineer that sanctions will be
5 imposed for failure to meet the DBE COA Commitment and/or submit
6 documentation of good faith efforts. The notice will state the specific
7 sanctions to be imposed which may include impacting a Contractor or other
8 entity's ability to participate in future contracts.
9

10 **Sanctions**

11 If it is determined that the Contractor's failure to meet all or part of the DBE COA
12 Commitment is due to the Contractor's inadequate good faith efforts throughout
13 the life of the Contract, including failure to submit timely, required Good Faith
14 Efforts information and documentation, the Contractor may be required to pay
15 DBE penalty equal to the amount of the unmet Commitment, in addition to the
16 sanctions outlined in Section 1-07.11(5).
17

18 **Payment**

19 Compensation for all costs involved with complying with the conditions of this
20 Specification and any other associated DBE requirements is included in payment
21 for the associated Contract items of Work, except otherwise provided in the
22 Specifications.
23

24 **1-07.12 Federal Agency Inspection**

25
26 Section 1-07.12 is supplemented with the following:
27

28 ***(July 25, 2022)***

29 ***Required Federal Aid Provisions***

30
31 The Required Contract Provisions Federal Aid Construction Contracts (FHWA 1273)
32 Revised July 5, 2022 and the amendments thereto supersede any conflicting provisions
33 of the Standard Specifications and are made a part of this Contract; provided, however,
34 that if any of the provisions of FHWA 1273, as amended, are less restrictive than
35 Washington State Law, then the Washington State Law shall prevail.
36

37 The provisions of FHWA 1273, as amended, included in this Contract require that the
38 Contractor insert the FHWA 1273 and amendments thereto in each subcontract,
39 together with the wage rates which are part of the FHWA 1273, as amended. Also, a
40 clause shall be included in each subcontract requiring the subcontractors to insert the
41 FHWA 1273 and amendments thereto in any lower tier subcontracts, together with the
42 wage rates. The Contractor shall also ensure that this section, REQUIRED FEDERAL
43 AID PROVISIONS, is inserted in each subcontract for subcontractors and lower tier
44 subcontractors. For this purpose, upon request to the Engineer, the Contractor will be
45 provided with extra copies of the FHWA 1273, the amendments thereto, the applicable
46 wage rates, and this Special Provision.
47
48
49
50
51

1 **1-07.15 Temporary Water Pollution Prevention**

2
3 **1-07.15(1) Spill Prevention, Control, and Countermeasures Plan**

4
5 Add the following paragraph under the second paragraph of this section:

6
7 *(January 10, 2019 COK GSP)*

8
9 In the event the Contractor uses an SPCC Plan template that either follows
10 the WSDOT SPCC Plan Template or contains the same or similar content
11 and/or format, the following changes shall be required:

- 12
13 1. Replace all references to "WSDOT" as either the Contracting Agency or project
14 owner with "City of Kirkland", except where indicated in this Section.
- 15 2. Add into all Spill Reporting and related section(s): "The City of Kirkland Spill Response
16 Hotline at (425) 587-3900 shall be contacted along with federal and state agencies."
- 17 3. Delete all references to the "WSDOT Environmental Compliance Assurance
18 Procedure" (ECAP) in the SPCC.

19
20 Supplement the following referenced SPCC Plan Element Requirements in
21 this Section as follows:

22
23 For SPCC Plan Element Requirement Number 2, add the following: "The City of
24 Kirkland Spill Response Hotline at (425) 587-3900 shall be contacted along with
25 federal and state agencies."

26
27 For SPCC Plan Element Requirement Number 8, add the following: "As part
28 of Contractor spill response procedure, the Contractor shall contact the City of
29 Kirkland Spill Response Hotline at (425) 587-3900 to report the spill regardless
30 of whether or not the Contractor has fully contained, controlled, and/or cleaned
31 up the spill."

32
33 **1-07.16 Protection and Restoration of Property**

34
35 **1-07.16(3) Fences, Mailboxes, Incidentals**

36
37 *(January 1, 2016 COK GSP)*

38
39 Section 1-07.16(3) is supplemented with the following:

40
41 **U.S. Postal Service Collection Boxes, Mail Receptacles, and other Structures**

42 For U.S. Postal Service collection box and other Structures requiring temporary
43 relocation to accommodate construction, the Contractor shall contact the
44 Kirkland Postmaster at (425) 889-8282, at least five (5) working days in advance
45 for coordination. Only the U.S. Post Office will move Postal Service-owned
46 property; relocations could be under 1-09.6 as approved by the Project Engineer and with
47 coordinated efforts by the Contractor with the Postal Service.

1
2 **1-07.17 Utilities and Similar Facilities**
3

4 *(January 1, 2020 COK GSP)*
5

6 Section 1-07.17 is supplemented with the following:
7

8 Locations and dimensions shown in the Plans for existing facilities are in accordance
9 with available information obtained without uncovering, measuring, or other
10 verification.
11

12 The Contractor is alerted to the existence of Chapter 19.122 RCW, a law relating to
13 underground utilities. Any cost to the Contractor incurred as a result of this law shall
14 be at the Contractor's expense.
15

16 No excavation shall begin until all known facilities in the vicinity of the excavation area
17 have been located and marked.
18

19 The Contractor shall give advance notice to all utility companies involved where Work
20 is to take place and in all other respects comply with the provisions of Chapter 19.122
21 RCW. Notice shall include, but not be limited to, the following utility companies:
22

- 23 1. Water, sewer, storm, streets – minimum 48 hours in advance
24 2. Power (Electric and Natural Gas) – minimum 48 hours in advance
25 3. Telephone – minimum 30 days in advance
26 4. Natural Gas – minimum 48 hours in advance
27 5. Cable Television – minimum 48 hours in advance
28 6. Transit – minimum 21 days in advance.
29

30 The following is a list of some utilities serving the Kirkland area. This is not intended
31 or represented to be a complete list and is provided for the Contractor's convenience.
32
33
34

1

Utility	Agency/Company	Address	Contact	Phone
Water	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Thom Chriest	(425) 587-3910
Sewer / Storm Drainage	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Josh Pantzke	(425) 587-3900
Water / Sewer (North area of Kirkland)	Northshore Utility District	6380 NE 185th St Kenmore, WA 98028	Brandon Humphrey	(425) 521-3736
Street	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Glenn Akramoff	(425) 587-3900
Natural Gas	Puget Sound Energy	PO Box 97034 EST-11W Bellevue, WA 98009-9734	Jeanne Coleman	(425) 463-6550
Electric	Puget Sound Energy	35131 SE Center St Snoqualmie, WA 98065	Kiara Skye	(425) 213-9205
Transmission Line (Power)	Seattle City Light	TBD	Bob Risch	(206) 718-8625
Telephone/ Fiber Optic/Cable	Ziply Communications		Mike Hupf	(360) 302-0095
Telephone/ Fiber Optic/Cable	Comcast	1525 75th St. SW, Suite 200 Everett, WA 98203	Joe Fordon	(425) 263-5348
Telephone/ Fiber Optic/Cable	ZAYO	4905 Pacific Hwy E, Ste 4 Fife, WA 98424	Jason Tesdal	(253) 221-7585
Telephone/ Fiber Optic/Cable	WAVE Broadband		Jeremy Anderson	(425) 319-0216
School District Transportation	Lake Washington School District	15212 NE 95th St Redmond, WA 98052	Jeff Miles	(425) 936-0000
Transit	King County METRO	MS SVQ-TR-0100 1270 6th Ave S Seattle, WA 9813	David Freeman	(206) 477-1140 (206) 477-0438

2
3
4

Note that most utility companies may be contacted for locations through the “One Call” system, 1-800-424-5555. In the event of a gas emergency, call 911 and then the PSE hotline at 1-888-225-5773 (1-888-CALL-PSE).

The Contractor shall coordinate the Work with these utilities and shall notify the Engineer in advance of any conflicts affecting the Work schedule. The utility companies shall witness or perform all shutdowns, connections or disconnections.

Other Notifications

Service Area Turn Off: All service area turn off notices must be distributed to affected parties two working days in advance of any scheduled shut off. City to provide door hangers and affected service area map. The contractor shall fill in all required information prior to hanging door hanger.

Entry onto Private Property: Each property owner shall be given 48 hours advance written notice prior to entry by the Contractor. Contractor must prepare and issue written notice at.

Loop Detection Systems: Where an excavation is to take place through a signal loop detector system, the Contractor shall provide at least five (5) working days advance notice to the Contracting Agency Signal Shop at (425) 587-3920 to coordinate temporary signal wire disconnect and installation of temporary signal detection equipment.

Payment for necessary notifications as outlined in 1-07.17 shall be made for the following Bid item when included in the Proposal:
“Notifications”, per lump sum.

Potholing

Potholing at selected locations has been conducted by an agent of the Contracting Agency. This information is available upon request. Potholing has been included in the Bid item list for the purposes of determining the location of additional existing utilities in advance of the Contractor’s operations. The Engineer shall approve of all potholing requests from the Contractor. Additionally, the Contractor shall provide potholes at the Engineer’s request.

Potholing Bid item (per each) is provided for utility crossing investigations for utilities as shown in the Plans, or for information required at the Engineer’s discretion, and shall be approved by the Engineer.

Payment shall be made for the following Bid item when included in the Proposal:
“Potholing”, per each.

(*****)
(June 1, 2023 COK SP)
Section 1-07.17 is supplemented with the following:

Other Contracts Or Other Work

It is anticipated that the following work adjacent to or within the limits of this project will be performed by others during the course of this project and will require coordination of the work.

1. Puget Sound Energy (PSE) – Power – Puget Sound Energy Power Division will
CITY OF KIRKLAND
124TH AVE NE ROADWAY IMPROVEMENTS
SPECIAL PROVISIONS

remove existing utility vaults located in the vicinity of the SE corner of the 124th Ave NE & NE 120th St intersection. This work will occur after the Contractor has removed the existing City-owned traffic signal service line that is being fed from an existing PSE vault as included in Special Provision 8-20. PSE Power will need four weeks of notice prior to beginning their Work.

1-07.18 Public Liability and Property Damage Insurance

Delete this Section in its entirety, and replace it with the following:

1-07.18 Insurance

(January 4, 2016 APWA GSP)

1-07.18(1) General Requirements

- A. The Contractor shall procure and maintain the insurance described in all subsections of Section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.
- B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.
- C. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.
- D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.
- E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.
- F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency.
- G. Failure on the part of the Contractor to maintain the insurance as required shall

constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

- H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each Subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors.

The Contractor shall ensure that all Subcontractors of every tier add all entities listed in 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each Subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or

1 failure of Contracting Agency to identify a deficiency from the insurance documentation
2 provided shall not be construed as a waiver of Contractor's obligation to maintain such
3 insurance.
4

5 Verification of coverage shall include:

- 6 1. An ACORD certificate or a form determined by the Contracting Agency to be
7 equivalent.
8
- 9 2. Copies of all endorsements naming Contracting Agency and all other entities
10 listed in 1-07.18(2) as additional insured(s), showing the policy number. The
11 Contractor may submit a copy of any blanket additional insured clause from its
12 policies instead of a separate endorsement.
13
- 14 3. Any other amendatory endorsements to show the coverage required herein.
15
- 16 4. A notation of coverage enhancements on the Certificate of Insurance shall not
17 satisfy these requirements – actual endorsements must be submitted.
18

19 Upon request by the Contracting Agency, the Contractor shall forward to the Contracting
20 Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is
21 required on this Project, a full and certified copy of that policy is required when the
22 Contractor delivers the signed Contract for the work.
23

24 **1-07.18(5) Coverages and Limits**

25

26 The insurance shall provide the minimum coverages and limits set forth below.
27 Contractor's maintenance of insurance, its scope of coverage, and limits as required
28 herein shall not be construed to limit the liability of the Contractor to the coverage
29 provided by such insurance, or otherwise limit the Contracting Agency's recourse to any
30 remedy available at law or in equity.
31

32 All deductibles and self-insured retentions must be disclosed and are subject to approval
33 by the Contracting Agency. The cost of any claim payments falling within the deductible
34 or self-insured retention shall be the responsibility of the Contractor. In the event an
35 additional insured incurs a liability subject to any policy's deductibles or self-insured
36 retention, said deductibles or self-insured retention shall be the responsibility of the
37 Contractor.
38

39 **1-07.18(5)A Commercial General Liability**

40

41 Commercial General Liability insurance shall be written on coverage forms at least as
42 broad as ISO occurrence form CG 00 01, including but not limited to liability arising from
43 premises, operations, stop gap liability, independent contractors, products-completed
44 operations, personal and advertising injury, and liability assumed under an insured
45 contract. There shall be no exclusion for liability arising from explosion, collapse or
46 underground property damage.
47

48 The Commercial General Liability insurance shall be endorsed to provide a per project
49 general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

- \$1,000,000 Each Occurrence
- \$2,000,000 General Aggregate
- \$2,000,000 Products & Completed Operations Aggregate
- \$1,000,000 Personal & Advertising Injury each offence
- \$1,000,000 Stop Gap / Employers' Liability each accident

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

- \$1,000,000 Combined single limit each accident

1-07.18(5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

1-07.18(5)D Excess or Umbrella Liability

(January 4, 2016 APWA GSP)28

The Contractor shall provide Excess or Umbrella Liability insurance with limits of not less than 3 million each occurrence and annual aggregate. This excess or umbrella liability coverage shall be excess over and as least as broad in coverage as the Contractor's Commercial General and Auto Liability insurance

All entities listed under 1-07.18(2) of these Special Provisions shall be named as additional insureds on the Contractor's Excess or Umbrella Liability insurance policy.

This requirement may be satisfied instead through the Contractor's primary Commercial General and Automobile Liability coverages, or any combination thereof that achieves the overall required limits of insurance.

1-07.18(5)K Professional Liability

(January 4, 2016 APWA GSP)43

The Contractor and/or its Subcontractor(s) and/or its design consultant providing construction management, value engineering, or any other design-related non-construction professional services shall provide evidence of Professional Liability insurance covering professional errors and omissions.

Such policy shall provide the following minimum limits:

- \$1,000,000 per claim and annual aggregate

1 If the scope of such design-related professional services includes work related to
2 pollution conditions, the Professional Liability insurance shall include coverage for
3 Environmental Professional Liability.
4

5 If insurance is on a claims made form, its retroactive date, and that of all subsequent
6 renewals, shall be no later than the effective date of this Contract.
7

8 *(July 19, 2022 COK SP)*

9 Section 1-07.18 is supplemented with the following:
10

11 **Third-Party Beneficiary**

12 All parties agree that the State of Washington shall be, and is hereby, named as an
13 express third-party beneficiary of this Contract, with full rights as such.
14

15 **1-07.23 Public Convenience and Safety**
16

17 Section 1-07.23 is supplemented with the following:

18 *(January 1, 2016 COK GSP)*
19

20 No road, street or driveway shall be closed to the public except as permitted in the
21 Plans or these Specifications, or with the approval of the Engineer and proper
22 governmental authority. Fire hydrants on or adjacent to the Work shall be kept
23 accessible to fire-fighting equipment at all times. Provision shall be made by the
24 Contractor to ensure the proper functioning of all gutters, sewer inlets, drainage
25 ditches and culverts, irrigation ditches and natural water courses, and storm sewer
26 facilities throughout the project. Temporary interruption of service will be allowed only
27 with the permission of the Engineer.
28

29 The Kirkland Police Department and Kirkland Fire Department shall be notified at
30 least four (4) hours in advance of any actions by the Contractor that may affect the
31 functions of either the Police Department or Fire Department.
32

33 The Contractor shall conduct its Work and take preventative measures so that dust
34 or other particulate matter in the project area shall not become objectionable to the
35 adjacent property owners or general public. Should the Contracting Agency
36 determine the Contractor is not fulfilling its obligation in this regard, the Contracting
37 Agency reserves the right to take such action as may be necessary to remedy the
38 objectionable condition and to charge the Contractor with any cost that may be
39 incurred in such remedial action. All Work shall be carried on with due regard for the
40 safety of the public. No driveway, whether public, commercial, or private, may be
41 closed without prior approval of the Contracting Agency project supervisor, or
42 Engineer unless written authority has been given by the affected property owner. The
43 Contractor shall be responsible for notifying the affected property owners twenty-four
44 (24) hours in advance of scheduled interruptions to access.
45

46 **1-07.23(1) Construction Under Traffic**
47

48 Section 1-07.23(1) is supplemented with the following:

49 *(July 19, 2022 COK SP)*
50
51

Vehicle Traffic

The Contractor shall maintain access to driveways to adjacent businesses at all times. The Contractor shall maintain access to all transit stops and coordinate with Transit Agencies to maintain their operations. The Contractor shall maintain one (1) lane of traffic to be operational in each direction (two [2] lanes total). Short duration road closures may be acceptable with approved Traffic Control measures (devices, flaggers, signage, etc), as approved prior by the Engineer. Steel plates shall not be permitted for use during weekends.

(****)

Contractor will not be allowed to excavate the whole road. Excavation shall be limited to the area necessary for Phase 1, and then the area necessary for Phase 2.

Pedestrian Traffic

The Contractor shall provide safe pedestrian passage around and through the construction area, including necessary pedestrian traffic control devices and labor, in accordance with the pedestrian detour Plans. These provisions shall be in effect during all working and nonworking periods during this Contract.

The Contractor shall notify the Engineer and the affected business 7 business days in advance of pedestrian access closures.

1-07.24 Rights of Way

(July 23, 2015 APWA GSP)

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an

extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

(January 1, 2021 COK GSP)

Section 1-07.24 is supplemented with the following:

In addition to all agreements and releases between the Contractor and private property owner(s) described in this Section and as required in Section 1-07.6(2), the Contractor shall apply for a City of Kirkland Temporary Use Permit from the City of Kirkland Planning and Building Department for any temporary uses of real property (including both private property and City-owned real property) for temporary construction facilities, storage of materials, or other Contractor needs.

The Contractor shall file with the Engineer signed property release forms (in the format as included in Appendix C) for all properties disturbed or damaged by the Contractor's operations.

(July 19, 2022 COK SP)

The Contractor shall schedule the project Work so that work does not occur within the easement area for the Public Storage parcel (11249 NE 124th Street) on the first or last day of each calendar month.

1-08 Prosecution and Progress

Add the following new Section:

1-08.0 Preliminary Matters

(May 25, 2006 APWA GSP)

Add the following new Section:

1 **1-08.0(1) Preconstruction Conference**

2 (October 10, 2008 APWA GSP)

3
4 Prior to the Contractor beginning the Work, a preconstruction conference will be held
5 between the Contractor, the Engineer and such other interested parties as may be
6 invited. The purpose of the preconstruction conference will be:

- 7 1. To review the initial progress schedule;
8 2. To establish a working understanding among the various parties associated or
9 affected by the Work;
10 3. To establish and review procedures for progress payment, notifications,
11 approvals, submittals, etc.;
12 4. To establish normal working hours for the Work;
13 5. To review safety standards and traffic control; and
14 6. To discuss such other related items as may be pertinent to the Work.

15
16 The Contractor shall prepare and submit at the preconstruction conference the
17 following:

- 18
19 1. A breakdown of all lump sum items;
20 2. A preliminary schedule of Working Drawing submittals; and
21 3. A list of material sources for approval if applicable.
22

23 Add the following new Section:

24
25 **1-08.0(2) Hours of Work**

26 (December 8, 2014 APWA GSP)

27
28 Except in the case of emergency or unless otherwise approved by the Engineer, the
29 normal working hours for the Contract shall be any consecutive 8-hour period
30 between 7:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break.
31 If the Contractor desires different than the normal working hours stated above, the
32 request must be submitted in writing prior to the preconstruction conference, subject
33 to the provisions below. The working hours for the Contract shall be established at
34 or prior to the preconstruction conference.

35
36 All working hours and days are also subject to local permit and ordinance conditions
37 (such as noise ordinances).

38
39 If the Contractor wishes to deviate from the established working hours, the
40 Contractor shall submit a written request to the Engineer for consideration. This
41 request shall state what hours are being requested, and why. Requests shall be
42 submitted for review no later than 5 working days prior to the day(s) the Contractor is
43 requesting to change the hours.

44
45 If the Contracting Agency approves such a deviation, such approval may be subject
46 to certain other conditions, which will be detailed in writing. For example:

- 47
48 1. On non-Federal aid projects, requiring the Contractor to reimburse the
49 Contracting Agency for the costs in excess of straight-time costs for
50 Contracting Agency representatives who worked during such times. (The
51 Engineer may require designated representatives to be present during the

- work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.
 3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
 4. If a 4-10 work schedule is requested and approved the non working day for the week will be charged as a working day.
 5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll.

1-08.1 Subcontracting

(December 30, 2022 APWA GSP, Option A)

Section 1-08.1 is supplemented with the following:

Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed. This certification shall also guarantee that these subcontract agreements include all the documents required by the Special Provision Federal Agency Inspection.

A subcontractor or lower tier subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

1. Request to Sublet Work (WSDOT Form 421-012), and
2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (WSDOT Form 420-004).

The Contractor shall submit to the Engineer a completed Monthly Retainage Report (WSDOT Form 272-065) within 15 calendar days after receipt of every monthly progress payment until every subcontractor and lower tier subcontractor's retainage has been released.

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Contracting Agency during the life of the contract and for a period of not less than three years after the date of acceptance of the contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that these records of all subcontractors and lower tier subcontractors shall be available and open to similar inspection or audit for the same time period.

1 **1-08.3 Progress Schedule**

2
3 **1-08.3(1) General Requirements**

4 Add the following item to the list of general requirements:

- 5
6 7. Show the planned implementation times of Phase 1 and Phase 2 per drawing no. TCP1

7
8 **1-08.3(2) Progress Schedule Types**

9
10 **1-08.3(2)B Type B Progress Schedule**

11 *(December 30, 2022 APWA GSP)*

12
13 Revise the first paragraph to read:

14
15 The Contractor shall submit a preliminary Type B Progress Schedule at or prior to
16 the preconstruction conference. The preliminary Type B Progress Schedule shall
17 comply with all of these requirements and the requirements of Section 1-08.3(1),
18 except that it may be limited to only those activities occurring within the first 60-
19 working days of the project.

20
21 Revise the first sentence of the second paragraph to read:

22
23 The Contractor shall submit 3 copies of a Type B Progress Schedule depicting
24 the entire project no later than 21-calendar days after the preconstruction
25 conference.

26
27 **1-08.4 Prosecution of Work**

28
29 Delete this Section in its entirety, and replace it with the following:

30
31 **1-08.4 Notice to Proceed and Prosecution of Work**

32 *(July 23, 2015 APWA GSP)*

33
34 Notice to Proceed will be given after the contract has been executed and the contract
35 bond and evidence of insurance have been approved and filed by the Contracting
36 Agency. The Contractor shall not commence with the work until the Notice to Proceed
37 has been given by the Engineer. The Contractor shall commence construction
38 activities on the project site within ten days of the Notice to Proceed Date, unless
39 otherwise approved in writing. The Contractor shall diligently pursue the work to the
40 physical completion date within the time specified in the contract. Voluntary shutdown
41 or slowing of operations by the Contractor shall not relieve the Contractor of the
42 responsibility to complete the work within the time(s) specified in the contract.

43
44 When shown in the Plans, the first order of work shall be the installation of high
45 visibility fencing to delineate all areas for protection or restoration, as described in the
46 Contract. Installation of high visibility fencing adjacent to the roadway shall occur after
47 the placement of all necessary signs and traffic control devices in accordance with 1-
48 10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer
49 to inspect the fence. No other work shall be performed on the site until the Contracting
50 Agency has accepted the installation of high visibility fencing, as described in the

Contract.

Section 1-08.4 is supplemented with the following:

(July 19, 2022 COK SP)

Order of Work

The sequence of Work described herein is meant to provide general direction in the prosecution of Work. The Contractor shall remain responsible for the details of performing the Work, and the limits of each portion of the Work. Variations from the following general Work sequence must be approved in writing by the Engineer.

The Contractor shall include in the construction schedule the performance of the following initial Work items as part of the first order of Work under this Contract:

1. Furnish and install the field office building.
2. Install signs in accordance with approved Traffic Control Plans.
3. Restripe adjacent parking lots affected by the widening.
4. Install silt and temporary high visibility silt fences, and other required TESC measures.
5. Installation of tree protection measures.

1-08.5 Time for Completion

(December 30, 2022 APWA GSP, Option A)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and all partial or whole days the Engineer declares as unworkable. The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed

by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
 - a. Certified Payrolls (per Section 1-07.9(5)).
 - b. Material Acceptance Certification Documents
 - c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
 - d. Final Contract Voucher Certification
 - e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
 - f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
 - g. Property owner releases per Section 1-07.24

Section 1-08.5 is supplemented with the following:

(March 13, 1995 WSDOT GSP)

This project shall be physically completed within *** 240 *** working days.

1-08.9 Liquidated Damages

(March 3, 2021 APWA GSP, Option A)

Replace Section 1-08.9 with the following:

Time is of the essence of the Contract. Delays inconvenience the traveling public, obstruct traffic, interfere with and delay commerce, and increase risk to Highway users. Delays also cost tax payers undue sums of money, adding time needed for administration, engineering, inspection, and supervision.

Accordingly, the Contractor agrees:

1. To pay liquidated damages in the amount of *** \$3,700 *** for each working day beyond the number of working days established for Physical Completion, and
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract Work is Substantially Complete.

1 The Engineer will notify the Contractor in writing of the Substantial Completion Date.
2 For overruns in Contract time occurring after the date so established, liquidated
3 damages identified above will not apply. For overruns in Contract time occurring
4 after the Substantial Completion Date, liquidated damages shall be assessed on the
5 basis of direct engineering and related costs assignable to the project until the actual
6 Physical Completion Date of all the Contract Work. The Contractor shall complete
7 the remaining Work as promptly as possible. Upon request by the Project Engineer,
8 the Contractor shall furnish a written schedule for completing the physical Work on
9 the Contract.

10
11 Liquidated damages will not be assessed for any days for which an extension of time
12 is granted. No deduction or payment of liquidated damages will, in any degree,
13 release the Contractor from further obligations and liabilities to complete the entire
14 Contract.

15 16 **1-09 Measurement and Payment**

17 18 **1-09.2 Weighing Equipment**

19
20 *(December 30, 2022 APWA GSP, Option 2)*

21
22 Revise item 4 of the fifth paragraph to read:

- 23
24 4. Test results and scale weight records for each day's hauling operations are provided to the
25 Engineer daily. Reporting shall utilize WSDOT form 422-027, Scaleman's Daily Report,
26 unless the printed ticket contains the same information that is on the Scaleman's Daily
27 Report Form. The scale operator must provide AM and/or PM tare weights for each truck on
28 the printed ticket.

29
30 *(January 1, 2016 COK GSP)*

31
32 The sixth paragraph of Section 1-09.2(1) is supplemented with the following:

- 33 7. Ticket serial number
34 8. Date and hour of weighing
35 9. Weigher's identification

36
37 Duplicate tally tickets shall be prepared to accompany each truckload of
38 materials delivered to the project.

39
40 It is the responsibility of the Contractor to see that tickets are given to the
41 Inspector on the project for each truckload of material delivered. Pay quantities
42 will be prepared on the basis of said tally tickets, delivered to the Inspector at
43 time of delivery of materials. Tickets not collected at the time of delivery will not
44 be honored for payment.

45 46 **1-09.2(5) Measurement**

47 *(December 30, 2022 APWA GSP)*

48
49 Revise the first paragraph to read:

50
51 **Scale Verification Checks** – At the Engineer's discretion, the Engineer may perform

verification checks on the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

1-09.6 Force Account

(December 30, 2022 APWA GSP)

Supplement this Section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by the Engineer.

1-09.8 Payment for Material on Hand

(August 3, 2009 WSDOT GSP)

The last paragraph of Section 1-09.8 is revised to read:

The Contracting Agency will not pay for material on hand when the invoice cost is less than \$2,000. As materials are used in the work, credits equaling the partial payments for them will be taken on future estimates. Each month, no later than the estimate due date, the Contractor shall submit a letter to the Engineer that clearly states: 1) the amount originally paid on the invoice (or other record of production cost) for the items on hand, 2) the dollar amount of the material incorporated into each of the various work items for the month, and 3) the amount that should be retained in material on hand items. If work is performed on the items and the Contractor does not submit a letter, all of the previous material on hand payment will be deducted on the estimate. Partial payment for materials on hand shall not constitute acceptance. Any material will be rejected if found to be faulty even if partial payment for it has been made.

1-09.9 Payments

Supplement this Section with the following:

(January 1, 2016 COK GSP)

Unless otherwise agreed to by both parties, the work period shall coincide with the calendar month. A check will be mailed or made available to the Contractor no later than thirty (30) days following the last day of the work period.

1-09.9(1) Retainage

Section 1-09.1(1) content and title is deleted and replaced with the following:

(June 27, 2011 WSDOT GSP)

Vacant

1-09.11 Disputes and Claims

1-09.11(3) Time Limitation and Jurisdiction

1 (December 30, 2022 APWA GSP)

2
3 Revise this section to read:

4
5 For the convenience of the parties to the Contract it is mutually agreed by the parties
6 that all claims or causes of action which the Contractor has against the Contracting
7 Agency arising from the Contract shall be brought within 180 calendar days from the
8 date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency;
9 and it is further agreed that all such claims or causes of action shall be brought only in
10 the Superior Court of the county where the Contracting Agency headquarters is located,
11 provided that where an action is asserted against a county, RCW 36.01.050 shall control
12 venue and jurisdiction. The parties understand and agree that the Contractor's failure to
13 bring suit within the time period provided, shall be a complete bar to all such claims or
14 causes of action. It is further mutually agreed by the parties that when claims or causes
15 of action which the Contractor asserts against the Contracting Agency arising from the
16 Contract are filed with the Contracting Agency or initiated in court, the Contractor shall
17 permit the Contracting Agency to have timely access to all records deemed necessary
18 by the Contracting Agency to assist in evaluating the claims or action.
19

20 **1-09.13 Claims Resolution**

21 22 **1-09.13(3)A Arbitration General** 23 (January 19, 2022 APWA GSP)

24
25 Revise the third paragraph to read:

26
27 The Contracting Agency and the Contractor mutually agree to be bound
28 by the decision of the arbitrator, and judgment upon the award rendered
29 by the arbitrator may be entered in the Superior Court of the county in
30 which the Contracting Agency's headquarters is located, provided that
31 where claims subject to arbitration are asserted against a county, RCW
32 36.01.050 shall control venue and jurisdiction of the Superior Court. The
33 decision of the arbitrator and the specific basis for the decision shall be in
34 writing. The arbitrator shall use the Contract as a basis for decisions.
35

36 **1-09.13(4) Venue for Litigation** 37 (December 30, 2022 APWA GSP)

38
39 Revise this section to read:

40
41 Litigation shall be brought in the Superior Court of the county in which the Contracting
42 Agency's headquarters is located, provided that where claims are asserted against a
43 county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. It is
44 mutually agreed by the parties that when litigation occurs, the Contractor shall permit the
45 Contracting Agency to have timely access to all records deemed necessary by the
46 Contracting Agency to assist in evaluating the claims or action.
47

48 **1-10 Temporary Traffic Control**

49 50 **1-10.2 Traffic Control Management**

Section 1-10.2 is supplemented with the following:

(November 2, 2022 WSDOT GSP)

Work Zone Safety Contingency

Enhancements to improve the effectiveness of the accepted traffic control plans to increase the safety of the work zones shall be discussed on a weekly basis between the Contractor and the Contracting Agency. Enhancements shall be mutually agreed upon by the Contractor and Engineer prior to performing any Work to implement the enhancement.

Enhancements do not include the use of Uniformed Police Officers or WSP, address changes to the allowed work hour restrictions, or changes to the staging plans in the Contract (if applicable). If allowed by the Engineer, these items will be addressed in accordance with Section 1-04.4.

The Contractor shall be solely responsible for submitting any traffic control plan revision to implement the enhancement in accordance with Section 1-10.2(2).

1-10.2(1) General

Section 1-10.2(1) is supplemented with the following:

(October 3, 2022 WSDOT GSP)

The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
<https://www.nwlett.edu>

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778
<https://www.esc.org>

The American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, Virginia 22406-1022
Training Dept. Toll Free (877) 642-4637
Phone: (540) 368-1701
<https://altssa.com/training>

Integrity Safety
13912 NE 20th Ave.
Vancouver, WA 98686
(360) 574-6071
<https://www.integritysafety.com>

US Safety Alliance

1 (904) 705-5660
2 <https://www.ussafetyalliance.com>
3
4 K&D Services Inc.
5 2719 Rockefeller Ave.
6 Everett, WA 98201
7 (800) 343-4049
8 <https://www.kndsolutions.net>
9

1-10.3 Traffic Control Labor, Procedures, and Devices

1-10.3(1) Traffic Control Labor

Section is supplemented with the following:

(May 20, 2020 WSDOT GSP)

Contractor Provided Uniformed Police Officers

The Contractor shall provide, direct, and monitor Uniformed Police Officers having jurisdiction to control traffic in accordance with the Plans. A uniformed police officer (UPO) is a sworn police officer from a local law enforcement agency or a Washington State Patrol officer. The UPO shall provide traffic control as shown in an accepted traffic control plan.

1-10.3(3) Traffic Control Devices

1-10.3(3)C Portable Changeable Message Signs

Section 1-10.3(3)C is revised to read:

(WSDOT GSP January 10, 2022)

Where shown on a traffic control plan or where ordered by the Engineer, the Contractor shall provide, operate, and maintain a portable changeable message sign (PCMS), mini portable changeable message sign (mPCMS), or truck-mounted PCMS. mPCMSs are compact version of full-size PCMSs. Truck-mounted PCMSs are permanently affixed to a traffic control vehicle and meant to be mobile.

When feasible, position PCMS or mPCMSs to provide at least 2 feet of lateral clearance from the nearest open lane and transversely delineate with at least 3 channelization devices. For truck-mounted PCMSs, provide 2 feet of lateral clearance when feasible but transverse delineation is not required.

The Contractor shall remove these devices from the work zone clear zone when not in use unless protected by barrier or guardrail.

1-10.3(3)K Portable Temporary Traffic Control Signal

Section 1-10.3(3)K is revised to read:

(November 2, 2022 WSDOT GSP)

Where shown on a traffic control plan, the Contractor shall provide, operate, maintain, and remove a portable temporary traffic control signal system (PTSS) to provide automatic control of traffic through an intersection or alternating one lane traffic operations on a two-way facility. A PTSS shall be defined as two or more traffic control units that operate together. The system shall be trailer mounted, fully self-contained, and designed so that it can be easily transported

1 and deployed at different locations.

2 The Contractor shall submit a Type 2 Working Drawing consisting of the
3 manufacturer's specifications for the PTSS. A manufacturer's representative is
4 required to demonstrate the capabilities of the PTSS prior to approval and
5 provide training to Contractor personnel as necessary.
6

7 Remote manual control of the PTSS by the Traffic Control Supervisor (TCS) or
8 a qualified operator may be allowed if necessitated by Work area or traffic
9 conditions and as allowed by the Engineer.
10

11 Each PTSS shall provide two signal displays for all road approaches and
12 driveways with existing signalization. Where signal displays are used for
13 driveways between primary PTSS signal displays, only one signal display may
14 be used. Where a PTSS controls a roadway with a through movement, one of
15 the signal displays for that approach shall be overhead. Where a PTSS controls
16 a roadway without a through movement, such as the stem of a tee intersection,
17 the use of an overhead signal display is not required if there is not enough room
18 for the trailer and approved by the Engineer. Maximum distance between signal
19 display trailers shall be 1,500 feet, unless otherwise shown on the Plans or
20 ordered by the Engineer in accordance with Section 1-04.4.
21

22 The Engineer or designee will inspect the PTSS at initial installation/operation
23 and approve the signal timing. Final approval will be based on the results of the
24 operational inspection.
25

26 The TCS shall monitor and ensure that the PTSS is fully operational and
27 maintained as specified by the manufacturer. This Work may include cleaning
28 and replacing lamps and other routine maintenance as needed.
29

30 In the event repairs or adjustments are required, the Contractor shall respond
31 immediately and replace the PTSS operations with flagger traffic control.
32 Flagger control shall remain in operation until the Roadway can be safely
33 reopened to traffic. PTSS repairs or PTSS replacement with backup units shall
34 occur within 24 hours.
35

36 The Engineer will monitor PTSS operations and order adjustments as needed
37 based on traffic conditions. Timing adjustments require the approval of the
38 Engineer.
39

40 As shown on the traffic control plan, temporary stop bars and "STOP HERE ON
41 RED" Signs (R10-6) shall be provided at the location traffic is expected to stop
42 during the red display. The stop bar locations shall be illuminated at night. The
43 illumination shall be the responsibility of the Contractor and shall be adjusted to
44 ensure minimal glare to motorists.
45

46 When not in operation, remove signal heads from the view of traffic or cover
47 signal heads with bags made of non-ripping material specifically designed for
48 covering signal heads, including reflective backplates. Do not use trash bags of
49 any type. Remove, cover, fold, or turn all inappropriate signs so that they are not
50 readable by oncoming traffic.
51

1 The Contractor shall provide and install all field wiring to make a complete and
2 operational PTSS and shall maintain the system throughout the life of the
3 Contract.

4
5 PTSS shall not be installed within 300 feet of at-grade railroad crossing. PTSS
6 shall not be installed where driveways or Roadway access points are located
7 between the primary signal displays unless the intersecting roadways and
8 driveways are controlled by another PTSS signal unit as part of the overall
9 PTSS.

10 11 **1-10.4 Measurement**

12 13 ***1-10.4(2) Item Bids with Lump Sum for Incidentals***

14
15 Section 1-10.4(2) is supplemented with the following:

16
17 *(May 20, 2020 WSDOT GSP)*

18 "Contractor Provided Uniformed Police Officer" will be measured by the hour.

19 20 21 ***1-10.4(3) Reinstating Unit Items with Lump Sum Traffic Control***

22
23 Section 1-10.4(3) is supplemented with the following:

24
25 *(November 2, 2022 WSDOT GSP)*

26
27 The bid proposal contains the item "Project Temporary Traffic Control," lump sum
28 and the additional temporary traffic control items listed below. The provisions of
29 Section 1-10.4(1), Section 1-10.4(3), and Section 1-10.5(3) shall apply.

30
"Work Zone Safety Contingency", by force account
*** Pedestrian Traffic Control, lump sum
Traffic Control Supervisor, lump sum
Portable Changeable Message Signs, per hour
Temporary Pedestrian Curb Ramps, per each
Flaggers, per hour ***

31 32 **1-10.4 Payment**

33
34 Section 1-10.5 is supplemented with the following:

35
36 *(May 20, 2020 WSDOT GSP)*

37 "Contractor Provided Uniformed Police Officer", per hour.

38
39 The unit Contract price per hour for "Contractor Provided Uniformed Police Officer"
40 shall be full pay for performing the Work as specified and as shown in the Plans,
41 including all costs for arrangement for and supervision of a uniformed law
42 enforcement personnel and vehicles to participate in the Contractor's traffic control
43 activities.
44
45

1 **1-10.5(2) Item Bids With Lump Sum for Incidentals**

2
3 15 Section 1-10.5(2) is supplemented with the following:

4
5 *(November 2, 2022 WSDOT GSP)*

6
7 "Work Zone Safety Contingency", by force account.

8
9 All costs as authorized by the Engineer will be paid for by force account as
10 specified in Section 1-09.6.

11
12 For purpose of providing a common proposal for all bidders, the Contracting
13 Agency has entered an amount for the item "Work Zone Safety Contingency" in the
14 Proposal to become a part of the Contractor's total bid.

15
16 The Engineer may choose to use existing bid items for the implementation of the
17 agreed upon enhancement.
18

19
20 **END OF DIVISION 1**

**Division 2
Earthwork**

2-02 Removal of Structures and Obstructions

2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

(*****)

Removal of Obstructions

The following items shall be included in the lump sum item "Removal of Structure and Obstruction":

Item	Location	Approximate Quantity
Concrete block wall	22+12 – 22+62 (LT)	66 LF
Concrete block wall	23+03 – 23+13 (LT)	26 LF
Concrete block wall	22+79 – 23+07 (RT)	32 LF
Concrete block wall	34+03 – 34+15 (RT)	12 LF
Concrete block wall	35+51 – 36+38 (RT)	96 LF
Existing Fence	33+70 – 34+03 RT	61 LF
Existing Bollard	23+13 RT	1 each
Existing Bollard	23+44 RT	1 each
Existing Bollard	31+75 RT	1 each
Existing Bollards	36+50 RT	2 each
Large Landscape Rocks	24+15 – 25+28 RT	30 each
Existing Pole	32+00 RT	1 each

These quantities are not guaranteed accurate or to be all the necessary items of Work as required in Section 2-02 of the Standard Specifications and as modified herein. Quantities are for the Contractor's convenience and should be verified prior to Bidding.

Removal of Private Property Obstructions

Appendix C includes right-of-way commitment files for parcels along the 124th Avenue NE corridor. These commitment files include removal and relocation requirements to be completed by the various property owners to facilitate the construction of the roadway improvements. As directed by the Engineer, the Contractor shall remove, relocate, salvage, and/or dispose of obstructions described in these commitment files that have not been addressed by the property owners. Any actions by the Contractor shall be paid by force account per Section 2-02.5.

2-02.3(2) Removal of Bridges, Box Culverts, and other Drainage Structures

Section 2-02.3(2) is supplemented with the following:

(*****)

Removal of Drainage Structures and Pipes

Where shown in the Plans, or at other locations as determined by the Engineer, the Contractor shall remove catch basins, regardless of the size or type, and storm drain pipe. Each catch basin or storm drain pipe shall be removed in its entirety.

Pipe removal shall include removal of caps, flanges, fittings, and associated components.

Voids left by catch basin or storm drain pipe removal shall be backfilled and compacted in accordance with Section 2-03.3(14)C.

All materials removed shall become the property of the Contractor and shall be disposed of outside the project limits.

2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters

Section 2-03.3(3) is supplemented with the following:

(*****)

Pavement, sidewalks and curbs shall be saw cut in such a fashion to form a neat break line. All transitions to existing asphalt, except planing butt joints, or cement concrete Roadways or driveways, curb and gutter, extruded curb, and walkways shall be vertically saw cut straight, with uniform edges. Saw cut lines in the existing Roadway section will be perpendicular or parallel to the Traveled Way unless otherwise directed by the Engineer, or shown in the Plans.

Care shall be taken in removing the pavement so as not to damage any of the existing pavement that is to remain in place. Any remaining pavement damaged due to the Contractor's operations shall be replaced by the Contractor, to the satisfaction of the Engineer at the Contractor's expense.

The saw cut limit shall be 12-inch minimum distance from buildings. The Contractor shall protect buildings from construction damage at all times. The sidewalk within the first 12 inches from the buildings must be removed by hand or other methods to prevent damage to buildings and the removal cost will be incidental to the Bid item "Roadway Excavation Incl. Haul". Any damage to buildings shall be repaired at the sole expense of the Contractor.

2-02.3(4) Sawcutting

Section 2-02.3(4) is added as follows:

(*****)

The Contractor shall be responsible for ensuring that special precautions are undertaken so that no concrete or concrete by-products, or products and by-products used in the sawcut of asphalt or concrete, are discharged into any storm drain or surface water system.

In accordance with the Department of Ecology guidelines, wastewater from Portland cement concrete, masonry, and asphalt concrete cutting operations shall not be discharged to storm drainage systems or surface waters. Cutting

operations increase the pH of wastewater, therefore, filtering prior to discharge is **NOT** acceptable.

To thoroughly clean sawcuts where necessary, the Contractor shall use high pressure water (high pressure water is considered greater than 1400 psi).

All wastewater shall be collected using a wet-dry vacuum or pumped into drums for disposal. Disposal of the waste liquid may be to soil or other porous surfaces away from storm drains and surface water, only if the Contractor collects and disposes of remaining sediment after water has filtered into soil or evaporated. Impervious surfaces contaminated with sediment and grit from cutting operations shall be cleaned by sweepers to prevent contaminants from entering the storm drainage system or surface waters when it rains.

2-02.3(5) Salvage

Section 2-03.3(5) is added as follows:

(*****)

When salvageable material is to remain Contracting Agency property, the Specifications, Plans, or Contracting Agency will identify the material and describe how the Contractor shall remove it. Such material shall be stockpiled and/or delivered to a location as designated by the Engineer.

StormFilter catch basins removed from the southwest and southeast corners of the 124th Avenue NE and NE 124th Street intersection shall be excavated completely around the structure, removed, cleaned, and stored on site prior to delivery to the City of Kirkland Maintenance yard at the address below:

City of Kirkland Maintenance Yard – 915 8th Street, Kirkland, WA 98033

The Contractor shall notify the Engineer a minimum of seven working days prior to scheduling delivery of the catch basin(s) to the City of Kirkland Maintenance Yard.

2-02.3(6) Removal of Trees and Tree Stumps

Section 2-03.3(6) is added as follows:

(COK GSP)

Select locations along 124th Avenue NE require tree and stump removal. Trees identified for removal shall be removed in a manner that does not damage overhead utilities. Tree removal shall consist of cutting and disposing of tree limbs and trunks. This work will involve removal of limbs that are located around overhead utilities. The Contractor shall coordinate removal activities with the utility companies as required. Tree stump grinding shall consist of grinding the stumps of the removed trees. The Contractor shall grind the stumps to a minimum of 6 inches below existing ground surface elevation. Tree removal and tree stump grinding shall occur prior to placement of new concrete curbs, gutters, and sidewalk elements.

The Contractor shall assume responsibility for all repair and/or replacement for any overhead utilities damaged by the removal of the trees or stump grinding, as detailed in the Plans.

At locations where the Contractor will be working and exposing tree roots, the Contractor shall exercise caution. The Contractor shall notify the Inspector a minimum of 2 Working days prior to removal of the existing sidewalk panels. Concrete panels in these areas shall be removed by breaking the existing concrete with a jackhammer, or other approved means. Backhoes, or other mechanical excavating equipment shall not be used to remove existing concrete in these areas. Care shall be taken during the sidewalk removal in an effort to not damage the tree roots. Hand tools (shovels, trowels, etc.) shall be used when Working around the roots. If root trimming in these areas is unavoidable, it shall be performed per Section 8-02 of these Special Provisions. The City Inspector shall be on-site at all times during the concrete removal, excavation, and base preparation, and shall identify the extent of root trimming that is required.

Section 2-02.3(7) is added as follows:

2-02.3(7) Abandon Monitoring Wells

All groundwater monitoring wells, identified in the project plans, shall be abandoned per the requirements of the Washington State Department of Ecology and WAC 173-160-381. Groundwater monitoring well abandonment shall be completed by a well driller, licensed in Washington State.

2-02.4 Measurement

Section 2-02.4 is supplemented with the following:

(*****)

Removal of existing drainage pipe will be measured by the linear foot along the line and slope of the drainage pipe prior to removal.

Removal of drainage Structures will be measured per each for each drainage Structure removed.

Removal and salvage of StormFilter Catch Basin will be measured per each for each StormFilter Catch Basin Structure salvaged, stored, and delivered.

Sawcutting will be measured per linear foot of saw cut, regardless of depth, to remove existing improvements, except for sawcutting the Contractor chooses to use for storm drainage removals. No additional measurement will be made if the Contractor is required to make more than one saw cut to achieve the required saw cut depth.

(COK GSP)

Tree removal will be measured per each tree removed.

Abandon monitoring well will be measured per each and will include all piezometers.

2-02.5 Payment

Section 2-02.5 is supplemented with the following:

(*****)

The lump sum Contract price for "Removal of Structures and Obstructions" shall include all costs for the Work required to completely remove and dispose of the items detailed in 2-02.3.

"Removing Existing Drainage Pipe", per linear foot.

The unit Contract price per linear foot for "Removing Existing Drainage Pipe" shall be full pay for performing the Work as specified, including saw cutting and disposal.

"Removing Drainage Structure", per each.

The unit Contract price per each for "Removing Drainage Structure" shall be full pay to perform the Work as specified, including completely removing items, furnishing and placing backfill material, compacting the voids, saw cutting, and disposing of the items.

"Remove and Salvage StormFilter Catch Basin", per each.

The unit Contract price per each for "Remove and Salvage StormFilter Catch Basin" shall be full pay to perform the Work as specified, including completely removing items, furnishing and placing backfill material, compacting the voids, saw cutting, salvaging, storing, and delivery of the items.

"Sawcutting Existing Pavement", per linear foot.

The unit Contract price per linear foot for "Sawcutting Existing Pavement" shall be full compensation for all Work to sawcut to remove existing improvements, regardless of material type or depth being sawcut, including collection, removal, and disposal of slurry. SawcuttingNo additional payment will be made if the Contractor is required to make more than one sawcut to achieve the required sawcut depth, including due to conditions of layering of different types of pavement materials. No separate payment for sawcutting will be made when sawcutting is included in the unit Contract price of other Bid items.

(COK GSP)

"Tree Removal", per each

(*****)

The unit Contract price per each for "Tree Removal" shall be full pay for all costs for the specified Work to remove the tree and stump as necessary for the construction of the project improvements.

(*****)

"Removal of Private Property Structures and Obstructions" will be paid in accordance with Section 1-09.6.

For the purposes of providing a common Proposal for all Bidders, the Contracting Agency entered an amount for "Removal of Private Property Structures and Obstructions" in the Proposal to become a part of the total Bid by the Contractor.

"Abandon Monitoring Well", per each.

The unit Contract price per each for "Abandon Monitoring Well" shall be full pay for furnishing all costs of labor, materials, tools, and equipment incurred by the Contractor and necessary for performing the Work.

1
2
3

END OF DIVISION 2

Division 5
Surface Treatments and Pavements

5-04 Hot Mix Asphalt
(July 18, 2018 APWA GSP)

Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the following:

5-04.1 Description

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

5-04.2 Materials

Materials shall meet the requirements of the following sections:

Asphalt Binder	9-02.1(4)
Cationic Emulsified Asphalt	9-02.1(6)
Anti-Stripping Additive	9-02.4
HMA Additive	9-02.5
Aggregates	9-03.8
Recycled Asphalt Pavement	9-03.8(3)B
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21
Portland Cement	9-01
Sand	9-03.1(2)
(As noted in 5-04.3(5)C for crack sealing)	
Joint Sealant	9-04.2
Foam Backer Rod	9-04.2(3)A

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

1 The Contractor may use up to 20 percent RAP by total weight of HMA with no
2 additional sampling or testing of the RAP. The RAP shall be sampled and tested at a
3 frequency of one sample for every 1,000 tons produced and not less than ten
4 samples per project. The asphalt content and gradation test data shall be reported to
5 the Contracting Agency when submitting the mix design for approval on the QPL.
6 The Contractor shall include the RAP as part of the mix design as defined in these
7 Specifications.

8
9 The grade of asphalt binder shall be as required by the Contract. Blending of asphalt
10 binder from different sources is not permitted.

11
12 The Contractor may only use warm mix asphalt (WMA) processes in the production
13 of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall
14 submit to the Engineer for approval the process that is proposed and how it will be
15 used in the manufacture of HMA.

16
17 Production of aggregates shall comply with the requirements of Section 3-01.
18 Preparation of stockpile site, the stockpiling of aggregates, and the removal of
19 aggregates from stockpiles shall comply with the requirements of Section 3-02.
20

21 **5-04.2(1) How to Get an HMA Mix Design on the QPL**

22 If the contractor wishes to submit a mix design for inclusion in the Qualified Products
23 List (QPL), please follow the WSDOT process outlined in Standard Specification 5-
24 04.2(1).
25

26 **5-04.2(1)A Vacant**

27 28 **5-04.2(2) Mix Design – Obtaining Project Approval**

29 No paving shall begin prior to the approval of the mix design by the Engineer.
30

31 **Nonstatistical** evaluation will be used for all HMA not designated as Commercial
32 HMA in the contract documents.
33

34 **Commercial** evaluation will be used for Commercial HMA and for other classes of
35 HMA in the following applications: sidewalks, road approaches, ditches, slopes,
36 paths, trails, gores, prelevel, and pavement repair. Other nonstructural applications
37 of HMA accepted by commercial evaluation shall be as approved by the Project
38 Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at
39 the option of the Project Engineer. The Proposal quantity of HMA that is accepted by
40 commercial evaluation will be excluded from the quantities used in the determination
41 of nonstatistical evaluation.

42
43 **Nonstatistical Mix Design.** Fifteen days prior to the first day of paving the
44 contractor shall provide one of the following mix design verification certifications for
45 Contracting Agency review;
46

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.**

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Approval of a mix design for "Commercial Evaluation" will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL's) appropriate for the required use.

5-04.2(2)B Using Warm Mix Asphalt Processes

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

- Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.
- Before using additives, obtain the Engineer's approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Minimum Surface Temperature for Paving

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55°F	45°F
0.10 to .20	45°F	35°F
More than 0.20	35°F	35°F

5-04.3(2) Paving Under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

Plants used for the preparation of HMA shall conform to the following requirements:

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.
2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.
3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.
4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).
5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:
 - a. A mechanical sampling device attached to the HMA plant.

- b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include, precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

5-04.3(3)C Pavers

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat

referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless other-wise required by the contract.

Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.

2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4) Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of

retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A Crack Sealing

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks ¼ inch in width and greater.

Cleaning: Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material when filling with crack sealant material. Use a hot compressed air lance to dry and warm the pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do not overheat pavement. Do not use direct flame dryers. Routing cracks is not required.

Sand Slurry: For cracks that are to be filled with sand slurry, thoroughly mix the components and pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off cracks that were not completely filled with additional sand slurry. Do not place the HMA overlay until the slurry has fully cured.

The sand slurry shall consist of approximately 20 percent CSS-1 emulsified asphalt, approximately 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). The components shall be thoroughly mixed and then poured into the cracks and joints until full. The following day, any cracks or joints that are not completely filled shall be topped off with additional sand slurry. After the sand slurry is placed, the filler shall be struck off flush with the existing pavement surface and allowed to cure. The HMA overlay shall not be placed until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland cement and sand used in the sand slurry.

1 In areas where HMA will be placed, use sand slurry to fill the cracks.

2
3 In areas where HMA will not be placed, fill the cracks as follows:

- 4
5 1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
6 2. Cracks greater than 1 inch in width – fill with sand slurry.
7

8 **Hot Poured Sealant:** For cracks that are to be filled with hot poured sealant, apply
9 the material in accordance with these requirements and the manufacturer's
10 recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product
11 information and recommendations to the Engineer prior to the start of work, including
12 the manufacturer's recommended heating time and temperatures, allowable storage
13 time and temperatures after initial heating, allowable reheating criteria, and
14 application temperature range. Confine hot poured sealant material within the crack.
15 Clean any overflow of sealant from the pavement surface. If, in the opinion of the
16 Engineer, the Contractor's method of sealing the cracks with hot poured sealant
17 results in an excessive amount of material on the pavement surface, stop and correct
18 the operation to eliminate the excess material.
19

20 **5-04.3(4)A2 Crack Sealing Areas Prior to Paving**

21 In areas where HMA will be placed, use sand slurry to fill the cracks.
22

23 **5-04.3(4)A3 Crack Sealing Areas Not to be Paved**

24 In areas where HMA will not be placed, fill the cracks as follows:

- 25
26 A. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
27 B. Cracks greater than 1 inch in width – fill with sand slurry.
28

29 **5-04.3(4)B Vacant**
30

31 **5-04.3(4)C Pavement Repair**

32 The Contractor shall excavate pavement repair areas and shall backfill these with
33 HMA in accordance with the details shown in the Plans and as marked in the field.
34 The Contractor shall conduct the excavation operations in a manner that will protect
35 the pavement that is to remain. Pavement not designated to be removed that is
36 damaged as a result of the Contractor's operations shall be repaired by the
37 Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency.
38 The Contractor shall excavate only within one lane at a time unless approved
39 otherwise by the Engineer. The Contractor shall not excavate more area than can be
40 completely finished during the same shift, unless approved by the Engineer.
41

42 Unless otherwise shown in the Plans or determined by the Engineer, excavate to a
43 depth of 1.0 feet. The Engineer will make the final determination of the excavation
44 depth required. The minimum width of any pavement repair area shall be 40 inches
45 unless shown otherwise in the Plans. Before any excavation, the existing pavement
46 shall be sawcut or shall be removed by a pavement grinder. Excavated materials will

become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

5-04.3(5) Producing/Stockpiling Aggregates and RAP

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

5-04.3(5)A Vacant

5-04.3(6) Mixing

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in

storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

5-04.3(7) Spreading and Finishing

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

HMA Class 1"	0.35 feet
HMA Class $\frac{3}{4}$ " and HMA Class $\frac{1}{2}$ "	
wearing course	0.30 feet
other courses	0.35 feet
HMA Class $\frac{3}{8}$ "	0.15 feet

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA

For HMA accepted by nonstatistical evaluation the aggregate properties of sand equivalent, uncompacted void content and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the option of the Engineer.

5-04.3(9) HMA Mixture Acceptance

Acceptance of HMA shall be as provided under nonstatistical, or commercial evaluation.

Nonstatistical evaluation will be used for the acceptance of HMA unless Commercial Evaluation is specified.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Engineer.

The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the approval of the Engineer and may be made in accordance with this section.

HMA Tolerances and Adjustments

1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows:

For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

For Aggregates in the mixture:

- a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

Aggregate Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", ¾", ½", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/- 6%	+/- 8%
No. 8 Sieve	+/- 6%	+/- 8%
No. 200 sieve	+/- 2.0%	+/- 3.0%

- b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.

2. **Job Mix Formula Adjustments** – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer.

Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.

- a. **Aggregates** –2 percent for the aggregate passing the 1½", 1", ¾", ½", ⅜", and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).

b. **Asphalt Binder Content** – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent

5-04.3(9)A Vacant

5-04.3(9)B Vacant

5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 800 tons, whichever is less except that the final subplot will be a minimum of 400 tons and may be increased to 1200 tons.

All of the test results obtained from the acceptance samples from a given lot shall be evaluated collectively. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

Sampling and testing for evaluation shall be performed on the frequency of one sample per subplot.

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall to be tested.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.
- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing

Testing of HMA for compliance of V_a will at the option of the Contracting Agency. If tested, compliance of V_a will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	Factor “f”
All aggregate passing: 1½", 1", ¾", ½", ⅜" and No.4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids (V_a) (where applicable)	20

Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

5-04.3(9)C5 Vacant

5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests

The Contractor may request a subplot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency, V_a . The results of the retest will be used for the acceptance of the HMA in place of the original subplot sample test results. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of \$500 per sample.

5-04.3(9)D Mixture Acceptance – Commercial Evaluation

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the commercial tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(10) HMA Compaction Acceptance

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be

1 compacted to a specified level of relative density. The specified level of relative
2 density shall be a Composite Pay Factor (CPF) of not less than 0.75 when evaluated
3 in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of
4 the maximum density). The maximum density shall be determined by WSDOT FOP
5 for AASHTO T 729. The specified level of density attained will be determined by the
6 evaluation of the density of the pavement. The density of the pavement shall be
7 determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge
8 correlation will be at the discretion of the Engineer, when using the nuclear density
9 gauge and WSDOT SOP 736 when using cores to determine density.

10
11 Tests for the determination of the pavement density will be taken in accordance with
12 the required procedures for measurement by a nuclear density gauge or roadway
13 cores after completion of the finish rolling.

14
15 If the Contracting Agency uses a nuclear density gauge to determine density the test
16 procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day
17 the mix is placed and prior to opening to traffic.

18
19 Roadway cores for density may be obtained by either the Contracting Agency or the
20 Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-
21 inches minimum, unless otherwise approved by the Engineer. Roadway cores will be
22 tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T
23 166.

24
25 If the Contract includes the Bid item "Roadway Core" the cores shall be obtained by
26 the Contractor in the presence of the Engineer on the same day the mix is placed
27 and at locations designated by the Engineer. If the Contract does not include the Bid
28 item "Roadway Core" the Contracting Agency will obtain the cores.

29
30 For a lot in progress with a CPF less than 0.75, a new lot will begin at the
31 Contractor's request after the Engineer is satisfied that material conforming to the
32 Specifications can be produced.

33
34 HMA mixture accepted by commercial evaluation and HMA constructed under
35 conditions other than those listed above shall be compacted on the basis of a test
36 point evaluation of the compaction train. The test point evaluation shall be performed
37 in accordance with instructions from the Engineer. The number of passes with an
38 approved compaction train, required to attain the maximum test point density, shall
39 be used on all subsequent paving.

40
41 HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling
42 wheel rutting shall be compacted with a pneumatic tire roller unless otherwise
43 approved by the Engineer.

44 45 **Test Results**

46 For a subplot that has been tested with a nuclear density gauge that did not meet the
47 minimum of 92 percent of the reference maximum density in a compaction lot with a

CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative density of the subplot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the subplot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

When cores are taken by the Contracting Agency at the request of the Contractor, they shall be requested by noon of the next workday after the test results for the subplot have been provided or made available to the Contractor. Core locations shall be outside of wheel paths and as determined by the Engineer. Traffic control shall be provided by the Contractor as requested by the Engineer. Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request for cores. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the cost for the coring will be deducted from any monies due or that may become due the Contractor under the Contract at the rate of \$200 per core and the Contractor shall pay for the cost of the traffic control.

5-04.3(10)A HMA Compaction – General Compaction Requirements

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking, or shoving occurs. Areas inaccessible to large compaction equipment shall be compacted by other mechanical means. Any HMA that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced with new hot mix that shall be immediately compacted to conform to the surrounding area.

The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option, provided the specified densities are attained. Unless the Engineer has approved otherwise, rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F. Regardless of mix temperature, a roller shall not be operated in a mode that results in checking or cracking of the mat. Rollers shall only be operated in static mode on bridge decks.

5-04.3(10)B HMA Compaction – Cyclic Density

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733. A \$500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

5-04.3(10)D1 HMA Nonstatistical Compaction – Lots and Sublots

HMA compaction which is accepted by nonstatistical evaluation will be based on acceptance testing performed by the Contracting Agency dividing the project into compaction lots.

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 400 tons, whichever is less except that the final subplot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per subplot per WSDOT T 738.

The subplot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used to prelevel wheel ruts shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each subplot, with one test per subplot.

5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a subplot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

For compaction below the required 92% a Non-Conforming Compaction Factor (NCCF) will be determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated

as the product of CPF, the quantity of HMA in the compaction control lot in tons, and the unit Contract price per ton of mix.

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

Work that is defective or does not conform to Contract requirements shall be rejected. The Contractor may propose, in writing, alternatives to removal and replacement of rejected material. Acceptability of such alternative proposals will be determined at the sole discretion of the Engineer. HMA that has been rejected is subject to the requirements in Section 1-06.2(2) and this specification, and the Contractor shall submit a corrective action proposal to the Engineer for approval.

5-04.3(11)B Rejection by Contractor

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

5-04.3(11)C Rejection Without Testing (Mixture or Compaction)

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Material rejected before placement shall not be incorporated into the pavement. Any rejected section of Roadway shall be removed.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples will be obtained and tested. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

5-04.3(11)D Rejection - A Partial Sublot

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)E Rejection - An Entire Sublot

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this sublot will be obtained. These additional samples and the original sublot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)F Rejection - A Lot in Progress

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

1. When the Composite Pay Factor (CPF) of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
3. When either the PFI for any constituent or the CPF of a lot in progress is less than 0.75.

5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

An entire lot with a CPF of less than 0.75 will be rejected.

5-04.3(12) Joints

5-04.3(12)A HMA Joints

5-04.3(12)A1 Transverse Joints

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

5-04.3(12)A2 Longitudinal Joints

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the maximum aggregate size or more than $\frac{1}{2}$ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

5-04.3(12)B Bridge Paving Joint Seals

5-04.3(12)B1 HMA Sawcut and Seal

Prior to placing HMA on the bridge deck, establish sawcut alignment points at both ends of the bridge paving joint seals to be placed at the bridge ends, and at interior joints within the bridge deck when and where shown in the Plans. Establish the sawcut alignment points in a manner that they remain functional for use in aligning the sawcut after placing the overlay.

Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.

Construct the bridge paving joint seal as specified on the Plans and in accordance with the detail shown in the Standard Plans. Construct the sawcut in accordance with the detail shown in the Standard Plan. Construct the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's application procedure.

5-04.3(12)B2 Paved Panel Joint Seal

Construct the paved panel joint seal in accordance with the requirements specified in section 5-04.3(12)B1 and the following requirement:

1. Clean and seal the existing joint between concrete panels in accordance with Section 5-01.3(8) and the details shown in the Standard Plans.

5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than $\frac{1}{8}$ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than $\frac{1}{4}$ inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, the pavement surface shall be corrected by one of the following methods:

1. Removal of material from high places by grinding with an approved grinding machine, or
2. Removal and replacement of the wearing course of HMA, or
3. By other method approved by the Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of \$500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing (Milling) Bituminous Pavement

The planning plan must be approved by the Engineer and a pre planning meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planning submittals.

Locations of existing surfacing to be planed are as shown in the Drawings.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other

imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1 1. Intersections:

- 2 a. Keep intersections open to traffic at all times, except when paving or
3 planing operations through an intersection requires closure. Such closure
4 must be kept to the minimum time required to place and compact the HMA
5 mixture, or plane as appropriate. For paving, schedule such closure to
6 individual lanes or portions thereof that allows the traffic volumes and
7 schedule of traffic volumes required in the approved traffic control plan.
8 Schedule work so that adjacent intersections are not impacted at the same
9 time and comply with the traffic control restrictions required by the Traffic
10 Engineer. Each individual intersection closure or partial closure, must be
11 addressed in the traffic control plan, which must be submitted to and
12 accepted by the Engineer, see Section 1-10.2(2).
- 13 b. When planing or paving and related construction must occur in an
14 intersection, consider scheduling and sequencing such work into quarters of
15 the intersection, or half or more of an intersection with side street detours.
16 Be prepared to sequence the work to individual lanes or portions thereof.
- 17 c. Should closure of the intersection in its entirety be necessary, and no
18 trolley service is impacted, keep such closure to the minimum time required
19 to place and compact the HMA mixture, plane, remove asphalt, tack coat,
20 and as needed.
- 21 d. Any work in an intersection requires advance warning in both signage and
22 a number of Working Days advance notice as determined by the Engineer,
23 to alert traffic and emergency services of the intersection closure or partial
24 closure.
- 25 e. Allow new compacted HMA asphalt to cool to ambient temperature before
26 any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until
27 approval has been obtained from the Engineer.
- 28 2. Temporary centerline marking, post-paving temporary marking, temporary
29 stop bars, and maintaining temporary pavement marking must comply with
30 Section 8-23.
- 31 3. Permanent pavement marking must comply with Section 8-22.

32
33 **5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan**

34 The Contractor must submit a separate planing plan and a separate paving plan to
35 the Engineer at least 5 Working Days in advance of each operation's activity start
36 date. These plans must show how the moving operation and traffic control are
37 coordinated, as they will be discussed at the pre-planing briefing and pre-paving
38 briefing. When requested by the Engineer, the Contractor must provide each
39 operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a
40 scale showing both the area of operation and sufficient detail of traffic beyond the
41 area of operation where detour traffic may be required. The scale on the Shop
42 Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient
43 detail is shown.

44
45 The planing operation and the paving operation include, but are not limited to, metal
46 detection, removal of asphalt and temporary asphalt of any kind, tack coat and
47 drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be
48 discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic control plan must show where police officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.
2. A copy of each intersection's traffic control plan.
3. Haul routes from Supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.
4. Names and locations of HMA Supplier facilities to be used.
5. List of all equipment to be used for paving.
6. List of personnel and associated job classification assigned to each piece of paving equipment.
7. Description (geometric or narrative) of the scheduled sequence of planing and of paving, and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.
8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
9. A copy of the approved Mix Designs.
10. Tonnage of HMA to be placed each day.
11. Approximate times and days for starting and ending daily operations.

5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, Metro transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and

Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both Paving Plan and for Planing Plan:
 - a. The actual times of starting and ending daily operations.
 - b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
 - c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, to public convenience and safety, and to other contractors who may operate in the Project Site.
 - d. Notifications required of Contractor activities, and coordinating with other entities and the public as necessary.
 - e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and to paving.
 - f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed
 - g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, see Section 5-04.3(14)B2.
 - h. Description of how flaggers will be coordinated with the planing, paving, and related operations.
 - i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.
 - j. Other items the Engineer deems necessary to address.
2. Paving – additional topics:
 - a. When to start applying tack and coordinating with paving.
 - b. Types of equipment and numbers of each type equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type equipment as it relates to meeting Specification requirements.
 - c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are distinguished if more than one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.
 - d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.
 - e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

1 **5-04.3(15) Sealing Pavement Surfaces**

2 Apply a fog seal where shown in the plans. Construct the fog seal in accordance with
3 Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior
4 to opening to traffic.

6 **5-04.3(16) HMA Road Approaches**

7 HMA approaches shall be constructed at the locations shown in the Plans or where
8 staked by the Engineer. The Work shall be performed in accordance with Section 5-
9 04.

11 **5-04.4 Measurement**

12 HMA Cl. ____ PG ____, HMA for ____ Cl. ____ PG ____, and Commercial HMA will
13 be measured by the ton in accordance with Section 1-09.2, with no deduction being
14 made for the weight of asphalt binder, mineral filler, or any other component of the
15 mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-
16 04.3(11), the material removed will not be measured.

18 Roadway cores will be measured per each for the number of cores taken.

20 Preparation of untreated roadway will be measured by the mile once along the
21 centerline of the main line Roadway. No additional measurement will be made for
22 ramps, Auxiliary Lanes, service roads, Frontage Roads, or Shoulders. Measurement
23 will be to the nearest 0.01 mile.

25 Soil residual herbicide will be measured by the mile for the stated width to the
26 nearest 0.01 mile or by the square yard, whichever is designated in the Proposal.

28 Pavement repair excavation will be measured by the square yard of surface marked
29 prior to excavation.

31 Asphalt for prime coat will be measured by the ton in accordance with Section 1-
32 09.2.

34 Prime coat aggregate will be measured by the cubic yard, truck measure, or by the
35 ton, whichever is designated in the Proposal.

37 Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.

39 Longitudinal joint seals between the HMA and cement concrete pavement will be
40 measured by the linear foot along the line and slope of the completed joint seal.

42 Planing bituminous pavement will be measured by the square yard.

Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.

Water will be measured by the M gallon as provided in Section 2-07.4.

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

“HMA Cl. ____ PG ____”, per ton.

“HMA for Approach Cl. ____ PG ____”, per ton.

“HMA for Preleveling Cl. ____ PG ____”, per ton.

“HMA for Pavement Repair Cl. ____ PG ____”, per ton.

“Commercial HMA”, per ton.

The unit Contract price per ton for “HMA Cl. ____ PG ____”, “HMA for Approach Cl. ____ PG ____”, “HMA for Preleveling Cl. ____ PG ____”, “HMA for Pavement Repair Cl. ____ PG ____”, and “Commercial HMA” shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

“Preparation of Untreated Roadway”, per mile.

The unit Contract price per mile for “Preparation of Untreated Roadway” shall be full pay for all Work described under 5-04.3(4) , with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ____ PG ____” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Preparation of Existing Paved Surfaces”, per mile.

The unit Contract Price for “Preparation of Existing Paved Surfaces” shall be full pay for all Work described under Section 5-04.3(4) with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ____ PG ____” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

1
2 "Crack Sealing", by force account.

3
4 "Crack Sealing" will be paid for by force account as specified in Section 1-09.6. For
5 the purpose of providing a common Proposal for all Bidders, the Contracting Agency
6 has entered an amount in the Proposal to become a part of the total Bid by the
7 Contractor.

8
9 "Pavement Repair Excavation Incl. Haul", per square yard.

10
11 The unit Contract price per square yard for "Pavement Repair Excavation Incl. Haul"
12 shall be full payment for all costs incurred to perform the Work described in Section
13 5-04.3(4) with the exception, however, that all costs involved in the placement of
14 HMA shall be included in the unit Contract price per ton for "HMA for Pavement
15 Repair Cl. ____ PG ____", per ton.

16
17 "Asphalt for Prime Coat", per ton.

18
19 The unit Contract price per ton for "Asphalt for Prime Coat" shall be full payment for
20 all costs incurred to obtain, provide and install the material in accordance with
21 Section 5-04.3(4).

22
23 "Prime Coat Agg.", per cubic yard, or per ton.

24
25 The unit Contract price per cubic yard or per ton for "Prime Coat Agg." shall be full
26 pay for furnishing, loading, and hauling aggregate to the place of deposit and
27 spreading the aggregate in the quantities required by the Engineer.

28
29 "Asphalt for Fog Seal", per ton.

30
31 Payment for "Asphalt for Fog Seal" is described in Section 5-02.5.

32
33 "Longitudinal Joint Seal", per linear foot.

34
35 The unit Contract price per linear foot for "Longitudinal Joint Seal" shall be full
36 payment for all costs incurred to perform the Work described in Section 5-04.3(12).

37
38 "Planing Bituminous Pavement", per square yard.

39
40 The unit Contract price per square yard for "Planing Bituminous Pavement" shall be
41 full payment for all costs incurred to perform the Work described in Section 5-
42 04.3(14).

43
44 "Temporary Pavement Marking", per linear foot.

Payment for "Temporary Pavement Marking" is described in Section 8-23.5.

"Water", per M gallon.

Payment for "Water" is described in Section 2-07.5.

"Job Mix Compliance Price Adjustment", by calculation.

"Job Mix Compliance Price Adjustment" will be calculated and paid for as described in Section 5-04.3(9)C6.

"Compaction Price Adjustment", by calculation.

"Compaction Price Adjustment" will be calculated and paid for as described in Section 5-04..3(10)D3.

"Roadway Core", per each.

The Contractor's costs for all other Work associated with the coring (e.g., traffic control) shall be incidental and included within the unit Bid price per each and no additional payments will be made.

"Cyclic Density Price Adjustment", by calculation.

"Cyclic Density Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)B.

(January 13, 2021 WSDOT GSP)

Asphalt Cost Price Adjustment

The Contracting Agency will make an Asphalt Cost Price Adjustment, either a credit or a payment, for qualifying changes in the reference cost of asphalt binder. The adjustment will be applied to partial payments made according to Section 1-09.9 for the following bid items when they are included in the proposal:

"HMA Cl. ____ PG ____"

"HMA for Approach Cl. ____ PG ____"

"HMA for Preleveling Cl. ____ PG ____"

"HMA for Pavement Repair Cl. ____ PG ____"

"Commercial HMA"

The adjustment is not a guarantee of full compensation for changes in the cost of asphalt binder. The Contracting Agency does not guarantee that asphalt binder will be available at the reference cost.

The Contracting Agency will establish asphalt binder reference costs twice each month and post the information on the Agency website at: <http://www.wsdot.wa.gov/Business/Construction/EscalationClauses.htm>. The reference cost will be determined using posted prices furnished by Poten & Partners, Inc. If the selected price source ceases to be available for any reason, then the Contracting Agency will select a substitute price source to establish the reference cost.

Price adjustments will be calculated one time per month. No price adjustment will be made if the Current Reference Cost is within +/-5% of the Base Cost. Reference costs for projects located in Eastern versus Western Washington shall be selected from the column in the WSDOT website table labeled "Eastern", or "Western", accordingly. The adjustment will be calculated as follows:

If the reference cost is greater than or equal to 105% of the base cost, then
Asphalt Cost Price Adjustment = (Current Reference Cost – (1.05 x Base Cost))
x (Q x 0.056).

If the reference cost is less than or equal to 95% of the base cost, then
Asphalt Cost Price Adjustment = (Current Reference Cost – (0.95 x Base Cost))
x (Q x 0.056).

Where: **Current Reference Cost** is selected from the website table based on the "Date Effective" that immediately precedes the current month's progress estimate end date. For work completed after all authorized working days are used, the adjustment will be based on the posted reference cost during which contract time was exhausted.

Base Cost is selected from the website table based on the "Date Effective" that immediately precedes the contract bid opening date, and shall be a constant for all monthly adjustments.

Q = total tons of all classes of HMA paid in the current month's progress payment.

"Asphalt Cost Price Adjustment", by calculation.

"Asphalt Cost Price Adjustment" will be calculated and paid for as described in this section. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the total bid by the Contractor.

(April 4, 2016 WSDOT GSP)

"Asphalt Binder Revision" by calculation.

"Asphalt Binder Revision" shall be calculated and paid for as described in Section 5-04.3.

5-05 Cement Concrete Pavement

1 **5-05.4 Measurement**

2 The first paragraph, including numbered list, and second paragraph of Section 5-05.4 are
3 deleted and replaced with the following:
4

5 Cement concrete pavement will be measured by the square yard placed.
6

7 **5-05.5 Payment**

8 The second and third paragraphs of Section 5-05.5 are replaced with the following:
9

10 "Cement Conc. Pavement", per square yard.

11 The unit Contract price per square yard for "Cement Conc. Pavement" shall be full
12 pay for all costs incurred to perform the Work as specified.
13

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**Division 6
Structures**

6-13 Structural Earth Walls

6-13.2 Materials

Section 6-13.2 is supplemented with the following:

(January 2, 2018 WSDOT GSP)

Concrete Block Faced Structural Earth Wall Materials

General Materials

Concrete Block

Acceptability of the blocks will be determined based on the following:

1. Visual inspection.
2. Compressive strength tests, conforming to Section 6-13.3(4).
3. Water absorption tests, conforming to Section 6-13.3(4).
4. Manufacturer's Certificate of Compliance in accordance with Section 1-06.3.
5. Freeze-thaw tests conducted on the lot of blocks produced for use in this project, as specified in Section 6-13.3(4).
6. Copies of results from tests conducted on the lot of blocks produced for this project by the concrete block fabricator in accordance with the quality control program required by the structural earth wall manufacturer.

The blocks shall be considered acceptable regardless of curing age when compressive test results indicate that the compressive strength conforms to the 28-day requirements, and when all other acceptability requirements specified above are met.

Testing and inspection of dry cast concrete blocks shall conform to ASTM C 140, and shall include block fabrication plant approval by WSDOT prior to the start of block production for this project.

Mortar

Mortar shall conform to ASTM C 270, Type S, with an integral water repellent admixture as accepted by the Engineer. The amount of admixture shall be as recommended by the admixture manufacturer. To ensure uniform color, texture, and quality, all mortar mix components shall be obtained from one manufacturer for each component, and from one source and producer for each aggregate.

1 **Geosynthetic Soil Reinforcement**

2 Geogrid reinforcement shall conform to Section 9-33.1, and shall be a
3 product listed in Appendix D of the current WSDOT Qualified Products List
4 (QPL). The values of T_{al} and T_{ult} as listed in the QPL for the products used
5 shall meet or exceed the values required for the wall manufacturer's
6 reinforcement design as specified in the structural earth wall design
7 calculation and working drawing submittal.

8
9 The minimum ultimate tensile strength of the geogrid shall be a minimum
10 average roll value (the average test results for any sampled roll in a lot shall
11 meet or exceed the values shown in Appendix D of the current WSDOT
12 QPL). The strength shall be determined in accordance with ASTM D 6637,
13 for multi-rib specimens.

14
15 The ultraviolet (UV) radiation stability, in accordance with ASTM D 4355,
16 shall be a minimum of 70 percent strength retained after 500 hours in the
17 weatherometer.

18
19 The longitudinal (i.e., in the direction of loading) and transverse (i.e., parallel
20 to the wall or slope face) ribs that make up the geogrid shall be perpendicular
21 to one another. The maximum deviation of the cross-rib from being
22 perpendicular to the longitudinal rib (skew) shall be no more than 1 inch in
23 5 feet of geogrid width. The maximum deviation of the cross-rib at any point
24 from a line perpendicular to the longitudinal ribs located at the cross-rib
25 (bow) shall be 0.5 inches.

26
27 The gap between the connector and the bearing surface of the connector
28 tab cross-rib shall not exceed 0.5 inches. A maximum of 10 percent of
29 connector tabs may have a gap between 0.3 inches and 0.5 inches. Gaps
30 in the remaining connector tabs shall not exceed 0.3 inches.

31
32 The Engineer will take random samples of the geogrid materials at the job
33 site. Acceptance of the geogrid materials will be based on testing of
34 samples from each lot. A "lot" shall be defined as all geogrid rolls sent to
35 the project site produced by the same manufacturer during a continuous
36 period of production at the same manufacturing plant having the same
37 product name. The Contracting Agency will require 14 calendar days
38 maximum for testing the samples after their arrival at the WSDOT Materials
39 Laboratory in Tumwater, WA.

40
41 The geogrid samples will be tested for conformance to the specified material
42 properties. If the test results indicate that the geogrid lot does not meet the
43 specified properties, the roll or rolls which were sampled will be rejected.
44 Two additional rolls for each roll tested which failed from the lot previously
45 tested will then be selected at random by the Engineer for sampling and
46 retesting. If the retesting shows that any of the additional rolls tested do not
47 meet the specified properties, the entire lot will be rejected. If the test results
48 from all the rolls retested meet the specified properties, the entire lot minus
49 the roll(s) which failed will be accepted.
50

All geogrid materials which have defects, deterioration, or damage, as determined by the Engineer, will be rejected. All rejected geogrid materials shall be replaced at no expense to the Contracting Agency.

Except as otherwise noted, geogrid identification, storage and handling shall conform to the requirements specified in Section 2-12.2. The geogrid materials shall not be exposed to temperatures less than -20F and greater than 122F.

Drainage Geosynthetic Fabric

Drainage geosynthetic fabric shall be a non-woven geosynthetic conforming to the requirements in Section 9-33.1, for Construction Geotextile for Underground Drainage, Moderate Survivability, Class B.

Proprietary Materials

Allan Block Wall

Wall backfill material placed in the open cells of the precast concrete blocks and placed in the one to three foot zone immediately behind the precast concrete blocks shall be crushed granular material conforming to Section 9-03.9(3).

GEOWALL Structural Earth Retaining Wall System

Connection pins shall be fiberglass conforming to the requirements of Basalite Concrete Products, LLC.

KeyGrid Wall

KeyStone connection pins shall be fiberglass conforming to the requirements of Keystone Retaining Wall Systems, Inc.

Landmark Retaining Wall

Lock bars shall be made of a rigid polyvinyl chloride polymer conforming to the following requirements:

Property	Value	Specification
Specific Gravity	1.4 minimum	ASTM D 792
Tensile Strength at yield	2,700 psi minimum	ASTM D 638

Lock bars shall remain sealed in their shipping containers until placement into the wall. Lock bars exposed to direct sunlight for a period exceeding two months shall not be used for construction of the wall.

Mesa Wall

Block connectors for block courses with geogrid reinforcement shall be glass fiber reinforced high-density polypropylene conforming to the following minimum material specifications:

Property	Specification	Value
Polypropylene	ASTM D 4101	
	Group 1 Class 1 Grade 2	73 ± 2 percent
Fiberglass Content	ASTM D 2584	25 ± 3 percent

Carbon Black	ASTM D 4218	2 percent minimum
Specific Gravity	ASTM D 792	1.08 ± 0.04
Tensile Strength	ASTM D 638	
at yield		8,700 ± 1,450 psi
Melt Flow Rate	ASTM D 1238	0.37 ± 0.16 ounces/10 min.

Block connectors for block courses without geogrid reinforcement shall be glass fiber reinforced high-density polyethylene (HDPE) conforming to the following minimum material specifications:

<u>Property</u>	<u>Specification</u>	<u>Value</u>
HDPE	ASTM D 1248	
	Type III Class A Grade 5	68 ± 3 percent
Fiberglass Content	ASTM D 2584	30 ± 3 percent
Carbon Black	ASTM D 4218	2 percent minimum
Specific Gravity	ASTM D 792	1.16 ± 0.06
Tensile Strength	ASTM D 638	
at yield		8,700 ± 725 psi
Melt Flow Rate	ASTM D 1238	0.11 ± 0.07 ounces/10 min.

(*****)

Concrete blocks shall be a gray color as approved by the Engineer.

6-13.3 Construction Requirements

Section 6-13.3 is supplemented with the following:

(January 2, 2018 WSDOT GSP)

Concrete Block Faced Structural Earth Wall

Concrete block faced structural earth walls shall be constructed of only one of the following wall systems. The Contractor shall make arrangements to purchase the concrete blocks, soil reinforcement, attachment devices, joint filler, and all necessary incidentals from the source identified with each wall system:

Allan Block Wall

Allan Block Wall is a registered trademark of the Allan Block Corporation

Allan Block Corporation
7424 W 78th Street
Bloomington, MN 55439
(800) 899-5309
FAX (952) 835-0013
www.allanblock.com

GEO WALL Structural Earth Retaining Wall System

GEO WALL is a registered trademark of Basalite Concrete Products, LLC

Basalite Concrete Products LLC
3299 International Place
Du Pont, WA 98327-7707

(800) 964-9424
FAX: (253) 964-5005
www.basalite.com

Redi-Rock Positive Connection System

Redi-Rock Positive Connection System is a registered trademark of Redi-Rock International, LLC

Redi-Rock International, LLC
05481 US 31 South
Charlevoix, MI 49720
(866) 222-8400
FAX (231) 237-9521
www.redi-rock.com

Mesa Wall

Mesa Wall is a registered trademark of Tensar Corporation

Tensar Corporation
2500 Northwinds Parkway Suite 500
Atlanta, GA 30009
(770) 334-2090
FAX (678) 281-8546
www.tensarcorp.com

Landmark Retaining Wall System

Landmark Retaining Wall System is a registered trademark of Anchor Wall Systems, Inc.

Anchor Wall Systems, Inc.
5959 Baker Road, Suite 390
Minnetonka, MN 55345-5996
(877) 295-5415
FAX (952) 979-8454
www.anchorwall.com

KeyGrid Wall

KeyGrid is a registered trademark of Keystone Retaining Wall Systems, Inc.

Keystone Retaining Wall Systems, Inc.
4444 West 78th Street
Minneapolis, MN 55435
(800) 747-8971
FAX (952) 897-3858
www.keystonewalls.com

6-13.3(2) Submittals

Section 6-13.3(2) is supplemented with the following:

(January 3, 2011 WSDOT GSP)

The following geotechnical design parameters shall be used for the design of the structural earth wall(s):

Wall Name or No.: *** 1 and 2 ***

Soil Properties	Wall Backfill	Retained Soil	Foundation Soil
Unit Weight (pcf)	***135***	***135***	***125***
Friction Angle (deg)	***36***	***32***	***32***
Cohesion (psf)	***0***	***0***	***0***

For the Service Limit State, the wall shall be designed to accommodate a differential settlement of *** 1 inch *** per 100 feet of wall length.

For the Extreme Event I Limit State, the wall shall be designed for a horizontal seismic acceleration coefficient k_h of *** 0.187 *** g and a vertical seismic acceleration coefficient k_v of *** 0.0 *** g.

6-13.3(5) Precast Concrete Facing Panel and Concrete Block Erection

Section 6-13.3(5) is supplemented with the following:

(April 2, 2012 WSDOT GSP)

Specific Erection Requirements for Precast Concrete Block Faced Structural Earth Walls

Landmark Retaining Wall

When placing each course of concrete blocks, the Contractor shall pull the blocks towards the front face of the wall until the male key of the bottom face of the upper block contacts and fits into the female key of the top face of the supporting block below.

A maximum gap of 1/8-inch is allowed between adjacent concrete blocks, except for the base course set of concrete blocks placed on the leveling pad. A maximum gap of 1-inch is allowed between adjacent base course concrete blocks, provided geosynthetic reinforcement for drains is in place over the gap at the back face of the concrete blocks.

Lock bars shall be installed in the female key of the top face of all concrete block courses receiving geogrid reinforcement. Gaps between adjacent lock bars in the key shall not exceed 3-inches. The lock bar shall be installed flat side up, with the angled side to the back of the concrete block, as shown in the shop drawings.

Geogrid reinforcement shall be placed and connected to concrete block courses specified to receive soil reinforcement. The leading edge of the geogrid reinforcement shall be maintained within 1-inch of the front face of the supporting concrete blocks below. Geogrid panels shall be abutted for 100 percent backfill coverage with less than a 4-inch gap between adjacent panels.

1 Backfill shall be placed and compacted level with the top of each course of
2 concrete blocks, and geogrid reinforcement placed and connected to
3 concrete block courses specified to receive soil reinforcement, before the
4 Contractor may continue placing the next course of concrete blocks.

5
6 **Mesa Wall**

7 For all concrete block courses receiving geogrid reinforcement, the fingers
8 of the block connectors shall engage the geogrid reinforcement apertures,
9 both in the connector slot in the block, and across the block core. For all
10 concrete block courses with intermittent geogrid coverage, a #3 steel
11 reinforcing bar shall be placed, butt end to butt end, in the top block groove,
12 with the butt ends being placed at a center of a concrete block.

13
14 **6-13.3(10) Sidewalk Coping**

15 Section 6-13.3(10) is added as follows:

16
17 Within the horizontal limits of the walls where sidewalks are present, the
18 Contractor shall construct sidewalk coping as detailed in the Plans.

19
20 **6-13.5 Payment**

21 Section 6-13.5 is supplemented with the following:

22
23 The unit Contract price per square foot for "Structural Earth Wall" shall also include
24 construction of sidewalk coping, Structure excavation, shoring or extra excavation,
25 crushed surfacing leveling pad, gravel borrow for structural earth wall including haul,
26 geogrid reinforcing, underdrain pipes, construction geotextile for underground
27 drainage, gravel backfill for drains, wall finishing, compaction, and Working Drawing
28 submittals.
29
30

Division 7
Drainage Structures, Storm Sewers, Sanitary
Sewers, Water Mains, and Conduits

7-01 Drains

7-01.1 Description

Section 7-01.1 is supplemented with the following:

(*****)

This Work consists of constructing drain cleanouts in accordance with the Plans, Standard Plan CK-2D.05B, and these Specifications, at the locations staked.

7-01.2 Materials

Section 7-01.2 is supplemented with the following:

(*****)

Ductile Iron Pipe (for Drain Cleanout)	9-30.1(1)
Concrete (for Drain Cleanout)	6-02.3(2)B
Iron Ring and Cover (for Drain Cleanout)	9-05.15
Crushed Surfacing Top Course (for Drain Cleanout)	9-03.9(3)
Screw Plug with Raised Hex Nut (for Drain Cleanout)	9-05.1(5)

7-01.3 Construction Requirements

Section 7-01.3 is supplemented with the following:

(*****)

PVC pipe for drain cleanouts shall be constructed in accordance with Section 7-01.3(1) for PVC drain pipe. Drain cleanouts shall be constructed in accordance with City of Kirkland Standard Plan CK-D.05B.

7-01.4 Measurement

Section 7-01.4 is supplemented with the following:

(*****)

Drain cleanouts will be measured per each drain cleanout furnished and installed.

7-01.5 Payment

Section 7-01.5 is supplemented with the following:

(*****)

The unit Contract price per linear foot for "Drain Pipe ____ In. Diam." shall be full pay for all Work to complete the installation, including excavation, native or imported trench backfill, compaction, and disposal of native excavated materials not used for backfill.

"Drain Cleanout", per each.

1 The unit Contract price per each for “Drain Cleanout” shall be full pay for all Work to complete
2 the installation, including excavation, native or imported trench backfill, compaction, and
3 disposal of native excavated materials not used for backfill.
4

5 6 **7-04 Storm Sewers**

7 8 **7-04.2 Materials**

9 Section 7-04.2 is supplemented with the following:
10

11 (COK GSP)

12 The materials list in Section 7-04.2 is modified as follows:
13

14 Acceptable pipe materials within City of Kirkland right of way are:
15

16 Solid Wall PVC Storm Sewer Pipe	9-05.12(1)
17 PVC Pressure Pipe	9-30.1(5)
18 Ductile Iron Pipe	9-30.1

19 20 **7-04.3 Construction Requirements**

21 22 ***7-04.3(1) Cleaning and Testing***

23 Section 7-04.3(1) is supplemented with the following:
24

25 (COK GSP)

26 Cleaning and testing of the sanitary sewer system is required prior to placing the new
27 section into service and shall be incidental to the sanitary sewer pipe and structures,
28 unless otherwise specified under bid items herewith. Such tests shall be conducted in
29 accordance with the reference material specification for the material being used. Tests
30 on the completed installation shall be made as specified below.
31

32 **Cleaning and Flushing**

33 All gravity sewer pipes shall be cleaned and flushed after side sewer installation and
34 after backfilling and compaction. The pipe shall be cleaned and flushed by passing an
35 inflatable rubber ball through the completed section or using a flush truck. Any
36 obstruction, such as cemented grout or debris found in the completed section, shall be
37 removed.
38

39 **Alignment and Grade**

40 Alignment and grade will be inspected by lamping each completed section. Any section
41 which appears to exceed the allowance for variance in line or grade shall be further
42 inspected by an approved video monitoring system (TV inspection). If this inspection
43 confirms that the section does not meet the specified requirements for the line and
44 grade, the sections or portion not in compliance shall be re-excavated and re-laid at
45 Contractor's expense.
46

47 All costs incurred for TV inspection shall be considered incidental to and included in
48 various related bid item included in the proposal.
49

50 **Deflection Test for Gravity Sewer Pipe**

1 All gravity sewer pipes shall be tested for deflection at least 30 days after completion of
2 trench backfill and compaction in accordance with requirements of Section 7-17.3(2)G
3 of the Standard Specifications.
4

5 **Leakage Tests**

6 All gravity sewers, including all connected side sewers, shall be tested for water
7 tightness in accordance with the provisions of Section 7-17.3(2)F (Low Pressure Air Test)
8 of the Standard Specifications.
9

10 Acceptable water tightness testing criteria is revised as follows: Air testing will require a
11 minimum pressure of 4 psi for 15 minutes with no pressure drop. No other test
12 procedures will be allowed except by written approval of the Project Engineer. Whenever
13 ground water is encountered in the sewer construction, an approved water level
14 monitoring device shall be installed at each manhole. The device shall be used in the
15 conduct of the sewer testing to determine the water pressure above the sewer being
16 tested.
17

18 **(COK GSP)**

19 **7-04.3(2) Existing Utilities**

20 Section 7-04.3(2) is added as follows:
21

22 Existing utilities of record are shown on the Plans. These are shown for convenience
23 only, and the Engineer assumes no responsibility for improper locations or failure to
24 show utility locations on the Plans. When utility services occupy the same space as the
25 new storm sewer main, the Contractor shall complete necessary excavation to fully
26 expose such services. The Contractor shall protect said services, and work around them
27 during excavating and pipe laying operations. Any damages to services resulting from
28 the Contractor's operation shall be reported to the appropriate utility. Such damage shall
29 be repaired at the Contractor's expense.
30

31 The Contractor shall anticipate the potential for crossing over or under an occasional
32 shallow existing side sewers and roof drains that are not part of the one-call utility locate.
33 If such a side sewer or drain is encountered, the Contractor shall immediately notify the
34 Owner's on-site representative and then take the necessary steps to determine whether
35 or not the side sewer is active. If a side sewer is damaged by construction activity, the
36 Contractor is responsible for repairing the side sewer. All costs associated with
37 determining the viability and repair of the existing side sewer shall be considered
38 incidental to the cost of the storm sewer pipe and no additional payment will be made.
39

40 **7-04.5 Payment**

41 Section 7-04.5 is supplemented with the following:
42

43 **(*****)**

44 The unit contract prices for Storm Sewer Pipe, regardless of size and material, shall be full
45 compensation for all labor, material, tools and equipment necessary for and incidental to
46 furnish and install the storm sewer as shown on the plans and as specified herein, including
47 the following:
48

- 49 1. Removal, loading, hauling, and disposal of existing asphalt concrete pavement as
50 necessary for trench excavations in paved areas. This shall include removal of

- existing pavement beyond the trench as necessary and as indicated on the drawings prior to final pavement patch.
2. Trench and structure excavation (including through existing duct banks as noted in the Plans) and dewatering, furnishing and installation of pipe on line and grade, wyes, tees, special fittings, manhole adapters.
 3. Removal, loading, hauling, and disposal of native excavation material.
 4. Pipe bedding material and compaction.
 5. Steel sheeting for covering excavations as necessary.
 6. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.
 7. Cleaning and testing of all storm sewers and catch basins including CCTV inspection of the mains.
 8. Crushed Surfacing Top Course and compaction for roadway base.
 9. Placing and maintaining temporary cold mix asphalt concrete patching consisting of a minimum 3-inches of cold asphalt mix over compacted backfill within existing paved areas, and removal of the temporary cold mix asphalt mix prior to placement of trench patch (patching paid for under "HMA Class 1/2-inch, PG 58H-22").

Section 7-04.5 is supplemented with the following:

(*****)

"Ductile Iron Storm Sewer Pipe ____ In. Diam.", per linear foot.

7-05 Manholes, Inlets, Catch Basins, and Drywells

7-05.1 Description

Section 7-05.1 is supplemented with the following:

(*****)

This Work consists of providing and installing locking solid metal covers and frames, adjusting drainage Structures to finished grade, connecting existing drainage Structures to new drainage Structures, connecting new drainage Structures to existing drainage Structures in accordance with the Plans, these Specifications, and the Standard Plans, in conformity with the lines and grades staked.

This Work shall also consist of constructing a Flow Control Structure in accordance with the Plans and these Specifications.

This Work shall also consist of excavating, salvaging, reinstalling, and connecting to the storm drainage system one Filterra Structure in accordance with the Plans and these Specifications.

7-05.2 Materials

Section 7-05.2 is supplemented with the following:

Joint sealant

9-04

7-05.3 Construction Requirements

Section 7-05.3 is supplemented with the following:

(*****)

Frames, Grates, and Covers

The Contractor shall provide and install vaned frames and grates in accordance with City of Kirkland Standard Plan CK-D.14. Solid locking covers shall be provided and installed in accordance with City of Kirkland Standard Plan CK-D.18A.

The Contractor shall provide and install curb inlets in accordance with City of Kirkland Standard Plan CK-D.06.

The Contractor shall provide slip-resistant manhole and catch basin solid covers to all new and adjusted manhole and catch basin solid covers. The Contractor shall provide a Certificate of Compliance that the slip-resistant covers meet a Static Coefficient of Friction (SCOF) requirement of 0.6 or greater, and meet ASTM C501 and ASTM D1709 test requirements.

Catch Basin Type 2 54 In. Diam. w/Flow Restrictor shall be constructed to provide two access holes in the flat slab top. One access 30-inch diameter hole shall be located above the ladder or set of steps and the other access 24-inch diameter hole shall be located above the overflow riser.

Flow Restrictor

The riser and connecting horizontal pipe shall be welded together creating a single unit, and shall be free of leaks and cracks.

The flow restrictor Shop Drawings shall be submitted to the Engineer for approval seven days prior to fabrication.

(COK GSP)

Contractor shall install Agency supplied storm drain markers and adhesive on any new or altered catch basins that have a vaned grate and/or inlet. To install, follow the "Storm Drain Marking" instruction sheet supplied with the storm drain markers. Any Work associated with installation of storm drain markers is incidental to other Bid items.

7-05.3(1) Adjusting Manholes and Catch Basins to Grade

Section 7-05.3(1) is supplemented with the following:

(*****)

Catch basins and similar structures shall be brought to finished grades by methods of construction as required in Section 7-05 and City of Kirkland Pre-Approved Plans. Steel risers are not allowed. Patch adjacent pavement with HMA Class 1/2-inch, PG 58H-22. Seal joint with AR4000W and dry sand after patching.

"Adjust Catch Basin" shall be constructed in accordance with the Plans.

Any damage to existing catch basins resulting from the Contractor's operations shall be repaired at the Contractor's expense.

Manholes owned by Ziply will be adjusted by Contractor, but a Ziply inspector must be on-site during this work. Please contact Mike Hupf at 360-302-0095 to coordinate inspection with 10 working days notice.

1 **7-05.3(5) Connections to Existing Structures**

2 Section 7-05.3(5) is added as follows:

3
4 (*****)

5 Where shown in the Plans, the Contractor shall connect new drainage pipe to existing
6 drainage Structures such as catch basins, manholes, and inlets, or shall connect new
7 drainage Structures such as catch basins, manholes, and inlets to existing drainage
8 pipe.
9

10 **7-05.3(6) Relocate Filterra Structure**

11 Section 7-05.3(6) is added as follows:

12
13 (*****)

14 The Contractor shall notify the Engineer and Contech representative at the contact
15 information below, a minimum of twenty working days in advance of beginning any Work
16 associated with relocation of the storm filter structure. Before and during the structure
17 relocation, the Contractor shall coordinate the Work with the Contech representative.
18

19 Contech Representative: Steven Costello
20 Phone Number (M): 206-730-8090
21 Email: SCostello@conteches.com
22

23 The Contractor shall verify invert elevations prior to construction. Discrepancies in invert
24 elevations shall be immediately brought to the attention of the Engineer. Inverts shall be
25 modified as shown in the plans after the relocation is complete.
26

27 The Contractor shall relocate the existing Filterra structure under the supervision and
28 direction of a Contech representative to the location shown in the plans.
29

30 The Contractor shall excavate completely around the structure to prevent unbalanced
31 loading. The Structure shall be kept in operation at all times and the necessary
32 precautions shall be taken to prevent debris or other material from entering the storm
33 sewer, including a tight pipeline bypass if required. The only exception to the continuous
34 operation requirement shall be one day for the removal, storage, and reinstallation of
35 the Structure. The Work shall be completed during dry weather to avoid releasing un-
36 detained stormwater to the downstream system.
37

38 The Contractor shall remove and store the structure on site until it is reinstalled in the
39 location shown in the Plans. Inlet and outlet invert elevations shall be set as shown in
40 the Plans.
41

42 Special care shall be taken to see that the openings through which pipes enter the
43 manhole are completely and firmly rammed full of non-shrink grout to ensure water
44 tightness.
45

46 The inside throat of the Structure shall be thoroughly mortared and plastered.
47

48 **7-05.3(7) Retrofitting Existing Frames, Grates, and Covers**

49 Section 7-05.3(7) is added as follows:
50

1 (*****)

2 **Replace Existing Storm Drain Manhole Ring and Cover with New Ring and Cover**

3 Where shown in the Plans or as directed by the Engineer, the Contractor shall remove
4 and dispose of existing stormwater manhole rings and covers and replace them with
5 new stormwater manhole rings and covers in accordance with City of Kirkland Standard
6 Plan CK-D.18.
7
8

9 **7-05.4 Measurement**

10 The sixth paragraph of Section 7-05.4 is deleted and replaced with the following:

11
12 (*****)

13 Connections to existing drainage Structures will be measured per each Structure, regardless
14 of the number of pipes requiring connection. Connections of existing pipes to new Structures
15 will not be measured.
16

17 Section 7-05.4 is supplemented with the following:

18
19 (*****)

20 Frames, grates, and solid covers installed on new drainage Structures will not be measured.

21
22 Frames, grates, or solid covers installed on existing Structures will be measured per each.

23
24 Curb inlets will be measured per each.

25
26 Relocate Filterra Structure will be measured per each entire system removed and relocated.

27
28 Replacement of existing storm drain manhole ring and cover with new ring and cover will be
29 measured per each replacement.
30

31 **7-05.5 Payment**

32 Section 7-05.5 is supplemented with the following:

33
34 (COK GSP)

35 Precast adjusting rings/risers, bricks, grout, HMA Class 1/2-inch PG 58H-22 for pavement
36 patching, and AR4000W asphalt shall be considered **incidental** and included in the unit
37 Contract price for other Bid items in this section.
38

39 (*****)

40 The unit Contract price per each for manholes, inlets and catch basins of the kind and size
41 specified shall be full pay for all Work to complete the installation, including excavation,
42 bedding material, native or imported backfill, compaction, and disposal of native excavated
43 materials not used for backfill.
44

45 "Catch Basin Type 2 54 In. Diam. with Flow Restrictor", per each.

46 The unit Contract price per each for "Catch Basin Type 2 54 In. Diam. with Flow
47 Restrictor" shall be full compensation for all labor, materials, and equipment necessary for
48 constructing and installing the flow restrictor pipes and fittings, providing and placing the
49 catch basin Type 2, constructing all appurtenances and hardware, as shown in the Plans.
50 The unit price also includes excavation, backfill and backfill material for constructing the Flow
51 Control Structure.

The unit Contract price per each for "Curb Inlet" shall include excavation, dewatering, backfill, backfill material, compaction, and adjustments to finish grade.

The unit Contract price per each for "Catch Basin Type ____" shall include excavation, dewatering, backfill, backfill material, compaction, and adjustments to finish grade.

The unit Contract price per each for "Connection to Drainage Structure" shall be full for all costs necessary to connect new drainage pipe to existing drainage Structures such as catch basins, manholes, and inlets or to connect new drainage Structures such as catch basins, manholes, and inlets to existing drainage pipe.

"Relocate Filterra Structure", per each.

The unit Contract price per each for "Relocate Filterra Structure" shall be full payment for all Work associated with removing and salvaging existing soil media and vegetation and existing tree grates and other existing castings, to excavate, salvage, and reinstall the feature to finished grade as shown in the Plans, including providing and installing new pipe connections, furnishing and installing cement conc. curb and gutter transition to the Filterra for stormwater flow into the throat opening, and furnishing materials and labor for restoration to backfill the resulting void.

"Replace Existing Storm Drain Manhole Ring and Cover with New Ring and Cover", per each. The unit Contract price per each for "Replace Existing Storm Drain Manhole Ring and Cover with New Ring and Cover" shall be full pay for all costs necessary to remove existing frames and covers and replace them with new rings and covers, and disposal of removed materials.

7-12 Valves for Water Mains

7-12.1 Description

Section 7-12.1 is supplemented with the following:

(*****)

This Work consists of replacing existing water valve boxes finished grade at locations shown in the Plans, or as directed by the Engineer. The water system improvements shall be constructed as shown in the Plans and in accordance with City of Kirkland Pre-Approved Plans, Section 2 – Water System, current version, available at http://www.kirklandwa.gov/depart/Public_Works/Development/Pre-Approved_Plans.

7-12.3 Construction Requirements

Section 7-12.3 is supplemented with the following:

(*****)

The Contractor shall coordinate this Work with the affected utility owner prior to beginning the adjustment.

Replace Water Valve Box Top Section

Where shown in the Plans or as directed by the Engineer, the Contractor shall remove and replace existing water valve box top sections and covers with new top sections and covers per City of Kirkland Pre-Approved Plan No. CK-W.35. Installation of the new valve box top sections and covers shall occur during the adjustment Work of the water valve boxes that

occurs with the pavement paving operations. The Contractor shall remove and dispose of existing asphalt pavement and/or surrounding cement concrete a distance of 12 inches beyond the valve box, and construct an HMA patch following the replacement Work. All parts of the water valve assembly damaged as a result of the Contractor's operations shall be replaced at no expense to the Contracting Agency or utility owner.

Concrete collars shall be constructed at valve box locations per City of Kirkland Pre-Approved Plan No. CK-D.05B.

7-12.4 Measurement

Section 7-12.4 is supplemented with the following:

(*****)

Replacement of water valve box top section and cover will be made per each top section and cover replaced.

7-12.5 Payment

Section 7-12.5 is supplemented with the following:

(*****)

"Replace Water Valve Box Top Section and Cover", per each.

The unit Contract price per each for "Replace Water Valve Box Top Section and Cover" shall be full pay to furnish and install the new top section and cover of water valve boxes and concrete collars, including disposal of the existing valve box top section and lid.

7-14 Hydrants

7-14.3 Construction Requirements

7-14.3(2) Hydrant Connections

Section 7-14.3(2) is supplemented with the following:

(*****)

The hydrant connection shall include the lateral tee placed at the main at the location of the new hydrant assembly.

7-14.3(4) Moving Existing Hydrants

Section 7-14.3(4) is modified to read:

(*****)

Existing hydrants, and existing fire department connections, shall be moved where shown in the Plans. The existing hydrant or fire department connection lateral tee shall be removed from the main (if said main is to remain active), and a new section of pipe inserted into the water main in place of the existing hydrant or fire department connection lateral tee. Where the existing main to which the existing hydrant or fire department connection lateral tee is connected, and is to be abandoned or temporarily activated after the existing hydrant is moved, the open end of the hydrant lateral pipeline shall be plugged (and temporary thrust restrain provided if temporarily reactivated). All Work shall meet the requirements of Section 7-14.3(1).

1 **7-14.3(7) Remove and Dispose of Existing Hydrant Assembly**

2 Section 7-14.3(7) is added as follows:

3
4 (*****)

5 Existing hydrant assemblies shall be removed where shown in the Plans. The Contractor
6 shall remove hydrant assemblies including the hydrant, vertical pipe mechanical pipe joint,
7 pipe to the auxiliary gate valve, gate valve, hydrant lateral tee to the water main, lower
8 concrete block, and thrust blocking.

9
10 **7-14.4 Measurement**

11 Section 7-14.4 is supplemented with the following:

12
13 (*****)

14 Remove and Dispose of Existing Hydrant Assembly will be measured per each hydrant
15 assembly removed.

16
17 Moving Existing Fire Department Connection (FDC) will be measured per lump each fire
18 department connection moved.

19
20 **7-14.5 Payment**

21 Section 7-14.5 is supplemented with the following:

22
23 (*****)

24 "Remove and Dispose of Existing Hydrant Assembly" per each.

25 The unit Contract price per each for "Remove and Dispose of Existing Hydrant Assembly"
26 shall be full pay for all labor, tools, materials, and equipment necessary to remove, haul, and
27 dispose of the existing fire hydrant assembly and lateral, including but not limited to hydrant
28 removal, excavation, trenching, dewatering, removal and disposal of trenched and excavated
29 material, lateral tee removal, removing any associated valves, valve boxes, and marker
30 posts; splicing waterline back together at location of removal; furnishing, installing,
31 compacting, and testing bedding and backfill materials.

32
33 "Moving Existing Fire Department Connection (FDC)" per each.

34 The unit Contract price per each for "Moving Existing Fire Department Connection" shall be
35 full pay for all Work to move the existing fire department connection, including new lateral
36 tee, shackling, painting, reconnecting to the main, and new pipe necessary to connect the
37 existing location to the new location.

38
39
40 Section 7-14.5 shall be revised to read:

41
42 (*****)

43 "Hydrant Assembly," per each.

44 The unit Contract price per each for "Hydrant Assembly" shall be full pay for all Work to furnish
45 and install fire hydrant assemblies, including all costs for auxiliary gate valve, shackles, tie
46 rods, concrete blocks, gravel, and painting required for the complete installation of the
47 hydrant assembly as specified, and shall include full pay for the hot tap of the water main,
48 the installation of the lateral tee, and the pipe connecting the hydrant to the lateral tee.

7-15 Service Connections

7-15.1 Description

Section 7-15.1 is supplemented with the following:

(*****)

This Work consists of installing new water meters, meter setters, appurtenances, meter boxes, and providing slip-resistant covers.

7-15.3 Construction Requirements

Section 7-15.3 is supplemented with the following:

(*****)

The water system improvements shall be constructed as shown in the Plans and in accordance with current City of Kirkland Pre-Approved Plans, Section 2 – Water System, available at http://www.kirklandwa.gov/depart/Public_Works/Development/Pre-Approved_Plans.

The Contractor shall coordinate the connections of individual private water services with the City of Kirkland Water Department. Coordination shall include, but not be limited to, providing Water Department staff adequate and realistic scheduling and notice planning to ensure that service connection Work does not delay the Contractor's overall Work on the project. Service connection Work will need to occur during periods when businesses with affected water services are closed.

The Contractor shall coordinate with the City of Kirkland Water Department when determining the size of service connections. The City of Kirkland Water Department will be responsible for making the sizing determination.

Where shown in the Plans, the Contractor shall:

- A. Remove existing water service, meters, setters, and meter boxes, and install new water meters, new meter setters, necessary appurtenances, and new meter boxes
- B. Install new service connection piping from the water main to the new water meter box
- C. New service connection piping from the connection point of the customer's service to the new location of the water meter box
- D. New service piping or fittings between the new location of the water meter box and the existing service piping from the main
- E. Provide slip-resistant water meter box covers to all new water meter boxes. The Contractor shall provide a Certificate of Compliance that the slip-resistant covers meet a Static Coefficient of Friction (SCOF) requirement of 0.6 or greater, and meet ASTM C501 and ASTM D1709 test requirements.

7-15.5 Payment

Section 7-15.5 is supplemented with the following:

(*****)

"Service Connection", per each.

1 The unit Contract price per each for "Service Connection" shall be full pay for all Work to
2 remove and dispose of the existing service, water meter, meter box and other existing
3 appurtenances and install the service connection, including but not limited to, excavating,
4 tapping the main, laying and jointing the pipe and fittings and appurtenances, new meters
5 and meter setters, backfilling, testing, flushing, disinfection of the service connection,
6 coordination with the serving utility, new meter boxes, providing slip-resistant water meter
7 box covers, and connecting new service piping or fittings between the water meter box and
8 the existing service piping.
9

10 Section 7-20 is added as follows:

11 **7-20 Stormwater Vault**

12
13 **(*****)**

14 **7-20.1 Description**

15 This Work consists of constructing a stormwater vault which includes a chamber, concrete baffle,
16 outlet control Structure, ladders, pipes, fittings, and appurtenances within the chamber in
17 accordance with these Specifications and in accordance with the Plans or as established by the
18 Engineer.
19

20 It is understood that the Plans are schematic and do not show all details of the Work required. It
21 shall be the Contractor's responsibility to determine the full extent of all labor, materials and
22 equipment required to accomplish the intent of the Plans and to accomplish said intent in
23 accordance with accepted trade practices.
24

25 **7-20.2 Materials**

26 27 **7-20.2(1) General**

28 This Section is a partial list of materials needed for the stormwater vault. It shall be the
29 Contractor's responsibility to determine the full extent of all materials required to provide a
30 complete and operational stormwater vault, which is in accordance with the Plans, applicable
31 State requirements, and these Specifications.
32

33 **7-20.2(2) Vault**

34 The stormwater vault shall be a precast concrete Structure manufactured by:

35
36 Utility Vault Company, a Division of Oldcastle Precast, Inc.
37 Contech Stormwater Solutions/Utility Precast, Inc.
38 H2 Pre-cast – East Wenatchee, WA.
39

40 or approved equivalent, and subject to the requirements in the Plans and these
41 Specifications.
42

43 Formwork for fabrication: Provide forms and, where required, form facing materials of metal,
44 plastic, wood or another acceptable material that is nonreactive with concrete and will
45 produce smooth finish surfaces.
46

47 **Vault Design**

48 Loads: AASHTO H20-44 wheel loading and traffic loading because the vault shall be
49 located beneath a maintenance drive subject to vehicular traffic. Minimum of 30%

1 impact loading. Other loading: 80 pcf E.F.P. lateral soil pressure due to potential high
2 water table.

3
4 Standards: ASTM C857, *Standard Practice for Minimum Structural Design Loading for*
5 *Underground Precast Concrete Utility Structures*, and ACI-318-02 Building Code

6 7 **Reinforcement**

8 Reinforcing Bars: ASTM A615M, *Standard Specification for Deformed and Plain*
9 *Carbon-Steel Bars for Concrete Reinforcement*, Grade 60 (ASTM A 615M, Grade 40),
10 deformed.

11
12 Steel-Welded Wire Fabric: ASTM A185M, *Standard Specification for Steel Welded Wire*
13 *Reinforcement, Plain, for Concrete*, plain, cold drawn.

14
15 Supports for Reinforcement: Provide supports for reinforcement, including bolsters,
16 chairs, spacers and other devices for spacing, supporting and fastening reinforcing,
17 complying with CRSI recommendations.

18 19 **Concrete Materials**

20 Portland Cement: ASTM C150M, *Standard Specification for Portland Cement*, Type III.

21
22 Use only one brand and type of cement throughout the project, unless otherwise
23 acceptable to the Engineer.

24
25 Normal-Weight Aggregates: ASTM C33M, *Standard Specification for Concrete*
26 *Aggregates*, Class 5S. Provide aggregates from a single source.

27
28 Water: Potable.

29
30 Admixtures, General: Provide admixtures for concrete that contain not more than 0.1
31 percent chloride ions by mass of Portland cement or cementitious material.

32
33 Air-Entraining Admixture: ASTM C260M, *Standard Specification for Air-Entraining*
34 *Admixtures for Concrete*, certified by manufacturer to be compatible with other required
35 admixtures.

36
37 Water-Reducing Admixture: ASTM C494M, *Standard Specification for Chemical*
38 *admixtures for Concrete*, Type A.

39
40 High-Range, Water-Reducing Admixture: ASTM C494M, Type F.

41
42 Water-Reducing and Accelerating Admixture: ASTM C494M, Type E.

43
44 Water-Reducing and Retarding Admixture: ASTM C494M, Type D.

45 46 **7-20.2(3) Ladders and Steps**

47 Materials and construction shall be in accordance with Standard Specifications 7-05 and City
48 of Kirkland Standard Plan CK-S.14, and made of non-corrosive materials.

1 **7-20.2(4) Outlet Control Structure, Pipes and Fittings**

2 The pipe for the outlet control Structure shall be ductile iron pipe per Section 9-30.1(1). All
3 metal parts shall be corrosion resistant, either aluminum or stainless steel.
4

5 **7-20.3 Construction Requirements**

6
7 **7-20.3(1) Structural Plans**

8 The Contractor shall coordinate the design of the precast concrete vault manufacturer, and
9 shall have Structural Plans of the vault prepared and stamped by a licensed Structural
10 Engineer. The Structural Plans and calculations shall be submitted to the Engineer, and the
11 Contractor shall obtain approval from the Engineer prior to factory construction of the precast
12 vault. Submittal of Working Drawings shall be in accordance with Section 6-01.9. Six sets
13 of Working Drawings shall be submitted unless otherwise directed by the Engineer.
14

15 **7-20.3(2) Vaults**

16 The vault when constructed shall be free of leaks and construction joints shall be provided
17 with water stops.
18

19 **Concrete Mixes for Vault**

20 Prepare design mixes for each type of concrete required. Limit use of fly ash and silica
21 fume to not exceed, in aggregate, 25 percent of the Portland cement by weight. Design
22 mixes may be prepared by qualified precast manufacturing plant personnel or at the
23 precast fabricator's option, a qualified independent testing agency. Normal-Weight
24 Concrete: Proportion mixes by either laboratory trial batch or field test data methods
25 according to ACI 211.1 and ACI 301, using materials to be used on the project, to provide
26 normal-weight concrete with the following properties: Compressive Strength (28-Day):
27 4500 psi (41.4 Mpa) minimum.
28

29 Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight
30 concrete at point of placement having an air content as follows, with a tolerance of plus
31 or minus 1-1/2 percent: Air Content: 5 percent for ¾-inch minus (19-mm) maximum
32 aggregate.
33

34 Other Admixtures: Use water-reducing, high-range water-reducing, water reducing and
35 accelerating, or water-reducing and retarding admixtures according to manufacturer's
36 directions.
37

38 Concrete-Mix Adjustments: Concrete-mix design adjustments may be proposed when
39 characteristics of materials, project conditions, weather, test results, or other
40 circumstances warrant.
41

42 **Fabrication of Precast Concrete Vault**

43 Formwork: Accurately construct forms, mortar tight, of sufficient strength to withstand
44 pressures due to concrete placing operations and temperature changes. Maintain
45 formwork to provide completed precast concrete units of shapes, lines, and dimensions
46 indicated.
47

48 Reinforcement: Comply with the recommendations of CRSI's "Manual of Standard
49 Practice" for fabricating, placing, and supporting reinforcement. Clean reinforcement of
50 loose rust and mill scale, earth, and other materials that reduce or destroy the bond with

concrete. Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcement by metal chairs, runners, bolsters, spacers and hangers, as required. Place reinforcement to obtain at least the minimum coverages for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position while placing concrete. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

Concrete Mixing: Comply with requirements and with ASTM C94M, *Standard Specification for Ready-Mixed Concrete*. Following concrete batching, no additional water may be added.

Concrete Placement: Place concrete in a continuous operation to prevent seams or planes of weakness from forming in precast units. Comply with requirements of ACI 304R for measuring, mixing, transporting, and placing concrete. Thoroughly consolidate placed concrete by internal and external vibration without dislocating or damaging reinforcement and built-in items. Use equipment and procedures complying with ACI 309R

Identify pickup points of precast concrete units and orientation in Structure with permanent markings, complying with markings indicated on final Shop Drawings. Imprint casting date on each precast unit on a surface that will not show in the finished Structure.

Finish formed surfaces of precast concrete as indicated for each type of unit, and as follows:

Standard Finish: Normal plant-run finish produced in forms that impart a smooth finish to concrete. Small surface holes caused by air bubbles, normal color variations, and form joint marks, and minor chips and spalls will be tolerated. Major or unsightly imperfections, honeycombs, irregular surfaces, or structural defects are not permitted.

Examination

Prior to installation of the precast concrete vault, the Contractor shall examine the vault for compliance with dimensional and size requirements, including installation tolerances, true and level bearing surfaces, and other conditions affecting performance of precast concrete units. Any dimensional sizes and finishes not in accordance with the requirements shall be corrected by the Contractor prior to installation.

Excavation for Vault and Installation

The excavated area for the vault shall be dug with a minimum of 3 feet clearance around all walls to avoid obstructions when setting the vault. Temporary shoring or extra excavation shall be provided by the Contractor in accordance with Section 7-08.3(1)B of the Standard Specifications. Extra care shall be taken to protect the nearby water main from damage or disturbance.

The vault shall be placed upon 6 inches minimum compacted thickness of crushed surfacing top course, or if water is present, on clean 2-inch minus railroad ballast, as a gravel foundation. Install precast units level, plumb, square, and true. Shore and brace

1 precast concrete units to maintain location, stability, and alignment until permanent
2 connections are installed. The correct placement of the storm vault is important in order
3 to form a smooth surface.

4
5 Backfill around vaults should consist of pea gravel. In no case shall the material be
6 saturated soil, or contain rocks in excess of 1-1/2" size, or organic materials. No voids
7 should remain between the vault walls and backfill material.

8
9 Backfilling should be done after vault is completely assembled making certain to
10 compact the backfill progressively from the bottom to the top surface. Compaction of
11 backfill shall be in accordance with Section 2-03.3(14)C, Method C, of the Standard
12 Specifications.

13
14 Grouting of all risers, covers, conduit of specific sections of vaults is the responsibility of
15 the Contractor. A recommended cement grout consists of two parts sand and one part
16 cement and sufficient water to form a plastic slurry. Apply in a manner to ensure filling of
17 all voids in the joint being sealed. Add sufficient water to form a plastic slurry.

18 19 **7-20.4 Measurement**

20
21 No specific unit of measurement will apply to the lump sum item of "Stormwater Vault."

22
23 No measurement for payment will be made for Structure excavation Class B, including haul, for
24 the stormwater vaults.

25
26 Shoring is required. No measurement for payment will be made for the Stormwater Vault.

27
28 No measurement for payment will be made for the crushed surfacing foundation beneath the
29 vault.

30
31 No measurement for payment will be made for pea gravel backfill.

32 33 **7-20.5 Payment**

34 Payment will be made in accordance with Section 1-04.1 for the following Bid items in the
35 Proposal:

36
37 "Stormwater Vault", lump sum.

38 The lump sum Contract payment for "Stormwater Vault" shall be full pay for all labor,
39 materials, and equipment necessary to provide a complete and functional stormwater vault.
40 The unit price includes the construction of the pre-cast concrete vault and gravel foundation,
41 baffle, pipes, riser, ladders, fittings and appurtenances within the vault, the access openings
42 and lids, and all Work necessary to provide a complete and functional vault, including
43 excavation, dewatering, foundation, shoring, backfill, and compaction.

44
45
46 Section 7-21 is added as follows:

47 **7-21 Filterra Filtration System**

48
49 **(*****)**

50 **7-21.1 Description**

This Work consists of constructing a Filterra® stormwater bioretention filtration system in accordance with the Plans, these Specifications, in conformity with the lines and grades staked.

7-21.2 Materials

Each manufactured Filterra® unit shall consist of a precast concrete container together with an underdrain system, filter media, plant material, and appropriate grate landscape cover where applicable.

Concrete for the precast unit shall conform to the following:

1. The wall thickness shall not be less than six (6) inches thick, or as dimensioned in the Plans. In all cases, the wall thickness shall be no less than the minimum thickness required to meet loading requirements of the application.
2. The precast concrete unit shall be cured by an approved method. The unit shall not be shipped until the concrete has attained 85% of its design compressive strength.
3. Connections shall be provided to accept pipes of the specified size and type.

7-21.3 Construction Requirements

Each unit shall be constructed at the location and elevation shown in the Plans. Any modification to the location or elevation shall be approved by the Engineer.

The unit shall be placed on compacted Subgrade with a minimum six (6) inch crushed surfacing top course matching the final grade of the curb line in the area of the unit. Compact undisturbed Subgrade materials to 95% of maximum density at +1% to 2% of the optimum moisture. Unsuitable material below Subgrade, if present, shall be replaced with approved foundation material as directed by the Engineer.

Once the unit is set, the internal wooden forms and protective silt fabric cover must be left intact. The top lid shall be sealed onto the box section before backfilling, using a non-shrink grout, butyl rubber, or similar waterproof seal. The boards on the top of the lid and boards sealed in the unit's throat shall not be removed. The Supplier (Americast) will remove these sections at the time of activation. Filterra® units are only to be activated by the Supplier.

Outlet connections shall be aligned and sealed as per the Plans, with any modifications necessary to meet site conditions and local regulations. The correct outlet shall be marked on the Filterra® box unit. The Contractor shall not use plugged couplings marked "USE OTHER CONNECTION".

Backfilling shall be performed in a careful manner, bringing the appropriate fill material up in six (6) inch lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of the Filterra® unit shall conform to ASTM C891, *Standard Practice for Installation of Underground Precast Concrete Utility Structures*, unless specified otherwise in the Contract Documents.

The Contractor shall provide curb and gutter and transition to the Filterra® unit and to ensure for proper stormwater flow into the system through the throat opening.

7-21.4 Measurement

Each Filterra® unit of the size specified will be measured per each.

7-21.5 Payment

1 Payment will be made in accordance with Section 1-04.1 for the following Bid items in the
2 Proposal:

3
4 "Filterra® Unit ____Ft. x ____Ft. (Oil)", per each.

5 The Contract price per each for "Filterra® Unit ____Ft. x ____Ft. (Oil)" shall be full pay for all
6 costs in connection with furnishing all materials, labor, tools, and equipment necessary for
7 the construction of the complete system as specified and as shown in the Plans including
8 excavation, setting, grouting, furnishing and installing cement conc. curb and gutter transition
9 to the Filterra for stormwater flow into the throat opening, backfilling, and activation.

10
11
12
13
14 **END OF DIVISION 7**
15

Division 8
Miscellaneous Construction

8-01 Erosion Control and Water Pollution Control

8-01.1 Description

Section 8-01.1 is supplemented with the following:

(June 20, 2017 COK GSP)

Implementation of appropriate TESC BMP's at the appropriate construction phases is very important to prevent siltation of the subgrade, aggregate courses, and final permeable pavement. The Contractor shall install and maintain all temporary and permanent erosion control measures and Best Management Practices (BMPs) in accordance with the Contract Documents, Standard Specifications, Permit Conditions, the Contractors "Stormwater Pollution Prevention Plan" (SWPPP) and as directed by the Engineer prior to clearing, grubbing, or grading or as necessary, as clearing and grading progress. Such measures shall include, but are not necessarily limited to:

- Commercial construction entrances per CK-E.02.
- Quarry Spall outfall pads for temporary erosion control
- Rock, Wattle, Compost sock check dams
- Straw mulch, netting and tackifier
- Concrete wash
- Baker tanks and/or Settling ponds
- Stabilized construction entrance / exit
- Inlet protection on existing and proposed drainage structures
- Reinforced silt fencing
- Plastic Covering
- Temporary pipe slope drains
- Temporary HMA Curb
- Disposal of sediments and materials
- TESC seeding
- Maintenance of BMPs including in the event of emergencies and as weather and field conditions dictate; and also including installation of additional BMPs which may become required as field and weather conditions evolve.
- Street sweeping and Cleaning
- ESC Lead per 8-01 of the Standard Specifications
- All materials, tools and equipment necessary to meet these requirements

(*****)

- All materials, including fencing and signing, to meet tree protection requirements as shown at locations in the Plans and following the Tree Protection Detail on drawing number SP5.

The Contractor shall provide erosion control as required for all stockpiled materials at no cost to the Contracting Agency. The Engineer, in the event of an emergency, and as weather and field conditions dictate, may require additional erosion controls and BMPs.

1 **Site Specific BMPs and SWPPP Plan**

2 Temporary Erosion / Water Pollution Control notes and performance criteria are noted in the
3 Contract Documents. The Contractor shall submit his or her own Storm Water Pollution
4 Prevention Plan (SWPPP) to the Contracting Agency for review and approval prior to the
5 commencement of clearing, grubbing, or grading activities.

6 Water quality testing and discharge volume reporting required by the project permits shall be
7 performed by the Contractor and is a condition of approval of the SWPPP. The reporting data
8 shall be provided to the Engineer as soon as practical, at regular intervals and prior to
9 reporting deadlines established in the permits. The Contractor will provide a copy of the
10 reporting information within 24 hours of a request to do so by the Engineer. All costs to
11 perform these reporting requirements are to be included in the lump sum contract price for
12 "Erosion/Water Pollution Control".

13
14 **8-01.3 Construction Requirements**

15 Section 8-01.3 is supplemented with the following:

16
17 *(June 20, 2017 COK GSP)*

18 The Contractor shall bear sole responsibility for damage to completed portions of the project
19 and to property located off the project caused by erosion, siltation, runoff, or other related
20 items during the construction of the project. The Contractor shall also bear sole responsibility
21 for any pollution of rivers, streams, groundwater, or other water that may occur as a result of
22 construction operations.

23
24 Any area not covered with established, stable vegetation where no further work is anticipated
25 for a period of 15 days, shall be immediately stabilized with the approved erosion and
26 sedimentation control methods (e.g., seeding and mulching, straw). Where seeding for
27 temporary erosion control is required, fast germinating grasses shall be applied at an
28 appropriate rate (e.g., perennial rye applied at approximately 80 pounds per acre).

29
30 At no time shall more than 1 foot of sediment be allowed to accumulate within a catch basin.
31 All catch basins and conveyance lines shall be cleaned at a time designated by the
32 Contracting Agency Construction Inspector.

33
34 The cleaning operation shall not flush sediment-laden water into the downstream system.
35 The cleaning shall be conducted using an approved vacuum truck capable of jet rodding the
36 lines. The collection and disposal of the sediment shall be the responsibility of the Contractor
37 at no cost to the Contracting Agency.

38
39 **8-01.3(1) General**

40
41 **8-01.3(1)A Submittals**

42 Section 8-01.3(1)A is supplemented with the following:

43
44 *(*****)*

45 **Stormwater Pollution Prevention Plan**

46 The Contractor shall prepare a Construction Stormwater Pollution Prevention Plan
47 (CSWPPP) in accordance with Department of Ecology and City of Kirkland
48 requirements.

1 The Contractor shall incorporate the CSWPPP implementation schedule into the
2 Contractor's progress schedule. The CSWPPP and implementation schedule shall
3 be submitted in accordance with Sections 1-05.3 and 1-08.3.

4
5 In addition, the CSWPPP shall outline the procedures to be used to prevent high
6 pH stormwater. The plan shall include how the pH of the water will be maintained
7 between pH 6.5 and pH 8.5 prior to being discharged from the project or entering
8 surface waters. Prior to beginning any concrete or grinding work, the Contractor
9 shall submit the plan, for the Engineer's review and approval.

10
11 The CSWPPP template can be found at the following link:

12
13 [https://www.kirklandwa.gov/Government/Departments/Public-Works-](https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/PW-Forms/CSWPPP)
14 [Department/PW-Forms/CSWPPP](https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/PW-Forms/CSWPPP)

15
16 The CSWPPP is considered a "living" document that shall be revised to account for
17 additional erosion control/pollution prevention BMPs as they become necessary
18 and are implemented in the field during project construction. A copy of the most
19 current CSWPPP shall remain on-site at all times and an additional copy shall be
20 forwarded to the Engineer. At the Contractor's preference, revisions to the
21 CSWPPP may be forwarded to the Engineer rather than submitting a complete
22 document. Revisions to the CSWPPP may be kept on-site in a file along with the
23 original CSWPPP document.

24
25 **(June 20, 2017 COK GSP)**

26 **8-01.3(1)B Erosion and Sediment Control (ESC) Lead**

27 Supplement this the second paragraph with the following:

28
29 3. Inspecting all on-site erosion and sediment control BMPs at least once every
30 five working days and within 24 hours of every runoff event. A SWPPP
31 Inspection report or form shall be prepared for each inspection and shall be
32 included in the SWPPP file. A copy of each SWPPP Inspection report or form
33 shall be submitted to the Engineer no later than the end of the next working day
34 following the inspection. The report or form shall include, but not be limited to
35 the following:

- 36
37 a. When, where, and how BMPs were installed, maintained, modified,
38 and removed.
39 b. Observations of BMP effectiveness and proper placement.
40 c. Recommendations for improving future BMP performance with
41 upgraded or replacement BMPs when inspections reveal SWPPP
42 inadequacies.
43 d. Approximate amount of precipitation since last inspection and when
44 last inspection was performed.

45
46 4. Updating and maintaining a SWPPP file on site that includes, but is not limited
47 to the following:

- 48 a. SWPPP Inspection Reports or Forms.
49 b. SWPPP narrative.
50 c. Other applicable permits.

1
2 **(June 20, 2017 COK GSP)**

3 **8-01.3(1)C Water Management**

4 Section 8-01.3(1)C is supplemented with the following:

5
6 The Contractor will be responsible for meeting the SWPPP requirements.

7
8 The Bid Item "Erosion/Water Pollution Control" shall include the cost of
9 providing temporary detention/retention facilities as illustrated in the
10 Contractor's SWPPP Plan as well as modifications, additions and removals of
11 such facility as dictated by the Contractor's sequence of work and may include,
12 but are not limited to:

- 13
14 1. Temporary detention/retention facilities such as ponds, Baker Tanks, or
15 other facilities.
16 2. If any permanent stormwater facilities are utilized, such as the detention
17 vault, for SWPPP compliance, the Contractor shall remove
18 accumulated sediment and clean the facility prior to final acceptance at
19 no additional cost to the Contracting Agency.
20 3. Temporary facilities such as wheel wash stations or similar.
21 4. Temporary construction entrances.
22

23 No additional compensation shall be made for construction, alteration, removal,
24 maintenance, and any additional requirements necessary for "Erosion/Water
25 Pollution Control". No additional compensation shall be made for conflicts with
26 existing or proposed improvements or construction sequencing of work when
27 facilities are utilized to meet permit requirements.
28

29 **(*****)**

30 **8-01.3(1)F Stormwater Sampling**

31 Section 8-01.3(1)F is added as follows:

32
33 Stormwater sampling shall be performed by the Contractor or authorized
34 representative at the frequencies required in the Construction Stormwater General
35 Permit (weekly at minimum). Samples shall be analyzed for turbidity and pH in
36 accordance with the Construction Stormwater General Permit. Sampling shall be
37 conducted in accordance with the EPA 180.1 analytical method and the Washington
38 State Department of Ecology's *How to do Stormwater Monitoring: A guide for*
39 *construction sites*, available online at <http://www.ecy.wa.gov/pubs/0610020.pdf>.
40 Samples shall be taken at the point of discharge from the site. Reports of the
41 sampling results shall be recorded in the project SWPPP and shall be submitted
42 monthly to the Contracting Agency and the Washington State Department of
43 Ecology. The DMR forms are mailed to permittees when permit coverage is granted
44 for the project. If there are no discharges during the month, the Contractor is still
45 required to submit a form stating "no discharge". The sampling results shall be
46 submitted via mail to:

47
48 Department of Ecology
49 Water Quality Program - Construction Stormwater
50 PO Box 47696
51 Olympia, Washington 98504-7696

Ecology must receive DMR's within 15 days after the end of each month. If the permittee monitors more frequently than required by the permit, these results also need to be submitted in the DMR.

Corrective measures shall be taken if benchmark values are exceeded.

The key benchmark turbidity value is 25 nephelometric turbidity units (NTU) for the downstream receiving water body. If the 25 NTU benchmark is exceeded in any sample collected from the discharge point, the following steps will be conducted:

- a. Ensure all BMPs specified in this SWPPP are installed and functioning as intended.
- b. Assess whether additional BMPs should be implemented, and document modified BMPs in the SWPPP as necessary.
- c. Sample discharge daily until the discharge is 25 NTU or lower.

If the turbidity exceeds 250 NTU at any time, the following steps will be conducted:

- a. Notify Ecology by phone within 24 hours of analysis.
- b. Continue sampling daily until the discharge is 25 NTU or lower. Initiate additional treatment BMPs such as off-site treatment, infiltration, filtration and chemical treatment within 24 hours, and implement those additional treatment BMPs as soon as possible, but within a minimum of 7 days.
 1. Describe inspection results and remedial actions taken in the site log book and in monthly discharge monitoring reports.

Sampling and monitoring for pH will occur during the phase of construction when concrete pouring will be conducted until fully cured (3 weeks from pour). Samples will be collected weekly at all discharge points prior to discharge to surface water. Samples will be analyzed for pH using a calibrated pH meter and recorded in the site log book.

The key benchmark pH value for stormwater is a maximum of 8.0. If a pH greater than 8.0 is measured at a discharge point that has the potential to discharge to surface water, the following steps will be conducted:

- a. Assess whether additional BMPs should be implemented and whether associated revisions to the SWPPP are necessary.
- b. Stop (detain) all discharges from leaving the site and entering surface waters or storm drains if the pH is greater than 8.5.
- c. Sample sedimentation pond the following day, and if the pH exceeds 8.0 for the second consecutive day, implement CO₂ sparging treatment.

- 1 d. Sample and measure pH daily until there are 3 consecutive pH
2 measurements less than 8.0.
3
4 e. If there are 3 consecutive pH measurements greater than 8.0, notify the
5 Washington Department of Ecology by phone within 24 hours of the 3rd
6 measurement exceeding a pH of 8.0 and initiate discussions with Ecology
7 regarding additional treatment BMPs.
8
9 f. Describe inspection results and remedial actions that are taken in the site
10 log book and in monthly Discharge Monitoring Reports.
11

12 **8-01.3(2) Temporary Seeding and Mulching**

14 **8-01.3(2)B Temporary Seeding**

15 Section 8-01.3(2)B is removed and replaced with the following:
16

17 Seed Mix to be as Specified in the Plans. The seed shall be furnished in containers
18 that show the following information: seed name, lot number, net weight, percentage
19 of purity, germination, weed seed and inert material. Seed that has become wet,
20 moldy, or otherwise damaged will not be accepted. Seed shall conform to the
21 requirements of the Washington State seed law and when applicable the Federal
22 Seed Act, and shall be "certified" grade or better.
23

24 Seed mixes to meet the following:

- 25 1) 98% minimum purity
- 26 2) 90% minimum germination rate
- 27 3) 0.5% maximum weed seed
28

29 Submit:

- 30 1) Complete analysis including purity test data and germination test dates for
31 seed mix.
- 32 2) Seed vendor's certification for each seed mix, indicating percentage by
33 weight and percentages of purity, germination and weed seed for each
34 grass species.
- 35 3) Seed vendor's recommendations for fertilizer if available.
- 36 4) Mulch and tackifier source and type to be used.
- 37 5) Fertilizer source and type to be used.
38

39 Seed installation fertilizer to be 15-22-15, including 50% slow release nitrogen, or
40 mix as recommended by seed supplier.
41

42 **8-01.3(2)D Temporary Mulching**

43 Section 8-01.3(2)D is supplemented with the following:
44

45 Mulch to be wood cellulose fiber from Alder, containing no growth or germination
46 inhibiting substances; a soil binding agent (tackifier) is required; mulch to be dyed
47 brown to facilitate placement.
48

49 **8-01.5 Payment**

50 Section 8-01.5 is supplemented with the following:
51

1 (*****)

2 "Erosion/Water Pollution Control", lump sum.

3 "Erosion/Water Pollution Control" shall also be full pay for all Work and materials necessary
4 to develop and implement the SWPPP and achieve the runoff turbidity and pH levels
5 compliant with the identified benchmarks and permit requirements, as approved by the
6 Engineer. All erosion control measures are included in "Erosion/Water Pollution Control",
7 except as otherwise noted in the Contract Documents.
8
9

10 **8-02 Roadside Restoration**

11 **8-02.3 Construction Requirements**

12 **8-02.3(1) Responsibility During Construction**

13 Section 8-02.3(1) is supplemented with the following:

14 (*****)

15 Landscape construction is anticipated to begin after all curbs, pathways and associated
16 Work is completed.

17
18 The Contractor shall report to the Engineer all deviation and/or conflicts between
19 Contract Documents and site conditions. Extra Work arising from failure to do so shall
20 be done at the Contractor's expense.

21
22 The Contractor is responsible for protection of plant materials during unsuitable weather
23 conditions as determined by the Engineer. Unsuitable weather conditions may include
24 freezing weather, high winds, and heavy rains.

25
26 The Contractor is responsible for ensuring positive drainage in all landscape areas.

27
28 Landscape materials shall not be installed until weather permits and installation has
29 been authorized by the Engineer.
30

31 **8-02.3(2) Roadside Work Plan**

32 Section 8-02.3(2) is supplemented with the following:

33 (*****)

34 Twelve weeks prior to installation of plantings, the Contractor shall submit written
35 documentation to the Engineer that all specified plant materials have been ordered.
36 Documentation shall include a list of suppliers' names, addresses, and phone numbers
37 along with a list of respective growing or storage locations with addresses.

38 Plant Photographs

39 Include color photographs in digital or 3- by 5-inch print format of each required species
40 and size of plant material as it will be furnished to the project. Take photographs from
41 an angle depicting true size and condition of the typical plant to be furnished. Include a
42 scale rod or other measuring device in each photograph. For species where more than
43 45 plants are required, include a minimum of three photographs showing the average
44 plant, the best quality plant, and the worst quality plant to be furnished. Identify each
45
46
47
48
49

1 photograph with the full scientific name of the plant, plant size, and name of the growing
2 nursery.

3
4 The Contractor shall provide all plants of the size, species, variety, and quality noted and
5 specified. If unavailable, the Contractor shall notify the Engineer in writing immediately
6 and provide the names and telephone numbers of five (5) nursery suppliers that have
7 been contacted. If substitution should be permitted, it can be made only with the prior
8 written approval of the Engineer.
9

10 **8-02.3(4) Topsoil**

11 The last sentence of the first paragraph of Section 8-02.3(4) is deleted and replaced with the
12 following:

13
14 (*****)

15 After the topsoil has been spread, all large clods, hard lumps and rocks one (1) inch in
16 diameter and larger, and litter shall be raked up, removed, and disposed of by the
17 Contractor.
18

19 Section 8-02.3(4) is supplemented with the following:

20
21 (*****)

22 **Structural Soil for Tree Back-Fill**

23 Soil for tree planting in 4' x 4' tree grates shall be CU-Structural Soil as produced by
24 Amereq, Inc. or approved equal.
25

26 CU-Structural Soil shall meet the following requirements:

27
28 The soil medium is a three-component gap graded structural supporting soil mixed in
29 the following proportions by weight.

31	Crushed Stone	100 lbs	gradation of 100% passing 1.25", Max. 30%
32			passing 0.75 inch
33			
34	Clay Loam	20 lbs	per USDA soil classification system
35			(gravel<5%, sand 25-30%, silt 20-40%,
36			clay 25-40%, organic matter 2-5%)
37			
38	Hydgel	0.03 lbs	Potassium propenoate-propenamide
39			copolymer tackifier
40			

41 Material shall be delivered at or near optimum moisture content as determined by ASTM
42 D-698. Upon delivery, cover and protect to avoid moisture loss/absorption. Material
43 delivered in frozen, wet, or muddy conditions or placed when moisture content is 2
44 percent or more above optimum will not be accepted. During installation the structural
45 soil shall be installed in 6" maximum lifts and compacted to 95% per Standard Proctor
46 ASTM D-698.
47

48 (*****)

49 If found on-site, and if meeting below requirements, native sandy loams are considered
50 acceptable as topsoil in planting areas. Verify suitability of stockpiled surface soil to
51 produce topsoil; if topsoil is deemed unacceptable, contractor to remove from site within

24 hours. If found suitable, reuse native surface soil stockpiled on-site and supplement with imported topsoil mix, amended per soil test results and recommendations, from off-site sources when quantities are insufficient. Amendment must take place between May 1 and October 1. Review with Landscape Architect prior to commencing with soil preparation.

Submit:

1. All soils tests and recommendations no later than 60 days after Notice to Proceed to verify orders and secure availability of materials at time of install.
2. Verification of procurement no later than 120 days prior to installation.
3. One pound sample of soil and amendments a minimum of 30 days, maximum 75 days, in advance of delivery to site.

Test all soil and soil components intended for project as follows:

1. Provide a one cubic foot representative sample of each component from supplier stockpiles. All stockpile sampling shall be per ASTM D 75 and Appendixes for securing samples from stockpiles. Stockpiles shall be manufactured sufficiently in advance of testing so that pH, organic content, and carbon/nitrogen ratio have stabilized.
2. Deliver all samples to an approved, local, testing laboratory. Perform all tests for gradation, organic content, soil chemistry and pH. Testing reports shall include the following tests and recommendations.
 - a. Mechanical gradation (sieve analysis) shall be performed and compared to the USDA Soil Classification System. Sieve analysis shall be by combined hydrometer and wet sieving using sodium hexametaphosphate as a dispersant in compliance with ASTM D 422 after destruction of organic matter by H₂O₂. To facilitate review and approval of sieve analysis, provide a computer generated gradation curve from Laboratory.
 - b. Percent of organics shall be determined by the loss on ignition of oven-dried samples. Test samples minus #10 material shall be oven-dried to a constant weight at a temperature of 450 degrees Fahrenheit.
 - c. Chemical analysis shall be undertaken for Nitrate Nitrogen, Ammonium Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, extractable Aluminum, Lead, Zinc, Cadmium, Copper, Soluble Salts, and pH and buffer pH. A Conductivity Meter shall be used to measure Soluble Salts in 1:2 soil/water (v/v). Except where otherwise noted, nutrient tests shall be for available nutrients.
3. Soil analysis tests shall show recommendations for soil additives to correct soils deficiencies and enhance fertility to accomplish planting work as specified.

8-02.3(4)A Topsoil Type A

Section 8-02.3(4)A is removed and replaced with the following:

If found on-site, and if meeting below requirements, native sandy loams are considered acceptable as topsoil in planting areas. Verify suitability of stockpiled surface soil to produce topsoil; if topsoil is deemed unacceptable, contractor to remove from site within 24 hours. If found suitable, reuse native surface soil stockpiled on-site and supplement with imported topsoil mix, amended per soil test results and recommendations, from off-site sources when quantities are insufficient. Amendment must take place between May

1 and October 1. Review with Landscape Architect prior to commencing with soil preparation.

Imported topsoil shall meet Section 9-14.1(1). Topsoil shall be a minimum of 8" thick and subsoil below the topsoil layer shall be scarified at least 4" with some incorporation of the upper material to avoid stratified layers.

Submit:

1. All soils tests and recommendations no later than 60 days after Notice to Proceed to verify orders and secure availability of materials at time of install.
2. Verification of procurement no later than 120 days prior to installation.
3. One pound sample of soil and amendments a minimum of 30 days, maximum 75 days, in advance of delivery to site.

Test all soil and soil components intended for project as follows:

1. Provide a one cubic foot representative sample of each component from supplier stockpiles. All stockpile sampling shall be per ASTM D 75 and Appendixes for securing samples from stockpiles. Stockpiles shall be manufactured sufficiently in advance of testing so that pH, organic content, and carbon/nitrogen ratio have stabilized.
2. Deliver all samples to an approved, local, testing laboratory. Perform all tests for gradation, organic content, soil chemistry and pH. Testing reports shall include the following tests and recommendations.
 - a. Mechanical gradation (sieve analysis) shall be performed and compared to the USDA Soil Classification System. Sieve analysis shall be by combined hydrometer and wet sieving using sodium hexametaphosphate as a dispersant in compliance with ASTM D 422 after destruction of organic matter by H₂O₂. To facilitate review and approval of sieve analysis, provide a computer generated gradation curve from Laboratory.
 - b. Percent of organics shall be determined by the loss on ignition of oven-dried samples. Test samples minus #10 material shall be oven-dried to a constant weight at a temperature of 450 degrees Fahrenheit.
 - c. Chemical analysis shall be undertaken for Nitrate Nitrogen, Ammonium Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, extractable Aluminum, Lead, Zinc, Cadmium, Copper, Soluble Salts, and pH and buffer pH. A Conductivity Meter shall be used to measure Soluble Salts in 1:2 soil/water (v/v). Except where otherwise noted, nutrient tests shall be for available nutrients.
3. Soil analysis tests shall show recommendations for soil additives to correct soils deficiencies and enhance fertility to accomplish planting work as specified.

8-02.3(6) Mulch and Amendments

The first sentence of Section 8-02.3(6) is revised to read as follows:

(*****)

Organic soil amendment shall be slow release organic fertilizers per soil test results, and composted Municipal Yard Waste meeting the following criteria.

1. The definition of 'composted materials' in WAC 173-350-220.
2. 100 percent shall pass through a 1-inch sieve when tested in accordance with WSDOT Test Method 602 and 603 (AASHTO T87 and T88).
3. The pH range shall be between 5.5 and 8.5 when tested in accordance with WSDOT Test.

4. Foreign material (plastic, mineral soils, concrete, metal etc.) shall be no more than 2 percent on a dry weight or volume basis, whichever provides for the least amount of foreign material. No amount of garbage debris will be accepted.
5. Compost material to a temperature adequate to kill weeds and weed seeds.
6. Documentation that the compost meets federal and state health and safety regulations.

8-02.3(8) Planting

Section 8-02.3(8) is supplemented with the following:

(*****)

Set plants per WSDOT standard plan H-10.10-00. Water on same day that planting occurs. Planting shall be done from April 1 to May 31 or from September 1 to October 31. Planting outside of these dates is allowable only if daily access to water is available and operational on site.

Submit the following:

1. Plant material source:
 - a. Submit no later than 60 days after Notice to Proceed to verify plant orders and secure availability of plant materials at time of planting.
 - b. Provide verification of plant procurement no later than 120 days prior to installation.
 - c. List quantities of plants for each species ordered from each nursery.
 - d. List nursery names, addresses, and phone numbers.
2. Plant material delivery receipts:
 - a. Submit at time of each plant delivery to Site to Project Representative.
 - b. Itemized list of quantities and sizes per plant species.
3. Planting schedule:
 - a. Submit a minimum of 60 days prior to commencing planting operations.
 - b. Scheduled dates for planting operations that correspond to plant zones and parcels indicated in the Drawings.

8-02.3(9) Seeding, Fertilizing, and Mulching

Section 8-02.3(9) is supplemented with the following:

(*****)

Seed Mix to be as Specified in the Plans. The seed shall be furnished in containers that show the following information: seed name, lot number, net weight, percentage of purity, germination, weed seed and inert material. Seed that has become wet, moldy, or otherwise damaged will not be accepted. Seed shall conform to the requirements of the Washington State seed law and when applicable the Federal Seed Act, and shall be "certified" grade or better.

Seed mixes to meet the following:

- 1) 98% minimum purity
- 2) 90% minimum germination rate
- 3) 0.5% maximum weed seed

Submit:

- 1) Complete analysis including purity test data and germination test dates for seed mix.

- 2) Seed vendor's certification for each seed mix, indicating percentage by weight and percentages of purity, germination and weed seed for each grass species.
- 3) Seed vendor's recommendations for fertilizer if available.
- 4) Mulch and tackifier source and type to be used.
- 5) Fertilizer source and type to be used.

Seed installation fertilizer to be 15-22-15, including 50% slow release nitrogen, or mix as recommended by seed supplier.

(COK GSP)

8-02.3(9)A Root Trimming and Barrier Placement

Section 8-02.3(9)A is added as follows:

Hand digging within the root zone is required in order to expose roots with minimal damage. The root zone is defined as the area of ground within the drip line of the tree and extending to a depth of 24 inches. Tree roots over 12 inches below grade may be left in place. If severing of roots cannot be avoided, the Contractor shall hire a Certified Arborist to perform all root trimming. The Certified Arborist shall determine the maximum amount of root trimming allowed. A sharp tool such as pruning shears, loppers, or a hand saw shall be used to produce a clean cut in order to reduce wound size and encourage healing. The Inspector shall observe all root trimming activities.

After root trimming activities are completed crushed surfacing top course shall be placed and compacted as detailed in the Plans.

Root barriers may be used as recommended by the Certified Arborist along the edge of sidewalk or back edge of curbs to protect the proposed curb and sidewalk from root damage. Root barriers shall never be used around the entire circumference of the root zone. All root barrier shall be installed in accordance with the manufacturer's instructions. Root Barriers shall consist of 0.080" thick (min.) polypropylene sheet(s) placed against the excavated and exposed root mass. The barrier shall be installed so that it is flush with the finish grade of the landscaped area and extends to a minimum depth of 24 inches.

If roots are exposed overnight, mulch and water tree roots following excavation.

Prior to beginning Work, the Contractor shall submit the company information (company name, address, phone number, name of arborist, etc.) of the Certified Arborist or Company that will be performing the root inspection, trimming and barrier placement.

8-02.3(11) Mulch

8-02.3(11)A Mulch for Seeding Areas

Section 8-02.3(11)A is supplemented with the following:

(*****)

Mulch shall be wood cellulose fiber from Alder, containing no growth or germination inhibiting substances; a soil binding agent (tackifier) is required; mulch to be dyed a suitable color to facilitate placement.

8-02.3(11)B Bark or Woodchip Mulch

Section 8-02.3(11)B is supplemented with the following:

(*****)

Mulch layer shall be 2" thick, feathered to base of plants. Top of mulch shall be 1/2" below adjacent paving surfaces.

Wood chip mulch shall meet the following requirements:

1. Derived from Douglas fir, pine, or hemlock species.
2. Shall not contain resin, tannin, or other compounds in quantities detrimental to plant life.
3. Shall not contain sawdust.
4. Tested according to Test Method T 123:
 - a. Minimum 95 percent and maximum 100 percent passing a two-inch sieve
 - b. Minimum zero percent and maximum 30 percent passing a Number four sieve.

Submit:

1. Product data.
2. One pound sample a minimum of 30 days, maximum 75 days, in advance of delivery to Site.

(*****)

8-02.3(17) Property Restoration

Section 8-02.3(17) is added as follows:

Property restoration shall consist of furnishing and placement of additional plant materials, sod, seed, bark mulch, slope restoration behind sidewalks and other Work including irrigation protection and repair not currently identified in the Plans, as directed by the Engineer.

The Contractor is specifically reminded that any damage caused by construction activities shall be repaired at the Contractor's expense. This Provision is considered incidental to the Work. The Contractor shall restore areas be in as good or better condition than the pre-disturbed area.

8-02.3(19)B Project Conditions

Before proceeding with Work in this Section, the Contractor shall carefully check and verify all dimensions, quantities, and grade elevations, and inform the Engineer immediately of any discrepancies.

The Contractor shall also carefully examine the civil and survey Plans to become familiar with the existing underground conditions before digging. All locations of aboveground

1 and underground utility lines, infrastructure and other improvements shall be verified,
2 and proper precautions shall be taken as necessary to avoid damage to such
3 improvements during construction.
4

5 In the event of conflict between existing and new improvements notify the Engineer in
6 writing and obtain written confirmation of any changes to the Work prior to proceeding.
7

8 When new or previously existing utility lines are encountered during the course of
9 excavation, notify the Engineer in writing and make recommendations as to remedial
10 action. Proceed with Work in that area only upon approval of appropriate remedial
11 action.
12
13

14 **8-02.4 Measurement**

15 Section 8-02.4 is supplemented with the following:
16

17 (COK GSP)

18 Root Trim will be measured per each tree within the project requiring root trimming and/or
19 root barrier.
20

21 No specific unit of measurement will apply to the lump sum item of "Property Restoration."
22

23 (*****)

24 Topsoil Type A will be measured by the cubic yard in the haul conveyance at the point of
25 delivery.
26

27 Mulch will be measured by the cubic yard in the haul conveyance at the point of delivery.
28
29

30 **8-02.5 Payment**

31 Section 8-02.5 is supplemented with the following:
32

33 (COK GSP)

34 "Root Trim & Barrier", per each.

35 All costs associated with providing and installing root barriers shall be considered incidental
36 and included in the contract price for "Root Trim & Barrier", per each for each location.
37

38 "Property Restoration", per force account.
39

40 (*****)

41 Any incidental Work required to complete roadside planting specified herein but not
42 specifically mentioned in these Specifications shall be **incidental** to roadside planting, and
43 all costs therefore shall be included in the unit Contract prices of related Bid items.
44

45 Plant establishment during the first year shall be paid in accordance with the increments and
46 milestones described in Section 8-02.5 of the Standard Specifications. Unit prices for each
47 plant and tree shall include all costs associated with required plant establishment work during
48 the first year.
49

50 "Topsoil Type A", per cubic yard.

1 The unit Contract price per cubic yard for "Topsoil Type A" shall be full pay for providing the
2 source of material, for pre-excavation weed control, excavating, loading, hauling,
3 intermediate windrowing, stockpiling, weed control on stockpiles or windrows, and removal,
4 placing, spreading, processing, cultivating, and compacting topsoil Type A.

5
6 "Mulch", per cubic yard.

7 The unit Contract price for "Mulch" shall be full pay and will be measured by
8 the cubic yard to the nearest 0.5 cubic yard in the haul conveyance or container at the point
9 of delivery. The Contracting Agency shall be given a copy of the trip ticket or
10 other such evidence, which lists the quantity delivered and where the material was placed on
11 site.
12

13 **8-03 Irrigation Systems**

14 **8-03.3 Construction Requirements**

15 **8-03.3(15) Irrigation Restoration**

16 Section 8-03.3(15) is added as follows:
17

18 (*****)
19

20 The Contractor shall repair, restore, and maintain existing privately owned irrigation
21 systems damaged by construction, where directed by the Engineer. The Plans represent
22 the best available information. It shall be the Contractor's responsibility to determine the
23 components and layout of construction affected irrigation systems.
24

25
26 Prior to starting Work affecting adjacent privately owned landscaping, the Contractor
27 shall verify, in the presence of property owner and Engineer, the operation, location,
28 existing water pressure capabilities and continuity of existing private irrigation systems.
29 The Contractor shall discuss with and receive consent from property owners to make
30 adjustments to existing irrigation systems that are needed to perform Work. The
31 adjustments shall not reduce the effectiveness of the irrigation system to maintain the
32 remaining private landscaping. The private irrigation system shall be tested to confirm it
33 is working properly prior to starting Work. Following confirmation of the irrigation system
34 with the property owner and Engineer, the Contractor shall also determine if any existing
35 system components are no longer necessary for the existing irrigation system to remain
36 functional. Components deemed no longer necessary by the Contractor in concert with
37 the property owner and Engineer, shall be removed and disposed. See the Plans for
38 approximate location of existing irrigation systems.
39

40 The Contractor shall test the system per the requirements in Section 8-03.3(7). Any
41 failure to complete testing that causes replacement of the system shall be at the
42 Contractor's expense.
43

44 **8-03.5 Payment**

45 Section 8-03.5 is supplemented with the following:
46

47 "Irrigation Restoration", per force account.

48 "Irrigation Restoration" will be paid for by force account as specified in Section 1-09.6. For
49 the purpose of providing a common Proposal for all Bidders, the Contracting Agency has
50 entered an amount in the Proposal to become a part of the total Bid by the Contractor. Work

1 for "Irrigation Restoration" shall include all costs for inspecting the existing system prior to
2 disruption, Contractor design, submittals, furnishing and installing irrigation system
3 equipment and components where indicated and as detailed in the Plans, all costs of initial
4 and annual inspections and tests performed on cross connection control devices and
5 electrical wire testing during the life of the Contract and As Built Plans for the restored
6 complete irrigation system as approved by the Engineer.
7
8
9

8-04 Curbs, Gutters, and Spillways

8-04.3 Construction Requirements

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways

Section 8-02.3(1) is supplemented with the following:

(*****)

Cement Concrete Curb and Gutter Type A shall be constructed in accordance with City of Kirkland Pre-Approved Plan CK-R.17.

Cement Concrete Curb and Gutter Type E-2 shall be constructed in accordance with City of Kirkland Pre-Approved Plan CK-R.18.

Median Curb shall be constructed in accordance with City of Kirkland Pre-Approved Plan CK-R.19A.

Cement Concrete Valley Gutter and banding shall be constructed in accordance with the details shown in the Plans.

Extruded Cement Concrete Curb shall be constructed in accordance with City of Kirkland Pre-Approved Plan CK-R.19.

8-04.5 Payment

Section 8-04.5 is supplemented with the following:

(*****)

"Cement Conc. Curb and Gutter, Type A", per linear foot.

"Cement Conc. Curb, Type E-2", per linear foot.

"Median Curb", per linear foot.

"Extruded Cement Concrete Curb", per linear foot.

"Cement Conc. Valley Gutter", per linear foot.

"Cement Conc. Banding", per linear foot.

8-09 Raised Pavement Markers

8-09.2 Materials

Section 8-09.2 is supplemented with the following:

(*****)

Raised pavement markers used to designate hydrant locations shall conform to Section 9-21.2 for RPM Type 2, and be blue in color on both prism sides.

8-09.3 Construction Requirements

Section 8-09.3 is supplemented with the following:

(*****)

Where shown in the Plans or as directed by the Engineer, the Contractor shall affix Raised Pavement Markers Type Blue to the pavement to designate hydrant locations.

8-09.4 Measurement

Section 8-09.4 is supplemented with the following:

(*****)

Raised Pavement Marker Type Blue will be measured per each marker furnished and set in place.

8-09.5 Payment

Section 8-09.5 is supplemented with the following:

(*****)

"Raised Pavement Marker Type Blue", per each.

8-13 Monument Cases

8-13.1 Description

Section 8-13.1 is supplemented with the following:

(*****)

This Work shall consist of adjusting monument case and covers in accordance with the Standard Plans and these Specifications, in conformity with the lines and locations shown in the Plans.

8-13.2 Materials

Section 8-13.2 is supplemented with the following:

(*****)

Materials for monument case and cover adjustments shall be as specified in City of Kirkland Plan No. CK-R.03.

8-13.3 Construction Requirements

Section 8-13.3 is supplemented with the following:

(*****)

8-13.3(2) Adjusting Monument Cases

The monument case and cover shall be adjusted either by removing and resetting the case, or by installing riser rings between the case and cover.

Prior to planing operations, the Contractor shall vertically adjust the monument case and cover below the limits for planing bituminous pavement. After paving operations are complete, the Contractor shall vertically adjust the monument case and cover to finished grade as shown in City of Kirkland Plan No. CK-R.03. The Contractor shall be responsible for referencing the location of the monument case and cover for locating after paving is complete. The adjusted elevation of the frame and cover shall be from 0 inches to 1/8 inches below the level of the finished asphalt pavement. The case and cover shall be cleaned prior to being reset.

1 The Contractor shall use care to avoid disturbing the monument inside the monument case.
2 Any damage or disturbance to the monument as a result of the Contractor's operations shall
3 be repaired and reset to its original position at no cost to the Contracting Agency.
4

5 **8-13.4 Measurement**

6 Section 8-13.4 is supplemented with the following:
7

8 (*****)

9 Adjust monument case and cover will be measured per each for lowering the monument case
10 and cover prior to excavation or planing and separately per each for raising of the monument
11 case and cover to finished grade.
12

13 **8-13.5 Payment**

14 Section 8-13.5 is supplemented with the following:
15

16 (*****)

17 "Adjust Monument Case and Cover", per each.

18 The unit Contract price per each for "Adjust Monument Case and Cover" shall be full pay for
19 all costs necessary to make the lowering or raising adjustments, including but not limited to
20 asphalt used to fill the resultant void created by the lowering adjustment, removal and
21 disposal of asphalt paved over the lowered monument case and cover, and the pavement
22 sealant, asphalt, concrete, and crushed surfacing used for surface restoration around the
23 adjusted monument case and cover.
24

25 **8-14 Cement Concrete Sidewalks**

26 **8-14.1 Description**

27 Section 8-14.1 is replaced with the following:
28

29 (*****)

30 This Work consists of constructing cement concrete sidewalks, depressed sidewalks,
31 transition sidewalks, thickened edge sidewalk, Tactile Separation Strip, cement concrete
32 banding, cement concrete landing pad, cement concrete footing, ADA ramp, and cement
33 concrete sidewalks with various finishes and scoring requirements, in accordance with
34 details shown in the Plans, Standard Plans, these Specifications, the *Revised Draft*
35 *Guidelines for Accessible Public Rights-of-Way*, November 23, 2005 (commonly referred to
36 as the 2005 PROWAG), and in conformity to lines and grades shown in the Plans or as
37 established by the Engineer.
38
39
40

41 **8-14.2 Materials**

42 Section 8-14.2 is supplemented with the following:
43

44 (*****)

45 Cement concrete sidewalk shall be constructed in accordance with Section 8-14 of these
46 Specifications and as shown on the Standard Details, including the sidewalk finishing
47 schedule and details shown on the Plans.
48
49

Cement Concrete Finishes

Finishes for Cement Concrete shall consist of:

- Finish Type 1 (Typical sidewalk finish): Concrete paving shall be WSDOT Std Plan F-30.10-03.
- Finish Type 2 (Specialty scored paving treatment): Shall be medium sandblast finish. All control joints and score joints (pattern joints) shall be sawcut as described on the plans. Tolerance for horizontal score joint lines is 1/8 inch, shall be abutting end to end in a smooth straight continuous line without tolerance, depth and thickness as indicated on the Drawings.
- Finish Type 3 (Specialty paving treatment): CIP Concrete embedded river cobble as described on plans.
- Finish Type 4 (Tactile Separation Strip): Finish Concrete with Trowel/Groover for specified spacing (Kraft Multi-Trac Fesno 48 x 5 in Stainless Steel 1-1/2 in. spacing with Thread Bracket – CC888 or approved other)
- Mock-up: Provide mock-up of all concrete finishes. Mock up shall be provided for the Engineer's review a minimum of 15 working days in advance of installation. Upon acceptance, mock-up shall be maintained for the duration of construction and shall be the standard for remaining constructions. Mock-up may be standalone for removal upon project completion or maintained for integration into the constructed improvements.
- Sawcut joints: Sawcut control joints shall be cut between 6-18 hours after concrete is poured. Sawcut pattern joints shall be cut within 7 days of concrete pour.

8-14.3 Construction Requirements

The first paragraph of Section 8-14.3 is deleted and replaced with the following:

(*****)

The concrete in the sidewalks, the transitions, and curbs shall be air entrained concrete Class 4000 in accordance with the requirements of Section 6-02. No color or tint shall be added.

Thickened edge sidewalk reinforcing steel shall be Grade 60, meeting the requirements of Section 9-07.

A Class 1 finish shall be applied to all vertical, exposed surfaces of the thickened edge sidewalk.

Section 8-14.3 is supplemented with the following:

(April 3, 2017 WSDOT GSP)

The Contractor shall request a pre-construction meeting with the Engineer to be held two to five working days before any work can start on cement concrete sidewalks, curb ramps or other pedestrian access routes to discuss construction requirements. Those attending shall include:

1. The Contractor and Subcontractor in charge of constructing forms, and placing, and finishing the cement concrete.
2. Engineer (or representative) and Project Inspectors for the cement concrete sidewalk, curb ramp or pedestrian access route Work.

Items to be discussed in this meeting shall include, at a minimum, the following:

1. Slopes shown on the Plans.
2. Inspection
3. Traffic control
4. Pedestrian control, access routes and delineation
5. Accommodating utilities
6. Form work
7. Installation of detectable warning surfaces
8. Contractor ADA survey and ADA Feature as-built requirements
9. Cold Weather Protection

(January 7, 2019 WSDOT GSP)

Layout and Conformance to Grades

Using the information provided in the Contract documents, the Contractor shall lay out, grade, and form each new curb ramp, sidewalk, and curb and gutter.

8-14.3(3) Placing and Finishing Concrete

Section 8-14.3(3) is supplemented with the following:

(*****)

The Contractor shall submit a detailed Jointing Plan to the Engineer for review and approval. The Jointing Plan shall include jointing around Structures and other surface features. The Jointing Plan shall identify all types of joints.

Sidewalk and curb and gutter cannot be poured monolithically. An expansion joint will be required when concrete sidewalk is surrounded by other hard surfaces (for example driveways) or as directed by the Engineer.

Sidewalk shall not be poured in the rain, in accordance with City of Kirkland Policy R-8, placing concrete or asphalt in adverse weather conditions.

Cement Concrete Finishes

Finishes for Cement Concrete shall consist of:

1. Finish Type 1 (Typical sidewalk finish): Concrete paving shall be WSDOT Std Plan F-30.10-03.
2. Finish Type 2 (Specialty scored paving treatment): Shall be medium sandblast finish. All control joints and score joints (pattern joints) shall be sawcut as described on the Plans. Tolerance for horizontal score joint lines is 1/8 inch, shall be abutting end to end in a smooth straight continuous line without tolerance, depth and thickness as indicated on the Drawings.
3. Finish Type 3 (Specialty paving treatment): CIP Concrete embedded river cobble as described on plans.
4. Finish Type 4 (Tactile Separation Strip): Finish Concrete with Trowel/Groover for specified spacing (Kraft Multi-Trac Fesno 48 x 5 in Stainless Steel 1-1/2 in. spacing with Thread Bracket – CC888 or approved other)
5. Mock-up: Provide mock-up of all concrete finishes. Mock up shall be provided for the Engineer's review a minimum of 15 working days in advance of installation. Upon acceptance, mock-up shall be maintained for the duration of construction and shall be the standard for remaining constructions. Mock-up may be standalone for removal upon project completion or maintained for integration into the constructed improvements.

8-14.3(6) Cement Concrete Landing Pad

Section 8-14.3(6) is added as follows:

The Contractor shall notify the Engineer and King County Metro representative at the contact information below, a minimum of fifteen working days in advance of beginning any Work associated with construction of the King County Metro concrete landing pad. The concrete landing pad forms and materials must be inspected and approved by King County Metro before any concrete is poured for the concrete landing pad.

Phone Number: 206-263-2381

Email: busstopinspectors@kingcounty.gov

The cement concrete landing pad shall be constructed as detailed in King County Metro Construction Plan D108 in the link below and in accordance with these Specifications and Plans:

<https://kingcounty.gov/~media/depts/metro/design-construction-standards/passenger-facilities/construction/15D108.ashx?la=en>

8-14.3(7) Cement Concrete B-21 KC Footing

Section 8-14.3(7) is added as follows:

The Contractor shall notify the Engineer and King County Metro representative at the contact information below, a minimum of fifteen working days in advance of beginning any Work associated with construction of the King County Metro cement concrete footing. The cement concrete footing forms and materials must be inspected and approved by King County Metro before any concrete is poured for the cement concrete footing.

Phone Number: 206-263-2381

Email: busstopinspectors@kingcounty.gov

The cement concrete footing shall be constructed as detailed in B21 Footing Detail within King County Metro Construction Plan D103 in the link below and in accordance with these Specifications and Plans:

<https://kingcounty.gov/~media/depts/metro/design-construction-standards/passenger-facilities/construction/09D103.ashx?la=en>

8-14.3(8) Thickened Edge Sidewalk

Section 8-14.3(8) is added as follows:

The thickened edge sidewalk shall be installed per the details and as staked in the Plans, and shall conform to the requirements of Section 6-02.3 and Section 8-14.3.

8-14.3(9) ADA Ramp

Section 8-14.3(9) is added as follows:

The ADA Ramp design shall utilize cement concrete sidewalk for the ramp and turning space areas of the ramp in conformance with the Plans, these Specifications, the Standard Specifications, and the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, July 26, 2011 (the 2011 PROWAG).

The lengths and slopes of the ramps and turning spaces shall be approved by the Engineer prior to placing cement concrete.

A majority of this Work will be performed adjacent to improved private property. Any repairs necessary to restore adjacent private property damaged as a result of the construction of the ADA Ramp, shall be restored to existing conditions by the Contractor at no expense to the Contracting Agency.

The Contractor shall excavate to the lines and grades shown in the Plans, unless otherwise approved by the Engineer. Over-excavation not specifically authorized by the Engineer shall not be paid for and replacement with compacted fill and/or ADA Ramp components will be required at the Contractor's expense.

Submittals:

The Contractor shall submit catalog cuts, Shop Drawings, and Type 2E Working Drawings of the ADA Ramp and associated walls for approval by the Engineer at least twenty (20) working days prior to beginning the Work. The ADA Ramp layout design shall conform with the details shown in the Plans, these Specifications, the Standard Specifications, and the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, July 26, 2011 (the 2011 PROWAG).

Wall installation shall conform to the manufacturer's specifications for the type of wall furnished.

Provide copies of the manufacturer's installation instructions at least twenty (20) working days prior to beginning the Work. Should a conflict arise between these Specifications and the manufacturer's instructions, the more rigorous Specification shall apply unless otherwise approved by the Engineer.

8-14.4 Measurement

Section 8-14.4 is supplemented with the following:

(*****)

Cement concrete transition sidewalks will be measured by the square yard of completed transition sidewalk installed, exclusive of curbs, and inclusive of the area where detectable warning surfaces are installed. Detectable warning surfaces within transition sidewalks are measured separately.

Finish Type 2 – Specialty Scored Paving Treatment will be measured by the square foot of finished surface and will not include adjacent curbs or other cement concrete sidewalk types.

Finish Type 3 – Specialty Paving Treatment will be measured by the square foot of finished surface and will not include adjacent curbs or other cement concrete sidewalk types.

Finish Type 4 – Tactile Separation Strip will be measured by the square foot of finished surface and will not include adjacent curbs or other cement concrete sidewalk types.

Cement Conc. Depressed Sidewalk, Cement Conc. Raised Median, Cement Conc. Landing Pad, Cement Conc. Footing, and Thickened Edge Sidewalk will be measured by the square yard of completed sidewalk area, as detailed in the plans, exclusive of curbs. The finishing treatments for the various sidewalk elements are measured separately.

No specific unit of measure will apply to the lump sum item of “ADA Ramp”.

8-14.5 Payment

Section 8-14.5 is supplemented with the following:

(*****)

“Cement Conc. Transition Sidewalk”, per square yard.

The unit Contract price per square yard for “Cement Conc. Transition Sidewalk” shall be full pay for installing the transition sidewalk as specified, excluding the detectable warning surface. Detectable warning surfaces within the sidewalk transition areas will be paid separately under the “Detectable Warning Surface” bid item.

“Cement Conc. Depressed Sidewalk”, per square yard.

“Cement Conc. Raised Median”, per square yard.

“Cement Conc. Landing Pad”, per square yard.

“Cement Conc. B-21 KC Footing”, per square yard.

Payment for “Cement Conc. Sidewalk”, “Cement Conc. Transition Sidewalk”, “Cement Conc. Depressed Sidewalk”, “Cement Conc. Raised Median”, “Cement Conc. Landing Pad”, and “Cement Conc. B-21 KC Footing” as specified shall be contingent on the Contractor certifying that all slopes, lines and grades comply with Contract Documents. All Work not in compliance with Contract Documents shall be considered defective and all costs associated with removing and/or replacing the defective Work shall be the Contractor’s responsibility in accordance with Section 1-05.7.

The unit Contract price per square yard for "Cement Conc. Landing Pad" and "Cement Conc. Footing" shall be full pay for all labor, materials, and equipment necessary for constructing and performing the Work as Specified and detailed in the Plans.

"Finish Type ___ - _____", per square foot.

The unit Contract price per square foot for "Finish Type ___ - _____" shall be full pay for all labor, materials, and equipment necessary for constructing and performing the Work as Specified and detailed in the Plans. This unit Contract price per square foot does not pay for the underlying sidewalk to which the finish is applied; underlying sidewalk is paid per square yard as "Cement Conc. Sidewalk" regardless of which finished is used and "Finish Type ___ - _____" is an additive pay item.

"Thickened Edge Sidewalk", per square yard.

The unit Contract price per square yard for "Thickened Edge Sidewalk" shall be full compensation to furnish all labor, materials, equipment, and incidentals to complete the Work as specified and as shown in the Plans including concrete class 4000, excavation, formwork, grade 60 reinforcing bars, finishing, steel sleeves and grout.

"ADA Ramp", per lump sum.

The lump sum Contract payment for "ADA Ramp" shall be full payment for all costs in conjunction with furnishing materials for and construction of the ADA ramp from the back of sidewalk to the existing grade adjacent to the private property, any wall construction or existing wall restoration needed along the property line, reinforcing steel, structural footings, detectable warning surfaces, removal and disposal of the existing ramp and handrail in its entirety, Shop Drawings, submittals, forms, cement concrete, finishing, curing, and compaction.

8-18 Mailbox Support

8-18.3 Construction Requirements

Section 8-18.3 is supplemented with the following:

(*****)

Permanent installation of relocated mailboxes and associated shelter units shall be in accordance with details in the Plans. Mailboxes and associated shelter units specified to be relocated shall be salvaged by the Contractor, and stored in a manner to prevent damage to the existing shelter units. Shelter units damaged in the relocation process shall be repaired to the satisfaction of the Engineer, or replaced at no additional expense to the Contracting Agency.

8-18.4 Measurement

Section 8-18.4 is supplemented with the following:

(*****)

Relocate mailbox will be measured per each mailbox assembly permanently relocated and installed.

Relocate mailbox shelter unit will be measured per each mailbox shelter unit permanently relocated and installed.

8-18.5 Payment

Section 8-18.5 is supplemented with the following:

(*****)

“Relocate Mailbox”, per each.

The unit Contract price per each for “Relocate Mailbox” shall be full pay to perform the Work as specified, including mounting existing mailbox to new posts, installing new posts, and any temporary installation(s) necessary due to construction impacts.

“Relocate Mailbox Shelter Unit”, per each.

The unit Contract price per each for “Relocate Mailbox Shelter Unit” shall be full pay to perform the Work as specified, including relocation of associated shelter units including installation of shelter unit foundations, and any temporary installation(s) necessary due to construction impacts.

8-19 Vacant

Section 8-19, including title, is replaced with the following:

8-19 Metal Seat

(*****)

8-19.1 Description

This work shall consist of furnishing and installing metal seat elements, including foundations, as shown on the Plans and as specified herein, at the locations shown in the Plans.

(*****)

8-19.2 Materials

Seat modules and foundations shall be as specified in the Plans and as follows. Modules are:

- 1) Custom Seat Model PP217, Wabash Valley, www.wabashvalley.com. Vendor contact: Northwest Playground Equipment, Eric Arneson, (206) 920 2660
- 2) Foundations per manufacturer

(*****)

8-19.3 Construction Requirements

8-19.3(1) Fabrication

Modules shall be spaced and installed per details, locations and dimensions shown on plan.

All exposed metal components shall receive coating to match King County Transit standard material and color.

1) The contractor shall submit a 6" x 6" x 1/8" thick coated steel sample in the specified color.

Working Drawings: Prior to fabrication, the contractor shall submit Type 2 Working Drawings and information for the Engineer's acceptance showing all instances and associated grades, members, materials, welds, attachments, coating systems, dimensions and details of fabrication including an erection drawing. Working Drawings to include and incorporate structural engineering provided by Contractor. Working Drawings shall be subject to review, modification and approval by the landscape architect.

8-19.3(2) Installation

The seat shall be adequately wrapped to ensure surface protection during handling and transportation to the job site.

The seat shall be erected in accordance with details in the Plans. The seat shall be carefully erected, true to line and grade.

(*****)

8-19.4 Measurement

Metal Seat will be measured per each for each unit installed.

(*****)

8-19.5 Payment

Payment will be made for the following Bid Items when included in the Proposal:

"Metal Seat", per each.

The unit price bid shall be full compensation for all labor, material, hardware, tools and equipment, supplies, incidental work, to satisfactorily complete the work defined in the Standard Specifications, Special Provisions and the particular details as shown in the Plans for the metal seat, and foundation.

8-20 Illumination, Traffic Signal Systems, Intelligent Transportation Systems and Electrical

8-20.1 Description

Section 8-20.1 is supplemented with the following:

(*****)

This Work shall consist of the following:

- Modifications to the intersection of NE 116th St and 124th Ave NE
- A new pedestrian hybrid beacon at approximately NE 118th St and 124th Ave NE
- Modifications to the intersection of NE 120th St and 124th Ave NE
- Modifications to the intersection of NE 124th St and 124th Ave NE
- A new illumination system along 124th Ave NE
- A temporary illumination system along 124th Ave NE
- Traffic signal interconnection between NE 116th Street and NE 124th Street

1 All Work shall be performed as shown in the Plans in accordance with applicable Standard
2 Specifications, Standard Plans, Amendments, City Standards, and the following Special
3 Provisions.

4
5 The Work involves, but shall not be limited to, the following:

- 6
- 7 • Signal controller and equipment
- 8 • Cabinets and bases
- 9 • Signal interconnect fiber system modifications
- 10 • Signal poles and bases
- 11 • Vehicle, bicycle, and pedestrian heads
- 12 • Pedestrian and bicycle push buttons
- 13 • Junction boxes
- 14 • Loop and video detection
- 15 • Conduit and wire
- 16 • Electrical service, enclosures, connections, and bases
- 17 • Subsurface exploration
- 18 • Utility locates
- 19

20
21 The Work shall include testing existing traffic signal and lighting equipment prior to
22 construction. The Work shall also include the supply, testing and installation of all traffic signal
23 hardware including the communication cable and interface system, and when specified, the
24 modification of such an existing system.

25
26 The Work shall also include removing existing traffic signal and illumination equipment,
27 junction boxes, loop detectors, and all necessary associated equipment where applicable to
28 complete the Work.

29
30 The Work shall also include coordination with Puget Sound Energy for the switchover of
31 power supply as necessary at the SE corner of NE 120th St and 124th Ave NE.

32
33 This Work consists of furnishing, installing, and field testing all materials and equipment
34 necessary to complete in place, fully functional pedestrian crossing systems in accordance
35 with approved methods, the Plans, WSDOT Standard Drawings, the Special Provisions,
36 these Specifications, and the *Revised Draft Guidelines for Accessible Public Rights-of-Way*,
37 July 26, 2011 (commonly referred to as the 2011 PROWAG).

38
39 Unless otherwise noted, the location of signals, controllers, standards, and appurtenances
40 shown in the Plans are approximate; and the exact location will be established by the
41 Engineer in the field.

42
43 This Work includes furnishing, installing and field-testing all materials necessary to provide a
44 complete and operational illumination system that includes, but not limited to conduits, wiring,
45 junction boxes, luminaires, luminaire poles, foundations, and overhead string lighting. This
46 Work also includes designing, furnishing, maintaining, cabinets and removing a temporary
47 illumination system. This Work also includes furnishing and constructing a Pedestrian Hybrid
48 Beacon system.

1
2 **(WSDOT NWR ITS February 11, 2002)**
3 **Communication Conduit System**

4 This Work shall consist of furnishing and installing the facilities used to mechanically
5 accommodate the communication components of the ITS System. The Contractor shall be
6 responsible for interfacing with the existing communications system and satisfying system
7 compatibility with regard to the existing facilities and this communications system extension.
8 Conduit shall be supplied as a system from a single manufacturer providing all of the steel
9 and PVC conduit; all required fittings, terminations, and other installation accessories; all in
10 accordance with the Plans, the Standard Specifications and these Special Provisions.
11

12 **8-20.1(1) Regulations and Codes**

13 Section 8-20.1(1) is supplemented with the following:
14

15 (*****)

16 Prior to start of Work, all necessary licenses, permits, and approvals shall be obtained.
17 The Contractor shall comply with all laws, ordinances, rules, orders, and regulations
18 relating to the performance of the Work, the protection of adjacent property, and the
19 maintenance of all other facilities. The Contractor will be required to comply with all the
20 provisions of these instruments and shall save and hold the Contracting Agency
21 harmless from any damage that may be incurred as a result of the Contractor's failure
22 to comply with all the terms of these permits.
23

24 **8-20.1(2) Industry Codes and Standards**

25 Section 8-20.1(2) is supplemented with the following:
26

27 (*****)

28 National Electrical Safety Code (NESC), PO Box 1331, 445 Hoes Lane,
29 Piscataway, New Jersey.
30

31 (*****)

32 **8-20.1(3) Errors and Omissions**

33 Section 8-20.1(3) is added as follows:
34

35 The Contractor shall immediately notify the Engineer upon discovery of any errors or
36 omissions in the Contract Documents, in the layout as given by survey points and
37 instructions, or of any discrepancy between the Contract Documents and the physical
38 conditions of the locality. If deemed necessary, the Engineer will rectify the matter and
39 advise the Contractor accordingly. Any Work done after such discovery without
40 authorization by the Engineer shall be done at the Contractor's risk.
41

42 **8-20.2 Materials**

43 Section 8-20.2 is supplemented with the following:
44

45 (*****)

46 **General**

47 All materials for the completion of the Work described herein and in the Plans shall be
48 furnished by the Contractor.
49

The Engineer reserves the right to inspect the manufacturing process of all materials. Final inspection of the installed materials will not be given until final installation and testing has been completed on the systems. Approval to install materials and equipment must be obtained from the Engineer at the job site before installation.

8-20.2(1) Equipment List and Drawings

Section 8-20.1(1) is supplemented with the following:

(*****)

Proposed Material Specifications for All Traffic Signal, Illumination, ITS and Communication System Components

This shall include, but not be limited to, poles, junction boxes, conduit, cabling, splice materials, signal heads, push buttons, luminaries, all signal and communication system hardware, including cabinets and cabinet- contained hardware. Submittals shall be neat, legible, and orderly, submitted with an index or transmittal form listing all submittal contents. Submittals without an index or transmittal form listing all contents will be rejected. Neatly organize each package of submittal data and separate by hardware item. Where catalogue sheets are copied listing multiple items, all items proposed for use on this project shall be highlighted to distinguish from items not proposed for use on the project. A detailed fiber optic material listing and installation procedure including the following:

- Manufacturer's complete specifications for all communication system cabling, splice enclosures and associated electronics.
- Fiber optic cable cutting lengths reflecting the cable order and reel allocations.

Contractor shall submit cable pulling plan which shall state the exact operational procedures to be utilized and which identifies the physical locations for equipment placement, proposed equipment setup at each location, pulling tension on all cables for each pull, staffing, and the pulling methodology for each type of cable.

Thirty (30) days prior to start of installation of items in this Section, the Contractor shall provide submittals for each type of product noted in the Plans or in these Specifications. Manufacturer's product literature, including operations and maintenance manuals, shall be submitted with technical data sufficient to demonstrate that the product meets these Specifications for Engineer review and approval. The Contractor shall provide supplemental operations and maintenance input.

(WSDOT GSP March 13, 1995)

Pole base to light source distances (H1) for lighting standards with pre-approved plans shall be as noted in the Plans.

Pole base to light source distances (H1) for lighting standards without pre-approved plans will be furnished by the Engineer as part of the final approved shop drawings, prior to fabrication.

Equipment List And Drawings

Section 8-20.2(1) is supplemented with the following:

(WSDOT GSP March 13, 1995)

Pole base to light source distances (H1) for lighting standards with pre-approved plans will be determined or verified by the Engineer at the request of the Contractor prior to fabrication.

Pole base to light source distances (H1) for lighting standards without pre-approved plans and for combination traffic signal and lighting standards will be furnished by the Engineer as part of the final approved shop drawings prior to fabrication.

8-20.3 Construction Requirements

Section 8-20.3(1) is supplemented with the following:

(WSDOT NWR February 11, 2013)

Fiber Optic Cable Installation

When installing new fiber optic cable or reinstalling existing fiber optic cable into new or existing cable vaults or pull boxes, the installation method shall ensure that the cable is free of dirt and debris as it enters the conduit and that no dirt or debris enters the conduit receiving the cable prior to the conduit being plugged or sealed.

When installing fiber optic cable, the installation method shall prevent the fiber cable from direct contact with the ground or pavement between pulls or prior to the installation of the fiber cable into the conduit.

(WSDOT NWR May 15, 2000)

Energized Equipment

Work shall be coordinated so that electrical equipment, with the exception of the service cabinet, is energized within 72 hours of installation.

(WSDOT NWR June 20, 1995)

Pole Removal

Poles designated for removal shall not be removed prior to approval of the Engineer.

(WSDOT NWR January 11, 2005)

Signal Display Installation

Signal displays shall be installed no more than 30 days prior to scheduled signal turn-on or changeover.

(WSDOT NWR October 31, 2005)

Construction Core Installation

The Contractor shall coordinate installation of construction cores with Contracting Agency maintenance staff through the Engineer. The Contractor shall provide written notice to the Engineer, a minimum of seven working days in advance of proposed installation. The Contractor shall advise the Engineer in writing when construction cores are ready to be removed.

(WSDOT NWR May 15, 2000)

Electrical Equipment Removals

Removals associated with the electrical system shall not be stockpiled within the job site without the Engineer's approval.

1 **(WSDOT NWR April 11, 2001)**

2 **Wire Removal**

3 Remove all wires from salvaged light and signal standards.

4
5 **(WSDOT NWR September 20, 1995)**

6 **Controller Cabinet Removal**

7 Controller cabinets shall not be removed until all associated electronic equipment is
8 removed by Contracting Agency signals personnel. All other equipment shall be
9 removed by the Contractor and delivered within 24 hours following removal to the
10 Contracting Agency.

11
12 **(WSDOT NWR August 5, 1996)**

13 **Pole Shaft and Mast Arm Identification**

14 All removed mast arms and pole shafts shall be identified by paper identification tags
15 recording pole number, intersection location (such as SR XXX, Jct XXX), and mast arm
16 length.

17
18 Four inch by six inch (minimum) tags shall be taped to corresponding pole shafts and
19 mast arms. Information on the mast arm tag shall match the information on the
20 corresponding pole shaft tag. Each tag shall be entirely covered with clear acetate tape.
21 The tape shall be wrapped one full circle around the shaft or arm with a 1/2 inch minimum
22 overlap at the ends and sides.

23
24 The Contractor shall bundle the complete signal standard assembly together. The
25 assembly consists of pole shaft, mast arm, and connecting bolts. Connecting bolts shall
26 be attached to the original mast arm base plate.

27
28 **(WSDOT NWR April 11, 2001)**

29 **Contractor Owned Removals**

30 All removals associated with an electrical system, which are not designated to remain
31 the property of the Contracting Agency, shall become the property of the Contractor and
32 shall be removed from the project.

33
34 The Contractor shall:

35
36 Remove all wires for discontinued circuits from the conduit system.

37
38 Remove elbow sections of abandoned conduit entering junction boxes.

39
40 Abandoned conduit encountered during excavation shall be removed to the nearest
41 outlets or as directed by the Engineer.

42
43 Remove foundations entirely, unless the Plans state otherwise.

44
45 Backfill voids created by removal of foundations and junction boxes. Backfilling and
46 compaction shall be performed in accordance with Section 2-09.3(1)E.

47
48
49
50 **8-20.3(2) Excavating and Backfilling**

51 Section 8-20.3(2) is supplemented with the following:

(*****)

All adjacent surfaces damaged by the Contractor's operations shall be repaired at its expense. The Contractor shall protect all private and public utilities from damage resulting from the Work.

All conduit shall be in place prior to placement of the base course of the final pavement.

Conduit Trench Construction

To avoid conflicts with other utilities, the trench may be sloped or drifted.

When open trench construction is used on existing surfaces which will not be resurfaced, the pavement shall be removed and replaced as detailed in the Plans.

When open trenching is allowed, trench construction shall conform to the following:

1. The pavement shall be saw cut a minimum of 3 inches deep. The cuts shall be parallel to each other and extend 12 inches beyond each edge of the trench.
2. Pavement shall be removed in an approved manner.
3. Trench depth shall provide 2 feet minimum cover over conduits.
4. Trench width shall be the conduit diameters plus 2 inches between conduits plus 2 inches on each side of trench.
5. Trenches located within paved Roadway areas shall be backfilled with controlled density fill (CDF) meeting the requirements of Section 2-09.3(1)E, and including non-chloride accelerating admixtures in accordance with Section 9-23.6. The controlled density fill shall be placed level to, and at the bottom of the existing pavement. The pavement shall be replaced with paving material that matches the existing pavement.
6. No steel sheets will be allowed over weekends or holidays observed by the Contracting Agency.

Where minimum cover of 24" cannot be maintained, as determined by the Engineer, the Contractor shall be required to place a concrete cap over the conduits.

8-20.3(3) Removing and Replacing Improvements

Section 8-20.3(3) is supplemented with the following:

(*****)

Salvaged light standards shall be stockpiled and/or delivered to a location as designated by the Engineer.

The Contractor shall remove all nonessential, unused junction boxes. The Contractor shall remove all foundations that are not to be reused to a depth of at least three (3) feet below the existing or finished grade, whichever is lower, or removed entirely, unless otherwise noted in the Plans. The conduits connecting to the foundation shall be cut off and capped or removed as designated by the Engineer. Any such foundation or conduit left below the surface shall be noted on the As-Built Plans provided to the Contracting Agency by the Contractor.

The Contractor shall be responsible for disposing of all other waste created by the required salvage and/or removal of items shown in the Plans or specified herein.

8-20.3(4) Foundations

Section 8-20.3(4) is supplemented with the following:

(*****)

Foundations for streetlight poles and service cabinets shall be as specified in the Plans, in these Special Provisions, and in the Standard Plans and Specifications.

Concrete shall be placed against undisturbed earth where possible. Prior to placing the concrete, the Contractor shall block out around any other underground utilities that may lie in the excavated base to prevent foundation adherence to the utility line. Concrete foundations shall be troweled, brushed, edged and finished. Exposed anchor bolts and conduits shall be promptly cleaned of any concrete after installation.

All permanent casing shall be a smooth wall non-corrugated structure of steel base metal. All permanent casing shall be of ample strength to resist damage and deformation from transportation and handling, installation stresses, and all pressures and forces acting on the casing. The casing shall be clean prior to placement in the excavation. The permanent casing may be telescoped, but the outside diameter of the casing shall not be less than the specified diameter of the shaft.

Foundation locations indicated in the Plans may be slightly revised in the field by the Engineer to improve effectiveness or due to unforeseen conflicts with existing facilities. Prior to foundation excavation, all locations shall be approved by the Engineer.

Pole foundations in sidewalks shall be placed flush with the finished surface of the sidewalk unless otherwise shown in the Plans. The foundation and sidewalk shall be separated by a 3/4-inch expansion joint such that the foundation can be removed without damage to the surrounding sidewalk. The top four (4) inches of all foundations shall be square with sides equal to the diameter.

The void between the foundation and the pole flange shall be no larger than four (4) inches and shall be completely filled around the conduit(s) with dry pack mortar and neatly troweled. A plastic drain, 1/2-inch diameter, shall be placed in the mortar to provide drainage from the interior of the pole to the exterior. The plastic drain pipe shall be neatly trimmed flush with the surfaces.

The dry pack mortar shall consist of a 1:3 cement to fine sand mixture with enough water to allow the mixture to stick together when molded into a ball by hand, but will not exude water when pressed.

All concrete on the anchor bolts shall be immediately removed following pouring of the foundation. Conduits shall be temporarily capped during the pour to prevent concrete from entering.

Foundations

Section 8-20.3(4) is supplemented with the following:

(WSDOT GSP August 7, 2017)

Shafts for Signal Standard Foundations

Shaft foundations for the traffic signal standards at the following location(s) shall be constructed in accordance with the following requirements:

*** 124th Avenue NE and NE 124th Street
124th Avenue NE and NE 120th Street
124th Avenue NE and NE 118th Street ***

Shaft foundations for traffic signal standards shall be constructed in accordance with Section 6-19.3, except as follows:

Quality Assurance

The tolerance for placing the center at the top of shaft under Section 6-19.3(1)A is revised for traffic signal standard foundation shafts to be within 4-inches of the Plan location.

Non-destructive testing of shafts under Sections 6-19.3(1)B and 6-19.3(9) and associated Work under Section 6-19.3(6) does not apply.

Shaft Excavation

Permanent casing advanced during excavation operations is required full depth for all traffic signal standard shaft foundation locations specified at the beginning of this Special Provision. Excavation in advance of the casing tip shall not exceed three feet. In no case shall shaft excavation and casing placement extend below the bottom of shaft excavation as shown in the Plans.

When efforts to advance past the obstruction to the design shaft tip elevation result in the rate of advance of the shaft drilling equipment being significantly reduced relative to the rate of advance for the portion of the shaft excavation in the geological unit that contains the obstruction, then the Contractor shall remove, break-up, or push aside, the obstruction under the provisions of Section 8-20.5 as supplemented in these Special Provisions.

Placing Concrete

Traffic signal standard foundation shaft concrete shall be Class 4000P.

Casing Removal

Tops of permanent casing for the shafts shall be removed to at least 6-inches beneath the finish groundline, unless otherwise specified by the Engineer.

8-20.3(5) Conduit

Section 8-20.3(5) is supplemented with the following:

(*****)

The conduit runs shown in the Plans are schematic, however, they shall be followed as closely as site conditions will allow and may be revised, as directed by the Engineer, to allow for unforeseen obstructions. Conduits installed under paved Roadway shall be located approximately parallel to the curb line, unless otherwise indicated in the Plans or directed by the Engineer.

1 All conduit in Roadways shall be placed prior to any pavement construction.

2
3 Each conduit run shall contain a 200-pound breaking strength polyolefin pull cord, which
4 shall be tied off at both ends.

5
6 All conduit installed underground shall have polyethylene underground hazard marking
7 tape, six (6) inches wide, red, legend "Caution-Electric Line Buried Below," placed
8 approximately twelve (12) inches above the conduit.

9
10 Conduits installed for future use shall be prepared as follows: After final assembly in
11 place, the conduit shall be blown clean with compressed air. Then, in the presence of
12 the Engineer, a cleaning mandrel correctly sized for each size of conduit shall be pulled
13 through to ensure that the conduit has not been deformed. As soon as the mandrel has
14 been pulled through, both ends of the conduit shall be sealed with conduit caps. All
15 conduits scheduled for future use shall originate in a foundation or junction box as
16 detailed in the Plans and terminate in a junction box. All equipment grounding
17 conductors, and the bonding conductor for metallic conduits shall be bonded in all
18 junction boxes in accordance with Section 8-20.3(9).

19
20 Existing conduit in place scheduled to receive new conductors shall have any existing
21 conductors removed and a cleaning mandrel sized for the conduit shall be pulled
22 through.

23 24 **Detectable Pull Tape**

25 For all conduits that do not contain electrical conductors, the Contractor shall add a
26 detectable pull tape in one of the conduits in the same trench. All other spare conduit
27 may utilize non-detectable pull tape.

28 29 **Temporary Trench Patch**

30 The Contractor shall be required to provide either a temporary cold mix trench patch, or
31 permanent paving, at the end of the working day following installation of utilities crossing
32 an operational Roadway. Cold mix patches shall be compacted, rolled, and maintained
33 to a smooth surface until permanent paving is accomplished.

34 35 **8-20.3(5)B Conduit Type**

36 The first paragraph of Section 8-20.3(5)B is revised to read as follows:

37
38 Conduit type for this project, where underground, shall be PVC or high density
39 polyethylene (HDPE).

40 41 42 **8-20.3(6) Junction Boxes, Cable Vaults, and Pull Boxes**

43 Section 8-20.3(6) is supplemented with the following:

44
45 (*****)

46 The locations of the junction boxes as shown in the Plans are approximate and the exact
47 locations shall be determined in the field. Junction boxes shall be located outside the
48 Traveled Way, wheelchair ramps and landings, and driveways. The new junction box
49 shall not interfere with any other previous or relocated installation. The lid shall also be

1 flush with its frame and with the surrounding area whether it is Shoulder, sidewalk, or
2 other surface.

3
4 When junction boxes are installed within cement concrete areas, the Contractor shall
5 adjust junction boxes to grade prior to pouring the cement concrete.

6
7 When junction boxes are installed or adjusted prior to construction of finished grade,
8 pre-molded joint filler for expansion joints may be placed around the junction boxes. The
9 joint filler shall be removed prior to adjustment to finished grade.

10
11 Adjustments involving raising or lowering the junction boxes shall require conduit
12 modification if the resultant clearance between top of conduit and the junction box lid
13 becomes less than 9-inches as shown in the junction box details in the Plans. Wiring
14 shall be replaced if sufficient slack as specified in Section 8-20.3(8) of the Standard
15 Specifications is not maintained.

16
17 The Contractor shall not damage any existing conduits when replacing or excavating
18 existing junction boxes. The Contractor is to maintain the integrity of all junction boxes
19 during reconfiguration of the conduits, installation of new conduits or when excavating.

20
21 The Contractor shall reconfigure conduits in existing junction boxes as shown in the
22 details in the Plans where the minimum bend radius of the fiber is not achievable. The
23 integrity of the junction box shall be maintained. If damage occurs, the Engineer shall be
24 contacted immediately.

25
26 Prior to the use of any existing junction box, the Contractor shall verify that sufficient
27 bending radius, as defined by the Code, is available both approaching and within the
28 box for the cable being installed. If such is not the case, the Contractor shall notify the
29 Engineer, who shall be the sole judge of whether new conduit bends or a new junction
30 box shall be installed.

31
32 Damage to the junction boxes, pull boxes, cable vaults and the associated conduit
33 system, or wiring resulting from the Contractor's operations, shall be replaced at no
34 additional cost to the Contracting Agency.

35
36 When using an existing junction box, the Contractor shall modify the junction box such
37 that it will be bonded to the grounding system.

38
39 Junction boxes requiring adjustment within walking areas shall include replacement of
40 non-slip resistant lids with approved slip resistant lids as determined by the Engineer.

41 42 **8-20.3(8) Wiring**

43 Section 8-20.3(8) is supplemented with the following:

44
45 (*****)

46 For installing new cables in existing occupied or empty conduit, the Contractor shall be
47 responsible for the following steps: 1) Install a new pull rope using a rod/fish tape in the
48 conduit for pulling in the new cabling if a pull rope does not already exist. 2) If the
49 Contractor cannot get the rod/fish tape to pass through the conduit, the Contractor shall
50 blow air through the conduit to remove any debris blocking the rod/fish tape path. The
51 Contractor shall be careful not to blow air into controller or service cabinets. 3) If the

rod/fish tape still does not pass through the conduit after blowing air, the Contractor shall disconnect a single existing wire as agreed to by the Engineer (if the conduit is occupied) and use that wire to pull the new wiring plus a new cable to replace the existing cable that is being used for pulling. 4) If no existing wire can be used to pull in the new wire, the Contractor shall try another conduit run if one exists, or pull out all existing wiring from the conduit and use to pull in the new wiring plus all new cabling to replace existing cabling. Rodding, fish taping, blowing air, and disconnecting/ reconnecting cable shall be the Contractor's cost responsibility. In an event that none of these steps led to successful wire installation, the Contractor shall install new conduit as directed by the Engineer.

When removing existing cabling, if the cable won't initially move, the Contractor shall attempt to blow air through the conduit to loosen debris around the cable. Blowing air into the conduit is included in the cost of cable removal. If the cable will not move after blowing air into the conduit, the Contractor shall contact the Engineer.

Terminal strips in cabinets, or when used as a connecting device between conductors shall bear the circuit numbers.

(WSDOT NWR April 14, 2003)

Wire Labels

At each junction box, all illumination wires, power supply wires, and communication cable shall be labeled with a PVC marking sleeve. For illumination and power supply circuits the sleeve shall bear the circuit number. For communication cable the sleeve shall be marked "Comm.".

(WSDOT NWR March 13, 1995)

Wire Splices

All splices shall be made in the presence of the Engineer.

(WSDOT NWR May 1, 2006)

Illumination Circuit Splices

Temporary splices shall be the heat shrink type.

(March 13, 1995)

Field Wiring Chart

501	AC+ Input	516-520 Railroad Pre-empt
502	AC- Input	5A1-5D5 Emergency Pre-empt
503-510	Control-Display	541-580 Coordination
511-515	Sign Lights	581-599 Spare

Movement Number	1	2	3	4	5	6	7	8	9
-----------------	---	---	---	---	---	---	---	---	---

Vehicle Head

Red	611	621	631	641	651	661	671	681	691
Yellow	612	622	632	642	652	662	672	682	692
Green	613	623	633	643	653	663	673	683	693
Spare	614	624	634	644	654	664	674	684	694
Spare	615	625	635	645	655	665	675	685	695
AC-	616	626	636	646	656	666	676	686	696

1	Red Auxiliary	617	627	637	647	657	667	677	687	697
2	Yellow Auxiliary	618	628	638	648	658	668	678	688	698
3	Green Auxiliary	619	629	639	649	659	669	679	689	699
4	Pedestrian Heads & Dets.									
5	Hand	711	721	731	741	751	761	771	781	791
6	Man	712	722	732	742	752	762	772	782	792
7	AC-	713	723	733	743	753	763	773	783	793
8	Detection	714	724	734	744	754	764	774	784	794
9	Common-Detection	715	725	735	745	755	765	775	785	795
10	Spare	716	726	736	746	756	766	776	786	796
11	Spare	717	727	737	747	757	767	777	787	797
12	Spare	718	728	738	748	758	768	778	788	798
13	Spare	719	729	739	749	759	769	779	789	799
14	Detection									
15	AC+	811	821	831	841	851	861	871	881	891
16	AC-	812	822	832	842	852	862	872	882	892
17	Common-Detection	813	823	833	843	853	863	873	883	893
18	Detection A	814	824	834	844	854	864	874	884	894
19	Detection B	815	825	835	845	855	865	875	885	895
20	Loop 1 Out	816	826	836	846	856	866	876	886	896
21	Loop 1 In	817	827	837	847	857	867	877	887	897
22	Loop 2 Out	818	828	838	848	858	868	878	888	898
23	Loop 2 In	819	829	839	849	859	869	879	889	899
24	Supplemental Detection									
25	Loop 3 Out	911	921	931	941	951	961	971	981	991
26	Loop 3 In	912	922	932	942	952	962	972	982	992
27	Loop 4 Out	913	923	933	943	953	963	973	983	993
28	Loop 4 In	914	924	934	944	954	964	974	984	994
29	Loop 5 Out	915	925	935	945	955	965	975	985	995
30	Loop 5 In	916	926	936	946	956	966	976	986	996
31	Loop 6 Out	917	927	937	947	957	967	977	987	997
32	Loop 6 In	918	928	938	948	958	968	978	988	998
33	Spare	919	929	939	949	959	969	979	989	999

8-20.3(9) Bonding, Grounding

Section 8-20.3(9) is supplemented with the following:

All electrical vaults supplied for this project must be supplied with embedded grounds.
All electrical vaults that are to be adjusted must be grounded.

8-20.3(10) Service, Transformer, and Intelligent Transportation System (ITS) Cabinet

Section 8-20.3(10) is supplemented with the following:

(WSDOT NWR March 4, 2009)

Cabinet Construction Core

A green construction core shall be installed for each cabinet core lock. Upon Contract completion, two master keys for each cabinet shall be delivered to the Engineer.

(*****)

1 A 3-wire electrical service shall be used at 120/240 volts, single phase, 60-hertz AC
2 between the power source and the service cabinet. The unfused power shall enter the
3 service cabinet through a separate conduit.
4

5 The Contractor shall install a service cabinet as specified. The service cabinet shall be
6 mounted on a concrete base with anchor bolts fastening to the inside of the base of the
7 cabinet. The illumination components shall be connected to the 240-volt, 60-hertz power.
8

9 The Contractor shall have the service inspected by the City of Kirkland Electrical
10 Inspector and shall be solely responsible for coordination with the power company to
11 have the service energized.
12

13 Existing electrical service shall remain energized until the switchover to new illumination
14 and signal systems is completed and fully functional.
15

16 **8-20.3(11) Testing**

17 Section 8-20.3(11) is supplemented with the following:
18

19 (*****)

20 The Contractor shall notify the Engineer three (3) working days prior to conducting the
21 testing.
22

23 Prior to scheduling a turn-on date, the Contractor shall verify with the Engineer that:
24

- 25 • Field Test Nos. 1, 2, and 3, as specified in Section 8-20.3(11), have been
26 completed.
- 27 • The Contractor shall have completed all required inspections for permits
28 including, but not limited to ground, conduit, wiring connections and final.
- 29 • The Contractor shall conduct tests to assure proper intended operation of the
30 pedestrian hybrid beacon system. The Contractor shall provide the Engineer a
31 minimum of five (5) working days advance notices of the proposed pedestrian
32 hybrid beacon system turn-on date and time for approval. The pedestrian hybrid
33 beacon turn-on procedure shall not begin until all required channelization,
34 pavement markings, and signs are installed. The Contractor shall provide traffic
35 control to stop all traffic from entering the intersection or affected street segment
36 and shall then turn the pedestrian hybrid beacon system to its flash mode to
37 verify proper flash indications. The Engineer will verify proper flash pattern and
38 rate is implemented. The Contractor shall then conduct functional tests to
39 demonstrate that each part of the pedestrian hybrid beacon system functions as
40 intended consistent with plans, project Specifications, and manufacturers
41 Specifications. This demonstration shall be conducted in the presence of the
42 Engineer. The Engineer may introduce additional testing to assess full functions
43 of the system as intended. Based on the results of the turn-on, the Engineer will
44 direct the Contractor to either keep the pedestrian hybrid beacon system on
45 normal operation or to turn the system off and cover all lighted displays until
46 necessary corrections by the Contractor are completed.
47

48 **8-20.3(13) Illumination Systems**

49 (*****)
50

Section 8-20.3(13)D is added as follows:

8-20.3(13)D Temporary Illumination Systems

The existing illumination system will be removed as part of the project construction. Prior to removal of the existing illumination system, the Contractor shall design, install and maintain a temporary lighting system along all pedestrian areas adjacent to the Work areas where existing street illumination has been removed or reduced. This system shall be provided for general public safety and shall operate continuously during all hours when street lights surrounding the project area are in operation.

The Contractor shall provide an initial plan, including the proposed lighting levels, for the temporary illumination system for review and approval by the Contracting Agency. Throughout the duration of the project, the Contractor shall make adjustments to the lighting as necessary due to closures or changes in the temporary pedestrian routes, or as directed by the Engineer to accommodate public safety.

Temporary overhead conductors for the temporary illumination system shall be confined within the construction fencing to the maximum extent possible, and the security of the temporary illumination system shall be the Contractor's responsibility. Light fixtures for the temporary illumination system shall not be installed below the tops of adjacent business windows and shall be positioned so light does not shine into those windows. In areas not adjacent to existing business windows, the Contractor shall not install light fixtures below 7 vertical feet above the adjacent pedestrian surface.

The Contractor shall provide all necessary electrical power for the Temporary Illumination System, including all necessary fees and payments for power consumption by this system. The use of on-site generators or other systems that create noise outside of approved working hours will not be allowed.

As the new illumination system becomes operational and is providing full and unobstructed illumination of pedestrian areas, the Contractor shall remove the temporary system and all materials shall become the property of the Contractor.

The following illumination criteria shall apply along the corridor:

Minimum horizontal illuminance:	0.5 fc
Maximum horizontal illuminance:	1.0 fc
Uniformity ratio (average to minimum):	4.0:1

8-20.3(14) Signal Systems

8-20.3(14)A Signal Controllers

Section 8-20.3(14)A is supplemented with the following:

8-20.3(14)C Induction Loop Vehicle Detectors

Section 8-20.3(14)C is supplemented with the following:

(WSDOT NWR August 16, 2010)

Round Loops

Round loops shall be constructed in accordance with the following requirements:

1. Loop conductor and lead in cable shall conform to these Special Provisions.
2. Round saw cuts shall be six feet in diameter and shall be constructed using equipment designed for cutting round loops. The equipment shall use a concave, diamond-segmented blade. The saw cuts shall be normal to the pavement surface and shall be a minimum of 0.25 inches wide. The saw cut depth shall be a minimum of 2 5/8 inches and a maximum of three inches measured at any point along the perimeter, except on bridge decks. Other methods of constructing the round saw cut, such as anchoring a router or flat blade saw, will not be allowed.
3. The bottom of the saw cut shall be smooth. No edges created by differences in saw cut depths will be allowed.
4. All saw cut corners shall be rounded to a minimum 1.5 inch radius.
5. All saw cuts shall be cleaned with a 1000 psi high pressure washer as certified by the manufacturer's label on the machine or as measured by an in line pressure gauge. Wash water and slurry shall be vacuumed out and the saw cut shall be blown dry with compressed air. Disposal of the wash water and slurry shall comply with the requirements of Section 1-07.5(3) and the Special Provision **LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**.
6. Loops shall be installed after grinding and prior to the final lift of Roadway surfacing material.
7. The conductor shall be installed one turn on top of the previous turn. All turns shall be installed in a clockwise direction. The conductors shall be secured to prevent floating with 2-inch lengths of high temperature foam backer rod sized for a snug fit. The backer rod shall be spaced at 2-foot intervals around the perimeter of the saw cut and at corners.
8. Installation of the sealant shall completely encapsulate the loop conductors. A minimum of one inch of sealant shall be provided between the top of the conductors and the top of the saw cut. The top of the sealant shall be flush to 1/8 inch below the top of the saw cut.
9. Use of kerosene solvent is prohibited.

8-20.3(14)D Test for Induction Loops and Lead-in Cable

Section 8-20.3(14)D is supplemented with the following:

1
2 **(WSDOT NWR October 5, 2009)**

3 **Induction Loop Tests**

4 Test A and Test D are revised as follows:

5
6 Test A – The DC resistance between the 2 lead-in cable wires, including the
7 loop, shall be measured by a volt ohmmeter. The resistance shall not exceed
8 5-ohms or lower the Q of the circuit below 5 where Q is equal to the “Inductive
9 Impedance @ 50 kHz” divided by “Resistance”.

10
11 Test D - An inductance test shall be made to determine the inductance level of
12 each inductance loop. The Contractor shall record the inductance level of each
13 inductance loop installed on the project and shall furnish the findings to the
14 Engineer. An induction level, as measured from the controller cabinet, below
15 50-microhenries is considered a failure.

16
17 **(WSDOT NWR February 11, 2013)**

18 **Loop Sealant**

19 Loop sealants shall be installed per manufacturer’s recommendations.

20
21 3M Black 5000 sealant shall be installed so that the sealant is protected from wheel
22 tracking prior to the sealant being fully cured. When 3M Black 5000 loop sealant is
23 installed below the final lift of an HMA installation, a minimum of 5 consecutive days
24 of cure time is required before the final lift is installed.

25
26
27 **8-20.3(17) As-Built Plans**

28 Section 8-20.3(17) is supplemented with the following:

29
30 (*****)

31 The Contractor shall keep current “pencil redline” as-built drawings for any traffic signal
32 installation and/or modification. As-built drawings shall be available to the Engineer upon
33 request and must be submitted to the Engineer.

34
35 **8-20.4 Measurement**

36 Section 8-20.4 is supplemented with the following:

37
38 *(WSDOT NWR August 10, 2009 GSP)*

39 When the following is shown as lump sum in the Plans or in the Proposal, no specific unit of
40 measurement will apply, but measurement will be for the sum total of all items for a complete
41 system to be furnished and installed.

42
43 *(WSDOT NWR August 10, 2009 GSP)*

44 Illumination System

45
46
47 **8-20.5 Payment**

48 Section 8-20.5 is supplemented with the following:

49
50 (*****)

1 “Temporary Traffic Signal System _____”, lump sum.

2 The lump sum Contract price for “Temporary Traffic Signal System _____” shall be full pay for
3 designing and altering an existing traffic signal system as required during construction,
4 including rewiring, removing and reinstalling signal heads, bagging signal heads, procuring
5 and installing new equipment and wiring as required, salvaging materials after
6 decommissioning of the temporary traffic signal systems, restoring facilities destroyed or
7 damaged during construction, and for making all required tests. All additional materials and
8 labor, not shown in the Plans or called for herein and which are required to complete the
9 temporary electrical system, shall be included in the lump sum Contract price.

10
11
12 (*****)

13 “Temporary Illumination System”, lump sum.

14 The lump sum Contract price for “Temporary Illumination System” shall be full compensation
15 for the costs of all tools, equipment, materials, and labor necessary or incidental to provide a
16 complete and operational temporary illumination system, including but not limited to: design,
17 submittals, conductors, light fixtures, electrical power and fees, adjustments, protection and
18 maintenance, and all other Work as specified and shown in the Plans. Removal of the temporary
19 illumination system, which includes all the work installed as part of this bid item, is considered
20 incidental to this lump sum Contract price.

21
22 *(WSDOT NWR August 10, 2009 GSP)*

23 The lump sum Contract price for each of the following items shall be full pay for the
24 construction of the complete electrical system, modifying existing systems, or both, including
25 sign lighting systems, as described below and as shown in the Plans and herein specified
26 including excavation, backfilling concrete foundations, conduit, wiring, restoring facilities
27 destroyed or damaged during construction, salvaging existing materials, and for making all
28 required tests. All additional materials and labor, not shown in the Plans or called for herein
29 and which are required to complete the electrical systems, shall be included in the lump sum
30 Contract price.

31
32 “Traffic Signal System _____”, lump sum.

33 The lump sum Contract price for “Traffic Signal System _____” shall be for the costs of all tools,
34 equipment, materials, and labor necessary or incidental to provide a complete and operational
35 Traffic Signal system, including but not limited to: removal and salvage of the existing system,
36 including but not limited to conduits, wiring, junction boxes, signal equipment, signal poles,
37 controller cabinets, service cabinets, and associated foundations. Installation of conduits,
38 wiring, junction boxes, signal equipment, signal poles, controller cabinets, service cabinets,
39 and associated foundations. Protection and maintenance or replacement of conduit as
40 necessary to facilitate other Work activities in the Contract, all required submittals, and all other
41 Work as specified and shown in the Plans.

42
43 “Traffic Signal System Modification _____”, lump sum.

44 The lump sum Contract price for “Traffic Signal System _____” shall be for the costs of all tools,
45 equipment, materials, and labor necessary or incidental to provide a complete and operational
46 Traffic Signal system, including but not limited to: removal and salvage of the existing system,
47 including but not limited to conduits, wiring, junction boxes, signal equipment, signal poles,
48 controller cabinets, service cabinets, and associated foundations. Installation of conduits,
49 wiring, junction boxes, signal equipment, signal poles, controller cabinets, service cabinets,
50 and associated foundations. Protection and maintenance or replacement of conduit as

necessary to facilitate other Work activities in the Contract, all required submittals, and all other Work as specified and shown in the Plans.

"Illumination System Complete", per lump sum.

The lump sum Contract price for "Illumination System Complete" shall be full compensation for the costs of all tools, equipment, materials, and labor necessary or incidental to provide a complete and operational illumination system, including but not limited to: removal and salvage of the existing system, conduits, wiring, junction boxes, luminaires, luminaire poles, and foundations, protection and maintenance or replacement of conduit as necessary to facilitate other Work activities in the Contract, all required submittals, and all other Work as specified and shown in the Plans.

(NWR March 22, 2010 WSDOT GSP)

"Adjusting Existing Junction Box", per each

The unit Contract price per each for "Adjusting Existing Junction Box" shall be full pay for the Work as specified, including but not limited to adjusting the elevation of the junction box, installation or replacement of the gravel pad, adjustment of conduit placement within the junction box, and replacement of non-slip resistant lids with approved slip resistant lids. All Work shall conform to the requirements of Standard Plans J-40-10-03, J-40.20-01 and J-40.30-03.

When the replacement or modification of electrical or communication system cables, wiring or conductors or other associated Work, not identified as Work in the Contract Plans, is required as a result of the adjustment of existing junction boxes, all costs associated with those modifications shall be paid in accordance with Section 1-04.4.

*(*****)*

"Pedestrian Hybrid Beacon System, _____", per lump sum.

The lump sum Contract price for "Pedestrian Hybrid Beacon System, _____" shall be full pay for the construction of the complete pedestrian hybrid beacon system as described above and as shown in the Plans, and herein specified, including excavation, backfilling, concrete foundations, conduit, wiring, restoring facilities destroyed or damaged during construction, salvaging existing materials, and for making all required tests. All additional materials and labor, not shown in the Plans or called for herein and which are required to complete the electrical system, shall be included in the lump sum Contract price.

8-22 Pavement Marking

8-22.1 Description

Section 8-22.1 is supplemented with the following:

*(*****)*

This Work consists of constructing green bike box markings, white bike lane stop bars, white crossbike markings and green MMA pavement markings as shown in the Plans.

8-22.2 Materials

Section 8-22.2 is supplemented with the following:

*(*****)*

1 Bike Lane Stop Bars, and Crossbike Markings shall be white thermoplastic meeting the
2 requirements of section 8-22.2.

3
4 Green MMA Pavement Markings and Bike Box Markings shall be a durable, color stable,
5 non-slip surface meeting the material requirements of section 9-34.3(4) for Liquid Cold
6 Applied Methyl Methacrylate. The Green MMA Pavement Markings color must meet FHWA
7 color requirements as outlined in "Interim Approval for Optional Use of Green Colored
8 Pavement for Bike Lanes" (IA-14) and must be approved by the Engineer.
9

10 **8-22.3 Construction Requirements**

11 Section 8-22.3 is supplemented with the following:

12
13 (*****)

14 The Contractor shall install Green MMA Pavement Markings, Bike Box Markings, Bike Lane
15 Stop Bars, and Crossbike Markings, per the size, spacing, and materials detailed in the
16 Plans.
17

18 **8-22.4 Measurement**

19 Section 8-22.4 is supplemented with the following:

20
21 (*****)

22 Bike Box Markings will be measured per each marking installed complete.

23
24 Bike Lane Stop Bars will be measured by the completed linear foot of stop bar completed.

25
26 Crossbike Markings will be measured by the square foot.

27
28 Green MMA Pavement Markings will be measured by the square foot of green pavement
29 markings actually constructed, excluding green application areas within bike boxes and
30 crossbike markings.
31

32 **8-22.5 Payment**

33 The following are added prior to the final paragraph of Section 8-22.5:

34
35 (*****)

36 "Bike Box Marking", per each.

37
38 "Plastic White 12 In. Bike Lane Stop Bar", per linear foot.

39
40 "Plastic Crossbike Marking", per square foot.

41
42 "Green MMA Pavement Marking", per square foot.
43
44

45 **8-24 Rock and Gravity Block Wall and Gabion Cribbing**

46 47 **8-24.1 Description**

48 Section 8-24.1 is supplemented with the following:

49
50 (*****)

This Work consists of designing, furnishing, and installing cement concrete modular block wall units to form a **non-reinforced modular block wall system** as indicated in the Plans and as specified herein.

8-24.2 Materials

Section 8-24.2 is supplemented with the following:

(*****)

The face of the modular block wall shall offer a rock-face type appearance. Modular block units shall be gray in color. **The modular blocks shall be the same type, size, and color as the block units specified in Section 6-13.2, as approved by the Engineer.**

Width = 18 inch (minimum) – parallel to the wall Working line

Depth = 12 inch (minimum) – perpendicular to the wall Working line

Height = 8 inch (minimum)

Modular block units shall be interlocked as to provide a minimum one (1) inch setback per each course of wall height (1:8 batter). Interlocking shall consist of concrete shear keys or non-corrosive polyester/fiberglass or polyethylene solid pins. Interlocking material shall be per the recommendation of the manufacturer of the modular block wall system proposed for use by the Contractor, as approved by the Engineer.

Crushed Surfacing Top Course used in constructing a base leveling pad, if applicable and shown in a Plan details, shall meet the requirements of Section 9-03.9(3).

Gravel Backfill for Walls shall meet the requirements of Section 9-03.12(2).

When indicated for use in the Plans, Perforated PVC Underdrain Pipe shall meet the requirements of Section 9-05.2(6).

8-24.3 Construction Requirements

Section 8-24.3 is supplemented with the following:

(*****)

Modular Block Walls

Modular block walls shall be of the type not requiring reinforcement, with a maximum height of four (4) feet above proposed ground surface. The Contractor shall make arrangements to purchase the modular block wall components from a source capable of providing materials meeting these Specifications.

Submittals

The Contractor shall submit catalog cuts of the modular blocks and Shop Drawings of the wall layout for approval prior to beginning the Work, and submit a sample of each different unit for approval by the Engineer.

Installation shall conform to the manufacturers recommendations for the type of modular block wall system furnished.

Provide copies of the manufacturer's installation instructions at least two (2) weeks prior to beginning the Work. Should a conflict arise between these Specifications and the manufacturer's instructions, the more rigorous Specification shall apply.

Installation

The bottom wall course(s) shall be embedded below finish grade a minimum of twenty-four (24) inches.

Place, level, and compact the leveling pad materials. Compact the material per acceptable compaction methods. Material shall be placed so as to provide a level surface on which to place the first course of units. The leveling pad shall be prepared to ensure complete contact of retaining wall unit with base.

First course of concrete wall face units shall be placed on the base leveling pad. **The units shall be checked for level and alignment.** The first course is the most important to ensure accurate and acceptable results.

Units are placed side by side for full length of wall alignment, accounting for exact location of curves, corners, and vertical/horizontal steps. Begin laying wall units at the lowest point of the wall and/or 90-degree corner. Alignment may be accomplished by means of a string line or offset from base line.

Sweep top of underlying course prior to placing the next course. Install following courses of block units in running bond pattern so the middle of the unit is above the joint between adjacent blocks below, until reaching the top course. **Backfill and compact the material in cells for each course installed before proceeding to the next course.**

Modular block units may be saw cut as necessary using standard masonry tools. Sawn, half-width block units shall not be used in the first course of concrete wall face units.

If so indicated in the Plans, cap units shall be bonded to underlying units with an approved adhesive recommended by the modular block wall system manufacturer.

8-24.4 Measurement

Section 8-24.4 is supplemented with the following:

(*****)

Modular block wall will be measured by the square foot of completed front face in place. The bottom limits for vertical measurement will be the top of the leveling pad. The top limits for vertical measurement will be the top of wall (including cap units) as shown in the Plans. The horizontal limits for measurement are from the end of the wall to the end of the wall.

8-24.5 Payment

Section 8-24.5 is supplemented with the following:

(*****)

“Modular Block Wall”, per square foot.

The unit Contract price per square foot for “Modular Block Wall” shall be full pay for all costs in conjunction with designing, furnishing, and constructing the wall systems; including gravel backfill for walls, wall cleanouts, Structure excavation Class A including Haul, Shoring or Extra Excavation Class A, Shop Drawings, wall units including interlocking features, caps when specified for use, and all Work and materials required to install wall underdrain pipe, including gravel backfill for drains and construction geotextile for separation.

Gravel backfill for walls will be considered **incidental** to various wall systems.

Structure excavation will be considered **incidental** to the various wall systems.

Shoring or extra excavation will be considered **incidental** to the various wall systems.

8-26 Vacant

Section 8-26, including tile, is replaced with the following:

(*****)

8-26 Decorative Metal Barrier Element

8-26.1 Description

This Work shall consist of furnishing and installing Decorative Metal Barrier elements, including foundations, as shown on the Plans and as specified herein, at the locations shown in the Plans.

8-26.2 Materials

Barrier modules are dimensioned as shown on the plans. Modules are:

1. Custom Cut Revamp Panels, pattern as indicated in the Plans, <https://revamppanels.com/patterns>, 1526 W Riverside Ave, Spokane, WA 99201, (509) 919 0460
2. Posts as indicated in the Plans

8-26.3 Construction Requirements

8-26.3(1) Fabrication

Modules shall be spaced and installed per details, locations and dimensions shown on plan.

Color:

1. All powder coat colors shall be ral colors. Substitute color systems shall not be allowed.
2. Powder coat color shall be Midnight, RAL 9005 'black'
3. The contractor shall submit a 6" x 6" x 1/8" thick powder coated steel sample in the specified color.

Working Drawings: Prior to fabrication, the contractor shall submit Type 2 Working Drawings and information for the Engineer's acceptance showing all instances and associated grades, members, materials, welds, attachments, coating systems, dimensions and details of fabrication including an erection drawing. Working Drawings to include and incorporate structural engineering provided by Contractor. Working Drawings shall be subject to review, modification and approval by the landscape architect.

Cutting shall be done by sawing or milling and all cuts shall be true and smooth. Flame cutting will not be permitted.

Welding shall conform to the requirements of the "Structural Welding Code" AWS D1.
For structural steel. All exposed welds shall be ground flush with adjacent surfaces.

8-26.3(2) Installation

The barrier element shall be adequately wrapped to ensure surface protection during handling and transportation to the job site.

The barrier element shall be erected in accordance with details in the Plans. The barrier element shall be carefully erected, true to line and grade. Posts shall be vertical with the direction from the vertical for the full height of the panel not exceeding 1/8 inch.

8-26.4 Measurement

Decorative Metal Barrier Element will be measured per each for each element installed.

8-26.5 Payment

Payment will be made for the following Bid Items when included in the Proposal:

"Decorative Metal Barrier Element", per each.

The unit Contract price per each for "Decorative Metal Barrier Element" shall be full pay for all labor, material, hardware, tools and equipment, supplies, and all incidental Work to complete the Work detailed in the Plans and these Special Provisions.

8-27 Vacant

Section 8-27, including title, is replaced with the following:

(*****)

8-27 Pedestrian Handrail

8-27.1 Description

This Work consists of furnishing and constructing metal pedestrian railing, including foundations, of the type specified in accordance with the Plans, and these Specifications, at the locations shown in the Plans.

8-27.2 Materials

Handrail modules are dimensioned as shown on the plans. Top rails, posts, and post sleeves shall be per pedestrian handrail supplier requirements and as specified in the Plans. Foundations shall be as specified in the Plans.

Railing infill panels shall be:

1) Bar infill panel as specified in the Plans

2) Revamp Panels, patterns per Plans, <https://revamppanels.com/patterns>, 1526 W
Riverside Ave, Spokane, WA 99201, (509) 919 0460

8-27.3 Construction Requirements

1
2 **8-27.3(1) Fabrication**
3

4 Modules shall be spaced and installed per details, locations and dimensions shown on plan
5 and in accordance with manufacturer's recommendations. Any conflict between details and
6 manufacturers recommendations are to be identified to architect.
7

8 All exposed components (including top rails, panels, posts, post sleeves, tab plates and
9 hardware) shall be powdercoated black with a metalized undercoating. Color:

- 10
11 1) All powder coat colors shall be ral colors. Substitute color systems shall not be
12 allowed.
13
14 2) Powder coat color shall be Midnight, RAL 9005 (black).
15
16 3) The contractor shall submit a 6" x 6" x 1/8" thick powder coated steel sample in the
17 specified color.
18

19 Working Drawings: Prior to fabrication, the contractor shall submit Type 2 Working Drawings
20 and information for the Engineer's acceptance showing all instances and associated grades,
21 members, materials, welds, attachments, coating systems, dimensions and details of
22 fabrication including an erection drawing. Working Drawings to include and incorporate
23 structural engineering provided by Contractor. Working Drawings shall be subject to review,
24 modification and approval by the landscape architect.
25

26 Cutting shall be done by sawing or milling and all cuts shall be true and smooth. Flame
27 cutting will not be permitted.
28

29 Welding shall conform to the requirements of the "Structural Welding Code" AWS D1. For
30 structural steel. All exposed welds shall be ground flush with adjacent surfaces.

31 Mock-up: Provide mock-up of 2 adjacent Bar Infill Panels and Revamp panels. Mock up shall
32 be provided for the Engineer's review a minimum of 15 working days in advance of
33 installation. Upon acceptance, mock-up shall be maintained for the duration of construction
34 and shall be the standard for remaining constructions. Mock-up may be standalone for
35 removal upon project completion or maintained for integration into the constructed
36 improvements.

37
38 **8-27.3(2) Installation**
39

40 The handrailing shall be adequately wrapped to ensure surface protection during handling
41 and transportation to the job site.
42

43 The handrailing shall be erected in accordance with details in the Plans. The railing shall be
44 carefully erected, true to line and grade. Posts shall be vertical with the direction from the
45 vertical for the full height of the panel not exceeding 1/8 inch.
46

47 **8-27.4 Measurement**

48 Pedestrian handrail will be measured per linear foot along the line and slope at the base of
49 the completed railing.

1
2 **8-27.5 Payment**

3 Payment will be made for the following Bid Items when included in the Proposal:

4
5 "Pedestrian Handrail", per linear foot.

6 The unit Contract price per linear foot for "Pedestrian Handrail" shall be full
7 compensation for all labor, material, hardware, tools and equipment, supplies, incidental
8 work, to satisfactorily complete the work defined in the Plans and these Special
9 Provisions.

10
11
12 **8-28 Vacant**

13 Section 8-28, including title, is replaced with the following:

14
15 (*****)

16 **8-28 Metal Edge**

17
18 **8-28.1 Description**

19 This Work consists of furnishing and constructing metal edge as shown on the Plans, and
20 as specified herein, at the locations shown in the Plans.

21
22 **8-28.2 Materials**

23
24 Metal Edge modules shall be as dimensioned and specified in the Plans.

25
26 **8-28.3 Construction Requirements**

27
28 **8-28.3(1) Fabrication**

29
30 Modules shall be spaced and installed per details, locations and dimensions shown on plan.
31 Any conflict between details and manufacturers recommendations are to be identified to
32 architect.

33
34 Working Drawings: Prior to fabrication, the contractor shall submit Type 2 Working Drawings
35 and information for the Engineer's acceptance showing all instances and associated grades,
36 members, materials, welds, attachments, coating systems, dimensions and details of
37 fabrication including an erection drawing. Working Drawings to include and incorporate
38 structural engineering provided by Contractor. Working Drawings shall be subject to review,
39 modification and approval by the landscape architect.

40
41 Cutting shall be done by sawing or milling and all cuts shall be true and smooth. Flame
42 cutting will not be permitted.

43
44 Welding shall conform to the requirements of the "Structural Welding Code" AWS D1. For
45 structural steel. All exposed welds shall be ground flush with adjacent surfaces.

46
47 Mock-up: Mock up shall be provided for the Engineer's review a minimum of 15 working days
48 in advance of installation. Upon acceptance, mock-up shall be maintained for the duration of
49 construction and shall be the standard for remaining constructions. Mock-up may be

standalone for removal upon project completion or maintained for integration into the constructed improvements.

8-28.3(2) Installation

The metal edge shall be adequately wrapped to ensure surface protection during handling and transportation to the job site.

The metal edge shall be erected in accordance with details in the Plans. The metal edge shall be carefully erected, true to line and grade. Reveals shall be vertical with the direction from the vertical for the full height of the edge not exceeding 1/8 inch.

8-28.4 Measurement

Metal Edge will be measured per linear foot of completed installation, along the line and slope at the base of the completed edge.

8-28.5 Payment

Payment will be made for the following Bid Items when included in the Proposal:

“Metal Edge”, per linear foot.

The unit Contract price per linear foot for “Metal Edge” shall be full pay for all labor, material, hardware, tools and equipment, supplies, and all incidental Work to complete the Work detailed in the Plans and these Special Provisions.

8-30 Vacant

Section 8-30, including title, is replaced with the following:

(*****)

8-30 Field Office Building

8-30.1 Description

This Work shall consist of the Contractor providing a field office building for the sole use of the Contracting Agency.

8-30.3 Construction Requirements

The building, space within a building, or portable trailer shall be set-up at the location designated by the Engineer, within the first five (5) working days from the Notice to Proceed Date.

The field office shall meet the following requirements:

1. The field office shall be a minimum of ten (10) feet wide (measure on the exterior box dimension for portable trailer or space within a building) with not less than four hundred (400) square feet of clear floor space, having at least one (1) door. The minimum height from floor to ceiling shall be seven (7) feet.
2. The field office shall have a solid and level floor with no holes, a weatherproof roof and shall be dust-proof, and weather-tight. The interior walls shall be covered with material suitable for displaying Contract Plans and progress charts, etc.
3. The field office shall be strictly for the use of the Engineer’s staff.

4. The building, space within a building, or trailer furnished for the field office shall be in accordance with all applicable State and local codes and applicable WISHA requirements.

5. Portable Trailer (option):

- a. To deter break-in and theft, window and door glass shall be protected with heavy security screens on metal frames bolted to the walls and doors. All doors shall have two (2) locks each: one (1) doorknob keyhole lock and one (1) deadbolt cylinder lock, each with its own distinct key. The Contractor shall provide the number of sets of keys to the office as directed by the Engineer; minimum of four (4) keys for each lock.
- b. The portable trailer field office shall be level and the Structure shall be supported on blocks.
- c. If more than three (3) steps are required to enter the office, a floor-level landing of at least twelve (12) square feet with railing shall be provided. Steps and landing shall be stable and slip resistant.

Space within a Building (option):

- a. All doors opening directly to the outside shall have two (2) locks each: one (1) doorknob keyhole lock and one (1) deadbolt cylinder lock, each with its own distinct key or have an alternate security that is satisfactory to the Engineer. All other doors shall have locks with its own distinct key or have an alternate security that is satisfactory to the Engineer.
- b. The Contractor shall provide the number of sets of keys to the office as directed by the Engineer; minimum of four (4) keys (and access cards or codes if applicable) for each lock (or access door).

7. The Contractor shall be responsible for maintaining and cleaning the field office; repairing any damage to the Structure, equipment and appurtenances; providing weekly janitorial services including supplying appropriate toilet room paper products; refilling applicable dispensers with drinking water cups, waterless hand cleaner with pumice, and paper towels; cleaning windows and sweeping floors; and emptying trash receptacles and recyclables, disposing trash, and relining trash receptacles and recyclables.

8. The office shall be furnished with the following furniture, equipment and appurtenances reasonably presentable, in good working order, and acceptable to the Engineer:

- a. Drafting table, 6-foot x 4-foot minimum, locking tilt feature [1 unit(s)], and stool with back support [1 unit];
- b. Office chair with seat cushion, adjustable height seat, tilt back, arm rests, and floor wheels [2 unit(s)];
- c. Office desk, 30-inch x 60-inch minimum size, with at least four (4) drawers which can be locked with key and one (1) of which is set up for file folders, two (2) sets of keys [2 unit(s)];
- d. Office table, 36-inch x 72-inch [1 unit];
- e. Office chairs with seat and back cushion [5 unit(s)]
- f. Four-drawer file steel legal cabinet with folders and hanging folders, locking feature with two (2) sets keys, and frame in each drawer to hold folders [1 unit];
- g. White board 2-1/2 feet by 4-1/2 feet minimum with eight (8) dry erase markers, one (1) dry board eraser, and sixteen (16) ounces of dry board cleaner [1 unit];

- 1 h. Metal trash receptacles and recycle bins for paper, plastics and glass; with trash liner
2 inserts and three hundred (300) extra trash liners [two (2) - 41 quart size units and
3 one (1) - 28 quart size unit]
- 4 9. The office shall be furnished with the following computer support office equipment in good
5 working order, and acceptable to the Engineer for the duration of the project:
- 6 a. Color Scanner/Copier/Printer machine meeting the following minimum requirements:
- 7 1) Copy Size: 11" x 17" max, (8.5" x 11" tray, 8.5" x 11" to 11" x 17" tray, 4" x 6" to
8 12" x 18" by pass tray)
- 9 2) Automatic Duplexing (two-sided printing and copying);
- 10 3) Automatic Document Feeder: Capacity 50 sheets, paper size 5.5" x 8.5" to 11" x
11 17"
- 12 4) 30 pages per minute maximum printing speed B&W and color;
- 13 5) Networking capability;
- 14 6) Input Capacity: Standard 2-200 sheets + 50 sheet by pass tray
- 15 7) Output Capacity: Standard 200 sheets
- 16 8) Print Resolution: Up to 600 dpi;
- 17 9) Scan Resolution: Up to 600 dpi;
- 18 10) Scan Size, Maximum: 11 x 17 in (Automatic Document Feeder);
- 19 11) Scan to Email/desktop
- 20 12) Scan File Formats: JPEG, PDF;
- 21 13) Under-storage cabinet;
- 22 14) Floor wheels to accommodate service technician;
- 23 15) One thousand (1,000) sheets of each size twenty (20) lb. bright paper with no
24 more than 30% recycle post-consumer content;
- 25 16) Must be compatible with all computer equipment networking and internet
26 equipment as applicable, and,
- 27 17) A repair and maintenance service contract with 4-hour service response on-site
28 parts and labor
- 29 b. The Contractor shall provide a commercial grade broadband internet access with a
30 static IP address (Cable or DSL at a minimum speed of 7.0 Mbps upload and 27.0
31 Mbps download) between the field office and an Internet Service Provider (ISP). The
32 Contractor shall provide a wireless 802.11g broadband router.
- 33 c. 6-foot minimum length power cords with multiple plug-in surge protector for each of
34 two (2) computers with monitors, the Color Scanner/Copier/Printer, and one (1) spare.
- 35 10. Electric power of sufficient capacity to operate an electric heater, air conditioner, internet
36 access, all computers with monitors, calculators, and lights. Field office shall be provided
37 with a minimum of six (6) duplex convenience electrical outlets. The office shall be
38 illuminated at the tables and desks. If the Contractor elects to provide the portable trailer
39 option, an outdoor light fixture with a 150-watt bulb or approved equal shall be installed to
40 effectively light the area around the office facility.
- 41 11. The Contractor shall provide drinking water with both hot and cold water taps, and with
42 disposable cup dispenser filled with cups; drinking water with disposable cup dispenser
43 shall be in accordance with all applicable State and local codes and applicable WISHA
44 requirements.

12. The Contractor shall provide sanitary facilities including a flushing toilet and wash basin both with running water within the office. For field trailers only, where sewer connections are not reasonably possible as determined by the Engineer, an alternative acceptable to the Engineer such as port-a-potties or portable restrooms may be provided. Toilet and handwashing facilities shall be in accordance with all applicable State and local codes and applicable WISHA requirements.

13. The Contractor shall provide heating to heat the office to 70°F within one (1) hour.

14. The Contractor shall provide replacement toner cartridges for printers and copy machines as needed.

If the Contractor fails to provide a field office at the location and by the date agreed to at the pre-construction conference, the Engineer will provide written notice of such and shall have the right to withhold payments necessary to cover the Contracting Agency's costs for or to remedy. If within five (5) working days of the Engineer sending this written notice the Contractor has not provided the field office, then the Engineer will have the option to provide the field office. If the Engineer elects to provide the field office, the Engineer will give the Contractor a second written notice of such; will within three (3) working days of giving the second written notice provide the field office meeting the requirements specified in these Specifications; and will charge the Contractor by deducting from monies due or to become due the Contractor on progress payments, all costs associated with the field office as specified in these Specifications. Upon deliverance of the second written notice, the Contractor's right to provide the field office shall be forfeited.

The field office, equipment, and appurtenances supplied by the Contractor shall revert to and be removed by the Contractor when the Engineer, via the written notice of Physical Completion to the Contractor, establishes the Physical Completion Date. If the Contractor removes, closes, or discontinues the services specified in this Section prior to receiving the written notice of Physical Completion without first obtaining written approval from the Engineer, the Contractor will be charged Liquidated Damages in accordance with Section 1-08.9.

8-30.4 Vacant

8-30.5 Payment

Payment will be made in accordance to Section 1-04.1, for the following Bid Item when included in the Proposal:

"Field Office Building", lump sum.

The lump sum Contract price for "Field Office Building" shall be full pay for furnishing, installing, maintaining, and removing the facility, including all costs associated with all required utility hook-ups and disconnects, and monthly utility charges for all utilities, and Work required to relocate the field office if required.

8-32 Vacant

Section 8-32, including title, is replaced with the following:

(*****)

8-32 Lean Bar

8-32.1 Description

1 This Work shall consist of furnishing and installing Lean Bars as shown on the Plans and as
2 specified herein, at the locations shown in the Plans.

3 4 **8-32.2 Materials**

5 Lean Bar modules shall be as dimensioned and specified in the Plans.

6 7 **8-32.3 Construction Requirements**

8 9 **8-32.3(1) Fabrication**

10
11 Modules shall be spaced and installed per details, locations and dimensions shown on plan
12 and in accordance with manufacturer's recommendations. Any conflict between details and
13 manufacturers recommendations are to be identified to architect.

14
15 All exposed components (including top rails, posts, post sleeves and hardware) shall be
16 powdercoated black with a metalized undercoating. Color:

- 17
18 1) All powder coat colors shall be ral colors. Substitute color systems shall not be allowed.
19 2) Powder coat color shall be Midnight, RAL 9005 (black).
20 3) The contractor shall submit a 6" x 6" x 1/8" thick powder coated steel sample in the
21 specified color.

22
23 Working Drawings: Prior to fabrication, the contractor shall submit Type 2 Working Drawings
24 and information for the Engineer's acceptance showing all instances and associated grades,
25 members, materials, welds, attachments, coating systems, dimensions and details of
26 fabrication including an erection drawing. Working Drawings to include and incorporate
27 structural engineering provided by Contractor. Working Drawings shall be subject to review,
28 modification and approval by the landscape architect.

29
30 Cutting shall be done by sawing or milling and all cuts shall be true and smooth. Flame
31 cutting will not be permitted.

32
33 Welding shall conform to the requirements of the "Structural Welding Code" AWS D1. For
34 structural steel. All exposed welds shall be ground flush with adjacent surfaces.

35
36 Mock-up: Mock up shall be provided for the Engineer's review a minimum of 15 working days
37 in advance of installation. Upon acceptance, mock-up shall be maintained for the duration of
38 construction and shall be the standard for remaining constructions. Mock-up may be
39 standalone for removal upon project completion or maintained for integration into the
40 constructed improvements.

41 42 **8-32.3(2) Installation**

43
44 The lean rail shall be adequately wrapped to ensure surface protection during handling and
45 transportation to the job site.

46
47 The lean rail shall be erected in accordance with details in the Plans. The railing shall be
48 carefully erected, true to line and grade. Posts shall be vertical with the direction from the
49 vertical for the full height of the panel not exceeding 1/8 inch.

1 **8-32.4 Measurement**

2
3 Lean Bar will be measured per linear foot of completed installation, along the line and slope at
4 the base of the completed railing.
5

6 **8-32.5 Payment**

7 Payment will be made for the following Bid Items when included in the Proposal:

8
9 "Lean Bar", per linear foot.

10 The unit Contract price per linear foot for "Lean Bar" shall be full pay for all labor, material,
11 hardware, tools and equipment, supplies, and all incidental Work to complete the Work
12 detailed in the Plans and these Special Provisions.
13

14
15 Section 8-33 is added as follows:

16 (*****)

17 **8-33 Bike Rack**

18
19 **8-33.1 Description**

20 This Work shall consist of furnishing and installing Bike Racks as shown on the Plans and as
21 specified herein, at the locations shown in the Plans.
22

23 **8-33.2 Materials**

24 Bike Rack modules shall be installed as specified in the Plans.
25

26 **8-33.3 Construction Requirements**

27
28 The bike rack shall be adequately wrapped to ensure surface protection during handling and
29 transportation to the job site.
30

31 The bike rack shall be erected in accordance with details in the Plans. The bike rack shall
32 be carefully erected, true to line and grade. Posts shall be vertical with the direction from the
33 vertical for the full height of the panel not exceeding 1/8 inch.
34

35 **8-33.4 Measurement**

36
37 Bike Rack will be measured per each for each unit installed.
38

39 **8-33.5 Payment**

40 Payment will be made for the following Bid Items when included in the Proposal:

41
42 "Bike Rack", per each.

43 The unit Contract price per each for "Bike Rack" shall be full pay for all labor, material,
44 hardware, tools and equipment, supplies, and all incidental Work to complete the Work
45 detailed in the Plans and these Special Provisions.
46

47
48 Section 8-34 is added as follows:

49 (*****)

8-34 Ramp Handrail

8-34.1 Description

This Work shall consist of furnishing and installing Ramp Handrail as shown on the Plans and as specified herein, at the locations shown in the Plans.

8-34.2 Materials

Ramp Handrail shall be as dimensioned and specified in the Plans.

8-34.3 Construction Requirements

8-34.3(1) Fabrication

Ramp Handrail shall be spaced and installed per details, locations and dimensions shown on plan and in accordance with manufacturer's recommendations. Any conflict between details and manufacturers recommendations are to be identified to architect.

All exposed components (including top rails, posts, post sleeves and hardware) shall be powdercoated black with a metalized undercoating. Color:

1) All powder coat colors shall be ral colors. Substitute color systems shall not be allowed.

2) Powder coat color shall be Midnight, RAL 9005 (black).

3) The contractor shall submit a 6" x 6" x 1/8" thick powder coated steel sample in the specified color.

Working Drawings: Prior to fabrication, the contractor shall submit Type 2 Working Drawings and information for the Engineer's acceptance showing all instances and associated grades, members, materials, welds, attachments, coating systems, dimensions and details of fabrication including an erection drawing. Working Drawings to include and incorporate structural engineering provided by Contractor. Working Drawings shall be subject to review, modification and approval by the landscape architect.

Cutting shall be done by sawing or milling and all cuts shall be true and smooth. Flame cutting will not be permitted.

Welding shall conform to the requirements of the "Structural Welding Code" AWS D1. For structural steel. All exposed welds shall be ground flush with adjacent surfaces.

Mock-up: Mock up shall be provided for the Engineer's review a minimum of 15 working days in advance of installation. Upon acceptance, mock-up shall be maintained for the duration of construction and shall be the standard for remaining constructions. Mock-up may be standalone for removal upon project completion or maintained for integration into the constructed improvements.

8-34.3(2) Installation

The ramp handrail shall be adequately wrapped to ensure surface protection during handling and transportation to the job site.

The ramp handrail shall be erected in accordance with details in the Plans. The railing shall be carefully erected, true to line and grade. Posts shall be vertical with the direction from the vertical for the full height of the panel not exceeding 1/8 inch.

8-34.4 Measurement

Ramp Handrail will be measured per linear foot of completed installation, along the line and slope at the base of the completed railing.

8-34.5 Payment

Payment will be made for the following Bid Items when included in the Proposal:

“Ramp Handrail”, per linear foot.

The unit Contract price per linear foot for “Ramp Handrail” shall be full pay for all labor, material, hardware, tools and equipment, supplies, and all incidental Work to complete the Work detailed in the Plans and these Special Provisions.

Section 8-35 is added as follows:

8-35 Bollard

Section 8-36 is added as follows:

(COK GSP)

8-36 Daily Construction Report

The Contractor and Subcontractors shall maintain daily, a Daily Construction Report of the Work. The Diary must be kept and maintained by Contractor's designated project superintendent(s). Entries must be made on a daily basis and must accurately represent all of the project activities on each day. Contractor shall provide signed copies of diary sheets from the previous week to Engineer at each Weekly Coordination Meeting.

Every single diary sheet/page must have:

- Project name & number;
- Consecutive numbering of pages, and
- Typed or printed name, signature, and date of the person making the entry.

At a minimum the diary shall, for each day, have a separate entry detailing each of the following:

1. Day and date.
2. Weather conditions, including changes throughout the day.
3. Complete description of work accomplished during the day, with adequate references to the Plans and Contract Provisions so the reader can easily and accurately identify said work on the Plans. Identify location/description of photographs or videos taken that day.
4. Each and every changed condition, dispute or potential dispute, incident, accident, or occurrence of any nature whatsoever which might affect Contractor, Contracting

Agency, or any third party in any manner. This shall be provided on a separate page for other information.

5. List all materials received and stored on- or off-site by Contractor that day for future installation, including the manner of storage and protection of the same.

6. List materials installed that day.

7. List all Subcontractors working on-site that day.

8. List the number of Contractor's employees working during each day, by category of employment.

9. List Contractor's equipment on the site that day; showing which were in use, and which idle.

10. Notations to explain inspections, testing, stake-out, and all other services furnished by Contracting Agency or other party during the day.

11. Verify the daily (including non-work days) inspection and maintenance of traffic control devices and condition of the traveled roadway surfaces.

12. Any other information that serves to give an accurate and complete record of the nature, quantity, and quality of Contractor's progress on each day.

13. Add; Officials and visitors onsite

14. Change Orders

15. Occurrence of testing, staking or special inspections

It is expressly agreed between Contractor and Contracting Agency that the Daily Diary maintained by Contractor shall be the "Contractor's Book of Original Entry" for the documentation of any potential claims or disputes that might arise during this Contract. Failure of Contractor to maintain this Diary in the manner described above will constitute a waiver of any such claims or disputes by Contractor.

Preparation of the Daily Diary by the contractor shall be incidental to the unit prices for applicable bid items. No separate payment shall be made for preparation and maintaining the Daily Diary.

Engineer or the Engineer's representative on the job site will also complete a Daily Construction Report.

Section 8-36 is supplemented with the following:

(*****)

All Work to complete the Daily Construction Record/Diary shall be incidental to the bid items in the Contract. No separate measurement or payment shall be made for the Work in this section.

END OF DIVISION 8

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Division 9
Materials

9-03 Aggregates

9-03.16 Vacant

Section 9-03.16, including title, is replaced with the following:

(*****)

9-03.16 Structural Soil for Tree Backfill

The Structural Soil material shall be an urban tree mix as provided by a licensed producer.

The Structural Soil material shall be a mix consisting of the following proportions by weight.

Crushed Stone: 100 pounds

Clay Loam: 20 pounds

Hydrogel: 0.03 pounds

Total moisture at mixing shall be 10% (AASHTO T-99 optimum moisture).

Washed crushed stone shall be granite graded from $\frac{3}{4}$ " to 1 $\frac{1}{2}$ ", highly angular with no fines.

Clay loam shall conform to the USDA soil classification system (gravel <5%, sand 25-30%, silt 20-40%, clay 25-40%).

Organic matter shall range between 2% and 5%.

Hydrogel, a potassium propenoate-prepenamide, co-polymer shall be added in a small amount to act as a tackifier.

9-05 Drainage Structures and Culverts

9-05.2 Underdrain Pipe

Section 9-05.2(9) is added as follows:

(*****)

9-05.2(9) Slotted Underdrain Pipe

Slotted underdrain pipe shall be PVC pipe meeting the requirements of ASTM D1785, SCH 40. The minimum size pipe shall be 6 inches in diameter.

Slots should be cut perpendicular to the long axis of the pipe and be 0.04 to 0.069 inches wide by 1 inch long and be spaced 0.25 inches apart (spaced longitudinally). Slots should be arranged in four rows spaced on 45-degree centers and cover one half of the circumference of the pipe.

1
2
3 **9-05.15 Metal Castings**

4 Section 9-05.15 is supplemented with the following:

5
6 (*****)

7 **Solid Locking Covers**

8 Castings for rings and solid locking covers shall be ductile iron in accordance with
9 ASTM A536, *Standard Specifications for Ductile Iron Castings* and City of Kirkland
10 Pre-Approved Plan CK-D.18 or CK-S.16.

11
12 The covers shall be gasketed, have "STORM" or "SEWER" imprinted on the top
13 surface, and have a diamond patterned slip-resistant top surface. The covers shall
14 include a stainless steel cam lock, and a multi-tool pickbar.

15
16 **9-09 Timber and Lumber**

17
18 **9-09.2 Grade Requirements**

19
20 (*****)

21 Section 9-09.2(4) is added as follows:

22 **9-09.2(4) Bench Slats and Landscape Fence**

23
24 The allowable species of timber and lumber for bench slats and landscape fence shall
25 be Tropical Hardwood, such as IPE or Brazilian Walnut.

26
27 All Tropical Hardwood shall conform to FEQ, Standard First Quality Grade as defined
28 by the Timber Holdings, USA.

29
30
31 **9-14 Erosion Control and Roadside Planting**

32
33 **9-14.1 Soil**

34
35 **9-14.1(1) Topsoil Type A**

36 Section 9-14.1(1) is supplemented with the following:

37
38 (*****)

39 Topsoil Type A shall be imported planting soil with the following characteristics:

40
41 A. Planting soil to be fertile, friable, uniform, and thoroughly mixed and shall
42 meet the following composition requirements:

- 43 1. The components of planting soil shall include sandy loam, sand, and
44 compost per ratios and as defined below;
45 2. PH between 5.5 and 7.5;
46 3. Maximum particle size: 5/8 inch, with 97% to 100% passing the 1/2"
47 screen, and fines as defined by #200 sieve of not more than 15%;
48 4. Maximum electrical conductivity (soluble salts) < 2. milliohms/cm;
49 5. Exchangeable sodium: Max 10%;

6. Sodium adsorption ratio (SAR) <10%;
 7. Free of clay lumps, litter, and other extraneous materials harmful to plant growth;
 8. Organic matter by dry weight: 5-10%;
 9. C:N Ratio: <20:1;
 10. Cation Exchange Capacity: >5 Millequivalents/110g dry soil
- B. Topsoil Type A components shall consist of a mix of sandy loam, sand and compost in the following ratios:
1. 30%-40% by volume: sandy loam;
 2. 30%-40% by volume: fine sand and coarse sand (approx. 50% each);
 3. 30%-40% by volume: compost
- C. Components are defined as follows:

Sandy Loam per USDA textural classification of soil:

Item	Size in mm	Percent by Weight / Test Method
Sand	2.0 – 0.05mm	50-85% / AASHTO T88
Silt	0.05-0.002 mm	0-20% / AASHTO T88
Clay	Less than 0.002 mm	10-20% / AASHTO T88
Organic Matter		1.5-10% / AASHTO T194

Sand - Clean, washed, natural or manufactured sand, free of toxic materials.

- a. Fine Sand: 0.1mm diameter, 50% by weight less than or equal to .1mm (USEPA, 1980)
- b. Coarse Sand is comprised of the following:

Item	Size in mm	Recommendation (by weight)
Fine Gravel	2.0 – 3.4 mm	Not more than 10% of the total particles in this range, including a maximum of 3% fine gravel (preferably none)
Very Coarse Sand	1.0 – 2.0 mm	
Coarse Sand	0.5 - 1.0 mm	Minimum of 60% of the particles must fall in this range.
Medium Sand	0.25 - 0.50 mm	

Fine Sand	0.15 – 0.25 mm	Not more than 20% of the particles may fall within this range
Very Fine Sand	0.05 - 0.15 mm	Not more than 5%
Silt	0.002 - 0.05 mm	Not more than 5%
Clay	less than 0.002 mm	Not more than 3%
Total Fines	Very fine sand + silt + clay	Less than or equal to 10%

Compost per Section 9-14.4(8) of Standard Specifications and Special Provisions.

D. Soil amendments and fertilizers per required soil test recommendations. (See 9-14.1(4)) herein.

9-14.1(2) Topsoil Type B

Section 9-14.1(2) is supplemented with the following:

(*****)

If planting in existing undisturbed, un-compacted soil where existing grade matches final design grade, the Contractor may choose to amend existing surface soil to produce planting soil.

Verify suitability of surface soil to produce planting soil through required soil analysis. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth. Soil amendments and fertilizers per soil analysis test recommendations. Supplement surface soil with Topsoil Type A if needed.

(*****)

9-14.1(4) Topsoil Analysis

Section 9-14.1(4) is added as follows:

For all topsoil types used, furnish an agricultural soil analysis made by a qualified independent soil-testing agency stating percentages of organic matter, inorganic matter (silt, clay, and sand), deleterious material, pH, C:N ratio, and mineral and plant-nutrient content.

The Contractor shall include with the submittal of the agricultural soil analysis a report of topsoil suitability for healthy and satisfactory growth of all applicable plant materials. Include analysis of the following along with recommendations for amendments to add to achieve specified rates herein:

1. Organic matter content percentage by dry weight per the Loss on Ignition method, ASTM D2974 Method D.
2. Gradation of sand, silt and clay content per USDA soil texture classification including the 5/8 inch screen and 1/2 inch screen and #200 screen.
3. Electrical conductivity.
4. Sodium absorption ratio (SAR).
5. Cation Exchange Capacity (CEC).

Topsoil analysis to state the recommended quantities of nitrogen, phosphorus, and potash nutrients and any limestone, aluminum sulfate, or other soil amendments to be added to produce satisfactory planting soil for each planting soil sources to achieve Specifications herein.

For Topsoil Type B - planting in existing undisturbed soil where existing grade matches final design grade, the Contractor shall provide three topsoil samples from three separate, well distanced locations to a full 9 inch depth.

9-14.4 Mulch and Amendments

9-14.4(3) Bark or Wood Chips

Section 9-14.4(3) is supplemented with the following:

(*****)

Landscape Mulch for planting bed top mulch shall be a homogenous mixture of 50% to 70% fine compost meeting the criteria of Section 9-14.4(8) and 30% to 50% fine shredded bark. Fine shredded bark shall meet the following loose volume gradation: 95% passing through a 1-inch sieve with no more than 55% passing through a 1/4-inch sieve.

9-14.4(8) Compost

Section 9-14.4(8) is supplemented with the following:

(*****)

Organic compost shall be used for sub-soil preparation (8-02.3(5)A), as a component of planting soil mix (9-14.1(1)), and a top dressing mulch (8-02.3(11)).

9-29 Illumination, Signal, Electrical

Section 9-29 is supplemented with the following:

(*****)

General

All bolts, nuts, washers, and other fasteners shall be stainless steel unless otherwise specified herein.

Where applicable, all materials, equipment, and installation procedures shall conform to the current requirements and standards of the State of Washington Department of Labor and Industries.

Conduit, Innerduct, and Outerduct

Section 9-29.1 is supplemented with the following:

(WSDOT NWR August 10, 2009)

Conduit Sealing

Mechanical plugs for cabinet conduit sealing shall be one of the following:

1. Tyco Electronics - TDUX
2. Jackmoon – Triplex Duct Plugs
3. O-Z Gedney – Conduit Sealing Bushings

The mechanical plug shall withstand a minimum of 5 psi of pressure.

9-29.2 Junction Boxes, Cable Vaults, and Pull Boxes

Section 9-29.2 is supplemented with the following:

(***)**

Type 1 and Type 2 junction boxes shall be as noted in the Plans and in conformance with WSDOT Standard Plan J-40.10-03.

Junction boxes shall be marked for their use in accordance with the following schedule:

<u>System Type</u>	<u>Legend</u>
Illumination	SL
Traffic Signal	TS
Interconnect	IT

Junction boxes shall have metallic lids. All frames and lids shall be hot-dipped galvanized and bonded to the ground system. All junction boxes installed in the sidewalks shall have non-skid lids. The non-skid surface shall be made of slip resistant steel plate and be 5/16 inch in thickness.

9-29.2(1) Standard Duty and Heavy-Duty Junction Boxes

Section 9-29.2 is supplemented with the following:

(September 3, 2019)

Slip-Resistant Surfacing for Junction Boxes, Cable Vaults, and Pull Boxes

Where slip-resistant junction boxes, cable vaults, or pull boxes are required, each box or vault shall have slip-resistant surfacing material applied to the steel lid and frame of the box or vault. Where the exposed portion of the frame is ½ inch wide or less, slip-resistant surfacing material may be omitted from that portion of the frame.

Slip-resistant surfacing material shall be identified with a permanent marking on the underside of each box or vault lid where it is applied. The permanent marking shall be formed with a mild steel weld bead, with a line thickness of at least 1/8 inch. The marking shall include a two character identification code for the type of material used and the year of manufacture or application. The following

materials are approved for application as slip-resistant material, and shall use the associated identification codes:

1. Harsco Industrial IKG, Mebac #1 - Steel: **M1**
2. W. S. Molnar Co., SlipNOT Grade 3 – Coarse: **S3**
3. Thermion, SafTrax TH604 Grade #1 – Coarse: **T1**

(COK GSP)

9-29.2(1)A2 Non- Concrete Junction Boxes

Section 9-29.2(1)A2 is deleted and replaced with the following:

Non concrete junction boxes are not allowed in City of Kirkland.

9-29.3 Fiber Optic Cable, Electrical Conductors, and Cable

Section 9-29.3 is supplemented with the following:

(*****)

Chemically cross-linked polyethylene type USE shall be used for insulation of conductors in raceways. No alternate will be allowed.

Electrical Conductors and Cable

Section 9-29.3(2) is supplemented with the following:

(WSDOT NWR October 5, 2009)

Video Detection Cable

Coaxial cable or combination (composite/Siamese) cable for video detection shall be RG59/U with a manufacturer's rating of 600 Volts (Non UL - manufacturer's voltage rating of the insulation is acceptable). Combination cable shall be in accordance with the video detection system manufacturer's recommendations for the length of cable required.

Detector Loop Wire

Section 9-29.3(2)F is revised to read as follows:

(WSDOT NWR October 5, 2009)

Detector loop wire shall use 14 AWG stranded copper conductors, and shall conform to IMSA Specification 51-7, with cross-linked polyethylene (XLPE) insulation encased in a polyethylene outer jacket (PE tube).

9-29.6 Light and Signal Standards

Section 9-29.6 is supplemented with the following:

(*****)

Light Standards with Type 1 Luminaire Arms

Lighting standards shall be fabricated in conformance with the methods and materials specified on the pre-approved Plans listed below, provided the following requirements have been satisfied:

- (a) Light source to pole base distance (H1) shall be as noted in the Plans. Verification of H1 distances by the Engineer, prior to fabrication, is not required. Fabrication tolerance shall be ± 6 inches.
- (b) All other requirements of the Special Provisions have been satisfied.

Fabricator	Pre-Approved Drawing No.	Rev.	Mounting Height(s) (feet)
Valmont Ind., Inc.	DB01164, Sheets 1-5 of 5	B	30, 35, 40, and 50
Ameron Pole Products Division	WA15LT3721, Sheets 1 and 2 of 2	A	20, 25, 30, 35, 40, 45, and 50
Millerbend Manufacturing Co.	74515-WA-LP1-BB, Sheets 1 and 2 of 2	H	30, 35, 40, and 50
Millerbend Manufacturing Co.	74515-WA-LP1-ELBOW, Sheets 1-3 of 3	J	30, 35, 40, and 50
Millerbend Manufacturing Co.	74515-WA-LP1-SB, Sheets 1-3 of 3	G	30, 35, 40, and 50

Light Standards with Type 1 Luminaire Arms

Lighting standards shall be fabricated in conformance with the methods and materials specified on the pre-approved plans listed below, provided the following requirements have been satisfied:

- (a) Mounting heights shall be as specified in the Plans.
- (b) Light source to pole base distances (H1) shall be determined or verified by the Engineer prior to fabrication. Fabrication tolerance shall be ± 6 inches.
- (c) All other requirements of the Special Provisions have been satisfied.

Fabricator	Pre-Approved Drawing No.	Rev.	Mounting Height(s) (feet)
Valmont Ind., Inc.	DB01164, Sheets 1-5 of 5	B	30, 35, 40, and 50

Ameron Pole Products Division	WA15LT3721, Sheets 1 and 2 of 2	A	20, 25, 30, 35, 40, 45, and 50
Millerbend Manufacturing Co.	74515-WA-LP1-BB, Sheets 1 and 2 of 2	H	30, 35, 40, and 50
Millerbend Manufacturing Co.	74515-WA-LP1-ELBOW, Sheets 1-3 of 3	J	30, 35, 40, and 50
Millerbend Manufacturing Co.	74515-WA-LP1-SB, Sheets 1-3 of 3	G	30, 35, 40, and 50

Traffic Signal Standards

Traffic signal standards shall be furnished and installed in accordance with the methods and materials noted in the applicable Standard Plans, pre-approved plans, or special design plans.

All welds shall comply with the latest AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. Welding inspection shall comply with Section 6-03.3(25)A Welding Inspection.

Hardened washers shall be used with all signal arm connecting bolts instead of lockwashers. All signal arm ASTM F 3125 Grade A325 connecting bolts tightening shall comply with Section 6-03.3(33).

Traffic signal standard types, applicable characteristics, and foundation types are as follows:

Type PPB

Pedestrian push button posts shall conform to Standard Plan J-20.10 or to one of the following pre-approved plans:

Fabricator	Pre-Approved Drawing No.
Valmont Ind., Inc.	DB01165 Rev. B (4 sheets)
Ameron Pole Products Division	WA15TR10-1 Rev. C (1 sheet) and WA15TR10-3 Rev. B (1 sheet)
Millerbernd Manufacturing, Co.	74514-WA-PED-PPB Rev J (2 sheets)

Foundations shall be as noted in Standard Plan J-20.10

Type PS, Type I, Type RM, and Type FB

Type PS pedestrian signal standards, Type I vehicle signal standards, Type RM ramp meter signal standards, and Type FB flashing beacon standards

shall conform to Standard Plan J-20.16, J-21.15, J-21.16, and J-22.15 respectively, or to one of the following pre-approved plans:

Fabricator	Pre-Approved Drawing No.
Valmont Ind., Inc.	DB01165 Rev. B (4 sheets)
Ameron Pole Products Division	WA15TR10-1 Rev. C (1 sheet) and WA15TR10-2 Rev. C (1 sheet)
Millerbernd Manufacturing, Co.	74514-WA-PED-FB Rev. H (2 sheets)
Millerbernd Manufacturing Co.	74514-WA-PED-SB Rev. H (2 sheets)

Foundations shall be as noted in Standard Plan J-21.10.

Type II

Type II signal standards are single mast arm signal standards with no luminaire arm or extension. Type II standards shall conform to one of the following pre-approved plans. Maximum arm length (in feet) and wind load (XYZ value, in cubic feet) is noted for each manufacturer.

Fabricator	Pre-Approved Drawing No.	Max. Arm Length (ft)	Max. Wind Load (XYZ) (ft³)
Valmont Ind., Inc.	DB00162 Rev. B (5 sheets)	65	3206
Ameron Pole Products Division	WA15TR3724-1 Rev. C (sheet 1 of 2), and WA15TR3724-2 Rev. D (sheet 2 of 2)	65	2935
Millerbernd Manufacturing, Co.	74516-WA-TS-II Rev. L (4 sheets)	65	3697

Foundations shall be as noted in the Plans and Standard Plan J-26.10. Type II signal standards with two mast arms installed 90 degrees apart may use these pre-approved drawings. Standards with two arms at any other angle are Type SD and require special design.

Type III

Type III signal standards are single mast arm signal standards with one Type 1 (radial davit type) luminaire arm. The luminaire arm has a maximum length of 16 feet and a mounting height of 30, 35, 40, or 50 feet, as noted in the Plans. Type III standards shall conform to one of the following pre-approved plans. Maximum arm length (in feet) and wind load (XYZ value, in cubic

feet) is noted for each manufacturer. Wind load limit includes a luminaire arm up to 16 feet in length.

Fabricator	Pre-Approved Drawing No.	Max. Arm Length (ft)	Max. Wind Load (XYZ) (ft³)
Valmont Ind., Inc.	DB00162 Rev. B (5 sheets), with Type "J" luminaire arm	65	3259
Ameron Pole Products Division	WA15TR3724-1 Rev. C (sheet 1 of 2), and WA15TR3724-2 Rev. D (sheet 2 of 2), with Series "J" luminaire arm	65	2988
Millerbernd Manufacturing, Co.	74516-WA-TS-III-J Rev. L (5 sheets)	65	3750

Foundations shall be as noted in the Plans and Standard Plan J-26.10. Type III signal standards with two mast arms installed 90 degrees apart may use these pre-approved drawings. Standards with two arms at any other angle are Type SD and require special design.

Steel Light Standards

Pole

1. One-piece, seamless 4" round tube of extruded-aluminum welded over and in a 6 5/8" round extruded-aluminum pole base
2. Assembly welded to both the top and bottom of a cast-aluminum anchor plate
3. 4 1/2" x 10" maintenance opening complete with cover and copper ground lug

Joint Cover

1. Made from two pieces of cast-aluminum mechanically fastened to the junction with stainless steel hardware

Base Cover

1. Made from two pieces of cast-aluminum mechanically fastened to the junction with stainless steel hardware

Finish

1. Powder coated and clear coated with a polyurethane finish to match Sherwin-Williams DBS6-20001 MG Black

Height

1. Twenty (20) feet

Tenon Section

1. Four (4) inches

Wall Thickness

1. 0.318 inches

EPA Rating

1. In accordance with AASHTO 2001 standards: for three seconds, pole is tested in wind gusts equivalent to the strongest winds on record over the past 50 years, and with a 50 pound load placed at 1 foot above its center

Anchor Bolts

1. 3/4"-27 inch x 3 ELL

Plant Support Arm

1. Designed to fit on a round pole using a central tubing inserted through two opposite 1 3/8" holes
2. Aluminum 1 1/16" diameter arm able to slip-fit into central tubing, secured to the attachment with stainless steel hardware
3. Powder coated and clear coated with a polyurethane finish to match Sherwin-Williams DBS6-20001 MG Black

Receptacles

1. Luminaire pole mounted receptacles shall be 20 Amp 120V GFCI, Class A, GF-8300, with clear bubble "in use" cover.

9-29.7 Luminaire Fusing and Electrical Connections at Light Standard Bases, Cantilever Bases, and Sign Bridge Bases

Section 9-29.7 is supplemented with the following:

(*****)

Luminaire fusing shall conform to Standard Specification Section 9-29.7. Fuses shall be Bussman Type FNM, Reliance MEN, Gould-Shawmut TRM, or approved equal and shall be 10 A.

Fuse connectors shall be installed at every traffic mast arm pole containing a luminaire. Every conductor above ground potential shall be served by a quick-disconnect fused connector. Every conductor at ground potential shall be serviced by a single pin connector. Fuse connectors shall be per Standard Specification Section 9-29.7.

The fuse holders shall be readily accessible from the adjacent junction box with the servicing conductors and have 18 inches of slack in the conductors.

9-29.10 Luminaires

Section 9-29.10 is supplemented with the following:

(*****)

Decorative Pedestrian/Roadway Luminaire

1. 53W LED, Asymmetrical Type 5 distribution
2. Powder coated and clear coated with a polyurethane finish to match Dark Forest Green RAL6012

Luminaire Arm

1. 2' short reach mounting bracket aluminum
2. Powder coated and clear coated with a polyurethane finish to match Dark Forest Green RAL6012

Anchor Base

1. Cast aluminum
2. Powder coated and clear coated with a polyurethane finish to match Dark Forest Green RAL6012

Shaft

1. 4" Diameter *.188 wall) alloy aluminum
2. Powder coated and clear coated with a polyurethane finish to match Dark Forest Green RAL6012

9-29.12 Electrical Splice Materials

9-29.12(1) Illumination Circuit Splices

Section 9-29.12(1) is supplemented with the following:

(*****)

All splices for the illumination circuit shall be made in the junction box employing an epoxy resin type splice kit as specified in the Standard Specifications.

This section is revised to read:

Underground illumination circuit splices shall be solderless crimped connections capable of securely joining the wires, both mechanically and electrically, as defined in Section 8-20.3(8). Aerial illumination splices shall be solderless crimp connectors or split bolt vice-type connectors.

9-29.12(1)A Heat Shrink Splice Enclosure

This section is deleted in its entirety.

9-29.12(1)B Molded Splice Enclosure

This section is deleted in its entirety.

9-29.12(2) Traffic Signal Splice Material

This section is revised to read:

Induction loop splices and magnetometer splices shall use an uninsulated barrel-type crimped connector capable of being soldered.

9-29.12(3) Splice Enclosures

9-29.12(3)A Heat Shrink Splice Enclosure

Heat shrink splice enclosures shall be medium or heavy wall cross-linked polyolefin, meeting the requirements of AMS-DTL-23053/15, with thermoplastic adhesive sealant. Heat shrink splices used for "wye" connections require rubber electrical mastic tape.

9-29.12(3)B Molded Splice Enclosure

Molded splice enclosures shall use epoxy resin in a clear rigid plastic mold. The material used shall be compatible with the insulation material of the insulated conductor or cable. The component materials of the resin insulation shall be packaged ready for convenient mixing without removing from the package.

1 **9-29.12(4) Re-Enterable Splice Enclosure**

2 Re-enterable splice enclosures shall use either dielectric grease or a flexible resin
3 contained in a two-piece plastic mold. The mold shall either snap together or use
4 stainless steel hose clamps.

5
6 **9-29.12(5) Vinyl Electrical Tape for Splices**

7 Vinyl electrical tape in splicing applications shall meet the requirements of MIL-I-
8 24391C.

9
10 **9-29.13 Control Cabinet Assemblies**

11 **9-29.13(7) Traffic-Actuated Controllers**

12
13 **9-29.13(7)B Auxiliary Equipment for NEMA Controllers**

14 Section 9-29.13(7)B is deleted in its entirety and replaced with the following:

15
16 The controller shall be a 16 Phase NEMA ATC (OS9) with SEPAC 3.334E.

17
18 The controller unit shall exceed the requirements of NEMA TS-2 2003
19 Actuated Controller Unit Standards, and shall be meet TS2 Type 2
20 requirements. The controller shall run on an OS9 operating system and shall
21 be configurable as a local, master or local/master depending on the local
22 intersection software in use. The controller shall have a removable hand-
23 held front panel with a multi-line alphanumeric 8X40 LDC display. It shall
24 have a 37 pin D connector for backward compatibility with TS-1 facilities.
25 The following port configurations are required:

- 26
27
 - One 10 base ethernet port
 - One FSK port
 - One Infrared port
 - One DataKey™ port with a 2M data key
 - One SDLC port

30
31
32
33 It shall function with Next-Phase, SEPAC and SE-MARC software. The CMU
34 shall be a SIEMENS model EPAC3108M52/AAD15288P002 or approved
35 equivalent.

36
37 Local Intersection Software

38 The controller shall come with SEPAC Version 3.40 LRT local intersection
39 software. It shall be operable with both the ACTRA™ and i2TMS™ regional
40 software platforms.

41
42 Fiber Optic Termination Panel

43 The cabinet shall come with a 12 port wall mounted fiberoptic termination
44 panel 8" x 13" x 3" complete with loaded duplex single-mode SC coupler
45 plates and splice trays. The panel shall be a Bejed BJ-2173A with (1) BJ-
46 1742E splice tray and (2) BJ-1646-704 coupler plates.

47
48 Ethernet Switch

49 The cabinet shall come with a 9 port ethernet switch. Six ports of 10/100TX
50 and three ports of 100base single-mode fiber with SC ports with 29km

distance. The ethernet switch shall support all of the following minimum requirements; din-rail mountable, rapid spanning tree protocol (IEEE 802.1w), quality of service (IEEE802.1p), virtual local area networks (VLAN) tagging (IEEE 802.1q), IGMP snooping, port mirroring, broadcast storm filtering, and simple network management protocol (SNMP). The ethernet switch shall be a RuggedCom model RS900-HI-D-C2C2C2 or approved equivalent. The following cables and cords shall be supplied with the ethernet switch:

- Two single mode patch cords (SC to SC) two meter
- One 16 gauge 3 conductor power adapter
- Four Cat6 patch cables five meter

Malfunction Management Unit (MMU)

The cabinet shall come with a (MMU) that meets all the requirements of NEMA TS2-2003 while remaining downward compatible with NEMA TS1. It shall have (2) high contrast LCD displays and an internal diagnostic wizard. It shall come with a 10/100 ethernet port. It shall come with software to run flashing yellow arrow operation. The MMU shall be an Eberle Design, Inc. model MMU-16LEip or approved equivalent.

Load Switch

The cabinet shall come with (16) load switches. All load switches shall be cube type and have LED indications for both the input and output side of the load. The load switches shall be PDC model SSS87I/O or approved equivalent.

Flasher

The cabinet shall come with (1) flasher. The flasher shall be cube type and have LED indications. The flasher shall be PDC model SSF87 or approved equivalent.

Flasher Transfer Relay

The cabinet shall come with (8) heavy duty flash transfer relays. The relays shall be Detrol Controls model 295 or approved equivalent.

Bus Interface Unit (BIU)

The cabinet shall come with (6) bus interface units (BIU). These shall meet all the requirements of NEMA TS-2 1998 standards. In addition, all BIUs shall provide separate front panel indicator LED's for DC power status and SDLC Port 1 transmit and receive status. The (BIU)'s shall be Eberle Design, Inc. model BIU700 or approved equivalent.

Power Supply (PS)

The cabinet shall come with a shelf mounted cabinet power supply meeting at minimum TS 2-2003 standards. It shall be a heavy duty device that provides +12VDC at 5 Amps / +24VDC at 2 Amps / 12VAC at .25 Amp, and line frequency reference at 50 mA. The power supply shall provide a separate front panel indicator LED for each of the four outputs. Front panel banana jack test points for 24VDC and logic ground shall also be provided. The power supply shall provide 5A of power and be able to cover the load

of four (4) complete detector racks. The (PS) shall be Eberle Design, Inc. model PS250 or approved equivalent.

Loop Amplifiers

The cabinet shall come with (16) 4-channel rack mounted loop amplifiers. These devices shall have LCD displays and be capable of monitoring the call strength from all (4) channels simultaneously via a pie graph on the front panel. These devices must have the capability to perform directional logic and 3rd car queuing for protected/permissive operation. The loop amplifiers shall be Eberle Design, Inc. model ORACLE4e or approved equivalent.

Opticom

The cabinet shall come with (2) 2-channel rack mounted Opticom™ phase selectors. These devices shall be capable of receiving encoded signals from Opticom series 700 emitters and detectors. The Opticom™ phase selectors shall be Global Traffic Technologies model 752 equivalent.

9-29.13(7)D NEMA Controller Cabinets

Section 9-29.13(7)D is deleted in its entirety and replaced with the following:

The cabinet shall be NEMA “Stretch P” completely wired and tested to NEMA TS2 Type 1 Specifications (as amended). In addition, at a minimum the following requirements shall be met:

The cabinet shall be designed for 16 channel operation where each load switch socket can be configured for a vehicle phase, pedestrian phase or overlap operation without rewiring the back side of the load-bay.

The cabinet shall be wired for 64 channels of detection depending upon customer requirements.

The cabinet shall be capable of integrating transit signal priority equipment.

The use of PC boards shall not be allowed except in detector racks or BIU cages.

The use of plug and play modules shall not be allowed.

The entire cabinet and components shall undergo a 72 hour test burn-in before delivery to the testing agency. If the cabinet comes with a controller, the cabinet shall come with an ATSI TS2 frame grabber communications test report before delivery will be accepted.

The cabinet shall use the latest technology applicable and shall be 100% compliant with Section 1605 of the American Recovery and Reinvestment Act of 2009, requiring the use of American iron, steel and manufactured goods.

The cabinet assembly shall be completely manufactured in the United States of America.

Cabinet Enclosure

At a minimum the cabinets shall meet the following criteria:

1. It shall have nominal dimensions of 67" high x 44" width x 25.5" depth and meet the footprint dimensions as specified in Section 7.3 of NEMA standards for a Type P cabinet. The cabinet base shall have continuously welded interior mounting reinforcement plates with the same anchor bolt hole pattern as the footprint dimensions.
2. Shall be fabricated from 5052-H32 0.125-inch thick aluminum.
3. The cabinet shall be double-flanged where it meets the cabinet door.
4. The top of the cabinet shall be sloped 1" towards the rear to facilitate water runoff. And shall bend at a 90° angle at the front of the cabinet. Lesser slope angles are not allowed.
5. The inside of the cabinet shall utilize C channel rails. (2) Welded on the back wall on 34" center and (4) welded on each side wall on 08" center with 04" between sets. C channel rails shall be 48" in length, start 5" from the bottom of the cabinet interior and run the entire usable height the cabinet side walls. Adjustable rails are not allowed.
6. The Cabinet shall be supplied with a natural mill finish inside and out, unless otherwise specified.
7. Paint, powder-coating or anodizing shall be per customer request.
8. All external fasteners shall be stainless steel. Pop rivets shall not be allowed on any external surface.
9. The door handle shall be cast ¾" round stock stainless steel bar.
10. The main door shall contain a police door with a conventional police lock. A key shall be provided for both the cabinet lock and the police door lock. The police door shall be recessed into the main door so that the police door is flush with the main door. A closed-cell, neoprene gasket seal shall be bonded to the enclosure doors. A stiffener plate shall be welded across the width of the inside of the main door to prevent flexing. A main door bar stop shall be a two-position, three-point stop that accommodates open-angles at 90, 125, and 150 degrees. A louvered air entrance located at the bottom of the main door shall satisfy NEMA rod entry test requirements for 3R ventilated enclosures. Bearing rollers shall be applied to ends of door latches to discourage metal-on-metal surfaces from rubbing. Lock assembly shall be positioned so handle does not cause interference with key when opening the door.
11. The cabinet shall be equipped with a universal lock bracket capable of accepting a Best Construction Core and a Corbin#2 tumbler series lock. The cabinet shall come equipped with a Best blue construction core lock.
12. All exterior seams shall be manufactured with neatly formed continuously weld construction. The weld for the police box door shall be done on the inside of the cabinet door. All welds shall be free from burrs, cracks, blowholes or other irregularities.

13. The fan baffle panel seams shall be sealed with RTV sealant or equivalent material on the interior of the cabinet.
14. The cabinet shall be UL listed
15. The cabinet shall come with lifting ears affixed to the upper exterior of the cabinet. These ears shall utilize only one bolt for easy reorientation.
16. Shall come with a three-stage, multi-ply progressive density polyester, disposable air filter. Filter shall be secured to entrance on main door by two (2) horizontally-mounted restraints. Filter performance UL 900 Class 2 listed and shall conform to ASHRAE Standard 52.1.
17. The door shall be mounted with a single continuous stainless steel piano hinge that runs the length of the door. Attaching tamper resistant bolts shall also be stainless steel.
18. All steel incorporated in the cabinet shell shall be manufactured in the United States of America..

Shelves

Shall come with (3) double beveled shelves 10" deep that are reinforced welded with V channel, fabricated from 5052-H32 0.125-inch thick aluminum with double flanged edges rolled front to back. Slotted hole shall be inserted every 7" for the purpose of tying off wire bundles.

Ventilating Fans

The cabinet shall be provided with a finger safe din rail mounted thermostatically controlled (adjustable between 4-176° Fahrenheit) ventilation fan. The fan shall be installed in the top right side of the cabinet plenum. A removable aluminum vent cover shall be supplied to allow a second thermostatically controlled fan to be added per customer request.

Computer Shelf

A slide-out computer shelf 16" length by 12" width by 2" depth shall be installed underneath the lower equipment shelf. The shelf shall be mounted just left of center so that controller cables will not interfere with the operation of the shelf when equipment is installed. The shelf shall have a hinged cover that opens from the front and shall be powder-coated black. It shall be a General Devices Part # VC4080-99-1168.

Main Panel Configuration (Load-Bay)

The design of the panel shall conform to NEMA TS2 Section 10, Terminals and Facilities, unless modified hear in. This panel shall be the termination point for the controller unit (CU) MSA and (MMU) MSA & B cables. The terminal and facilities layout shall be arranged in a manner that allows all equipment to be readily accessible.

The load-bay shall be fully wired and meet the following requirements:

- The load-bay shall have the following dimensions; constructed from aluminum with a nominal thickness of 0.125 inches and a maximum width of 37-½ inches including attached wiring bundles.
- It shall be a Z type configuration.
- The entire assembly shall roll down and provide access to all of the back of panel wiring. All solder terminals shall be accessible when the load-bay is rolled down. The assembly shall be able to roll down without requiring other components, cables or switches to be removed.
- The load-bay shall be designed so that all other cabinet screw terminals are accessible without removing cabinet electronics.
- All the controller (CU) and malfunction management (MMU) cables shall be routed through the back of the load-bay so that they will not be subject to damage during load-bay roll down.
- The top of the load-bay panel shall attach directly to Unistrut™ spring nuts without the use of standoffs and spacers.
- The load-bay shall be balanced such that it will not roll down when fully loaded with load switches, flashers and flash transfer relays, and the Unistrut™ spring nuts are removed.
- The load-bay facility shall be wired for 16 channels. Each one shall be shall be assignable as a vehicle phase, pedestrian phase or overlap. Each load-bay channel shall be routed through a flash transfer relay.
- Sixteen load sockets spaced on 2" center per NEMA TS1 section 10.2.4, Figure 10-2.
- Eight flash transfer relay sockets.
- One flasher socket.
- All load switches and flasher shall be supported by a bracket extending at least ½ the length of the load switch.
- Two bus interface unit rack slots for BIU's 1 and 2. The load-bay must have space available for a 3rd BIU. All of the cabinet BIU's shall fit into one rack in the top left corner of the load-bay. Multiple racks are not allowed.
- A screw terminal shall be provided to access all functions on all BIUs.
- Wiring for one Type-16 MMU.
- All 24 VDC relays shall have the same base socket but different from the 115VAC relays.
- All 115VAC relays shall have the same base socket but different from the 24VDC relays. (not applicable to flash transfer relays or the mercury contactor)
- The load-bay shall be silkscreened on both sides.
- Field wiring terminations shall be per channel across the bottom of the load-bay. Each channel shall have 3 terminations from left to right beginning with phase 1 corresponding to the appropriate vehicle phase Red, Yellow and Green and following the order of the load

switches. Field terminals shall be #10 screw terminal and be rated for 600V.

- All cable wires shall be terminated. No tie-off of unused terminals will be allowed.
- Shall be 100% manufactured in the United States of America
- All wiring shall conform to NEMA TS1 Section 10.3.3.1. Main panel wiring shall conform to the following colors and minimum wire sizes:

Vehicle green load switch output	14 gauge brown
Vehicle yellow load switch output	14 gauge yellow
Vehicle red load switch output	14 gauge red
Pedestrian Don't Walk switch	14 gauge orange
Pedestrian Walk switch	14 gauge blue
Pedestrian Clearance load switch	14 gauge yellow
Logic Ground	18 gauge gray
+24V DC	18 gauge red with white tracer
+12V DC	18 gauge pink
AC+ Line	14 gauge black
AC- Line	14 gauge white
Earth Ground	16 gauge green
AC line (load bay)	12/14 gauge black
AC neutral (load bay)	12/14 gauge white
Controller A cables	22 gauge blue <i>with the exception of power wires (AC+ Black, AC- White & Earth Ground Green)</i>
MMU A & B cables	22 gauge orange <i>with the exception of power wires (AC+ Black, AC- White & Earth Ground Green)</i>

The field terminal blocks shall have a screw Type No. 10 post capable of accepting no less than 3 No. 12 AWG wires fitted with spade connectors. Four (4) 12-position terminal blocks shall be provided in a single row across the bottom of the main panel. Spade lugs from internal cabinet wiring are not allowed on field terminal screws. The flash program shall be changeable from the front of the load-bay. All load switches, flasher, and flash transfer relay sockets shall be marked and mounted with screws. Rivets and clip-mounting is unacceptable.

Wire size 16 AWG or smaller at solder joints shall be hooked or looped around the eyelet or terminal block post prior to soldering to ensure circuit integrity. All wires shall have lugs or terminal fittings when not soldered. Lap joint/tack on soldering is not acceptable. All soldered connections shall be made with 60/40 solder and non-corrosive, non-conductive flux. All wiring shall be run neatly and shall use mechanical clamps and conductors shall not be spliced between terminations. Cables shall be sleeved in braided nylon mesh and wires shall not be exposed.

Load-Bay and Panel Wire Termination

All wires terminated behind the main panel or on the back side of other panels shall be SOLDERED. No pressure or solder-less connectors shall be used. Printed circuit boards shall only be used on the load bay where connecting to the bus interface units (BIU).

Cabinet Light Assembly

The cabinet shall have an LED lighting fixture with 15 high power LEDs using a cool white color emitting 300lm min @ 12VDC/750mA. The LED shall be a Rodeo Electronics TS-LED-05M02. The LED fixture shall be powered by a Mean Well class 2 power supply LPV-20-12 that shall be mounted on the inside top of the cabinet near the front edge. The cabinet light circuit shall be designed so a second LED fixture can be installed in the cabinet without the need a of a second power supply. An on/off switch that is turned on when the cabinet door is opened and off when it is closed shall activate the lighting fixture(s) power supply.

Convenience Outlet

The cabinet shall be wired with one convenience outlet with a ground fault interrupter and one convenience outlet without ground fault interrupters. The ground fault outlet shall be mounted on the right side of the cabinet on or near the power panel. The one convenience outlet shall be near the top shelf. No outlets shall be mounted on the door. The GFI power shall be fed through the auxiliary breaker. The convenience outlet shall power shall be fed through an EDCO SHP300-10 transient voltage suppressor located on the cabinet power panel.

Auxiliary Panel

The cabinet shall include an auxiliary switch panel mounted to the interior side of the police panel compartment on the cabinet door. This panel shall be hinged at the bottom to allow access to the soldered switches with the use of clamps or tools. Both sides of the panel shall be silkscreened. All of the switches shall be protected by a hinged see-through Plexiglas cover.

At a minimum the following switches shall be included:

Controller ON/OFF Switch: There shall be a switch that renders the controller and load-switching devices electrically dead while maintaining flashing operations for purpose of changing the controller or load-switching devices. The switch shall be a general-purpose bat style toggle switch with .688-inch long bat.

Signals ON/OFF Switch: There shall be a switch that renders the field signal displays electrically dead while maintaining controller operation for purpose of monitoring controller operations. The switch shall be a general-purpose bat style toggle switch with .688-inch long bat.

Stop Time Switch: There shall be a 3-position switch labeled "Normal" (up), "Off" (center), and "On" (down). With the switch in the "Normal" position, a stop timing command shall be applied to the controller by the police flash switch or the MMU (Malfunction Management Unit). When the switch is in its "Off" position, stop timing commands shall be

removed from the controller. The “On” position shall cause the controller to stop time. The switch shall be a general-purpose bat style toggle switch with .688-inch long bat.

Technician Flash Switch: There shall be a switch that places the field signal displays in flashing operation while the controller continues to operate. This flash shall have no effect on the operation of the controller or MMU. The switch shall be a general-purpose bat style toggle switch with .688-inch long bat.

Pedestrian Test Switches: There shall be (4) disconnect/test switches for the pedestrian phases. These switches shall have three positions labeled “On” (up) which shall be normal operation, “Off” (center) which shall disconnect the applicable pedestrian phase, and “Test” (down) which shall provide a true input to the controller for the applicable pedestrian phase. These switches shall be labeled 2, 4, 6 and 8.

Pre-Empt Test Switches: All (6) preempt inputs shall have disconnect/test switches. These switches shall have two positions labeled “On” (up) which shall connect the controller to the Opticom output, and “Test” (down) which shall provide a momentary true input to the controller. These switches shall be labeled 1, 2, 3, 4, 5 and 6.

Police Panel

Behind the police door the following switches included:

Flash Switch: There shall be a switch for the police that puts the cabinet into flashing operations. The switch shall have two positions, “Auto” (up) and “Flash” (down). The “Auto” position shall allow normal signal operation. The “Flash” position shall immediately cause all signal displays to flash as programmed for emergency flash and apply stop time to the controller. When the police flash switch is returned to “Auto”, the controller shall restart except when the MMU has commanded flash operation. The effect shall be to disable the police panel switch when the MMU has detected a malfunction and all controller and MMU indications shall be available to the technician regardless of the position of the police flash switch. The switch shall be a general-purpose bat style toggle switch with .688-inch long bat.

Signals ON/OFF Switch: There shall be a switch that renders the field signal displays electrically dead while maintaining controller operation for purpose of monitoring controller operations. The switch shall be a general-purpose bat style toggle switch with .688-inch long bat.

Cables

All wire cable bundles shall be encased in flex or expandable braided sleeving along their entire free length.

All SDLC cables shall be terminated on the 6” x 12” SDLC and PS interface panel on the right side of the cabinet. SDLC cables shall be professionally

1 routed in the cabinet interior to easily reach the controller, malfunction
2 management unit or detector racks.

3 4 Flashing Operation

5 All cabinets shall be wired to flash for all channels. Flashing operation shall
6 alternate between the used vehicle phases 1,3,5,7 and 2,4,6,8. Flash
7 programming shall be either red or yellow simply by changing wires on the
8 front of the load-bay.

9 10 Detector Racks

11 The cabinet shall have (64) channels of detection depending on customer
12 requirements. One rack shall support sixteen (16) channels of loop
13 detection, (1) Buss Interface Unit (BIU) and (2) GTT 752 or (1) 754
14 Opticom™ phase selector(s). Three racks shall support sixteen (16)
15 channels of loop detection and one (1) Buss Interface Unit (BIU). The power
16 and loop cabling shall be connected via a 37 pin DB connector using spring
17 clips. The Opticom cable shall be connected via a 24 pin connector.

18 19 Detector Panel

20 The detector panel shall support (64) channels of vehicle detection, (4)
21 channels of emergency vehicle preemption and (4) channels of pedestrian
22 detection on a single panel. This panel will be mounted on the left side of
23 the cabinet below the bottom shelf. The panel shall also include (19) position
24 neutral and ground buss bars with raised screws.

25 26 Video Detection Panel

27 When video detection is used there shall be video detection interface panel
28 for single point interface for video power and coax cabling. The panel shall
29 up to (6) individual surge arrestor and circuit breaker circuits so that
30 individual cameras can be replaced in the field without disrupting the entire
31 video detection system.

32 33 Telemetry Interface Panel

34 All cabinets shall be wired with a telemetry interface panel and telemetry
35 connecting cable so it will function as a local or a master cabinet. This panel
36 shall be wired for transient suppression (EDCO model # PC642C008D with
37 PCB1BWKEY)

38 39 Additional Panels

40 Sheet metal panels shall be installed in the available space on the upper left
41 and right sides of the cabinet. The left side panel shall be 24" x 12". The right
42 side panel shall be 30.5" x 12".

43 44 Supplemental Loads

45 All pedestrian phase yellows and odd numbered vehicle phase yellows and
46 greens shall be loaded with s 2.5K-ohm, 10-watt resistor. Each load resistor
47 shall be easily accessed from the back of the main panel (load-bay).

48 49 Service Surge Suppression

The cabinet shall be equipped with an EDCO model SHP300-10 or approved equivalent surge arrestor mounted on the power panel. Power to all cabinet electronics shall come through this surge suppression circuit.

Power Panel

The power panel shall handle all the power distribution and protection for the cabinet and shall be mounted in the bottom right side of the facility. All equipment shall be mounted on a 12" x 17" silkscreened aluminum panel and include at a minimum the following equipment:

- A 30-amp main breaker shall be supplied. This breaker shall supply power to the controller, MMU, signals, cabinet power supply, detector racks and auxiliary panels.
- A 15-amp auxiliary breaker shall supply power to the fan, light and GFI.
- A 50-amp, 125 VAC radio interference line filter.
- A normally open, 50-amp, solid-state relay. (Use of Mercury Contactors shall only be allowed upon customer request.)
- One see-through Plexiglas cover on stand-offs to protect maintenance personnel from AC line voltages. This shall be removable by loosening screws but without removing screws.
- One (19) position neutral buss bar with raised screws
- One (19) position ground buss bar with raised screws

9-29.16 Vehicular Signal Heads, Displays, and Housing

The second paragraph of Section 9-29.16 is deleted and replaced with the following:

(*****)

Backplates shall be constructed of 5-inch-wide, .050-inch-thick corrosion-resistant flat black finish, louvered anodized aluminum, or Polycarbonate attached with stainless steel hardware. A 2-inch-wide strip of yellow retro-reflective, type IV prismatic sheeting, conforming to the requirements of Section 9-28.12, shall be applied around the perimeter of each backplate with the exception of installations where all sections of the display will be dark as part of normal operation such as the pedestrian hybrid beacon.

9-29.16(1)A2 LED Programmable Array

Section 9-29.16(1)A2 is supplemented with the following:

(*****)

All signal indications shall be LED manufactured by Dialight as follows:

<u>Indication</u>	<u>Dialight Model Number</u>
RED Ball	433-1210-003XL
AMBER Ball	433-3230-901XL
GREEN Ball	433-2220-001XL
RED Arrow	432-1374-001XOD
AMBER Arrow	431-3334-901XOD

GREEN Arrow	432-2324-001XOD
RED Bicycle	433-1210-003XLB
AMBER Bicycle	433-3230-901XLB
GREEN Bicycle	433-2220-001XLB

9-29.16(2)B Signal Housing

Section 9-29.16(2)B is supplemented with the following:

(*****)

All housings shall have a 1/4-inch-diameter drain hole in the bottom.

9-29.16(2)E Painting Signal Heads

(*****)

In the first sentence, "Federal Standard 595" is revised to read "SAE AMS Standard 595".

Traffic Signal Cover

Section 9-29.16(4) is supplemented with the following:

(WSDOT NWR August 10, 2009)

Covering Material

Signal head covering material shall consist of 4 mil minimum thickness black polyethylene sheeting.

9-29.16(5) Four-inch Bicycle Signal Indication and Housing

Section 9-29.16(5) is added with the following:

(*****)

Four-inch bicycle signal indications and housing shall be ITEM Bike Buddy. The signal shall meet the following:

- Aluminum housing
- Gray Blue color
- 4-inch "L" mounting bracket

Contractor shall install four-inch bicycle signal indication and housing to the pole using stainless steel rivnuts or per manufacturer recommendations.

9-29.17 Signal Head Mounting Brackets and Fittings

(*****)

In the first paragraph, item number 2 under **Stainless Steel** is revised to read:

2. Bands or cables for Type N mount.

Section 9-29.17 is supplemented with the following:

(*****)

The plumbizer required for the Type-M mount shall be bronze as shown in Standard Plan J-75.20-00. The unit shall provide a wireway capable of accepting the five-conductor cable without damage to the sheath, shall include three stainless steel set screws, and shall be mounted with a 3/8-inch stainless steel through-bolt with washers and double nuts, and shall be painted with two coats of traffic signal green baked enamel.

Vehicle Detector

Section 9-29.18 is supplemented with the following:

(WSDOT NWR August 10, 2009)

Loop Amplifier

Loop detector amplifiers shall be as follows:

Model: Model C-1103-SS

Manufacturer: Reno A&E
4655 Aircentet Circle
Reno, NV 89502
Ph: (775) 826-2020
www.renoe.com

(WSDOT NWR February 11, 2013)

Loop Sealant

Loop sealant for use in HMA pavement shall be one of the following:

1. RAI Pro-Seal 6006EX
2. QCM EAS-14
3. 3M Black 5000
4. Craftco Inc. Part #34271

Loop sealant for use on concrete bridge decks and PCC pavement shall be one of the following:

1. 3M Black 5000
2. Gold Label Flex 1P
3. QCM EAS-14

9-29.19 Pedestrian Push Buttons

Section 9-29.19 is supplemented with the following:

(*****)

Pedestrian push buttons shall be Polara Engineering iNavigator 2-wire push button. Product number is iN2-3-T-N-0-G.

Pedestrian push buttons shall be delivered to the City of Kirkland Signal Shop for testing and programming. The 2-conductor pedestrian cable shall be continuous between the button and the cabinet. The Contractor shall perform ohm test(s) of

wires per the manufacturer's installation manual. Upon satisfactory ohm test(s), Contracting Agency Signal Technicians will land wires in the cabinet.

Signs shall conform to Section 9-29.19 of the Standard Specifications and Standard Plan J-20.26-01.

Bicycle push buttons shall be the same as pedestrian push buttons with the following exceptions:

- Vibro-tactile element is disabled.
- Sign mounted to the push button shall be MUTCD R10-24 in accordance with the Plans.

9-29.20 Pedestrian Signals

(*****)

In item 2C of the second paragraph, "Federal Standard 595" is revised to read "SAE AMS Standard 595".

Section 9-29.20 is supplemented with the following:

(*****)

All pedestrian signals shall be Countdown Type LED Manufactured by Dialight No. 430-6479-001X.

9-29.24 Service Cabinets

Section 9-29.24 is supplemented with the following:

(*****)

The electrical service cabinet shall be furnished by the Contractor per the Plans and be wired ready for operation. The Contractor's Work shall include a construction of a foundation (per Plans), placing cabinets and equipment and connecting field wiring to field terminal strips. Field testing will be done in the presence of the City of Kirkland traffic Engineer.

The third sentence of item number 6 is revised to read:

(*****)

The dead front cover shall have cutouts for the entire breaker array, with blank covers where no circuit breakers are installed.

Item number 8 is revised to read:

(*****)

8. Lighting contactors shall meet the requirements of Section 9-29.24(2).

The last sentence of item number 10 is revised to read:

(*****)

Dead front panels shall prevent access to any exposed, live components, and shall cover all equipment except for circuit breakers (including blank covers), the photocell test/bypass switch, and the GFCI receptacle.

9-29.24(2) Electrical Circuit Breakers and Contactors

This section is revised to read:

(*****)

All circuit breakers shall be bolt-on type, with the RMS-symmetrical interrupting capacity described in this Section. Circuit breakers for 120/240/277 volt circuits shall be rated at 240 or 277 volts, as applicable, with an interrupting capacity of not less than 10,000 amperes. Circuit breakers for 480 volt circuits shall be rated at 480 volts, and shall have an interrupting capacity of not less than 14,000 amperes.

Lighting contactors shall be rated for tungsten or ballasted (such as sodium vapor, mercury vapor, metal halide, and fluorescent) lamp loads. Contactors for 120/240/277 volt circuits shall be rated at 240 volts maximum line to line voltage, or 277 volts maximum line to neutral voltage, as applicable. Contactors for 480 volt circuits shall be rated at 480 volt maximum line to line voltage.

9-29.25 Amplifier, Transformer, and Terminal Cabinets

Section 9-29.25 is supplemented with the following:

(*****)

The unit shall be fastened to the pole shaft with a minimum of two self-tapping galvanized metal screws employing minimum 1-inch-diameter flat washers inside the cabinet.

Following installation, a clear epoxy sealant shall be used to provide a raintight seal between the pole shaft and the cabinet back.

Section 9-29.27 is added as follows:

(*****)

9-29.27 Detectable Pull Tape

The Contractor shall furnish and install a flat polyester woven pre-lubed tape that contains a 22- gauge wire.

The tape shall be marked with sequential footage markings and be continuous.

The tape shall meet or exceed a breaking strength of 900 lb., with a width of 1/2-inch.

9-35 Temporary Traffic Control Materials

9-35.5 Portable Changeable Message Signs

Section 9-35.5 is revised to read:

(WSDOT GSP January 10, 2022)

PCMS, mPCMS, and truck mounted PCMS shall meet the requirements of the MUTCD and the following general requirements:

1. Use light emitting diode (LED) technology capable of emitting a yellow or amber image when displayed with a flat black image matching the background when not activated.
2. Be capable of displaying 3-lines of at least 8 alphanumeric characters with a minimum of one pixel separation between each line.
3. Be capable of displaying 2 phases of messages at 2.0 second display each in addition to 3 phases of messages at 1.5 second display each.
4. PCMS characters shall be at least 18 inches in height.
5. mPCMS characters shall be at least 12 inches in height.
6. Truck-mounted PCMS characters shall be at least 10 inches in height.
7. The sign display shall be covered by a stable, impact resistant polycarbonate face. The sign face shall be non-glare from all angles and shall not degrade due to exposure to ultraviolet light.
8. Be capable of simultaneously activating all pixels for the purpose of pixel diagnostics. This feature shall not occur when the sign is displaying an active message.
9. The light source shall be energized only when the sign is displaying an active message.
10. Primary source of power shall be solar power with a battery backup to provide continuous operation when failure of the primary power source occurs.
11. The sign controller software shall be NTCIP compliant.

The PCMS panels and related equipment shall be permanently mounted on a trailer or truck with all needed controls and power generating equipment.

END OF DIVISION 9

Appendices

(WSDOT GSP January 2, 2012)

The following appendices are attached and made a part of this contract:

*** APPENDIX A:

Summary of Geotechnical Conditions.

APPENDIX B:
City of Kirkland Pre-Approved Plans / WSDOT Standard Plans

APPENDIX C:
Right-of-Way Commitment Files

APPENDIX D:
Stormwater Vault Calculations

APPENDIX E:
Northshore Utility District Specifications

**(WSDOT GSP January 10, 2022)
Standard Plans**

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01, effective September 13, 2021, is made a part of this contract.

The Standard Plans are revised as follows:

B-90.40
Valve Detail – DELETED

C-8
DELETED

C-8A
DELETED

C-20.10
Note 1: "Refer to Standard Plan C-1b and C-20.11 for additional details not shown on this plan." is revised to read: "Refer to Standard Plan C-1b for additional details not shown on this plan."

C-60.10
Sheet 1, ADD Note: NOTE: STEEL WELDED WIRE REINFORCEMENT DEFORMED FOR CONCRETE MAY BE SUBSTITUTED FOR REINFORCING STEEL IN ACCORDANCE WITH STANDARD SPECIFICATION, SECTION 6-10.3

Sheet 2, New Note 5: The connecting pin may be fabricated with a forged head as shown on Standard Plan C-60.15."

C-60.80
DELETED

C-85.16
DELETED

C-85.20
DELETED

D-10.10

Wall Type 1 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT Bridge Design Manual (BDM) and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.15

Wall Type 2 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.30

Wall Type 5 may be used in all cases.

D-10.35

Wall Type 6 may be used in all cases.

D-10.40

Wall Type 7 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.45

Wall Type 8 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the revisions stated in the 11/3/15 Bridge Design memorandum.

D-15.10

STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.20

STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.30

STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

G-90.11

DELETED

G-90.40

DELETED

J-10.16

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.17

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.18

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-20.26

Add Note 1, "1. One accessible pedestrian pushbutton station per pedestrian pushbutton post."

J-20.16

View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

J-21.10

Sheet 1, Elevation View, Round Concrete Foundation Detail, callout – "ANCHOR BOLTS ~ 3/4" (IN) x 30" (IN) FULL THREAD ~ THREE REQ'D. PER ASSEMBLY" IS REVISED TO READ: "ANCHOR BOLTS ~ 3/4" (IN) x 30" (IN) FULL THREAD ~ FOUR REQ'D. PER ASSEMBLY"

Sheet 1 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR.. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 1 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Detail F, callout, "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 3)" is revised to read; "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 1)"

Detail F, callout, "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Four Required (See Note 4)" is revised to read; "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Three Required (See Note 2)"

J-21.15

Partial View, callout, was – LOCK NIPPLE ~ 1 1/2" DIAM., is revised to read; CHASE NIPPLE ~ 1 1/2" (IN) DIAM.

J-21.16

Detail A, callout, was – LOCKNIPPLE, is revised to read; CHASE NIPPLE

J-22.15

Ramp Meter Signal Standard, elevation, dimension 4' - 6" is revised to read; 6'-0" (2x) Detail A, callout, was – LOCK NIPPLE ~ 1 ½" DIAM. is revised to read; CHASE NIPPLE ~ 1 ½" (IN) DIAM.

J-40.10

Sheet 2 of 2, Detail F, callout, "12 – 13 x 1 ½" S.S. PENTA HEAD BOLT AND 12" S. S. FLAT WASHER" is revised to read; "12 – 13 x 1 ½" S.S. PENTA HEAD BOLT AND 1/2" (IN) S. S. FLAT WASHER"

J-40.36

Note 1, second sentence; "Finish shall be # 2B for backbox and # 4 for the cover." Is revised to read; "Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-40.37

Note 1, second sentence; "Finish shall be # 2B for backbox and # 4 for the cover." Is revised to read; "Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-75.20

Key Notes, note 16, second bullet point, was: "1/2" (IN) x 0.45" (IN) Stainless Steel Bands", add the following to the end of the note: "Alternate: Stainless steel cable with stainless steel ends, nuts, bolts, and washers may be used in place of stainless steel bands and associated hardware."

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00.....8/7/07	A-30.35-00.....10/12/07	A-50.10-01.....8/17/21
A-10.20-00.....10/5/07	A-40.00-00.....8/11/09	A-50.40-01.....8/17/21
A-10.30-00.....10/5/07	A-40.10-04.....7/31/19	A-60.10-03.....12/23/14
A-20.10-00.....8/31/07	A-40.15-00.....8/11/09	A-60.20-03.....12/23/14
A-30.10-00.....11/8/07	A-40.20-04.....1/18/17	A-60.30-01.....6/28/18
A-30.30-01.....6/16/11	A-40.50-02.....12/23/14	A-60.40-00.....8/31/07
B-5.20-03.....9/9/20	B-30.50-03.....2/27/18	B-75.20-03.....8/17/21
B-5.40-02.....1/26/17	B-30.60-00.....9/9/20	B-75.50-01.....6/10/08
B-5.60-02.....1/26/17	B-30.70-04.....2/27/18	B-75.60-00.....6/8/06
B-10.20-02.....3/2/18	B-30.80-01.....2/27/18	B-80.20-00.....6/8/06
B-10.40-02.....8/17/21	B-30.90-02.....1/26/17	B-80.40-00.....6/1/06
B-10.70-02.....8/17/21	B-35.20-00.....6/8/06	B-85.10-01.....6/10/08
B-15.20-01.....2/7/12	B-35.40-00.....6/8/06	B-85.20-00.....6/1/06
B-15.40-01.....2/7/12	B-40.20-00.....6/1/06	B-85.30-00.....6/1/06
B-15.60-02.....1/26/17	B-40.40-02.....1/26/17	B-85.40-00.....6/8/06
B-20.20-02.....3/16/12	B-45.20-01.....7/11/17	B-85.50-01.....6/10/08
B-20.40-04.....2/27/18	B-45.40-01.....7/21/17	B-90.10-00.....6/8/06
B-20.60-03.....3/15/12	B-50.20-00.....6/1/06	B-90.20-00.....6/8/06

	B-25.20-02.....2/27/18	B-55.20-03.....8/17/21	B-90.30-00.....6/8/06
	B-25.60-02.....2/27/18	B-60.20-02.....9/9/20	B-90.40-01.....1/26/17
	B-30.05-00.....9/9/20	B-60.40-01.....2/27/18	B-90.50-00.....6/8/06
	B-30.10-03.....2/27/18	B-65.20-01.....4/26/12	B-95.20-02.....8/17/21
	B-30.15-00.....2/27/18	B-65.40-00.....6/1/06	B-95.40-01.....6/28/18
	B-30.20-04.....2/27/18	B-70.20-00.....6/1/06	
	B-30.30-03.....2/27/18	B-70.60-01.....1/26/17	
	B-30.40-03.....2/27/18		
1	C-1.....9/9/20	C-22.16-07.....9/16/20	C-60.70-00.....9/24/20
	C-1b.....9/9/20	C-22.40-08.....9/16/20	C-60.80-00.....8/17/21
	C-1d.....10/31/03	C-22.45-05.....9/16/20	C-70.15-00.....8/17/21
	C-2c.....8/12/19	C-23.60-04.....7/21/17	C-70.10-03.....8/20/21
	C-4f.....8/12/19	C-24.10-02.....8/12/19	C-75.10-02.....9/16/20
	C-6a.....10/14/09	C-25.20-07.....8/20/21	C-75.20-03.....8/20/21
	C-7.....6/16/11	C-25.22-06.....8/20/21	C-75.30-03.....8/20/21
	C-7a.....6/16/11	C-25.26-05.....8/20/21	C-80.10-02.....9/16/20
	C-8.....2/10/09	C-25.30-01.....8/20/21	C-80.20-01.....6/11/14
	C-8a.....7/25/97	C-25.80-05.....8/12/19	C-80.30-02.....8/20/21
	C-20.10-07.....8/20/21	C-60.10-01.....9/24/20	C-80.40-01.....6/11/14
	C-20.14-04.....8/12/19	C-60.15-00.....8/17/21	C-85.10-00.....4/8/12
	C-20.15-02.....6/11/14	C-60.20-00.....9/24/20	C-85.11-01.....9/16/20
	C-20.18-03.....8/12/19	C-60.30-01.....8/17/21	C-85.15-02.....8/27/21
	C-20.40-08.....8/20/21	C-60.40-00.....8/17/21	C-85.18-02.....8/20/21
	C-20.41-03.....8/20/21	C-60.45-00.....8/17/21	
	C-20.42-05.....7/14/15	C-60.50-00.....8/17/21	
	C-20.45.02.....8/12/19	C-60.60-00.....8/17/21	
2	D-2.04-00.....11/10/05	D-2.80-00.....11/10/05	D-10.10-01.....12/2/08
	D-2.06-01.....1/6/09	D-2.84-00.....11/10/05	D-10.15-01.....12/2/08
	D-2.08-00.....11/10/05	D-2.88-00.....11/10/05	D-10.20-01.....8/7/19
	D-2.32-00.....11/10/05	D-2.92-00.....11/10/05	D-10.25-01.....8/7/19
	D-2.34-01.....1/6/09	D-3.09-00.....5/17/12	D-10.30-00.....7/8/08
	D-2.36-03.....6/11/14	D-3.10-01.....5/29/13	D-10.35-00.....7/8/08
	D-2.46-02.....8/13/21	D-3.11-03.....6/11/14	D-10.40-01.....12/2/08
	D-2.60-00.....11/10/05	D-3.15-02.....6/10/13	D-10.45-01.....12/2/08
	D-2.62-00.....11/10/05	D-3.16-02.....5/29/13	
	D-2.64-01.....1/6/09	D-3.17-02.....5/9/16	
	D-2.66-00.....11/10/05	D-4.....12/11/98	
	D-2.68-00.....11/10/05	D-6.....6/19/98	
3	E-1.....2/21/07	E-4.....8/27/03	
	E-2.....5/29/98	E-4a.....8/27/03	
4	F-10.12-04.....9/24/20	F-10.62-02.....4/22/14	F-40.15-04.....9/25/20
	F-10.16-00.....12/20/06	F-10.64-03.....4/22/14	F-40.16-03.....6/29/16
	F-10.18-02.....9/24/20	F-30.10-04.....9/25/20	F-45.10-03.....8/13/21
	F-10.40-04.....9/24/20	F-40.12-03.....6/29/16	F-80.10-04.....7/15/16
	F-10.42-00.....1/23/07	F-40.14-03.....6/29/16	
5	G-10.10-00.....9/20/07	G-26.10-00.....7/31/19	

	G-20.10-03.....8/20/21	G-30.10-04.....6/23/15	
	G-22.10-04.....6/28/18	G-50.10-03.....6/28/18	
	G-24.10-00.....11/8/07	G-90.10-03.....7/11/17	
	G-24.20-01.....2/7/12	G-90.20-05.....7/11/17	
	G-24.30-02.....6/28/18	G-90.30-04.....7/11/17	
	G-24.40-07.....6/28/18	G-95.10-02.....6/28/18	
	G-24.50-05.....8/7/19	G-95.20-03.....6/28/18	
	G-24.60-05.....6/28/18	G-95.30-03.....6/28/18	
	G-25.10-05.....9/16/20		
1	H-10.10-00.....7/3/08	H-32.10-00.....9/20/07	H-70.10-02.....8/17/21
	H-10.15-00.....7/3/08	H-60.10-01.....7/3/08	H-70.20-02.....8/17/21
	H-30.10-00.....10/12/07	H-60.20-01.....7/3/08	
2	I-10.10-01.....8/11/09	I-30.20-00.....9/20/07	I-40.20-00.....9/20/07
	I-30.10-02.....3/22/13	I-30.30-02.....6/12/19	I-50.20-01.....6/10/13
	I-30.15-02.....3/22/13	I-30.40-02.....6/12/19	I-60.10-01.....6/10/13
	I-30.16-01.....7/11/19	I-30.60-02.....6/12/19	I-60.20-01.....6/10/13
	I-30.17-01.....6/12/19	I-40.10-00.....9/20/07	I-80.10-02.....7/15/16
3	J-10.....7/18/97	J-28.40-02.....6/11/14	J-60.13-00.....6/16/10
	J-10.10-04.....9/16/20	J-28.42-01.....6/11/14	J-60.14-01.....7/31/19
	J-10.12-00.....9/16/20	J-28.43-01.....6/28/18	J-75.10-02.....7/10/15
	J-10.14-00.....9/16/20	J-28.45-03.....7/21/16	J-75.20-01.....7/10/15
	J-10.15-01.....6/11/14	J-28.50-03.....7/21/16	J-75.30-02.....7/10/15
	J-10.16-02.....8/18/21	J-28.60-03.....8/27/21	J-75.41-01.....6/29/16
	J-10.17-02.....8/18/21	J-28.70-03.....7/21/17	J-75.45-02.....6/1/16
	J-10.18-02.....8/18/21	J-29.10-01.....7/21/16	J-80.10-01.....8/18/21
	J-10.20-04.....8/18/21	J-29.15-01.....7/21/16	J-80.12-00.....8/18/21
	J-10.21-02.....8/18/21	J-29.16-02.....7/21/16	J-80.15-00.....6/28/18
	J-10.22-02.....8/18/21	J-30.10-00.....6/18/15	J-81.10-02.....8/18/21
	J-10.25-00.....7/11/17	J-40.05-00.....7/21/16	J-81.12-00.....9/3/21
	J-12.15-00.....6/28/18	J-40.10-04.....4/28/16	J-86.10-00.....6/28/18
	J-12.16-00.....6/28/18	J-40.20-03.....4/28/16	J-90.10-03.....6/28/18
	J-15.10-01.....6/11/14	J-40.30-04.....4/28/16	J-90.20-03.....6/28/18
	J-15.15-02.....7/10/15	J-40.35-01.....5/29/13	J-90.21-02.....6/28/18
	J-20.10-04.....7/31/19	J-40.36-02.....7/21/17	J-90.50-00.....6/28/18
	J-20.11-03.....7/31/19	J-40.37-02.....7/21/17	
	J-20.15-03.....6/30/14	J-40.38-01.....5/20/13	
	J-20.16-02.....6/30/14	J-40.39-00.....5/20/13	
	J-20.20-02.....5/20/13	J-40.40-02.....7/31/19	
	J-20.26-01.....7/12/12	J-45.36-00.....7/21/17	
	J-21.10-04.....6/30/14	J-50.05-00.....7/21/17	
	J-21.15-01.....6/10/13	J-50.10-01.....7/31/19	
	J-21.16-01.....6/10/13	J-50.11-02.....7/31/19	
	J-21.17-01.....6/10/13	J-50.12-02.....8/7/19	
	J-21.20-01.....6/10/13	J-50.13-00.....8/22/19	
	J-22.15-02.....7/10/15	J-50.15-01.....7/21/17	
	J-22.16-03.....7/10/15	J-50.16-01.....3/22/13	
	J-26.10-03.....7/21/16	J-50.18-00.....8/7/19	
	J-26.15-01.....5/17/12	J-50.19-00.....8/7/19	

	J-26.20-01.....6/28/18	J-50.20-00.....6/3/11	
	J-27.10-01.....7/21/16	J-50.25-00.....6/3/11	
	J-27.15-00.....3/15/12	J-50.30-00.....6/3/11	
	J-28.10-02.....8/7/19	J-60.05-01.....7/21/16	
	J-28.22-00.....8/07/07	J-60.11-00.....5/20/13	
	J-28.24-02.....9/16/20	J-60.12-00.....5/20/13	
	J-28.26-01.....12/02/08		
	J-28.30-03.....6/11/14		
1	K-70.20-01.....6/1/16	K-80.35-01.....9/16/20	
	K-80.10-02.....9/25/20	K-80.37-01.....9/16/20	
	K-80.20-00.....12/20/06		
	K-80.32-00.....8/17/21		
	K-80.34-00.....8/17/21		
2	L-10.10-02.....6/21/12	L-40.15-01.....6/16/11	L-70.10-01.....5/21/08
	L-20.10-03.....7/14/15	L-40.20-02.....6/21/12	L-70.20-01.....5/21/08
	L-30.10-02.....6/11/14		
3	M-1.20-04.....9/25/20	M-11.10-03.....8/7/19	M-40.20-00.....10/12/07
	M-1.40-03.....9/25/20	M-12.10-02.....9/25/20	M-40.30-01.....7/11/17
	M-1.60-03.....9/25/20	M-15.10-01.....2/6/07	M-40.40-00.....9/20/07
	M-1.80-03.....6/3/11	M-17.10-02.....7/3/08	M-40.50-00.....9/20/07
	M-2.20-03.....7/10/15	M-20.10-03.....9/25/20	M-40.60-00.....9/20/07
	M-2.21-00.....7/10/15	M-20.20-02.....4/20/15	M-60.10-01.....6/3/11
	M-3.10-04.....9/25/20	M-20.30-04.....2/29/16	M-60.20-03.....8/17/21
	M-3.20-03.....9/25/20	M-20.40-03.....6/24/14	M-65.10-03.....8/17/21
	M-3.30-04.....9/25/20	M-20.50-02.....6/3/11	M-80.10-01.....6/3/11
	M-3.40-04.....9/25/20	M-24.20-02.....4/20/15	M-80.20-00.....6/10/08
	M-3.50-03.....9/25/20	M-24.40-02.....4/20/15	M-80.30-00.....6/10/08
	M-5.10-03.....9/25/20	M-24.60-04.....6/24/14	
	M-7.50-01.....1/30/07	M-24.65-00.....7/11/17	
	M-9.50-02.....6/24/14	M-24.66-00.....7/11/17	
	M-9.60-00.....2/10/09	M-40.10-03.....6/24/14	
4			
5			
6			
7			

PREVAILING WAGE RATES

State of Washington
Department of Labor & Industries
Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 10/24/2023

County	Trade	Job Classification	Wage	Holiday	Overtime	Note	*Risk Class
King	Asbestos Abatement Workers	Journey Level	\$59.07	5D	1H		View
King	Boilermakers	Journey Level	\$74.29	5N	1C		View
King	Brick Mason	Journey Level	\$69.07	7E	1N		View
King	Brick Mason	Pointer-Caulker-Cleaner	\$69.07	7E	1N		View
King	Building Service Employees	Janitor	\$29.33	5S	2F		View
King	Building Service Employees	Traveling Waxer/Shampooer	\$29.78	5S	2F		View
King	Building Service Employees	Window Cleaner (Non-Scaffold)	\$32.93	5S	2F		View
King	Building Service Employees	Window Cleaner (Scaffold)	\$33.93	5S	2F		View
King	Cabinet Makers (In Shop)	Journey Level	\$22.74		1		View
King	Carpenters	Acoustical Worker	\$74.96	15J	4C		View
King	Carpenters	Bridge, Dock And Wharf Carpenters	\$74.96	15J	4C		View
King	Carpenters	Floor Layer & Floor Finisher	\$74.96	15J	4C		View
King	Carpenters	Journey Level	\$74.96	15J	4C		View
King	Carpenters	Scaffold Erector	\$74.96	15J	4C		View
King	Cement Masons	Application of all Composition Mastic	\$72.87	15J	4U		View
King	Cement Masons	Application of all Epoxy Material	\$72.37	15J	4U		View
King	Cement Masons	Application of all Plastic Material	\$72.87	15J	4U		View
King	Cement Masons	Application of Sealing Compound	\$72.37	15J	4U		View
King	Cement Masons	Application of Underlayment	\$72.87	15J	4U		View
King	Cement Masons	Building General	\$72.37	15J	4U		View
King	Cement Masons	Composition or Kalman Floors	\$72.87	15J	4U		View
King	Cement Masons	Concrete Paving	\$72.37	15J	4U		View
King	Cement Masons	Curb & Gutter Machine	\$72.87	15J	4U		View
King	Cement Masons	Curb & Gutter, Sidewalks	\$72.37	15J	4U		View
King	Cement Masons	Curing Concrete	\$72.37	15J	4U		View
King	Cement Masons	Finish Colored Concrete	\$72.87	15J	4U		View

King	Cement Masons	Floor Grinding	\$72.87	15J	4U		View
King	Cement Masons	Floor Grinding/Polisher	\$72.37	15J	4U		View
King	Cement Masons	Green Concrete Saw, self-powered	\$72.87	15J	4U		View
King	Cement Masons	Grouting of all Plates	\$72.37	15J	4U		View
King	Cement Masons	Grouting of all Tilt-up Panels	\$72.37	15J	4U		View
King	Cement Masons	Guniting Nozzleman	\$72.87	15J	4U		View
King	Cement Masons	Hand Powered Grinder	\$72.87	15J	4U		View
King	Cement Masons	Journey Level	\$72.37	15J	4U		View
King	Cement Masons	Patching Concrete	\$72.37	15J	4U		View
King	Cement Masons	Pneumatic Power Tools	\$72.87	15J	4U		View
King	Cement Masons	Power Chipping & Brushing	\$72.87	15J	4U		View
King	Cement Masons	Sand Blasting Architectural Finish	\$72.87	15J	4U		View
King	Cement Masons	Screed & Rodding Machine	\$72.87	15J	4U		View
King	Cement Masons	Spackling or Skim Coat Concrete	\$72.37	15J	4U		View
King	Cement Masons	Troweling Machine Operator	\$72.87	15J	4U		View
King	Cement Masons	Troweling Machine Operator on Colored Slabs	\$72.87	15J	4U		View
King	Cement Masons	Tunnel Workers	\$72.87	15J	4U		View
King	Divers & Tenders	Bell/Vehicle or Submersible Operator (Not Under Pressure)	\$129.71	15J	4C		View
King	Divers & Tenders	Dive Supervisor/Master	\$93.94	15J	4C		View
King	Divers & Tenders	Diver	\$129.71	15J	4C	8V	View
King	Divers & Tenders	Diver On Standby	\$88.94	15J	4C		View
King	Divers & Tenders	Diver Tender	\$80.82	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$93.26	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$98.26	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$102.26	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$107.26	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$109.76	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$114.76	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$116.76	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$118.76	15J	4C		View

King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$120.76	15J	4C		View
King	Divers & Tenders	Manifold Operator	\$80.82	15J	4C		View
King	Divers & Tenders	Manifold Operator Mixed Gas	\$85.82	15J	4C		View
King	Divers & Tenders	Remote Operated Vehicle Operator/Technician	\$80.82	15J	4C		View
King	Divers & Tenders	Remote Operated Vehicle Tender	\$75.41	15J	4C		View
King	Dredge Workers	Assistant Engineer	\$79.62	5D	3F		View
King	Dredge Workers	Assistant Mate (Deckhand)	\$79.01	5D	3F		View
King	Dredge Workers	Boatmen	\$79.62	5D	3F		View
King	Dredge Workers	Engineer Welder	\$81.15	5D	3F		View
King	Dredge Workers	Leverman, Hydraulic	\$82.77	5D	3F		View
King	Dredge Workers	Mates	\$79.62	5D	3F		View
King	Dredge Workers	Oiler	\$79.01	5D	3F		View
King	Drywall Applicator	Journey Level	\$74.96	15J	4C		View
King	Drywall Tapers	Journey Level	\$74.50	5P	1E		View
King	Electrical Fixture Maintenance Workers	Journey Level	\$37.19	5L	1E		View
King	Electricians - Inside	Cable Splicer	\$105.59	7C	4E		View
King	Electricians - Inside	Cable Splicer (tunnel)	\$113.52	7C	4E		View
King	Electricians - Inside	Certified Welder	\$101.98	7C	4E		View
King	Electricians - Inside	Certified Welder (tunnel)	\$109.56	7C	4E		View
King	Electricians - Inside	Construction Stock Person	\$49.28	7C	4E		View
King	Electricians - Inside	Journey Level	\$98.38	7C	4E		View
King	Electricians - Inside	Journey Level (tunnel)	\$105.59	7C	4E		View
King	Electricians - Motor Shop	Journey Level	\$48.68	5A	1B		View
King	Electricians - Powerline Construction	Cable Splicer	\$93.00	5A	4D		View
King	Electricians - Powerline Construction	Certified Line Welder	\$85.42	5A	4D		View
King	Electricians - Powerline Construction	Groundperson	\$55.27	5A	4D		View
King	Electricians - Powerline Construction	Heavy Line Equipment Operator	\$85.42	5A	4D		View
King	Electricians - Powerline Construction	Journey Level Lineperson	\$85.42	5A	4D		View
King	Electricians - Powerline Construction	Line Equipment Operator	\$73.35	5A	4D		View
King	Electricians - Powerline Construction	Meter Installer	\$55.27	5A	4D	8W	View
King	Electricians - Powerline Construction	Pole Sprayer	\$85.42	5A	4D		View
King	Electricians - Powerline Construction	Powderperson	\$63.50	5A	4D		View
King	Electronic Technicians	Journey Level	\$63.38	7E	1E		View
King	Elevator Constructors	Mechanic	\$107.49	7D	4A		View
King	Elevator Constructors	Mechanic In Charge	\$116.13	7D	4A		View

King	Fabricated Precast Concrete Products	All Classifications - In-Factory Work Only	\$21.34	5B	1R		View
King	Fence Erectors	Fence Erector	\$50.07	15J	4V	8Y	View
King	Fence Erectors	Fence Laborer	\$50.07	15J	4V	8Y	View
King	Flaggers	Journey Level	\$50.07	15J	4V	8Y	View
King	Glaziers	Journey Level	\$79.16	7L	1Y		View
King	Heat & Frost Insulators And Asbestos Workers	Journey Level	\$87.15	15H	11C		View
King	Heating Equipment Mechanics	Journey Level	\$96.42	7F	1E		View
King	Hod Carriers & Mason Tenders	Journey Level	\$62.49	15J	4V	8Y	View
King	Industrial Power Vacuum Cleaner	Journey Level	\$15.74		1		View
King	Inland Boatmen	Boat Operator	\$61.41	5B	1K		View
King	Inland Boatmen	Cook	\$56.48	5B	1K		View
King	Inland Boatmen	Deckhand	\$57.48	5B	1K		View
King	Inland Boatmen	Deckhand Engineer	\$58.81	5B	1K		View
King	Inland Boatmen	Launch Operator	\$58.89	5B	1K		View
King	Inland Boatmen	Mate	\$57.31	5B	1K		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator	\$49.48	15M	11O		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Foamer Operator	\$49.48	15M	11O		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$49.48	15M	11O		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$47.41	15M	11O		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$41.20	15M	11O		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	TV Truck Operator	\$44.31	15M	11O		View
King	Insulation Applicators	Journey Level	\$74.96	15J	4C		View
King	Ironworkers	Journeyman	\$85.80	15K	11N		View
King	Laborers	Air, Gas Or Electric Vibrating Screed	\$59.07	15J	4V	8Y	View
King	Laborers	Airtrac Drill Operator	\$60.90	15J	4V	8Y	View
King	Laborers	Ballast Regular Machine	\$59.07	15J	4V	8Y	View
King	Laborers	Batch Weighman	\$50.07	15J	4V	8Y	View
King	Laborers	Brick Pavers	\$59.07	15J	4V	8Y	View
King	Laborers	Brush Cutter	\$59.07	15J	4V	8Y	View
King	Laborers	Brush Hog Feeder	\$59.07	15J	4V	8Y	View
King	Laborers	Burner	\$59.07	15J	4V	8Y	View
King	Laborers	Caisson Worker	\$60.90	15J	4V	8Y	View
King	Laborers	Carpenter Tender	\$59.07	15J	4V	8Y	View
King	Laborers	Cement Dumper-paving	\$60.15	15J	4V	8Y	View

King	Laborers	Cement Finisher Tender	\$59.07	15J	4V	8Y	View
King	Laborers	Change House Or Dry Shack	\$59.07	15J	4V	8Y	View
King	Laborers	Chipping Gun (30 Lbs. And Over)	\$60.15	15J	4V	8Y	View
King	Laborers	Chipping Gun (Under 30 Lbs.)	\$59.07	15J	4V	8Y	View
King	Laborers	Choker Setter	\$59.07	15J	4V	8Y	View
King	Laborers	Chuck Tender	\$59.07	15J	4V	8Y	View
King	Laborers	Clary Power Spreader	\$60.15	15J	4V	8Y	View
King	Laborers	Clean-up Laborer	\$59.07	15J	4V	8Y	View
King	Laborers	Concrete Dumper/Chute Operator	\$60.15	15J	4V	8Y	View
King	Laborers	Concrete Form Stripper	\$59.07	15J	4V	8Y	View
King	Laborers	Concrete Placement Crew	\$60.15	15J	4V	8Y	View
King	Laborers	Concrete Saw Operator/Core Driller	\$60.15	15J	4V	8Y	View
King	Laborers	Crusher Feeder	\$50.07	15J	4V	8Y	View
King	Laborers	Curing Laborer	\$59.07	15J	4V	8Y	View
King	Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	\$59.07	15J	4V	8Y	View
King	Laborers	Ditch Digger	\$59.07	15J	4V	8Y	View
King	Laborers	Diver	\$60.90	15J	4V	8Y	View
King	Laborers	Drill Operator (Hydraulic, Diamond)	\$60.15	15J	4V	8Y	View
King	Laborers	Dry Stack Walls	\$59.07	15J	4V	8Y	View
King	Laborers	Dump Person	\$59.07	15J	4V	8Y	View
King	Laborers	Epoxy Technician	\$59.07	15J	4V	8Y	View
King	Laborers	Erosion Control Worker	\$59.07	15J	4V	8Y	View
King	Laborers	Faller & Bucker Chain Saw	\$60.15	15J	4V	8Y	View
King	Laborers	Fine Graders	\$59.07	15J	4V	8Y	View
King	Laborers	Firewatch	\$50.07	15J	4V	8Y	View
King	Laborers	Form Setter	\$60.15	15J	4V	8Y	View
King	Laborers	Gabian Basket Builders	\$59.07	15J	4V	8Y	View
King	Laborers	General Laborer	\$59.07	15J	4V	8Y	View
King	Laborers	Grade Checker & Transit Person	\$62.49	15J	4V	8Y	View
King	Laborers	Grinders	\$59.07	15J	4V	8Y	View
King	Laborers	Grout Machine Tender	\$59.07	15J	4V	8Y	View
King	Laborers	Groutmen (Pressure) Including Post Tension Beams	\$60.15	15J	4V	8Y	View
King	Laborers	Guardrail Erector	\$59.07	15J	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level A)	\$60.90	15J	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level B)	\$60.15	15J	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level C)	\$59.07	15J	4V	8Y	View
King	Laborers	High Scaler	\$60.90	15J	4V	8Y	View
King	Laborers	Jackhammer	\$60.15	15J	4V	8Y	View
King	Laborers	Laserbeam Operator	\$60.15	15J	4V	8Y	View

King	Laborers	Maintenance Person	\$59.07	15J	4V	8Y	View
King	Laborers	Manhole Builder-Mudman	\$60.15	15J	4V	8Y	View
King	Laborers	Material Yard Person	\$59.07	15J	4V	8Y	View
King	Laborers	Mold Abatement Worker	\$59.07	15J	4V	8Y	View
King	Laborers	Motorman-Dinky Locomotive	\$62.59	15J	4V	8Y	View
King	Laborers	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	\$62.49	15J	4V	8Y	View
King	Laborers	Pavement Breaker	\$60.15	15J	4V	8Y	View
King	Laborers	Pilot Car	\$50.07	15J	4V	8Y	View
King	Laborers	Pipe Layer (Lead)	\$62.49	15J	4V	8Y	View
King	Laborers	Pipe Layer/Tailor	\$60.15	15J	4V	8Y	View
King	Laborers	Pipe Pot Tender	\$60.15	15J	4V	8Y	View
King	Laborers	Pipe Reliner	\$60.15	15J	4V	8Y	View
King	Laborers	Pipe Wrapper	\$60.15	15J	4V	8Y	View
King	Laborers	Pot Tender	\$59.07	15J	4V	8Y	View
King	Laborers	Powderman	\$60.90	15J	4V	8Y	View
King	Laborers	Powderman's Helper	\$59.07	15J	4V	8Y	View
King	Laborers	Power Jacks	\$60.15	15J	4V	8Y	View
King	Laborers	Railroad Spike Puller - Power	\$60.15	15J	4V	8Y	View
King	Laborers	Raker - Asphalt	\$62.49	15J	4V	8Y	View
King	Laborers	Re-timberman	\$60.90	15J	4V	8Y	View
King	Laborers	Remote Equipment Operator	\$60.15	15J	4V	8Y	View
King	Laborers	Rigger/Signal Person	\$60.15	15J	4V	8Y	View
King	Laborers	Rip Rap Person	\$59.07	15J	4V	8Y	View
King	Laborers	Rivet Buster	\$60.15	15J	4V	8Y	View
King	Laborers	Rodder	\$60.15	15J	4V	8Y	View
King	Laborers	Scaffold Erector	\$59.07	15J	4V	8Y	View
King	Laborers	Scale Person	\$59.07	15J	4V	8Y	View
King	Laborers	Sloper (Over 20")	\$60.15	15J	4V	8Y	View
King	Laborers	Sloper Sprayer	\$59.07	15J	4V	8Y	View
King	Laborers	Spreader (Concrete)	\$60.15	15J	4V	8Y	View
King	Laborers	Stake Hopper	\$59.07	15J	4V	8Y	View
King	Laborers	Stock Piler	\$59.07	15J	4V	8Y	View
King	Laborers	Swinging Stage/Boatswain Chair	\$50.07	15J	4V	8Y	View
King	Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	\$60.15	15J	4V	8Y	View
King	Laborers	Tamper (Multiple & Self-propelled)	\$60.15	15J	4V	8Y	View
King	Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$60.15	15J	4V	8Y	View
King	Laborers	Toolroom Person (at Jobsite)	\$59.07	15J	4V	8Y	View
King	Laborers	Topper	\$59.07	15J	4V	8Y	View
King	Laborers	Track Laborer	\$59.07	15J	4V	8Y	View

King	Laborers	Track Liner (Power)	\$60.15	15J	4V	8Y	View
King	Laborers	Traffic Control Laborer	\$53.54	15J	4V	9C	View
King	Laborers	Traffic Control Supervisor	\$56.73	15J	4V	9C	View
King	Laborers	Truck Spotter	\$59.07	15J	4V	8Y	View
King	Laborers	Tugger Operator	\$60.15	15J	4V	8Y	View
King	Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	\$175.79	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$180.82	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$184.50	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$190.20	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$192.32	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$197.42	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$199.32	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$201.32	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$203.32	15J	4V	9B	View
King	Laborers	Tunnel Work-Guage and Lock Tender	\$62.59	15J	4V	8Y	View
King	Laborers	Tunnel Work-Miner	\$62.59	15J	4V	8Y	View
King	Laborers	Vibrator	\$60.15	15J	4V	8Y	View
King	Laborers	Vinyl Seamer	\$59.07	15J	4V	8Y	View
King	Laborers	Watchman	\$45.51	15J	4V	8Y	View
King	Laborers	Welder	\$60.15	15J	4V	8Y	View
King	Laborers	Well Point Laborer	\$60.15	15J	4V	8Y	View
King	Laborers	Window Washer/Cleaner	\$45.51	15J	4V	8Y	View
King	Laborers - Underground Sewer & Water	General Laborer & Topman	\$59.07	15J	4V	8Y	View
King	Laborers - Underground Sewer & Water	Pipe Layer	\$60.15	15J	4V	8Y	View
King	Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	\$45.51	15J	4V	8Y	View
King	Landscape Construction	Landscape Operator	\$82.25	15J	11G	8X	View
King	Landscape Maintenance	Groundskeeper	\$17.87		1		View
King	Lathers	Journey Level	\$74.96	15J	4C		View
King	Marble Setters	Journey Level	\$69.07	7E	1N		View
King	Metal Fabrication (In Shop)	Fitter/Certified Welder	\$42.17	15I	11E		View
King	Metal Fabrication (In Shop)	General Laborer	\$30.07	15I	11E		View
King	Metal Fabrication (In Shop)	Mechanic	\$43.63	15I	11E		View
King	Metal Fabrication (In Shop)	Welder/Burner	\$39.28	15I	11E		View
King	Millwright	Journey Level	\$76.51	15J	4C		View
King	Modular Buildings	Cabinet Assembly	\$15.74		1		View
King	Modular Buildings	Electrician	\$15.74		1		View

King	Modular Buildings	Equipment Maintenance	\$15.74		<u>1</u>		View
King	Modular Buildings	Plumber	\$15.74		<u>1</u>		View
King	Modular Buildings	Production Worker	\$15.74		<u>1</u>		View
King	Modular Buildings	Tool Maintenance	\$15.74		<u>1</u>		View
King	Modular Buildings	Utility Person	\$15.74		<u>1</u>		View
King	Modular Buildings	Welder	\$15.74		<u>1</u>		View
King	Painters	Journey Level	\$51.71	<u>6Z</u>	<u>11J</u>		View
King	Pile Driver	Crew Tender	\$80.82	<u>15J</u>	<u>4C</u>		View
King	Pile Driver	Journey Level	\$75.41	<u>15J</u>	<u>4C</u>		View
King	Plasterers	Journey Level	\$70.91	<u>7Q</u>	<u>1R</u>		View
King	Plasterers	Nozzleman	\$74.91	<u>7Q</u>	<u>1R</u>		View
King	Playground & Park Equipment Installers	Journey Level	\$15.74		<u>1</u>		View
King	Plumbers & Pipefitters	Journey Level	\$100.69	<u>6Z</u>	<u>1G</u>		View
King	Power Equipment Operators	Asphalt Plant Operators	\$83.62	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Assistant Engineer	\$78.65	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Barrier Machine (zipper)	\$82.88	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Batch Plant Operator: concrete	\$82.88	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Boat Operator	\$83.95	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Bobcat	\$78.65	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Brokk - Remote Demolition Equipment	\$78.65	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Brooms	\$78.65	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Bump Cutter	\$82.88	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Cableways	\$83.62	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Chipper	\$82.88	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Compressor	\$78.65	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Finish Machine - Laser Screed	\$78.65	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$82.25	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$83.62	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$82.88	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Conveyors	\$82.25	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes Friction: 200 tons and over	\$86.48	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes, A-frame: 10 tons and under	\$78.95	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$84.77	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes: 20 tons through 44 tons with attachments	\$83.20	<u>7A</u>	<u>11H</u>	<u>8X</u>	View

King	Power Equipment Operators	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$85.66	7A	11H	8X	View
King	Power Equipment Operators	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$86.48	7A	11H	8X	View
King	Power Equipment Operators	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$83.95	7A	11H	8X	View
King	Power Equipment Operators	Cranes: Friction cranes through 199 tons	\$85.66	7A	11H	8X	View
King	Power Equipment Operators	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$82.56	7A	11H	8X	View
King	Power Equipment Operators	Crusher	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Deck Engineer/Deck Winches (power)	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Derricks, On Building Work	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Dozers D-9 & Under	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Drilling Machine	\$84.46	15J	11G	8X	View
King	Power Equipment Operators	Elevator and man-lift: permanent and shaft type	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Forklift: 3000 lbs and over with attachments	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Forklifts: under 3000 lbs. with attachments	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Gradechecker/Stakeman	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Guardrail Punch	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Horizontal/Directional Drill Locator	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Horizontal/Directional Drill Operator	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	\$82.56	7A	11H	8X	View
King	Power Equipment Operators	Hydralifts/boom trucks: 10 tons and under	\$78.95	7A	11H	8X	View
King	Power Equipment Operators	Leverman	\$85.33	15J	11G	8X	View
King	Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$83.62	15J	11G	8X	View

King	Power Equipment Operators	Loaders, Overhead Under 6 Yards	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Loaders, Plant Feed	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Loaders: Elevating Type Belt	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Locomotives, All	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Material Transfer Device	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$84.46	15J	11G	8X	View
King	Power Equipment Operators	Motor Patrol Graders	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Overhead, bridge type Crane: 20 tons through 44 tons	\$83.20	7A	11H	8X	View
King	Power Equipment Operators	Overhead, bridge type: 100 tons and over	\$84.77	7A	11H	8X	View
King	Power Equipment Operators	Overhead, bridge type: 45 tons through 99 tons	\$83.95	7A	11H	8X	View
King	Power Equipment Operators	Pavement Breaker	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Pile Driver (other Than Crane Mount)	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Plant Oiler - Asphalt, Crusher	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Posthole Digger, Mechanical	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Power Plant	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Pumps - Water	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Quad 9, Hd 41, D10 And Over	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Quick Tower: no cab, under 100 feet in height base to boom	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Rigger and Bellman	\$78.95	7A	11H	8X	View
King	Power Equipment Operators	Rigger/Signal Person, Bellman(Certified)	\$82.56	7A	11H	8X	View
King	Power Equipment Operators	Rollagon	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Roller, Other Than Plant Mix	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Roto-mill, Roto-grinder	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Saws - Concrete	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Scrapers - Concrete & Carry All	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	\$83.62	15J	11G	8X	View

King	Power Equipment Operators	Service Engineers: Equipment	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Shotcrete/Gunite Equipment	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$84.46	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$85.33	15J	11G	8X	View
King	Power Equipment Operators	Slipform Pavers	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Spreader, Topsider & Screedman	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Subgrader Trimmer	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Tower Bucket Elevators	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Tower Crane: over 175' through 250' in height, base to boom	\$85.66	7A	11H	8X	View
King	Power Equipment Operators	Tower crane: up to 175' in height base to boom	\$84.77	7A	11H	8X	View
King	Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	\$86.48	7A	11H	8X	View
King	Power Equipment Operators	Transporters, All Track Or Truck Type	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Trenching Machines	\$82.25	15J	11G	8X	View
King	Power Equipment Operators	Truck Crane Oiler/Driver: 100 tons and over	\$83.20	7A	11H	8X	View
King	Power Equipment Operators	Truck crane oiler/driver: under 100 tons	\$82.56	7A	11H	8X	View
King	Power Equipment Operators	Truck Mount Portable Conveyor	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$82.88	15J	11G	8X	View
King	Power Equipment Operators	Welder	\$83.62	15J	11G	8X	View
King	Power Equipment Operators	Wheel Tractors, Farmall Type	\$78.65	15J	11G	8X	View
King	Power Equipment Operators	Yo Yo Pay Dozer	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Asphalt Plant Operators	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Assistant Engineer	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Barrier Machine (zipper)	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Batch Plant Operator, Concrete	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Boat Operator	\$83.95	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Bobcat	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-	Brokk - Remote Demolition	\$78.65	15J	11G	8X	View

	Underground Sewer & Water	Equipment					
King	Power Equipment Operators- Underground Sewer & Water	Brooms	\$78.65	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Bump Cutter	\$82.88	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cableways	\$83.62	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Chipper	\$82.88	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Compressor	\$78.65	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Concrete Finish Machine - Laser Screed	\$78.65	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$82.25	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$83.62	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$82.88	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Conveyors	\$82.25	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes Friction: 200 tons and over	\$86.48	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes, A-frame: 10 tons and under	\$78.95	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$84.77	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 20 tons through 44 tons with attachments	\$83.20	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$85.66	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$86.48	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$83.95	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes: Friction cranes through 199 tons	\$85.66	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$82.56	7A	11H	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Crusher	\$82.88	15J	11G	8X	View
King	Power Equipment Operators- Underground Sewer & Water	Deck Engineer/Deck Winches (power)	\$82.88	15J	11G	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Derricks, On Building Work	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Dozers D-9 & Under	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Drilling Machine	\$84.46	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Elevator and man-lift: permanent and shaft type	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Forklift: 3000 lbs and over with attachments	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Forklifts: under 3000 lbs. with attachments	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Gradechecker/Stakeman	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Guardrail Punch	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Locator	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Operator	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom trucks: 10 tons and under	\$78.95	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom trucks: over 10 tons	\$82.56	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Leverman	\$85.33	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders, Overhead Under 6 Yards	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders, Plant Feed	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders: Elevating Type Belt	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Locomotives, All	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Material Transfer Device	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$84.46	15J	11G	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Motor Patrol Graders	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type Crane: 20 tons through 44 tons	\$83.20	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type: 100 tons and over	\$84.77	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type: 45 tons through 99 tons	\$83.95	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pavement Breaker	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pile Driver (other Than Crane Mount)	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Posthole Digger, Mechanical	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Power Plant	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pumps - Water	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Quick Tower: no cab, under 100 feet in height base to boom	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rigger and Bellman	\$78.95	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rigger/Signal Person, Bellman(Certified)	\$82.56	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rollagon	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roller, Other Than Plant Mix	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roto-mill, Roto-grinder	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Saws - Concrete	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	\$82.88	15J	11G	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Scrapers - Concrete & Carry All	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shotcrete/Gunite Equipment	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$84.46	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$85.33	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Slipform Pavers	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Spreader, Topsider & Screedman	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Subgrader Trimmer	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Bucket Elevators	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Crane: over 175' through 250' in height, base to boom	\$85.66	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower crane: up to 175' in height base to boom	\$84.77	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	\$86.48	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Transporters, All Track Or Truck Type	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Trenching Machines	\$82.25	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/Driver: 100 tons and over	\$83.20	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck crane oiler/driver: under 100 tons	\$82.56	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Mount Portable Conveyor	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$82.88	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Welder	\$83.62	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Wheel Tractors, Farmall Type	\$78.65	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Yo Yo Pay Dozer	\$82.88	15J	11G	8X	View
King	Power Line Clearance Tree Trimmers	Journey Level In Charge	\$57.22	5A	4A		View

King	Power Line Clearance Tree Trimmers	Spray Person	\$54.32	5A	4A	View
King	Power Line Clearance Tree Trimmers	Tree Equipment Operator	\$57.22	5A	4A	View
King	Power Line Clearance Tree Trimmers	Tree Trimmer	\$51.18	5A	4A	View
King	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	\$38.99	5A	4A	View
King	Refrigeration & Air Conditioning Mechanics	Journey Level	\$93.51	6Z	1G	View
King	Residential Brick Mason	Journey Level	\$69.07	7E	1N	View
King	Residential Carpenters	Journey Level	\$36.44		1	View
King	Residential Cement Masons	Journey Level	\$46.64		1	View
King	Residential Drywall Applicators	Journey Level	\$74.96	15J	4C	View
King	Residential Drywall Tapers	Journey Level	\$36.36		1	View
King	Residential Electricians	Journey Level	\$48.80		1	View
King	Residential Glaziers	Journey Level	\$28.93		1	View
King	Residential Insulation Applicators	Journey Level	\$28.18		1	View
King	Residential Laborers	Journey Level	\$29.73		1	View
King	Residential Marble Setters	Journey Level	\$27.38		1	View
King	Residential Painters	Journey Level	\$23.47		1	View
King	Residential Plumbers & Pipefitters	Journey Level	\$100.69	6Z	1G	View
King	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$93.51	6Z	1G	View
King	Residential Sheet Metal Workers	Journey Level	\$96.42	7F	1E	View
King	Residential Soft Floor Layers	Journey Level	\$57.11	5A	3J	View
King	Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$58.26	5C	2R	View
King	Residential Stone Masons	Journey Level	\$69.07	7E	1N	View
King	Residential Terrazzo Workers	Journey Level	\$62.36	7E	1N	View
King	Residential Terrazzo/Tile Finishers	Journey Level	\$24.39		1	View
King	Residential Tile Setters	Journey Level	\$21.04		1	View
King	Roofers	Journey Level	\$61.95	5A	3H	View
King	Roofers	Using Irritable Bituminous Materials	\$64.95	5A	3H	View
King	Sheet Metal Workers	Journey Level (Field or Shop)	\$96.42	7F	1E	View
King	Shipbuilding & Ship Repair	New Construction Boilermaker	\$51.85	7X	4J	View
King	Shipbuilding & Ship Repair	New Construction Carpenter	\$51.85	7X	4J	View
King	Shipbuilding & Ship Repair	New Construction Crane Operator	\$41.83	7V	1	View
King	Shipbuilding & Ship Repair	New Construction Electrician	\$51.85	7X	4J	View
King	Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	\$87.15	15H	11C	View
King	Shipbuilding & Ship Repair	New Construction Laborer	\$51.85	7X	4J	View
King	Shipbuilding & Ship Repair	New Construction Machinist	\$51.85	7X	4J	View

King	Shipbuilding & Ship Repair	New Construction Operating Engineer	\$41.83	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Painter	\$51.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	New Construction Pipefitter	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	New Construction Rigger	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	New Construction Sheet Metal	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	New Construction Shipwright	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	\$41.83	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Welder / Burner	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Boilermaker	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Carpenter	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Crane Operator	\$45.06	<u>7Y</u>	<u>4K</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Electrician	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	\$87.15	<u>15H</u>	<u>11C</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Laborer	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Machinist	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Operating Engineer	\$45.06	<u>7Y</u>	<u>4K</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Painter	\$51.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Pipefitter	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Rigger	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Sheet Metal	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Shipwright	\$51.85	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	\$45.06	<u>7Y</u>	<u>4K</u>		View
King	Sign Makers & Installers (Electrical)	Journey Level	\$58.04	<u>0</u>	1		View
King	Sign Makers & Installers (Non-Electrical)	Journey Level	\$37.08	<u>0</u>	1		View
King	Soft Floor Layers	Journey Level	\$66.32	<u>15J</u>	<u>4C</u>		View
King	Solar Controls For Windows	Journey Level	\$15.74		1		View
King	Sprinkler Fitters (Fire Protection)	Journey Level	\$93.99	<u>5C</u>	<u>1X</u>		View
King	Stage Rigging Mechanics (Non Structural)	Journey Level	\$15.74		1		View
King	Stone Masons	Journey Level	\$69.07	<u>7E</u>	<u>1N</u>		View
King	Street And Parking Lot Sweeper Workers	Journey Level	\$19.09		1		View
King	Surveyors	Assistant Construction Site Surveyor	\$82.56	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Chainman	\$78.95	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Construction Site Surveyor	\$83.95	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Drone Operator (when used in conjunction with survey work only)	\$78.95	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Ground Penetrating Radar Operator	\$78.95	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Telecommunication Technicians	Journey Level	\$63.38	<u>7E</u>	<u>1E</u>		View

King	Telephone Line Construction - Outside	Cable Splicer	\$40.11	5A	2B		View
King	Telephone Line Construction - Outside	Hole Digger/Ground Person	\$26.67	5A	2B		View
King	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$33.49	5A	2B		View
King	Telephone Line Construction - Outside	Telephone Lineperson	\$37.90	5A	2B		View
King	Terrazzo Workers	Journey Level	\$62.36	7E	1N		View
King	Tile Setters	Journey Level	\$62.36	7E	1N		View
King	Tile, Marble & Terrazzo Finishers	Finisher	\$53.19	7E	1N		View
King	Traffic Control Stripers	Journey Level	\$89.54	15L	1K		View
King	Truck Drivers	Asphalt Mix Over 16 Yards	\$74.95	15J	11M	8L	View
King	Truck Drivers	Asphalt Mix To 16 Yards	\$74.02	15J	11M	8L	View
King	Truck Drivers	Dump Truck	\$74.02	15J	11M	8L	View
King	Truck Drivers	Dump Truck & Trailer	\$74.95	15J	11M	8L	View
King	Truck Drivers	Other Trucks	\$74.95	15J	11M	8L	View
King	Truck Drivers - Ready Mix	Transit Mix	\$74.95	15J	11M	8L	View
King	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	\$17.71		1		View
King	Well Drillers & Irrigation Pump Installers	Oiler	\$15.74		1		View
King	Well Drillers & Irrigation Pump Installers	Well Driller	\$18.00		1		View

Washington State Department of Labor and Industries
Policy Statement
(Regarding the Production of "Standard" or "Non-standard" Items)

Below is the department's (State L&I's) list of criteria to be used in determining whether a prefabricated item is "standard" or "non-standard". For items not appearing on WSDOT's predetermined list, these criteria shall be used by the Contractor (and the Contractor's subcontractors, agents to subcontractors, suppliers, manufacturers, and fabricators) to determine coverage under RCW 39.12. The production, in the State of Washington, of non-standard items is covered by RCW 39.12, and the production of standard items is not. The production of any item outside the State of Washington is not covered by RCW 39.12.

1. Is the item fabricated for a public works project? If not, it is not subject to RCW 39.12. If it is, go to question 2.
2. Is the item fabricated on the public works jobsite? If it is, the work is covered under RCW 39.12. If not, go to question 3.
3. Is the item fabricated in an assembly/fabrication plant set up for, and dedicated primarily to, the public works project? If it is, the work is covered by RCW 39.12. If not, go to question 4.
4. Does the item require any assembly, cutting, modification or other fabrication by the supplier? If not, the work is not covered by RCW 39.12. If yes, go to question 5.
5. Is the prefabricated item intended for the public works project typically an inventory item which could reasonably be sold on the general market? If not, the work is covered by RCW 39.12. If yes, go to question 6.
6. Does the specific prefabricated item, generally defined as standard, have any unusual characteristics such as shape, type of material, strength requirements, finish, etc? If yes, the work is covered under RCW 39.12.

Any firm with questions regarding the policy, WSDOT's Predetermined List, or for determinations of covered and non-covered workers shall be directed to State L&I at (360) 902-5330.

**WSDOT's
Predetermined List for
Suppliers - Manufactures - Fabricator**

Below is a list of potentially prefabricated items, originally furnished by WSDOT to Washington State Department of Labor and Industries, that may be considered non-standard and therefore covered by the prevailing wage law, RCW 39.12. Items marked with an X in the "YES" column should be considered to be non-standard and therefore covered by RCW 39.12. Items marked with an X in the "NO" column should be considered to be standard and therefore not covered. Of course, exceptions to this general list may occur, and in that case shall be evaluated according to the criteria described in State and L&I's policy statement.

ITEM DESCRIPTION	YES	NO
1. Metal rectangular frames, solid metal covers, herringbone grates, and bi-directional vaned grates for Catch Basin Types 1, 1L, 1P, and 2 and Concrete Inlets. See Std. Plans		X
2. Metal circular frames (rings) and covers, circular grates, and prefabricated ladders for Manhole Types 1, 2, and 3, Drywell Types 1, 2, and 3 and Catch Basin Type 2. See Std. Plans		X
3. Prefabricated steel grate supports and welded grates, metal frames and dual vaned grates, and Type 1, 2, and 3 structural tubing grates for Drop Inlets. See Std. Plans.		X
4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.		X
5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.		X
6. Corrugated Steel Pipe - Steel lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, 1 thru 5.		X
7. Corrugated Aluminum Pipe - Aluminum lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, #5.		X

ITEM DESCRIPTION	YES	NO
8. Anchor Bolts & Nuts - Anchor Bolts and Nuts, for mounting sign structures, luminaries and other items, shall be made from commercial bolt stock. See Contract Plans and Std. Plans for size and material type.		X
9. Aluminum Pedestrian Handrail - Pedestrian handrail conforming to the type and material specifications set forth in the contract plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).	X	
10. Major Structural Steel Fabrication - Fabrication of major steel items such as trusses, beams, girders, etc., for bridges.	X	
11. Minor Structural Steel Fabrication - Fabrication of minor steel Items such as special hangers, brackets, access doors for structures, access ladders for irrigation boxes, bridge expansion joint systems, etc., involving welding, cutting, punching and/or boring of holes. See Contact Plans for item description and shop drawings.	X	
12. Aluminum Bridge Railing Type BP - Metal bridge railing conforming to the type and material specifications set forth in the Contract Plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).		X
13. Concrete Piling--Precast-Prestressed concrete piling for use as 55 and 70 ton concrete piling. Concrete to conform to Section 9-19.1 of Std. Spec..	X	
14. Precast Manhole Types 1, 2, and 3 with cones, adjustment sections and flat top slabs. See Std. Plans.		X
15. Precast Drywell Types 1, 2, and with cones and adjustment Sections. See Std. Plans.		X
16. Precast Catch Basin - Catch Basin type 1, 1L, 1P, and 2 With adjustment sections. See Std. Plans.		X

ITEM DESCRIPTION	YES	NO
17. Precast Concrete Inlet - with adjustment sections, See Std. Plans		X
18. Precast Drop Inlet Type 1 and 2 with metal grate supports. See Std. Plans.		X
19. Precast Grate Inlet Type 2 with extension and top units. See Std. Plans		X
20. Metal frames, vaned grates, and hoods for Combination Inlets. See Std. Plans		X
21. Precast Concrete Utility Vaults - Precast Concrete utility vaults of various sizes. Used for in ground storage of utility facilities and controls. See Contract Plans for size and construction requirements. Shop drawings are to be provided for approval prior to casting		X
22. Vault Risers - For use with Valve Vaults and Utilities X Vaults.		X
23. Valve Vault - For use with underground utilities. See Contract Plans for details.		X
24. Precast Concrete Barrier - Precast Concrete Barrier for use as new barrier or may also be used as Temporary Concrete Barrier. Only new state approved barrier may be used as permanent barrier.		X
25. Reinforced Earth Wall Panels – Reinforced Earth Wall Panels in size and shape as shown in the Plans. Fabrication plant has annual approval for methods and materials to be used. See Shop Drawing. Fabrication at other locations may be approved, after facilities inspection, contact HQ. Lab.	X	
26. Precast Concrete Walls - Precast Concrete Walls - tilt-up wall panel in size and shape as shown in Plans. Fabrication plant has annual approval for methods and materials to be used	X	

ITEM DESCRIPTION	YES	NO
27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.	X	
28. 12, 18 and 26 inch Standard Precast Prestressed Girder – Standard Precast Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
29. Prestressed Concrete Girder Series 4-14 - Prestressed Concrete Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
30. Prestressed Tri-Beam Girder - Prestressed Tri-Beam Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
31. Prestressed Precast Hollow-Core Slab – Precast Prestressed Hollow-core slab for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A.	X	
32. Prestressed-Bulb Tee Girder - Bulb Tee Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
33. Monument Case and Cover See Std. Plan.		X

ITEM DESCRIPTION	YES	NO
34. Cantilever Sign Structure - Cantilever Sign Structure fabricated from steel tubing meeting AASHTO-M-183. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
35. Mono-tube Sign Structures - Mono-tube Sign Bridge fabricated to details shown in the Plans. Shop drawings for approval are required prior to fabrication.	X	
36. Steel Sign Bridges - Steel Sign Bridges fabricated from steel tubing meeting AASHTO-M-138 for Aluminum Alloys. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
37. Steel Sign Post - Fabricated Steel Sign Posts as detailed in Std Plans. Shop drawings for approval are to be provided prior to fabrication		X
38. Light Standard-Prestressed - Spun, prestressed, hollow concrete poles.	X	
39. Light Standards - Lighting Standards for use on highway illumination systems, poles to be fabricated to conform with methods and materials as specified on Std. Plans. See Special Provisions for pre-approved drawings.	X	
40. Traffic Signal Standards - Traffic Signal Standards for use on highway and/or street signal systems. Standards to be fabricated to conform with methods and material as specified on Std. Plans. See Special Provisions for pre-approved drawings	X	
41. Precast Concrete Sloped Mountable Curb (Single and DualFaced) See Std. Plans.		X

ITEM DESCRIPTION	YES	NO
42. Traffic Signs - Prior to approval of a Fabricator of Traffic Signs, the sources of the following materials must be submitted and approved for reflective sheeting, legend material, and aluminum sheeting. NOTE: *** Fabrication inspection required. Only signs tagged "Fabrication Approved" by WSDOT Sign Fabrication Inspector to be installed	X	X
	Custom Message	Std Signing Message
43. Cutting & bending reinforcing steel		X
44. Guardrail components	X	X
	Custom End Sec	Standard Sec
45. Aggregates/Concrete mixes	Covered by WAC 296-127-018	
46. Asphalt	Covered by WAC 296-127-018	
47. Fiber fabrics		X
48. Electrical wiring/components		X
49. treated or untreated timber pile		X
50. Girder pads (elastomeric bearing)	X	
51. Standard Dimension lumber		X
52. Irrigation components		X

ITEM DESCRIPTION	YES	NO
53. Fencing materials		X
54. Guide Posts		X
55. Traffic Buttons		X
56. Epoxy		X
57. Cribbing		X
58. Water distribution materials		X
59. Steel "H" piles		X
60. Steel pipe for concrete pile casings		X
61. Steel pile tips, standard		X
62. Steel pile tips, custom	X	

Prefabricated items specifically produced for public works projects that are prefabricated in a county other than the county wherein the public works project is to be completed, the wage for the offsite prefabrication shall be the applicable prevailing wage for the county in which the actual prefabrication takes place.

It is the manufacturer of the prefabricated product to verify that the correct county wage rates are applied to work they perform.

See RCW [39.12.010](#)

(The definition of "locality" in RCW [39.12.010](#)(2) contains the phrase "wherein the physical work is being performed." The department interprets this phrase to mean the actual work site.

WSDOT's List of State Occupations not applicable to Heavy and Highway Construction Projects

This project is subject to the state hourly minimum rates for wages and fringe benefits in the contract provisions, as provided by the state Department of Labor and Industries.

The following list of occupations, is comprised of those occupations that are not normally used in the construction of heavy and highway projects.

When considering job classifications for use and / or payment when bidding on, or building heavy and highway construction projects for, or administered by WSDOT, these Occupations will be excepted from the included "Washington State Prevailing Wage Rates For Public Work Contracts" documents.

- Building Service Employees
- Electrical Fixture Maintenance Workers
- Electricians - Motor Shop
- Heating Equipment Mechanics
- Industrial Engine and Machine Mechanics
- Industrial Power Vacuum Cleaners
- Inspection, Cleaning, Sealing of Water Systems by Remote Control
- Laborers - Underground Sewer & Water
- Machinists (Hydroelectric Site Work)
- Modular Buildings
- Playground & Park Equipment Installers
- Power Equipment Operators - Underground Sewer & Water
- Residential *** ALL ASSOCIATED RATES ***
- Sign Makers and Installers (Non-Electrical)
- Sign Makers and Installers (Electrical)
- Stage Rigging Mechanics (Non Structural)

The following occupations may be used only as outlined in the preceding text concerning "WSDOT's list for Suppliers - Manufacturers - Fabricators"

- Fabricated Precast Concrete Products
- Metal Fabrication (In Shop)

Definitions for the Scope of Work for prevailing wages may be found at the Washington State Department of Labor and Industries web site and in WAC Chapter 296-127.

Washington State Department of Labor and Industries
Policy Statements
(Regarding Production and Delivery of Gravel, Concrete, Asphalt, etc.)

WAC 296-127-018 Agency filings affecting this section

Coverage and exemptions of workers involved in the production and delivery of gravel, concrete, asphalt, or similar materials.

(1) The materials covered under this section include but are not limited to: Sand, gravel, crushed rock, concrete, asphalt, or other similar materials.

(2) All workers, regardless of by whom employed, are subject to the provisions of chapter 39.12 RCW when they perform any or all of the following functions:

(a) They deliver or discharge any of the above-listed materials to a public works project site:

(i) At one or more point(s) directly upon the location where the material will be incorporated into the project; or

(ii) At multiple points at the project; or

(iii) Adjacent to the location and coordinated with the incorporation of those materials.

(b) They wait at or near a public works project site to perform any tasks subject to this section of the rule.

(c) They remove any materials from a public works construction site pursuant to contract requirements or specifications (e.g., excavated materials, materials from demolished structures, clean-up materials, etc.).

(d) They work in a materials production facility (e.g., batch plant, borrow pit, rock quarry, etc.,) which is established for a public works project for the specific, but not necessarily exclusive, purpose of supplying materials for the project.

(e) They deliver concrete to a public works site regardless of the method of incorporation.

(f) They assist or participate in the incorporation of any materials into the public works project.

(3) All travel time that relates to the work covered under subsection (2) of this section requires the payment of prevailing wages. Travel time includes time spent waiting to load, loading, transporting, waiting to unload, and delivering materials. Travel time would include all time spent in travel in support of a public works project whether the vehicle is empty or full. For example, travel time spent returning to a supply source to obtain another load of material for use on a public works site or returning to the public works site to obtain another load of excavated material is time spent in travel that is subject to prevailing wage. Travel to a supply source, including travel from a public works site, to obtain materials for use on a private project would not be travel subject to the prevailing wage.

(4) Workers are not subject to the provisions of chapter 39.12 RCW when they deliver materials to a stockpile.

(a) A "stockpile" is defined as materials delivered to a pile located away from the site of incorporation such that the stockpiled materials must be physically moved from the stockpile and transported to another location on the project site in order to be incorporated into the project.

(b) A stockpile does not include any of the functions described in subsection (2)(a) through (f) of this section; nor does a stockpile include materials delivered or distributed to multiple locations upon the project site; nor does a stockpile include materials dumped at the place of incorporation, or adjacent to the location and coordinated with the incorporation.

(5) The applicable prevailing wage rate shall be determined by the locality in which the work is performed. Workers subject to subsection (2)(d) of this section, who produce such materials at an off-site facility shall be paid the applicable prevailing wage rates for the county in which the off-site facility is located. Workers subject to subsection (2) of this section, who deliver such materials to a public works project site shall be paid the applicable prevailing wage rates for the county in which the public works project is located.

[Statutory Authority: Chapter 39.12 RCW, RCW 43.22.051 and 43.22.270. 08-24-101, § 296-127-018, filed 12/2/08, effective 1/2/09. Statutory Authority: Chapters 39.04 and 39.12 RCW and RCW 43.22.270. 92-01-104 and 92-08-101, § 296-127-018, filed 12/18/91 and 4/1/92, effective 8/31/92.]

Benefit Code Key – Effective 8/31/2023 thru 3/1/2024

Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
 - B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
 - G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.
 - J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.
 - K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
 - M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

1. O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.
- P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.
- R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.
- W. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer)) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.
- Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.
- Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

Overtime Codes Continued

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
- F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.
- M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.
- R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.
3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
- H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.
- J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Overtime Codes Continued

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

- A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage
- C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.
- D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:

On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

- E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.
- S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).
- All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.
- Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus \$2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).
- U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. V. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established or outside the normal shift (5 am to 6pm), and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

- X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

11. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

- B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

- C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

Overtime Codes Continued

11. D. All hours worked on Saturdays and holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
- E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
- F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.
- All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.
- H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.
- All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.

Overtime Codes Continued

11. J. All hours worked on holidays shall be paid at double the hourly rate of wage.
- K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.
- L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar (\$2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
- M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.
- Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.
- On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.
- Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars (\$2.00) per hour.
- N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.
- Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.
- O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Benefit Code Key – Effective 8/31/2023 thru 3/1/2024

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).
- C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).
- H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).
- I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).
- L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).
- N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.
- Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).
- S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).
- H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).

Holiday Codes Continued

6. T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.
7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

7. J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.
- X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.
- Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Note Codes

8. D. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.
- L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$0.75, Level B: \$0.50, And Level C: \$0.25.
- M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: \$1.00, Levels C & D: \$0.50.
- N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.

Note Codes Continued

8. S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: \$2.00, Class B Suit: \$1.50, And Class C Suit: \$1.00. Workers performing underground work receive an additional \$0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional \$0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional \$0.50 per hour.
- V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.
- Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.
- Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.
- W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.
- X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, and Class D Suit: \$0.50. Special Shift Premium: Basic hourly rate plus \$2.00 per hour.
- When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)
- Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.
- Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Note Codes Continued

8. Z. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

9. A. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid \$0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130' to 199' – \$0.50 per hour over their classification rate.

(B) – 200' to 299' – \$0.80 per hour over their classification rate.

(C) – 300' and over – \$1.00 per hour over their classification rate.

- B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

- C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

- D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

Note Codes Continued

- 9. E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.
- F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.
- H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

"General Decision Number: WA20230001 10/13/2023
 Superseded General Decision Number: WA20220001
 State: Washington
 Construction Type: Highway
 Counties: Washington Statewide.
 HIGHWAY (Excludes D.O.E. Hanford Site in Benton and Franklin
 Counties)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	02/03/2023
2	08/25/2023
3	09/01/2023
4	10/13/2023

CARP0003-006 06/01/2021

SOUTHWEST WASHINGTON: CLARK, COWLITZ, KLICKITAT, LEWIS(Piledriver only), PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to Willapa Bay to the Pacific Ocean), SKAMANIA, and WAHAKIYAKUM Counties.

	Rates	Fringes
Carpenters:		
CARPENTERS.....	\$ 44.38	16.87
DIVERS TENDERS.....	\$ 49.09	16.87
DIVERS.....	\$ 93.09	16.87
DRYWALL.....	\$ 44.38	16.87
MILLWRIGHTS.....	\$ 46.89	16.87
PILEDRIYERS.....	\$ 44.97	16.87

DEPTH PAY:

50 TO 100 FEET \$1.00 PER FOOT OVER 50 FEET
 101 TO 150 FEET \$1.50 PER FOOT OVER 101 FEET
 151 TO 200 FEET \$2.00 PER FOOT OVER 151 FEET

Zone Differential (Add up Zone 1 rates):

Zone 2 - \$0.85
 Zone 3 - 1.25
 Zone 4 - 1.70
 Zone 5 - 2.00
 Zone 6 - 3.00

BASEPOINTS: ASTORIA, LONGVIEW, PORTLAND, THE DALLES, AND VANCOUYER, (NOTE: All dispatches for Washington State Counties: Cowlitz, Wahkiakum and Pacific shall be from Longview Local #1707 and mileage shall be computed from that point.)

ZONE 1: Projects located within 30 miles of the respective city hall of the above mentioned cities
 ZONE 2: Projects located more than 30 miles and less than 40 miles of the respective city of the above mentioned cities
 ZONE 3: Projects located more than 40 miles and less than 50 miles of the respective city of the above mentioned cities
 ZONE 4: Projects located more than 50 miles and less than 60 miles of the respective city of the above mentioned cities.
 ZONE 5: Projects located more than 60 miles and less than 70 miles of the respective city of the above mentioned cities
 ZONE 6: Projects located more than 70 miles of the respected city of the above mentioned cities

 CARP0030-004 06/01/2021

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM Counties

	Rates	Fringes
CARPENTER		
BRIDGE CARPENTERS.....	\$ 49.18	19.01
CARPENTERS ON CREOSOTE MATERIAL.....	\$ 47.02	19.01
CARPENTERS.....	\$ 49.18	19.01
DIVERS TENDER.....	\$ 54.54	19.01
DIVERS.....	\$ 103.43	19.01
MILLWRIGHT AND MACHINE ERECTORS.....	\$ 50.68	19.01
PILEDRIIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING.....	\$ 49.58	19.01

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:

0 -25 radius miles	Free
26-35 radius miles	\$1.00/hour
36-45 radius miles	\$1.15/hour
46-55 radius miles	\$1.35/hour
Over 55 radius miles	\$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT
AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall,
Tacoma City center, and Everett City center

Zone Pay:

0 -25 radius miles	Free
26-45 radius miles	\$.70/hour
Over 45 radius miles	\$1.50/hour

CARP0059-002 06/01/2019

ADAMS, ASOTIN, BENTON, CHELAN (East of 120th meridian),
COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT (East of
120th meridian), KITTITAS (East of 120th meridian), LINCOLN,
OKANOGAN (East of 120th meridian), PEND OREILLE, SPOKANE,
STEVENS, WALLA WALLA, WHITMAN, and YAKIMA (East of 120th
meridian) Counties

	Rates	Fringes
CARPENTER		
GROUP 1.....	\$ 35.47	16.88
GROUP 2.....	\$ 47.42	18.96
GROUP 3.....	\$ 36.66	16.88
GROUP 4.....	\$ 36.66	16.88
GROUP 5.....	\$ 83.96	16.88
GROUP 6.....	\$ 40.23	16.88
GROUP 7.....	\$ 41.23	16.88
GROUP 8.....	\$ 37.66	16.88
GROUP 9.....	\$ 44.23	16.88

CARPENTER & DIVER CLASSIFICATIONS:

GROUP 1: Carpenter

GROUP 2: Millwright, Machine Erector

GROUP 3: Piledriver - includes driving, pulling, cutting,
placing collars, setting, welding, or creosote treated
material, on all piling

GROUP 4: Bridge, Dock, and Wharf carpenters

GROUP 5: Diver Wet

GROUP 6: Diver Tender, Manifold Operator, ROV Operator

GROUP 7: Diver Standby

GROUP 8: Assistant Diver Tender, ROV Tender/Technician

GROUP 9: Manifold Operator-Mixed Gas

ZONE PAY:

ZONE 1	0-45 MILES	FREE
ZONE 2	45-100	\$4.00/PER HOUR
ZONE 3	OVER 100 MILES	\$6.00/PER HOUR

DISPATCH POINTS:

CARPENTERS/MILLWRIGHTS: PASCO (515 N Neel Street) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS/PILEDRIIVER: SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: MOSCOW (306 N. JACKSON) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

DEPTH PAY FOR DIVERS BELOW WATER SURFACE:

50-100 feet	\$2.00 per foot
101-150 feet	\$3.00 per foot
151-220 feet	\$4.00 per foot
221 feet and deeper	\$5.00 per foot

PREMIUM PAY FOR DIVING IN ENCLOSURES WITH NO VERTICAL ASCENT:

0-25 feet	Free
26-300 feet	\$1.00 per Foot

SATURATION DIVING:

The standby rate applies until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. the diver rate shall be paid for all saturation hours.

WORK IN COMBINATION OF CLASSIFICATIONS:

Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

HAZMAT PROJECTS:

Anyone working on a HAZMAT job (task), where HAZMAT certification is required, shall be compensated at a premium, in addition to the classification working in as follows:

LEVEL D + \$.25 per hour - This is the lowest level of protection. No respirator is used and skin protection is minimal.

LEVEL C + \$.50 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B + \$.75 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit".

LEVEL A +\$1.00 per hour - This level utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line.

CARP0770-003 06/01/2021

WEST OF 120TH MERIDIAN FOR THE FOLLOWING COUNTIES:
CHELAN, DOUGLAS, GRANT, KITTITAS, OKANOGAN, and YAKIMA

	Rates	Fringes
CARPENTER		
CARPENTERS ON CREOSOTE		
MATERIAL.....	\$ 47.02	19.01
CARPENTERS.....	\$ 49.18	19.01
DIVERS TENDER.....	\$ 54.54	19.01
DIVERS.....	\$ 103.43	19.01
MILLWRIGHT AND MACHINE		
ERECTORS.....	\$ 50.68	19.01
PILEDRIIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED		
MATERIAL, ALL PILING.....	\$ 49.58	19.01

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL
CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:

0 -25 radius miles	Free
26-35 radius miles	\$1.00/hour
36-45 radius miles	\$1.15/hour
46-55 radius miles	\$1.35/hour
Over 55 radius miles	\$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

0 -25 radius miles	Free
26-45 radius miles	\$.70/hour
Over 45 radius miles	\$1.50/hour

ELEC0046-001 08/07/2023

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 76.99	28.60
ELECTRICIAN.....	\$ 69.99	28.39

* ELEC0048-003 01/01/2023

CLARK, KLIKITAT AND SKAMANIA COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 44.22	21.50
ELECTRICIAN.....	\$ 57.35	27.54

HOURLY ZONE PAY:

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Portland, The Dalles, Hood River, Tillamook, Seaside and
Astoria

Zone Pay:

Zone 1: 31-50 miles \$1.50/hour
Zone 2: 51-70 miles \$3.50/hour
Zone 3: 71-90 miles \$5.50/hour
Zone 4: Beyond 90 miles \$9.00/hour

*These are not miles driven. Zones are based on Delorme
Street Atlas USA 2006 plus.

ELEC0048-029 01/01/2023

COWLITZ AND WAHKIACUM COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 44.22	21.50
ELECTRICIAN.....	\$ 57.35	27.54

ELEC0073-001 07/01/2022

ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN
COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 34.10	16.68
ELECTRICIAN.....	\$ 41.30	20.09

ELEC0076-002 02/01/2023

GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON
COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 53.15	23.81
ELECTRICIAN.....	\$ 55.14	24.86

ELEC0112-005 06/01/2022

ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA
WALLA, YAKIMA COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 54.34	24.26
ELECTRICIAN.....	\$ 51.75	24.18

 ELEC0191-003 06/01/2022

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 44.23	17.73
ELECTRICIAN.....	\$ 53.20	27.51

ELEC0191-004 06/01/2018

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 40.82	17.63
ELECTRICIAN.....	\$ 42.45	21.34

ENGI0302-003 06/01/2022

CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, KITTITAS, MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, SKAGIT, SNOHOMISH, WHATCOM AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1A.....	\$ 54.20	24.47
Group 1AA.....	\$ 54.98	24.47
Group 1AAA.....	\$ 55.78	24.47
Group 1.....	\$ 53.40	24.47
Group 2.....	\$ 52.72	24.47
Group 3.....	\$ 52.12	24.47
Group 4.....	\$ 48.78	24.47

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) - \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom
 (including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom (including jib with attachments); Tower crane over 175 ft in height, base to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead 6 yards to, but not including 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9, HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self propelled 45 yards and over; Slipform pavers; Transporters, all truck or track type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-Concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-overhead, bridge type-20 tons through 44 tons; Chipper; Concrete Pump-truck mount with boom attachment; Crusher; Deck Engineer/Deck Winches (power); Drilling machine; Excavator, shovel, backhoe-3yards and under; Finishing Machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Horizontal/directional drill operator; Loaders-overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics-all; Mixers-asphalt plant; Motor patrol graders-finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barber Green; Scraper-self propelled, hard tail end dump, articulating off-road equipment-under 45 yards; Subgrade trimmer; Tractors, backhoes-over 75 hp; Transfer material service machine-shuttle buggy, blaw knox-roadtec; Truck crane oiler/driver-100 tons and over; Truck Mount portable conveyor; Yo Yo Pay dozer

GROUP 3 - Conveyors; Cranes-thru 19 tons with attachments; A-frame crane over 10 tons; Drill oilers-auger type, truck or crane mount; Dozers-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loader-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pumps-concrete; Roller, plant mix or multi-lift materials; Saws-concrete; Scrapers-concrete and carry-all; Service engineer-equipment; Trenching machines; Truck Crane Oiler/Driver under 100 tons; Tractors, backhoe 75 hp and under

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor;
Concrete finish machine-laser screed; Cranes-A frame-10 tons
and under; Elevator and Manlift-permanent or shaft type;
Gradechecker, Stakehop; Forklifts under 3000 lbs. with
attachments; Hydralifts/boom trucks, 10 tons and under; Oil
distributors, blower distribution and mulch seeding
operator; Pavement breaker; Posthole digger, mechanical;
Power plant; Pumps, water; Rigger and Bellman; Roller-other
than plant mix; Wheel Tractors, farmall type;
Shotcrete/gunite equipment operator

HANDLING OF HAZARDOUS WASTE MATERIALS:

Personnel in all craft classifications subject to working
inside a federally designated hazardous perimeter shall be
eligible for compensation in accordance with the following
group schedule relative to the level of hazardous waste as
outlined in the specific hazardous waste project site
safety plan.

H-1 Base wage rate when on a hazardous waste site when not
outfitted with protective clothing

H-2 Class "C" Suit - Base wage rate plus \$.25 per hour.

H-3 Class "B" Suit - Base wage rate plus \$.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$.75 per hour.

ENGI0370-002 06/01/2021

ADAMS, ASOTIN, BENTON, CHELAN (EAST OF THE 120TH MERIDIAN),
COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY,
FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN (EAST OF THE 120TH
MERIDIAN), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN
AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

ZONE 1:

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 29.76	20.65
GROUP 2.....	\$ 30.08	20.65
GROUP 3.....	\$ 30.69	20.65
GROUP 4.....	\$ 30.85	20.65
GROUP 5.....	\$ 31.01	20.65
GROUP 6.....	\$ 31.21	20.65
GROUP 7.....	\$ 31.56	20.65
GROUP 8.....	\$ 32.66	20.65

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - \$2.00

Zone 1: Within 45 mile radius of Spokane, Pasco, Washington;

Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled); Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginaw or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumora, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment (8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operator (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers) (Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver; Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Rollerman (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel (under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragline; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform Trailers (Goldhofer, Shaurerly and Similar); Ultra High Pressure Waterjet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead, rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

BOOM PAY: (All Cranes, Including Tower)
 180 ft to 250 ft \$.50 over scale
 Over 250 ft \$.80 over scale

NOTE:

In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:

Anyone working on HAZMAT jobs, working with supplied air shall receive \$1.00 an hour above classification.

 * ENGI0612-001 06/01/2023

PIERCE County

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A.....	\$ 56.08	25.07
GROUP 1AA.....	\$ 56.89	25.07
GROUP 1AAA.....	\$ 57.70	25.07
GROUP 1.....	\$ 55.26	25.07
GROUP 2.....	\$ 54.55	25.07
GROUP 3.....	\$ 53.94	25.07
GROUP 4.....	\$ 50.50	25.07

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) = \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom
(including jib with attachments)

GROUP 1AA - Cranes- 200 tons to 300 tons, or 250 ft of boom
(including jib with attachments; Tower crane over 175 ft in height, base to boom)

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom
(including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barber Green; Scraper-self-propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than \$1.5 million excluding mechanical, electrical, and utility portions of the contract.
2. Projects of less than \$1 million where no building is involved. Surfacing and paving included, but utilities excluded.
3. Marine projects (docks, wharfs, etc.) less than \$150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class "D" Suit - Base wage rate plus \$.50 per hour.

H-2 Class "C" Suit - Base wage rate plus \$1.00 per hour.

H-3 Class "B" Suit - Base wage rate plus \$1.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$2.00 per hour.

* ENGI0612-012 06/01/2023

LEWIS, PACIFIC (portion lying north of a parallel line extending west from the northern boundary of Wahkaikum County to the sea) AND THURSTON COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A.....	\$ 54.85	25.07
GROUP 1AA.....	\$ 55.67	25.07
GROUP 1AAA.....	\$ 56.45	25.07
GROUP 1.....	\$ 54.05	25.07
GROUP 2.....	\$ 53.36	25.07
GROUP 3.....	\$ 52.75	25.07
GROUP 4.....	\$ 49.36	25.07

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) = \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tons to 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, base to boom)

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than \$1.5 million excluding mechanical, electrical, and utility portions of the contract.
2. Projects of less than \$1 million where no building is involved. Surfacing and paving included, but utilities excluded.
3. Marine projects (docks, wharfs, etc.) less than \$150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class "D" Suit - Base wage rate plus \$.50 per hour.

H-2 Class "C" Suit - Base wage rate plus \$1.00 per hour.

H-3 Class "B" Suit - Base wage rate plus \$1.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$2.00 per hour.

ENGI0701-002 01/01/2022

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHIAKUM COUNTIES

POWER EQUIPMENT OPERATORS: ZONE 1

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 51.65	16.35
GROUP 1A.....	\$ 53.81	16.35
GROUP 1B.....	\$ 55.97	16.35
GROUP 2.....	\$ 49.74	16.35
GROUP 3.....	\$ 48.59	16.35
GROUP 4.....	\$ 45.26	16.35
GROUP 5.....	\$ 44.02	16.35
GROUP 6.....	\$ 40.80	16.35

Zone Differential (add to Zone 1 rates):

Zone 2 - \$3.00

Zone 3 - \$6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or projects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens "Blast Zone" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1

Concrete Batch Plant and or Wet mix three (3) units or more;
Crane, Floating one hundred and fifty (150) ton but less than two hundred and fifty (250) ton; Crane, two hundred (200) ton through two hundred ninety nine (299) ton with two hundred foot (200') boom or less (including jib, inserts and/or attachments); Crane, ninety (90) ton through one hundred ninety nine (199) ton with over two hundred (200') boom Including jib, inserts and/or attachments); Crane, Tower Crane with one hundred seventy five foot (175') tower or less and with less than two hundred foot (200') jib; Crane, Whirley ninety (90) ton and over;
Helicopter when used in erecting work

Group 1A

Crane, floating two hundred fifty (250) ton and over; Crane, two hundred (200) ton through two hundred ninety nine (299) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Crane, three hundred (300) ton through three hundred ninety nine (399) ton; Crane, Tower Crane with over one hundred seventy five foot (175') tower or over two hundred foot (200') jib;
Crane, tower Crane on rail system or 2nd tower or more in work radius

Group 1B

Crane, three hundred (300) ton through three hundred ninety nine (399) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Floating crane, three hundred fifty (350) ton and over; Crane, four hundred (400) ton and over

Group 2

Asphalt Plant (any type); Asphalt Roto-Mill, pavement profiler eight foot (8') lateral cut and over; Auto Grader or "Trimmer"; Blade, Robotic; Bulldozer, Robotic Equipment (any type); Bulldozer, over one hundred twenty thousand (120,000) lbs. and above; Concrete Batch Plant and/or Wet Mix one (1) and two (2) drum; Concrete Diamond Head Profiler; Canal Trimmer; Concrete, Automatic Slip Form Paver (Assistant to the Operator required); Crane, Boom Truck fifty (50) ton and with over one hundred fifty foot (150') boom and over; Crane, Floating (derrick barge) thirty (30) ton but less than one hundred fifty (150) ton; Crane, Cableway twenty-five (25) ton and over; Crane, Floating Clamshell three (3) cu. Yds. And over; Crane, ninety (90) ton through one hundred ninety nine (199) ton up to and including two hundred foot (200') of boom (including jib inserts and/or attachments); Crane, fifty (50) ton through eighty nine (89) ton with over one hundred fifty foot (150') boom (including jib inserts and/or attachments); Crane, Whirley under ninety (90) ton; Crusher Plant; Excavator over one hundred thirty thousand (130,000) lbs.; Loader one hundred twenty thousand (120,000) lbs. and above; Remote Controlled Earth Moving Equipment; Shovel, Dragline, Clamshell, five (5) cu. Yds. And over; Underwater Equipment remote or otherwise, when used in construction work; Wheel Excavator any size

Group 3

Bulldozer, over seventy thousand (70,000) lbs. up to and including one hundred twenty thousand (120,000) lbs.; Crane, Boom Truck fifty (50) ton and over with less than one hundred fifty foot (150') boom; Crane, fifty (50) ton through eighty nine (89) ton with one hundred fifty foot (150') boom or less (including jib inserts and/or attachments); Crane, Shovel, Dragline or Clamshell three (3) cu. yds. but less than five (5) cu. Yds.; Excavator over eighty thousand (80,000) lbs. through one hundred thirty thousand (130,000) lbs.; Loader sixty thousand (60,000) lbs. and less than one hundred twenty thousand (120,000) lbs.

Group 4

Asphalt, Screed; Asphalt Paver; Asphalt Roto-Mill, pavement profiler, under eight foot (8') lateral cut; Asphalt, Material Transfer Vehicle Operator; Back Filling Machine; Backhoe, Robotic, track and wheel type up to and including twenty thousand (20,000) lbs. with any attachments; Blade (any type); Boatman; Boring Machine; Bulldozer over twenty thousand (20,000) lbs. and more than one hundred (100) horse up to seventy thousand (70,000) lbs.; Cable-Plow (any type); Cableway up to twenty five (25) ton; Cat Drill (John Henry); Chippers; Compactor, multi-engine; Compactor, Robotic; Compactor with blade self-propelled; Concrete, Breaker; Concrete, Grout Plant; Concrete, Mixer Mobile; Concrete, Paving Road Mixer; Concrete, Reinforced Tank Banding Machine; Crane, Boom Truck twenty (20) ton and under fifty (50) ton; Crane, Bridge Locomotive, Gantry and Overhead; Crane, Carry Deck; Crane, Chicago Boom and similar types; Crane, Derrick Operator, under one hundred (100) ton; Crane, Floating Clamshell, Dragline, etc. Operator, under three (3) cu. yds. Or less than thirty (30) ton; Crane, under fifty (50) ton; Crane, Quick Tower under one hundred foot (100') in height and less than one hundred fifty foot (150') jib (on rail included); Diesel-Electric Engineer (Plant or Floating); Directional Drill over twenty thousand (20,000) lbs. pullback; Drill Cat Operator; Drill Doctor and/or Bit Grinder; Driller, Percussion, Diamond, Core, Cable, Rotary and similar type; Excavator Operator over twenty thousand (20,000) lbs. through eighty thousand (80,000) lbs.; Generator Operator; Grade-all; Guardrail Machines, i.e. punch, auger, etc.; Hammer Operator (Piledriver); Hoist, stiff leg, guy derrick or similar type, fifty (50) ton and over; Hoist, two (2) drums or more; Hydro Axe (loader mounted or similar type); Jack Operator, Elevating Barges, Barge Operator, self-unloading; Loader Operator, front end and overhead, twenty five thousand (25,000) lbs. and less than sixty thousand (60,000) lbs.; Log Skidders; Piledriver Operator (not crane type); Pipe, Bending, Cleaning, Doping and Wrapping Machines; Rail, Ballast Tamper Multi-Purpose; Rubber-tired Dozers and Pushers; Scraper, all types; Side-Boom; Skip Loader, Drag Box; Strump Grinder (loader mounted or similar type); Surface Heater and Planer; Tractor, rubber-tired, over fifty (50) HP Flywheel; Trenching Machine three foot (3') depth and deeper; Tub Grinder (used for wood debris); Tunnel Boring Machine Mechanic; Tunnel, Mucking Machine; Ultra High Pressure Water Jet Cutting Tool System Operator; Vacuum Blasting Machine Operator; Water pulls, Water wagons

Group 5

Asphalt, Extrusion Machine; Asphalt, Roller (any asphalt mix); Asphalt, Roto-Mill pavement profiler ground man; Bulldozer, twenty thousand (20,000) lbs. or less, or one hundred (100) horse or less; Cement Pump; Chip Spreading Machine; Churn Drill and Earth Boring Machine; Compactor, self-propelled without blade; Compressor, (any power) one thousand two hundred fifty (1,250) cu. ft. and over, total capacity; Concrete, Batch Plant Quality control; Concrete, Combination Mixer and compressor operator, gunite work; Concrete, Curb Machine, Mechanical Berm, Curb and/or Curb and Gutter; Concrete, Finishing Machine; Concrete, Grouting Machine; Concrete, Internal Full Slab Vibrator Operator; Concrete, Joint Machine; Concrete, Mixer single drum, any capacity; Concrete, Paving Machine eight foot (8') or less; Concrete, Planer; Concrete, Pump; Concrete, Pump Truck; Concrete, Pumpcrete Operator (any type); Concrete, Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Conveyored Material Hauler; Crane, Boom Truck under twenty (20) tons; Crane, Boom Type lifting device, five (5) ton capacity or less; Drill, Directional type less than twenty thousand (20,000) lbs. pullback; Fork Lift, over ten (10) ton or Robotic; Helicopter Hoist; Hoist Operator, single drum; Hydraulic Backhoe track type up to and including twenty thousand (20,000) lbs.; Hydraulic Backhoe wheel type (any make); Laser Screed; Loaders, rubber-tired type, less than twenty five thousand (25,000) lbs.; Pavement Grinder and/or Grooving Machine (riding type); Pipe, cast in place Pipe Laying Machine; Pulva-Mixer or similar types; Pump Operator, more than five (5) pumps (any size); Rail, Ballast Compactor, Regulator, or Tamper machines; Service Oiler (Greaser); Sweeper Self-Propelled; Tractor, Rubber-Tired, fifty (50) HP flywheel and under; Trenching Machine Operator, maximum digging capacity three foot (3') depth; Tunnel, Locomotive, Dinkey; Tunnel, Power Jumbo setting slip forms, etc.

Group 6

Asphalt, Pugmill (any type); Asphalt, Raker; Asphalt, Truck Mounted Asphalt Spreader, with Screed; Auger Oiler; Boatman; Bobcat, skid steer (less than one (1) yard); Broom, self-propelled; Compressor Operator (any power) under 1,250 cu. ft. total capacity; Concrete Curing Machine (riding type); Concrete Saw; Conveyor Operator or Assistant; Crane, Tugger; Crusher Feeder; Crusher Oiler; Deckhand; Drill, Directional Locator; Fork Lift; Grade Checker; Guardrail Punch Oiler; Hydrographic Seeder Machine, straw, pulp or seed; Hydrostatic Pump Operator; Mixer Box (CTB, dry batch, etc.); Oiler; Plant Oiler; Pump (any power); Rail, Brakeman, Switchman, Motorman; Rail, Tamping Machine, mechanical, self-propelled; Rigger; Roller grading (not asphalt); Truck, Crane Oiler-Driver

IRON0014-005 01/02/2023

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN,
GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE,
STEVENS, WALLA WALLA AND WHITMAN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.11	31.57

IRON0029-002 01/02/2023

CLARK, COWLITZ, KLINKITAT, PACIFIC, SKAMANIA, AND WAHKAUKUM
COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 42.27	32.57

IRON0086-002 01/02/2023

YAKIMA, KITTITAS AND CHELAN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.11	31.57

IRON0086-004 01/02/2023

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS,
MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 50.90	32.57

LABO0238-004 06/01/2021

PASCO AREA: ADAMS, BENTON, COLUMBIA, DOUGLAS (East of 120th Meridian), FERRY, FRANKLIN, GRANT, OKANOGAN, WALLA WALLA

SPOKANE AREA: ASOTIN, GARFIELD, LINCOLN, PEND OREILLE, SPOKANE, STEVENS & WHITMAN COUNTIES

	Rates	Fringes
LABORER (PASCO)		
GROUP 1.....	\$ 26.69	13.65
GROUP 2.....	\$ 28.79	13.65
GROUP 3.....	\$ 29.06	13.65
GROUP 4.....	\$ 29.33	13.65
GROUP 5.....	\$ 29.61	13.65
LABORER (SPOKANE)		
GROUP 1.....	\$ 27.34	15.35
GROUP 2.....	\$ 29.44	15.35
GROUP 3.....	\$ 29.71	15.35
GROUP 4.....	\$ 29.98	15.35
GROUP 5.....	\$ 30.26	15.35

Zone Differential (Add to Zone 1 rate): \$2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: 45 radius miles and over from the main post office.

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer; Scaleman; Traffic Control Maintenance Laborer (to include erection and maintenance of barricades, signs and relief of flagperson); Window Washer/Cleaner (detail cleanup, such as, but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezecrete or similar machine, 6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder; Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class "A" (to include

all bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

GROUP 3: Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, Paving; Grade Checker using level; Hazardous Waste Worker, Level C (uses a chemical "splash suit" and air purifying respirator); Jackhammer Operator; Miner, Class "B" (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi-plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow (power driven)

GROUP 4: Air and Hydraulic Track Drill; Asphalt Raker; Brush Machine (to include horizontal construction joint cleanup brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when laborers working on free standing concrete stacks for smoke or fume control above 40 feet high); Guniting (to include operation of machine and nozzle); Hazardous Waste Worker, Level B (uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Laser Beam Operator (to include grade checker and elevation control); Miner, Class C (to include miner, nozzleman for concrete, laser beam operator and rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power propelled, sandblast nozzle); Pavement Breaker (90 lbs. and over); Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer); Pipewrapper; Plasterer Tender; Vibrators (all)

GROUP 5 - Drills with Dual Masts; Hazardous Waste Worker, Level A (utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line); Miner Class "D", (to include raise and shaft miner, laser beam operator on raises and shafts)

LABO0238-006 06/01/2021

COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON,
CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT,
LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA,
WHITMAN

	Rates	Fringes
Hod Carrier.....	\$ 30.00	13.50

LABO0242-003 06/01/2022

KING COUNTY

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 29.82	13.80
GROUP 2A.....	\$ 34.20	13.80
GROUP 3.....	\$ 42.86	13.80
GROUP 4.....	\$ 43.90	13.80
GROUP 5.....	\$ 44.62	13.80
Group 6.....	\$ 45.91	13.90

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2A: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

Group 6: Miner

LABO0252-010 06/01/2022

CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC
(EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 29.82	13.80
GROUP 2.....	\$ 34.20	13.80
GROUP 3.....	\$ 42.86	13.80
GROUP 4.....	\$ 43.90	13.80
GROUP 5.....	\$ 44.62	13.80

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window
Washer/Cleaner (detail clean-up, such as but not limited to
cleaning floors, ceilings, walls, windows, etc., prior to
final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer;
Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Grade Checker and Transit Person; High Scaler; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0292-008 06/01/2022

ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 29.82	13.80
GROUP 2.....	\$ 34.20	13.80
GROUP 3.....	\$ 42.86	13.80
GROUP 4.....	\$ 43.90	13.80
GROUP 5.....	\$ 44.62	13.80

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window
Washer/Cleaner (detail clean-up, such as but not limited to
cleaning floors, ceilings, walls, windows, etc., prior to
final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer;
Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0335-001 06/01/2022

CLARK, COWLITZ, KLUCKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE
MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHIAKUM COUNTY
WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHIAKUM COUNTIES

	Rates	Fringes
Laborers:		
ZONE 1:		
GROUP 1.....	\$ 37.98	13.80
GROUP 2.....	\$ 38.76	13.80
GROUP 3.....	\$ 39.35	13.80
GROUP 4.....	\$ 39.85	13.80
GROUP 5.....	\$ 34.75	13.80
GROUP 6.....	\$ 31.61	13.80
GROUP 7.....	\$ 27.44	13.80

Zone Differential (Add to Zone 1 rates):

Zone 2 \$ 0.65

Zone 3 - 1.15

Zone 4 - 1.70

Zone 5 - 2.75

BASE POINTS: LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city all.

ZONE 2: More than 30 miles but less than 40 miles from the
respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the
respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the
respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Plant Laborers; Asphalt Spreaders; Batch
Weighman; Broomers; Brush Burners and Cutters; Car and
Truck Loaders; Carpenter Tender; Change-House Man or Dry
Shack Man; Choker Setter; Clean-up Laborers; Curing,
Concrete; Demolition, Wrecking and Moving Laborers;
Dumpers, road oiling crew; Dumpmen (for grading crew);
Elevator Feeders; Median Rail Reference Post, Guide Post,
Right of Way Marker; Fine Graders; Fire Watch; Form
Strippers (not swinging stages); General Laborers;
Hazardous Waste Worker; Leverman or Aggregate Spreader
(Flaherty and similar types); Loading Spotters; Material
Yard Man (including electrical); Pittsburgh Chipper
Operator or Similar Types; Railroad Track Laborers; Ribbon
Setters (including steel forms); Rip Rap Man (hand placed);
Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers;
Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring;
Timber Faller and Bucker (hand labor); Toolroom Man (at job
site); Tunnel Bullgang (above ground); Weight-Man- Crusher
(aggregate when used)

GROUP 2: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunitite Nozzleman Tender; Gunitite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 3: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunitite Nozzleman; High Scalars, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Powdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 4: Asphalt Raker; Concrete Saw Operator (walls); Concrete Nozzelman; Grade Checker; Pipelayer; Laser Beam (pipelaying)-applicable when employee assigned to move, set up, align; Laser Beam; Tunnel Miners; Motorman-Dinky Locomotive-Tunnel; Powderman-Tunnel; Shield Operator-Tunnel

GROUP 5: Traffic Flaggers

GROUP 6: Fence Builders

GROUP 7: Landscaping or Planting Laborers

LABO0335-019 06/01/2022

	Rates	Fringes
Hod Carrier.....	\$ 37.98	13.80

LABO0348-003 06/01/2022

CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA
COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 25.37	13.80
GROUP 2.....	\$ 29.16	13.80
GROUP 3.....	\$ 31.94	13.80
GROUP 4.....	\$ 32.72	13.80
GROUP 5.....	\$ 32.09	13.19

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window
Washer/Cleaner (detail clean-up, such as but not limited to
cleaning floors, ceilings, walls, windows, etc., prior to
final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer;
Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

PAIN0005-002 07/01/2022

STATEWIDE EXCEPT CLARK, COWLITZ, KLINKITAT, PACIFIC (SOUTH),
SKAMANIA, AND WAHIAKUM COUNTIES

	Rates	Fringes
Painters:		
STRIPERS.....	\$ 33.37	18.53

PAIN0005-004 03/01/2009

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS,
MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND
WHATCOM COUNTIES

	Rates	Fringes
PAINTER.....	\$ 20.82	7.44

* PAIN0005-006 07/01/2018

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE);
CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS,
LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA,
WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
PAINTER		
Application of Cold Tar		
Products, Epoxies, Polyure		
thanes, Acids, Radiation		
Resistant Material, Water		
and Sandblasting.....	\$ 30.19	11.71
Over 30'/Swing Stage Work..	\$ 22.20	7.98
Brush, Roller, Striping,		
Steam-cleaning and Spray....	\$ 22.94	11.61
Lead Abatement, Asbestos		
Abatement.....	\$ 21.50	7.98

*\$.70 shall be paid over and above the basic wage rates
listed for work on swing stages and high work of over 30
feet.

PAIN0055-003 07/01/2020

CLARK, COWLITZ, KLINKITAT, PACIFIC, SKAMANIA, AND WAHIAKUM
COUNTIES

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 26.56	13.40
Spray and Sandblasting.....	\$ 26.56	13.40

All high work over 60 ft. = base rate + \$0.75

PAIN0055-006 01/01/2022

CLARK, COWLITZ, KLINKITAT, SKAMANIA and WAHIAKUM COUNTIES

	Rates	Fringes
Painters:		
HIGHWAY & PARKING LOT		
STRIPER.....	\$ 48.17	16.00

PLAS0072-004 06/01/2022

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY,
FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND
OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA
COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1.....	\$ 36.04	16.79

Zone Differential (Add to Zone 1 rate): Zone 2 - \$2.00

BASE POINTS: Spokane, Pasco, Lewiston; Wenatchee

Zone 1: 0 - 45 radius miles from the main post office

Zone 2: Over 45 radius miles from the main post office

PLAS0528-001 06/01/2022

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING,
KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT,
SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

	Rates	Fringes
CEMENT MASON		
CEMENT MASON.....	\$ 50.00	19.59
COMPOSITION, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE.....	\$ 50.50	19.59
TROWELING MACHINE OPERATOR ON COMPOSITION.....	\$ 50.50	19.59

PLAS0555-002 06/01/2023

CLARK, KICKITAT AND SKAMANIA COUNTIES

ZONE 1:

	Rates	Fringes
CEMENT MASON		
CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD..	\$ 45.06	19.95
CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD.....	\$ 44.19	19.95
CEMENT MASONS.....	\$ 43.33	19.95
COMPOSITION WORKERS AND POWER MACHINERY OPERATORS...	\$ 44.19	19.95

Zone Differential (Add To Zone 1 Rates):

Zone 2 - \$0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND,
SALEM, THE DALLES, VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall
ZONE 2: More than 30 miles but less than 40 miles from the
respective city hall.
ZONE 3: More than 40 miles but less than 50 miles from the
respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the
respective city hall.
ZONE 5: More than 80 miles from the respective city hall

TEAM0037-002 06/01/2020

CLARK, COWLITZ, KLUCKITAT, PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), SKAMANIA, AND WAHIAKUM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE 1		
GROUP 1.....	\$ 29.33	16.40
GROUP 2.....	\$ 29.46	16.40
GROUP 3.....	\$ 29.60	16.40
GROUP 4.....	\$ 29.89	16.40
GROUP 5.....	\$ 30.03	16.40
GROUP 6.....	\$ 30.31	16.40
GROUP 7.....	\$ 30.53	16.40

Zone Differential (Add to Zone 1 Rates):

Zone 2 - \$0.65

Zone 3 - 1.15

Zone 4 - 1.70

Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lift truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts (all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman, Wash Rack, Steam Cleaner or combinations; Team Driver; Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane; Challenger; Dumpsters or similar equipment all sizes; Dump Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer or doubles transporting equipment or wet or dry materials; Lumber Carrier, Driver-Straddle Carrier (used in loading, unloading and transporting of materials on job site); Oil Distributor Driver or Leverman; Transit mix and wet or dry mix trucks: over 5 cu. yds. and including 7 cu. yds.; Vacuum Trucks; Water truck/Wagons (rated capacity) over 3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 10 cu. yds. and including 30 cu. yds. includes Articulated Dump Trucks; Self-Propelled Street Sweeper; Transit mix and wet or dry mix truck: over 7 cu yds. and including 11 cu yds.; Truck Mechanic-Welder-Body Repairman; Utility and Clean-up Truck; Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom dumps, including Semi-Trucks and Trains or combinations thereof: over 30 cu. yds. and including 50 cu. yds. includes Articulated Dump Trucks; Fire Guard; Transit Mix and Wet or Dry Mix Trucks, over 11 cu. yds. and including 15 cu. yds.; Water Wagon (rated capacity) over 10,000 gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 50 cu. yds. and including 60 cu. yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch concrete Mix Trucks; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains of combinations thereof: over 60 cu. yds. and including 80 cu. yds., and includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

* TEAM0174-001 06/01/2020

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE A:		
GROUP 1:.....	\$ 42.88	20.92
GROUP 2:.....	\$ 42.04	20.92
GROUP 3:.....	\$ 39.23	20.92
GROUP 4:.....	\$ 34.26	20.92
GROUP 5:.....	\$ 42.43	20.92

ZONE B (25-45 miles from center of listed cities*): Add \$.70 per hour to Zone A rates.

ZONE C (over 45 miles from centr of listed cities*): Add \$1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM	CENTRALIA	RAYMOND	OLYMPIA
EVERETT	SHELTON	ANACORTES	BELLEVUE
SEATTLE	PORT ANGELES	MT. VERNON	KENT
TACOMA	PORT TOWNSEND	ABERDEEN	BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - "A-frame or Hydralift" trucks and Boom trucks or similar equipment when "A" frame or "Hydralift" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series, Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards \$.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra, Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired)(when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by \$2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C: +\$.25 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B: +\$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."

LEVEL A: +\$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0690-004 01/01/2019

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY,
FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND
OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA
COUNTIES

	Rates	Fringes
Truck drivers: (AREA 1: SPOKANE ZONE CENTER: Adams, Chelan, Douglas, Ferry, Grant, Kittitas, Lincoln, Okanogan, Pen Oreille, Spokane, Stevens, and Whitman Counties		
AREA 1: LEWISTON ZONE CENTER: Asotin, Columbia, and Garfield Counties		
AREA 2: PASCO ZONE CENTER: Benton, Franklin, Walla Walla and Yakima Counties)		
AREA 1:		
GROUP 1.....	\$ 23.91	17.40
GROUP 2.....	\$ 26.18	17.40
GROUP 3.....	\$ 26.68	17.40
GROUP 4.....	\$ 27.01	17.40
GROUP 5.....	\$ 27.12	17.40
GROUP 6.....	\$ 27.29	17.40
GROUP 7.....	\$ 27.82	17.40
GROUP 8.....	\$ 28.18	17.40
AREA 2:		
GROUP 1.....	\$ 26.05	17.40
GROUP 2.....	\$ 28.69	17.40
GROUP 3.....	\$ 28.80	17.40
GROUP 4.....	\$ 29.13	17.40
GROUP 5.....	\$ 29.24	17.40
GROUP 6.....	\$ 29.24	17.40
GROUP 7.....	\$ 29.78	17.40
GROUP 8.....	\$ 30.10	17.40

Zone Differential (Add to Zone 1 rate: Zone 1 + \$2.00)

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: Outside 45 radius miles from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraulic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self-loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi-end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable operated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom end dump (over 40 yds. to & including 100 yds.); Truck Mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

Footnote A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C-D: - \$.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - \$1.00 PER HOUR (Uses supplied air in conjunction with a chemical splash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

NOTE:

Trucks Pulling Equipment Trailers: shall receive \$.15/hour over applicable truck rate

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those

classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the

interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

"

APPENDIX A
GEOTECHNICAL REPORT

**FINAL GEOTECHNICAL REPORT
124th Avenue NE Roadway Improvements
From NE 116th Street to NE 124th Street
Kirkland, Washington**

**Prepared for
Perteet Inc. and City of Kirkland
MAY 12, 2023
HWA Project No. 2018-002-21**



GEOSCIENCES INC.

DBE/MWBE

Geotechnical Engineering

Pavement Engineering

Geoenvironmental

Hydrogeology

Inspection & Testing



GEOSCIENCES INC.
DBE/MWBE

May 12, 2023
HWA Project No. 2018-002-21

Perteet Inc.
2707 Colby Avenue, Suite 900
Everett, Washington 98201

Attention: Erin Routledge, P.E.

Subject: **FINAL GEOTECHNICAL REPORT**
124th Avenue NE Roadway Improvements
From NE 116th Street to NE 124th Street
Kirkland, Washington

Dear Erin:

As requested, HWA GeoSciences Inc. (HWA) has performed geotechnical engineering evaluations for the proposed 124th Avenue Roadway Improvements project in Kirkland, Washington. This final geotechnical report includes the results of our field explorations and our engineering analyses for design and construction of the proposed improvements.

We appreciate the opportunity to provide geotechnical engineering services on this project. If you have any questions regarding this report or require additional information or services, please contact the undersigned at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

A handwritten signature in black ink that reads "Donald F. Huling". The signature is written in a cursive, flowing style.

Donald Huling, P.E.
Geotechnical Engineer, Principal

Enclosure: Final Geotechnical Report

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**FINAL GEOTECHNICAL REPORT
124th AVENUE NE ROADWAY IMPROVEMENTS
FROM NE 116TH STREET TO NE 124TH STREET
KIRKLAND, WASHINGTON**

1. INTRODUCTION

1.1 GENERAL

This draft report summarizes the results of the geotechnical engineering studies performed by HWA GeoSciences Inc. (HWA) for the proposed 124th Avenue NE Roadway Improvements project in Kirkland, Washington. The approximate location of the project site is shown on the Site Vicinity Map, Figure 1, and on the Site and Exploration Plans, Figure 2A and 2B. Our field explorations have involved a multi-phase exploration program described herein. Phase 1 of our explorations included performing pavement coring at eight locations and performing Falling Weight Deflectometer (FWD) testing along the alignment to evaluate pavement conditions. Phase 2 of explorations included drilling seven machine-drilled borings BH-1 through BH-4 and BH-6 through BH-8 near the location of known proposed structures including signal poles, luminaries, and retaining wall structures. BH-5 could not be performed due to the presence of underground utilities at the proposed boring location. Phase 3 of our explorations including drilling five machine-drilled borings and installing two borehole infiltration testing wells along the proposed stormwater facilities to evaluate infiltration potential and long-term infiltration rates. Appropriate laboratory tests were conducted on selected soil samples to determine relevant engineering properties of the subsurface soils. Engineering analyses were conducted to develop preliminary design recommendations for the proposed retaining structures, signal pole and luminaire foundations, stormwater infiltration facilities, and pavement design parameters.

1.2 PROJECT UNDERSTANDING

This project involves upgrading the 124th Avenue NE alignment from NE 116th Street to NE 124th Street in order to provide better non-motorized facilities, upgrade pavement conditions, improve traffic operations, reduce collisions, and improve corridor aesthetics along 124th Avenue NE.

We understand proposed improvements include improving street lighting and sidewalks, adding buffered bike lanes, upgrading traffic signals at two key intersections, construction of storm water facilities, and potential pavement overlay and reconstruction.

1.3 SURFACE CONDITIONS

The project alignment runs south to north from NE 116th Street to NE 124th Street. The alignment mostly consists of one through lane in each direction along with a center turn lane, and additional turn left-turn turn lanes near the intersections of NE 116th Street, NE 120th Street, and NE 124th Street. Sidewalks and curbs exist along the roadway. The roadway is surfaced with HMA along

the entire alignment. Numerous utilities were observed or marked by locators within the roadway and sidewalks. The corridor features a mix of commercial and institutional land uses.

The condition of the HMA surfacing is fairly consistent along most of the alignment with the predominant distresses consisting of longitudinal cracking in the wheel paths, which has developed into alligator cracking in some areas.

2. FIELD INVESTIGATION AND LABORATORY TESTING

2.1 PAVEMENT EXPLORATIONS (PHASE 1)

As part of our phase 1 explorations, and in order to assess existing pavement conditions and provide pavement analyses and design information, HWA performed Falling Weight Deflectometer (FWD) testing on January 2, 2019 along each through lane, at intervals of about 100 feet. Additionally, HWA performed eight, 6-inch diameter core holes through the pavement surface on January 3, 2019. Pavement core locations were determined based on existing pavement distress observed onsite and are indicated on the Site and Exploration Plans, Figure 2A and 2B. Logs of the core holes are presented in Appendix A, Figures A-14 through A-21. Further discussion of FWD testing, coring results, and pavement design parameters are presented in Section 3.3, Pavement Evaluation.

2.2 GEOTECHNICAL SUBSURFACE EXPLORATIONS (PHASE 2 AND PHASE 3)

Phase 2 explorations were drilled on January 13th through 15th, 2019 by Gregory Drilling, Inc., under subcontract to HWA. Borings were drilled using a track-mounted limited access drill rig (LAR) using hollow stem auger drilling techniques. Phase 2 boreholes were drilled to depths of ranging from approximately 20 to 31½ feet below existing ground surface (bgs). At the completion of the drilling, borings BH-2, BH-4, BH-6, and BH-7 were abandoned with bentonite chips per Department of Ecology (DOE) requirements. One-inch diameter ground water monitoring piezometer was installed at the locations of borings BH-1, BH-3, and BH-8.

HWA intended to drill a boring designated BH-5 near the intersection of NE 120th Street, however, we were not able to drill BH-5 due to limited work space and conflicts with underground private electrical cables belonging to the Nissan Dealership that were not noted until the day of our field investigation by our subcontracted private utility locator.

Phase 3 explorations were drilling on August 3rd and 4th, 2020 by Holocene Drilling, Inc., under subcontract to HWA. The borings were drilled using a track-mounted Dedrich D50 and D70 drill rig using hollow stem auger drilling techniques. At the completion of the drilling, boring BH-9, BH-10, and BH-11 were abandoned with bentonite chips per Department of Ecology (DOE) requirements. Six-inch diameter PVC pipe was installed at borings BIT-1 and BIT-2.

Standard Penetration Test (SPT) sampling was performed at 2½ to 5-foot intervals in the boreholes using a 2-inch outside diameter split-spoon sampler and a 140-pound hydraulic auto-

hammer. During the SPT, samples were obtained by driving the sampler 18 inches into the soil with the hammer free falling 30 inches. The number of blows required for each 6 inches of penetration was recorded. The Standard Penetration Resistance (“N-value”) of the soil is calculated as the number of blows required for the final 12 inches of penetration. However, if 50 blow counts were counted in one 6-inch interval or less, the blows counts were reported as 50 blow per number of inches driven (i.e. 50/5”). Blow count like this are known as refusal blow counts and driving of the split spoon is halted at that point. This resistance, or N value, provides an indication of relative density of granular soils and the relative consistency of cohesive soils; both indicators of soil strength.

Each exploration was completed under the full-time observation of an HWA Geotechnical Engineer. HWA personnel recorded pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and ground water occurrence as the explorations were advanced. Soils were classified in general accordance with the classification system described in Appendix A, Figure A-1, which also provides a key to the exploration log symbols. Summary boring and core logs are presented in Appendix A, Figures A-2 through A-21. The soil and ground water conditions depicted are only for the specific date and locations reported and, therefore, are not necessarily representative of other locations and times. The stratigraphic contacts shown on the individual boring logs represent the approximate boundaries between soil types. The actual transitions may be more gradual.

2.3 EXPLORATIONS BY OTHERS

HWA conducted a comprehensive search for geotechnical information in the vicinity of the project corridor. This effort included a search of online geotechnical databases and a review of HWA’s project library. This search yielded valuable information obtained by an exploration program conducted by ZZA (2007) in the vicinity of the project site that includes several exploratory borings, one of which was near the location so the proposed BH-5, which was not performed due to utility conflicts. The approximate location of the relevant available soil information along the project alignment is presented on the Site and Exploration Plan, Figure 2B. Location maps and log of exploration by others are presented in Appendix C.

2.4 LABORATORY TESTING

Laboratory tests were conducted at HWA’s Bothell, Washington laboratory, on selected samples retrieved from the borings to determine relevant index and engineering properties of the soils encountered at the site. The tests included visual classifications, Atterberg limits, natural moisture content, and grain size distribution analyses using wet sieve and fine content hydrometer analysis. The tests were conducted in general accordance with appropriate American Society of Testing and Materials (ASTM) standards. The test results and a discussion of laboratory test methodology are presented in Appendix B, and/or displayed on the exploration logs in Appendix A, as appropriate.

3. SITE CONDITIONS

3.1 GENERAL GEOLOGIC CONDITIONS

The project alignment is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland. As the most recent glacier retreated, it uncovered a sculpted landscape of elongated, north-south trending hills and valleys between the Cascade and Olympic mountain ranges, composed of a complex sequence of glacial and interglacial deposits.

Specific geologic information for the project area was obtained from the *Geologic Map of King County* (Booth et. al., 2007) which suggests that the project alignment is underlain by Pleistocene Vashon glacial till consisting of clay, silt, sand, gravel, cobbles, and boulders deposited by or originating from glaciers that have been glacially overridden and are typically dense to very dense. However, our soil explorations indicate that the surface geology along the project alignment is not accurately characterized by the *Geologic Map of King County*. Our explorations indicate that the project alignment is underlain by Alluvial deposits that are described in Section 3.2 of this report and are likely underlain by glacial till, as observed in explorations BH-1 and BH-2.

3.2 SUBSURFACE SOIL CONDITIONS

In general, the soils encountered in our explorations included alluvial deposits, that were often overlaid by undocumented fill soils. In explorations BH-1, BH-2, BH-9, BH-10, and BH-11 the alluvial deposits were underlain by glacial till soils. Further descriptions of soils encountered in our explorations are presented below in order of deposition, beginning with the most recently deposited. The exploration logs in Appendix A provide more detail of subsurface conditions observed at specific locations and depths.

- **Undocumented Fill:** Layers of undocumented fill were encountered in borings BH-3, BH-4, and BH-7 immediately below the existing ground surface. The fill consisted of loose to medium dense, light brown, slightly silty to silty sand with varying amounts of gravel and wood debris and ranged from 7 to 12.5 feet in thickness. We anticipate that this fill was placed as part of roadway construction and associated site development.
- **Alluvium Deposits:** Alluvial deposits were encountered in each of the borings either at ground surface or below the fill soils and pavements materials. The alluvial soils

consisted of interbedded sequences of loose to medium dense poorly graded sand and silty sand to very soft to medium stiff silts that locally may contain highly organic layers of soils. These deposits appear to be normally consolidated and were most likely deposited during the glacial processes and floods that formed Lake Washington and Lake Sammamish.

- **Glacial Till:** Glacial till was encountered in boring BH-1, BH-2, BH-9, BH-10, and BH-11 below the alluvium deposits. The glacial till soils consisted of very dense, gray to olive-gray, silty sands with varying amounts of gravel. The upper portions of the till were weathered. Glacial till is the material which was deposited along the sole of the glacial ice during periods of glacial advance. It consists of an unsorted mixture of clay, silt, sand and gravel, which is very dense, having been consolidated by the weight of greater than 2,000 feet of ice. It is also known to contain scattered cobbles and boulders. Till is relatively impermeable and not suitable for onsite infiltration. Generally, the till forms a very low permeability layer below which surface water generally migrate across rather than flowing through. As a result, perched water is often observed on top of the till contact.

3.3 PAVEMENT EVALUATION

3.3.1 Pavement Cores

Pavement layer thickness and shallow subgrade support conditions were investigated by conducting eight, 6-inch diameter pavement cores, designated C-1 through C-8, performed on January 3rd, 2019. Shallow subsurface explorations beneath within each pavement core were performed using hand augers and hand digging tools. The approximate locations of the pavement cores are indicated on Figures 2A and 2B. Photographic logs of the cores are presented in Figures A-14 through A-21 in Appendix A.

The coring and subsurface explorations were performed by two geologists from HWA. All core holes were backfilled with compacted gravel and patched with Aquaphalt. Table 1 provides the pavement layer thicknesses encountered in the pavement cores.

Table 1: Asphalt Core Summary

Designation	HMA Thickness, (inches)	Crushed Base Course Thickness, (inches)	Notes
C-1	7	5	0.75 inches of chip seal above HMA
C-2	3¼	1¾	0.75 inches of chip seal above HMA
C-3	4½	5½	0.75 inches of chip seal above HMA
C-4	4½	1½	0.75 inches of chip seal above HMA
C-5	3½	1	0.75 inches of chip seal above HMA
C-6	6	1	0.75 inches of chip seal above HMA
C-7	8¼	5¾	0.75 inches of chip seal above HMA
C-8	5	1½	0.75 inches of chip seal above HMA

3.3.2 FWD Testing

Falling Weight Deflectometer (FWD) testing was conducted on January 2, 2019 along northbound and southbound traffic lanes, at intervals of about 100 feet. The test stationing was measured in the field using a digital measuring instrument attached to the FWD. GPS coordinates were also taken at each test location. It should be noted that the actual project stationing and test point stationing differ somewhat due to measuring discrepancies and GPS accuracy.

The FWD testing was undertaken using a Dynatest Model 8081 Heavy Falling Weight Deflectometer. This FWD allows the pavement to be tested under a wide range of loading conditions (6,500 to 54,000 pounds) to simulate a variety of traffic loads.

For this project, pulse loads of approximately 6,000, 9,000 and 13,000 pounds were applied to the pavement surface at each test location. The corresponding pavement surface deflections were measured with velocity transducers located directly under the loaded area, and at 8, 12, 24, 36, 48, and 60 inches from the center of the loaded area.

In general, maximum (S1) deflections of 0 to 15 mils are representative of good pavement response. Maximum deflections ranging from about 16 to 25 mils represent fair pavement response. Maximum deflections ranging from 26 mils to 45 mils represent poor pavement response. Maximum deflections greater than about 45 mils are typical of highly distressed pavement response.

Plots of the FWD results are provided in Appendix B. Figure B-14 presents the maximum deflections (immediately under the applied load), normalized to a load of 9,000 pounds, for each test location. Figure B-15 presents the backcalculated subgrade resilient moduli values for each test location. Table 2 summarizes the FWD deflection data.

Table 2: FWD Test Results – Maximum Deflection Normalized to 9,000-pound Load

Test Lane	Number of Tests Included	Average Maximum Deflection, mils*	Standard Deviation	Highest Deflection in Segment, mils*	Lowest Deflection in Segment, mils*
North Bound Lane	14	17.4	5.8	31.7	5.9
South Bound Lane	15	8.1	1.9	8.6	3.2

* mil = 1/1000 of an inch.

Table 3 summarizes the backcalculated resilient moduli values. The computer program AREA, by WSDOT, was used for the backcalculation.

Table 3: FWD Test Results – Back Calculated Parameters

Test Lane	Number of Tests Included	Average Subgrade Resilient Modulus, ksi	Standard Deviation	Highest Value, ksi	Lowest Value, ksi
North Bound Lane	14	18	6.0	33.6	11.7
South Bound Lane	15	25.8	8.1	47.3	16.2

3.4 GROUND WATER CONDITIONS

Ground water was observed in each of our borings except BIT-1 and BIT-2. In general, saturated layers within the alluvial soils were observed at depths ranging from 5 to 20 feet bgs. At the location of BH-1, BH-2, BH-9, BH-10, and BH-11, which were observed to be underlain by Glacial Till deposits, perched water was encountered near the contact between the alluvium and the glacial till soils. In general groundwater levels in the norther borings, where till was not observed, were deeper (Groundwater at 7 to 20 feet bgs) than the southern borings were till was

observed (Groundwater at 5 to 10 feet bgs). In addition, the presence of utility trenches and drainage features adjacent to the alignment may induce a localized rise in shallow groundwater levels.

HWA installed 1-inch diameter groundwater monitoring wells in borings BH-1, BH-3, and BH-8, to monitor fluctuations in the groundwater table over time. Groundwater monitoring transducers were installed in each well in January of 2019 to collect continuous water level readings over the wet winter months. These transducers were retrieved and data from these instruments was collected on June 02, 2020. Groundwater seasonal fluctuations between January of 2019 and June of 2020 are provided on Figures 3A through 3C for borings BH-1, BH-3, and BH-8, respectively.

As shown on Figures 3A through 3C, groundwater levels at the three monitoring well locations vary from 6.8 to 18 feet below ground surface. Variations within the groundwater level at each location ranged between 2.7- to 3.4-feet over the period measured.

Prospective contractors should be prepared to encounter and handle groundwater for all excavations deeper than 5 feet below ground surface.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 GENERAL

The subsurface soils along the project alignment consist of fill, alluvial soils and glacially considered soils at depth. In general, these soils will support the proposed improvements with some special considerations.

The loose to medium dense saturated fill and alluvial soils are potentially liquefiable during the design earthquake. The onset of liquefaction is expected to result in reductions in the shear strength of the liquefiable soils and liquefaction induced settlement. Proposed improvements should be designed to tolerate the anticipated liquefaction induced settlements along the project corridor.

It is our understanding the proposed improvements will require construction of fifteen retaining walls along the alignment. The subgrade soil conditions in the vicinity of these walls will provide adequate support for the walls with some over excavation and replacement of loose near-surface material.

We understand that proposed improvements include installation of signal poles and luminaire structures. The subgrade soils along the alignment will provide adequate lateral bearing capacity to allow the use of WSDOT standard plans for the associated foundation(s). Prospective contractors should be prepared to case the signal foundation excavations to prevent caving of fill and native soils due to near-surface perched water zones.

The site topography combined with shallow perched groundwater and the low permeability glacial till deposits at shallow depth are such that onsite infiltration will not be a suitable method of stormwater management for this site. Therefore, stormwater detention and conveyance will be required.

4.2 SEISMIC CONSIDERATIONS

4.2.1 Seismic Design Parameters

Earthquake loading for the project corridor was developed in accordance with Section 3.4 of the *AASHTO Guide Specifications for LRFD Bridge Design, 2nd Edition, 2011*. For seismic analysis, the Site Class is required to be established and is determined based on the average soil properties in the upper 100 feet below the ground surface. Based on our explorations and understanding of site geology, it is our opinion that the proposed alignment is underlain by soils consistent with Site Class D. Therefore, Site Class D should be used with AASHTO seismic evaluations for this project. Table 4 presents recommended seismic coefficients for use with the General Procedure described in AASHTO (2011), which is based upon a design event with a 7 percent probability of exceedance in 75 years (equal to a return period of 1,033 years).

**Table 4: Seismic Coefficients for Evaluation Using
AASHTO Guide Specifications Calculated by USGS Seismic Hazard Map**

Site Class	Peak Horizontal Bedrock Acceleration PBA, (g)	Spectral Bedrock Acceleration at 0.2 sec S _s , (g)	Spectral Bedrock Acceleration at 1.0 sec S ₁ , (g)	Site Coefficients			Peak Horizontal Acceleration PGA (A _s), (g)
				F _{pga}	F _a	F _v	
D	0.394	0.876	0.295	1.106	1.149	1.811	0.435

4.2.2 Soil Liquefaction

Liquefaction is a temporary loss of soil shear strength due to earthquake shaking. Loose, saturated cohesionless soils are highly susceptible to earthquake-induced liquefaction; however, recent experience and research has shown that certain silts and low-plasticity clays are also susceptible. Primary factors controlling the development of liquefaction include the intensity and duration of strong ground motions, the characteristics of subsurface soils, in-situ stress conditions and the depth to ground water. To evaluate the liquefaction susceptibility of the soils along the project alignment, the simplified procedure originally developed by Seed and Idriss (1971), updated by Youd et al 2001, and also by Idriss and Boulanger (2004, 2006) was used.

The simplified procedure is a semi-empirical approach which compares the cyclic shear stress required to initiate liquefaction (CRR) to the cyclic shear stress induced by the design earthquake (CSR). The factor of safety relative to liquefaction is the ratio of the CRR to the CSR; where this ratio is computed to be less than one, the analysis would indicate that liquefaction is likely to occur during the design earthquake. The CRR is primarily dependent on soil density, with the current practice being to base it on the Standard Penetration Test (SPT) N-value, corrected for energy consideration, fines content and earthquake magnitude. CSR is generally determined by the formulation developed by Seed and Idriss (1971) and relates equivalent shear stress caused in the soil at any depth to the effective stress at that depth and the peak ground acceleration at the surface. We have performed our evaluations using the method proposed by Idriss and Boulanger.

Our analysis suggests that portions of the alluvial sands that are below the groundwater table are prone to liquefaction during the design earthquake. Potentially liquefiable soils may extend past the termination depth of several of our explorations. We expect that the occurrence of liquefaction during the design earthquake will result in liquefaction-induced settlement along the project corridor as well as a loss of shear strength as the soils liquefy.

As the groundwater table within the alluvial soils is generally suppressed along the alignment (at depths ranging from 5 to 20 feet bgs), we expect at least a 5-foot-thick crust of non-liquefiable soils will exist above any zones of liquefaction during the design earthquake. This crust of non-liquefiable soil will attenuate surface manifestations of liquefaction-induced settlement. Our analyses suggest that the presence of this crust will also prevent liquefaction-induced instability of proposed SEW retaining wall structures as the liquefiable soils degrade to a residual shear strength. Where the groundwater table is suppressed within the alluvial soils, we expect some damage to proposed improvements could occur as a result of liquefaction, but the damage is anticipated to be limited and not result in a threat to life safety. Therefore, at these locations we would not recommend implementing any liquefaction mitigation other than designing improvements to tolerate anticipated liquefaction-induced settlements discussed in Section 4.2.3.

4.2.3 Liquefaction-Induced Settlement

Loose sand deposits tend to densify when they are subject to earthquake shaking. For saturated sand deposits, excess pore water pressure builds up during the earthquake excitation, leading to loss of strength or liquefaction. After the shaking stops, excess pore water pressures dissipate toward a zone where water pressure is relatively lower, usually the ground surface. The dissipation is accompanied by a reconsolidation of the loose sand (Ishihara and Yoshimine, 1992). The reconsolidation is manifested at the ground surface as vertical settlement, usually termed as liquefaction-induced settlement or seismic settlement.

The potential for liquefaction-induced settlement was evaluated along the proposed project alignment. The methodologies used were developed by Yi and Andrus (2010) and Tokimatsu and Seed (1987) and are generally based on the relationship between shear wave velocity, cyclic stress ratio, corrected SPT blow counts, and volumetric strain. Using these methods,

liquefaction-induced settlement along the project alignment was estimated to vary from 0 to 4 inches within the soils observed in the explorations.

Utilities to be installed along the alignment should be designed to be flexible and capable of tolerating differential settlements resulting from the design earthquake. Some utility repair may be required after the design earthquake because of liquefaction-induced settlement. Table 5 below, shows estimates of liquefaction induced total and differential settlements at the exploration locations.

Table 5: Anticipated Liquefaction Induced Settlements for Exploration Locations

Boring	Estimated Liquefaction Induced Settlements	
	Total (Inches)	Differential (Inches)
BH-1	<1 inch	<1/2 inch/50 foot span
BH-2	<1 inch	<1/2 inch/50 foot span
BH-3	3 inches	2 inches/50 foot span
BH-4	>4 inches*	2 inches/50 foot span
ZZA-B-4	NA	NA
BH-6	NA	NA
BH-7	>3 inches*	2 inches/50 foot span
BH-8	<1 inch	<1/2 inch/50 foot span
BH-9	<1 inch	<1/2 inch/50 foot span
BH-10	<1 inch	<1/2 inch/50 foot span
BH-11	<1 inch	<1/2 inch/50 foot span

NA = Not applicable due to no predicted liquefaction.

* = Liquefiable layer likely continues beyond the base our exploration

4.2.4 Post-Liquefaction Residual Shear Strength

Residual shear strengths for the liquefiable soils along the project alignment were developed using a weighted average of the results of the Idriss (2007), Olson and Stark (2002), Idriss and Boulanger (2007) and Kramer (2008) relationships. The residual shear strengths assigned are a function of the equivalent clean sand SPT value, $(N_1)_{60cs}$, the potential for void redistribution, and the initial effective overburden stress. At locations where $(N_1)_{60cs}$ is less than 10, we anticipate that void redistribution effects could be significant, which gives an appropriate conservative estimate of residual shear strength. Our analyses indicate that liquefiable soils to possess a residual shear strength equivalent to a friction angle that varies from 6 to 11 degrees. These values were used in our post-liquefaction stability analysis for the proposed retaining walls.

4.3 RETAINING WALLS

4.3.1 General

It is our understanding that a series of fifteen retaining walls are to be constructed along the project alignment as part of the proposed improvements. These walls will consist of a combination of cut and fill walls varying from approximately 3 feet to 9 feet in maximum height. The location and arbitrary designation of each wall is indicated on the Site and Exploration Plans, Figures 2A and 2B. We understand that all the retaining walls are proposed to be constructed as reinforced Structural Earth Walls (SEW) and are recommendations are based on construction of such walls. If it is later determined that cast in place concrete or other types of wall systems are required HWA should be contacted to provide recommendations for these conditions, which were outside our initial scope of services. Table 6 presents a summary of the proposed 124th Ave NE project wall designation, anticipated wall types and approximate maximum retained height. The anticipated soil retaining systems, and wall design considerations and recommendations are discussed as below.

Table 6: Summary of Proposed Walls

Wall Designation	Wall Type	Wall Application	Anticipated Max Height (feet.)	Relevant Boring(s)	Anticipated Liquefaction Induced Differential Settlement (Inches)
1	Modular Block	Cut Wall	5	BH-2	<1/2 inch/50 foot span
2	Modular Block	Cut Wall	5	BH-1	<1/2 inch/50 foot span
3	Modular Block	Cut Wall	6	BH-1	<1/2 inch/50 foot span
4	Modular Block	Cut Wall	5	BH-2	<1/2 inch/50 foot span
5	Modular Block	Cut Wall	5	BH-1	<1/2 inch/50 foot span
6	Thickened Edge Sidewalk	Fill Wall	3	BH-2	<1/2 inch/50 foot span
7	Modular Block	Cut Wall	6	BH-9, BH-10	<1/2 inch/50 foot span
8	SEW	Fill Wall	8	BH-3, BH-4	2 inches/50 foot span
9	Modular Block	Cut Wall	5	BH-11	<1/2 inch/50 foot span
10	Modular Block	Cut Wall	5	BH-11	<1/2 inch/50 foot span

Wall Designation	Wall Type	Wall Application	Anticipated Max Height (feet.)	Relevant Boring(s)	Anticipated Liquefaction Induced Differential Settlement (Inches)
11	Modular Block	Fill Wall	5	ZZA B-4	NA
12	SEW	Fill Wall	9	BH-6	NA
13	SEW	Fill Wall	7	BH-6	NA
14	SEW	Fill Wall	8	BH-8	<1/2 inch/50 foot span
15	Modular Block	Cut Wall	4	BH-7	2 inches/50 foot span

NA = Not applicable due to no predicted liquefaction.

4.3.2 Retaining Wall Global Slope Stability

Using the computer program SLIDE 5.0, we evaluated static, pseudo-static and post-liquefaction global stability of each SEW wall. A reinforced zone extending approximately 0.8 times the maximum design height of the walls was assumed for all SEW walls. Analyses were completed utilizing site topography and wall geometry provided by Pertect. Given an embedment depth of 2 feet, factors of safety for static global stability, in excess of 1.5, the minimum required, were calculated for all SEW retaining walls.

Seismic stability was evaluated using a pseudo-static horizontal acceleration of 0.218g, which is ½ of the peak ground acceleration (PGA) associated with the 1:1033-year design earthquake for this site location, as is the standard of practice for yielding walls. From our analyses, we conclude that, under a design earthquake, a factor of safety for global stability greater than 1.1 will exist for all the walls.

Post-liquefaction stability analyses were completed for retaining walls where liquefaction is expected to occur. As liquefaction is expected to occur near the end of earthquake shaking, post-liquefaction stability analyses were computed using residual shear strengths for the liquefiable soils and static loading conditions. Factors of safety greater than 1.1 were calculated for all walls.

4.3.3 Structural Earth Walls (SEW) and Gravity Block Walls

We understand that Structural Earth Wall (SEW) and Gravity Block Wall systems are desirable at the location of all proposed retaining walls along the project alignment.

We anticipate that the proposed SEW and gravity block walls will consist of a proprietary wall system and that the wall supplier will design the wall for internal stability. The walls should be designed in accordance with AASHTO Standard Specifications for Highway and Bridges. We

recommend the walls be designed using the parameters presented in Table 7. We understand the design for these walls will be performed using Load and Resistance Factor Design (LRFD). Appropriate AASHTO resistance factors should be used for design of all retaining walls. The wall should be designed to accommodate a differential settlement of ½-inches over 50-feet of wall length for static conditions, and liquefaction induced settlement in accordance with Tables 5 in Sections 4.2.3 of this report.

Table 7: Recommended Design Parameters for SEW and Gravity Block Walls

Soil Properties	Reinforced Soil (Fill Walls)	Retained Soil (Cut Walls)	Foundation Soil
Unit Weight (pcf)	135	120	120
Friction Angle (deg)	36	30	30
Cohesion (psf)	0	0	0
		AASHTO Load Group I (EP+LL)	AASHTO Load Group VII (EP+EQ)
Ultimate Bearing Resistance (ksf)		3.0	3.0
Acceleration Coefficient (g)		N/A	0.22

A coefficient of friction of 0.5 times the effective stress at the base of the wall can be used for sliding resistance if walls are founded on at least 12 inches of crushed aggregate. We recommend the wall be embedded at least 2 feet below the finished grade below the wall.

Proper wall construction and drainage is essential to prevent premature failure of the wall system. We recommend the bottom course of blocks be placed on a 1-foot-thick leveling pad consisting of crushed surfacing base course (CSBC) compacted to 95 percent of Modified Proctor maximum dry density, as determined by ASTM D 1557. This leveling pad should be at least 12 inches thick and graded to establish the proper wall batter.

We recommend SEW and gravity block walls be backfilled with Gravel Borrow, as specified in Section 9-03.14(1) of WSDOT Standard Specifications. We recommend all backfill material within the reinforced zone consist of Gravel Borrow for SEW walls, as specified in Section 9-03.14(4) of WSDOT Standard Specifications. A 6-inch-diameter perforated drain pipe should be installed to convey all collected water from behind the wall. The pipe should be installed with at least 4 inches of drain rock on all sides with the pipe and rock with the pipe and rock then wrapped in nonwoven geotextile fabric such as Mirafi®140N, or equivalent. The drain pipe should be sloped to drain and routed to an appropriate discharge location.

4.3.4 Fill Walls Elastic Settlement

Evidence shows that the underlying loose to medium dense alluvial soils can undergo settlements as a result of loading applied by backfill material of structural earth walls. Elastic settlement is the vertical component of soil compression under static loading. These settlements occur relatively rapidly within one to two weeks of application of load and are dependent on the elastic/plastic properties of the soil underlying the proposed fill walls. Loose to medium dense soils generally undergo larger settlements than denser glacially consolidated soils. For all practical purposes, the dense glacial till soils underlying the alignment are considered elastically incompressible under the loading of the proposed fill walls. However, the loose fill, and alluvial soils, will undergo elastic/plastic settlements under increased static loading. Settlement will be larger where fine-grained silt layers are interbedded within the alluvial sand layers. Our analyses indicate that the settlement under static loading for the proposed walls indicates static settlements less than 1 inch with differential settlements on the order of ½ inch over a 50 foot span of wall. Note that the static settlements are in addition to the liquefaction induced settlement as shown in Table 5 of Section 4.2.3 of this report.

4.3.5 Wall Subgrade Preparation

Subgrade preparation is important to limit differential settlement of walls and maintain global stability. All organic material should be removed from beneath the entire footprint of all the walls. Loose or soft soil should be determined by the geotechnical engineer or their representative during construction and should be removed and replaced with “Structural Backfill” or be reworked and properly compacted as “Structural Backfill”.

All areas on which the wall will bear should be graded level perpendicular to the wall face and compacted in accordance with Section 2-03.3(14)D of the WSDOT Standard Specifications (WSDOT, 2023).

We recommend an HWA geotechnical engineer, or their representative, be present during construction to verify the assumptions made for the foundations of the walls are met. The depth and extent of excavation will be directed by the geotechnical engineer on site.

4.3.6 Backfill Wall Benching

Where fill is placed against existing side slopes, horizontal benches should be cut to facilitate compaction of the new wall backfill. Horizontal benches should be at least 5 feet wide or the width of the compaction equipment, whichever is wider. Fill against an existing slope will require benched cuts as outlined in Section 2-03.3(14) of the WSDOT Standard Specifications (WSDOT, 2023), Embankment Construction. All embankment benching should comply with OSHA temporary cut slope requirements discussed in Section 4.8.4.

4.4 SIGNAL POLES

We understand that traffic signals upgrades are proposed for the NE 120th Street, and Totem Lake Square II driveway entrance intersections with 124th Avenue NE. We understand all signals will consist of a cantilever signal pole conforming to the WSDOT Standard Plans. For Standard Plan foundation design, required signal standard foundation depths and diameters will be a function of the total “XYZ” value of each mast arm, and the allowable lateral bearing stress of the surrounding soil. Table 8 provides recommended allowable lateral bearing pressures for each intersection. Prospective contractors should be prepared to case the signal foundation excavations to prevent caving of fill and native soils due to near-surface perched water zones.

Table 8: Recommended Allowable Lateral Bearing Capacity for Signal Pole Foundation

Subject Intersection	Allowable Lateral Bearing Pressure (psf)	Relevant Boring(s)
NE 120 th Street	1500	B-4
Totem Lake Square II driveway	1500	BH-3

4.5 LUMINAIRES

HWA anticipated WSDOT Standard Plans for construction of luminaire foundations will be applicable along the project alignment. Table 9 provides recommended allowable lateral bearing pressures for foundation design of luminaries along the project alignment. These recommendations are based under the assumption of consistent subgrade soil conditions between the widely spaced borings. HWA recommends having a geotechnical engineer observe and evaluate consistency of subgrade soil conditions during the excavation of each luminaire foundation to assure the validity of foundation recommendations provided herein. Prospective contractors should be prepared to case the signal foundation excavations to prevent caving of fill and native soils due to near-surface perched water zones.

Table 9: Recommended Allowable Lateral Bearing Capacity for Luminaire Foundation

Luminaire Location		Side of the Road	Allowable Lateral Bearing Pressure (psf)	Relevant Borings
From Station	To Station			
20+50	25+00	East and West	1000	BH-1
23+00	29+00	West	1500	BH-2, & BH-3
23+00	29+00	East	1000	BH-9, BH-10,
29+00	32+00	East and West	1000	BH-4, BH-11

Luminaire Location		Side of the Road	Allowable Lateral Bearing Pressure (psf)	Relevant Borings
From Station	To Station			
32+00	37+50	East and West	1500	ZZA B-4, BH-6, BH-7 & BH-8

4.6 STORMWATER MANAGEMENT

The increased stormwater associated with the proposed project will necessitate upgraded stormwater management facilities. It is our understanding that the City of Kirkland would like to utilize onsite infiltration as a means of stormwater management.

Preliminary infiltration screening, based on Phase 2 explorations, indicates that the subsurface soils along the alignment possess variable infiltration potential. Where glacial till soils were encountered near the ground surface, high levels of perched water limit the depth of infiltration facilities. Loose to medium dense fill and alluvium soils encountered in borings BH-3 and BH-4, drilled on the west side of the alignment, suggested that infiltration would be feasible in the vicinity of these boring from about STA 26+50 to 31+00. Based on the results of the Phase 2 infiltration screening, an infiltration gallery was proposed as a means of stormwater management along the eastern edge of the alignment, as shown in Figure 2A and 2B.

Phase 3 explorations were conducted along the alignment of the proposed infiltration gallery to verify the subgrade conditions and determine the design infiltration rate. Upon completion of the Phase 3 explorations, it was determined that very dense glacial till soils and perched groundwater are present near the ground surface along the length of the proposed infiltration gallery. This suggests that the very dense glacial till soils are shallow on the eastern side of the roadway and dip to a depth below the termination depth of the exploration conducted, as part of the phase 2 explorations, on the west side of the roadway.

The shallow depth to perched groundwater, along the proposed facility alignment, does not provide required separation between the base of the proposed facility and the seasonal high groundwater level. Therefore, the use of onsite infiltration is not feasible at the location shown in Figures 2A and 2B.

The potential to relocate the infiltration facility to the western side of the road was evaluated. However, based on the subsurface geometry of the relatively impermeable glacial till soils, stormwater infiltrated along the western side of the roadway would be expected to flow to the west. Westward flow of infiltrated stormwater would be expected to negatively affect future development of adjacent private properties. Due to this potential, we would not recommend relocating the proposed infiltration facility to the western side of the roadway. Therefore, due to subsurface soil, groundwater, and adjacent property constraints, we do not recommend the use onsite infiltration as a means of stormwater management for this project.

As the site is not conducive for onsite infiltration as a means of stormwater management, we expect increased stormwater will be addressed using stormwater detention facilities.

4.7 GENERAL EARTHWORK

4.7.1 Structural Fill

Structural fill should consist of clean, free-draining, granular soils free from organic matter or other deleterious materials. Such materials should be less than 4 inches in maximum particle dimension, with less than 7 percent fines (portion passing the U.S. Standard No. 200 sieve), as specified for “Gravel Borrow” in Section 9-03.14(1) of the *WSDOT Standard Specifications* (WSDOT, 2023). The fine-grained portion of structural fill soils should be non-plastic. Fill material having a fines content greater than 7 percent may be acceptable for structural fill if the earthwork is performed during relatively dry weather and the contractor’s methods achieve proper compaction of the soil. Material with a fines content greater than 7 percent should be approved by the project engineer prior to use. In general, the alluvial deposits that are classified as sand with varying amounts of silt and gravel may be reused as structural fill during the dry summer months if meeting the above described requirements and approved by the project engineer. We would not recommend the reuse of native glacial till soils as structural fill due to the high fines content a moisture sensitivity.

4.7.2 Compaction

Structural fill soils should be moisture conditioned and compacted to the requirements specified in Section 2-03.3(14)C, Method C, of the *WSDOT Standard Specifications* (WSDOT, 2023); except the standard of compaction achieved shall not be less than 95% of the maximum dry density (MDD) determined for the fill material by test method ASTM D1557 (Modified Proctor). Subgrade compaction in roadbed areas should conform to the requirements of Section 2-06.3(1) of the *WSDOT Standard Specifications*.

Achievement of proper density of a compacted fill depends on the size and type of compaction equipment, the number of passes, thickness of the layer being compacted, and soil moisture-density properties. In areas where limited space restricts the use of heavy equipment, smaller equipment can be used, but the soil must be placed in thin enough layers to achieve the required relative compaction. Generally, loosely compacted soils result from poor construction technique and/or improper moisture content. Soils with high fines contents are particularly susceptible to becoming too wet, and coarse-grained materials easily become too dry, for proper compaction.

4.7.3 Wet Weather Earthwork

General recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. These recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation of unsuitable and/or softened soil should be followed promptly by placement and compaction of clean structural fill. The size and type of construction equipment used may need to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic.
- For wet weather conditions, the allowable fines content of the structural fill should be reduced to no more than 5 percent by weight of the portion of the fill material passing the 3/4-inch sieve. The fines should be non-plastic. It should be noted this is an additional restriction on the structural fill materials specified.
- The ground surface within the construction area should be graded to promote surface water run-off and to prevent ponding.
- Within the construction area, the ground surface should be sealed on completion of each shift by a smooth drum vibratory roller, or equivalent, and under no circumstances should soil be left uncompacted and exposed to moisture infiltration.
- Bales of straw and/or geotextile silt fences should be strategically located to control erosion and the movement of soil.

4.7.4 Temporary Excavations

Maintenance of safe working conditions, including temporary excavation stability, is the responsibility of the contractor. In accordance with Part N of Washington Administrative Code (WAC) 296-155, latest revisions, all temporary cuts in excess of 4 feet in height must be either sloped or shored prior to entry by personnel. The existing near surface fill and alluvial soils are generally classified as Type C soils per WAC 296-155. Where shoring is not used, temporary cuts in Type C soils should be sloped no steeper than 1½H:1V.

5. CONDITIONS AND LIMITATIONS

We have prepared this preliminary report for the City of Kirkland and Perteet, Inc. for use in design of portions of this project. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as our warranty of the subsurface conditions. Experience has shown that soil and ground water conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations and may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

May 12, 2023
HWA Project No. 2018-002-21

We recommend HWA be retained to review the plans and specifications to verify that our recommendations have been interpreted and implemented as intended. Sufficient geotechnical monitoring, testing, and consultation should be provided during construction to confirm the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or ground water at this site.

HWA does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and cannot be responsible for the safety of personnel other than our own on the site. As such, the safety of others is the responsibility of the contractor(s). The contractor(s) should notify the owner if it is considered that any of the recommended actions presented herein are unsafe.



We appreciate the opportunity to provide geotechnical services on this project. Should you have any questions or comments, or if we may be of further service, please do not hesitate to call.

Sincerely,

HWA GEOSCIENCES INC.



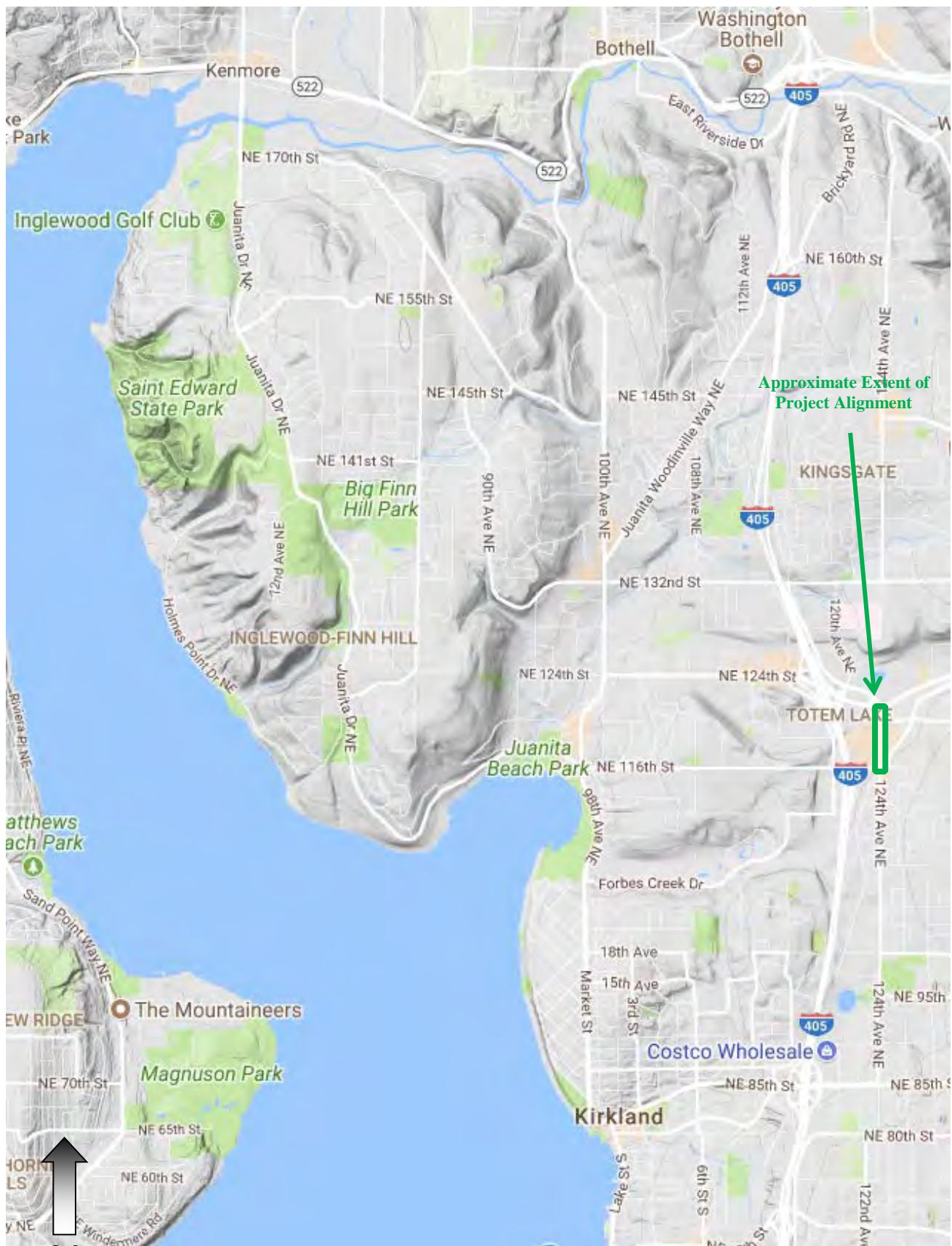
5/12/2023

Donald J. Huling, P.E.
Geotechnical Engineer, Principal

6. REFERENCES

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MAP NOT TO SCALE

BASE MAP FROM GOOGLE MAPS DATA © 2018 GOOGLE

SITE VICINITY MAP

FIGURE NO.

1

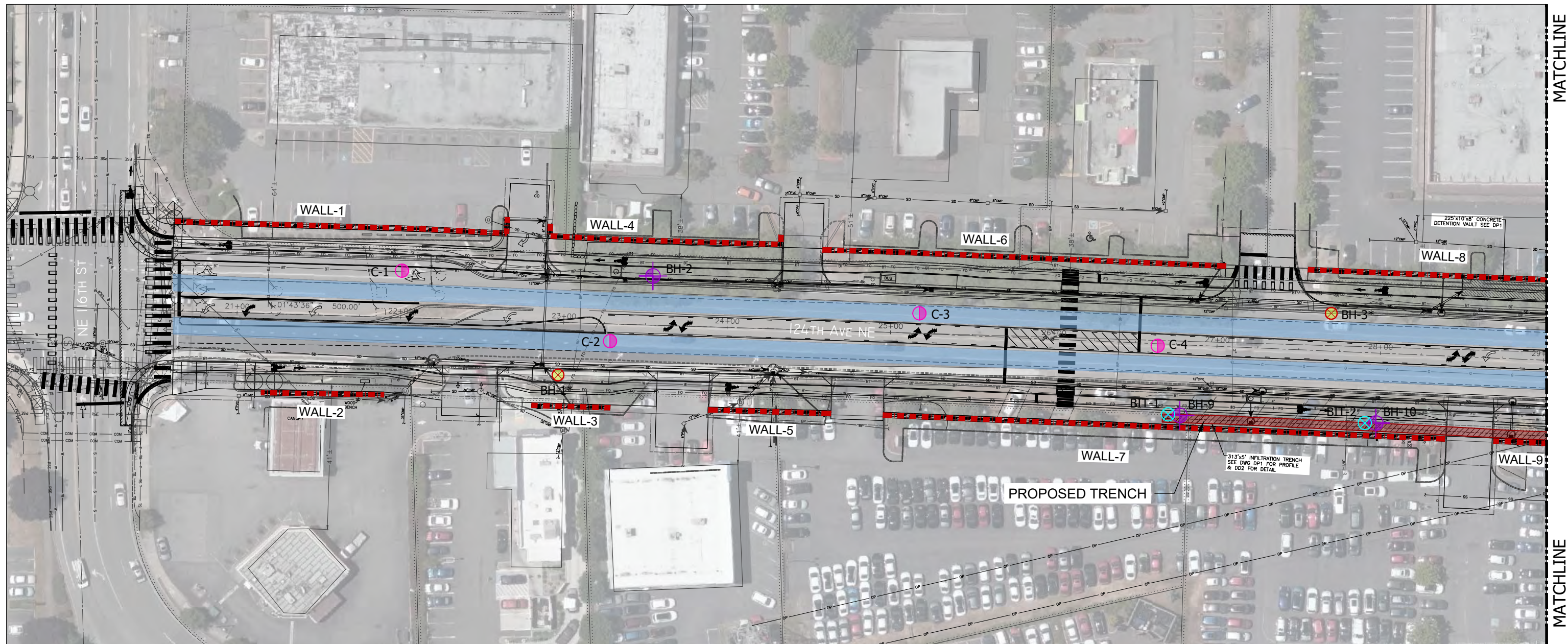
PROJECT NO.

2018-002-21



HWA GEOSCIENCES INC.

124TH AVE NE IMPROVEMENTS
KIRKLAND, WASHINGTON

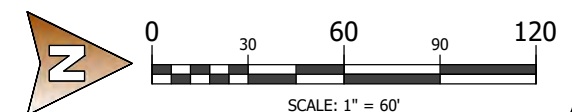


EXPLORATION LEGEND

- APPROXIMATE LIMITS OF FWD TESTING
- APPROXIMATE LOCATION AND DESIGNATION OF THE PROPOSED RETAINING WALLS
WALL-7
- APPROXIMATE LOCATION AND DESIGNATION OF THE PROPOSED TRENCH
- APPROXIMATE LOCATION AND DESIGNATION OF THE BOREHOLE INFILTRATION TEST WELL
- APPROXIMATE LOCATION AND DESIGNATION OF THE CORES
- APPROXIMATE LOCATION AND DESIGNATION OF THE GEOTECHNICAL BORINGS
- APPROXIMATE LOCATION AND DESIGNATION OF THE GEOTECHNICAL BORINGS WITH GROUND WATER MONITORING PIEZOMETER

124TH AVE NE ROADWAY IMPROVEMENTS

Scale: 1" = 60'-0"



124th AVE NE IMPROVEMENTS
KIRKLAND, WASHINGTON

SITE &
EXPLORATION PLAN

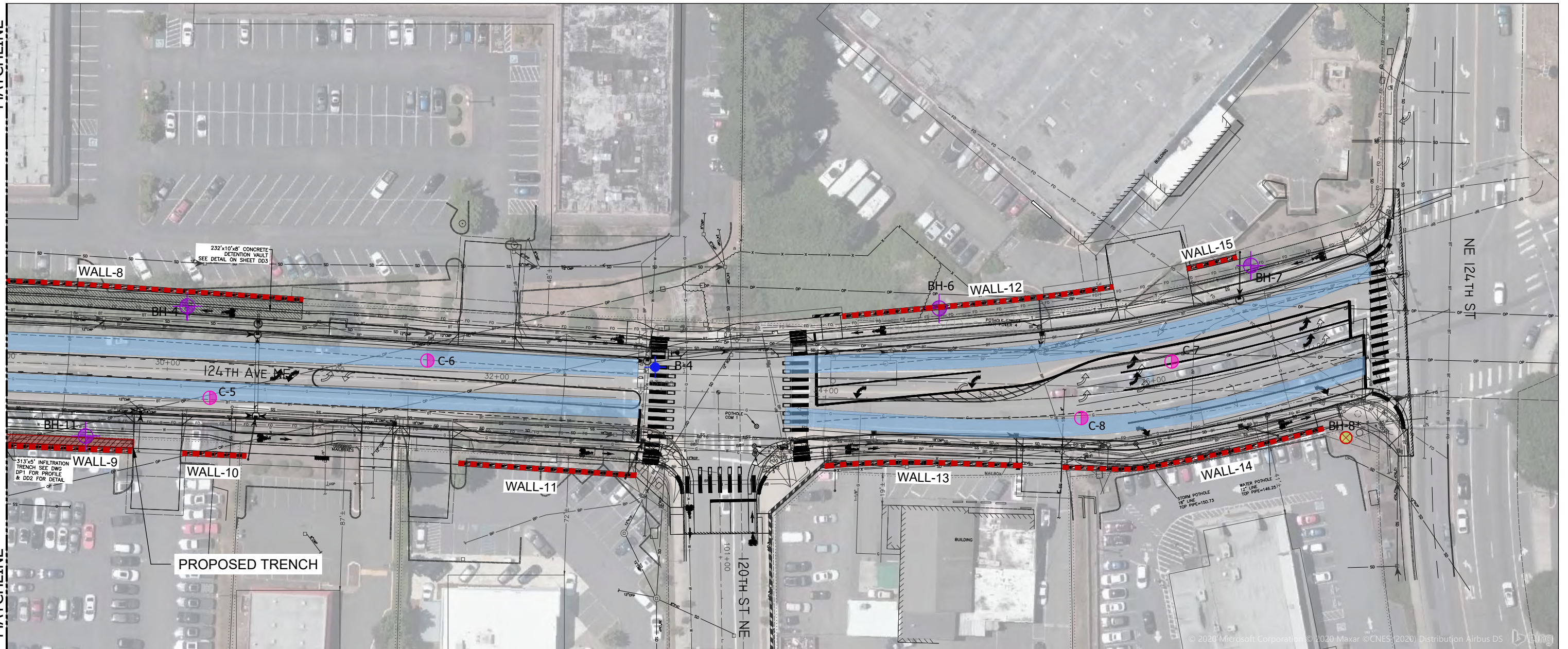
DRAWN BY:	FIGURE NO.:
BFM	2A
CHECK BY:	PROJECT NO.:
DH/AS	2018-002-21

BASE MAP PROVIDED BY: PERTEET 2020

C:\USERS\CFRY\Desktop\2018-002-21 124TH AVE NE ROADWAY IMPROVEMENT\2020-06-04_60% PLANS AND FILES\2018-002-21 124TH AVE NE ROADWAY IMPROVEMENT FIG 2.DWG <2A> Plotted: 9/8/2020 4:56 PM

MATCHLINE

MATCHLINE

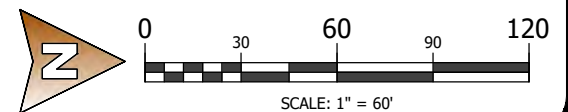


EXPLORATION LEGEND

- APPROXIMATE LIMITS OF FWD TESTING
- APPROXIMATE LOCATION AND DESIGNATION OF THE PROPOSED RETAINING WALLS
- APPROXIMATE LOCATION AND DESIGNATION OF THE PROPOSED TRENCH
- APPROXIMATE LOCATION AND DESIGNATION OF THE CORES
- APPROXIMATE LOCATION AND DESIGNATION OF THE GEOTECHNICAL BORINGS
- APPROXIMATE LOCATION AND DESIGNATION OF THE GEOTECHNICAL BORINGS WITH GROUND WATER MONITORING PIEZOMETER
- APPROXIMATE LOCATION AND DESIGNATION OF THE GEOTECHNICAL BORINGS (ZZA, AUG 2007)

124TH AVE NE ROADWAY IMPROVEMENTS

Scale: 1" = 60'-0"



124th AVE NE IMPROVEMENTS
KIRKLAND, WASHINGTON

SITE &
EXPLORATION PLAN

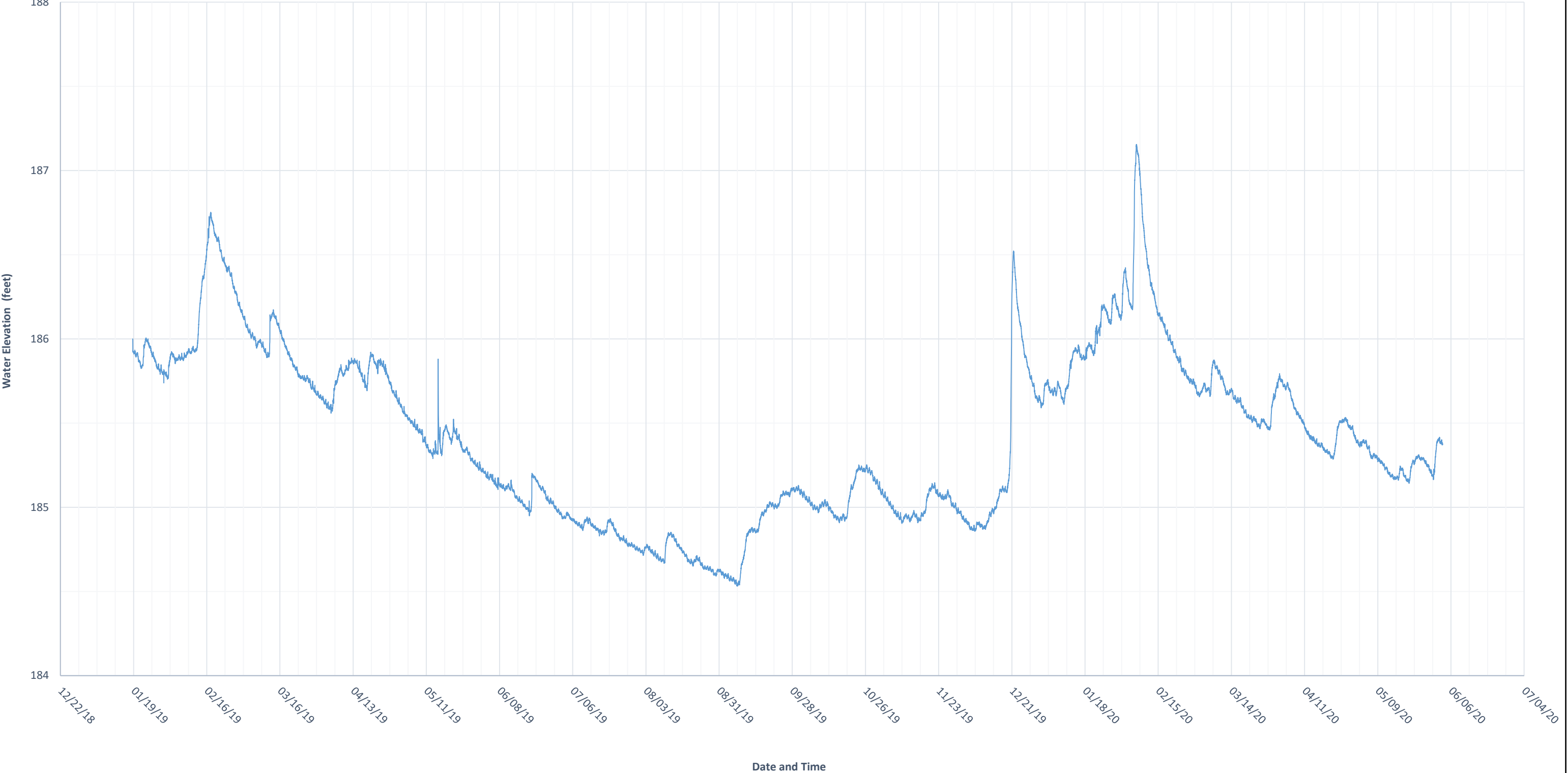
DRAWN BY:	FIGURE NO.:
BFM	2B
CHECK BY:	PROJECT NO.:
DH/AS	2018-002-21

BASE MAP PROVIDED BY: PERTEET 2020

C:\USERS\CFRY\DESKTOP\2018-002-21 124TH AVE NE ROADWAY IMPROVEMENT\2020-06-04_60% PLANS AND FILES\2018-002-21 124TH AVE NE ROADWAY IMPROVEMENT FIG 2.DWG <2B> Plotted: 9/8/2020 4:57 PM

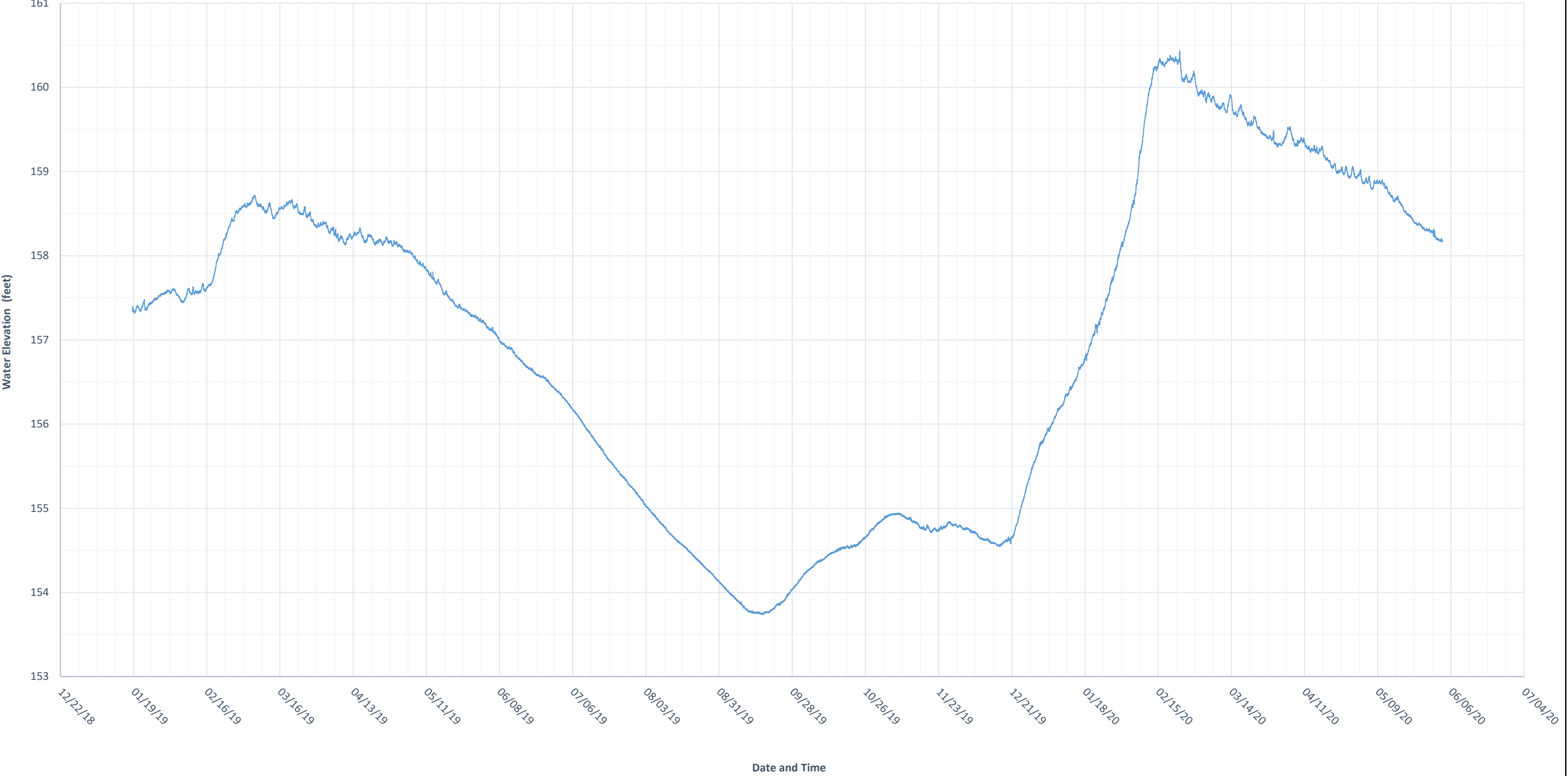
BH-1 Water Elevation from January 01, 2019 to June 02, 2020

*water elevation based on approximate well surface elevation of 194 feet.



BH-3 Water Elevation from January 01, 2019 to June 02, 2020

*water elevation based on approximate well surface elevation of 173 feet.



BH-8 Water Elevation from January 01, 2019 to June 02, 2020

*water elevation based on approximate well surface elevation of 147 feet.

















APPENDIX A

HWA EXPLORATION LOGS

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

ASTM SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS			
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)		GW	Well-graded GRAVEL	
				GP	Poorly-graded GRAVEL	
	More than 50% of Coarse Fraction Retained on No. 4 Sieve	Gravel with Fines (appreciable amount of fines)		GM	Silty GRAVEL	
				GC	Clayey GRAVEL	
	Sand and Sandy Soils	Clean Sand (little or no fines)		SW	Well-graded SAND	
				SP	Poorly-graded SAND	
		50% or More of Coarse Fraction Passing No. 4 Sieve	Sand with Fines (appreciable amount of fines)		SM	Silty SAND
					SC	Clayey SAND
Fine Grained Soils	Silt and Clay	Liquid Limit Less than 50%		ML	SILT	
				CL	Lean CLAY	
				OL	Organic SILT/Organic CLAY	
	Silt and Clay	Liquid Limit 50% or More		MH	Elastic SILT	
				CH	Fat CLAY	
				OH	Organic SILT/Organic CLAY	
Highly Organic Soils				PT	PEAT	

COMPONENT DEFINITIONS

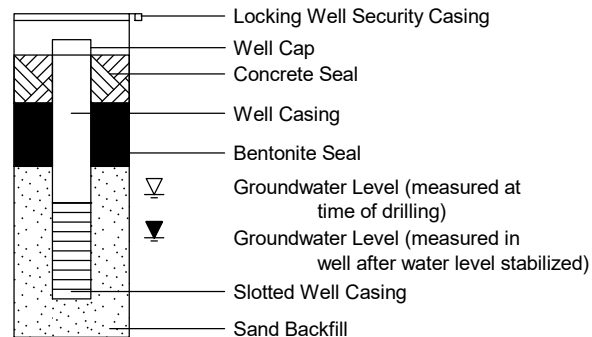
COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation in general accordance with ASTM D 2487 and ASTM D 2488. Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

GROUNDWATER WELL COMPLETIONS










MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.

TEST SYMBOLS

GS	Grain Size Distribution
%F	Percent Fines
CN	Consolidation
TX	Triaxial Compression
UC	Unconfined Compression
DS	Direct Shear
M	Resilient Modulus
PP	Pocket Penetrometer
	Approx. Compressive Strength (tsf)
TV	Torvane
	Approximate Shear Strength (tsf)
CBR	California Bearing Ratio
MD	Moisture/Density Relationship
PID	Photoionization Device Reading
AL	Atterberg Limits: PL Plastic Limit LL Liquid Limit

SAMPLE TYPE SYMBOLS

	2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
	Shelby Tube
	3.0" OD Split Spoon with Brass Rings
	Small Bag Sample
	Large Bag (Bulk) Sample
	Core Run
	Non-standard Penetration Test (with split spoon sampler)

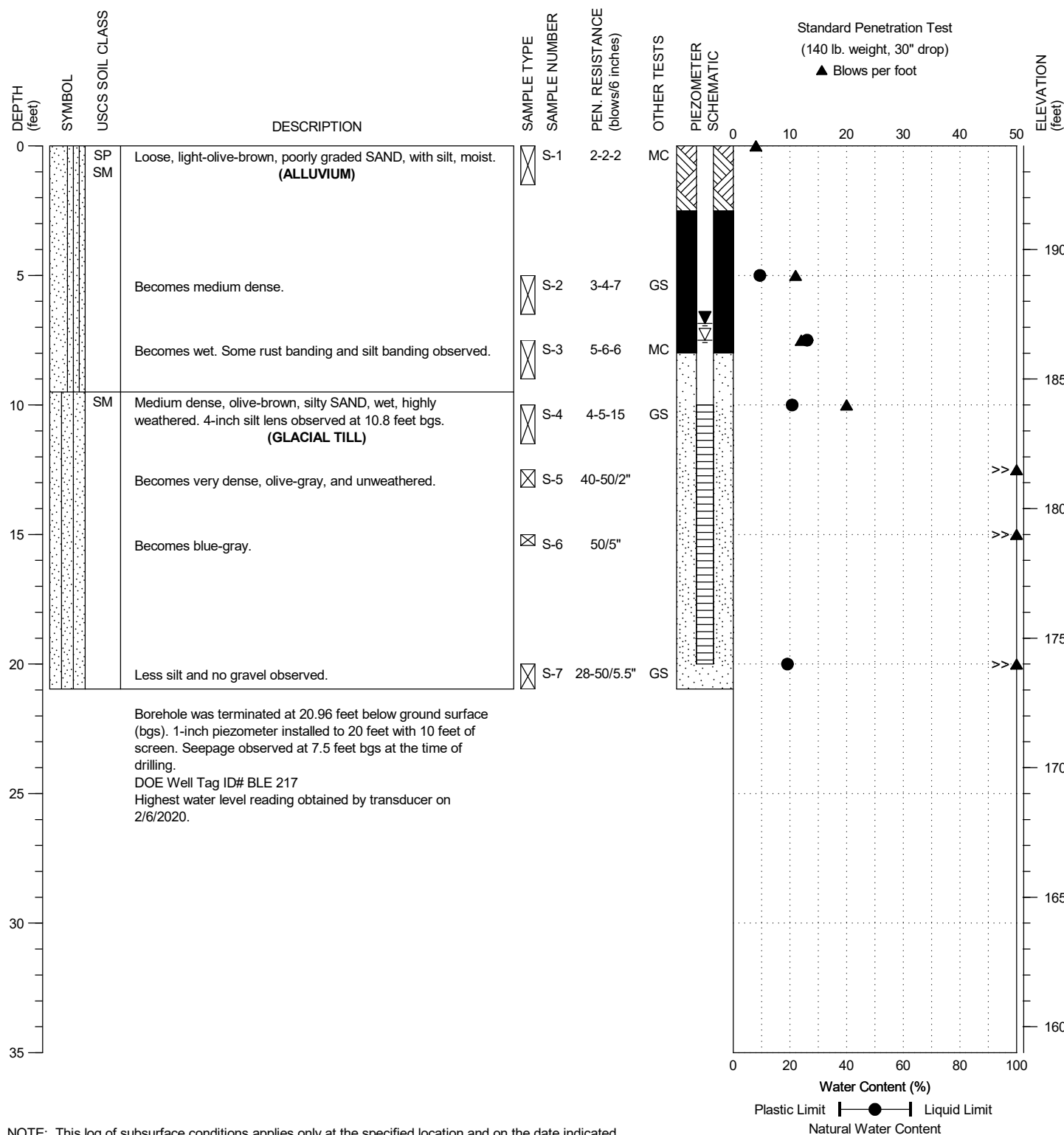
COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Clean	< 5%
Slightly (Clayey, Silty, Sandy)	5 - 12%
Clayey, Silty, Sandy, Gravelly	12 - 30%
Very (Clayey, Silty, Sandy, Gravelly)	30 - 50%

LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

DRILLING COMPANY: Gregory Drilling Inc.
 DRILLING METHOD: LAR Track Rig, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 1/15/2019
 DATE COMPLETED: 1/15/2019
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 194.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-1

PAGE: 1 of 1

GEOSCIENCES INC.

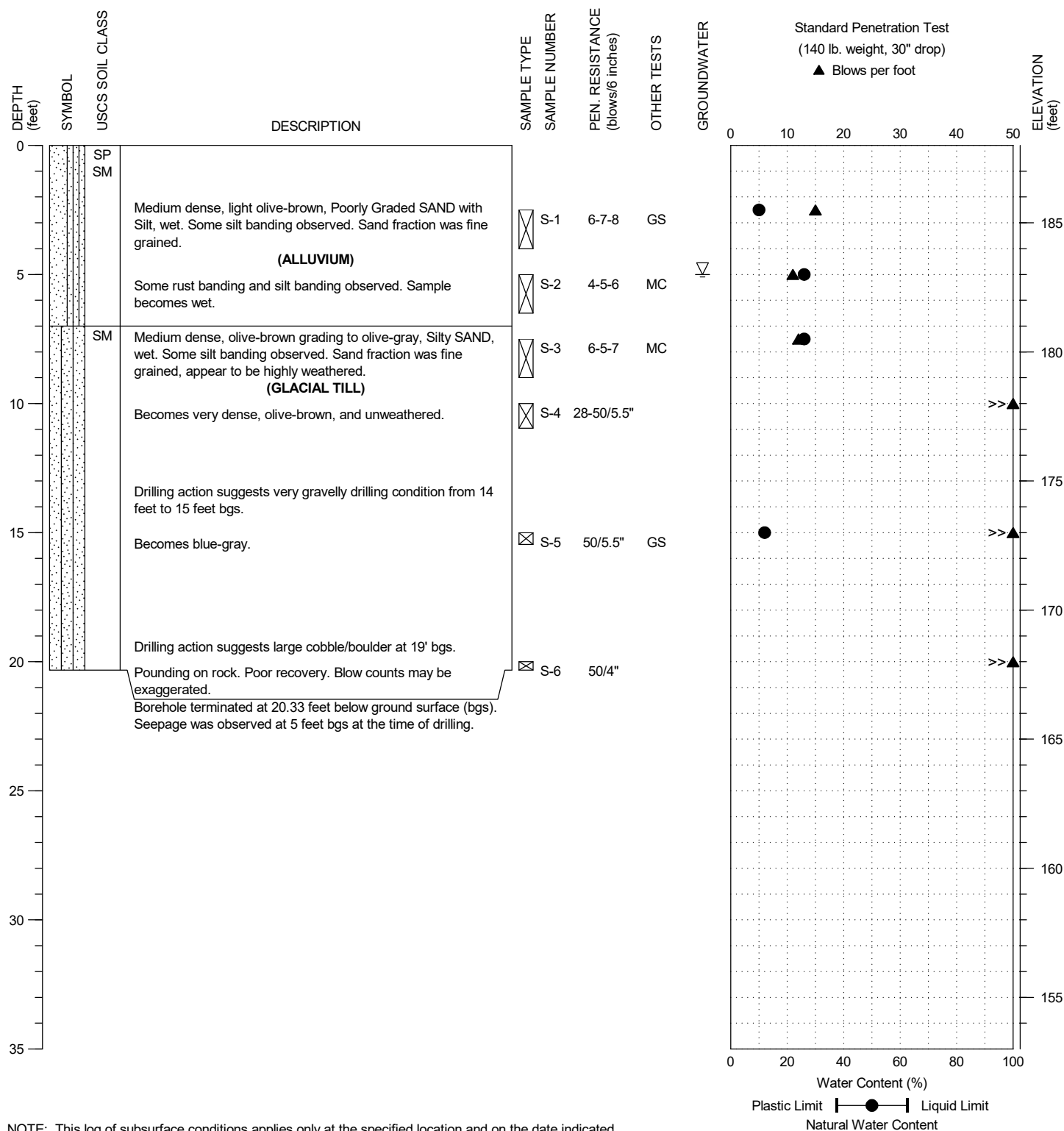
PROJECT NO.: 2018-002-21

FIGURE:

A-2

DRILLING COMPANY: Gregory Drilling Inc.
 DRILLING METHOD: LAR Track Rig, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 1/15/2019
 DATE COMPLETED: 1/15/2019
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 188.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-2

PAGE: 1 of 1

GEO SCIENCES INC.

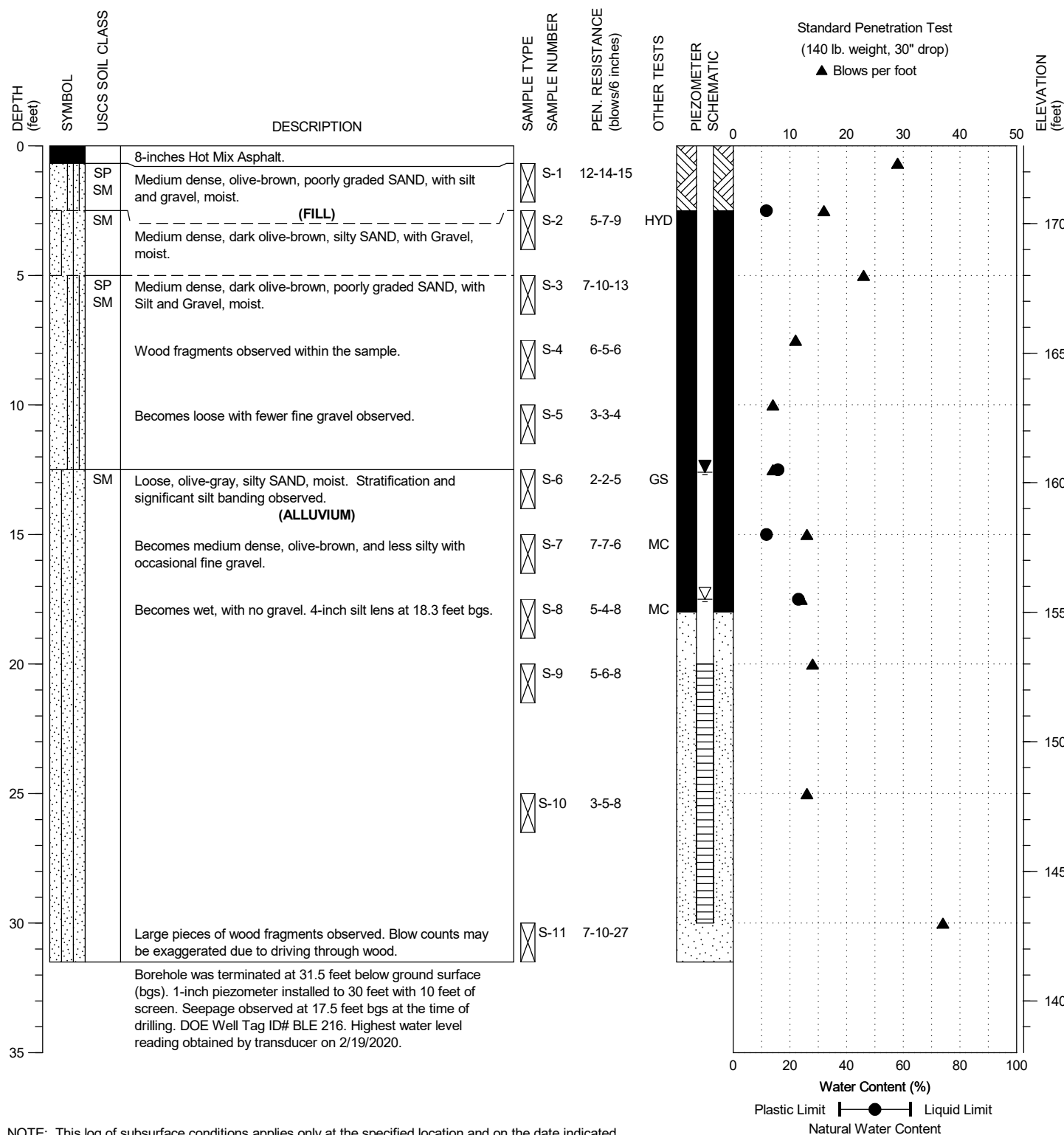
PROJECT NO.: 2018-002-21

FIGURE:

A-3

DRILLING COMPANY: Gregory Drilling Inc.
 DRILLING METHOD: LAR Track Rig, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 1/14/2019
 DATE COMPLETED: 1/14/2019
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 173.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-3

PAGE: 1 of 1

GEO SCIENCES INC.

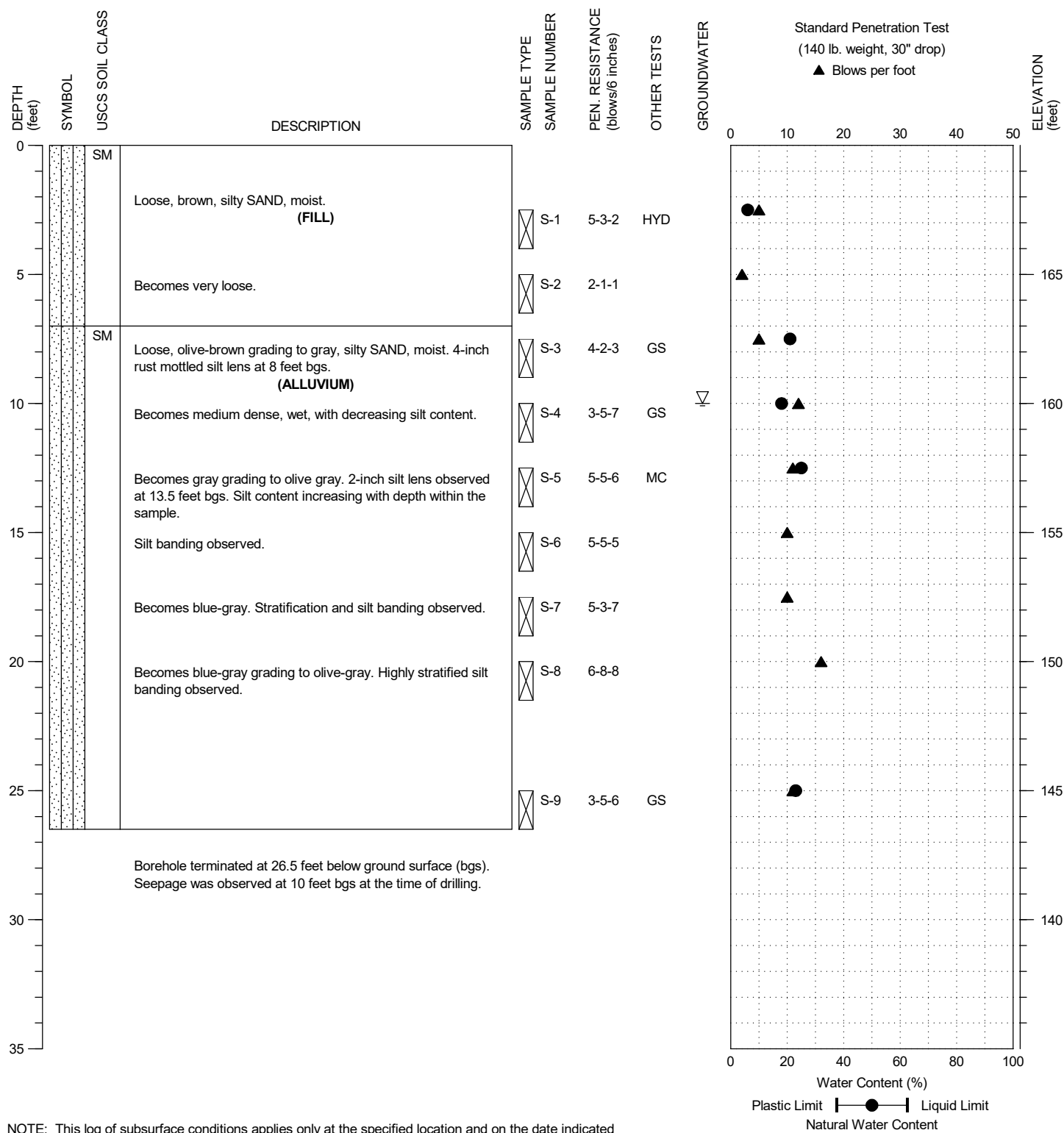
PROJECT NO.: 2018-002-21

FIGURE:

A-4

DRILLING COMPANY: Gregory Drilling Inc.
 DRILLING METHOD: LAR Track Rig, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 1/14/2019
 DATE COMPLETED: 1/14/2019
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 170.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-4

PAGE: 1 of 1

GEO SCIENCES INC.

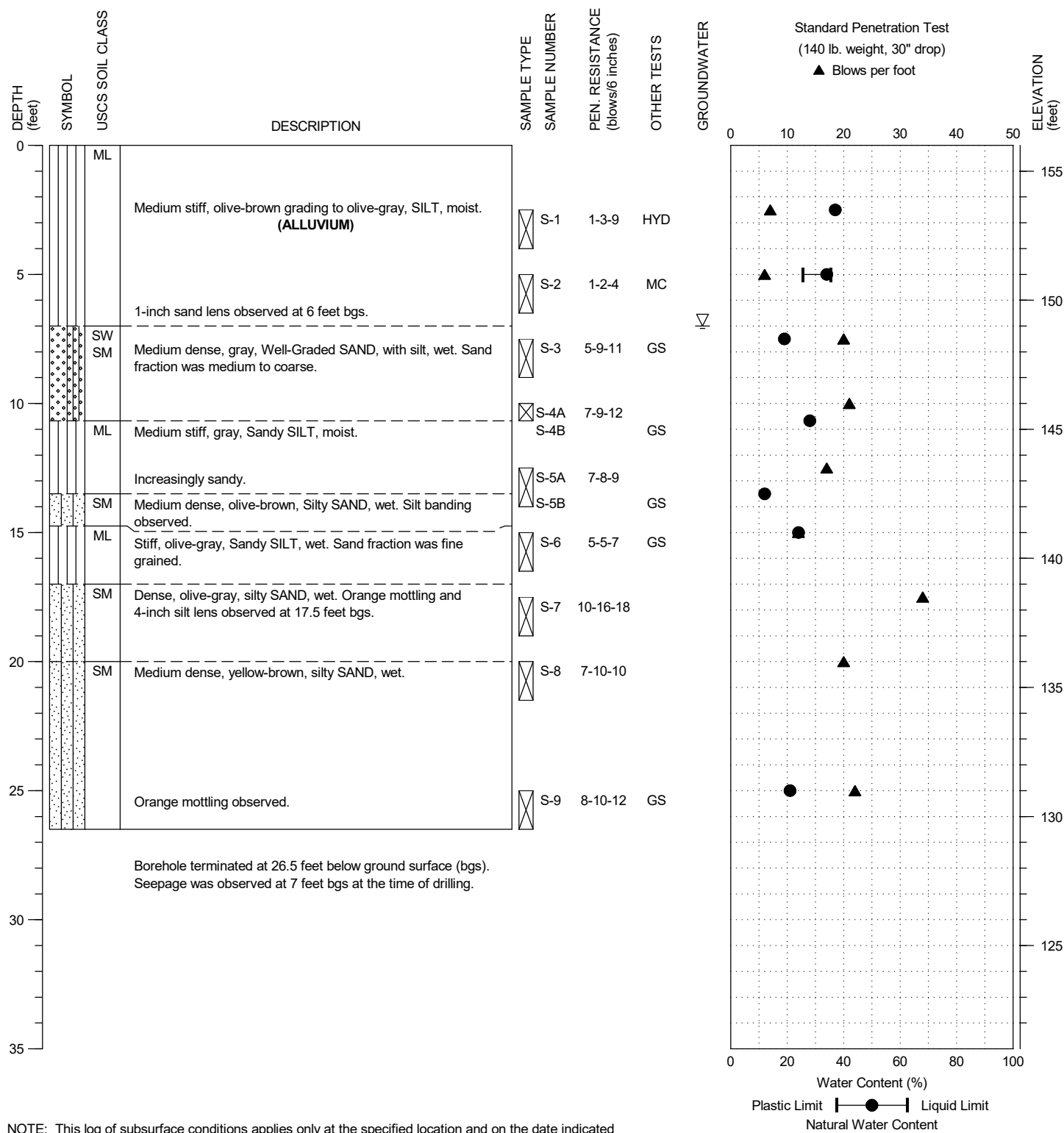
PROJECT NO.: 2018-002-21

FIGURE:

A-5

DRILLING COMPANY: Gregory Drilling Inc.
 DRILLING METHOD: LAR Track Rig, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 1/13/2019
 DATE COMPLETED: 1/13/2019
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 156.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-6

PAGE: 1 of 1

GEO SCIENCES INC.

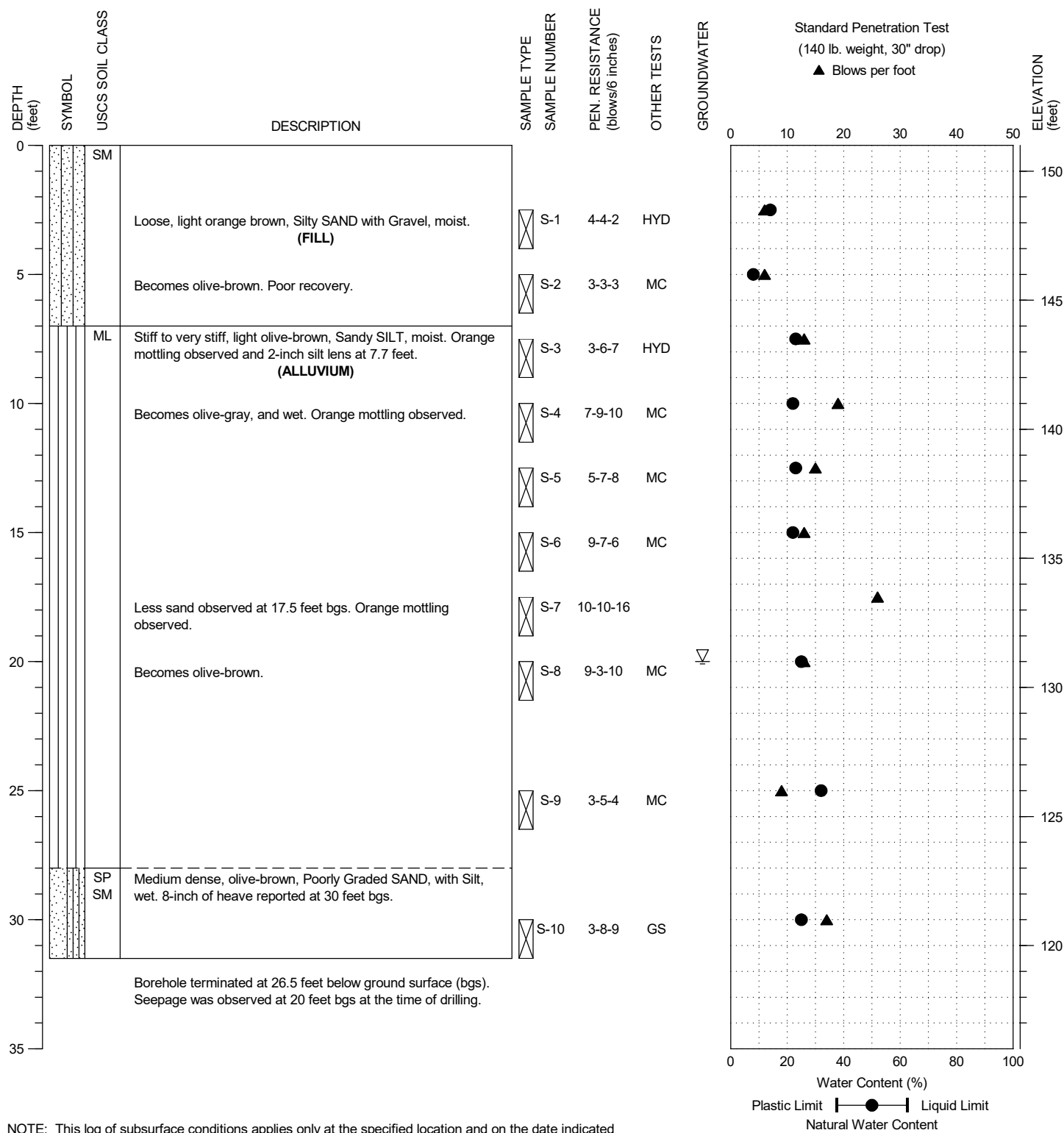
PROJECT NO.: 2018-002-21

FIGURE:

A-6

DRILLING COMPANY: Gregory Drilling Inc.
 DRILLING METHOD: LAR Track Rig, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 1/13/2019
 DATE COMPLETED: 1/13/2019
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 151.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-7

PAGE: 1 of 1

GEO SCIENCES INC.

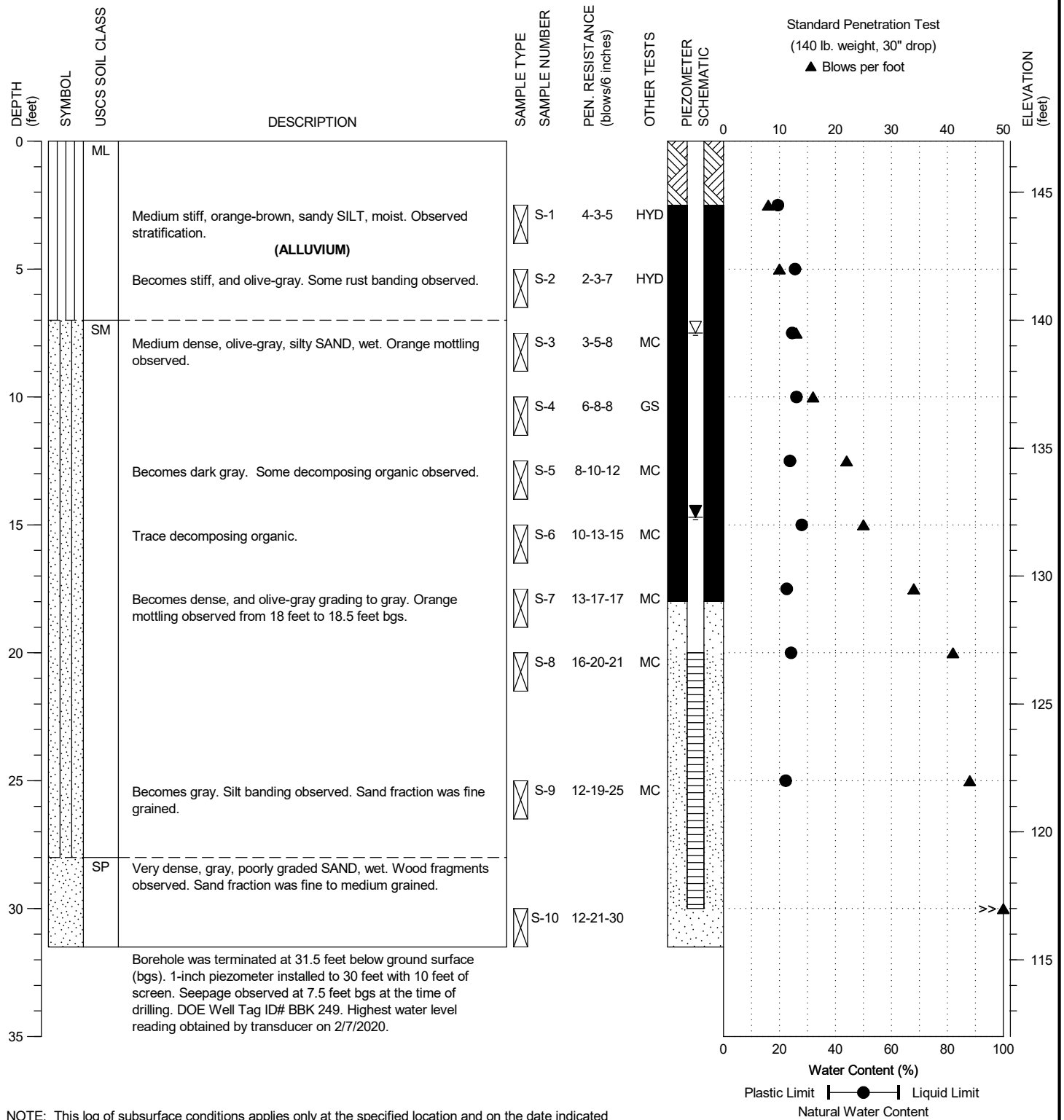
PROJECT NO.: 2018-002-21

FIGURE:

A-7

DRILLING COMPANY: Gregory Drilling Inc.
 DRILLING METHOD: LAR Track Rig, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 1/13/2019
 DATE COMPLETED: 1/13/2019
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 147.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-8

PAGE: 1 of 1

GEO SCIENCES INC.

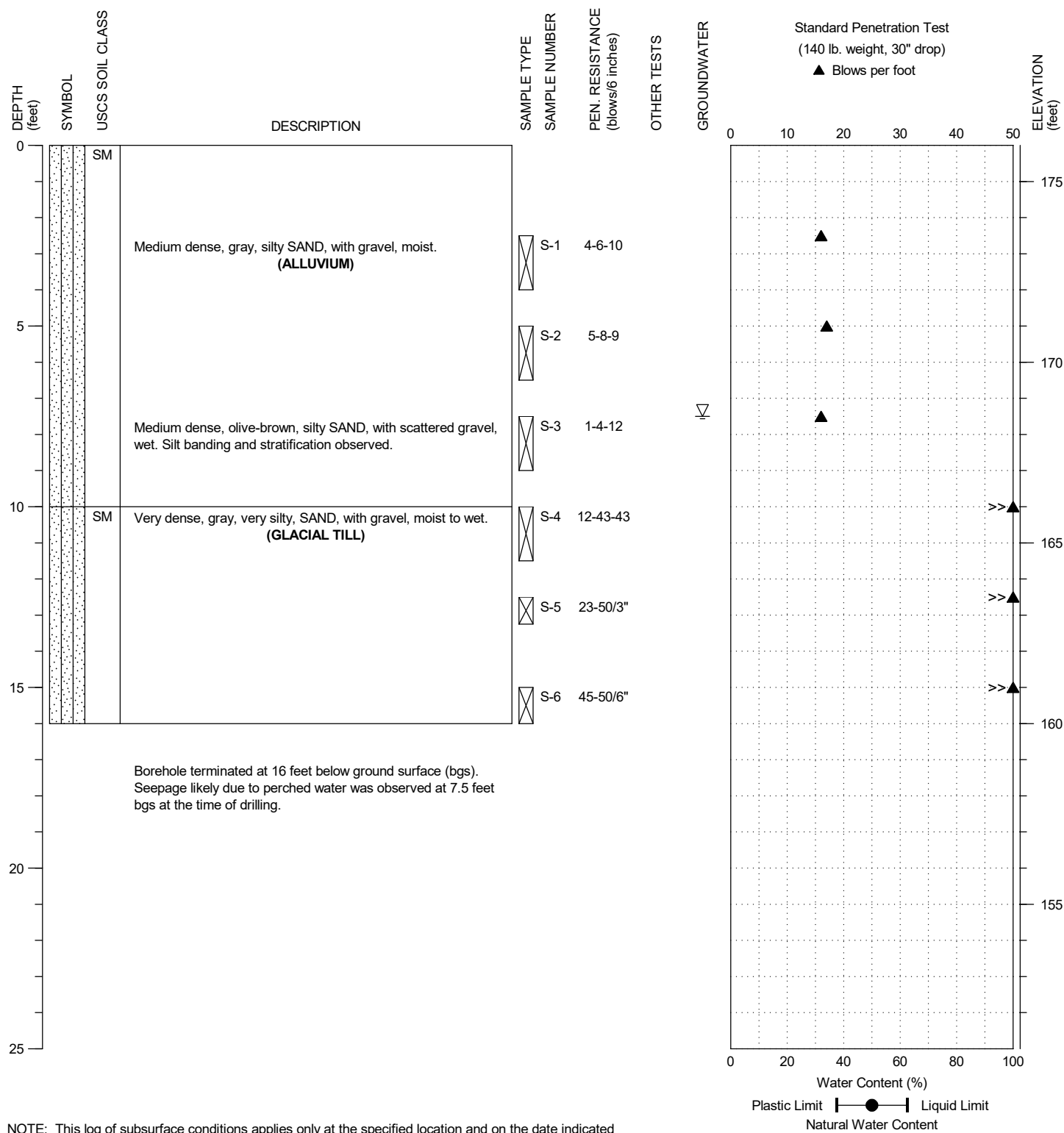
PROJECT NO.: 2018-002-21

FIGURE:

A-8

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: Diedrich D70, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 8/3/2020
 DATE COMPLETED: 8/3/2020
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 176.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-9

PAGE: 1 of 1

GEOSCIENCES INC.

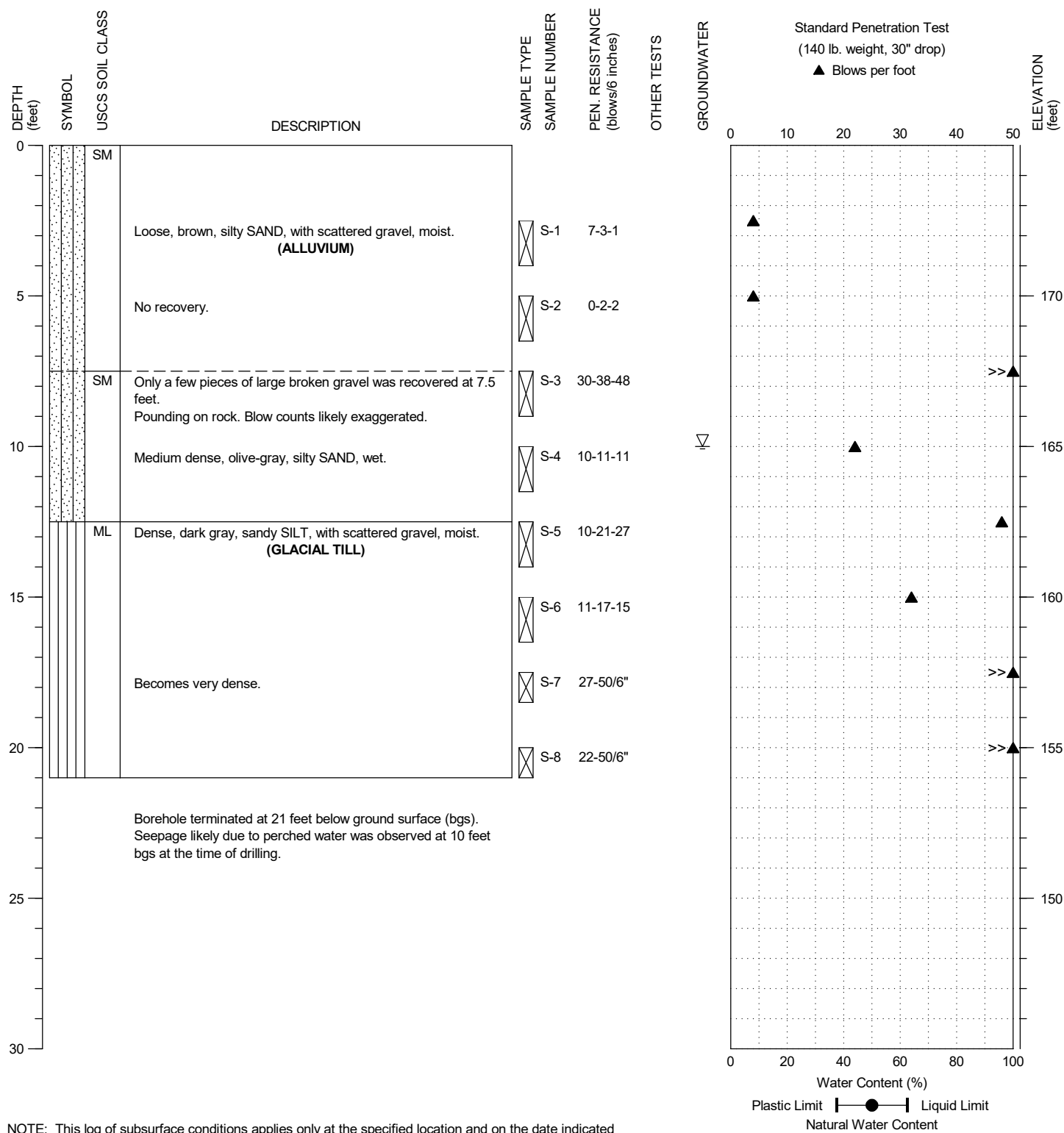
PROJECT NO.: 2018-002-21

FIGURE:

A-9

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: Diedrich D70, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 8/3/2020
 DATE COMPLETED: 8/3/2020
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 175.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-10

PAGE: 1 of 1

GEO SCIENCES INC.

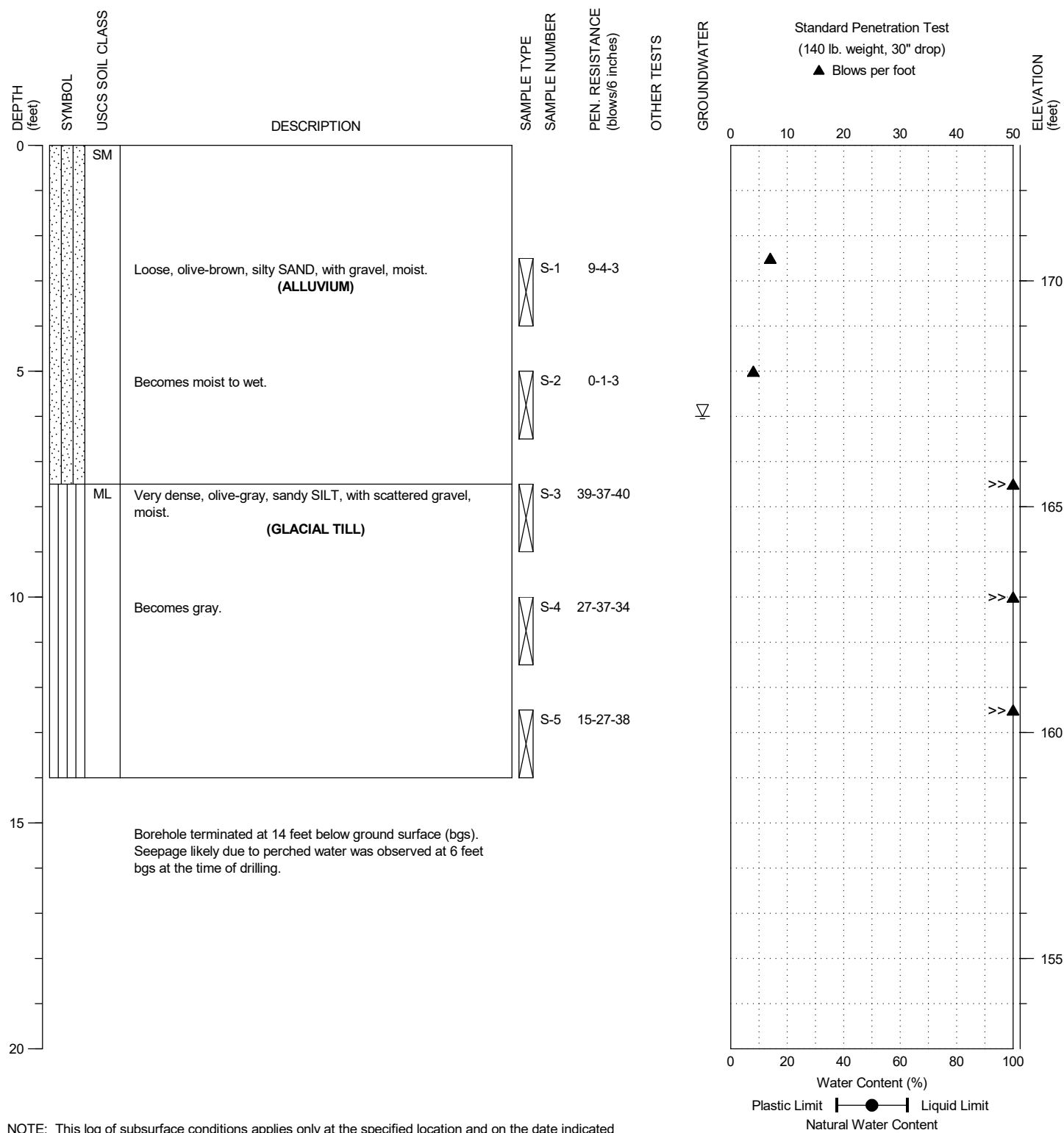
PROJECT NO.: 2018-002-21

FIGURE:

A-10

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: Diedrich D50, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 8/4/2020
 DATE COMPLETED: 8/4/2020
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 173.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BH-11

PAGE: 1 of 1

GEO SCIENCES INC.

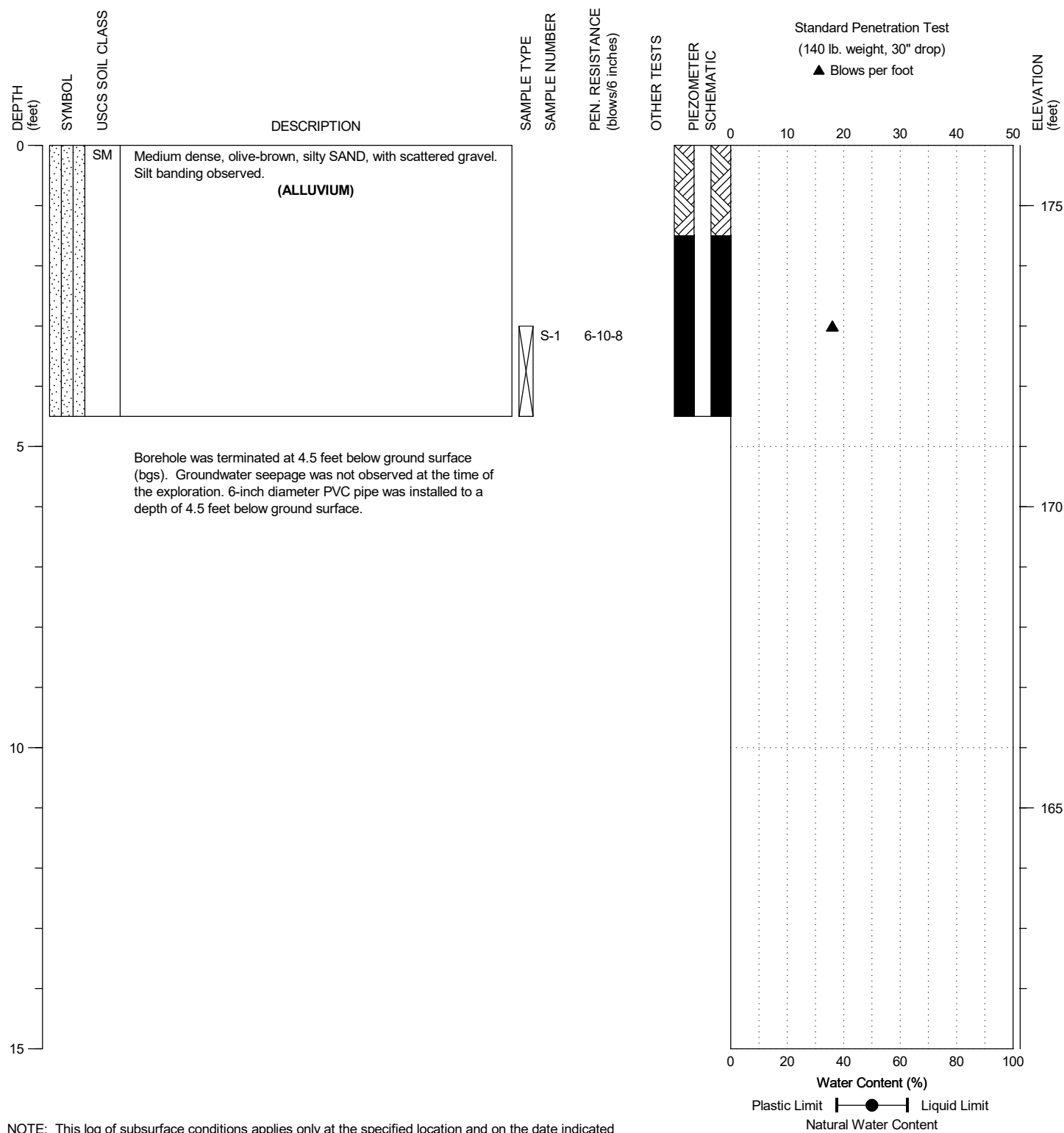
PROJECT NO.: 2018-002-21

FIGURE:

A-11

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: Diedrich D70, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 8/3/2020
 DATE COMPLETED: 8/3/2020
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 176.0 ± feet



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BIT-1

PAGE: 1 of 1

GEOSCIENCES INC.

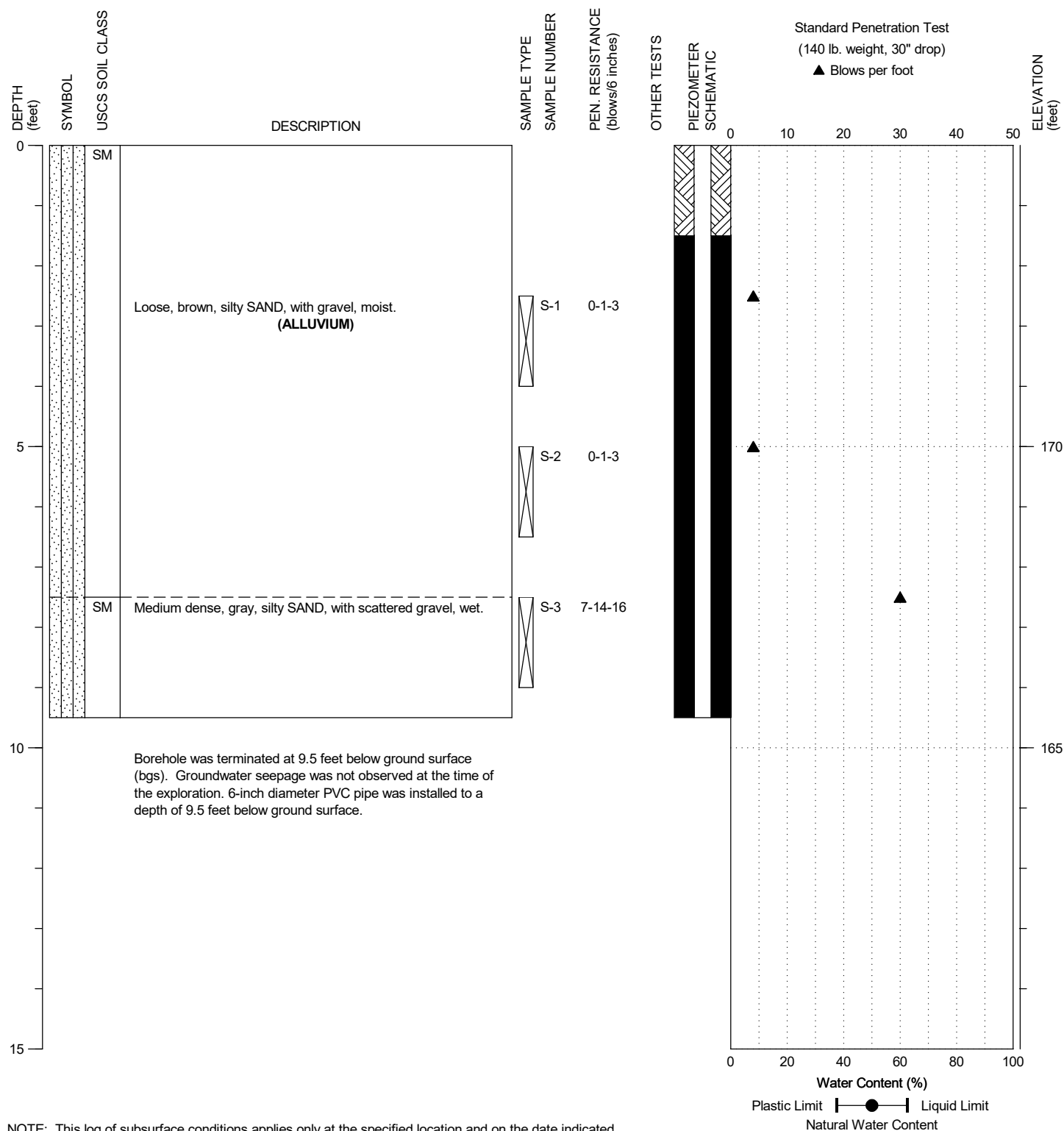
PROJECT NO.: 2018-002-21

FIGURE:

A-12

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: Diedrich D70, HSA
 SAMPLING METHOD: SPT Autohammer
 LOCATION: See Figure 2

DATE STARTED: 8/3/2020
 DATE COMPLETED: 8/3/2020
 LOGGED BY: A. Sirjani
 SURFACE ELEVATION: 175.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



124th Ave NE Roadway Improvement
 Kirkland, Washington

BORING:
 BIT-2

PAGE: 1 of 1

GEO SCIENCES INC.

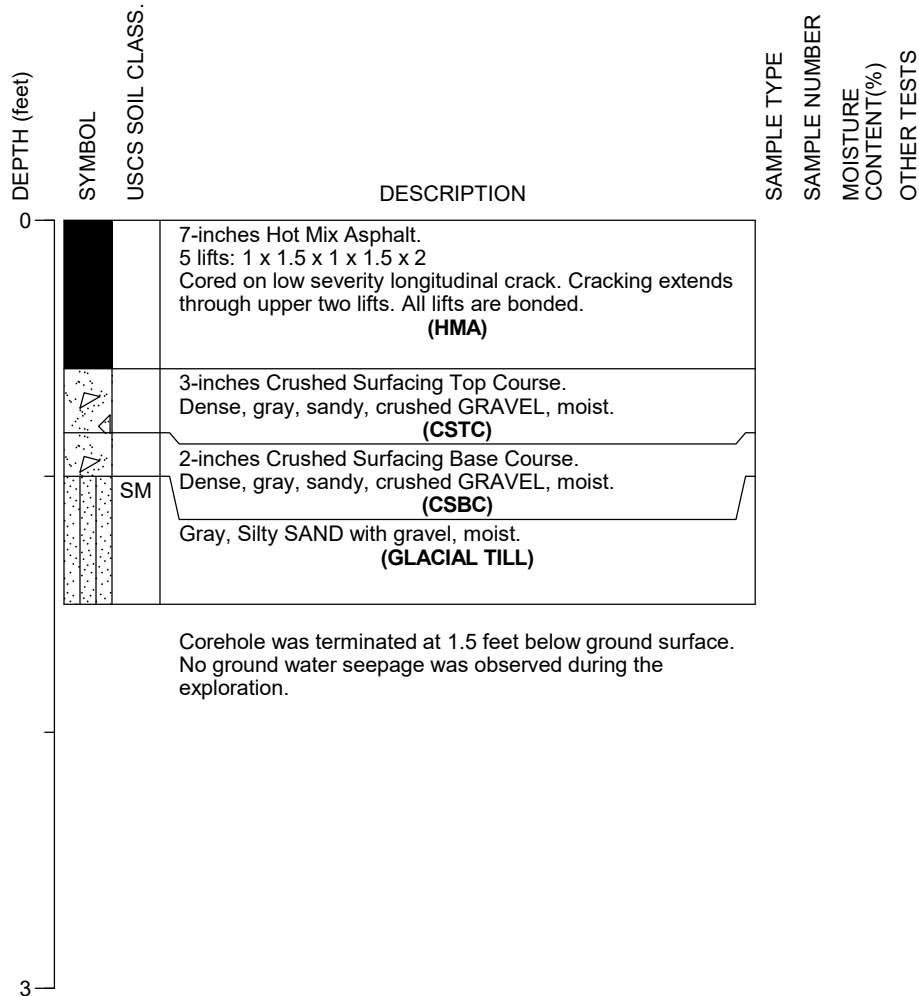
PROJECT NO.: 2018-002-21

FIGURE:

A-13

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, SBOL (Turn Lane), 5' from fogline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble



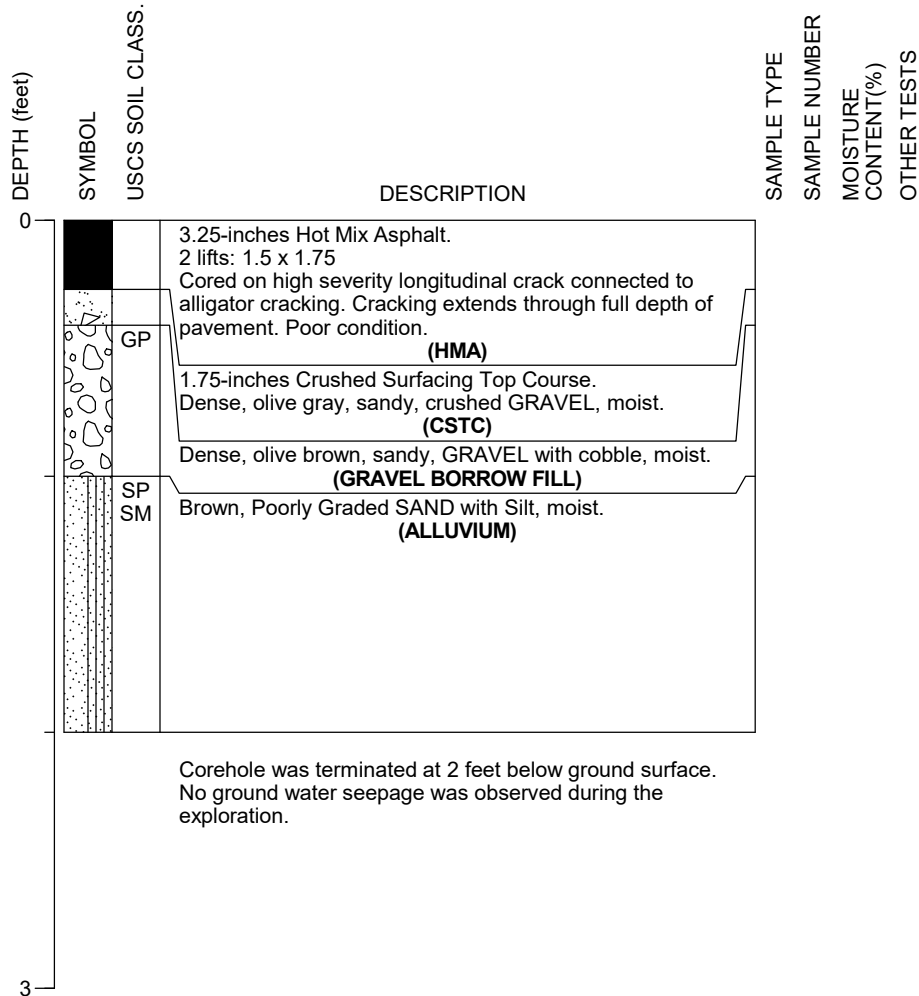
PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, NB, 3' from fogline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble



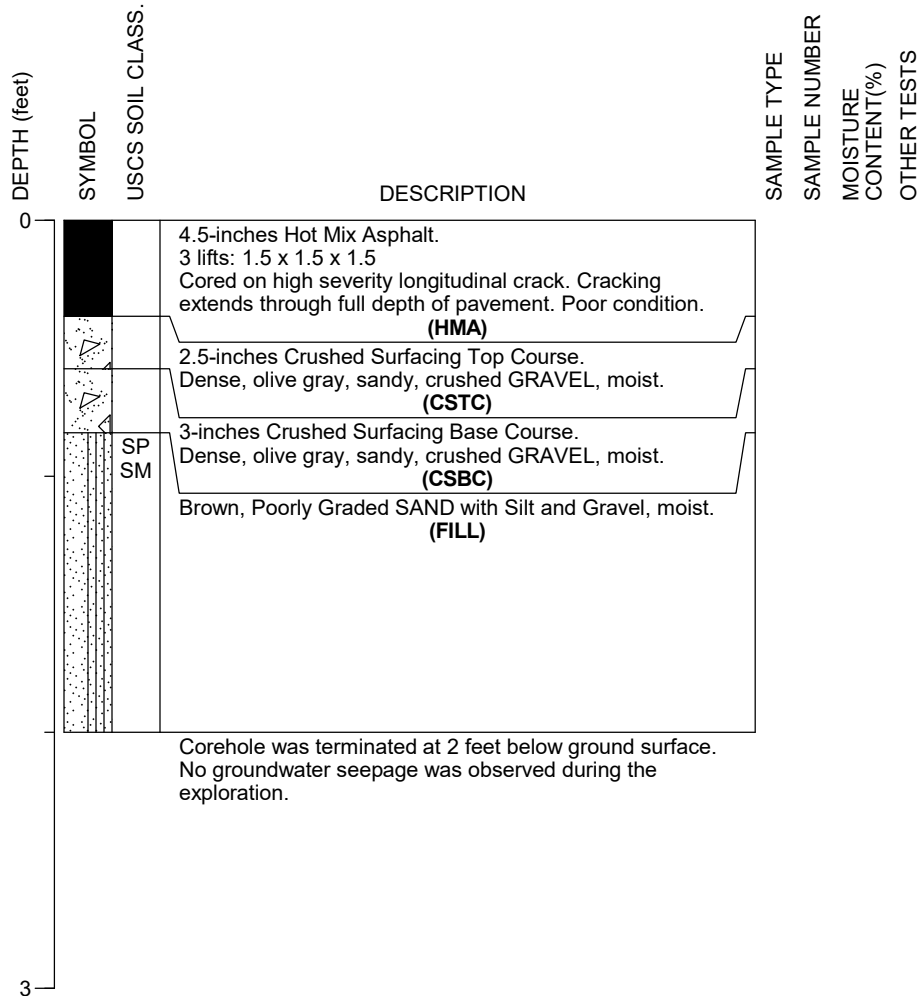
PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, SB, 4' from fogline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble



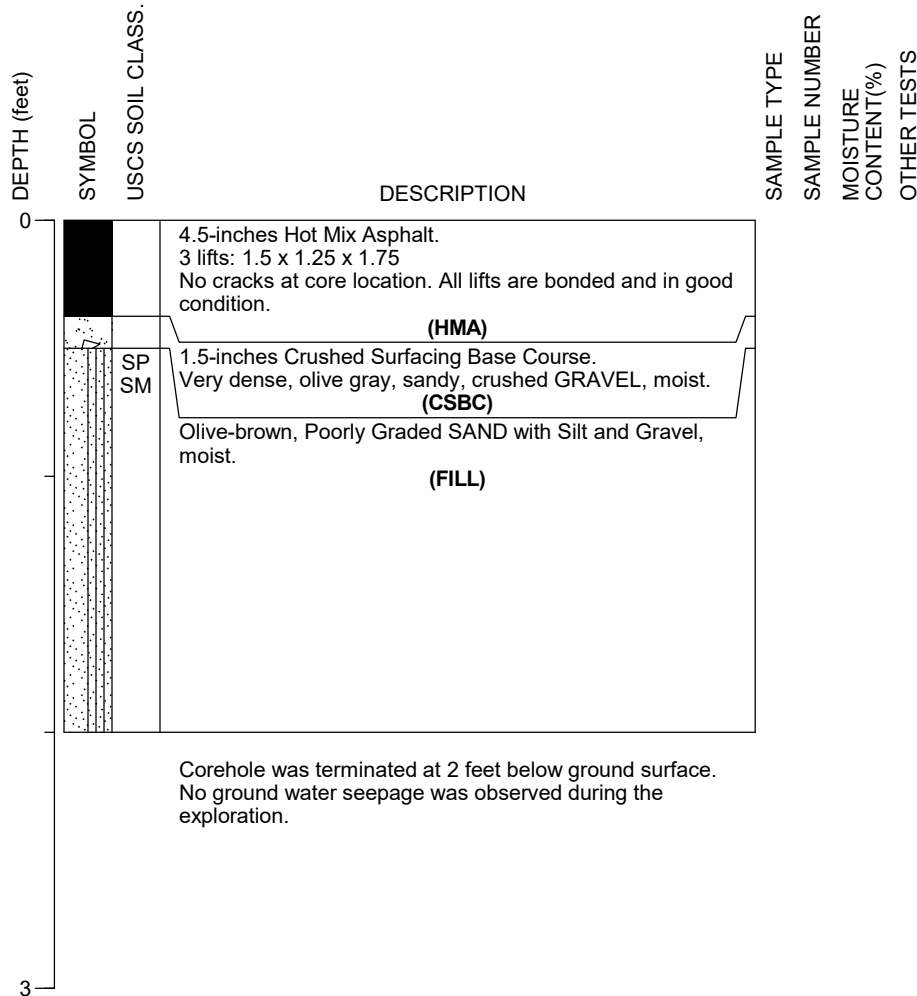
PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, SB, 5.5' from fogline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble



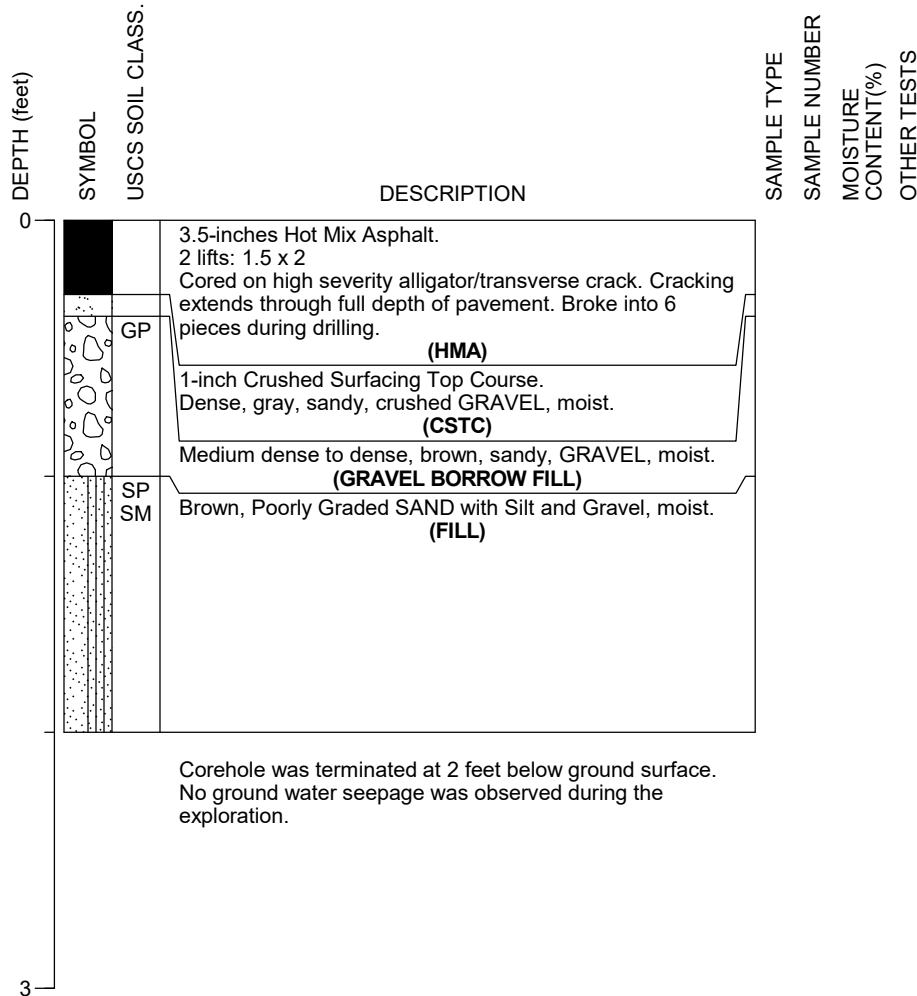
PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, NB, 3.5' from fogline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble



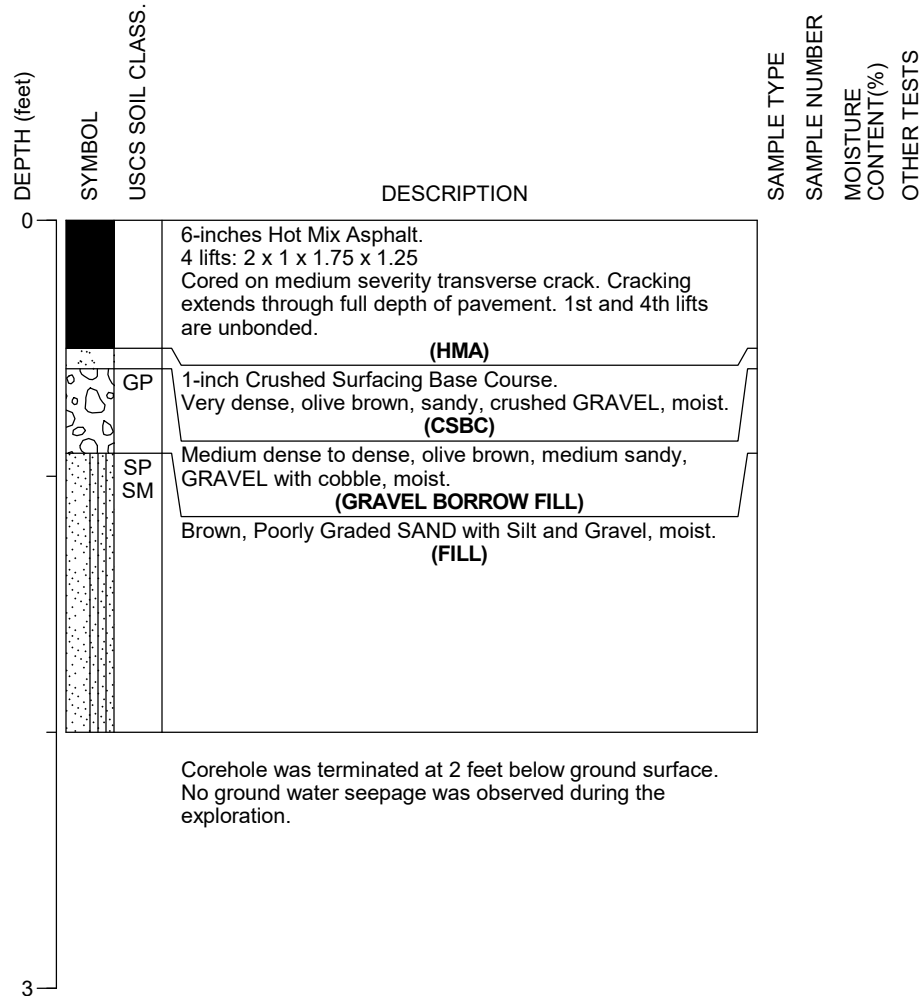
PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, SB, 5.5' from fogline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble



PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, NBIL (Turn Lane), 4' from centerline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			8.25-inches Hot Mix Asphalt. 5 lifts: 1.5 x 1.5 x 1.5 x 1.5 x 2.25 No cracks at core location. New pavement. All lifts are bonded and in good condition. (HMA)				
			5.75-inches Crushed Surfacing Base Course. Very dense, gray, sandy, crushed GRAVEL mixed with rounded gravel and cobble, moist. (CSBC)				
		SP SM	Brown, Poorly Graded SAND with Silt and Gravel, moist. (FILL)				
Corehole was terminated at 1.5 feet below ground surface. No ground water seepage was observed during the exploration.							
3							

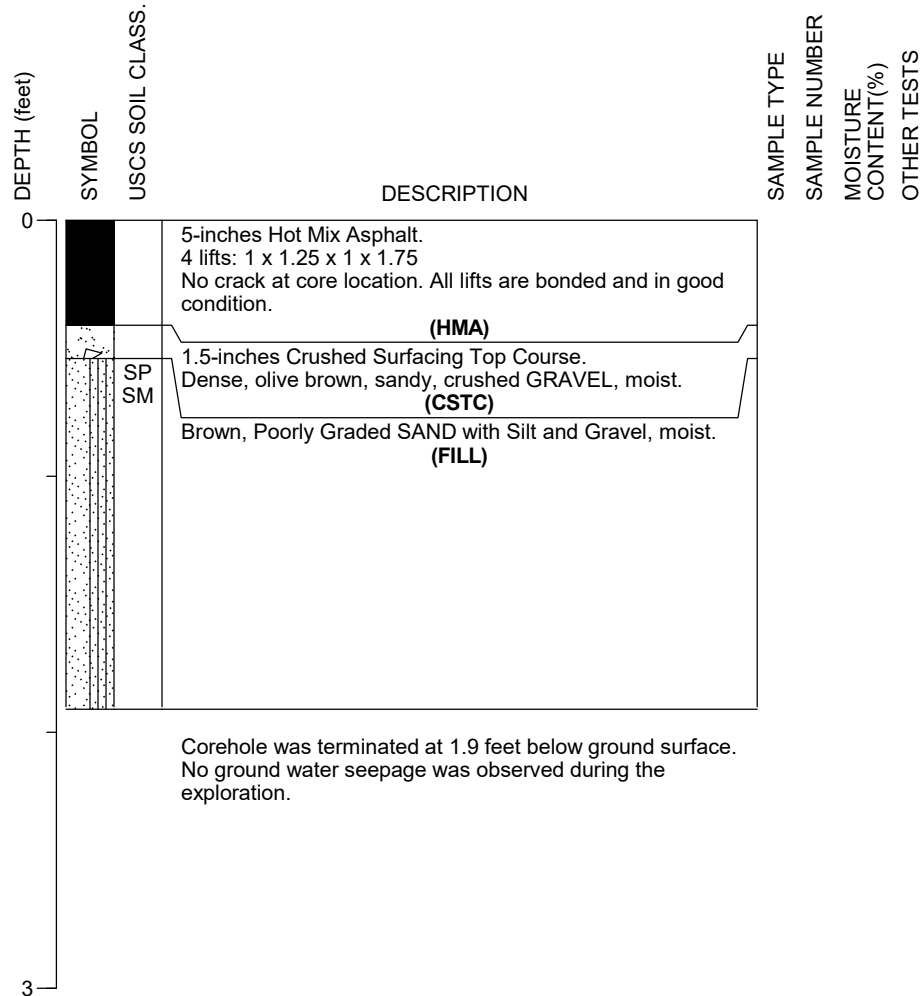
PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel
 STREET: 124th Ave NE, NBIL (Through Lane), 14' from fogline

LOCATION: See Figure 2
 DATE COMPLETED: 1/3/18
 LOGGED BY: S. Pemble



PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

APPENDIX B

LABORATORY TEST RESULTS

LABORATORY INVESTIGATION

Representative soil samples obtained from the explorations were placed in plastic bags to prevent loss of moisture and transported to our Bothell, Washington, laboratory for further examination and testing. Laboratory tests were conducted on selected soil samples to characterize relevant engineering and index properties of the site soils. The laboratory testing program was performed in general accordance with appropriate ASTM Standards, as outlined below.

MOISTURE CONTENT OF SOIL: The moisture content of selected soil samples (percent by dry mass) was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate summary logs in Appendix A.

PARTICLE SIZE ANALYSIS OF SOILS: Selected granular samples were tested to determine the particle size distribution of material in accordance with ASTM D 422 (wash sieve or wash sieve and hydrometer methods). The results are summarized on the attached Particle-Size Distribution reports (Figures B-5 through B-12, Appendix B), which also provide information regarding the classification of the samples and the moisture content at the time of testing.

Atterberg Limits: The Atterberg Limits (ASTM D-4318) are defined by the liquid limit (LL) and plastic limit (PL) states of a given soil. These limits are used to determine the moisture content limits where the soil characteristics change from behaving more like a fluid on the liquid limit end to where the soil behaves more like individual soil particles on the plastic limit end. The plasticity index (PI) is the difference between the liquid limit and the plastic limit. The plasticity index is used in conjunction with the liquid limit to assess if the material will behave like a silt or clay. The results of the Atterberg Limit tests are shown in Figure B-13 in Appendix B.

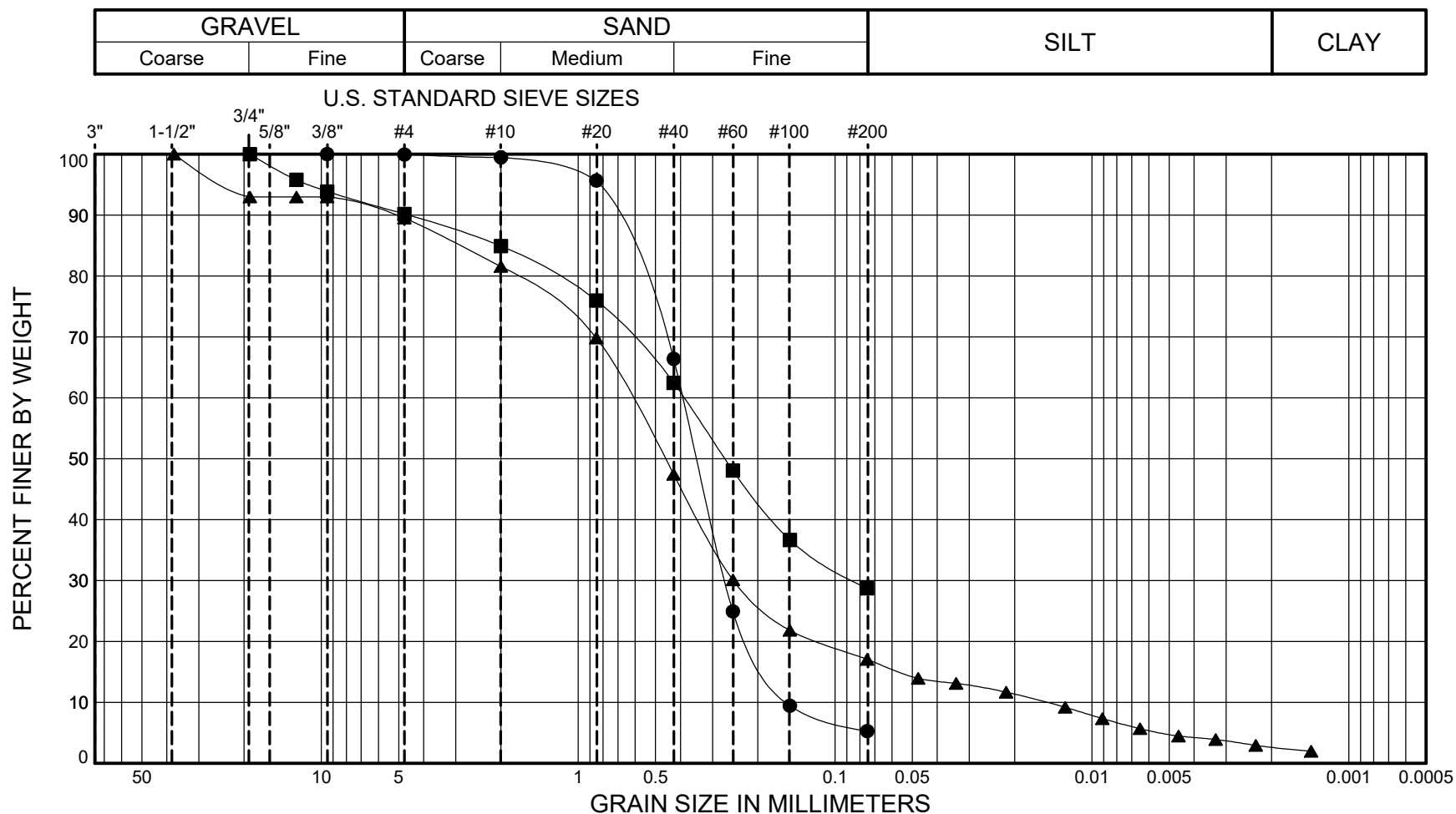
EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-1,S-1	2.5	4.0	7.6									SP-SM	Olive-brown, poorly graded SAND with silt
BH-1,S-2	5.0	6.5	9.4						3.2	91.3	5.5	SP-SM	Olive-brown, poorly graded SAND with silt
BH-1,S-3	7.5	9.0	26.0									SP-SM	Olive-brown, poorly graded SAND with silt
BH-1,S-4	10.0	11.5	20.8						4.7	69.9	25.4	SM	Light olive-brown, silty SAND
BH-1,S-5	12.5	13.2											
BH-1,S-6	15.0	15.4											
BH-1,S-7	20.0	21.0	19.1						0.7	81.5	17.9	SM	Gray, silty SAND
BH-2,S-1	2.5	4.0	9.6						0.1	94.7	5.3	SP-SM	Olive-brown, poorly graded SAND with silt
BH-2,S-2	5.0	6.5	26.2									SP-SM	Olive-brown, poorly graded SAND with silt
BH-2,S-3	7.5	9.0	26.5									SM	Olive-brown, silty SAND
BH-2,S-4	10.0	11.0											
BH-2,S-5	15.0	15.5	12.1						9.8	61.5	28.7	SM	Dark gray, silty SAND
BH-2,S-6	20.0	20.3											
BH-3,S-1	0.7	2.2											
BH-3,S-2	2.5	4.0	11.7						10.5	72.4	17.0	SM	Brown, silty SAND
BH-3,S-3	5.0	6.5											
BH-3,S-4	7.5	9.0											
BH-3,S-5	10.0	11.5											
BH-3,S-6	12.5	14.0	15.8						5.2	78.0	16.8	SM	Gray, silty SAND
BH-3,S-7	15.0	16.5	11.7									SM	Light olive-brown, silty SAND
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs. 2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.													

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-3,S-8	17.5	19.0	23.0									SM	Light olive-brown, silty SAND
BH-3,S-9	20.0	21.5											
BH-3,S-10	25.0	26.5											
BH-3,S-11	30.0	31.5											
BH-4,S-1	2.5	4.0	6.3						12.7	70.9	16.4	SM	Brown, silty SAND
BH-4,S-2	5.0	6.5											
BH-4,S-3	7.5	9.0	20.5							66.7	33.3	SM	Olive-brown, silty SAND
BH-4,S-4	10.0	11.5	17.5							88.0	12.0	SP-SM	Dark gray, poorly graded SAND with silt
BH-4,S-5	12.5	14.0	24.6									SM	Dark gray, silty SAND
BH-4,S-6	15.0	16.5											
BH-4,S-7	17.5	19.0											
BH-4,S-8	20.0	21.5											
BH-4,S-9	25.0	26.5	22.8						0.9	86.9	12.2	SM	Olive-brown, silty SAND
BH-6,S-1	2.5	4.0	37.4						0.1	11.4	88.5	CL	Grayish-brown, CLAY
BH-6,S-2	5.0	6.5	34.0									CL-ML	Dark grayish-brown, sandy silty CLAY with gravel
BH-6,S-3	7.5	9.0	18.8						9.4	81.8	8.8	SW-SM	Gray, well-graded SAND with silt
BH-6,S-4A	10.0	10.7											
BH-6,S-4B	10.7	11.5	27.9							4.8	95.2	ML	Gray, SILT
BH-6,S-5A	12.5	14.0											
BH-6,S-5B	13.5	14.0	12.3						8.7	66.9	24.4	SM	Light olive-brown, silty SAND
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs. 2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.													

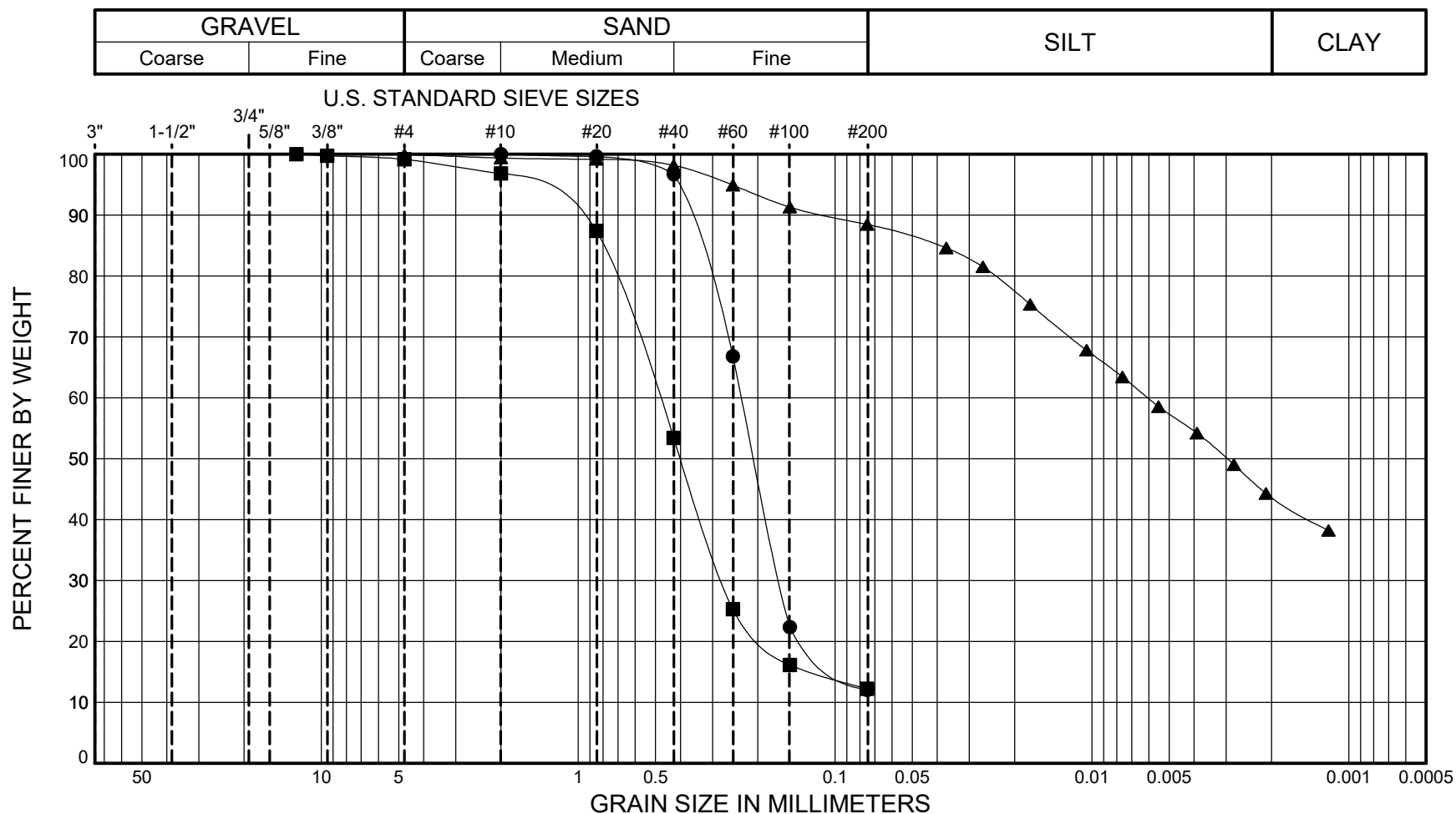
EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-6,S-6	15.0	16.5	23.6							38.7	61.3	ML	Olive-brown, sandy SILT
BH-6,S-7	17.5	19.0											
BH-6,S-8	20.0	21.5											
BH-6,S-9	25.0	26.5	20.6						0.2	85.2	14.6	SM	Strong brown, silty SAND
BH-7,S-1	2.5	4.0	14.0						11.7	66.9	21.4	SM	Dark yellowish-brown, silty SAND
BH-7,S-2	5.0	6.5	8.4									GM	Olive-brown, silty GRAVEL
BH-7,S-3	7.5	9.0	23.0							46.8	53.2	ML	Olive-brown, sandy SILT
BH-7,S-4	10.0	11.5	21.6									SM	Light yellowish-brown, silty SAND
BH-7,S-5	12.5	14.0	22.7									SM	Light-olive-brown, silty SAND
BH-7,S-6	15.0	16.5	22.1									SM	Light olive-brown, silty SAND
BH-7,S-7	17.5	19.0											
BH-7,S-8	20.0	21.5	24.7									CL-ML	Light olive-brown, sandy silty CLAY
BH-7,S-9	25.0	26.5	31.7									SM	Light olive-brown, silty SAND
BH-7,S-10	30.0	31.5	24.8							90.0	10.0	SP-SM	Olive-brown, poorly graded SAND with silt
BH-8,S-1	2.5	4.0	19.4						0.9	43.4	55.7	ML	Olive-brown, sandy SILT
BH-8,S-2	5.0	6.5	25.5							24.5	75.5	ML	Olive-brown, SILT with sand
BH-8,S-3	7.5	9.0	24.5									SM	Light olive-brown, silty SAND
BH-8,S-4	10.0	11.5	26.1							64.9	35.1	SM	Yellowish-brown, silty SAND
BH-8,S-5	12.5	14.0	23.7									SM	Dark grayish-brown, silty SAND with organics
BH-8,S-6	15.0	16.5	28.0									SM	Dark grayish-brown, silty SAND
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs. 2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.													

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-8,S-7	17.5	19.0	22.6									SM	Yellowish-brown, silty SAND
BH-8,S-8	20.0	21.5	24.1									SM	Yellowish-brown, silty SAND
BH-8,S-9	25.0	26.5	22.2									ML	Dark gray, sandy SILT
BH-8,S-10	30.0	31.5											

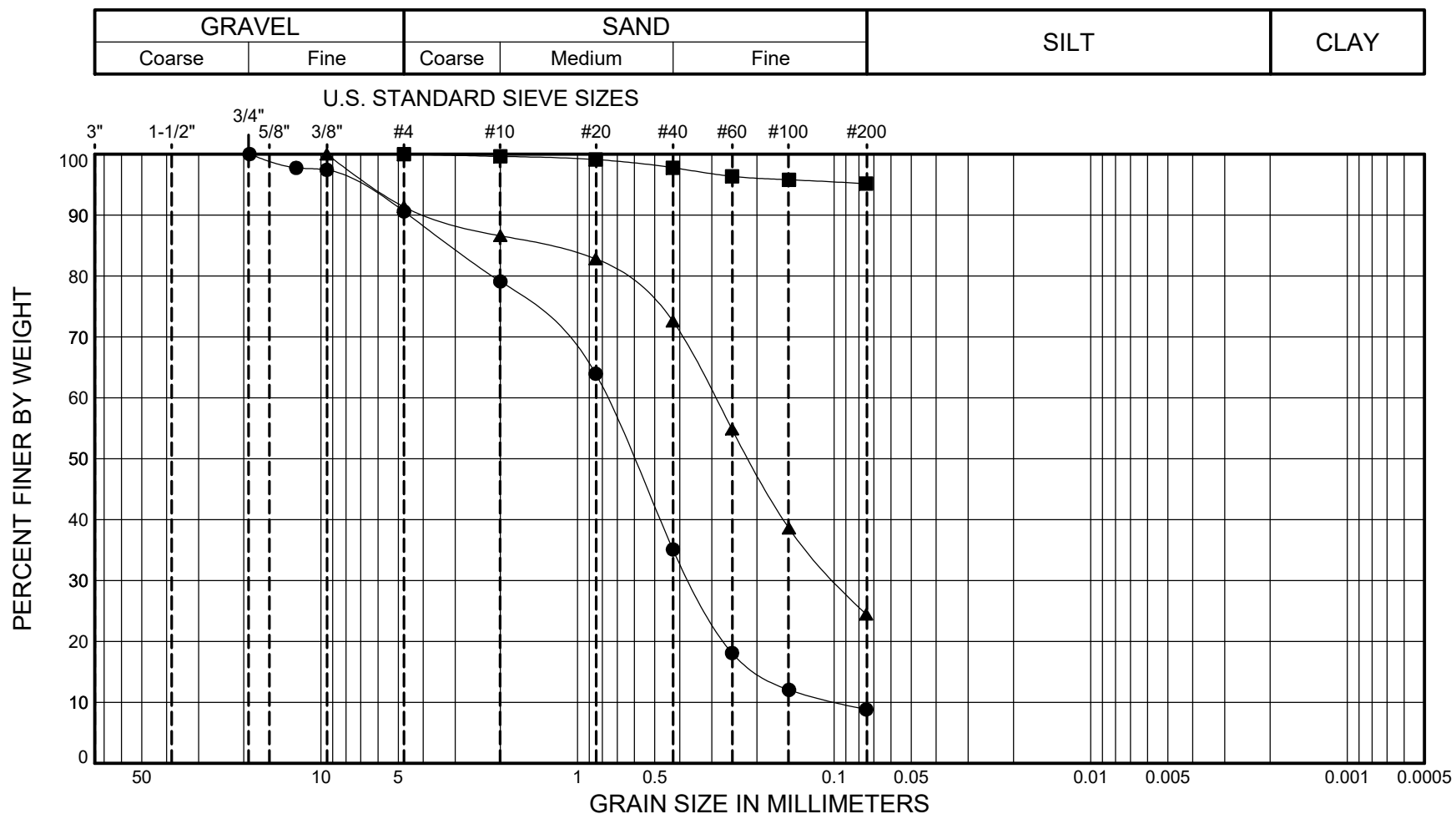
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.



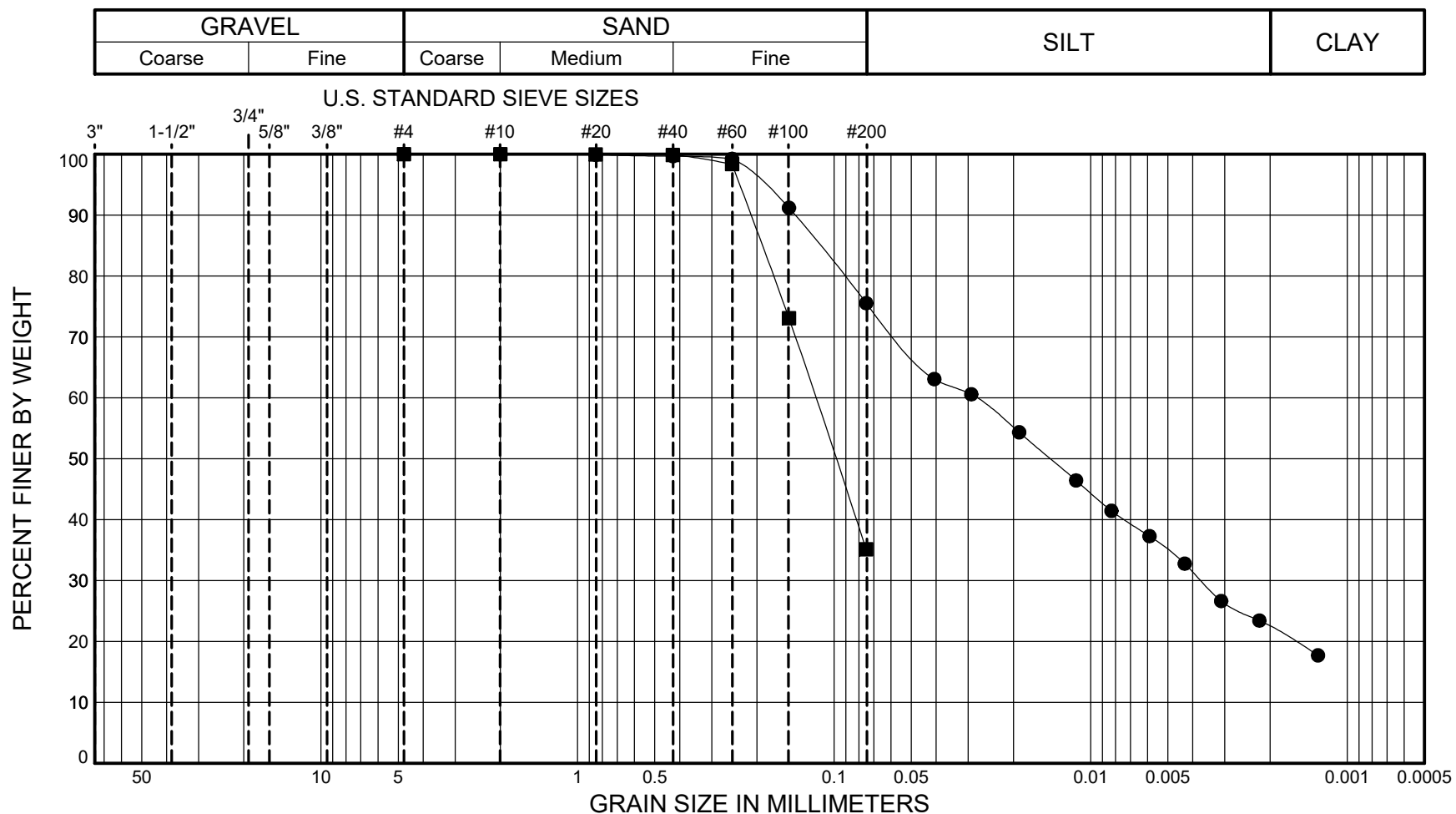
SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-2	S-1	2.5 - 4.0	(SP-SM) Olive-brown, poorly graded SAND with silt	10				0.1	94.7	5.3
■	BH-2	S-5	15.0 - 15.5	(SM) Dark gray, silty SAND	12				9.8	61.5	28.7
▲	BH-3	S-2	2.5 - 4.0	(SM) Brown, silty SAND	12				10.5	72.4	17.0

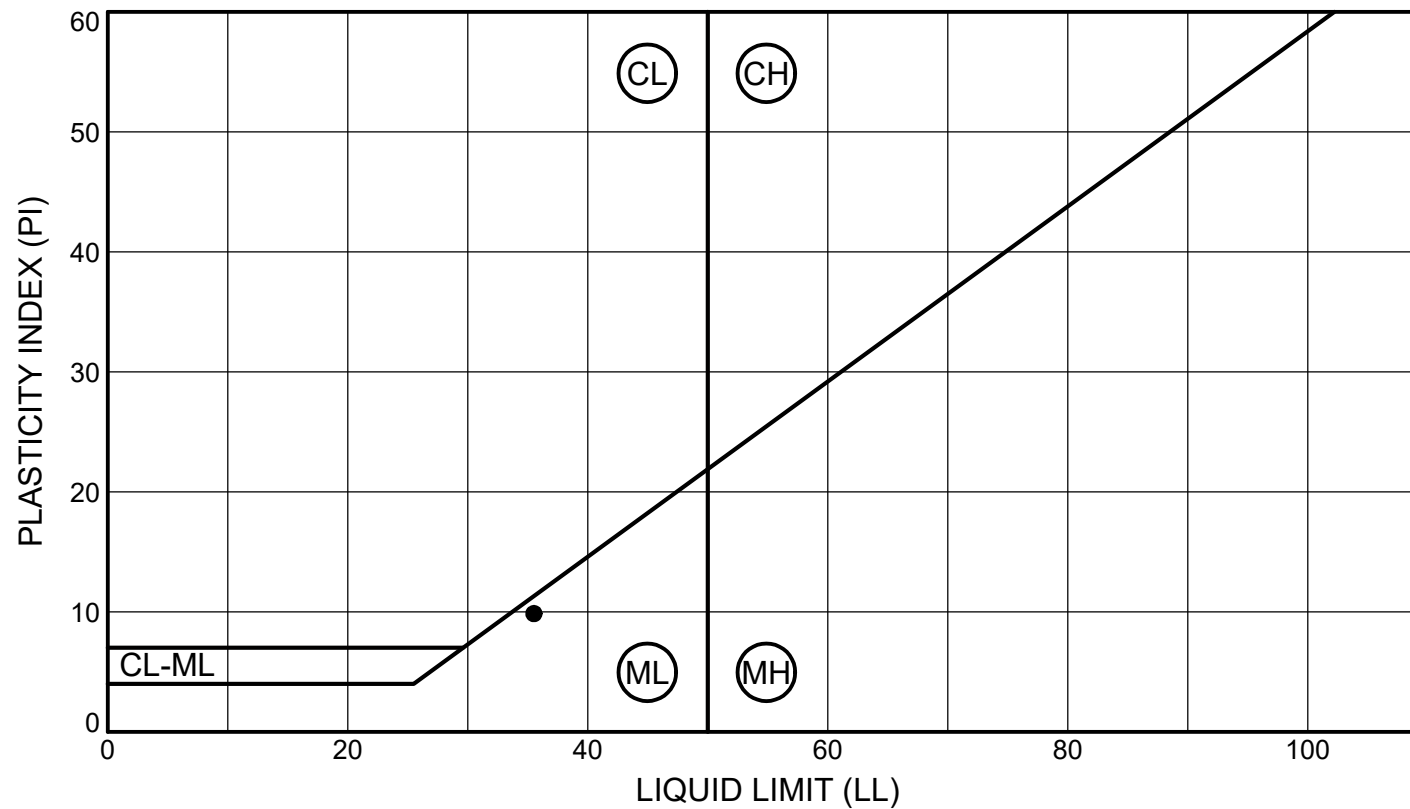


SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-4	S-4	10.0 - 11.5	(SP-SM) Dark gray, poorly graded SAND with silt	18					88.0	12.0
■	BH-4	S-9	25.0 - 26.5	(SM) Olive-brown, silty SAND	23				0.9	86.9	12.2
▲	BH-6	S-1	2.5 - 4.0	(CL) Grayish-brown, CLAY	37				0.1	11.4	88.5



SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-6	S-3	7.5 - 9.0	(SW-SM) Gray, well-graded SAND with silt	19				9.4	81.8	8.8
■	BH-6	S-4B	10.7 - 11.5	(ML) Gray, SILT	28					4.8	95.2
▲	BH-6	S-5B	13.5 - 14.0	(SM) Light olive-brown, silty SAND	12				8.7	66.9	24.4

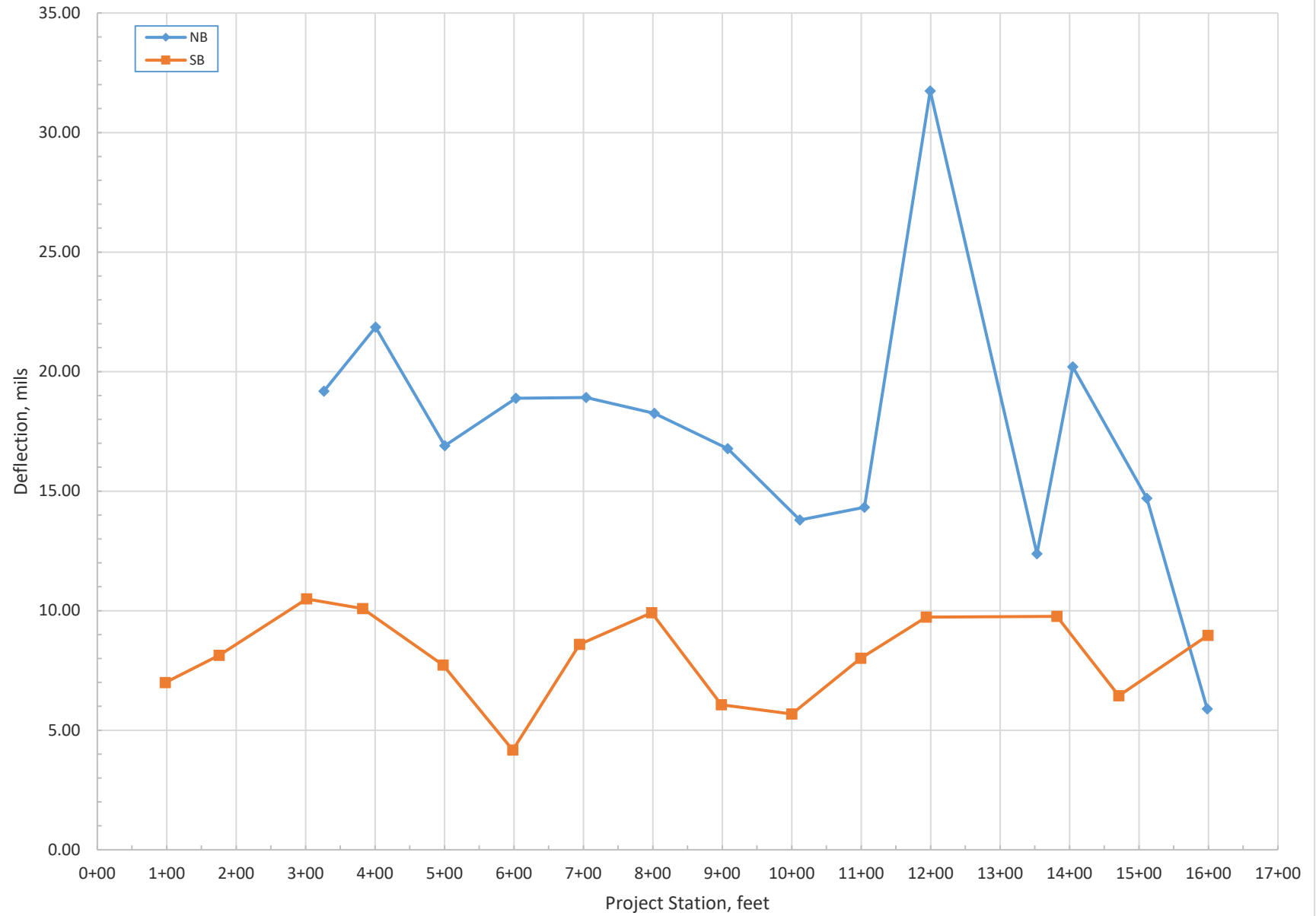




SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION	% MC	LL	PL	PI	% Fines
●	BH-6	S-2	5.0 - 6.5	(ML) Dark grayish-brown, sandy SILT with gravel	34	36	26	10	

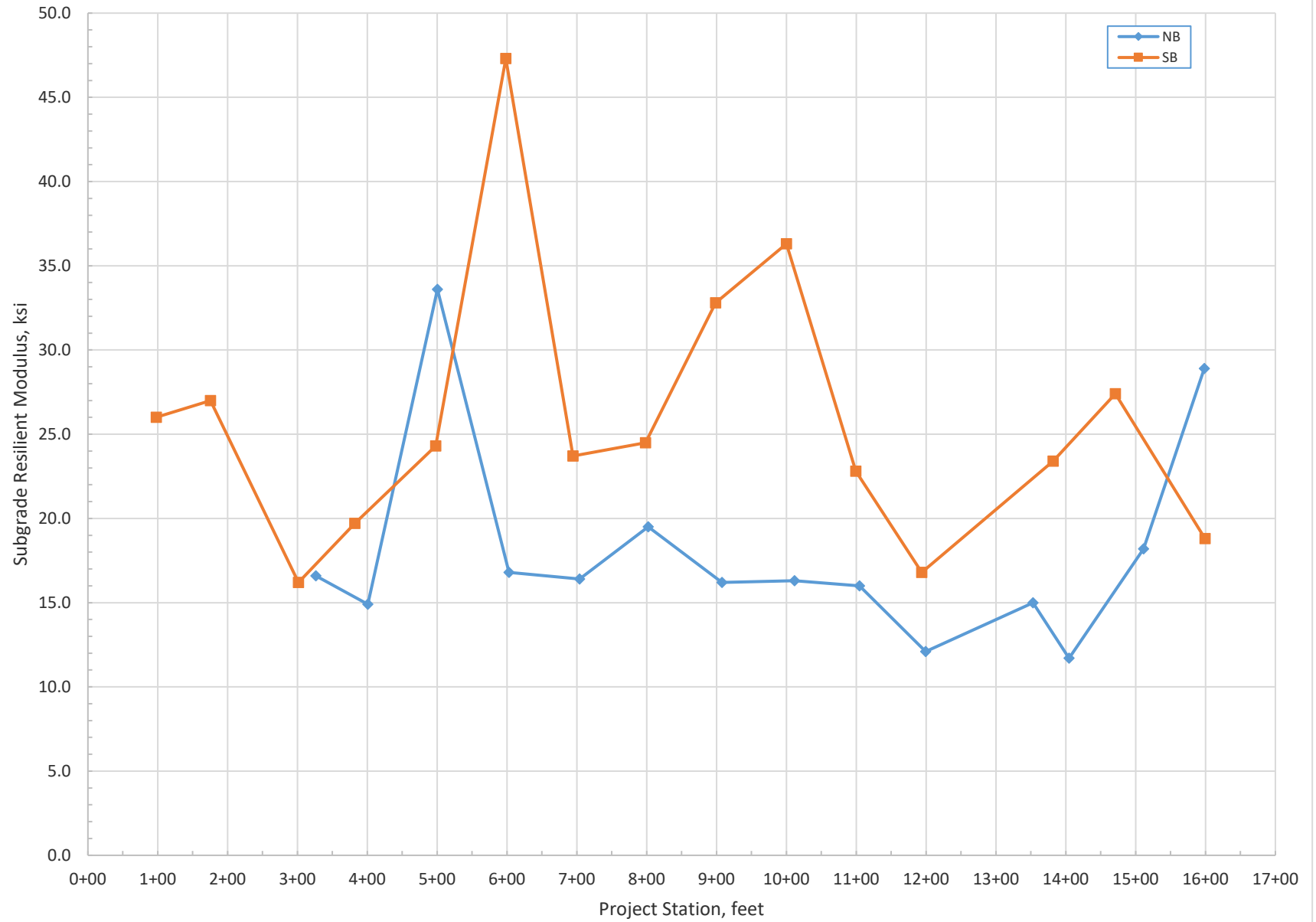
Maximum Deflections Normalized to 9,000-pound Load

2018-002-21, Figure B-14



Subgrade Resilient Modulus, ksi

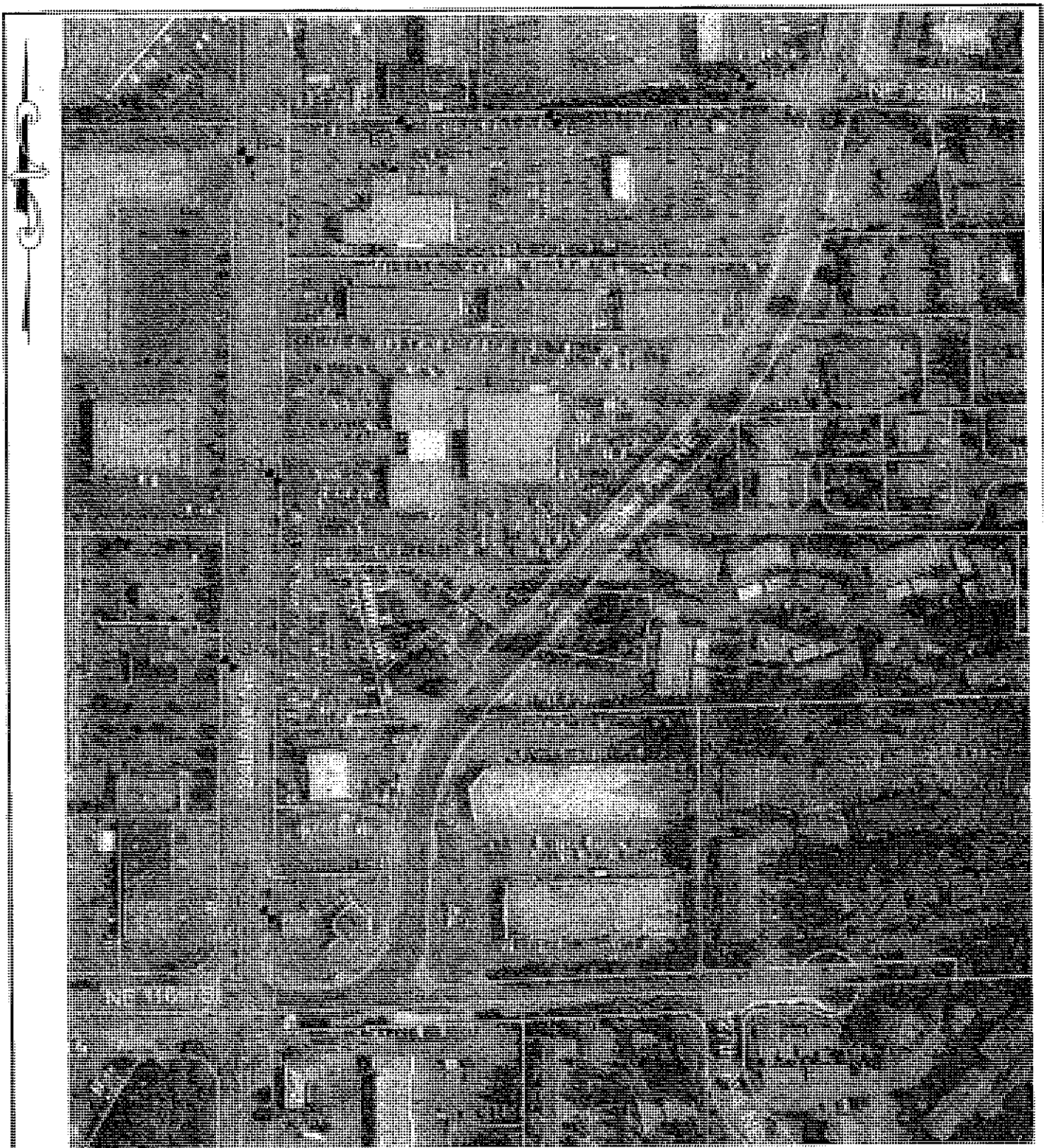
2018-002-21, Figure B-15



APPENDIX C

EXPLORATIONS BY OTHERS

Figure C-1



LEGEND:



B-1 BORING NUMBER AND APPROXIMATE LOCATION

Scanned aerial base map provided by Portast and modified by ZZA.

Zipper Zaman Associates, Inc.
Geotechnical and Environmental Consulting

18835 East Avenue West, Suite 117
Lynnwood, Washington 98036
Tele: (425) 771-3364 Fax: (425) 771-3549

Project No. B 9075071

Date: Sept., 2007

Drawn by: J. Duncan

Scale: NTD

NE 120th Street Extension
City of Kirkland Project 057
Kirkland, Washington

FIGURE 1: SITE AND EXPLORATION PLAN

Figure C-2

LOG OF BORING NO. B-4										Page 1 of 1			
CLIENT													
Perteet, Inc.													
SITE					PROJECT								
Kirkland, Washington					NE 120th Street Extension								
GRAPHIC LOG	Boring Location: At NE 120th St. & 124th Ave. NE intersection				SAMPLES				TESTS				
					DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf
DESCRIPTION													
0.75	3 to 4 inches asphalt pavement over about 6 inches crushed aggregate base												
	<u>WELL-GRADED SAND with SILT and GRAVEL</u> , brown, damp to moist, medium dense (RECESSIONAL OUTWASH?)						1	SS	15	21	4		
5													
						SW	2	SS	8	23	7		#200 = 7%
7	SANDY SILT, fine grained sand, orange and red-brown vertical lamination, moist, stiff												
							3	SS	18	22	27		#200 = 72%
10													
							4	SS	12	19	26		
11.5	SILTY GRAVEL with SAND, brown, moist, medium dense												
14	ORGANIC SILT, dark brown to black, damp to moist, soft												
						4	AUGER				47		
15.5	SILTY SAND, fine grained, gray and light gray grading to brown, moist to wet, dense						5A	SS	18	71	60		Organic = 38%
							5B			21			
17	POORLY GRADED SAND with SILT, trace gravel, fine to medium with some coarse, brown-gray to gray, damp to wet, very dense (ADVANCE OUTWASH?)						5C				9		
20						SP	6	SS	18	50	22		#200 = 7%
25													
							7	SS	18	93	24		
25.5	SANDY SILT, with trace wood at contact, fine-grained sand, gray, moist, hard												
26.5	BOTTOM OF BORING												

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

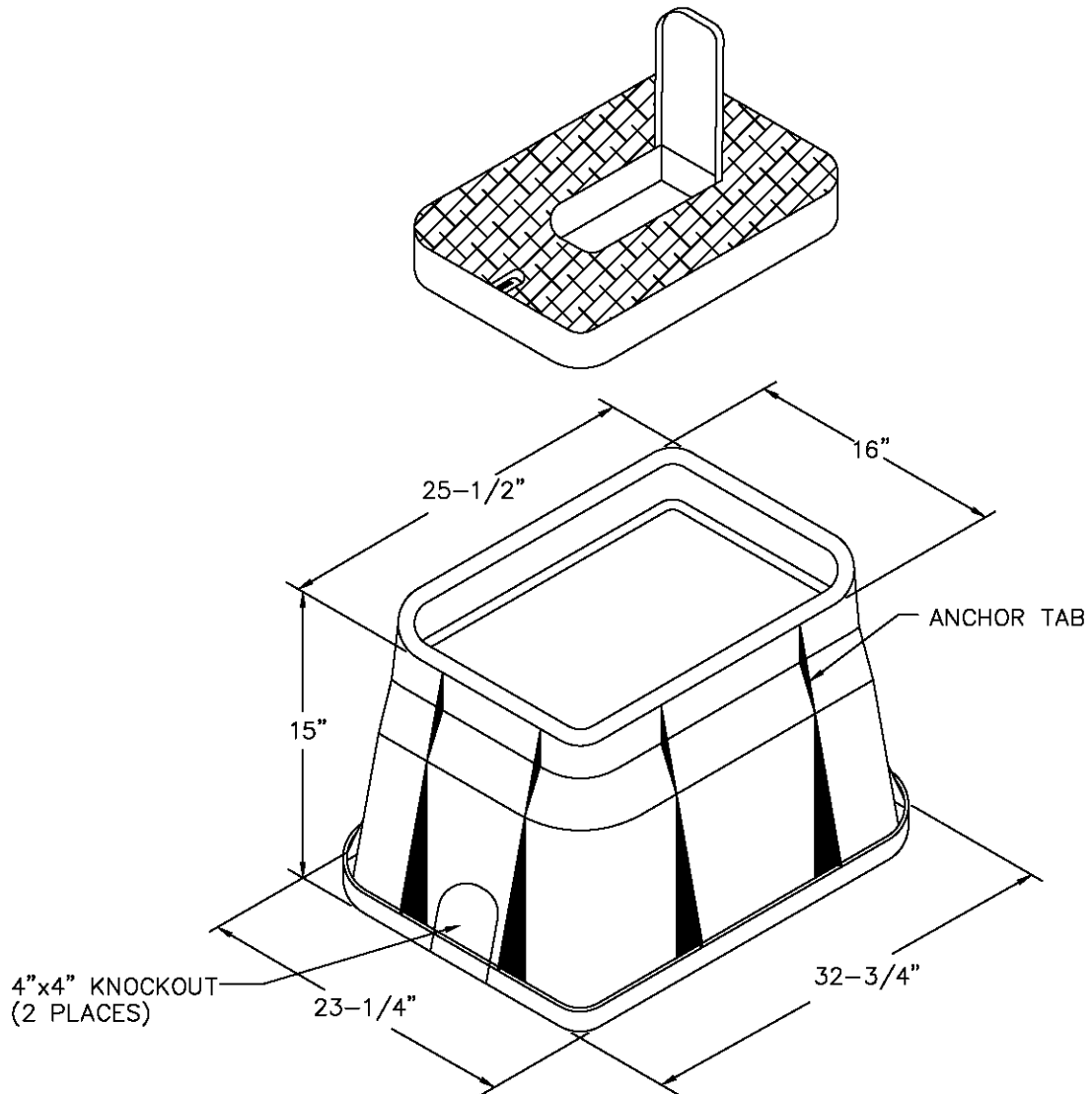
WATER LEVEL OBSERVATIONS, ft			
WL	▽ 20	WD	▽
WL	▽		▽
WL			

Zipper Zernian Associates, Inc.
Geotechnical and Environmental Consulting
A Terracon Company

BORING STARTED		08-08-07	
BORING COMPLETED		08-08-07	
RIG	CME 75	CO.	Gregory
LOGGED	TDH	JOB #	81075071

BOREHOLE ZZA KROAD.GPJ TERRACON.GDT 09/25/07

APPENDIX B
COMBINED STANDARD PLANS



NOTES:

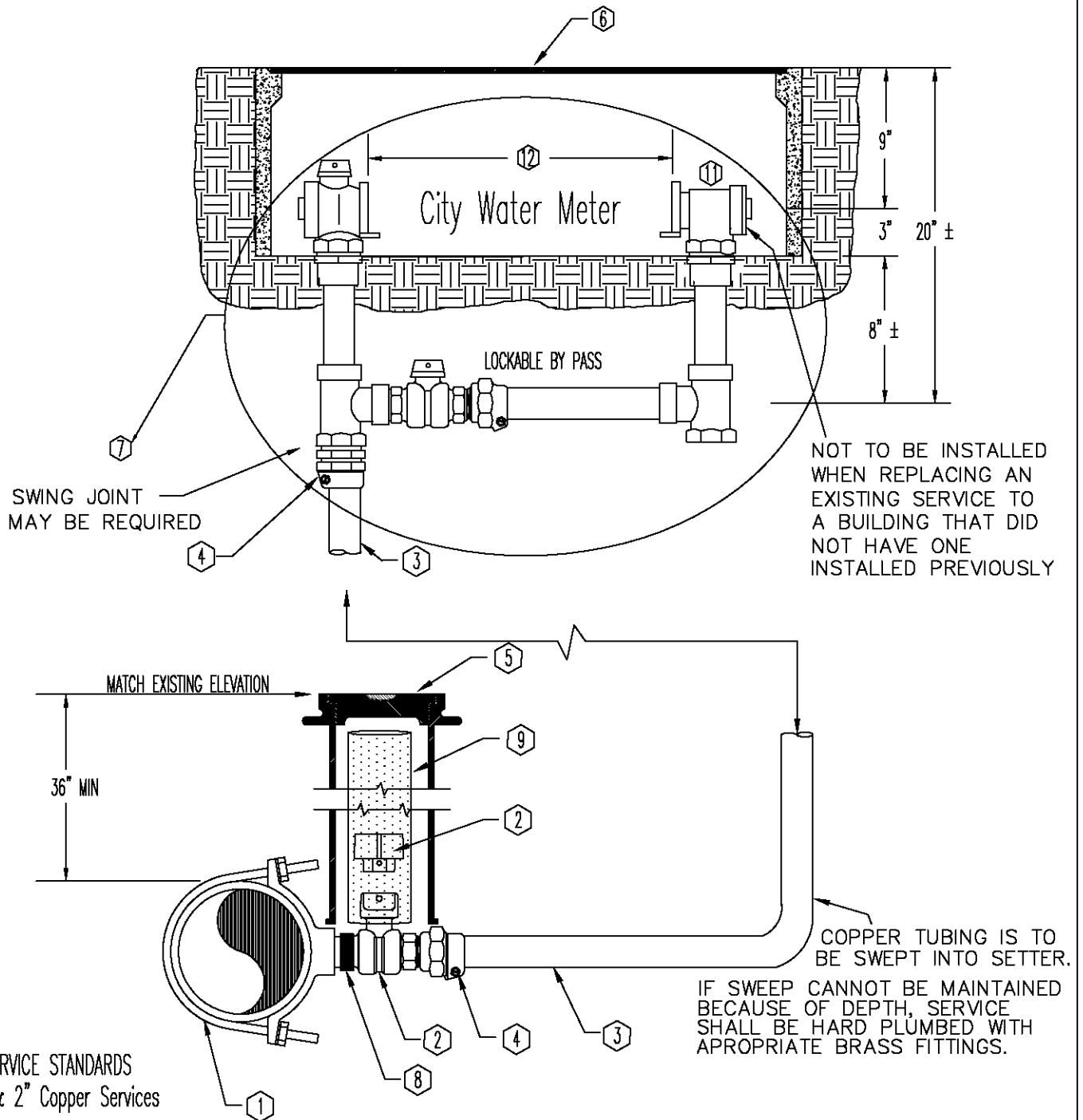
1. USE — CARSON MODEL 1324-15L WITH READING LID OR EQUAL
2. COVER MUST DISPLAY "W.M." OR EQUAL
3. METER READING FLIP-UP LID SHALL BE PLASTIC.

CITY OF KIRKLAND

PLAN NO. CK-W.22



1-1/2" & 2" WATER
METER BOX
PLACED IN PLANTER



WATER SERVICE STANDARDS
1-1/2" & 2" Copper Services

DESCRIPTION	MAKER OR RATING	1-1/2"	2"
1. Double Strap Saddle	Romac or Equal	202 IPT	202 IPT
2. Ball Valve-2" Operating Nut w/Cotter Pin	Ford or equal	B11-666 w/Q167	B11-777 w/Q167
3. Pipe - Soft Copper Tubing , Type K	ASTM B-88		
4. Coupling Male	Ford or Equal	C84-66	C84-77
5. Valve Box	Rich or Equal (940-B LOCKING)		
6. Meter Box	Carson or Equal	1324-15L	1324-15L
7. Meter Setter w/Lockable Bypass	Ford or Equal	VBH86-12B	VBH87-12B
8. Brass Nipple (3")	PVC	1-1/2"	2"
9. 2" Sleeve			
10. City to Install Meter			
11. New Construction Must Have Check Valve Existing Building Before 1990 Construction Must Have Angle Stop on Both Sides.			
12. Distance Between Flanges		13-1/4"	17-1/4"

NOTES:

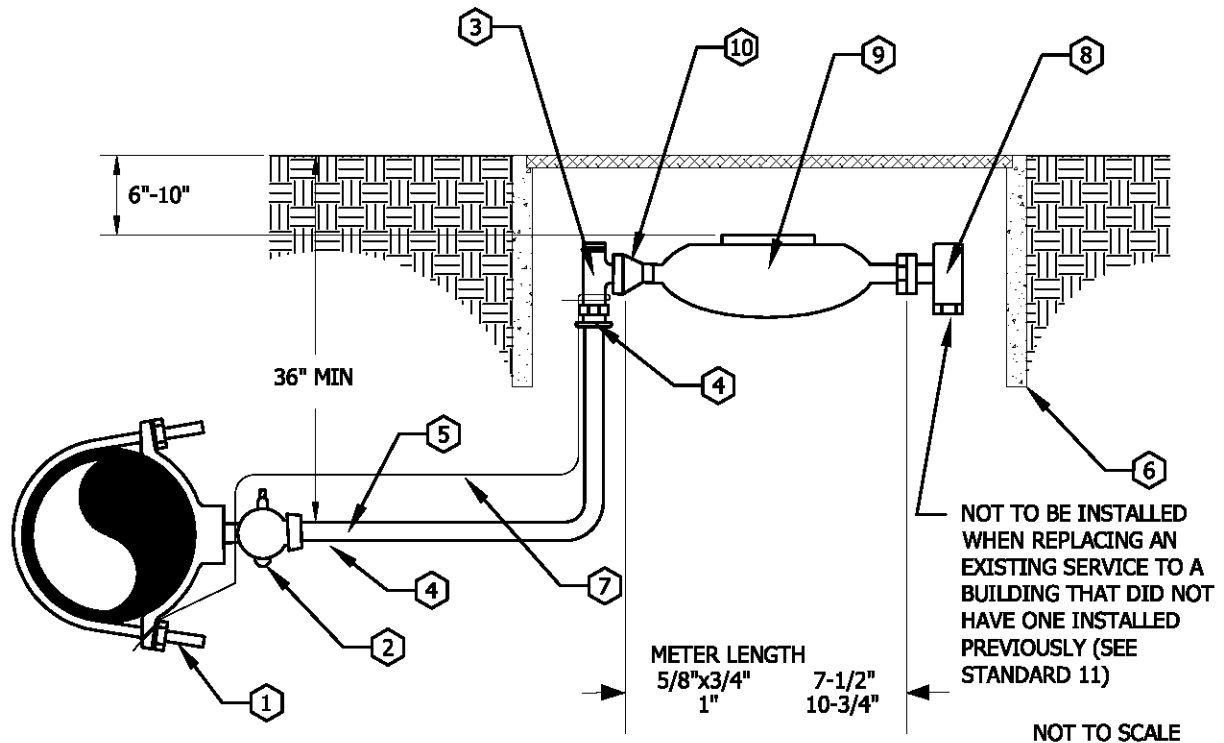
1. THREAD SEALANT AND TEFLON TAPE MUST BE USED ON ALL FITTINGS.
2. METERS SHALL NOT BE LOCATED IN CONCRETE OR ASPHALT PAVING.

CITY OF KIRKLAND

PLAN NO. CK-W.19



1-1/2" & 2" WATER
METER SERVICE
INSTALLATION



WATER SERVICE STANDARDS

DESCRIPTION	MAKER OR TYPE	1"
1. SINGLE STRAP SADDLE	STAINLESS ROMAC OR EQUAL	101 1PT
2. CORP STOP	FORD OR EQUAL	FB1101-4-G-NL
3. ANGLE STOP	FORD OR EQUAL	BA63-444W-G-NL
4. INSERTS	FORD OR EQUAL	#72 STAINLESS STEEL
5. POLY PIPE	POLYETHYLENE ASTM D2239	IPS-SDR-7(PE3408)
6. METER BOX	CARSON OR EQUAL	CK-W.21 (OR W.23 W/APPROVAL)
7. TRACER WIRE	CU SOLID WIRE	14 GAUGE
8. CHECK VALVE	-----	CITY TO INSTALL*
9. METER	-----	CITY TO INSTALL*
10. 1" x 3/4" METER ADAPTOR (FOR 5/8 x 3/4" MTR)	FORD OR EQUAL #A24	CITY TO INSTALL UNLESS A CIP PROJECT
11. 1" METER 3/4" METER	FORD OR EQUAL L31-44 FORD OR EQUAL L31-24	CONTRACTOR TO INSTALL

*UNLESS A CIP PROJECT

NOTES:

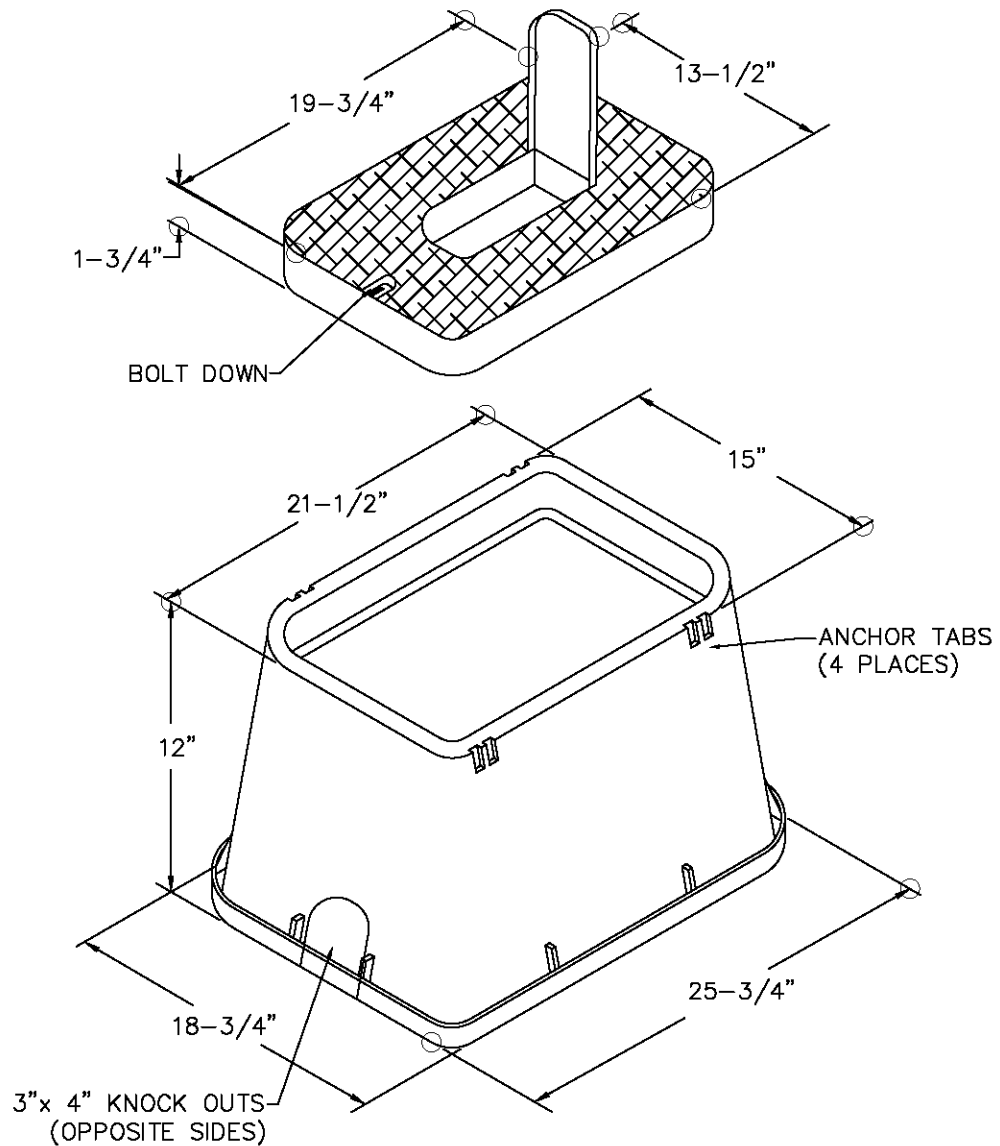
1. ALL FITTINGS MUST BE FORD OR EQUAL.
2. TRACER WIRE FROM MAIN TO SERVICE METER MUST BE INSTALLED IN ALL INSTALLATIONS. WIRE MUST BE WRAPPED AROUND ANGLE STOP AND THE CORPORATION STOP, WITH LAST 8" STRIPPED.
3. POLY SERVICE LINE IS TO BE CONTINUOUS FROM MAIN TO METER-NO SPLICES OF ANY KIND.
4. POLY PIPE TO BE 1" FROM MAIN TO METER.
5. METERS SHALL NOT BE LOCATED IN CONCRETE OR ASPHALT PAVING UNLESS UNAVOIDABLE.
6. THE ANGLE STOP SHALL BE IN A POSITION THAT RESULTS IN THE METER BEING CENTERED DIRECTLY BENEATH THE METER READING LID.

CITY OF KIRKLAND

PLAN NO. CK-W.18



5/8"x3/4" & 1"
WATER METER SERVICE
INSTALLATION



NOTES:

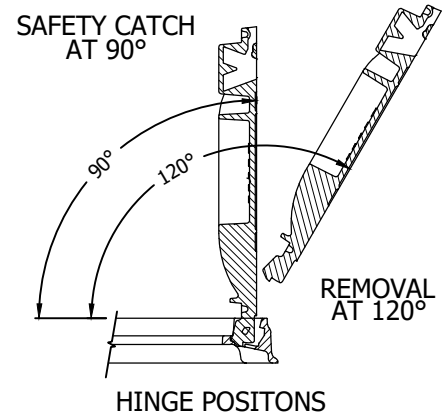
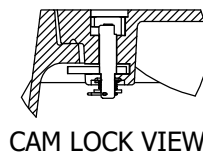
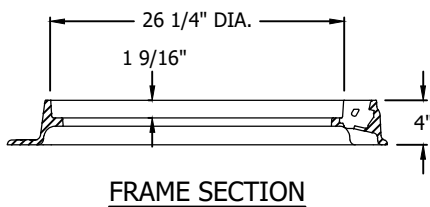
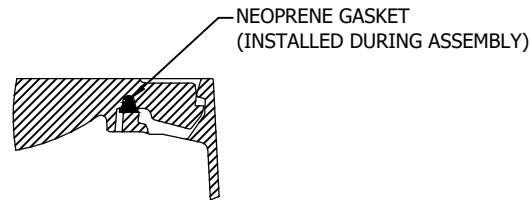
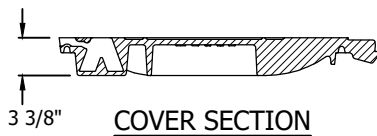
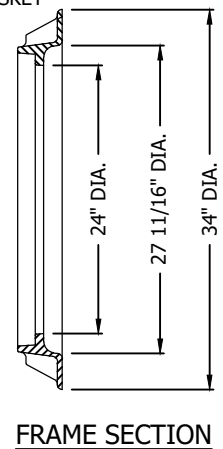
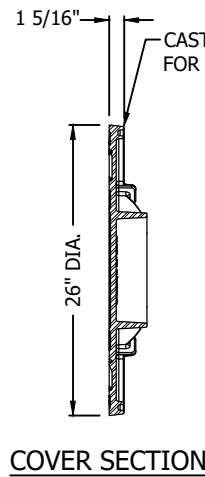
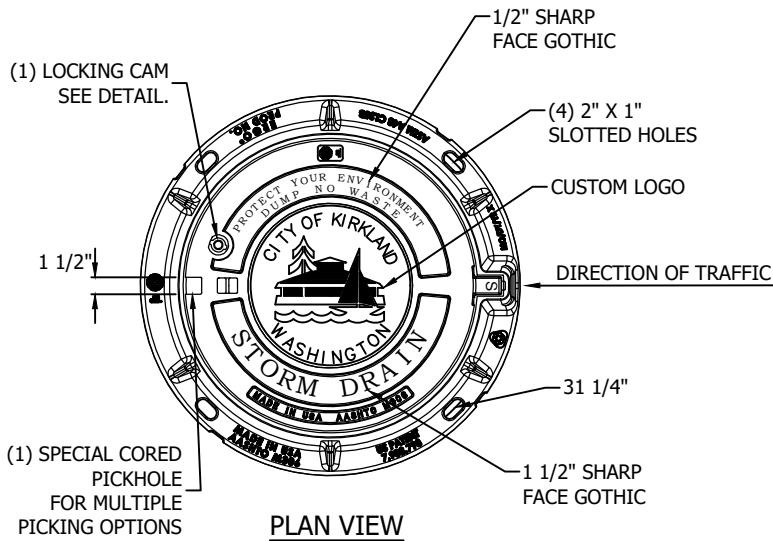
1. USE — CARSON MODEL 1220-12 WITH METER READING COVER OR EQUAL.
2. COVER MUST DISPLAY "W.M." OR EQUAL.
3. METER READING FLIP-UP LID SHALL BE PLASTIC.

CITY OF KIRKLAND

PLAN NO. CK- W.21



3/4" & 1" WATER
METER BOX
PLACED IN PLANTER



NOTES:

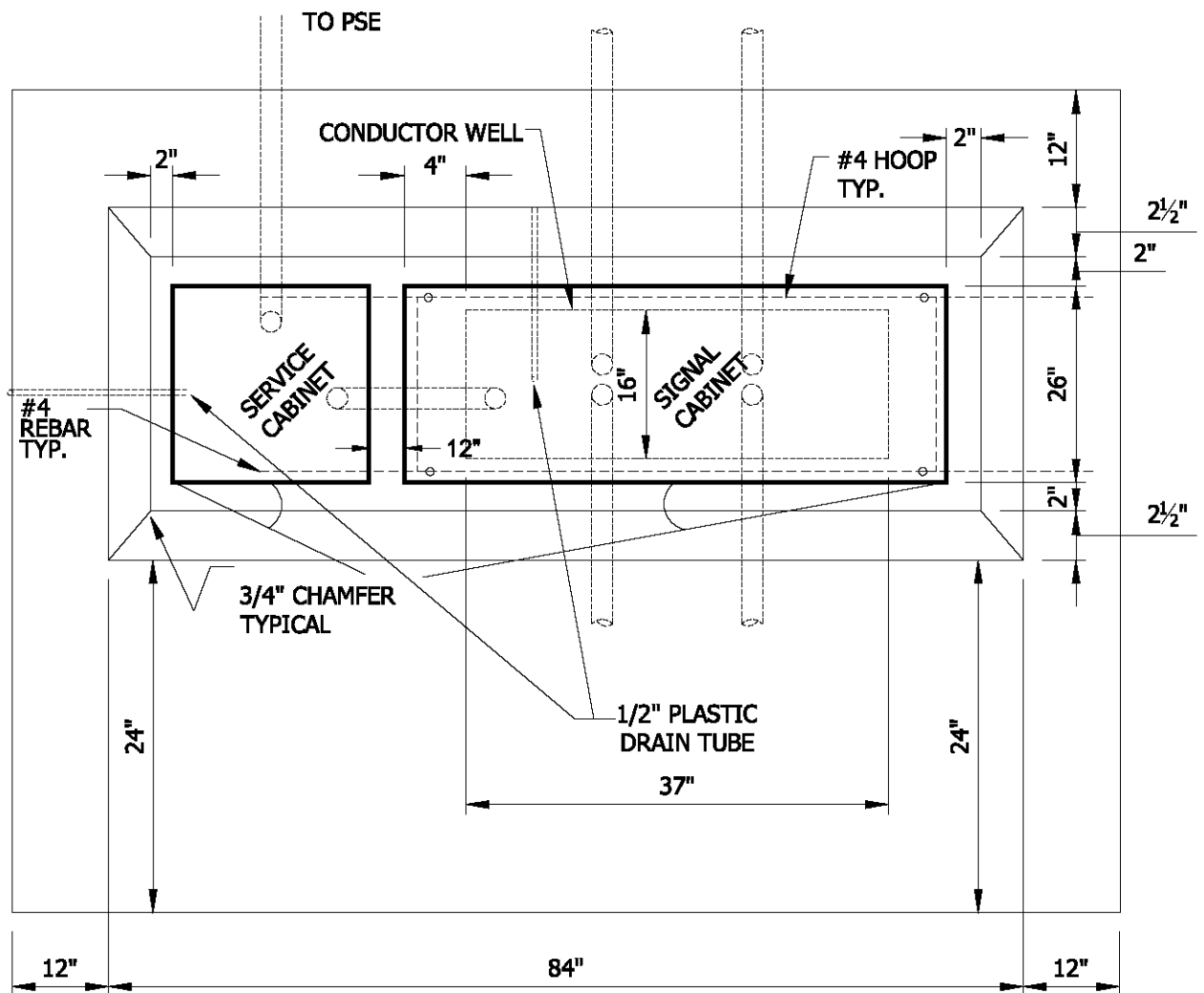
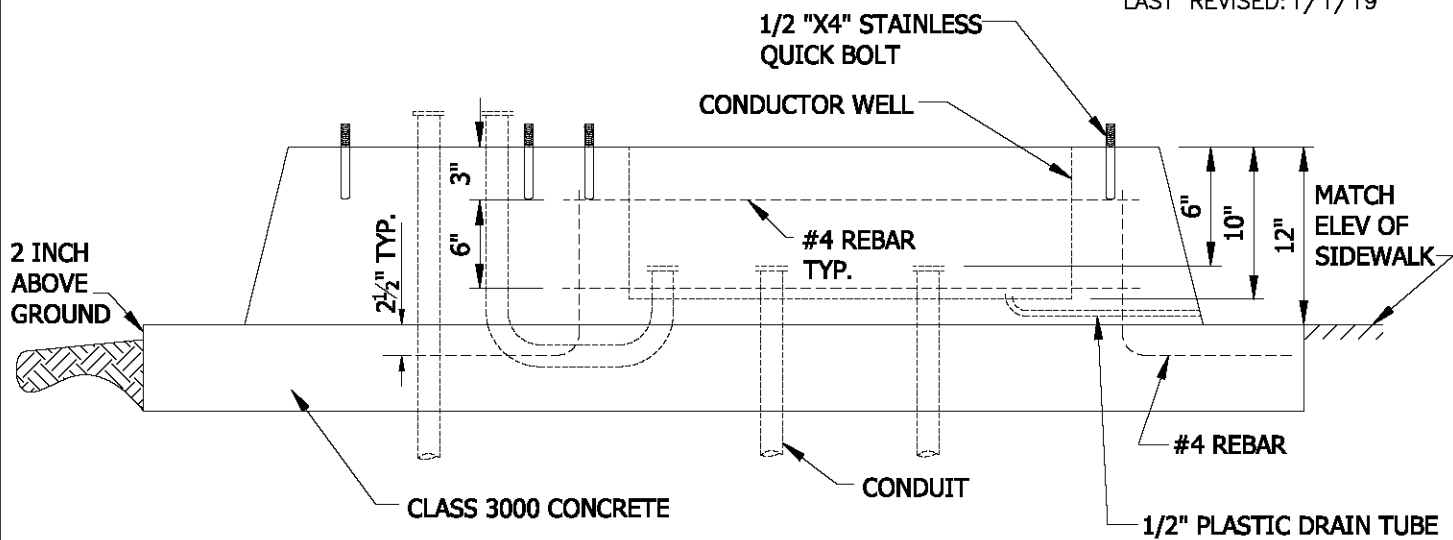
1. VERIFY SLOTTED FRAMES ARE THOROUGHLY FILLED IN WITH MORTAR FOR EFFICIENT INTERACTION WITH IRON AND STRUCTURE.
2. VERIFY BEDDING MORTAR IS NOT IN CONTACT WITH AREA UNDER LID FLANGE THAT WILL INTERFERE WITH CAMLOCK.
3. INSTALL PLUG IN LOCK HOLE TO KEEP LOCK FREE OF FOREIGN MATERIAL.
4. 24 INCH MANHOLE LID IS FITTED WITH AN INFILTRATION PLUG LOCATED IN THE HINGE HOUSING OF THE FRAME. VERIFY PLUG IS PROPERLY INSTALLED BEFORE INSTALLING THE FRAME.
5. REQUIRED ON ALL ARTERIALS, COLLECTORS OR ANY TIME THAT THE IRON WILL BE WITHIN THE TRAVEL LANE.
6. LID SHALL BE MARKED "STORM DRAIN".
7. CITY OF KIRKLAND LOGO REQUIRED.
8. LID MUST BE COVERED WITH TAR PAPER BEFORE OVERLAY.
9. PRODUCT SUPPLIED BY EAST JORDAN IRON WORKS, OR APPROVED EQUAL.
10. FRAME AND COVER SHALL BE H-20 LOADING RATED AND BE AT MINIMUM 7" TALL IF INSTALLED IN ROADWAY.
11. 7" TALL ERGO CASTING REQUIRED FOR CONCRETE ROADWAYS.
12. MUST BE MADE IN THE USA.

CITY OF KIRKLAND

PLAN NO. CK - D.18A



**MODIFIED 24"
MANHOLE FRAME
W/ HINGED COVER**



NOTE:

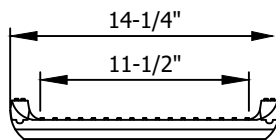
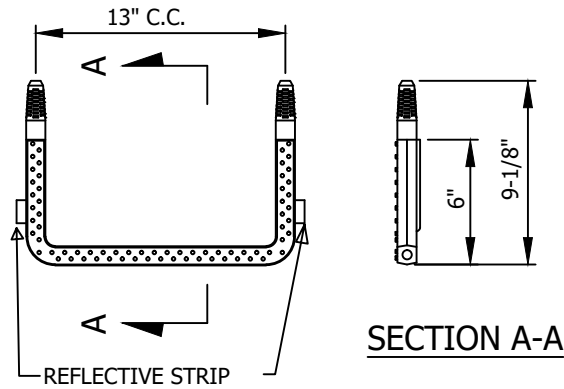
1. CONTRACTOR TO VERIFY BOLT PATTERN WITH CABINETS.
2. CLEARANCE NEEDED FOR DOORS.

CITY OF KIRKLAND

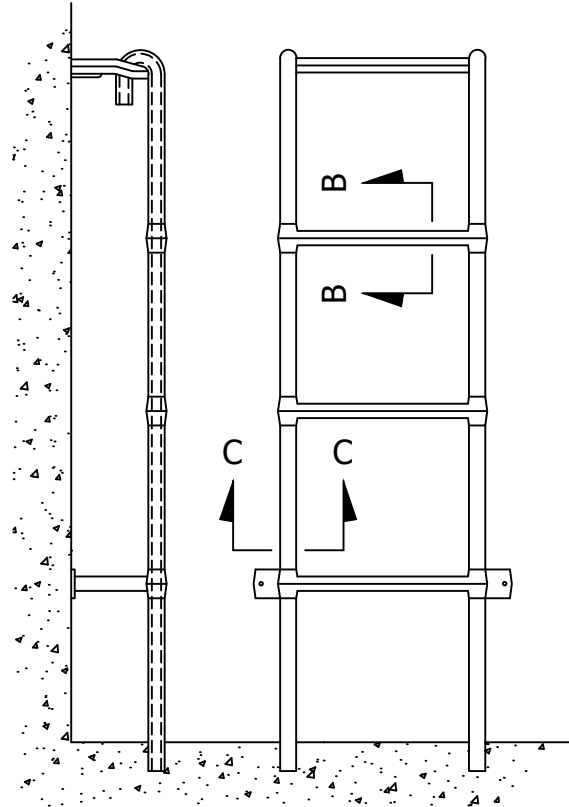
PLAN NO. CK-TS.04



SIGNAL & SERVICE
CABINET FOUNDATION
DETAIL



P-14938
POLYPROPYLENE STEP



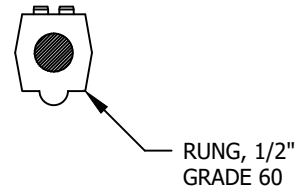
SPECIFICATIONS:

1. ALL STEPS SHALL MEET THE REQUIREMENTS OF ASTM C-478, AASHTO M-199, WISHA AND ALL ASHA SPECIFICATION.
2. THE POLYPROPYLENE SHALL CONFORM TO ASTM D-4101.
3. THE 1/2" GRADE 60 DEFORMED REINFORCING BAR SHALL MEET ASTM A-615.
4. STEP REFLECTORS OR BRIGHT COLORED STEPS REQUIRED.

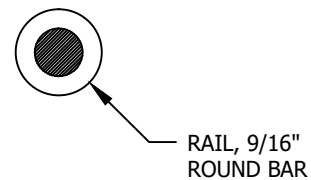
INSTALLATION:

1. THE STEP CAN BE CAST IN PLACE.
2. DRIVEN INTO PREFORMED HOLES WITH CONCRETE CURED TO 3,000 PSI MINIMUM.
3. DRIVEN INTO 2 PARALLEL 1" DIAMETER HOLES DRILLED 13" OR 10" ON CENTER, 3-1/2" DEEP.
4. DRILL 2 1-1/8" OR 1-1/4" HOLES, 3-1/2" DEEP, APPLY CURRENT WSDOT EPOXY SPECIFICATION IN THE HOLE AND AROUND THE BARBS OF THE STEP. PUSH THE STEP INTO THE HOLES ALLOWING THE EPOXY TO FLOW OUT TO THE SQUARE SHOULDER OF THE STEP.

ANY OF THE ABOVE METHODS WILL RESIST A PULLOUT FORCE OF OVER 1,500 LBS.



SECTION B-B



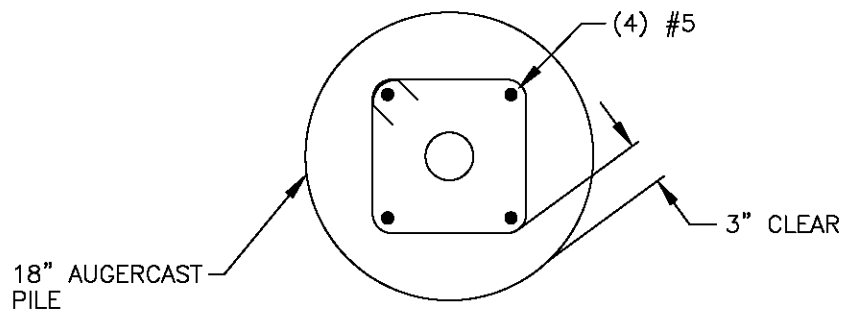
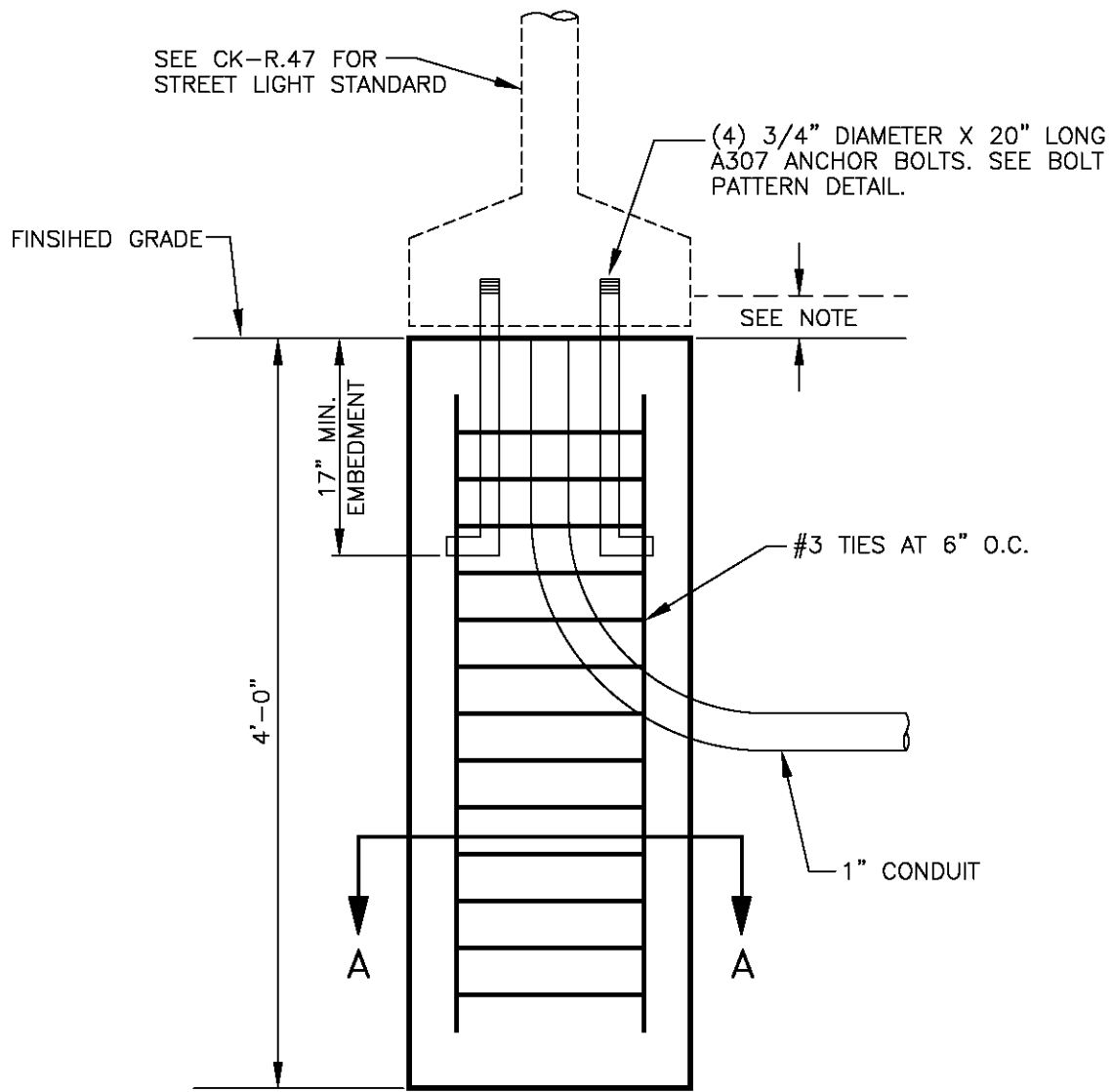
SECTION C-C

CITY OF KIRKLAND

PLAN NO. CK-S.14



**LADDER AND
MANHOLE STEPS**



SECTION A-A

NOTE:

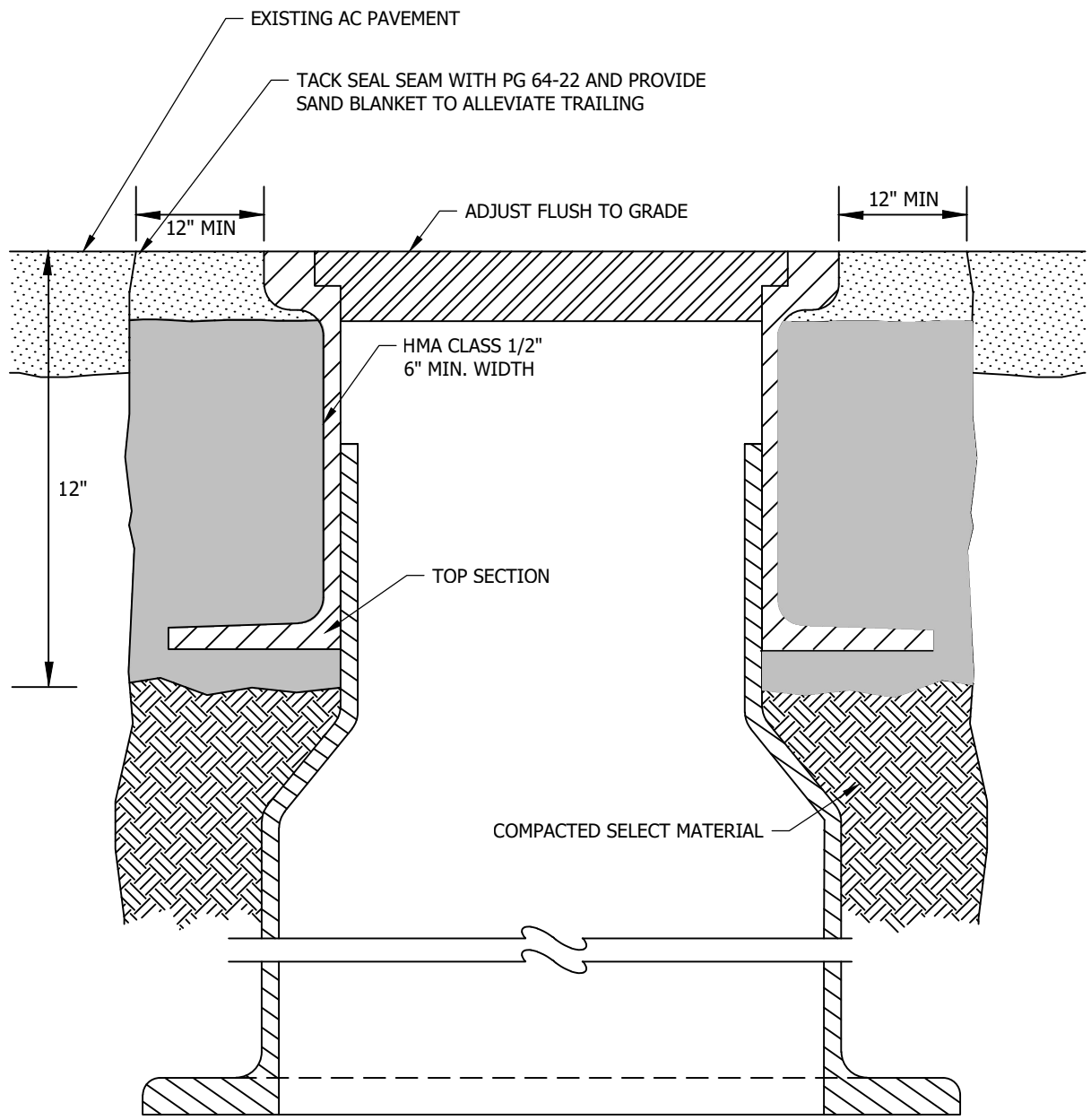
IF SLOPE OF GRADE EXCEEDS 2% THEN FLAT TOP OF PILE WILL EXTEND ABOVE GRADE AROUND ALL OF IT'S CIRCUMFERENCE.

CITY OF KIRKLAND

PLAN NO. CK-R.47A



POLE BASE DETAIL



NOTES:

1. HMA MUST BE COMPACTED WITH PROCTOR HAMMER (PNEUMATIC BACKFILL COMPACTION TAMPER) IN 3" LIFTS.
2. LOCKING MH LIDS SHALL BE POSITIONED WITH ONE LUG CENTERED OVER STEPS.
3. SEE CK-D.18A FOR DIRECTION OF HINGED LIDS INSTALLATION.
4. WATER VALVE BOX EARS MUST POINT IN THE DIRECTION OF FLOW. CONTRACT CITY INSPECTOR IF FLOW DIRECTION CANNOT BE DETERMINED.
5. APPLY A TACK COAT TO ALL EDGES OF EXISTING ASPHALT PRIOR TO PLACEMENT OF NEW HMA. SEAL ALL JOINTS WHEN COMPLETE.

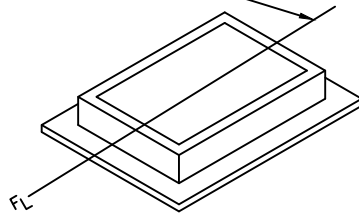
CITY OF KIRKLAND

PLAN NO. CK- R.02

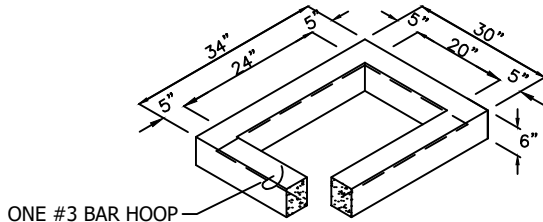


**GENERAL UTILITY
ADJUSTMENT
H.M.A. PAVEMENT**

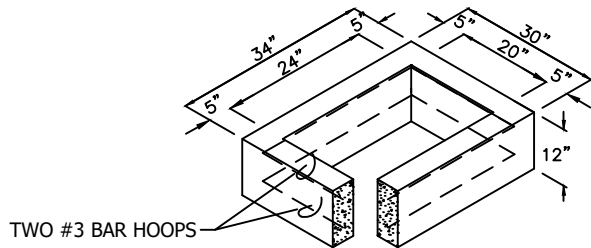
ALIGNMENT OF STRUCTURE
TO PIPE FLOWLINE (TYP.)



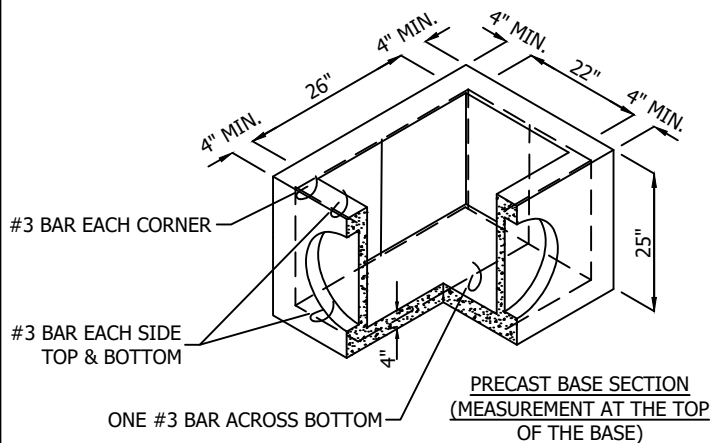
FRAME AND GRATE (SEE APPLICABLE
STANDARD DETAILS CK-D.11 THROUGH D.16A.)



6" RISER SECTION



12" RISER SECTION



PRECAST BASE SECTION
(MEASUREMENT AT THE TOP
OF THE BASE)

NOTES:

LAST REVISED: 07/2021

1. CONCRETE INLET TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CURB INLET WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 16".
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FOOT.
9. CONCRETE INLET FRAME AND GRATES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE SHALL BE INSTALLED WITH FLANGE DOWN.
11. APPROVAL BY THE CITY OF KIRKLAND REQUIRED.
12. CURB INLET MUST DRAIN TO CATCH BASIN WITH SUMP.
13. ALL NEW PVC PIPES SHALL BE INSTALLED WITH SAND COLLARS AND A NON-SHRINK GROUT. JETSET NOT ALLOWED.
14. 1", 2", AND 4" RISERS ACCEPTED AS NEEDED.
15. MINIMUM 10' FROM ADJACENT TREES, UNLESS OTHERWISE APPROVED.

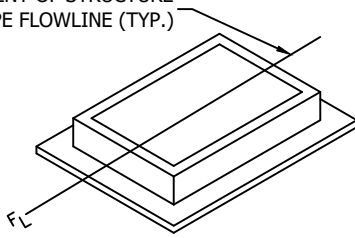
CITY OF KIRKLAND

PLAN NO. CK - D.06

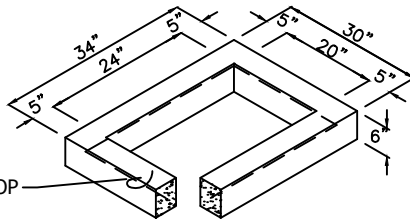


CURB INLET

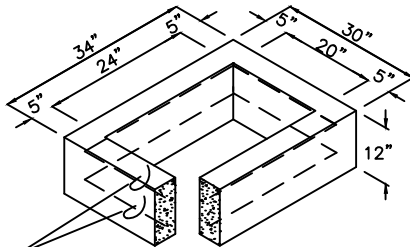
ALIGNMENT OF STRUCTURE
TO PIPE FLOWLINE (TYP.)



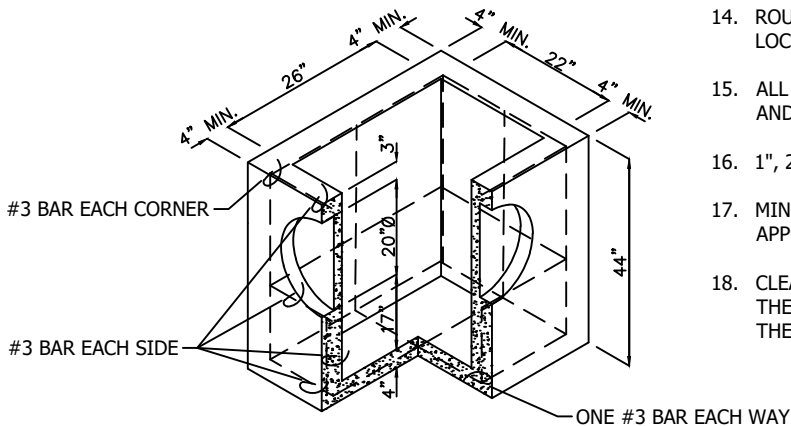
FRAME AND GRATE
(SEE STANDARD DETAILS D.11 THROUGH D.16A)



6" RISER SECTION



12" RISER SECTION



PRECAST BASE SECTION
(MEASUREMENT AT THE TOP OF THE BASE)

LAST REVISED: 07/2021

NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FOOT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE SHALL BE INSTALLED WITH FLANGE DOWN.
11. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.
12. ACCEPTABLE PIPE SIZES ARE 8", 12" OR 15". 6" PIPE IS ONLY ACCEPTABLE ON PRIVATE SYSTEMS.
13. ROUND SOLID LIDS REQUIRED WHENEVER CATCH BASIN DOES NOT COLLECT SURFACE WATER. SEE CK-D.18 AND CK-D.18A FOR REFERENCE.
14. ROUND CONCRETE RISERS ARE REQUIRED FOR ROUND SOLID LOCKING LIDS.
15. ALL NEW PVC PIPES SHALL BE INSTALLED WITH SAND COLLARS AND A NON-SHRINK GROUT. JETSET NOT ALLOWED.
16. 1", 2", AND 4" RISERS ACCEPTED AS NEEDED.
17. MINIMUM 10' FROM ADJACENT TREES, UNLESS OTHERWISE APPROVED.
18. CLEAN SURFACE AND BOTTOM AREA. PROVIDE UNIFORM CONTACT. THE SURFACE AREA OF THE BASE SECTION MUST BE MORTARED TO THE BOTTOM AREA OF THE RISER SECTION.

CITY OF KIRKLAND

PLAN NO. CK - D.07



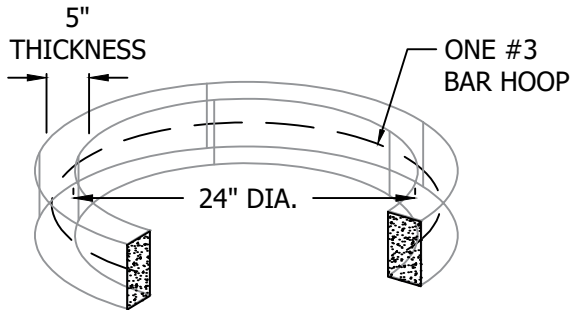
CATCH BASIN
TYPE 1



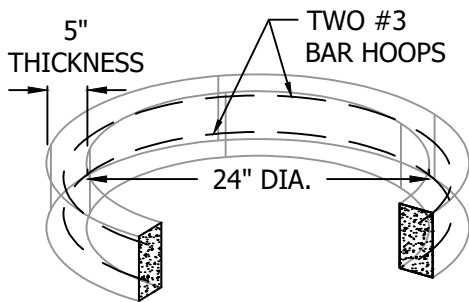
FRAME AND GRATE
(SEE STANDARD DETAILS
D.18 AND D.18A)

NOTES:

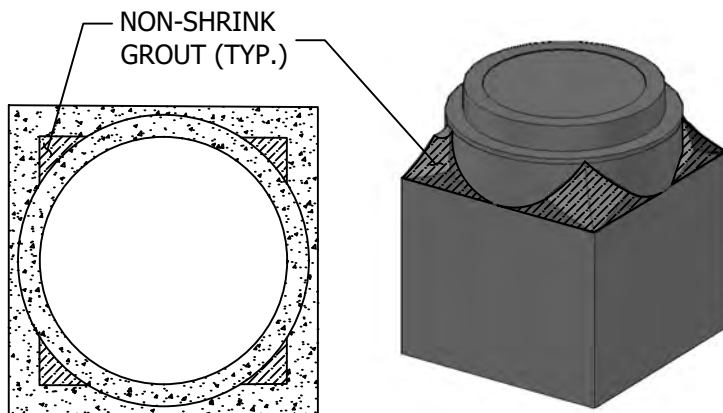
1. GROUT SHALL BE APPLIED BETWEEN ALL MATING SURFACES TO ENSURE A WATER TIGHT SEAL AND STRONG BOND.
2. COMMERCIALY AVAILABLE CONVERTER FROM RECTANGULAR STRUCTURE TO CIRCULAR RISER MAY BE USED IF APPROVED BY PUBLIC WORKS DEPARTMENT.
3. 1", 2", AND 4" RISERS ACCEPTED AS NEEDED.



6" RISER SECTION



12" RISER SECTION



TRANSITION DETAIL
2-D PLAN VIEW

TRANSITION DETAIL
3-D CONCEPTUAL
VIEW

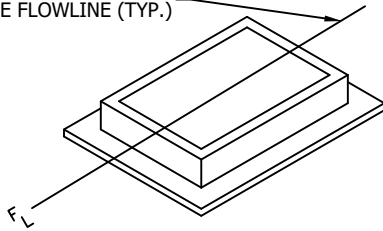
CITY OF KIRKLAND

PLAN NO. CK - D.07A

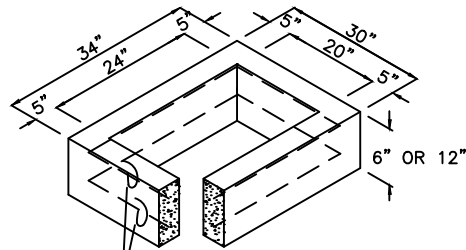


CIRCULAR RISER
AND TRANSITION FOR
TYPE 1 AND 1-L CB

ALIGNMENT OF STRUCTURE
TO PIPE FLOWLINE (TYP.)

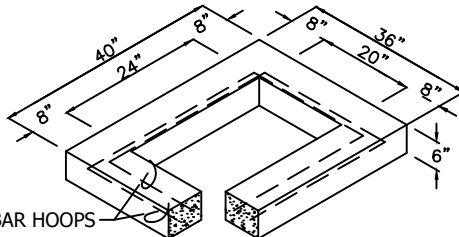


FRAME AND GRATE (SEE APPLICABLE
STANDARD DETAILS CK-D.11 THROUGH D.16)



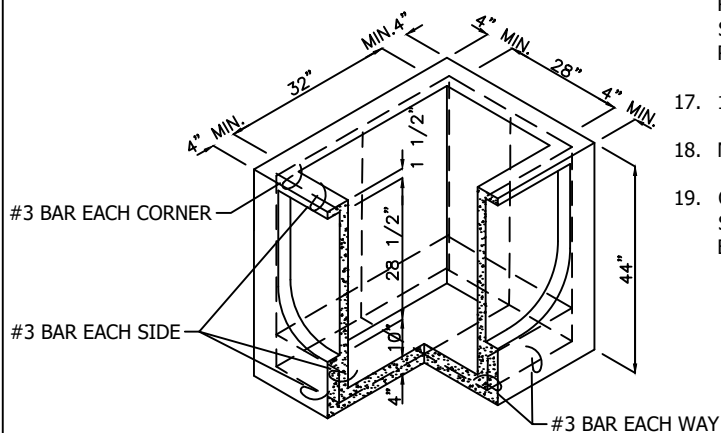
ONE #3 BAR HOOP FOR 6"
TWO #3 BAR HOOPS FOR 12"

RISER SECTION



TWO #3 BAR HOOPS

6" REDUCING SECTION



PRECAST BASE SECTION
(MEASUREMENT AT THE
TOP OF THE BASE)

NOTES

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 28". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FOOT.
8. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
9. FRAME AND GRATE SHALL BE INSTALLED WITH FLANGE DOWN.
10. MAX. DEPTH FROM FINISHED GRADE TO PIPE INVERT SHALL BE 5'-0".
11. EDGE OF REDUCING SECTION OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.
12. ACCEPTABLE PIPE SIZES ARE 8", 12", 15" OR 18". 6" PIPE IS ONLY ACCEPTABLE ON PRIVATE SYSTEMS.
13. ROUND SOLID LOCKING LIDS REQUIRED WHENEVER CATCH BASIN DOES NOT COLLECT SURFACE WATER, OR WHEN LOCATED IN SIDEWALK AND PLANTER AREAS. SEE CK-D.18 AND CK-D.18A FOR REFERENCE.
14. ROUND CONCRETE RISERS ARE REQUIRED FOR ROUND SOLID LOCKING LIDS.
15. ALL NEW PVC PIPES SHALL BE INSTALLED WITH SAND COLLARS AND A NON-SHRINK GROUT. JETSET NOT ALLOWED.
16. MAXIMUM RISE OF 20" X 24" RISER THROAT SHALL BE 12". IF MORE RISE IS NEEDED IT SHALL BE PROVIDED WITH AN ADDITIONAL RISER SECTION(S) BENEATH THE REDUCING SLAB, IF REDUCING SLAB IS REQUIRED.
17. 1", 2", AND 4" RISERS ACCEPTED AS NEEDED.
18. MINIMUM 10' FROM ADJACENT TREES, UNLESS OTHERWISE APPROVED.
19. CLEAN SURFACE AND BOTTOM AREA. PROVIDE UNIFORM CONTACT. THE SURFACE AREA OF THE BASE SECTION MUST BE MORTARED TO THE BOTTOM AREA OF THE RISER SECTION.

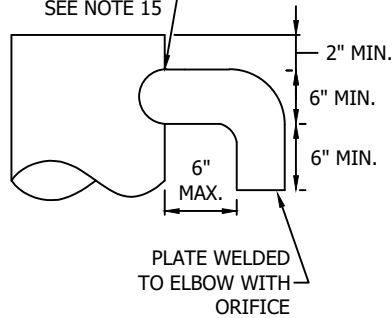
CITY OF KIRKLAND

PLAN NO. CK - D.08



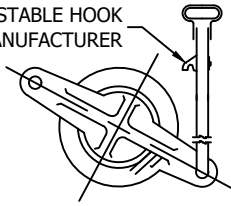
CATCH BASIN
TYPE 1-L

TWO-PIECE ELBOW
WITH FERNCO FITTING.
SEE NOTE 15



ELBOW RESTRICTOR DETAIL
NTS

ADJUSTABLE HOOK
PER MANUFACTURER



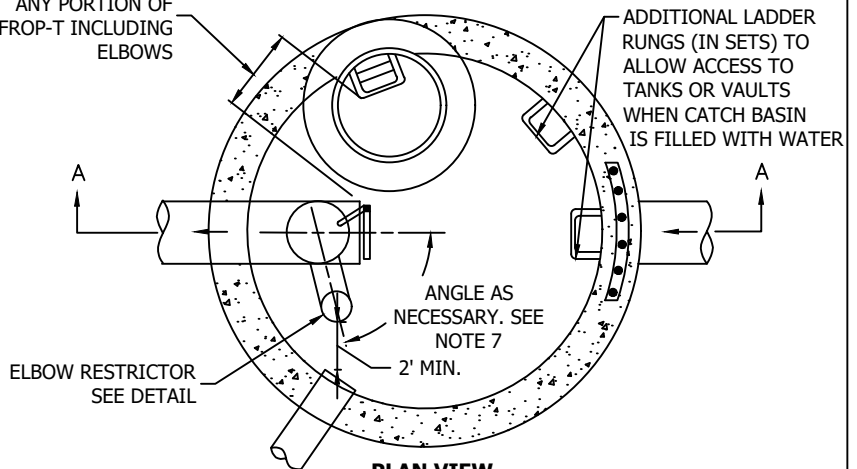
SHEAR GATE
NTS

NOTES:

- USE A MINIMUM OF A 54" DIAMETER TYPE-II CATCH BASIN.
- OUTLET CAPACITY: 100-YEAR DEVELOPED PEAK FLOW.
- METAL PARTS SHALL BE CORROSION RESISTANT, EITHER ALUMINUM OR STAINLESS STEEL. RISER STRUCTURE MATERIAL SHALL BE ALUMINUM. FASTENERS MAY BE STAINLESS STEEL.
- FRAME & LADDER OR STEPS TO OFFSET SO:
A. CLEANOUT GATE IS VISIBLE FROM TOP.
B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
C. FRAME IS CLEAR OF CURB.
- IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE: OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4".
- PROVIDE TWO 3" X 0.100 GAGE SUPPORT BRACKET BOLTED OR EMBEDDED 2" INTO CONCRETE WALL.
- LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MINIMUM CLEARANCE AS SHOWN.
- TOP HAND HOLD SHALL BE LOCATED LESS THAN 18" BELOW FINISHED GRADE.
- LOCATE ADDITIONAL LADDER RUNGS IN STRUCTURES USED AS ACCESS TO TANKS OR VAULTS TO ALLOW ACCESS WHEN CATCH BASIN IS FILLED WITH WATER.
- SHEAR GATE SHALL BE PRODUCT MADE OF CAST ALUMINUM (NO CAST IRON).
- GATE SHALL BE 8" OR LARGER IN DIAMETER FOR OUTLET PIPES SMALLER THAN 23" DIAMETER. GATE SHALL BE 12" OR LARGER DIAMETER FOR OUTLET PIPES 24" DIAMETER AND LARGER.
- LIFT ROD: AS SPECIFIED BY MANUFACTURER. WITH HANDLE TENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER HANDHOLD.
- FILL CATCH BASIN TO INVERT LEVEL OF OUTFLOW PIPE TO PREVENT ANY OIL ESCAPING.
- REMOVABLE BASKET OR SCREEN REQUIRED REGARDLESS OF BOTTOM ORIFICE SIZE. ALUMINUM MESH, 8" DEPTH, MIN. 3 STAINLESS STEEL SCREWS, 0.5" EXPANDED SHEET MESH TYPICAL.
- CITY OF KIRKLAND REQUIRES ELBOW AND FERNCO, INDIANA SEAL OR EQUIVALENT TO BE REMOVABLE.
- ALL NEW PVC PIPES SHALL BE INSTALLED WITH SAND COLLARS AND A NON-SHRINK GROUT. JETSET NOT ALLOWED.
- MINIMUM 10' FROM ADJACENT TREES, UNLESS OTHERWISE APPROVED.

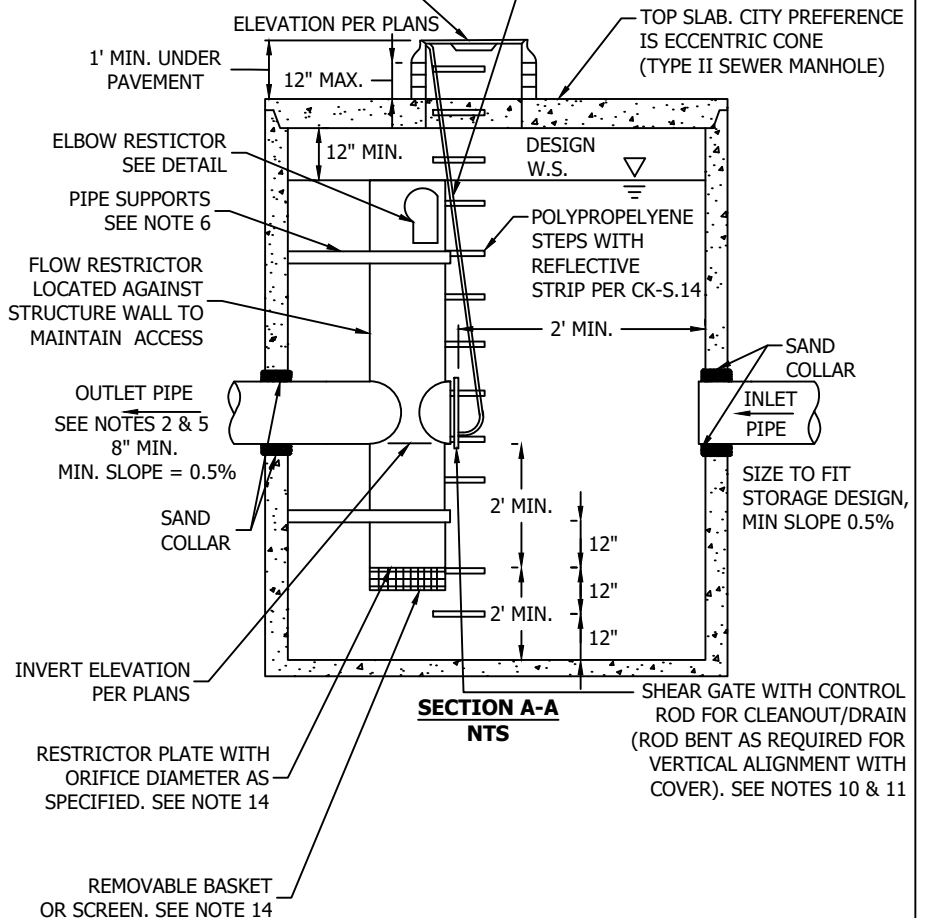
2' MIN. CLEARANCE TO
ANY PORTION OF
PROP-T INCLUDING
ELBOWS

LAST REVISED: 01/2022



PLAN VIEW
NTS

FRAME GRATE AND LOCKING
COVER MARKED "DRAIN". SEE STD.
DWG. CK-D.18 OR -D.18A. OFFSET
MANHOLE OR CATCH BASIN LID SO
THAT RESTRICTOR/SEPARATOR
DEVICE IS 75% VISIBLE.



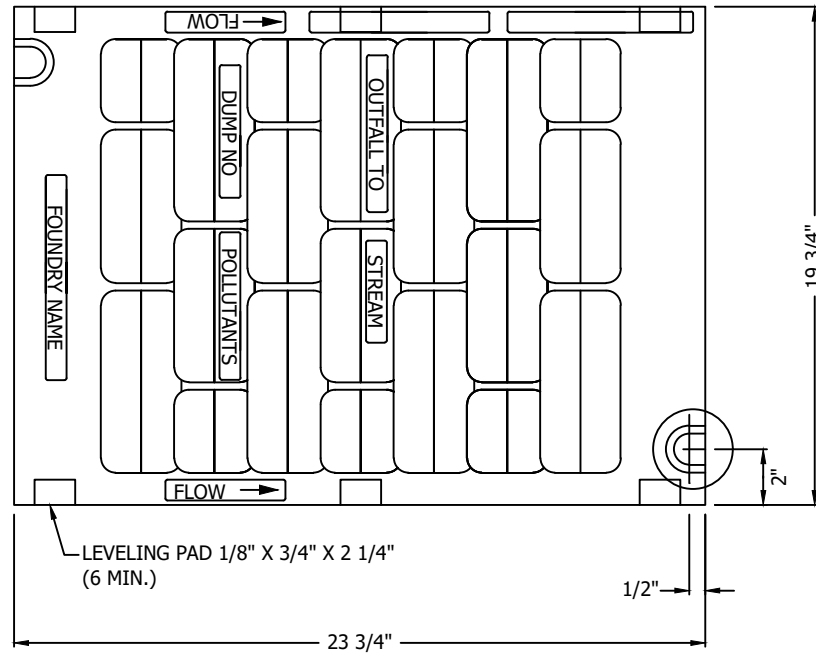
SECTION A-A
NTS

CITY OF KIRKLAND

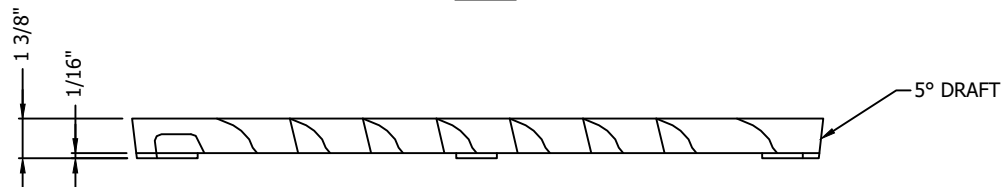
PLAN NO. CK - D.10



**CATCH BASIN-TYPE 2
W/OIL SEPARATOR
FLOW RESTRICTOR**



PLAN



ELEVATION

NOTES:

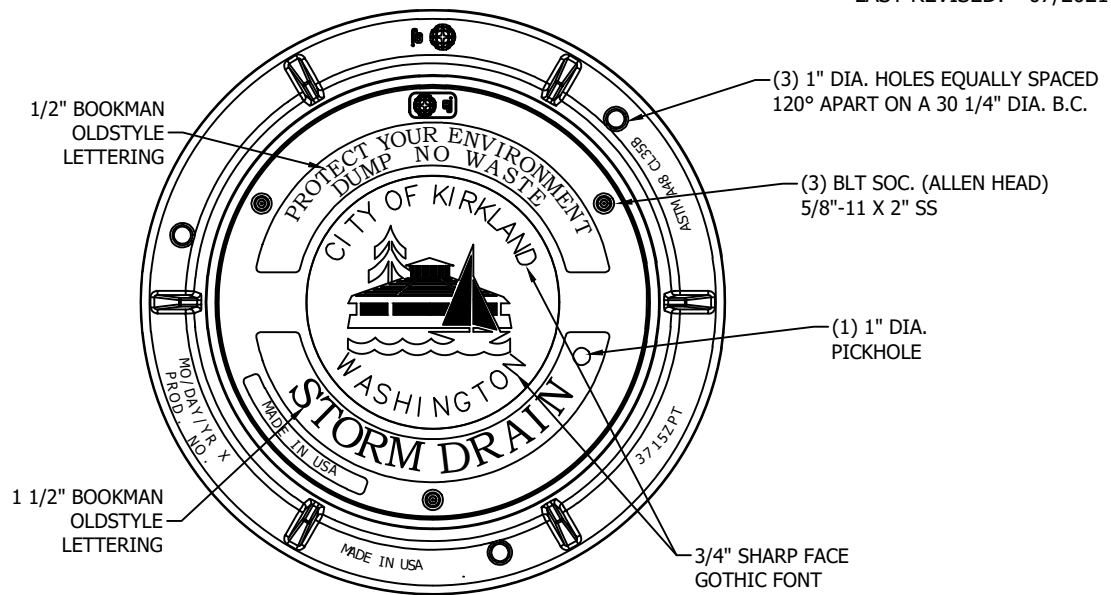
1. USE EAST JORDAN IRON WORKS OR EQUAL TWO BOLT LOCK CAPABILITY THAT MEETS WSDOT SPEC. MANUFACTURER SUBJECT TO APPROVAL BY CITY.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG.
3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON BORDER AREA.
5. SHALL CONFORM TO SEC. 7.05 OF THE STANDARD SPECIFICATIONS.
6. WELDING IS NOT PERMITTED.
7. EDGES SHALL HAVE 0.125" RADIUS, 0.125" CHAMBER OR COMPLETE DEBURRING.
8. USE A BI-DIRECTIONAL VANED GRATE AT ANY LOW POINT OR WHEN FLOWS COME FROM MULTIPLE DIRECTIONS.
9. NO EXPANSION MATERIAL IN THE FLOW LINE, WHERE CONCRETE COMES TO FRAME.
10. FRAME AND COVER SHALL BE H-20 LOADING RATED IF INSTALLED IN ROADWAY.
11. MUST BE MADE IN USA.

CITY OF KIRKLAND

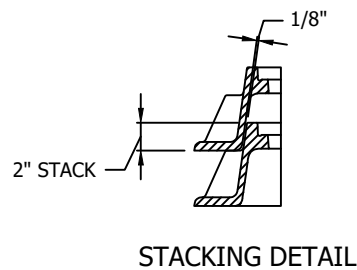
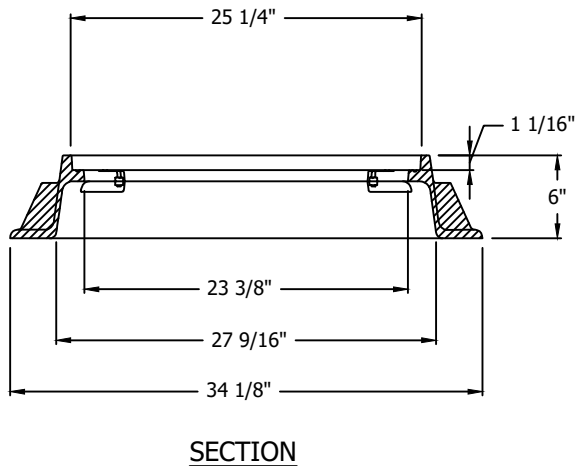
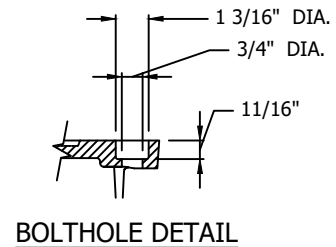
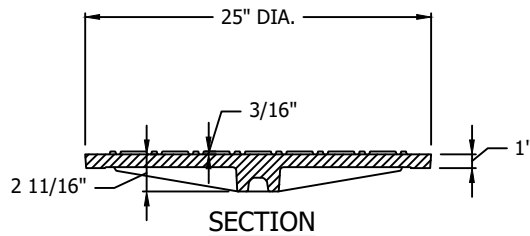
PLAN NO. CK - D.14



**VANED GRATE
FOR CATCH BASIN
AND INLET**



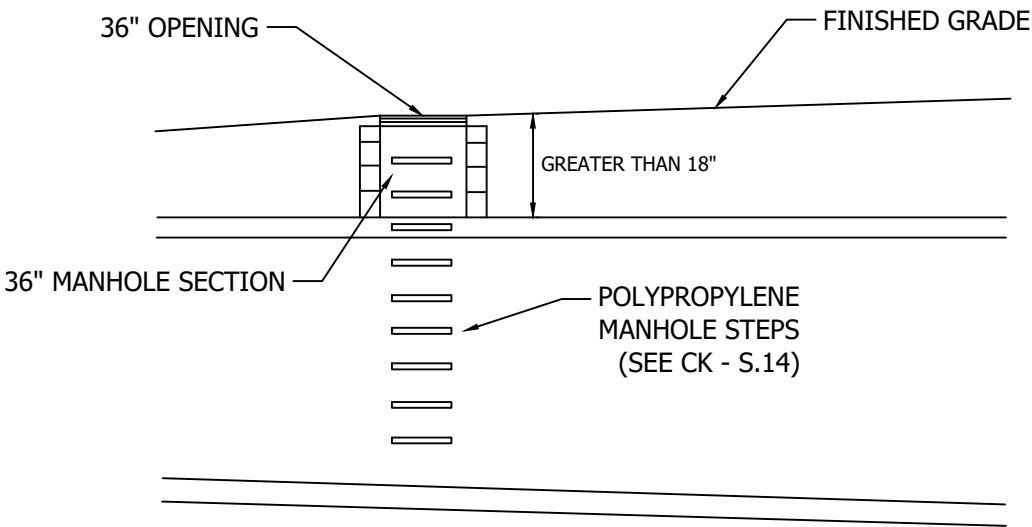
PLAN VIEW




NOTES:

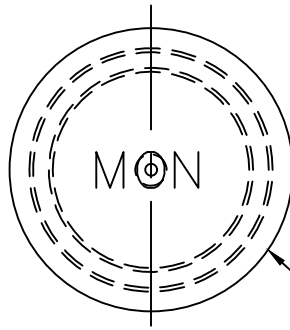
1. COVERS SHALL BE GRAY IRON, LOCKING, WITH A MINIMUM WEIGHT OF 141 LBS.
2. MINIMUM WEIGHT OF FRAME SHALL BE 134 LBS.
3. PRODUCT SUPPLIED BY EJ GROUP, INC., APPROVED EQUAL.
4. CITY OF KIRKLAND LOGO REQUIRED
5. THIS SPEC SHOULD NOT BE USED IN THE ROADWAY.
6. MUST BE MADE IN THE USA.

CITY OF KIRKLAND	
PLAN NO. CK - D.18	
	24" MANHOLE FRAME
	W/LOCKING COVER AND LOGO

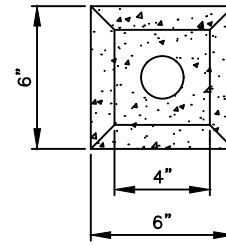


PROFILE VIEW
NTS

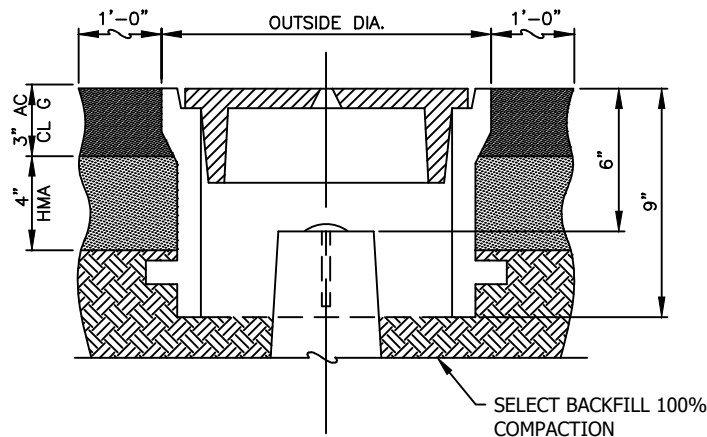
CITY OF KIRKLAND	
PLAN NO. CK - D.35A	
	36" VAULT ACCESS



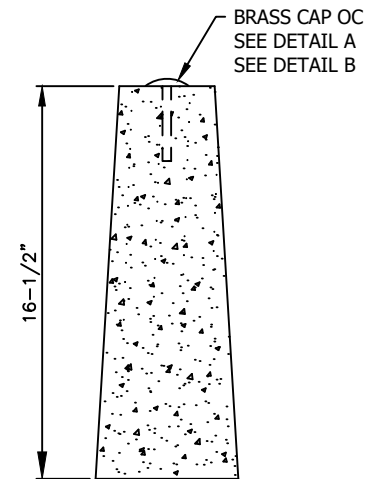
PLAN



PLAN



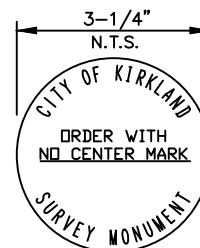
ELEVATION



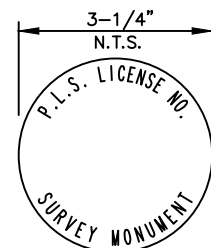
ELEVATION

NOTES:

1. ALL JOINTS BETWEEN ASPHALT PATCH AND EXISTING PAVEMENT SHALL BE SEALED.
2. THE CASTINGS SHALL BE GREY-IRON CASTINGS, ASTM DESIGNATION A-48, CLASS 30B. THE COVER AND SEAT SHALL BE MACHINED SO AS TO HAVE PERFECT CONTACT AROUND THE ENTIRE CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
3. CONCRETE COLLAR REQUIRED IF OUTSIDE OF ASPHALT AREA.
4. HMA MUST BE COMPACTED WITH PROCTOR HAMMER (PNEUMATIC BACKFILL COMPACTION TAMPER) IN 3" LIFTS



CAP DETAIL A
CAP LAYOUT FOR
COB CAPITAL PROJECTS



CAP DETAIL B
CAP LAYOUT FOR
PRIVATE DEVELOPMENT
PROJECTS

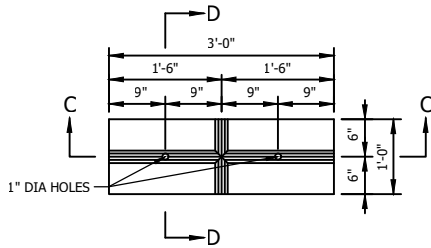
CITY OF KIRKLAND

PLAN NO. CK-R.03

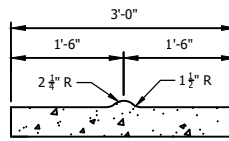


MONUMENT
CASE AND COVER

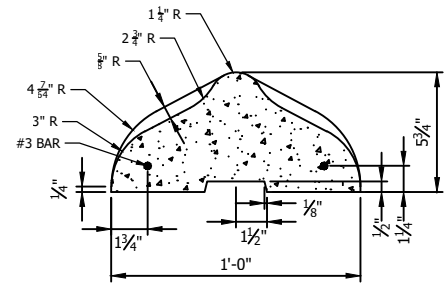
LAST REVISED:01/2022



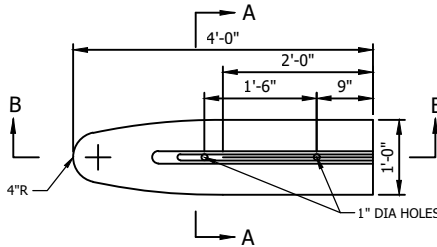
CURB PLAN



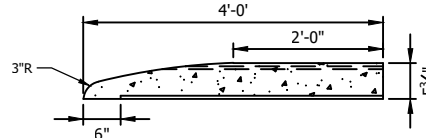
SECTION C-C



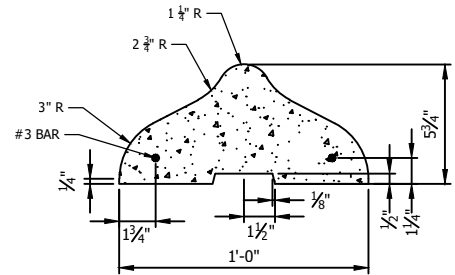
SECTION D-D



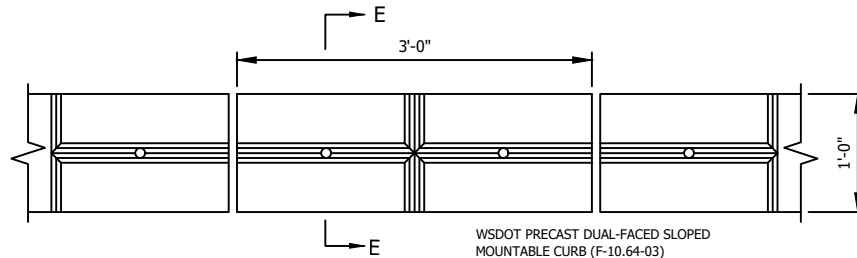
NOSING



SECTION B-B

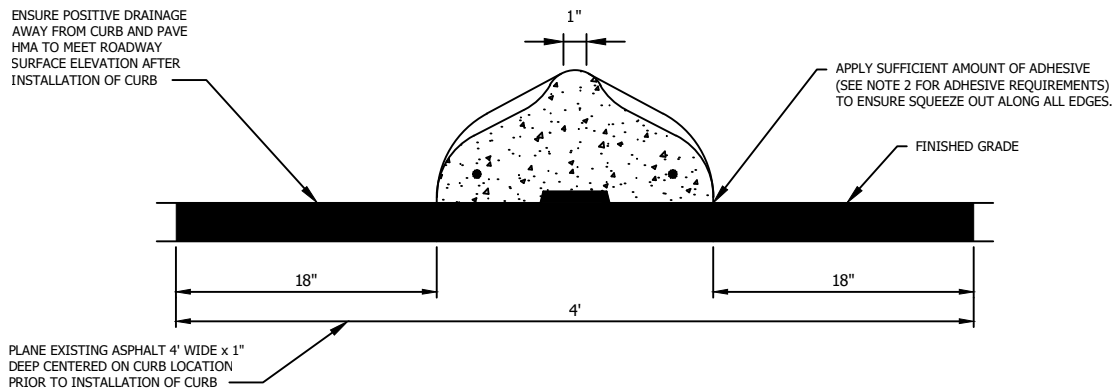


SECTION A-A



WSDOT PRECAST DUAL-FACED SLOPED
MOUNTABLE CURB (F-10.64-03)

INSTALLATION DETAIL FOR STRAIGHT PRECAST TRAFFIC CURB



SECTION E-E

NOTES:

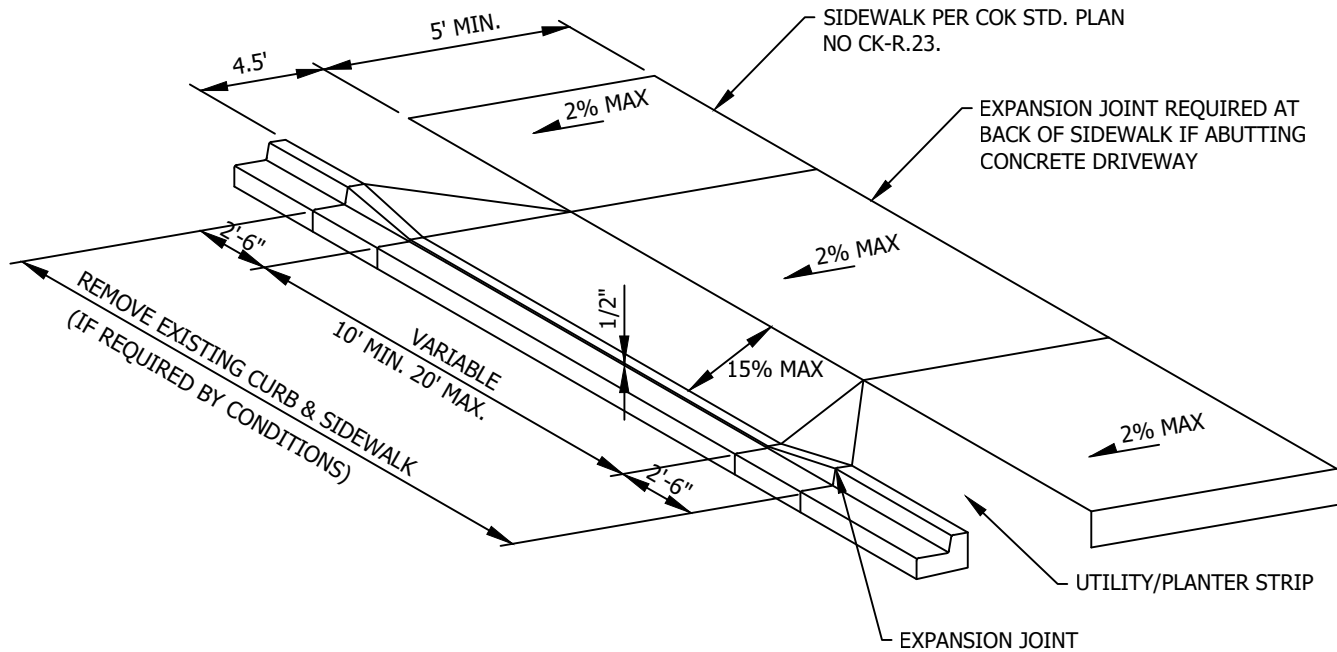
1. ALL JOINTS BETWEEN ASPHALT PATCH AND EXISTING PAVEMENT SHALL BE SEALED.
2. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF SECTION 9.26 OF THE WSDOT STANDARD SPECIFICATION. USE APPROPRIATE ADHESIVE TYPE FOR EXISTING CONDITIONS.
3. MEDIAN CURB SHALL BE PAINTED. PAINT SHALL MEET SECTION 9.34.2 OF THE WSDOT STANDARD SPECIFICATION.
4. APPLY FULL COVERAGE TACK COAT PRIOR TO PLACEMENT OF HMA.

CITY OF KIRKLAND

PLAN NO. CK-R.19A



MEDIAN CURB



SINGLE FAMILY DRIVEWAY WITH PLANTER STRIP

NOTES:

1. ALL DRIVEWAYS AND WHEEL CHAIR RAMPS MUST BE DESIGNED TO MEET ADA STANDARDS. USE WSDOT STANDARD PLANS FOR LAYOUTS NOT SHOWN ON THIS PLAN WITH CLASS 4,000PSI CONCRETE FOR ALL STANDARD PLANS.

WWW.WSDOT.WA.GOV/DESIGN/STANDARDS/PLANS.HTM

2. LANDING SHALL BE A MINIMUM OF 5' BY 5'.
3. EXPANSION JOINT SPACING NOT TO EXCEED 10'.

CITY OF KIRKLAND

PLAN NO. CK-R.21

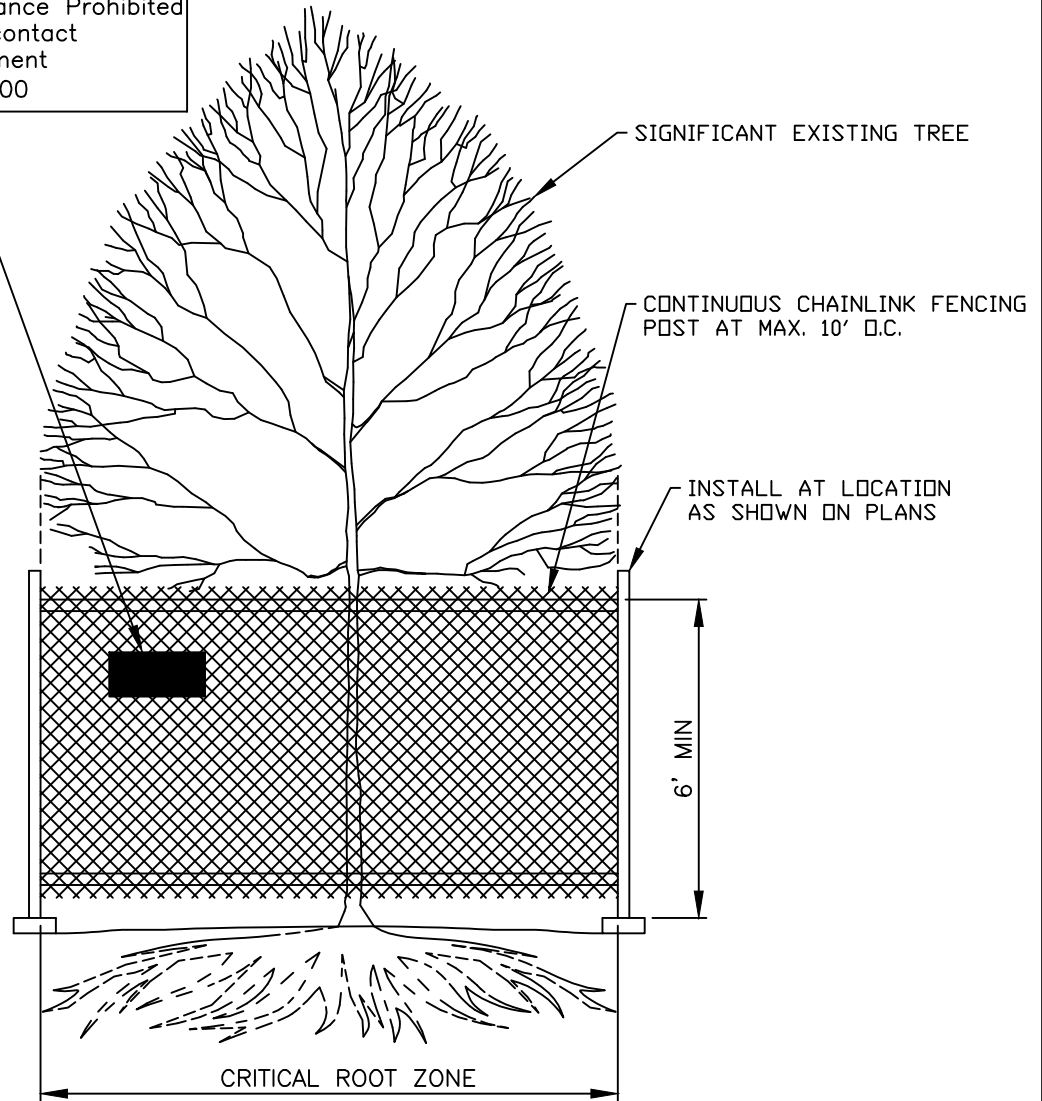


DRIVEWAYS AND
WHEEL CHAIR RAMPS

FENCING SIGN DETAIL

LAST REVISED: 1/2022

Tree Protection Area, Entrance Prohibited
To report violations contact
City Code Enforcement
at (425) 587-3600



NOTES:

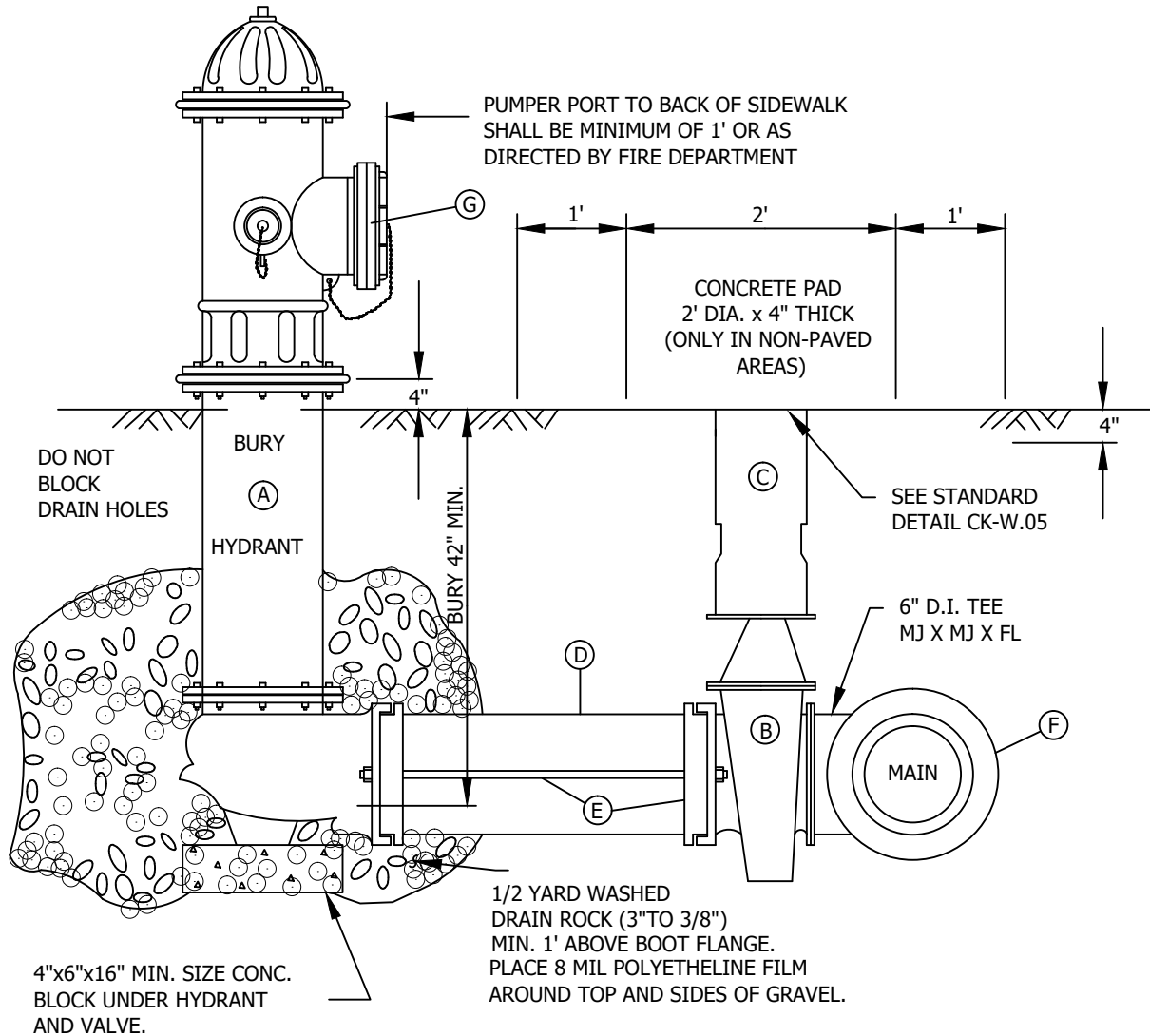
1. MINIMUM SIX (6) FOOT HIGH TEMPORARY, CONTINUOUS CHAIN LINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED, FENCE SHALL COMPLETELY ENCIRCLE SIGNIFICANT EXISTING TREE(S). INSTALL CONTINUOUS CHAIN LINK FENCING POST(S) USING PIER BLOCK ONLY AT MAXIMUM 10 (TEN) FEET O.C. AVOID POST OR STAKES INTO MAJOR ROOTS, MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION; FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORT OF ROOT, ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING, FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. A PRINTED TREE PROTECTION AREA SIGN NOTING (TREE PROTECTION AREA – ENTRANCE PROHIBITED. TO REPORT VIOLATIONS, CONTACT CITY CODE ENFORCEMENT AT 425-587-3600.”, MUST BE POSTED ALONG THE FENCE EVERY FIFTEEN (15) FEET. PRINT AND LAMINATE THE SIGN (AVAILABLE ONLINE) AND POST ON SITE.

CITY OF KIRKLAND

PLAN NO. CK-R.49



TREE
PROTECTION



- A. 1-5 1/4" M.V.O. HYDRANT WITH 2-2 1/2" N.S.T. AND 1-4" PUMPER, SEATTLE STANDARD. THREAD-M.J. INLET, WITH LUGS, BRASS TO BRASS SUB-SEAT.
- B. 1-AUXILIARY GATE VALVE: 6" AWWA C509 OR C515, RESILIENT SEAT, "O" RING STEM SEAL, M.J.xFL. WITH LUGS.
- C. 1-TWO-PIECE CAST IRON VALVE BOX WITH LOCKING BOLTS EQUAL TO RICH SEATTLE TYPE #940.
- D. 1-6" DUCTILE IRON CLASS 52 CEMENT-LINED PIPE, LENGTH TO FIT.
- E. 2 - 3/4" GALVANIZED STEEL SHACKLE RODS, TAR SEALED AFTER ASSEMBLY.
- F. 1/4 CY - 1:3:6: CONCRETE MIX, POUR IN PLACE TO BLOCK. MAINTAIN CLEARANCE FOR BOLTS.
- G. 5" X 4" FEMALE SEATTLE STANDARD THREAD RIGID 5" STORZ ADAPTOR WITH ALL CAPS AND CHAINS OR CABLES. ADAPTOR MATERIAL TO BE ANODIZED ALUMINUM.

NOTES:

1. FIRE HYDRANT EXTENSION, IF REQUIRED.
2. FIRE HYDRANT TO BE PAINTED WITH TWO COATS OF HIGH GLOSS OSHA SAFETY YELLOW ENAMEL PAINT.
3. INSTALL BLUE - TYPE 2 R.P.M. ON STREET SURFACE ADJACENT TO MAIN PORT.

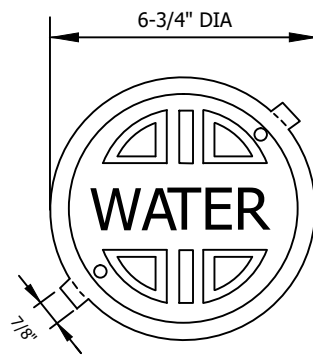
CITY OF KIRKLAND

PLAN NO. CK-W.14

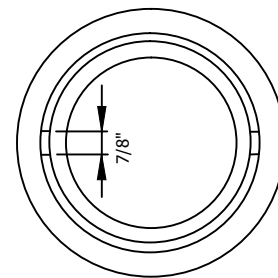
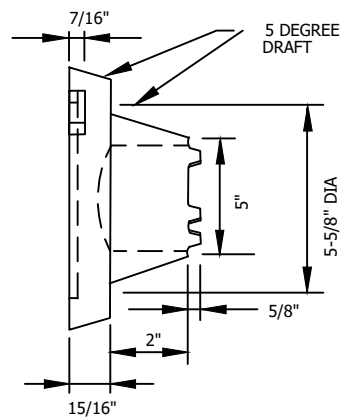


**FIRE
HYDRANT
ASSEMBLY**

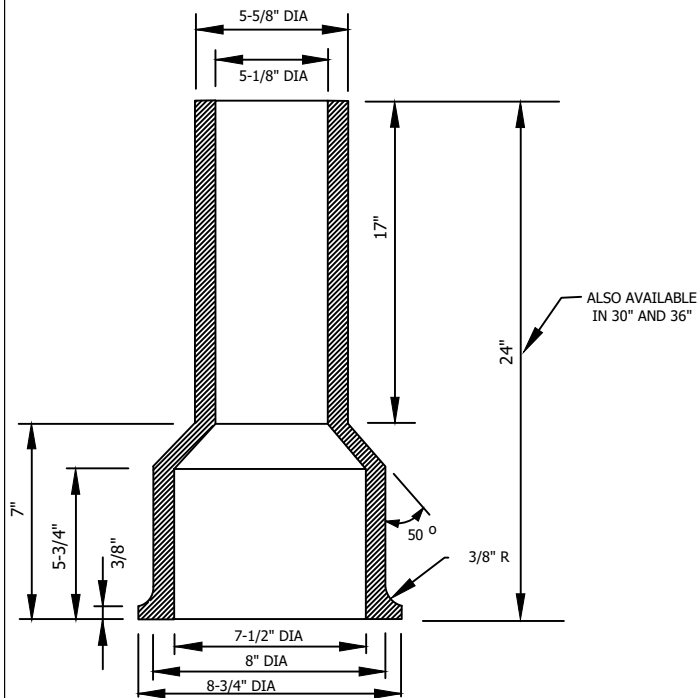
LAST REVISED: 1/1/2018



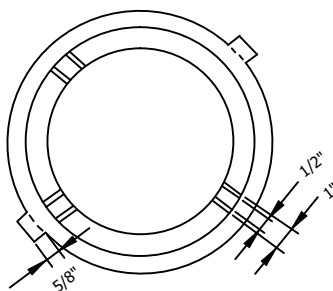
TOP VIEW



TOP VIEW



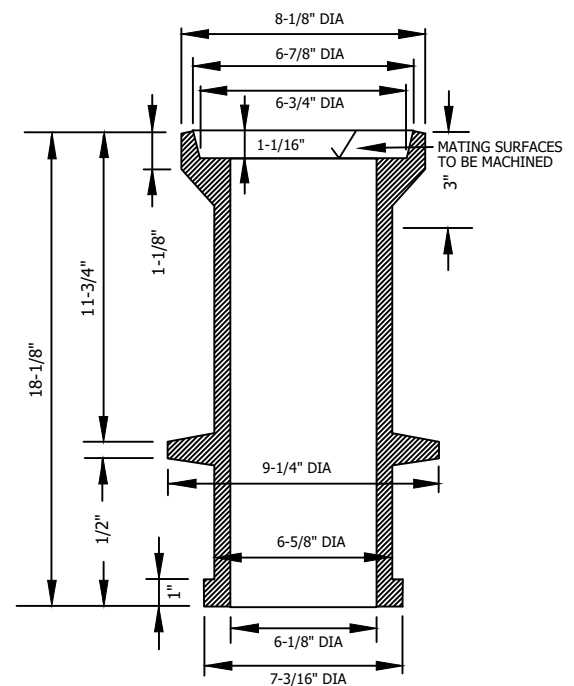
24", 30", 36" VALVE BOX BASE
NOT TO SCALE



BOTTOM VIEW

NOTES:

1. IF NEEDED, USE MULTIPLE BASE SECTIONS STARTING WITH 36" BASE. "SOIL PIPE" WILL NOT BE ACCEPTED.
2. MATERIAL SHALL BE CAST IRON ASTM A48, CL30.
3. OLYMPIC FOUNDRY PRODUCT OR EQUIVALENT.
4. PAINT VALVE LID WITH KELLY MOORE 5880 DTM GLOSS ENAMEL-SAFETY BLUE OR EQUAL.
5. ALL VALVE CAN LIDS SHALL BE 940-B "LOCKING" STYLE.



18" VALVE BOX TOP
NOT TO SCALE

CITY OF KIRKLAND

PLAN NO. CK-W.35



WATER VALVE BOX

6- 7/16"

1" BATTER

STAPLE

3/4" JOINT MATERIAL

13"

6"

17-15/16"

7"

1"

3/4"

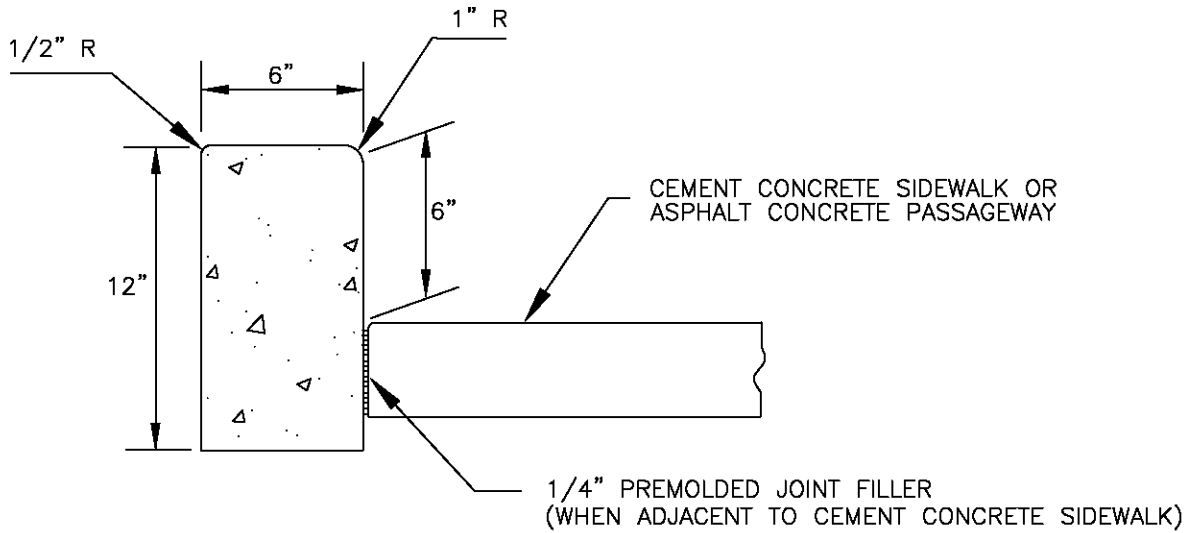
12"

1"

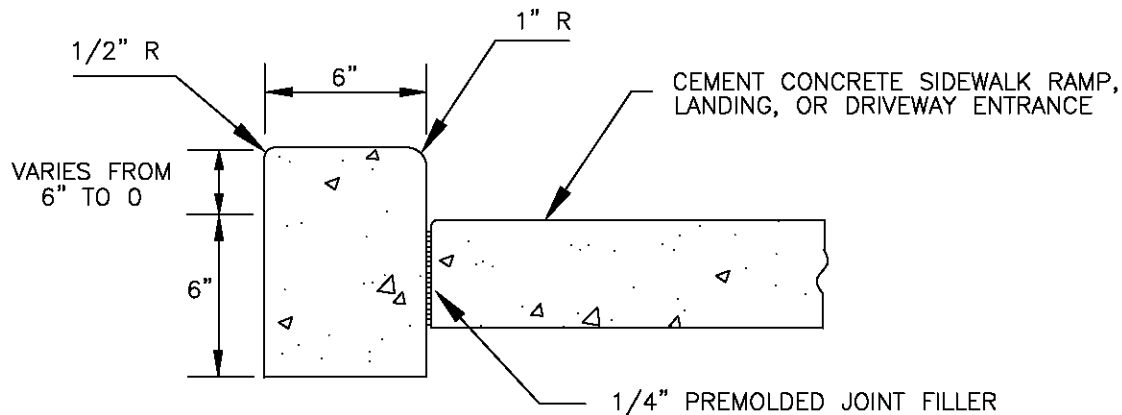
1. FORMS SHALL BE STEEL AND SET TRUE TO LINE AND GRADE (INSPECTION IS REQUIRED PRIOR TO PLACEMENT OF CONCRETE) UNLESS SPECIFIED DIFFERENTLY BY CITY PROJECT ENGINEER.
2. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.
3. BASE COURSE SHALL BE 4" OF 5/8" MINUS CRUSHED ROCK.
4. SURVEY REQUIRED FOR CURB ALIGNMENT.

The logo of the City of Kirkland, Washington, is a circular seal. It features a stylized illustration of a lighthouse on a small island with a sailboat in the water. The words "CITY OF KIRKLAND" are written in a circle around the top, and "WASHINGTON" is written around the bottom.

CONCRETE CURB AND
GUTTER, TYPE "A"



CEMENT CONCRETE PEDESTRIAN CURB



CEMENT CONCRETE PEDESTRIAN CURB

AT SIDEWALK RAMPS & LANDINGS, AND DRIVEWAY ENTRANCES

NOTES

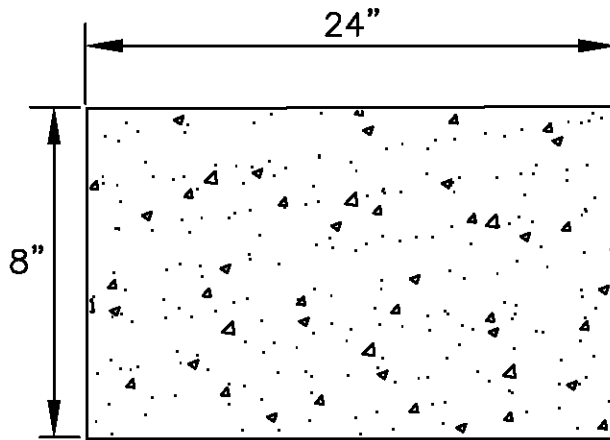
1. FORMS SHALL BE STEEL AND SET TRUE TO LINE AND GRADE (INSPECTION REQUIRED PRIOR TO PLACEMENT OF CONCRETE).
2. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.
3. BASE COURSE SHALL BE 4" OF 5/8" MINUS CRUSHED ROCK.
4. SEE CK-R.17 FOR CURB EXPANSION AND CONTRACTION JOINT SPACING.

CITY OF KIRKLAND

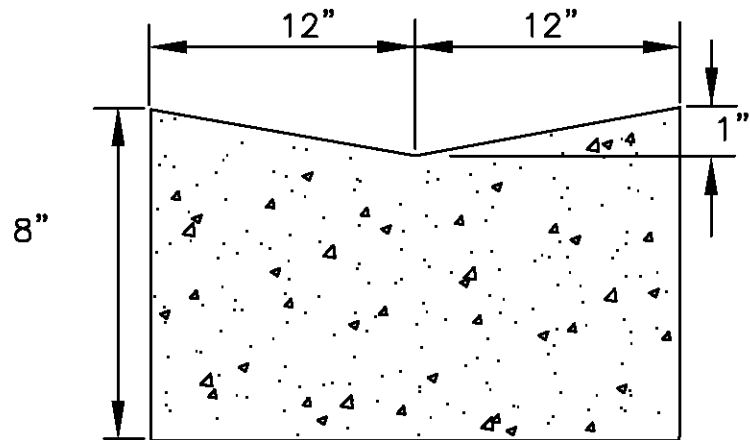
PLAN NO. CK-R.17A



CEMENT CONCRETE
PEDESTRIAN CURB



FLAT CURB



VALLEY GUTTER

NOTES

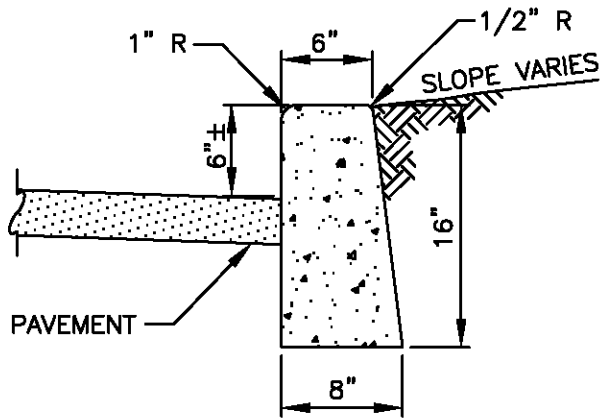
1. THIS DETAIL IS FOR SPECIAL USE ONLY WITH APPROVAL FROM PUBLIC WORKS INSPECTOR OR ENGINEER.
2. FORMS SHALL BE STEEL AND SET TRUE TO LINE AND GRADE (INSPECTION IS REQUIRED PRIOR TO PLACEMENT OF CONCRETE).
3. BASE COURSE SHALL BE 4" OF 5/8" MINUS CRUSHED ROCK.
4. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.
5. SEE CK-R.17 FOR CURB EXPANSION AND CONTRACTION JOINT SPACING.
6. BROOM FINISH ONLY.

CITY OF KIRKLAND

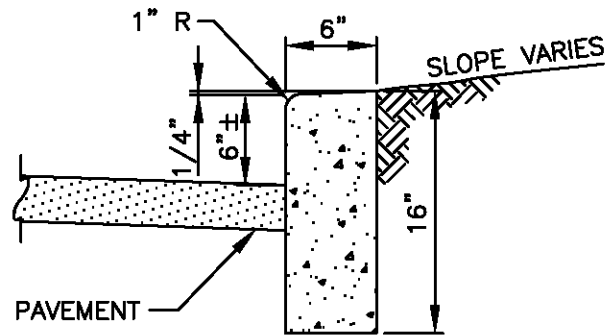
PLAN NO. CK-R.17B



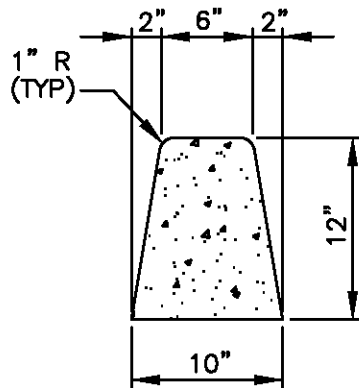
FLAT CURB AND
VALLEY GUTTER



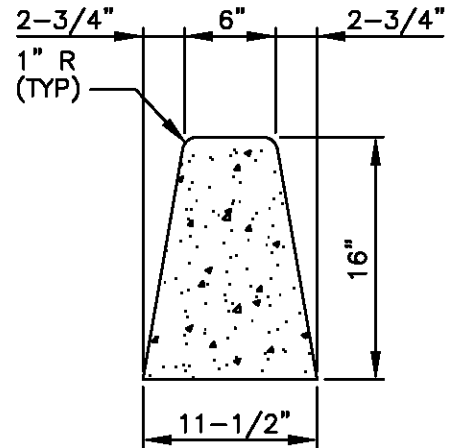
TYPE E-1 CURB



TYPE E-2 CURB



TYPE E-3 CURB



TYPE E-4 CURB

NOTES

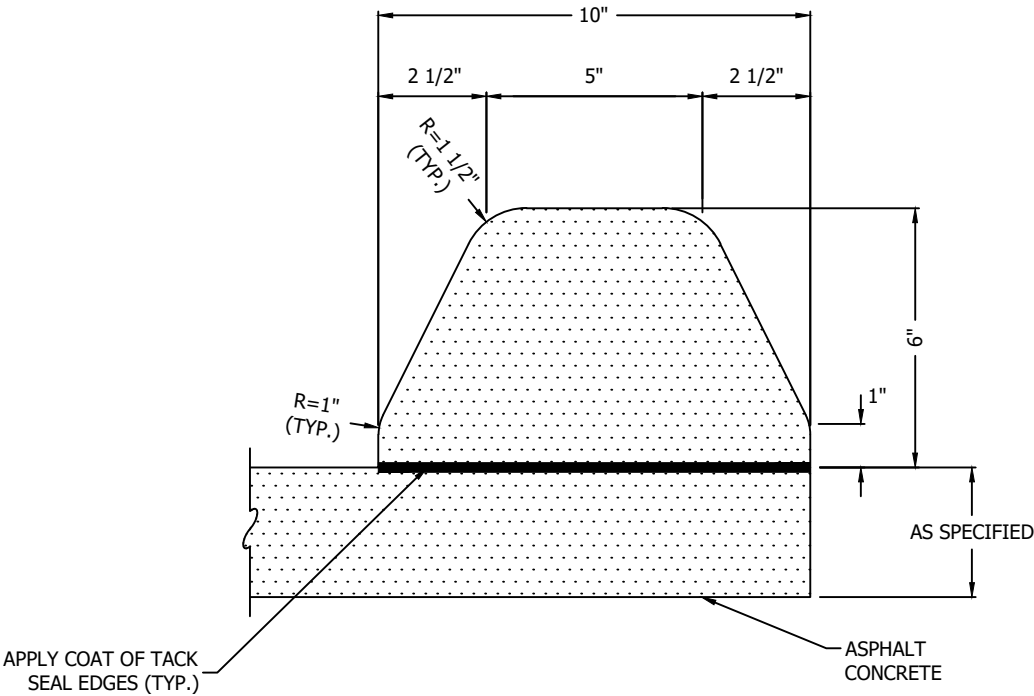
1. DUMMY JOINTS SHALL BE PLACED NOT TO EXCEED 15' CENTER TO CENTER, THEY SHALL BE NOT LESS THAN 3/16" IN THICKNESS AND SHALL EXTEND 2' BELOW THE GUTTER LINE.
2. 3/4" THRU JOINTS SHALL BE PLACED AT ALL COLD JOINTS OR AS DIRECTED BY THE ENGINEER AND SHALL EXTEND 1" BELOW BOTTOM OF CONCRETE.
3. MATERIALS SHALL MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.
4. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.

CITY OF KIRKLAND

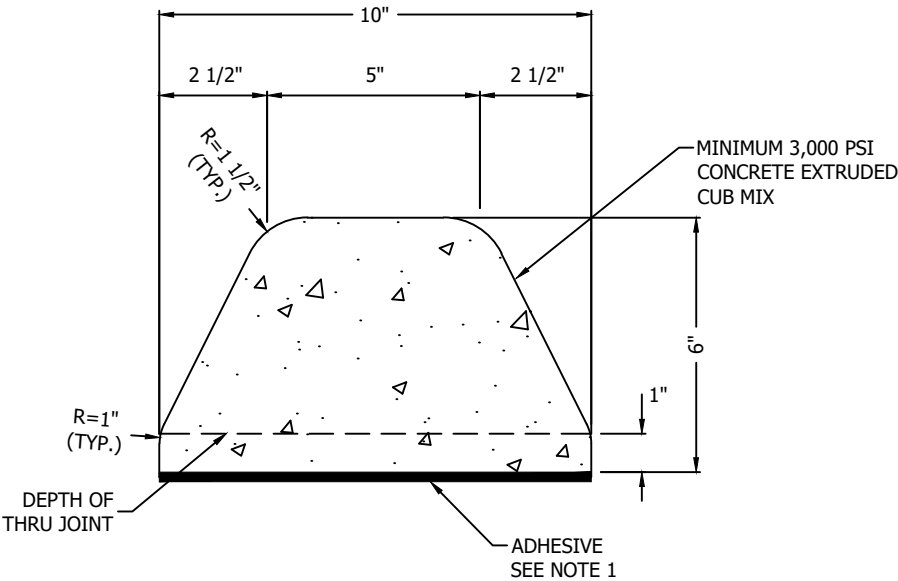
PLAN NO. CK-R.18



CEMENT CONCRETE
CURB E-1, E-2,
E-3 & E-4




EXTRUDED ASPHALT CONCRETE CURB

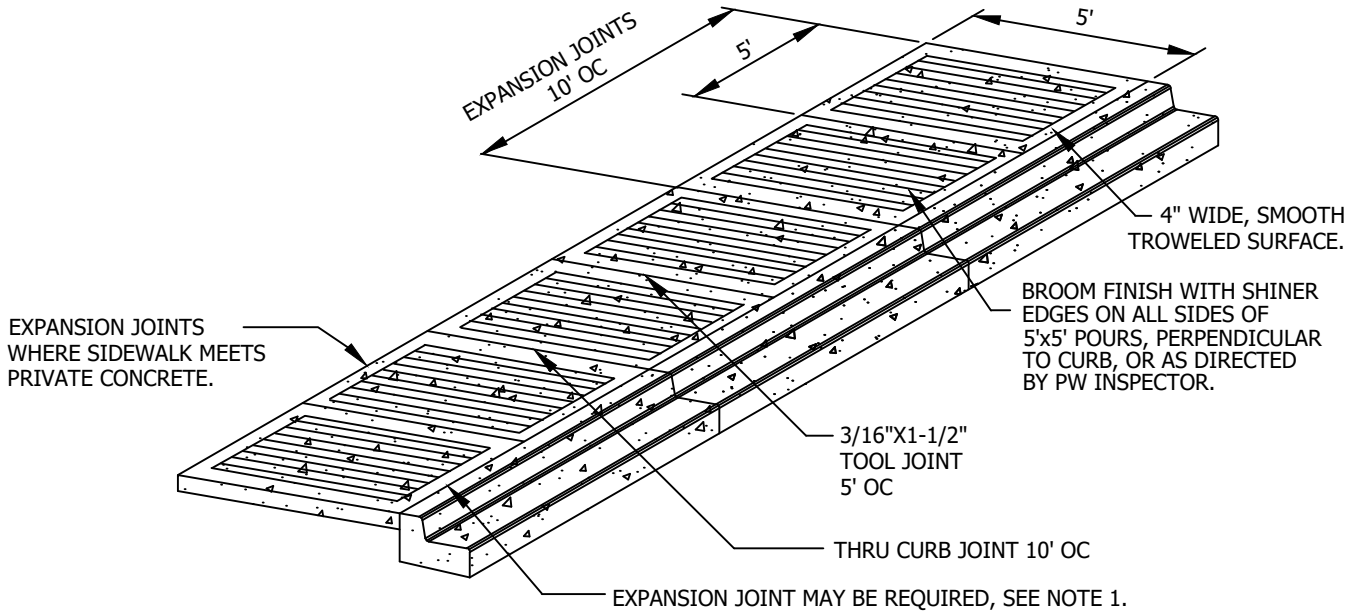


EXTRUDED CEMENT CONCRETE CURB

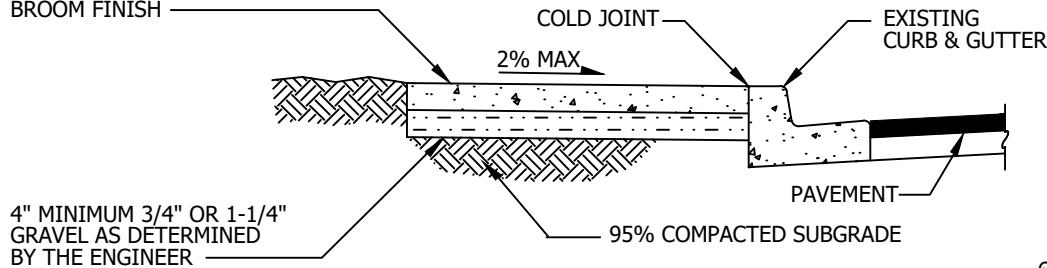
NOTE:

1. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF SECTION 9-26.1 FOR TYPE-II EPOXY BONDING AGENT.
2. APPLY SUFFICIENT AMOUNT OF ADHESIVE TO ENSURE SQUEEZE OUT ALONG ALL EDGES.

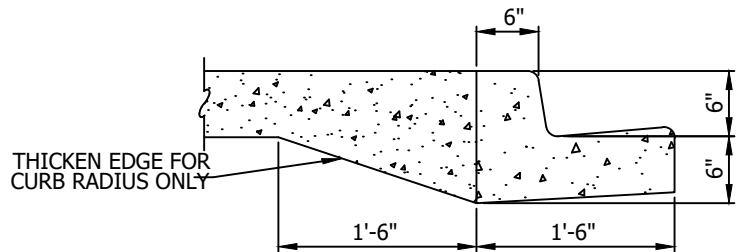
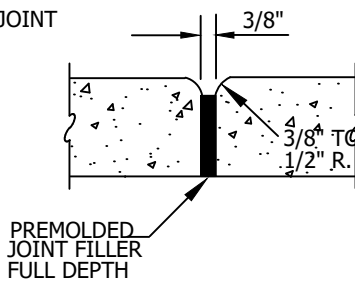
CITY OF KIRKLAND	
PLAN NO. CK - R.19	
	EXTRUDED CURB



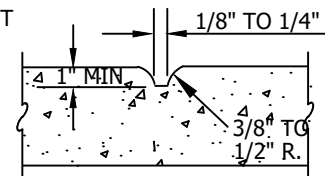
5' WIDE CONCRETE SIDEWALK
4" MIN THICKNESS (6" AT DRIVEWAYS)
BROOM FINISH



EXPANSION JOINT



CONTRACTION JOINT



NOTES:

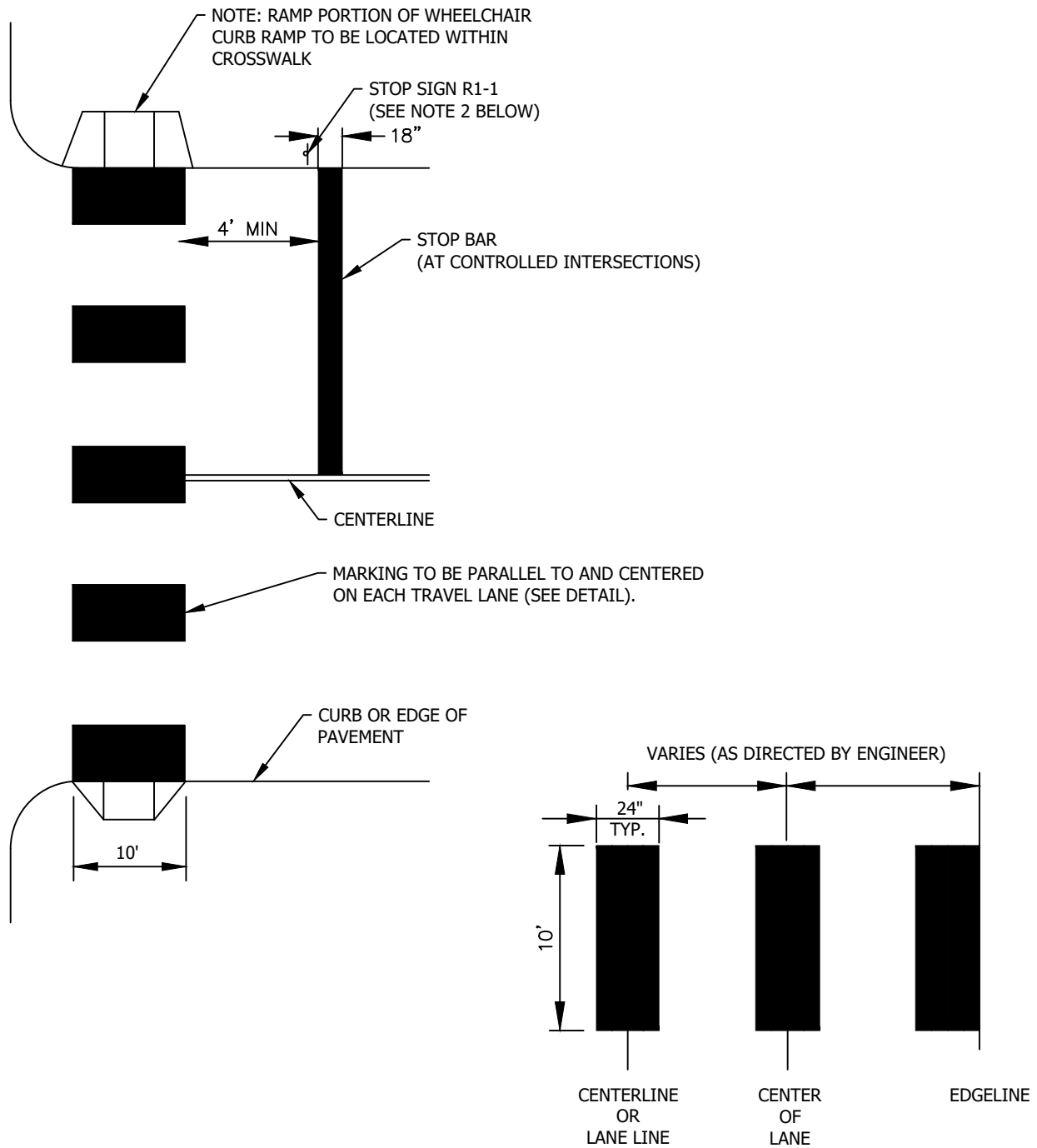
1. SIDEWALK AND CURB & GUTTER CANNOT BE POURED MONOLITHICALLY. EXPANSION JOINT WILL BE REQUIRED WHEN CONCRETE SIDEWALK IS SURROUNDED BY OTHER HARD SURFACES (E.G., DRIVEWAY); OR AS DIRECTED BY PW INSPECTOR.
2. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000 PSI MINIMUM, WITH AIR ENTRAINMENT. NO COLOR OR TINT SHALL BE ADDED.
3. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND SHALL BE STEEL UNLESS OTHERWISE APPROVED BY INSPECTOR.
4. SIDEWALK SHALL NOT BE POURED IN THE RAIN. SEE POLICY R-8, PLACING CONCRETE OR ASPHALT IN ADVERSE WEATHER CONDITIONS.

CITY OF KIRKLAND

PLAN NO. CK- R.23



SIDEWALK
SECTION

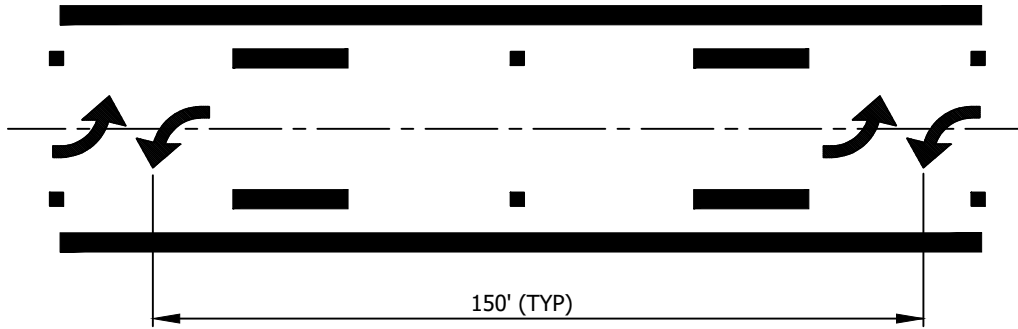


DETAIL

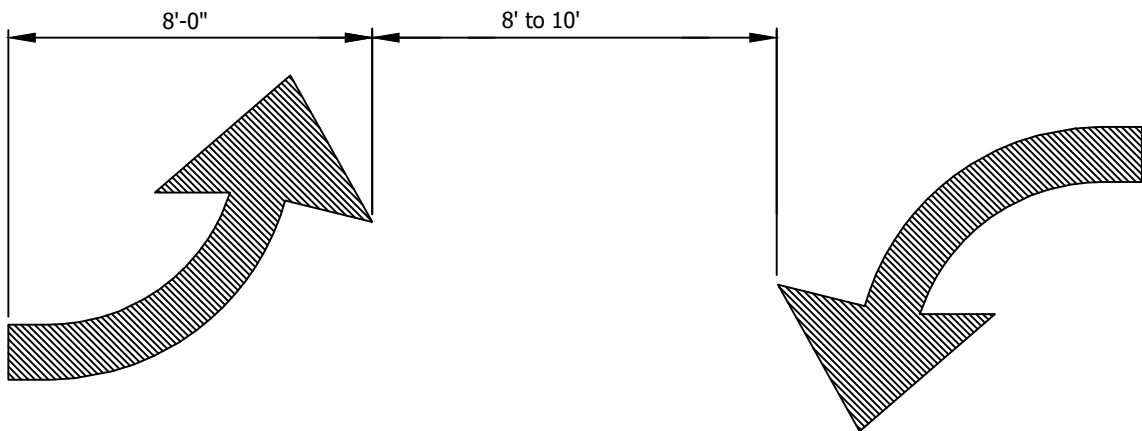
NOTES:

1. MARKINGS SHALL BE THERMOPLASTIC.
2. STOP SIGN LOCATION ADJACENT TO STOP BAR, OR AS DIRECTED BY ENGINEER

CITY OF KIRKLAND	
PLAN NO. CK-R.28	
	CROSSWALK AND STOP BAR DETAIL



TWO-WAY LEFT TURN MARKERS



TYPICAL ARROW

NOTES

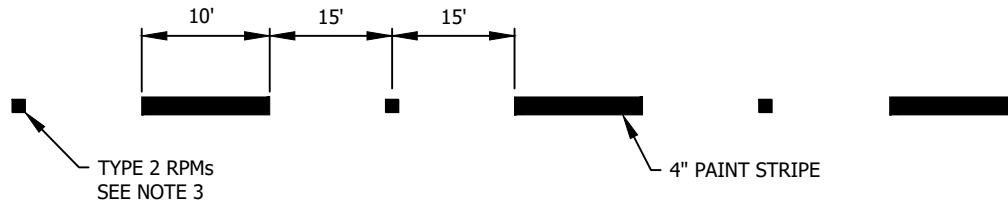
1. THERMOPLASTIC REQUIRED

CITY OF KIRKLAND

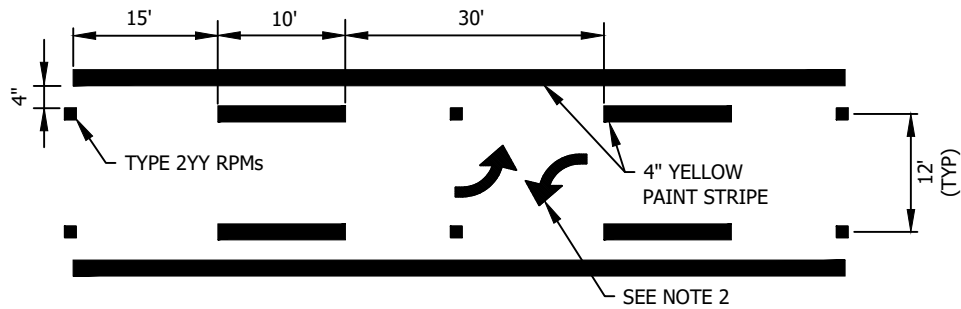
PLAN NO. CK- R.30



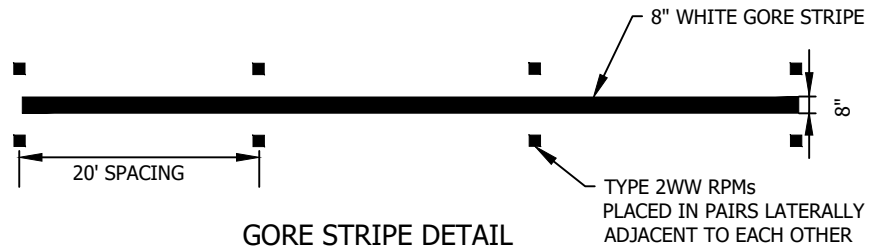
TWO-WAY LEFT
TURN LANE AND
TYPICAL ARROW



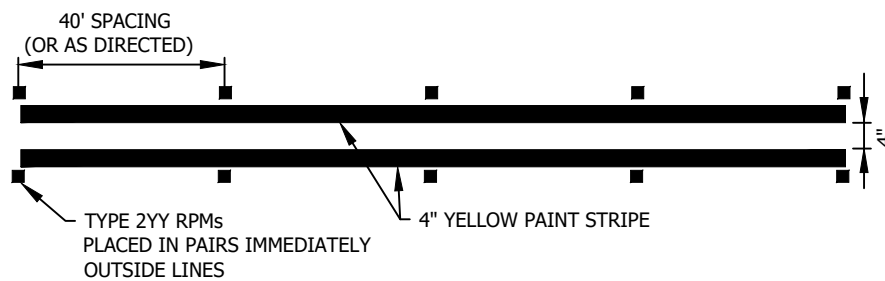
SKIP CENTER & LANE STRIPE DETAIL



TWO-WAY LEFT TURN DETAIL



GORE STRIPE DETAIL



DOUBLE YELLOW CENTER DETAIL

NOTES:

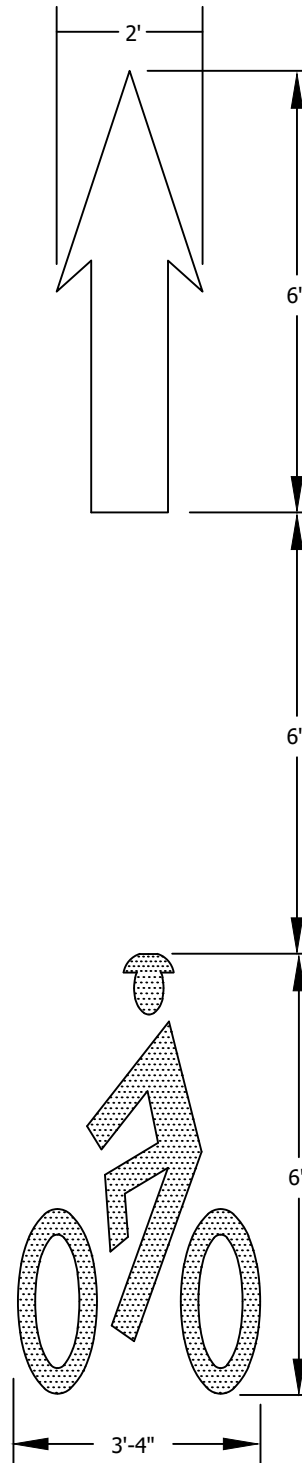
1. MATCH EXISTING PAVEMENT MARKING DIMENSIONS.
2. SEE CK-R.30 FOR TWO-WAY LEFT TURN ARROW PLACEMENT.
3. RAISED PAVEMENT MARKER COLOR SHALL CONFORM TO THE COLOR OF THE MARKING FOR WHICH THEY SUPPLEMENT, SUBSTITUTE FOR, OR SERVE AS A POSITIONING GUIDE FOR.

CITY OF KIRKLAND

PLAN NO. CK-R.31



PAVEMENT
MARKING DETAIL



NOTES:

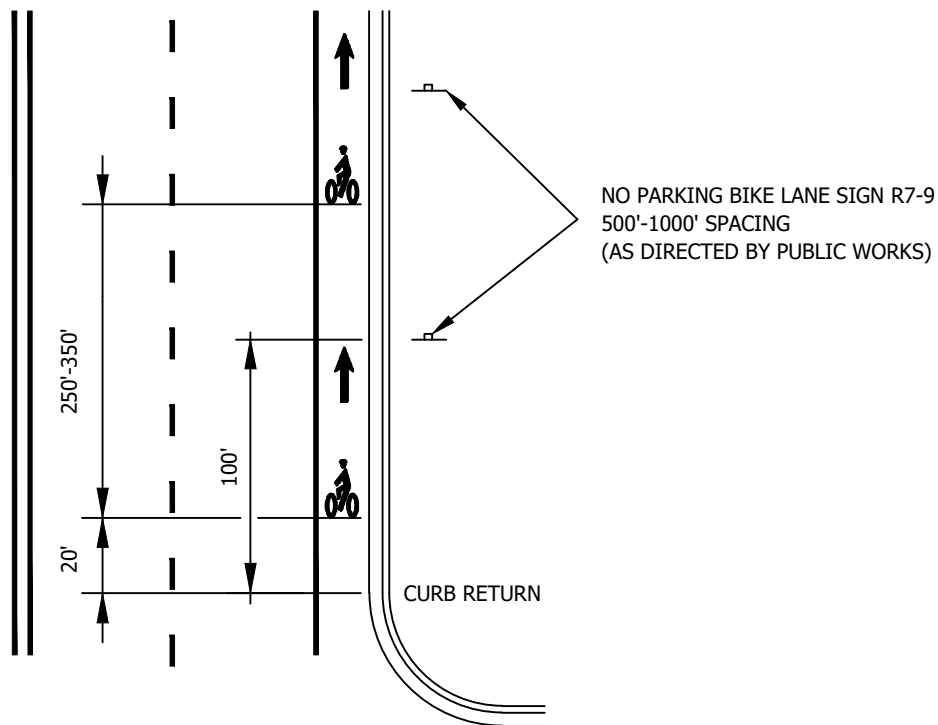
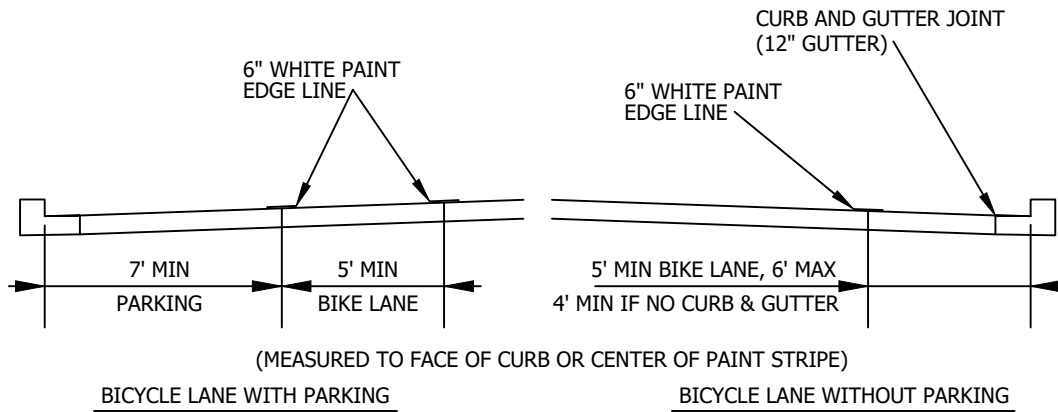
1. BIKE LANE SYMBOLS AND ARROW MATERIAL SHALL BE 90 MILL, PREFORMED, SKID RESISTANT THERMOPLASTIC.
2. BICYCLE SYMBOL FACES ROADWAY CENTERLINE.

CITY OF KIRKLAND

PLAN NO. CK-R.34



BICYCLE LANE
MARKINGS



NOTES:

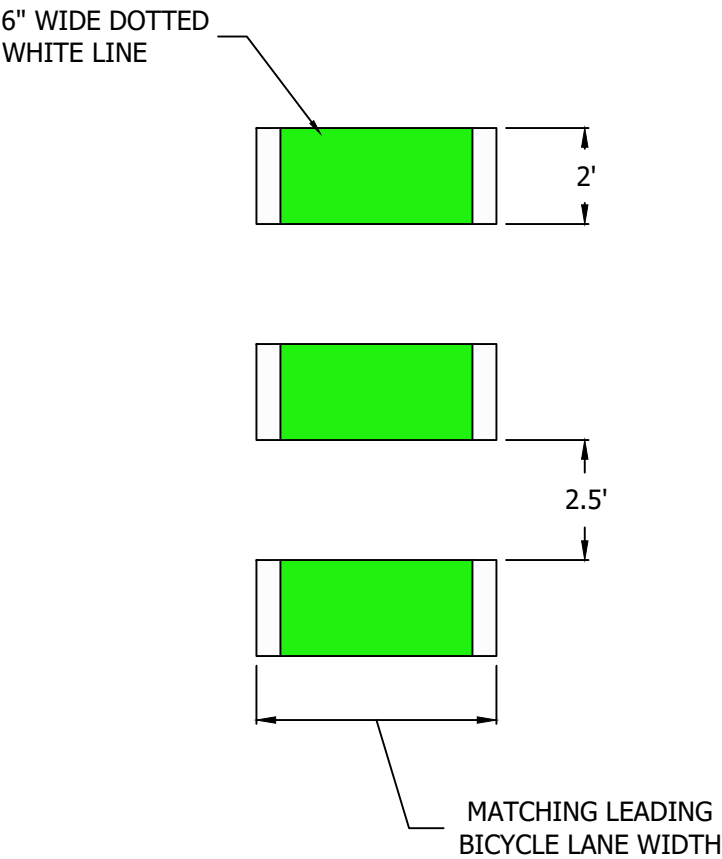
1. SEE MUTCD FOR MORE INFORMATION AND SPECIFICATIONS.
2. PER SEC. 9B.04 2009 MUTCD, DO NOT USE R3-17 SIGNS.
2. BICYCLIST SYMBOLS PER CK-R.34

CITY OF KIRKLAND

PLAN NO. CK- R.35



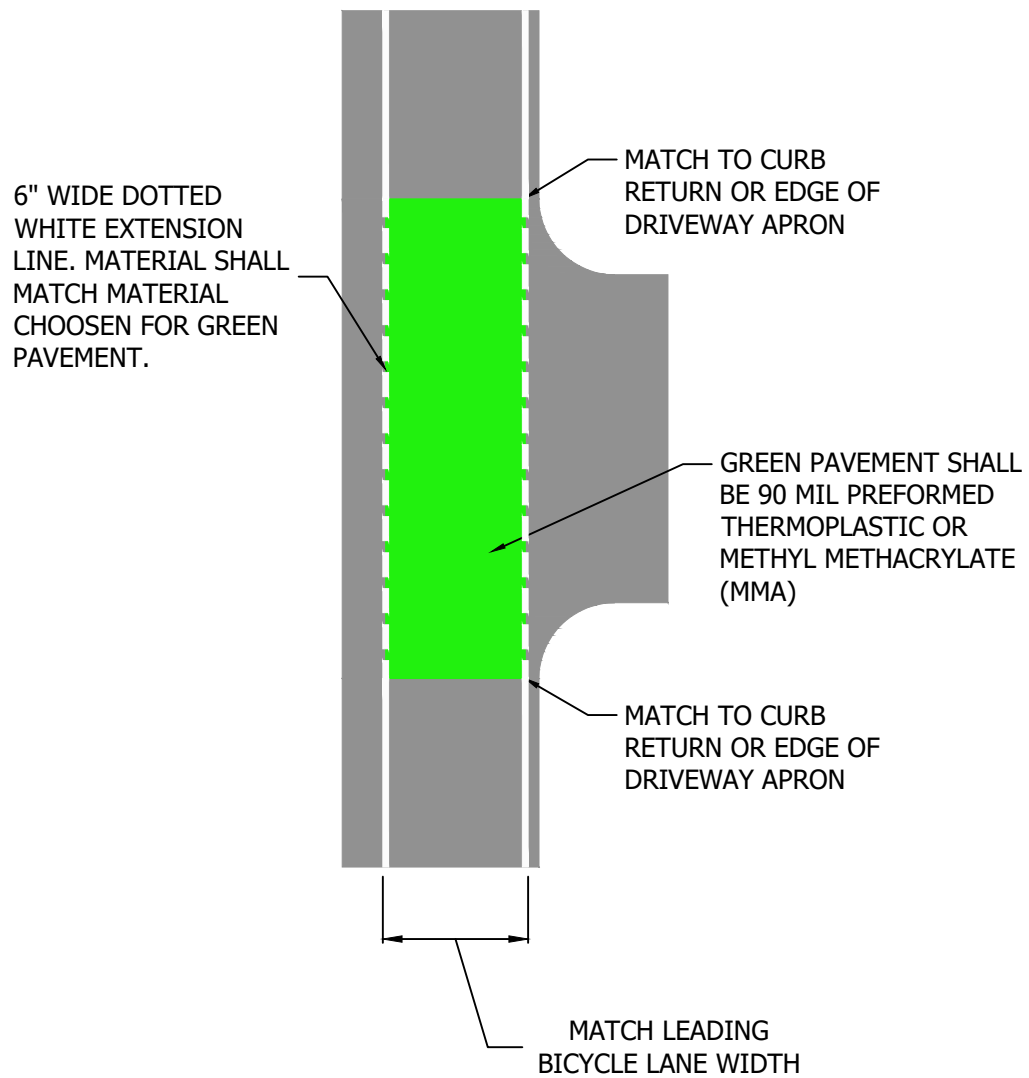
**TYPICAL BICYCLE
LANE - WIDTH,
SIGNING & MARKING**



NOTE:


ALL MARKINGS, INCLUDING GREEN COLORED PAVEMENT AND WIDE DOTTED WHITE LINE, SHALL BE EITHER 90 MIL. PREFORMED THERMOPLASTIC OR METHYL METHACRYLATE (MMA)

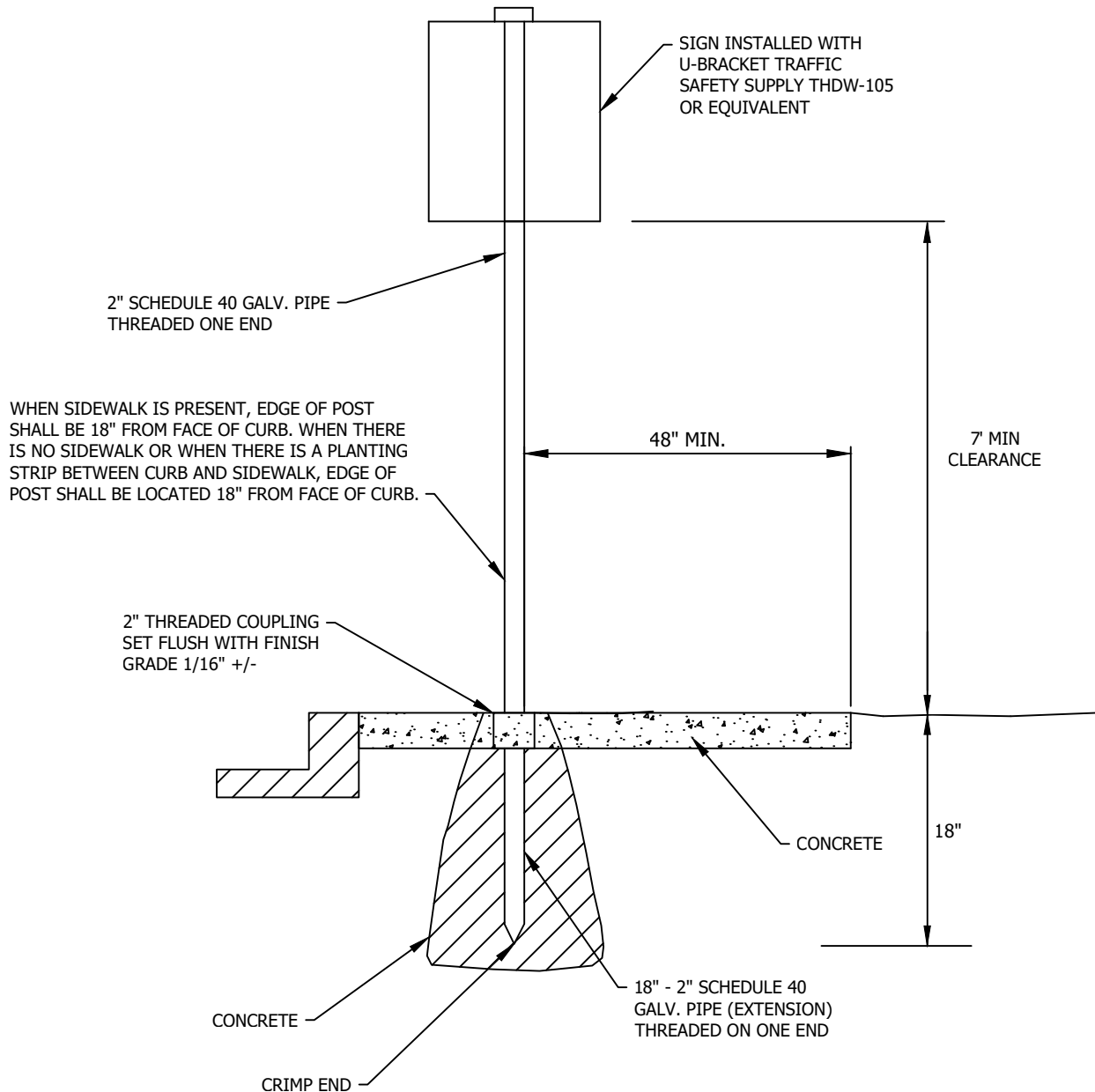
CITY OF KIRKLAND	
PLAN NO. CK - R.36C	
	TYPICAL INTERSECTION/ CONFLICT ZONE BIKE LANE PAVEMENT MARKING



NOTE:

DRIVEWAYS ARE NOT TYPICALLY MARKED WITH GREEN PAVEMENT, BUT DRIVEWAYS WITH HIGH VEHICLE VOLUMES OR OTHER COMPLEX VEHICULAR MOVEMENTS SHOULD BE EVALUATED TO INCLUDE GREEN PAVEMENT MARKINGS.

CITY OF KIRKLAND	
PLAN NO. CK - R.36D	
	TYPICAL DRIVEWAY CROSSING BIKE LANE PAVEMENT MARKING



NOTES:

1. IF SIGN MUST BE PLACED IN EXISTING CONCRETE, CORE HOLE SHALL BE 8" DIAMETER.
2. S1-1 SIGNS SHALL BE BLACK ON FLUORESCENT GREEN.
3. W11-2 SIGNS SHALL BE BLACK ON YELLOW.

CITY OF KIRKLAND

PLAN NO. CK-R.43



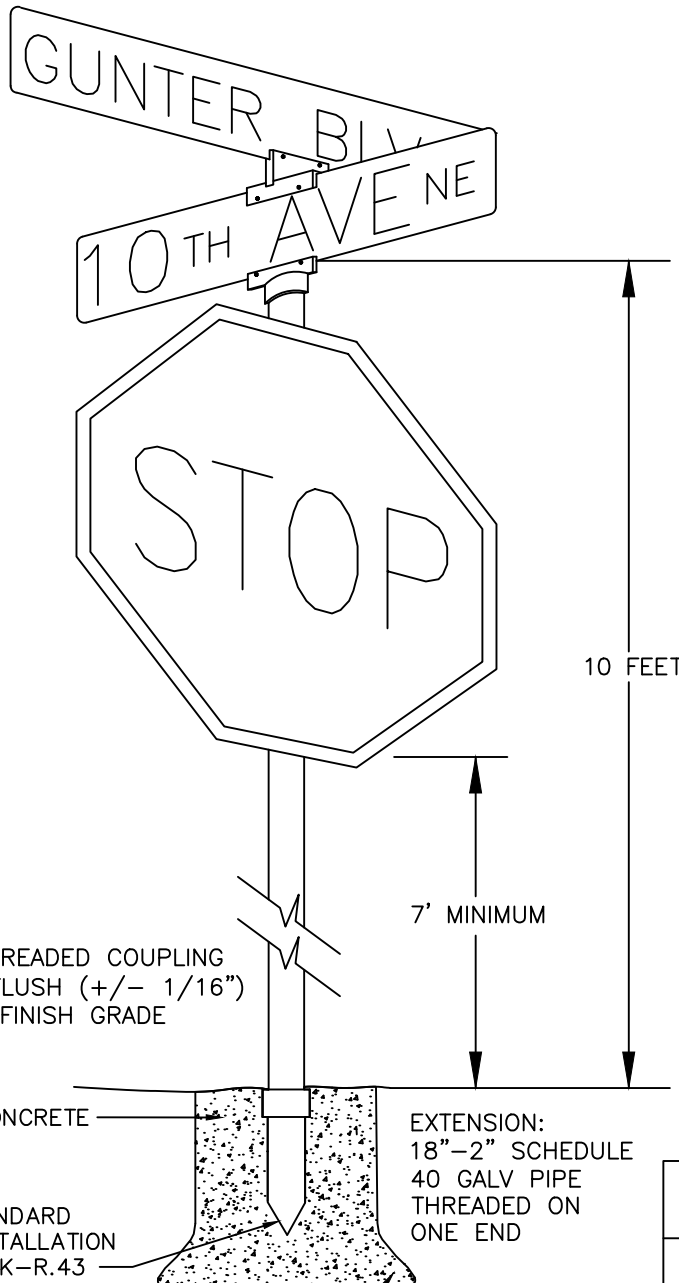
STANDARD SIGN
INSTALLATION

10TH AVENUE

SIGN:
6"x24" SHEET ALUMINUM 0.080" THICK

LETTERS
4" UC C SERIES, EXCEPT SUFFIXES
AND PREFIXES 3" UC C SERIES

BACKGROUND:
GREEN REFLECTIVE SHEETING, OR BLUE
FOR PRIVATE ROADS WITH 3/8" WHITE
BORDER. SHEETING SHALL MEET MUTCD
REQUIREMENTS FOR REFLECTIVITY.



STREET SIGN MOUNTING

HARDWARE:
TRAFFIC SAFETY SUPPLY 16503925
OR EQUIVALENT

STOP SIGN MOUNTING

HARDWARE:
TRAFFIC SAFETY SUPPLY
THDW-105 U BRACKET
OR EQUIVALENT

POST:

10'x2" SCHEDULE 40
GALVANIZED STEEL PIPE

SIGN:

R1-1 30"x30"
HIGH INTENSITY PRISMATIC

NOTE:

IF SIGN MUST BE
PLACED IN EXISTING
CONCRETE, CORE HOLE
SHALL BE 8" DIAMETER.

SEE STANDARD
SIGN INSTALLATION
DETAIL CK-R.43

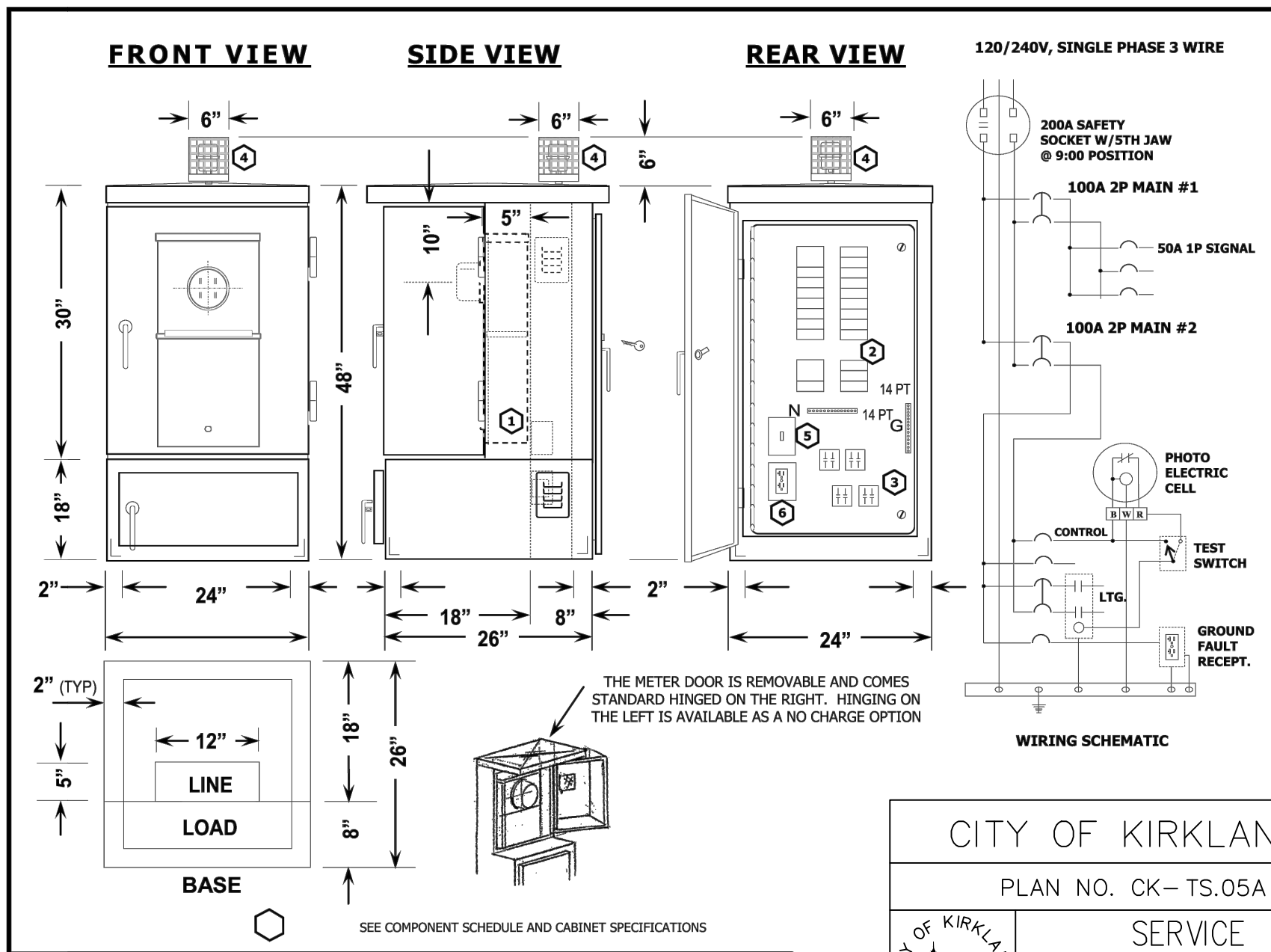
FLARE OUT THE BOTTOM OF
HOLE TO ADD STRENGTH TO
POST ASSEMBLY

CITY OF KIRKLAND

PLAN NO. CK-R.44



STREET NAME
SIGN STANDARD



NOTES:
SKYLINE ELECTRIC & MFG. CO. OR EQUAL

CITY OF KIRKLAND	
PLAN NO. CK-TS.05A	
	SERVICE CABINET
	62460-R1

PANELBOARD SCHEDULE "S" 120/240V 1P 3W 22K AIC SERIES RATED

CKT#	DESCRIPTION	TYPE	TRIP/POLE	TRIP/POLE TYPE			DESCRIPTION	CKT#
1	MAIN CB	QBH	100/2		30/2	BAB	ILLUMINATION #3	2
3								4
5	ILLUMINATION #1	BAB	30/2		30/2	BAB	ILLUMINATION #4	6
7								8
9	ILLUMINATION #2	BAB	30/2		20/1	BAB	GFI RECEPTACLE	10
11					15/1	BAB	CONTROL	12
13	RECEPTACLE	BAB	20/1		20/1	BAB	RECEPTACLE	14
15	PREPARED SPACE						PREPARED SPACE	16
17	PREPARED SPACE						PREPARED SPACE	18

S/N

A


B

CITY OF KIRKLAND PANELBOARDS "S" & "T" PANELBOARD SCHEDULES

ELECTRICAL DATA:

PANELBOARD: 120/240VAC 1 PHASE 3 WIRE, 22K AIC SERIES RATED, SPLIT BUS, 250 AMP SILVER PLATED COPPER BUS, COPPER NEUTRAL AND GROUND BUS ,
MAIN CBS: CUTLER HAMMER QBHW2100H
BRANCH CBS: WESTINGHOUSE BAB BOLT-ON CBS
PER UL67 FILE NO. E21192

PANELBOARD SCHEDULE "T" 120/240V 1P 3W 22K AIC SERIES RATED

CKT#	DESCRIPTION	TYPE		TRIP/POLE	TRIP/POLE TYPE			DESCRIPTION	CKT#
1	MAIN CB	QBH	100/2		20/1		ITS	2	
3							PREPARED SPACE	4	
5	SIGNAL	BAB	50/1				PREPARED SPACE	6	

S/N

A

B

CITY OF KIRKLAND

PLAN NO. CK-TS.05B



**PANELBOARDS "S" &
"T" CIRCUIT BREAKER
SCHEDULES**

CITY OF KIRKLAND


SERVICE CABINET FOR SERVICE AND STREET AND TRAFFIC SIGNAL

COMPONENT SCHEDULE

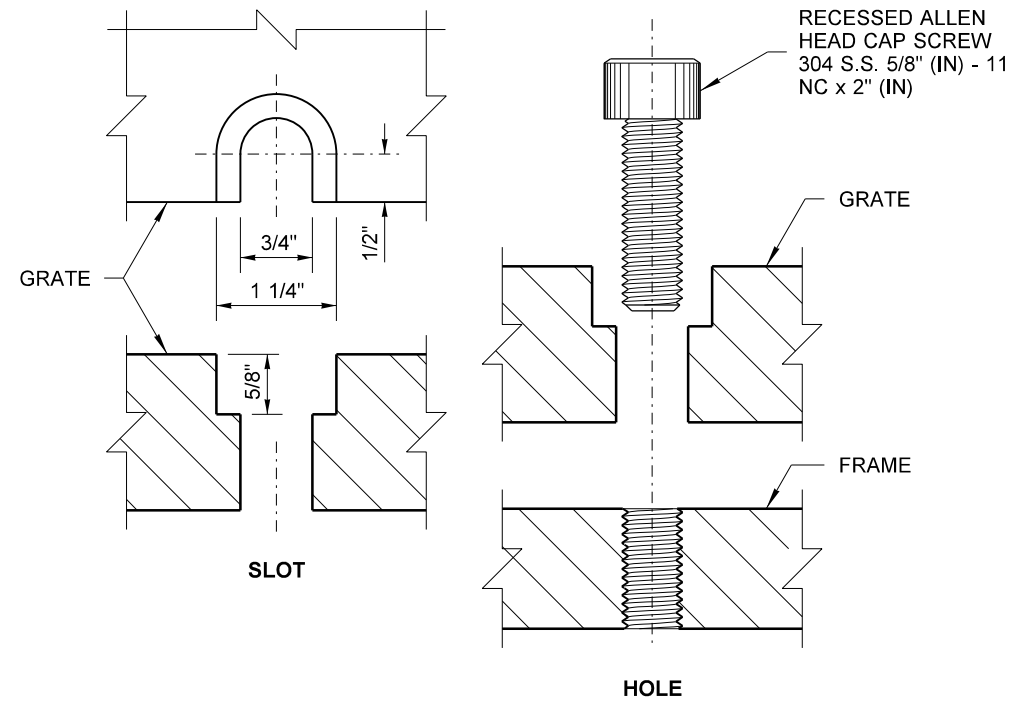
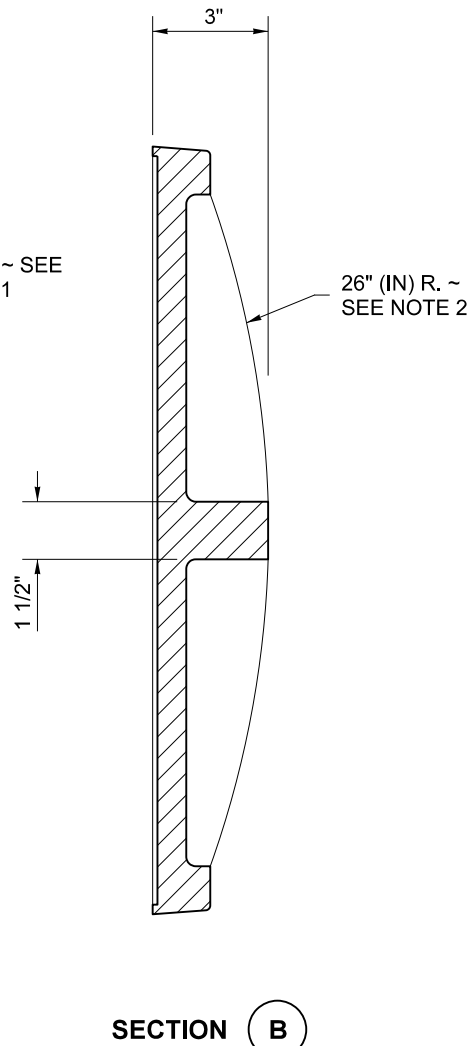
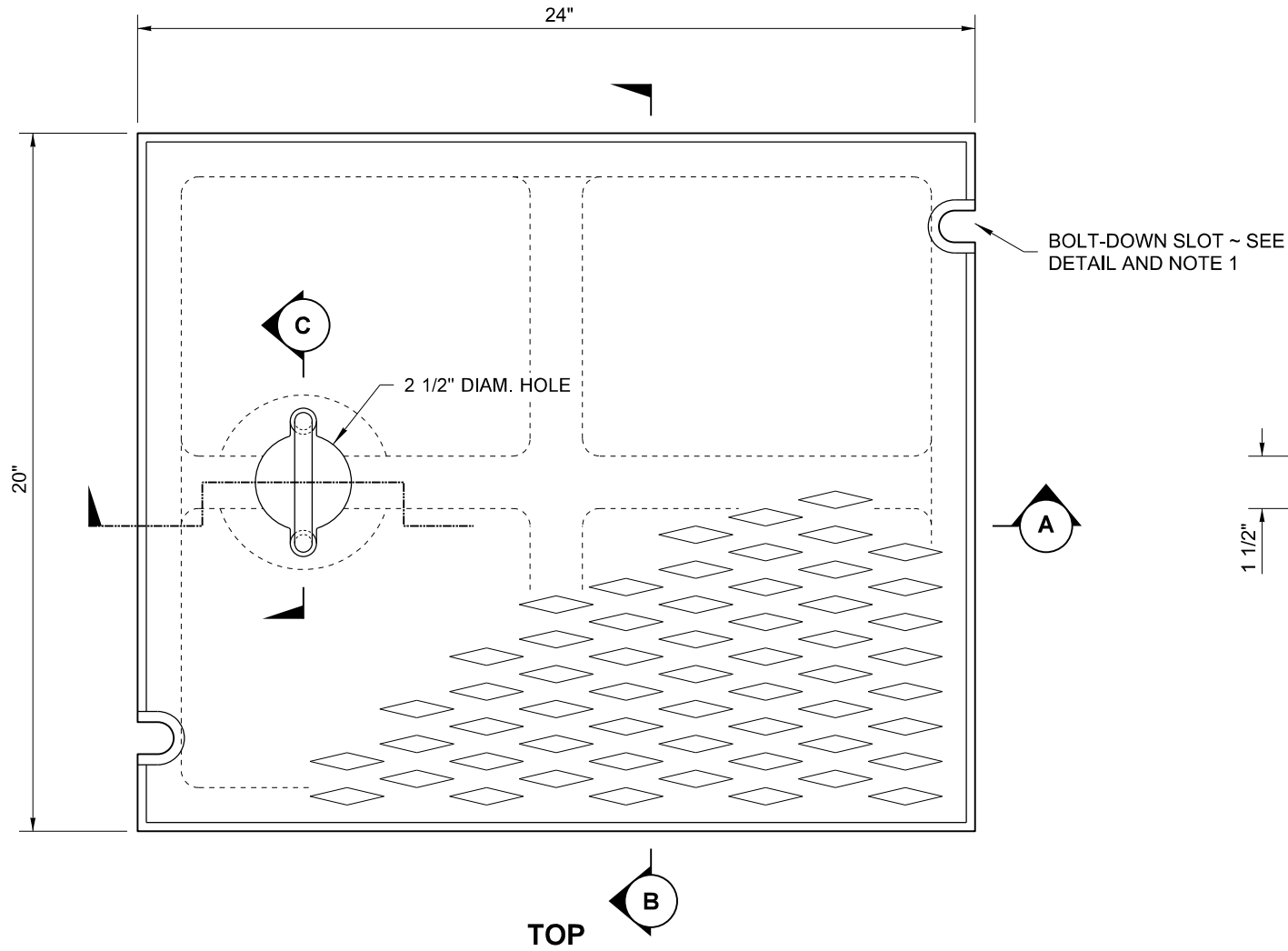
- 1 **METER BASE:** 200 AMP, BY-PASS TYPE, 4-JAW, SINGLE PHASE,
5TH JAW INSTALLED AT 9:00 POSITION, B-LINE U264
- 2 **PANELBOARD:** 120/240 VAC, 1 PHASE, 3 WIRE, 250 AMP COPPER BUS (W/RATING LABEL),
SPLIT BUS , 22 KAIC SERIES RATED, BOLT-ON BRANCH BREAKERS, EATON TYPE BAB
SIGNAL SECTION: 100 AMP, 2 POLE MAIN BREAKER, EATON QBHW2100, 6 CKT
1 - 50 /1 SIGNAL BRANCH
1 - 20 /1 ITS BRANCH
2 - 1 POLE SPACE
ILLUMINATION SECTION: 100 AMP, 2 POLE MAIN BREAKER, EATON QBHW2100, 18 CKT
4 - 30/2 ILLUMINATION BRANCH
2 - 20/1 RECEPTACLE BRANCH
1 - 15/1 CONTROL CKT BRANCH
1 - 20/1 GROUND FAULT RECEPTACLE BRANCH
- 3 **CONTACTORS:** LIGHTING RATED, 30 A, 2 POLE, 120 VAC COIL, 4 – REQUIRED
- 4 **PHOTO ELECTRIC CELL:** 1800 WATT, 120 VAC, TWIST LOCK, TYCO #SST-PV-IES-UL
WITH 6" x 6" x 6" WIRE MESH GUARD
- 5 **PHOTO-CELL BYPASS SWITCH:** SPDT, 15 AMP, 277 VAC
- 6 **GROUND FAULT RECEPTACLE:** 20 AMP, 125 VAC, DUPLEX

CABINET: NEMA 3R, PADMOUNT, 1/8" ALUMINUM 5052-H32 CONSTRUCTION
2 SCREENED AND GASKETED VENTS
DOORS: HEAVY DUTY HINGES (LIFT-OFF TYPE), WELDED IN PLACE
STAINLESS STEEL VAULT HANDLES, PADLOCKABLE METER DOOR
"BEST" CX LOCK ON DISTRIBUTION DOOR, POLISHED WIRE GLASS
WINDOW IN METER DOOR, CLOSED CELL NEOPRENE GASKET,
CARD HOLDER
FINISH: MILL FINISH ALUMINUM, DEADFRONT WHITE

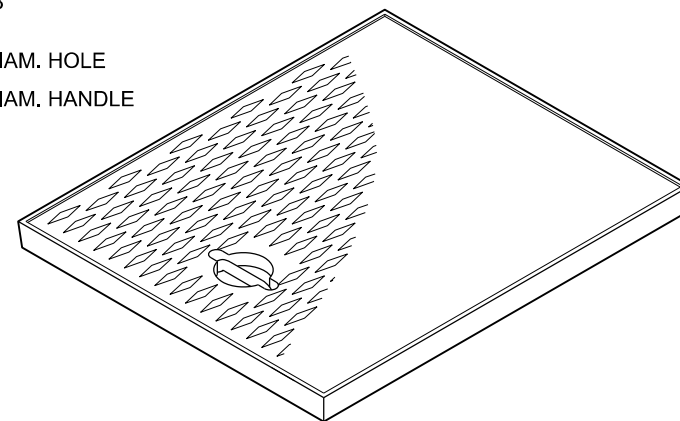
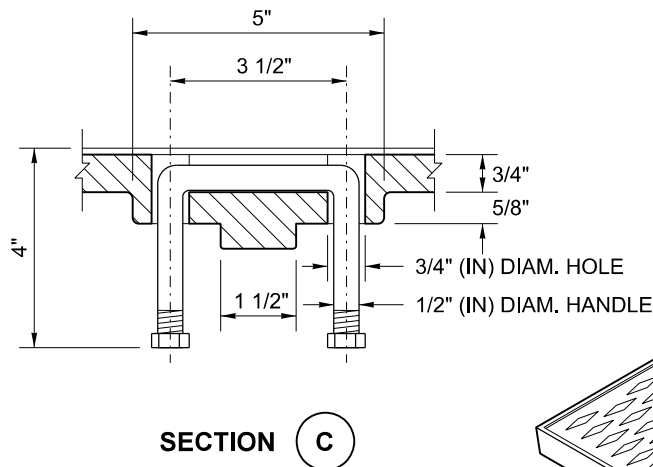
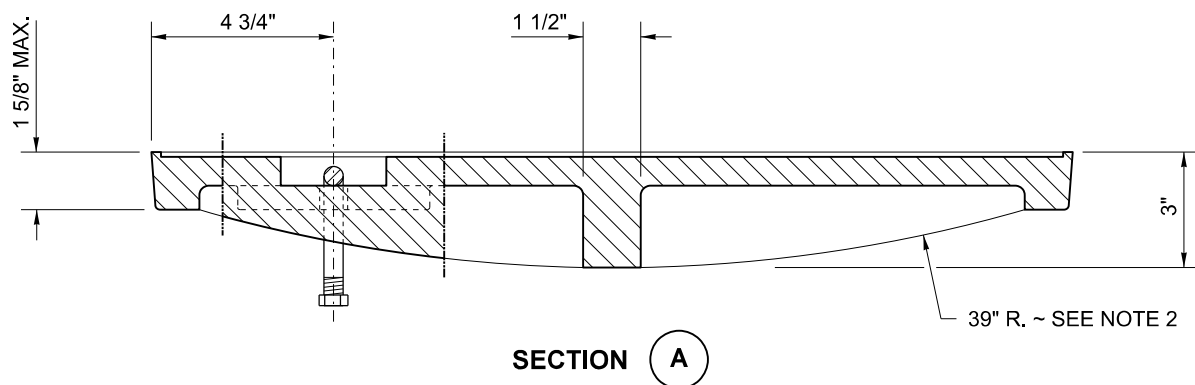
CITY OF KIRKLAND

CITY OF KIRKLAND	
PLAN NO. CK-TS.05C	
	COMPONENT SCHEDULE

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BOLT-DOWN DETAILS
SEE NOTE 1



**RECTANGULAR SOLID
METAL COVER**

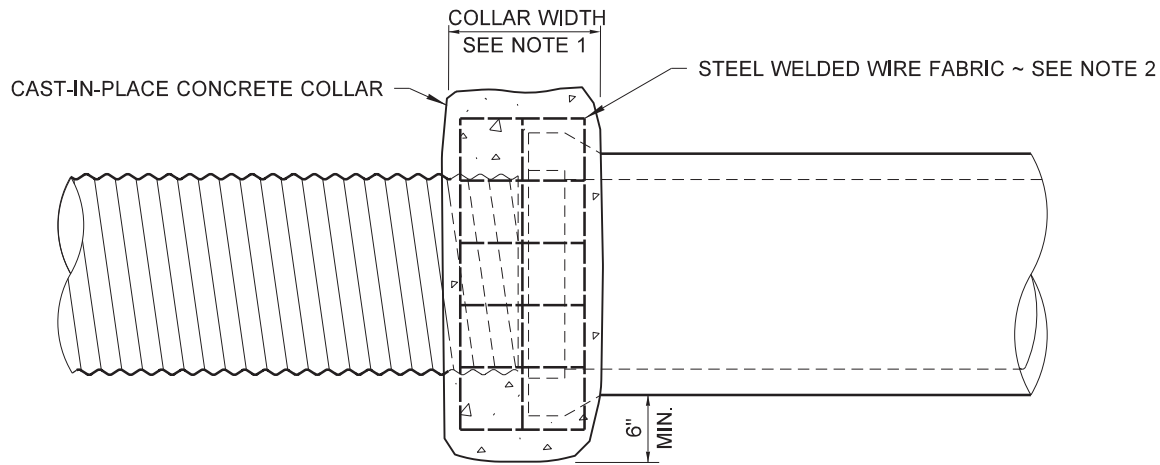
STANDARD PLAN B-30.20-04

SHEET 1 OF 1 SHEET

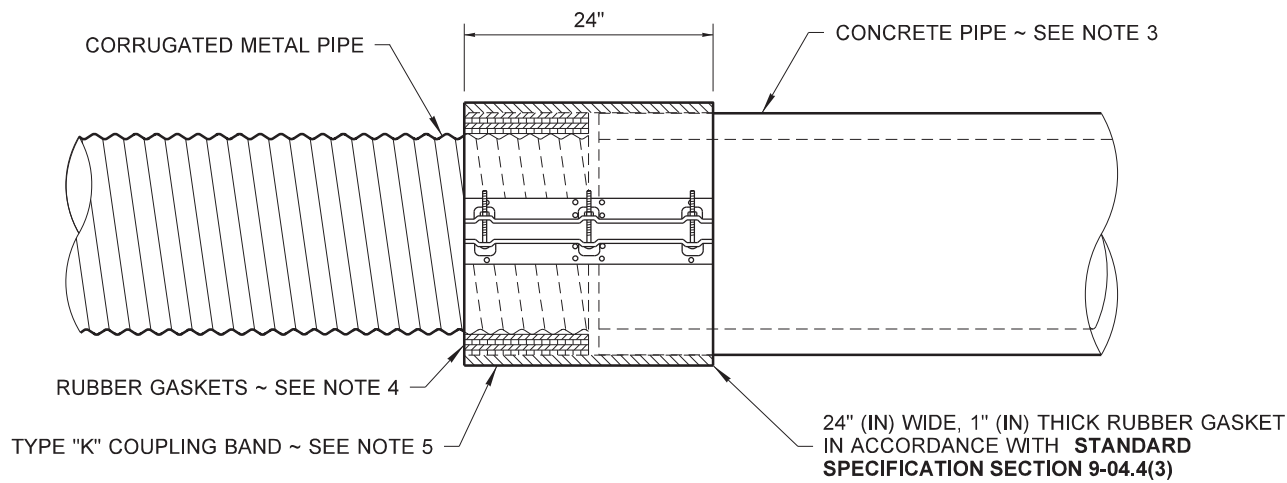
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

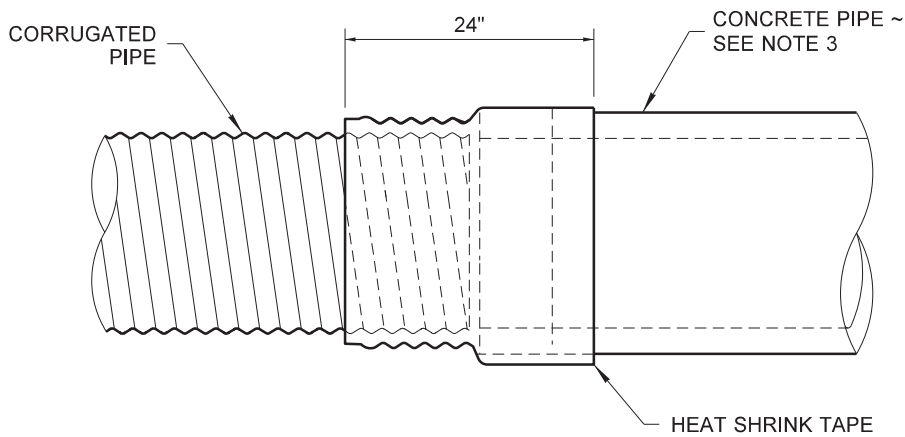
DRAWN BY: FERN LIDDELL



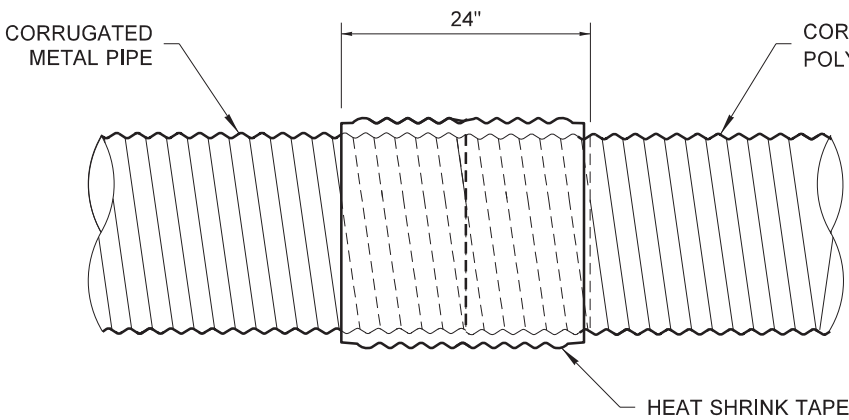
CONCRETE COLLAR OPTION



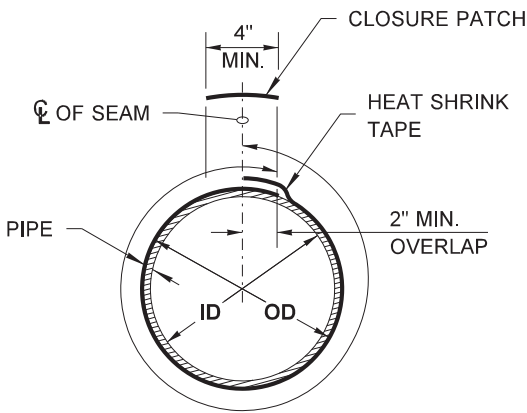
COUPLING BAND OPTION



HEAT SHRINK OPTION
CORRUGATED PIPE TO CONCRETE PIPE



HEAT SHRINK OPTION
CORRUGATED METAL PIPE TO CORRUGATED POLYETHYLENE PIPE



SECTION DETAIL

NOTES

1. The Concrete Collar width shall be one half of the outside pipe diameter of the largest pipe. The minimum Concrete Collar width shall be 12" (in). Concrete Collars may be used with all pipe materials and diameters. The Concrete Collar option shall only be used to extend existing pipes. Concrete shall be Commercial Concrete in accordance with **Standard Specification Section 6-02.3(2)**.
2. Steel Welded Wire Fabric shall be in accordance with **Standard Specification Section 9-07.7**. Install two wraps for size 6 × 6 W1.4 × W1.4 (10 Gage) Steel Welded Wire Fabric or one wrap for any of the following sizes:
 - 6 × 6 W2.1 × W2.1 (8 Gage)
 - 6 × 6 W2.9 × W2.9 (6 Gage)
 - 4 × 4 W2.9 × W2.9 (6 Gage)
 - 4 × 4 W4.0 × W4.0 (4 Gage)Provide 1 1/2" min. covering over wire fabric.
3. When a Coupling Band connection requires attachment to the bell end of a concrete pipe, the bell end of the pipe shall be removed before the connection is installed.
4. Increase the outside diameter of the metal pipe to match the outside diameter of the concrete pipe by installing 12" (in) wide rubber gaskets, thickness as required (Coupling Band only). The rubber gaskets shall be in accordance with **Standard Specification Section 9-04.4(3)**.
5. Use a flat Type K Coupling Band. Type K Coupling Bands with dimples are not allowed for the installation detail shown. The Coupling Band option shall only be used for extending existing pipes that have an inside diameter of 36" (in) or less.
6. Heat shrink shall have a width of 24" (in). The material shall be wrapped around the outside of the pipe with a 2" (in) minimum overlap. There shall also be a 4" (in) minimum closure patch of material centered along the entire length of the seam.



Julie Heilman Julie Heilman
2020.09.01 07:54:03 -07'00'

**CONNECTION DETAILS FOR
DISSIMILAR CULVERT PIPE**

STANDARD PLAN B-60.20-02

SHEET 1 OF 1 SHEET

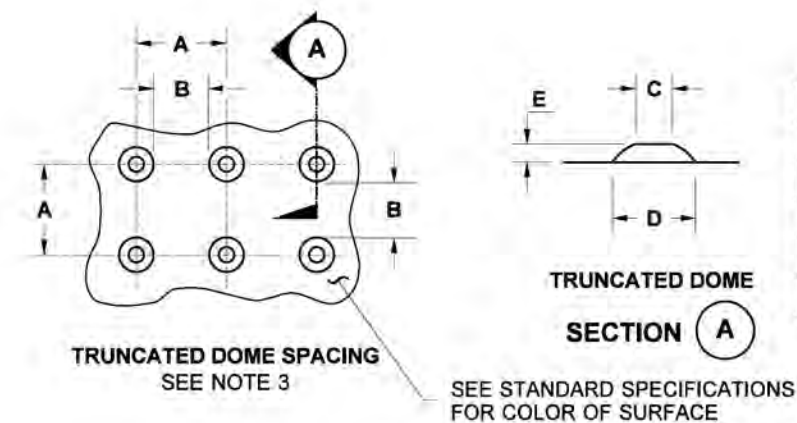
APPROVED FOR PUBLICATION

Roark, Steve Digitally signed by Roark, Steve
Date: 2020.09.09 09:52:35 -07'00'

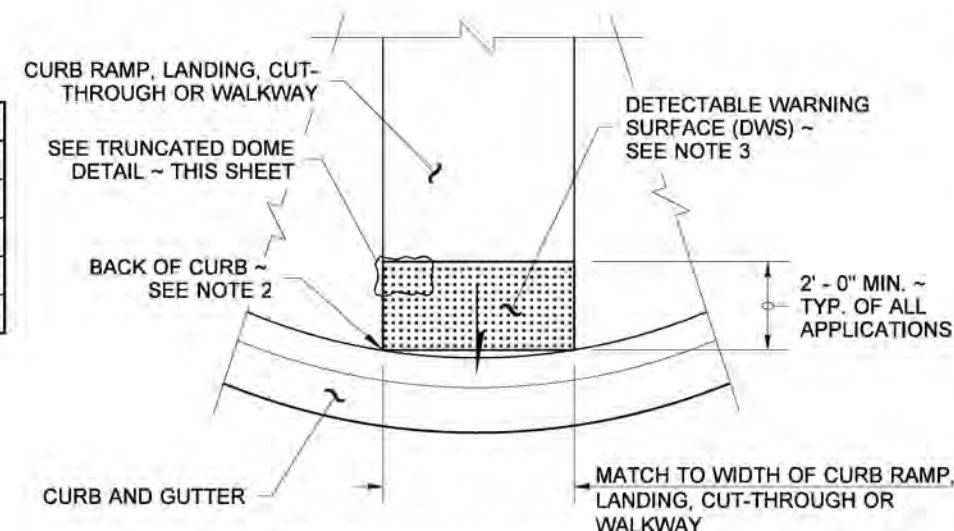
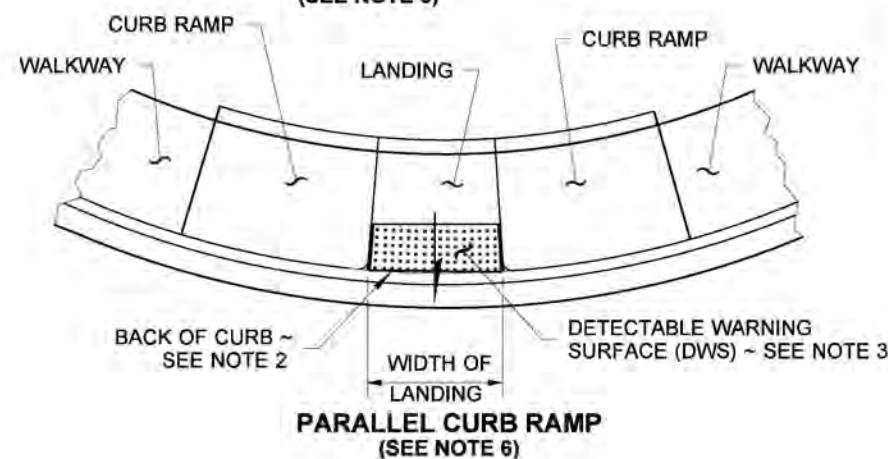
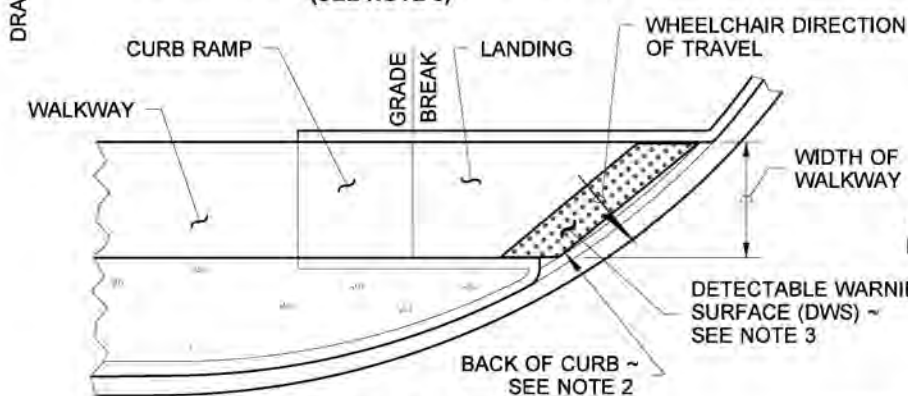
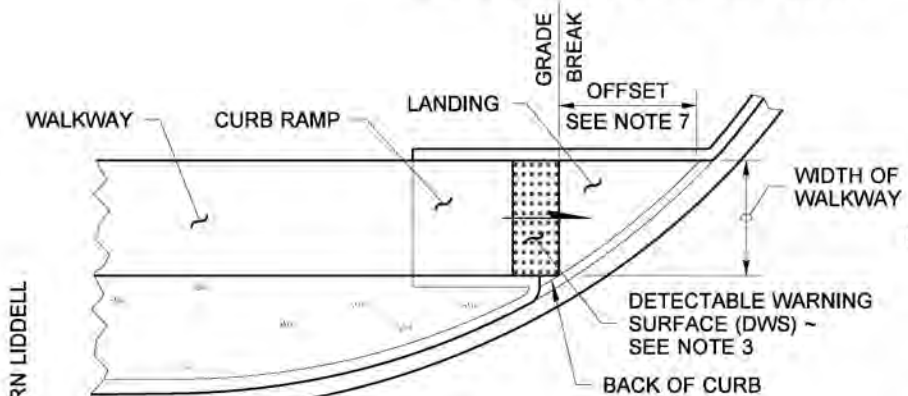
STATE DESIGN ENGINEER



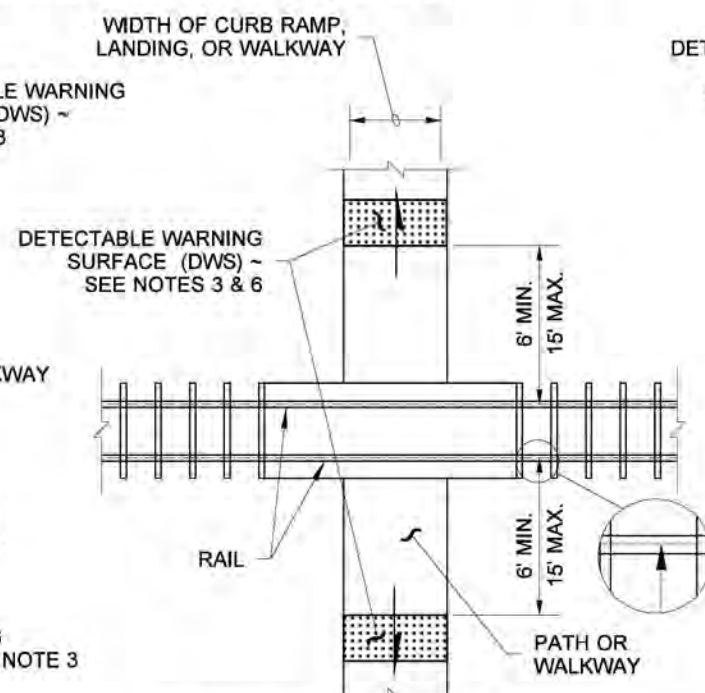
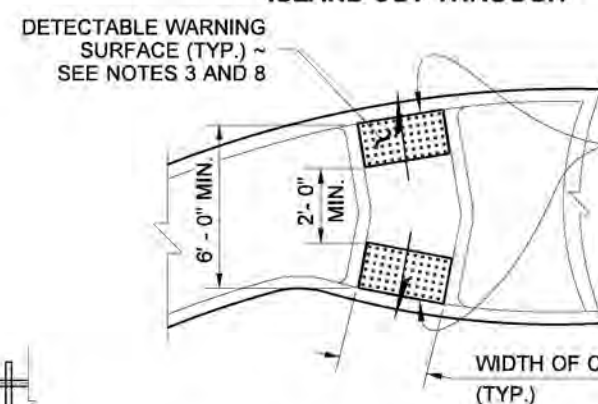
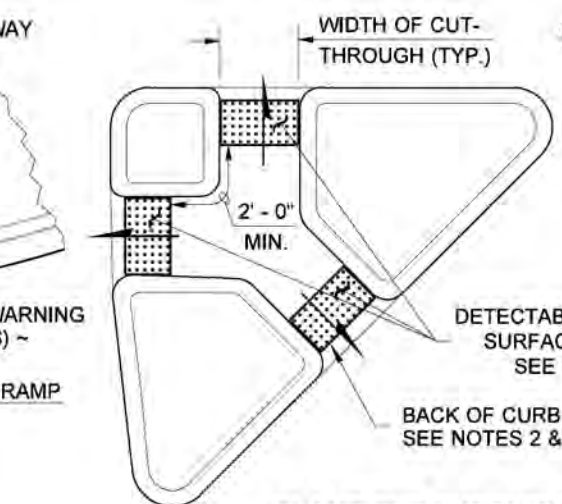
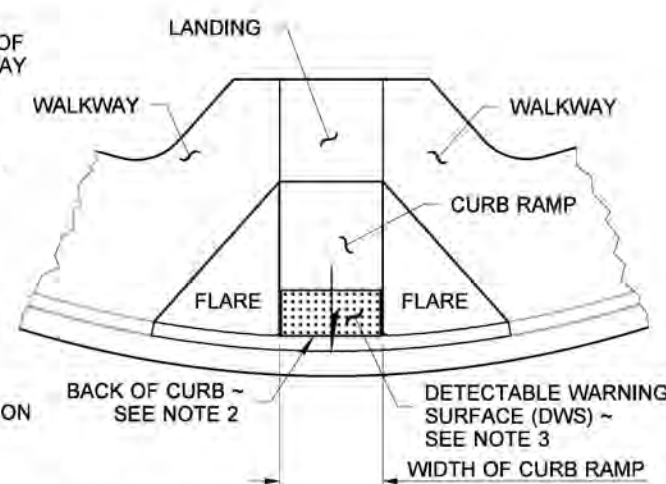
Washington State Department of Transportation



TRUNCATED DOME DETAILS



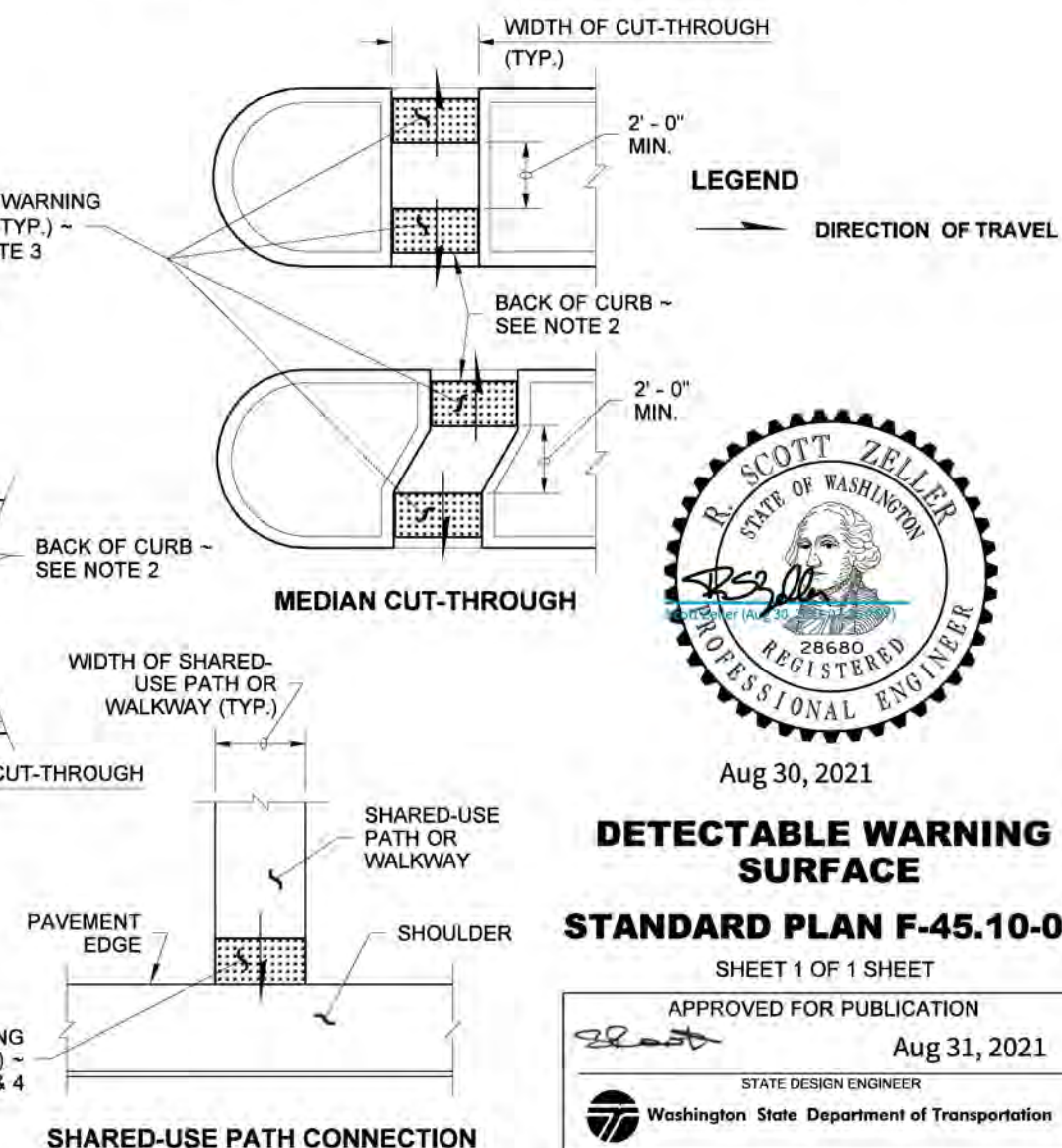
DETECTABLE WARNING SURFACE DETAIL



PLACEMENT GUIDELINES

NOTES

1. Permanent Detectable Warning Surfaces (DWS) shall extend the full width of the curb ramp, landing, or other roadway entrance as applicable. Exception: If the Manufacturer of the DWS requires a concrete border around the DWS, a variance of up to 2" (in) on each side of the DWS is permitted.
2. Permanent Detectable Warning Surfaces (DWS) shall be placed on a minimum 4" (in) thick concrete pad. The DWS panel shall be placed adjacent to the back of the curb and with no more than a 2" (in) gap between the DWS and the back of the curb measured at the center of the DWS panel. Exception: If the Manufacturer of the selected DWS requires a concrete border around the DWS, a variance of up to 2" (in) from the back of the curb is permitted (measured at the leading corners of the DWS panel).
3. The rows of truncated domes shall be aligned to be parallel to the direction of travel, and perpendicular to the grade break at the back of curb.
4. If curb and gutter are not present, such as a shared-use path connection, the Detectable Warning Surface shall be placed at the pavement edge.
5. See **Standard Plans** for sidewalk and curb ramp details.
6. If a curb ramp is required, the location of the Detectable Warning Surface must be at the bottom of the ramp and within the required distance from the rail crossing.
7. When the grade break between the curb ramp and the landing is less than or equal to 5 ft. from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp directly above the grade break.
8. Glued or stick down Detectable Warning Surfaces are allowed only for temporary work zone applications.



Aug 30, 2021

DETECTABLE WARNING SURFACE

STANDARD PLAN F-45.10-03

SHEET 1 OF 1 SHEET

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[Signature]

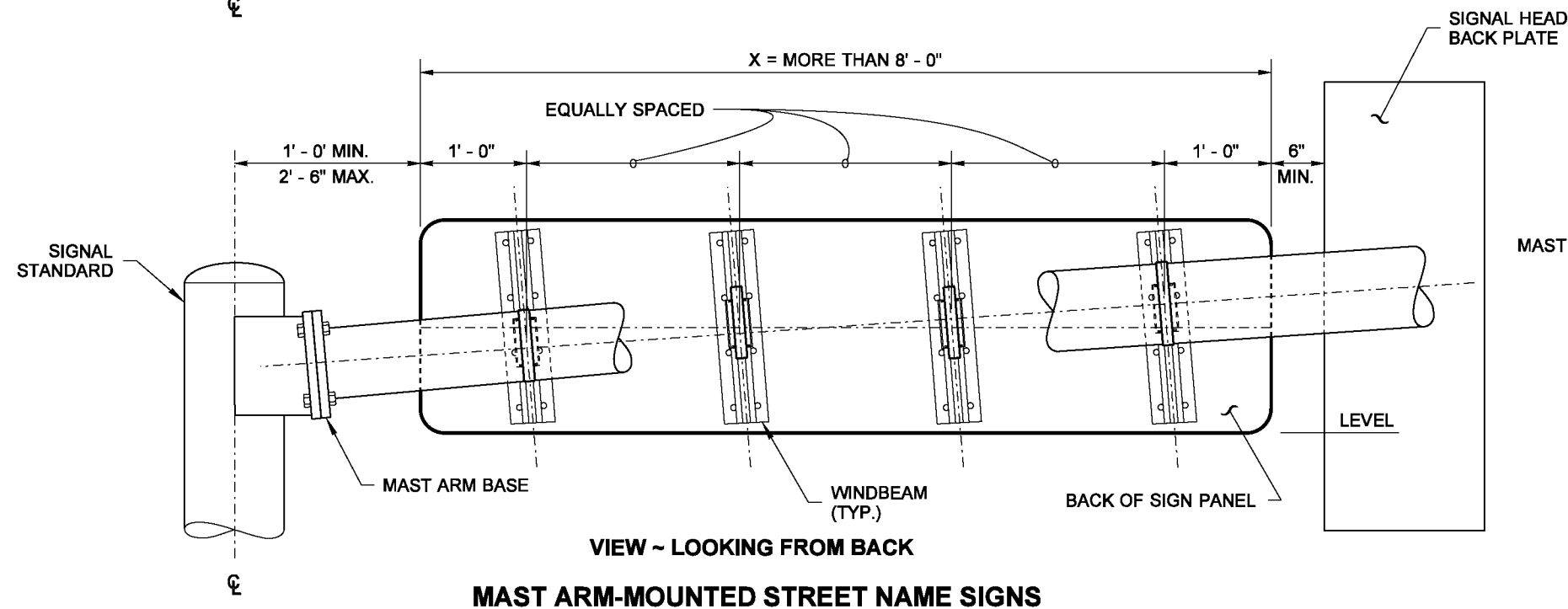
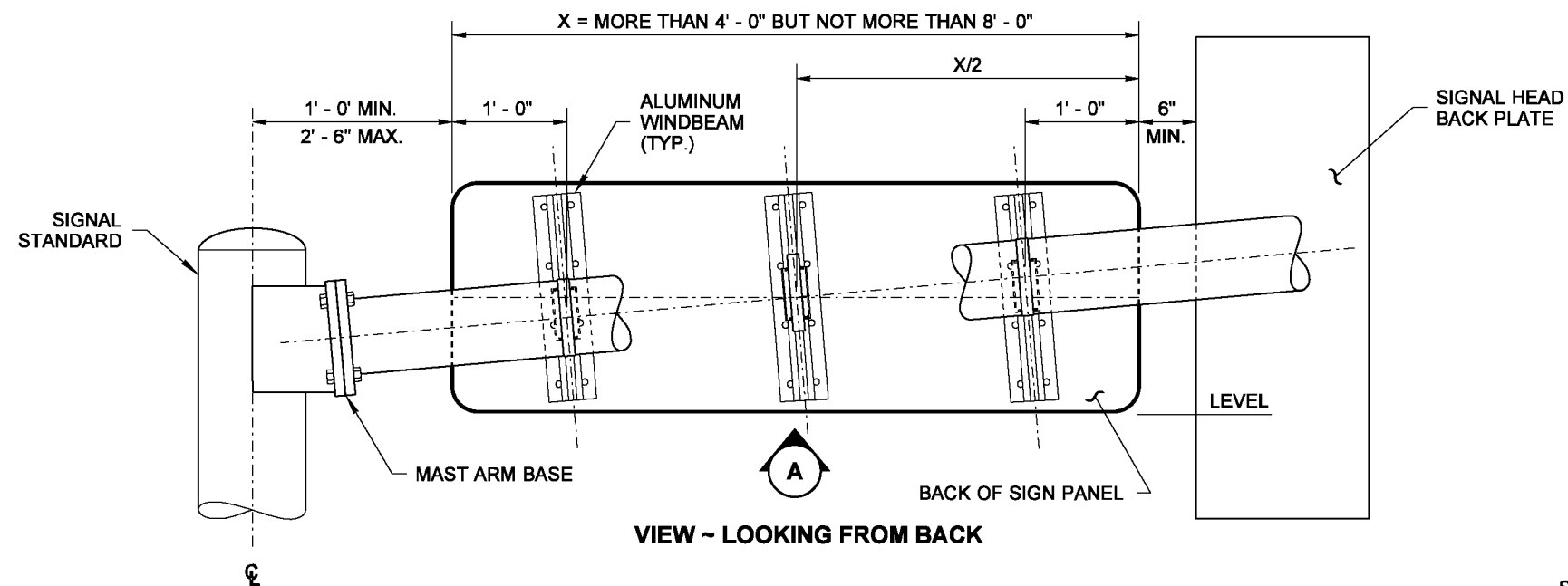
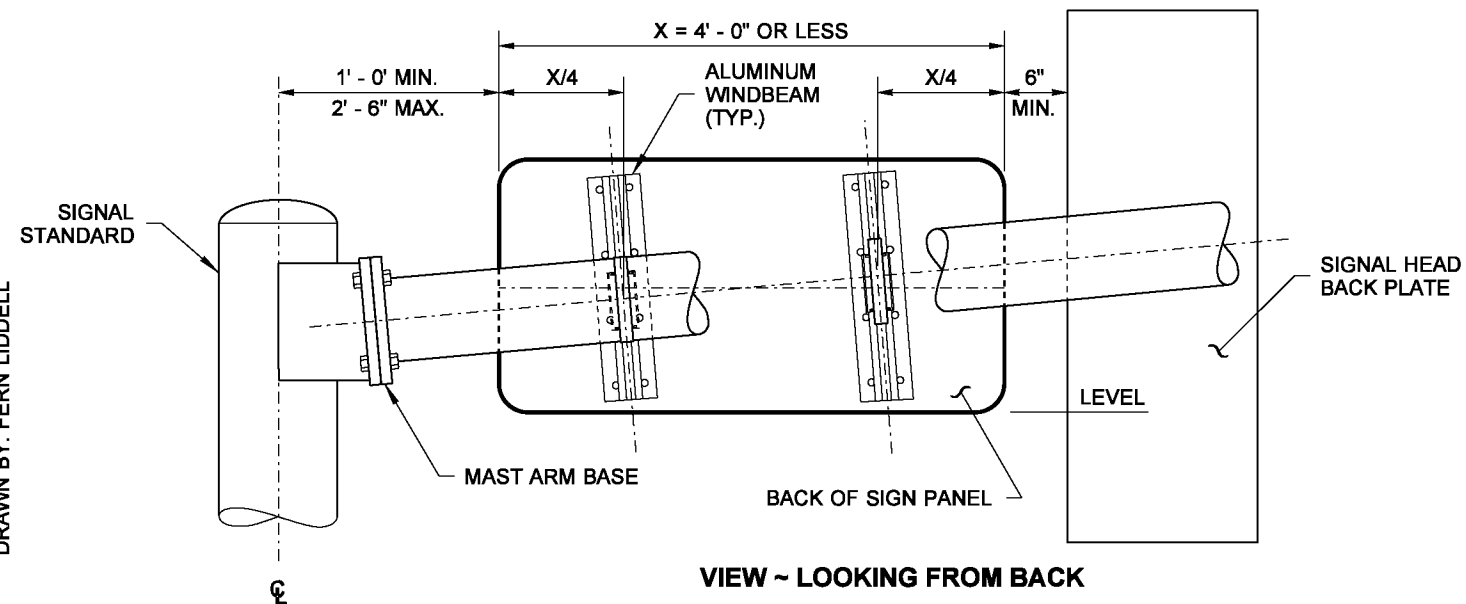
Aug 31, 2021

STATE DESIGN ENGINEER



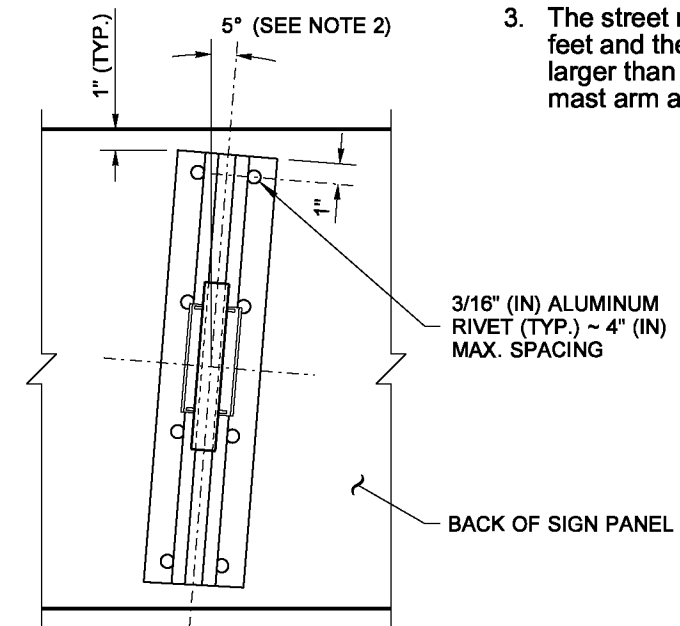
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL

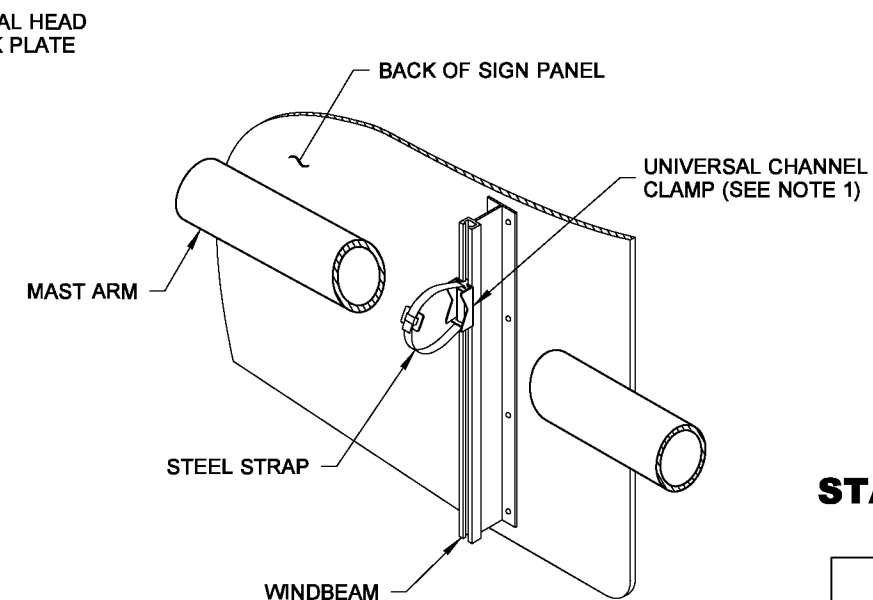


NOTES

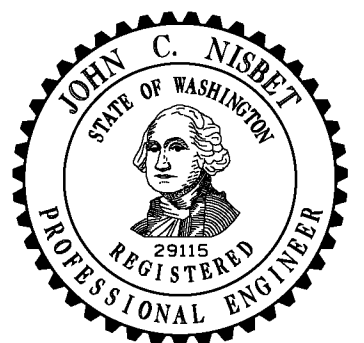
1. Mounting brackets with steel straps shall be a stainless steel band and buckle system product or an approved equal. Mounting brackets shall be universal channel clamps; steel straps shall be 3/4" (in) wide and 0.030" (in) thick.
2. All signs installed on mast arms or standards (poles) require windbeams. All signs shall be installed with horizontal edges level. A skewed windbeam is required only when the sign is mounted within 12" (in) of the mast arm base (see Detail "A").
3. The street name sign shall be a maximum of 36 square feet and the sign height is a maximum of 3' (ft); signs larger than 36 square feet require a special design mast arm and signal pole.



DETAIL A
TYPICAL FOR EACH CONNECTION



TYPICAL MAST ARM INSTALLATION



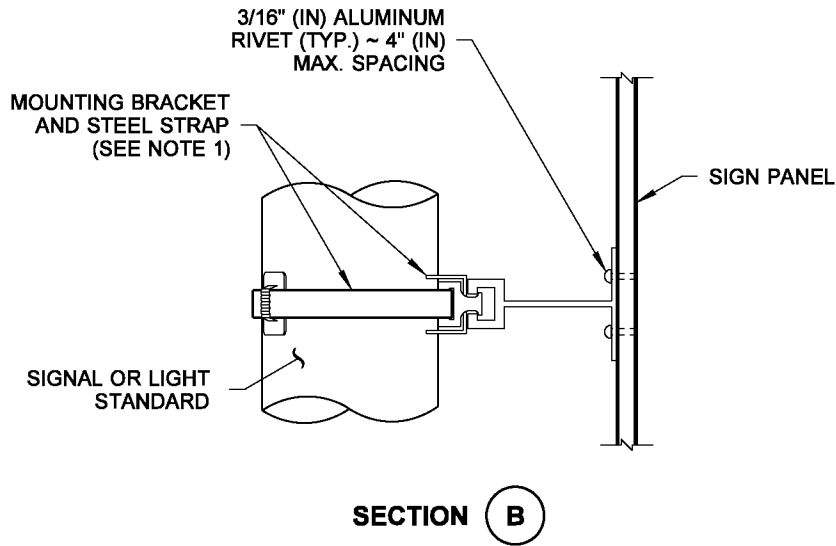
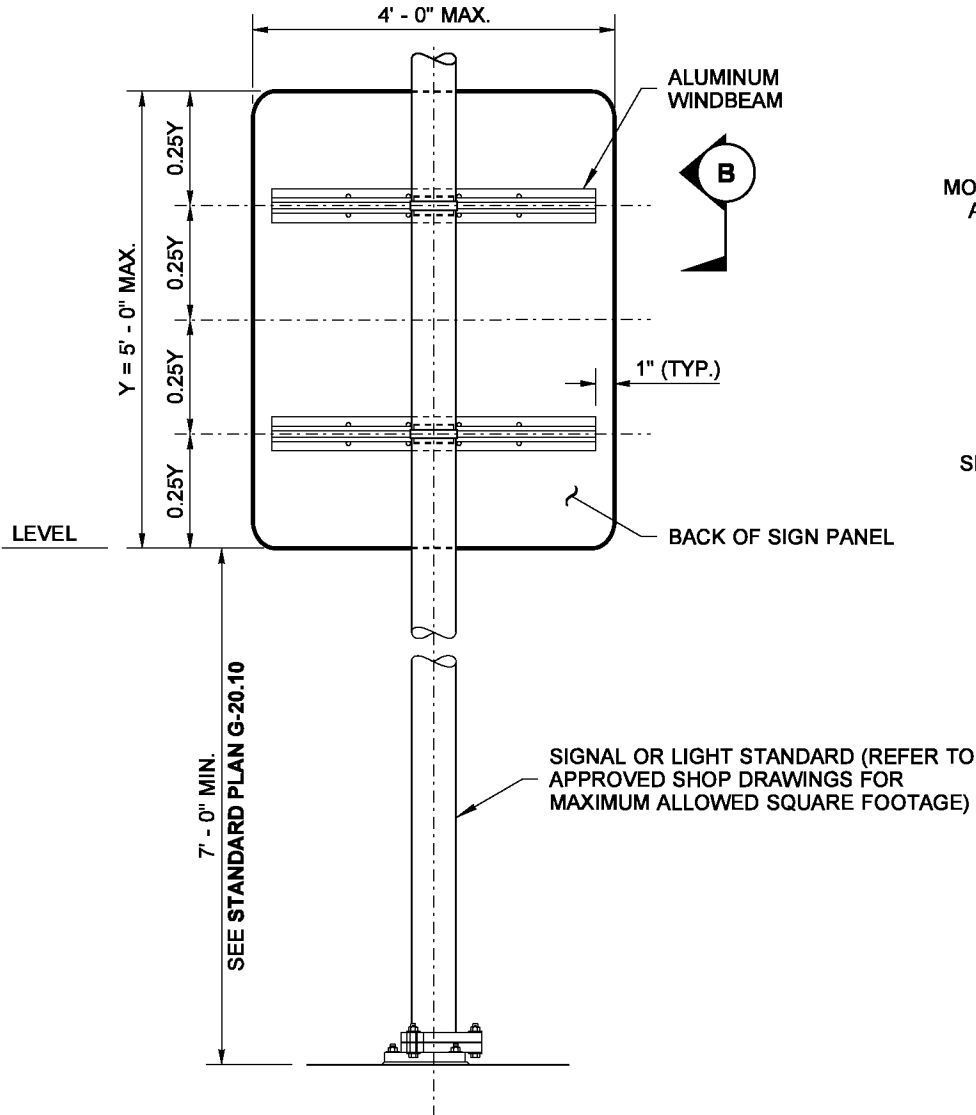
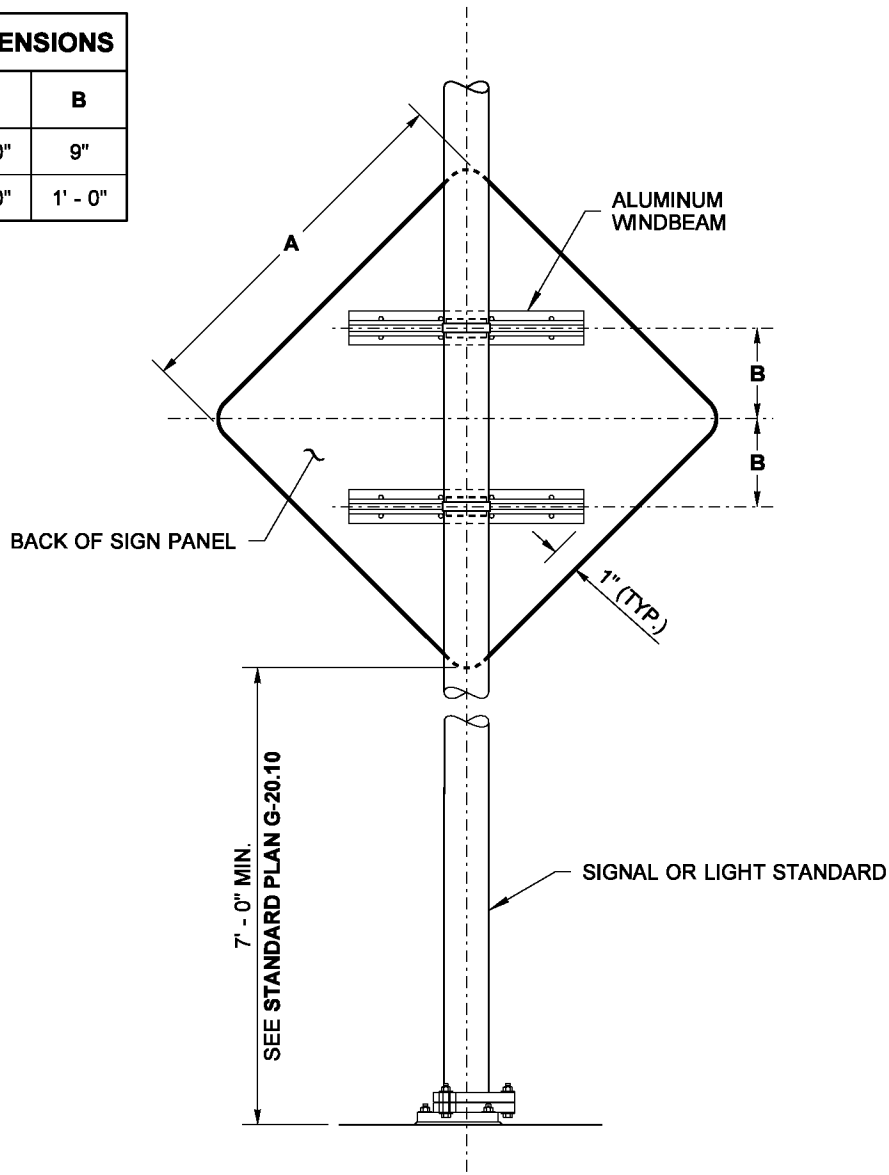
SIGN INSTALLATION ON SIGNAL AND LIGHT STANDARDS STANDARD PLAN G-30.10-04

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

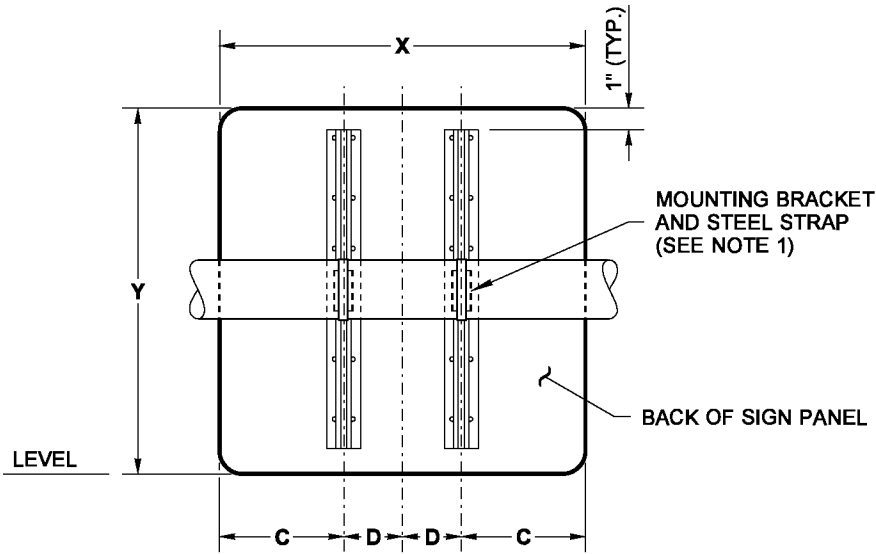
DIMENSIONS	
A	B
3' - 0"	9"
4' - 0"	1' - 0"



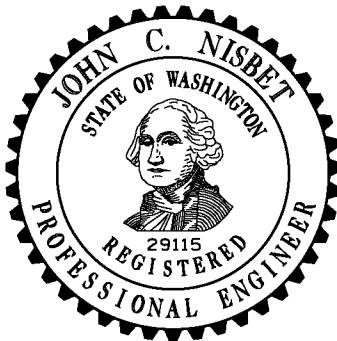
SIGN INSTALLATION ON SIGNAL OR LIGHT STANDARD

DIMENSIONS			
X	Y	C	D
3' - 0"	2' - 6"	1' - 0"	6"
3' - 0"	3' - 0"	1' - 0"	6"
3' - 0"	4' - 0"	1' - 3"	9"
4' - 0"	2' - 6"	1' - 3"	9"

NOTE:
Any Lane Use Sign greater than 7.5 sq ft. requires a Special Design Mast Arm and Signal Pole.



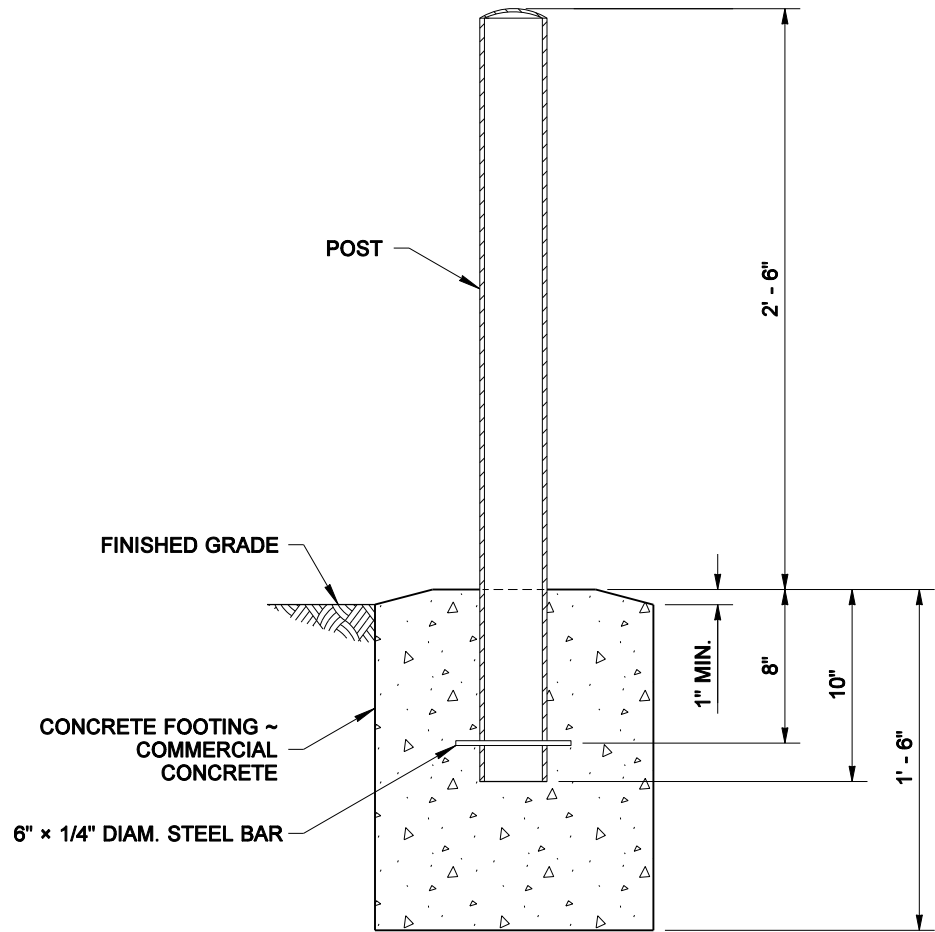
MAST ARM-MOUNTED LANE USE SIGNS



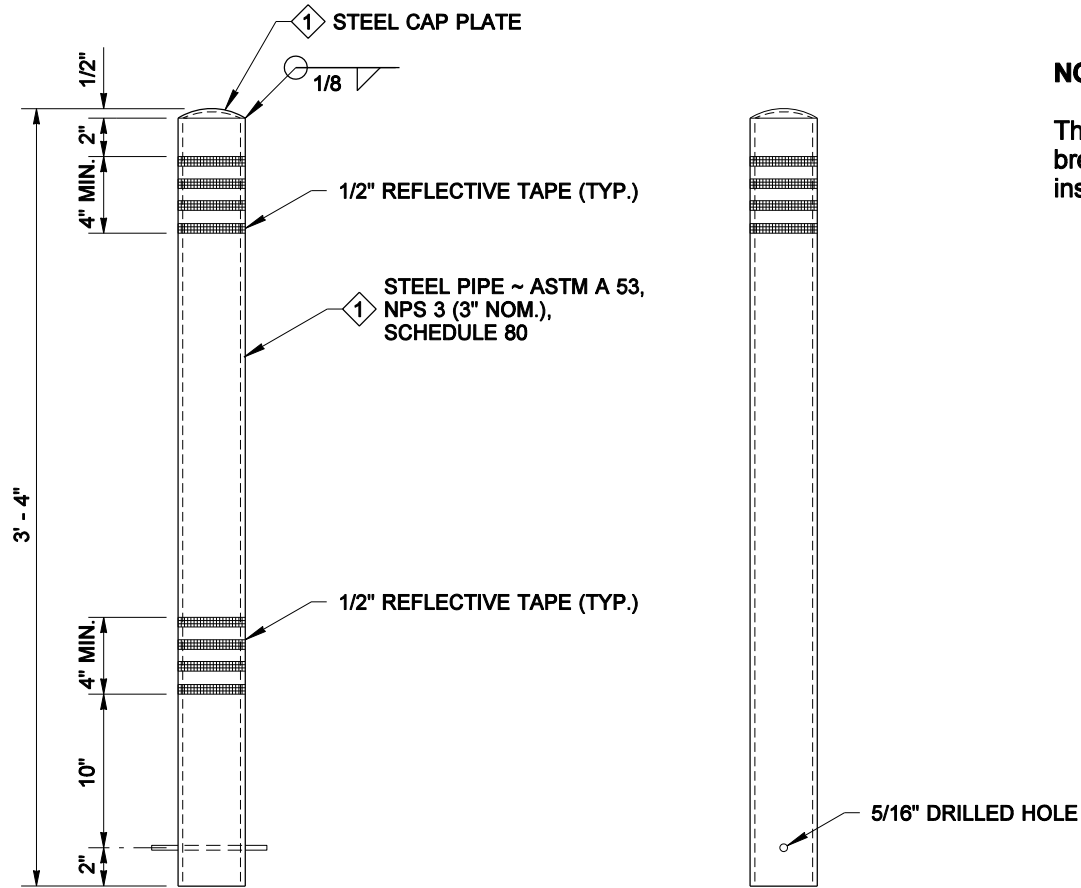
**SIGN INSTALLATION
ON SIGNAL AND
LIGHT STANDARDS
STANDARD PLAN G-30.10-04**

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION



SECTION A

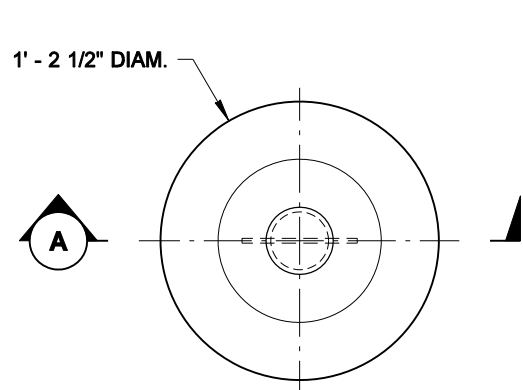


FRONT VIEW

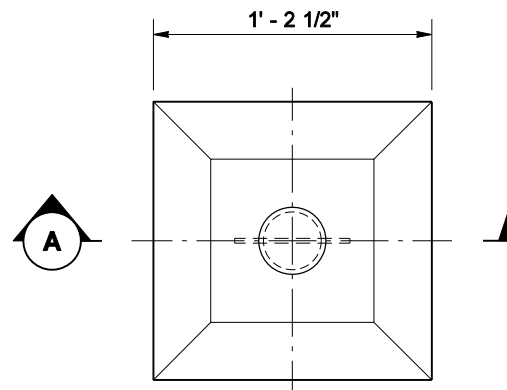
SIDE VIEW

1 PAINT ASSEMBLY WITH A "HIGHLY VISIBLE" COLOR. (SAFETY YELLOW IS ACCEPTABLE)

POST



ROUND FOOTING



SQUARE FOOTING

PLAN VIEW

NOTE

This bollard does not have an effective breakaway design feature and cannot be installed within the Design Clear Zone.



EXPIRES JUNE 19, 2010

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BOLLARD TYPE 2

STANDARD PLAN H-60.20-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III

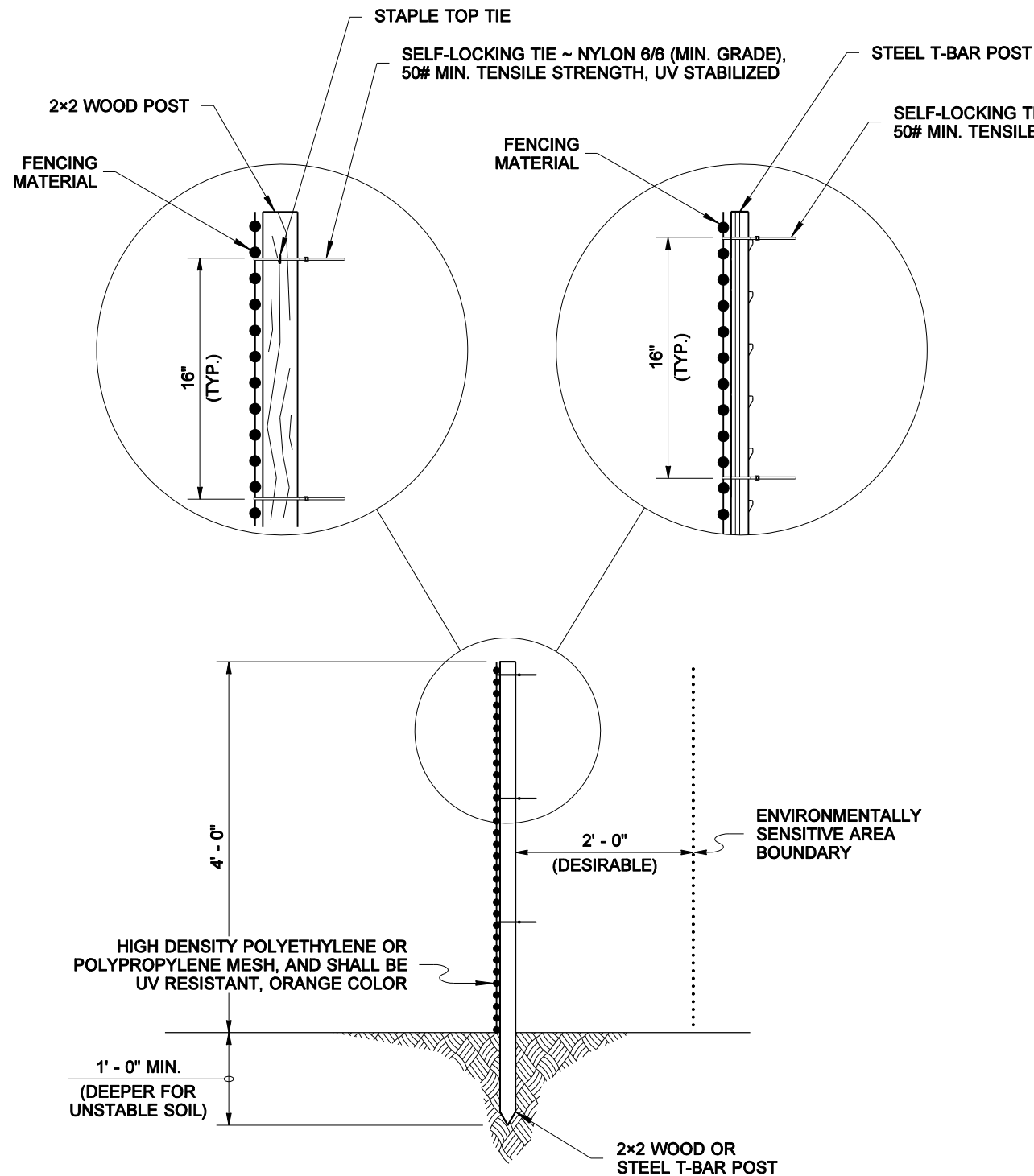
STATE DESIGN ENGINEER

07-03-08

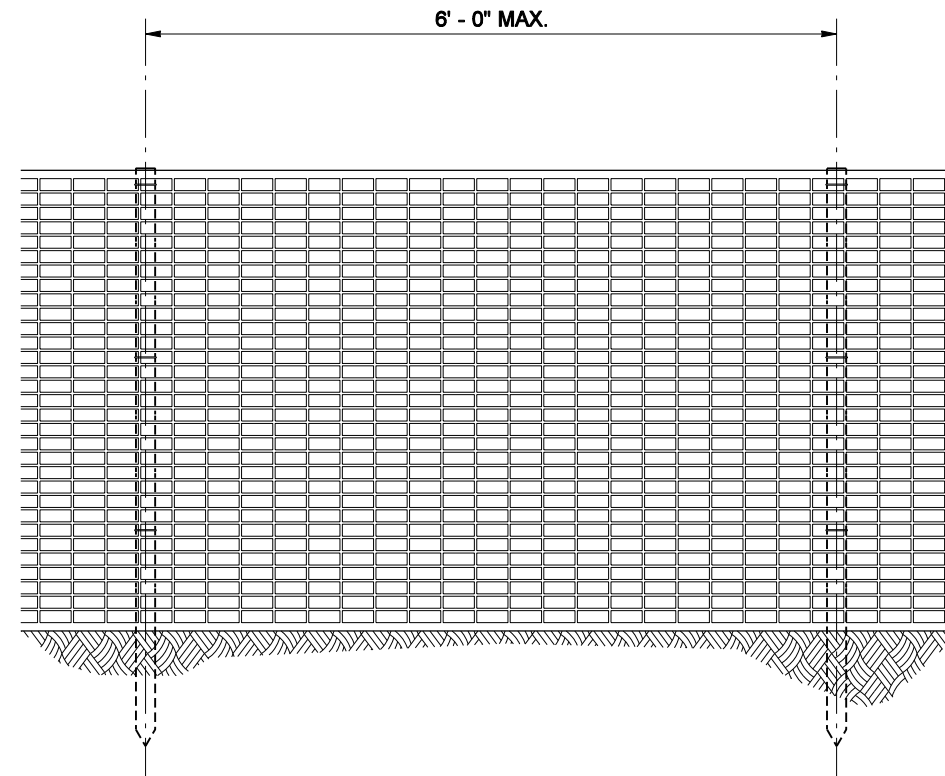
DATE



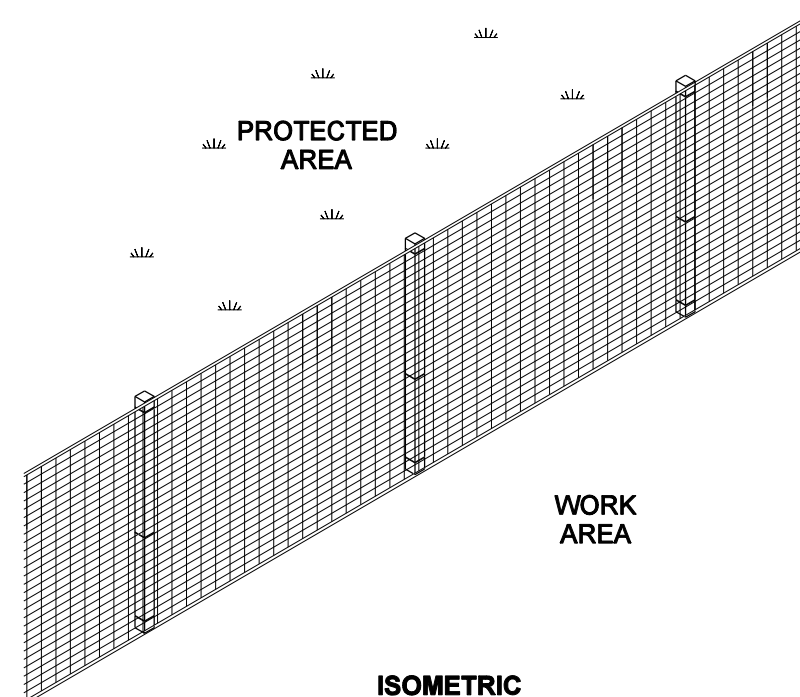
Washington State Department of Transportation



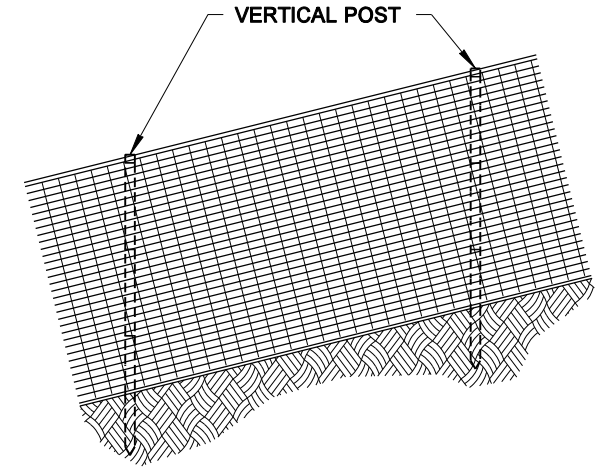
TYPICAL SECTION



ELEVATION



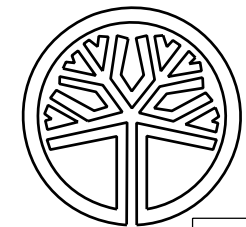
ISOMETRIC



ELEVATION
FENCE ON SLOPE

NOTE

1. Post shall have sufficient strength and durability to support the fence through the life of the project.



STATE OF
WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

MARK W. MAURER
CERTIFICATE NO. 000598

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HIGH VISIBILITY FENCE

STANDARD PLAN I-10.10-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

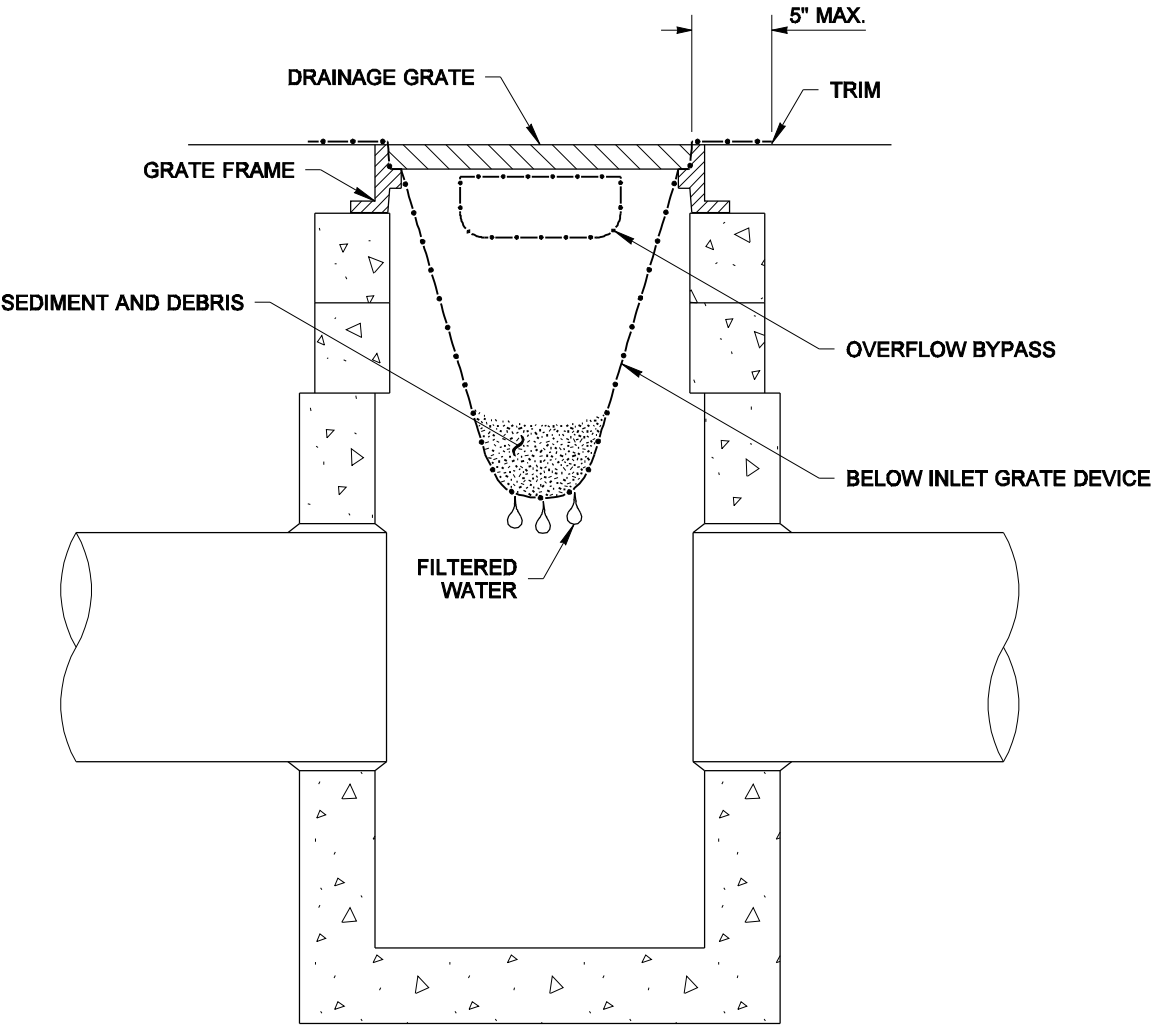
Pasco Bakotich III

08-11-09

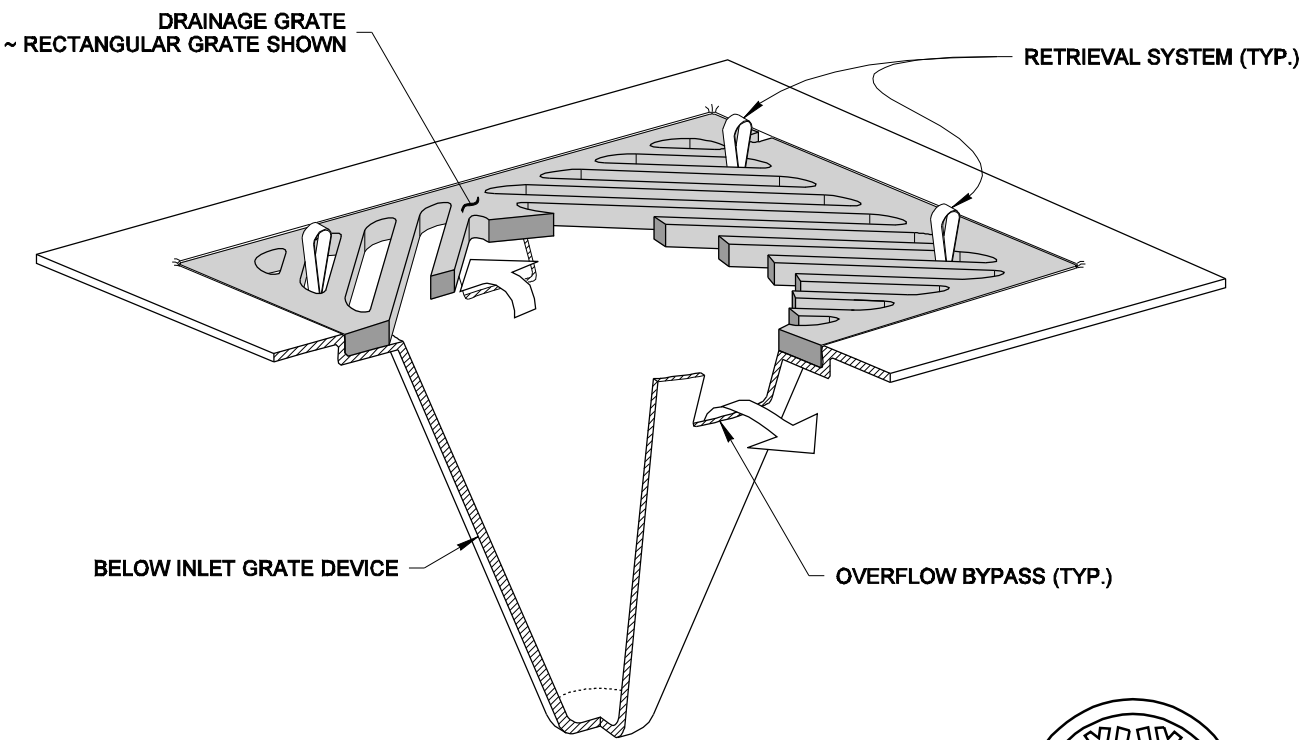
STATE DESIGN ENGINEER

DATE _____

 Washington State Department of Transportation



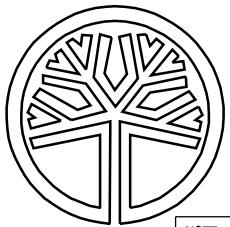
SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

NOTES

1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).



STATE OF
WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

MARK W. MAURER
CERTIFICATE NO. 000598

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**STORM DRAIN
INLET PROTECTION
STANDARD PLAN I-40.20-00**

SHEET 1 OF 1 SHEET

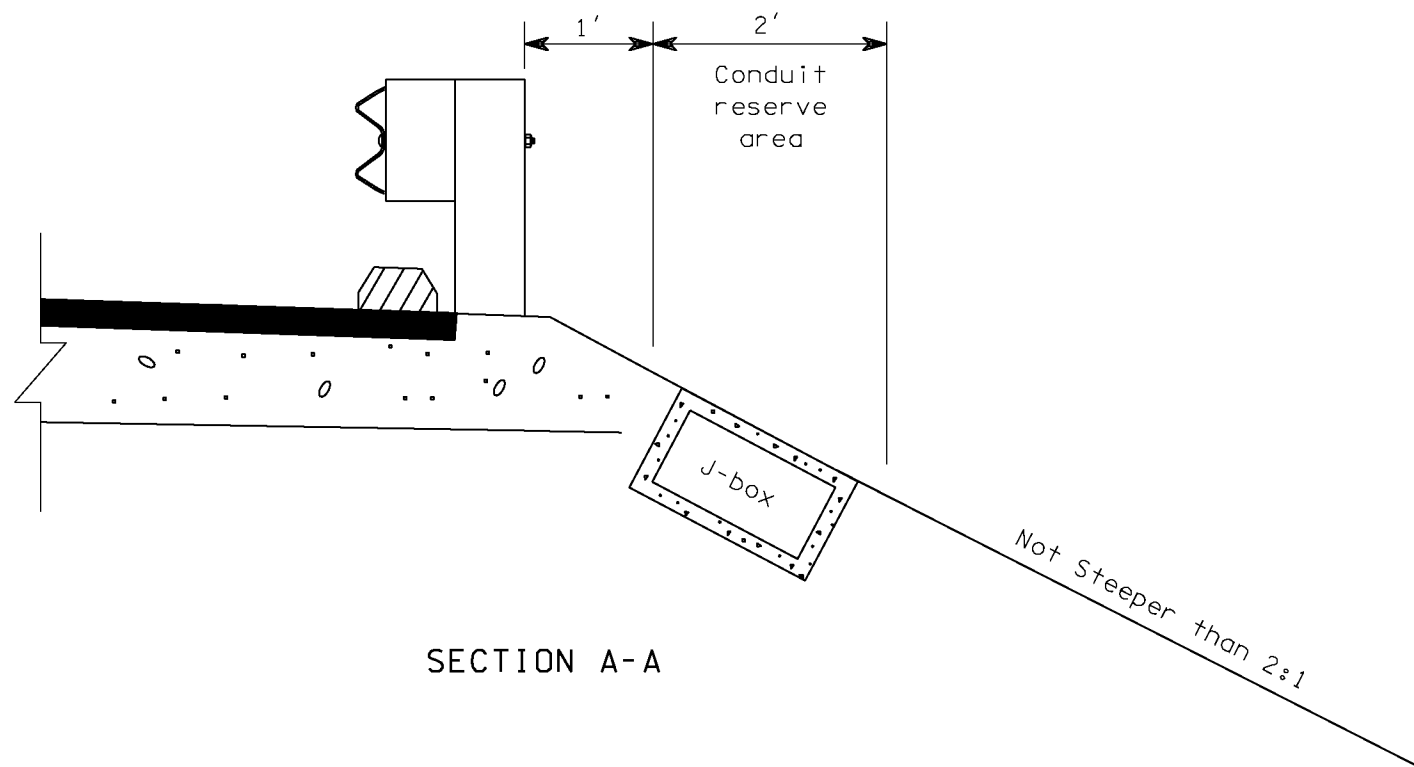
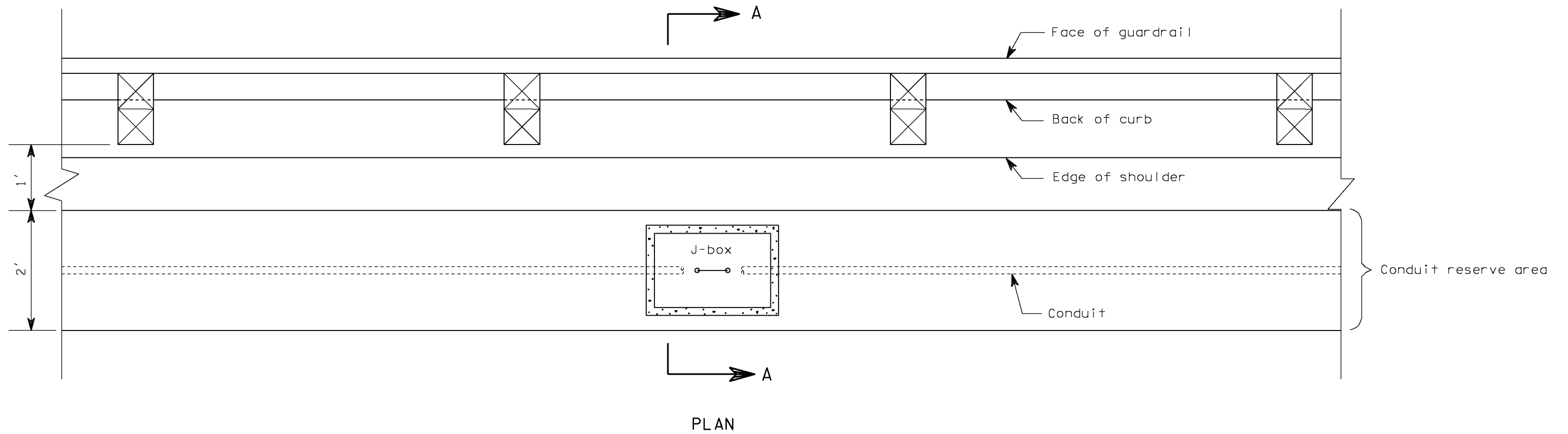
APPROVED FOR PUBLICATION

Pasco Bakotich III **09-20-07**

STATE DESIGN ENGINEER DATE



Washington State Department of Transportation



ELECTRICAL CONDUIT PLACEMENT



EXPIRES SEPT 10, 1998

STANDARD PLAN J-10

APPROVED FOR PUBLICATION

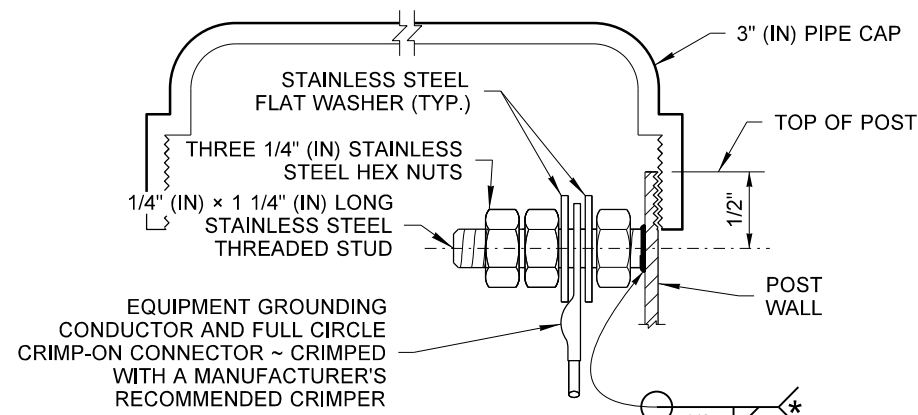
Clifford E. Mansfield **07-18-97**

STATE DESIGN ENGINEER DATE

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

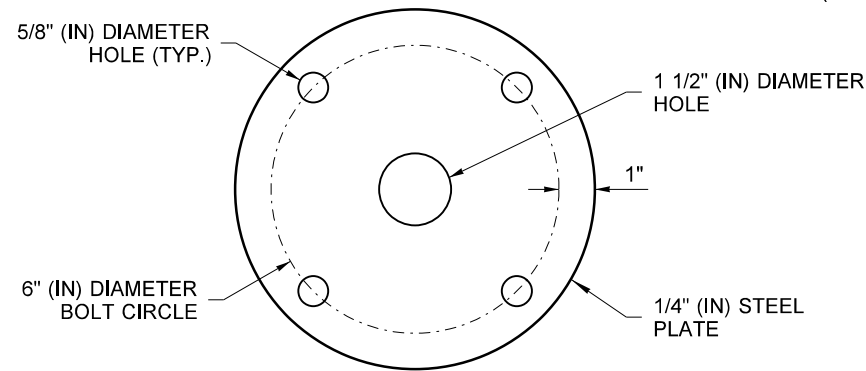
NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT
BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED BY
THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON
FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

DRAWN BY: FERN LIDDELL

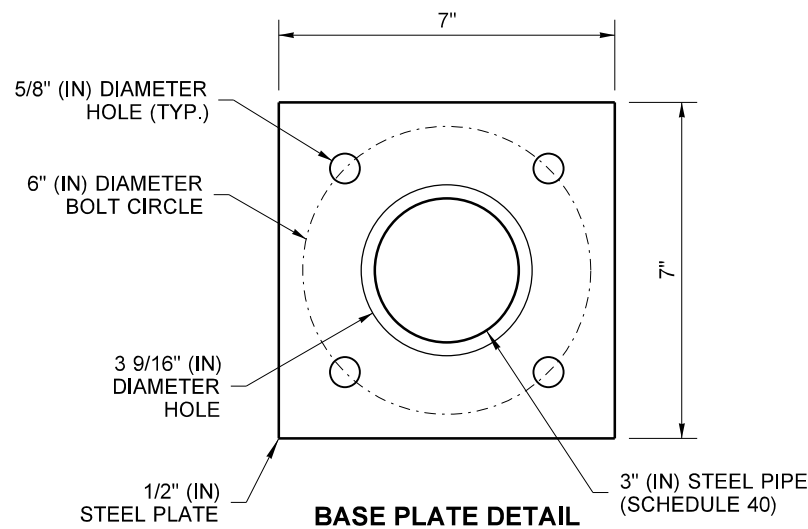


**GROUNDING CONNECTION
DETAIL**

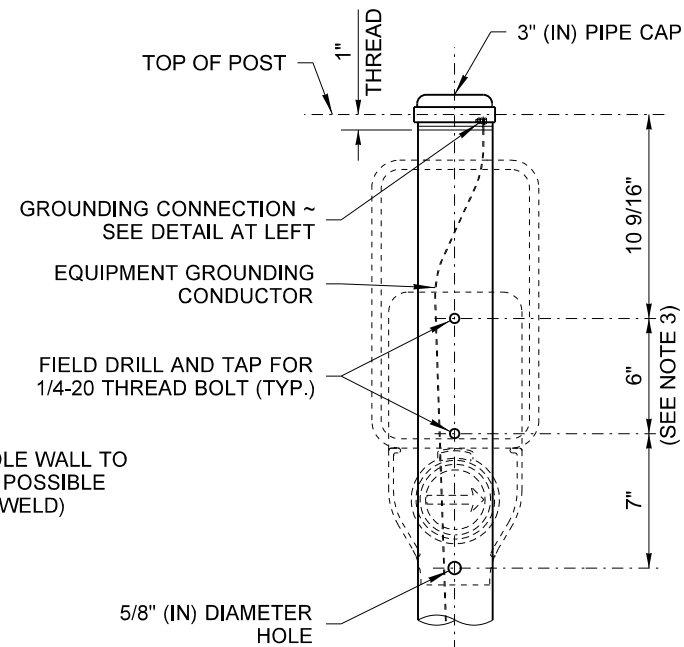
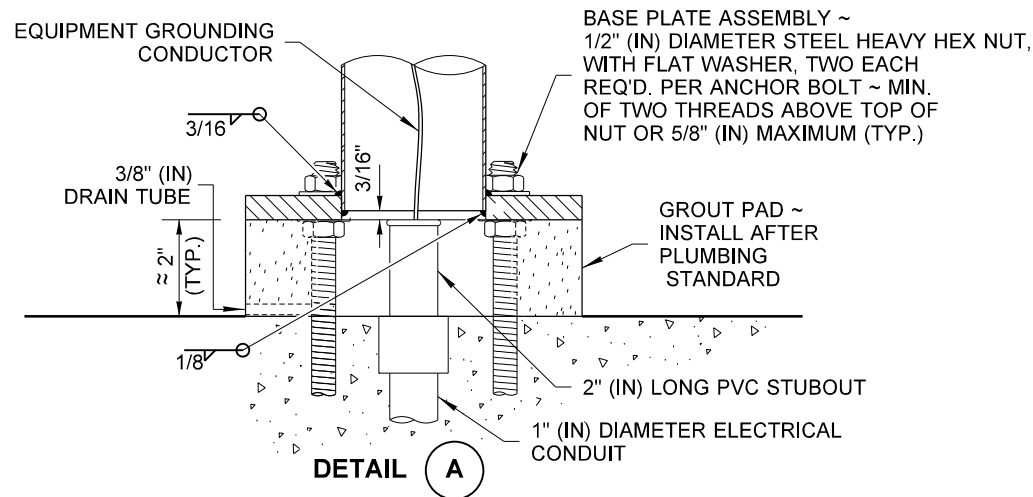
* WELD STUD TO POLE WALL TO
MAXIMUM EXTENT POSSIBLE
(1/2" (IN) MINIMUM WELD)



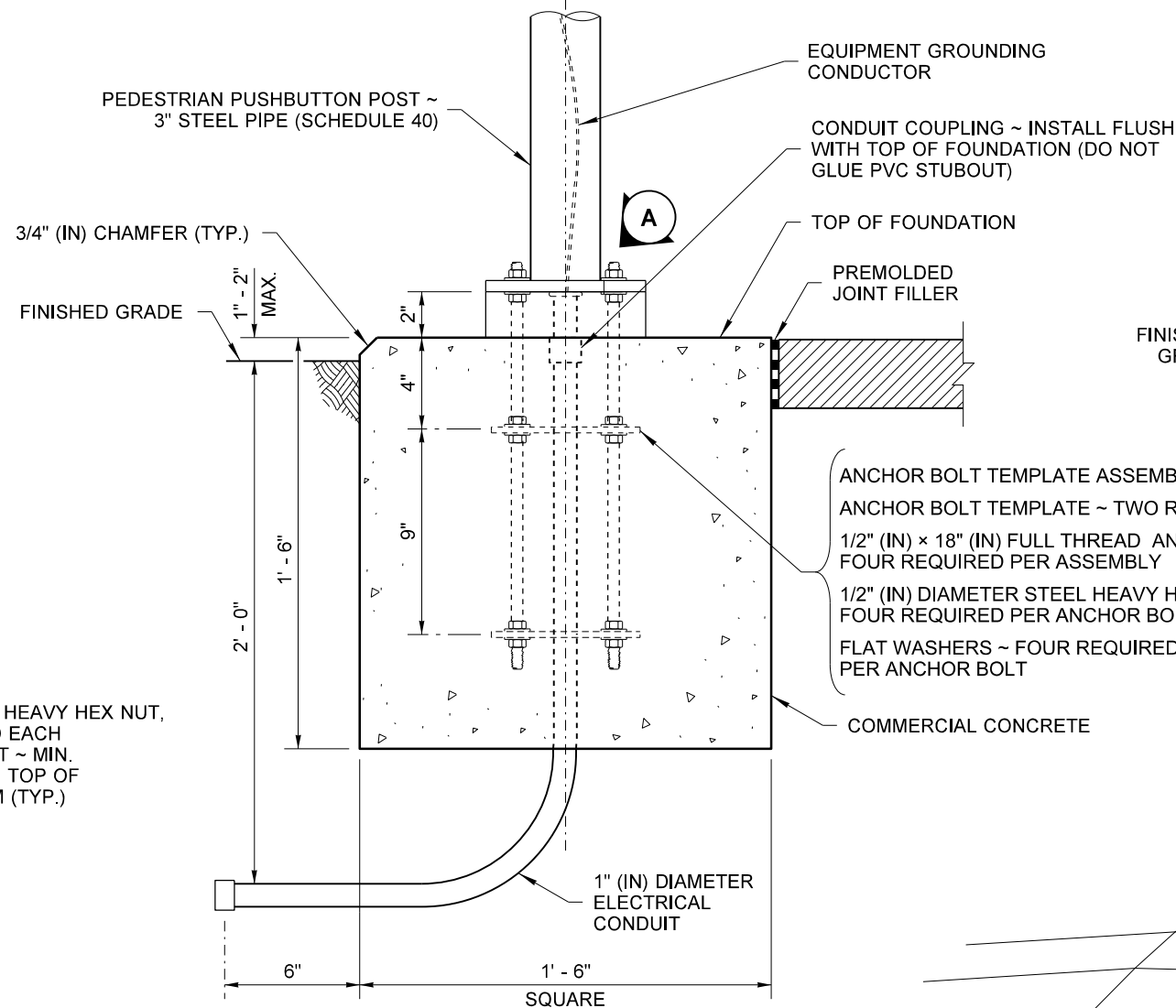
ANCHOR BOLT TEMPLATE



BASE PLATE DETAIL



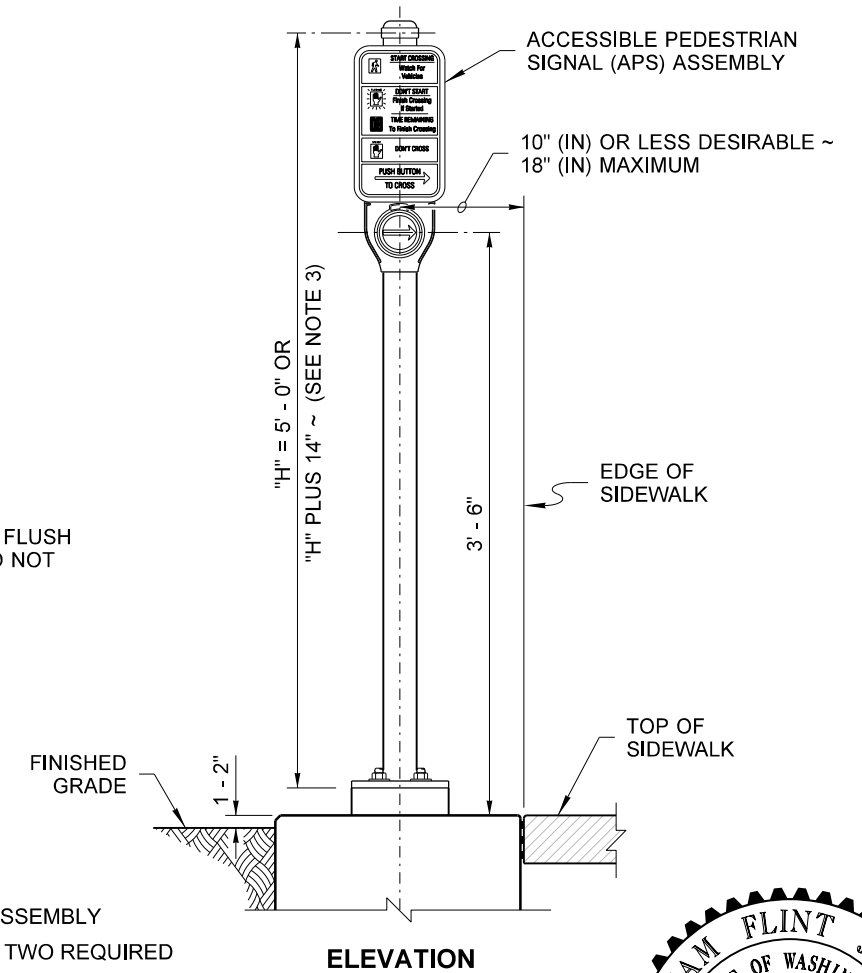
POST DETAIL



FOUNDATION DETAIL

NOTES

1. See **Standard Plan J-20.26** for Accessible Pedestrian Pushbutton details.
2. Where shown in the plans, install plaque (R10-32P) "PUSH BUTTON FOR 2 SECONDS FOR EXTRA CROSSING TIME" above the Accessible Pedestrian Signal (APS) assembly. Add 14" (in) to post height to accommodate plaque and leave a 2" (in) space between signs.
3. Mounting distances vary between manufacturers. See manufacturers recommendations for mounting information.
4. Junction Box serving the Standard shall preferably be located 5' - 0" (10' - 0" Max.) from the Standard.
5. Two button installation may require adaptor(s).



ELEVATION

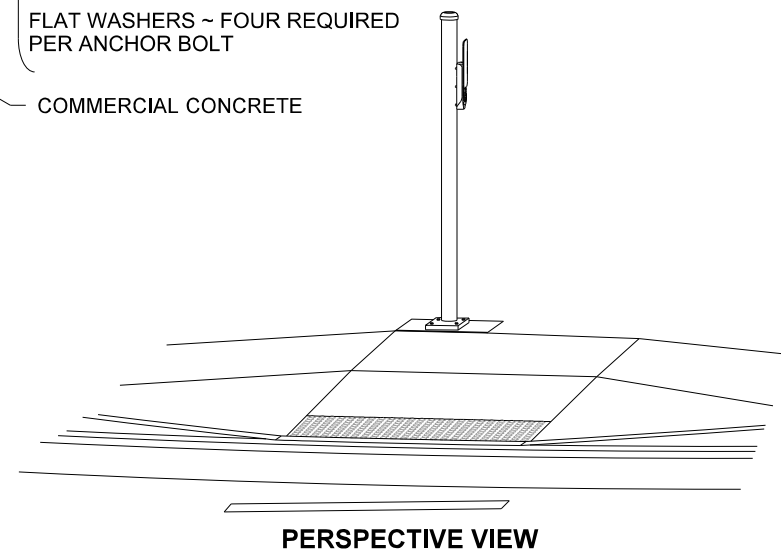


**ACCESSIBLE PEDESTRIAN
PUSHBUTTON POST (PPB)
AND FOUNDATION
STANDARD PLAN J-20.10-04**

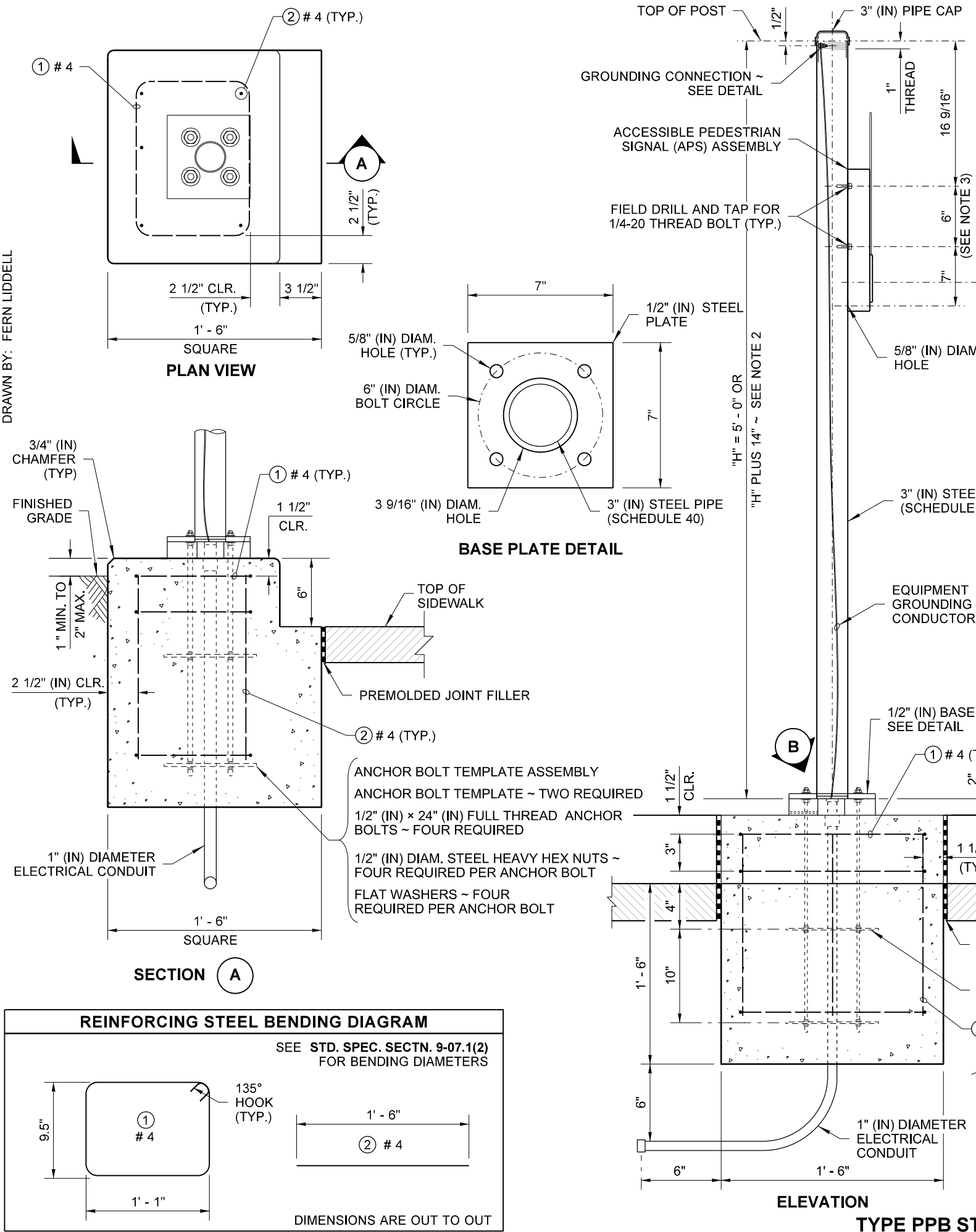
SHEET 1 OF 1 SHEET

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Washington State Department of Transportation

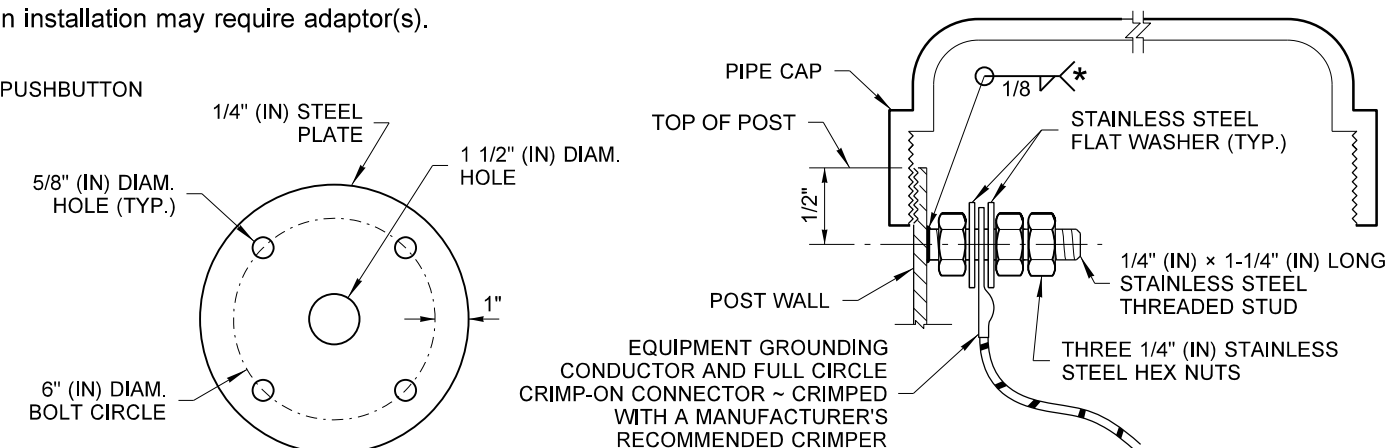


PERSPECTIVE VIEW



NOTES

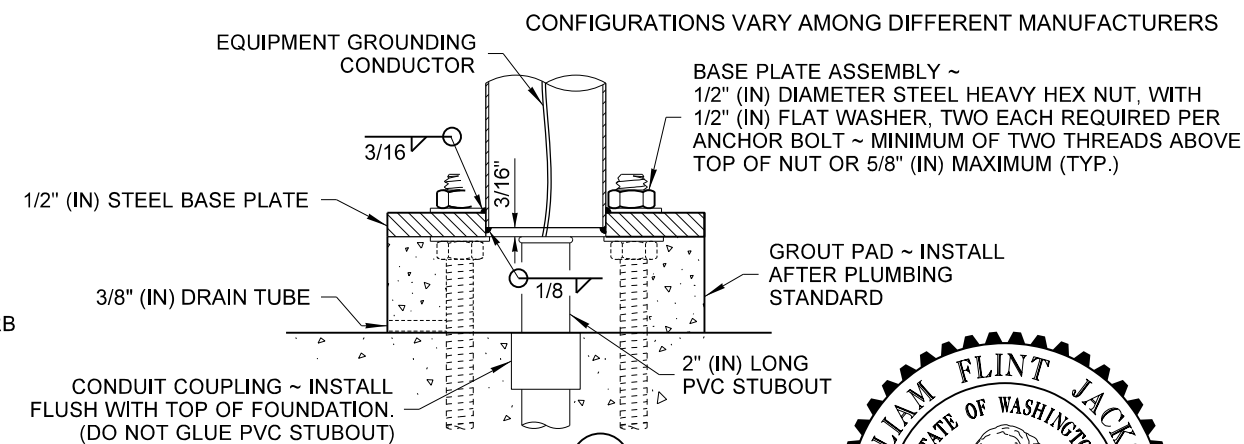
1. See **Standard Plan J-20.26** for Accessible Pedestrian Pushbutton details.
2. Where shown in the plans, install plaque (R10-32P) "PUSH BUTTON FOR 2 SECONDS FOR EXTRA CROSSING TIME" above the Accessible Pedestrian Signal (APS) assembly. Add 14" (in) to the PPB post height to accommodate plaque and leave a 2" (in) space between signs.
3. Mounting distances vary between manufacturers. See manufacturers recommendations for mounting information.
4. Junction Box serving the Standard shall preferably be located 5' - 0" (10' - 0" Max.) from the Standard.
5. Supplemental Grounding Conductor shall be non-insulated #4 AWG stranded copper and shall be clamped to vertical rebar with a connector suitable for use embedded in concrete: Provide 3' - 0" min. slack. Attach to pole grounding stud with a full circle crimp-on connector (crimped with a manufacturer recommended crimper).
6. Two button installation may require adaptor(s).



GROUNDING CONNECTION DETAIL

* WELD STUD TO POLE WALL TO MAXIMUM EXTENT POSSIBLE ~ 1/2" (IN) MINIMUM WELD

CONFIGURATIONS VARY AMONG DIFFERENT MANUFACTURERS



SECTION (B



**ACCESSIBLE PEDESTRIAN
PUSHBUTTON WITH
CURB BASE
STANDARD PLAN J-20.11-03**

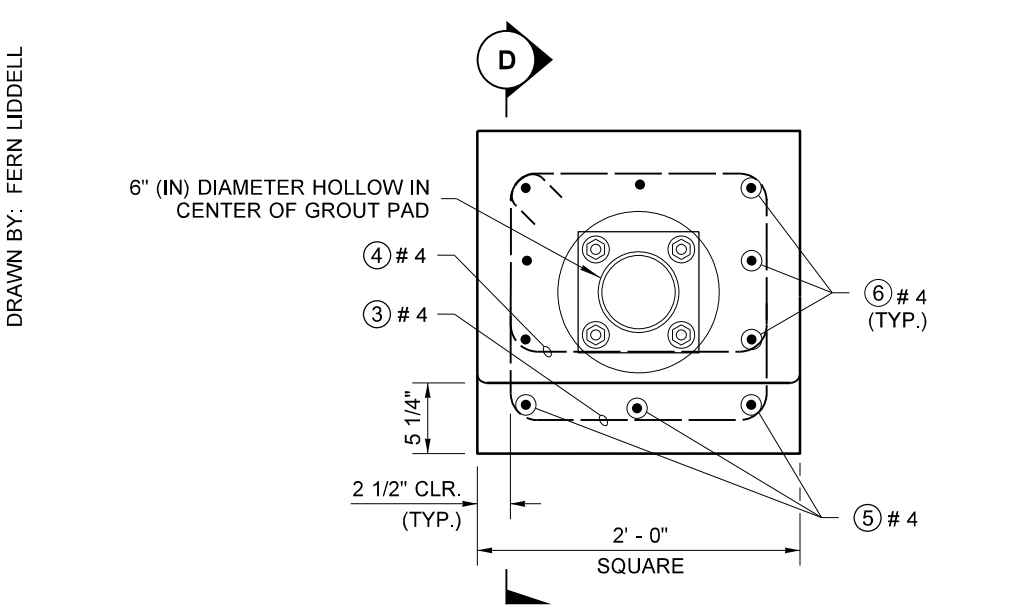
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

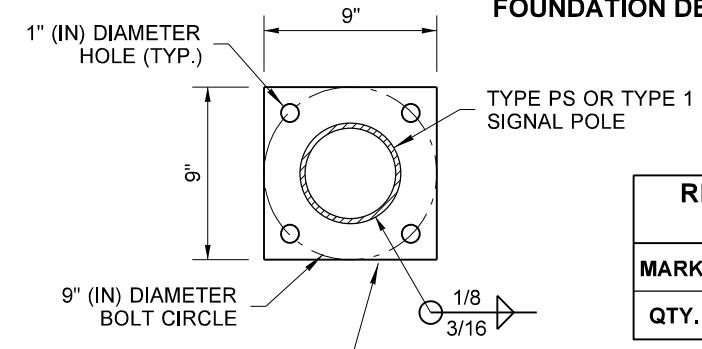
STATE DESIGN ENGINEER

 **Washington State Department of Transportation**

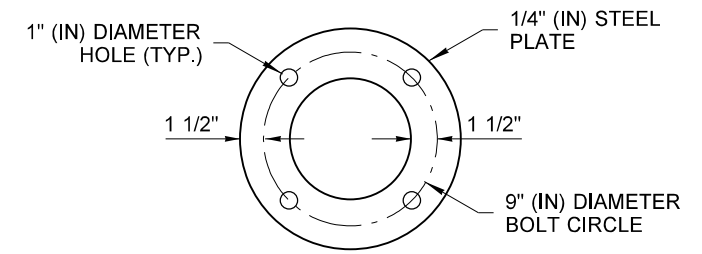
DRAWN BY: FERN LIDDELL



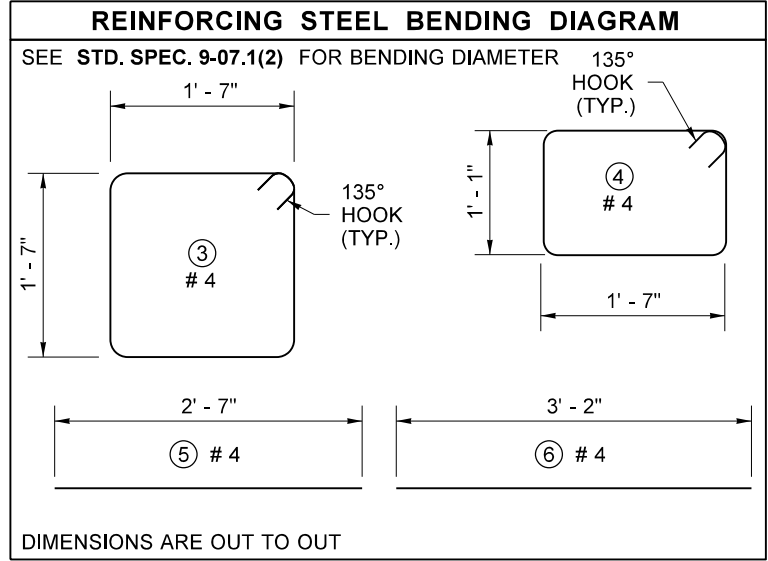
PLAN VIEW
FOUNDATION DETAILS



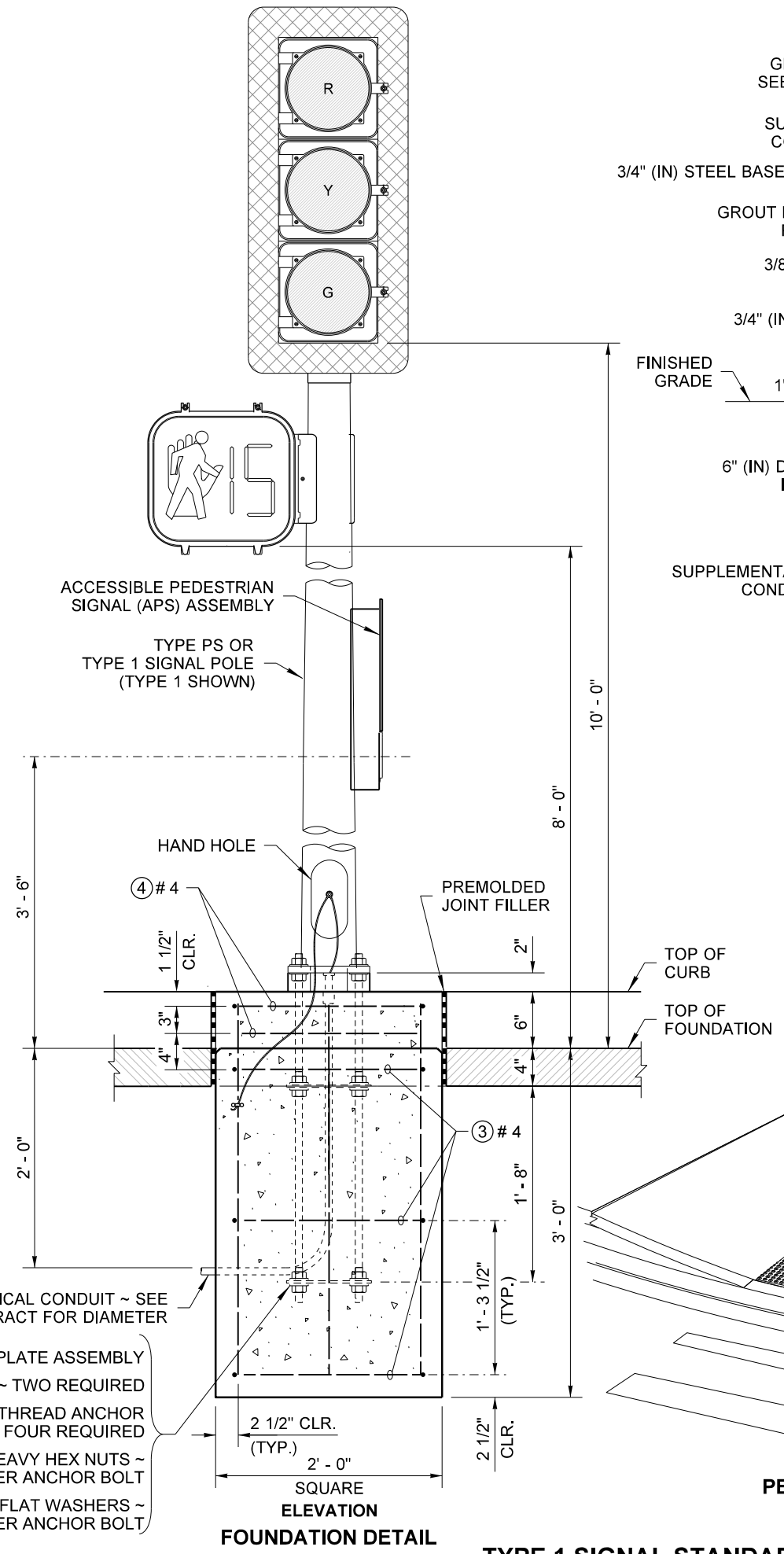
BASE PLATE DETAIL



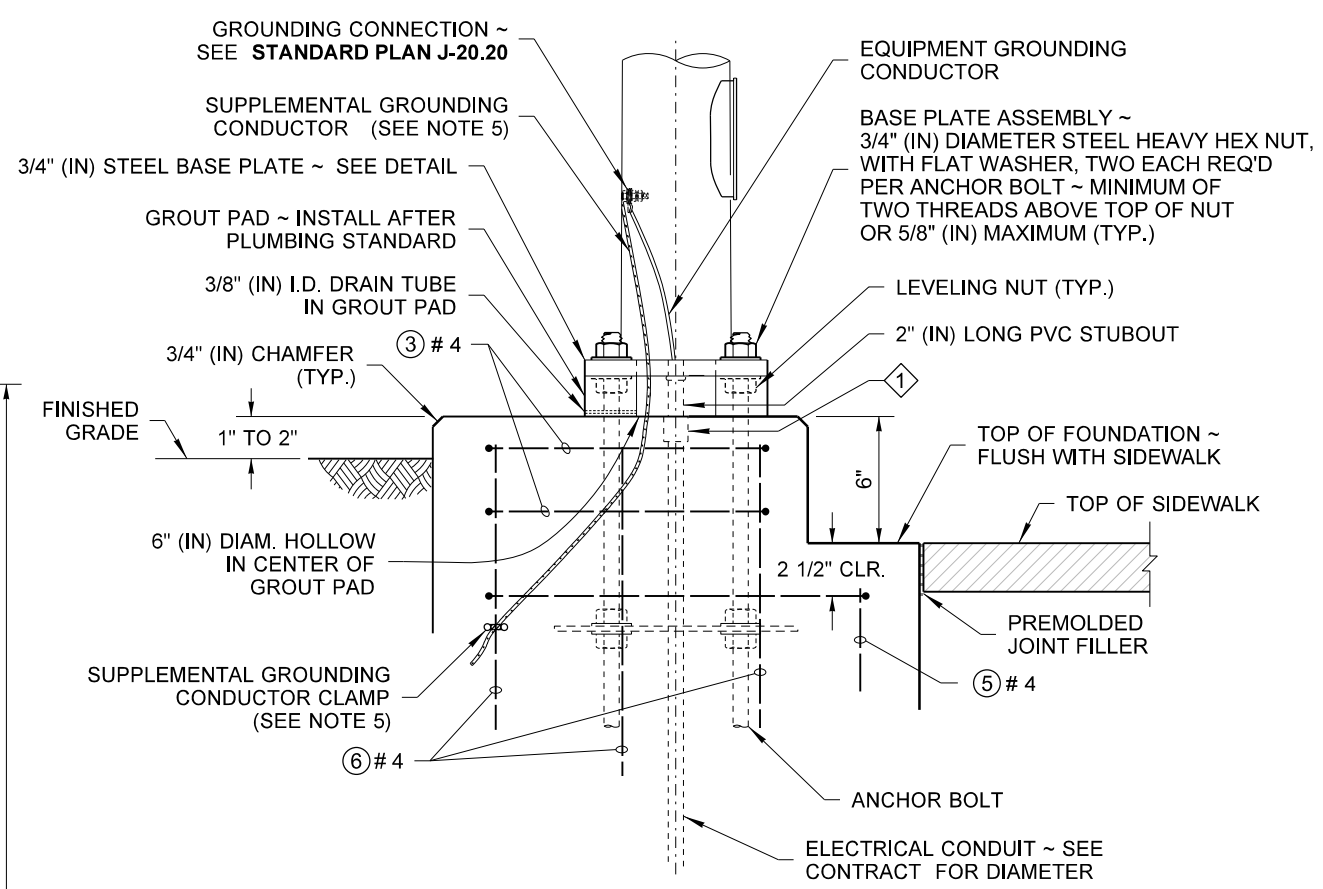
ANCHOR BOLT TEMPLATE



REINFORCING STEEL QUANTITIES LIST				
MARK	③	④	⑤	⑥
QTY.	3	2	3	7



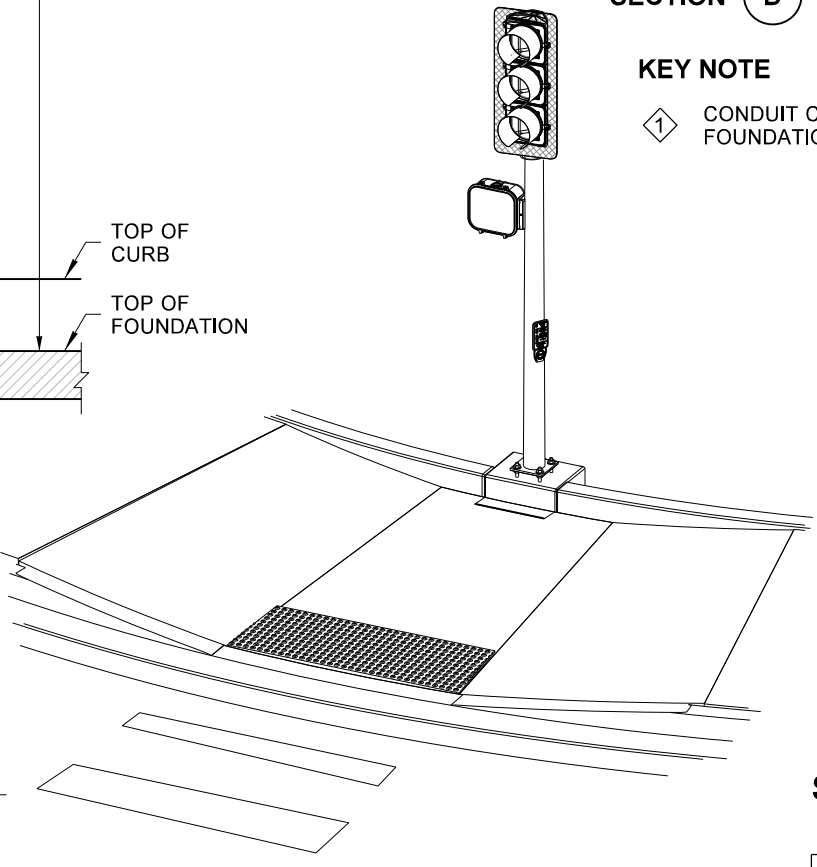
FOUNDATION DETAIL



SECTION D

KEY NOTE

1 CONDUIT COUPLING ~ INSTALL FLUSH WITH TOP OF FOUNDATION. (DO NOT GLUE PVC STUBOUT)



PERSPECTIVE VIEW

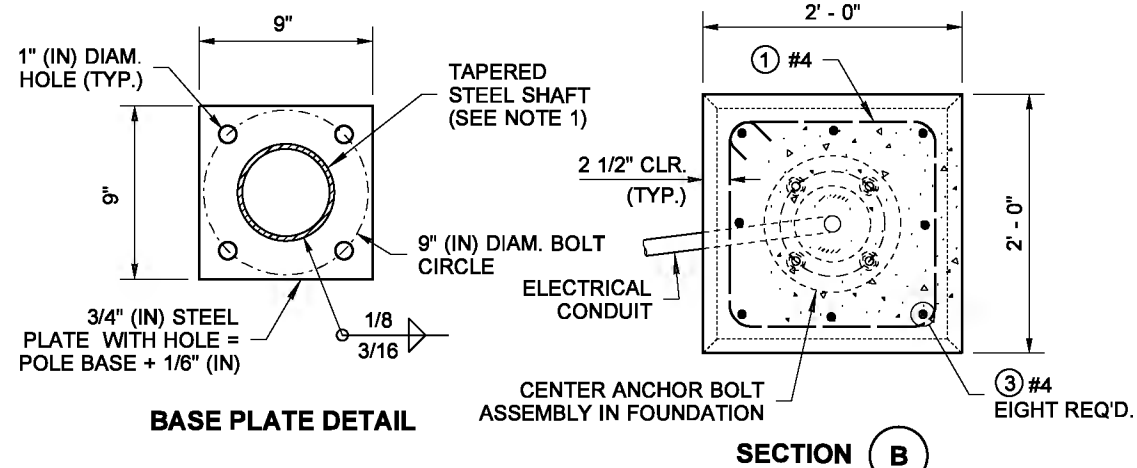
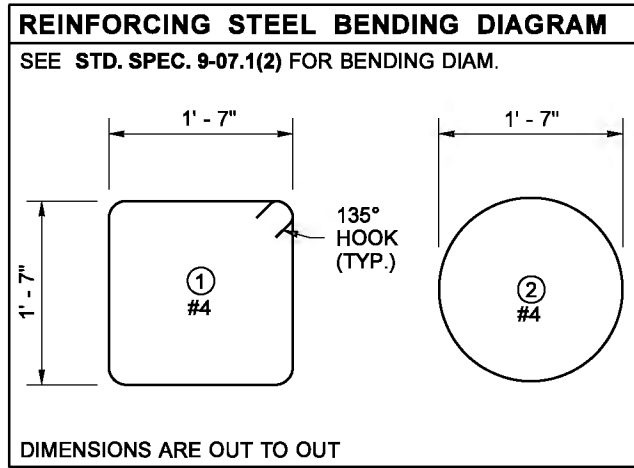
TYPE 1 SIGNAL STANDARD DETAILS



**ACCESSIBLE PEDESTRIAN
PUSHBUTTON WITH
CURB BASE
STANDARD PLAN J-20.11-03**

SHEET 2 OF 2 SHEETS

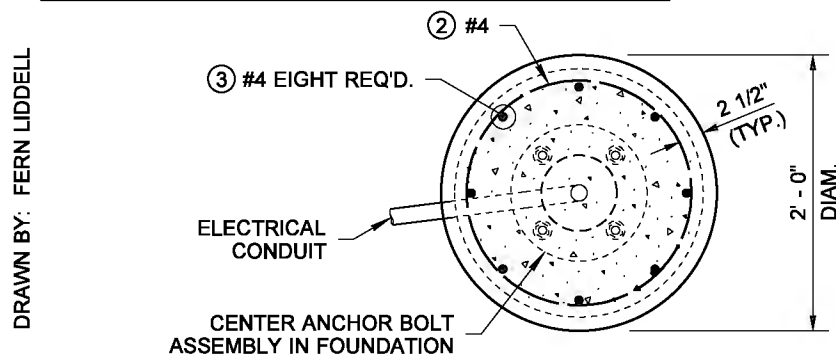
APPROVED FOR PUBLICATION



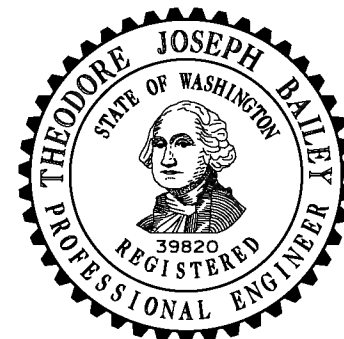
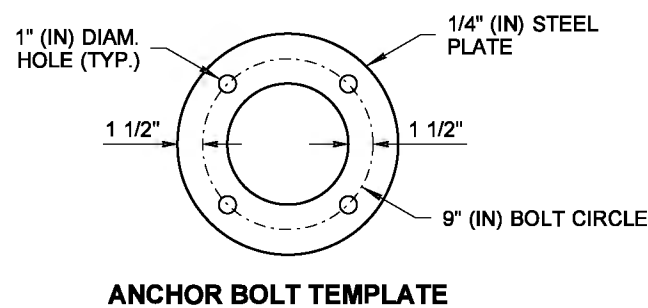
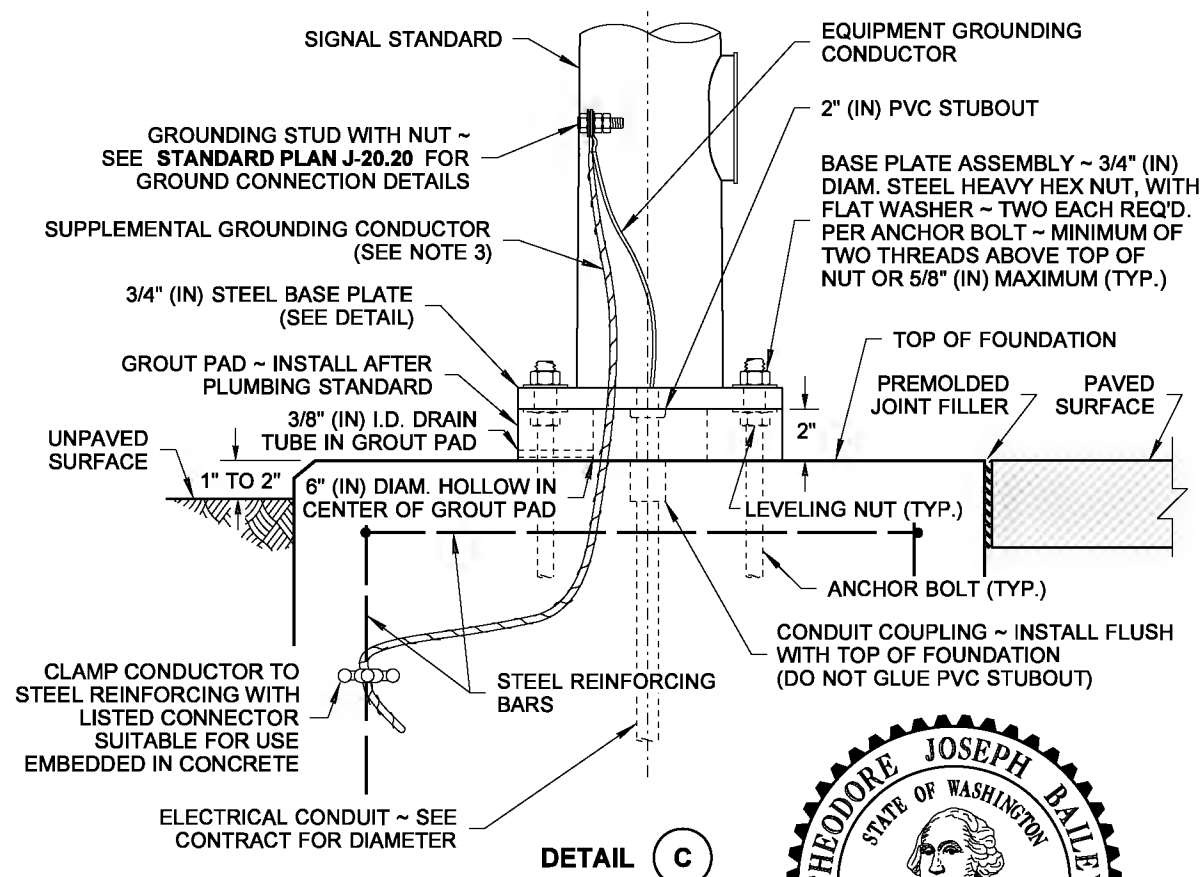
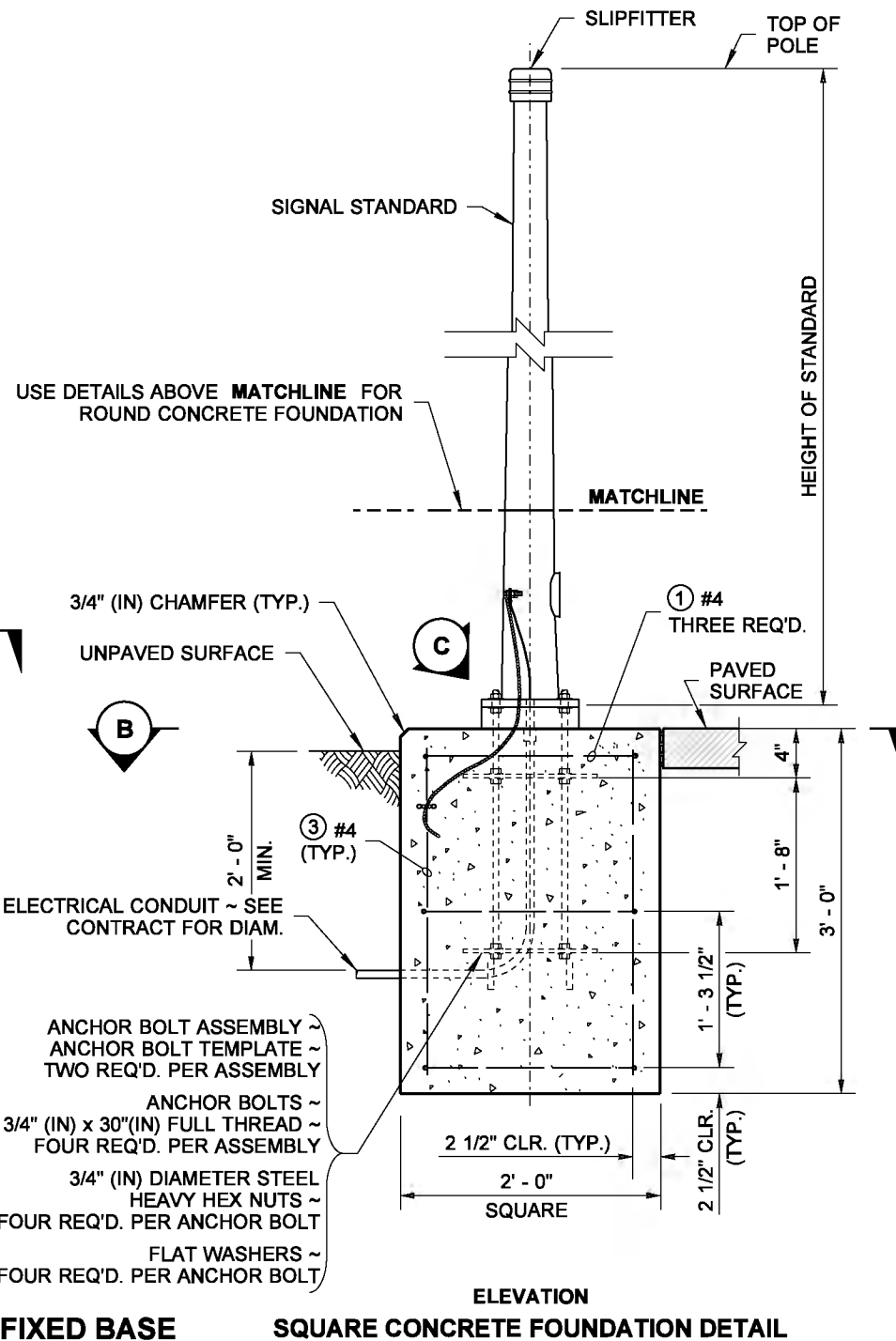
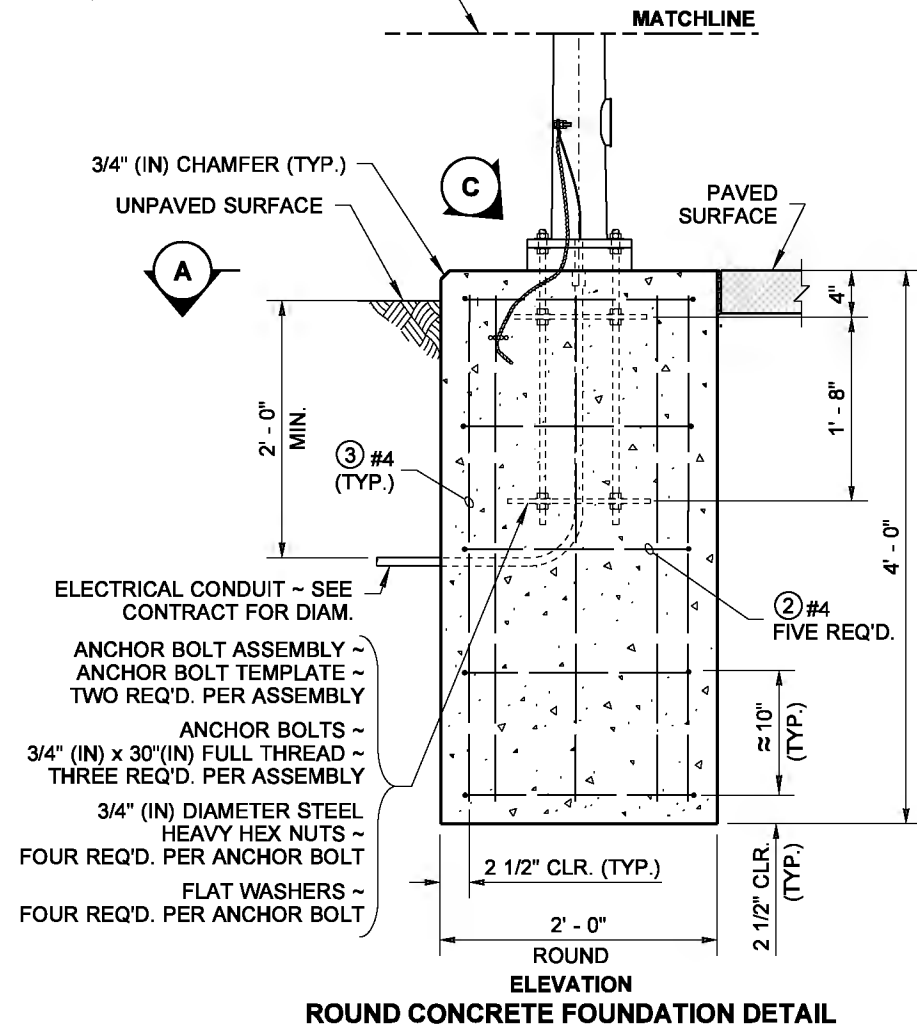
NOTES

1. Clamping bolts shall be tightened to 50 ft-lbs max. torque. After state inspection, burr threads to prevent nut rotation. DO NOT OVERTIGHTEN.
2. The final height of the Anchor Bolts shall be below the top of the slip plate assembly to ensure proper function of the slip base.
3. Supplemental grounding conductor shall be non-insulated #4 AWG stranded copper and shall be clamped to vertical rebar with a connector suitable for use embedded in concrete. Provide 3' - 0" min. slack. Attach to pole grounding stud with a full circle crimp-on connector (crimped with a manufacturer recommended crimper).
4. Junction box serving the Standard shall preferably be located 5' - 0" (10' - 0" Max.) from the Standard.
5. Provide cable tie at wiring entering the junction box (for slip base installations only) ~ See **Detail A**, **Standard Plan J-28.70**.
6. Keeper Plate shall not extend beyond the edges of the pole base plate.

DRAWN BY: FERN LIDDELL



SEE DETAILS ABOVE **MATCHLINE** FOR SQUARE CONCRETE FOUNDATION

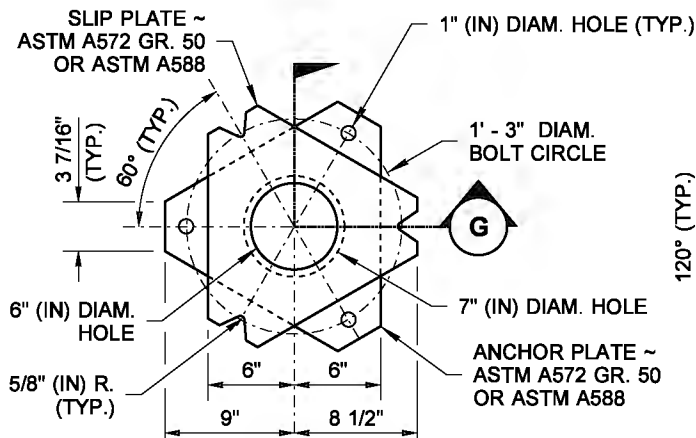


TYPE PS, TYPE 1, RM & FB SIGNAL STANDARD FOUNDATION DETAILS STANDARD PLAN J-21.10-04

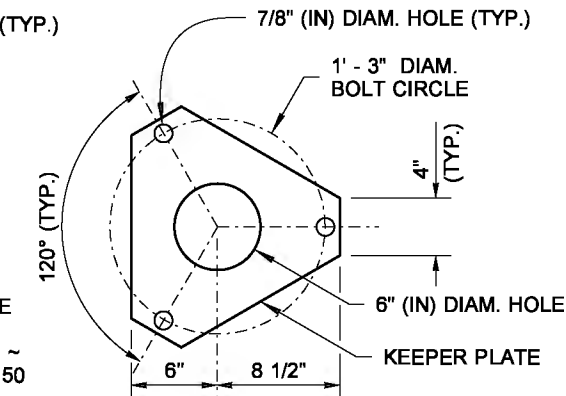
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

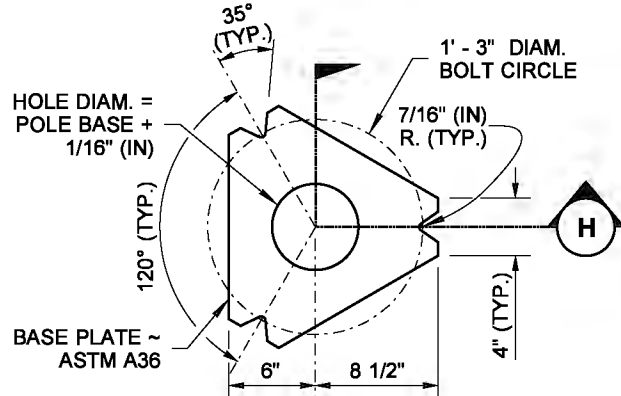
STATE DESIGN ENGINEER
Washington State Department of Transportation



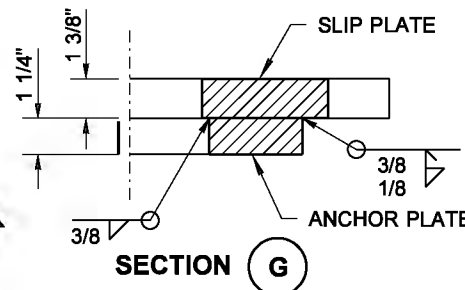
SLIP AND ANCHOR PLATES DETAIL



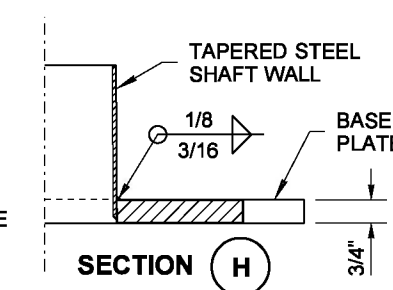
KEEPER PLATE DETAIL



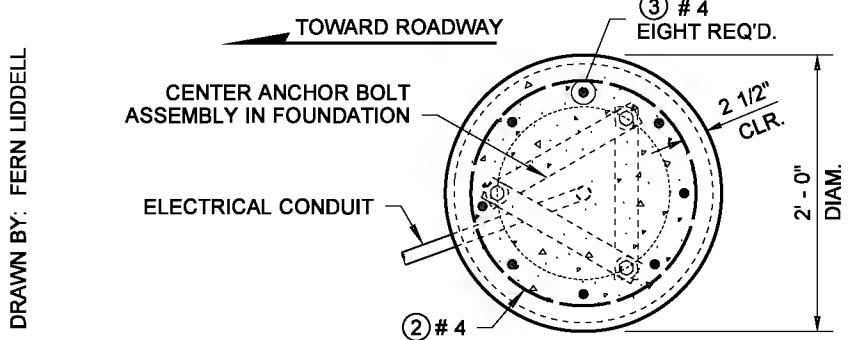
BASE PLATE DETAIL



SECTION G



SECTION H



SECTION D

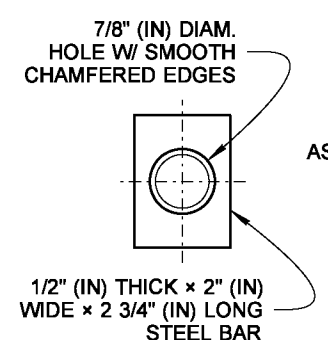
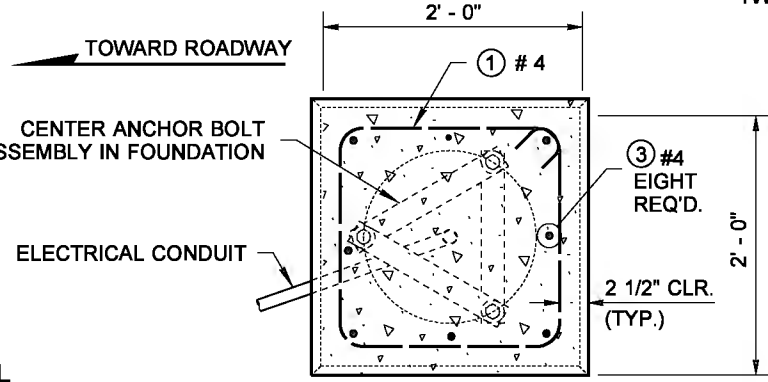
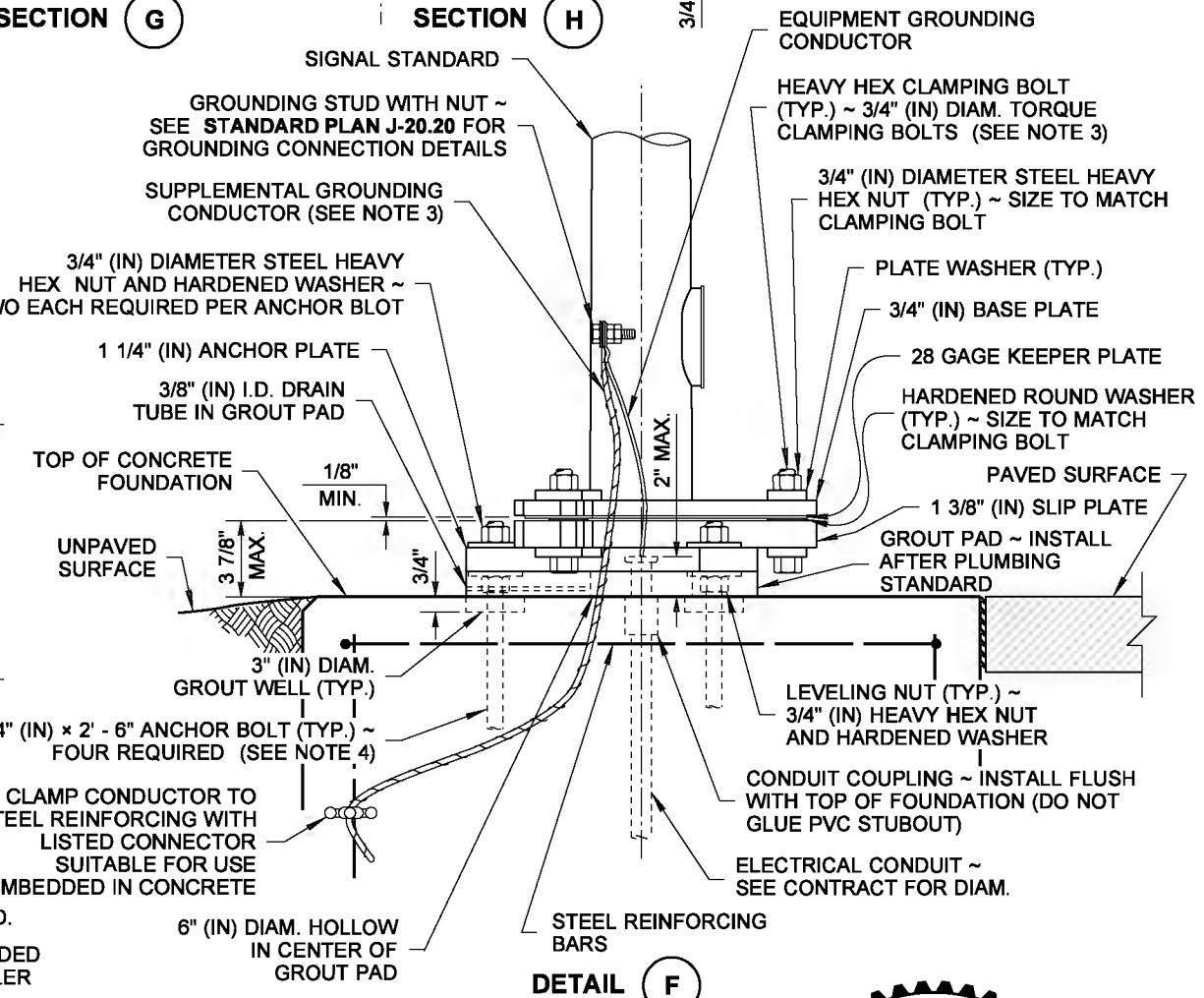


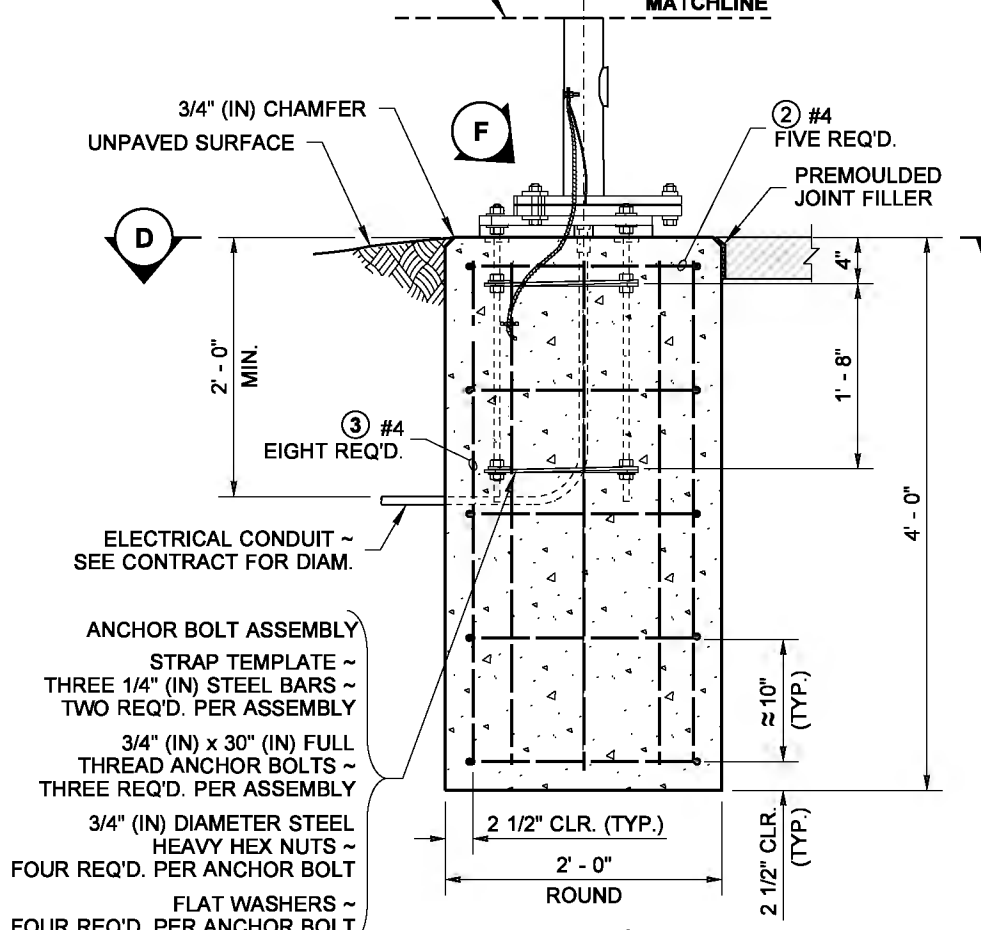
PLATE WASHER DETAIL



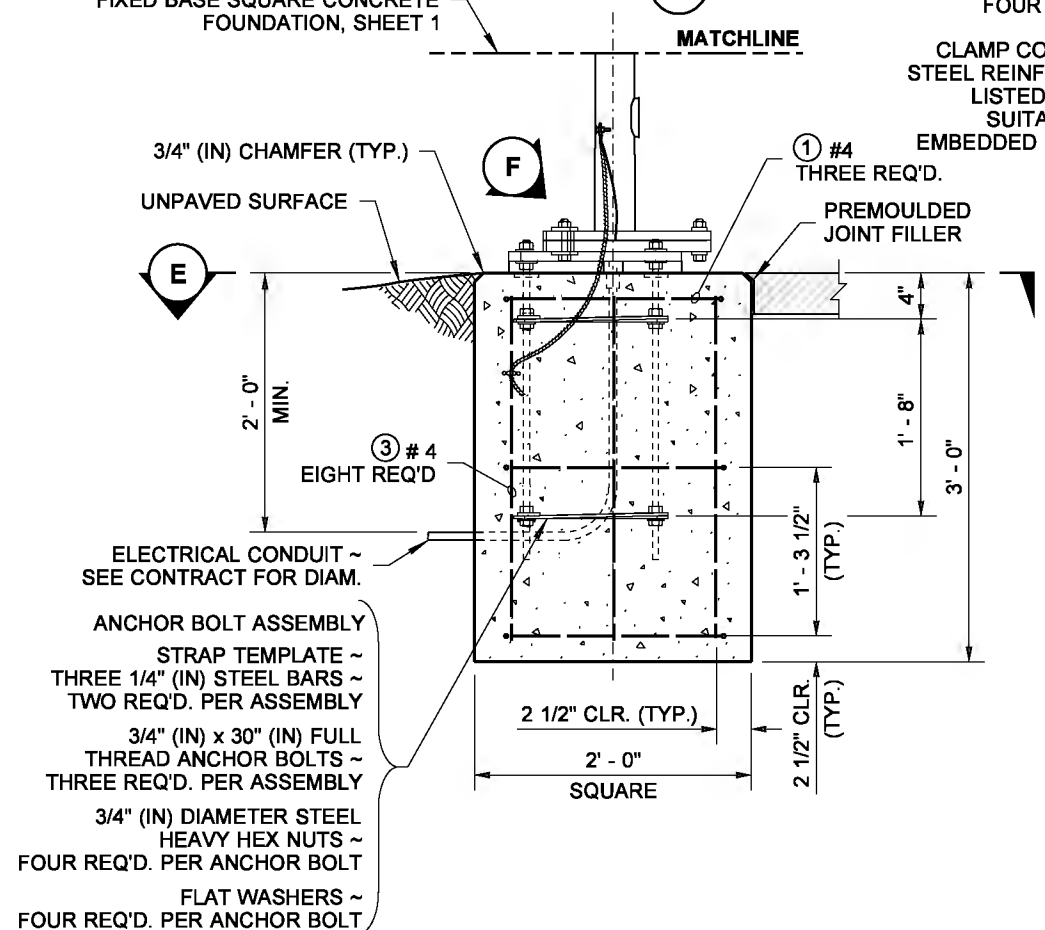
SECTION E



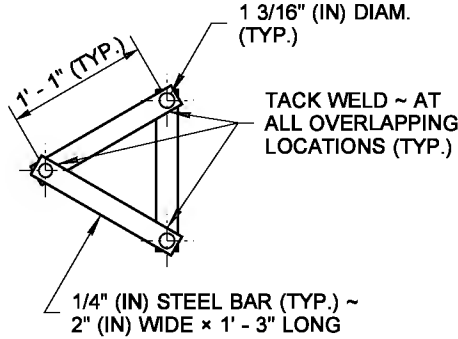
DETAIL F



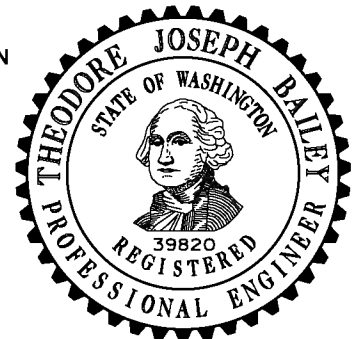
ROUND CONCRETE FOUNDATION DETAIL



SQUARE CONCRETE FOUNDATION DETAIL



STRAP TEMPLATE DETAIL



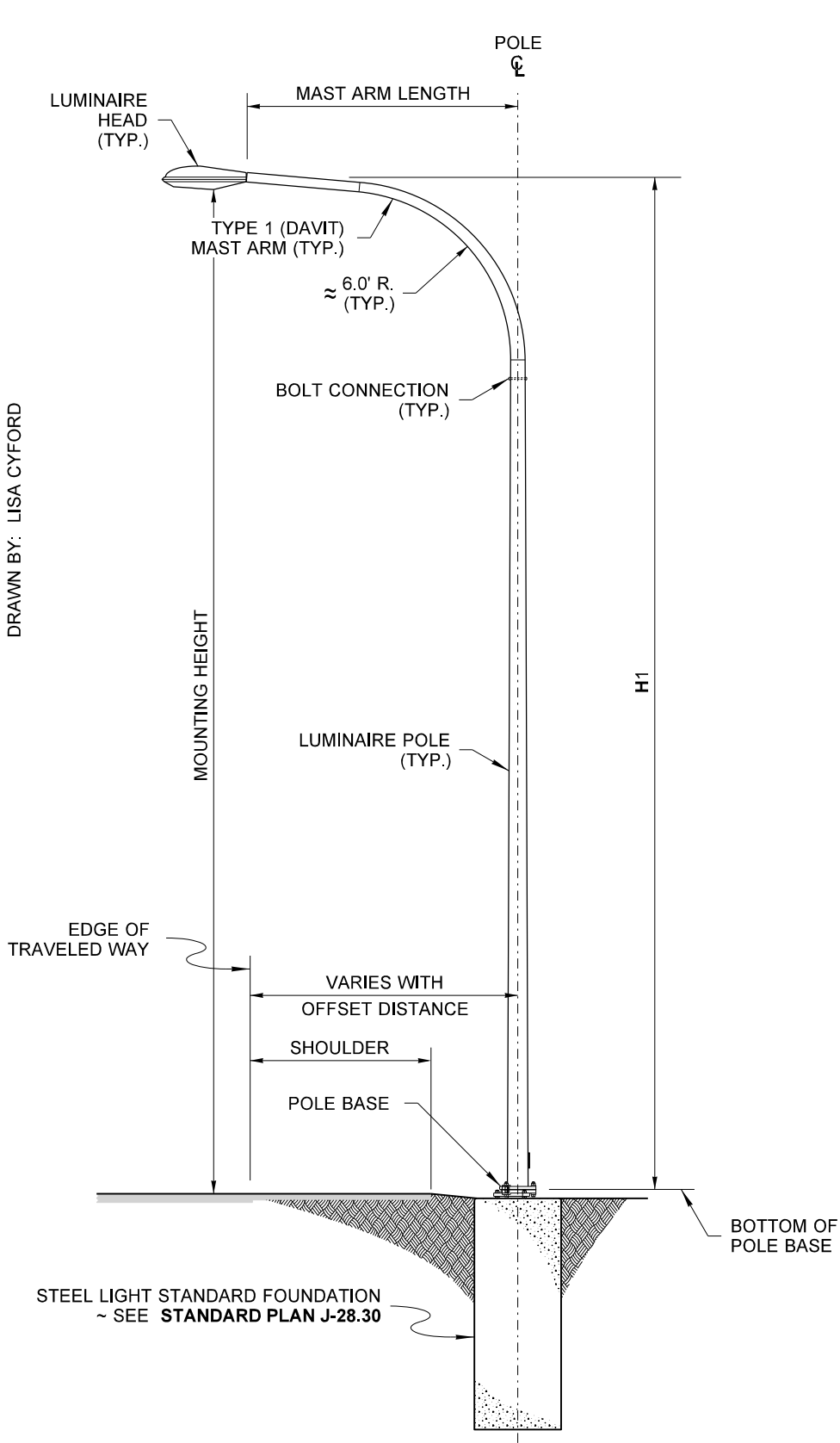
TYPE PS, TYPE 1, RM & FB SIGNAL STANDARD FOUNDATION DETAILS
STANDARD PLAN J-21.10-04

SHEET 2 OF 2 SHEETS

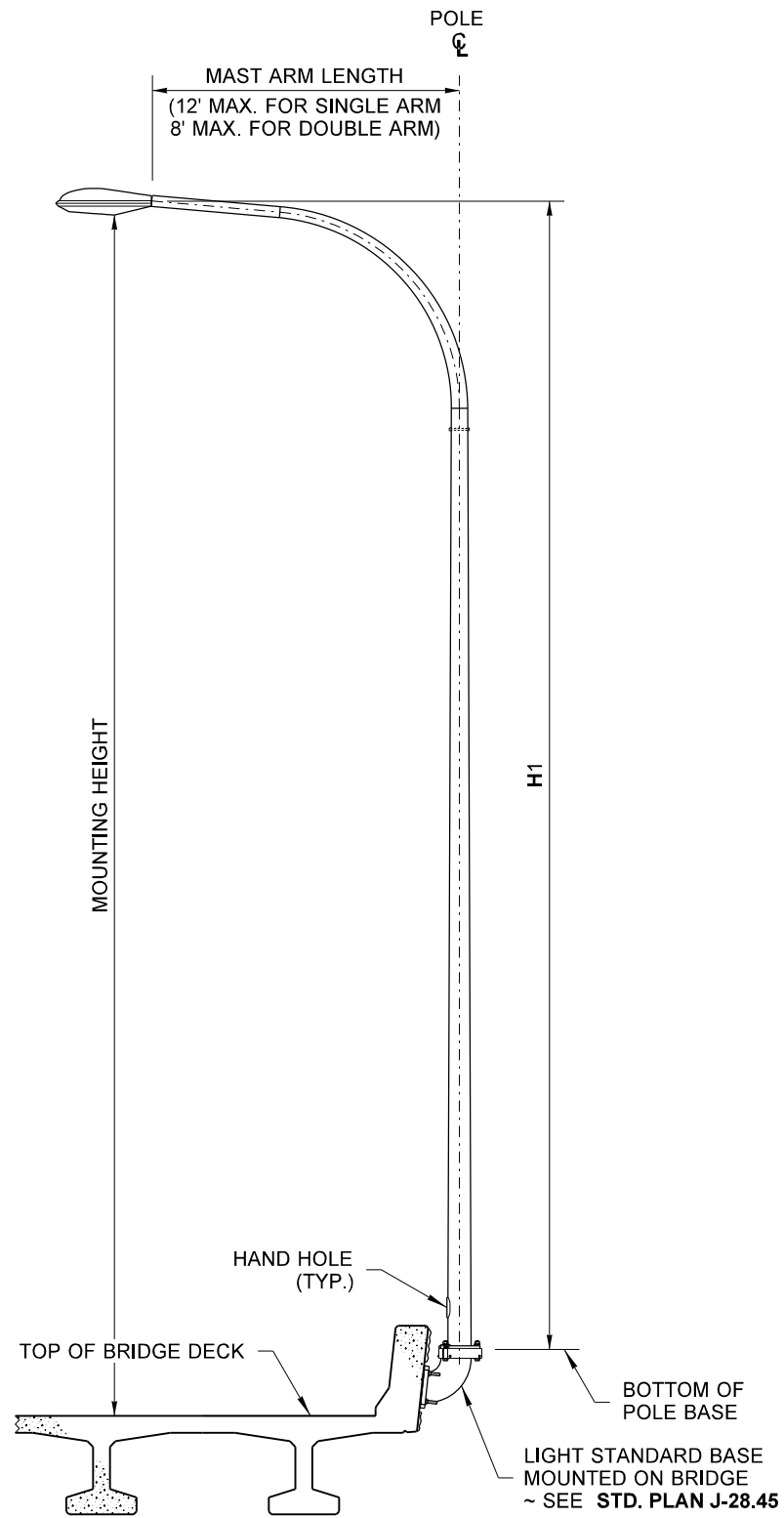
APPROVED FOR PUBLICATION

DRAWN BY: FERN LIDDELL

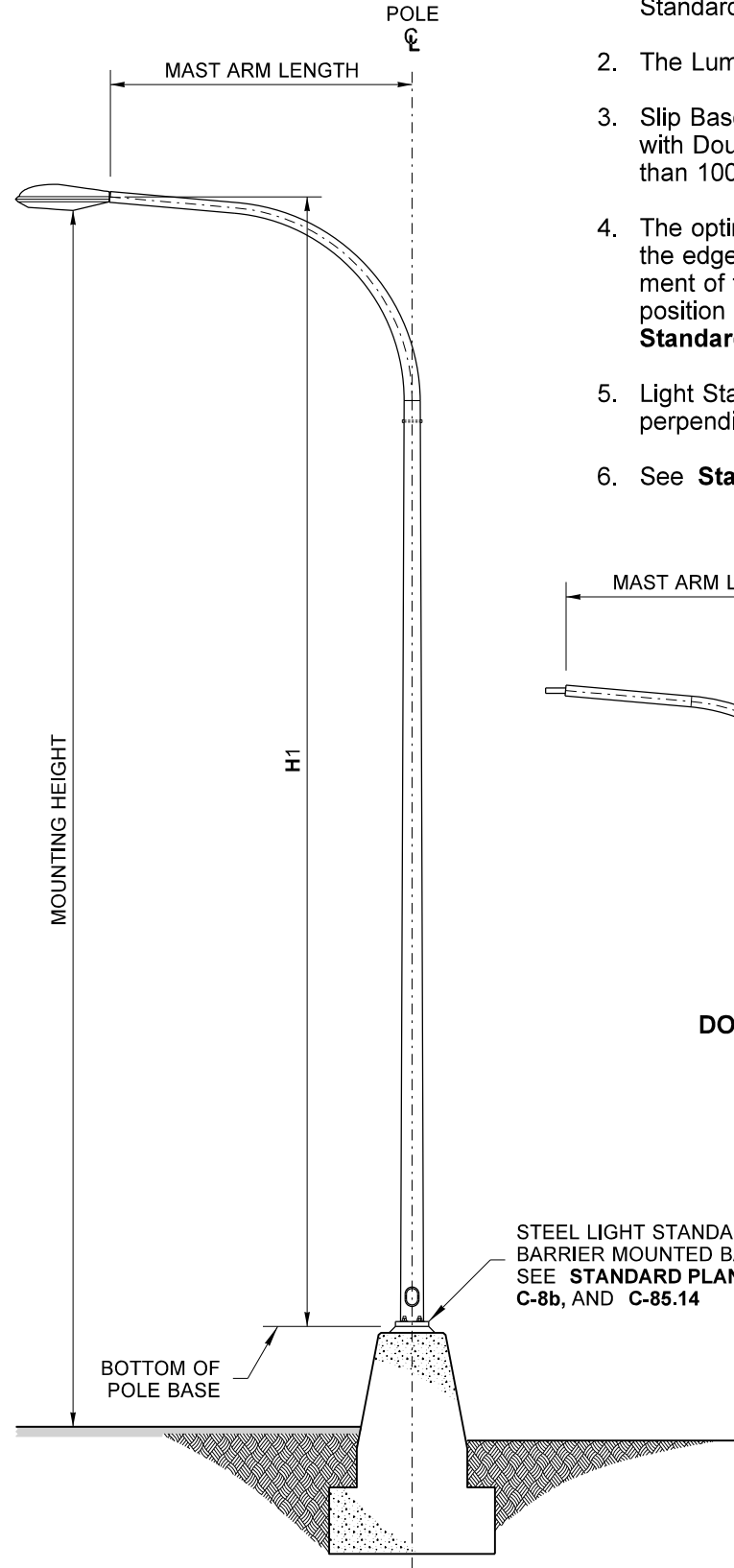
DRAWN BY: LISA CYFORD



STANDARD GROUND MOUNT
(SLIP BASE SHOWN)



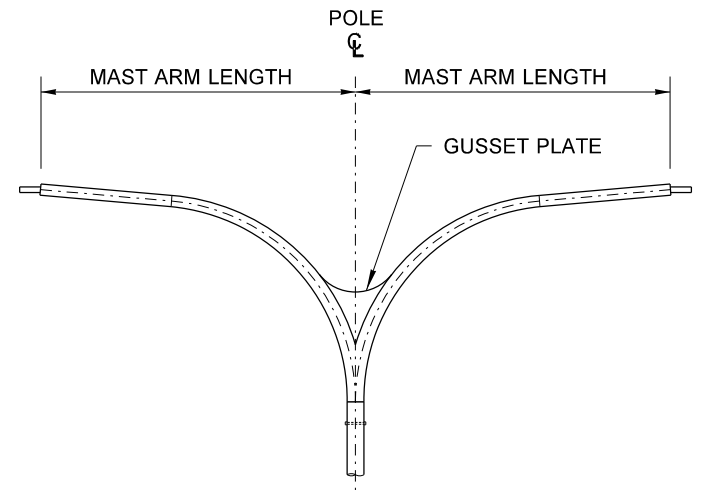
BARRIER ELBOW MOUNT
(BRIDGE BARRIER SHOWN)



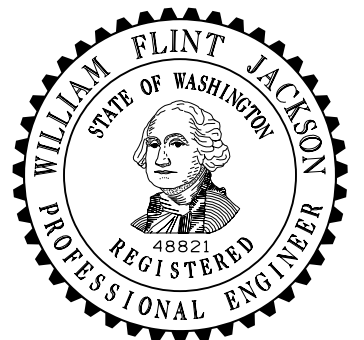
TOP OF BARRIER MOUNT

NOTES

1. This plan depicts the Steel Light Standard types and terms commonly referred to in the Contract. All Steel Light Standards are fabricated in accordance with the Standard Specifications and the Contract Provisions.
2. The Luminaire Pole height shall not exceed 50' (ft)(H1).
3. Slip Bases shall not be installed on 50' (ft)(H1) poles with Double Mast Arms, nor on poles weighing more than 1000 lbs.
4. The optimal location of the Luminaire head is over the edge of the traveled way. Based on the placement of the Steel Light Standard foundation, the position of the Luminaire head may vary. See **Standard Plan J-28.22**.
5. Light Standard mast arm orientation is typically perpendicular to roadway centerline.
6. See **Standard Plan J-28.50** for Hand Hole details.



DOUBLE TYPE 1 MAST ARM



STEEL LIGHT STANDARD
BARRIER MOUNTED BASE ~
SEE STANDARD PLAN J-28.60,
C-8b, AND C-85.14

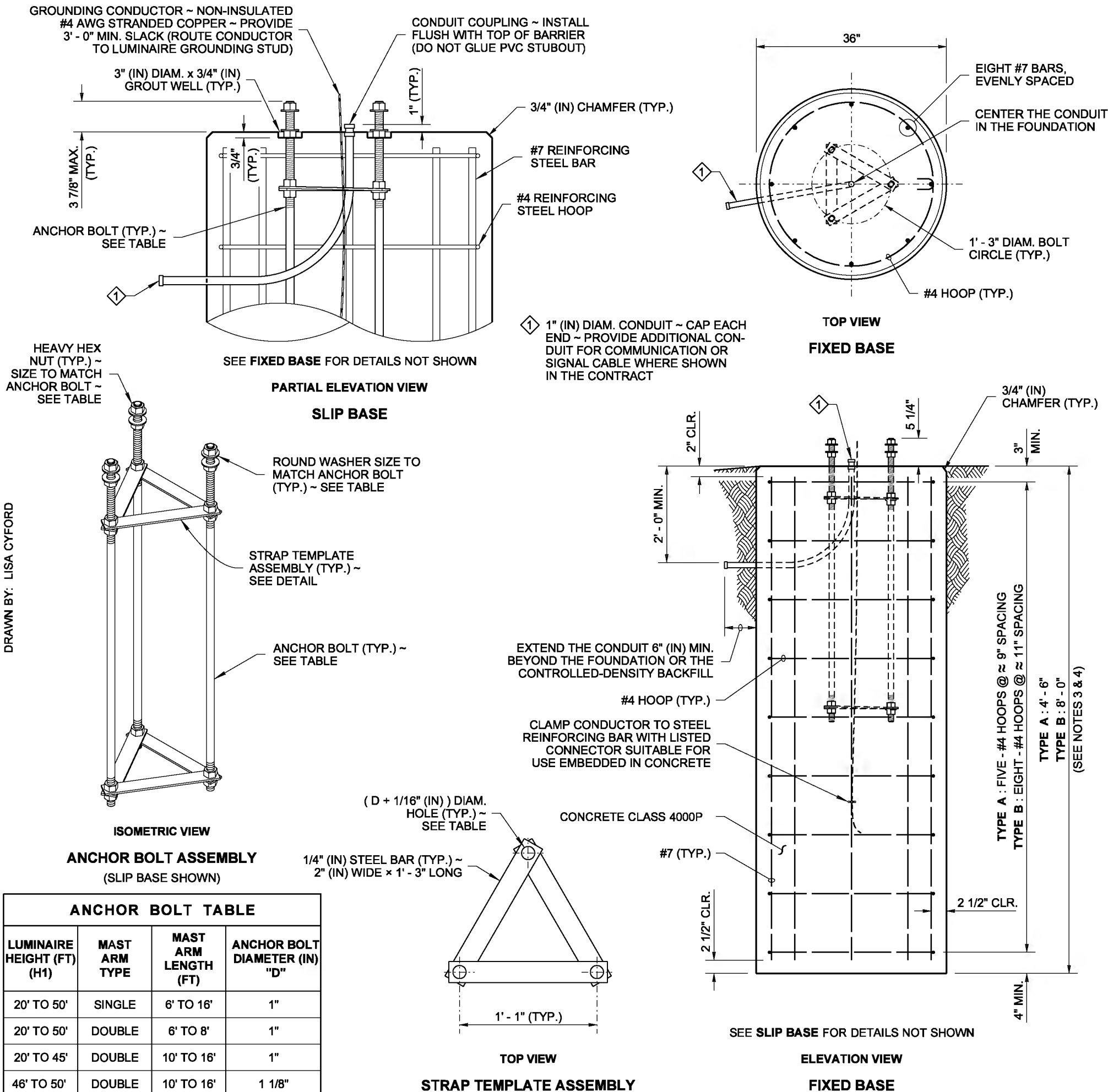
STEEL LIGHT STANDARD

STANDARD PLAN J-28.10-02

SHEET 1 OF 1 SHEET

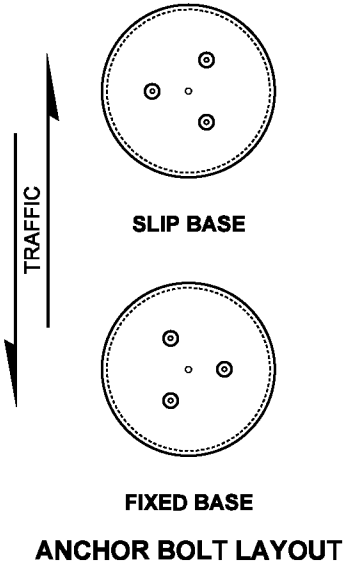
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation



NOTES

- See **Standard Plan J-28.40** for Luminaire Pole base mounting details.
- The Strap Templates shall be held in place by nuts, 6" (in) from the top of the foundation and 3" (in) from the bottom of the anchor bolts. Eighteen heavy duty hex nuts and six round washers are required for a slip base assembly. Eighteen heavy duty hex nuts and six plate washers are required for a fixed base assembly.
- Use Steel Light Standard Foundation **Type A** on level ground or slopes not exceeding 4H : 1V. Use **Type B** for slopes steeper than 4H : 1V, but not exceeding 2H : 1V. Slopes steeper than 2H : 1V shall require a special design.
- These foundations are designed for a minimum of 2000 PSF (**TYPE A**) or 1500 PSF (**TYPE B**) allowable lateral bearing pressure for the soil. A special foundation shall be required for soil with allowable lateral bearing pressure lower than 1500 PSF.
- The Luminaire Pole height shall not exceed 50' (ft) (H1).
- Slip bases shall not be installed on 50' (ft) (H1) poles with Double Mast Arms, nor on poles weighing more than 1000 lbs.
- Slip bases are required on poles installed inside the Design Clear Zone, and on poles installed behind traffic barrier that are within the traffic barrier deflection zone.
- Foundations constructed within Media Filter Drains shall be increased in depth by the depth of the Media Filter Drain.
- Exposed portions of the foundation shall be formed to create a Class 2 surface finish. All forming shall be removed upon completion of foundation construction.
- For excavation, concrete placement, and backfill options, see METHOD 1 and METHOD 2 on Sheet 2 of 2.
- The anchor bolts shall be high-strength steel, manufactured from ASTM F1554 Grade 105, with heavy hex nuts and hardened washers. Galvanize the anchor bolts according to ASTM F2329.
- The foundation shall be grounded in accordance with the requirements of **Standard Specification 8-20.3(4)**.
- See **Standard Plans C-8b** and **C-85.14** for steel light standards on traffic barrier.

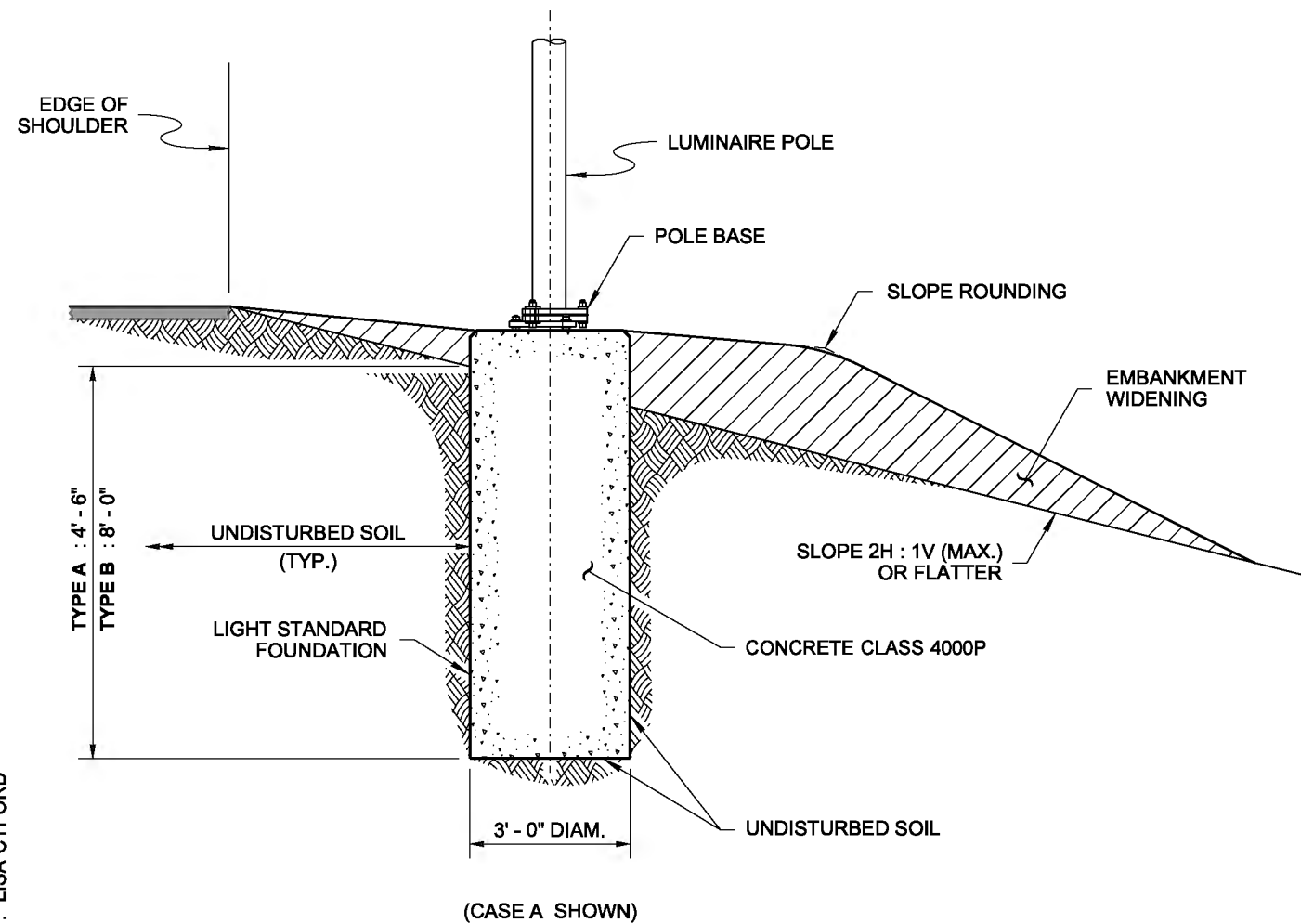


STEEL LIGHT STANDARD FOUNDATION TYPES A & B STANDARD PLAN J-28.30-03

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

DRAWN BY: LISA CYFORD



METHOD 1

NO SUBSURFACE FORM

This option is used only when the existing soil in the hole will remain standing and the cement concrete can be placed without causing the soil to collapse. Concrete shall be cast directly against undisturbed soil.

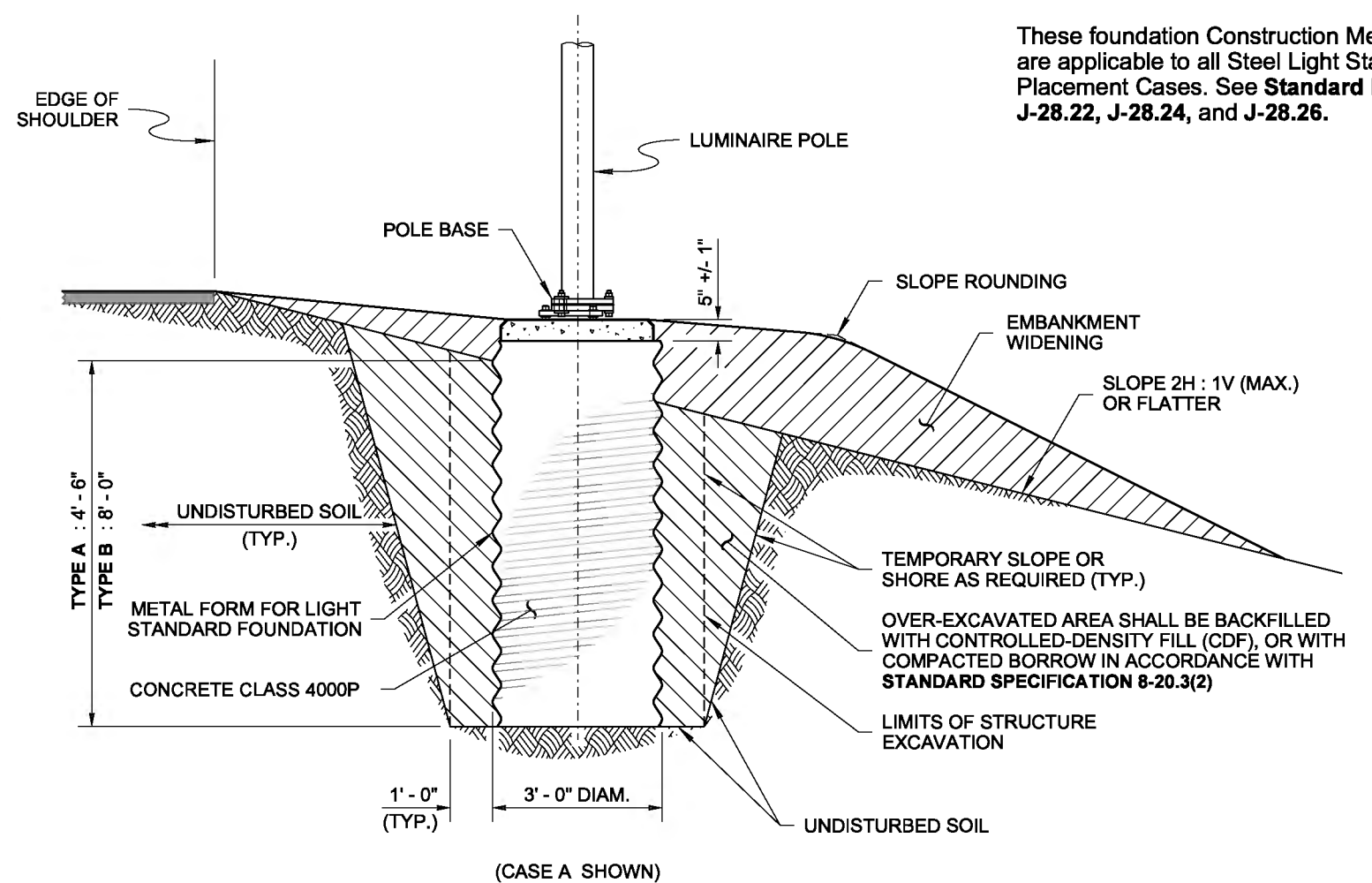
Auger the hole for the foundation. Use a paper or cardboard form to achieve a smooth finish on the final exposed cement concrete. Support the form as necessary to remain plumb.

See **Standard Plans J-28.24** and **J-28.26** for maximum heights of exposed foundation when no embankment widening is to be installed.

Place the concrete foundation.

After concrete has cured, remove the paper or cardboard form portion.

Construct the embankment widening (if required).



METHOD 2

METAL (SUBSURFACE) FORM REQUIRED

When the existing soil will not retain a vertical face, over-excavate the foundation area and install a 36" (in) diameter corrugated metal (pipe) form. The corrugated metal form shall not extend more than 5" (in) +/- 1" (in) below any portion of the foundation that will remain exposed upon final grading. Continue forming to full height using a paper or cardboard form to achieve a smooth finish on final exposed cement concrete. Support the form as necessary to remain plumb.

See **Standard Plans J-28.24** and **J-28.26** for maximum heights of exposed foundation when no embankment widening is to be installed.

Place the concrete foundation.

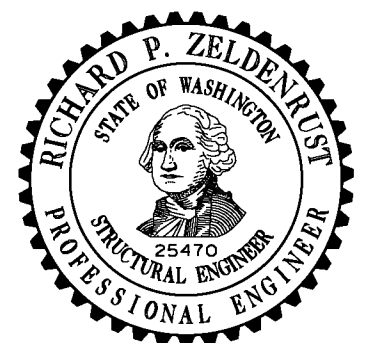
After concrete has cured, remove the paper or cardboard form portion.

Backfill with controlled-density fill or compacted borrow in accordance with **Standard Specification 8-20.3(2)**.

Construct the embankment widening (if required).

NOTE

These foundation Construction Methods are applicable to all Steel Light Standard Placement Cases. See **Standard Plans J-28.22, J-28.24, and J-28.26**.



STEEL LIGHT STANDARD FOUNDATION TYPES A & B

STANDARD PLAN J-28.30-03

SHEET 2 OF 2 SHEETS

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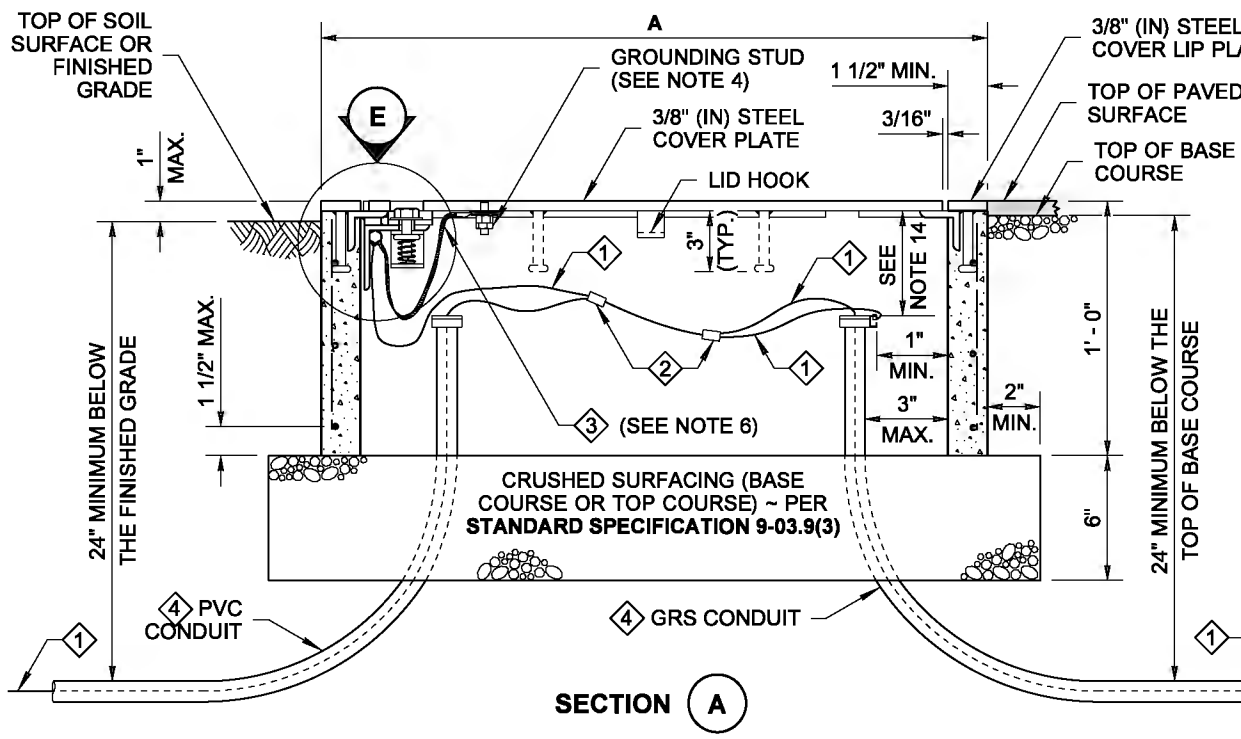
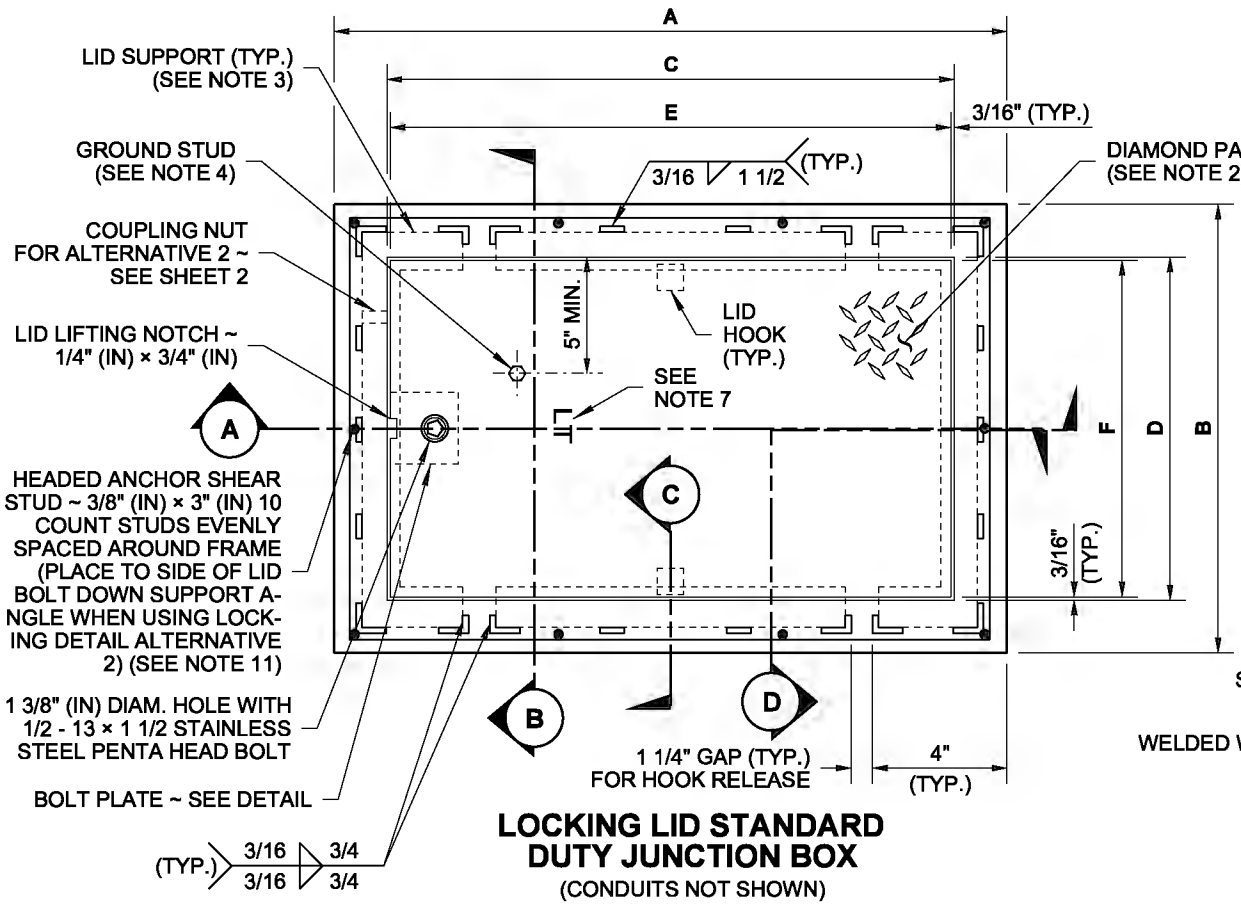
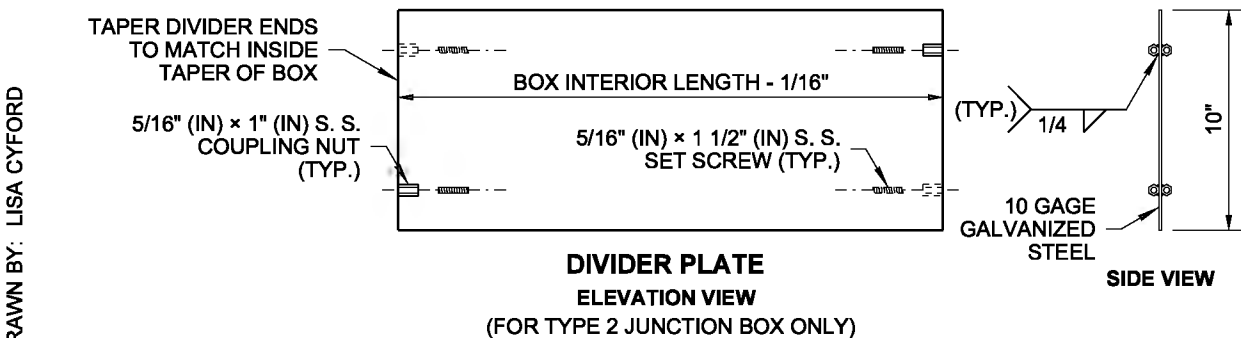


STATE DESIGN ENGINEER

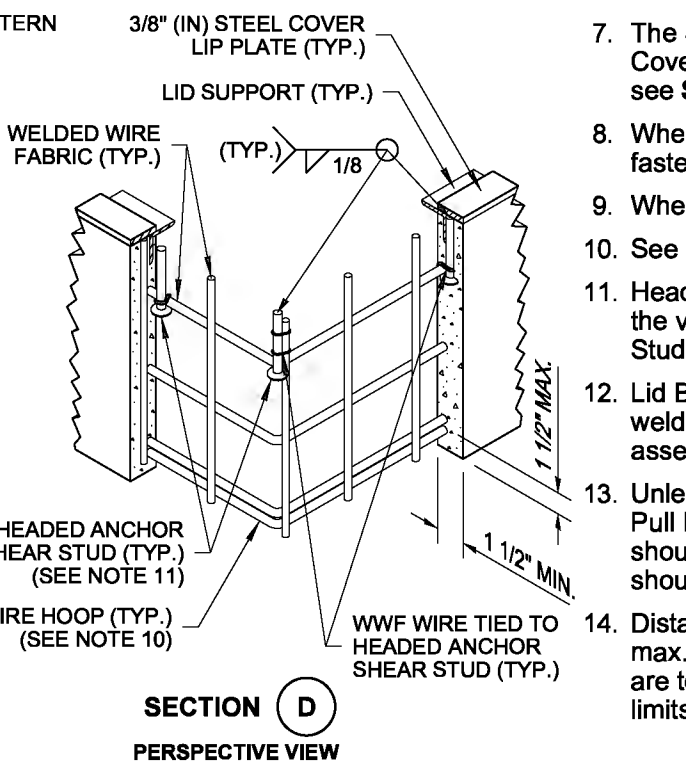
Washington State Department of Transportation

CONSTRUCTION METHODS

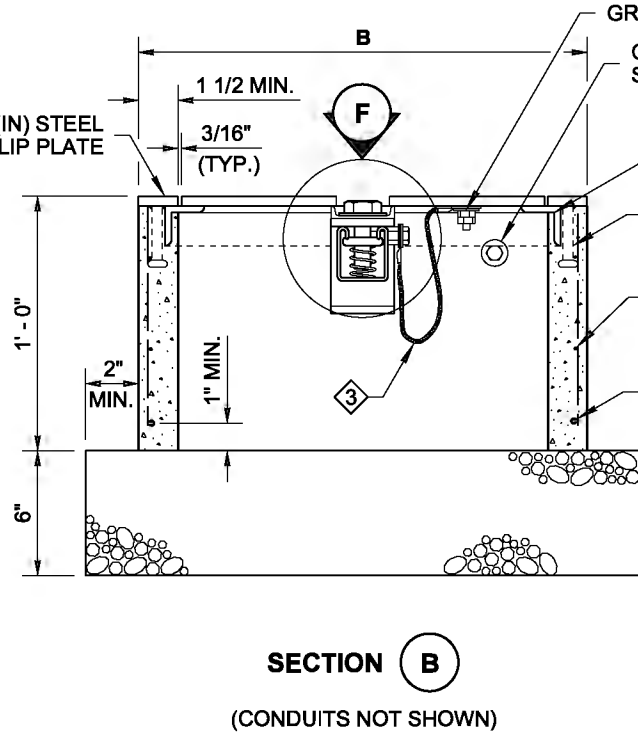
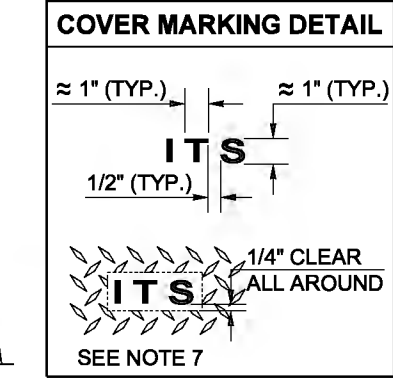
DRAWN BY: LISA CYFORD



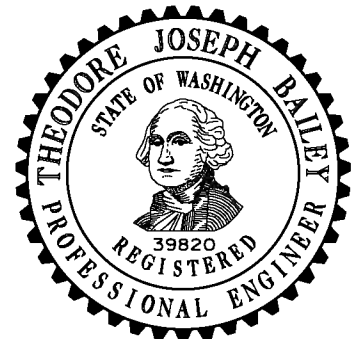
JUNCTION BOX DIMENSION TABLE			
MARK	ITEM	BOX TYPE	
		TYPE 1	TYPE 2
A	OUTSIDE LENGTH OF JUNCTION BOX	22"	33"
B	OUTSIDE WIDTH OF JUNCTION BOX	17"	22 1/2"
C	INSIDE LENGTH OF JUNCTION BOX	18" ~ 19"	28" ~ 29"
D	INSIDE WIDTH OF JUNCTION BOX	13" ~ 14"	17" ~ 18"
E	LID LENGTH	17 5/8"	28 5/8"
F	LID WIDTH	12 5/8"	18 1/8"
CAPACITY ~ CONDUIT DIAMETER		6"	12"



- 1 Equipment Grounding Conductor
- 2 Copper Solderless Crimp Connector
- 3 Equipment Bonding Jumper (See Note 6)
- 4 See Contract for conduit size and number



- NOTES**
- All box dimensions are approximate. Exact configurations vary among manufacturers.
 - Minimum lid thickness shown. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate, and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" (in) line thickness formed with a mild steel weld bead and shall be placed prior to hot-dip galvanizing.
 - Lid support members shall be 3/16" (in) minimum thick steel C, L, or T shape, welded to the frame.
 - A 1/4-20 NC x 3/4" (in) stainless steel ground stud shall be welded to the bottom of the lid; include (2) stainless steel nuts and (2) stainless steel flat washers.
 - Bolts and nuts shall be liberally coated with anti-seize compound.
 - Equipment Bonding Jumper shall be # 8 AWG min. x 4' (ft) of tinned braided copper.
 - The System Identification letters shall be 1/8" (in) line thickness formed with a mild steel weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. For System Identification details, see **Standard Specification 9-29.2(4)**.
 - When required in the Contract, provide a 10" (in) x 27 1/2" (in), 10 gage divider plate, complete, with fasteners, in each Type 2 Junction Box where specified.
 - When required in Contract, provide a 12" (in) deep extension for each Type 2 Junction Box where specified.
 - See the **Standard Specifications** for alternative reinforcement and class of concrete.
 - Headed Anchor Shear Studs must be welded to the Steel Cover Lip Plate and wire tied in two places to the vertical Welded Wire Fabric when in contact with each other. Wire tie all other Headed Anchor Shear Studs to the horizontal Welded Wire Fabric.
 - Lid Bolt Down Attachment Tab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawings for specifics.
 - Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults, and Pull Boxes shall not be placed within the sidewalks, walkways, shared use paths, traveled ways or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
 - Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max. for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" (in) min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.

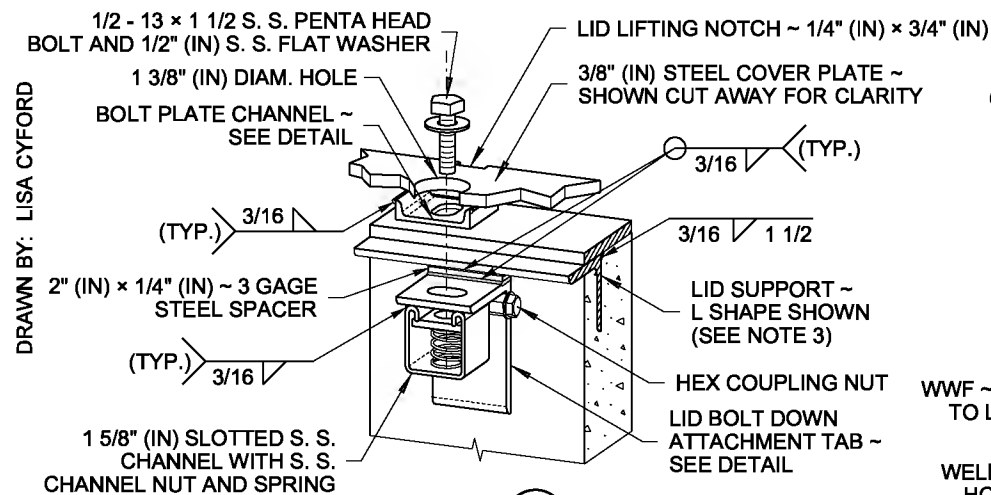


**LOCKING LID STANDARD
DUTY JUNCTION BOX
TYPES 1 & 2
STANDARD PLAN J-40.10-04**

SHEET 1 OF 2 SHEETS

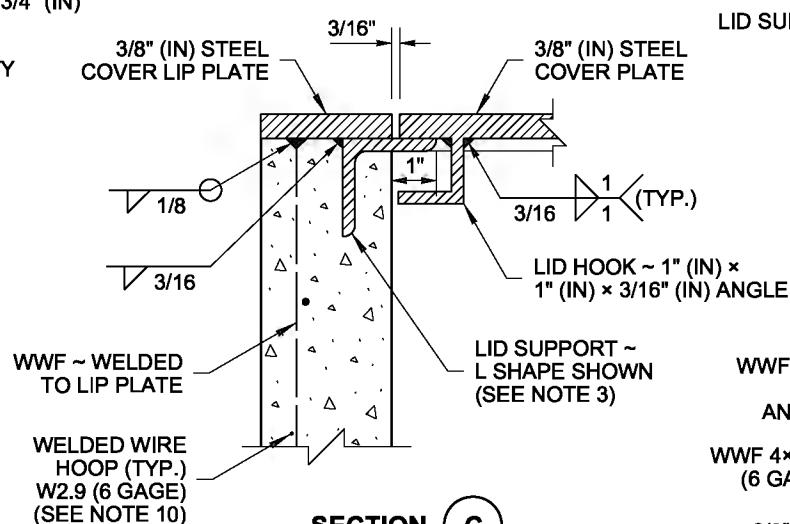
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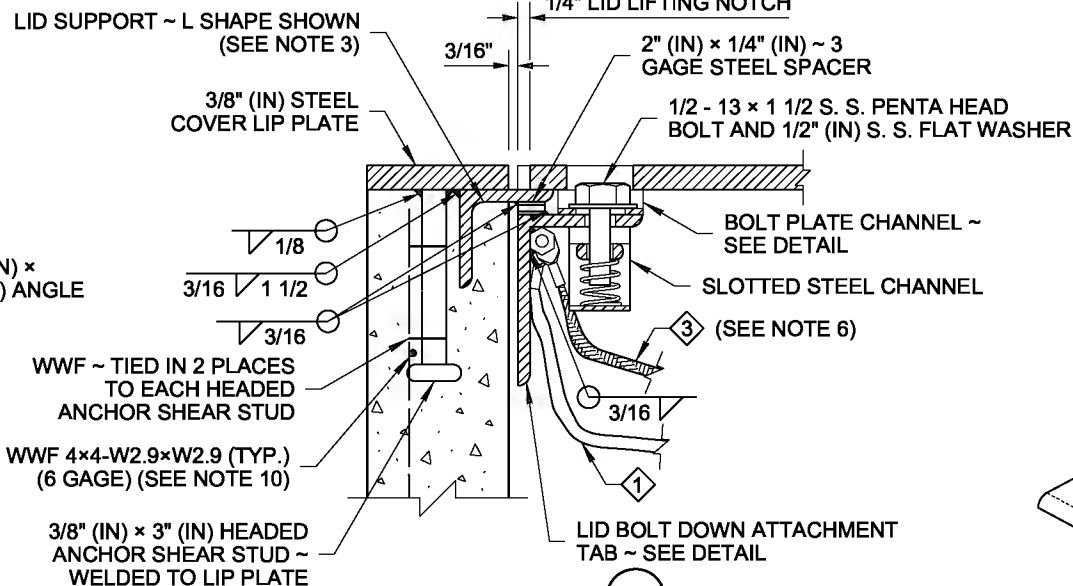


DETAIL F

ALTERNATIVE 1 SHOWN PERSPECTIVE VIEW

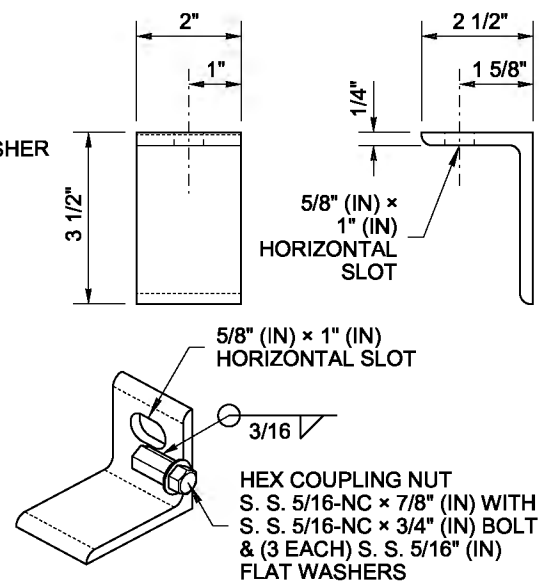


SECTION C

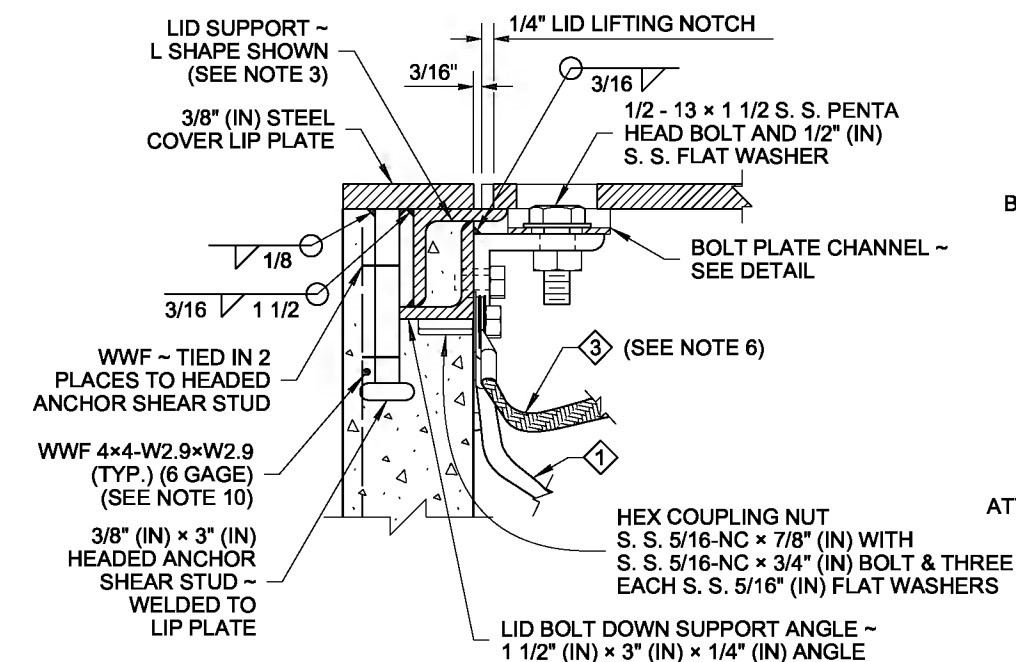


DETAIL E

ALTERNATIVE 1 SHOWN

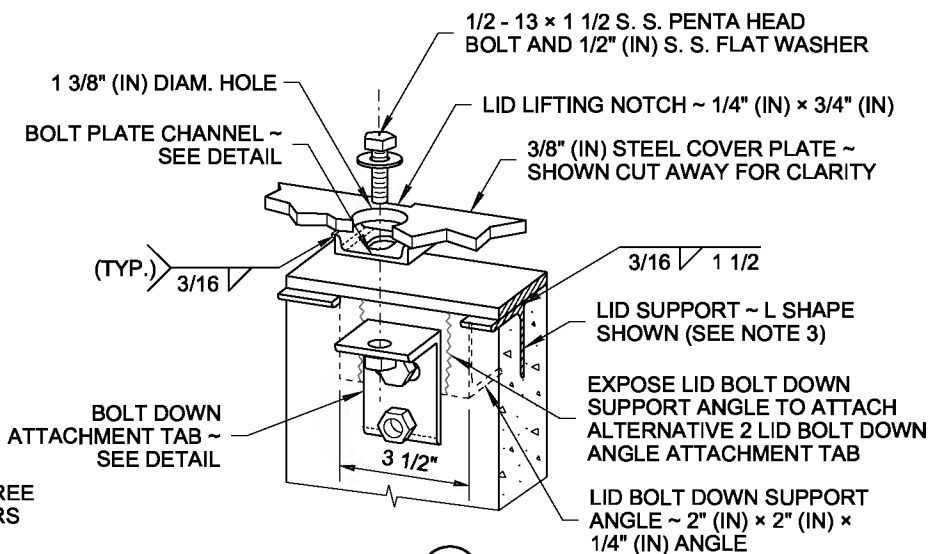


ALTERNATIVE 1 LID BOLT DOWN ATTACHMENT TAB (SEE NOTE 12)



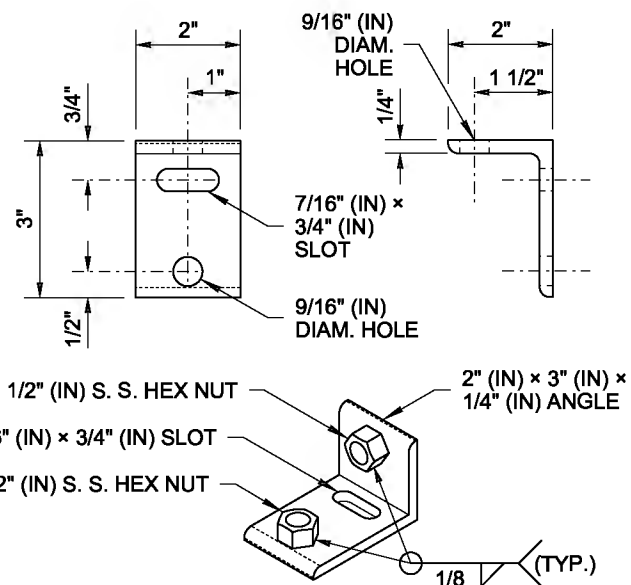
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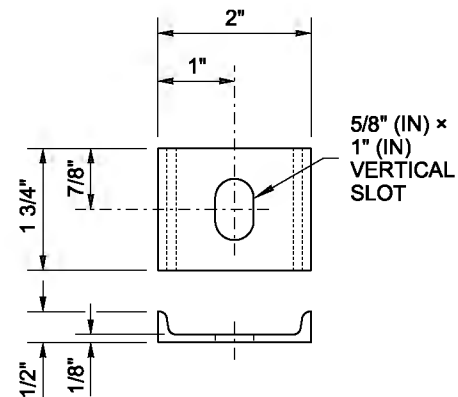


DETAIL F

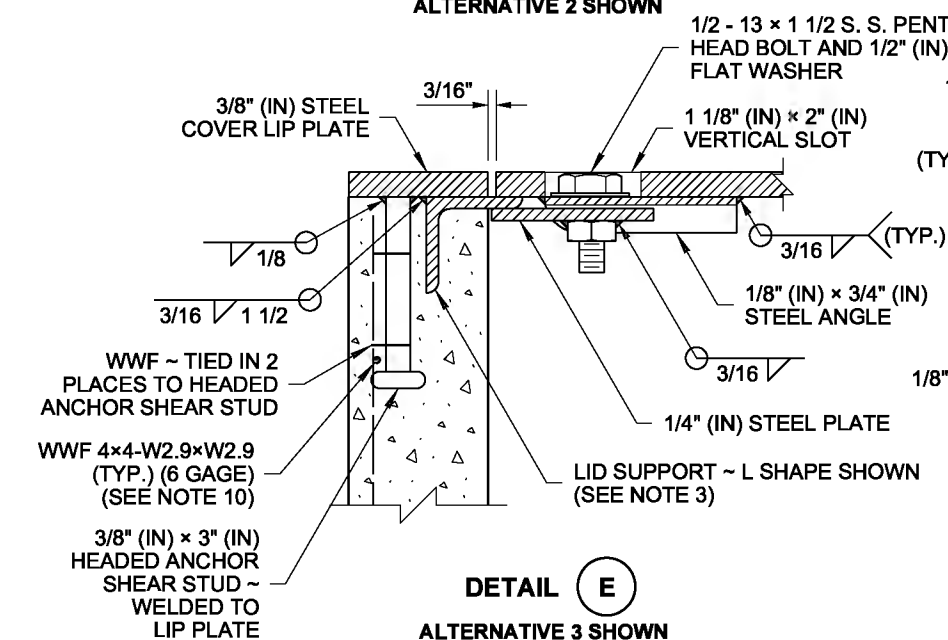
ALTERNATIVE 2 SHOWN PERSPECTIVE VIEW



ALTERNATIVE 2 LID BOLT DOWN ATTACHMENT TAB (SEE NOTE 12)

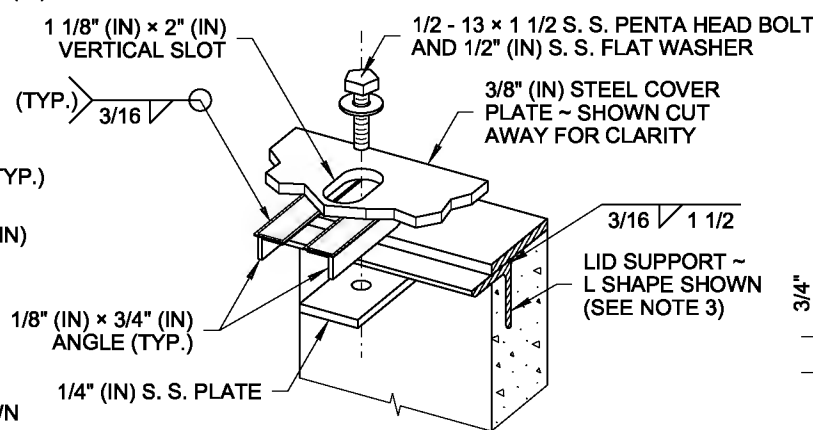


BOLT PLATE CHANNEL



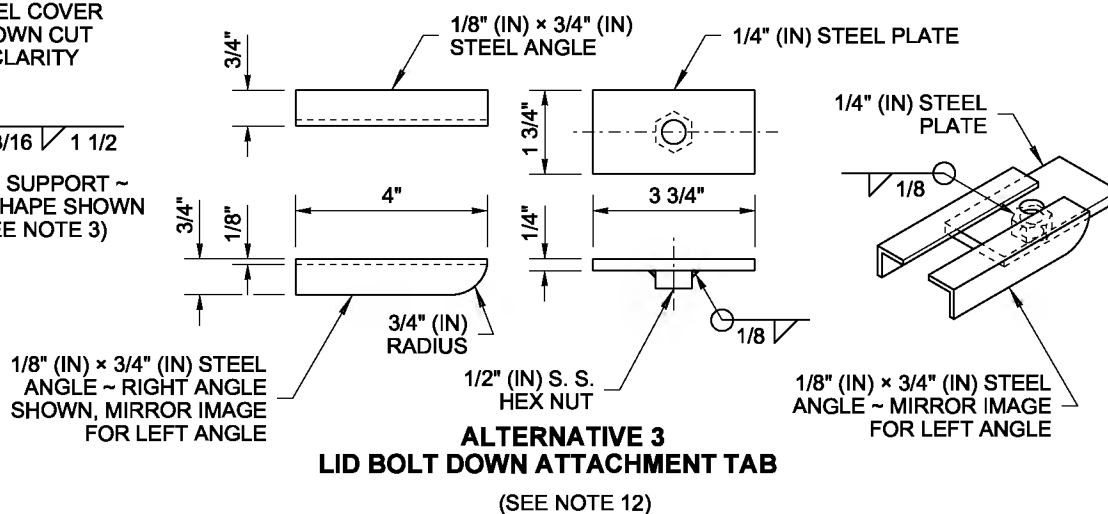
DETAIL E

ALTERNATIVE 3 SHOWN

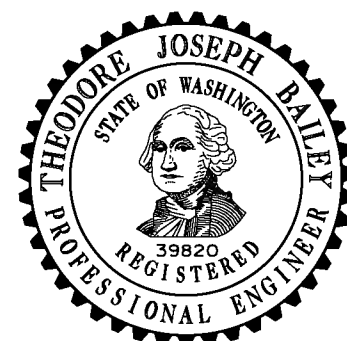


DETAIL F

ALTERNATIVE 3 SHOWN PERSPECTIVE VIEW



ALTERNATIVE 3 LID BOLT DOWN ATTACHMENT TAB (SEE NOTE 12)

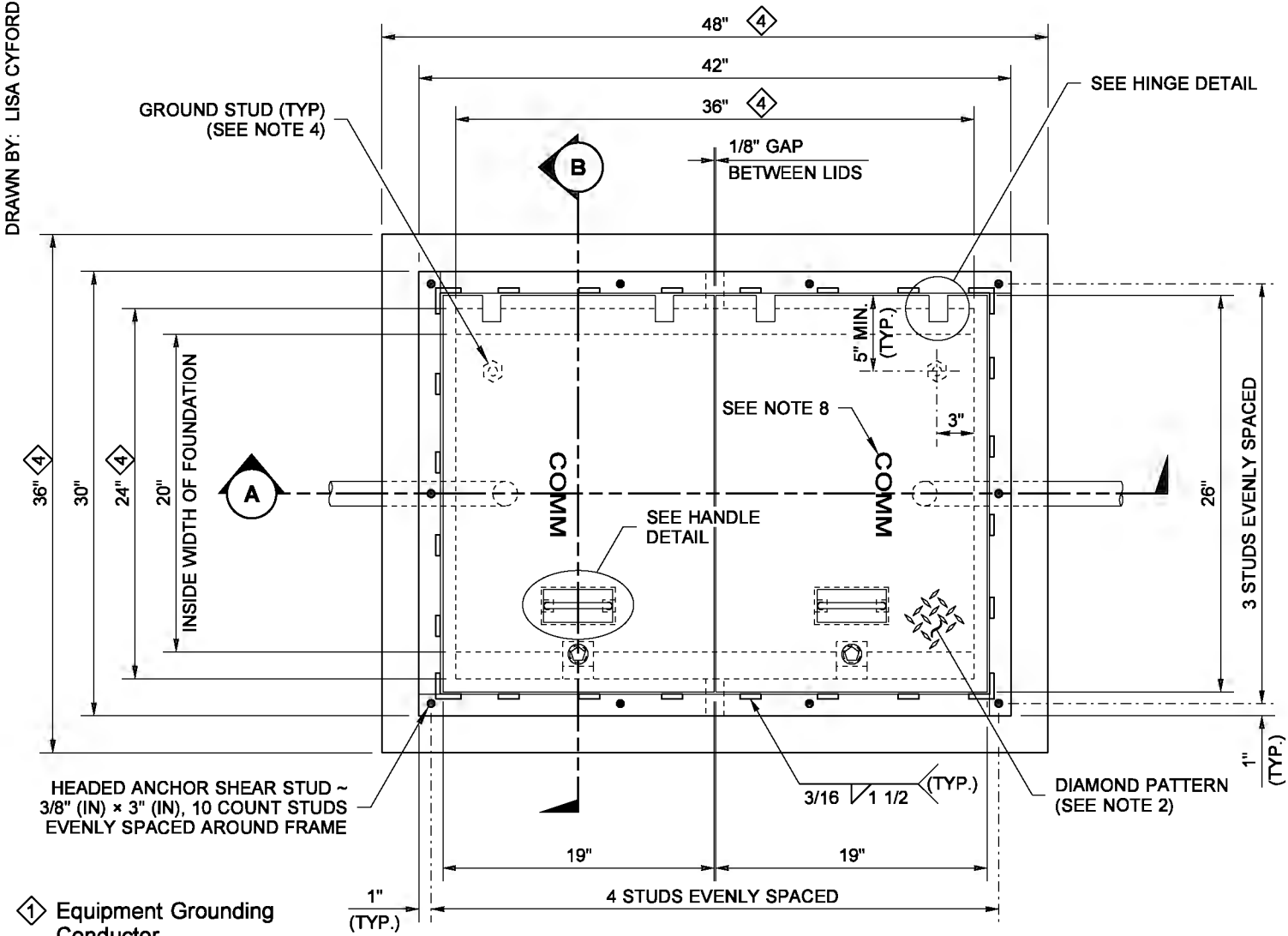


**LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2
STANDARD PLAN J-40.10-04**

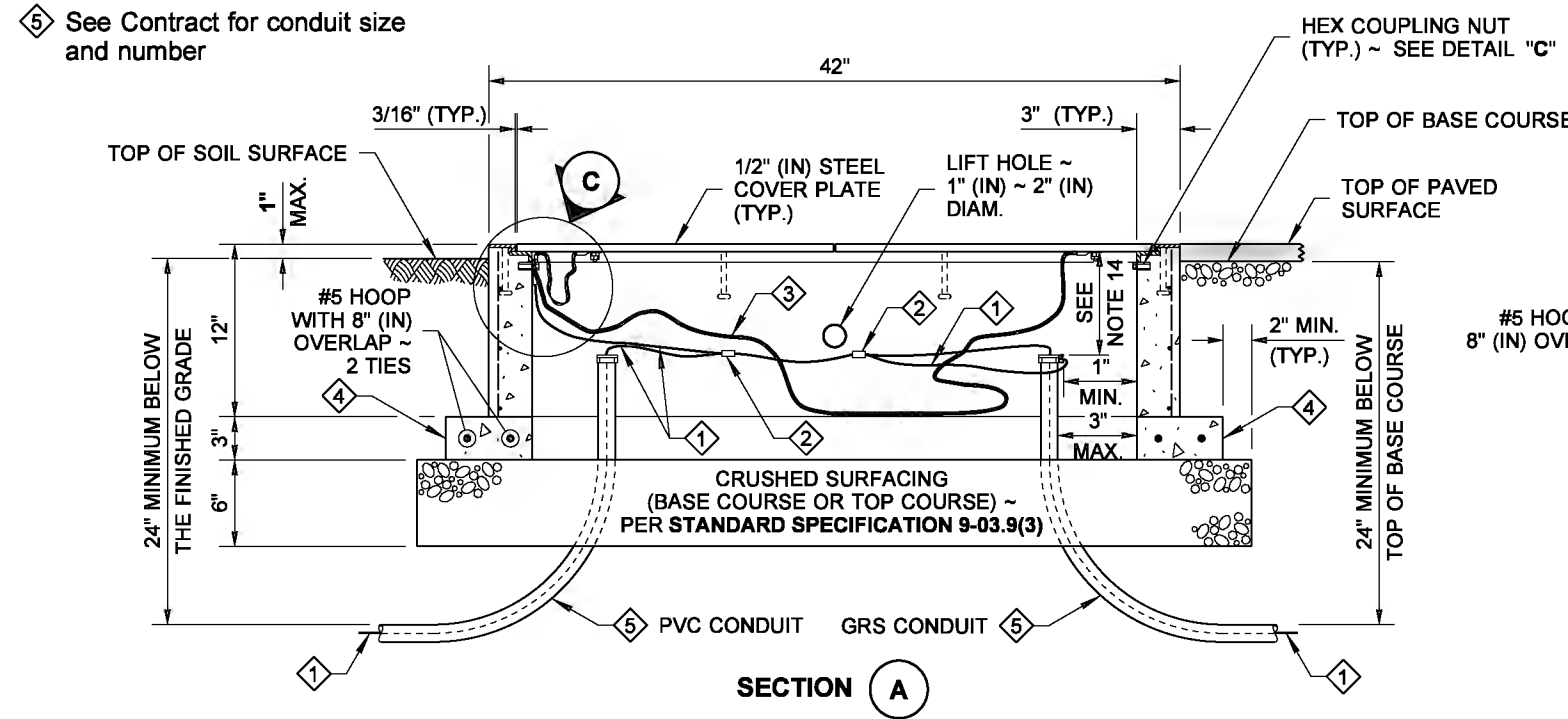
SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

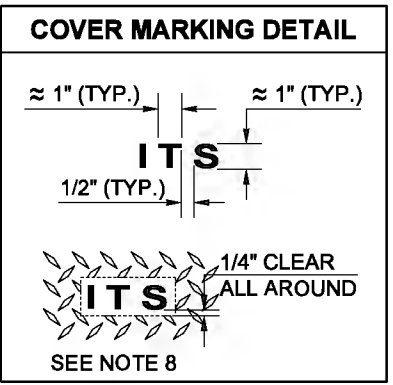
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PLAN VIEW
LOCKING LID STANDARD DUTY JUNCTION BOX

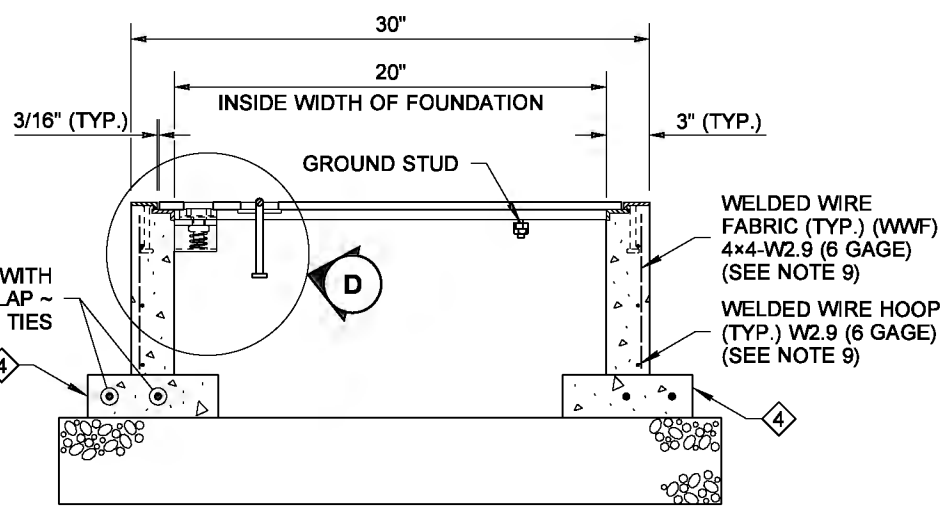


SECTION A

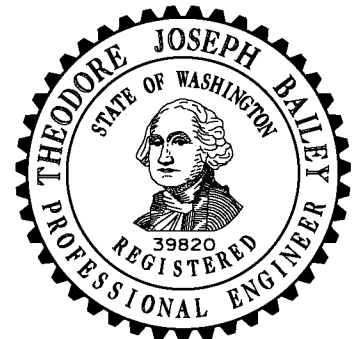


NOTES

1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. Minimum lid thicknesses are shown. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" (in) line thickness formed with a mild steel weld bead and shall be placed prior to hot-dip galvanizing.
3. Lid support members shall be 3/16" (in) min. thick steel C, L, or T shape, welded to the frame. Exact configurations vary among manufacturers.
4. A 1/4-20 NC x 3/4" (in) S. S. ground stud shall be welded to the bottom of each lid; include (2) S. S. nuts and (2) S. S. flat washers.
5. The hinges shall allow the lids to open 180°.
6. Bolts and nuts shall be liberally coated with anti-seize compound.
7. Connect Equipment Bonding Jumper to ground stud on lid. As an alternative to the ground stud connection, the Equipment Bonding Jumper shall be attached to the front face of the hinge pocket with a 5/16-20 NC x 3/4" (in) S. S. bolt, (2) each S. S. nuts, and (2) each S. S. flat washers. Equipment Bonding Jumper shall be #8 AWG min. x 4' (ft) of tinned braided copper.
8. The System Identification letters shall be 1/8" (in) line thickness formed by a mild steel weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. See **Standard Specification 9-29.2(4)** for details.
9. See the **Standard Specifications** for alternative reinforcement and class of concrete.
10. See **Standard Plan J-40.10** for Welded Wire Fabric and Headed Anchor Shear Stud attachment details.
11. Capacity ~ conduit diameter = 24" (in)
12. Lid Bolt Down Attachment Tab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawing for specifics.
13. Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults and Pull Boxes shall not be placed within the sidewalk, walkway, shared use path, traveled way or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
14. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max. for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" (in) min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.



SECTION B
CONDUITS NOT SHOWN

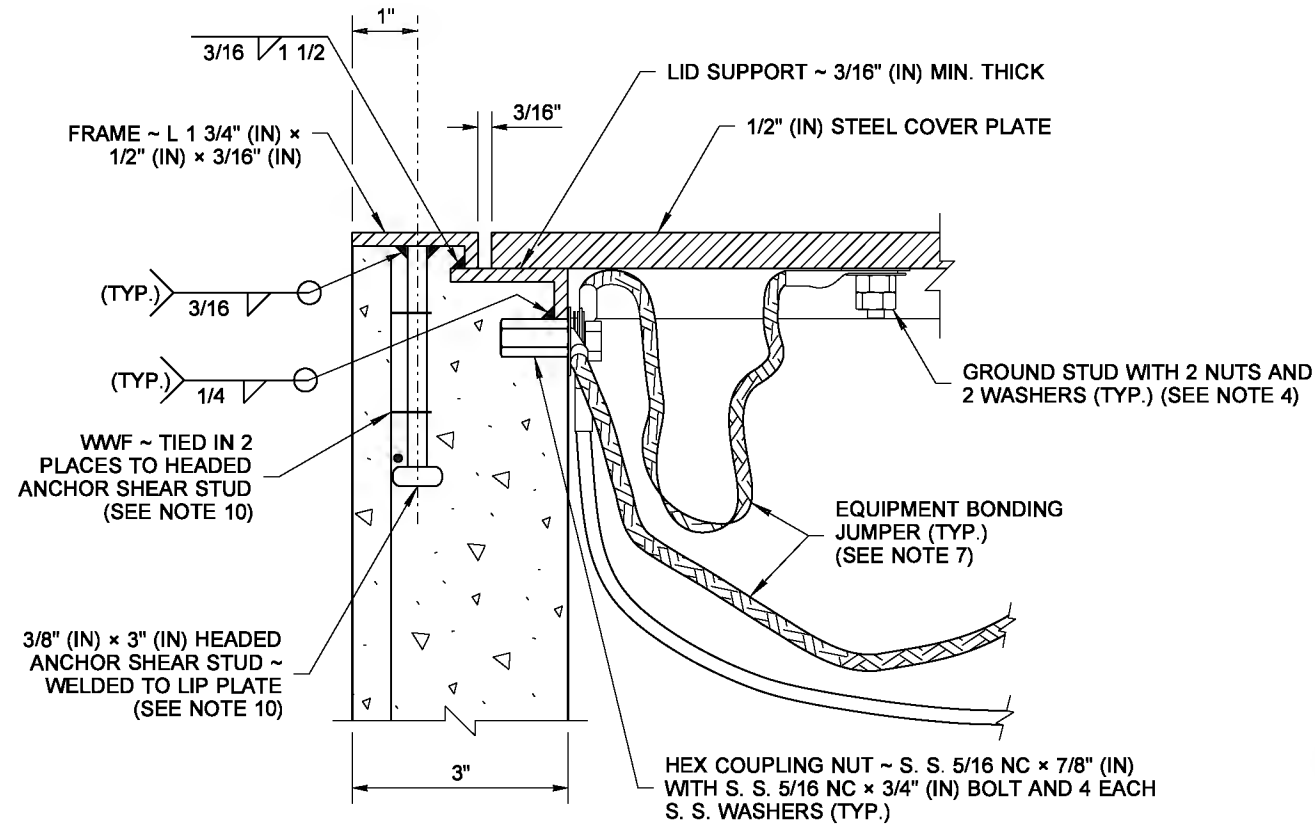


LOCKING LID STANDARD
DUTY JUNCTION BOX
TYPE 8
STANDARD PLAN J-40.30-04

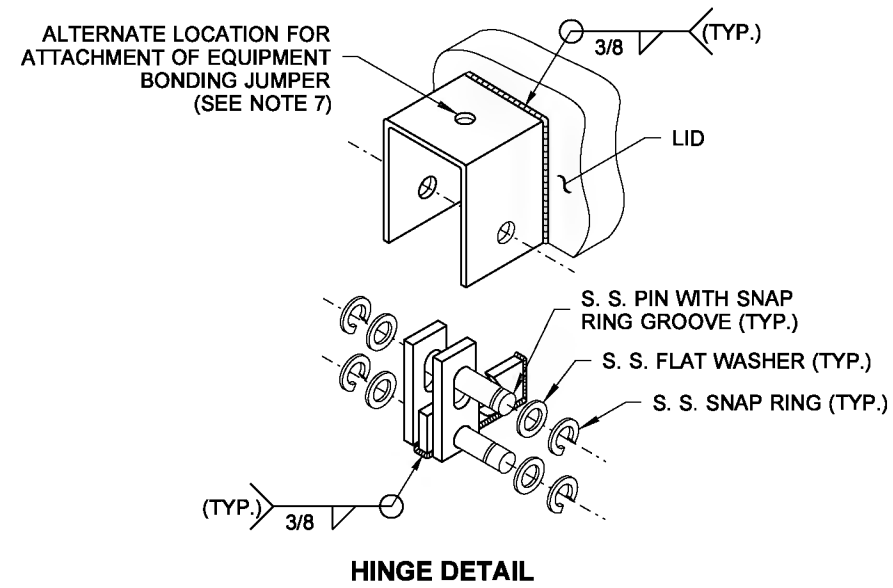
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

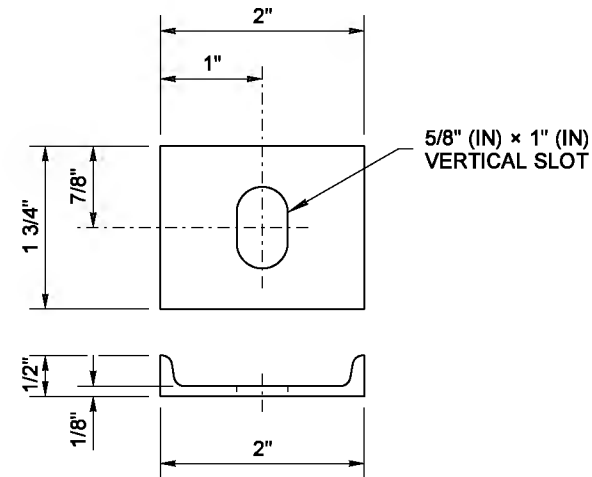
STATE DESIGN ENGINEER
Washington State Department of Transportation



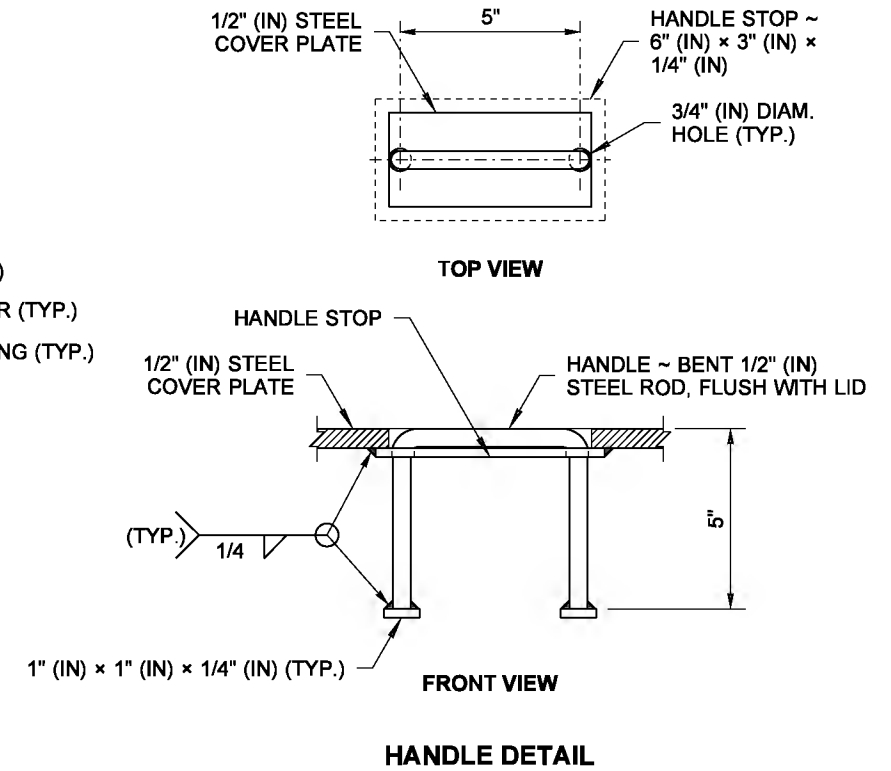
DETAIL C



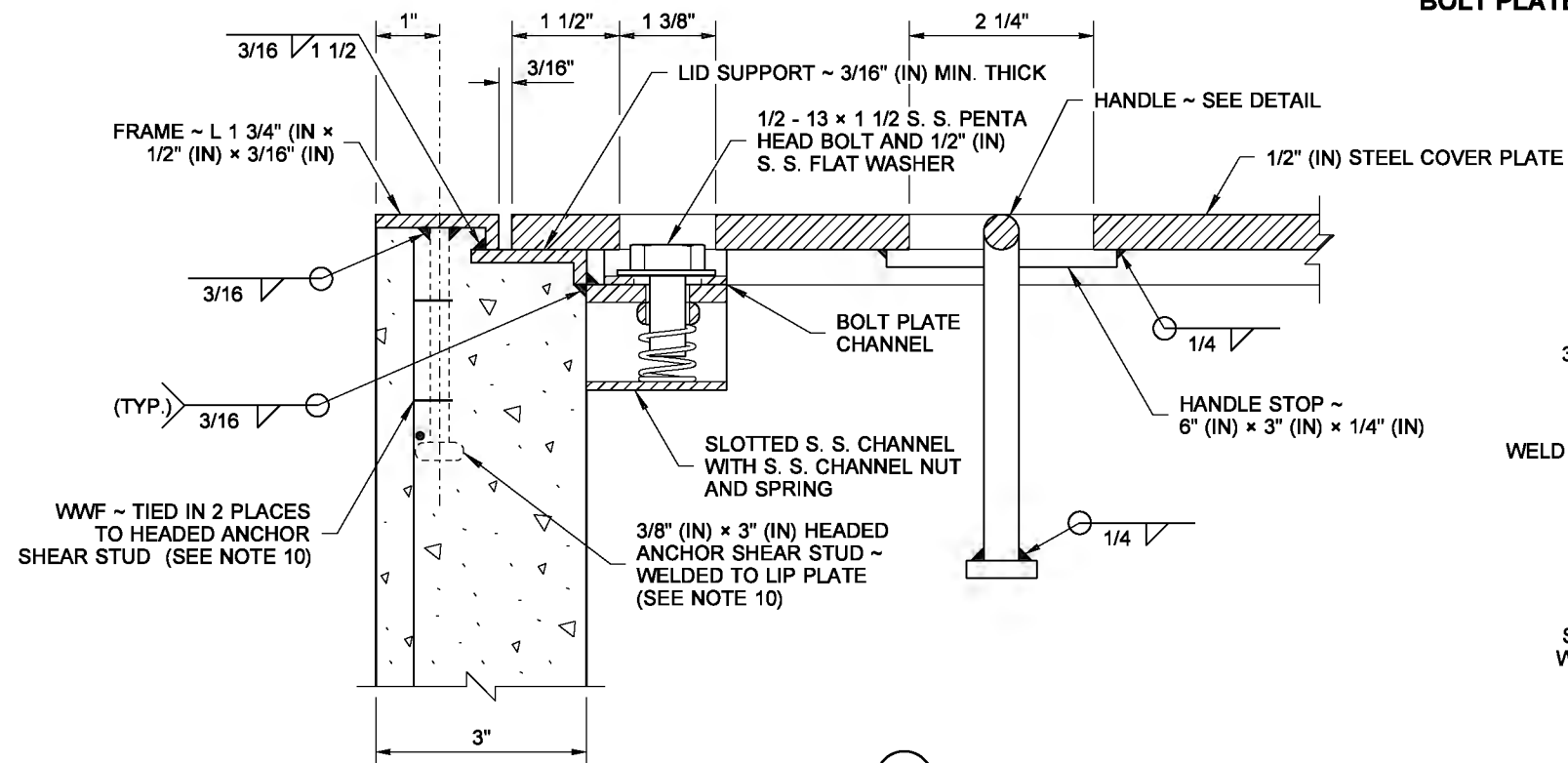
HINGE DETAIL



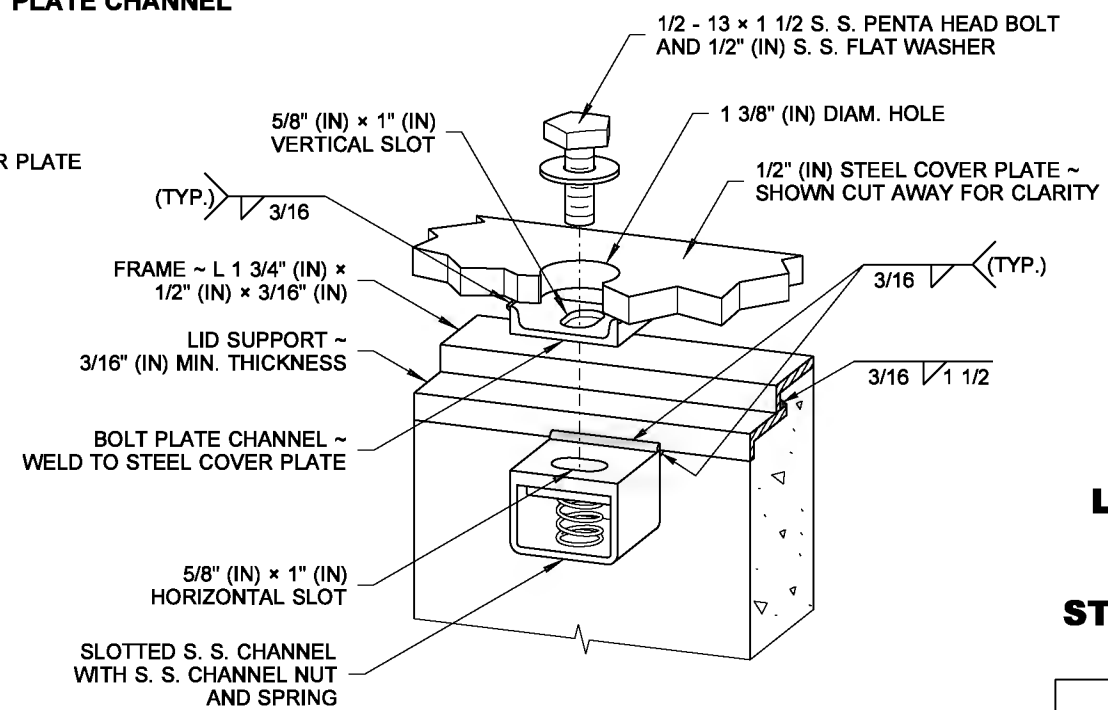
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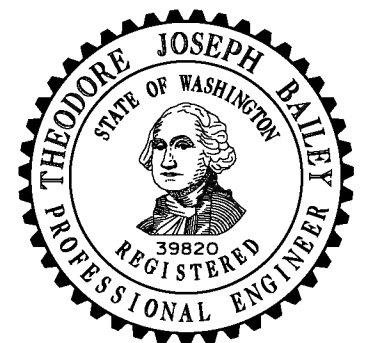
HANDLE DETAIL



DETAIL **D**



DETAIL (D)
ISOMETRIC VIEW



**LOCKING LID STANDARD
DUTY JUNCTION BOX
TYPE 8
STANDARD PLAN J-40.30-04**

SHEET 2 OF 2 SHEETS

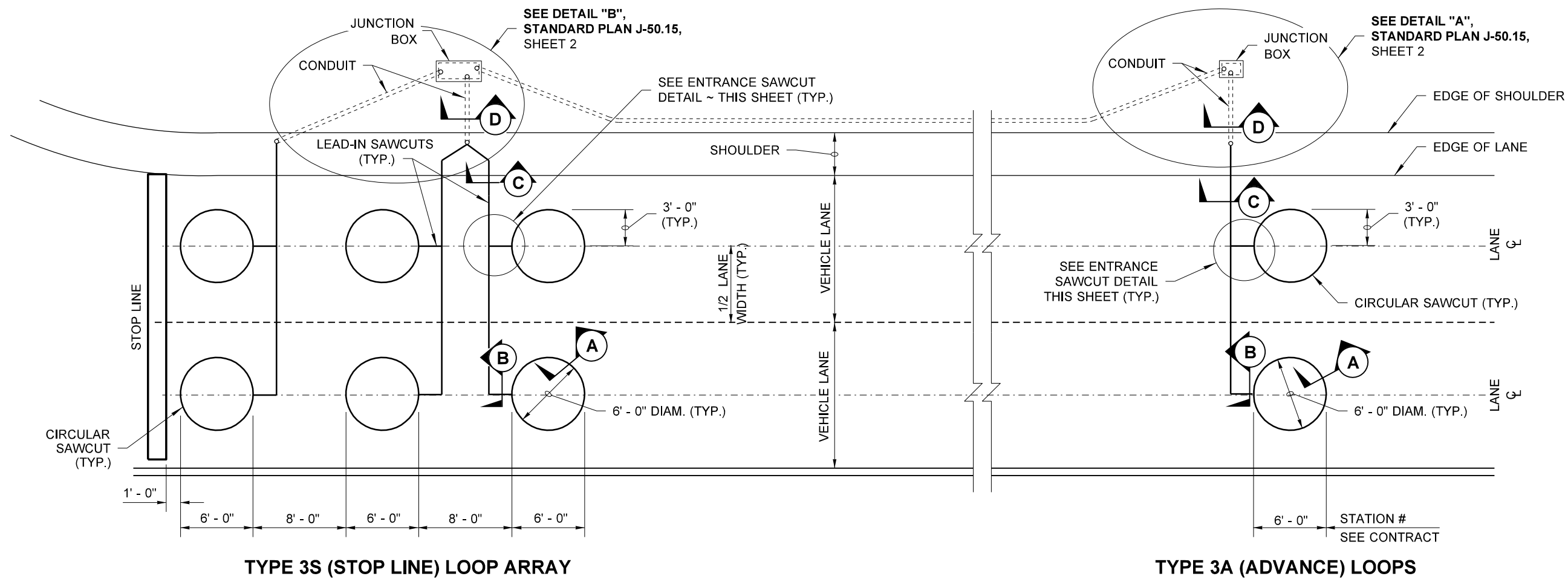
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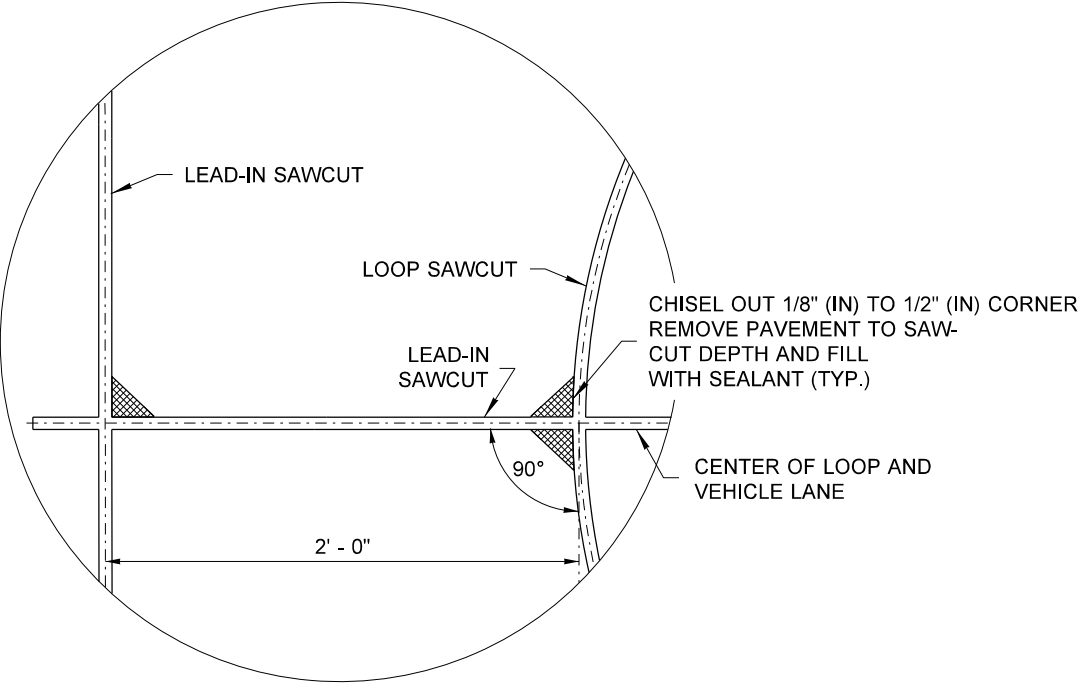


Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



PLAN



NOTES

1. For Installation Notes and Details see **Standard Plan J-50.15**.
2. For **Sections A, B, C, and D**, see **Standard Plan J-50.15**.
3. All of the loop lead-in wires shall return to the Junction Box
4. For additional Induction Loop Details, see **Standard Plan J-50.15**.



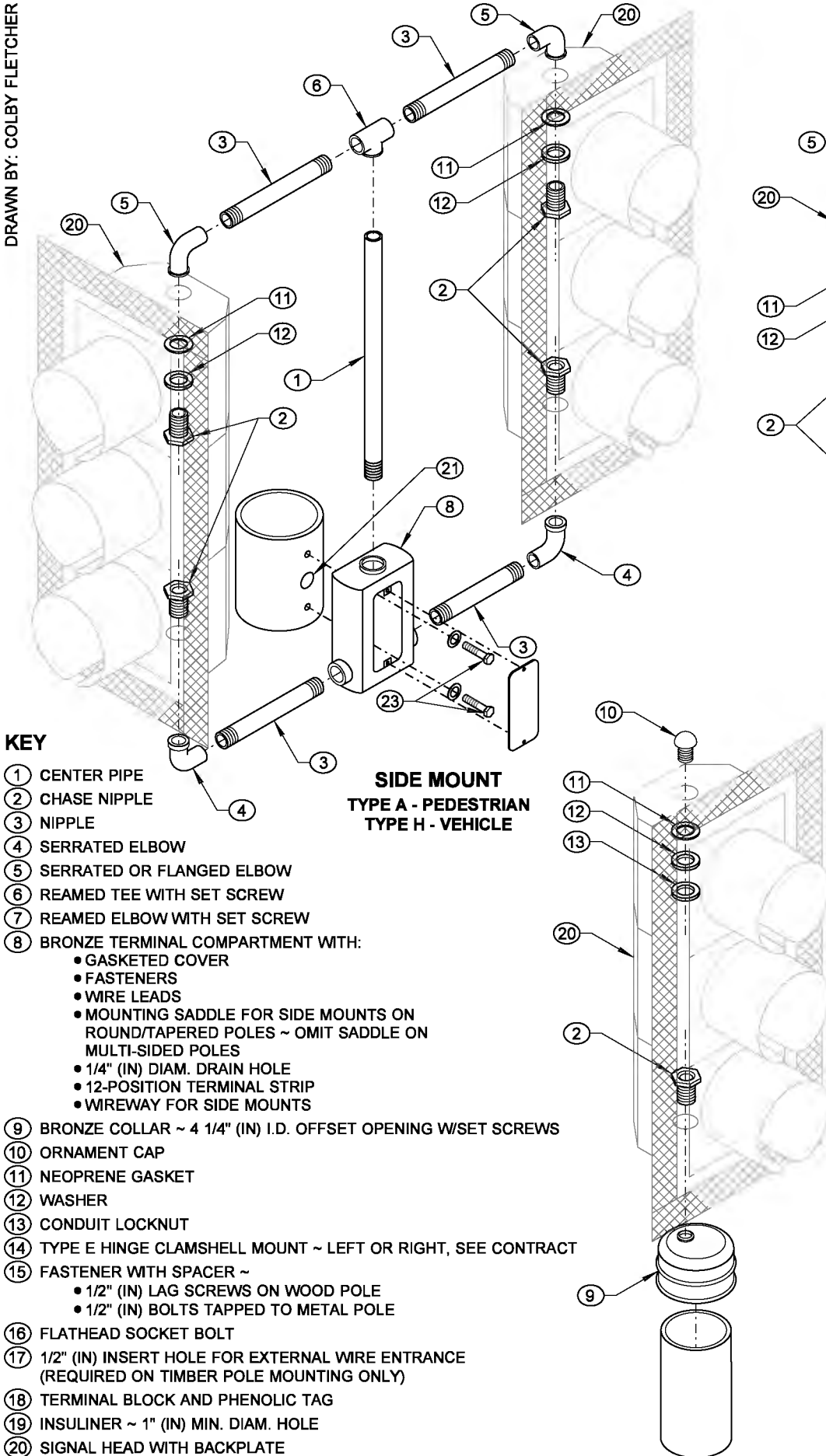
TYPE 3 INDUCTION LOOP

STANDARD PLAN J-50.12-02

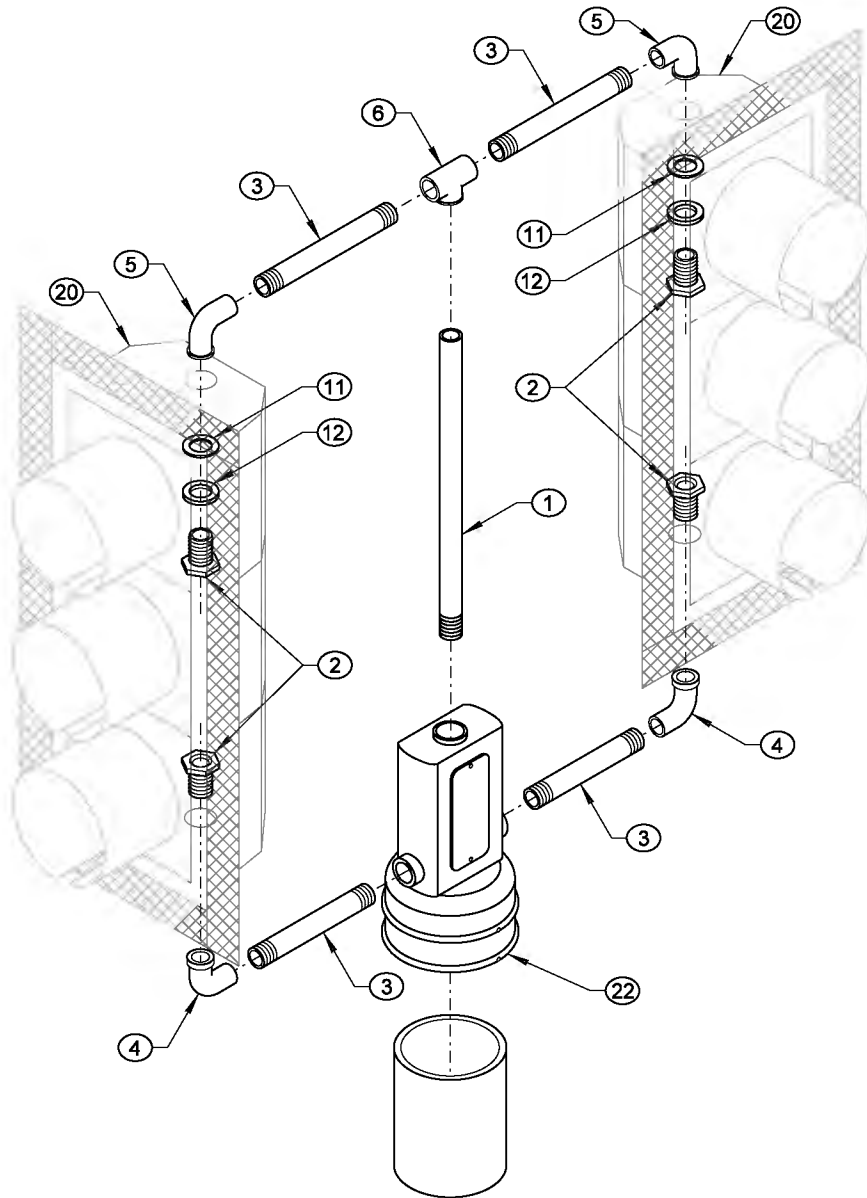
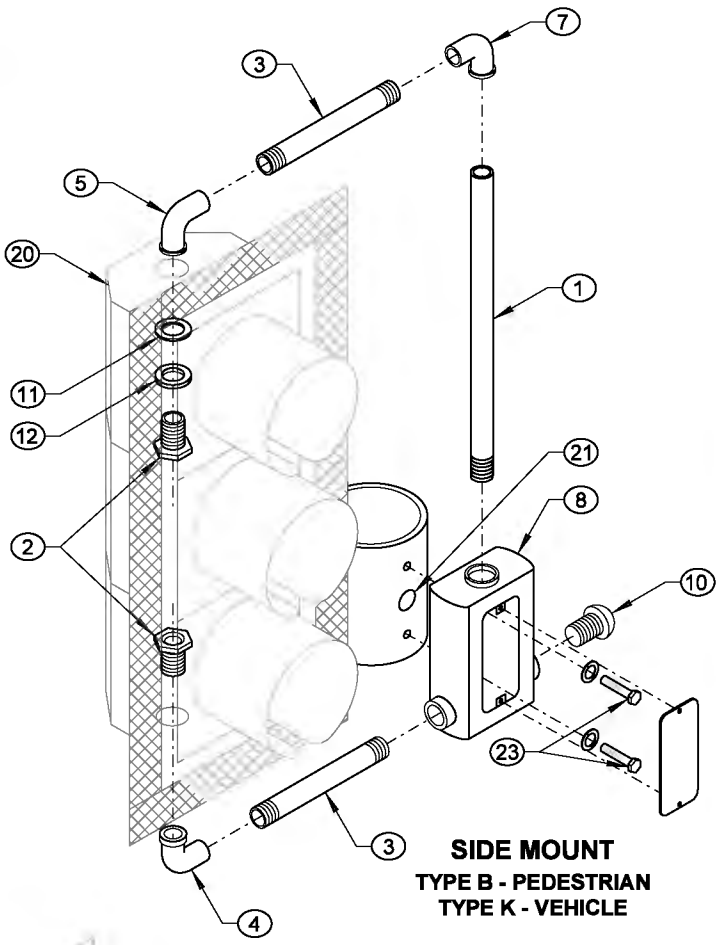
SHEET 1 OF 1 SHEET

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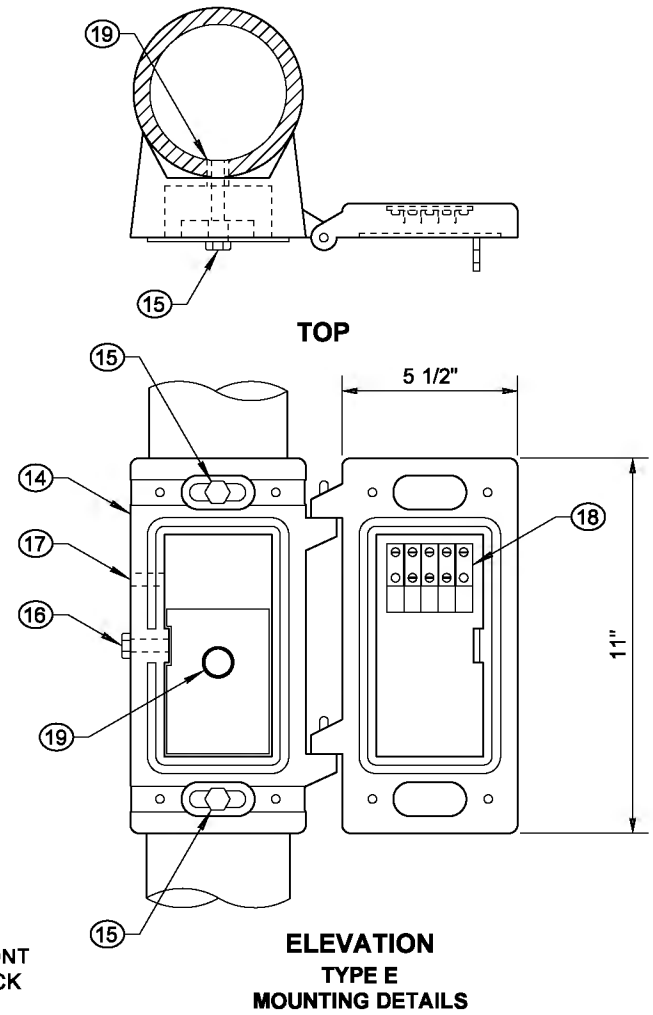
DRAWN BY: COLBY FLETCHER



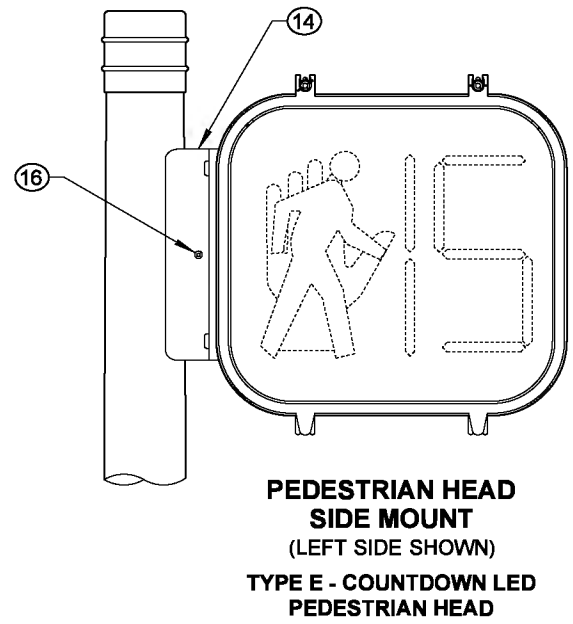
**SIDE MOUNT
TYPE A - PEDESTRIAN
TYPE H - VEHICLE**



**TOP MOUNT
TYPE C - PEDESTRIAN
TYPE F - VEHICLE**

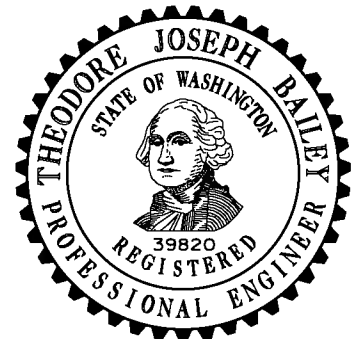


**ELEVATION
TYPE E
MOUNTING DETAILS**



NOTES

1. See Contract for head type, mounting height, and orientation.
2. All nipples, fittings, and center pipes shall be 1 1/2" (in) diameter.
3. Install neoprene gasket inside head when flanged elbows are supplied.
4. Extend wire sheath a minimum of 1" (in) inside all signal and sign housings and terminal compartments.
5. Apply bead of silicone to the serrated ring and around the perimeter of all top openings prior to installation of fittings.
6. See **Standard Specification 9-29.16** for backplate requirements. Where required, prismatic sheeting shall be applied in accordance with the manufacturer's recommendations. The application surface of the backplate shall be cleaned, degreased with isopropyl alcohol, and dried prior to application of the sheeting.
7. Drill a 1/4" (in) drain hole in the bottom of each signal display assembly, and one in the bottom of each pedestrian head. When signal display assembly is mounted horizontally, drill a 1/4" (in) drain hole at the lowest point of each section of the signal assembly.



**SIGNAL HEAD MOUNTING
DETAILS ~ POLE AND POST
TOP MOUNTINGS
STANDARD PLAN J-75.10-02**

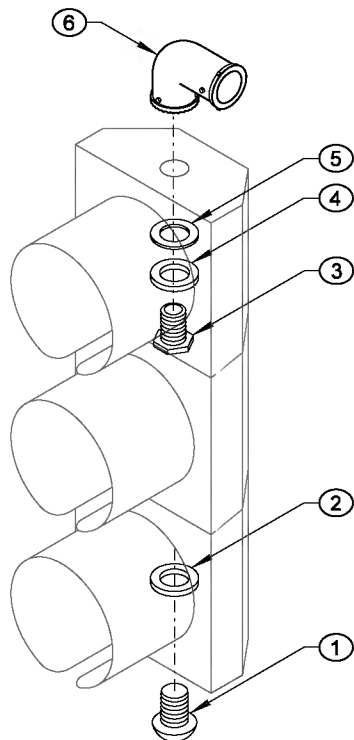
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

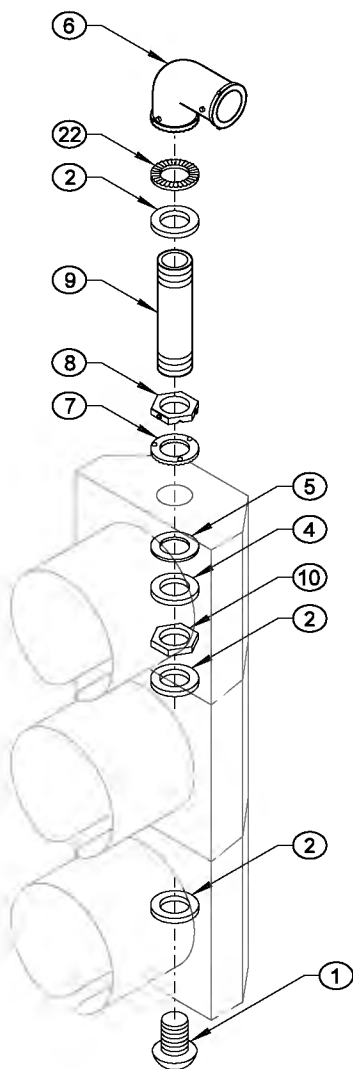
STATE DESIGN ENGINEER
Washington State Department of Transportation

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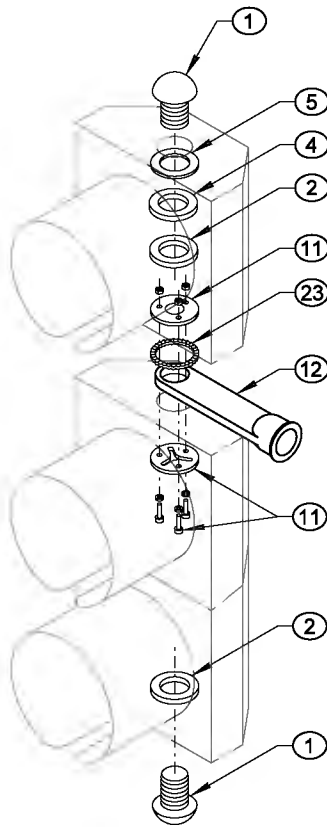
- ① END CAP
- ② 1 1/2" (IN) DIAM. CONDUIT LOCKNUT
- ③ 1 1/2" (IN) DIAM. CHASE NIPPLE
- ④ STEEL WASHER
- ⑤ NEOPRENE GASKET
- ⑥ BRONZE SERRATED ELL FITTING WITH:
 - 3/8" (IN) STAINLESS STEEL THROUGH BOLT AND NUTS
 - THREE STAINLESS STEEL SET SCREWS AT SLIPFITTER CONNECTION
 - THREE ALLEN HEAD STAINLESS STEEL SET SCREWS AT CONDUIT NIPPLE CONNECTION
- ⑦ SERRATED RING WITH PINS
- ⑧ HEX LOCKNUT WITH:
 - TWO ALLEN HEAD STAINLESS STEEL SET SCREWS
 - PIN RECEPTACLES
- ⑨ 1 1/2" (IN) DIAM. CONDUIT NIPPLE
- ⑩ 1 1/2" (IN) DIAM. HEX LOCKNUT
- ⑪ MOUNTING ASSEMBLY
- ⑫ BRONZE ELEVATOR PLUMBIZER WITH 3/8" (IN) STAINLESS STEEL THROUGH BOLT, WASHERS, AND TWO NUTS
- ⑬ ALUMINUM ARM WITH SET SCREW
- ⑭ SLOTTED TUBE WITH CLOSURE STRIP
- ⑮ 2 1/2" (IN) I.D. MIN. TUBE CLAMP
- ⑯ INTERNALLY THREADED CLAMP ASSEMBLY WITH:
 - TWO SET SCREWS
 - 1/2" (IN) × 0.045" (IN) STAINLESS STEEL BANDS
 - 7/16" (IN) SCREW BUCKLES WITH SWIVELS, NUTS, AND WASHERS
 - BAND CLIPS WITH ALLEN HEAD STAINLESS STEEL SET SCREWS
- ⑰ BRONZE MESSENGER HANGER WITH:
 - 1/2" (IN) DIAM. J-BOLTS
 - CABLE LOCK BAR
 - RIVET
 - COTTER KEY
- ⑱ BRONZE INTERNALLY THREADED WIRE ENTRANCE WITH:
 - BUSHING INSERT OR RUBBER GROMMET
 - ALLEN HEAD STAINLESS STEEL SET SCREW
- ⑲ BRONZE BALANCE ADJUSTER (WHERE REQUIRED)
- ⑳ MULTI-HEAD MOUNTING ASSEMBLY
- ㉑ LOWER ARM ASSEMBLY
- ㉒ SERRATED RING WITH NO PINS
- ㉓ SERRATED WASHER
- ㉔ 1 1/2" (IN) DIAM. SERRATED OR FLANGED ELBOW
- ㉕ CENTER SUPPORT WITH 1 1/2" (IN) DIAM. HUBS WITH COVER AND GASKET
- ㉖ 1 1/2" (IN) DIAM. SERRATED COUPLING
- ㉗ 1 1/2" (IN) BREAKAWAY TETHER ASSEMBLY WITH OPTIONAL EXTENDER BAR
- ㉘ SERRATED CROSS



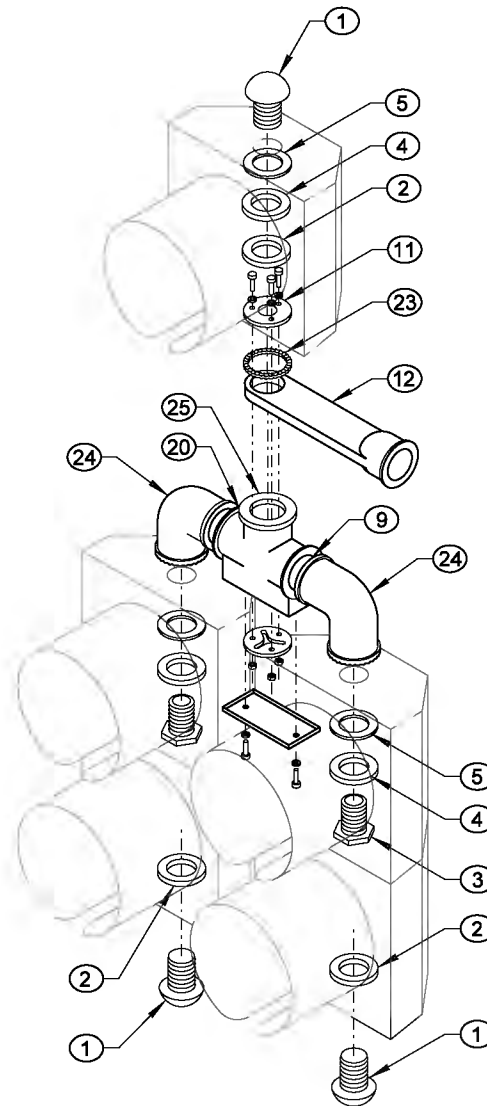
ARM MOUNT
TYPE L



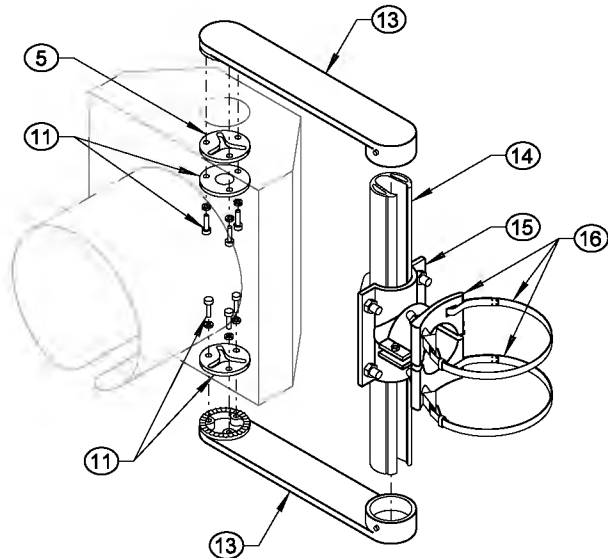
ARM MOUNT
TYPE LE



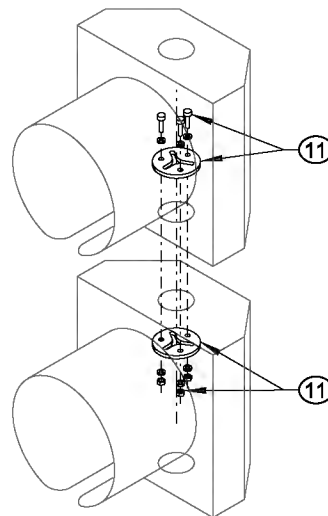
ARM MOUNT
TYPE M



ARM MOUNT
TYPE M-5S
(TYPE M WITH
5-SECTION HEAD)



ARM MOUNT
TYPE N

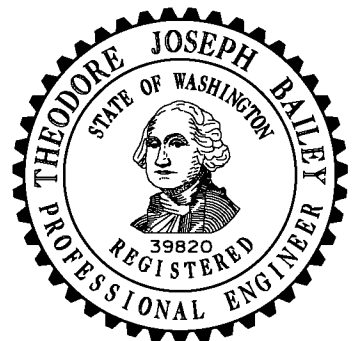


HOUSING FIXTURE
CONNECTION DETAIL

NOTES

1. Type M mounting shall have "O" ring groove and seal on top and bottom of signal attachment.
2. Type M mounting for conventional heads shall have a 2" (in) diameter opening at the signal attachment.
3. Type M mounting for optically programmed heads shall have a 3 1/2" (in) diameter opening at the signal attachment.
4. Type N mounting with optically programmed heads shall be installed with 14" (in) nominal arms.
5. See **Standard Plan J-75.30** for tether wire and backplate requirements.
6. Apply bead of silicone around the perimeter of all top end cap openings prior to installation of the end cap assembly.
7. See **Standard Specification 9-29.16** for backplate requirements. Where required, prismatic sheeting shall be applied in accordance with the manufacturer's recommendations. The application surface of the backplate shall be cleaned, degreased with isopropyl alcohol, and dried prior to application of the sheeting.
8. Drill a 1/4" (in) drain hole in the bottom of each signal assembly. When signal display assembly is mounted horizontally, drill a 1/4" (in) drain hole at the lowest point of each section of the signal assembly.

NOTE: BACKPLATES NOT SHOWN
FOR CLARITY



**SIGNAL HEAD MOUNTING
DETAILS ~ MAST ARM AND
SPAN WIRE MOUNTINGS
STANDARD PLAN J-75.20-01**

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

This exploded view diagram illustrates the assembly of a water meter. The components are numbered as follows:

- 2**: O-ring seal for the main body.
- 3**: Meter body (main housing).
- 4**: Meter body cap.
- 5**: Meter body cap gasket.
- 6**: Meter body cap screw.
- 7**: Meter body cap nut.
- 8**: Meter body cap washer.
- 9**: Meter body cap seal.
- 10**: Meter body cap seal.
- 11**: Meter body cap seal.
- 12**: Meter body cap seal.
- 13**: Meter body cap seal.
- 14**: Meter body cap seal.
- 15**: Meter body cap seal.
- 16**: Meter body cap seal.
- 17**: Meter body cap seal.
- 18**: Meter body cap seal.
- 19**: Meter body cap seal.
- 20**: Meter body cap seal.
- 21**: Meter body cap seal.
- 22**: Meter body cap seal.
- 23**: Meter body cap seal.
- 24**: Meter body cap seal.
- 25**: Meter body cap seal.
- 26**: Meter body cap seal.
- 27**: Meter body cap seal.

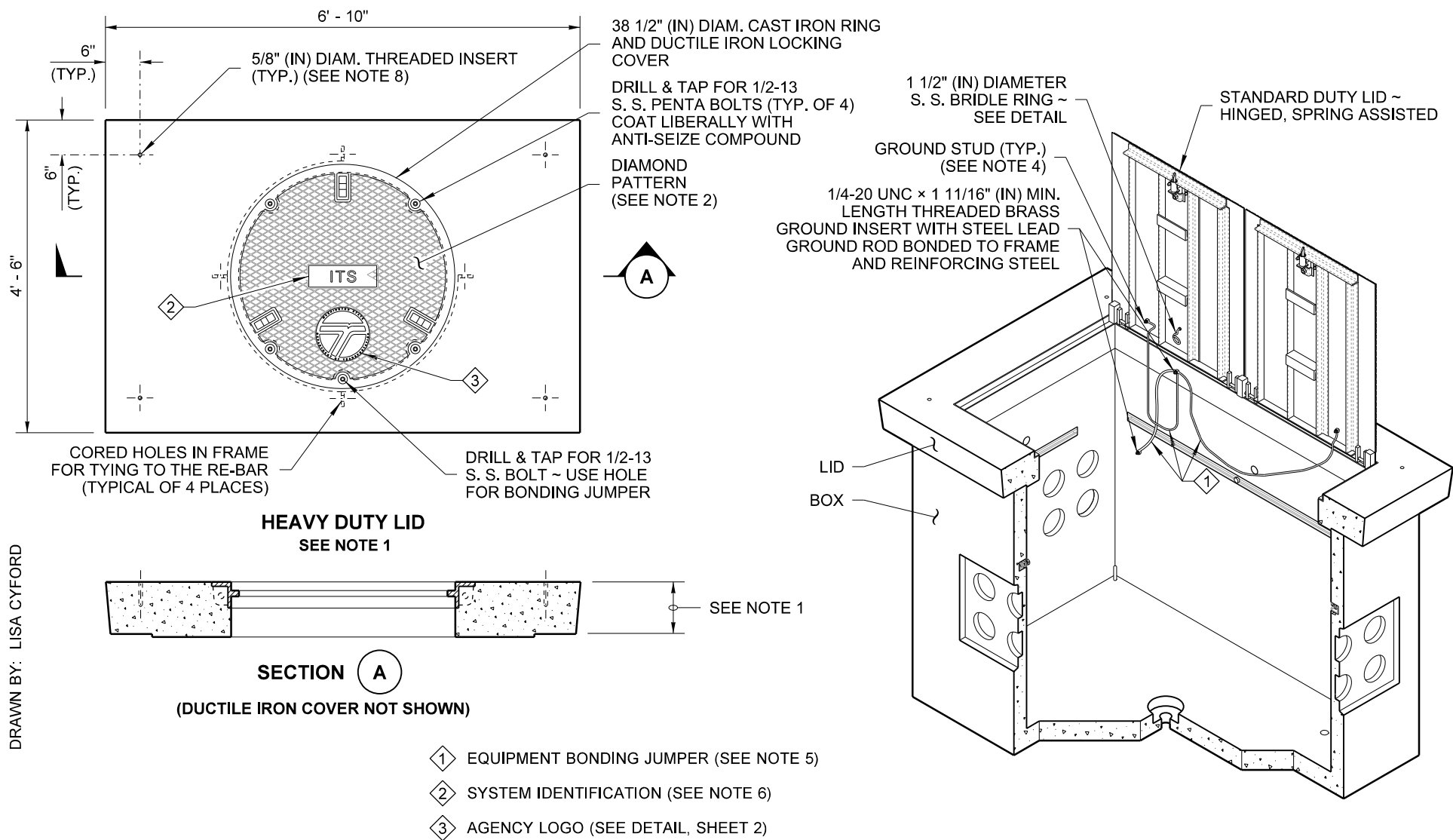
This exploded view diagram illustrates the assembly of a traffic signal. The components are numbered as follows:

- 17**: A bracket or mounting plate with a dimension of **9" MIN.** indicated.
- 19**: A small bracket or clip.
- 18**: A mounting bracket.
- 2**: A washer or spacer.
- 9**: A vertical pipe or riser.
- 20**: A coupling or connector.
- 25**: A flange or plate.
- 24**: A horizontal pipe or arm.
- 5**: A washer or spacer.
- 4**: A spring or clip.
- 3**: A bolt or screw.
- 11**: A mounting bracket or plate.
- 21**: A horizontal pipe or arm.
- 27**: A vertical pipe or riser.

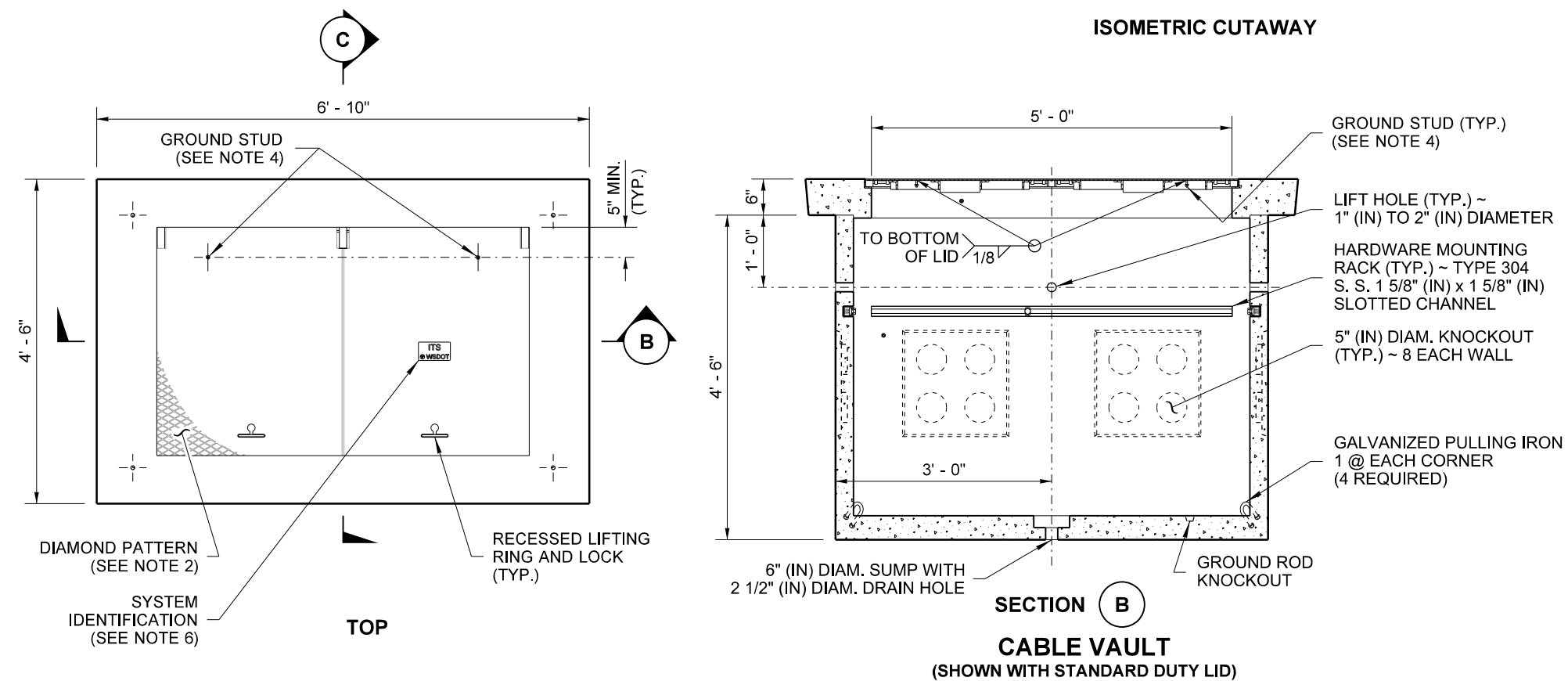
The diagram shows the assembly sequence from the mounting plate (17) down to the vertical riser (27), including the horizontal arm (24) and the various connectors and fasteners (2, 9, 20, 25, 5, 4, 3, 11, 21) that hold the assembly together.

A circular professional engineer seal for Theodore Joseph Bailey. The outer ring contains the text "THEODORE JOSEPH BAILEY" at the top and "REGISTERED PROFESSIONAL ENGINEER" at the bottom. The inner circle features a portrait of a man, the text "STATE OF WASHINGTON" above it, and the number "39820" below it.

Washington State Department of Transportation

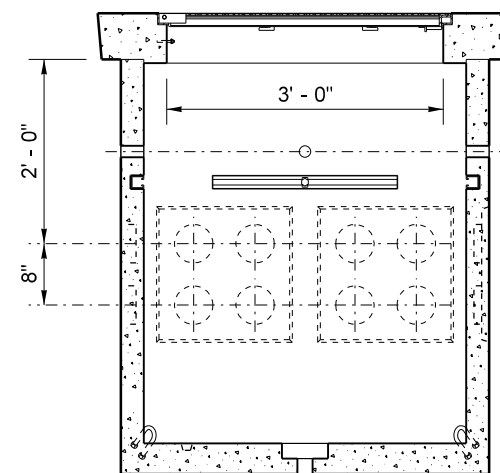


DRAWN BY: LISA CYFORD



NOTES

- The Heavy Duty Lid thickness varies by installation type:
 - 9" (in) for all new installations
 - 6" (in) for existing boxes with no roadway overlay
 - Such that it is flush with the surface of the new overlay, when a new overlay is specified
- Minimum lid thickness shown. The diamond pattern shall be a minimum of 3/32" (in) thick.
- Slip-resistant lids shall be identified with a permanent marking on the underside of the lid, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The marking shall use 1/8" (in) thick lines formed with a weld bead, and shall be placed prior to galvanizing.
- For Standard Duty Lids, attach a 1/4-20 UNC x 1" (in) S. S. ground stud, coated with anti-sieze compound. For Heavy Duty Lids, install a 1/2-13 UNC x 1 1/4" (in) S. S. bolt in a 5/8" (in) diameter cored hole in the ductile iron lid gusset as a ground stud. All ground studs shall include (3) S. S. nuts and (2) S. S. flat washers. See **Standard Plan J-90.50** for grounding and bonding details.
- The bonding jumper between the lid and frame shall be #8 AWG (min.) x 4' (ft) tinned braided copper.
- System identification letters shall use 1/8" (in) wide lines. Cover markings for steel lids shall be formed by casting or with a mild steel weld bead. Cover marking for ductile iron lids shall be recessed. See **COVER MARKING DETAIL** and **Standard Specification section 9-29.2(4)** for additional details. Ductile iron lids shall also provide a minimum 1 1/2" (in) wide x 3 1/2" high x 3/16" (in) thick flat area for lifting purposes.
- Cement concrete shall be Class 4000.
- Plastic plugs shall be put into the lid inserts after fabrication and the lid installation.
- Conduit Capacity = 60 inches (sum total of all conduit diameters).
- This drawing depicts a typical assembly. Reinforcing not shown. Each manufacturer's assembly will vary. Refer to the approved manufacturer's shop drawings for all dimensions and the actual arrangement.
- The lid is an assembly consisting of the metal lid(s) and frame, reinforcing steel, brass ground inserts, and concrete.
- #3 reinforcing bar shall be capable of being bent out of the way and restored, to allow for conduit installation.



VIEW **C**



CABLE VAULT

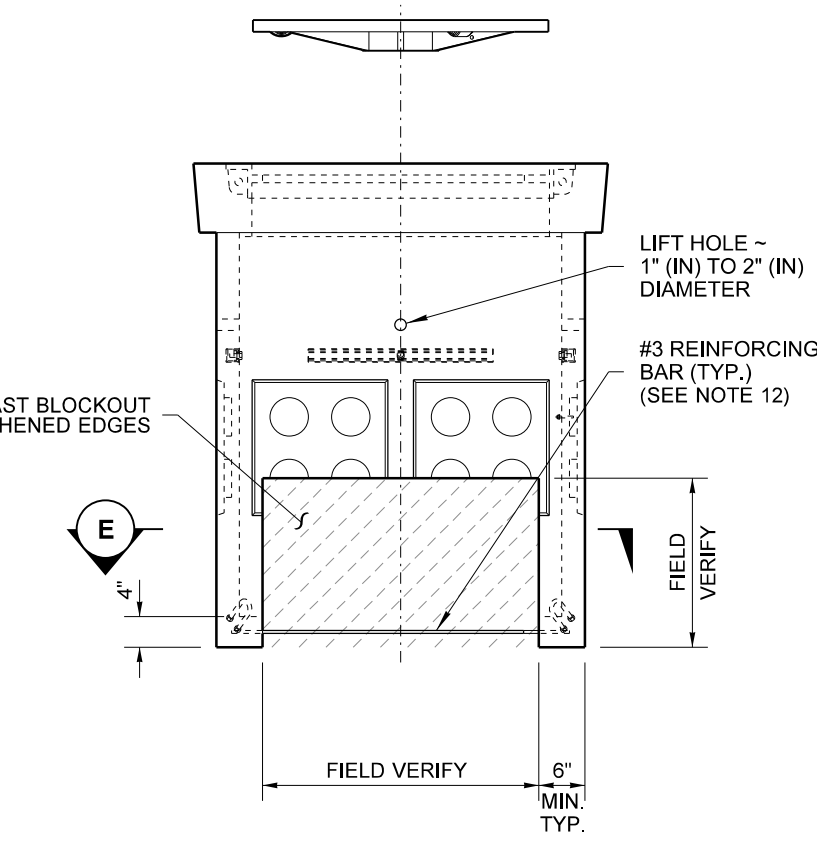
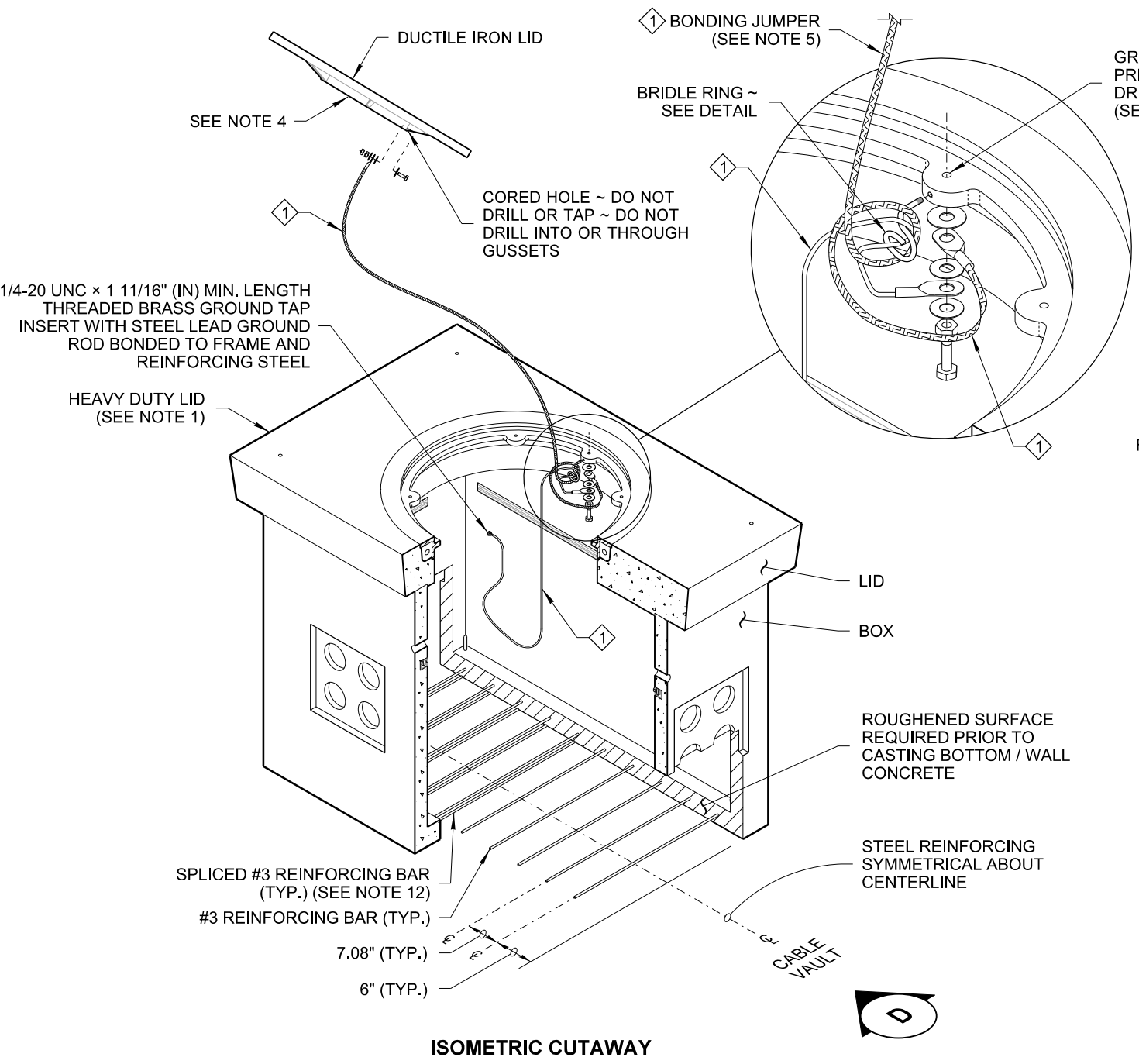
STANDARD PLAN J-90.20-03

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: LISA CYFORD



* BOLTS, NUTS AND WASHERS ~ ASTM F593 OR A193, TYPE 304 OR TYPE 316 STAINLESS STEEL (S.S.)



CABLE VAULT

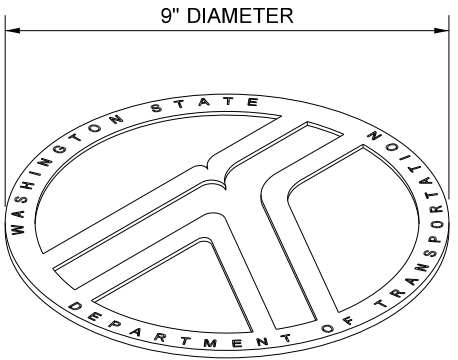
STANDARD PLAN J-90.20-03

SHEET 2 OF 2 SHEETS

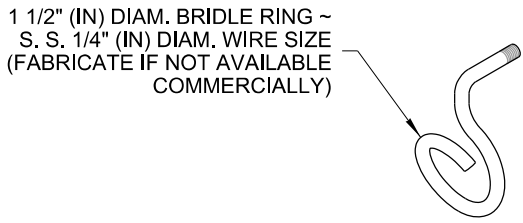
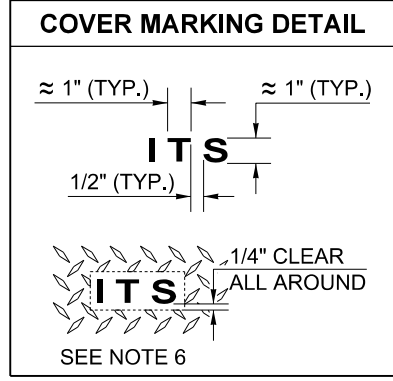
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER

Washington State Department of Transportation

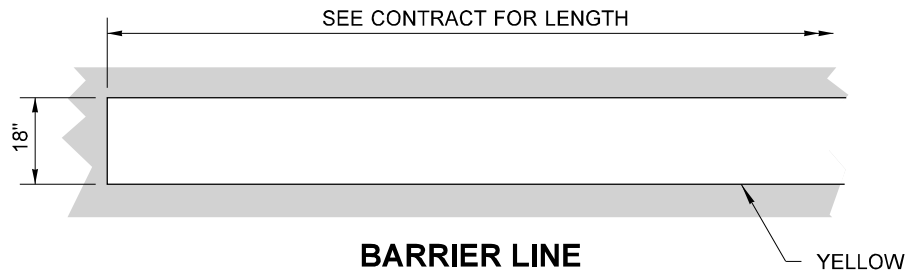
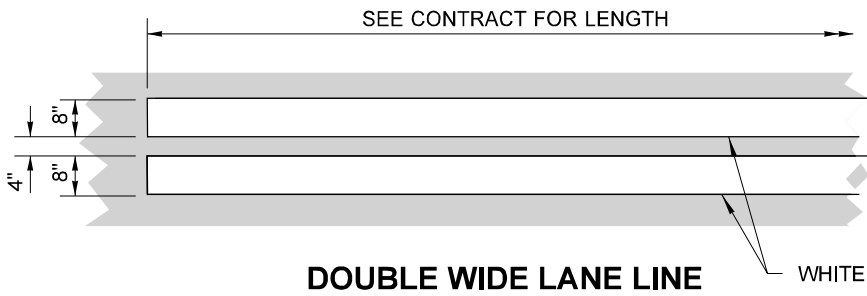
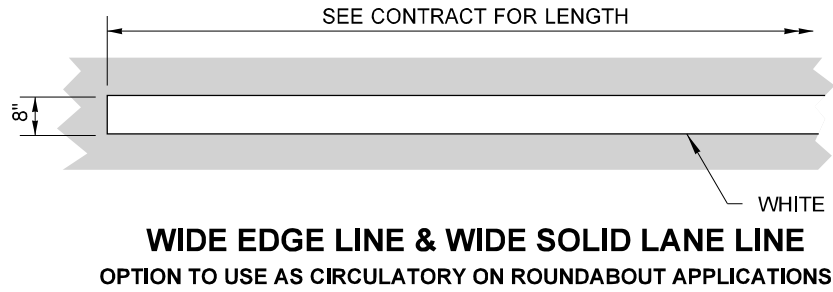
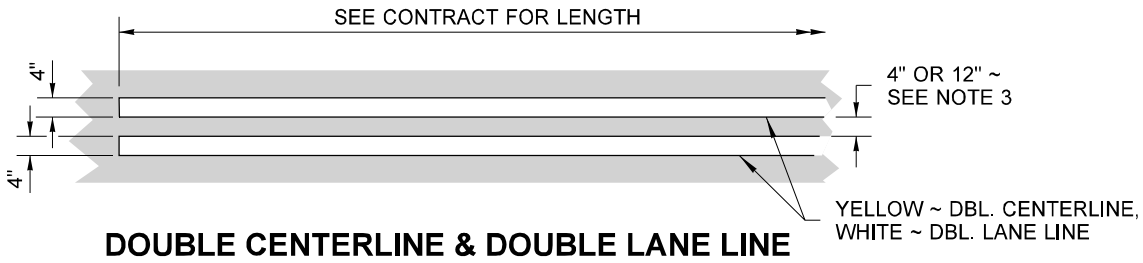
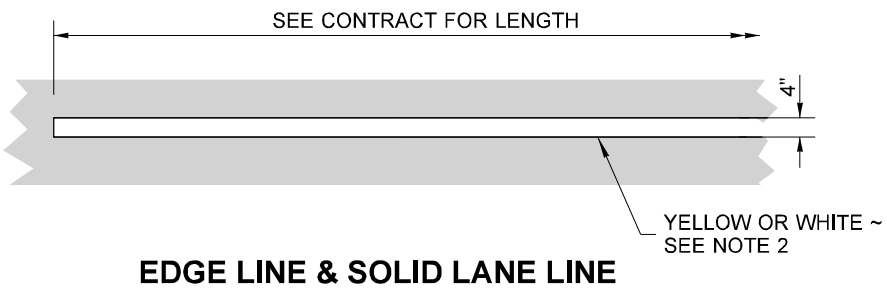
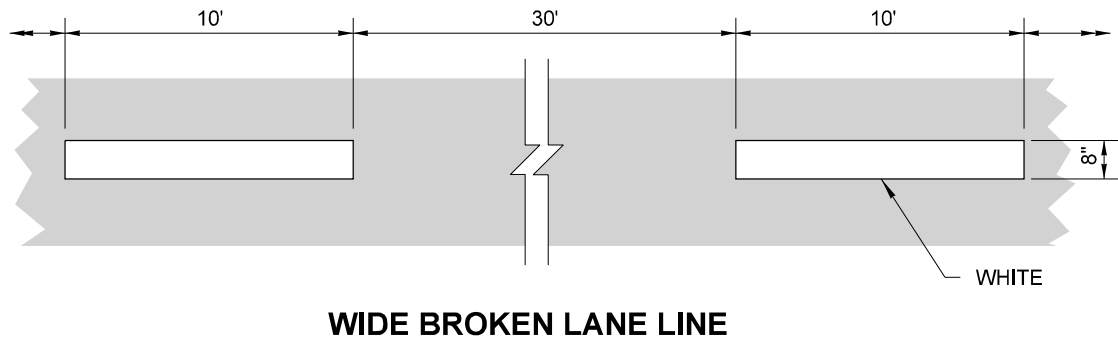
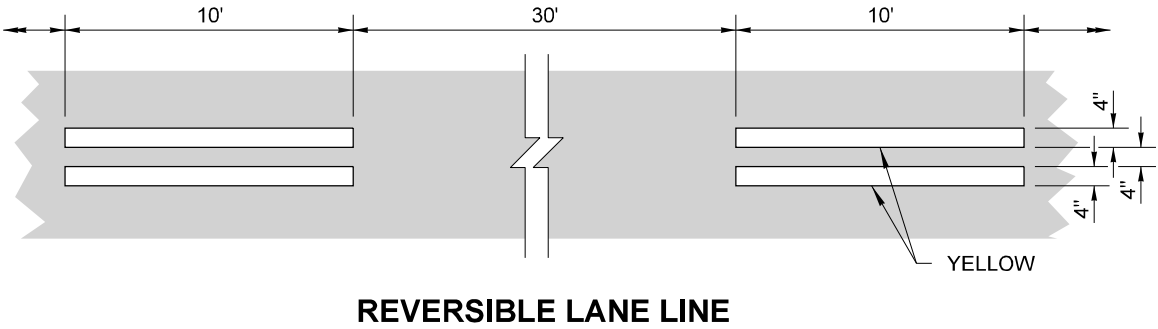
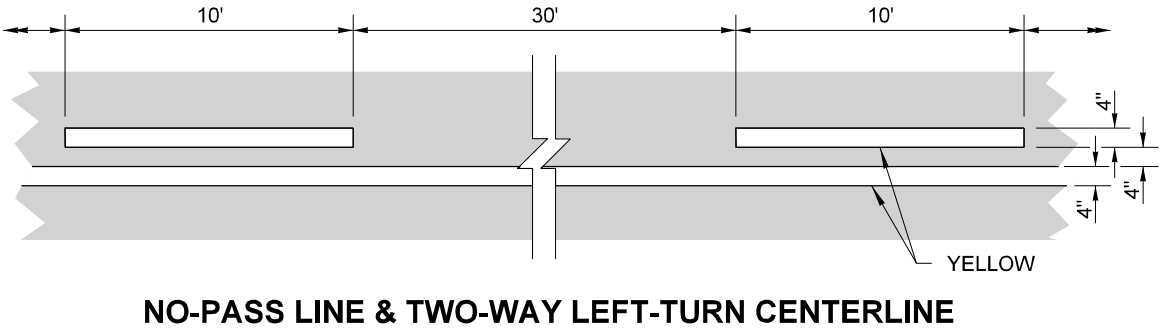
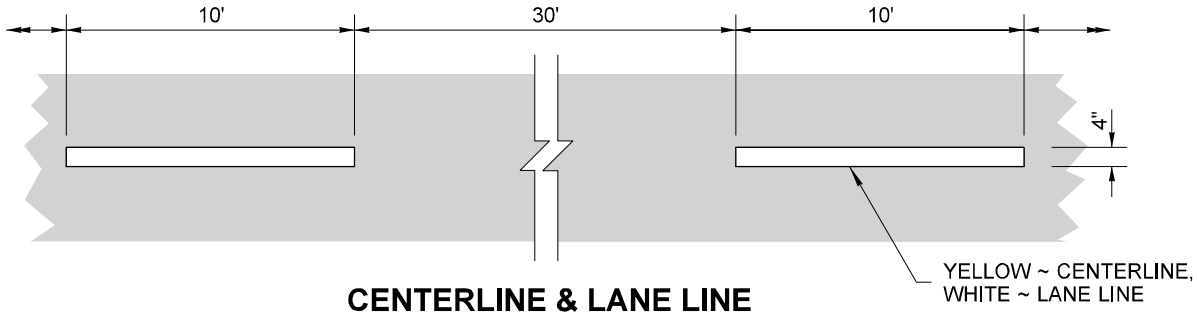


LOGO DETAIL



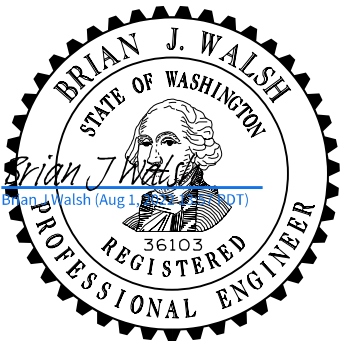
OPEN BOTTOM CABLE VAULT
(SHOWN WITH HEAVY DUTY LID)
SEE CABLE VAULT, SHEET 1, FOR DIMENSIONS NOT SHOWN

DRAWN BY: FERN LIDDELL



NOTES

1. Dotted Extension Line shall be the same color as the line it is extending.
2. Edge Line shall be white on the right edge of traveled way, and yellow on the left edge of traveled way (on one-way roadways). Solid Lane Line shall be white.
3. The distance between the lines of the Double Centerline shall be 12" everywhere, except 4" for left-turn channelization and narrow roadways with lane widths of 10 feet or less. Local Agencies (on non-state routes) may specify a 4" distance for all locations.
The distance between the lines of the Double Lane Line shall be 4".



Aug 1, 2022

LONGITUDINAL MARKING PATTERNS
STANDARD PLAN M-20.10-04

SHEET 1 OF 4 SHEETS

APPROVED FOR PUBLICATION

Mark Gaines
Mark Gaines (Aug 2, 2022 10:17 PDT)

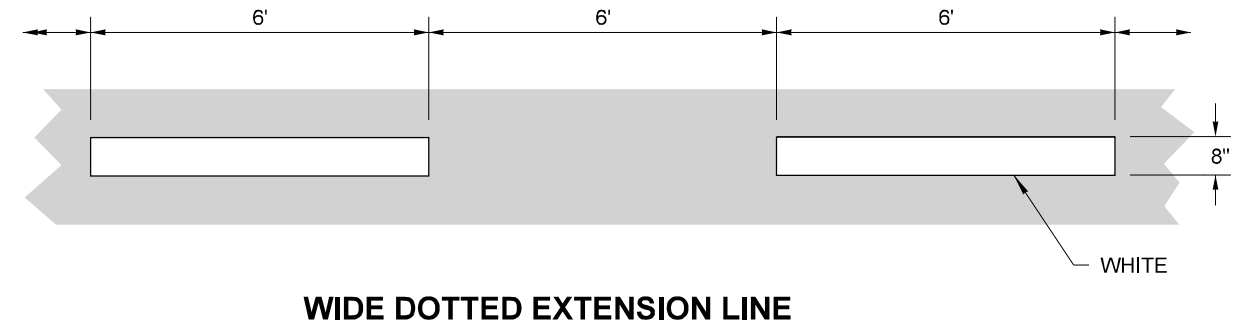
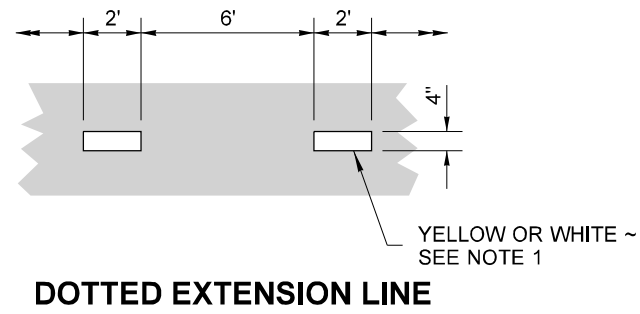
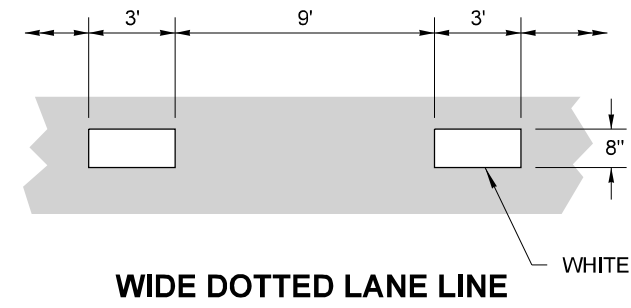
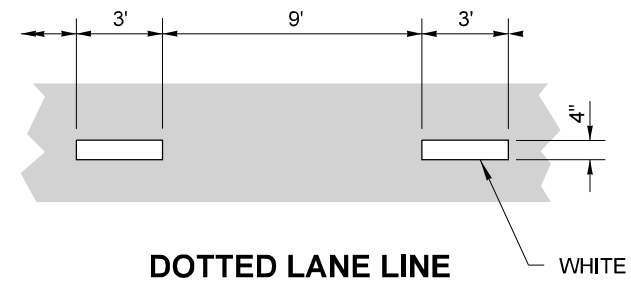
Aug 2, 2022

STATE DESIGN ENGINEER

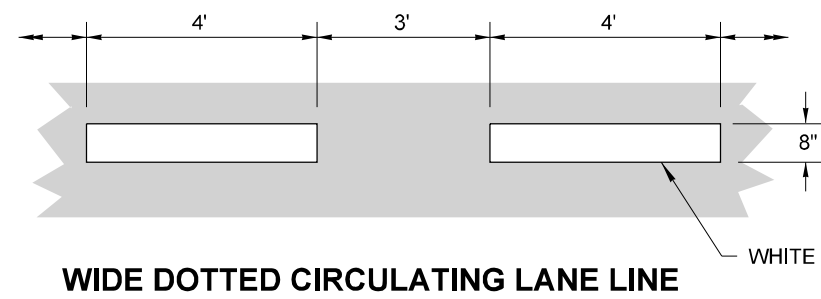
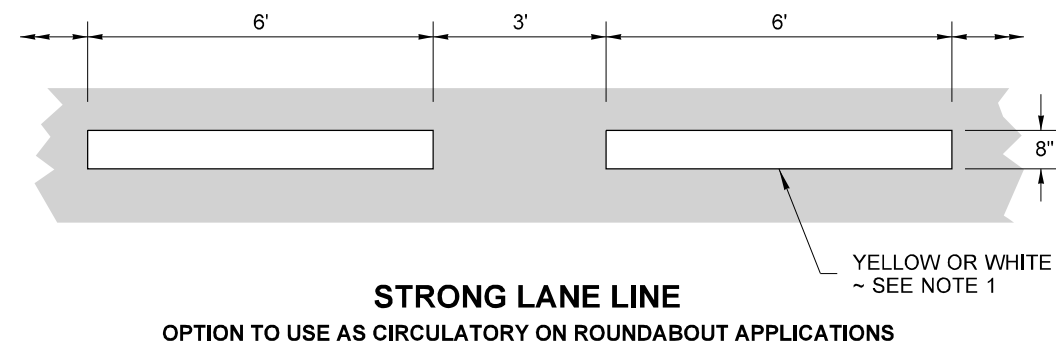
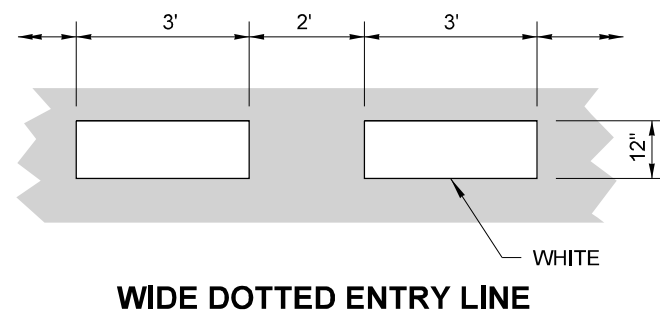


Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



ROUNDAABOUT SPECIFIC LINES



Aug 1, 2022

LONGITUDINAL MARKING PATTERNS STANDARD PLAN M-20.10-04

SHEET 2 OF 4 SHEETS

APPROVED FOR PUBLICATION

Mark Gaines
Mark Gaines (Aug 2, 2022 10:17 PDT)

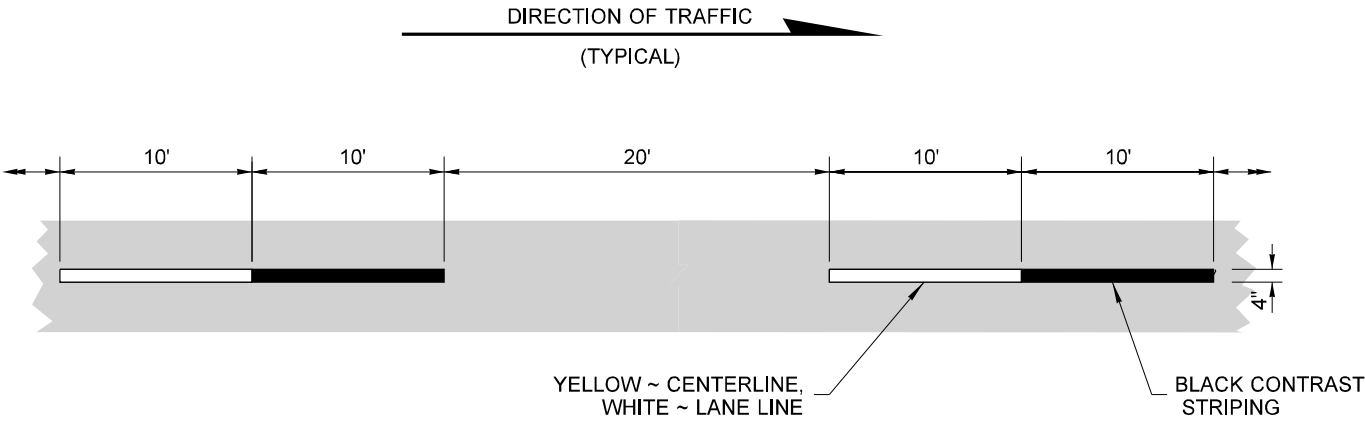
Aug 2, 2022

STATE DESIGN ENGINEER

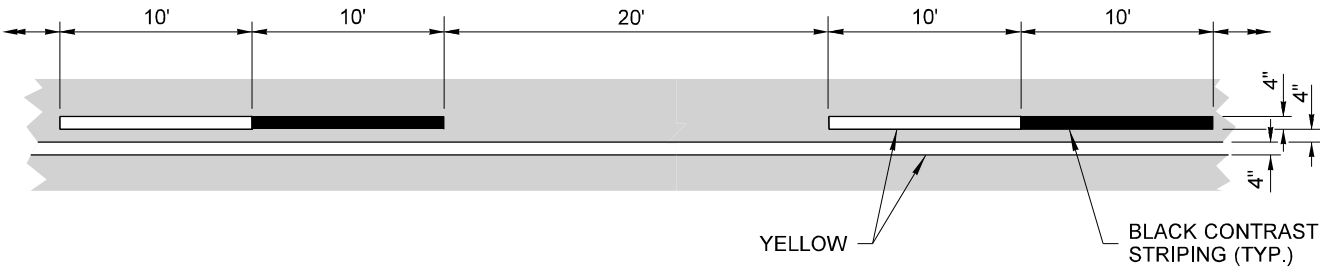


Washington State Department of Transportation

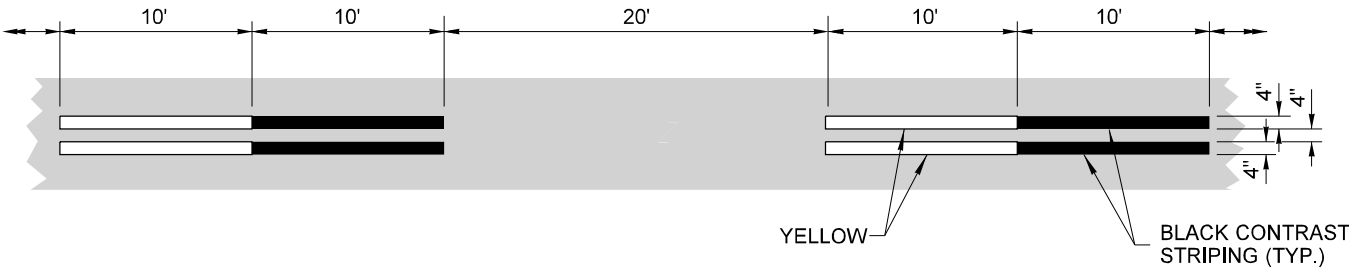
DRAWN BY: FERN LIDDELL



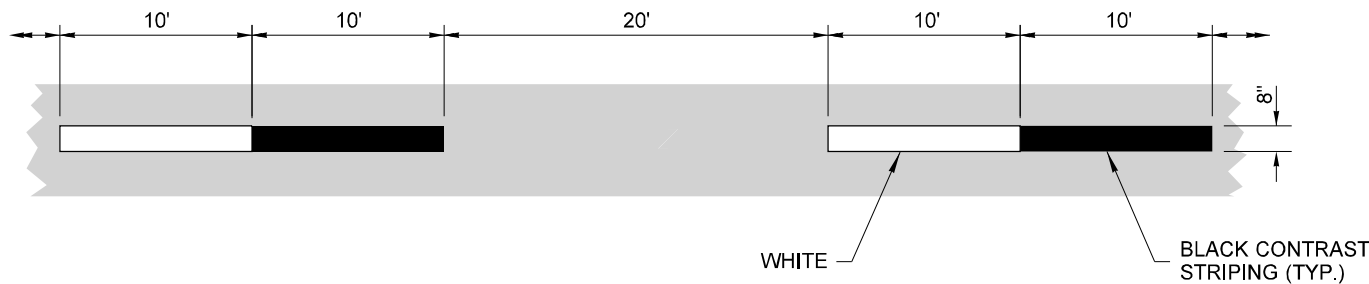
CENTERLINE & LANE LINE



NO-PASS LINE & TWO-WAY LEFT-TURN CENTERLINE



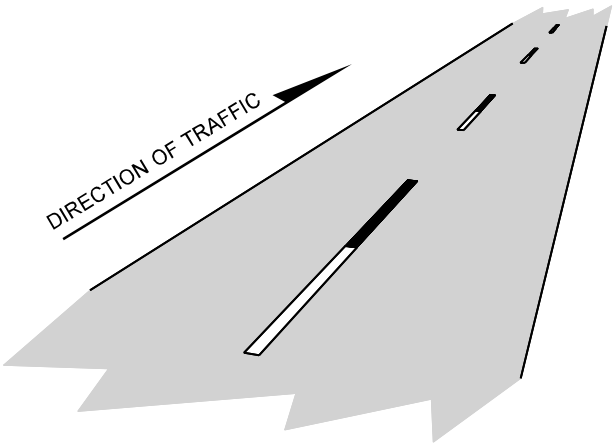
REVERSIBLE LANE LINE



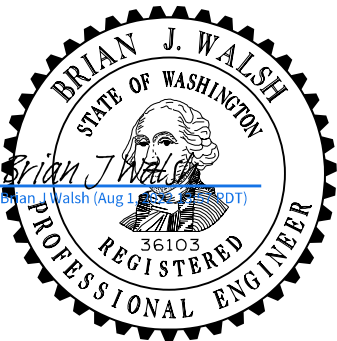
WIDE BROKEN LANE LINE

NOTE

1. Dotted Extension Line shall be the same color as the line it is extending.



ISOMETRIC VIEW



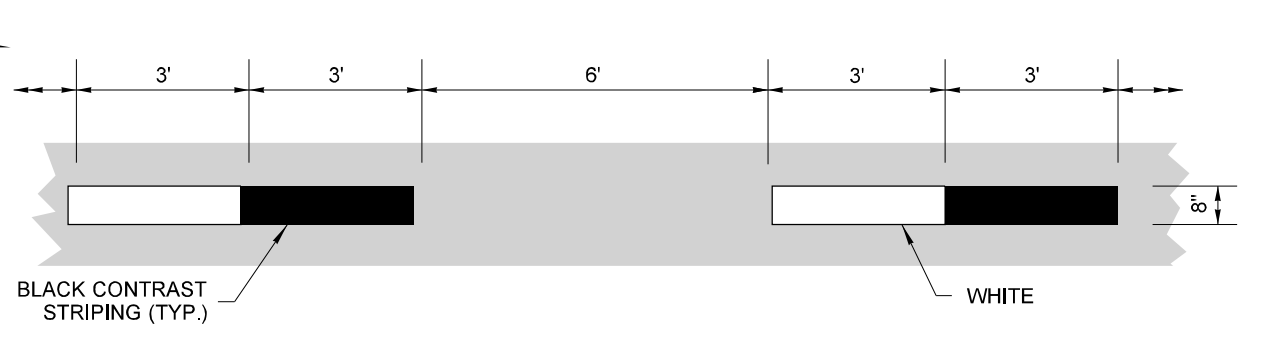
Aug 1, 2022

**LONGITUDINAL
MARKING PATTERNS**
STANDARD PLAN M-20.10-04

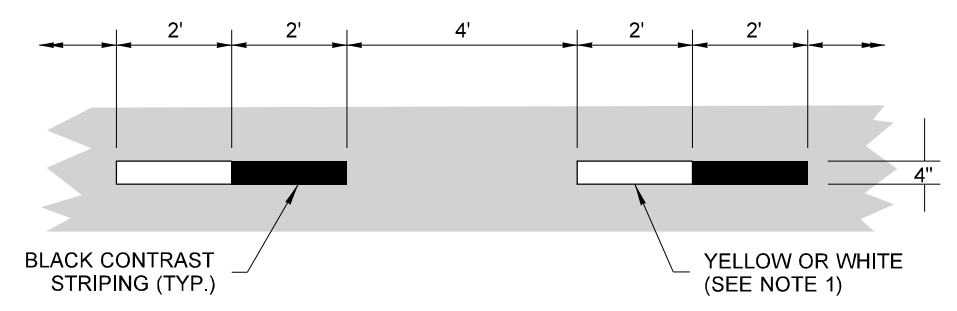
SHEET 3 OF 4 SHEETS

APPROVED FOR PUBLICATION <i>Mark Gaines</i> Mark Gaines (Aug 2, 2022 10:17 PDT)	Aug 2, 2022
STATE DESIGN ENGINEER	
Washington State Department of Transportation	

DRAWN BY: FERN LIDDELL

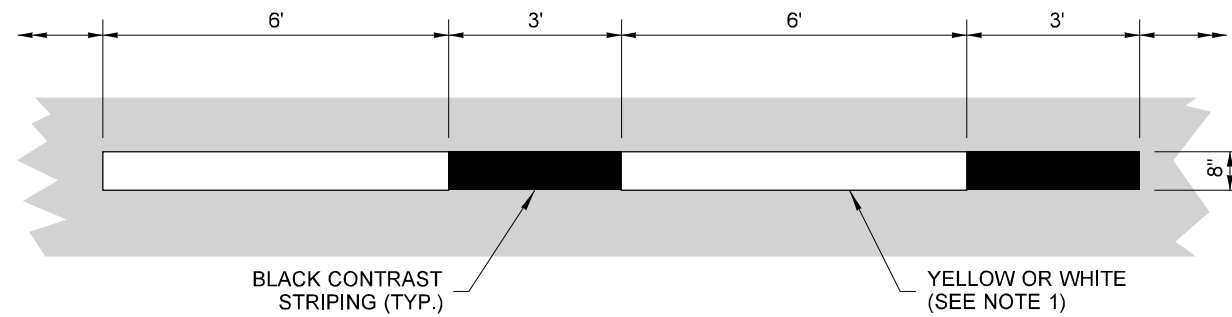


WIDE DOTTED LANE LINE



DOTTED EXTENSION LINE

ROUNDAABOUT SPECIFIC LINES



STRONG LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



WIDE DOTTED CIRCULATING LANE LINE



Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 4 OF 4 SHEETS

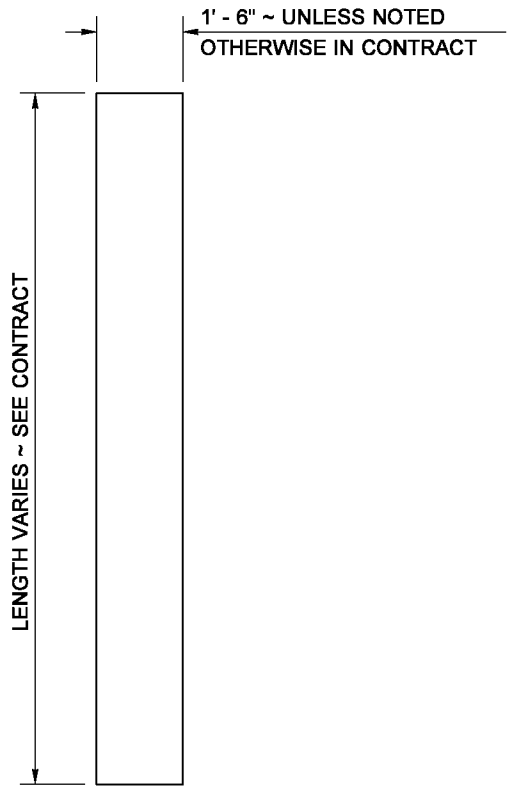
APPROVED FOR PUBLICATION

Mark Gaines
Mark Gaines (Aug 2, 2022 10:17 PDT)

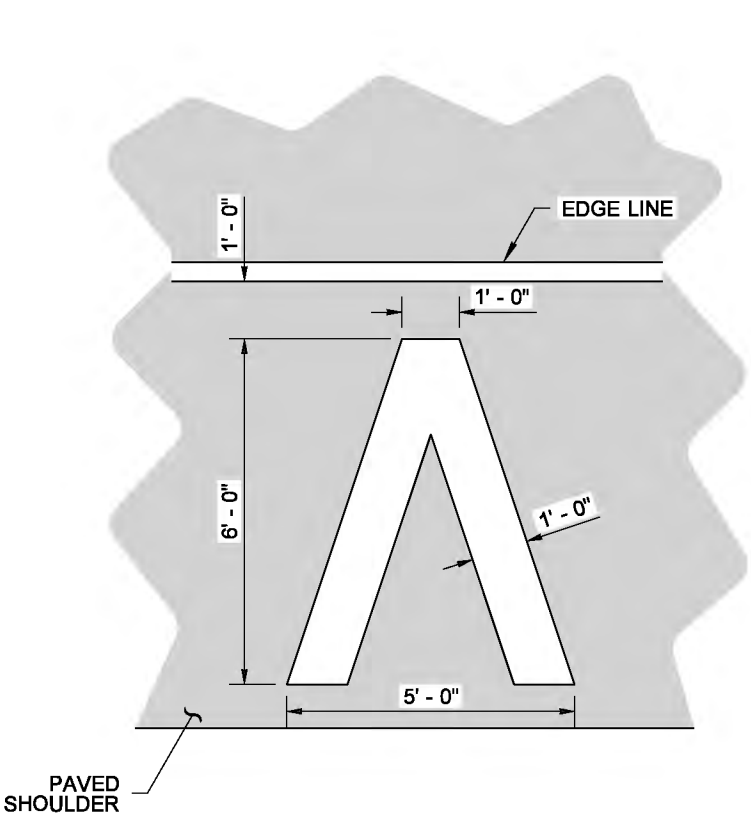
Aug 2, 2022

STATE DESIGN ENGINEER

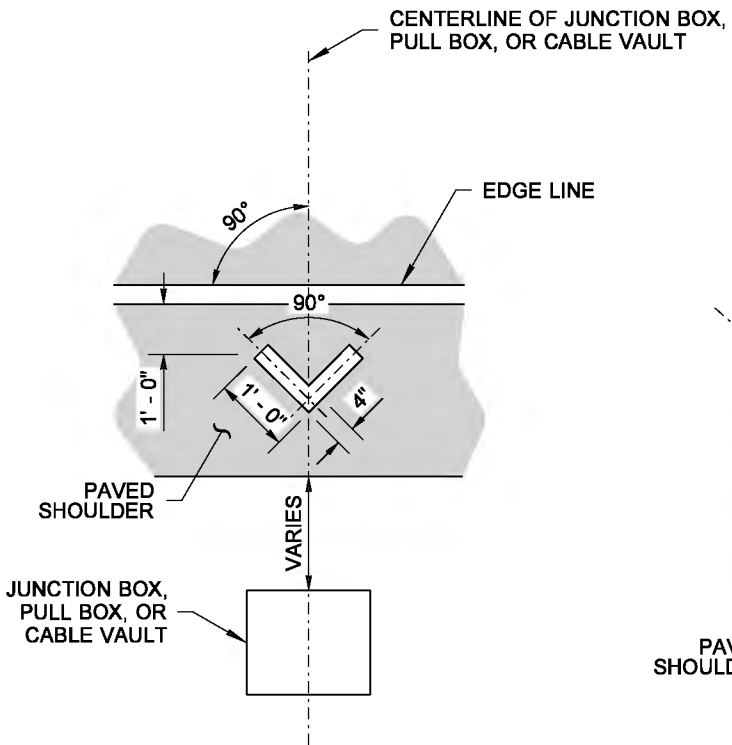
 Washington State Department of Transportation



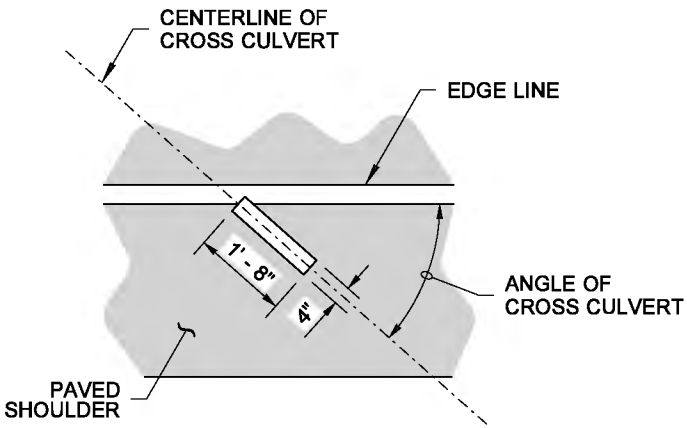
STOP LINE



MARKING AREA = 11.73 SQ.FT.
HALF-MILE MARKER

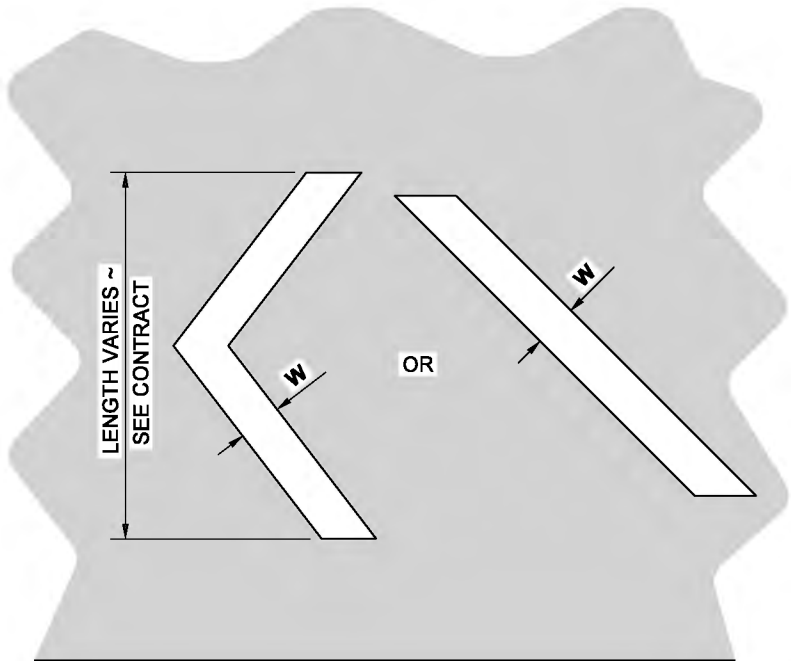


MARKING AREA = 0.56 SQ. FT.
**JUNCTION BOX, PULL BOX,
OR CABLE VAULT MARKINGS**



MARKING AREA = 0.56 SQ.FT.
CROSS CULVERT

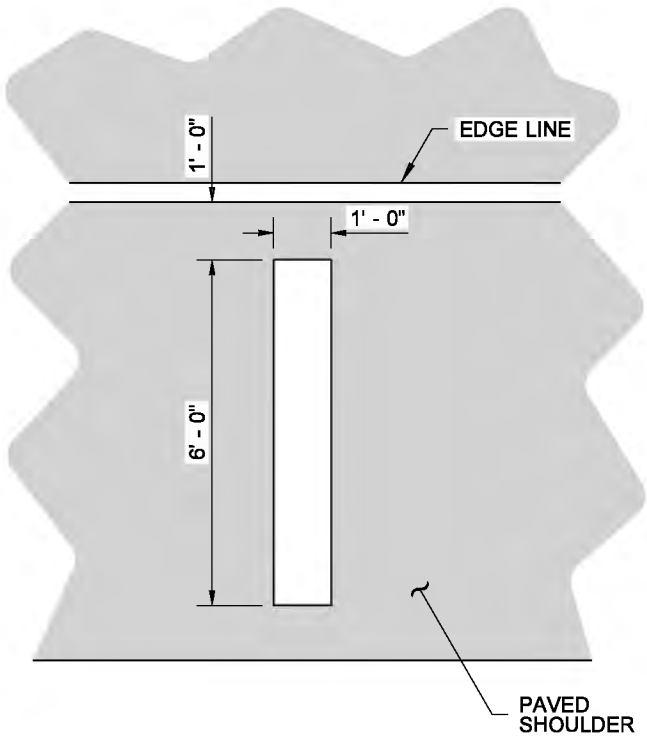
DRAINAGE MARKING



WHITE OR YELLOW ~ SEE CONTRACT
CHEVRON OR DIAGONAL

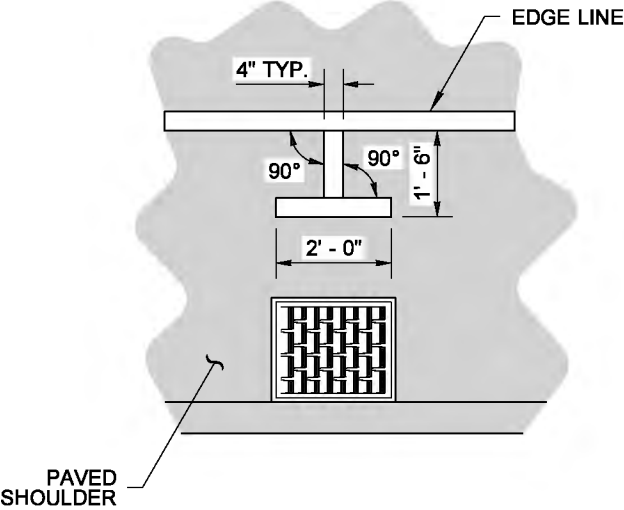
CROSSHATCH MARKING

W = 8" (IN) FOR POSTED SPEED LIMIT OF 40 MPH OR LOWER
W = 12" (IN) FOR POSTED SPEED LIMIT OF 45 MPH OR HIGHER



MARKING AREA = 6.00 SQ.FT.
FULL MILE MARKER

AERIAL SURVEILLANCE MARKERS

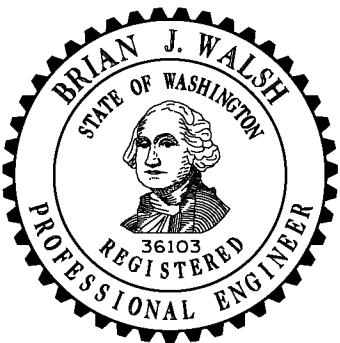


MARKING AREA = 1.06 SQ.FT.
DRAINAGE STRUCTURE INLET

DRAINAGE MARKING

NOTE

1. If Rumble Strips are present, install marking outside of the Rumble Strip.

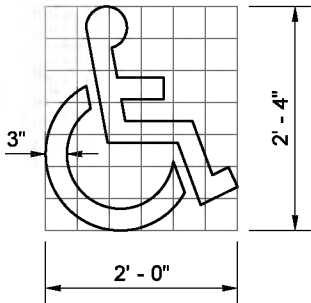


**SYMBOL MARKINGS
MISCELLANEOUS**

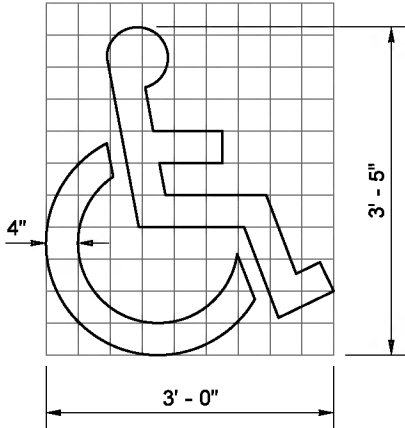
STANDARD PLAN M-24.60-04

SHEET 1 OF 2 SHEETS

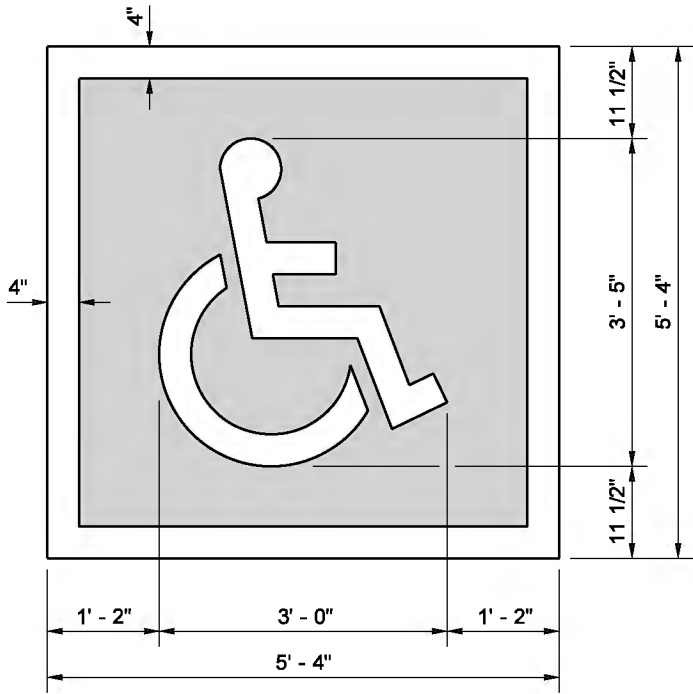
APPROVED FOR PUBLICATION



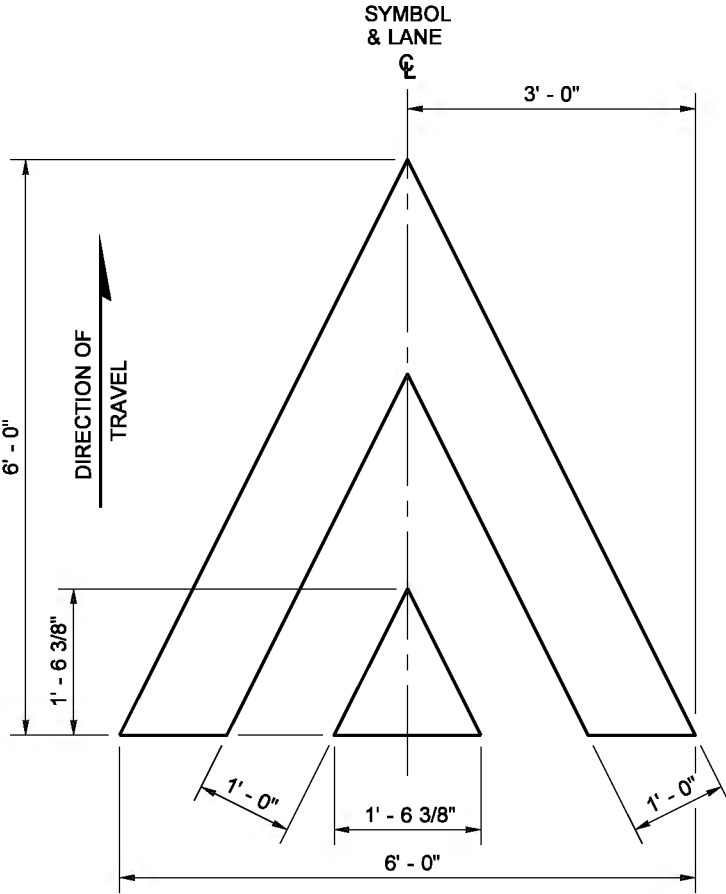
GRID IS 4" (IN) SQUARE MARKING AREA = 1.41 SQ.FT.
ACCESS PARKING SPACE SYMBOL (MINIMUM)



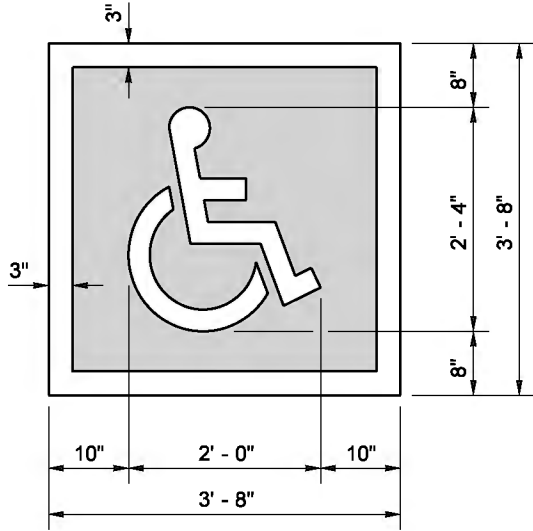
GRID IS 4" (IN) SQUARE MARKING AREA = 3.09 SQ.FT.
ACCESS PARKING SPACE SYMBOL (STANDARD)



TOTAL MARKING AREA = 28.44 SQ.FT.
WHITE = 9.76 SQ.FT. BLUE = 18.69 SQ.FT.
ACCESS PARKING SPACE SYMBOL (STANDARD)
WITH BLUE BACKGROUND AND WHITE BORDER
(REQUIRED FOR CEMENT CONCRETE SURFACES)



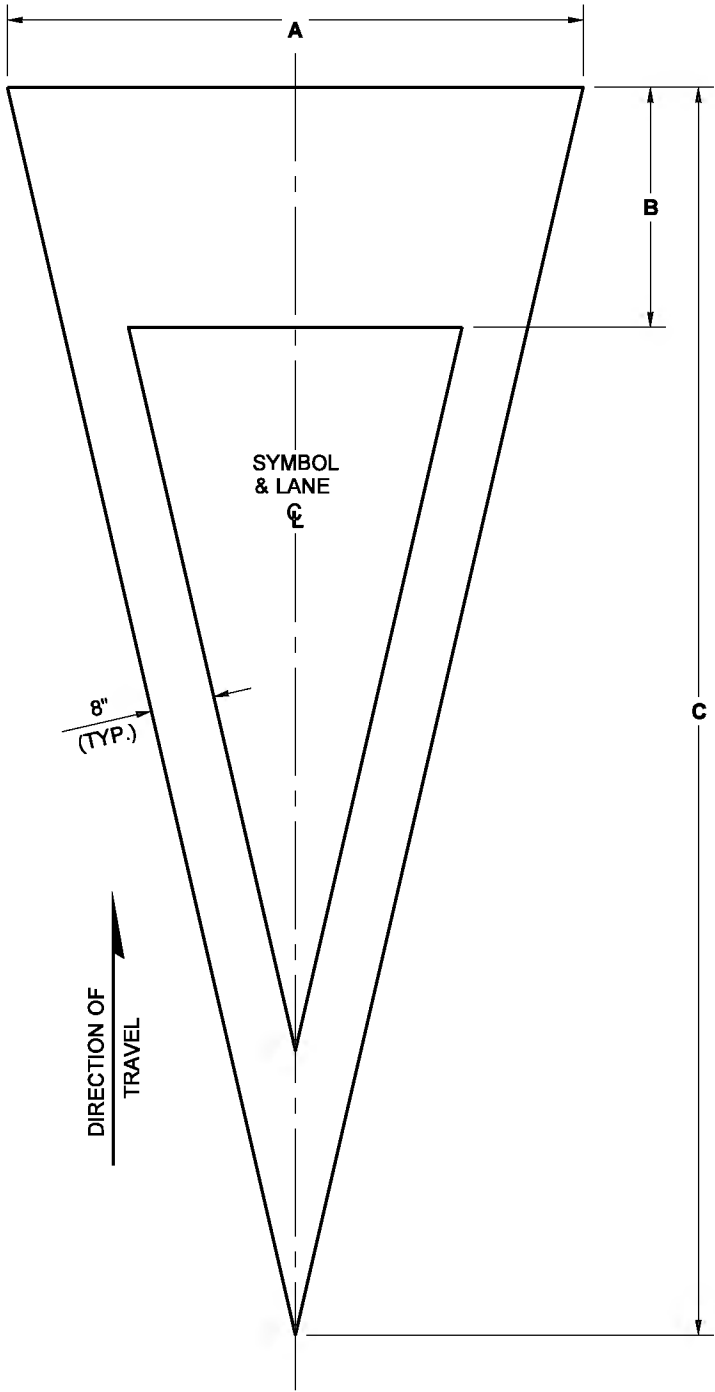
MARKING AREA = 12.08 SQ.FT.
SPEED BUMP SYMBOL



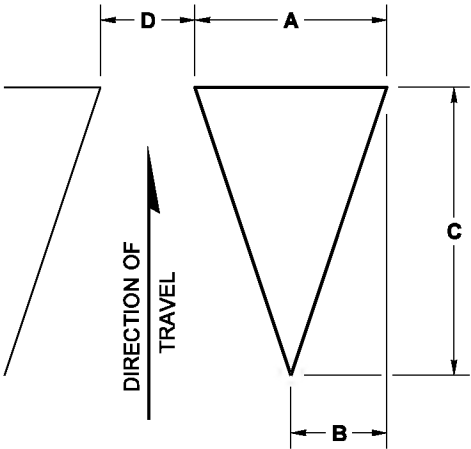
TOTAL MARKING AREA = 13.44 SQ.FT.
WHITE = 4.82 SQ.FT. BLUE = 8.62 SQ.FT.
ACCESS PARKING SPACE SYMBOL (MINIMUM)
WITH BLUE BACKGROUND AND WHITE BORDER
(REQUIRED FOR CEMENT CONCRETE SURFACES)

SYMBOL MARKING		A	B	C	D	USE	MARKING AREA
YIELD AHEAD SYMBOL	TYPE 1	6' - 0"	2' - 6"	13' - 0"	N/A	LESS THAN 45 MPH	25.90 SQ.FT.
	TYPE 2	6' - 0"	3' - 0"	20' - 0"	N/A	45 MPH OR GREATER	36.54 SQ.FT.
YIELD LINE SYMBOL	TYPE 1	1' - 0"	6"	1' - 6"	6"	LESS THAN 45 MPH	0.75 SQ.FT.
	TYPE 2	2' - 0"	1' - 0"	3' - 0"	1' - 0"	45 MPH OR GREATER	3.00 SQ.FT.
	TYPE 2	2' - 0"	1' - 0"	3' - 0"	1' - 0"	ROUNDBOAT ENTRY *	3.00 SQ.FT.

* MINIMUM OF 4 IN LANE



YIELD AHEAD SYMBOL



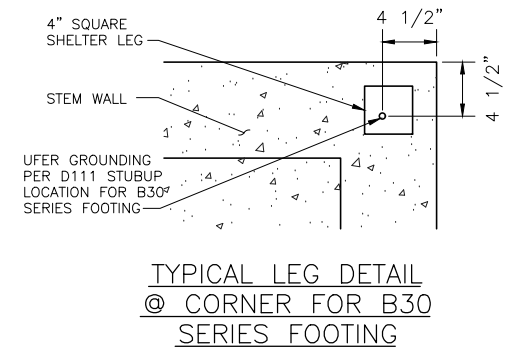
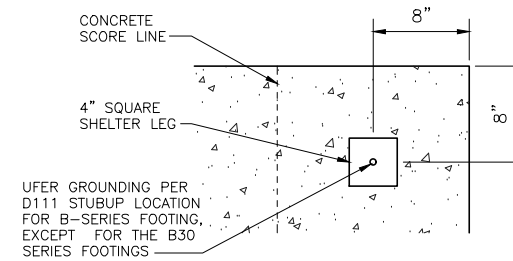
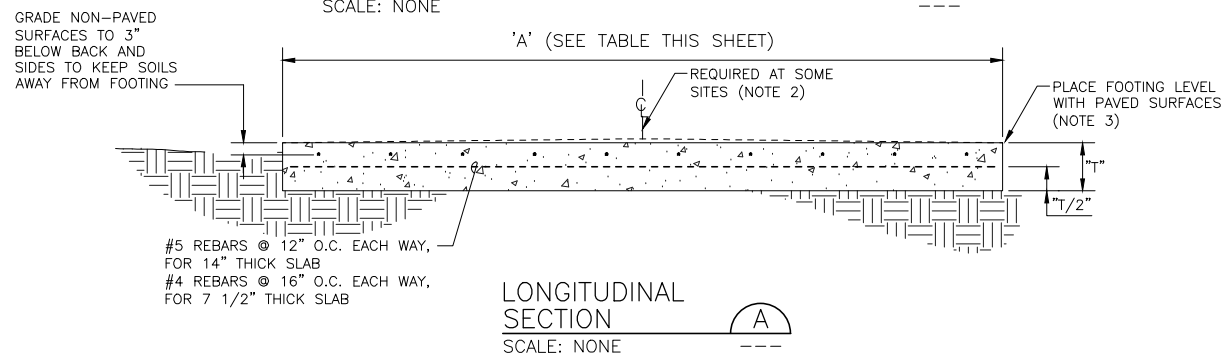
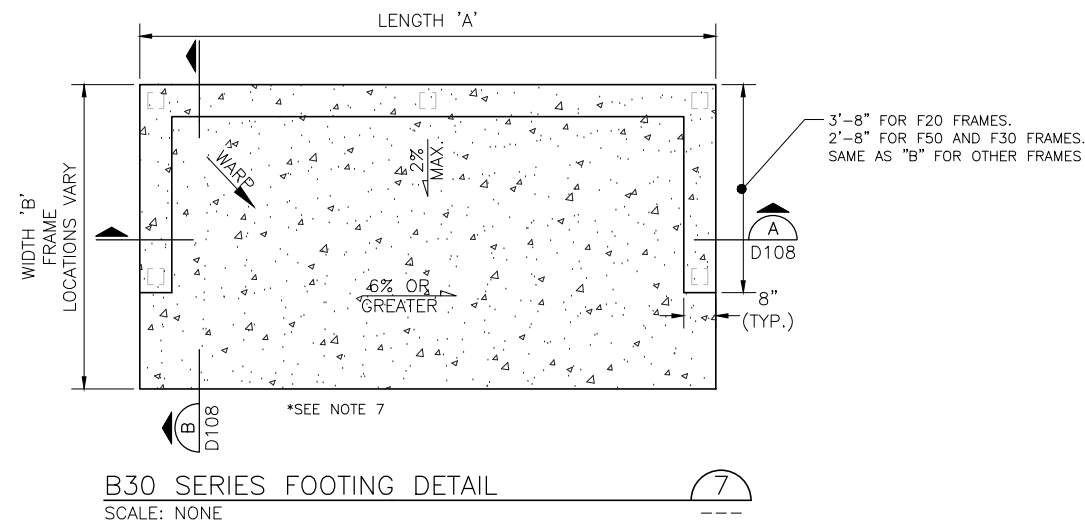
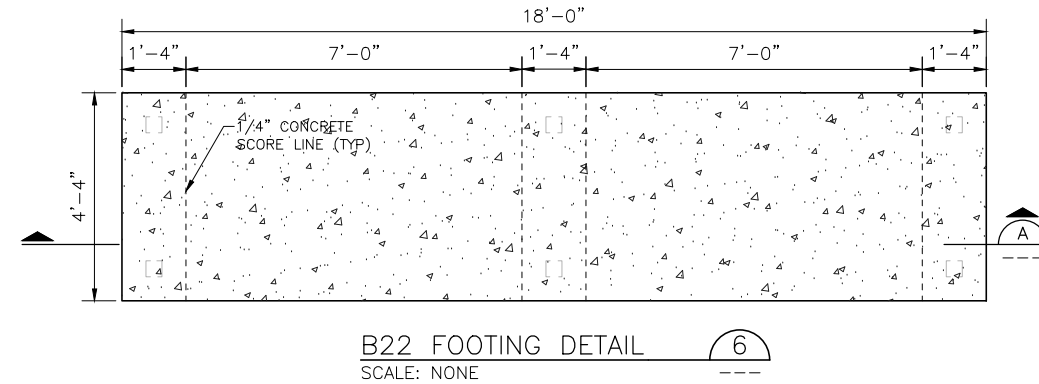
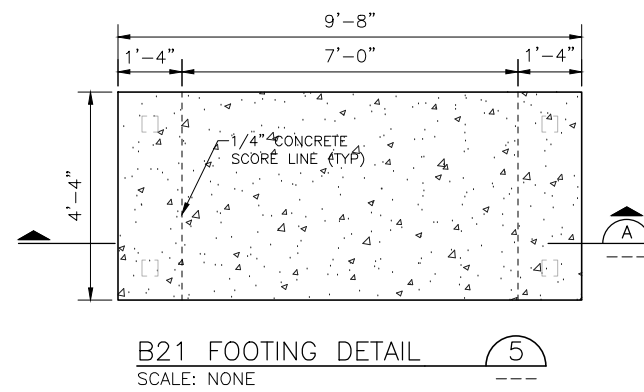
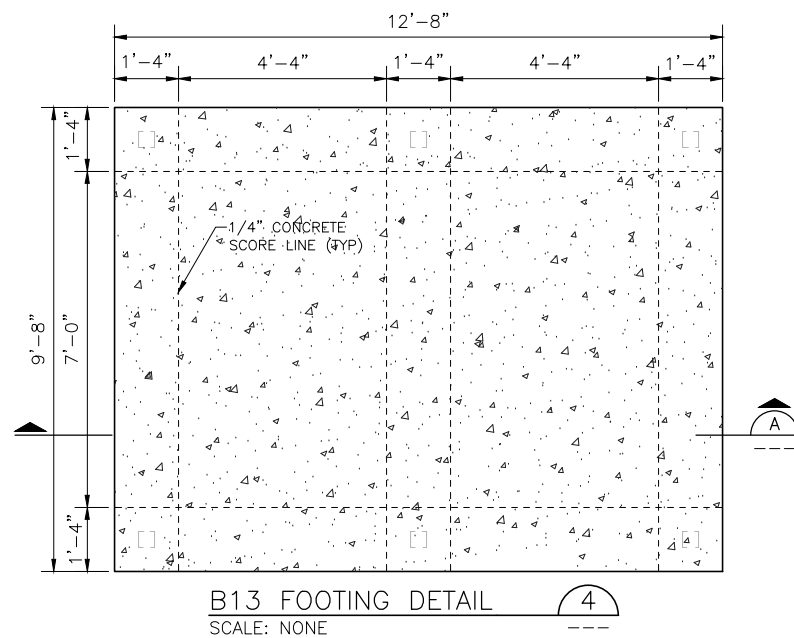
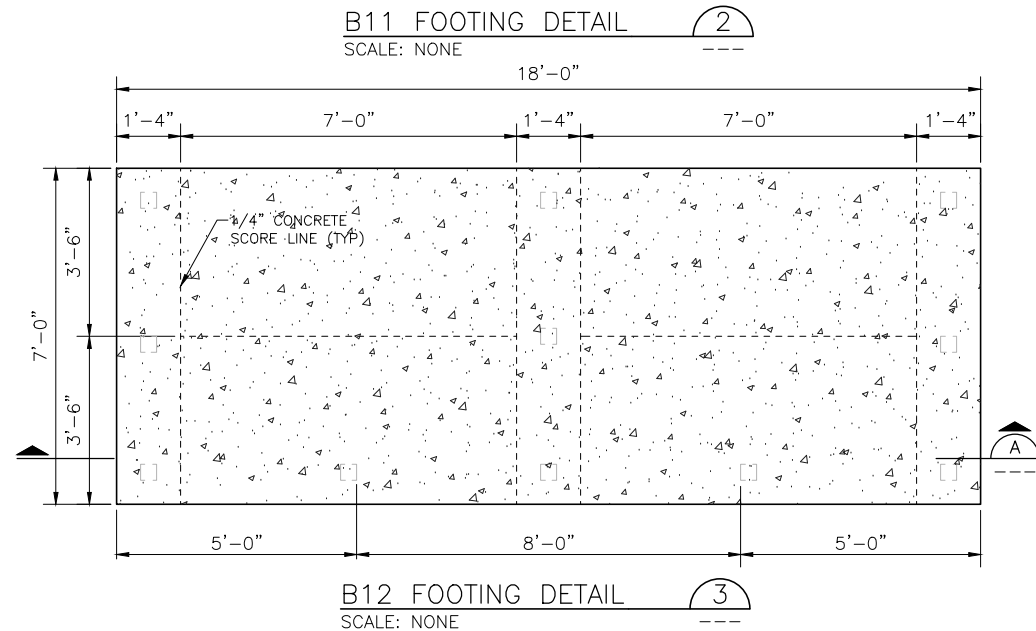
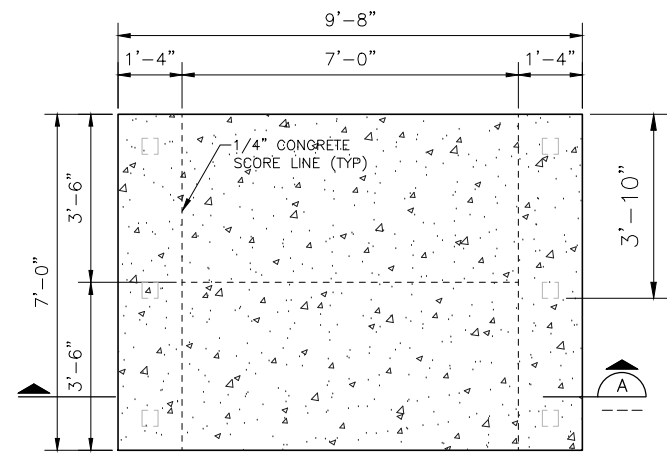
YIELD LINE SYMBOL
(MULTIPLE SYMBOLS REQUIRED
FOR TRANSVERSE YIELD LINE ~
SEE CONTRACT)



**SYMBOL MARKINGS
MISCELLANEOUS**
STANDARD PLAN M-24.60-04

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION



FOOTING DIMENSIONS				
FOOTING TYPE	SHELTER FRAME TYPE	LENGTH 'A'	WIDTH 'B'	SLAB THICKNESS 'T'
B11	PER PLAN	9'-8"	7'-0"	7 1/2"
B12	PER PLAN	18'-0"	7'-0"	7 1/2"
B13	PER PLAN	12'-8"	9'-8"	7 1/2"
B21	PER PLAN	9'-8"	4'-4"	14"
B22	PER PLAN	18'-0"	4'-4"	14"
B31	F11	9'-0"	6'-4"	7 1/2"
B31	F21	9'-0"	4'-4"	14"
B31	F31 OR F51	9'-0"	4'-4"	14"
B32	F12	17'-4"	6'-4"	7 1/2"
B32	F13	12'-0"	9'-0"	7 1/2"
B32	F14	17'-4"	6'-4"	7 1/2"
B32	F22 OR F52	17'-4"	4'-4"	14"
B32	F32	17'-4"	4'-4"	14"

GENERAL NOTES:

1. "1" INDICATES AREAS FOR FUTURE SHELTER LEGS. AVOID PLACING REINFORCEMENT IN THESE AREAS.
2. FOR SITES WITH SLOPES LESS THAN 0.5% IN 'A' DIMENSION, INCREASE DIMENSION AT MIDDLE OF FOOTING BY 1" TO ASSURE PROPER DRAINAGE OF SURFACE WATER.
3. JOINT PER DET 3/D101 TO ISOLATE EDGES FROM PAVEMENT, SIDEWALKS, OR OTHER STRUCTURES.
4. WHEN USING B-32 FOOTING WITH DOUBLE FRAMES, USE A LONGER BEARING SHOE TO SUPPORT THE FRONT MIDDLE LEG (BY METRO).
5. SEE DET D111 FOR CONDUIT AND GROUNDING WIRE.
6. FOOTINGS SHALL BE PLACED TO ENSURE THE SHELTER IS A MINIMUM THREE FEET FROM FACE OF CURB TO THE VERTICAL STRUCTURE; WHICH INCLUDES THE CANTILEVER OVERHANG AND EDGE OF THE SHELTER IF PLACED REVERSE TO CURB.
7. B30 SERIES FOR USE WITH STEM WALL IN AREAS WITH RUNNING GRADES OF 6% OR GREATER.

KCMT 2021-2022 STANDARD DETAILS				
△				
△				
△				
△				
No.	REVISION	BY	APP'D	DATE



DESIGNED:	APPROVED:
K. CHANG YUEN	P. ENG
DRAWN:	
L. ANDERSON	
CHECKED:	PROJECT NO:
K. CHANG YUEN	-
CHECKED:	CONTRACT NO:
C. ASOULITH	-



<p style="text-align: center;">METRO TRANSIT CAPITAL DIVISION</p> <p style="text-align: center;">TRANSIT PASSENGER FACILITIES - IMPROVEMENTS</p> <p style="text-align: center;">STANDARD SHELTER FOOTING PLANS, SECTIONS AND DETAILS</p>	DATE:	05/2022
	DRAWING NO:	D103
	SHEET NO. OF	9 20

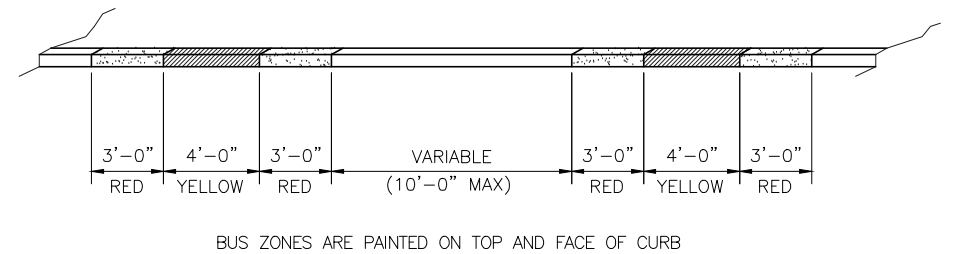
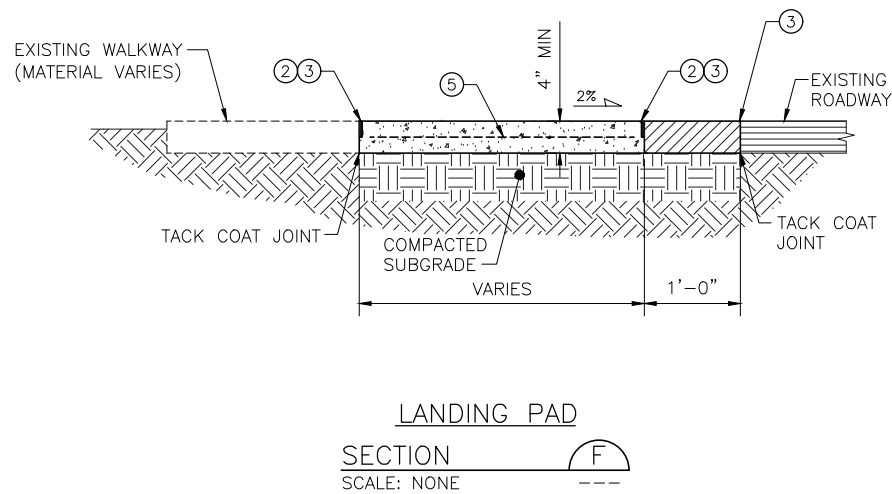
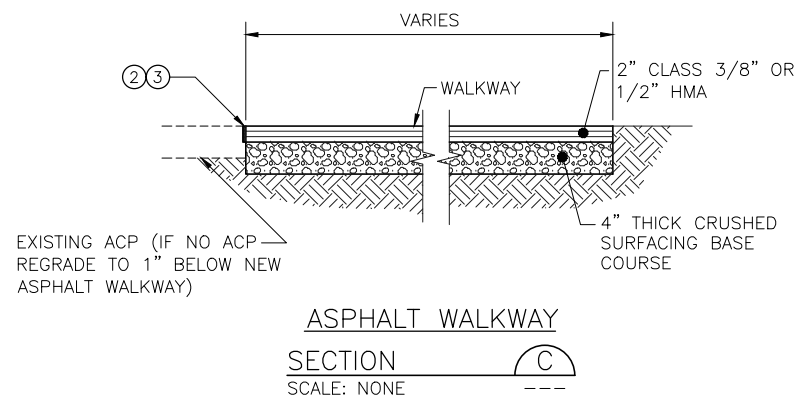
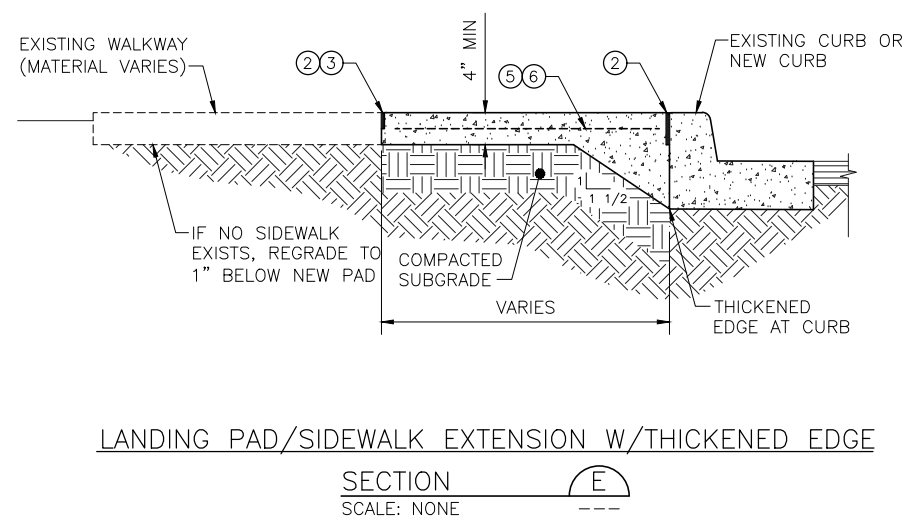
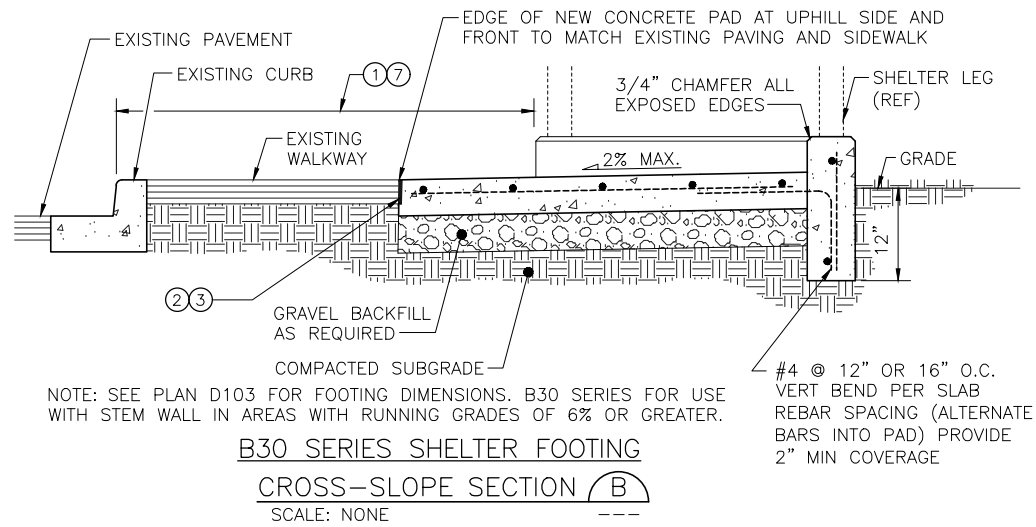
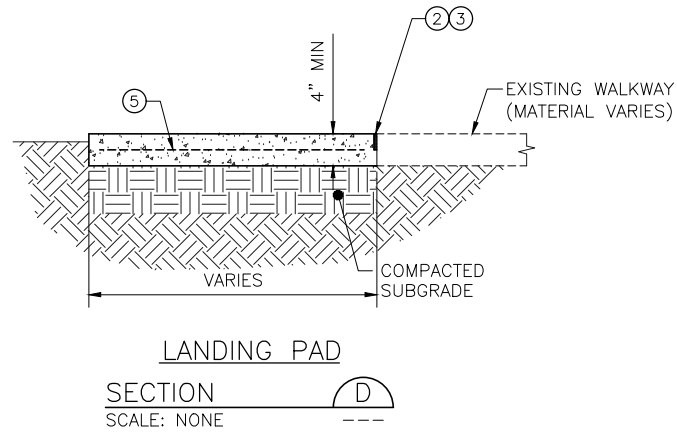
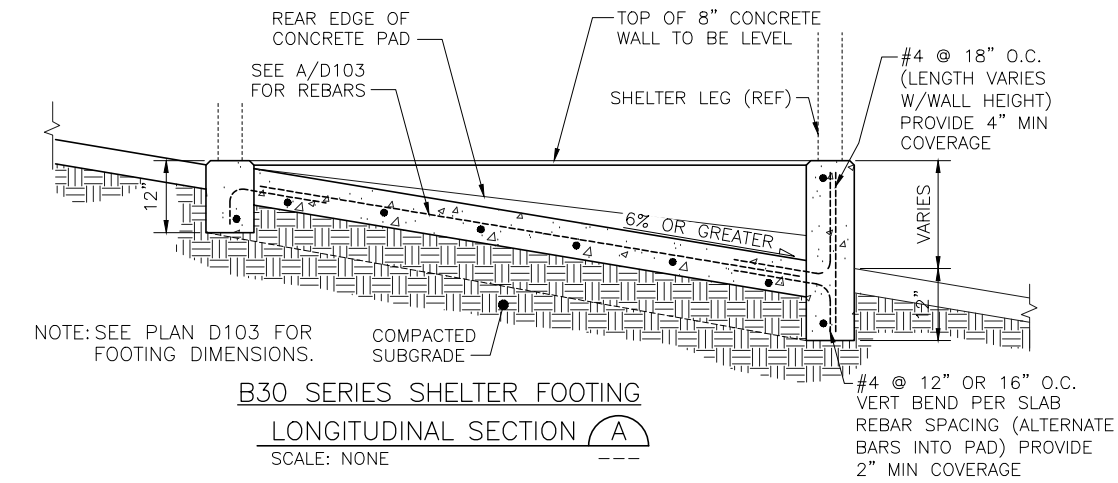
\\dot.kingcounty.kitTransitDCAD_Folders\Project\passenger facilities\standard details\2021-2022 standard details\D108.dwg | Layout: D108
PLOTTED: May 19, 2022 9:08:49pm By: dbennett
XREFS: KCMTD-BORDER.dwg
IMAGES:

GENERAL NOTES

1. NEW WALKWAYS AND LANDING PADS SHALL BE BUILT TO MATCH WITH EXISTING SURFACE TO MAINTAIN NATURAL DRAINAGE COURSES. TYPICAL PASSENGER LANDING PAD DIMENSIONS SHALL BE AS SHOWN ON THE PLANS AND AS REQUIRED TO MATCH EXISTING SIDEWALK JOINTS OR SCORES WHERE APPLICABLE.

CONSTRUCTION NOTES

1. FOR ADA, MINIMUM HORIZONTAL CLEARANCE BETWEEN FACE OF CURB AND FACE OF ANY STRUCTURE SHALL BE 4 FT. UNLESS OTHERWISE NOTED ON DRAWING.
2. JOINT PER DET 3/D101 TO ISOLATE EDGES FROM PAVEMENT, SIDEWALKS, OR OTHER STRUCTURES.
3. SAWCUT EXISTING PAVEMENT TO STRAIGHT VERTICAL LINES TO PLACE NEW CONSTRUCTION ELEMENTS.
4. CLASS 1/2" HMA OR AS REQUIRED BY LOCAL JURISDICTION. MATCH EXISTING PAVEMENT THICKNESS.
5. WWF 4x4-6/6
6. WWF NOT NEEDED FOR SIDEWALK EXTENSION.
7. SHELTER SHALL BE PLACED SO VERTICAL STRUCTURE, INCLUDING CANTILEVER OVERHANG, SHALL BE A MINIMUM 3 FT FROM FACE OF CURB.



KCMT 2021-2022 STANDARD DETAILS					
△					
△					
△					
△					
No.	REVISION	BY	APP'D	DATE	



DESIGNED: K. CHANG YUEN	APPROVED: P. ENG
DRAWN: L. ANDERSON	
CHECKED: K. CHANG YUEN	PROJECT NO: -
CHECKED: C. ASQUITH	CONTRACT NO: -



METRO TRANSIT CAPITAL DIVISION TRANSIT PASSENGER FACILITIES - IMPROVEMENTS		DATE: 05/2022
B30 SERIES SHELTER FOOTING CROSS SECTIONS, DETAILS AND BUS ZONE PAINTING		DRAWING NO: D108
		SHEET NO. OF 15 20

APPENDIX C
COMBINED RIGHT-OF-WAY DOCUMENTS

PROPERTY RELEASE

(Contractor's name and address)

DATE: _____

I, _____ owner of

_____, hereby release _____,
_____(Contractor's name)

from any property damage or personal injury resulting from construction on or adjacent to my property located at _____ during construction of the _____. My signature below is my acknowledgment and acceptance that my property, as identified above, was returned to a satisfactory condition.

Signed: _____

Name: _____

Address: _____

Phone: _____

PARCEL 2826059222
YEN'S LLC

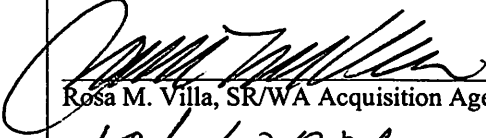
REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033	I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) _____	
GRANTOR or CLAIMANT		
Voucher Payment made payable to: The Rodgers Deutsch & Turner Trust Account 3 Lake Bellevue Drive, Suite 100 Bellevue, WA 98005 For the benefit of Grantor Yen's, LLC	By: _____ 11-1-21 Its: _____ Governor Yen's, LLC By: _____ John Paul Turner Its: _____ Member / Partner Rodgers Deutsch & Turner	
PROJECT NUMBER: TITLE: 124 TH AVENUE NE STREET IMPROVEMENTS	Tax ID : 282605-9222	PARCEL: P-222
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED, SLOPE EASEMENT, AND TEMPORARY CONSTRUCTION PERMIT.		AMOUNT
Dated: _____ For All Lands Conveyed: Warranty Deed, 1,674 SF Slope Easement, 186 SF Temporary Construction Permit (MUTUAL BENEFITS) For All Improvements 1. Landscaping and asphalt (no contributory value) 2. Pole Light one For All Damages: _____		+\$234,000.00 + \$7,000.00 + \$0.00 + \$0.00 + \$8,000.00 + \$0.00
JUST COMPENSATION (rounded)		\$249,000.00
Legal/Administrative: Administrative settlement of \$31,000 to avoid condemnation		\$41,000.00
FINAL SETTLEMENT		\$41,000.00

Other Items: Construction Commits:

1. The City agrees to keep the driveway access off 124th Avenue NE as part of the project.
2. Access/Driveways/ Approaches. The centerline of the southernmost driveway off 124th Ave NE will be shifted north approximately 8 feet, and the driveway approach shall be approximately twenty-four (24) feet wide.
3. The City would give you notice no later than twenty-four (24) hours before beginning construction of the driveway approach off 124th Avenue NE.
4. During construction, the City shall maintain all driveway approaches and keep all driveway approaches in good condition and accessible to customers and delivery trucks.
5. During construction, the City shall provide a well-graded and well-drained temporary driveway at the location of the current southernmost driveway off 124th Ave NE. The driveway must be in good condition and suitable for vehicular traffic, including delivery and fuel trucks, from the abutting roadway (124th Avenue NE) to the existing driveway. The temporary approach shall provide a firm temporary paved surface for pedestrians crossing the approach at a maximum of 2% cross slope.
6. The City would reconstruct Arco's driveway entrance in two segments to permit continuous access to the driveway. The abutting owner's driveway (Taco Bell) off 124th Avenue NE shall remain unimpeded and fully accessible during the reconstruction of Arco's driveway off 124th Avenue NE and vice versa. When the concrete in this segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City shall allow routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment.
7. The approximate time to construct a driveway approach (within city right-of-way) would take approximately sixty (60) working days during construction. The approximate timeline to re-grade and pave beyond the driveway approach shall be the sum of not more than fifteen (15) non-consecutive working days during the period of the Temporary Construction period.
8. The City shall provide continuous temporary portable signs directing customers and delivery trucks through the construction area to the Arco business.
9. No later than one (1) calendar day prior to the commencement of the construction, the City shall provide the Property Owner an emergency contact list shall include at a minimum contact information of the on-site Construction Manager, the City Project Engineer. The Emergency Contact List shall include 24-hour telephone numbers and emails for all individuals identified as emergency contacts or their alternates.
10. The construction working hours for the entire project would from 8:00 AM to 3:00 PM during a working day. Duration of construction is estimated to take approximately 18 to 24 months to complete, excluding weather delays.
11. During the entire construction process, the City's contractors shall not park and/or store any vehicles and/or equipment, materials or supplies overnight on the property.

SUBTOTAL**\$ 0.00**

Dedications: None		
SUBTOTAL		\$ 0.00
TOTAL AMOUNT TO BE PAID:		\$290,000.00
 _____ Rosa M. Villa, SR/WA Acquisition Agent 12/1/2021 _____ Date	The City of Kirkland agrees to the terms and conditions listed above: _____ Public Works Director _____ Date	

☐ Original – Public Works

Temporary Construction Permit 282605-9222

City Project: 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this _____ day of _____, 2021, by and between **Yen's, LLC, a Washington limited liability company**, hereinafter called the Grantor(s), and the City of Kirkland, a Washington municipal corporation of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: 282605-9222 having the street address of: 11600 124th Ave NE, Kirkland, WA 98034-8109.

BRIEF LEGAL DESCRIPTION: Subdivision: Ptn in SW of SE of 28-26-5E

NOW, THEREFORE, in consideration for reconnecting the driveway as depicted in Exhibit B, the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the Property for the purposes of reconnecting the driveway off 124th Avenue NE for minor slope flattening, or and contouring if affected by the project. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions

See Exhibit A, and more specifically as depicted in Exhibit B, attached hereto and made a part hereof

This Agreement shall commence upon the date listed below and continue until December 31, 2024.

In the event Grantee cannot access some or all of the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. Property Access (Owner):

Name: YEN'S, LLC

Title: Lydia - Governor

Telephone #: 206-660-1648

Email: KAKA726@MSN.COM

PERMIT

2. Property Access (Contact Persons):

Name: Lydia Yen
Title: Governor
Telephone #: 206-660-1648
Email: KAKA726@MSN.com

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

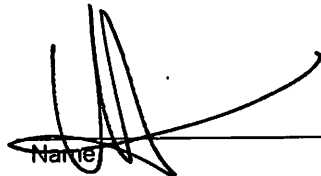
This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, P.E., Project Manager, City of Kirkland, at (425) 587-3872 or by email at pherbig@kirklandwa.gov

Miscellaneous Provisions.

- a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.
- b. **No Third Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

Acceptance by the Grantee: _____
Director of Public Works, CITY OF KIRKLAND

OWNER


Name

11-1-21
Date

Name

Date

PERMIT

EXHIBIT "A" Legal Description

For APN/Parcel ID(s): 282605-9222

That portion of the South Half of the Southwest Quarter of the Southeast Quarter of Section 28, Township 26 North, Range 5 East, Willamette Meridian, in King County, Washington, described as follows:

Beginning at the Southeast corner of said subdivision;
Thence South 88°19'17" West, along the South line of said subdivision, a distance of 708.81 feet;
Thence North 01°17'15" East 431.82 feet;
Thence South 88°50'58" West 326.97 feet to the Southeasterly margin of Slater Avenue Northeast;
Thence South 41°14'03" West, along said Southeasterly margin, 213.71 feet to a point on a curve, the center of which bears South 84°11'27" East 360.00 feet;
Thence Southerly along said curve to the left, through a central angle of 01°53'33" an arc distance of 11.89 feet;
Thence South 03°55'00" West 61.21 feet to the North line of the South 205.00 feet of said subdivision and to the true point of beginning;
Thence South 03°55'00" West, 153.17 feet to a point of a curve;
Thence on a curve to the right, having a radius of 25.00 feet, through a central angle of 84°24'17", an arc distance of 36.83 feet to a point of tangency on the North margin of Northeast 116th Street;
Thence South 89°19'17" West, along said North margin, 152.30 feet to the East margin of 124th Avenue Northeast;
Thence North 01°43'38" East, along said East margin, 175.31 feet to the North line of the South 205.00 feet of said subdivision;
Thence North 88°19'17" East, along said North line, 181.70 feet to the true point of beginning;

EXCEPT that portion thereof conveyed to the City of Kirkland by Deed recorded under recording number 20020628003321; (Also known as a portion of Parcel A of unrecorded King County Lot Line Adjustment Number 384067);

TOGETHER WITH an easement for ingress and egress over that portion of the South Half of the Southwest Quarter of the Southeast Quarter of Section 28, Township 26 North, Range 5 East, Willamette Meridian, in King County, Washington, described as follows:

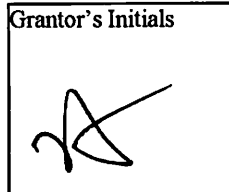
Beginning at the Southeast corner of said subdivision;
Thence South 88°19'17" West, along the South line of said subdivision, a distance of 708.81 feet;
Thence North 01°17'15" East, 431.82 feet;
Thence North 88°50'58" East 326.97 feet to the Southeasterly margin of Slater Avenue Northeast;
Thence South 41°14'03" West, along said Southeasterly margin, 213.71 to a point on a curve, the center of which bears South 84°11'27" East, 360.00 feet;
Thence Southerly along said curve to the left, through a central angle of 01°53'33" an arc distance of 11.89 feet;
Thence South 03°55'00" West 61.21 feet to the North line of the South 205.00 feet of said subdivision;
Thence South 88°19'17" West, along said North line, 181.70 feet to the East margin of 124th Avenue Northeast and the true point of beginning;
Thence North 01°43'38" East along said East margin 55.00 feet;

PERMIT

Thence South $44^{\circ}58'33''$ East, 75.44 feet to a point which bears North $88^{\circ}19'17''$ East 55.00 feet from the true point of beginning;

Thence South $88^{\circ}19'17''$ West 55.00 feet to the true point of beginning.

(Also known as a portion of Parcel B of unrecorded King County Lot Line Adjustment Number 384067).



PERMIT




SEE ATTACHED

EXHIBIT "B"

EXHIBIT "B"



LEGEND:

-  RIGHT-OF-WAY ACQUISITION
-  TEMPORARY CONSTRUCTION EASEMENT
-  SLOPE EASEMENT

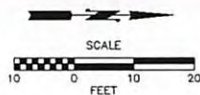


EXHIBIT DRAWING
FOR INFORMATIONAL
PURPOSES ONLY

PERTEET
2707 COLBY AVENUE, SUITE 900
EVERETT, WA 98201
425.282.7700 | 800.655.9900

CITY OF KIRKLAND
124TH AVE NE ROADWAY IMPROVEMENTS
PROJECT NO. 20160144
MAY 18, 2020

124TH AVE NE
PARCEL EXHIBIT
PARCEL #: 2826059222

PARCEL 2826059188
CHAPMAN

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) _____	
GRANTOR or CLAIMANT		By: <u>David T. Chapman</u> 1/20/2022 Its: <u>OWNER</u>	
David Chapman 1716 Darcy Lane SE Olympia, WA 98501			
PROJECT NUMBER: TITLE: 124 TH AVENUE NE STREET IMPROVEMENTS		Tax ID : 282605-9188	PARCEL: P-188
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED AND PERMIT TEMPORARY CONSTRUCTION EASEMENT, Dated:		AMOUNT \$400,850.00.	
For All Lands Conveyed: Warranty Deed: 2,403 SF Temporary Construction Easement: 209 SF <i>Temporary Construction Permit</i>		+ \$313,000.00 + \$3,000.00 + \$0.00 + \$0.00 + \$45,000.00	
For All Improvements: landscaping and asphalt (no contributory value) For All Damages: Cost to Cure - Pole Lights		<i>D.T.P.</i>	
JUST COMPENSATION (rounded)		\$361,000.00	
Legal/Administrative: The City agrees to pay \$39,100.00 as an administrative settlement payment to avoid condemnation.		\$39,100.00	
FINAL SETTLEMENT		\$ 0.00	

Other Items:

1. The City would give you notice no later than twenty-four (24) hours before beginning construction of the driveway approach off 124th Avenue NE.
2. During construction, the City shall maintain all driveway approaches and keep all driveway approaches in good condition and accessible to customers and delivery trucks.
3. The City would reconstruct the driveway entrance in two segments to permit continuous access to the driveway. When the concrete in this segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City shall allow routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment.
4. The City shall provide continuous temporary portable signs directing customers and delivery trucks through the construction area.
5. The construction working hours for the entire project would from 8:00 AM to 3:00 PM during a working day. Duration of construction is estimated to take approximately 18 to 24 months to complete, excluding weather delays.
6. During the entire construction process, the City's contractors shall not park and/or store any vehicles and/or equipment, materials or supplies overnight on the property.

7. City agrees to pay \$750.00 as required under RCW 8.25.020.

\$750.00 D.F.C.

SUBTOTAL

~~\$ 0.00~~ 750.00

Dedications:

D.F.C.

SUBTOTAL

\$ 0.00

TOTAL AMOUNT TO BE PAID:

~~\$400,100.00~~

\$400,850.00 D.F.C.

The City of Kirkland agrees to the terms and conditions listed above:

Rosa M. Villa, SR/WA Acquisition Agent

Public Works Director

Date

Date

☐ Original - Public Works

Temporary Construction Permit 282605-9188

City Project 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this _____ day of _____, 2022, by and between David Chapman, as his separate estate, hereinafter called the Grantor(s), and the City of Kirkland, a Washington municipal corporation of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: 282605-9188 having the street address of: Vacant 124th Ave NE, Kirkland, WA 98034-8109.

BRIEF LEGAL DESCRIPTION: Ptn SW 1/4 SE 1/4 Sec 28, T26N, R5E, W.M. Tax Account No.: 282605-9052

NOW, THEREFORE, in consideration for reconnecting the driveway as depicted in Exhibit B, the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the Property outside the Temporary Construction Easement areas for the purposes of reconnecting driveway(s) for minor slope flattening, or and contouring, including restriping of any parking stall affected by the project. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions

See Exhibit A, and more specifically as depicted in Exhibit B, attached hereto and made a part hereof

This Agreement shall commence upon the date listed below and continue until December 31, 2024.

In the event Grantee cannot access some or all of the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. Property Access (Owner): David Chapman

Name: David Chapman

Title: Owner

Telephone #: (360) 943-1443

Email: pac42@live.com

PERMIT

2. Property Access (Contact Persons):

Name: Peggy Chapman
Title: Spouse
Telephone #: (206) 498-1350
Email: same

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, P.E., Project Manager, City of Kirkland, at (425) 587-3872 or by email at pherbig@kirklandwa.gov

Miscellaneous Provisions.

a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.

b. **No Third-Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

Acceptance by the Grantee: _____
Director of Public Works, CITY OF KIRKLAND

**OWNER
DAVID CHAPMAN**

By: David C. Chapman

David Chapman
Print Name


1/20/2022
Date

PERMIT

EXHIBIT "A"
Legal Description

For APN/Parcel ID(s): 282605-9188

LOT 2, KING COUNTY SHORT PLAT NO. 377058 REVISION, RECORDED UNDER RECORDING NO.7909190757, BEING A REVISION OF THE SHORT PLAT RECORDED UNDER RECORDING NO.7708180970 IN KING COUNTY, WASHINGTON

Grantor's Initials


PERMIT

SEE ATTACHED.

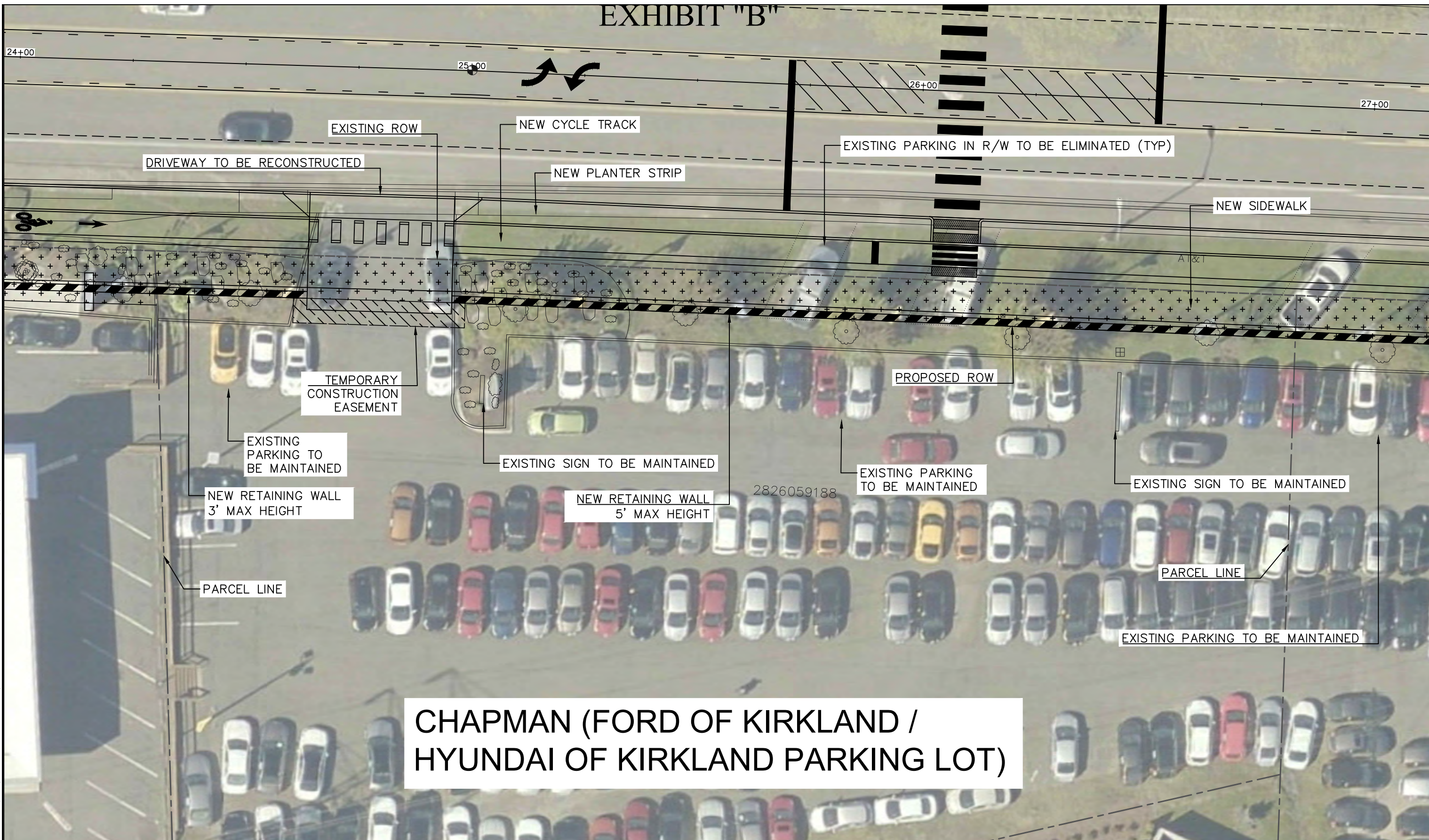
EXHIBIT "B"

**FA No. STPUL-2053(002)
Project No. J
Parcel No. P-188**

Page 4 of (4) Pages

**LPA-326
10/2014
P-188 Permit.doc 202201201058**

EXHIBIT "B"



CHAPMAN (FORD OF KIRKLAND /
HYUNDAI OF KIRKLAND PARKING LOT)

LEGEND:

	RIGHT-OF-WAY ACQUISITION
	TEMPORARY CONSTRUCTION EASEMENT
	SLOPE EASEMENT

SCALE

10 0 10 20

FEET

EXHIBIT DRAWING

FOR INFORMATIONAL
PURPOSES ONLY

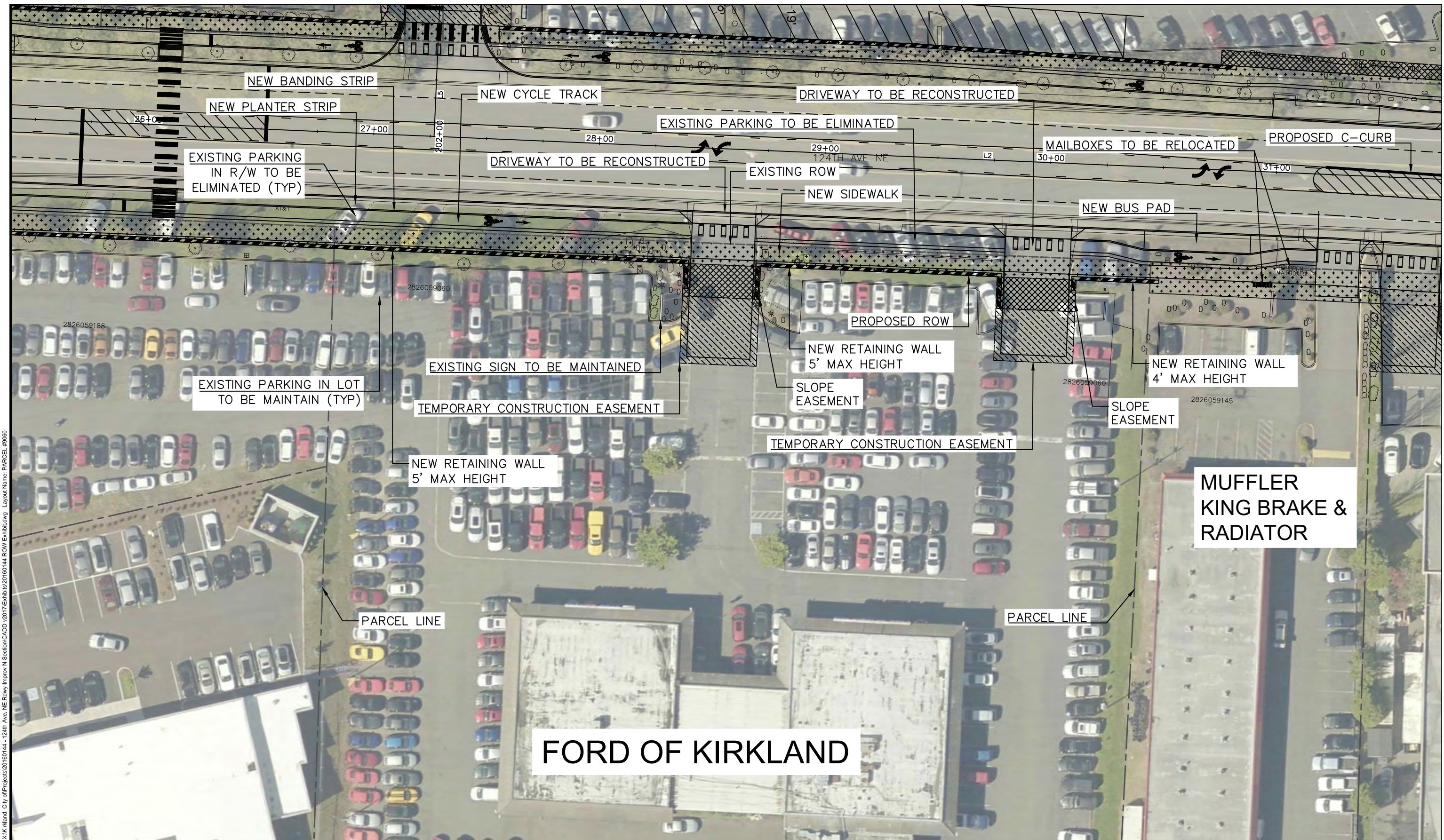
PERITEET

2707 COLBY AVENUE, SUITE 900
EVERETT, WA 98201
425.252.7700 | 800.615.9900

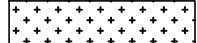





CITY OF KIRKLAND
124TH AVE NE ROADWAY IMPROVEMENTS

PROJECT NO. 20160144
JANUARY 24, 2020

124TH AVE NE
PARCEL EXHIBIT
PARCEL #: 2826059188

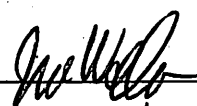


Jan 27, 2020 - 2:19pm scottirax X:\Kirkland, City of\Projects\20160144 - 124th Ave, NE Rdwy Improv\N Section\CADD\2017\Exhibits\20160144 ROW Exhib.dwg Layout Name: PARCEL #9060

LEGEND:  RIGHT-OF-WAY ACQUISITION  TEMPORARY CONSTRUCTION EASEMENT  SLOPE EASEMENT	 SCALE  20 0 20 40 FEET	EXHIBIT DRAWING FOR INFORMATIONAL PURPOSES ONLY	 PERITEET 2707 COLBY AVENUE, SUITE 900 EVERETT, WA 98201 425.252.7700 800.615.9900	CITY OF KIRKLAND 124TH AVE NE ROADWAY IMPROVEMENTS PROJECT NO. 20160144 JANUARY 24, 2020	124TH AVE NE PARCEL EXHIBIT PARCEL #: 2826059060
---	---	--	--	---	--

PARCEL 2826059060
KIRKLAND TOTEM RE PARTNERS LLC

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) _____	
GRANTOR or CLAIMANT			
Kirkland Totem RE Partners LLC 11800 124 th Avenue NE, Kirkland WA 98034-8109		By: <u></u> <u>1/17/22</u> Its: <u>member</u>	
PROJECT NUMBER: TITLE: 124 TH AVENUE NE STREET IMPROVEMENTS		Tax ID : 282605-9060	PARCEL: P-060
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEEDS, SLOPE EASEMENT, TEMPORARY CONSTRUCTION EASEMENTS, AND TEMPORARY CONSTRUCTION PERMIT Dated:		AMOUNT	
For All Lands Conveyed: Warranty Deed: 3,440 SF Slope Easement: 982 SF Temporary Construction Easement: 1,817 SF Temporary Construction Permit (mutual benefits) For All Improvements: landscaping and asphalt (no contributory value) For All Damages: Cost to Cure – Pole Lights		+ \$268,500.00 + \$31,500.00 + \$13,000.00 + \$0.00 + \$0.00 + \$52,500.00	
JUST COMPENSATION (rounded)		\$365,500.00	
Legal/Administrative: 1. The City agrees to pay \$148,599.00 as an administrative settlement to avoid condemnation.		\$148,599.00	
FINAL SETTLEMENT		\$148,599.00	

Other Items:

1. During construction, the City shall maintain and provide a well-graded and well-drained driveway approach off 124th Avenue Northeast. The driveway approach will be kept in good condition and accessible to customers and delivery trucks.
2. The City will reconstruct the driveway entrance in two segments to permit continuous access to the driveway. When the concrete in this segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City shall allow routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment.
3. The City shall re-grade driveway entrances surrounding the Temporary Construction Easement areas by use of permit for minor slope flattening and/or contouring, including striping of any parking stall affected by the project.
4. The construction working hours for the entire project are estimated to be from 8:00 AM to 3:00 PM during a working day. Duration of construction is estimated to take approximately 24 months to complete, excluding weather delays.
5. During the entire construction process, the City's contractors shall not park and/or store any vehicles and/or equipment, materials or supplies overnight on the property.
6. The City shall remove all improvements within the new and existing right-of-way, including but not limited to shrubbery, trees, grass, walls, fences, pole lights, signs, mailboxes, structures, roadways, sidewalks, curbs and similar items or structures in the way of all excavation necessary for the construction of the project. Any existing irrigation/sprinkler systems will be cut and capped off at the new right-of-way line.

SUBTOTAL

\$ 0.00

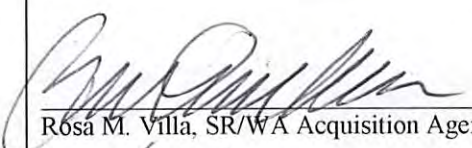
Dedications:

SUBTOTAL

\$ 0.00


TOTAL AMOUNT TO BE PAID:

\$514,099.00


Rosa M. Villa, SR/WA Acquisition Agent

Date

The City of Kirkland agrees to the terms and conditions listed above:


Public Works Director

Date

☐ Original – Public Works

TEMPORARY CONSTRUCTION PERMIT 282605-9060

City Project: 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this _____ day of _____, 2022, by and between **Kirkland-Totem Real Estate Partners LLC, a Washington limited liability company**, hereinafter called the Grantor(s), and the City of Kirkland, a Washington municipal corporation of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: **282605-9060** having the street address of: **11800 124th Ave NE, Kirkland, WA 98034-8109**.

BRIEF LEGAL DESCRIPTION: SW 1/4 SE 1/4 Sec 28, T26N, R5E, W.M. Tax Account No.: 282605-9060

NOW, THEREFORE, in consideration for reconnecting the driveway as depicted in Exhibit B, the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the Property outside the Temporary Construction Easement areas for the purposes of reconnecting driveway(s) for minor slope flattening, or and contouring, including restriping of any parking stall affected by the project as shown in Exhibit B. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions

See Exhibit A, and more specifically as depicted in Exhibit B, attached hereto and made a part hereof

This Agreement shall commence upon the date listed below and continue until December 31, 2024.

In the event Grantee cannot access some or all of the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. Property Access (Owner):

Name: Kirkland-Totem Real Estate Partners LLC

Title: Hamid

Telephone #: 425-891-4946

Email: Hamid@Kirkland.com

PERMIT

2. Property Access (Contact Persons):

Name: _____
Title: Same
Telephone #: _____
Email: _____

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, P.E., Project Manager, City of Kirkland, at (425) 587-3872 or by email at pherbig@kirklandwa.gov

Miscellaneous Provisions.

a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.

b. **No Third-Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

Acceptance by the Grantee: _____

Director of Public Works, CITY OF KIRKLAND

OWNER

James D. O'Leary
James D. O'Leary
MPM/pe
Name
1/17/22
Date

PERMIT

EXHIBIT "A" Legal Description

That portion of the Southwest quarter of the Southeast quarter of Section 28, Township 26 North, Range 5 East, Willamette Meridian, in King County, Washington, lying Westerly of County Road No. 970, more particularly described as follows:

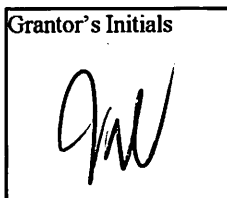
Commencing at the South quarter corner of said Section 28;
thence North 01°43'38" East along the West line of said subdivision, a distance of 684.18 feet to the true point of beginning of this description;
thence South 88°02'22" East 472.32 feet, more or less, to the Westerly margin of said County Road No. 970;
thence North 41°16'29" East along said margin 309.44 feet to a point of curve;
thence North along said curve, concave to the Northwest, 205.85 feet, more or less, to an intersection with the South line of the North 100 feet of that portion of said subdivision lying South of the North 3.5 acres of said subdivision lying Westerly of said County Road No. 970;
thence South 89°08'54" West along said South line 775.60 feet, more or less, to the West line of said subdivision;
thence South 01°43'38" West along said West line 377.66 feet, more or less, to the true point of beginning of this description;

Except the following described property:

Beginning at the intersection of the West line of said subdivision and the South line of the North 100 feet of that portion of the Southwest quarter of the Southeast quarter of said Section 28, lying South of the North 3.5 acres of said subdivision, lying Westerly of said County Road No. 970;
thence South 01°43'38" West along said West line 16.84 feet;
thence South 87°09'26" East 625.09 feet;
thence North 89°08'54" East 122.68 feet, more or less, to the Westerly margin of said County Road No. 970;
thence Northeasterly along said margin 64.47 feet, more or less, to the South line of said North 100 feet;
thence South 89°08'54" West 775.60 feet, more or less, to the West line of said subdivision, and the point of beginning of this description; and

Except that portion conveyed to King County for road purposes by deed recorded under Recording No. 6563362

Grantor's Initials



PERMIT

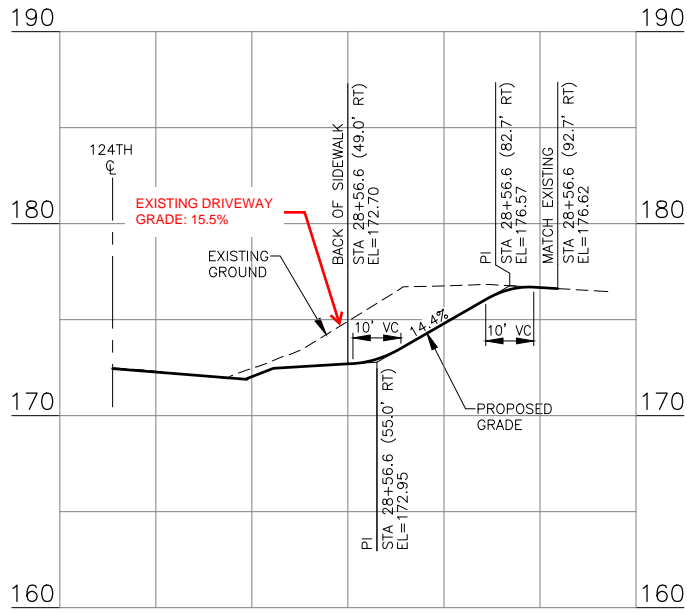
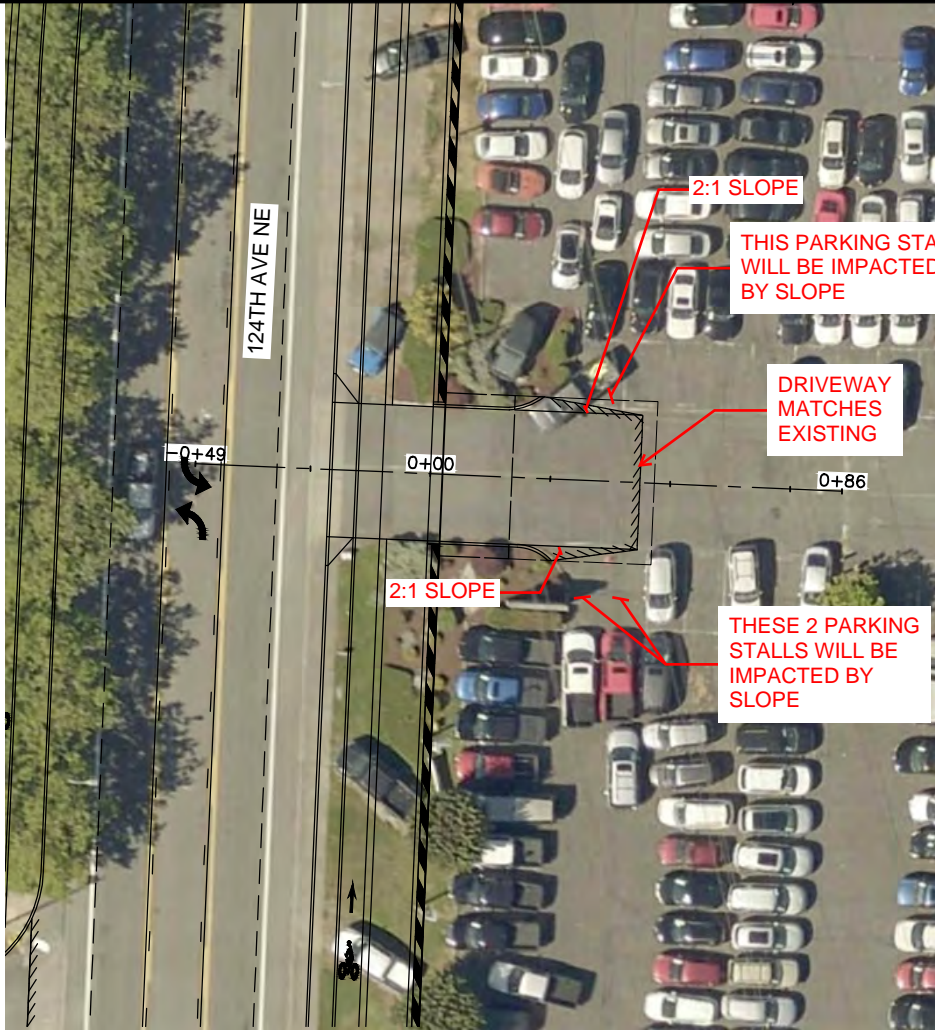
SEE ATTACHED

EXHIBIT "B"

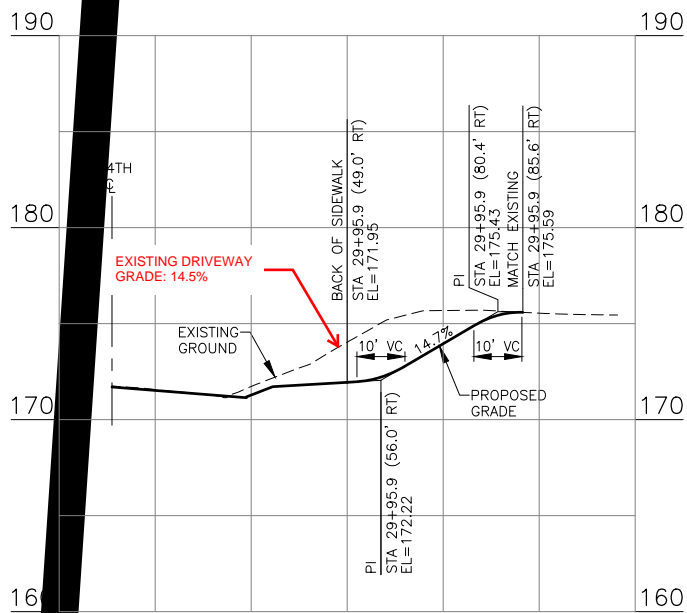
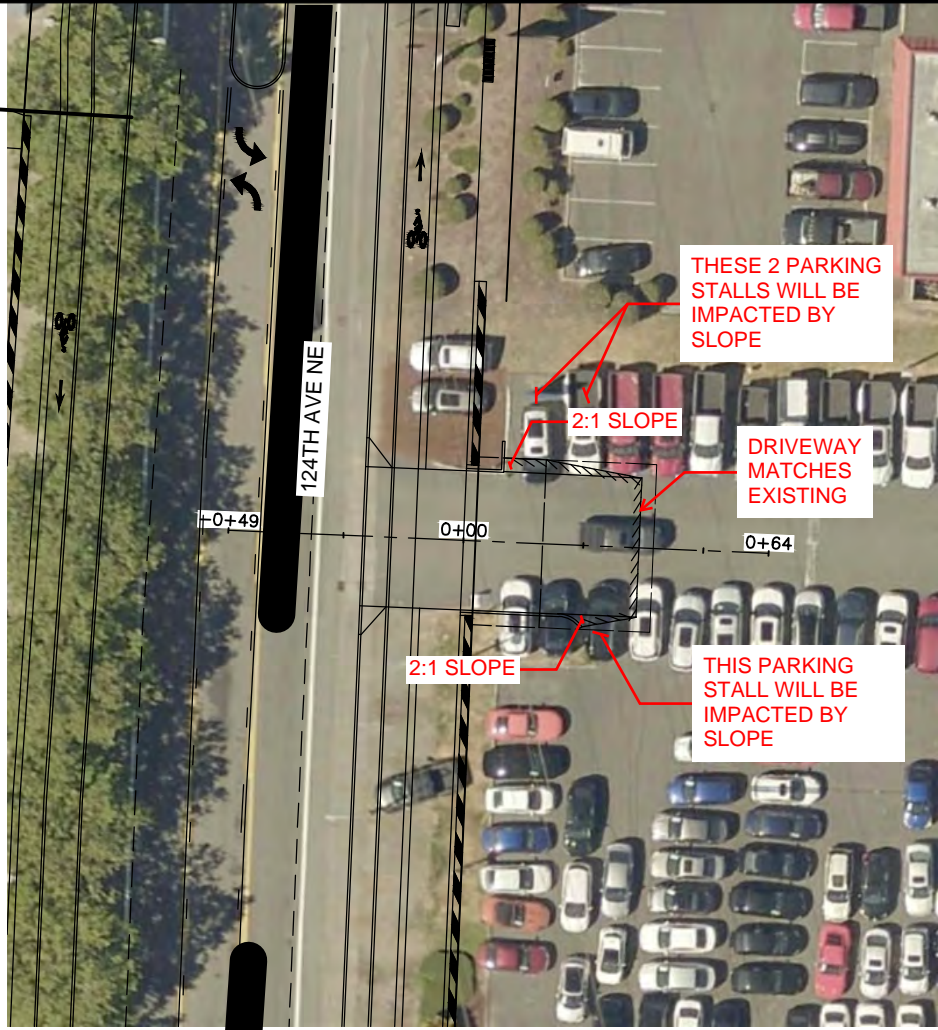
**FA No. STPUL-2053(002)
Project No.:
Parcel No. P-060**

Page 4 of (4) Pages

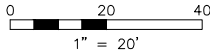
**LPA-326
10/2014
P-060_Permit.doc_20220111125**



DRIVEWAY PROFILE STA 28+56.6 (RT)



DRIVEWAY PROFILE STA 29+95.9 (RT)



DWG. NO.

PERTEET
2707 COLBY AVENUE, SUITE 900
EVERETT, WA 98201
425.252.7700 | 800.615.9900

90% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION



FILE	ENGR.	REVIEW	SCALE	DATE
	ENR	JJD	AS SHOWN	JULY 2021
NO.	REVISION	BY	REVIEW	DATE



CITY OF KIRKLAND
PUBLIC WORKS DEPARTMENT
123 FIFTH AVENUE - KIRKLAND, WA 98033-6189 - (425)587-3800
124TH AVE NE
ROADWAY IMPROVEMENTS
DRIVEWAY EXHIBIT

SHEET

PARCEL 2826059145
BUCHAN BROS. INVESTMENT PROPERTIES

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) 1/14/21.	
GRANTOR or CLAIMANT		By: <u>Wm. Buchan</u> Its: <u>Managing Member</u>	
Buchan Bros. Investment Properties Attn: William E., Buchan 2630 116th Ave. NE., Suite 100 Bellevue, WA 98004		Tax ID : 282605-9145	PARCEL: P-145
PROJECT NUMBER: TITLE: 124 TH AVENUE NE STREET IMPROVEMENTS			
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED Dated:			AMOUNT
For All Lands Conveyed: Warranty Deed: 1,368 SF For All Improvements: landscaping and asphalt (no contributory value) For All Damages: Cost to Cure – Sign			+ \$118,000.00 + \$ 0.00 + \$15,000.00
JUST COMPENSATION (rounded)			\$133,000.00
Legal/Administrative: The City agrees to pay an administrative settlement of \$6,650.00.			+\$ 6,650.00
FINAL SETTLEMENT			\$ 6,650.00

Other Items:

1. The City would give you notice no later than twenty-four (24) hours before beginning construction of the driveway approach off 124th Avenue NE.
2. During construction, the City shall maintain all driveway approaches and keep all driveway approaches in good condition and accessible to customers and delivery trucks.
3. During construction, the City shall provide a well-graded and well-drained temporary driveway. The driveway must be in good condition and suitable for vehicular traffic, including delivery trucks, from the abutting roadway (124th Avenue NE) to the existing driveway. The temporary approach shall provide a firm temporary paved surface for pedestrians crossing the approach at a maximum of 2% cross slope.
4. The City would reconstruct the driveway entrance in two segments to permit continuous access to the driveway. When the concrete in this segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City shall allow routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment.
5. The approximate time to construct a driveway approach (within city right-of-way) would take approximately sixty (60) working days during construction. The approximate timeline to re-grade and pave beyond the driveway approach shall be the sum of not more than fifteen (15) non-consecutive working days during the period of the Temporary Construction period.
6. The City shall provide continuous temporary portable signs directing customers and delivery trucks through the construction area to businesses.
7. No later than one (1) calendar day prior to the commencement of the construction, the City shall provide the Property Owner an emergency contact list shall include at a minimum contact information of the on-site Construction Manager, the City Project Engineer. The Emergency Contact List shall include 24-hour telephone numbers and emails for all individuals identified as emergency contacts or their alternates.
8. The construction working hours for the entire project would from 8:00 AM to 3:00 PM during a working day. Duration of construction is estimated to take approximately 18 to 24 months to complete, excluding weather delays.
9. During the entire construction process, the City's contractors shall not park and/or store any vehicles and/or equipment, materials or supplies overnight on the property.
10. The City shall remove within the new and existing right-of-way, all existing shrubbery, trees, grass, walls, fences, pole lights, signs, mailboxes, structures, roadways, sidewalks, curbs and similar items or structures in the way of all excavation necessary for the construction of the project. Any existing irrigation/sprinkler systems will be cut and capped off at the new right-of-way line.

SUBTOTAL \$ 0.00

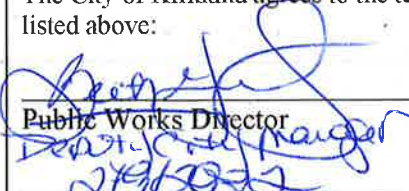
Dedications:

SUBTOTAL \$ 0.00

TOTAL AMOUNT TO BE PAID: \$139,650.00

The City of Kirkland agrees to the terms and conditions listed above:


Rosa M. Villa, SR/WA Acquisition Agent


Public Works Director

Date

Date

☐ Original – Public Works

PARCEL 2826059169
KIM

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) _____	
GRANTOR or CLAIMANT			
Sang M. & Chun O. Kim 8308 Frederick Pl. Edmonds, WA 98026		By: <u>Sang Mok Kim</u> Its: <u>SANG mok Kim</u> By: <u>Chun Ok Kim</u> Its: <u>Chun Ok Kim</u>	
PROJECT NUMBER: TITLE: 124 TH AVENUE NE STREET IMPROVEMENTS		Tax ID : 282605-9169	PARCEL: P-169
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED, SLOPE EASEMENT, TEMPORARY CONSTRUCTION EASEMENT AND TEMPORARY CONSTRUCTION PERMIT, PARKING AND SIGN EASEMENT ON RIGHT OF WAY Dated:		AMOUNT	
For All Lands Conveyed: Warranty Deed: 2,707 SF Slope Easement: 275 SF Temporary Construction Easement: 717 SF Temporary Construction Permit (restriping & reconstructing parking stalls)		+ \$433,000.00 + \$11,000.00 + \$11,000.00 + 0.00	
For All Improvements: landscaping (no contributory value) For All Damages: Cost to Cure - Sign		+\$0.00 +\$10,200.00	
JUST COMPENSATION (rounded)		\$465,200.00	
Legal/Administrative:			
FINAL SETTLEMENT		\$ 0.00	
Other Items:			
SUBTOTAL		\$ 0.00	
Dedications:			
SUBTOTAL		\$ 0.00	
TOTAL AMOUNT TO BE PAID:		\$465,200.00	
Rosa M. Villa, SR/WA Acquisition Agent <u>10/26/2021</u> Date		The City of Kirkland agrees to the terms and conditions listed above: <u>Deputy City Manager</u> Public Works Director <u>10/23/2021</u> Date	

☐ Original – Public Works

PERMIT

City Project: 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this _____ day of _____, 2021, by and between Sang M. & Chun O. Kim, hereinafter called the Grantor(s), and the City of Kirkland, a Washington municipal corporation of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: 282605-9169; and,

having the common street address of: 11613 124th Ave NE, Kirkland, WA 98034-8106, Kirkland, WA 98034;

BRIEF LEGAL DESCRIPTION: Ptn. SE ¼, SW ¼, Sect. 28-T26N-R5E

Tax Account No.: 282605-9169.

NOW, THEREFORE, in consideration for reconnecting the driveway and/or reconstructing sections of the parking area as shown in Exhibit B "The Aerial Drawing", the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the following described Property for the purposes of reconnecting driveway(s) including minor slope flattening, or contouring, and/or re-striping designated parking spaces as outlined in Exhibit B and monitoring landscaping. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions

See Exhibit A, and more specifically as depicted in Exhibit B, attached hereto and made a part hereof

This Agreement shall commence upon the date listed below and continue until December 31, 2024.

In the event Grantee cannot access some or all the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. Property Access (Owner):

Name: Sang M. & Chun O. Kim

Title: _____

Telephone #: _____

Email: _____

2. Property Access (Contact Persons):

Name: Jeff Kim

Title: Agent

Telephone #: 425 773-2571

Email: jeffsh5@gmail.com

FA No.
Project No.
Parcel No. 282605-9169

PERMIT

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, P.E. Project Engineer, City of Kirkland, at (425) 587-3841 or by email at pherbig@kirklandwa.gov.

Miscellaneous Provisions.

a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.

b. **No Third Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

Acceptance by the Grantee.


Director of Public Works, CITY OF KIRKLAND

OWNER


Name

Date


Name

Date

PERMIT

EXHIBIT A

LEGAL DESCRIPTION

PARCEL A:

THE SOUTH 300 FEET OF THE EAST QUARTER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, EXCEPT THE WEST 142 FEET THEREOF; AND

EXCEPT THE SOUTH 30 FEET FOR COUNTY ROAD; AND

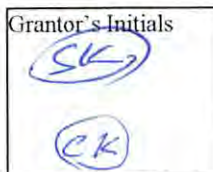
EXCEPT THAT PORTION THEREOF WHICH LIES WITHIN THE MARGINS OF SLATER AVENUE NORTHEAST, AS CONDEMNED BY KING COUNTY SUPERIOR COURT CAUSE NO. 930166; AND

EXCEPT THE NORTH 35 FEET OF THE SOUTH 65 FEET AS CONVEYED TO THE STATE OF WASHINGTON BY DEED RECORDED UNDER RECORDING NO. 6375631; AND

EXCEPT THE EAST 42 FEET AS CONVEYED TO KING COUNTY BY DEEDS RECORDED UNDER RECORDING NOS. 6463988 AND 6465842.

PARCEL B:

AN EASEMENT FOR INGRESS AND EGRESS OVER THE EAST 10 FEET OF THE WEST 142 FEET OF THE SOUTH 300 FEET OF THE EAST QUARTER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, SITUATE IN THE CITY OF KIRKLAND, COUNTY OF KING, STATE OF WASHINGTON.

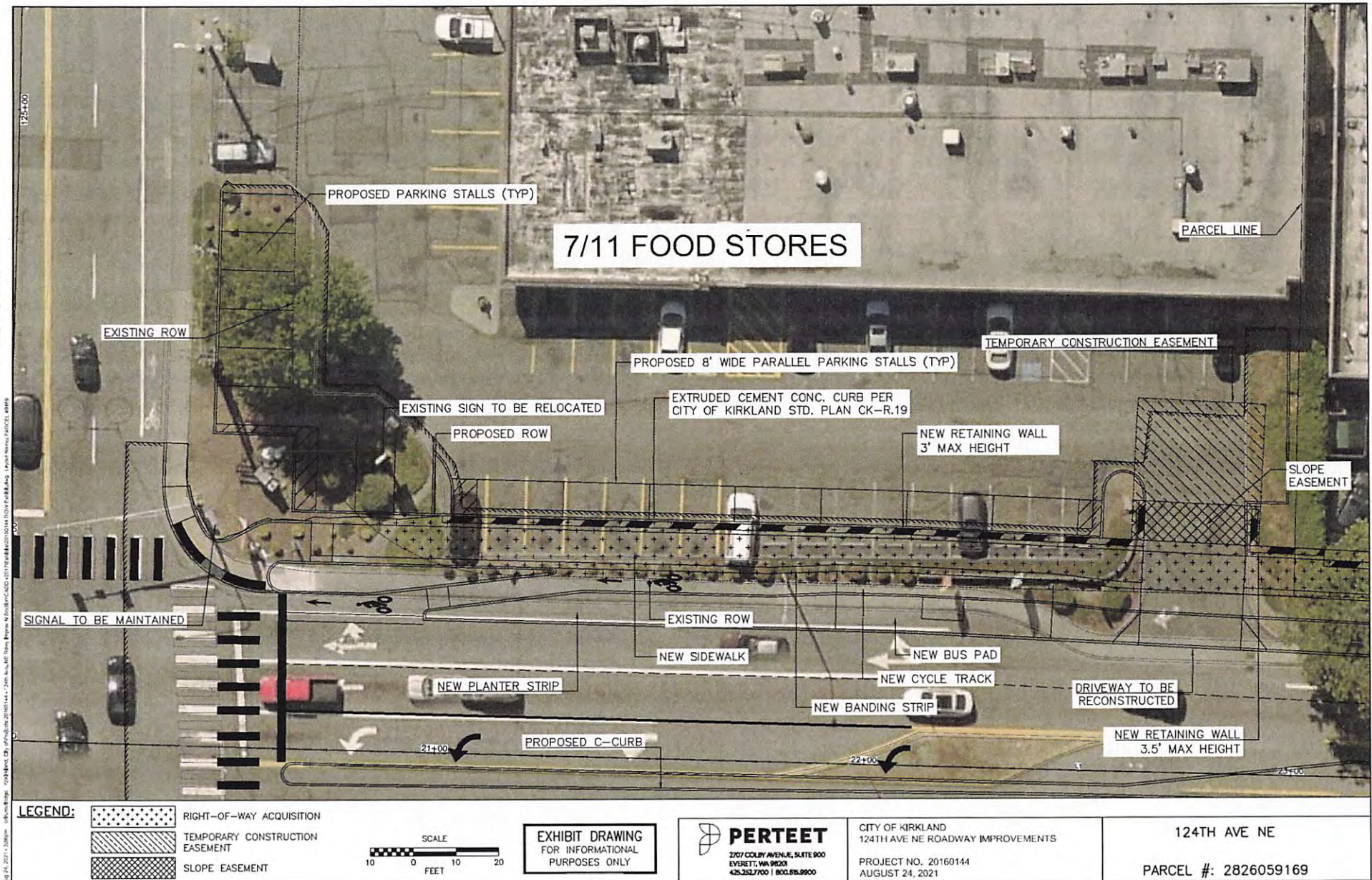


PERMIT

SEE ATTACHED AERIAL DRAWING

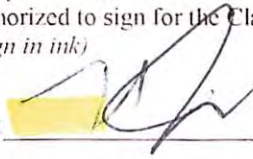
EXHIBIT "B"

NOT FOR RECORDING



PARCEL 2826059169
LMJ ENTERPRISES

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) _____	
GRANTOR or CLAIMANT		By:  10/11/21 Its: <u>Markon Member OR LEECH LLC, GP</u> By: _____ Its: _____	
PROJECT NUMBER: TITLE: 124 TH AVENUE NE STREET IMPROVEMENTS		Tax ID : 282605-9046	PARCEL: P-046
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED, TEMPORARY CONSTRUCTION EASEMENT AND TEMPORARY CONSTRUCTION PERMIT. Dated:		AMOUNT	
For All Lands Conveyed: Warranty Deed: 1,793 SF Temporary Construction Easement: 974 SF Temporary Construction Permit - (re-striping) For All Improvements: landscaping and asphalt (no contributory value) For All Damages: Cost to Cure – Pole Lights		+ \$190,000.00 + \$10,000.00 + \$0.00 + \$0.00 + \$23,000.00	
JUST COMPENSATION (rounded)		\$223,000.00	
Legal/Administrative: Administrative Settlement to avoid condemnation		\$35,000.00	
FINAL SETTLEMENT		\$258,000.00	

Other Items:

1. The City will give you notice no later than twenty-four (24) Hours before beginning construction of the driveway approach off 124th Avenue NE.
2. During construction, the City shall maintain and provide a well-graded and well-drained driveway approach off 124th Avenue Northeast. The driveway approach will be kept in good condition and accessible to customers and delivery trucks.
3. The City will reconstruct the driveway entrance in two segments to permit continuous access to the driveway. When the concrete in this segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City shall allow routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment.
4. The approximate time to construct a new driveway approach (within city right-of-way) would take approximately sixty (60) non-consecutive working days during construction. The approximate timeline to re-grade and pave beyond the driveway approach shall be the sum of not more than thirty (30) Non-consecutive working days during the period of the Temporary Construction period.
5. The City shall remove and reconstruct the parking curbs where required and re-stripe the parking spaces as shown in the attached drawing, herein attached as Exhibit A. The approximate time to reconstruct/re-strip the parking lot shall be the sum of not more than thirty (30) Non-consecutive working days during the period of the Temporary Construction Permit.
6. The City shall provide continuous temporary portable signs directing customers and delivery trucks through the construction area to the businesses.
7. No later than ten (10) Calendar days prior to the commencement of the construction, the City shall provide the Property Owner an emergency contact list shall include at a minimum contact information of the on-site Construction Manager, the City Project Engineer. The Emergency Contact List shall include 24-hour telephone numbers and emails for all individuals identified as emergency contacts or their alternates.
8. The construction working hours for the entire project are estimated to be from 8:00 AM to 3:00 PM during a working day. Duration of construction is estimated to take approximately 18 to 24 months to complete, excluding weather delays.
9. During the entire construction process, the City's contractors shall not park and/or store any vehicles and/or equipment, materials or supplies overnight on the property.
10. The City shall remove within the new and existing right-of-way, all existing shrubbery, trees, grass, walls, fences, pole lights, signs, mailboxes, structures, roadways, sidewalks, curbs and similar items or structures in the way of all excavation necessary for the construction of the project. Any existing irrigation/sprinkler systems will be cut and capped off at the new right-of-way line.

SUBTOTAL \$ 0.00

Dedications:

SUBTOTAL \$0.00

TOTAL AMOUNT TO BE PAID: \$258,000.00

Rosa M. Villa, SR/WA Acquisition Agent

Date

The City of Kirkland agrees to the terms and conditions listed above:

Public Works Director

Date

☐ Original – Public Works

PERMIT

City Project: 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this _____ day of _____, 2021, by and between LMJ Enterprises Limited Partnership, a Washington limited partnership, hereinafter called the Grantor(s), and the City of Kirkland, a Washington municipal corporation of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: 282605-9046; and,

having the common street address of: 11932 124th Ave NE, Kirkland, WA 98034, King County, Kirkland, WA 98034;

BRIEF LEGAL DESCRIPTION: POR SW 1/4 SE 1/4 Sec 28, TWP 26N, RG 5E, W.M. Tax Account No.: 282605-9046.

NOW, THEREFORE, in consideration for reconnecting the driveway and/or reconstructing sections of the parking area as described in Exhibit B, the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the following described Property for the purposes of reconnecting driveway(s) including minor slope flattening, or contouring, and/or re-striping designated parking spaces as outlined in Exhibit B. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions

See Exhibit A, and more specifically as depicted in Exhibit B, attached hereto and made a part hereof

This Agreement shall commence upon the date listed below and continue until June 30, 2024.,

In the event Grantee cannot access some or all of the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. Property Access (Owner):

Name: LMJ Enterprises Limited Partnership, a Washington limited partnership

Title: CFO - ROBERT JAY

Telephone #: (425) 827-0521

Email: rojay@leejohnson.com

2. Property Access (Contact Persons):

Name: Tommy Thorsen

Title: General Manager

PERMIT

Telephone #: _____

Email: _____

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, Sr. P.E. Project Engineer, City of Kirkland, at (425) 587-3872 or by email at PHerbig@kirklandwa.gov.

Miscellaneous Provisions.

a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.

b. **No Third-Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

Acceptance by the Grantee: _____

Director of Public Works, CITY OF KIRKLAND

OWNER


Name _____ Date 10/11/21

Name _____ Date _____

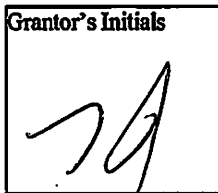
PERMIT

EXHIBIT "A"

Legal Description

The North 3.5 acres of that portion of the Southwest quarter of the Southeast quarter of Section 28, Township 26 North, Range 5 East, Willamette Meridian, in King County, Washington, lying West of County Road No. 970 (Slater Avenue N.E., being 60 feet in width);
Together with that portion of the Southwest quarter of the Southeast quarter of Section 28, described as follows: Beginning at the intersection of the Northwesterly margin of County Road No. 970 (Slater Avenue N.E.) and the South line of the North 3.5 acres of said subdivision;
Thence South 89°05'54" West along the South line of said North 3.5 acres to the West line of said subdivision;
Thence Southerly along said West line 20.7 feet;
Thence South 88°34'56" East to the Westerly margin of County Road No. 970 (Slater Avenue N.E.);
Thence Northeasterly along said Westerly margin to the Point of Beginning;
Except that portion thereof lying Westerly of the Easterly boundary of 124th Avenue N.E., and its Southerly extension, as conveyed by deed recorded under recording number 7101070324; and
Except any portion thereof lying Southerly of the boundary line established in King County Superior Court Cause Numbers 718510 and 719479, and described as:
Beginning at the intersection of the South line of the North 3.5 acres of that portion of said Southwest quarter of the Southeast quarter of said Section 28 lying Westerly of County Road No. 970 and the Westerly margin of said County Road No. 970;
Thence Westerly along said South line to the Westerly line of said subdivision;
Thence Southerly along said West line 20.7 feet to the True Point of Beginning of said boundary line;
Thence Easterly 100 feet to a point which is 23.24 feet Southerly, measured at right angles, from said South line;
Thence Easterly 100 feet to a point which is 27.30 feet Southerly, measured at right angles, from said South line;
Thence Easterly 100 feet to a point which is 31.90 feet Southerly, measured at right angles, from said South line;
Thence Easterly 100 feet to a point which is 35.60 feet Southerly, measured at right angles, from said South line;
Thence Easterly 100 feet to a point which is 39.40 feet Southerly, measured at right angles from said South line;
Thence Easterly 100 feet to a point which is 43.50 feet Southerly, measured at right angles, from said South line;
Thence Easterly 100 feet to a point which is 46.40 feet Southerly, measured at right angles, from said South line;
Thence Easterly 59 feet to a point which is 49.10 feet Southerly, measured at right angles, from said South line; Thence continuing on the same course to the Westerly margin of said County Road No. 970 and the terminus of said boundary line; and
Except those portions thereof conveyed to the City of Kirkland by deeds recorded under recording numbers 20020502002012, 20070919002477 (said deed being a correction of deeds recorded under recording numbers 20070419001940 and 20070718001655) and 20130123001745.

PERMIT

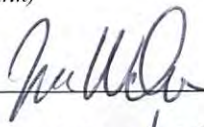


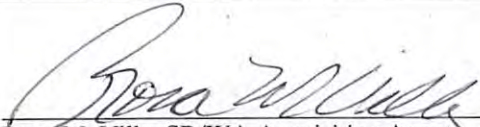
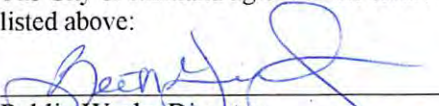
SEE ATTACHED

EXHIBIT "B"

PARCEL 2826059052
KIRKLAND TOTEM RE PARTNERS LLC

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033	I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) _____	
GRANTOR or CLAIMANT		
Kirkland Totem RE Partners LLC 11800 124 th Avenue NE, Kirkland WA 98034-8109	By: <u></u> <u>11/17/22</u> Its: <u>member</u>	
PROJECT NUMBER: TITLE: 124TH AVENUE NE STREET IMPROVEMENTS	Tax ID : 282605-9052	PARCEL: P-052
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED, TEMPORARY CONSTRUCTION EASEMENT, and TEMPORARY CONSTRUCTION PERMIT Dated:		AMOUNT
For All Lands Conveyed: Warranty Deed: 1,416 SF Temporary Construction Easement: 891 SF Temporary Construction Permit (mutual benefit)		+ \$198,240.00 + \$12,000.00 + \$0.00
For All Improvements: Landscaping and asphalt (no contributory value) Cost to relocation sign and four pole lights		+ \$0.00 + \$44,700.00
For All Damages:		+\$0.00
JUST COMPENSATION (rounded)		\$255,700.00
Legal/Administrative: 1. Administrative Settlement to avoid condemnation		\$30,200.00
FINAL SETTLEMENT		\$30,200.00

Other Items:		
<ol style="list-style-type: none"> 1. During construction, the City shall maintain and provide a well-graded and well-drained driveway approach off 124th Avenue Northeast. The driveway approach will be kept in good condition and accessible to customers and delivery trucks. 2. The City will reconstruct the driveway entrance in two segments to permit continuous access to the driveway. When the concrete in this segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City shall allow routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment. 3. The City shall re-grade driveway entrances surrounding the Temporary Construction Easement areas by use of permit for minor slope flattening and/or contouring, including striping of any parking stall affected by the project. 4. The construction working hours for the entire project are estimated to be from 8:00 AM to 3:00 PM during a working day. Duration of construction is estimated to take approximately 24 months to complete, excluding weather delays. 5. During the entire construction process, the City's contractors shall not park and/or store any vehicles and/or equipment, materials or supplies overnight on the property. 6. The City shall remove all improvements within the new and existing right-of-way, including but not limited to shrubbery, trees, grass, walls, fences, pole lights, signs, mailboxes, structures, roadways, sidewalks, curbs and similar items or structures in the way of all excavation necessary for the construction of the project. Any existing irrigation/sprinkler systems will be cut and capped off at the new right-of-way line. 		
SUBTOTAL		\$ 0.00
Dedications:		
SUBTOTAL		\$ 0.00
TOTAL AMOUNT TO BE PAID:		\$285,900.00
 Rosa M. Villa, SR/WA Acquisition Agent 11/17/2022 Date	The City of Kirkland agrees to the terms and conditions listed above:  Public Works Director Deputy City Manager 2/15/2022 Date	

☐ Original – Public Works

Temporary Construction Permit 282605-9052

City Project: 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this _____ day of _____, 2022, by and between Kirkland-Totem Real Estate Partners LLC, a Washington limited liability company, hereinafter called the Grantor(s), and the City of Kirkland, a Washington municipal corporation of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: 282605-9052 having the street address of: 11800 124th Ave NE, Kirkland, WA 98034-8109.

BRIEF LEGAL DESCRIPTION: Ptn SW 1/4 SE 1/4 Sec 28, T26N, R5E, W.M. Tax Account No.: 282605-9052

NOW, THEREFORE, in consideration for reconnecting the driveway as depicted in Exhibit B, the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the Property outside the Temporary Construction Easement areas for the purposes of reconnecting driveway(s) for minor slope flattening, or and contouring, including restriping of any parking stall affected by the project as shown in Exhibit B. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions

See Exhibit A, and more specifically as depicted in Exhibit B, attached hereto and made a part hereof

This Agreement shall commence upon the date listed below and continue until December 31, 2024.

In the event Grantee cannot access some or all of the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. Property Access (Owner): Kirkland-Totem Real Estate Partners LLC

Name: Jim Walen

Title: Hamid

Telephone #: 425-891-4946

Email: Hamid@kirkland.com

PERMIT

2. Property Access (Contact Persons):

Name: _____
Title: _____
Telephone #: _____
Email: _____

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, P.E., Project Manager, City of Kirkland, at (425) 587-3872 or by email at pherbig@kirklandwa.gov

Miscellaneous Provisions.

a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.

b. **No Third-Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

Acceptance by the Grantee: _____

Director of Public Works, CITY OF KIRKLAND

OWNER

Kirkland-Totem Real Estate Partners LLC,

By: _____

Jim Walen
Print Name


Date

PERMIT

EXHIBIT "A" Legal Description

That portion of the South half of the Southwest quarter of the Southeast quarter of Section 28, Township 26 North, Range 5 East, Willamette Meridian, in King County, Washington, described as follows:

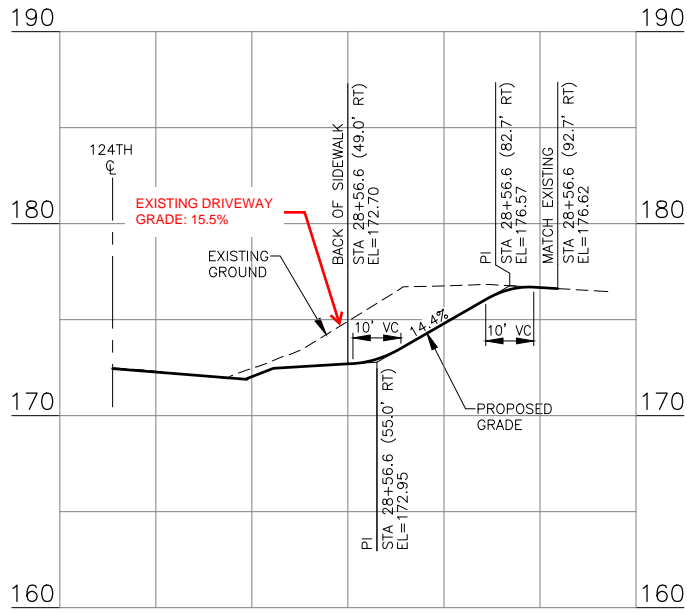
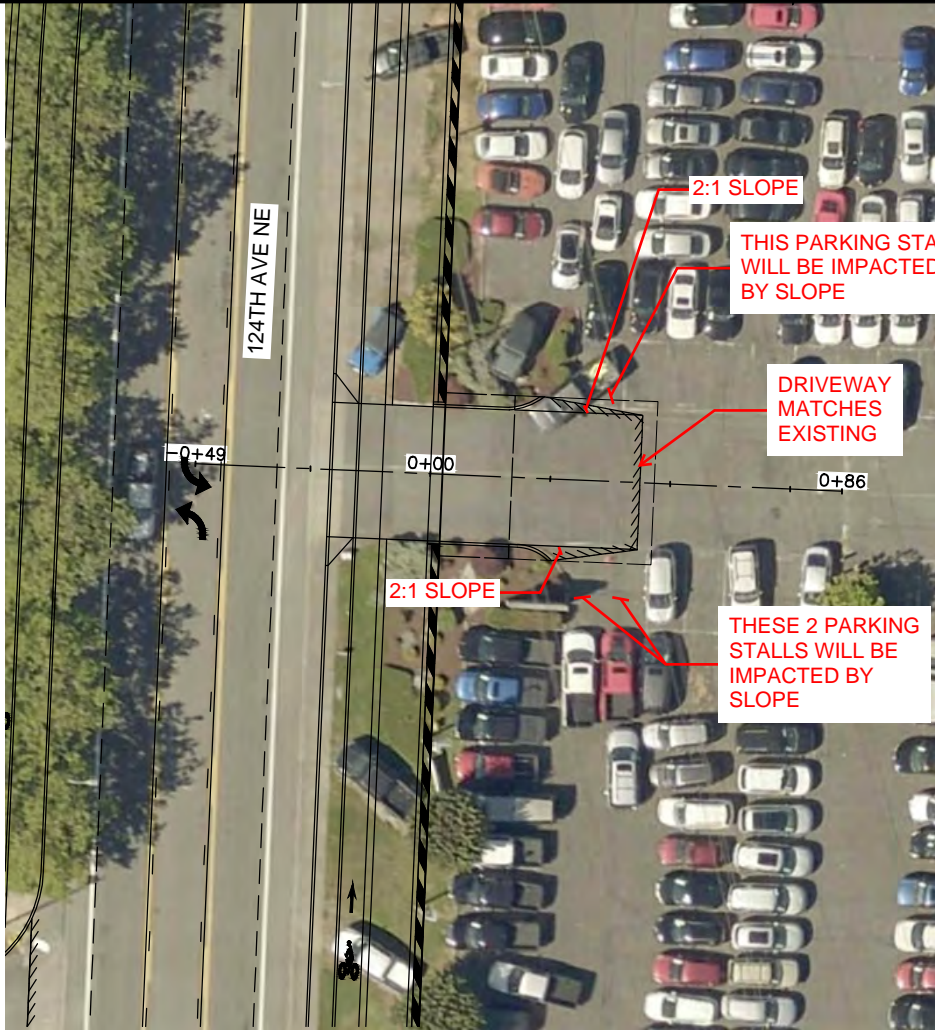
Beginning at the Southeast corner of said subdivision;
thence South 88°19'17" West, along the South line thereof, a distance of 708.81 feet;
thence North 01°17'15" East a distance of 431.82 feet;
thence South 88°50'58" West a distance of 326.97 feet to the Southeasterly margin of Slater Avenue Northeast right-of-way;
thence South 41°14'03" West, along the Southeasterly margin, a distance of 213.71 feet to a point on a curve the center of which bears South 84°11'27" East a distance of 360.00 feet, said center hereinafter called "Point A";
thence Northerly, along the curve to the right, through a central angle of 05°13'04" an arc distance of 32.78 feet to the North line of the South 310 feet of said subdivision and the true point of beginning;
thence South 88°19'17" West a distance of 188.52 feet to the East margin of 124th Avenue Northeast right-of-way;
thence North 01°43'38" East, along the East margin, a distance of 117.99 feet to the North line of the South one acre of that portion of said subdivision lying Northwesternly of County Road No. 970;
thence North 88°19'16" East, along the North line, a distance of 233.33 feet to the Northwesternly margin of Slater Avenue Northeast right-of-way;
thence South 41°14'03" West, along the Northwesternly margin, a distance of 9.27 feet to a point on a curve, the center of which is the aforementioned "Point A";
thence Southerly, along the curve to the left, through a central angle of 19°10'55" an arc distance of 120.52 feet to the true point of beginning.

Grantor's Initials


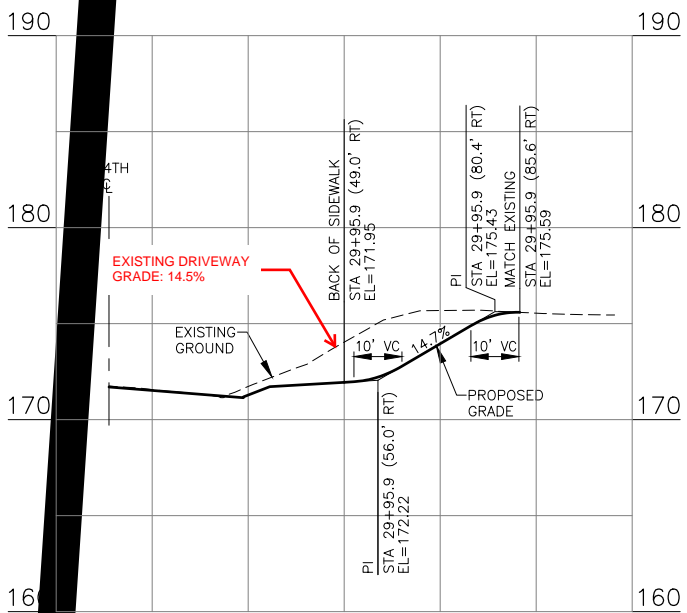
PERMIT

SEE ATTACHED

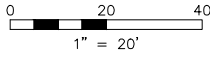
EXHIBIT "B"



DRIVEWAY PROFILE STA 28+56.6 (RT)



DRIVEWAY PROFILE STA 29+95.9 (RT)



DWG. NO.

PERTEET
2707 COLBY AVENUE, SUITE 900
EVERETT, WA 98201
425.252.7700 | 800.615.9900

90% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION



FILE	ENGR.	REVIEW	SCALE	DATE
	ENR	JJD	AS SHOWN	JULY 2021
NO.	REVISION	BY	REVIEW	DATE



CITY OF KIRKLAND
PUBLIC WORKS DEPARTMENT
123 FIFTH AVENUE - KIRKLAND, WA 98033-6189 - (425)587-3800
124TH AVE NE
ROADWAY IMPROVEMENTS
DRIVEWAY EXHIBIT

SHEET

PARCEL 2826059223
RSO FAMILY LLC

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) <u>2/1/2022</u>	
GRANTOR or CLAIMANT		By: <u>Sharon M O'Dell</u> Its: <u>Manager</u> By: _____ Its: _____	
RSO Family, LLC Attn: Sharon O'Dell 20343 North Hayden Rd. Ste. 105-20 Scottsdale, AZ 85222-3876			
PROJECT NUMBER: TITLE: 124TH AVENUE NE STREET IMPROVEMENTS		Tax ID : 282605-9223	PARCEL: P-223
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED, TEMPORARY CONSTRUCTION EASEMENT, TEMPORARY CONSTRUCTION PERMIT Dated:		AMOUNT	
For All Lands Conveyed: Warranty Deed, 646 SF Temporary Construction Easement, 375 SF Temporary Construction Permit (Mutual Benefits)		+ \$90,440.00 + \$5,000.00 + \$0.00	
For All Improvements: Paving, Signage, Wall Costs, Drive-Through		+ \$22,000.00	
For All Damages: Cost to Cure -		+ \$0.00	
JUST COMPENSATION (rounded)		\$117,000.00	
Legal/Administrative: Administrative Settlement to avoid condemnation, the City agrees to pay as follows: 1. An additional payment of \$6,000 for Taco Bell Improvements; and 2. An additional payment of \$3,000 for RSO Family, LLC		\$ 9,000.00	
FINAL SETTLEMENT		\$126,000.00	
Other Items:			
SUBTOTAL		\$0.00	
Dedications:			
SUBTOTAL		\$0.00	
TOTAL AMOUNT TO BE PAID:		\$126,000.00 (R)	
Rosa M. Villa, SR/WA Acquisition Agent _____ Date _____		The City of Kirkland agrees to the terms and conditions listed above: _____ Public Works Director _____ Date _____	

☐ Original – Public Works

Temporary Construction Permit 282605-9223

City Project: 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this 1st day of February, ²⁰²²~~2021~~, by and between **RSO Family, LLC, a Washington limited liability company**, hereinafter called the Grantor(s), and the **City of Kirkland, a Washington municipal corporation** of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: **282605-9223** having the street address of: **11624 124th Avenue NE Kirkland, WA 98034-8109**

BRIEF LEGAL DESCRIPTION: Ptn S/2 of SW of SW, Section 28, T26N, R5E, W.M. Tax Account No.: 282605-9223.

NOW, THEREFORE, in consideration for reconnecting the driveway and drive-thru improvements as depicted in Exhibit B, the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the following described Property for the purposes of reconnecting driveway for minor slope flattening and contouring outside the Temporary Construction Easement area. Also, for the purposes of reconnecting the drive-through lane, including minor grading, flattening, and contouring, see Exhibit B. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions

See Exhibit A, and more specifically as depicted in Exhibit B, attached hereto and made a part hereof

This Agreement shall commence upon the date listed below and continue until December 31, 2024.

In the event Grantee cannot access some or all of the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. Property Access (Owner): RSO FAMILY, LLC

Name: Sharon M. O'Dell
Title: Manager
Telephone #: 425 892-5701
Email: rodellaz@icloud.com

PERMIT

2. Property Access (Contact Persons):

Name: Sharon M. O'Dell
Title: Manager
Telephone #: 425 890 5701
Email: rodellaz@icloud.com

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, P.E., Project Manager, City of Kirkland, at (425) 587-3872 or by email at pherbig@kirklandwa.gov

Miscellaneous Provisions.

a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.

b. **No Third Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

Acceptance by the Grantee:

Director of Public Works, CITY OF KIRKLAND

OWNER
RSO FAMILY, LLC

Sharon M. O'Dell 2/1/2022
Name Date

Name Date

PERMIT

EXHIBIT "A"
Legal Description

For APN/Parcel ID(s): 282605-9223

THAT PORTION OF THE SOUTH HALF OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;

THENCE SOUTH 88°19'17" WEST ALONG THE SOUTH LINE OF SAID SUBDIVISION A DISTANCE OF 708.81 FEET;

THENCE NORTH 01°17'15" EAST 431.82 FEET;

THENCE SOUTH 88°50'58" WEST 326.97 TO THE SOUTHEASTERLY MARGIN OF SLATER AVENUE NORTHEAST;

THENCE SOUTH 41°14'03" WEST ALONG SAID SOUTHEASTERLY MARGIN 213.71 FEET TO A POINT ON A CURVE, THE CENTER OF WHICH BEARS SOUTH 84°11'27" EAST 360.00 FEET, SAID CENTER HEREINAFTER CALLED POINT "A";

THENCE SOUTHERLY ALONG SAID CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 1°53'33" AN ARC DISTANCE OF 11.89 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTHEASTERLY ALONG SAID CURVE TO THE RIGHT, THE CENTER OF SAID CURVE BEING AFOREMENTIONED "POINT A", THROUGH A CENTRAL ANGLE OF 7°06'37", AN ARC DISTANCE OF 44.67 FEET TO THE NORTH LINE OF THE SOUTH 310.00 FEET OF SAID SUBDIVISION;

THENCE SOUTH 88°19'17" WEST ALONG SAID SOUTH LINE 188.52 FEET TO THE EAST MARGIN OF 124TH AVENUE NORTHEAST;

THENCE SOUTH 01°43'38" WEST ALONG SAID EAST MARGIN 105.19 FEET TO THE NORTH LINE OF THE SOUTH 205.00 FEET OF SAID SUBDIVISION;

THENCE NORTH 88°19'17" EAST ALONG SAID NORTH LINE 181.70 FEET TO A POINT WHICH BEARS SOUTH 03°55'00" WEST FROM THE TRUE POINT OF BEGINNING;

THENCE NORTH 03°55'00" EAST 61.21 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION THEREOF CONVEYED TO THE CITY OF KIRKLAND BY DEED RECORDED UNDER RECORDING NO. 20151027001104. TOGETHER WITH AN EASEMENT FOR SEWER LINE AS CREATED UNDER RECORDING NUMBER 8501090454.

SITUATE IN THE CITY OF KIRKLAND, COUNTY OF KING, STATE OF WASHINGTON.

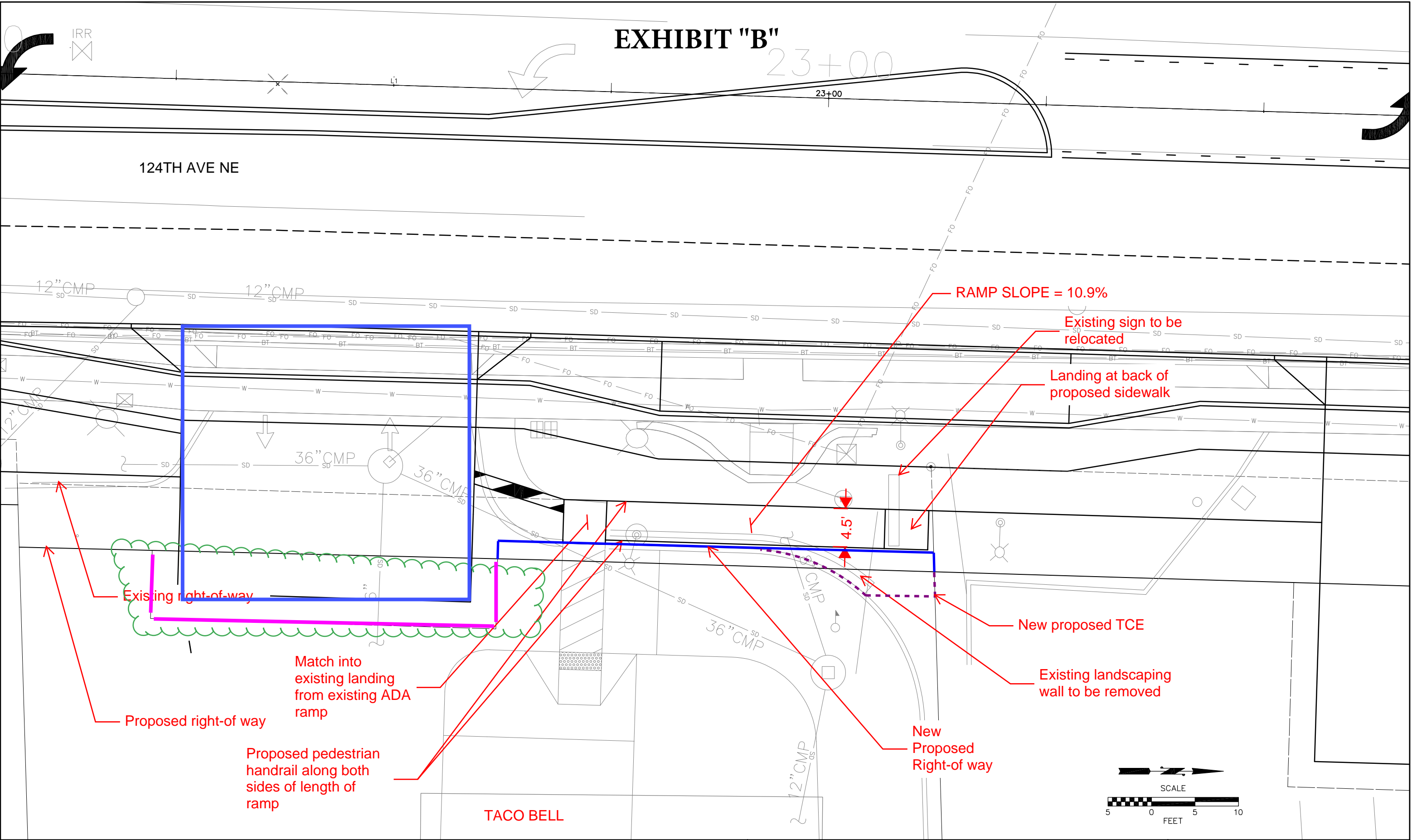
Grantor's Initials

PERMIT

SEE ATTACHED

EXHIBIT "B"

Aug 21, 2020 - 7:36am erin.routledge X:\Kirkland_City of Projects\20160144 - 124th Ave. NE Rdwy Improv N Section\CADD v2017\Drawings\20160144 PB_ENR.dwg Layout Name: Taco Bell



 **PERTEET**
2707 COLBY AVENUE, SUITE 900
EVERETT, WA 98201
425.252.7700 | 800.615.9900

CITY OF KIRKLAND
124TH AVE NE ROADWAY IMPROVEMENTS
PROJECT NO. 20160144
AUGUST 21, 2020

TACO BELL PARCEL

PARCEL 2826059179 AND 2826059021
WWX LIMITED LLC

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033	I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) <u>2/1/22</u>	
OWNER or CLAIMANT		
NE124@124NE LLC Attn. Colin Radford 10423 Main Street, Suite 4 Bellevue, WA 98004	By: <u>Colin W Radford</u> Its: <u>managing member</u>	
PROJECT NUMBER: TITLE: 124TH AVENUE NE STREET IMPROVEMENTS	Tax ID: 2826059042	PARCEL: P-042
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED AND TEMPORARY CONSTRUCTION EASEMENT, AND TEMPORARY CONSTRUCTION PERMIT Dated: _____		AMOUNT
For All Lands Conveyed: Warranty Deed, 81 SF Temporary Construction Easement, 1,782 SF Temporary Construction Permit		+ \$11,400.00 + \$12,200.00 + \$0.00
For All Improvements: landscaping and asphalt For All Damages: Cost to Cure - None		+ No contributory value + \$0.00
JUST COMPENSATION (rounded)		\$23,600.00
Legal/Administrative:		
FINAL SETTLEMENT		\$0.00

<p>Other Items:</p> <ol style="list-style-type: none"> During the construction of the wall, the City will restrict the use of all parking stalls fronting 124th Ave NE for five consecutive days. During this period, the City will temporarily stripe five parallel parking spaces in the drive aisle abutting the existing head-in parking, as shown in the drawing attached hereto as Exhibit A. After the five (5) business days, the City will re-stripe the parking area to its original parking layout. As the City continues the construction of the wall, the City agrees to limit the closure of the parking stalls fronting 124th Avenue NE by closing only three parking stalls at a time. The location of the three closed parking stalls will change as the construction of the wall progresses. During a 30-day period, the City will notify the Owner regularly of the three parking stalls that will be temporarily closed. During the limited-closure period, the remaining twelve (12) of the fifteen (15) parking stalls in the TCE area will be available for use by the Owner and/or its tenants. Regarding landscaping: <ol style="list-style-type: none"> For the section of the landscaped area in the TCE area that is too narrow for plant establishment, the City will restore the area by landscaping with topsoil and bark. For the section of the landscaped area affected by the TCE where plantings can be established, the City will restore the area with appropriate plantings, with plant heights and widths at maturity that are not expected to obstruct visibility of the Owner's parking lot from 124th Ave NE. If the parking curb in the TCE area is affected by the Project during the construction of the new wall, the City agrees to repair or replace the parking curb. The City will provide continuous temporary portable signs directing customers and delivery trucks through the construction area. As part of the Project, the City will be installing Opus 10 Infill Panels for pedestrian handrails as shown in page numbers UD-5 and 01/UD-6 of the City's 90% construction plans dated September 9, 2020, attached hereto as Exhibit B. The City will provide notice to Owner not less than fifteen (15) days before commencing construction activities in the TCE area. The City agrees to include all construction specifications listed above as construction commitments in the City's final construction plans. 		
SUBTOTAL		\$23,600.00
Dedications:		
SUBTOTAL		\$23,600.00
TOTAL AMOUNT TO BE PAID:		\$23,600.00
<p>_____</p> <p>Rosa M. Villa, SR/WA Acquisition Agent</p> <p>_____</p> <p>Date</p>	<p>The City of Kirkland agrees to the terms and conditions listed above:</p> <p>_____</p> <p>Public Works Director</p> <p>_____</p> <p>Date</p>	

☐ Original – Public Works

Recorded at the Request of, and
When Recorded Return to:

GRANTEE of Kirkland
Public Works Department
123 Fifth Avenue
Kirkland, Washington 98033

(Space above this line for recorder's use only)

DOCUMENT TITLE:	Temporary Construction Easement
REFERENCE NUMBER(S) OF RELATED DOCUMENTS:	
Additional reference numbers on page(s) _____ of document.	
GRANTOR:	NE124@124NE LLC
GRANTEE:	City of Kirkland
ABBREVIATED LEGAL DESCRIPTION:	Subdivision: Ptn of SE of 28—26-5 APN/Parcel ID(s): 282605-9042 Tax Account No.: 282605-9042
Additional legal on page <u>Exhibit A and B</u> of document.	
ASSESSOR'S TAX PARCEL NO(S).	282605-9042

TEMPORARY CONSTRUCTION EASEMENT

124th Ave NE Roadway Improvements

THE GRANTOR, NE124@124NE LLC, a Washington Limited Liability Company, which acquired title as NE124124NE LLC, a Washington limited liability company, and in consideration of the sum of TEN AND NO/100 (\$10.00) Dollars and other valuable consideration, and under the imminent threat of the Grantee's exercise of its rights of Eminent Domain, receipt of which is hereby acknowledged, conveys and grants to THE GRANTEE, THE GRANTEE OF KIRKLAND, a Washington municipality, its successors and assigns, a temporary non-exclusive easement ("Easement") described as follows:

SEE EXHIBIT "A" and "B"— Legal Description of Easement(s), including a map of Easement(s), attached hereto and by this reference incorporated herein, ("Easement Area")

from the start of construction activities on the 124th Ave NE Roadway Improvements Project ("Project") and shall terminate by December 31, 2024, or until completion and acceptance of Project, whichever occurs first, for any and all purposes incidental to the construction of the Project.

This Easement is granted subject to the following terms and conditions:

TEMPORARY CONSTRUCTION EASEMENT

1. During the construction of the wall, the GRANTEE will restrict use of all parking stalls fronting 124th Ave NE for five consecutive days. During this period, the GRANTEE will temporarily stripe five parallel parking spaces in the drive aisle abutting the existing head-in parking, as shown in the drawing attached hereto as Exhibit A. After the five (5) closure days, the GRANTEE will re-stripe the parking area to its original parking layout.
2. As the GRANTEE continues the construction of the wall, the GRANTEE agrees to limit the closure of the parking stalls fronting 124th Avenue NE by closing only three parking stalls at a time. The location of the three closed parking stalls will change as the construction of the wall progresses. During a 30-day period, the GRANTEE will notify the GRANTOR regularly of the three parking stalls that will be temporarily closed. During the limited closure period, the remaining twelve (12) of the fifteen (15) parking stalls included in the Easement Area will be available for use by the GRANTOR and/or its tenants.
3. In the section of the landscaped area in the Easement Area that is too narrow for plant establishment, as determined by the GRANTEE, the GRANTEE will restore the area by landscaping with topsoil and bark.
4. In the section of the landscaped area in the Easement Area where plantings can be established, the City will restore the area with appropriate plantings, with plant heights and width at maturity that are not expected to obstruct visibility of the GRANTOR's parking lot from 124th Ave NE.
5. The GRANTEE agrees to repair or replace the parking curb if it is affected by the Project's construction activities during construction of the new wall.
6. The GRANTEE will provide continuous temporary portable signs directing customers and delivery trucks through the construction area.
7. As part of the Project, the GRANTEE will be installing Opus 10 Infill Panels for pedestrian handrails as shown in page numbers UD-5 and 01/UD-6 of the GRANTEE's 90% construction plans dated September 9, 2020, and attached hereto as Exhibit B.
8. The GRANTEE will provide notice to GRANTOR not less than fifteen (15) days before commencing construction.
9. The GRANTEE agrees to include all construction specifications listed above as construction commitments in the GRANTEE's final construction plans.
10. GRANTOR shall not have the right to.
 - a) Erect or maintain any buildings or structures within the Easement Area; or
 - b) Develop, landscape, or beautify the Easement Area in any way that would unreasonably increase the cost to the GRANTEE of restoring the Easement Area and any private improvements therein.
11. Grantee shall indemnify and hold harmless the GRANTOR from any and all claims and causes of action of every kind and description which may accrue to, or be suffered by, any person, persons or property by reason of, arising out of, or resulting from the use and occupancy of the Easement Area by the Grantee and its contractors, subcontractors, agents, successors, and assigns.
12. In case of an emergency, the GRANTEE shall have the right without prior notice or proceeding at law, to enter upon the property for purposes of construction, repair, and/or reconstruction of public and/or private improvements.
13. This Easement is temporary in duration and is for the purpose of granting permission to the GRANTEE and its contractors, subcontractors, and agents to enter onto the GRANTOR's property and make surface modification to surrounding areas, as identified on the attached exhibits and as necessary to complete the Project.
14. Upon completion of construction of said Project, the GRANTEE or its contractors, subcontractors, and agents shall restore the existing slopes on said lands to match the new construction, restoring private property to the proposed conditions according to the GRANTEE's construction plans.
15. These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.
16. If legal action is required to enforce the terms of this Easement, the prevailing party is entitled to reasonable costs and attorney's fees. This Easement shall be interpreted and enforced pursuant to the laws of the State

TEMPORARY CONSTRUCTION EASEMENT


of Washington. Venue for any lawsuit arising out of this Easement shall be in the Superior Court of King County, Washington.

This Easement shall be recorded with the King County Recorder's Office, shall run with the GRANTOR's Property, and shall be binding upon the parties and their heirs, successors-in-interest, and assigns for the duration of its temporary assignment.

GRANTOR covenants that they are the lawful owners of the property hereby encumbered and that they have the authority to convey such easement.

In witness whereof, the GRANTOR sets its hand and seal,

NE124@124NE LLC

By: 

Its: 

Acceptance by GRANTEE, THE CITY OF KIRKLAND:

Julie Underwood, Public Works Director

[Acknowledgment(s) on Following Page]

TEMPORARY CONSTRUCTION EASEMENT

State of Washington)
) SS
County of King)

This record was acknowledged before me on Feb. 1st, 2021 by Colin Wallace Radford as
Managing Member of NE124@124NELLC on behalf of whom record was executed.



(Stamp)

[Signature]
(Signature of Notary Public)

Branch Manager
(Title of office)

7.22.2022
(My commission expires)

TEMPORARY CONSTRUCTION EASEMENT

SEE ATTACHED
EXHIBIT "A" and "B"
Legal Description and Exhibit

Grantor's Initials

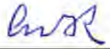


EXHIBIT "A"
Legal Description of Entire Property

OWNER: 124 @ 124 LLC

PARCEL NO. 2826059042

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS;

COMMENCING AT THE SOUTHWEST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°08'55" EAST ALONG THE SOUTH LINE THEREOF 338.81 FEET;
THENCE NORTH 1°43'38" EAST PARALLEL WITH THE WEST LINE OF SAID SUBDIVISION 468.52 FEET TO A POINT ON THE SOUTH LINE OF NORTHEAST 124TH STREET AS ESTABLISHED BY KING COUNTY SURVEY NO. 28-26-5-11, SAID LINE BEING A 614.96 FOOT RADIUS CURVE CONCAVE TO THE NORTHWEST, A RADIAL AT SAID POINT BEARING NORTH 30°21'52" WEST;
THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE AN ARC DISTANCE OF 157.05 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 11°40'00" EAST 164.14 FEET;
THENCE SOUTH 89°08'55" WEST 192.2 FEET TO A POINT ON THE EAST LINE OF 124TH AVENUE NORTHEAST AS ESTABLISHED BY KING COUNTY SURVEY NO. 4-25-5-21, SAID EAST LINE BEING AN 872.85 FOOT RADIUS CURVE CONCAVE TO THE WEST, A RADIAL AT SAID POINT BEARING SOUTH 82°19'52" WEST;
THENCE NORTHERLY ALONG SAID EAST LINE 143.76 FEET TO THE SAID SOUTH LINE OF NORTHEAST 124TH STREET;
THENCE NORTH 89°17'14" EAST ALONG SAID SOUTH LINE 30.80 FEET TO THE POINT OF CURVATURE OF SAID 614.96 FOOT RADIUS CURVE;
THENCE EASTERLY ALONG SAID CURVE 162.20 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH;

COMMENCING AT THE SOUTHWEST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°08'55" EAST ALONG THE SOUTH LINE THEREOF 338.81 FEET;
THENCE NORTH 1°43'38" EAST PARALLEL WITH THE WEST LINE OF SAID SUBDIVISION 468.52 FEET TO A POINT ON THE SOUTH LINE OF NORTHEAST 124TH STREET AS ESTABLISHED BY KING COUNTY SURVEY NO. 28-26-5-11, SAID LINE BEING A 614.96 FOOT RADIUS CURVE CONCAVE TO THE NORTHWEST, A RADIAL AT SAID POINT BEARING NORTH 30°21'52" WEST;
THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE AN ARC DISTANCE OF 112.20 FEET TO THE POINT OF BEGINNING;

THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE 44.85 FEET;
THENCE SOUTH 11°40'00" EAST 164.14 FEET;
THENCE SOUTH 89°08'55" WEST 192.2 FEET TO A POINT ON THE EAST LINE OF 124TH AVENUE NORTHEAST AS ESTABLISHED BY KING COUNTY SURVEY NO. 4-25-5-21;
THENCE SOUTHERLY ALONG SAID EAST LINE 48.04 FEET, MORE OR LESS TO THE NORTH LINE OF THE SOUTH 200.01 FEET OF SAID SUBDIVISION (AS MEASURED ALONG THE WEST LINE THEREOF);

THENCE NORTH 89°08'55" EAST 189.99 FEET TO A POINT WHICH BEARS SOUTH 1°43'38" WEST
FROM THE POINT OF BEGINNING;
THENCE NORTH 1°43'38" EAST 222.38 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING
NUMBER 7101110276;

EXCEPT THAT PORTION CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING
NUMBER 7101110275;

AND EXCEPT THAT PORTION CONVEYED TO THE CITY OF KIRKLAND BY DEED RECORDED UNDER
RECORDING NUMBER 8304050912.

EXHIBIT "A"
Legal Description of Temporary Construction Easement

A PORTION OF THE FOLLOWING DESCRIBED PARCEL;

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28,
TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS
FOLLOWS;

COMMENCING AT THE SOUTHWEST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°08'55" EAST ALONG THE SOUTH LINE THEREOF 338.81 FEET;
THENCE NORTH 1°43'38" EAST PARALLEL WITH THE WEST LINE OF SAID SUBDIVISION 468.52 FEET
TO A POINT ON THE SOUTH LINE OF NORTHEAST 124TH STREET AS ESTABLISHED BY KING
COUNTY SURVEY NO. 28-26-5-11, SAID LINE BEING A 614.96 FOOT RADIUS CURVE CONCAVE TO
THE NORTHWEST, A RADIAL AT SAID POINT BEARING NORTH 30°21'52" WEST;
THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE AN ARC DISTANCE OF 157.05 FEET TO THE
POINT OF BEGINNING;

THENCE SOUTH 11°40'00" EAST 164.14 FEET;
THENCE SOUTH 89°08'55" WEST 192.2 FEET TO A POINT ON THE EAST LINE OF 124TH AVENUE
NORTHEAST AS ESTABLISHED BY KING COUNTY SURVEY NO. 4-25-5-21, SAID EAST LINE BEING
AN 872.85 FOOT RADIUS CURVE CONCAVE TO THE WEST, A RADIAL AT SAID POINT BEARING
SOUTH 82°19'52" WEST;
THENCE NORTHERLY ALONG SAID EAST LINE 143.76 FEET TO THE SAID SOUTH LINE OF
NORTHEAST 124TH STREET;
THENCE NORTH 89°17'14" EAST ALONG SAID SOUTH LINE 30.80 FEET TO THE POINT OF
CURVATURE OF SAID 614.96 FOOT RADIUS CURVE;
THENCE EASTERLY ALONG SAID CURVE 162.20 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH;

COMMENCING AT THE SOUTHWEST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°08'55" EAST ALONG THE SOUTH LINE THEREOF 338.81 FEET;
THENCE NORTH 1°43'38" EAST PARALLEL WITH THE WEST LINE OF SAID SUBDIVISION 468.52 FEET
TO A POINT ON THE SOUTH LINE OF NORTHEAST 124TH STREET AS ESTABLISHED BY KING
COUNTY SURVEY NO. 28-26-5-11, SAID LINE BEING A 614.96 FOOT RADIUS CURVE CONCAVE TO
THE NORTHWEST, A RADIAL AT SAID POINT BEARING NORTH 30°21'52" WEST;
THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE AN ARC DISTANCE OF 112.20 FEET TO THE
POINT OF BEGINNING;

THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE 44.85 FEET;
THENCE SOUTH 11°40'00" EAST 164.14 FEET;
THENCE SOUTH 89°08'55" WEST 192.2 FEET TO A POINT ON THE EAST LINE OF 124TH AVENUE
NORTHEAST AS ESTABLISHED BY KING COUNTY SURVEY NO. 4-25-5-21;
THENCE SOUTHERLY ALONG SAID EAST LINE 48.04 FEET, MORE OR LESS TO THE NORTH LINE OF
THE SOUTH 200.01 FEET OF SAID SUBDIVISION (AS MEASURED ALONG THE WEST LINE THEREOF);
THENCE NORTH 89°08'55" EAST 189.99 FEET TO A POINT WHICH BEARS SOUTH 1°43'38" WEST
FROM THE POINT OF BEGINNING;

THENCE NORTH 1°43'38" EAST 222.38 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 7101110276;

EXCEPT THAT PORTION CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 7101110275;

AND EXCEPT THAT PORTION CONVEYED TO THE CITY OF KIRKLAND BY DEED RECORDED UNDER RECORDING NUMBER 8304050912.

SAID EASEMENT DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID PROPERTY, WITH A RADIAL BEARING OF SOUTH 85°30'31" WEST AND A RADIUS OF 879.35 FEET;
THENCE NORTHERLY ALONG SAID CURVE CONCAVE TO THE WEST AND EAST MARGIN OF 124TH AVENUE NORTHEAST, THROUGH A CENTRAL ANGLE OF 10°50'21" AND AN ARC DISTANCE OF 166.35 FEET TO AN ANGLE POINT IN THE EAST MARGIN;
THENCE NORTH 25°48'38" EAST, ALONG SAID EAST MARGIN, A DISTANCE OF 10.59 FEET TO AN ANGLE POINT IN SAID EAST MARGIN;
THENCE CONTINUING NORTH 25°48'38" EAST, A DISTANCE OF 15.97 FEET TO THE SOUTH MARGIN OF NE 124TH STREET;
THENCE SOUTH 89°17'12" EAST, ALONG SAID SOUTH MARGIN, A DISTANCE OF 2.44 FEET;
THENCE SOUTH 17°32'13" WEST, A DISTANCE OF 18.10 FEET TO A NON-TANGENT CURVE CONCAVE TO THE WEST TO WITH A RADIUS OF 889.35 AND A RADIAL BEARING OF SOUTH 74°24'14" WEST;
THENCE SOUTHERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 11°08'45" AND AN ARC LENGTH OF 173.01 TO THE SOUTH PROPERTY LINE;
THENCE SOUTH 89°09'08" WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 10.02 FEET TO THE POINT OF BEGINNING.

CONTAINING 1,782 SQUARE FEET, MORE OR LESS.

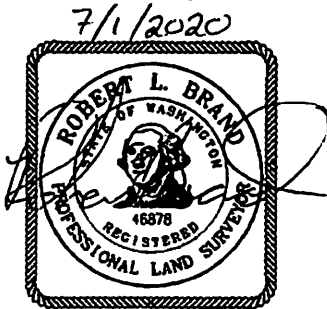
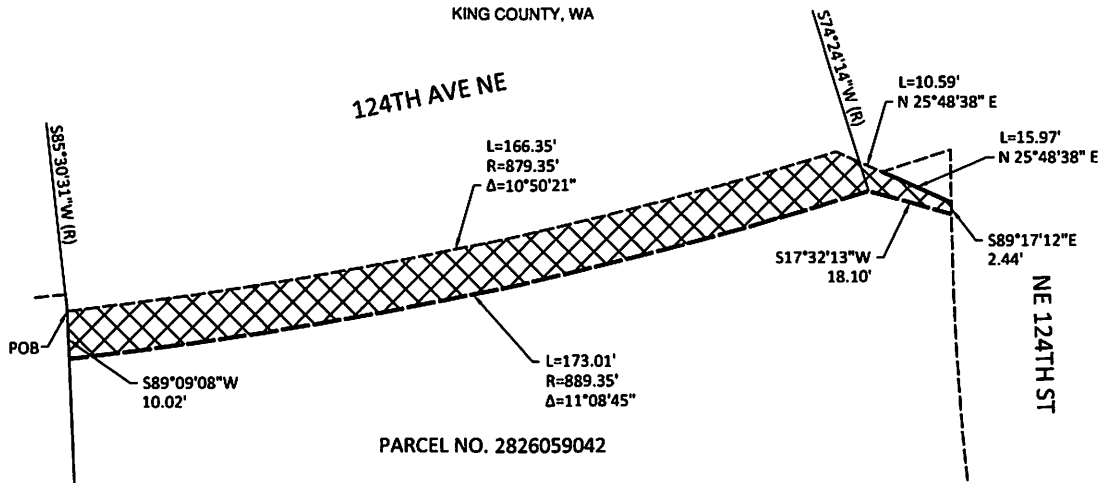


EXHIBIT "A"

SEC. 28, T. 26 N., R. 5 E., W.M.
KING COUNTY, WA



(R) = RADIAL BEARING



TEMPORARY CONSTRUCTION EASEMENT AREA
1,782 SQ FT±

CITY OF KIRKLAND
124TH AVE NE ROADWAY IMPROVEMENTS
TEMPORARY CONSTRUCTION EASEMENT
PARCEL NO. 2826059042

DRAWN BY: R. BRAND

DATE: 06-26-2020



1 ALLIANCE
GEOMATICS
SURVEYING & MAPPING

1261A 120TH AVE NE
Bellevue, Washington 98005

Ph: (425) 598-2200
Fax: (425) 502-8067

Temporary Construction Permit 282605-9042

City Project: 124th Ave NE Roadway Improvements

THIS AGREEMENT is made this _____ day of _____, 2021, by and between **NE124@124NE LLC**, a Washington Limited Liability Company, which acquired title as NE124124NE LLC, a Washington Limited Liability Company, hereinafter called the Grantor(s), and the **City of Kirkland**, a Washington municipal corporation of the State of Washington, its successors and assigns, hereinafter called the Grantee.

WITNESSETH:

WHEREAS, the Grantee will be constructing roadway and sidewalk improvements along 124th Ave Northeast as part of a federally funded project entitled 124th Avenue NE Roadway Improvements Project ("Project").

WHEREAS, the Grantor represents and warrants to be the owner(s) of that certain parcel of land ("Property") described as follows:

ASSESSOR'S TAX PARCEL NUMBER: **282605-9042** having the street address of: **12407 NE 124th Ave NE, Kirkland, WA 98034-4022.**

BRIEF LEGAL DESCRIPTION: Subdivision: Ptn of SE Section, T26N, R5E, W.M., Tax Account No.: 282605-9042.

NOW, THEREFORE, in consideration for reconnecting the driveway as depicted in Exhibit B, the Grantor hereby grants to the Grantee by this Agreement, the right to locate equipment and the permission to work on the following described Property for the purposes of reconnecting driveway for minor slope flattening, or and contouring and re-striping parking stalls impacted by Temporary Construction Easement areas as outlined in Exhibit B. Said lands being situated in King County, State of Washington, and described as follows:

For legal description and additional conditions see Exhibit A and as depicted in Exhibit B, attached hereto, and made a part hereof.

This Agreement shall commence upon the date listed below and continue until December 31, 2024.

In the event Grantee cannot access some or all of the Property, the following representatives of the Owner (the "Contact Persons") can arrange for access to the Property.

1. **Property Access (Owner): NE124@124NE LLC**

Name: Colin W Radford
Title: Manager
Telephone #: 425 455 8945
Email: _____

2. **Property Access (Contact Persons):**

Name: Manu Radford
Title: manager
Telephone #: 425 455 8945
Email: manu@radfordrealtors.com

PARCEL 286059042
NE124@124 NE LLC

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) _____	
GRANTOR or CLAIMANT		By: <u>Wenxue Wang</u> 11/4/2024 Its: <u>Manager</u> By: _____ Its: _____	
WWX Limited LLC Attn: Wenxue, Wang 6610 E. Mercer Way 3435 122nd PL NE Mercer Island, WA 98040-5153 Bellevue, WA 98005			
PROJECT NUMBER: TITLE: 124 TH AVENUE NE STREET IMPROVEMENTS		Tax ID : 282605-9021 and 9179	PARCEL: P-179 and P-021
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: WARRANTY DEED, TEMPORARY CONSTRUCTION EASEMENT, and TEMPORARY PERMIT Dated:		AMOUNT	
For All Lands Conveyed: Warranty Deed: 3,995 SF Temporary Construction Easement: 1,316 SF For All Improvements: Included For All Damages: Cost to Cure - Two Signs (Tenant Improvements)		+ \$559,300.00 + \$17,000.00 + \$0.00 + \$25,600.00	
JUST COMPENSATION (rounded)		\$602,600.00	
Legal/Administrative: Administrative Settlement to avoid condemnation		\$72,400.00	
FINAL SETTLEMENT		\$72,400.00	

Other Items:

1. The City will give you notice no later than twenty-four (24) Hours before beginning construction of the driveway approach off 124th Avenue NE.
2. During construction, the City shall maintain and provide a well-graded and well-drained driveway approach off 124th Avenue Northeast. The driveway approach will be kept in good condition and accessible to customers and delivery trucks.
3. The City will reconstruct the driveway entrance in two segments to permit continuous access to the driveway. When the concrete in this segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City shall allow routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment.
4. The City shall remove and reconstruct asphalt, landscape islands and parking curbs as shown in the attached drawing, herewith attached as Exhibit A.
5. The City shall provide continuous temporary portable signs directing customers and delivery trucks through the construction area to the businesses.
6. The construction working hours for the entire project are estimated to be from 8:00 AM to 3:00 PM during a working day. Duration of construction is estimated to take approximately 18 to 24 months to complete, excluding weather delays.
7. During the entire construction process, the City's contractors shall not park and/or store any vehicles and/or equipment, materials or supplies overnight on the property.
8. The City shall remove within the new and existing right-of-way, all existing shrubbery, trees, grass, walls, fences, pole lights, signs, mailboxes, structures, roadways, sidewalks, curbs and similar items or structures in the way of all excavation necessary for the construction of the project. Any existing irrigation/sprinkler systems will be cut and capped off at the new right-of-way line.

SUBTOTAL	\$ 0.00
-----------------	----------------

Dedications:	
--------------	--

SUBTOTAL	\$ 0.00
-----------------	----------------

TOTAL AMOUNT TO BE PAID:	\$675,000.00
---------------------------------	---------------------

 Rosa M. Villa, SR/WA Acquisition Agent	The City of Kirkland agrees to the terms and conditions listed above:  Public Works Director
--	--

Date	Date
------	------

Date	Date
------	------

☐ Original – Public Works

PERMIT

While on the Property, the Grantee will comply with all applicable government laws and regulations. GRANTEE will be responsible for any damage done to the Property by GRANTEE and will repair and restore the Property to a condition as good as or better than that which existed before GRANTEE'S entry onto the Property.

In the event of injury or damage to persons or property resulting directly or indirectly from damage on or to Owner's Property from GRANTEE's exercise of GRANTEE's rights of entry under this Agreement, GRANTEE agrees to indemnify, hold harmless and defend Owner from and against all damages, claims, and liabilities to the extent resulting therefrom, including attorney's fees and costs of suit, including any appeals thereof, except to the extent any of such damages, claims or liabilities result from the negligence of Owner.

These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.

This Agreement does not run with the land. It does not constitute a real property interest and does not confer any rights upon GRANTEE other than the rights expressly granted herein. This Agreement may be revoked by Owner at any time by providing notice to Patrick Herbig, P.E., Project Manager, City of Kirkland, at (425) 587-3872 or by email at pherbig@kirklandwa.gov.


Miscellaneous Provisions.

a. **Governing Law/Captions.** The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington.

b. **No Third Party Rights/Assignment.** Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person other than the parties and their respective employees and representatives.

OWNER

NE124@124NE LLC


By: Colin W. Radford: _____
2/11/22
Its: Managing Member Date

Acceptance by GRANTEE, THE CITY OF KIRKLAND:

Julie Underwood, Public Works Director

PERMIT

EXHIBIT "A" Legal Description of Entire Property

OWNER: 124 @ 124 LLC
PARCEL NO. 2826059042


THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS;
COMMENCING AT THE SOUTHWEST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°08'55" EAST ALONG THE SOUTH LINE THEREOF 338.81 FEET;
THENCE NORTH 1°43'38" EAST PARALLEL WITH THE WEST LINE OF SAID SUBDIVISION 468.52 FEET TO A POINT ON THE SOUTH LINE OF NORTHEAST 124TH STREET AS ESTABLISHED BY KING COUNTY SURVEY NO. 28-26-5-11, SAID LINE BEING A 614.96 FOOT RADIUS CURVE CONCAVE TO THE NORTHWEST, A RADIAL AT SAID POINT BEARING NORTH 30°21'52" WEST;
THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE AN ARC DISTANCE OF 157.05 FEET TO THE POINT OF BEGINNING;
THENCE SOUTH 11°40'00" EAST 164.14 FEET;
THENCE SOUTH 89°08'55" WEST 192.2 FEET TO A POINT ON THE EAST LINE OF 124TH AVENUE NORTHEAST AS ESTABLISHED BY KING COUNTY SURVEY NO. 4-25-5-21, SAID EAST LINE BEING AN 872.85 FOOT RADIUS CURVE CONCAVE TO THE WEST, A RADIAL AT SAID POINT BEARING SOUTH 82°19'52" WEST;
THENCE NORTHERLY ALONG SAID EAST LINE 143.76 FEET TO THE SAID SOUTH LINE OF NORTHEAST 124TH STREET;
THENCE NORTH 89°17'14" EAST ALONG SAID SOUTH LINE 30.80 FEET TO THE POINT OF CURVATURE OF SAID 614.96 FOOT RADIUS CURVE;
THENCE EASTERLY ALONG SAID CURVE 162.20 FEET TO THE POINT OF BEGINNING.
TOGETHER WITH;
COMMENCING AT THE SOUTHWEST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°08'55" EAST ALONG THE SOUTH LINE THEREOF 338.81 FEET;
THENCE NORTH 1°43'38" EAST PARALLEL WITH THE WEST LINE OF SAID SUBDIVISION 468.52 FEET TO A POINT ON THE SOUTH LINE OF NORTHEAST 124TH STREET AS ESTABLISHED BY KING COUNTY SURVEY NO. 28-26-5-11, SAID LINE BEING A 614.96 FOOT RADIUS CURVE CONCAVE TO THE NORTHWEST, A RADIAL AT SAID POINT BEARING NORTH 30°21'52" WEST;
THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE AN ARC DISTANCE OF 112.20 FEET TO THE POINT OF BEGINNING;
THENCE SOUTHWESTERLY ALONG SAID SOUTH LINE 44.85 FEET;
THENCE SOUTH 11°40'00" EAST 164.14 FEET;
THENCE SOUTH 89°08'55" WEST 192.2 FEET TO A POINT ON THE EAST LINE OF 124TH AVENUE NORTHEAST AS ESTABLISHED BY KING COUNTY SURVEY NO. 4-25-5-21;
THENCE SOUTHERLY ALONG SAID EAST LINE 48.04 FEET, MORE OR LESS TO THE NORTH LINE OF THE SOUTH 200.01 FEET OF SAID SUBDIVISION (AS MEASURED ALONG THE WEST LINE THEREOF);
THENCE NORTH 89°08'55" EAST 189.99 FEET TO A POINT WHICH BEARS SOUTH 1°43'38" WEST FROM THE POINT OF BEGINNING;
THENCE NORTH 1°43'38" EAST 222.38 FEET TO THE POINT OF BEGINNING.

FA No. STPUL-2053(002)
Project No.:
Parcel No. P-042

PERMIT

EXCEPT THAT PORTION CONVEYED TO KING COUNTY BY DEED RECORDED UNDER
RECORDING NUMBER 7101110276;
EXCEPT THAT PORTION CONVEYED TO KING COUNTY BY DEED RECORDED UNDER
RECORDING NUMBER 7101110275;
AND EXCEPT THAT PORTION CONVEYED TO THE CITY OF KIRKLAND BY DEED RECORDED
UNDER RECORDING NUMBER 8304050912.

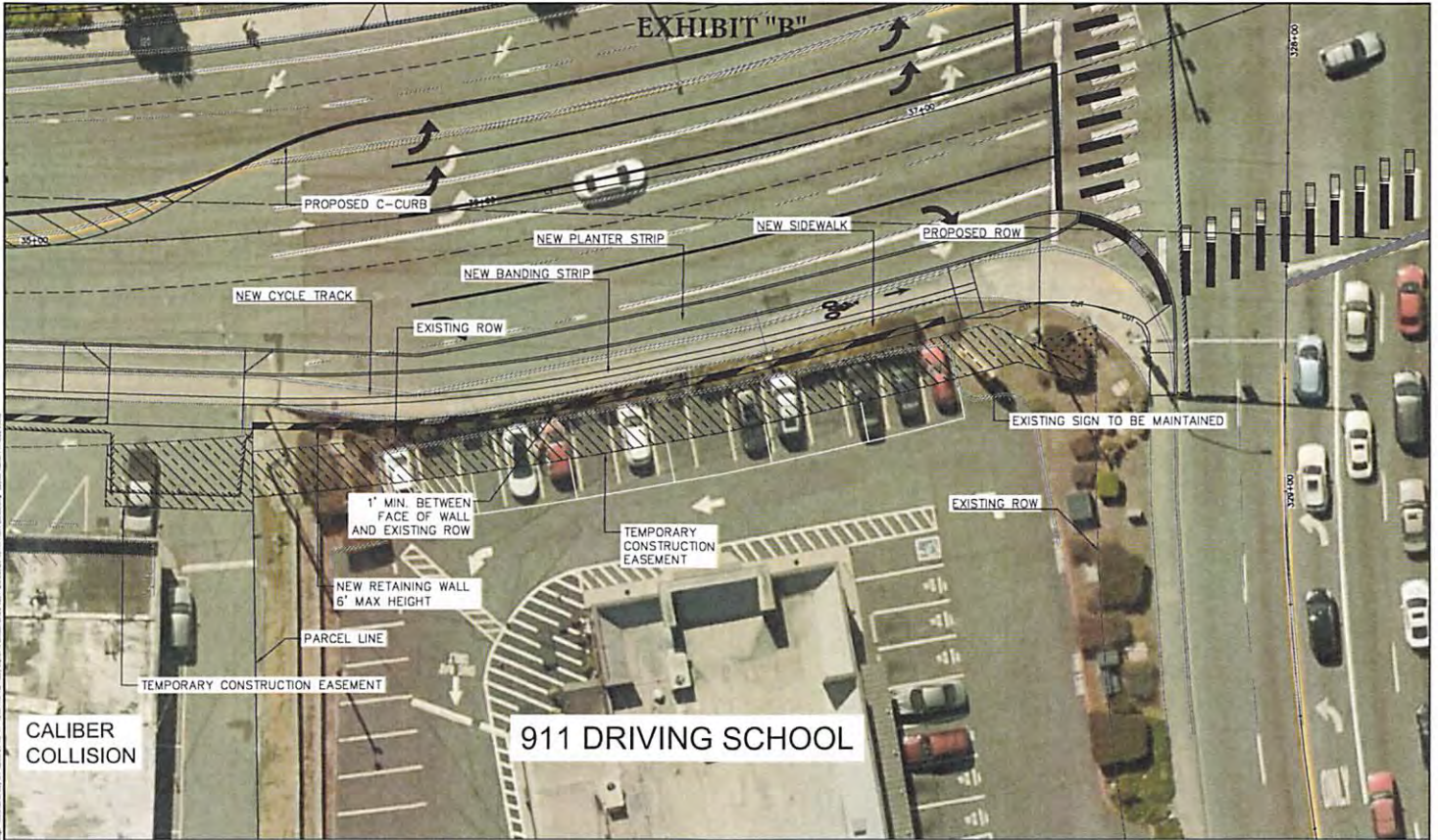
Grantor's Initials

A rectangular box containing the handwritten initials "awR" in blue ink. The text "Grantor's Initials" is printed in yellow above the box.

PERMIT

SEE ATTACHED

EXHIBIT "B"



LEGEND:

	RIGHT-OF-WAY ACQUISITION
	TEMPORARY CONSTRUCTION EASEMENT
	SLOPE EASEMENT

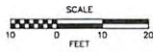


EXHIBIT DRAWING
FOR INFORMATIONAL
PURPOSES ONLY

PERTEET
2057 COLBY AVENUE, SUITE 300
EVERETT, WA 98201
425.352.7100 | 800.815.9900

CITY OF KIRKLAND
124TH AVE NE ROADWAY IMPROVEMENTS
OCTOBER 1, 2021

124TH AVE NE
PARCEL #: 2826059042

PARCEL 2826059177
4RTL LLC AND FWL-TOTEM LAKE LLC

REAL PROPERTY VOUCHER AGREEMENT

City of Kirkland Department of Public Works 123 Fifth Avenue, Kirkland WA 98033		I hereby agree to the terms and conditions listed below and certify under penalty of perjury that the items and amounts listed herein are proper charges, that the same or any part thereof has not been paid, and that I am authorized to sign for the Claimant: (Sign in ink) _____ (Date) 12-21-22	
GRANTOR or CLAIMANT		By: <u>[Signature]</u> Its: <u>124th Ave</u> By: <u>Colin W Radford</u> Its: <u>manager</u>	
PROJECT NUMBER: TITLE: 124TH AVENUE NE STREET IMPROVEMENTS		Tax ID: 282605-9177	PARCEL: P-177
In Full, Complete and Final Payment and Settlement for the Title or Interest Conveyed or Released, as Fully Set Forth: TEMPORARY CONSTRUCTION EASEMENT AND TEMPORARY CONSTRUCTION PERMIT Dated:			AMOUNT
For All Lands Conveyed: Temporary Construction Easement: 485 SF Temporary Construction Permit			+ \$4,590.00
For All Improvements: asphalt and retaining wall (no contributory value)			+\$0.00 +\$0.00
For All Damages: Cost to Cure - None			+\$0.00
JUST COMPENSATION (rounded)			\$4,590.00
Legal/Administrative: City agrees to pay \$5,000 as a full settlement for the Grantor's removal of the razor chain link fence from the right-of-way by January 31, 2023, prior to the City's commencement of construction of the Project, and the Grantor's reinstallation on Grantor's property.			\$5,000.00
FINAL SETTLEMENT			\$5,000.00

<p>Other Items:</p> <ol style="list-style-type: none"> GRANTOR shall remove the razor chain link fence from the City right-of-way by January 31, 2023, prior to the City's commencement of construction of the Project. Grantor may reinstall the removed razor chain link fence on Grantor's private property. Removal and reinstallation of the fence, including cleanup of resultant debris, shall be in accordance with any applicable City requirements. Failure to comply with the removal of the fence prior to construction will result in forfeiture of the fence to the City, and GRANTOR will be responsible for repaying the City the amount of the legal/administrative settlement hereunder or reimbursing City the full cost of removal by City's contractor, whichever is greater. The City shall not be held responsible for any damage to the fence resulting from the City's work in the right-of-way, construction of the Project, or the removal of the fence. The GRANTEE will construct the back of the new sidewalk along the east edge of the new retaining wall, see Exhibit "A", attached hereto. The City will construct the new road curb approximately 18 feet (+/-) from back of wall. The City will install new handrails starting at the north end of the wall and extending south until it reasonably ties-into the existing wall and handrail. As part of the construction of 124th Avenue NE Street Improvements project, the City agrees to reconstruct a 40-foot-wide driveway approach as shown in the drawing entitled "20160144 ROW Exhibit Dwg, Layout Name: Parcel #9177, dated March 2, 2022, and attached as Exhibit A When necessary during the construction of the project, the City will provide a well-graded and well-drained temporary driveway at the current driveway location off 124th Ave NE. The temporary driveway will be in good condition and suitable for vehicular traffic, including delivery trucks. The temporary approach will provide a firm temporary paved surface for pedestrians crossing. The City agrees to reconstruct the driveway entrance in two separate segments to permit continuous access to the driveway. When the concrete in the first segment of the entrance has reached the desired compressive strength as approved by the Engineer, the City will allow the routing of traffic over it, remove the temporary approach segment, and construct the remaining driveway entrance segment. The City will require in construction documents that the contractor complete all work on this parcel that will directly impact the driveway (demolition, temporary access, forming, pouring, tie-in, and curing time) within three (3) weeks from the beginning of the driveway reconstruction. This three-week time limitation does not apply to restriping parking stalls on the parcel or to any Project work occurring in the public right-of-way nearby or adjacent to this parcel, including, but not limited to, sidewalk construction, striping, and landscaping. The City will provide continuous temporary portable signs directing customers and delivery trucks through the construction area. When necessary, the City will provide a temporary portable sign to the driveway. As part of the construction of 124th Avenue NE Street Improvements project, the City agrees to install Opus 10 Infill Panels for pedestrian handrails as shown on page numbers UD-5 and 01/UD-6 of the City's 90% construction plans dated September 9, 2020, and attached hereto as Exhibit B. Using the TCE is for the sum of 12 non-consecutive months and shall terminate no later than December 31, 2024. The City's entry in the Easement Area for any number of days, even if only one day, of any given calendar month, shall constitute the use of a non-consecutive month. The City will provide notice to Owner not less than fifteen (15) days before commencing Project construction activities. The City will give notice to Grantor's tenant no later than twenty-four (24) hours before commencing project construction activities in the Easement Area and will give an additional 24-hour notice if construction activities in the Easement Area stop for more than fourteen (14) days. The City agrees to include all construction specifications listed above within the construction commitments in the City's final construction plans. 	
<p style="text-align: right;">SUBTOTAL</p>	<p>\$0.00</p>

Dedications:

SUBTOTAL

\$0.00

TOTAL AMOUNT TO BE PAID:

\$9,590.00


Rosa M. Villa, SR/WA Acquisition Agent

Date

12/30/2022

The City of Kirkland agrees to the terms and conditions listed above:

Public Works Director

Date

☐ Original – Public Works

PARCEL 2826059086
TOTEM SQUARE PARTNERS
(POSSESSION AND USE AGREEMENT)

SUPERIOR COURT OF WASHINGTON FOR KING COUNTY

CITY OF KIRKLAND, a Washington
municipal corporation,

Petitioner,

vs.

TOTEM SQUARE PARTNERS, a
California limited partnership; and KING
COUNTY, a municipal corporation,

Respondents.

NO. 22-2-02186-1 SEA

AGREED ORDER FOR
IMMEDIATE POSSESSION AND
USE

[CLERK'S ACTION REQUIRED]

I. FINDINGS OF FACT

1. Petitioner City of Kirkland ("City" or "Kirkland") is a municipal corporation organized under Title 35A of the Revised Code of Washington, and the City is authorized under the laws of the State of Washington to condemn land and other property rights for public uses.

2. The City has planned the 124th Ave NE Roadway Improvements ("Project") for several years. The Project will widen the roadway from three to five lanes, reconstruct and widen sidewalks, create buffered sidewalk-level bicycle lanes, improve transit stops, and provide landscaping and retaining walls along 124th Ave NE.

3. The Take Property at issue is located in the City of Kirkland, Washington, also

AGREED ORDER FOR IMMEDIATE POSSESSION AND
USE - 1

**KENYON
DISEND**

Kenyon Disend, PLLC
The Municipal Law Firm
11 Front Street South
Issaquah, WA 98027-3820
Tel: (425) 392-7090
Fax: (425) 392-7071

known as King County Tax Parcel No. 282605-9086, located within the city limits of
Kirkland, Washington, and legally described as follows:

That portion of the Southeast Quarter of the Southwest Quarter of
Section 28, Township 26 North, Range 5 East, Willamette Meridian,
in King County, Washington, described as follows:

Beginning at the southeast corner of said subdivision;
Thence North 01°43'38" East along the East line thereof a distance
of 1,346.94 feet to the northeast corner of said subdivision;
Thence North 89°19'00" West along the north line of said
subdivision a distance of 332.98 feet to the true point of beginning,
said point also being the northwest corner of the east half of the east
half of said subdivision;
Thence South 01°38'29" West along the west line thereof a distance
of 328.85 feet;
Thence North 89°19'00" West a distance of 491.06 feet to the
easterly right of way margin of the Northern Pacific Railroad
Company, as conveyed by deeds recorded under recording numbers
266024 and 268920;
Thence South 41°32'07" West along said easterly right of way line
a distance of 258.24 feet to the easterly line of primary state
Highway No. 1, as recorded under recording number 4562538;
Thence along a curve to the right, the center of which bears South
73°45'17" West, having a radius of 4,422.50 feet, an arc distance of
253.49 feet;
Thence North 77°02'21" East along a radial line, a distance of
185.00 feet;
Thence along said highway line on a curve to the right with a radius
of 4,607.50 feet, a central angle of 00°33'44", an arc distance of
45.09 feet to the south line of the north 100 feet of the east 5 acres
of the southwest quarter of the southeast quarter of the southwest
quarter of said section;
Thence along said south line South 88°57'48" East 63.79 feet;
Thence North 01°33'18" East a distance of 100.00 feet;
Thence South 88°57'48" East 331.94 feet to the west line of the east
half of the east half of the southeast quarter of the southwest quarter
of said section 28;
Thence North 01°38'29" East along said west line a distance of
54.57 feet;
Thence South 89°19'00" East a distance of 292.91 feet to the
westerly margin of 124th Avenue Northeast;
Thence North 02°26'36" East along said westerly margin a distance
of 617.17 feet to a point on the north line of the Southeast Quarter

1 of the Southwest Quarter of said Section 28, which bears South
2 89°19'00" East from the true point of beginning;
3 Thence North 89°19'00" West along said north line a distance of
4 301.55 feet to the true point of beginning;
5 Except that portion condemned for Primary State Highway No. 1
6 (SR-405) in King County Superior Court Cause Number 699764;

(Also known as Lot 1 of City of Kirkland Lot Line Adjustment
Number 84-28, recorded under recording number 8405010750).

7 4. On March 16, 2021, the City Council of the City of Kirkland adopted Ordinance
8 No. O-4754, exercising its powers of eminent domain to acquire the following portions of
9 the Subject Property legally described in the Ordinance (Fee Take) and Right-of-Way
10 (ROW) attached hereto as legally described in **Exhibit A**, a Temporary Construction
11 Easement (TCE) as legally described in **Exhibit B** hereto, and a Slope Easement as legally
12 described in **Exhibit C** hereto, and all of which is depicted on **Exhibit D** (collectively, the
13 "Take Area"), for the purpose of for the purpose of constructing the Project.

14 5. Respondent Totem Square Partners, a California limited partnership, ("Totem
15 Square") is the fee title owner of the Take Property.

16 6. The parties have previously stipulated to the public use and necessity of the
17 Take Area for the Project.¹

18 7. King County was dismissed from this lawsuit.²

19 II. ORDER

20 IT IS HEREBY ORDERED that at such time as Petitioner City of Kirkland ("City")
21 deposits the sum of Six Hundred Thousand Dollars (\$600,000.00) ("Possession Payment")
22

23
24 ¹ Dkt No. 12.

25 ² Dkt No. 11.

1 into the trust account of Totem Square's attorneys, the City shall have, and is hereby
2 awarded and granted, immediate possession and use of the Take Area.

3 IT IS FURTHER ORDERED that the fair market value of the Take Area shall be
4 determined as of the date of entry by the Court of this Agreed Order.

5 DONE IN OPEN COURT this 30th day of November, 2022.

6
7 
8 Hon. Jaime Hawk

9 Presented by:

10 KENYON DISEND, PLLC

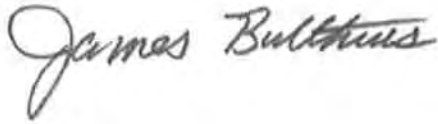
11 By /s/Hillary J. Evans

12 Hillary J. Evans
13 WSBA No. 35784
14 Alexandra L. Kenyon
15 WSBA No. 49575
16 Kenyon Disend, PLLC
17 11 Front Street South
18 Issaquah, Washington 98027-3820
19 Telephone: (425) 392-7090
20 Fax: (425) 392-7071
21 Hillary@KenyonDisend.com
22 Alexandra@KenyonDisend.com
23 Attorneys for the City of Kirkland
24
25



1 Agreed and Approved for Entry; Notice of Presentation Waived:

2 TOUSLEY BRAIN STEPHENS PLLC

3 

4 By:

5 Kim D. Stephens, WSBA #11984

6 kstephens@tousley.com

7 James Bulthuis, WSBA #44089

8 jbulthuis@tousley.com

9 1200 Fifth Avenue, Suite 1700

10 Seattle, WA 98101

11 Tel: (206) 682-5600

12 *Attorneys for Respondent Totem*

13 *Square Partners*

EXHIBIT A

EXHIBIT A
Legal Description of Right of Way Acquisition

A PORTION OF THE FOLLOWING DESCRIBED PARCEL;

THAT PORTION OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 01°43'38" EAST ALONG THE EAST LINE THEREOF A DISTANCE OF 1,346.94 FEET TO THE NORTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°19'00" WEST ALONG THE NORTH LINE OF SAID SUBDIVISION A DISTANCE OF 332.98 FEET TO THE TRUE POINT OF BEGINNING, SAID POINT ALSO BEING THE NORTHWEST CORNER OF THE EAST HALF OF THE EAST HALF OF SAID SUBDIVISION;
THENCE SOUTH 01°38'29" WEST ALONG THE WEST LINE THEREOF A DISTANCE OF 328.85 FEET;
THENCE NORTH 89°19'00" WEST A DISTANCE OF 491.06 FEET TO THE EASTERLY RIGHT OF WAY MARGIN OF THE NORTHERN PACIFIC RAILROAD COMPANY, AS CONVEYED BY DEEDS RECORDED UNDER RECORDING NUMBERS 266024 AND 268920;
THENCE SOUTH 41°32'07" WEST ALONG SAID EASTERLY RIGHT OF WAY LINE A DISTANCE OF 258.24 FEET TO THE EASTERLY LINE OF PRIMARY STATE HIGHWAY NUMBER 1, AS RECORDED UNDER RECORDING NUMBER 4562538;
THENCE ALONG A CURVE TO THE RIGHT, THE CENTER OF WHICH BEARS SOUTH 73°45'17" WEST, HAVING A RADIUS OF 4,422.50 FEET, AN ARC DISTANCE OF 253.49 FEET;
THENCE NORTH 77°02'21" EAST ALONG A RADIAL LINE, A DISTANCE OF 185.00 FEET;
THENCE ALONG SAID HIGHWAY LINE ON A CURVE TO THE RIGHT WITH A RADIUS OF 4,607.50 FEET, A CENTRAL ANGLE OF 00°33'44", AN ARC DISTANCE OF 45.09 FEET TO THE SOUTH LINE OF THE NORTH 100 FEET OF THE EAST 5 ACRES OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION;
THENCE ALONG SAID SOUTH LINE SOUTH 88°57'48" EAST 63.79 FEET;
THENCE NORTH 01°33'18" EAST A DISTANCE OF 100.00 FEET;
THENCE SOUTH 88°57'48" EAST 331.94 FEET TO THE WEST LINE OF THE EAST HALF OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 28;
THENCE NORTH 01°38'29" EAST ALONG SAID WEST LINE A DISTANCE OF 54.57 FEET;
THENCE SOUTH 89°19'00" EAST A DISTANCE OF 292.91 FEET TO THE WESTERLY MARGIN OF 124TH AVENUE NORTHEAST;
THENCE NORTH 02°26'36" EAST ALONG SAID WESTERLY MARGIN A DISTANCE OF 617.17 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 28, WHICH BEARS SOUTH 89°19'00" EAST FROM THE TRUE POINT OF BEGINNING;
THENCE NORTH 89°19'00" WEST ALONG SAID NORTH LINE A DISTANCE OF 301.55 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION CONDEMNED FOR PRIMARY STATE HIGHWAY NUMBER 1 (SR-405) BY KING COUNTY SUPERIOR COURT CAUSE NUMBER 699764.

(ALSO KNOWN AS LOT 1 OF CITY OF KIRKLAND LOT LINE ADJUSTMENT NUMBER 84-28, AS RECORDED UNDER KING COUNTY RECORDING NUMBER 8405010750).

SAID ACQUISITION DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED PARCEL;
THENCE NORTH $02^{\circ}26'23''$ EAST, ALONG THE WEST RIGHT OF WAY MARGIN OF 124TH AVENUE
NORTHEAST, A DISTANCE OF 511.28 FEET TO A POINT HEREINAFTER KNOWN AS POINT 'A';
THENCE SOUTH $03^{\circ}57'31''$ WEST, A DISTANCE OF 112.72 FEET;
THENCE SOUTH $03^{\circ}57'32''$ WEST, A DISTANCE OF 188.80 FEET;
THENCE SOUTH $02^{\circ}26'20''$ WEST, A DISTANCE OF 210.11 FEET TO THE SOUTH LINE OF SAID
PARCEL;
THENCE SOUTH $89^{\circ}18'56''$ EAST, ALONG SAID SOUTH LINE, A DISTANCE OF 7.99 FEET TO THE
POINT OF BEGINNING.

TOGETHER WITH:

COMMENCING AT SAID POINT 'A';
THENCE NORTH $02^{\circ}26'23''$ EAST, ALONG SAID MARGIN, A DISTANCE OF 89.15 FEET TO THE POINT
OF BEGINNING;

THENCE CONTINUING NORTH $02^{\circ}26'23''$ EAST, ALONG SAID MARGIN, A DISTANCE OF 16.98 FEET
TO THE NORTHEAST CORNER OF SAID PARCEL;
THENCE NORTH $89^{\circ}18'57''$ WEST, ALONG THE NORTH LINE OF SAID PARCEL, A DISTANCE OF 4.64
FEET;
THENCE SOUTH $05^{\circ}23'27''$ EAST, A DISTANCE OF 17.00 FEET;
THENCE SOUTH $87^{\circ}33'37''$ EAST, A DISTANCE OF 2.32 FEET TO THE POINT OF BEGINNING.

CONTAINING 2,941 SQUARE FEET, MORE OR LESS.



EXHIBIT B

EXHIBIT B
Legal Description of Temporary Construction Easement

A PORTION OF THE FOLLOWING DESCRIBED PARCEL;

THAT PORTION OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 01°43'38" EAST ALONG THE EAST LINE THEREOF A DISTANCE OF 1,346.94 FEET TO THE NORTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°19'00" WEST ALONG THE NORTH LINE OF SAID SUBDIVISION A DISTANCE OF 332.98 FEET TO THE TRUE POINT OF BEGINNING, SAID POINT ALSO BEING THE NORTHWEST CORNER OF THE EAST HALF OF THE EAST HALF OF SAID SUBDIVISION;
THENCE SOUTH 01°38'29" WEST ALONG THE WEST LINE THEREOF A DISTANCE OF 328.85 FEET;
THENCE NORTH 89°19'00" WEST A DISTANCE OF 491.06 FEET TO THE EASTERLY RIGHT OF WAY MARGIN OF THE NORTHERN PACIFIC RAILROAD COMPANY, AS CONVEYED BY DEEDS RECORDED UNDER RECORDING NUMBERS 266024 AND 268920;
THENCE SOUTH 41°32'07" WEST ALONG SAID EASTERLY RIGHT OF WAY LINE A DISTANCE OF 258.24 FEET TO THE EASTERLY LINE OF PRIMARY STATE HIGHWAY NUMBER 1, AS RECORDED UNDER RECORDING NUMBER 4562538;
THENCE ALONG A CURVE TO THE RIGHT, THE CENTER OF WHICH BEARS SOUTH 73°45'17" WEST, HAVING A RADIUS OF 4,422.50 FEET, AN ARC DISTANCE OF 253.49 FEET;
THENCE NORTH 77°02'21" EAST ALONG A RADIAL LINE, A DISTANCE OF 185.00 FEET;
THENCE ALONG SAID HIGHWAY LINE ON A CURVE TO THE RIGHT WITH A RADIUS OF 4,607.50 FEET, A CENTRAL ANGLE OF 00°33'44", AN ARC DISTANCE OF 45.09 FEET TO THE SOUTH LINE OF THE NORTH 100 FEET OF THE EAST 5 ACRES OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION;
THENCE ALONG SAID SOUTH LINE SOUTH 88°57'48" EAST 63.79 FEET;
THENCE NORTH 01°33'18" EAST A DISTANCE OF 100.00 FEET;
THENCE SOUTH 88°57'48" EAST 331.94 FEET TO THE WEST LINE OF THE EAST HALF OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 28;
THENCE NORTH 01°38'29" EAST ALONG SAID WEST LINE A DISTANCE OF 54.57 FEET;
THENCE SOUTH 89°19'00" EAST A DISTANCE OF 292.91 FEET TO THE WESTERLY MARGIN OF 124TH AVENUE NORTHEAST;
THENCE NORTH 02°26'36" EAST ALONG SAID WESTERLY MARGIN A DISTANCE OF 617.17 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 28, WHICH BEARS SOUTH 89°19'00" EAST FROM THE TRUE POINT OF BEGINNING;
THENCE NORTH 89°19'00" WEST ALONG SAID NORTH LINE A DISTANCE OF 301.55 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION CONDEMNED FOR PRIMARY STATE HIGHWAY NUMBER 1 (SR-405) BY KING COUNTY SUPERIOR COURT CAUSE NUMBER 699764.

(ALSO KNOWN AS LOT 1 OF CITY OF KIRKLAND LOT LINE ADJUSTMENT NUMBER 84-28, AS RECORDED UNDER KING COUNTY RECORDING NUMBER 8405010750).

SAID EASEMENT DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED PARCEL;
THENCE NORTH 89°18'56" WEST, ALONG THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 7.99
FEET TO THE POINT OF BEGINNING;

THENCE CONTINUING NORTH 89°18'56" WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 23.00
FEET;

THENCE NORTH 02°23'25" EAST, A DISTANCE OF 29.97 FEET;

THENCE SOUTH 89°48'42" EAST, A DISTANCE OF 23.03 FEET;

THENCE SOUTH 02°26'20" WEST, A DISTANCE OF 30.17 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH:

COMMENCING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED PARCEL;
THENCE NORTH 02°26'23" EAST, ALONG THE WEST RIGHT OF WAY MARGIN OF 124TH AVENUE
NORTHEAST, A DISTANCE OF 511.28 FEET;

THENCE SOUTH 03°57'31" WEST, A DISTANCE OF 112.72 FEET;

THENCE SOUTH 03°57'32" WEST, A DISTANCE OF 53.92 FEET;

THENCE NORTH 86°02'29" WEST, A DISTANCE OF 6.57 FEET;

THENCE NORTH 03°57'31" EAST, A DISTANCE OF 99.83 FEET TO THE POINT OF BEGINNING;

THENCE CONTINUING NORTH 03°57'31" EAST, A DISTANCE OF 39.99 FEET;

THENCE NORTH 86°02'28" WEST, A DISTANCE OF 38.10 FEET;

THENCE SOUTH 03°57'32" WEST, A DISTANCE OF 38.99 FEET;

THENCE SOUTH 86°02'29" EAST, A DISTANCE OF 38.10 FEET TO THE POINT OF BEGINNING.

CONTAINING 2,215 SQUARE FEET, MORE OR LESS.



EXHIBIT C

Recorded at the Request of, and
When Recorded Return to:

City of Kirkland
Public Works Department
123 Fifth Avenue
Kirkland, Washington 98033

(Space above this line for recorder's use only)

DOCUMENT TITLE:	Easement
REFERENCE NUMBER(S) OF RELATED DOCUMENTS	
Additional reference numbers on page(s) ___ of document.	
GRANTOR:	Totem Square Partners
GRANTEE:	City of Kirkland
ABBREVIATED LEGAL DESCRIPTION:	Lot(s): 1 KIRKLAND LLA NO 84-28 REC NO 8405010750 Tax Account No.: 282605-9086
Additional legal on page <u>Exhibit A and B</u> of document.	
ASSESSOR'S TAX PARCEL NO(S).	282605-9086

EASEMENT

City Project: 124th Ave NE Roadway Improvements

THE GRANTORS, Totem Square Partners, a California limited partnership for and in consideration of the sum of TEN AND NO/100 (\$10.00) Dollars and other valuable consideration, and under the imminent threat of the GRANTEE's exercise of its rights of Eminent Domain, receipt of which is hereby acknowledged, conveys and grants to **THE GRANTEE, THE CITY OF KIRKLAND**, a Washington municipality, its successors and assigns, a permanent, non-exclusive easement described as follows:

SEE EXHIBIT "A" – containing a legal description of easement(s), and a graphical representation of easement(s), attached hereto and by this reference incorporated herein ("Easement Area")

solely for the purpose of grading, restoring, constructing and reconstructing, and maintaining a slope transition between the right-of-way and abutting lands, retaining walls, and safety rails, together with the right to keep said Easement Area free of obstructions, along with the right of ingress and egress thereto to enable GRANTEE to exercise its rights hereunder.

This easement is granted subject to the following terms and conditions:

1. When in the process of performing any work in the Easement Area, GRANTEE shall use construction procedures so that access to GRANTOR's property is not blocked. No construction equipment or materials shall be stored in the easement area. The Easement Area shall not be utilized for any purpose by Grantee that is not specifically required with respect to the work to be done on the Easement Area itself.

EASEMENT

2. The GRANTEE shall, upon completion of any work within the Easement Area, restore said area and any private improvements disturbed, damaged or destroyed, during execution of the work, as nearly as practical to the condition as existed immediately before the commencement of the work or entry by the GRANTEE.
3. GRANTOR shall retain the right to use the Easement Area as long as such use does not interfere with the easement rights granted to the GRANTEE. GRANTOR shall not, however, have the right to:
 - (a) Subject to Paragraph 5 below, erect or maintain any buildings or structures within the Easement Area; or
 - (b) Plant trees, shrubs or vegetation having root patterns, which may cause damage to or interfere with the facilities placed within the Easement Area by the GRANTEE; or
 - (c) Develop, landscape, or beautify the Easement Area in any way, which would unreasonably increase the cost to the GRANTEE of restoring the Easement Area and any private improvements therein.
4. In case of an emergency, the GRANTEE shall have the right without prior notice or proceeding at law, to enter upon the property for the purpose of construction, repairing and/or reconstruction said street, sidewalk and related appurtenances, or making any connections therewith. In all other cases, the GRANTEE shall notify the GRANTOR of the need to enter onto Easement Area prior to doing so.
5. This easement and the slope and retaining wall may be eliminated in the future by bringing the abutting lands to the same grade as the street facilities.
6. These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.
7. If legal action is required to enforce the terms of this Easement, the prevailing party is entitled to reasonable costs and attorney's fees. This Easement shall be interpreted and enforced pursuant to the laws of the State of Washington. Venue for any lawsuit arising out of this Easement shall be in the Superior Court of King County, Washington.

This easement shall be recorded with the King County Recorder's Office, shall run with the GRANTOR's Property, and shall be binding upon the parties, their heirs, successors in interest and assigns. GRANTOR covenants that they are the lawful owners of the property hereby encumbered and that they have the authority to convey such easement.

Acceptance by the GRANTEE: _____
Director of Public Works, CITY OF KIRKLAND

EASEMENT

OWNER

Totem Square Partners,
a California limited partnership

By: Major Acquisition Corporation,
a California corporation
its general partner

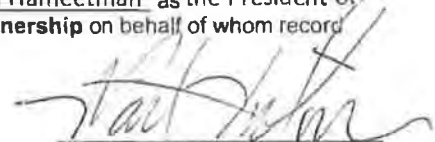
By: 
Fred Hameetman, President

Acknowledgment

State of California)
) SS
County of Los Angeles)

This record was acknowledged before me on October 19, 2022 by Fred Hameetman as the President of the General Partner of **Totem Square Partners, a California limited partnership** on behalf of whom record was executed.




(Signature of Notary Public)

Notary Public
(Title of office)

September 17, 2025
(My commission expires)

EXHIBIT C A
Legal Description of Slope Easement

A PORTION OF THE FOLLOWING DESCRIBED PARCEL;

THAT PORTION OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 01°43'38" EAST ALONG THE EAST LINE THEREOF A DISTANCE OF 1,346.94 FEET TO THE NORTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 89°19'00" WEST ALONG THE NORTH LINE OF SAID SUBDIVISION A DISTANCE OF 332.98 FEET TO THE TRUE POINT OF BEGINNING, SAID POINT ALSO BEING THE NORTHWEST CORNER OF THE EAST HALF OF THE EAST HALF OF SAID SUBDIVISION;
THENCE SOUTH 01°38'29" WEST ALONG THE WEST LINE THEREOF A DISTANCE OF 328.85 FEET;
THENCE NORTH 89°19'00" WEST A DISTANCE OF 491.06 FEET TO THE EASTERLY RIGHT OF WAY MARGIN OF THE NORTHERN PACIFIC RAILROAD COMPANY, AS CONVEYED BY DEEDS RECORDED UNDER RECORDING NUMBERS 266024 AND 268920;
THENCE SOUTH 41°32'07" WEST ALONG SAID EASTERLY RIGHT OF WAY LINE A DISTANCE OF 258.24 FEET TO THE EASTERLY LINE OF PRIMARY STATE HIGHWAY NUMBER 1, AS RECORDED UNDER RECORDING NUMBER 4562538;
THENCE ALONG A CURVE TO THE RIGHT, THE CENTER OF WHICH BEARS SOUTH 73°45'17" WEST, HAVING A RADIUS OF 4,422.50 FEET, AN ARC DISTANCE OF 253.49 FEET;
THENCE NORTH 77°02'21" EAST ALONG A RADIAL LINE, A DISTANCE OF 185.00 FEET;
THENCE ALONG SAID HIGHWAY LINE ON A CURVE TO THE RIGHT WITH A RADIUS OF 4,607.50 FEET, A CENTRAL ANGLE OF 00°33'44", AN ARC DISTANCE OF 45.09 FEET TO THE SOUTH LINE OF THE NORTH 100 FEET OF THE EAST 5 ACRES OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION;
THENCE ALONG SAID SOUTH LINE SOUTH 88°57'48" EAST 63.79 FEET;
THENCE NORTH 01°33'18" EAST A DISTANCE OF 100.00 FEET;
THENCE SOUTH 88°57'48" EAST 331.94 FEET TO THE WEST LINE OF THE EAST HALF OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 28;
THENCE NORTH 01°38'29" EAST ALONG SAID WEST LINE A DISTANCE OF 54.57 FEET;
THENCE SOUTH 89°19'00" EAST A DISTANCE OF 292.91 FEET TO THE WESTERLY MARGIN OF 124TH AVENUE NORTHEAST;
THENCE NORTH 02°26'36" EAST ALONG SAID WESTERLY MARGIN A DISTANCE OF 617.17 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 28, WHICH BEARS SOUTH 89°19'00" EAST FROM THE TRUE POINT OF BEGINNING;
THENCE NORTH 89°19'00" WEST ALONG SAID NORTH LINE A DISTANCE OF 301.55 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION CONDEMNED FOR PRIMARY STATE HIGHWAY NUMBER 1 (SR-405) BY KING COUNTY SUPERIOR COURT CAUSE NUMBER 699764.
(ALSO KNOWN AS LOT 1 OF CITY OF KIRKLAND LOT LINE ADJUSTMENT NUMBER 84-28, AS RECORDED UNDER KING COUNTY RECORDING NUMBER 8405010750).

SAID EASEMENT DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED PARCEL;
THENCE NORTH 02°26'23" EAST, ALONG THE WEST RIGHT OF WAY MARGIN OF 124TH AVENUE
NORTHEAST, A DISTANCE OF 511.28 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 03°57'31" WEST, A DISTANCE OF 112.72 FEET;
THENCE SOUTH 03°57'32" WEST, A DISTANCE OF 53.92 FEET;
THENCE NORTH 86°02'29" WEST, A DISTANCE OF 6.57 FEET;
THENCE NORTH 03°57'31" EAST, A DISTANCE OF 166.66 FEET;
THENCE NORTH 02°26'10" EAST, A DISTANCE OF 43.70 FEET;
THENCE SOUTH 87°33'50" EAST, A DISTANCE OF 6.57 FEET TO SAID MARGIN;
THENCE SOUTH 02°26'23" WEST, ALONG SAID MARGIN, A DISTANCE OF 43.89 FEET TO THE POINT
OF BEGINNING.

CONTAINING 1,383 SQUARE FEET, MORE OR LESS.

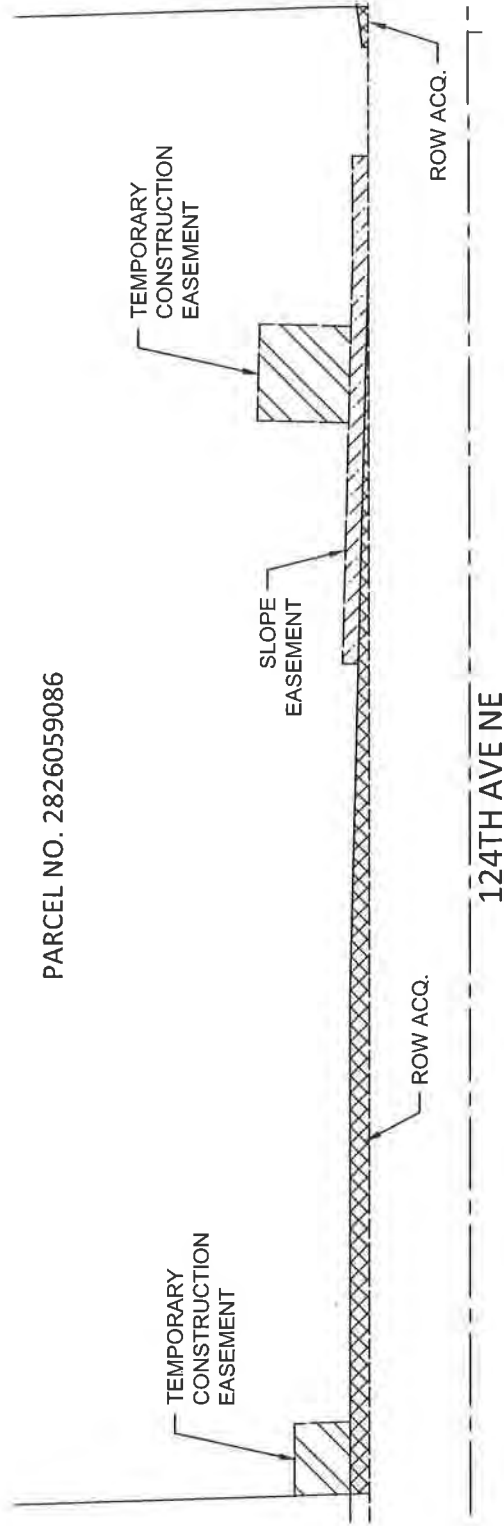


EXHIBIT D

EXHIBIT E

SEC. 28, T. 26 N., R. 5 E., W.M.
KING COUNTY, WA

PARCEL NO. 2826059086



1 ALLIANCE
GEOMATICS
SURVEYING & MAPPING

1261A 120TH AVE NE
Bellevue, Washington 98005

Ph: (425) 598-2200
Fax: (425) 502-8067

CITY OF KIRKLAND
124TH AVE NE ROADWAY IMPROVEMENTS
COMBINED ROW ACQ., SLOPE EASEMENT, TCE EXHIBIT
PARCEL NO. 2826059086

DRAWN BY: R. BRAND DATE: 10-22-2019

PARCEL 2826059016
PUBLIC STORAGE
(POSSESSION AND USE AGREEMENT)

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2
3
4
5
6
7 SUPERIOR COURT OF WASHINGTON FOR KING COUNTY

8 CITY OF KIRKLAND, a Washington
9 municipal corporation,

10 Petitioner,

11 vs.

12 PUBLIC STORAGE, a Maryland real estate
13 investment Trust, successor by merger to
14 Public Storage XVI, Inc.; PUGET SOUND
15 ENERGY, INC., f/k/a PUGET SOUND
16 POWER & LIGHT COMPANY; and KING
17 COUNTY, a municipal corporation,

18 Respondents.

NO. 22-2-03171-9 SEA

AGREED ORDER FOR
IMMEDIATE POSSESSION AND
USE

(Clerk's Action Required)

19 Petitioner City of Kirkland ("Petitioner" or "Kirkland") and Respondent Public
20 Storage, successor by merger to Public Storage XVI, Inc. ("Public Storage"), by and
21 through their respective attorneys of record, agree to entry of the subjoined Order for
22 Immediate Possession and Use. Respondent Puget Sound Energy has not appeared in this
23 matter and Respondent King County has been dismissed from this matter.

24 ORDER FOR IMMEDIATE POSSESSION AND USE

25 IT IS HEREBY ORDERED:

1. At such time as Petitioner deposits the sum of Four Hundred and Ninety Six

AGREED ORDER FOR IMMEDIATE POSSESSION AND
USE - 1



Kenyon Disend, PLLC
The Municipal Law Firm
11 Front Street South
Issaquah, WA 98027-3820
Tel: (425) 392-7090
Fax: (425) 392-7071

1 Thousand Dollars (\$496,000.00) ("Possession Payment") into the registry of the Court in
2 accordance with RCW 8.25.070 as its offer to acquire real property and property rights
3 necessary for construction of the 124th Avenue NE Roadway Improvements project
4 ("Project"), as such property and property rights are described in the Petition in Eminent
5 Domain ("Petition") filed herein, the City of Kirkland shall have, and is hereby awarded
6 and granted, immediate possession and use of the Take Property, as described below.

7 2. As described in the Petition, Respondent Public Storage is the fee title owner
8 of certain real property located in the City of Kirkland, Washington, known as King
9 County Tax Parcel No. 282605-9016 (the "Property"), legally described as:

10 That portion of the Southwest quarter of Section 28,
11 Township 26 North, Range 5 East, Willamette Meridian, in
12 King County, Washington, described as follows:

13 Commencing at the Southeast corner of said subdivision;
14 thence North 01°43'38" East, along the East line of said
15 subdivision, a distance of 1,347.20 feet to the Southeast
16 corner of the Northeast quarter of said subdivision and the
17 true point of beginning;

18 thence continuing North 01°43'38" East, along the East line
19 of said subdivision, a distance of 336.80 feet to the South
20 line of the North 30 acres of the Northeast quarter of said
21 subdivision;

22 thence North 89°29'32" West, to the West line of the East
23 75 feet of the Northeast quarter of said subdivision;

24 thence North 01°43'38" East, along said West line to the
25 Southerly margin of Northeast 124th Street, as conveyed to
King County by deed recorded under Recording Number
6582932;

thence Westerly along said Southerly margin to the
Southeasterly margin of the Northern Pacific Railway Co.
Right of Way, as conveyed by deeds recorded under
Recording Numbers 266024 and 268920;

thence Southwesterly along said Southeasterly margin to a
point being North 89°19'00" West a distance of 824.04, and
South 01°38'28" West a distance of 328.85 feet from the

1 Northeast corner of the Southeast quarter of said
2 subdivision;
3 thence South 89°19'00" East a distance of 491.06 feet;
4 thence North 01°38'28" East a distance of 328.85 feet;
5 thence South 89°19'00" East a distance of 332.98 feet to the
6 true point of beginning;

7 Except that portion thereof lying within 124th Avenue
8 Northeast, as conveyed to King County by deed recorded
9 under Recording Number 6582931;

10 Also except that portion thereof conveyed to the City of
11 Kirkland by deed recorded June 11, 2008 under Recording
12 No. 20080611001939;

13 Also except any portion of the within described property
14 lying within the Southeast quarter of the Southwest quarter
15 of said Section 28.

16 3. As described in the Petition, the take area shall be a portion of the Property,
17 and shall consist of (1) the Fee Take, as legally described in Exhibit A; (2) a Temporary
18 Construction Easement ("TCE") as legally described and with the terms as set forth in
19 Exhibit B; and (3) a Slope Easement as legally described in Exhibit C, all of which are
20 depicted on Exhibit D (collectively, the "Take Property"), for the purpose of constructing
21 the Project.

22 4. The Grantee of the Slope Easement legally described in Exhibit C will
23 extinguish the Slope Easement in the future if the Grantor is able to provide substitute
24 support. Such substitute support must be reviewed and approved by the City's Public
25 Works Department to the City's satisfaction.

5. This Agreed Order for Immediate Possession and Use also constitutes the
adjudication of public use and necessity for the Project.

6. The fair market value of the Take Property shall be determined as of the later

1 of the date of entry by the Court of this Agreed Order or the date of deposit by the City
2 with the Court of the Possession Payment, and entry of this Agreed Order is without
3 prejudice to Public Storage's ability to seek compensation in excess of the Possession
4 Payment.

5 DONE IN OPEN COURT this 8th day of June, 2022.

6
7
8 Judge of the Superior Court

Mafe Rajul

9 Presented by:

10 KENYON DISEND, PLLC

11 By s/Hillary J. Evans

12 Hillary J. Evans
13 WSBA No. 35784
14 Alexandra L. Kenyon
15 WSBA No. 49575
16 Kenyon Disend, PLLC
17 11 Front Street South
18 Issaquah, Washington 98027-3820
Telephone: (425) 392-7090
Fax: (425) 392-7071
Hillary@KenyonDisend.com
Alexandra@KenyonDisend.com
Attorneys for the City of Kirkland

19 ///

20 ///

21 ///

22 ///

23 ///

24 ///

25
AGREED ORDER FOR IMMEDIATE POSSESSION AND
USE - 4

KENYON
DISEND

Kenyon Disend, PLLC
The Municipal Law Firm
11 Front Street South
Issaquah, WA 98027-3820
Tel: (425) 392-7090
Fax: (425) 392-7071

1 Agreed and Approved for Entry;
2 Notice of Presentation Waived:

3 RODGERS DEUTSCH & TURNER, PLLC

4 By s/Daryl A. Deutsch

5 Daryl A. Deutsch

6 WSBA No. 11003

7 Rodgers Deutsch & Turner, PLLC

8 Three Lake Bellevue Suite 100

9 Bellevue, WA 98005

10 *Attorneys for Respondent Public*
11 *Storage*

EXHIBIT A
Legal Description of Right of Way Acquisition

A PORTION OF THE FOLLOWING DESCRIBED PARCEL;

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 1°43'38" EAST, ALONG THE EAST LINE OF SAID SUBDIVISION, A DISTANCE OF 1,347.20 FEET TO THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SUBDIVISION AND THE TRUE POINT OF BEGINNING;

THENCE CONTINUING NORTH 1°43'38" EAST, ALONG THE EAST LINE OF SAID SUBDIVISION A DISTANCE OF 336.80 FEET TO THE SOUTH LINE OF THE NORTH 30 ACRES OF THE NORTHEAST QUARTER OF SAID SUBDIVISION;

THENCE NORTH 89°29'32" WEST, TO THE WEST LINE OF THE EAST 75 FEET OF THE NORTHEAST QUARTER OF SAID SUBDIVISION;

THENCE NORTH 01°43'38" EAST, ALONG SAID WEST LINE TO THE SOUTHERLY MARGIN OF NORTHEAST 124TH STREET, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 6582932;

THENCE WESTERLY ALONG SAID SOUTHERLY MARGIN TO THE SOUTHEASTERLY MARGIN OF THE NORTHERN PACIFIC RAILWAY CO. RIGHT-OF-WAY, AS CONVEYED BY DEEDS RECORDED UNDER RECORDING NUMBERS 266024 AND 268920;

THENCE SOUTHWESTERLY ALONG SAID SOUTHEASTERLY MARGIN TO A POINT BEING NORTH 89°19' WEST, 824.04 FEET, AND SOUTH 1°38'28", 328.85 FEET FROM THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SUBDIVISION;

THENCE SOUTH 89°10' EAST, A DISTANCE OF 491.06 FEET;

THENCE NORTH 1°38'28" EAST, A DISTANCE OF 328.85 FEET;

THENCE SOUTH 89°19' EAST, A DISTANCE OF 332.98 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION THEREOF LYING WITHIN 124TH AVENUE NORTHEAST, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 6582931;

AND EXCEPT THAT PORTION THEREOF DEEDED TO THE CITY OF KIRKLAND BY DEED RECORDED UNDER RECORDING NUMBER 20080611001939.

SAID ACQUISITION DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED PARCEL;

THENCE NORTH 02°26'23" EAST, ALONG THE WEST RIGHT OF WAY MARGIN OF 124TH AVENUE NORTHEAST, A DISTANCE OF 71.67 FEET TO AN ANGLE POINT IN SAID MARGIN;

THENCE NORTH 89°17'28" WEST, ALONG SAID MARGIN, A DISTANCE OF 5.50 FEET TO AN ANGLE POINT IN SAID MARGIN;

THENCE NORTH 02°26'23" EAST, ALONG SAID MARGIN, A DISTANCE OF 26.49 FEET TO A TANGENT CURVE TO THE LEFT WITH A RADIUS OF 783.35 FEET;

THENCE NORTHERLY, ALONG SAID CURVE AND MARGIN, THROUGH A CENTRAL ANGLE OF 01°11'58" AND AN ARC LENGTH OF 16.40 FEET TO AN ANGLE POINT IN SAID MARGIN;

THENCE NORTH 89°17'28" WEST, ALONG SAID MARGIN, A DISTANCE OF 4.00 FEET TO AN ANGLE POINT IN SAID MARGIN AND A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 779.35 FEET, THE CENTER OF WHICH BEARS NORTH 88°45'25" WEST;
THENCE NORTHERLY ALONG SAID CURVE AND MARGIN, THROUGH A CENTRAL ANGLE OF 10°08'50" AND AN ARC LENGTH OF 138.03 FEET TO AN ANGLE POINT IN SAID MARGIN;
THENCE NORTH 36°01'32" WEST, ALONG SAID MARGIN, A DISTANCE OF 12.23 FEET TO AN ANGLE POINT IN SAID MARGIN AND A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 773.85 FEET, THE CENTER OF WHICH BEARS SOUTH 80°17'23" WEST;
THENCE NORTHERLY, ALONG SAID CURVE AND MARGIN, THROUGH A CENTRAL ANGLE OF 06°04'21" AND AN ARC LENGTH OF 82.02 FEET TO AN ANGLE POINT IN SAID MARGIN;
THENCE NORTH 24°22'29" WEST, ALONG SAID MARGIN, A DISTANCE OF 23.85 FEET;
THENCE SOUTH 65°37'31" WEST, PERPENDICULAR TO SAID MARGIN, A DISTANCE OF 6.57 FEET;
THENCE SOUTH 15°10'22" EAST, A DISTANCE OF 61.28 FEET;
THENCE SOUTH 75°56'38" WEST, A DISTANCE OF 1.53 FEET TO A NON-TANGENT CURVE TO THE RIGHT WITH A RADIUS OF 982.17 FEET, THE CENTER OF WHICH BEARS SOUTH 76°02'49" WEST;
THENCE SOUTHERLY, ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 01°48'27" AND AN ARC LENGTH OF 30.99 FEET;
THENCE NORTH 79°12'54" EAST, A DISTANCE OF 1.53 FEET;
THENCE SOUTH 10°47'28" EAST, A DISTANCE OF 46.00 FEET TO A NON-TANGENT CURVE TO THE RIGHT WITH A RADIUS OF 973.22 FEET, THE CENTER OF WHICH BEARS SOUTH 78°50'24" WEST;
THENCE SOUTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 04°04'22" AND AN ARC LENGTH OF 69.18 FEET;
THENCE SOUTH 05°23'27" EAST, A DISTANCE OF 96.10 FEET;
THENCE SOUTH 84°36'33" WEST, A DISTANCE OF 4.98 FEET;
THENCE SOUTH 05°23'27" EAST, A DISTANCE OF 61.87 FEET TO THE SOUTH LINE OF SAID PARCEL;
THENCE SOUTH 89°18'57" EAST, ALONG THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 4.64 FEET TO THE POINT OF BEGINNING.

CONTAINING 3,539 SQUARE FEET, MORE OR LESS.



EXHIBIT B

Recorded at the Request of, and
When Recorded Return to:

City of Kirkland
Public Works Department
123 Fifth Avenue
Kirkland, Washington 98033

(Space above this line for recorder's use only)

DOCUMENT TITLE:	Temporary Construction Easement
REFERENCE NUMBER(S) OF RELATED DOCUMENTS:	
Additional reference numbers on page(s) _____ of document.	
GRANTOR:	Public Storage Properties XVI Inc.
GRANTEE:	City of Kirkland
ABBREVIATED LEGAL DESCRIPTION:	Ptn SW 1/4 Sec 28, T26N, R5E, W.M. Tax Account No.: 282605-9016 and 282605-9035
Additional legal on page <u>Exhibit A and B</u> of document.	
ASSESSOR'S TAX PARCEL NO(S).	282605-9016

TEMPORARY CONSTRUCTION EASEMENT

124th Ave NE Roadway Improvements

THE GRANTORS, Public Storage, a Maryland real estate investment trust, successor by merger to Public Storage Properties XVI, Inc. for and in consideration of the sum of TEN AND NO/100 (\$10.00) Dollars and other valuable consideration, and under the imminent threat of the Grantee's exercise of its rights of Eminent Domain, receipt of which is hereby acknowledged, conveys and grants to **THE GRANTEE, THE CITY OF KIRKLAND**, a Washington municipality, its successors and assigns, a temporary non-exclusive easement ("Easement") described as follows:

SEE EXHIBIT "A" and "B" – Legal Description of Easement(s), including a map of Easement(s), attached hereto and by this reference incorporated herein, ("Easement Area")

from the start of construction activities on the 124th Ave NE Roadway Improvements Project ("Project") and shall terminate by December 30, 2023 or until completion and acceptance of Project, whichever occurs first, (the "Termination Date"), for any and all purposes incidental to the construction of the Project. This Easement shall automatically terminate on the Termination Date without any further action or documentation by Grantor or Grantee.

This Easement is granted subject to the following terms and conditions:

1. For the duration of this Easement, Grantors shall not:
 - a) Erect or maintain any buildings or structures within the Easement Area; or

LPA-325
05/2021

Page 1 of 4

FA No. STPUL-2053(002)
Parcel No. 2826059016

TEMPORARY CONSTRUCTION EASEMENT

- b) Develop, landscape, or beautify the Easement Area in any way, which would unreasonably increase the cost to the GRANTEE of restoring the Easement Area and any private improvements therein.
2. In connection with its use of the Easement Area, Grantee shall: (a) use its best efforts to schedule the project so that work does not occur on the Easement Area on the first or last days of each calendar month; (b) promptly perform and complete Grantee Work in a good and workmanlike manner; (c) take all safety precautions reasonably necessary to protect Grantor's Property, Grantor and Grantor's tenants and invitees from injury or damage, including installing safety fencing and signage as needed; and (d) keep Grantor reasonably informed of the timing and status of Grantee Work.
3. Grantee acknowledges that the Easement Area is a portion of the Public Storage self-storage facility at 12249 NE 124th Street, Kirkland, Washington ("Facility"), and the sole access to the Facility is through the Easement Area. Grantee shall maintain access to the Facility at all times (i.e., at least half of any driveway must be usable by vehicles entering or exiting the Facility at all times). Grantee shall not unreasonably interfere with Public Storage's self-storage operations at the Facility.
4. Grantee shall not use the Easement Area for staging or storing tools, implements, machinery, or materials.
5. Grantee shall promptly pay all contractors and subcontractors performing any Grantee Work and shall keep Grantor's Property free and clear of mechanics' liens, materialman's liens, and stop notices arising therefrom. If any such lien or notice is filed and not removed or bonded over to Grantor's reasonable satisfaction within ten days of Grantor notifying Grantee thereof, Grantor may remove or insure over such lien or notice at Grantee's expense. Grantee shall reimburse Grantor for 110% of such costs and expenses upon demand.
6. Grantee shall not store, keep, use, discharge or release any Hazardous Substances on Grantor's Property in violation of any Environmental Law. "Hazardous Substances" means any material or substance which is or becomes designated, classified or regulated as being toxic, hazardous, harmful to health, life or the environment, or as a pollutant, contaminant or waste under any Environmental Law, including asbestos, carcinogens, petroleum, petroleum-related byproducts and their constituents. "Environmental Law" means any applicable federal, state, county, municipal or local code, statute, law, ordinance, rule, regulation, order, decision or decree, as amended from time to time, pertaining to health, industrial hygiene or the environment, including CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980), RCRA (Resources Conservation and Recovery Act of 1976), and SARA (Superfund Amendments and Reauthorization Act of 1986).
7. Grantee shall indemnify and save the Grantors harmless from any and all claims and causes of action of every kind and description which may accrue to, or be suffered by, any person, persons or property by reason of, arising out of, or resulting from the use and occupancy of said lands by the Grantee, its successors and assigns except for the sole negligence of the Grantor.
8. In case of an emergency, the Grantee shall have the right without prior notice or proceeding at law, to enter upon the property for purposes of construction, repair and/or reconstruction of public and/or private improvements.
9. This Easement is temporary in duration and is for the purpose of granting permission to the GRANTEE and its agents to enter onto the Grantors' property and make surface modification to the Easement Area, as identified on the attached exhibits and as necessary to complete the Project.
10. Upon completion of construction of said Project, the GRANTEE or its agents shall restore the existing slopes on said lands to match the new construction, restoring private property to the proposed conditions according to the city's construction plans, attached hereto as EXHIBIT "C" and by this reference incorporated herein.
11. These terms and obligations expressed herein are not binding upon the GRANTEE unless and until approved and accepted in writing by the Director of Public Works for the GRANTEE.
12. If legal action is required to enforce the terms of this Easement, the prevailing party is entitled to reasonable costs and attorney's fees. This Easement shall be interpreted and enforced pursuant to the laws of the State of Washington. Venue for any lawsuit arising out of this Easement shall be in the Superior Court of King County, Washington.

This Easement shall be recorded with the King County Recorder's Office, shall run with the Grantors' Property, and shall be binding upon the parties, their heirs, successors in interest and assigns for the duration of its temporary assignment. Grantors covenant that they are the lawful owners of the property hereby encumbered and that they have the authority to convey such easement.

Acceptance by the Grantee:

Director of Public Works, CITY OF KIRKLAND

TEMPORARY CONSTRUCTION EASEMENT

In Witness hereof we the Grantors set our hands and seals,

OWNER

PUBLIC STORAGE
a Maryland real estate investment trust

By: _____
Sharon Linder
Vice President, Assistant General Counsel

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
--

State of California
County of Los Angeles

On _____, 2022 before me, _____, Notary Public, personally appeared, Sharon Linder, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

Seal

TEMPORARY CONSTRUCTION EASEMENT

**SEE ATTACHED
EXHIBIT "A" and "B"**

Grantor's Initials

EXHIBIT A
Legal Description of Temporary Construction Easement

A PORTION OF THE FOLLOWING DESCRIBED PARCEL;

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 1°43'38" EAST, ALONG THE EAST LINE OF SAID SUBDIVISION, A DISTANCE OF 1,347.20 FEET TO THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SUBDIVISION AND THE TRUE POINT OF BEGINNING;

THENCE CONTINUING NORTH 1°43'38" EAST, ALONG THE EAST LINE OF SAID SUBDIVISION A DISTANCE OF 336.80 FEET TO THE SOUTH LINE OF THE NORTH 30 ACRES OF THE NORTHEAST QUARTER OF SAID SUBDIVISION;

THENCE NORTH 89°29'32" WEST, TO THE WEST LINE OF THE EAST 75 FEET OF THE NORTHEAST QUARTER OF SAID SUBDIVISION;

THENCE NORTH 01°43'38" EAST, ALONG SAID WEST LINE TO THE SOUTHERLY MARGIN OF NORTHEAST 124TH STREET, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 6582932;

THENCE WESTERLY ALONG SAID SOUTHERLY MARGIN TO THE SOUTHEASTERLY MARGIN OF THE NORTHERN PACIFIC RAILWAY CO. RIGHT-OF-WAY, AS CONVEYED BY DEEDS RECORDED UNDER RECORDING NUMBERS 266024 AND 268920;

THENCE SOUTHWESTERLY ALONG SAID SOUTHEASTERLY MARGIN TO A POINT BEING NORTH 89°19' WEST, 824.04 FEET, AND SOUTH 1°38'28", 328.85 FEET FROM THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SUBDIVISION;

THENCE SOUTH 89°10' EAST, A DISTANCE OF 491.06 FEET;

THENCE NORTH 1°38'28" EAST, A DISTANCE OF 328.85 FEET;

THENCE SOUTH 89°19' EAST, A DISTANCE OF 332.98 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION THEREOF LYING WITHIN 124TH AVENUE NORTHEAST, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 6582931;

AND EXCEPT THAT PORTION THEREOF DEEDED TO THE CITY OF KIRKLAND BY DEED RECORDED UNDER RECORDING NUMBER 20080611001939.

SAID EASEMENT DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED PARCEL;

THENCE NORTH 89°18'57" WEST, ALONG THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 4.64 FEET;

THENCE NORTH 05°23'27" WEST, A DISTANCE OF 61.87 FEET;

THENCE NORTH 84°36'33" EAST, A DISTANCE OF 4.98 FEET;

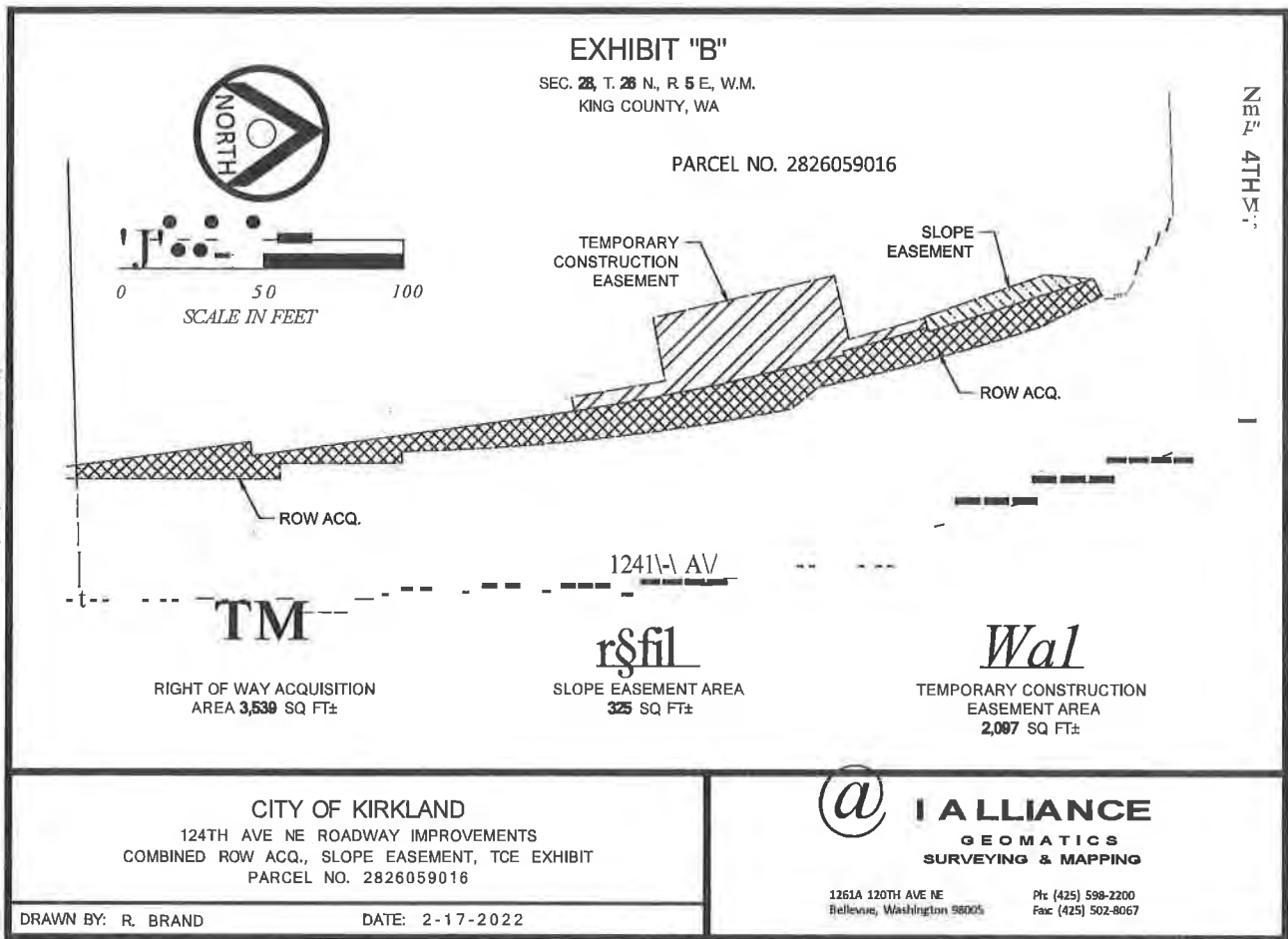
THENCE NORTH 05°23'27" WEST, A DISTANCE OF 96.10 FEET TO A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 973.22 FEET, THE CENTER OF WHICH BEARS SOUTH 84°37'09" WEST;

THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 01°04'24" AND AN ARC LENGTH OF 18.23 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH $82^{\circ}36'25''$ WEST, A DISTANCE OF 4.99 FEET TO A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 943.53 FEET, THE CENTER OF WHICH BEARS SOUTH $83^{\circ}34'59''$ WEST;
THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF $02^{\circ}02'04''$ AND AN ARC LENGTH OF 33.50 FEET;
THENCE SOUTH $81^{\circ}34'10''$ WEST, A DISTANCE OF 22.51 FEET;
THENCE NORTH $10^{\circ}47'06''$ WEST, A DISTANCE OF 65.15 FEET;
THENCE NORTH $79^{\circ}12'54''$ EAST, A DISTANCE OF 22.95 FEET TO A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 974.06 FEET, THE CENTER OF WHICH BEARS SOUTH $77^{\circ}40'03''$ WEST;
THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF $01^{\circ}35'05''$ AND AN ARC LENGTH OF 27.79 FEET;
THENCE NORTH $76^{\circ}02'28''$ EAST, A DISTANCE OF 3.47 FEET TO A NON-TANGENT CURVE TO THE RIGHT WITH A RADIUS OF 982.17 FEET, THE CENTER OF WHICH BEARS SOUTH $76^{\circ}02'28''$ WEST;
THENCE SOUTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF $01^{\circ}48'27''$ AND AN ARC LENGTH OF 30.99 FEET;
THENCE NORTH $79^{\circ}12'54''$ EAST, A DISTANCE OF 1.53 FEET;
THENCE SOUTH $10^{\circ}47'28''$ EAST, A DISTANCE OF 46.00 FEET TO A NON-TANGENT CURVE TO THE RIGHT WITH A RADIUS OF 973.22 FEET, THE CENTER OF WHICH BEARS SOUTH $80^{\circ}32'47''$ WEST;
THENCE SOUTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF $02^{\circ}59'58''$ AND AN ARC LENGTH OF 50.25 FEET TO THE POINT OF BEGINNING.

CONTAINING 2,097 SQUARE FEET, MORE OR LESS.





EX. B

EXHIBIT C
Legal Description of Slope Easement

A PORTION OF THE FOLLOWING DESCRIBED PARCEL;

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;
THENCE NORTH 1°43'38" EAST, ALONG THE EAST LINE OF SAID SUBDIVISION, A DISTANCE OF 1,347.20 FEET TO THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SUBDIVISION AND THE TRUE POINT OF BEGINNING;

THENCE CONTINUING NORTH 1°43'38" EAST, ALONG THE EAST LINE OF SAID SUBDIVISION A DISTANCE OF 336.80 FEET TO THE SOUTH LINE OF THE NORTH 30 ACRES OF THE NORTHEAST QUARTER OF SAID SUBDIVISION;

THENCE NORTH 89°29'32" WEST, TO THE WEST LINE OF THE EAST 75 FEET OF THE NORTHEAST QUARTER OF SAID SUBDIVISION;

THENCE NORTH 01°43'38" EAST, ALONG SAID WEST LINE TO THE SOUTHERLY MARGIN OF NORTHEAST 124TH STREET, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 6582932;

THENCE WESTERLY ALONG SAID SOUTHERLY MARGIN TO THE SOUTHEASTERLY MARGIN OF THE NORTHERN PACIFIC RAILWAY CO. RIGHT-OF-WAY, AS CONVEYED BY DEEDS RECORDED UNDER RECORDING NUMBERS 266024 AND 268920;

THENCE SOUTHWESTERLY ALONG SAID SOUTHEASTERLY MARGIN TO A POINT BEING NORTH 89°19' WEST, 824.04 FEET, AND SOUTH 1°38'28", 328.85 FEET FROM THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SUBDIVISION;

THENCE SOUTH 89°10' EAST, A DISTANCE OF 491.06 FEET;

THENCE NORTH 1°38'28" EAST, A DISTANCE OF 328.85 FEET;

THENCE SOUTH 89°19' EAST, A DISTANCE OF 332.98 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION THEREOF LYING WITHIN 124TH AVENUE NORTHEAST, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER RECORDING NUMBER 6582931;

AND EXCEPT THAT PORTION THEREOF DEEDED TO THE CITY OF KIRKLAND BY DEED RECORDED UNDER RECORDING NUMBER 20080611001939.

SAID EASEMENT DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE ABOVE DESCRIBED PARCEL;

THENCE NORTH 02°26'23" EAST, ALONG THE WEST RIGHT OF WAY MARGIN OF 124TH AVENUE NORTHEAST, A DISTANCE OF 71.67 FEET TO AN ANGLE POINT IN SAID MARGIN;

THENCE NORTH 89°17'28" WEST, ALONG SAID MARGIN, A DISTANCE OF 5.50 FEET TO AN ANGLE POINT IN SAID MARGIN;

THENCE NORTH 02°26'23" EAST, ALONG SAID MARGIN, A DISTANCE OF 26.49 FEET TO A TANGENT CURVE TO THE LEFT WITH A RADIUS OF 783.35 FEET;

THENCE NORTHERLY, ALONG SAID CURVE AND MARGIN, THROUGH A CENTRAL ANGLE OF 01°11'58" AND AN ARC LENGTH OF 16.40 FEET TO AN ANGLE POINT IN SAID MARGIN;

THENCE NORTH 89°17'28" WEST, ALONG SAID MARGIN, A DISTANCE OF 4.00 FEET TO AN ANGLE POINT IN SAID MARGIN AND A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 779.35 FEET, THE CENTER OF WHICH BEARS NORTH 88°45'25" WEST;
THENCE NORTHERLY ALONG SAID CURVE AND MARGIN, THROUGH A CENTRAL ANGLE OF 10°08'50" AND AN ARC LENGTH OF 138.03 FEET TO AN ANGLE POINT IN SAID MARGIN;
THENCE NORTH 36°01'32" WEST, ALONG SAID MARGIN, A DISTANCE OF 12.23 FEET TO AN ANGLE POINT IN SAID MARGIN AND A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 773.85 FEET, THE CENTER OF WHICH BEARS SOUTH 80°17'23" WEST;
THENCE NORTHERLY, ALONG SAID CURVE AND MARGIN, THROUGH A CENTRAL ANGLE OF 06°04'21" AND AN ARC LENGTH OF 82.02 FEET TO AN ANGLE POINT IN SAID MARGIN;
THENCE NORTH 24°22'29" WEST, ALONG SAID MARGIN, A DISTANCE OF 23.85;
THENCE SOUTH 65°37'31" WEST, PERPENDICULAR TO SAID MARGIN, A DISTANCE OF 6.57 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 15°10'22" EAST, A DISTANCE OF 61.28 FEET;
THENCE SOUTH 75°56'38" WEST, A DISTANCE OF 1.53 FEET;
THENCE SOUTH 76°02'28" WEST, A DISTANCE OF 3.77 FEET;
THENCE NORTH 16°56'43" WEST, A DISTANCE OF 45.17 FEET;
THENCE NORTH 07°30'36" EAST, A DISTANCE OF 17.37 FEET TO THE POINT OF BEGINNING.

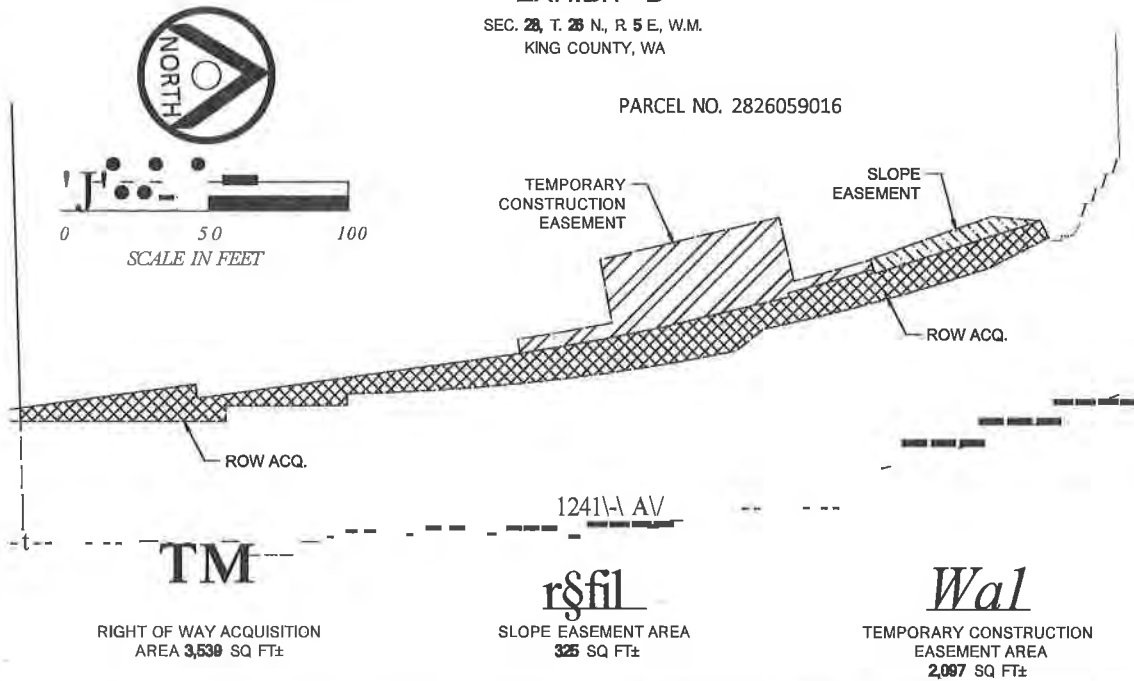
CONTAINING 325 SQUARE FEET, MORE OR LESS.



EXHIBIT "D"

SEC. 28, T. 28 N., R. 5 E., W.M.
KING COUNTY, WA

PARCEL NO. 2826059016



CITY OF KIRKLAND

124TH AVE NE ROADWAY IMPROVEMENTS
COMBINED ROW ACQ., SLOPE EASEMENT, TCE EXHIBIT
PARCEL NO. 2826059016

DRAWN BY: R. BRAND

DATE: 2-17-2022



ALLIANCE

GEOMATICS
SURVEYING & MAPPING

1261A 120TH AVE NE
Bellevue, Washington 98005

Ptc (425) 598-2200
Fax (425) 502-8067

PARCEL 2826059169
LMJ ENTERPRISES
(NORTHSHORE UTILITY DISTRICT EASEMENTS)

Record Date:9/9/2022 7:09 AM

Electronically Recorded King County, WA EXCISE TAX NOT REQUIRED BY HOLLY FERGUSON, DEPUTY

AFTER RECORDING PLEASE RETURN TO:

Engineering Department
 Northshore Utility District
 6830 NE 185th Street
 Kenmore, WA 98020-0489

CHICAGO TITLE NCS
 REF # 193692-SC-W

Please print or type information – Recorder's Cover Sheet as per RCW 65.04

Document Title(s) (or transactions contained therein):	Sewer Utilities Easement	
Grantor(s) (Last name first, then first name and initials): <input type="checkbox"/> Additional names on page ____ of document.	(1). LMJ Enterprises Limited Partnership, a Washington limited partnership (2).	
Grantee(s) (Last name first, then first name and initials): <input type="checkbox"/> Additional names on page ____ of document	(1). Northshore Utility District (2). (3).	
Legal Description (abbreviated: i.e., lot, block, plat or section, township, range): <input checked="" type="checkbox"/> Additional legal description is on page 6-7 of document	POR SW 1/4 SE 1/4 Sec 28,TWP 26N, RG 5E, W.M.	
Assessor's Property Tax Parcel or Account Number at the time of recording:	(1). 282605-9046-00 (2). (3). (4).	
Reference Number(s) of Documents assigned or released: <input type="checkbox"/> Additional references on page <input type="checkbox"/> of document	(1). (2). (3). (4). CHICAGO TITLE INSURANCE COMPANY has placed the document of record as a customer courtesy and accepts no liability for the accuracy or validity of the document.	



Sewer Utilities Easement

This Sewer Utilities Easement ("Easement") is made this 8th day of August, 2022 by and between LMJ Enterprises Limited Partnership, a Washington limited partnership ("Grantor") and Northshore Utility District, a Washington Municipal Corporation, ("Grantee").

1. Grantor is the owner of the real property ("Property"), legally described as follows:

SEE EXHIBIT "A"

2. Grantor, for and in consideration of valuable consideration, the receipt and sufficiency of which is hereby acknowledged, hereby grants and conveys unto Grantee, its successors and assigns, a perpetual, nonexclusive easement for sewer utility lines and related appurtenances, ("Sewer Facilities"), now in place or hereafter constructed over, under, in, along, across, together with the right of ingress and egress upon the Property that is described above for access to said easement area described as follows:

SEE EXHIBITS "B" & "C"

3. Grantor also grants to Grantee and those acting under or on behalf of Grantee the use of such additional area immediately adjacent to the above Easement as shall be required for the construction or maintenance of Sewer Facilities in the Easement, such additional area to be held to the minimum necessary for that purpose.
4. In case of emergency, Grantee shall have the right, without prior notice or proceeding at law, to enter upon the Property for purpose of construction, repair and/or reconstruction of Sewer Facilities or making any connections therewith. In all other cases, Grantee shall notify Grantor of the need to enter onto the Easement prior to doing so.
5. Grantee shall, upon completion of any work within the Property, restore the surface of the Easement and any non-prohibited private improvements disturbed or destroyed during the execution of the work, as nearly as practicable, to the condition they were in before commencement of the work or entry by Grantee.

6. Grantor may continue to use and enjoy the Property, including the right to use the surface of Easement, provided that (1) such use shall not in any way interfere with construction, installation, maintenance, repair, alteration, connection to or reconstruction of Grantee's Sewer Facilities; (2) Grantor shall not construct or place any improvements upon or over the Easement area, such as rockeries, retaining walls, buildings/structures of a permanent nature, or building/structure overhangs or footings; (3) Grantor shall not allow or plant vegetation, trees or shrubs, that typically grow higher than five feet or that have deep root patterns which may cause damage to, or interfere with, the Sewer Facilities placed within the Easement by Grantee; and (4) any Sewer Facilities appurtenances constructed to be at grade (such as a manhole cover) shall be left at grade and shall not be covered by fill, landscaping or other material.
7. In any legal action between the parties hereto to enforce any of the terms of this Easement, the prevailing party shall be entitled to recover all its expenses incurred in connection therewith, including reasonable attorney's fees, including and in connection with appeals.
8. This Easement contains the entire understanding between the parties and supersedes any prior understanding and agreements between the parties respecting the Easement. There are no representations, agreements, arrangements, or understandings, oral or written, between and among the parties hereto relating to the subject matter of this Easement which are not fully expressed herein.
9. This Easement shall be recorded with King County Recorder and shall run with the land or the Property described herein, and shall be binding upon the parties, their heirs, successors-in-interest, and assigns.

Dated at Kirkland, WA, Washington, this 8th day of August, 2022.

Grantor: LMJ Enterprises Limited Partnership, a
Washington limited partnership

Grantee: Northshore Utility District

By: Leegin LLC, a Washington limited liability
Company, its Manager

By:

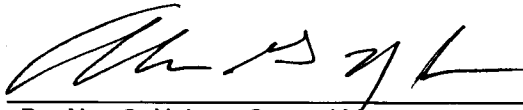


Tod Johnson, Manager

By:



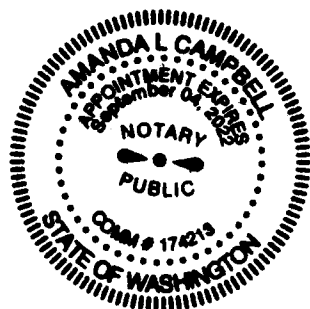
Brett Johnson, Manager



By: Alan G. Nelson, General Manager

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that Alan G. Nelson is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged that as the General Manager (title or position) of Northshore Utility District to be the free and voluntary act of such municipal corporation for the uses and purposes mentioned in the instrument.



Dated August 26, 2022
Amanda L. Campbell
(Signature)
Amanda L. Campbell
(Print Name)

Notary Public in and for the State of Washington
Residing at: 6830 NE 185th St Kenmore
Commission Expires: Sept 4, 2022

WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that Tod Johnson is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged that as the managing member of Leegin LLC, General Partner of LMJ Enterprises Limited Partnership to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument.



Dated 8/9/22
[Signature]
Robert Jay (Signature)
Robert Jay (Print Name)

Notary Public in and for the State of Washington
Residing at: Snodgrass, WA
Commission Expires: 7/1/26

WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that Brett Johnson is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged that as the managing member of Leegin LLC, General Partner of LMJ Enterprises Limited Partnership to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument.



Dated 8/9/22
[Signature]
Robert Jay (Signature)
Robert Jay (Print Name)

Notary Public in and for the State of Washington
Residing at: Snodgrass, WA
Commission Expires: 7/1/26

Record Date:9/9/2022 7:09 AM

Electronically Recorded King County, WA EXCISE TAX NOT REQUIRED BY HOLLY FERGUSON, DEPUTY

AFTER RECORDING PLEASE RETURN TO:

Engineering Department
 Northshore Utility District
 6830 NE 185th Street
 Kenmore, WA 98020-0489

CHICAGO TITLE NCS
 REF # 193692-SC-W

Please print or type information – Recorder's Cover Sheet as per RCW 65.04

Document Title(s) (or transactions contained therein):	Sewer Utilities Easement	
Grantor(s) (Last name first, then first name and initials): <input type="checkbox"/> Additional names on page ____ of document.	(1). LMJ Enterprises Limited Partnership, a Washington limited partnership (2).	
Grantee(s) (Last name first, then first name and initials): <input type="checkbox"/> Additional names on page ____ of document	(1). Northshore Utility District (2). (3).	
Legal Description (abbreviated: i.e., lot, block, plat or section, township, range): <input checked="" type="checkbox"/> Additional legal description is on page 6-7 of document	POR SW 1/4 SE 1/4 Sec 28,TWP 26N, RG 5E, W.M.	
Assessor's Property Tax Parcel or Account Number at the time of recording:	(1). 282605-9046-00 (2). (3). (4).	
Reference Number(s) of Documents assigned or released: <input type="checkbox"/> Additional references on page <input type="checkbox"/> of document	(1). (2). (3). (4). CHICAGO TITLE INSURANCE COMPANY has placed the document of record as a customer courtesy and accepts no liability for the accuracy or validity of the document.	



Sewer Utilities Easement

This Sewer Utilities Easement ("Easement") is made this 8th day of August, 2022 by and between LMJ Enterprises Limited Partnership, a Washington limited partnership ("Grantor") and Northshore Utility District, a Washington Municipal Corporation, ("Grantee").

1. Grantor is the owner of the real property ("Property"), legally described as follows:

SEE EXHIBIT "A"

2. Grantor, for and in consideration of valuable consideration, the receipt and sufficiency of which is hereby acknowledged, hereby grants and conveys unto Grantee, its successors and assigns, a perpetual, nonexclusive easement for sewer utility lines and related appurtenances, ("Sewer Facilities"), now in place or hereafter constructed over, under, in, along, across, together with the right of ingress and egress upon the Property that is described above for access to said easement area described as follows:

SEE EXHIBITS "B" & "C"

3. Grantor also grants to Grantee and those acting under or on behalf of Grantee the use of such additional area immediately adjacent to the above Easement as shall be required for the construction or maintenance of Sewer Facilities in the Easement, such additional area to be held to the minimum necessary for that purpose.
4. In case of emergency, Grantee shall have the right, without prior notice or proceeding at law, to enter upon the Property for purpose of construction, repair and/or reconstruction of Sewer Facilities or making any connections therewith. In all other cases, Grantee shall notify Grantor of the need to enter onto the Easement prior to doing so.
5. Grantee shall, upon completion of any work within the Property, restore the surface of the Easement and any non-prohibited private improvements disturbed or destroyed during the execution of the work, as nearly as practicable, to the condition they were in before commencement of the work or entry by Grantee.

6. Grantor may continue to use and enjoy the Property, including the right to use the surface of Easement, provided that (1) such use shall not in any way interfere with construction, installation, maintenance, repair, alteration, connection to or reconstruction of Grantee's Sewer Facilities; (2) Grantor shall not construct or place any improvements upon or over the Easement area, such as rockeries, retaining walls, buildings/structures of a permanent nature, or building/structure overhangs or footings; (3) Grantor shall not allow or plant vegetation, trees or shrubs, that typically grow higher than five feet or that have deep root patterns which may cause damage to, or interfere with, the Sewer Facilities placed within the Easement by Grantee; and (4) any Sewer Facilities appurtenances constructed to be at grade (such as a manhole cover) shall be left at grade and shall not be covered by fill, landscaping or other material.
7. In any legal action between the parties hereto to enforce any of the terms of this Easement, the prevailing party shall be entitled to recover all its expenses incurred in connection therewith, including reasonable attorney's fees, including and in connection with appeals.
8. This Easement contains the entire understanding between the parties and supersedes any prior understanding and agreements between the parties respecting the Easement. There are no representations, agreements, arrangements, or understandings, oral or written, between and among the parties hereto relating to the subject matter of this Easement which are not fully expressed herein.
9. This Easement shall be recorded with King County Recorder and shall run with the land or the Property described herein, and shall be binding upon the parties, their heirs, successors-in-interest, and assigns.

Dated at Kirkland, WA, Washington, this 8th day of August, 2022.

Grantor: LMJ Enterprises Limited Partnership, a
Washington limited partnership

Grantee: Northshore Utility District

By: Leegin LLC, a Washington limited liability
Company, its Manager

By:

Tod Johnson, Manager

By:

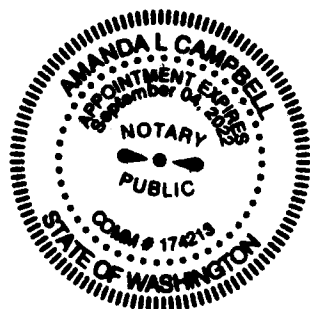
Brett Johnson, Manager

Alan G. Nelson, General Manager

By: Alan G. Nelson, General Manager

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that Alan G. Nelson is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged that as the General Manager (title or position) of Northshore Utility District to be the free and voluntary act of such municipal corporation for the uses and purposes mentioned in the instrument.

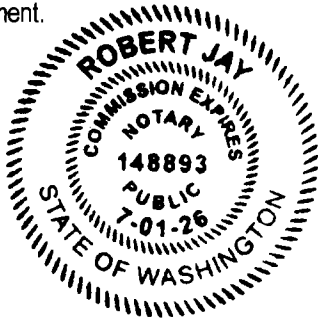


Dated August 26, 2022
Amanda L. Campbell
(Signature)
Amanda L. Campbell
(Print Name)

Notary Public in and for the State of Washington
Residing at: 6830 NE 185th St Kenmore
Commission Expires: Sept 4, 2022

WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that Tod Johnson is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged that as the managing member of Leegin LLC, General Partner of LMJ Enterprises Limited Partnership to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument.



Dated 8/9/22
[Signature]
Robert Jay (Signature)
Robert Jay (Print Name)

Notary Public in and for the State of Washington
Residing at: Snodgrass, WA
Commission Expires: 7/1/26

WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that Brett Johnson is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged that as the managing member of Leegin LLC, General Partner of LMJ Enterprises Limited Partnership to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument.



Dated 8/9/22
[Signature]
Robert Jay (Signature)
Robert Jay (Print Name)

Notary Public in and for the State of Washington
Residing at: Snodgrass, WA
Commission Expires: 7/1/26

APPENDIX D
STORMWATER VAULT CALCULATIONS

20160144 – 124th Avenue NE Corridor Improvements

CALCULATION REPORT

Calculated by: Kern McGee, PE

Date: 2/16/2022

Checked By: Steven Keith, PE

Date: 2/28/2022

Flow Control Calculations

Objective: The purpose of this analysis is to:

- Size one detention vault for the purpose of satisfying flow control requirements.

Key Design Factors and Assumptions:

- Hydrologic analysis for sizing the detention vault was performed using MGSFlood software, a continuous simulation model.
- Rainfall data for MGSFlood was obtained from the Extended Timeseries Region Map within the MGSFlood model. Region “Puget East 40” was used for the MGSFlood model.
- Pre-developed land-use for the on-site flow control facilities was assumed to be forested conditions, regardless of actual site conditions.

Summary of Results:

Flow Control

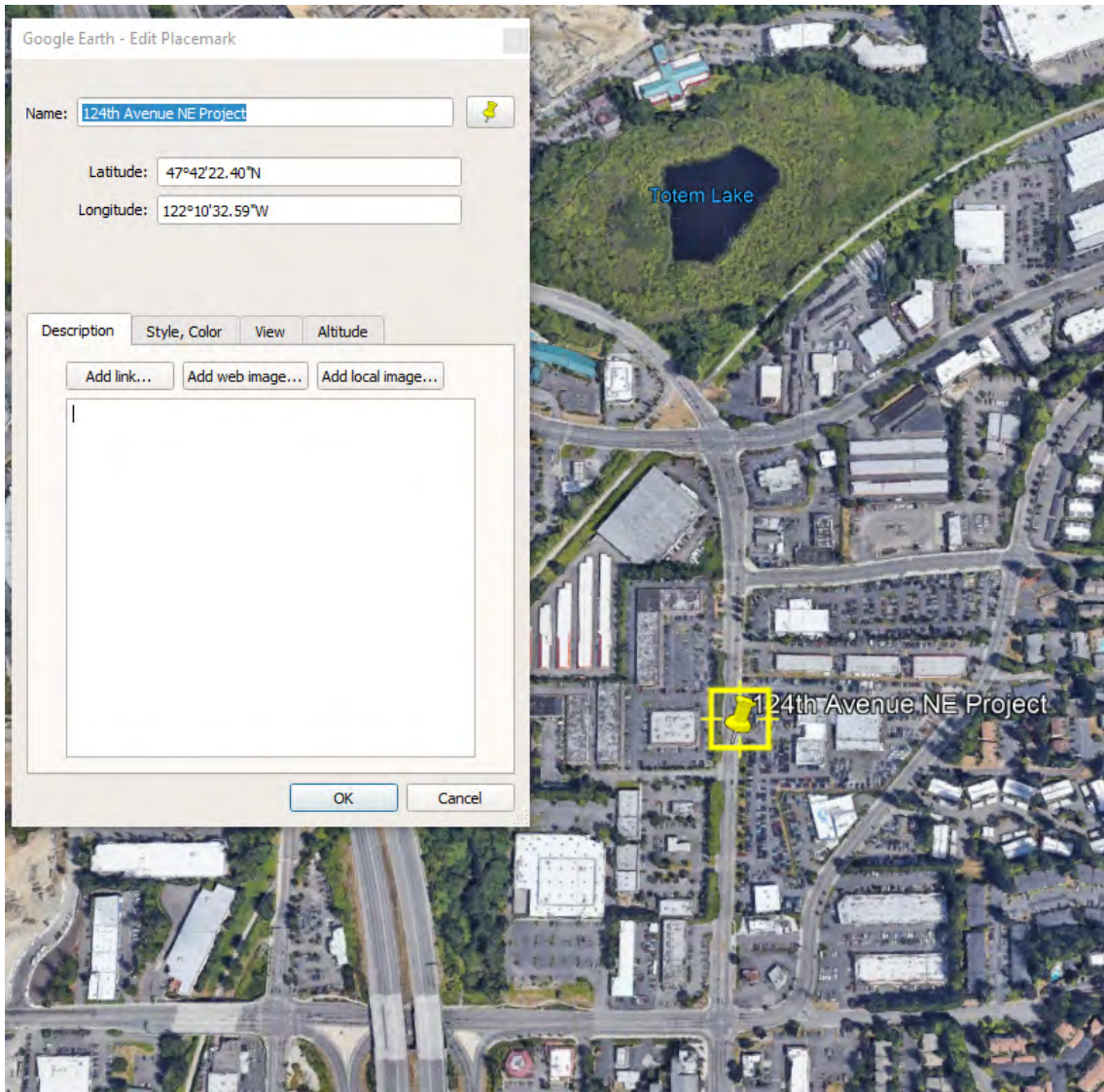
Detention Facility Sizing

Flow control is required for the project per the threshold analysis. The following table is a summary of the required versus provided volumes.

Facility	Required Volume (CF)	Provided Volume (CF)	% of Required
TDA 1	21,420	21,600	100.8%

Precipitation Data:

- Mean Annual precipitation (MAP) = Puget East 40 inches per MAP.
- Note: MAP was also checked using Latitude/Longitude Coordinates, inputting the coordinates into MGSFlood software, and verifying precipitation.



Mean Annual Precip Calculator

Project Latitude (Decimal Degrees):

Project Longitude (Decimal Degrees):

Compute MAP (inches)

MGS FLOOD PROJECT REPORT

Program Version: MGSFlood 4.57
Program License Number: 200310001
Project Simulation Performed on: 02/16/2022 2:28 PM
Report Generation Date: 02/16/2022 2:28 PM

Input File Name: 100% Vault Sizing.fld
Project Name: 124th Avenue Corridor Improvements
Analysis Title: 100% Detention Vault Sizing
Comments:

PRECIPITATION INPUT

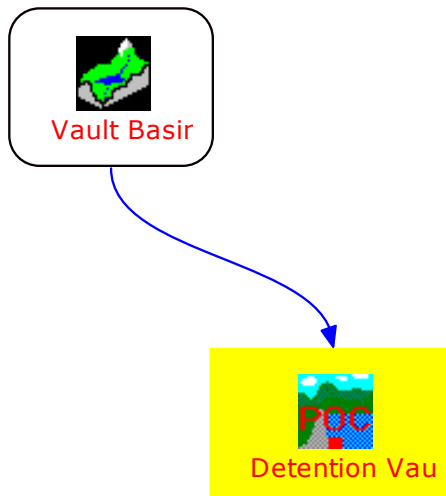
Computational Time Step (Minutes): 15

Extended Precipitation Time Series Selected
Climatic Region Number: 15

Full Period of Record Available used for Routing
Precipitation Station : 96004005 Puget East 40 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961040 Puget East 40 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 3
HSPF Parameter Region Name : USGS Default

***** Default HSPF Parameters Used (Not Modified by User) *****



***** WATERSHED DEFINITION *****

Predevelopment/Post Development Tributary Area Summary

	Predeveloped	Post Developed
Total Subbasin Area (acres)	1.047	1.048
Area of Links that Include Precip/Evap (acres)	0.000	0.000
Total (acres)	1.047	1.048

-----SCENARIO: PREDEVELOPED

Number of Subbasins: 1

----- Subbasin : Subbasin 1 -----	
	-----Area (Acres) -----
Till Forest	1.047

Subbasin Total	1.047

-----SCENARIO: POSTDEVELOPED

Number of Subbasins: 1

----- Subbasin : Vault Basin -----	
	-----Area (Acres) -----
Till Grass	0.111
Impervious	0.937

Subbasin Total	1.048

***** LINK DATA *****

-----SCENARIO: PREDEVELOPED

Number of Links: 0

***** LINK DATA *****

-----SCENARIO: POSTDEVELOPED

Number of Links: 1

----- Link Name: Detention Vault

Link Type: Structure

Downstream Link: None

Prismatic Pond Option Used

Pond Floor Elevation (ft)	:	100.00			
Riser Crest Elevation (ft)	:	109.00			
Max Pond Elevation (ft)	:	109.50			
Storage Depth (ft)	:	9.00			
Pond Bottom Length (ft)	:	238.0			
Pond Bottom Width (ft)	:	10.0			
Pond Side Slopes (ft/ft)	:	Z1= 0.00	Z2= 0.00	Z3= 0.00	Z4= 0.00
Bottom Area (sq-ft)	:	2380.			

Note that a generic baseline elevation of 100.00 was used for the bottom of live storage during design. Elevations to be used during construction can be found in the contract plans.

The volumes and relative elevations given here are to be used in design of the stormwater detention vault.

Area at Riser Crest El (sq-ft) : 2,380.
(acres) : 0.055
Volume at Riser Crest (cu-ft) : 21,420.
(ac-ft) : 0.492
Area at Max Elevation (sq-ft) : 2380.
(acres) : 0.055
Vol at Max Elevation (cu-ft) : 22,610.
(ac-ft) : 0.519

Hydraulic Conductivity (in/hr) : 0.00
Massmann Regression Used to Estimate Hydraulic Gradient
Depth to Water Table (ft) : 100.00
Bio-Fouling Potential : Low
Maintenance : Average or Better

Riser Geometry
Riser Structure Type : Circular
Riser Diameter (in) : 18.00
Common Length (ft) : 0.000
Riser Crest Elevation : 109.00 ft

Hydraulic Structure Geometry

Number of Devices: 4

---Device Number 1 ---
Device Type : Circular Orifice
Control Elevation (ft) : 100.00
Diameter (in) : 0.43
Orientation : Horizontal
Elbow : No

---Device Number 2 ---
Device Type : Circular Orifice
Control Elevation (ft) : 105.66
Diameter (in) : 0.60
Orientation : Horizontal
Elbow : Yes

---Device Number 3 ---
Device Type : Circular Orifice
Control Elevation (ft) : 106.66
Diameter (in) : 0.60
Orientation : Horizontal
Elbow : Yes

---Device Number 4 ---
Device Type : Circular Orifice
Control Elevation (ft) : 107.33
Diameter (in) : 0.55
Orientation : Horizontal
Elbow : Yes

*****FLOOD FREQUENCY AND DURATION STATISTICS*****

-----SCENARIO: PREDEVELOPED

Number of Subbasins: 1
Number of Links: 0

-----SCENARIO: POSTDEVELOPED

Number of Subbasins: 1
Number of Links: 1

***** Link: Detention Vault

***** Link WSEL

Stats

WSEL Frequency Data(ft)

(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs) WSEL Peak (ft)

=====

1.05-Year	102.991
1.11-Year	103.320
1.25-Year	103.812
2.00-Year	105.000
3.33-Year	105.932
5-Year	106.572
10-Year	107.508
25-Year	108.053
50-Year	108.433
100-Year	108.517

*****Groundwater Recharge Summary *****

Recharge is computed as input to Perind Groundwater Plus Infiltration in Structures

Model Element	Total Predeveloped Recharge During Simulation Recharge Amount (ac-ft)
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Subbasin: Subbasin 1	180.533
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Total:	180.533
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Model Element	Total Post Developed Recharge During Simulation Recharge Amount (ac-ft)
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Subbasin: Vault Basin	13.553
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Link: Detention Vault	0.000
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Total:	13.553
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Total Predevelopment Recharge is Greater than Post Developed

Average Recharge Per Year, (Number of Years= 158)

Predeveloped: 1.143 ac-ft/year, Post Developed: 0.086 ac-ft/year

*****Water Quality Facility Data *****

-----SCENARIO: PREDEVELOPED

Number of Links: 0

-----SCENARIO: POSTDEVELOPED

Number of Links: 1

***** Link: Detention Vault

Basic Wet Pond Volume (91% Exceedance): 4249. cu-ft
Computed Large Wet Pond Volume, 1.5*Basic Volume: 6373. cu-ft

2-Year Discharge Rate : 0.011 cfs

15-Minute Timestep, Water Quality Treatment Design Discharge
On-line Design Discharge Rate (91% Exceedance): 0.14 cfs
Off-line Design Discharge Rate (91% Exceedance): 0.08 cfs

Infiltration/Filtration Statistics-----

Inflow Volume (ac-ft): 442.40
Inflow Volume Including PPT-Evap (ac-ft): 442.40
Total Runoff Infiltrated (ac-ft): 0.00, 0.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Primary Outflow To Downstream System (ac-ft): 442.31
Secondary Outflow To Downstream System (ac-ft): 0.00
Volume Lost to ET (ac-ft): 0.00
Percent Treated (Infiltrated+Filtered+ET)/Total Volume: 0.00%

*****Compliance Point Results *****

Scenario Predeveloped Compliance Subbasin: Subbasin 1

Scenario Postdeveloped Compliance Link: Detention Vault

*** Point of Compliance Flow Frequency Data ***

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	2.231E-02	2-Year	1.103E-02
5-Year	3.636E-02	5-Year	2.136E-02
10-Year	4.899E-02	10-Year	3.751E-02
25-Year	6.212E-02	25-Year	4.540E-02
50-Year	7.928E-02	50-Year	4.972E-02
100-Year	8.591E-02	100-Year	5.061E-02
200-Year	0.134	200-Year	7.097E-02
500-Year	0.198	500-Year	9.839E-02

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

**** Flow Duration Performance ****

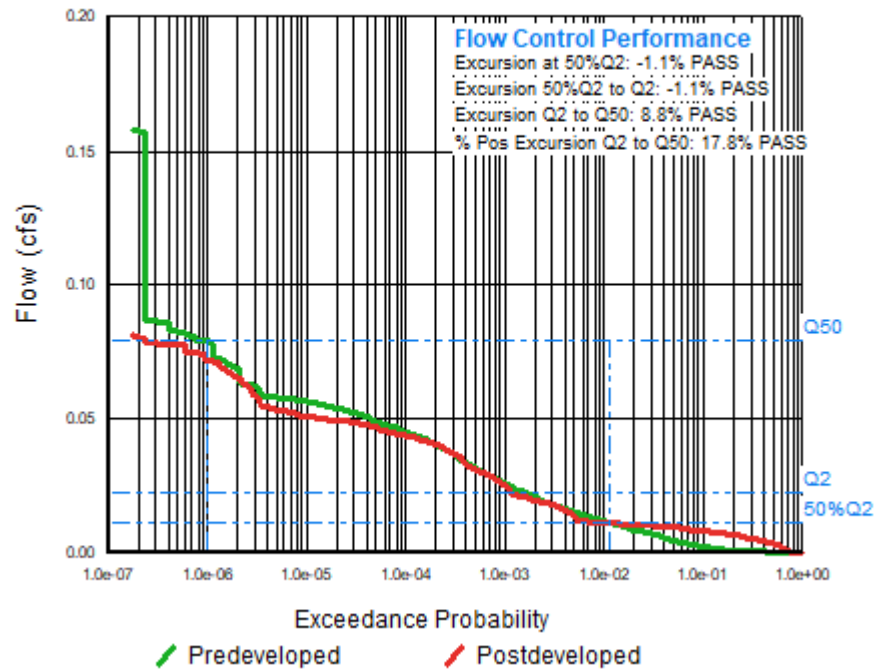
Excursion at Predeveloped 50%Q2 (Must be Less Than or Equal to 0%):	-1.1%	PASS
Maximum Excursion from 50%Q2 to Q2 (Must be Less Than or Equal to 0%):	-1.1%	PASS

Maximum Excursion from Q2 to Q50 (Must be less than 10%):
Percent Excursion from Q2 to Q50 (Must be less than 50%):

8.8% PASS
17.8% PASS

MEETS ALL FLOW DURATION DESIGN CRITERIA: PASS

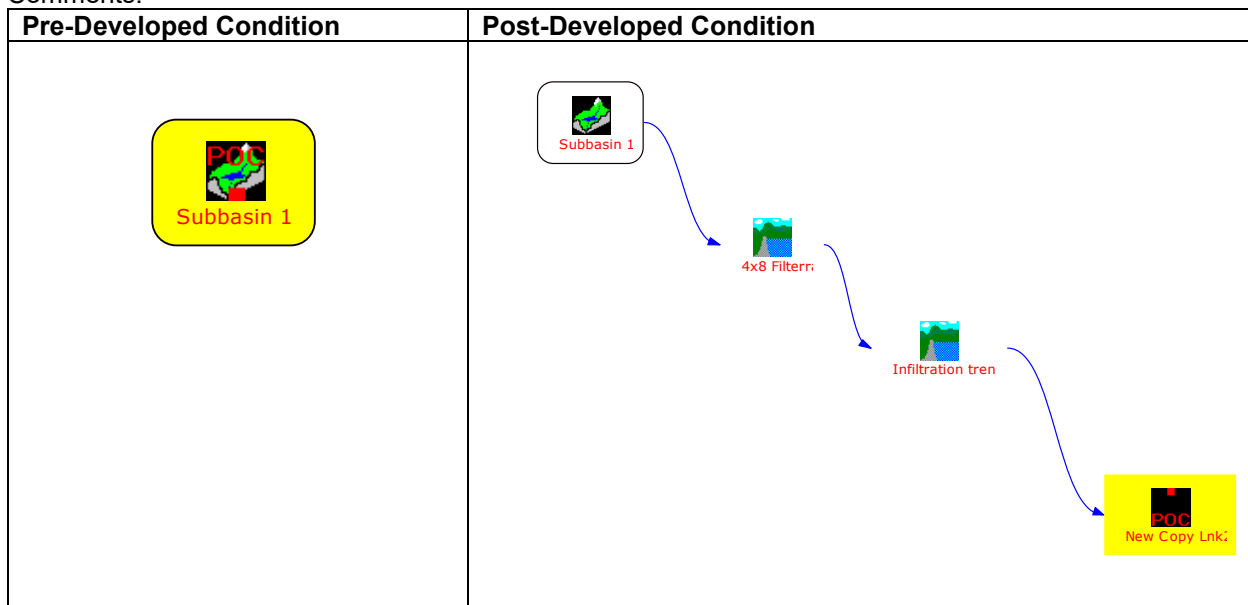
Flow Duration Plot



MGS FLOOD PROJECT REPORT

Program Version: MGSFlood 4.50
Program License Number: 200310001
Project Simulation Performed on: 04/23/2020 9:19 AM
Report Generation Date: 04/23/2020 9:21 AM

Input File Name: 90% Infiltration Trench Design-1ft pipe.fld
Project Name: 124th Ave NE
Analysis Title: SINGLE INFILTRATION
Comments:



PRECIPITATION INPUT

Computational Time Step (Minutes): 15

Extended Precipitation Time Series Selected
Climatic Region Number: 15

Full Period of Record Available used for Routing
Precipitation Station : 96004005 Puget East 40 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961040 Puget East 40 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : USGS Default

***** Default HSPF Parameters Used (Not Modified by User) *****

***** WATERSHED DEFINITION *****

Predevelopment/Post Development Tributary Area Summary

	Predeveloped	Post Developed
Total Subbasin Area (acres)	0.333	0.333
Area of Links that Include Precip/Evap (acres)	0.000	0.000
Total (acres)	0.333	0.333

-----SCENARIO: PREDEVELOPED

Number of Subbasins: 1

----- Subbasin : Subbasin 1 -----

	-----Area (Acres) -----
Till Forest	0.333

Subbasin Total	0.333

-----SCENARIO: POSTDEVELOPED

Number of Subbasins: 1

----- Subbasin : Subbasin 1 -----

	-----Area (Acres) -----
Impervious	0.333

Subbasin Total	0.333

***** LINK DATA *****

-----SCENARIO: PREDEVELOPED

Number of Links: 0

***** LINK DATA *****

-----SCENARIO: POSTDEVELOPED

Number of Links: 3

Link Name: New Copy Lnk2

Link Type: Copy
Downstream Link: None

Link Name: Infiltration trench

Link Type: Structure
Downstream Link Name: New Copy Lnk2

User Specified Elevation Volume Table Used
Elevation (ft) Pond Volume (cu-ft)

165.15	0.
165.20	23.
165.25	47.
165.30	70.
165.35	94.
165.40	117.
165.45	140.
165.50	164.
165.55	187.
165.60	211.
165.65	234.
165.70	261.
165.75	290.
165.80	320.
165.85	352.
165.90	385.
165.95	418.
166.00	451.
166.05	485.
166.10	520.
166.15	554.
166.20	588.
166.25	622.
166.30	656.
166.35	690.
166.40	723.
166.45	756.
166.50	787.
166.55	818.
166.60	847.
166.65	874.
166.70	897.
166.75	920.
166.80	944.
166.85	967.
166.90	991.
166.95	1014.
167.00	1037.
167.05	1061.
167.10	1084.
167.15	1108.
167.20	1131.
167.25	1154.
167.30	1178.
167.35	1201.
167.40	1225.
167.45	1248.
167.50	1271.
167.55	1295.
167.60	1318.
167.65	1342.
167.70	1365.
167.75	1388.
167.80	1412.
167.85	1435.
167.90	1459.

167.95	1482.
168.00	1505.
168.05	1529.
168.10	1552.
168.15	1576.
168.20	1599.
168.25	1622.
168.30	1646.
168.35	1669.
168.40	1693.
168.45	1716.
168.50	1739.
168.55	1763.
168.60	1786.
168.65	1810.
168.70	1833.
168.75	1856.
168.80	1880.
168.85	1903.
168.90	1927.
168.95	1950.
169.00	1973.
169.05	1997.
169.10	2020.
169.15	2044.
169.20	2067.
169.25	2090.
169.30	2114.
169.35	2137.
169.40	2161.
169.45	2184.
169.50	2207.
169.55	2231.
169.60	2254.
169.65	2278.
169.70	2301.
169.75	2324.
169.80	2348.
169.85	2371.
169.90	2395.
169.95	2418.
170.00	2441.

Massmann Infiltration Option Used

Hydraulic Conductivity (in/hr) : 1.00

Massmann Regression Used to Estimate Hydraulic Gradient

Depth to Water Table (ft) : 3.00

Bio-Fouling Potential : Low

Maintenance : Average or Better

Riser Geometry

Riser Structure Type : Circular

Riser Diameter (in) : 12.00

Common Length (ft) : 0.000

Riser Crest Elevation : 170.00 ft

Hydraulic Structure Geometry

Number of Devices: 0

Link Name: 4x8 Filterra

Link Type: Structure

Downstream Link Name: Infiltration trench

Prismatic Pond Option Used

Pond Floor Elevation (ft)	:	173.50			
Riser Crest Elevation (ft)	:		174.25		
Max Pond Elevation (ft)	:	174.50			
Storage Depth (ft)	:	0.75			
Pond Bottom Length (ft)	:	8.0			
Pond Bottom Width (ft)	:	4.0			
Pond Side Slopes (ft/ft)	:	L1= 0.00	L2= 0.00	W1= 0.00	W2= 0.00
Bottom Area (sq-ft)	:	32.			
Area at Riser Crest El (sq-ft)	:	32.			
(acres)	:	0.001			
Volume at Riser Crest (cu-ft)	:	24.			
(ac-ft)	:	0.001			
Area at Max Elevation (sq-ft)	:	32.			
(acres)	:	0.001			
Vol at Max Elevation (cu-ft)	:	32.			
(ac-ft)	:	0.001			

Massmann Infiltration Option Used

Hydraulic Conductivity (in/hr)	:	0.00
Massmann Regression Used to Estimate Hydralic Gradient		
Depth to Water Table (ft)	:	100.00
Bio-Fouling Potential	:	Low
Maintenance	:	Average or Better

Riser Geometry

Riser Structure Type	:	Circular
Riser Diameter (in)	:	100.00
Common Length (ft)	:	0.000
Riser Crest Elevation	:	174.25 ft

Hydraulic Structure Geometry

Number of Devices: 1

--- Device Number 1 ---

Device Type	:	Sand Filter
Elev of Filter Top (ft)	:	173.50
Filter Surface Area (sq-ft)	:	32.
Filter Thickness (ft)	:	1.80
Permeability (in/hr)	:	24.82

Structure Stage, Storage Discharge Tables

Link: Lnk3 Infiltration trench

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infilt Discharge (cfs)
165.150	0.000	0.000	0.000
165.168	1.880E-04	0.000	6.601E-04
165.185	3.760E-04	0.000	6.639E-04
165.220	7.521E-04	0.000	6.716E-04
165.290	1.504E-03	0.000	6.870E-04
165.360	2.256E-03	0.000	7.024E-04
165.430	3.009E-03	0.000	7.178E-04
165.500	3.761E-03	0.000	7.332E-04
165.570	4.513E-03	0.000	7.485E-04
165.640	5.265E-03	0.000	7.639E-04
165.710	6.117E-03	0.000	7.793E-04
165.780	7.073E-03	0.000	7.947E-04
165.850	8.082E-03	0.000	8.101E-04
165.920	9.133E-03	0.000	8.255E-04
165.990	1.021E-02	0.000	8.409E-04
166.060	1.130E-02	0.000	8.563E-04
166.130	1.240E-02	0.000	8.718E-04
166.200	1.350E-02	0.000	8.872E-04
166.270	1.460E-02	0.000	9.026E-04
166.340	1.568E-02	0.000	9.180E-04
166.410	1.675E-02	0.000	9.334E-04
166.480	1.778E-02	0.000	9.488E-04
166.550	1.878E-02	0.000	9.643E-04
166.620	1.969E-02	0.000	9.797E-04
166.690	2.048E-02	0.000	9.951E-04
166.760	2.124E-02	0.000	1.011E-03
166.830	2.199E-02	0.000	1.026E-03
166.900	2.274E-02	0.000	1.041E-03
166.970	2.349E-02	0.000	1.057E-03
167.040	2.424E-02	0.000	1.072E-03
167.110	2.500E-02	0.000	1.088E-03
167.180	2.575E-02	0.000	1.103E-03
167.250	2.650E-02	0.000	1.119E-03
167.320	2.725E-02	0.000	1.134E-03
167.390	2.801E-02	0.000	1.150E-03
167.460	2.876E-02	0.000	1.165E-03
167.530	2.951E-02	0.000	1.181E-03
167.600	3.026E-02	0.000	1.196E-03
167.670	3.101E-02	0.000	1.211E-03
167.740	3.177E-02	0.000	1.227E-03
167.810	3.252E-02	0.000	1.242E-03
167.880	3.327E-02	0.000	1.258E-03
167.950	3.402E-02	0.000	1.273E-03
168.020	3.477E-02	0.000	1.289E-03
168.090	3.553E-02	0.000	1.304E-03
168.160	3.628E-02	0.000	1.320E-03
168.230	3.703E-02	0.000	1.335E-03
168.300	3.778E-02	0.000	1.351E-03
168.370	3.854E-02	0.000	1.366E-03
168.440	3.929E-02	0.000	1.382E-03
168.510	4.004E-02	0.000	1.397E-03
168.580	4.079E-02	0.000	1.413E-03

168.650	4.154E-02	0.000	1.428E-03
168.720	4.230E-02	0.000	1.444E-03
168.790	4.305E-02	0.000	1.459E-03
168.860	4.380E-02	0.000	1.475E-03
168.930	4.455E-02	0.000	1.490E-03
169.000	4.531E-02	0.000	1.506E-03
169.070	4.606E-02	0.000	1.521E-03
169.140	4.681E-02	0.000	1.537E-03
169.210	4.756E-02	0.000	1.553E-03
169.280	4.831E-02	0.000	1.568E-03
169.350	4.907E-02	0.000	1.584E-03
169.420	4.982E-02	0.000	1.599E-03
169.490	5.057E-02	0.000	1.615E-03
169.561	5.132E-02	0.000	1.630E-03
169.631	5.207E-02	0.000	1.646E-03
169.701	5.283E-02	0.000	1.661E-03
169.771	5.358E-02	0.000	1.677E-03
169.841	5.433E-02	0.000	1.692E-03
169.911	5.508E-02	0.000	1.708E-03
169.933	5.532E-02	0.000	1.713E-03
169.955	5.556E-02	0.000	1.718E-03
169.978	5.580E-02	0.000	1.723E-03
170.000	5.604E-02	0.000	1.728E-03
170.018	5.668E-02	0.025	1.732E-03
170.035	5.731E-02	0.069	1.736E-03
170.053	5.794E-02	0.127	1.740E-03
170.070	5.857E-02	0.196	1.743E-03
170.088	5.920E-02	0.274	1.747E-03
170.105	5.983E-02	0.359	1.751E-03
170.123	6.046E-02	0.450	1.755E-03
170.140	6.109E-02	0.547	1.759E-03
170.210	6.362E-02	0.970	1.775E-03
170.280	6.614E-02	1.397	1.790E-03
170.350	6.867E-02	1.762	1.806E-03
170.420	7.119E-02	2.023	1.821E-03
170.490	7.371E-02	2.185	1.837E-03
170.560	7.624E-02	2.357	1.852E-03

Link: Lnk1 4x8 Filterra

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Sand Filter Q (cfs)

173.500	0.000	0.000	0.000
173.510	7.342E-06	0.000	1.849E-02
173.520	1.468E-05	0.000	1.859E-02
173.540	2.938E-05	0.000	1.879E-02
173.580	5.876E-05	0.000	1.920E-02
173.620	8.814E-05	0.000	1.961E-02
173.660	1.175E-04	0.000	2.002E-02
173.700	1.469E-04	0.000	2.043E-02
173.740	1.763E-04	0.000	2.084E-02
173.780	2.057E-04	0.000	2.124E-02
173.820	2.350E-04	0.000	2.165E-02
173.860	2.644E-04	0.000	2.206E-02
173.900	2.938E-04	0.000	2.247E-02
173.940	3.232E-04	0.000	2.288E-02

173.980	3.526E-04	0.000	2.329E-02
174.020	3.819E-04	0.000	2.370E-02
174.060	4.113E-04	0.000	2.410E-02
174.100	4.407E-04	0.000	2.451E-02
174.140	4.701E-04	0.000	2.492E-02
174.180	4.995E-04	0.000	2.533E-02
174.197	5.123E-04	0.000	2.551E-02
174.215	5.252E-04	0.000	2.569E-02
174.233	5.381E-04	0.000	2.587E-02
174.250	5.510E-04	0.000	2.605E-02
174.260	5.583E-04	0.088	2.615E-02
174.270	5.656E-04	0.250	2.625E-02
174.280	5.730E-04	0.459	2.635E-02
174.290	5.803E-04	0.707	2.645E-02
174.300	5.877E-04	0.988	2.656E-02
174.310	5.950E-04	1.299	2.666E-02
174.320	6.024E-04	1.637	2.676E-02
174.330	6.097E-04	2.000	2.686E-02
174.370	6.391E-04	3.674	2.727E-02
174.410	6.685E-04	5.656	2.768E-02
174.450	6.978E-04	7.904	2.809E-02
174.490	7.272E-04	10.388	2.850E-02
174.530	7.566E-04	13.088	2.890E-02
174.570	7.860E-04	15.988	2.931E-02
174.610	8.154E-04	19.074	2.972E-02
174.650	8.447E-04	22.335	3.013E-02
174.690	8.741E-04	25.762	3.054E-02
174.730	9.035E-04	29.347	3.095E-02
174.770	9.329E-04	33.081	3.136E-02
174.810	9.623E-04	36.958	3.176E-02
174.850	9.916E-04	40.972	3.217E-02
174.890	1.021E-03	45.118	3.258E-02
174.930	1.050E-03	49.389	3.299E-02
174.970	1.080E-03	53.782	3.340E-02
175.010	1.109E-03	58.290	3.381E-02

*****FLOOD FREQUENCY AND DURATION STATISTICS*****

-----SCENARIO: PREDEVELOPED

Number of Subbasins: 1

Number of Links: 0

-----SCENARIO: POSTDEVELOPED

Number of Subbasins: 1

Number of Links: 3

*****Groundwater Recharge Summary *****

Recharge is computed as input to Perlnd Groundwater Plus Infiltration in Structures

Model Element	Total Predeveloped Recharge During Simulation Recharge Amount (ac-ft)
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Subbasin: Subbasin 1	57.419
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Total: 57.419

Total Post Developed Recharge During Simulation
Model Element Recharge Amount (ac-ft)

Subbasin: Subbasin 1 0.000
Link: New Copy Lnk2 0.000
Link: Infiltration trench 112.573
Link: 4x8 Filterra Not Computed

Total: 112.573

**Total Predevelopment Recharge is Less than Post Developed
Average Recharge Per Year, (Number of Years= 158)
Predeveloped: 0.363 ac-ft/year, Post Developed: 0.712 ac-ft/year**

*****Water Quality Facility Data*****

-----SCENARIO: PREDEVELOPED

Number of Links: 0

-----SCENARIO: POSTDEVELOPED

Number of Links: 3

***** Link: New Copy Lnk2 *****

Infiltration/Filtration Statistics-----
Inflow Volume (ac-ft): 36.75
Inflow Volume Including PPT-Evap (ac-ft): 36.75
Total Runoff Infiltrated (ac-ft): 0.00, 0.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Primary Outflow To Downstream System (ac-ft): 36.75
Secondary Outflow To Downstream System (ac-ft): 0.00
Percent Treated (Infiltrated+Filtered)/Total Volume: 0.00%

***** Link: Infiltration trench *****

Infiltration/Filtration Statistics-----
Inflow Volume (ac-ft): 149.29
Inflow Volume Including PPT-Evap (ac-ft): 149.29
Total Runoff Infiltrated (ac-ft): 112.57, 75.41%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Primary Outflow To Downstream System (ac-ft): 36.75
Secondary Outflow To Downstream System (ac-ft): 0.00
Percent Treated (Infiltrated+Filtered)/Total Volume: 75.41%

*****Compliance Point Results*****

Scenario Predeveloped Compliance Subbasin: Subbasin 1

Scenario Postdeveloped Compliance Link: New Copy Lnk2

****Point of Compliance Annual Maxima Flow Data ****

Predevelopment Runoff		Postdevelopment Runoff	
Date	Annual Max Q (cfs)	Date	Annual Max Q (cfs)
05/01/1940	8.901E-03	12/06/1939	8.098E-02
01/31/1941	3.466E-03	10/30/1940	3.741E-02
11/24/1941	7.805E-03	12/15/1941	6.683E-02
11/23/1942	6.027E-03	11/23/1942	0.109
01/23/1944	2.857E-03	02/05/1944	2.818E-02
02/07/1945	1.108E-02	02/07/1945	9.452E-02
02/05/1946	7.066E-03	01/02/1946	8.974E-02
02/02/1947	7.175E-03	02/01/1947	8.495E-02
03/21/1948	1.121E-02	10/18/1947	0.115
02/16/1949	6.178E-03	11/27/1948	9.700E-02
03/03/1950	2.513E-02	03/03/1950	0.185
02/09/1951	1.029E-02	02/09/1951	6.567E-02
02/01/1952	2.553E-03	10/02/1951	4.273E-02
01/11/1953	3.979E-03	01/08/1953	7.682E-02
01/22/1954	6.073E-03	11/21/1953	6.131E-02
04/12/1955	3.102E-03	11/17/1954	4.394E-02
12/21/1955	6.544E-03	11/02/1955	6.592E-02
04/05/1957	6.236E-03	10/29/1956	4.381E-02
01/16/1958	8.283E-03	01/16/1958	0.116
01/13/1959	7.196E-03	01/12/1959	7.859E-02
01/28/1960	1.354E-02	01/28/1960	0.118
02/14/1961	5.351E-03	02/14/1961	8.248E-02
03/04/1962	3.433E-03	12/20/1961	3.543E-02
02/03/1963	3.824E-03	11/25/1962	6.732E-02
01/01/1964	6.728E-03	01/01/1964	7.452E-02
02/27/1965	7.671E-03	02/26/1965	4.734E-02
01/06/1966	5.019E-03	01/05/1966	8.648E-02
01/19/1967	1.099E-02	01/19/1967	8.262E-02
02/04/1968	6.425E-03	10/27/1967	7.045E-02
12/03/1968	6.805E-03	12/03/1968	6.891E-02
01/14/1970	4.949E-03	01/25/1970	4.797E-02
12/06/1970	5.921E-03	12/05/1970	8.050E-02
02/27/1972	1.531E-02	02/27/1972	0.130
01/13/1973	5.822E-03	01/13/1973	5.085E-02
02/19/1974	8.518E-03	11/11/1973	0.104
12/27/1974	9.534E-03	12/27/1974	0.124
01/27/1976	7.167E-03	12/02/1975	6.868E-02
05/31/1977	1.190E-03	06/03/1977	4.244E-02
12/15/1977	6.123E-03	09/22/1978	0.126
03/04/1979	5.826E-03	03/04/1979	6.561E-02
12/17/1979	9.723E-03	12/14/1979	0.109
12/26/1980	4.004E-03	11/21/1980	0.131
10/06/1981	1.253E-02	10/06/1981	0.171
01/05/1983	7.206E-03	12/03/1982	6.587E-02
03/14/1984	6.704E-03	03/14/1984	8.980E-02
02/11/1985	4.346E-03	11/11/1984	3.702E-02
01/18/1986	1.440E-02	01/18/1986	0.112
11/24/1986	1.260E-02	10/26/1986	0.102
04/06/1988	6.250E-03	04/06/1988	5.699E-02
04/05/1989	6.949E-03	11/05/1988	7.020E-02

01/09/1990	1.906E-02	01/09/1990	0.163
04/04/1991	2.536E-02	11/24/1990	0.155
01/27/1992	8.094E-03	01/27/1992	0.105
06/09/1993	5.183E-03	06/09/1993	7.376E-02
03/03/1994	3.845E-03	03/01/1994	5.031E-02
02/19/1995	8.129E-03	11/30/1994	8.663E-02
02/09/1996	1.957E-02	02/08/1996	0.113
01/02/1997	1.134E-02	11/27/1996	0.108
02/28/1998	4.161E-03	10/08/1997	7.153E-02
11/25/1998	1.158E-02	11/25/1998	0.123
03/26/2000	6.573E-03	02/05/2000	8.113E-02
05/05/2001	4.980E-03	05/05/2001	4.889E-02
05/03/2002	2.321E-02	12/02/2001	4.567E-02
02/06/2003	1.639E-02	02/06/2003	0.107
01/23/2004	3.276E-03	02/06/2004	5.018E-02
02/07/2005	5.574E-03	02/07/2005	6.792E-02
02/27/2006	7.300E-03	11/16/2005	7.860E-02
12/14/2006	5.809E-03	12/14/2006	0.100
03/21/2008	1.766E-02	03/21/2008	0.115
02/17/2009	1.398E-02	02/17/2009	0.111
01/06/2010	1.449E-02	01/06/2010	0.135
11/17/2010	1.166E-02	11/17/2010	9.892E-02
01/31/2012	6.717E-03	10/22/2011	0.108
01/20/2013	1.564E-02	01/20/2013	0.166
01/27/2014	7.117E-03	12/06/2013	0.125
03/30/2015	4.692E-03	03/29/2015	4.763E-02
01/04/2016	1.298E-02	01/04/2016	0.117
06/14/2017	4.644E-03	02/25/2017	5.429E-02
01/31/2018	7.069E-03	12/25/2017	0.107
03/30/2019	6.833E-03	11/12/2018	8.287E-02
04/15/2020	4.433E-03	03/30/2020	4.760E-02
02/10/2021	1.129E-02	11/24/2020	0.127
12/20/2021	3.296E-03	12/20/2021	0.131
03/30/2023	7.871E-03	11/25/2022	6.994E-02
01/19/2024	6.313E-03	01/19/2024	6.462E-02
12/22/2024	1.309E-02	12/22/2024	0.108
03/09/2026	8.312E-03	12/28/2025	6.101E-02
01/27/2027	7.358E-03	01/27/2027	6.011E-02
02/19/2028	9.070E-03	06/01/2028	6.705E-02
12/04/2028	7.075E-03	06/26/2029	6.508E-02
02/16/2030	9.323E-03	11/04/2029	0.125
12/30/2030	8.851E-03	12/03/2030	8.436E-02
01/20/2032	1.369E-02	01/20/2032	0.103
03/01/2033	3.904E-03	12/23/2032	8.063E-02
01/16/2034	1.554E-02	11/16/2033	8.822E-02
02/19/2035	7.345E-03	12/21/2034	9.143E-02
03/24/2036	7.281E-03	12/04/2035	0.103
05/15/2037	3.040E-04	03/09/2037	8.935E-03
12/15/2037	5.685E-03	11/24/2037	0.110
02/07/2039	4.146E-03	12/04/2038	5.590E-02
01/14/2040	1.075E-02	01/14/2040	0.148
12/25/2040	8.222E-03	12/03/2040	7.192E-02
02/20/2042	9.603E-03	02/20/2042	0.114
03/31/2043	1.560E-02	03/31/2043	0.130
02/24/2044	5.086E-03	03/14/2044	6.005E-02
02/11/2045	5.668E-03	11/02/2044	8.930E-02

02/16/2046	7.317E-03	12/06/2045	8.549E-02
02/01/2047	4.639E-03	11/24/2046	7.944E-02
04/21/2048	4.138E-03	12/02/2047	9.462E-02
03/16/2049	4.416E-03	03/16/2049	5.895E-02
12/04/2049	8.086E-03	12/04/2049	0.126
04/06/2051	6.061E-03	04/06/2051	4.869E-02
04/16/2052	4.274E-03	04/17/2052	2.338E-02
06/04/2053	5.022E-02	12/10/2052	0.107
04/08/2054	2.583E-03	04/08/2054	2.334E-02
02/17/2055	1.085E-02	10/27/2054	0.153
02/07/2056	1.850E-02	02/07/2056	0.101
11/19/2056	2.024E-02	11/19/2056	0.135
01/24/2058	1.206E-02	01/24/2058	0.129
12/28/2058	9.511E-03	11/25/2058	0.107
01/19/2060	3.606E-03	11/06/2059	5.121E-02
01/10/2061	7.652E-03	10/23/2060	0.122
02/03/2062	2.738E-02	01/02/2062	7.534E-02
02/26/2063	6.226E-03	11/25/2062	4.940E-02
12/23/2063	1.094E-02	12/23/2063	8.065E-02
11/30/2064	5.514E-03	11/29/2064	5.569E-02
01/13/2066	2.786E-03	12/06/2065	2.262E-02
01/19/2067	7.558E-03	12/05/2066	9.823E-02
01/18/2068	1.411E-02	01/18/2068	0.120
01/04/2069	4.300E-03	10/23/2068	4.844E-02
04/09/2070	3.429E-03	12/14/2069	4.092E-02
02/14/2071	3.706E-03	02/14/2071	3.728E-02
04/28/2072	6.565E-03	11/03/2071	5.479E-02
12/25/2072	1.701E-02	12/25/2072	0.123
03/16/2074	8.632E-03	03/16/2074	8.295E-02
03/15/2075	2.076E-03	11/20/2074	5.603E-02
03/24/2076	8.273E-03	10/17/2075	6.729E-02
03/02/2077	1.165E-03	09/23/2077	1.044E-02
12/02/2077	3.905E-03	11/28/2077	8.342E-02
02/25/2079	5.213E-03	11/07/2078	3.358E-02
12/17/2079	1.744E-02	12/17/2079	0.118
11/21/2080	8.753E-03	11/06/2080	0.116
02/13/2082	1.030E-02	02/18/2082	9.098E-02
02/19/2083	6.304E-03	12/03/2082	5.677E-02
01/03/2084	8.040E-03	11/26/2083	8.774E-02
12/14/2084	5.339E-03	12/14/2084	4.395E-02
01/18/2086	7.587E-03	01/18/2086	3.978E-02
12/21/2086	6.855E-03	11/23/2086	0.112
01/14/2088	4.965E-03	03/25/2088	8.189E-02
11/05/2088	7.887E-03	11/05/2088	0.132
12/03/2089	3.988E-03	11/03/2089	7.848E-02
12/04/2090	7.241E-03	08/30/2091	6.880E-02
04/28/2092	1.962E-02	11/19/2091	7.077E-02
03/22/2093	3.261E-03	11/07/2092	3.486E-02
03/02/2094	2.840E-03	01/04/2094	2.242E-02
02/18/2095	4.632E-03	11/19/2094	6.428E-02
01/14/2096	5.696E-03	11/10/2095	0.129
01/29/2097	1.397E-02	11/12/2096	0.162

****Point of Compliance Ranked Maxima Flow Data ****

Predevelopment

Postdevelopment

Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.004	3.040E-04	1.004	8.935E-03
1.010	1.165E-03	1.010	1.044E-02
1.016	1.190E-03	1.016	2.242E-02
1.023	2.076E-03	1.023	2.262E-02
1.030	2.553E-03	1.030	2.334E-02
1.036	2.583E-03	1.036	2.338E-02
1.043	2.786E-03	1.043	2.818E-02
1.050	2.840E-03	1.050	3.358E-02
1.057	2.857E-03	1.057	3.486E-02
1.064	3.102E-03	1.064	3.543E-02
1.072	3.261E-03	1.072	3.702E-02
1.079	3.276E-03	1.079	3.728E-02
1.086	3.296E-03	1.086	3.741E-02
1.094	3.429E-03	1.094	3.978E-02
1.101	3.433E-03	1.101	4.092E-02
1.109	3.466E-03	1.109	4.244E-02
1.117	3.606E-03	1.117	4.273E-02
1.125	3.706E-03	1.125	4.381E-02
1.133	3.824E-03	1.133	4.394E-02
1.141	3.845E-03	1.141	4.395E-02
1.149	3.904E-03	1.149	4.567E-02
1.158	3.905E-03	1.158	4.734E-02
1.166	3.979E-03	1.166	4.760E-02
1.175	3.988E-03	1.175	4.763E-02
1.184	4.004E-03	1.184	4.797E-02
1.193	4.138E-03	1.193	4.844E-02
1.202	4.146E-03	1.202	4.869E-02
1.211	4.161E-03	1.211	4.889E-02
1.220	4.274E-03	1.220	4.940E-02
1.230	4.300E-03	1.230	5.018E-02
1.240	4.346E-03	1.240	5.031E-02
1.249	4.416E-03	1.249	5.085E-02
1.259	4.433E-03	1.259	5.121E-02
1.269	4.632E-03	1.269	5.429E-02
1.280	4.639E-03	1.280	5.479E-02
1.290	4.644E-03	1.290	5.569E-02
1.301	4.692E-03	1.301	5.590E-02
1.312	4.949E-03	1.312	5.603E-02
1.323	4.965E-03	1.323	5.677E-02
1.334	4.980E-03	1.334	5.699E-02
1.345	5.019E-03	1.345	5.895E-02
1.357	5.086E-03	1.357	6.005E-02
1.368	5.183E-03	1.368	6.011E-02
1.380	5.213E-03	1.380	6.101E-02
1.392	5.339E-03	1.392	6.131E-02
1.405	5.351E-03	1.405	6.428E-02
1.417	5.514E-03	1.417	6.462E-02
1.430	5.574E-03	1.430	6.508E-02
1.443	5.668E-03	1.443	6.561E-02
1.457	5.685E-03	1.457	6.567E-02
1.470	5.696E-03	1.470	6.587E-02
1.484	5.809E-03	1.484	6.592E-02
1.498	5.822E-03	1.498	6.683E-02
1.512	5.826E-03	1.512	6.705E-02

1.527	5.921E-03	1.527	6.729E-02
1.542	6.027E-03	1.542	6.732E-02
1.557	6.061E-03	1.557	6.792E-02
1.572	6.073E-03	1.572	6.868E-02
1.588	6.123E-03	1.588	6.880E-02
1.604	6.178E-03	1.604	6.891E-02
1.621	6.226E-03	1.621	6.994E-02
1.638	6.236E-03	1.638	7.020E-02
1.655	6.250E-03	1.655	7.045E-02
1.672	6.304E-03	1.672	7.077E-02
1.690	6.313E-03	1.690	7.153E-02
1.708	6.425E-03	1.708	7.192E-02
1.727	6.544E-03	1.727	7.376E-02
1.746	6.565E-03	1.746	7.452E-02
1.766	6.573E-03	1.766	7.534E-02
1.785	6.704E-03	1.785	7.682E-02
1.806	6.717E-03	1.806	7.848E-02
1.827	6.728E-03	1.827	7.859E-02
1.848	6.805E-03	1.848	7.860E-02
1.870	6.833E-03	1.870	7.944E-02
1.892	6.855E-03	1.892	8.050E-02
1.915	6.949E-03	1.915	8.063E-02
1.939	7.066E-03	1.939	8.065E-02
1.963	7.069E-03	1.963	8.098E-02
1.987	7.075E-03	1.987	8.113E-02
2.013	7.117E-03	2.013	8.189E-02
2.039	7.167E-03	2.039	8.248E-02
2.065	7.175E-03	2.065	8.262E-02
2.093	7.196E-03	2.093	8.287E-02
2.121	7.206E-03	2.121	8.295E-02
2.150	7.241E-03	2.150	8.342E-02
2.179	7.281E-03	2.179	8.436E-02
2.210	7.300E-03	2.210	8.495E-02
2.241	7.317E-03	2.241	8.549E-02
2.273	7.345E-03	2.273	8.648E-02
2.306	7.358E-03	2.306	8.663E-02
2.340	7.558E-03	2.340	8.774E-02
2.376	7.587E-03	2.376	8.822E-02
2.412	7.652E-03	2.412	8.930E-02
2.449	7.671E-03	2.449	8.974E-02
2.488	7.805E-03	2.488	8.980E-02
2.527	7.871E-03	2.527	9.098E-02
2.569	7.887E-03	2.569	9.143E-02
2.611	8.040E-03	2.611	9.452E-02
2.655	8.086E-03	2.655	9.462E-02
2.700	8.094E-03	2.700	9.700E-02
2.747	8.129E-03	2.747	9.823E-02
2.796	8.222E-03	2.796	9.892E-02
2.846	8.273E-03	2.846	0.100
2.898	8.283E-03	2.898	0.101
2.952	8.312E-03	2.952	0.102
3.008	8.518E-03	3.008	0.103
3.067	8.632E-03	3.067	0.103
3.127	8.753E-03	3.127	0.104
3.190	8.851E-03	3.190	0.105
3.256	8.901E-03	3.256	0.107

3.325	9.070E-03	3.325	0.107
3.396	9.323E-03	3.396	0.107
3.471	9.511E-03	3.471	0.107
3.548	9.534E-03	3.548	0.108
3.630	9.603E-03	3.630	0.108
3.715	9.723E-03	3.715	0.108
3.805	1.029E-02	3.805	0.109
3.898	1.030E-02	3.898	0.109
3.997	1.075E-02	3.997	0.110
4.101	1.085E-02	4.101	0.111
4.210	1.094E-02	4.210	0.112
4.325	1.099E-02	4.325	0.112
4.447	1.108E-02	4.447	0.113
4.575	1.121E-02	4.575	0.114
4.712	1.129E-02	4.712	0.115
4.856	1.134E-02	4.856	0.115
5.010	1.158E-02	5.010	0.116
5.174	1.166E-02	5.174	0.116
5.349	1.206E-02	5.349	0.117
5.536	1.253E-02	5.536	0.118
5.737	1.260E-02	5.737	0.118
5.953	1.298E-02	5.953	0.120
6.186	1.309E-02	6.186	0.122
6.438	1.354E-02	6.438	0.123
6.711	1.369E-02	6.711	0.123
7.009	1.397E-02	7.009	0.124
7.334	1.398E-02	7.334	0.125
7.691	1.411E-02	7.691	0.125
8.084	1.440E-02	8.084	0.126
8.519	1.449E-02	8.519	0.126
9.005	1.531E-02	9.005	0.127
9.548	1.554E-02	9.548	0.129
10.162	1.560E-02	10.162	0.129
10.860	1.564E-02	10.860	0.130
11.661	1.639E-02	11.661	0.130
12.589	1.701E-02	12.589	0.131
13.678	1.744E-02	13.678	0.131
14.973	1.766E-02	14.973	0.132
16.540	1.850E-02	16.540	0.135
18.472	1.906E-02	18.472	0.135
20.915	1.957E-02	20.915	0.148
24.104	1.962E-02	24.104	0.153
28.439	2.024E-02	28.439	0.155
34.675	2.321E-02	34.675	0.162
44.416	2.513E-02	44.416	0.163
61.766	2.536E-02	61.766	0.166
101.359	2.738E-02	101.359	0.171
282.357	5.022E-02	282.357	0.185

*** Point of Compliance Flow Frequency Data ***

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	7.096E-03	2-Year	8.151E-02

5-Year	1.157E-02	5-Year	0.116
10-Year	1.558E-02	10-Year	0.129
25-Year	1.976E-02	25-Year	0.154
50-Year	2.521E-02	50-Year	0.164
100-Year	2.732E-02	100-Year	0.171
200-Year	4.253E-02	200-Year	0.180
500-Year	6.295E-02	500-Year	0.193

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

*** Point of Compliance Flow Duration Data ***

Predevelopment Runoff		Postdevelopment Runoff	
Discharge	Exceedance	Discharge	Exceedance
(cfs)	Probability	(cfs)	
Probability			

0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
2.511E-04	1.9255E-01	2.838E-04	3.1196E-02
5.022E-04	1.3619E-01	5.677E-04	2.9288E-02
7.532E-04	1.0283E-01	2.779E-03	2.0872E-02
1.004E-03	7.9669E-02	3.706E-03	1.8596E-02
1.255E-03	6.3201E-02	4.632E-03	1.6719E-02
1.506E-03	5.0906E-02	5.558E-03	1.5180E-02
1.758E-03	4.1440E-02	6.485E-03	1.3858E-02
2.009E-03	3.3936E-02	7.096E-03	1.3090E-02
2.260E-03	2.7958E-02	8.338E-03	1.1688E-02
2.511E-03	2.3164E-02	9.264E-03	1.0745E-02
2.762E-03	1.9351E-02	1.019E-02	9.8990E-03
3.013E-03	1.6160E-02	1.157E-02	8.8035E-03
3.264E-03	1.3525E-02	1.204E-02	8.4533E-03
3.548E-03	1.1157E-02	1.297E-02	7.8166E-03
3.766E-03	9.6868E-03	1.390E-02	7.2343E-03
4.017E-03	8.2193E-03	1.482E-02	6.6981E-03
4.268E-03	7.0643E-03	1.575E-02	6.2175E-03
4.519E-03	6.1069E-03	1.668E-02	5.7679E-03
4.771E-03	5.2876E-03	1.760E-02	5.3237E-03
5.022E-03	4.6113E-03	1.853E-02	4.8553E-03
5.273E-03	4.0167E-03	1.945E-02	4.4474E-03
5.524E-03	3.4990E-03	2.038E-02	4.0804E-03
5.775E-03	3.0565E-03	2.131E-02	3.7093E-03
6.026E-03	2.6839E-03	2.223E-02	3.3981E-03
6.277E-03	2.3794E-03	2.316E-02	3.1028E-03
6.528E-03	2.1054E-03	2.409E-02	2.8263E-03
6.779E-03	1.8716E-03	2.521E-02	2.5292E-03
7.096E-03	1.5930E-03	2.594E-02	2.3803E-03
7.281E-03	1.4516E-03	2.687E-02	2.2099E-03
7.532E-03	1.3094E-03	2.779E-02	2.0547E-03
7.784E-03	1.1820E-03	2.872E-02	1.9208E-03
8.035E-03	1.0715E-03	2.964E-02	1.8025E-03
8.286E-03	9.7471E-04	3.057E-02	1.6917E-03
8.537E-03	8.9026E-04	3.150E-02	1.5904E-03
8.788E-03	7.9894E-04	3.242E-02	1.5039E-03
9.039E-03	7.2277E-04	3.335E-02	1.4316E-03
9.290E-03	6.6465E-04	3.428E-02	1.3459E-03
9.541E-03	6.1268E-04	3.520E-02	1.2692E-03

9.792E-03	5.6177E-04	3.613E-02	1.2029E-03
1.004E-02	5.2744E-04	3.706E-02	1.1383E-03
1.029E-02	4.9067E-04	3.798E-02	1.0821E-03
1.055E-02	4.4876E-04	3.891E-02	1.0229E-03
1.080E-02	4.0889E-04	3.983E-02	9.7042E-04
1.105E-02	3.6901E-04	4.076E-02	9.2041E-04
1.130E-02	3.3832E-04	4.169E-02	8.7041E-04
1.157E-02	3.1148E-04	4.261E-02	8.2242E-04
1.180E-02	2.8598E-04	4.354E-02	7.7963E-04
1.205E-02	2.6321E-04	4.447E-02	7.4226E-04
1.230E-02	2.4354E-04	4.539E-02	7.0852E-04
1.255E-02	2.2352E-04	4.632E-02	6.7472E-04
1.281E-02	2.0128E-04	4.725E-02	6.4117E-04
1.306E-02	1.8579E-04	4.817E-02	6.0815E-04
1.331E-02	1.7154E-04	4.910E-02	5.7966E-04
1.356E-02	1.5295E-04	5.003E-02	5.4985E-04
1.381E-02	1.3667E-04	5.095E-02	5.2005E-04
1.406E-02	1.1951E-04	5.188E-02	4.9281E-04
1.431E-02	1.0419E-04	5.280E-02	4.6593E-04
1.456E-02	8.9049E-05	5.373E-02	4.4262E-04
1.481E-02	7.8917E-05	5.466E-02	4.1646E-04
1.506E-02	7.0632E-05	5.558E-02	3.9715E-04
1.532E-02	6.0856E-05	5.651E-02	3.7783E-04
1.557E-02	5.4538E-05	5.744E-02	3.5781E-04
1.582E-02	4.7863E-05	5.836E-02	3.4028E-04
1.607E-02	4.1008E-05	5.929E-02	3.2276E-04
1.632E-02	3.5405E-05	6.022E-02	3.1012E-04
1.657E-02	2.9624E-05	6.114E-02	2.9570E-04
1.682E-02	2.6047E-05	6.207E-02	2.7710E-04
1.707E-02	2.0981E-05	6.299E-02	2.6250E-04
1.732E-02	1.6809E-05	6.392E-02	2.4915E-04
1.758E-02	1.4305E-05	6.485E-02	2.3472E-04
1.783E-02	1.1981E-05	6.577E-02	2.2459E-04
1.808E-02	9.2387E-06	6.670E-02	2.1249E-04
1.833E-02	6.7353E-06	6.763E-02	1.9985E-04
1.858E-02	3.8147E-06	6.855E-02	1.8901E-04
1.883E-02	3.4571E-06	6.948E-02	1.7875E-04
1.908E-02	3.2783E-06	7.041E-02	1.6987E-04
1.933E-02	3.2783E-06	7.133E-02	1.6212E-04
1.958E-02	3.0994E-06	7.226E-02	1.5366E-04
1.984E-02	2.7418E-06	7.319E-02	1.4788E-04
2.009E-02	2.3842E-06	7.411E-02	1.3959E-04
2.034E-02	2.0266E-06	7.504E-02	1.3328E-04
2.059E-02	2.0266E-06	7.596E-02	1.2785E-04
2.084E-02	2.0266E-06	7.689E-02	1.2225E-04
2.109E-02	2.0266E-06	7.782E-02	1.1700E-04
2.134E-02	2.0266E-06	7.874E-02	1.1069E-04
2.159E-02	2.0266E-06	7.967E-02	1.0580E-04
2.184E-02	2.0266E-06	8.060E-02	9.9123E-05
2.210E-02	1.8477E-06	8.152E-02	9.5367E-05
2.235E-02	1.6689E-06	8.245E-02	9.1374E-05
2.260E-02	1.4901E-06	8.338E-02	8.5771E-05
2.285E-02	1.4901E-06	8.430E-02	8.1837E-05
2.310E-02	1.3113E-06	8.523E-02	7.8738E-05
2.335E-02	1.1325E-06	8.615E-02	7.6413E-05
2.360E-02	1.1325E-06	8.708E-02	7.3135E-05

2.385E-02	1.1325E-06	8.801E-02	7.1168E-05
2.410E-02	1.1325E-06	8.893E-02	6.8605E-05
2.435E-02	1.1325E-06	8.986E-02	6.5565E-05
2.461E-02	1.1325E-06	9.079E-02	6.2704E-05
2.486E-02	1.1325E-06	9.171E-02	6.0141E-05
2.521E-02	9.6547E-07	9.264E-02	5.8532E-05
2.536E-02	7.7486E-07	9.357E-02	5.6386E-05
2.561E-02	7.7486E-07	9.449E-02	5.4181E-05
2.586E-02	5.9605E-07	9.542E-02	5.1856E-05
2.611E-02	5.9605E-07	9.634E-02	4.8935E-05
2.636E-02	4.1723E-07	9.727E-02	4.6790E-05
2.661E-02	4.1723E-07	9.820E-02	4.5717E-05
2.687E-02	4.1723E-07	9.912E-02	4.3750E-05
2.712E-02	4.1723E-07	1.001E-01	4.2260E-05
2.737E-02	4.1723E-07	1.010E-01	4.0472E-05
2.762E-02	2.3842E-07	1.019E-01	3.9220E-05
2.787E-02	2.3842E-07	1.028E-01	3.7968E-05
2.812E-02	2.3842E-07	1.038E-01	3.5584E-05
2.837E-02	2.3842E-07	1.047E-01	3.3438E-05
2.862E-02	2.3842E-07	1.056E-01	3.1829E-05
2.887E-02	2.3842E-07	1.065E-01	3.0339E-05
2.913E-02	2.3842E-07	1.075E-01	2.8551E-05
2.938E-02	2.3842E-07	1.084E-01	2.7478E-05
2.963E-02	2.3842E-07	1.093E-01	2.5690E-05
2.988E-02	2.3842E-07	1.102E-01	2.3305E-05
3.013E-02	2.3842E-07	1.112E-01	2.2769E-05
3.038E-02	2.3842E-07	1.121E-01	2.1160E-05
3.063E-02	2.3842E-07	1.130E-01	2.0087E-05
3.088E-02	2.3842E-07	1.139E-01	1.9372E-05
3.113E-02	2.3842E-07	1.149E-01	1.8477E-05
3.139E-02	2.3842E-07	1.158E-01	1.7166E-05
3.164E-02	2.3842E-07	1.167E-01	1.6809E-05
3.189E-02	2.3842E-07	1.177E-01	1.6272E-05
3.214E-02	2.3842E-07	1.186E-01	1.5736E-05
3.239E-02	2.3842E-07	1.195E-01	1.5378E-05
3.264E-02	2.3842E-07	1.204E-01	1.4842E-05
3.289E-02	2.3842E-07	1.214E-01	1.4484E-05
3.314E-02	2.3842E-07	1.223E-01	1.3590E-05
3.339E-02	2.3842E-07	1.232E-01	1.3053E-05
3.365E-02	2.3842E-07	1.241E-01	1.1981E-05
3.390E-02	2.3842E-07	1.251E-01	1.1444E-05
3.415E-02	2.3842E-07	1.260E-01	1.0669E-05
3.440E-02	2.3842E-07	1.269E-01	1.0312E-05
3.465E-02	2.3842E-07	1.278E-01	9.9540E-06
3.490E-02	2.3842E-07	1.288E-01	9.5963E-06
3.515E-02	2.3842E-07	1.297E-01	8.7023E-06
3.540E-02	2.3842E-07	1.306E-01	8.1658E-06
3.565E-02	2.3842E-07	1.315E-01	7.6294E-06
3.590E-02	2.3842E-07	1.325E-01	7.2718E-06
3.616E-02	2.3842E-07	1.334E-01	6.9141E-06
3.641E-02	2.3842E-07	1.343E-01	6.5565E-06
3.666E-02	2.3842E-07	1.353E-01	6.0201E-06
3.691E-02	2.3842E-07	1.362E-01	6.0201E-06
3.716E-02	2.3842E-07	1.371E-01	6.0201E-06
3.741E-02	2.3842E-07	1.380E-01	5.6624E-06
3.766E-02	2.3842E-07	1.390E-01	5.4836E-06

3.791E-02	2.3842E-07	1.399E-01	5.3048E-06
3.816E-02	2.3842E-07	1.408E-01	5.1260E-06
3.842E-02	2.3842E-07	1.417E-01	4.7088E-06
3.867E-02	2.3842E-07	1.427E-01	4.7088E-06
3.892E-02	2.3842E-07	1.436E-01	4.5300E-06
3.917E-02	2.3842E-07	1.445E-01	4.1723E-06
3.942E-02	2.3842E-07	1.454E-01	4.1723E-06
3.967E-02	2.3842E-07	1.464E-01	3.9935E-06
3.992E-02	2.3842E-07	1.473E-01	3.8147E-06
4.017E-02	2.3842E-07	1.482E-01	3.4571E-06
4.042E-02	2.3842E-07	1.491E-01	3.4571E-06
4.068E-02	2.3842E-07	1.501E-01	3.4571E-06
4.093E-02	2.3842E-07	1.510E-01	3.4571E-06
4.118E-02	2.3842E-07	1.519E-01	2.7418E-06
4.143E-02	2.3842E-07	1.529E-01	2.7418E-06
4.168E-02	2.3842E-07	1.538E-01	2.3842E-06
4.193E-02	2.3842E-07	1.547E-01	2.3842E-06
4.218E-02	2.3842E-07	1.556E-01	2.0266E-06
4.243E-02	2.3842E-07	1.566E-01	2.0266E-06
4.268E-02	2.3842E-07	1.575E-01	2.0266E-06
4.294E-02	2.3842E-07	1.584E-01	1.6689E-06
4.319E-02	2.3842E-07	1.593E-01	1.4901E-06
4.344E-02	2.3842E-07	1.603E-01	1.3113E-06
4.369E-02	2.3842E-07	1.612E-01	1.3113E-06
4.394E-02	2.3842E-07	1.621E-01	9.5367E-07
4.419E-02	2.3842E-07	1.630E-01	7.7486E-07
4.444E-02	2.3842E-07	1.640E-01	5.9605E-07
4.469E-02	2.3842E-07	1.649E-01	5.9605E-07
4.494E-02	2.3842E-07	1.658E-01	4.1723E-07
4.519E-02	2.3842E-07	1.668E-01	4.1723E-07
4.545E-02	2.3842E-07	1.677E-01	4.1723E-07
4.570E-02	2.3842E-07	1.686E-01	4.1723E-07
4.595E-02	2.3842E-07	1.695E-01	4.1723E-07
4.620E-02	2.3842E-07	1.705E-01	4.1723E-07
4.645E-02	2.3842E-07	1.714E-01	2.3842E-07
4.670E-02	2.3842E-07	1.723E-01	2.3842E-07
4.695E-02	2.3842E-07	1.732E-01	2.3842E-07
4.720E-02	2.3842E-07	1.742E-01	2.3842E-07
4.745E-02	2.3842E-07	1.751E-01	2.3842E-07
4.771E-02	2.3842E-07	1.760E-01	2.3842E-07
4.796E-02	2.3842E-07	1.769E-01	2.3842E-07
4.821E-02	2.3842E-07	1.779E-01	2.3842E-07
4.846E-02	2.3842E-07	1.788E-01	2.3842E-07
4.871E-02	2.3842E-07	1.797E-01	2.3842E-07
4.896E-02	2.3842E-07	1.806E-01	2.3842E-07
4.921E-02	2.3842E-07	1.816E-01	2.3842E-07
4.946E-02	2.3842E-07	1.825E-01	2.3842E-07
4.971E-02	2.3842E-07	1.834E-01	2.3842E-07
4.997E-02	2.3842E-07	1.844E-01	2.3842E-07
5.022E-02	1.8050E-07	1.853E-01	1.7881E-07

**** Flow Duration Performance ****

Excursion at Predeveloped 50%Q2 (Must be Less Than or Equal to 0%):	69.9%	FAIL
Maximum Excursion from 50%Q2 to Q2 (Must be Less Than or Equal to 0%):	720.7%	FAIL
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	99999.0%	FAIL
Percent Excursion from Q2 to Q50 (Must be less than 50%):	100.0%	FAIL

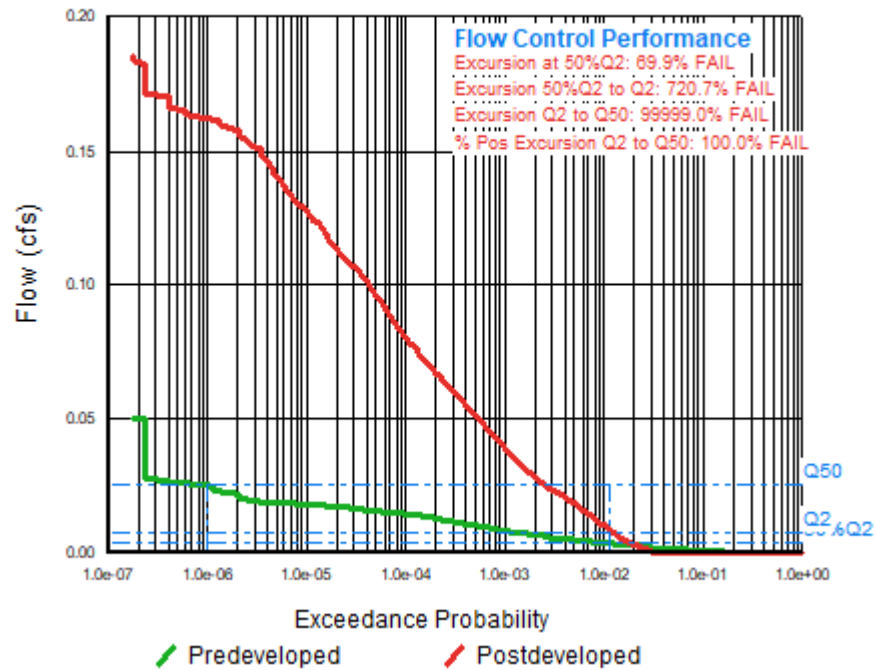
FLOW DURATION DESIGN CRITERIA: FAIL

**** LID Duration Performance ****

Excursion at Predeveloped 8%Q2 (Must be Less Than 0%):	-76.8%	PASS
Maximum Excursion from 8%Q2 to 50%Q2 (Must be Less Than 0%):	69.9%	FAIL

LID DURATION DESIGN CRITERIA: FAIL

Flow Duration Plot





Appendix E

DETAIL SPECIFICATIONS, MEASUREMENT & PAYMENT, AND ENGINEERING SPECIFICATIONS

**City of Kirkland:
124th Ave NE Roadway Improvements**

**Schedule C
Northshore Utility District
Sanitary Sewer System Improvements**

Northshore Utility District
King County, Washington

October 2023



NORTHSHORE UTILITY DISTRICT

**6830 NE 185TH STREET
KENMORE, WASHINGTON 98028-2684**

Detail Specifications, Measurement & Payment, and Engineering Specifications

FOR

**City of Kirkland:
124th Ave NE Roadway Improvements**

**Schedule C
Northshore Utility District
Sanitary Sewer System Improvements**

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Section 3 – Detail Specifications

3.0 GENERAL

This specification covers the furnishing of all labor, materials, tools and equipment necessary and incidental for the installation of water and sewer mains together with all appurtenances and all restoration.

Facilities shall be constructed as shown on the Construction Plans and in accordance with these specifications and pertinent sections of the "Engineering Specifications" except as amended or changed in the Detail Specifications. Manufacturer's equipment shall be installed in compliance with the specifications of the manufacturer, except where a higher quality of workmanship is required by the Contract Plans and Specifications. All material and work shall be in strict accordance with any applicable regulations of State and local authorities. The Contractor shall arrange for such inspection by these agencies as may be required and shall submit evidence of their approval, if requested by the Engineer.

The Contractor shall cut existing asphalt to a neat line prior to excavation. No debris will be piled or dumped in the proximity of the project. Surface waters shall be confined to the site so that dirt and debris is not washed into existing storm drains, ditches or creeks.

All existing utilities disturbed shall be re-routed, reconnected and kept in service at all times. The Contractor shall request location marking of all utilities prior to start of excavation.

After the new utilities have been installed, the Contractor shall restore the existing surface, paved or pervious, to an existing or better condition, as shown on the Plans and per the requirements of the permitting agency right-of-way permits.

3.1 EXISTING FACILITIES

There now exist along the construction route, and within the boundaries thereof, above-ground and underground improvements. A portion of these, where known, is shown on the Plans. However, whether they are shown on the Plans or later marked in the field, responsibility for damage and repair shall be determined in accordance with RCW Chapter 19.122, Underground Utilities.

The Contractor shall inform each property owner in ample time so that the property owner and the Contractor may take any precautions necessary to facilitate construction in the vicinity and thereby protect existing property and any underground water lines, drain lines, and/or power lines or other utility lines.



Where the Contractor is allowed to use private property adjacent to the work, the property so used shall be returned to its original or superior condition. A signed release from the property owner shall be furnished to the District by the Contractor prior to project acceptance. See Special Provisions for the *Property Owner's Approval of Restoration* form.

Wherever existing drainage channels, culverts or structures are disturbed, the Contractor shall provide suitable means for diverting and maintaining all flows during construction in that area at his expense. After the construction has been completed, all channels, culverts, or structures shall be returned to a condition that is equal to or better than existed prior to construction.

The Contractor shall adequately protect and preserve from damage, destruction, and interference with the use of all property or its appurtenances on or in the vicinity of the work, which is not ordered or provided for removal or destruction under this contract. This applies to all items occupying the right-of-way, trees, monuments, pipes, conduits, water mains and blocking, underground structures, culverts, bridges, fences, rockeries, docks, bulkheads, and property of all descriptions. Wherever such property is damaged, destroyed or the use thereof is interfered with due to the operation of the Contractor, it shall be immediately restored to its former condition by the Contractor, at the Contractor's expense.

No separate payment will be made for the protection and/or repairing of existing facilities and any cost and expense incurred in protection and/or repairing these facilities shall be included in the price bid for the several items as indicated in the proposal.

3.2 TRAFFIC MAINTENANCE AND PROTECTION

Refer to Section 1-10 of these Special Provisions for maintenance of traffic.

3.3 TRENCH BACKFILL

Foundation material, if required, shall be 1"-3" rock in accordance with Section 9.7 (a) of the District's Materials of Construction engineering specifications.

All other excavation required for the sewer system improvements shall be backfilled with 1-1/4 inch minus or 3/4" minus Crushed Rock, full-depth, per Section 9.7 (c) of the District's Materials of Construction engineering specifications.

Native material shall not be used as backfill.

Recycled cement concrete will not be allowed for any District utility foundation material, pipe zone bedding or trench backfill.



See the District's Methods of Construction engineering specifications for additional information.

3.4 DEWATERING PLAN

Refer to the City of Kirkland standards and the Special Provisions included in these overall contract provisions.

3.5 REPAIR EXISTING SANITARY SEWER

Approximately 72 feet north of existing sanitary sewer manhole MH-2, there is a joint that has settled. The contractor shall pothole and locate the existing sewer main, excavate for a length no greater than two (2) joints north and south of the settled joint, and haul away and dispose of excavated material. Using controlled density fill and pea gravel as shown in the plans, the contractor shall raise the existing pipe so as to eliminate the settlement in the pipe. The contractor shall verify that the pipe meets minimum slope requirements after repair. Contractor shall also refer to Detail Specification Item 3.14 regarding temporary sewer bypass plan and system.

3.6 REPLACE EXISTING MANHOLE FRAME AND COVER

The contractor shall remove and dispose of existing frame and cover and existing adjusting materials down to the top of the cone and install new adjusting rings grouted in-place with approved cement and sand grout mix. Add a top step if required if the distance as shown in Northshore Utility District Standard Details 1 through 4. Cover the invert of the manhole prior to commencing work to avoid introducing debris or any other materials into the sewage system.

3.7 EXISTING CEMENT CONCRETE CURB, GUTTER, AND SIDEWALK

It is intended that existing cement concrete curb, gutter, and sidewalk that is removed in order to construct the Schedule C facilities will be replaced with temporary asphalt. Final restoration will be within the limits of Schedule A improvements will be in accordance with Schedule A improvements. Final restoration located outside the limits of Schedule A shall, in general, consist of improvements to match those that existing prior to construction of the Schedule C improvements.

3.8 GENERAL RESTORATION

Restoration of affected areas not paid for under other items shall be considered general restoration. This restoration includes rockery, fences, lawn areas, planter areas, maintenance of existing trees and shrubs and replanting or replacement of trees and shrubs. Grassy areas, that are to be disturbed by



construction and are not to be replaced by other improvements shall be restored with sod. The Contractor shall specifically note that where an area has a distinctive surface treatment (grass, bark, sand or such), that surface treatment must be replaced in kind unless other restorative treatment is allowed in writing by the District, or is included in the Schedule A improvements.

Areas damaged by the Contractor which are not specifically allowed for under the Contract shall be repaired or replaced by the Contractor at the Contractor's expense. Contractor shall provide the District a written release from the owner for any private property damaged by the Contractor.

Contractor shall be responsible for documentation pre-construction condition of each parcel through photos prior to the commencement of construction.

Refer to the City of Kirkland standards and the Special Provisions included in these overall contract provisions.

Restoration for work associated with all sewer improvements shall be completed in the time frames specified in the easement agreements.

3.9 TEMPORARY ASPHALT TRENCH PATCH

The contractor shall provide temporary asphalt trench patch at locations where areas disturbed by the Schedule C improvements will be restored at a later date by the Schedule A improvements.

Temporary asphalt trench patch shall be minimum 3" compacted depth. Material shall be hot mix asphalt per Section 9.8 (c) of the District's Materials of Construction engineering specifications.

Temporary asphalt trench patch shall be provided at the following locations, as well as locations as directed in the field where asphalt damaged by the contractor's activities require temporary asphalt restoration:

- i. As needed around manholes in which frame, cover, and adjusting rings are being removed and replaced
- ii. Along alignment of work to repair existing settled joint as shown in the Plans
- iii. Within public right-of-way from proposed MH 101 to proposed saddle MH 102
- iv. Around proposed cleanout at address 12350 124th Ave NE (Caliber Collision)



- v. Around proposed cleanout at address 12249 124th Ave NE (Public Storage)
- vi. All asphalt materials shall be HMA as approved by the City of Kirkland for this project and installation of the paving materials shall be in accordance with the City of Kirkland standard specifications.

3.10 PERMANENT ASPHALT TRENCH PATCH

The contractor shall provide permanent HMA asphalt trench patch at locations where the Schedule C improvements disturb existing asphalt at locations that will not be restored by Schedule A improvements.

Permanent asphalt trench patch shall match existing asphalt pavement thickness plus one-inch, with a maximum compacted depth of 6". Material shall be hot mix asphalt per Section 9.8 (c) of the District's Materials of Construction engineering specifications.

Permanent asphalt trench patch shall be provided at the following locations, as well as at locations as directed in the field where asphalt damaged by the contractor's activities require permanent asphalt restoration:

- i. In the parking lot at address 11930 124th Ave NE (Lee Johnson Nissan)
- ii. In the asphalt parking lot at address 12403/12405/12407 NE 124th St.

All asphalt materials shall be HMA as approved by the City of Kirkland for this project and installation of the paving materials shall be in accordance with the City of Kirkland standard specifications.

3.11 ASPHALT PAVING

The contractor shall provide asphalt paving in the private parking areas that are damaged by the Schedule C improvements located outside the limits of the Schedule A improvements.

Asphalt paving outside of permanent trench patch areas shall consist of a 2" grind and 2" overlay at areas shown in the Plans. Material shall be hot mix asphalt per Section 9.8 (c) of the District's Materials of Construction engineering specifications.

Asphalt paving shall be provided at the following locations, as well as at locations as directed in the field where asphalt damaged by the contractor's activities require permanent asphalt restoration:



- i. In the asphalt parking lot at address 12403/12405/12407 NE 124th St
- ii. In the asphalt parking lot at address 11910 124th Ave NE (Lee Johnson Nissan)

All asphalt materials shall be HMA as approved by the City of Kirkland for this project and installation of the paving materials shall be in accordance with the City of Kirkland standard specifications.

3.12 ABANDONMENT OF EXISTING SANITARY SEWER

A. GENERAL

Prior to any work to abandon in place any sewer pipe, the Contractor shall jet/clean all sanitary sewer piping identified to be abandoned.

B. PIPE ENDS

The Contractor shall create a watertight seal at the sewer pipe ends by capping the pipe with a mechanical cap, Romac EC501, or approved equal.

3.13 TEMPORARY SEWER BYPASS SYSTEM

A. GENERAL

Work covered in this section includes the requirements for the temporary sewer bypass plan and system. This plan and system are required for the work as described in Detail Specification section 3.5.

The Contractor shall provide a power source or generating facilities for the temporary sewer bypass system. Power sources' noise levels shall not exceed the noise level of the governing agencies' noise levels and requirements.

The Contractor shall provide backup equipment and systems for all ordinary emergencies, including pump failure and power outages. Equipment replacement parts, pipe, fittings and other materials shall be onsite for normal operation and maintenance and emergency repairs. Competent workers shall be available at all times for the continuous and successful operation of the temporary sewer bypass system. The Contractor shall not disable or shut-down the temporary sewer bypass system between shifts, weekends, holidays or work stoppages without the



District's approval. The Contractor is responsible for electrical power necessary for operation of the temporary sewer bypass system.

B. SUBMITTALS

Contractor shall submit the following information:

1. Detailed explanation of, and plan and any necessary details showing, the proposed pumping and sewer bypassing system for each location requiring sewer bypassing, including sequencing, and assistance required of the District to effect the bypassing plan.
2. Proposed pumping equipment.
3. Engineering analysis and calculations for bypassing system.
4. A contact list of personnel for operation and maintenance including 24-hour contact information.

C. PRECAUTIONS AND PROTECTIVE MEASURE

1. Review existing sewer system plans with the District.
2. Verify the size and location of connecting laterals and side sewers.
3. Provide pumps with sufficient capacity and head.
4. Provide pumping equipment redundancy and/or standby equipment that can be readily deployed.
5. Investigate upstream manholes.
6. Check and test pumping equipment and bypass system.
7. Provide suitably experienced person(s) and training of personnel (more than one individual) for operation and maintenance of system, including dealing with emergencies. A list of said person(s) and 24-hour contact information shall be provided to the District.
8. Check upstream manhole surcharging after bypassing operations have commenced.
9. Properly monitor, log, and maintain system during operation.

D. QUALITY ASSURANCE



1. Temporary sewer bypass systems shall be designed by a registered professional engineer in the State of Washington. Engineer shall have demonstrated experience in the design of pumping systems of comparable size and complexity.
2. Before commencement of any bypassing operation, the temporary sewer bypass pumping system shall work continuously without error for 48-hours and the Contractor shall obtain the District's acceptance of the design, equipment and materials, installation, operation and maintenance.
3. "Contractor shall provide a copy of written procedures for backup operations that shall be stored on site and on equipment for emergency personnel use during emergency operations."

E. SEWER BYPASS SYSTEM

1. Contractor shall provide suitable and reliable temporary sewer bypass pumping and piping. Two pumps and standby power shall be provided at all times. Pumping system shall have automatic start/stop controls.
2. Contractor will be responsible for properly operating, protecting, maintaining and servicing the pumping equipment for the duration of the temporary bypass. Contractor shall be responsible for bypass pumping equipment electrical service and fuel.
3. Noise levels of equipment shall meet the requirements of King County and Washington State noise level requirements. Depending on the pumping equipment that is used, meeting the noise level requirements may require the use of sound attenuating enclosures as well as other provisions and measures. Depending on the situation and subject to the approval of the District, the only possible exception or relaxation of this requirement will be in cases where the bypassing equipment will only be operated:
 - a. During the work week;
 - b. During normal working hours and;
 - c. Period of bypass operation will be less than one week.
4. Temporary pumping shall be continuously provided from the time that the existing system's operation is disturbed, until the new system is in place, tested and accepted by the District.



5. Maintain on site sufficient equipment, extra parts, extra fittings, materials and fuel to ensure continuous and uninterrupted operation of the bypass system. A minimum of 24-hours of fuel shall be maintained on-site. Standby pumps and generators shall be fueled and operational at all times. During the winter months of October through March, the bypass pumps shall be equipped with heaters to prevent freezing. Contractor's personnel shall be knowledgeable and trained on how to operate and maintain the bypass equipment.
6. All monitoring shall be fully functional during bypassing.
7. If the bypass system is to be operated when the Contractor is not on-site, the system shall be provided with a monitoring and alarm system that notifies the Contractor and District 24 hours a day of a system failure. In the event of a failure of the primary bypass system, the backup bypass pumping system shall automatically turn on and be operational without any physical changes required to the system. The Contractor shall respond immediately and fix the cause of the problem to the primary bypass system. Contractor shall be on-call 24 hours a day and be able to respond within 30 minutes at all times during sewer bypassing. The Contractor will be required to demonstrate to the satisfaction of the District that this requirement can be met and that responsible and appropriately trained personnel will be able to deal with emergencies that could arise. The Contractor is encouraged to consider retaining a company or individual(s) that specialize in the operation and maintenance of sewer systems for bypasses that require unattended operation.
8. Sewer bypassing shall not cause backup of sewage into any side sewer line, private or publicly owned or maintained. Depth of surcharge upstream shall be kept to the minimum necessary. The Contractor will be responsible for repairing any damage to upstream property due to excessive surcharging of the system.
9. All sewer pipes and manholes' that were surcharged shall be properly cleaned and flushed to remove accumulated sewage material after service is restored. Removed accumulated sewage material shall be removed from the collection system and not flushed down stream.
10. If minor assistance from District personnel is anticipated or required, 2 hours or less of one individual, Contractor shall provide a minimum of 3 working days advance notice. If major assistance from District personnel is anticipated or required, more than one individual or more



than 2 hours of one individual, Contractor shall provide 6 working days advanced notice.

11. If damaged, restore bypass areas to equal or better pre-existing conditions.

F. SPILLS

1. Contractor is fully responsible for any damage that may result from an inadequate or improper installation, maintenance or operation, or failure of any kind of the bypass system.
2. Spills or bypasses of sewage to surface waters or drainage courses is prohibited. In the event of sewage spills, the Contractor shall immediately take whatever actions are deemed necessary to stop a spill. Should the Contractor not take immediate action, the District will be entitled to take whatever actions are deemed necessary to stop a spill.
3. Costs incurred by the Contractor or District, including penalties imposed on the District as a result of any sewage spill caused by the Contractor, its employees, or subcontractors, shall be borne in full by the Contractor, including legal fees and other expenses to the Contractor or District resulting directly or indirectly from the spill

G. INSPECTION

Allow the District at all times to:

- a. Enter the premises where an effluent source or disposal system is located or where any records associated with this system are kept.
- b. Have access to any required records. At no time can wastewater effluent data be concealed or held as confidential information.
- c. Inspect and evaluate any monitoring equipment or monitoring methods required by this Section.
- d. Sample any discharge to the sewer system.

3.14 DISTRICT EASEMENTS AND STIPULATIONS

The District has obtained permanent and temporary construction easements for the Schedule C improvements that are to be constructed on private property. The easements and stipulations are included in the



appendix section of this contract document. The Contractor shall review the easements and stipulations and shall confine the work within the limits of the easements and shall perform the work in accordance with the easement stipulations. Furthermore, at the completion of construction, the Contractor shall obtain a signed restoration release form from each impacted property owner. A copy of the restoration release form is included with the easements and stipulations in Appendix C.

MEASUREMENT AND PAYMENT



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Section 4 - Measurement and Payment

Bid Item Introduction

It is the intent of these Specifications that the performance of all work under the bid items shall result in the complete construction, in proper operating condition, of the facilities described. It is understood that any additional material or work required to place the facilities in operating condition shall be provided by the Contractor as work covered by the listed bid items and shall be considered incidental thereto.

Submittals, shop drawings, calculations, start-up, testing, training, warranties, and operation and maintenance manuals as required shall be considered incidental to the various items of work and no additional compensation will be allowed.

Mobilization

All costs required for Schedule C mobilization will be considered incidental to the price bid for Mobilization in Schedule A and no additional compensation will be allowed.

Traffic Control

All costs required for Schedule C temporary traffic control will be considered incidental to the price bid for the various items required for project traffic control included in the Schedule A proposal and no additional compensation will be allowed.

Temporary Erosion and Sediment Control

All costs required for Schedule C temporary erosion and sediment control will be considered incidental to the price bid for Temporary Erosion and Sediment Control in Schedule A and no additional compensation will be allowed.

Trench Safety System

The lump sum price bid for trench excavation protection shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to provide safe excavations for all work affiliated with the sanitary sewer improvements such as trench and manhole excavations. This item shall include, but not be limited to, the following:

1. Design, installation, proper use and removal of all sheeting, shoring, cribbing, boxes or other trench protection methods.
2. Excavation, backfill, compaction and other work required if extra excavation is used in lieu of trench box, shoring, cribbing or other



trench protection. If imported backfill gravel is required for backfilling within the limits of the sewer or water line excavation, it shall also be required as backfill material for the extra excavation and shall be provided at the Contractor's expense.

3. All barricades, warning lights, signs, or other devices needed to warn and protect the public.

The Contractor shall be solely responsible for the safety of his crew and public, and the District assumes no responsibility. The District will not be responsible for determining the adequacy of any system used by the Contractor and payment for protection systems will not imply District's approval of adequacy.

8" PVC Sewer Line

6" PVC Sewer Line

The unit price per lineal foot for sewer line shall be full compensation for all labor, material, tools and equipment necessary and incidental to furnishing, excavating and laying, testing and placing in proper operating condition, all sewer pipe. Payment shall be made according to the lineal feet of pipe installed from centerline of manholes or cleanouts. Items of work include, but are not limited to, the following items:

1. Clearing, grubbing and disposal of cleared materials, where required, including trees, stumps, and large rocks.
2. Excavation of all materials of whatever nature encountered, including solid rock.
3. Excavation and grading to reshape finished grade where shown on the plans and as required by field conditions.
4. Tree fencing and any other tree protection measures as identified on the plans.
5. Dewatering and proper disposal of water as required.
6. Hauling away and disposing of any excess material, including securing approved disposal site.
7. Furnishing and placing pipe bedding gravel to the limits shown on the Standard Sewer Details and called for in the Specifications.
8. Furnishing and installing all sewer pipe, fittings, bends and plugs, including anchor blocks and flushing and testing.



9. Handling, hauling, placing and mechanical compaction of foundation gravel, trench backfill and all other crushed rock or gravel material, native or imported.
10. Maintenance and restoration of construction area and of other utilities affected by construction in accordance with the Plans and Specifications, including locating the existing sewer main, or other utilities, by potholing or by the use of other approved methods, prior to constructing the proposed sewer main improvements and appurtenances.
11. Maintaining, and if necessary repairing existing water services or coordinating temporary water service with the District for individual homes, during sewer line construction.
12. Furnishing and installing all required fittings and materials for side sewer services, including tees, bends, plugs, clean outs, locator tape and marker posts.
13. Temporary cold mix patch, asphalt treated base, or trench patch as required, placed immediately after trench backfill and subsequent removal.
14. Sawcut, removal, and proper disposal of asphalt or cement concrete pavement up to, and including, 6" in thickness. In the event the Contractor encounters pavement exceeding 6" in thickness, the Contractor will be compensated for the saw cutting, removal and disposal of the excess pavement according to the schedule as outlined in the Proposal section.
15. Traffic Control Measures including all signs, barricades, steel plates, temporary patching, flaggers, uniformed police officer and police vehicle, and setup and maintenance of the Traffic Control Measures.
16. Abandonment of existing side sewer services at locations shown in the Plans

Repair Existing Sewer Line

The unit price per lineal foot for Repair Existing Sewer Line shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to locating and raising the existing 8" PVC sewer pipe to eliminate the settled section and match the grade of the existing pipe upstream and downstream. Items of work include, but are not limited to, the following:



1. Potholing and locating the existing sewer main.
2. Dewatering and proper disposal of water as required.
3. Excavation of all materials of whatever nature encountered.
4. Hauling away and disposing of excavated material, including securing approved disposal site.
5. Raising and bedding the existing pipe by placing CDF and pea gravel as shown in the Plans.
6. Providing a means to check grade after the pipe has been raised and bedded, and before the pipe is backfilled.
7. Perform a lower pressure air test.
8. Conducting a video inspection of the pipe (and providing a digital copy to the District) in accordance with section 10.7 of the Methods of Construction after the work has been completed.
9. Creating and furnishing a Temporary Sewer Bypass Pumping Plan.
10. Designing, furnishing, installing, and maintaining pumps, floats and controls, auto-dialer, piping, fittings and appurtenances for the bypass pumping plan.
11. Maintaining and operating the bypass system during construction activities.
12. Furnishing, installing and maintaining, electrical source and backup power sources for the bypass pumping system.
13. Decommissioning the bypass pumping system upon completion of the work.
14. Temporary cold mix path, asphalt treated base, or trench path as required, placed immediately after trench backfill and subsequent removal.
15. Sawcut, removal, and proper disposal or asphalt or cement concrete pavement up to, and including, 6" in thickness. In the event the Contractor encounters pavement exceeding 6" in thickness, the Contractor will be compensated for the saw cutting, removal, and disposal of the excess pavement according to the schedule as outlined in the Proposal section.



16. Traffic Control Measures including all signs, barricades, steel plates, temporary patching, flaggers, uniformed police officer, and police vehicle, and setup and maintenance of the Traffic Control Measures.

48" Sewer Manhole

48" Sewer Manhole – Saddle Manhole

6" Sewer Cleanout

The unit price bid per each for 48" Manhole, 48" Saddle Manhole, or 6" cleanout shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to construction of the manholes and cleanouts as shown on the Plans, Standard Sewer Details and in accordance with the Engineering Specifications. Items of work include, but are not limited to, the following items:

1. Clearing, grubbing and disposal of cleared materials, where required, including trees, stumps, and large rocks.
2. Excavation of all materials of whatever nature encountered, including solid rock.
3. Dewatering and proper disposal of water as required.
4. Hauling away and disposing of any excess material, including securing approved disposal site.
5. For manholes, furnishing and installing FRP GU Baseline and precast sections, including adjustment of frame and cover to final grade, vacuum testing, replacement, repair and re-testing, if required or as directed by the District.
6. For saddle manholes, furnishing and installing a poured-in-place cement concrete base, channel, and shelf as indicated in the specification and shown on the standard detail.
7. Providing pipe and fittings as required to raise the existing cleanout to grade.
8. Handling, hauling, placing and mechanical compaction of foundation gravel, trench backfill and all other crushed rock or gravel material, native or imported.
9. Maintenance and restoration of construction area and of other utilities affected by construction in accordance with the Plans and Specifications, including locating the existing sewer main, or other utilities, by potholing or by the use of other approved methods, prior



to constructing the proposed sewer main improvements and appurtenances.

10. Temporary cold mix patch, asphalt treated base, or trench patch as required, placed immediately after trench backfill and subsequent removal.
11. Sawcut, removal, and proper disposal of asphalt or cement concrete pavement up to, and including, 6" in thickness. In the event the Contractor encounters pavement exceeding 6" in thickness, the Contractor will be compensated for the saw cutting, removal and disposal of the excess pavement according to the schedule as outlined in the Proposal section.
12. All fittings, adapters, pipe extensions, couplers, and elements necessary to install surface cleanouts.
13. If a PVC cleanout is connecting to pipe material other than PVC, Romac couplers will be needed at **both ends** of the connection to the existing.

Payment will be based on the number of manholes or cleanouts installed. Payment for removing and replacing an existing 6" cleanout shall be made under a separate bid item.

48" Sewer Manhole – Additional Depth

The unit price per vertical foot for 48" Sewer Manhole – Additional Depth shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to providing and installing additional sections for manhole depths over 8 feet as measured from the invert of the manhole outlet to the top of manhole rim.

Remove and Replace Manhole Frame & Cover

The unit price bid per each for Remove and Replace Manhole Frame & Cover shall constitute full compensation for all labor, material, tools and equipment necessary and incidental to remove the existing manhole frame and cover and adjustment material, such as bricks or concrete rings, down to the top of the pre-cast structure and to install new concrete adjustment rings, new top step, and new frame and cover adjusted to final grade. Included in this bid item shall be the disposal of all removed materials as well as furnishing and installing cover over the invert to prevent debris or other material from entering the sewer system. Prior to commencing work, cover the invert of the manhole to avoid introducing debris or



any other materials into the sewage system. This bid item applies to existing manholes that are not modified under other bid items.

Removal and Disposal of A.C. Pipe

The unit price per linear foot of removal and disposal of asbestos cement (AC) Pipe shall be full compensation for all labor, material, tools, transportation, fees, bags, and equipment necessary and incidental to cut, bag, remove and dispose of AC pipe. The pipe shall be handled in accordance with National Emission Standards for Hazardous Air Pollutants, (NESHAP), WAC 296-65, National Standards for Asbestos, Puget Sound Clean Air Agency, Labor and Industries, and all local State and Federal Agencies having jurisdiction. Contractor shall receive approval from the Contracting Agency prior to removing any AC pipe. The contractor shall provide receipts indicating the final location of AC pipe disposal.

The unit linear foot shall be measured in the field of actual pipe removed.

Locate & Connect to Existing Sewer System

The unit price bid per each for connection to existing sewer manhole or pipe shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to providing a watertight connection to the District's existing sewer system, or the private side sewer, as shown on the Plans, including but not limited to the following items, as necessary:

1. Potholing and locating the existing sewer main or side sewer pipe.
2. Dewatering and proper disposal of water as required.
3. Excavation of all materials of whatever nature encountered.
4. Hauling away and disposing of excavated material, including securing approved disposal site.
5. Core drilling manhole, providing Kor-N-Seal boot or sand collar as required, removal and replacement of existing concrete channel,
6. Maintaining existing sewer service, including by-pass pumping.
7. Cleaning existing sanitary sewer systems identified to be abandoned in place.



8. Furnishing and installing approved caps to create water-tight seals at existing sanitary sewer piping that is to be abandoned and remain in place.
9. Removal and disposal of abandoned clean-outs, pipe, fittings, and any other appurtenance encountered.

Payment for surface restoration will be made under a separate bid item.

Controlled Density Fill (If Required)
Crushed Rock

The unit price bid per ton for controlled density fill (if required) and crushed rock shall constitute full compensation for all labor, material, tools and equipment necessary and incidental to furnishing the materials in the trench, under asphalt pavement, or elsewhere as required or as directed by the District, and proper disposal of excavated materials. These items shall include, but not be limited to, the following:

1. Over-excavation or extra depth excavation as may be required by the District, or field conditions, which dictate such excavation, as approved by the District.
2. Grading, preparation and compaction of existing subgrade.
3. Proper disposal of excavated materials.

Payment for controlled density fill if required under the pipe repair shall be made under the bid item "Controlled Density Fill, If Required".

Payment for gravel and rock materials will be made based on the actual number of tons of material furnished and placed. Quantities shall be based on certified weight tickets signed by the driver and collected by the inspector at the time and place of delivery. Loads of material for which a certified weight ticket has not been given to the inspector shall not be paid for.

Gravel and rock materials will be paid for by the ton as substantiated by certified scale tickets, up to the maximum quantity calculated for the volume within the neat lines of the trench as specified in the specifications and standard details. A conversion factor of 1.85 Tons/CY will be used to convert cubic yards of material to tons.

It will be the Contractor's responsibility to see that a ticket is given to the Inspector for each truckload of material delivered. Duplicate tally tickets shall be prepared



to accompany each truckload of material delivered on the project. The tickets shall bear at least the following information:

1. Truck number.
2. Quantity delivered in cubic yards and tons.
3. Driver's name and date.
4. Location of delivery - by job name and stationing on each job.
5. Place for receipting by the inspector.

Asphalt Trench Patch and Paving

The unit price bid per ton for Asphalt Trench Patch and Paving shall include asphalt required for temporary trench patching, permanent trench patching, and asphalt paving. The unit bid price shall constitute full compensation for all labor, materials, tools, and equipment necessary and incidental to furnishing and placing asphalt pavement in paved areas where cutting the surface pavement is necessary for open cut trenching, for re-paving area, and for other locations that require temporary surfacing until final restoration is constructed, or for other locations as shown on the construction plans or as directed during construction. Asphalt Trench Patch or Paving shall include, but not be limited to, the following:

1. Preparation and compaction of existing base or subgrade, and preparation of existing pavement edges.
2. Sawcut, removal, grinding, and proper disposal of asphalt or cement concrete pavement up to, and including, 6" in thickness. In the event the Contractor encounters pavement exceeding 6" in thickness, the Contractor will be compensated for the saw cutting, removal and disposal of the excess pavement according to the schedule as outlined in the Proposal section.
3. Furnishing, placing and compacting asphalt, per the asphalt specifications of the permitting agency, including sealing. Asphalt shall be compacted in 2" lifts.
4. Replacement of asphalt edges, asphalt berms and speed humps along the project alignment.
5. Temporary striping required to maintain traffic lanes prior to Asphalt Overlay.



6. Re-striping of the traffic lanes, including thermoplastic striping and all road lines and arrows, and replacement of signs and traffic RPMs, if any, outside of the Asphalt Overlay area.
7. Top seal in areas not located in Asphalt Overlay area.
8. Contractor to provide truck tickets to District.

Payment will be made based on the actual number of tons of asphalt pavement placed. Any other asphalt damaged by the Contractor's operations will be the Contractor's responsibility and will be considered incidental construction and must be restored by the Contractor to the satisfaction of the governing jurisdiction.

Crushed rock base for trench patch will be measured and paid for under the bid item for crushed rock.

General Restoration

The lump sum price bid for general restoration shall constitute full compensation for all labor, material, tools and equipment necessary and incidental to restore disturbed ground surfaces and existing improvements to their pre-construction condition or better, not including work covered by other bid items. This item shall include, but not be limited to, the following:

1. Furnishing and placing of new topsoil, sod, bark, decorative rock or other surface treatment consistent with the adjacent undisturbed ground surface that is disturbed by sewer system construction.
2. Excavation, grading and preparation of the areas to be restored.
3. Removal, storage and replacement of any existing decorative shrubs, hedges or trees.
4. Restoration of fences, rockeries, utilities or other structures.
5. Protection or replacement of existing culverts and asphalt lined ditches.
6. Protection of existing trees and improvements not to be removed.
7. Hydroseeding, seeding, mulching, plantings or other erosion control measures as required in rights-of-way, easement, or landscaped areas.



8. Asphalt or concrete pavement required beyond the limits allowed for payment described herein.
9. Removal and replacement of existing landscaping or irrigation system as required.
10. Restoration of extruded curb
11. Replacement of parking lot striping, curb stops, or other pre-existing parking lot features that are damaged by construction

Payment shall be based on completion of the restoration satisfactory to the individual property owners or agency having jurisdiction over the affected property.

Restoration for work associated with all sewer improvements shall be completed in the time frames specified in the easement agreements.

PROPOSAL

PROPOSAL

SCHEDULE C – NUD SANITARY SEWER SYSTEM IMPROVEMENTS

(For information only. Please complete Bid Schedule in Project Manual)

Item	Item Description – Schedule C	Units	Quantity	Unit Price	Amount
1	Trench Safety System	LS	1	\$ Lump Sum	\$
2	PVC Sanitary Sewer Pipe 6 In. Diam	LF	130	\$	\$
3	PVC Sanitary Sewer Pipe 8 In. Diam	LF	100	\$	\$
4	Repair Existing Sewer Line	LF	72	\$	\$
5	48" Manhole	EA	1	\$	\$
6	48" Saddle Manhole	EA	4	\$	\$
7	48" Sewer Manhole – Additional Depth	LF	13	\$	\$
8	6" Sewer Cleanout	EA	6	\$	\$
9	Crushed Rock	TON	520	\$	\$
10	Remove and Replace MH Frame & Cover	EA	3	\$	\$
11	Remove and Dispose of A.C. Pipe	LF	20	\$	\$
12	Locate & Connect to Exist. Sewer System	EA	5	\$	\$
13	Controlled Density Fill (If Required)	TN	25	\$	\$
14	Asphalt Trench Patch and Paving	TN	140	\$	\$
15	General Restoration	LS	1	\$ Lump Sum	\$
Subtotal Schedule C					\$
10.2% Sales Tax					\$
Total Schedule C					\$

Extra Depth Asphalt or Concrete Removal and Disposal

In the event the contractor encounters asphalt or concrete pavement exceeding 6" thickness, the contractor will be compensated for the saw cutting, removal and disposal or the excess asphalt or concrete according to the following schedule:

<u>ASPHALT DEPTH</u>	<u>PRICE PER LF</u>
6"	\$0
7"	\$2.00
8"	\$4.00
9"	\$6.00
10"	\$8.00
11"	\$10.00
12"	\$12.00

Add \$2.00 per inch at depth per lineal foot for all depths that exceed 12 inches.

Prices shown are per foot of trench length. Payment will not be cumulative.



**Northshore Utility District
King County, Washington**

2023 ENGINEERING SPECIFICATIONS

MATERIALS OF CONSTRUCTION

January, 2023



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Section 9 – Engineering Specifications Materials of Construction

9.1 GENERAL

The type and class of materials to be used shall be as shown on the project plans. Where no specific reference is shown, the following specifications shall govern the materials used. All materials shall be new and undamaged of a known brand, with replacement parts readily available from the general Seattle area.

Prior to the installation of any of the facilities required on the project, all materials shall be approved by the District.

All reference specifications herein shall be of the latest revision.

9.2 SEWER PIPE AND FITTINGS

Sewer pipe material shall be of the following type unless otherwise specified or as indicated on the Plans:

Locations with less than four (4) feet or more than eighteen (18) feet of cover from finished grade	Class 52 Ductile Iron Pipe
Locations with between four (4) feet and eighteen (18) feet of cover from finished grade	PVC Pipe, ASTM 3034, SDR 35
As indicated on the Plans	High Density Polyethylene (HDPE) Pipe

(a) DUCTILE IRON SEWER PIPE AND FITTINGS

1. Ductile iron pipe shall be new, Class 52, cement-lined, conforming to AWWA C151.
2. Ductile iron pipe shall be push-on joint. Pipe shall be furnished with a single rubber ring gasket lubricated to effect the seal.
3. Restrained joint pipe shall be U.S. Pipe "TR Flex" or push-on joint pipe restrained with U.S. Pipe "Field Lok" gaskets, or equal. Each length of pipe shall be clearly marked with the manufacturer's identification, year, thickness, class of pipe and weight.
4. The Contractor shall furnish certification from the manufacturer of the pipe and gasket being supplied that the inspection and all of the



specified tests have been made and the results thereof comply with the requirements of this standard.

5. Ductile iron fittings shall be short body with a 350-psi pressure rating for mechanical joint fittings and 250-psi for flanged fittings. All fittings shall be cement lined and shall be in conformance with AWWA C153. All fittings shall be domestic and made in the United States of America.

(b) PVC SEWER PIPE AND FITTINGS (ASTM D3034)

All PVC pipe and fittings shall be integral wall bell and spigot, rubber gasket joint, unplasticized polyvinyl chloride (PVC) pipe in conformance with ASTM D3034 and shall have a maximum SDR of 35. PVC pipe shall have a minimum "pipe stiffness" of 46 psi at 5 percent deflection when tested in accordance with ASTM Designation D2412 and a minimum impact strength of 210 foot-pounds based upon ASTM D3034.

All pipes shall be clearly marked with the manufacturer's identification, year, and class of pipe.

All fittings and accessories shall be manufactured and furnished by the pipe supplier, or shall be District approved equal.

Pipe joints shall use flexible elastomeric gaskets conforming to ASTM D3212.

Connections for side sewer stubs shall be 6 inches inside diameter tee fittings. Wye branches shall be used where the sewer line size is less than 8-inch inside diameter.

(c) HIGH DENSITY POLYETHYLENE (HDPE) SEWER PIPE

High Density Polyethylene (HDPE) sewer pipe shall be PE 4710 high density conforming to ASTM D3350 cell classification PE445474C or higher, with a DR of 11 unless otherwise specified.

The workmanship shall be of the highest level compatible with current commercial practice. The PE pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, or other injurious defects. It shall be uniform in color, opacity, density, and other physical properties.

Butt fusion of pipes and fittings shall be performed in accordance with the pipe manufacturer's recommendations as to equipment and technique. The pipe shall be fused by a certified installer who has a demonstrated ability to fuse polyethylene pipe in the manner recommended by the pipe supplier and/or the fusion manufacturer.

The pipe shall be Phillips 66 Driscopipe 8700 or District approved equal.



(d) FLEXIBLE COUPLING ADAPTERS

Flexible coupling adapters shall meet the specifications set forth in the AWWA Standard C219 coupling specification and be rated for working pressures up to 250 psi. Flexible coupling adapters shall be Romac XR501, or District approved equal.

(e) POLYETHYLENE PIPE ENCASEMENT

Ductile iron pipe shall be encased with polyethylene encasement (8 mil thickness). Material and installation shall be in accordance with AWWA C105. Installation shall be in accordance with AWWA C105, Method A or Method C.

In Method A, polyethylene encasement tubes are used and in Method C, polyethylene sheets are used. In Method A, one length of polyethylene encasement tube is used for each length of pipe. In Method C, every section of pipe is completely wrapped with a flat sheet of polyethylene encasement. In both Methods, the polyethylene is overlapped at the joints and taped.

During the sewer main installation and/or side sewer installation, repair all rips, tears, or other damage to the polyethylene encasement with adhesive tape (i.e. Christy's Pipe Wrap Tape), per the manufacturer's recommendation.

9.3 MANHOLES

Manholes shall be of the offset type, shall be precast concrete sections with a precast base, and shall be made from 3,000 psi structural concrete. All manhole joints shall be watertight and shall be confined O-ring type. They shall be constructed in full compliance with the Standard Details and as further specified herein.

Manhole materials and manufacturing shall be in accordance with ASTM C478.

Minimum standard manhole depth is eight (8) feet and maximum depth is eighteen (18) feet. Depths other than within this range shall require special design and approval by the District.

The base sections and risers of the manholes shall be arranged so no pipes pass through the manhole joints.

(a) Manhole Sections

Manhole sections shall be placed and aligned so as to provide plumb vertical sides and vertical alignment of the ladder steps. The completed manhole shall be rigid, true to dimension and be watertight. The ladder shall be rigidly attached to the side of the manhole.



Manhole grade rings shall be reinforced 3,000 psi structural concrete, 24 inches in diameter and 4 inches high. Grade rings shall be set in a full-width bed of cement grout. Provide grout between rings and between upper ring and casting. Inside rings shall be troweled smooth with 1/2-inch (minimum) of grout in order to provide a watertight surface.

In addition to the O-ring rubber gaskets, all new manhole joints shall be sealed with a flexible butyl joint sealant conforming to ASTM C990-96 and Federal Specification SS-S-210. The flexible butyl joint sealant shall be "Kent Seal #2" as manufactured by Hamilton-Kent Company or "Ram-Nek" as manufactured by K.T. Snyder Company.

Steel lifting loops or hooks for precast manhole components shall be removed to a minimum depth of one (1) inch below the surface and the remaining hole packed with grout. Precast sections with damaged joint surfaces or with cracks or other damage that may permit infiltration will not be allowed.

Reinforcement for precast manholes shall be in accordance with ASTM C 478-97.

(b) BASE LINERS

All new manholes shall be installed with a prefabricated manhole base liner made of polypropylene (PP) and/or fiberglass reinforced plastic (FRP). The base liner shall be integrally cast and adequately anchored inside new precast concrete manhole base sections during the concrete casting process at the manhole suppliers manufacturing facility. The base liner shall be cast integral with the precast concrete manhole base section in accordance with the liner manufacturer's specifications. The liner must be fully supported during the casting process and lifting devices shall not penetrate the base liner.

The manhole base liner shall be prefabricated from a one piece homogeneous composite and/or thermoplastic with a minimum thickness of 0.12-inch (3 mm) and shall be in lengths and nominal inside diameters corresponding to the precast concrete base section and be a non load-bearing component, which is resistant to the chemical environment normally found in wastewater collection systems. The outer surface of the liner shall be coated with aggregate and/or PP pellets bonded to the outer surface and have perforated PP I-beam "bonding bridge" anchors bonded to the outer surface in order to insure adequate anchoring to concrete base sections to pass vacuum testing with 10-inch of negative pressure.

The inside liner surfaces shall be free of bulges, dents and other defects that result in a variation of inside diameter of more than 1/4-inch (7 mm) for base liner flow channel and pipe connections. The precast concrete pipe penetration joint surfaces shall be free of excess concrete at external and



internal surfaces to insure a proper seal between the pipe connection and the liner.

The manhole base liner shall include full flow channels with sidewalls to the crown of the pipe. The inner surface of the bench shall be provided with an anti-skid pattern. Watertight gasketed pipe bell connections to suit specific pipe types, grade, and alignment, shall be monolithically attached to the base liners.

If PP base liner is utilized, a minimum slope of 0.06 foot is acceptable across the invert channel. The FRP base liner shall require the District standard minimum slope of 0.1 foot across the invert channel.

Base liner properties shall be in accordance with the following:

MATERIALS

Polypropylene (PP):

Minimum thickness:	100% Copolymer 3mm
Hardness:	75 Shore D
Density:	56.8 lb/ft ³ (0.91 g/cm ³)
Color:	Dull mustard/goldenrod

Fiberglass Reinforced Plastic (FRP): Polyurethane Hybrid Composite

Glass fiber:	Type E, min fiber length of 0.625-inch (16mm), 10 - 12% content by weight
Inert filler:	10 - 13% content by weight
Minimum thickness:	3mm
Hardness:	85 Shore D
Density:	73.0 lb/ft ³ (1.17 g/cm ³)
Color:	Dull mustard/goldenrod

Aggregate bonding medium:	Processed sand containing crushed & uncrushed dry and cleaned semi-round particles in the 0.08 - 0.12-inch (2 - 3mm) size range
Gaskets:	Polyisoprene, EPDM, or as approved
Hardness:	50 - 55 Shore A

PHYSICAL PROPERTIES

Percolation Test:	Water absorption of top surface - 0.032%
Thermal shock (CSA-B45-M93):	100 thermal cycles - no sign of surface defects

**Chemical Resistance (ASTM D1308):**

Selected Reagents	
Reagent	Result
Nitric Acid 69%	No surface Degradation - Surface Staining
Hydrochloric Acid 60%	No surface Degradation
Ammonia 28%	No surface Degradation
Sodium Hydroxide 5.25%	No surface Degradation
Sulfuric Acid 50%	No surface Degradation
Sulfuric Acid 70%	No surface Degradation
Sulfuric Acid 80%	No surface Degradation
Acetone	No surface Degradation
Unleaded Gasoline	No surface Degradation
Turpentine	No surface Degradation
Acetone Immersion (ASTM D2152)	No Attack

Base liners shall be manufactured and supplied by Geneva Pipe and Precast, a Northwest Pipe Company, of Orem, UT.

(c) MANHOLE STEPS

Manhole steps shall be made of 1/2-inch Grade 60 Steel reinforcing bars coated with copolymer polypropylene, equal to Lane International Manhole Step #P-14938.

The steps shall be installed at the manhole manufacturer's yard in conformance with the step manufacturer requirements. At a minimum, the step ends shall be coated with non-shrink epoxy grout and driven into pre-drilled holes with dimensions of 1-inch diameter and 3-1/2-inch depth. The pre-drilled holes shall not penetrate the exterior manhole wall.

(d) GRADE ADJUSTMENT

The depth of the 24-inch diameter manhole neck from the top of the frame to the top of the cone shall be from between 14-inch and 26-inch.

(e) CHANNELS

All new manholes shall be provided with fiberglass reinforced plastic base liners per Subsection 9.3.b of these specifications, unless otherwise indicated on the plans or approved by the District. Manholes approved for cement concrete channels shall conform to this subsection of the specifications.



Channels shall be made to conform accurately to the sewer grade and shall be brought together smoothly with well-rounded junctions, subject to approval by the District.

Channels shall consist of commercial grade concrete, minimum Class 3000 in accordance with Section 6-02 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

The channels shall be field poured after the inlet and outlet pipes have been laid and firmly grouted into place at the proper elevation. Allowances shall be made for a minimum of one-tenth foot (0.1 foot) drop in elevation across the manhole in the direction of flow. The maximum allowable drop in inlet elevation across the manhole in the direction of flow shall be 0.5 foot. Channel sides shall be carried up vertically from the invert to three-quarters of the diameter of the various pipes. The concrete bench shall be warped evenly and sloped two percent (2%) to drain. Rough, uneven surfaces will not be permitted. Channels shall be constructed to allow the installation and use of a mechanical plug of the appropriate size.

(f) PIPE CONNECTIONS

All pipe entering or leaving the manhole shall be placed on firmly compacted bedding. Special care shall be taken to see that the openings through which pipes enter the structure are completely and firmly filled with mortar from the outside to insure water tightness. All PVC pipe connections to manholes shall be made with GPK PVC Manhole Adapters (also known as "sand collars") with an external abrasive silica layer or Kor-N-Seal Connector manufactured by NPC. Inc.

All stubbed out sewer pipes placed through manhole walls for future connections shall be suitably plugged and blocked in a manner acceptable to the District.

(g) SHELF REPAIRS

Shelf repairs at connections to the existing manholes shall be class 3000 commercial grade cement in accordance with the Engineering Specifications.

(h) GROUT

Grout for all uses including, but not limited to, shelves, pick-holes, and adjusting rings, shall be cement based, nonshrink, noncorrosive, and nonmetallic grout conforming to ASTM C 1107. Grout shall be Dayton Superior 1107 Advantage Grout, Basalite Non-Shrink Grout - Fast Set, SpecChem SC Multipurpose Grout, or Quikrete Commercial Grade FastSet Non-Shrink Grout. The District may sample and test grout to determine conformance with the specifications.

**(i) DROP MANHOLES**

Drop manholes shall, in all respects, be constructed as a standard manhole with the exception of the drop connection as shown on the Standard Detail.

(j) LIFT HOLES

All lift holes shall be completely filled smooth with grout both inside and out in order to insure water-tightness.

(k) MANHOLE CERTIFICATION

The Contractor shall provide written certification from the manhole manufacturer that the manholes provided meet or exceed the specifications and that the materials used in the construction of the manhole are in accordance with the specifications. A Manufacturer's Certificate of Compliance shall be provided for each manhole delivered to the project and shall include the manufacturer's name and address, the District's manhole number, reference to the applicable project specifications being used, the design mix and 28-day strength of the cement concrete used, drawings indicating reinforcing steel details, such as size and location, results of materials testing conducted by the manufacturer and the signature of a responsible corporate official of the manufacturer.

The District may test manholes and materials used at any time, including after installation, and any manhole not conforming to the specifications shall be rejected by the District and replaced with a conforming manhole provided and installed by the Contractor.

9.4 MANHOLE AND CLEANOUT FRAME AND COVERS

Frames and covers shall be cast iron and conform to the Standard Details and these specifications. Castings shall conform to the requirements of ASTM A-48, Class 30 and shall be free of porosity, shrink cavities, cold shuts or cracks, or any surface defects that would impair serviceability. Repair of defects by welding, or by the use of smooth-on or similar material, will not be permitted. Frames and covers shall be machine-finished or ground on seating surfaces so as to assure non-rocking fit in any position and interchangeability of covers.

All manhole frames and covers will be locking type. Manhole frame and cover shall be East Jordan Ergo Assembly, Part No. 001040105L01.

Cleanout frame and cover shall be locking type equal to Armorcast Polymer Concrete Box Assembly with Pentahead locking bolt style and "CO" imprinted on cover, part number A6001423TA (see NUD Standard Sewer Detail #9).



9.5 WATER MAIN PIPE AND APPURTENANCES

(a) DUCTILE IRON WATER PIPE

Ductile iron pipe shall be new, restrained joint, Class 52, cement-lined, conforming to AWWA C151.

Ductile iron pipe shall be U.S. Pipe "TR Flex" or push-on joint pipe restrained with U.S. Pipe "Field Lok" gaskets, or equal. Each length of pipe shall include temporary transportation pipe plugs and shall be clearly marked with the manufacturer's identification, year, thickness, class of pipe and weight.

The Contractor shall furnish certification from the manufacturer of the pipe and gasket being supplied that the inspection and all of the specified tests have been made and the results thereof comply with the requirements of this standard.

(b) GALVANIZED IRON WATER PIPE AND FITTINGS

Galvanized iron pipe where specified for use shall be Schedule 40 hot dipped, zinc-coated (galvanized) welded and seamless steel pipe for ordinary uses (ASTM A-120). Fittings shall be screwed malleable iron galvanized per USA Standard B16.3.

(c) CROSS-LINKED POLYETHYLENE (PEXa 3306) SERVICE PIPE

Service pipe shall be MUNICIPEX® from REHAU Construction, LLC. Pipe shall be crosslinked polyethylene (PEXa 3306), using the high-pressure peroxide extrusion method. The pipe shall meet or exceed the requirements of ASTM F876, CSA B137.5 and PPI TR-3, and is certified to NSF Standards 14 and 61, and AWWA C904. No substitutions will be allowed.

(d) POLYETHYLENE PIPE ENCASEMENT

Ductile iron pipe shall be encased with polyethylene encasement (8 mil thickness). Material and installation shall be in accordance with AWWA C105. Installation shall be in accordance with AWWA C105, Method A or Method C.

In Method A, polyethylene encasement tubes are used and in Method C, polyethylene sheets are used. In Method A, one length of polyethylene encasement tube is used for each length of pipe. In Method C, every section of pipe is completely wrapped with a flat sheet of polyethylene encasement. In both Methods, the polyethylene is overlapped at the joints and taped.

During the water main installation and/or water service installation, repair all rips, tears, or other damage to the polyethylene encasement with adhesive tape (i.e. Christy's Pipe Wrap Tape), per the manufacturer's recommendation.



(e) DUCTILE IRON FITTINGS

Ductile iron fittings shall be short body with a 350-psi pressure rating for mechanical joint fittings and 250-psi for flanged fittings. All fittings shall be cement lined and shall be in conformance with AWWA C153 for mechanical joint fittings and AWWA C110 for flanged fittings.

All mechanical joint fittings shall be restrained with EBAA Iron, Inc. "Mega-Lug" mechanical joint restraints, or equal.

Megalug fittings are prohibited for use on cast iron pipe. Restrained joint connections to existing cast iron water main shall be made with Romac Alpha Couplings and fittings only.

All deactivated water mains shall be capped with Romac EC501 End Cap Coupling or equal.

(f) FIRE HYDRANTS

Fire hydrants shall conform to AWWA Standard Specification C502 and be one of the following types:

- Mueller Super Centurion
- American Darling B-62-B
- Clow Medallion
- M&H 129 or 129S
- East Jordan Iron Works WaterMaster 5CD250

They shall be a rising stem compression-type which opens counterclockwise and closes with the pressure. The minimum main valve opening diameter shall be 5-1/4-inch unless otherwise specified. The hydrant seat and hydrant seat retaining ring shall be bronze. All external bolts, nuts and studs shall be cadmium plated in accordance with ASTM A165 Type HS or rust proofed by some other process approved by the District. Gaskets shall be of rubber composition.

Fire hydrants shall be equipped with one 4-inch pumper nozzle connection (Seattle Standard Thread) with Storz Adapter (integral or non-integral) as required by those jurisdictions shown on the Standard Details. The hydrant shall include two 2-1/2-inch NST hose ports. Pentagon nuts or caps and operating stem shall measure 1-1/4-inch point to flat and shall open by turning to the left. Nozzle shall be fitted with renewable bronze nipples locked in place.

Fire hydrants shall be set plumb and ports shall be oriented as directed by the Fire Protection District having jurisdiction over said area.



Fire hydrant piping from the main line valve to the hydrant base shall be restrained joint pipe or shall be restrained with stainless steel shackle rods and nuts.

The hydrants shall be coated with enamel paint in accordance with the Standard Details.

See the Standard Detail for additional requirements.

(g) GATE VALVES

Gate valves shall be ductile iron body valves with resilient wedge conforming to the latest revision of AWWA Standard C515 and shall be NSF 61 approved. Valves shall have epoxy coating fusion bonded to all internal and external surfaces of the valve body and bonnet in compliance with AWWA C550. The wedge shall be fully encapsulated in rubber. The valves shall be non-rising stem, open to the left, equipped with standard 2-inch square operating nuts and O-ring seals at all joints. Resilient wedge gate valves shall be American Flow Control Series 2500, Clow model 2638, Mueller 2360 series, Kennedy 7000 series, East Jordan FlowMaster or M&H Style 7000.

(h) BUTTERFLY VALVES

Butterfly valves shall be ductile iron body of the tight closing rubber seat type with rubber seat either bonded to the body or mechanically retained in the body with no fasteners or retaining hardware in the flow stream. The valves shall be epoxy coated inside and outside. The valves shall meet the full requirements of AWWA C504, class 150 B, except the valves shall be able to withstand 200 psi differential pressure without leakage. The valves shall be equal to Pratt "Groundhog" or Mueller Linesal III.

Butterfly valves to be installed underground shall have sealed mechanical operators and 2-inch standard square operating nuts. Complete manufacturer's Specifications for the valves proposed for use shall be submitted to the District for approval.

(i) VALVE BOXES

Valve boxes shall be two-piece, cast iron, East Jordan Iron Works:

- Valve box cover, 06800209
- Valve box top, 85557016U
- Valve box bottom, 85556036U

**(j) FIRE HYDRANT GUARD POSTS**

Concrete fire hydrant guard posts, if required as directed by the District, shall be made of precast reinforced concrete, nine (9) inches in diameter, six (6) feet long, or 8-inch x 6-inch x 6 feet long. The guard posts shall be coated white with enamel paint in accordance with the Fire Hydrant Assembly Standard Detail.

(k) METER BOXES

The meter boxes shall be according to the Standard Details.

(l) SERVICE SADDLES

For ductile iron and cast iron water mains larger than 4-inch diameter, direct tapping of 1-inch standard corporation stop threaded tap will be required. Saddles will not be allowed on ductile iron and cast-iron pipe larger than 4-inch diameter for 1-inch water services.

Service taps for all other water main sizes and materials shall be as follows:

1. Service saddles for 1-inch, 1-1/2-inch, and 2-inch standard corporation stop threaded tap, shall be single strap and shall be equal to Mueller Company DR1S, Ford Meter Box Company FC101, or Romac Industries, Inc. 101NS.
2. Saddles for PVC pipe shall be stainless steel, double strap type and shall be equal to Mueller Company DR2S, Ford Meter Box Company FCD202, or Romac Industries, Inc. 202NS.

On existing water mains that are live and connected to the existing system; the Contractor shall furnish and install all parts of the water service and reconnection as required, except the tap. The District will provide all parts necessary to perform the tap (including but not limited to the corporation stop and saddle) and the Contractor shall repair the polyethylene encasement material per manufacturer's recommendations and per the District's Standard Detail.

On new water mains installed and not yet connected to the existing system; the Contractor shall provide all parts and equipment necessary to tap the new main and repair the polyethylene encasement material per manufacturer's recommendations and per the District's Standard Detail.

(m) SERVICE MATERIALS

Service materials including valves, pipe and fittings be as specified on the Standard Details. All brass appurtenances shall be "lead free" and conform to NSF/ANSI 372 and NSF/ANSI 61 standards. 2-inch ball valves shall be



furnished with a slotted operator, and with an adapting 2-inch-square operating nut (Ford Cat. QT-67) secured with a cotter pin.

(n) RESIDENTIAL DOMESTIC AND FIRE SPRINKLER SERVICES

Combination service for residential domestic and fire sprinkler systems shall be according to the Standard Detail.

(o) BLOW-OFFS AND AIR & VACUUM RELIEF VALVES

2-inch Blow-offs and 2-inch Air & Vacuum Relief Valves shall be installed for 12-inch diameter pipe and smaller in accordance with the standard detail. Blow-offs for pipe larger than 12-inch in diameter shall be as directed by the District.

(p) STAINLESS STEEL TAPPING SLEEVE

Tapping sleeve shall be constructed of stainless steel with ductile or carbon steel flange and removable, replaceable bolts and coated nuts to prevent galling. Gaskets shall provide a full circumferential seal. Tapping sleeve shall be Romac SST, JCM 462, or Ford FAST stainless steel tapping sleeve.

9.6 STEEL CASING

Steel casing pipe shall meet ASTM A-53, having a minimum tensile strength of 60,000 psi and a minimum yield strength of 35,000 psi. Wall thickness shall be sufficient to withstand jacking forces without deformation, with minimum wall thickness of 0.375-inches for casing pipe diameters up to 22-inches. For casing pipe diameters larger than 22-inches, please see the table at the end of this subsection. All joints shall be welded. All field-welded joints shall comply with AWS Code for procedures of manual shielded metal arc welding.

The carrier pipe shall be installed with casing spacers. Spacers shall be placed in accordance with the Methods of Construction and shall be at least 12-inches wide. Spacers shall be designed to provide a maximum space of 1-inch between the upper runners and the inside of the steel casing. The spacers shall prevent the pipe bells from touching the inside of the casing. Metal components of casing spacers shall be Type 304 (18-8) 14-gauge (minimum) stainless steel. The liner shall be neoprene rubber or PVC, and the runners shall be polyethylene with a low friction factor. Casing spacers shall be designed for center restraint. Casing spacers shall be Model CCS by Cascade Waterworks manufacturing, or District approved equal.

Where casing spacers must be custom designed to account for a specific grade of the carrier pipe inside the casing, submittals must be provided which include drawings and dimensions for each of the casing spacers and the respective location of each of the spacers relative to the casing and carrier pipe.



Casing end seals shall be 1/8-inch thick synthetic rubber with two stainless steel bands and clamps. The end seal shall be Model S by Pipeline Seal and Insulator, or APS Model AC, or approved equal.

Steel Casing Pipe Wall Thickness Table	
Diameter of Casing Pipe	Minimum Thickness
22 or Less	0.3750"
Over 22" – 28"	0.4375"
Over 28" – 34"	0.5000"
Over 34" – 42"	0.5625"
Over 42" – 48"	0.6250"
Over 48"	Review Required

9.7 FOUNDATION, BEDDING AND BACKFILL MATERIALS FOR TRENCHES

Recycled concrete will not be allowed as foundation gravel, pipe bedding, or trench backfill material for any Ductile Iron (DI water or sewer main installation).

(a) FOUNDATION MATERIALS

Foundation gravel shall consist of clean, granular material free from objectionable materials such as organic matter or other deleterious substances with at least 90 percent coarse material ranging from 1-inch in diameter to 3-inch in diameter and 100 percent 3-inch in diameter or less, unless otherwise specified or approved by the District.

(b) BEDDING MATERIALS

Water Main Pipe:

Bedding material shall consist of crushed surfacing top course, or controlled density fill as indicated on the plans or as directed by the District.

Water Service Pipe:

Bedding material shall consist of 100% clean sand. Native material will not be allowed by the District.

Sewer Main and Lateral Pipe:

Bedding material shall consist of clean, granular, manufactured pea gravel conforming to the following gradation:



U. S. Standard Sieve Size	% Passing by Weight
1/2-inch	100
3/8-inch	85 – 95
No. 4	5 – 15
No. 8	0 – 2

(c) TRENCH BACKFILL

Native material may be used for trench backfill if the material meets the requirements of Section 9-03.14(2) of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation for Select Borrow. Native material shall be free from wood waste, organic waste, coal, charcoal, and other extraneous or objectionable materials and shall have no material larger than 2-inch in diameter. The material shall be non-plastic and shall not contain more than 3 percent organic material by weight.

Imported gravel backfill shall be a granular material conforming to Section 9-03.14(1) of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

Where designated on the Contract Drawings, as required by the roadway permitting agency or as directed by the District, the trench backfill shall be controlled density fill (CDF), as manufactured by Cadman Inc., product #PFLO5, “Pro-Flow 5 Hour”, or District approved equal. Fly ash admixture will not be allowed in the CDF.

9.8 REPLACING ROAD SURFACE

(a) CRUSHED SURFACING

Crushed surfacing material shall be 1-1/4-inch base course and 3/4-inch minus top course crushed gravel and shall be manufactured from ledge rock, talus or gravel in accordance with the provisions of Section 9-03.9(3) of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

(b) GRAVEL BASE

All gravel base shall conform to the requirements of Section 9-03.10 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

**(c) HOT MIX ASPHALT SURFACING**

Hot mix asphalt surfacing or repair shall be as required by the roadway permitting agency, and shall conform to Section 5-04 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation and the Standard Specification Drawing for Typical Trench Section.

(d) CEMENT CONCRETE PAVEMENT

Cement concrete pavement shall be in accordance with Section 5-05 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation and shall be furnished only by manufacturers who are members of the Portland Cement Association. All reinforcing steel shall conform with and be placed in accordance with Section 5-05 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation and shall conform to the requirements of ASTM Designation A-15 and A-305, latest revisions.

(e) RIGID-TYPE PAVEMENTS RESURFACED WITH HOT MIX ASPHALT

Hot mix asphalt surface mat to be placed over Portland cement concrete base shall be as required by the roadway permitting agency; both the base and the surface mat shall be carefully prepared, placed and cured in full compliance with Section 5-04.3 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

9.9 GRASS SEEDING AND SOD**(a) TOPSOIL**

Topsoil shall be Type B or C in accordance with Section 9-14.2(2) or 9-14.2(3) of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation. The Contractor shall provide a topsoil material submittal to the District for review and approval prior to construction.

(b) SEED

Seed material, storage and certification shall conform to Section 9-14.3 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation. Seed shall be "Certified" grade seed or better. The Contractor shall provide a seed



mix material submittal to the District for review and approval prior to construction.

(c) FERTILIZER

Fertilizer shall be commercial grade in conformance with Section 9-14.4 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation. The Contractor shall provide a fertilizer material submittal to the District for review and approval prior to construction.

(d) MULCH AND AMENDMENTS

Mulch shall be approved by the District and shall be certified grass hay or straw or wood cellulose fiber for hydroseeding. Wood cellulose fiber shall be in accordance with Section 9-14.5(2) of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

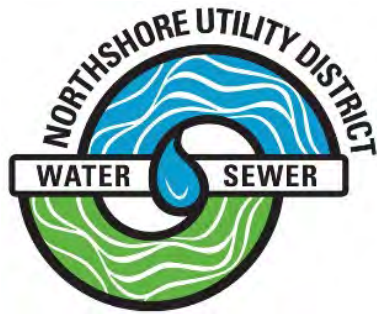
(e) SOD

The Contractor shall provide grass mixtures to the District for review and approval prior to construction.

Sod shall be field grown one year or older, have a well-developed root structure and be free of all weeds, disease, and insect damage.

Prior to cutting, the sod shall be green, in an active and vigorous state of growth and mowed to a height not exceeding 1-inch.

The sod shall be cut with a minimum of 1-inch of soil adhering.



**Northshore Utility District
King County, Washington**

2023 ENGINEERING SPECIFICATIONS

METHODS OF CONSTRUCTION

January, 2023



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Section 10 – Engineering Specifications Methods of Construction

10.1 GENERAL

A pre-construction conference will be held at the District office prior to the start of construction.

The Contractor shall notify the District a minimum of 5 days in advance of contemplated construction to allow for review of materials to be used on the job.

For construction staking on District Capital Improvement Program (CIP) Projects, the District will provide one set of construction stakes. Stakes removed or destroyed will be replaced by the District at the Contractor's request and expense. The Contractor shall coordinate with the District a minimum of 10 days in advance of the need for staking for any CIP project.

For Developer Extension (DE) Projects, the Contractor shall provide their own construction staking per the lines and grades shown on the approved DE Plans. Cutsheets for the staking shall be provided to the District for review prior to the start of any construction on the DE project.

Except as otherwise noted herein, all work shall be accomplished with adopted standards and specifications of Northshore Utility District and according to the recommendations of the manufacturer of the material or equipment used. The Contractor shall have a copy of the plans and specifications on the jobsite at all times.

10.2 CLEARING AND GRUBBING

Clearing and grubbing shall consist of the removal of all trees, stumps, brush, and debris and shall be confined within the limits of the easements obtained for the construction of this project and/or existing public rights-of-way. Removal of clearing and grubbing debris shall be subject to the approval of the District and shall, in no way, constitute a hazard to the continuous operation of any existing utilities. Any damage to the existing utilities shall be repaired by the respective utility company, at the expense of the Contractor.

Within the limits described, all growth and organic matter such as trees, shrubs, brush, logs, fences, upturned stumps and roots of down trees and other similar items, shall be removed and disposed. All trees shall be felled within the area to be cleared. Where the tree limb structure interferes with utility wires or where the trees to be felled are in close proximity to utility wires, the tree shall be taken down in sections to eliminate the possibility of damage to the utility. Any damage that does occur shall be the responsibility of the Contractor.



All fences adjoining any excavation or embankment that may be damaged or buried shall be carefully removed and temporarily erected on the adjoining property or stored for reinstallation as directed by the District.

No debris of any kind shall be deposited in any stream or body of water or in any street or alley.

Trees, shrubbery, and flower beds designated by the District shall be left in place and care shall be taken by the Contractor not to damage or injure such trees, shrubbery, or flower beds by any of its operations.

The refuse resulting from the clearing operation shall be hauled to an approved waste site secured by the Contractor and shall be disposed of in such a manner as to meet all requirements of State, County and municipal regulations regarding health, safety and public welfare.

NO burning is allowed.

In no case, shall any material be left on the project, shoved onto abutting private properties, or be buried in embankments or sewer trenches on the project.

Where trees exist in planting areas and are not to be removed, it shall be the Contractor's responsibility to trim low limbs which will interfere with the normal operation of its equipment and paint or seal pruned areas with an approved pruning tar or paint. The trimming shall be performed in a professional manner by competent personnel prior to its machine operations and in such a manner as the District and/or the property owner may direct.

The Contractor shall be responsible for all damages to existing improvements resulting from its operations.

10.3 DEWATERING AND CONTROL OF WATER

Groundwater in underground utility construction is a widely known, and not unusual, condition. The Contractor shall review the actual field conditions and any other available resources to determine the extent and volume of groundwater to be expected. The Contractor shall submit a dewatering plan to the District for review prior to dewatering activities. The dewatering plan shall show specific locations, in plan and section, where dewatering is expected as well as general discussion of methods should water be encountered in other locations. The plan should also indicate the location and methods for removing groundwater, proper sediment removal and disposal of groundwater.

Review by the District of the design, materials, method, installation, and operation and maintenance details submitted by the Contractor shall not in any way relieve the Contractor from responsibility for errors/omissions therein or from the entire responsibility for complete and adequate design, materials, inspection, operation, maintenance and performance of the dewatering system. The



Contractor shall bear sole responsibility for proper design, installation, operation, maintenance, and any failure of any component of the dewatering system.

The Contractor shall dewater and dispose of the water so as not to cause injury to public or private property or to cause a nuisance or a menace to the public and shall meet all regulatory agency requirements.

The control of groundwater shall be such that softening of the bottom of excavations or formation of "quick" conditions or "boils" shall be prevented. Dewatering systems shall be designed and operated so as to prevent the removal of the natural soils.

During excavating, installing, placing of trench backfill and the placing and setting of concrete, excavations shall be kept free of water. The static water level shall be drawn down below the bottom of the excavation so as to maintain the undisturbed state of the natural soils and allow the placement of backfill to the required density. The dewatering system shall be installed and operated so that the ground water level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property.

The release of groundwater to its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundation soils, prevent disturbance of compacted backfill and prevent flotation or movement of structures and pipelines.

In carrying out the work within the limits of streams or an area that will drain into a stream, the Contractor is required to comply with the regulations of the appropriate local, State and Federal agencies.

The Contractor shall contact the above referenced departments and secure such permits as may be necessary to cover its proposed method of operation within the areas described above. If no permit is necessary and, if requested by the District, the Contractor shall provide written approval from the appropriate agency.

10.4 TEMPORARY EROSION & SEDIMENTATION CONTROL (TESC)

The Contractor shall comply with all applicable permit conditions and recommendations of the geotechnical report, if available.

The detrimental effects of erosion and sedimentation are to be minimized in conformance with the following general principles:

- Leaving soil exposed for the shortest possible time.
- Reducing the velocity and controlling the flow of runoff.
- Detaining runoff in an approved on-site temporary sedimentation control facility to trap sediment.
- Releasing runoff safely to downstream areas.



- Installing temporary filter fabric fence.
- Protecting existing catch basins.

In applying these principles, the Contractor shall provide for erosion control by conducting work in workable units; minimizing the disturbance to cover crop material, providing mulch and/or temporary cover crops, sedimentation basins, and/or diversions in critical areas during construction; properly controlling and conveying runoff; and establishing permanent vegetation and installing erosion control structures as soon as possible.

(a) TEMPORARY EROSION & SEDIMENTATION CONTROL (TESC)

The Contractor shall provide, install, and maintain TESC facilities to protect the existing surface waters, drainage systems and adjacent properties.

The TESC facilities must be constructed prior to the start of construction to ensure that the transport of sediment to surface waters, drainage systems and adjacent properties is minimized.

The TESC facilities shown on the plan are the minimum requirements for anticipated site conditions. During the construction periods, these TESC facilities shall be upgraded as needed for unexpected storm events and modified to account for changing site conditions (e.g., additional sump pumps, relocation of ditches and silt fences, etc.).

The TESC facilities shall be inspected daily by the contractor/TESC supervisor and maintained to ensure proper functioning. Written records shall be kept of weekly reviews of the TESC facilities during the wet season (Oct. 1 to March 31) and of monthly reviews during the dry season (April 1 to Sept. 30).

Any areas of exposed soils, including roadway embankments, that will not be disturbed for two days during the wet season or seven days during the dry season shall be immediately stabilized with the approved TESC methods (e.g., seeding, mulching, plastic covering, etc.).

The TESC facilities shall be inspected and maintained within 24 hours following a storm event.

At no time shall more than one (1) foot of sediment be allowed to accumulate within a catch basin. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment-laden water into the downstream system.



(b) TRENCH MULCHING

Where, in the opinion of the District, there is danger of backfill material being washed away due to steepness of the slope along the direction of the trench, material shall be held in place by covering the disturbed area with straw and holding it in place with a covering of jute matting or wire mesh anchored down with wooden stakes, or as directed by the District.

(c) COVER CROP SEEDING

A cover crop shall be in place in all areas excavated or disturbed during construction that were not paved, landscaped, and/or covered prior to construction. Areas landscaped prior to construction shall be restored to their prior condition. The Contractor shall be responsible for protecting all areas from erosion until the cover in place affords such protection.

Cover-crop seeding shall follow backfilling operations.

The Contractor shall be responsible for protecting all areas from erosion until the cover crop affords such protection. The cover crop shall be reseeded, if required, and additional measures taken to provide protection from erosion until the cover crop is capable of providing protection.

During winter months, the Contractor may postpone seeding at the direction of the District, if conditions are such that the seed will not germinate and grow. The Contractor will not, however, be relieved of the responsibility of protecting all areas until the cover crop has been sown and affords protection from erosion.

Submittals shall be provided for cover crop seed, mulch and fertilizer as specified herein.

10.5 SEWER PIPE INSTALLATION

Unless specified otherwise, a 10-foot horizontal separation and an 18-inch vertical separation must be maintained between all sanitary sewer mains and water mains in accordance with the Department of Ecology criteria. Maximum distance between manholes shall not exceed 400', or as approved by District

Where it is necessary to cross an existing asbestos-cement water line, the District may require that the asbestos-cement pipe be removed and replaced with ductile iron pipe in accordance with the Standard Detail on a case-by-case basis. All other non-metallic water main crossings shall be backfilled with CDF per NUD Standard Sewer Details.

**(a) CONNECT TO EXISTING SYSTEM**

Connections to existing manholes shall be made by core-drilling. Invert of manhole shall be rechannelized as necessary to accommodate flow directions and provide a minimum of 0.10 foot drop from the inlet to the outlet. Connections shall be watertight. If connection is made to an existing manhole with a fiberglass reinforced plastic baseliner, the disturbed channel must be re-glassed by a District approved contractor.

(b) PLUG(S) FOR EXISTING SYSTEM

The Contractor shall furnish and install a plug at the time the project is connected to the District's sewer system. The plug(s) must remain in position to prevent debris and water from entering the existing sewer system until such time as the sewer system within the project has been accepted by the District for maintenance and operation. A \$2,000.00 fine will be levied against the Contractor when a sewer mainline plug is removed at any time during the work. The Contractor will also be accountable for all expenses incurred to clean and flush sanitary sewer mainlines as a result of said plug removal.

(c) PIPE LAYING

The sewer pipe, unless otherwise approved by the District, shall be installed upgrade from point of connection on the existing sewer or from a designated starting point to line and grade per approved plans. The sewer pipe shall be installed with the bell end forward or upgrade. When pipe laying is not in progress, the forward end of the pipe shall be kept tightly closed with an approved temporary plug.

3-inch wide, green metallic sewer detector tape shall be laid 24-inch above the pipe bedding, for the entire length of the sewer main between manholes. Identification on the tape shall include the words "Sanitary Sewer".

(d) PIPE JOINTING

All extensions, additions, and revisions to the sewer system, unless otherwise indicated, shall be made with sewer pipe joined by means of a flexible gasket which shall be fabricated and installed in accordance with these specifications.

All joints shall be made up in strict compliance with the manufacturer's directions and all sewer pipe manufacturing and handling shall meet or exceed the current revisions of the ASTM recommended specifications.

Pipe handling after the gasket has been affixed shall be carefully controlled to avoid disturbing the gasket and knocking it out of position or loading it with dirt or other foreign material. Any gaskets so disturbed shall be removed,



cleaned, re-lubricated, if required, and replaced before the re-joining is attempted.

Care shall be taken to properly align the pipe before joints are entirely forced home. During insertion of the tongue or spigot, the pipe shall be partially supported by hand, sling, or crane to minimize unequal lateral pressure on the gasket and to maintain concentricity until the gasket is properly positioned.

Sufficient pressure shall be applied in making the joint to assure that it is home, as described in the installation instructions provided by the pipe manufacturer.

10.6 SIDE SEWER STUBS

A side sewer stub is considered to be that portion of a sewer line that will be constructed between a main sewer line and a property line or easement limit.

All applicable specifications given herein for sewer construction shall be held to apply to side sewer stubs.

3-inch wide, green metallic side sewer detector tape shall be laid 24-inch above the pipe bedding, for the entire length of the side sewer which is 8 feet deep or less continuing up the side sewer 2-inch x 4-inch marker post. Identification on the tape shall include the words "Sanitary Sewer".

Side sewers shall be single and installed according to the Standard Details. In no case may the specified side sewers be changed without the approval of the District.

Side sewers shall be connected to the tee provided in the sewer main where such is available utilizing approved fittings or adapters. The side sewer slope shall be a maximum of 100 percent (45°) and a minimum of 2 percent.

The maximum bend permissible at any one fitting shall not exceed 45°. Bends exceeding 45° with any combination of two fittings shall have a straight pipe of not less than two (2) feet in length installed between such adjacent fittings, unless one of such fittings be a wye branch with a cleanout provided on the straight leg. The maximum length of 6-inch sewer stub shall be 100 feet; minimum length shall be 5 feet unless otherwise approved by the District.

Where there are no basements, the minimum side sewer depth shall be six (6) feet below final grade at the property line. The Contractor shall provide for each 6-inch stub a 2-inch x 4-inch wooden post that extends from the invert of the 6-inch stub to a point 18 inches (minimum) and 2 feet (maximum) above the existing ground. The exposed area of this post shall be painted white and shall have marked thereon the letters S/S. The elevations of the side sewer



connections shall be of sufficient depth to serve all existing and possible future structures.

Where no tee is provided or available at the sewer main, connection shall be made by machine-made tap and suitable saddle, or otherwise as approved by the District Engineer.

10.7 TESTING GRAVITY SEWERS

Before sewer lines are accepted and/or connected to the existing system for use, all lines shall be inspected for line and grade, air tightness, deflection, and television inspection. Any corrections required shall be made at the expense of the Contractor.

The first section of pipe not less than 300 feet in length installed by each crew shall be tested, in order to qualify the crew and/or the material. A successful installation of this first section shall be a prerequisite to further pipe installation by the crew. At the Contractor's option, crew and/or material qualification testing may be performed at any time during the construction process after at least three feet of backfill has been placed over the pipe.

(a) PREPARATION FOR TESTING

Prior to testing the Contractor shall clean and flush all sewer lines.

The Contractor shall conduct preliminary tests to confirm that the section to be tested is in an acceptable condition before requesting the District to witness the test. The manner and time of testing shall be subject to approval of the District.

(b) LINE AND GRADE

Variance from established line and grade shall not be greater than one thirty-second ($1/32$) of an inch per inch of pipe diameter and not to exceed one-half ($1/2$) inch, provided that such variation does not result in a level or reverse sloping invert; provided, also, that variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joining surface and pipe interior surfaces, does not exceed one sixty-fourth ($1/64$) of an inch per inch of pipe diameter, or one-half ($1/2$) inch maximum.

(c) LOW PRESSURE AIR TEST

Gravity sewers shall be tested with low pressure air, by the pressure drop method in accordance with Section 7-17.3(2)F, *Low Pressure Air Test for Sanitary Sewers Constructed of Non Air-Permeable Materials*, of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation. The Contractor shall furnish all facilities and personnel for conducting the air test



under the supervision of the District. The Contractor may desire to make an air test prior to backfilling for its own purposes. However, the acceptance air test shall be made after backfilling has been completed and compacted.

All wyes, tees or the end of the side sewer stubs shall be plugged with flexible joint caps, or acceptable alternative, securely fastened to withstand the internal test pressures. Such plugs or caps shall be readily removable and their removal shall provide a socket suitable for making a flexible, jointed lateral connection or extension. No double plugs shall be allowed.

Immediately following the pipe cleaning, the pipe installation shall be tested with low pressure air. A maximum reach to be tested shall be the reach between two consecutive manholes. Air shall be slowly supplied to the plugged pipe installation until the internal air pressure reaches 4.0 pounds per square inch greater than the average back pressure of any groundwater above the center of the pipe being tested. At least two minutes shall be allowed for temperature stabilization before proceeding further.

The requirements of this specification shall be considered satisfied if the time required in seconds for the pressure to decrease from 3.5 to 2.5 lbs. per square inch greater than the average back pressure of any groundwater that may submerge the pipe is not less than the listed values shown in the following table:

Allowable Time for Pressure Drop Method

Diameter (inches)	Minimum Test Times for Length of Main (seconds)							
	50'	100'	150'	200'	250'	300'	350'	400'
8	144	286	428	570	712	854	908	908
10	222	444	666	888	1110	1134	1134	1134
12	320	640	960	1280	1360	1360	1360	1462
15	500	1000	1500	1700	1700	1714	1998	2284
18	720	1440	2040	2040	2056	2468	2878	3290
24	1280	2558	2720	2924	3654	4386	5116	5846

According to the following:

$$T = 4 \cdot K, \text{ for } C < 1$$

$$T = 4 \cdot (K/C), \text{ for } 1 \leq C < 1.75$$

$$T = 4 \cdot (K/1.75), \text{ for } C \geq 1.75$$

Where: $C = 0.0003918 \cdot d \cdot L$

$$K = 0.0111 \cdot d^2 \cdot L$$



- d = Pipe diameter (inches)
 L = Pipe length (feet)
 T = Minimum test time (seconds)

Note: All test times in the above table are rounded up to the nearest even number.

The use of air pressure for testing sewer lines creates hazards that must be recognized. The Contractor shall be certain that all plugs are securely blocked to prevent blowouts. The air testing apparatus shall be equipped with a pressure release device such as a rupture disc or a pressure relief valve designed to relieve pressure in the pipe under test at greater than 6 lbs. per square inch.

Precautions shall be taken to prevent any damage caused by testing. Any damage resulting shall be repaired by the Contractor at its own expense.

All visible leaks showing flowing water in pipelines or manholes shall be stopped even if the test results fall within the allowable leakage.

(d) DEFLECTION TESTING

If required by the District, all PVC sewer pipes shall be tested for deflection not less than 30 days after the trench has been backfilled and compaction has been completed. The testing shall be conducted by pulling a properly sized mandrel through the pipe in accordance with Section 7-17.3(2)G of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

(e) TELEVISION INSPECTION

All sanitary sewers shall be inspected by the use of a Closed-Circuit Television (CCTV) camera. The CCTV footage and corresponding inspection file database (media, mdf, ldf files) shall be exported and provided to the District on a USB flash storage device (thumb drive) or uploaded to a OneDrive folder provided to the Contractor by the District. CCTV files shall be provided to the District before final acceptance of the project. No VHS tapes or DVD-R Discs will be accepted. All inspections shall be conducted in accordance with NASSCO PACP methods, done in Granite Net Version 2.7.2.24 or older, and coded in CUES Basic format with uploadable capability to the District's Granite Net database.

At the beginning of each sewer main inspection, the following information shall be electronically generated and displayed on the CCTV footage:

1. Date of inspection
2. Contractor Company Name



3. Operator Name
4. Upstream Manhole number to downstream manhole number
5. Direction of inspection (upstream or downstream)
6. Pipe material and size

During inspections, the following information shall be electronically generated, automatically updated, and displayed on the CCTV footage:

1. Inspection location in the sewer line in feet from adjusted zero
2. Manhole number to manhole number (with direction of travel US/DS)
3. Date of inspection
4. Elapsed time of inspection

Each individual sewer main inspection, from manhole-to-manhole, shall be recorded on one digital file. If a pipe reach cannot be recorded to a single digital file due to extreme pipe length or obstructions in the pipe, multiple digital files for a single pipe are acceptable. On the other hand, multiple sewer main inspections recorded on a single digital file shall not be accepted.

For all projects (District or private development), CCTV inspections shall be furnished by the Contractor. Contractor shall utilize 1-inch target or ball and sewer inspection dye during CCTV recording. Contractor shall use the pipe ID number as shown on the Plans when conducting post-construction CCTV as referenced in the requirements above.

This CCTV inspection will be performed prior to final restoration of the street or easement. The Contractor shall inform the District ahead of time when and which lines are ready to be inspected.

The Contractor shall bear all costs incurred in correcting any deficiencies found during the CCTV inspection including the cost of any additional CCTV inspection that may be required by the District to verify the correction of said deficiency.

The project will not be accepted by the District until the CCTV inspection has been performed.

10.8 TESTING SANITARY SEWER FORCE MAINS

(a) TEST SPECIFICATIONS

Before sewer forcemains are accepted and/or connected to the existing system for use, all lines shall be inspected for line and grade and air tightness. Any corrections required shall be made at the expense of the Contractor.

The pressure tests shall be performed in the following manner:



Water shall be pumped into the main, bringing the pressure in the main equal to, or greater than, 1.5 times the design operating pressure. After a period of thirty minutes, water shall again be pumped into the main to bring the pressure up to the required test pressure and the quantity of water used during the test shall be accurately measured through a standard water service meter with a sweep unit hand that registers one gallon per revolution. The meter shall be approved by the District prior to testing. The allowable water consumption shall not exceed the quantities given by the following formula:

$$L = \frac{N \times D \times P}{1,850}$$

Where:

L	= allowable leakage in gallons per hour
N	= number of pipe joints
D	= pipe diameter in inches
P	= test pressure in pounds per square inch

A positive displacement type pump shall be furnished by the Contractor for the testing. Feed for the pump shall be from a container wherein the actual amount of "make-up" water can be measured.

Any leakage caused by defective workmanship or materials shall be repaired and the line shall again be tested to full compliance at the Contractor's expense. Concrete thrust blocking for fittings shall be in place and the concrete strength is sufficiently to withstand the test pressure before starting the test. Where permanent blocking is not required, the Contractor shall furnish and install temporary blocking and remove it after testing. The test pressure shall be applied at the low end of the section of pipe being tested. Air in the pipe shall be vented at all high points.

All field equipment for testing as above described shall be furnished and operated by the Contractor, subject to approval by the District.

The Contractor shall conduct preliminary tests and assure itself that the section to be tested is in an acceptable condition before requesting the District Engineer to witness the test.

(b) FORCE MAIN THRUST BLOCKS

All fittings, such as bends, shall be blocked with concrete in order to prevent movement and separation of pipe joints in accordance with the Water Standard Details for concrete thrust blocking. Sufficient time shall be allowed for the concrete to attain sufficient strength before commencement of pressure tests.



10.9 MANHOLE VACUUM TESTING

Before sewer manholes are accepted and/or connected to the existing system for use, all manholes shall be inspected for air tightness. Any corrections required shall be made at the expense of the Contractor.

All manholes shall be vacuum tested in accordance with ASTM C1244-05 to verify water tightness. All manhole penetrations shall be blocked or sealed and braced prior to the testing in order to prevent pipes, boots, gaskets, or any other materials from being drawn into the manhole. A vacuum of ten (10) inches of Hg shall be drawn on the manhole and the vacuum pump shut off. The time for the vacuum on the manhole to drop from ten (10) inches of Hg to nine (9) shall be measured and the manhole shall have passed the vacuum test if the time measured is greater than shown in the following table:

Minimum Test Times for MH Vacuum Testing

MH Diameter (inches)	Depth (feet)									
	8 or less	10	12	14	16	18	20	22	24	26
Time (seconds)										
48	20	25	30	35	40	45	50	55	59	64
54	23	29	35	41	46	52	53	64	64	75

If the time required for the pressure to drop from 10 inches of Hg to 9 inches of Hg is less than the value indicated in the table, the manhole shall be rejected by the District and shall be repaired or replaced and re-tested by the Contractor.

10.10 LAYING DUCTILE IRON WATER MAIN

All pipes shall be installed in accordance with these specifications and the instructions of the manufacturer subject to the approval of the District.

Unless otherwise indicated on the plans, minimum cover shall be 3 feet for 8-inch diameter pipe and smaller, and 4 feet for pipe that is larger than 8-inch in diameter.

Potholing for all existing utilities crossing proposed alignment shall be performed a minimum of 200 feet in advance of water main installation. Additional cost in association with any adjustments to alignment and depth of cover due to insufficient potholing will be performed at the expense of the Contractor.

All pipe ends shall be square with the longitudinal axis of the pipe and any damage to the ends shall be cut off before installation, if approved by the District. Where necessary to cut the pipe, the pipe shall be cut with approved cutting tools.



The pipe shall be laid in a straight grade through localized breaks in grade, the excavation shall be deepened gradually at changes in the street grades so that there are no abrupt changes in pipeline grade. To maintain the required alignment, use short lengths and deflect the joints or use necessary bends.

Each pipe section shall be carefully lowered into place in the ditch after inspecting it for defects and removing any gravel or dirt, etc., from the interior of the pipe.

Where it is necessary to cross sanitary sewer or storm sewer trenches, all trench backfill shall be removed and replaced with mechanically compacted pit run material or CDF in order to provide a uniform support for the full length of the pipe.

A 10-foot horizontal separation must be maintained between all sanitary sewer lines and water lines, unless otherwise approved. A 3-foot minimum horizontal separation shall be maintained between other underground utilities, unless otherwise approved.

All pipe shall be kept free of gravel, dirt, and other contaminants. Temporary pipe plugs must be installed at all exposed pipe ends at the end of each working day. The pipe plug must be a watertight, mechanical device, and shall be cleaned thoroughly prior to installation.

10.11 GALVANIZED IRON PIPE

Galvanized iron pipe and fittings shall be threaded. Joints shall be made up in accordance with good plumbing practice. All threads shall be coated with pipe thread sealer before connecting.

10.12 CONCRETE BLOCKING

Concrete blocking shall be 2500 psi minimum strength, cast in place and have a minimum of 1/2 square foot bearing against the fitting. Blocking shall bear against fittings only and shall be clear of joints so as to permit taking up or dismantling joint. The Contractor shall install blocking which is adequate to withstand full test pressure as well as to continuously stand operating pressures under all conditions of service. For concrete blocking based upon a 250-psi test pressure, see the Standard Details.

10.13 FIRE HYDRANT INSTALLATION

Correct bury depth shall be determined by contractor, fire hydrant shall be set as shown in the Standard Detail. Fire hydrant extensions will not be allowed on new fire hydrant installations. Mega-lugs or stainless-steel tie rods shall be used to restrain the ductile iron pipe between the hydrant foot and the 6-inch hydrant valve.



The location of the fire hydrant shall be shown on the plans to determine length of hydrant run required. The hydrant shall be set on a solid concrete block 4-inch x 8-inch x 16-inch and a minimum of 6 cubic feet of 1-1/2" washed rock shall be placed around the base of the hydrant for a drain pocket.

Fire hydrants shall be set plumb and with the ports oriented as directed by the Fire Protection District having jurisdiction over said area.

In some instances, it may be necessary to make a cut or provide a fill to set a hydrant. Where this occurs, the area for at least a three (3) foot radius around the hydrant shall be graded and leveled, and the cut slopes or fill slopes shall be neatly graded by hand, unless otherwise approved by the District and the Fire Chief.

No tool other than an approved hydrant-operating wrench shall be used when operating hydrants.

Fire hydrants shall be prime-coated and finish coated in accordance with the Standard Detail.

10.14 GUARD POST INSTALLATION

Fire hydrant guard posts shall be installed if indicated on the plans or specified by the District. Guard posts shall be set with the top of the guard posts level with the bonnet flange of the fire hydrant. They shall be plumb, and where two posts are used at a hydrant; they shall be set with their tops at the same elevation. The posts shall be coated in the same manner and with the same color as the fire hydrants.

10.15 GATE VALVE AND BUTTERFLY VALVE INSTALLATION

Gate and butterfly valves shall be set in the ground vertically and shall be opened and shut under pressure to check operation and, at the same time, show no leakage. Valves 8-inches and larger that are not flanged to other fittings shall be blocked in accordance with the Standard Blocking Details.

10.16 VALVE BOX INSTALLATION

Valve boxes shall be set flush to the adjacent finished grade.

For valves located outside of paved areas, a cement or asphalt pad for the valve box shall be constructed according to the Standard Detail. The cement or asphalt pad shall be provided for all valves, unless otherwise directed.

10.17 AIR AND VACUUM RELIEF VALVE INSTALLATION

Air and vacuum relief valve assembly shall be installed as shown on the Standard Detail.



Location of the air release valves shall be at the high points of the line. Water line must be constructed so that the air release valve may be installed in a convenient location.

10.18 2-INCH BLOW-OFF INSTALLATION

2-inch Blow-offs shall be installed for 12-inch diameter pipe and smaller in accordance with the Standard Detail.

10.19 TRACER WIRE

All water mains and water services installed shall have blue 14-gauge solid copper wire with polyethylene insulation. Wire shall be placed in the trench on top of the water main and the ends brought into the valve boxes, per the Standard Detail. Tracer wire shall also be wrapped around the water service line and brought up into the meter box. All connections or splicing shall be made with District approved split-bolt wire connectors.

10.20 WATER SERVICE INSTALLATION

All service installations shall be according to the Standard Details.

For ductile iron and cast iron water mains larger than 4-inch diameter, direct tapping of 1-inch standard corporation stop threaded tap will be required, saddles will not be allowed on ductile iron and cast iron pipe larger than 4-inch diameter for 1-inch water services.

Where an existing water service is being replaced with a new water service, the Contractor shall pothole the private, customer side of the existing meter box prior to any water service disruption in order to determine the fittings required for the reconnection and to determine the final location of the new meter box.

If an existing pressure reducing valve (PRV) is found on a water service to be replaced, contractor shall install PRV on the private property side of the meter box as shown on NUD Standard Water Detail #21.

On existing water mains that are live and connected to the existing system, the contractor shall furnish and install all parts of the water service and reconnection required, except the tap. The Contractor shall coordinate with Northshore Utility District Maintenance & Operations Department to have them perform the tap on the water main. The District will provide all parts necessary to perform the tap and the Contractor shall repair the polyethylene encasement material per manufacturer's recommendations and per the District's Standard Detail.

On new water mains installed and not yet connected to the existing system, the Contractor shall provide all parts and equipment necessary to tap the new main and repair the polyethylene encasement material per manufacturer's recommendations and per the District's Standard Detail.



On new ductile iron water mains, multiple, adjacent direct taps shall be installed with a minimum 18" horizontal separation between services. Direct taps shall be made a minimum of 18" from pipe ends (bell or spigot).

Hand drills with hole saws, or other tools or methods, for the installation of service saddles will be allowed for all other water main sizes and materials. Additionally, for larger diameter water services (1-1/2-inch and 2-inch), saddles will be required regardless of water main size or type. See the Standard Details and Material Specifications for additional information.

10.21 HYDROSTATIC TESTS

After backfilling the water main with sufficient material to prevent movement of the pipeline and allowing sufficient time for the concrete blocking to set, the water main shall be pressure tested in convenient lengths as directed by the District. In general, large sections of untested main will not be permitted to accumulate. Sections to be tested are limited to approximately 1,500 feet or less, or as approved by the District. Testing against a closed valve is not permitted.

The Contractor shall make arrangements with the District for the necessary filling of the newly installed water main and appurtenances, a minimum of 48 hours notice to the District will be required. The pipeline shall be filled by the District with water slowly and air expelled from the pipeline prior to starting the test. All pipelines shall be tested at a hydrostatic pressure of 250 psi at high point. All necessary pump, valves, meter gauges, piping, 2-inch blow-offs, hose and labor required shall be furnished by the Contractor.

The pressure tests shall be performed in the following manner:

Water shall be pumped into the main, bringing the pressure in the main up to the required test pressure. The 250 psi test pressure must be held for 15 minutes with no drop in pressure in order for a passing hydrostatic test.

All visible leakage shall be corrected, and all new valves installed under these specifications shall be tight. Whenever repairs or corrections are necessary, the pressure test shall be repeated to provide acceptability.

Procedures for testing firelines shall be as described above for hydrostatic tests and per Section 10.22 for bacteriological tests. The testing limits of the portion of the fireline owned and maintained by the District, shall end at a temporary blow-off installed on the fireline, inside the Double Check Detector Assembly (DCDA) vault.

Testing of the private fire line between the DCDA vault and the building shall be per the Fire Marshall's requirements.



10.22 STERILIZATION AND FLUSHING OF WATER MAIN

Upon successful completion of the hydrostatic test, all new water mains, and repaired portions of, or extension to, mains shall be flushed and sampled for purity per AWWA C651-14. The District will collect two consecutive samples for testing taken 24 hours apart and will forward the bacteriological test results to the Contractor. Upon receipt of two satisfactory bacteriological reports, the contractor shall have two weeks to make final connections to the existing main. If the connections are not completed within the two week timeframe, a repeat of the bacteriological testing will be required.

Water supply for filling, testing, and flushing of the new mains will be available from the existing distribution system. The Contractor shall make arrangements with the District for the necessary flushing of the pipeline. The water main shall be flushed a minimum of 24 hours or a maximum of 48 hours from the initial time of the pipeline fill. Opening of valves and use of water from the District's system will be done by the District and water for flushing will be provided by the District.

Taps required by the Contractor for temporary or permanent release of air, chlorination or flushing purposes shall be provided by the Contractor as a part of the construction of water mains. See NUD Standard Water Detail #17 for more information.

(a) DECHLORINATION AND DISPOSAL OF TREATED WATER

Unless otherwise specified, for District Capital Improvement Program (CIP) Projects, the District shall be responsible for disposal of treated water flushed from mains and shall neutralize the wastewater for protection of aquatic life in the receiving water before disposal into any natural drainage channel.

For Developer Extension (DE) Projects, the Contractor shall develop a plan for the disposal of the treated water and submit it to the District for review. The plan shall show specific locations where, or methods by which, the treated water can be discharged. If the plan designates discharge to sanitary sewer, storm sewer or surface water facilities, the Contractor shall contact the jurisdiction(s) having authority and secure such permits as may be necessary to cover the proposed method of disposal. If no permit is necessary and, if requested by the District, the Contractor shall provide written approval from the appropriate agency.

The actual flushing and disposal of the treated water will be performed by the District.

(b) REQUIREMENT OF CHLORINE

Before being placed into service, all new mains and repaired portions of, or extensions to, existing mains shall be chlorinated by the Contractor so that a



chlorine residual of not less than 10 ppm remains in the water after standing 24 hours in the pipe.

The initial chlorine content of the water shall be not less than 50 ppm (note that ppm = mg/L).

(c) FORM AND METHOD OF APPLIED CHLORINE

Chlorine shall be applied by one of the following methods, to give a dosage of not less than 50 ppm of available chlorine:

1. DRY CALCIUM HYPOCHLORITE

As each length of pipe is laid, sufficient high test calcium hypochlorite (65-70% chlorine) shall be placed in the pipe to yield a dosage of not less than 50 ppm available chlorine, calculated on the volume of the water which the pipe and appurtenances will contain.

The number of ounces of 65% test calcium hypochlorite required for a 20-foot length of pipe equals $0.008431D^2$, in which "D" is the diameter in inches.

2. LIQUID CHLORINE

A chlorine gas-water mixture shall be applied by means of a solution-feed chlorinating device, or the dry gas may be fed directly through proper devices for regulating the rate of flow and providing effective diffusion of the gas into the water within the pipe being treated.

Chlorinating devices for feeding solution of the chlorine gas, or the gas itself, must provide means for preventing the backflow of water into the chlorine.

3. CHLORINE-BEARING COMPOUNDS IN WATER

A mixture of water and high-test calcium hypochlorite (65-70% Cl) may be substituted for the chlorine gas-water mixture. The dry powder shall first be mixed as a paste and then thinned to a 1 per cent chlorine solution by adding water to give a total quantity of 7.5 gallons of water per pound of dry powder. This solution shall be injected in one end of the section of main to be disinfected while filling the main with water (continuous-feed method, see below).

4. SODIUM HYPOCHLORITE

Sodium hypochlorite, commercial grade (15% Cl) or in the form of liquid household bleach (5% Cl) may be substituted for the chlorine gas-water mixture.



This liquid chlorine compound may be used full strength or diluted with water and injected into the main in correct proportion to the fill water so that dosage applied to the water will be at least 50 ppm.

The following methods and tables as outlined in AWWA C651-14 are included for reference. Note that ppm = mg/L.

- The continuous-feed method consists of completely filling the main with potable water, removing air pockets, then flushing the main at a minimum of 3.0 ft/sec to remove particulates, and refilling the main with potable water that has been chlorinated to 25 ppm. After a 24-hr holding period in the main there shall be a free chlorine residual of not less than 10 ppm. Please see the table below and AWWA C651-14 for more information.

Table 4 Chlorine required to produce an initial 25-mg/L concentration in 100 ft (30.5 m) of pipe by diameter

Pipe Diameter		100% Chlorine		1% Chlorine Solution	
<i>in.</i>	<i>(mm)</i>	<i>lb</i>	<i>(g)</i>	<i>gal</i>	<i>(L)</i>
4	(100)	0.013	(5.9)	0.16	(0.6)
6	(150)	0.030	(13.6)	0.36	(1.4)
8	(200)	0.054	(24.5)	0.65	(2.5)
10	(250)	0.085	(38.6)	1.02	(3.9)
12	(300)	0.120	(54.4)	1.44	(5.4)
16	(400)	0.217	(98.4)	2.60	(9.8)

- The slug method consists of completely filling the main to eliminate air pockets, flushing the main at a minimum of 3.0 ft/sec to remove particulates, then slowly flowing a slug of water dosed with chlorine to a concentration of 100 ppm through the main. The slow rate of flow ensures that all parts of the main and its appurtenances will be exposed to the highly chlorinated water for a period of not less than 3 hours. Please see AWWA C651-14 for more information.

The table below from Appendix B of AWWA C651-14 provides the amount of chemical required to produce a chlorine concentration of 200 ppm. In order to obtain the 100 ppm as outlined in the slug method, divide the amount of chemical required in the table (gallons or pounds) in half.



Table B.2 Amounts of chemicals required to produce chlorine concentration of 200 mg/L in various volumes of water*

										Calcium Hypochlorite Required	
Volume of Water		Liquid Chlorine Required		Sodium Hypochlorite Required						65% Available Chlorine	
				5% Available Chlorine		10% Available Chlorine		15% Available Chlorine			
<i>gal</i>	<i>L</i>	<i>lb</i>	<i>(g)</i>	<i>gal</i>	<i>(L)</i>	<i>gal</i>	<i>(L)</i>	<i>gal</i>	<i>(L)</i>	<i>lb</i>	<i>(g)</i>
10	(37.9)	0.02	(9.1)	0.04	(0.15)	0.02	(0.08)	0.02	(0.08)	0.03	(13.6)
50	(189.3)	0.10	(45.4)	0.20	(0.76)	0.10	(0.38)	0.07	(0.26)	0.15	(68.0)
100	(378.5)	0.20	(90.7)	0.40	(1.51)	0.20	(0.76)	0.15	(0.57)	0.30	(136.1)
200	(757.1)	0.40	(181.4)	0.80	(3.03)	0.40	(1.51)	0.30	(1.14)	0.60	(272.2)

*Amounts of sodium hypochlorite are based on concentrations of available chlorine by volume. For either sodium hypochlorite or calcium hypochlorite, extended or improper storage of chemicals may have caused a loss of available chlorine.

(d) PREVENTING REVERSE FLOW

During flushing, filling, and testing, the District shall make the connections to the existing distribution system and the new water pipelines and shall utilize a backflow prevention device approved by the State Department of Health.

(e) RETENTION PERIOD

Treated water shall be retained in the pipe for a minimum of 24 hours and a maximum of 48 hours. After this period, the chlorine residual at pipe extremities and at other representative points shall be at least 10 parts per million.

(f) CHLORINATING VALVES AND HYDRANTS

In the process of chlorinating newly-laid pipe, all hydrant valves and other appurtenances shall be opened while the pipeline is filled with the chlorinating agent and under normal operating pressure.

(g) CHLORINATING FINAL CONNECTIONS TO EXISTING WATER MAINS AND SERVICE CONNECTIONS

The chlorinating procedure to be followed shall be as specified by AWWA. All closure fittings shall be swabbed with a 50-ppm minimum chlorine solution.

(h) FINAL FLUSHING AND TESTING

Before placing the lines into service, two (2) consecutive satisfactory bacteriological test reports shall be received.

(i) REPETITION OF FLUSHING AND TESTING

If the initial round of bacteriological testing, two consecutive tests as outlined in 10.22 (h) above, result in an unsatisfactory outcome, any repeat flushing and testing that is completed by the District shall be paid for by the contractor.



If the second round of bacteriological tests result in an unsatisfactory outcome, rechlorination of the installed water main will be required either by the continuous-feed method or slug method as outlined in AWWA C651-14 and Section 10.22 (c). The costs for subsequent disinfection and testing shall also be the responsibility of the Contractor.

10.23 CONNECTION TO EXISTING WATER MAIN

The Contractor shall not operate any gate valves on the water system. Connections to the existing main shall not occur until satisfactory purity tests have been obtained and without approval of the District.

The Contractor shall make the necessary arrangements with the District for the connection to the existing water main.

Pre-digging and steel plating the connection location(s) shall be performed a minimum of one day prior to the date of connection. Pre-digging shall include potholing the existing water main at the point of connection, excavating between the temporary blow-off and the existing main to provide adequate access to each pipe, and verifying the necessary pipe and fittings to perform connection.

Water service outages shall be limited to the hours of 8:00 AM to 3:30 PM in order to minimize inconvenience to water users and maintain fire protection for the area. Once work is started on a connection, it shall proceed continuously without interruption and as rapidly as possible until completed. The Contractor shall provide a minimum of 72 hours notice to the District prior to the required shutdown. The District will alert affected property owners of the proposed service interruptions.

Existing mains shall be kept in operation until the new main has been constructed, satisfactorily tested and disinfected and is ready for operation. Connections to the existing system shall then be made.

The total length of pipe including fittings, and valve(s) required for the connection shall be in accordance with ANSI/AWWA C651-14, Sec. 4.10 and in no case shall exceed 20 feet.

All material used for the connection shall be thoroughly sterilized by swabbing the interior with a chlorine solution of 50 ppm.

10.24 WATER SERVICE TRANSFERS ON PARALLEL LIVE MAINS

After the new water main is connected to the existing water system, creating parallel live mains, the Contractor shall proceed immediately with all water service and meter transfers from the existing system to the new water main. The Contractor shall also proceed with all other work necessary to permanently abandon the existing water system; including but not limited to, removal and



disposal of valve boxes, meter boxes and setters, miscellaneous fittings and pipe, and appurtenances.

Service transfers and the abandonment of the existing water system shall take place prior to the contractor proceeding with the installation of additional water main pipe per the Contract.

10.25 STEEL CASING

Steel casing shall be in accordance with the Materials of Construction and the Standard Details.

Sizing and wall thickness of casing shall be approved by the District.

Jacking and boring of casing pipe shall be accomplished in such a manner that there will be no damage to the existing improvements. Boring shall be accomplished by mechanical augering or drilling of the soil. The casing shall be jacked close enough behind the boring operation so there is no caving of soil from above. Removal of the material from the bored hole by washing or sluicing will not be permitted.

If excess voids are created around the casing, holes shall be drilled through the casing and the voids shall be pumped full of cement grout. All excess excavated material shall be disposed of in a manner acceptable to the District and permitting agencies.

The carrier pipe shall be supported on casing spacers at 10 foot maximum spacing and shall be installed with restrained joints. See the Engineering Specifications, Materials of Construction, and the Standard Detail for additional information.

10.26 EXCAVATION AND BACKFILL FOR UTILITY CONSTRUCTION

(a) TEMPORARY TRAFFIC CONTROL

The Contractor shall make suitable, safe, and adequate provision for necessary traffic around, over, or across the work in progress and shall schedule pavement patching to follow after backfill is completed as directed by regulatory agency.

The contractor shall submit a traffic control plan for review and approval by the District and the permitting agency prior to beginning work. Traffic control shall conform to Section 1-10 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.



(b) EXCAVATING IN PAVED AREAS

Prior to excavating in paved areas, the existing road surface shall be cut a minimum of 1 foot back from the outer edge of the excavation with approved cutting equipment. The cuts are to be made in clean, straight lines to insure a minimum of damage to the existing pavements. All cuts in existing concrete pavement are to be made with a concrete saw, except that where the concrete has been overlaid with asphalt, the pavement may be drilled on three (3) inch centers 1 foot (minimum) from the outer edge of the excavation on each side of the trench section. If the Contractor fails to adequately protect the cut edges during construction, it will be required, at its own expense, to re-cut the edges a minimum of 1 foot back from the edge of excavation prior to repairing the pavement.

(c) TRENCH SAFETY AND EXCAVATION

Contractor shall provide and install trench safety systems such as shoring or trench boxes or shall employ construction techniques such back sloping that meet the applicable State and Federal safety regulations.

Use and removal of trench safety systems shall be accomplished in such a manner that there will be no damage to the work or to the other properties.

Maximum and minimum trench widths shall be in accordance with the dimensions shown on the Standard Details.

In all cases, trenches must be of sufficient width to permit proper joining of the pipe and backfilling of material along the sides of the pipe. Trench width at the surface of the ground shall be kept to the minimum amount necessary for proper installation of the work in a safe manner.

Trenches wider than the maximum specified may result in a greater load on the pipe and, consequently, if the maximum trench width is exceeded by the Contractor, the Contractor shall, at its own expense, provide pipe of higher strength classification or provide a higher class of bedding where necessary to assure that the pipe will not be overloaded.

The maximum length of open trench permissible on any line, in advance of pipe laying, will be 100 feet for sewer pipe and 250 feet for water mains, except at the end of each day's operations, there shall be no trench in which pipe laying, embedment and backfill have not been completed.

Upon completion of work each day, all open trenches shall be completely backfilled, leveled and temporarily patched, graveled, fenced, or sheeted as required by the regulatory agency and the District.



Excavation for manholes, valves, structures, and other appurtenances shall be sufficient to provide enough room for compaction equipment between the outside surfaces and the sides of the excavation.

All material excavated from trenches and stored adjacent to trench or in a roadway or public thoroughfare shall be maintained in such manner that will cause a minimum of inconvenience to public travel. Provision shall be made for traffic where such is necessary. Free access shall be provided to all fire hydrants, water valves, and meters and clearance shall be left to enable the free flow of storm water in all gutters, conduits, and natural water courses. Where the trench bottom is a material which is unsuitable for providing an adequate foundation or material which will make it difficult to obtain uniform bearing for the pipe such material shall be removed and replaced with "foundation gravel", as previously defined.

(d) PIPE BEDDING AND TRENCH BACKFILL

Recycled concrete will not be allowed as foundation gravel, pipe bedding, or trench backfill material for any Ductile Iron (DI water or sewer main installation).

The placement and compaction of the pipe bedding and trench backfill shall be in accordance with the requirements of the various applicable sections of these specifications and as shown on Standard Details.

Where excavated material is not approved for backfill or bedding, imported backfill gravel conforming to the Materials of Construction shall be provided

Where governmental agencies other than the District have jurisdiction over roadways, the backfill shall be in accordance with the agency's requirements.

Bedding material shall be carefully placed and firmly compacted to provide a firm, uniform cradle for the pipe. The minimum thickness of the layer of bedding material required shall be 4-inches under the bell for all pipe sizes of 27 inches diameter and smaller, 6-inches for all pipe sizes 30 inches diameter and larger and 6-inches under the bell of the pipe for all diameter pipes where rock is excavated. The Contractor shall provide firm, continuous support for the pipe.

After the pipe laying operation, additional bedding material shall be placed and compacted by hand tools for the full width of the trench to a height of 6" above the top of the pipe.

In backfilling the trench, the Contractor shall take all necessary precautions to protect the pipe and protective coating from any damage or shifting of the pipe.



No timber bracing, lagging, sheathing or other lumber shall be left in any excavation.

At all roadway and driveway crossings and within existing paved rights-of-way and in such additional locations as may be directed by the District, the trench shall be immediately backfilled after the pipe is installed and inspected and shall be immediately provided with a temporarily graveled surface and continually maintained on a daily basis until replaced with permanent repair as required.

The Contractor shall be responsible for restoring to a condition equal to the prior condition of any and all existing utilities, culverts, ditches, drains, landscaping, or other facilities which are damaged as a result of the Contractor's operation.

10.27 COMPACTION OF TRENCH BACKFILL

Recycled concrete will not be allowed as foundation gravel, pipe bedding, or trench backfill material for any Ductile Iron (DI water or sewer main installation).

The moisture content of all soils used shall be within 2% of optimum. All densities shall be determined by the ASTM D-1557 (Modified Proctor) test procedure. The District will conduct on-site materials sampling and in-place density testing for all District projects. For private development projects, all testing is to be provided and paid for by the developer; compaction reports shall be provided to the District. The Contractor shall coordinate the testing with the District and shall provide convenient and safe access to the site and the trench for sampling and testing.

(a) TRENCHING PARALLEL TO ROAD ALIGNMENT

All trench backfill under roadway shall be mechanically compacted to 95% of maximum dry density.

In any trench in which 95% density cannot be achieved with existing backfill, the existing backfill shall be replaced with imported gravel backfill as specified in the Engineering Specifications. The imported gravel backfill shall be mechanically compacted to 95% of maximum dry density for the full depth of the trench.

All backfill material shall be compacted in 24-inch maximum lifts using heavy machinery or 12-inch maximum lifts using hand equipment.

(b) TRENCHING TRANSVERSE TO ROAD ALIGNMENT

For transverse trenching locations, such as side sewers and intersections, the entire trench shall be backfilled with 1-1/4-inch minus crushed rock per



the Engineering Specifications and placed in the maximum lifts listed above in Section 10.26 (a) and compacted to 95% of maximum dry density.

10.28 REPLACING ROAD SURFACE

The Contractor shall restore all roadway and driveway surfaces and features excavated or disturbed to a condition acceptable to the District and the governmental agency having control of the road.

All work in County right-of-way shall be subject to the approval of the King County. All work in the City street right-of-way shall be subject to approval of the City.

Paving restoration consists of two steps. The first step is installation of a temporary cold mix patch to be maintained until all work and other restoration is complete or up to 30 days. The second step is installation and sealing of the permanent pavement trench patch.

This work shall consist of the preparation, placing and compaction of subgrade and the patching of various types of pavement cuts to the complete resurfacing of roadways, the performance of which shall be in accordance with the requirements outlined herein. Roadway surface restoration and patching shall be in accordance with the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation, unless specifically directed otherwise by the District.

Before patching material is placed, all pavement cuts shall be trued so that marginal lines of the patch will form a rectangle with straight edges and vertical faces a minimum of one (1) foot back from the maximum trench width.

The Contractor shall maintain proper signs, barricades, lights, and other warning devices in accordance with the traffic control plan.

(a) GRAVEL BASE

Gravel base for road restoration shall conform to the Materials of Construction specifications and shall be placed and compacted in conformance with Sections 2 and 9 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation. Gravel base shall be placed and compacted before succeeding course material is placed.

Gravel base shall be used as shown on the plans or as directed by the District.

**(b) HOT MIX ASPHALT SURFACING**

Hot mix asphalt surfacing or repair shall conform to the Materials of Construction and shall be placed in accordance with Section 5-04 the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation and the Standard Specification Drawing for Typical Trench Section . All lifts shall be free from ridges, ruts, humps, depressions, objectionable marks, and irregularities and shall conform to the line, grade, and cross-section shown in the plans. Each lift shall be subject to compaction testing. All edges and joints of hot mix asphalt pavement repair shall be sealed with asphalt cement. After pavement is in place, all joints shall be sealed with CSS-1, or equal.

(c) CEMENT CONCRETE PAVEMENT

Concrete shall be as specified in the Materials of Construction and shall be placed in accordance with Section 5-05 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation. Concrete cylinder samples will be taken by the District for the purpose of testing the compressive strength of the concrete to meet the standards as defined by the regulatory agency. Subgrades shall be prepared as shown on the plans and in compliance with the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

All reinforcing steel shall conform with and be placed in accordance with Section 5-05 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation and shall conform to the requirements of ASTM Designation A-15 and A-305, latest revisions.

(d) RIGID-TYPE PAVEMENTS RESURFACED WITH ASPHALT

Those areas that now have a Portland cement concrete base and are surfaced with the hot mix asphalt mat shall be replaced in kind. The surface of the cement concrete portion of the patch shall be left low enough to accommodate the asphalt portion of the patch. Brush finishing will not be required. Joints shall be placed as directed by the District. The hot mix asphalt surface mat and the Portland cement concrete base shall be as specified in the Materials of Construction. Both the base and the surface mat shall be carefully prepared, placed and cured in full compliance with Section 5-04.3 of the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.

Hot mix asphalt or bituminous plant mix shall not be placed until the day after the cement concrete has been placed unless otherwise permitted by the



District. The edges of the existing asphalt pavements and castings shall be painted with hot asphalt cement or asphalt emulsion immediately before placing the asphalt patching material. The hot mix asphalt pavement shall then be placed, leveled, and compacted to conform to the adjacent paved surface. Immediately thereafter, all joints between the new and original asphalt pavement shall be painted with hot asphalt or asphalt emulsion and be covered with dry paving sand before the asphalt solidifies.

(e) SHOULDER, GRAVEL SURFACES

Shoulders, gravel driveways, and all other gravel surfaced areas disturbed by construction shall be repaired with a minimum 2-inch lift of 3/4-inch minus crushed rock (top course crushed surfacing). Immediately prior to placement of the gravel, the drainage ditch, shoulders and/or driveways shall be graded to the original smooth contours existing prior to construction. The gravel shall then be placed and compacted in accordance with the applicable Washington State Department of Transportation Specifications.

Crushed surfacing shall be in accordance with Materials of Construction.

Final crushed surfacing shall be placed within 30 days after construction disturbance unless otherwise specified or directed by the District.

10.29 ADJUSTMENT OF NEW AND EXISTING UTILITY STRUCTURES TO GRADE

This work consists of constructing and/or adjusting all new and existing utility structures encountered on the project to finished grade.

For asphalt overlay areas called for to be planed, all existing utility covers shall be lowered below the proposed planing depth prior to planing.

The castings shall not be adjusted to final grade until the pavement is completed, at which time the center of each casting shall be relocated from references previously established by the Contractor. The pavement shall be cut as further described and base material removed to permit removal of the casting. The casting shall then be brought to proper grade.

Prior to commencing manhole adjustments, a plywood and visqueen cover, as approved by the District, shall be placed over the manhole base and channel to protect them from debris.

The hot mix asphalt pavement shall be cut and removed to a neat circle, the diameter of which shall not exceed 6-inch from the outside diameter of the casting frame. The casting frame shall be brought up to desired grade, which shall conform to surrounding road surface. For manholes, adjustment to desired grade shall be made with the use of concrete adjustment rings or bricks. No iron adjustment rings will be allowed. An approved class of mortar (one-part cement



to two-parts of plaster sand) shall be placed between adjustment rings or bricks and casting frame to completely fill all voids and to provide a watertight seal. No rough or uneven surfaces will be permitted inside or out. Adjustment rings or brick shall be placed and aligned so as to provide vertical sides and vertical alignment of ladder steps (if steps are necessary).

Check manhole specifications and the Standard Details for minimum and maximum manhole adjustment and step requirements. Special care shall be exercised in all operations in order not to damage the manhole, frames and lids or other existing facilities.

The annular space between the casting and the pavement shall be filled with crushed rock and compacted with hand tamper to within 6-inch of the top of the frame. Asphalt concrete patching shall not be carried out during wet ground conditions or when air temperature is below 50° F. Hot mix asphalt must be at the temperature as specified by the regulatory agency when placed. Before making the hot mix asphalt repair, the edges of the existing hot mix asphalt pavement and the outer edge of the casting shall be tack coated with hot asphalt cement. The remaining 6-inch shall then be filled with Hot Mix Asphalt Class 1/2-inch and compacted with hand tampers and a patching roller.

The completed patch shall match the existing paved surface for texture, density, and uniformity of grade. The joint between the patch and the existing pavement shall then be carefully painted with hot asphalt cement or asphalt emulsion and shall be immediately covered with dry paving sand before asphalt cement solidifies. Before acceptance of a job, castings shall be cleaned of all debris and foreign material. All ladders must be cleaned free of grout. Any damage occurring to the existing facilities due to the Contractor's operations shall be repaired at its own expense.

10.30 HAZARD OF ASBESTOS CEMENT PIPE REMOVAL

To remove existing asbestos cement pipe from the trench, permitting as determined by regulatory agencies is required.

10.31 RIGHT-OF-WAY MONUMENTS AND LOT MARKERS

Capital Improvement Program (CIP) Projects

For monuments identified to be removed or destroyed as shown on the CIP Plans, the District will schedule a Professional Land Surveyor (PLS) to file the required permit forms with the Department of Natural Resources (DNR), as required by RCW 58.09.130 and WAC 332-120. The District's PLS will set tie-out reference points for the monument(s) identified on the CIP Plans to be removed or destroyed. The contractor shall protect these reference points until the monument(s) have been reset. No construction work affecting monumentation shall commence until DNR has approved the permit. Upon completion of work affecting monumentation, the form "Completion Report for



Monument Removal or Destruction” shall be signed by the District’s PLS and submitted to DNR.

During construction, the Contractor shall take all necessary precautions to locate and protect existing markers, property corners, monuments and other reference points not identified on the CIP Plans to be removed or destroyed. Under no circumstances shall work be performed which would remove, adjust, or destroy any such markers without the DNR permit, as required by RCW 58.09.130 and WAC 332-120. In the event that the Contractor disturbs or destroys any existing marker, property corner, monument or other reference point not identified to be removed or destroyed on the CIP Plans, the Contractor shall bear any and all costs for permitting, survey, resetting, legal claims and filing of State forms as required by RCW 58.09.130 and WAC 332-120.

Developer Extension Projects

Under no circumstances shall work be performed which would remove, adjust, destroy, or otherwise make a survey point or monument no longer visible or readily accessible without the DNR survey monument permit. The Developer’s Contractor shall not remove or destruct any monument until the monument has been tied out and the Developer has provided the District with a copy the Department of Natural Resources (DNR) permit authorizing the removal or destruction of the monument in accordance with WAC 332-120.

The Developer’s Contractor shall protect all monument tie-out reference points and witness monuments until the monument has been reset and the Developer has completed the DNRs report form, provided the District a copy, and forwarded it to the DNR in accordance with WAC 332-120.

10.32 RE-DESIGN OF LINES

Should interferences or obstructions create construction difficulties that the District determines shall require redesign or relocation of the lines, the District will require the necessary revised drawings.

10.33 GRASS SEEDING AND SOD

Areas of existing grass and all areas disturbed by construction which do not receive a specific type of restoration, such as paving, rock, or bark, shall be reseeded, or restored with sod as specified.

The Contractor shall be responsible for providing a finished grass area, which meets the approval of the property owner and the District.

The Contractor shall maintain the grass, including furnishing water and mowing, until project approval, unless otherwise specified.



(a) TOPSOIL

All areas to be seeded, reseeded, or sodded shall be provided with 4-inch minimum depth of topsoil. Topsoil used shall be imported and shall be subject to approval by the District. Prior to providing topsoil, all areas shall be raked smooth and all debris removed and disposed. The topsoil shall be tilled to a depth sufficient to key into the subsoil, raked to a smooth and even grade without low areas to trap water and compacted.

The Contractor shall notify the engineer not less than 24 hours in advance of any seeding or sodding operation and shall not begin seeding or sodding until areas prepared or designated have been approved by the District.

(b) SEEDING AND FERTILIZING

Prior to beginning seeding operations, the contractor shall submit seed mix and rate of application to the District for approval.

Seeding shall not be done during windy weather or when the ground is frozen, excessively wet, or otherwise untillable.

Seed and fertilizer may be sown by one of the following methods:

1. An approved hydroseeder in accordance with the latest published Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation.
2. Hand methods where allowed by the District in areas that are impossible to hydroseed. Seed shall be applied after the fertilizer and shall be raked into the top one (1) inch of the fertilized topsoil. Immediately following the raking of the seed into the soil, the total area shall be covered with District approved mulch and shall be rolled with a water-filled roller.

The seed shall have a tracer added to visibly aid uniform application. The tracer shall not be harmful to plant and animal life. If wood cellulose fiber is used as a tracer the application rate shall not exceed 250 lbs. per acre.

Fertilizer shall be provided and applied in accordance with the manufacturer's recommendations. The Contractor shall submit for approval a guaranteed fertilizer analysis label for the specified product.

Unless otherwise specified, seeding, fertilizing, and mulching shall be completed between April 15 to June 1 and August 15 to October 15.



(c) GRASS SOD

Sod shall be provided at all locations of established lawn disturbed by construction activities and at other locations as indicated on the plans.

Sod strips shall be placed within 48 hours of being cut. Placement shall be without voids and the end joints shall be staggered. The sod shall be rolled with a smooth roller following placement.

10.34 FINISHING AND CLEANUP

Before acceptance of the project, all pipes, manholes, catch basins, and other appurtenances shall be cleaned of all debris and foreign material. After all other work on the project is completed and before final acceptance, the entire roadway, including the roadbed, planting, sidewalk areas, shoulders, driveways, alley and side street approaches, slopes, ditches, utility trenches, and construction areas shall be neatly finished to the lines, grades and cross-sections shown on the plans and as hereinafter specified.

In undeveloped areas, the entire area which has been disturbed by the construction shall be shaped so that, upon completion, the area will present a uniform appearance, blending into the contour of the adjacent properties. All other requirements outlined previously shall be met. Slopes, sidewalk areas, planting areas and roadway shall be smoothed and finished to the required cross-section and grade.

Upon completion of the cleaning and dressing, the project shall appear uniform in all respects. All graded areas shall be true to line and grade as shown on the typical sections and as required by the District.

All rocks in excess of one (1) inch diameter shall be removed from the entire construction area and shall be disposed of the same as required for other waste material. In no instance, shall the rock be thrown onto private property. Overhang on slopes shall be removed and slopes dressed neatly so as to present a uniform, well sloped surface.

All excavated material at the outer lateral limits of the project shall be removed entirely. All debris resulting from clearing and grubbing or grading operations shall be removed and disposed.

Drainage facilities, such as inlets, catch basins, culverts, and open ditches, shall be cleaned of all debris resulting from the Contractor's operations.

All pavements and oil mat surfaces, whether new or old, shall be thoroughly cleaned. Existing improvements, such as Portland cement concrete curbs, curb and gutters, walls, sidewalks, and other facilities which have been sprayed by the asphalt cement shall be cleaned to the satisfaction of the District.



Castings for manholes, monuments, water valves, lamp poles, vaults, and other similar installations which have been covered with the asphalt material shall be cleaned to the satisfaction of the District.