

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

**8<sup>TH</sup> AVENUE WEST SEWERMAIN AND  
WATERMAIN REPLACEMENT PROJECT**  
Public Works Project  
*JOB NO. 54-23-PW*



**City of Kirkland  
Department of Public Works  
123 Fifth Avenue  
Kirkland, Washington 98033  
(425) 587-3800**



**Tetra Tech  
2003 Western Avenue  
Suite 700  
Seattle, Washington 98121  
(206) 883-9300**





**CITY OF KIRKLAND  
DEPARTMENT OF PUBLIC WORKS**

**8TH AVENUE WEST  
SEWERMAIN AND WATERMAIN REPLACEMENT PROJECT  
JOB NO. 54-23-PW**

***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.



Hunter Bennett-Daggett, P.E.  
Project Engineer

***Approved for Construction:***

A handwritten signature in black ink, appearing to read "Rod Steitzer", is written over a horizontal line.

Rod Steitzer, P.E.  
Capital Projects Manager





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# INVITATION TO BID



**City of Kirkland**

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## **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 February 21, 2024, for the project hereinafter referred to as:

### **8h AVENUE WEST SEWERMAIN AND WATERMAIN REPLACEMENT PROJECT PROJECT JOB NO. 54-23-PW**

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.

This contract provides for the improvement for construction of the 8th Avenue West Sewermain and Watermain Project. Specific work includes, but is not limited to replacing approximately 1,700 linear feet of 6-inch concrete sanitary sewer with 8-inch PVC, replacing 8 sanitary sewer manholes, replacing approximately 1,900 linear feet of 6-inch cast iron water main and appurtenances with 8-inch ductile iron, and replacing connected water services and sewer laterals. Supporting work includes, but is not limited to traffic control, temporary erosion and sedimentation control, curb ramp replacements, pavement overlay and street restoration, landscape restoration, and all related Work.

The estimated cost for this project is in a range of \$2,400,000 to \$3,000,000.

The City will not sell bid packages. Plans, specifications, and addenda may be viewed and obtained online at [www.bxwa.com](http://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.

Questions regarding this project shall be submitted in writing to Alejandro Trujillo via email at [ATrujillo@kirklandwa.gov](mailto:ATrujillo@kirklandwa.gov). Questions via phone will not be accepted. Bidders shall submit questions no later than 1:00 P.M. on February 7, 2024.

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, 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.

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# **GENERAL INFORMATION, PROPOSAL, AND CONTRACT**



**City of Kirkland**

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# 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 for HVAC, plumbing, and electrical subcontractors if the estimate exceeds \$1,000,000.

**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, 2013, 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.

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**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 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;
  - 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, 2013, 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**



**8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project**

CIP NO. SSC0860000 & WAC1570000

JOB NO. 54-23-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 personally inspected the site; 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 **8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project; JOB NO. 54-23-PW** for the following:

<u>Schedule</u>	<u>Subtotal Bid Price</u>	<u>Sales Tax</u>	<u>Total Bid Price</u>
A – Sewermain Replacement (State Sales Tax: WAC 458-20-170 – Retail Sales Tax)	\$ _____	\$ _____	\$ _____
B – Watermain Replacement (State Sales Tax: WAC 458-20-170 – Retail Sales Tax)	\$ _____	\$ _____	\$ _____
C – Street Improvements (State Sales Tax: WAC 458-20-171 – Use Tax)	\$ _____	\$ Included in bid items	\$ _____

Total Bid – A+B+C (in figures): \$ \_\_\_\_\_

Total Bid – A+B+C (in words): \_\_\_\_\_

\_\_\_\_\_

Receipt of Addenda No(s). \_\_\_\_\_ is hereby acknowledged.

***MUST BE SUBMITTED WITH PROPOSAL***

**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

\_\_\_\_\_  
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  
8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project, JOB NO. 54-23-PW.**

**CITY OF KIRKLAND  
BID SCHEDULE**

8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project  
JOB NO. 54-23-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 – Sewermain Replacement**

Item No.	Item Description	Spec Ref.	Est. Qty.	Unit	Unit Price	Amount
A 1	Mobilization (Limited to 10% of Other Bid Schedule Items, Excluding Minor Changes & Sales Tax)	1-09	1	LS		
A 2	Minor Changes	1-04	1	FA		
A 3	Record Drawings (Minimum Bid \$2,000)	1-05	1	LS		
A 4	Additional Potholing	1-07	10	EA		
A 5	Project Temporary Traffic Control (Minimum Bid \$50,000)	1-10	1	LS		
A 6	Sawcutting	2-02	400	LF		
A 7	Shoring and Trench Safety Systems	2-09	2,400	LF		
A 8	Shoring and Trench Safety Systems for Extra Trench Excavation	2-09	480	LF		
A 9	HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch	5-04	60	TON		
A 10	48-Inch Diameter Manhole	7-05	7	EA		
A 11	54-Inch Diameter Manhole Including Internal Drop Connection	7-05	1	EA		
A 12	Connection to Existing Sanitary Sewer	7-05	5	EA		
A 13	Existing Manhole Demolition	7-05	1	EA		
A 14	Foundation Gravel for Sanitary Sewer	7-08	210	TON		
A 15	6-Inch Sanitary Sewer Main, D3034 SDR-35 PVC	7-17	10	LF		
A 16	8-Inch Sanitary Sewer Main, D3034 SDR-35 PVC	7-17	1,691	LF		
A 17	Temporary Sewer Bypassing	7-17	1	LS		
A 18	6-Inch Side Sewer Service, D3034 SDR-35 PVC	7-18	22	EA		
A 19	Erosion/Water Pollution Control	8-01	1	LS		
A 20	Property Restoration	8-02	1	LS		
A 21	Cement Concrete Curb	8-04	200	LF		
A 22	Cement Concrete Curb and Gutter	8-04	10	LF		
A 23	Cement Concrete Sidewalk	8-14	120	SY		

**SCHEDULE A SUBTOTAL BID PRICE (in figures): \$** \_\_\_\_\_

**SALES TAX (10.2%) (in figures): \$** \_\_\_\_\_

**SCHEDULE A TOTAL BID PRICE (in figures): \$** \_\_\_\_\_

**CITY OF KIRKLAND  
BID SCHEDULE**

8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project  
JOB NO. 54-23-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 B – Watermain Replacement**

<b>Item No.</b>	<b>Item Description</b>	<b>Spec Ref.</b>	<b>Est. Qty.</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Amount</b>
B 1	Mobilization (Limited to 10% of Other Bid Schedule Items, Excluding Minor Changes & Sales Tax)	1-09	1	LS		
B 2	Minor Changes	1-04	1	FA		
B 3	Record Drawings (Minimum Bid \$2,000)	1-05	1	LS		
B 4	Additional Potholing	1-07	10	EA		
B 5	Project Temporary Traffic Control (Minimum Bid \$50,0000)	1-10	1	LS		
B 6	Sawcutting	2-02	700	LF		
B 7	Shoring and Trench Safety Systems	2-09	3,200	LF		
B 8	Shoring and Trench Safety Systems for Extra Trench Excavation	2-09	550	LF		
B 9	HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch	5-04	80	TON		
B 10	8-inch Water Main, CL 52 Ductile Iron, With Fittings	7-09	1,912	LF		
B 11	Additional DI Fittings and Joint Restraints	7-09	1,000	LB		
B 12	Connection to Existing Water Main	7-09	3	EA		
B 13	Foundation Gravel for Water Main	7-09	70	TON		
B 14	Extra Trench Excavation and Backfill	7-09	150	CY		
B 15	8-inch Gate Valve Assembly	7-12	9	EA		
B 16	2-inch Air and Vacuum Release Assembly	7-12	1	EA		
B 17	Fire Hydrant Assembly	7-14	3	EA		
B 18	Water Service Connection, 1-inch	7-15	45	EA		
B 19	Abandoning Existing CI Watermain System	7-20	1	LS		
B 20	Erosion/Water Pollution Control	8-01	1	LS		
B 21	Property Restoration	8-02	1	LS		
B 22	Cement Concrete Curb	8-04	350	LF		
B 23	Cement Concrete Curb and Gutter	8-04	40	LF		
B 24	Cement Concrete Sidewalk	8-14	230	SY		

**SCHEDULE B SUBTOTAL BID PRICE (in figures): \$**\_\_\_\_\_

**SALES TAX (10.2%) (in figures): \$**\_\_\_\_\_

**SCHEDULE B TOTAL BID PRICE (in figures): \$**\_\_\_\_\_



**CITY OF KIRKLAND  
BID SCHEDULE**

8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project  
JOB NO. 54-23-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 C – Street Improvements**

<b>Item No.</b>	<b>Item Description</b>	<b>Spec Ref.</b>	<b>Est. Qty.</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Amount</b>
C 1	Mobilization (Limited to 10% of Other Bid Schedule Items, Excluding Minor Changes & Including Sales Tax)	1-09	1	LS		
C 2	Minor Changes	1-04	1	FA		
C 3	Project Temporary Traffic Control (Minimum Bid \$50,0000)	1-10	1	LS		
C 4	Pavement Repair Excavation Including Haul	5-04	7,400	SY		
C 5	HMA Class 1/2-inch, PG 58H-22 for Pavement Restoration	5-04	1,840	TON		
C 6	HMA Class 1/2-inch, PG 58H-22 for Asphalt Overlay	5-04	150	TON		
C 7	Replace Catch Basin Grate	7-05	4	EA		
C 8	Property Restoration	8-02	1	LS		
C 9	Cement Concrete Curb	8-04	220	LF		
C 10	Cement Concrete Curb and Gutter	8-04	520	LF		
C 11	Raise and Lower Structures to Final Paved Elevation	8-13	45	EA		
C 12	Reset Monument Box	8-13	3	EA		
C13	Cement Concrete Curb Ramp	8-14	18	EA		
C 14	Cement Concrete Sidewalk	8-14	120	SY		
C 15	Permanent Signing	8-21	1	LS		
C 16	Plastic Bicycle Lane Marking	8-22	110	SF		
C 17	Plastic Cross Walk Line	8-22	160	SF		

**SCHEDULE C TOTAL BID PRICE (in figures): \$**\_\_\_\_\_

**SUMMARY:**

**SCHEDULE A TOTAL BID PRICE (in figures): \$**\_\_\_\_\_

**SCHEDULE B TOTAL BID PRICE (in figures): \$**\_\_\_\_\_

**SCHEDULE C TOTAL BID PRICE (in figures): \$**\_\_\_\_\_

**GRAND TOTAL, SCHEDULES COMBINED (in figures): \$**\_\_\_\_\_



**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 \_\_\_\_\_

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**BID BOND**

KNOW ALL MEN 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  
8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project 54-23-PW

\_\_\_\_\_  
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:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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**

**8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project**

CIP NO. SSC0860000 & WAC1570000

JOB NO. 54-23-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:

"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 as part of the bid, or within one hour after the published bid submittal time [see *note below*], 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. 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."

***NOTE: The City of Kirkland has elected not to allow bidders to submit the information required by RCW 39.30.060 after the published bid submittal time. A proposal will be considered irregular and will be rejected if the bidder does not provide the above list as part of its proposal when submitting its bid.***

Each bidder shall submit a list of:

1. HVAC, plumbing, and electrical 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.

**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: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*- make additional pages if necessary -*

**Work to be performed by Prime Contractor:**

Item Numbers: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **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 for HVAC, plumbing, and electrical subcontractors if the estimate amount exceeds \$1,000,000.)
10. Bid proposal to be submitted in a sealed envelope marked "Bid Enclosed" for:







# CONTRACT

## INFORMATION ONLY

The following forms must be executed and submitted by the successful bidder within ten (10) calendar days following Notice of Award.





# CITY OF KIRKLAND

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**CITY OF KIRKLAND  
PUBLIC WORKS AGREEMENT**

**8<sup>th</sup> AVENUE WEST SEWERMAIN AND WATERMAIN REPLACEMENT PROJECT  
JOB NO. 54-23-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 "Owner."

**W I T N E S S E T H:**

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

Whereas, the Owner 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: "8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project, Job No. 54-23-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. Any Invitation to Bid, as published by the Owner.
- B. Any Specifications prepared for this project by the Owner and named above by title.
- C. Any 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 Owner.
- E. Any change orders, additions or deletions, if any, issued by the Owner.

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 Owner 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: \_\_\_\_\_  
Tracey Dunlap, 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 **8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project, Job #54-23-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 **8<sup>th</sup> Avenue West Sewermain and Watermain Project, Job #54-23-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**

8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project  
JOB NO. 54-23-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**

**PRINICPAL**

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**

8<sup>th</sup> Avenue West Sewermain and Watermain Replacement Project  
JOB NO. 54-23-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 generation 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

*Supplement to*

**2022**

**WSDOT Standard  
Specifications**



**City of Kirkland**

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## CITY OF KIRKLAND

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# City of Kirkland Special Provisions

## INTRODUCTION

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, **2023** 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 **8th Avenue West Sewer Main And Watermain Replacement 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 public works projects. These can include:

- **Local Agency/APWA 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)**

**Project-Specific Special Provisions** normally appear only in the contract for which they were developed. Denoted as: **(\*\*\*\*\*)**

Also incorporated into the Contract Documents by reference are:

- Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted edition, with Washington State modifications, if any

- Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA, current edition
- City of Kirkland Public Works Department Pre-Approved Plans and Policies, current year edition.

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

## DIVISION 1 – GENERAL REQUIREMENTS

### DESCRIPTION OF WORK

This contract provides for construction of the **8th Avenue West Sewer Main And Watermain Replacement Project**. Specific work includes, but is not limited to replacing approximately 1,700 linear feet of 6-inch concrete sanitary sewer with 8-inch PVC, replacing 8 sanitary sewer manholes, replacing approximately 1,900 linear feet of 6-inch cast iron water main and appurtenances with 8-inch ductile iron, and replacing connected water services and sewer laterals. Supporting work includes, but is not limited to traffic control, temporary erosion and sedimentation control, curb ramp replacements, pavement overlay and street restoration, landscape restoration, and all related Work, all in accordance with the Contract Plans, these Contract Special Provisions, and the Standard Specifications.

### 1-01 DEFINITIONS AND TERMS

*(January 4, 2016 APWA GSP)*

#### 1-01.3 Definitions

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.

**Completion Date**

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

**Final Acceptance Date**

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

Supplement this Section with the following:

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

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

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

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

**Additive**

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

**Alternate**

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

**Business Day**

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

**Contract Bond**

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

**Contract Documents**

See definition for "Contract" in Standard Specifications.

**Contract Time**

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

**Notice of Award**

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

**Notice to Proceed**

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

**Traffic**

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

**1-02 BID PROCEDURES AND CONDITIONS**

*(January 24, 2011 APWA GSP)*

**1-02.1 Prequalification of Bidders**

Delete this Section and replace it with the following:

**1-02.1 Qualifications of Bidder**

Before award of a public works contract, a bidder must meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project.

*(July 31, 2017 APWA GSP)*

**1-02.1(1) Supplemental Qualifications Criteria**

Add the following new section:

In addition, the Contracting Agency has established Contracting Agency-specific and/or project-specific supplemental criteria, in accordance with RCW 39.04.350(3), for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in Section 1-02.14 Option C of these Special Provisions.

*(January 1, 2016 COK GSP)*

Bidders shall complete and sign the Statement of Bidder's Qualification contained in the Proposal. Said form must be submitted with the bid proposal.

After bids are opened, Contracting Agency may request that a bidder or all bidders provide supplemental information concerning responsibility in accordance with RCW 39.04.350(2). Such supplemental information shall be provided to Contracting Agency in writing within two (2) business days of the request. Whether bidder supplies this supplemental information within the time and manner specified or not, in addition to consideration of this additional information, Contracting Agency may also base its determination of responsibility on any available information related to the supplemental criteria.

If Contracting Agency determines that a bidder is not responsible, Contracting Agency will provide, in writing, the reasons for such determination at which point the contractor will be

deemed disqualified in accordance with WSDOT Standard Specification 1-02.14(10) and the proposal rejected. The bidder may appeal the determination within two (2) business days after receipt of the determination by presenting additional information to Contracting Agency. Contracting Agency will consider the additional information before issuing its final decision. If Contracting Agency's final decision affirms that the bidder is not responsible, Contracting Agency will not execute a contract with any other bidder until two (2) business days after the bidder determined to be not responsible has received Contracting Agency's final determination. The failure or omission of a bidder to receive or examine any form, instrument, addendum or other document shall in no way relieve any bidder from obligations with respect to the bid or to the contract.

Any bidder may, within five (5) business days before the bid submittal deadline, request that Contracting Agency modify the supplemental criteria. Contracting Agency will evaluate the information submitted by the bidder and respond before the submittal deadline. If the evaluation results in a change of the criteria, the Contracting Agency will issue an Addendum to the bidding documents identifying the new criteria.

Supplemental Criteria. Contracting Agency acknowledges that Change Orders (changes, extra work, requests for equitable adjustment and claims (defined as including demands for money or time in excess of the contract amount or contract time)) are ubiquitous on public works construction projects. The expeditious resolution of Change Orders is critical to the on budget and on time successful completion of a public works project. Thus, the City has established the following relevant supplemental bidder responsibility criteria applicable for the project:

1. Criterion. The bidder must demonstrate a record of successful and timely resolution of Change Orders including compliance with public contract Change Order resolution procedures (e.g. timely notice of event giving rise to the Change Order, timely submission of a statement of the cost and/or impact of the Change Order unless the bidder is able to show extenuating circumstances that explain bidder's failure to timely provide such information to the satisfaction of Contracting Agency.
2. Documentation. As evidence that the bidder meets the supplemental responsibility criteria, after bids are opened and within two (2) business days of the public notice of Contracting Agency's tabulation of bids, the lowest responsive bidder must submit the following documentation of public works projects completed within the previous three (3) years and include for each project the following:
  - a. The Owner and contact information for the Owner;
  - b. A listing of Change Orders and a signed statement from the bidder that the project timelines concerning resolution of Change Orders was complied with, and if not, provide a written explanation of what the bidder believes to be the extenuating circumstances excusing compliance with the Contract Change Order notice and claim provisions.

Contracting Agency may contact owners listed by the bidders to validate the information provided by a bidder.

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

**1-02.2 Plans and Specifications**

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Call for Bids (**Invitation** for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

<b>To Prime Contractor</b>	<b>No. of Sets</b>	<b>Basis of Distribution</b>
Reduced plans (11" x 17")	3	Furnished automatically upon award.
Contract Special Provisions	3	Furnished automatically upon award.
Large plans (e.g., 22" x 34")	3	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.

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

**1-02.4(1) General**

The first sentence of the ninth paragraph, beginning with "Any prospective Bidder desiring...", is revised to read:

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents, must request the explanation or interpretation in writing soon enough to allow a written reply to reach all prospective Bidders before the submission of their Bids.

***(March 8, 2013 APWA GSP)***

**1-02.4(2) Subsurface Information**

The second sentence in the first paragraph is revised to read:

The Summary of Geotechnical Conditions and the boring logs, if and when included as an appendix to the Special Provisions, shall be considered as part of the Contract.

***(July 31, 2017 APWA GSP)***

**1-02.5 Proposal Forms**

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.

***(December 10, 2020, APWA GSP Option B)***

**1-02.6 Preparation of Proposal**

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.

***(March 8, 2013 APWA GSP)***

**1-02.7 Bid Deposit**

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, bidder must use the bond form included in the Contract Provisions.

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

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

#### **1-02.8 Noncollusion Declaration and Lobbying Certification**

The following new paragraph is inserted at the end of Section 1-02.8:

##### ***Conflict of Interest***

The bidder affirms that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this contract, no person having any conflicting interest shall be employed. Any interest on the part of the Contractor or its employees must be disclosed forthwith to the City of Kirkland. If this contract is within the scope of a Federal Housing and Community Development Block Grant program, the Contractor further covenants that no person who presently exercises any functions or responsibilities in connection with the block grant program has any personal financial interest, direct or indirect, in this contract.

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

#### **1-02.9 Delivery of Proposal**

Delete this section and replace it with the following:

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

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

- DBE Utilization Certification (WSDOT 272-056)
- DBE Written Confirmation Document (WSDOT 422-031) from each DBE firm listed on the Bidder's completed DBE Utilization Certification
- Good Faith Effort (GFE) Documentation
- DBE Bid Item Breakdown (WSDOT 272-054)

- DBE Trucking Credit Form (WSDOT 272-058)

***DBE Utilization Certification***

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

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

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

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

The DBE Bid Item Breakdown and the DBE Trucking Credit Forms (if applicable) shall be received either with the Bid Proposal or as a Supplement to the Bid. The documents shall be received no later than 48 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Proposal. To be considered responsive, Bidders shall submit a completed DBE Bid Item Breakdown and a DBE Trucking Credit Form for each DBE Trucking firm listed on the DBE Utilization Certification, however, minor errors and corrections to DBE Bid Item Breakdown or DBE Trucking Credit Forms will be returned for correction for a period up to five calendar days (not including Saturdays, Sundays and Holidays) after the time for delivery of the Proposal. A DBE Bid Item Breakdown or DBE Trucking Credit Forms that are still incorrect after the correction period will be determined to be non-responsive.

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

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

***(July 23, 2015 APWA GSP)***

**1-02.10 Withdrawing, Revising, or Supplementing Proposal**

Delete this section, and replace it with the following:

After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

***(October 1, 2020 APWA GSP)***

**1-02.13 Irregular Proposals**

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
  - a. The Bidder is not prequalified when so required;
  - b. The authorized Proposal form furnished by the Contracting Agency is not used or is altered;
  - c. The completed Proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
  - d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
  - e. A price per unit cannot be determined from the Bid Proposal;
  - f. The Proposal form is not properly executed;
  - g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
  - h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;

- i. The Bidder fails to submit written confirmation 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 form, 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, 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.

***(May 17, 2018 APWA GSP, Option C)***

#### **1-02.14 Disqualification of Bidders**

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

**8. Previous Project Performance**

- A. Criterion: The Contracting Agency may review Bidder's past performance record to determine Bidder responsibility based upon the following:
  - 1. Quality of work;
  - 2. Timeliness of project completion and delivery;
  - 3. Safety record;
  - 4. Use of skilled personnel;
  - 5. Management of subcontractors;

6. Availability of, and use of appropriate equipment;
7. Management of work changes;
8. Coordination with other entities, including other contractors, the general public,
9. municipal crews, etc., and;
10. Outstanding claims

This review may include both projects provided by Bidder per Documentation requirement below and similar projects completed for Contracting Agency within five (5) years.

- B. Documentation: The Bidder shall submit a list of three (3) public works projects completed in the five (5) years prior to the bid submittal date and include for each project the following information:

- Name of project
- The Owner and contact information for the Project Manager

Contracting Agency will, at its discretion, contact some, or all, of the project contacts and discuss the items identified as Criterion.

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

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

If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with

any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

Request to Change Supplemental Bidder Responsibility Criteria Prior To Bid: Bidders with concerns about the relevancy or restrictiveness of the Supplemental Bidder Responsibility Criteria may make or submit requests to the Contracting Agency to modify the criteria. Such requests shall be in writing, describe the 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.

***(August 14, 2013 APWA GSP)***

#### **1-02.15 Pre Award Information**

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**

***(January 23, 2006 APWA GSP)***

##### **1-03.1 Consideration of Bids**

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.

**(October 1, 2005 APWA GSP)**

### **1-03.3 Execution of Contract**

Revise this section to read:

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 ten (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, and a satisfactory bond as required by law and Section 1-03.4. 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 10 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.

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

### **1-03.4 Contract Bond**

Revise the first paragraph to read:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. Separate payment and performance bonds are required and 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, and
  - c. Have an A.M. best rating of A:VII or better.
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).

***(November 30, 2018 APWA GSP)***

#### **1-03.7 Judicial Review**

Revise this section as follows:

Any decision 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**

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

##### **1-04.1 Intent of the Contract**

Section 1-04.1 is supplemented with the following:

All materials, tools, labor, and guarantees thereof of required to complete the work shall be furnished and supplied in accordance with the Plans, these Special Provisions, the Standard Specifications, and City of Kirkland Pre-Approved (Standard) Plans and Policies. The Contractor shall include all costs of doing this work within the contract bid item prices.

***(December 10, 2020 APWA GSP)***

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

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.

**(May 30, 2019 APWA GSP)**

**1-04.4(1) Minor Changes**

Delete the first paragraph and replace it with the following:

Payments or credits for changes amounting to \$25,000 or less may be made under the Bid item "Minor Changes". At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All "Minor Change" work will be within the scope of the Contract Work and will not change Contract Time

**1-04.4(1) Minor Changes (\*\*\*\*\*)**

Replace the third paragraph of Section 1-04.4(1) with the following:

To provide a common basis for all bidders, the City has estimated and included in the Proposal, a contingency allowance dollar amount for all items to be paid by force account. All such dollar amounts are to become a part of the Contractor's total bid. However, the City does not warrant, expressly or by implication that the actual amount of work will correspond with those estimates. It shall, therefore, not be the basis of a Lost Profit Claim if this contingency item is not expended. Payment will be made on the basis of work actually authorized by the Engineer and in accordance with Section 1-09.6 of the Standard Specifications.

For this contract, the bid item "Minor Changes" shall be used to pay for third party damage, and other items not covered by bid items in the proposal, as authorized by the Engineer.

Minor Changes	Per Force Account
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**(July 23, 2015 APWA GSP, Option B)**

**1-04.6 Variation in Estimated Quantities**

Revise the first paragraph to read:

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work

performed under a unit item varies from the original Proposal quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of any Contract item, adjusted to exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 25 percent from the original Proposal quantity, and if the total extended bid price for that item at time of award is equal to or greater than 10 percent of the total contract price at time of award. In that case, payment for contract work may be adjusted as described herein:

(\*\*\*\*)

Supplement this Section with the following:

The following bid items have been entered into the respective schedules of the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity. These bid items shall not be subject to the provisions of 1-04.6 of the Standard Specifications:

- Additional Potholing
- Foundation Gravel for Sanitary Sewer
- Foundation Gravel for Water Main
- Extra Trench Excavation and Backfill
- Shoring and Trench Safety Systems for Extra Trench Excavation
- Pavement Repair Excavation Including Haul
- HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch
- HMA Class 1/2-inch, PG 58H-22 for Pavement Restoration
- HMA Class 1/2-inch, PG 58H-22 for Asphalt Overlay
- Replace Existing Catch Basin Grate
- Additional Ductile Iron Fittings and Joint Restraints
- Cement Concrete Curb
- Cement Concrete Curb and Gutter
- Cement Concrete Curb Ramp
- Cement Concrete Sidewalk

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

#### **1-04.11 Final Cleanup**

Section 1-04.11 is deleted in its entirety and replaced with the following:

The Contractor shall perform final cleanup as provided in this Section. The Engineer will not establish the Physical Completion Date until this is done. All public and private property the Contractor occupied to do the Work, including but not limited to the Street Right of Way,

material sites, borrow and waste sites, and construction staging area shall be left neat and presentable. Immediately after completion of the Work, the Contractor shall cleanup and remove all refuse and unused materials of any kind resulting from the Work. Failure to do the final cleanup may result in the final cleanup being done by the Owner and the cost thereof charged to the Contractor and deducted from the Contractor's final progress estimate.

The Contractor shall:

1. Remove all rubbish, surplus materials, discarded materials, falsework, piling, camp buildings, temporary structures, equipment, and debris;
2. Remove from the Project, all unneeded, oversized rock left from grading, surfacing, or paving unless the Contract specifies otherwise or the Engineer approves otherwise;
3. On all concrete and asphalt pavement work, flush the pavement clean and remove the wash water and debris;
4. Sweep and flush structure decks and remove wash water and debris;
5. Clean out from all open culverts and drains, inlets, catch basins, manholes and water main valve chambers, within the limits of the Project Site, all dirt and debris of any kind that is the result of the Contractor's operations;
6. Level and fine grade all excavated material not used for backfill where the Contract requires;
7. Fine grade all slopes;
8. Upon completion of grading and cleanup operations at any privately-owned 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 Owner.

**(January 27, 2021 COK GSP)**

Add new Section 1-04.12.

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

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, usage fees, 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**

*(January 27, 2021 COK GSP)*

### **1-05.1 Authority of the Engineer**

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. These activities shall be incidental to the bid items associated with the Work that generated the debris, refuse, and discarded materials. Failure to do so may result in cleanup done by the Owner and the cost thereof charged to the Contractor by either deducting from the next Progress Payment to the Contractor or direct billing from the City

*(January 1, 2020 COK GSP)*

### **1-05.4 Conformity with and Deviations from Plans and Stakes**

Section 1-05.4 is supplemented with the following:

Unless otherwise identified on Plans or in the Special Provisions, Unit Bid prices shall cover all costs for all surveying labor, equipment, materials, and supervision required to perform the Work. This shall include any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

*(January 1, 2016 COK GSP)*

Add new Section 1-05.4(1).

#### **1-05.4(1) Roadway and Utility Surveys**

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the improvements under this contract. Except for the survey control data furnished by the Owner, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

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

To facilitate the establishment of lines and elevations, the Owner will provide the Contractor with primary survey control information consisting of descriptions of two primary control points used for the horizontal and vertical control. Primary control points will be described and shown on the right-of-way Plans. The Contractor shall check all control points for horizontal and vertical locations prior to use and report any discrepancy to the Engineer. Errors resulting from using control points which have not been verified, shall be the Contractor's responsibility.

At a minimum the Contractor shall provide the following survey staking:

1. Construction centerline or an offset to construction centerline shall be staked at all angle points and 100-foot intervals on tangents.
2. Offset stakes of JUT Centerline at all angle points and at 50-foot intervals on tangents
  - a. Cut/fill shall reference the elevations of the lowest conduit.
  - b. Offset shall reference the location of the center of trench and list the width of the trench section.
3. Offset stakes of all structure control/location points shown on the undergrounding Plans.
  - c. Each vault, handhold, and junction box shall have a sets of off-set points provided each location point shown in the location tables Cut/Fill shall reference elevations of the finish grade of the top lid of the structure.
  - d. Each pole riser and stub up, shall have at least one set of off-set hubs provided with cut/fills to finish ground elevations.
  - e. Finish grade elevations of all structures shall be determined by the Contractor based on the typical sections and details provided on the Contract Plans.
4. Offset stakes at face or walls.
5. Offset staking of all drainage structures and drainage pipes at 50-foot intervals.
6. Location of all right-of-way and easements adjacent to the work area as shown on the right-of-way Plans.
7. Offset of all permanent concrete sidewalks, curb ramps, and driveways.

Each stake shall have the following information: Hub elevation, offset distance to items being staked, cut/fill to proposed elevations, design elevation of items being staked.

The above information shall also be shown on a written Cut Sheet and provided to the City inspector 48-hours prior to installation of the items being staked.

The Contractor shall establish all secondary survey controls, both horizontal and vertical, as necessary to assure proper placement of all project elements based on the primary control points provided by the Engineer. Survey work shall be within the following tolerances:

Stationing	+.01 foot
Alignment	+.01 foot (between successive points)
Superstructure Elevations	+.01 foot (from plan elevations)
Substructure Elevations	+.05 foot (from plan elevations)
Sidewalk and Curb Ramp Elevations	+.01 foot (from plan elevations)

During the progress of the work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities.

The Contractor shall be fully responsible for the close coordination of field locations and measurements with appropriate dimensions of structural members being fabricated.

***(October 1, 2005 APWA GSP)***

**1-05.7 Removal of Defective and Unauthorized Work**

Supplement this section with the following:

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

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

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the 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.

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

**1-05.9 Equipment**

The following new paragraph is inserted between the second and third paragraphs:

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

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

**1-05.10 Guarantees**

Section 1-05.10 is supplemented as follows:

Guarantees and maintenance bonds shall be in accordance with City of Kirkland, State of Washington, Public Works Performance and Payment Bond forms and requirements. The



performance bond shall be in the full amount of contract. The Contractor guarantees all items of material, equipment, and workmanship against mechanical, structural, or other defects for which the Contractor is responsible that may develop or become evident within a period of one year from and after acceptance of the work by the Owner. This guarantee shall be understood to require prompt remedy of defects upon written notification to the Contractor. If the Owner determines the defect requires immediate repair, the Owner may, without further notice to the Contractor, make the necessary corrections, the cost of which shall be borne by the Contractor. To support the above guarantee, the Contractor's performance bond shall remain in full force and effect for one year following the acceptance of the project by the Owner.

**(October 1, 2005 APWA GSP)**

#### **1-05.11 Final Inspection**

Delete this section and replace it with the following:

#### **1-05.11 Final Inspections and Operational Testing**

##### **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 indicating when the Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial Completion Date and the Contractor considers the work physically complete and ready for final inspection.

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

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy

the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

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

The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

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

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

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to successfully complete operational testing, shall be included in the unit contract prices related to the system being tested, unless specifically set forth otherwise in the proposal.

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

**(March 8, 2013 APWA GSP)**

### **1-05.12 Final Acceptance**

Add new Section 1-05.12(1).

#### **1-05.12(1) One-Year Guarantee Period**

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within one year after Final Acceptance of the Work. The Contractor

shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency's written notice of a defect, and shall complete such work within the time stated in the Contracting Agency's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for one year after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

***(August 14, 2013 APWA GSP)***

**1-05.13 Superintendents, Labor and Equipment of Contractor**

Delete the sixth and seventh paragraph of this section.

***(March 25, 2009 APWA GSP)***

**1-05.15 Method of Serving Notices**

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

**1-05.16 Water and Power (\*\*\*\*\*)**

The Contractor is able to purchase metered water from the City. The flow rate available from the City supply shall be limited to the flow available from one fire hydrant. Other limitations may also apply.

***(March 8, 2013 APWA GSP)***

Add new Section 1-05.18.

**1-05.18 Record Drawings**

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

This Record Drawing set shall be used for this purpose alone, shall be kept separate from other Plan sheets, and shall be clearly marked as Record Drawings. These Record Drawings shall be kept on site at the Contractor's field office, and shall be available for review by the Contracting Agency at all times. The Contractor shall 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 Plans 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

Making Entries on the Record Drawings:

- Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to the following color code:
- Additions - Red
- Deletions - Green
- Comments - Blue
- Dimensions- Graphite
- Provide the applicable reference for all entries, such as the change order number, the request for information (RFI) number, or the approved shop drawing number.
- Date all entries.
- Clearly identify all items in the entry with notes similar to those in the Contract Plans (such as pipe symbols, centerline elevations, materials, pipe joint abbreviations, etc.).

The Contractor shall certify on the Record Drawings that said drawings are an accurate depiction of built conditions, and in conformance with the requirements detailed above. The Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

Payment will be made for the following bid item:

Record Drawings (Minimum Bid \$ 2,000)	Per Lump Sum
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Payment for this item will be made on a prorated monthly basis for work completed in accordance with this section up to 75% of the lump sum bid. The final 25% of the lump sum item will be paid upon submittal and approval of the completed Record Drawings set prepared in conformance with these Special Provisions.

A minimum bid amount has been entered in the Bid Proposal for this item. The Contractor must bid at least that amount.

**(November 19, 2019 COK GSP)**

Add new Section 1-05.19.

**1-05.19 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.

## **1-06 CONTROL OF MATERIAL**

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

### **1-06.1 Approval of Materials Prior to Use**

Section 1-06.1 is supplemented as follows:

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

***(February 17, 2022 COK GSP)***

#### **1-06.1(2) Request for Approval of Materials (RAM)**

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.

***(January 4, 2016 APWA GSP)***

### **1-06.6 Recycled Materials**

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 Table 9-03.21(1)E 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**

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

### **1-07.1 Laws to Be Observed**

Section 1-07.1 is supplemented with the following:

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 minutes or more.

***Compliance with Laws***

The Contractor shall comply with the requirements of all other City ordinances, state statutes, laws, and regulations, whether or not stated herein, which are specifically applicable to the public improvements and work to be performed.

The Contractor shall be subject to City of Kirkland Code enforcement, as required by Kirkland Municipal Code (KMC) Chapter 1.12. The Contractor shall fully comply with and satisfy all fines and costs assessed by code enforcement(s) prior to the Completion Date, unless otherwise authorized by the City of Kirkland in writing.

***(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.

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

Supplement this section with the following:

***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 Contractor and all subcontractors shall immediately report all accidents, injuries, and health hazards to the Owner, 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 Owner 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.

***(May 13, 2020 COK GSP)***

Supplement this section with the following:

In response to the COVID-19 pandemic and the workplace requirements implemented by the State of Washington for construction projects during the pandemic, the Contractor shall prepare a project-specific COVID-19 health and safety plan (CHSP) in conformance with Section 1-07.4(2) as amended by this Contract's Special Provisions.

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

**1-07.2 State Taxes**

Delete this section, including its sub-sections, in its entirety and replace it with the following:

**1-07.2 State Sales Tax**

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

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor

any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

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

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

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

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

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.

**1-07.2(3) Services**

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

**(February 2, 2021 COK GSP)**

**1-07.4(2) Health Hazards**

Supplement this section with the following:

**COVID-19 Health and Safety Plan (CHSP)**

Supplement this section with the following:

The Contractor shall prepare a project specific COVID-19 health and safety plan (CHSP). The CHSP shall be prepared and submitted as a Type 2 Working Drawing prior to beginning physical Work. The CHSP shall be based on the most current State and Federal requirements. If the State or Federal requirements are revised, the CHSP shall be updated as necessary to conform to the current requirements.

The Contractor shall update and resubmit the CHSP as the work progresses and new activities appear on the look ahead schedule required under Section 1-08.3(2)D. If the conditions change on the project, or a particular activity, the Contractor shall update and resubmit the CHSP. Work on any activity shall cease if conditions prevent full compliance with the CHSP.

The CHSP shall address the health and safety of all people associated with the project including State workers in the field, Contractor personnel, consultants, project staff, subcontractors, suppliers and anyone on the project site, staging areas, or yards.

All labor, materials, and equipment needed to prepare and implement the CHSP shall be incidental to other bid items and shall not be the basis for additional compensation to the Contractor. This includes but, is not limited to, a site supervisor to implement the plan, worker daily temperature checks and other required monitoring and documentation, means and methods to achieve safe distancing between workers, labor adjustments in response to workers unable to work on-site, providing masks and handwashing stations, etc.

**COVID-19 Health and Safety Plan (CHSP) Inspection**

The Contractor shall grant full and unrestricted access to the Engineer for CHSP inspections. The Engineer (or designee) will conduct periodic compliance inspections on the project site, staging areas, or yards to verify that any ongoing work activity is following the CHSP plan. If the Engineer becomes aware of a noncompliance incident either through a site inspection or other means, the Contractor will be notified immediately (within 1 hour). The Contractor shall immediately remedy the noncompliance incident or suspend all or part of the associated work activity. The Contractor shall satisfy the Engineer that the noncompliance incident has been corrected before the suspension will end.

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

**1-07.5(3) State Department of Ecology**

Supplement this section with the following:

Contractor shall comply with all requirements of the Construction Stormwater General Permit (CSWGP), if this permit has been issued for this Work. Additionally, Contractor shall comply with all applicable requirement of Kirkland Municipal Code KMC 15.52, as this local code has been adopted to meet Washington State Department of Ecology requirements for city stormwater management.

CSWGP Permit Number (if issued): None required.

CSWGP coverage is typically only issued by the State Department of Ecology in the event the disturbed area for the Work is greater than one (1) acre. In the event CSWGP coverage

has been issued for this Work, Contractor shall coordinate the Transfer of the permit from the Contracting Agency to the Contractor prior to any ground disturbance commencing in the Work area.

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

Revise the paragraph 6 to read:

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

Revise the paragraph 8 to read:

8. If directed by the Contracting Agency and instead of or in partial conjunction with a Notice of Completion, transfer the CSWGP coverage to the Contracting Agency when Physical Completion has been given and the Engineer has determined that the project site is not destabilized from erosion.

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

#### **1-07.6 Permits and Licenses**

Replace item 6 of the second paragraph of this section with the following:

6. The permit costs the Contracting Agency nothing. This shall include, but not be limited to, application and initial review fees, costs associated with fulfillment of all permit requirements, additional operational fees assessed during the life of the permit.

Supplement second paragraph of this section with the following:

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

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

#### **1-07.6(1) Permits for Sanitary Sewer Discharge for Construction Dewatering**

Add new Section 1-07.6(1)

The Contracting Agency has not obtained a King County Authorization for 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.

Unless otherwise indicated in the Contract Documents or by the Engineer in writing, no claims for equitable adjustment of Contract Time will be approved in order to obtain King County Authorizations and/or local sanitary sewer operating permits.

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

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

Add new Section 1-07.6(2)

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.

**(January 3, 2020 APWA GSP)**

**1-07.9(5) Required Documents**

Delete this section and replace it with the following:

***General***

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

***Intent and Affidavits***

On forms provided by the Industrial Statistician of State L&I, the Contractor shall submit to the Engineer the following for themselves and for each firm covered under RCW 39.12 that will or has provided Work and materials for the Contract:

1. The approved "Statement of Intent to Pay Prevailing Wages" State L&I's form number F700-029-000. The Contracting Agency will make no payment under this Contract until this statement has been approved by State L&I and reviewed by the Engineer.
2. The approved "Affidavit of Prevailing Wages Paid", State L&I's form number F700-007-000. The Contracting Agency will not grant Completion until all approved Affidavit of Wages paid for the Contractor and all Subcontractors have been received by the Engineer. The Contracting Agency will not release to the Contractor any funds retained under RCW 60.28.011 until "Affidavit of Prevailing Wages Paid" forms have been approved by State L&I and all of the approved forms have been submitted to the Engineer for every firm that worked on the Contract.

The Contractor is responsible for requesting these forms from State L&I and for paying any fees required by State L&I.

***Certified Payrolls***

Certified payrolls are required to be submitted by the Contractor for themselves, all Subcontractors and all lower tier subcontractors. The payrolls shall be submitted weekly on all Federal-aid projects and no less than monthly on State funded projects.

***Penalties for Noncompliance***

The Contractor is advised, if these payrolls are not supplied within the prescribed deadlines, any or all payments may be withheld until compliance is achieved. In addition, failure to provide these payrolls may result in other sanctions as provided by State laws (RCW 39.12.050) and/or Federal regulations (29 CFR 5.12).

**(October 1, 2020 APWA GSP, Option A)**

**1-07.11 Requirements for Nondiscrimination**

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. As such, the requirements of this Contract are to make affirmative efforts to solicit DBEs, provide information on who submitted a Bid or quote and to report DBE participation monthly as

described elsewhere in these Contract Provisions. No preference will be included in the evaluation of Bids/Proposals, no minimum level of DBE participation shall be required as a Condition of Award and Bids/Proposals may not be rejected or considered non-responsive on that basis.

#### **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. The on-line Directory is available to Contractors 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 material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.”*

**Contract** – For this Special Provision only, this definition supplements Section 1-01.3. 49 CFR 26.5 defines contract as: *“... a legally binding relationship obligating a seller to furnish supplies or services (including, but not limited to, construction and professional services) and the buyer to pay for them. For purposes of this part, a lease is considered to be a contract.”*

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

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

**Manufacturer (DBE)** – A DBE firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or

equipment required under the Contract. A DBE Manufacturer shall produce finished goods or products from raw or unfinished material or purchase and substantially alters goods and materials to make them suitable for construction use before reselling them.

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

#### **DBE Goals**

No DBE goals have been assigned as part of this Contract.

#### **Affirmative Efforts to Solicit DBE Participation**

The Contractor shall not discriminate on the grounds of race, color, sex, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. DBE firms shall have an equal opportunity to compete for subcontracts in which the Contractor enters into pursuant to this Contract.

Contractors are encouraged to:

1. Advertise opportunities for Subcontractors or suppliers in a timely and reasonably designed manner to provide notice of the opportunity to DBEs capable of performing the Work. All advertisements should include a Contract Provision encouraging participation by DBE firms. This may be accomplished through general advertisements (e.g. newspapers, journals, etc.) or by soliciting Bids/Proposals directly from DBEs.
2. Establish delivery schedules that encourage participation by DBEs and other small businesses.
3. Participate with a DBE as a joint venture.

#### **DBE Eligibility/Selection of DBEs for Reporting Purposes Only**

Contractor may take credit for DBEs utilized on this Contract only if the firm is certified for the Work being performed, and the firm performs a commercially useful function (CUF).

Absent a mandatory goal, all DBE participation that is attained on this project will be considered as "race neutral" participation and shall be reported as such.



**Crediting DBE Participation**

All DBE Subcontractors shall be certified before the subcontract on which they are participating is executed.

Be advised that although a firm is listed in the directory, there are cases where the listed firm is in a temporary suspension status. The Contractor shall review the OMWBE Suspended DBE Firms list. A DBE firm that is included on this list may not enter into new contracts that count towards participation.

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 equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces. 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.

If a DBE subcontracts a portion of the Work of its contract to another firm, the value of the subcontracted Work may be credited only if the DBE's Lower-Tier Subcontractor is also a DBE. Work subcontracted to a non-DBE shall not be credited.

Count expenditures toward race/gender-neutral participation only if the DBE is performing a CUF on the contract.

**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. The subcontract agreement shall incorporate requirements of the primary

Contract. Subcontract agreements of all tiers, including lease agreements shall be readily available at the project site for the Engineer review.

### **DBE Service Provider**

The value of fees or commissions charged by a DBE Broker, a DBE 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.

### **Temporary Traffic Control**

If the DBE firm is being utilized in the capacity of only "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 (e.g. paddles, hard hats, and vests).

If the DBE firm is being utilized in the capacity of "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. In addition, if the DBE firm utilizes the Contractor's equipment, such as Transportable Attenuators and Portable Changeable Message Signs (PCMS) no DBE credit can be taken for supplying and operating the items.

### **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. 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.

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

The DBE may lease additional trucks from another DBE firm. The Work that a DBE trucking firm performs with trucks it leases from other certified DBE trucking firms qualify for 100% DBE credit

The trucking Work subcontracted to any non-DBE trucking firm will not receive credit for Work done on the project. The DBE may lease trucks from a non-DBE truck leasing company, but can only receive credit as DBE participation if the DBE uses its own employees as drivers.

DBE credit for a truck broker is limited to the fee/commission that the DBE receives for arranging transportation services.

Truck registration and lease agreements shall be readily available at the project site for the Engineer review.

### **DBE Manufacturer and DBE Regular Dealer**

One hundred percent (100%) of the cost of the manufactured product obtained from a DBE Manufacturer can count as DBE participation.

Sixty percent (60%) of the cost of materials or supplies purchased from a DBE Regular Dealer may be credited as DBE participation. If the role of the DBE Regular Dealer is determined to be that of a pass-through, then no DBE credit will be given for its services. If the role of the DBE Regular Dealer is determined to be that of a Broker, then DBE credit shall be limited to the fee or commission it receives for its services. Regular Dealer status and the amount of credit is determined on a Contract-by-Contract basis.

Regular Dealer DBE firms must be approved before being used on a project. The WSDOT Approved Regular Dealer list published on WSDOT's Office of Equal Opportunity (OEO) web site must include the specific project for which approval is being requested. The Regular Dealer must submit the Regular Dealer Status Request form a minimum of five days prior to being utilized on the specific project.

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

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

### **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 readily available for review by the Engineer.

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 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.

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 shall with its own workforce, 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.

### **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 and installing and paying for the material itself.” The Contractor shall submit DBE Joint Check Request Form for the Engineer approval prior to using a joint check.

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

### **Prompt Payment**

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

### **Reporting**

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

Refer to Section 1-08.1 for additional reporting requirements associated with this Contract.

### **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**

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.

### **Payment**

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

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

#### **1-07.14 Responsibility for Damage**

Section 1-07.14 is supplemented with the following:

The Contractor further agrees that it is waiving immunity under Industrial Insurance Law Title 51 RCW for any claims brought against the City by its employees. In the event Contractor fails, after receipt of timely notice from the City, to appear, defend, or pay as required by the first paragraph of this section, then in that event and in that event only, the City may in its sole discretion, deduct from the progress payments to the Contractor and pay any amount sufficient to pay any claim, of which the City may have knowledge and regardless of the informalities of notice of such claim, arising out of the performance of this contract, provided the City has theretofore given notice of receipt of such claim to the Contractor and the Contractor has failed to act thereon.

#### **1-07.15 Temporary Water Pollution/Erosion Control**

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

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

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

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

1. Replace all references to "WSDOT" as either the Contracting Agency or project owner with "City of Kirkland", except where indicated in this Section.
2. Add into all Spill Reporting and related section(s): "The City of Kirkland Spill Response Hotline at (425) 587-3900 shall be the first point of contact in the event of a spill. Notification to the City of Kirkland Spill Response Hotline shall precede the spill notifications to federal and state agencies."
3. Delete all references to the "WSDOT Environmental Compliance Assurance Procedure" (ECAP) in the SPCC.

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

For SPCC Plan Element Requirement Number 2, add the following: "The City of Kirkland Spill Response Hotline at (425) 587-3900 shall be the first point of contact in the event of a spill."

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

(\*\*\*\*\*)

**Payment**

Paragraphs 1 to 4 are revised with the following:

Preparation and update of the SPCC Plan shall be considered incidental to other bid items.

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

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

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

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

**U.S. Postal Service Collection Boxes, Mail Receptacles, and other Structures:** U.S. Postal Service collection box and other Structures requiring temporary relocation to accommodate construction, the Contractor shall contact the Kirkland Postmaster at least 5 Working Days in advance for coordination. Only the U.S. Post Office will move Postal Service-owned property.

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

**1-07.17 Utilities and Similar Facilities**

Section 1-07.17 is supplemented with the following:

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

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

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

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

1. Water, sewer, storm, streets – minimum two working days in advance
2. Power (Electric and Natural Gas) – minimum 48 hours in advance
3. Telephone – minimum 30 days in advance
4. Natural Gas – minimum 48 hours in advance
5. Cable Television – minimum 48 hours in advance
6. Transit – minimum 21 days in advance

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

Utility	Agency/Company	Address	Contact	Phone
Water/Sewer	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Tom Chriest	(425) 587-3910
Storm Drainage	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Jason Osborn	(425) 587-3900
Water / Sewer (North area of Kirkland)	Northshore Utility District	6380 NE 185th St Kenmore, WA 98028	George Matote Kelly Nesbitt	(425) 398-4400 (425) 521-3750
Street	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Ryan Fowler	(425) 587-3900
Natural Gas	Puget Sound Energy	35131 SE Center St Snoqualmie, WA 98065	Kiara Skye	(425) 213-9205
Electric	Puget Sound Energy	35131 SE Center St Snoqualmie, WA 98065	Kiara Skye	(425) 213-9205
Telephone/ FIOS	Ziply Fiber	P.O. Box 1127 Everett, WA 98206	Cheryl Schneider	(509) 218-1294
FIOS	Zayo	22651 83 <sup>rd</sup> Ave. S. Kent, WA 98032	Jason Accuradi	(971) 344-0530
Cable FIOS	Lumen	22817 SE Issaquah- Fall City Rd., Issaquah, WA 98029	Kayvan Fassnacht	(425) 213-9378
Cable Television	Comcast	1525 - 75th St SW, Suite 200 Everett, WA 98203	Chris Combs	(425) 273-7832
Network	Verizon/MCI	11311 NE 120 <sup>th</sup> St Kirkland, WA 98034	Brad Landis Scott Christenson	(425) 201-0901 (425) 471-1079
School District Transportation	Lake Washington School District	15212 NE 95th St Redmond, WA 98052	Jeff Miles	(425) 936-1120
Transit	King County METRO	MS SVQ-TR-0100 1270 6th Ave S Seattle, WA 98134	David Freeman	(206) 477-1140 (206) 477-0438
Water (Northeast area of Kirkland)	Woodinville Water District	17238 NE Woodinville Duvall Road, Woodinville, WA 98072	Ken McDowell	(425) 487-4104



Utility	Agency/Company	Address	Contact	Phone
Olympic Pipeline	BP		Kenneth Metcalf Joseph Stone	(425) 981-2575 (425) 981-2506

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.

Wherever in the course of the construction operation it becomes necessary to cause an outage of utilities, it shall be the Contractor's responsibility to notify the affected users not less than twenty-four (24) hours in advance of the creation of such outage. The Contractor shall make reasonable effort to minimize the duration of outages.

The Contractor shall be responsible for any breakage of utilities or services resulting from its operations and shall hold the City and its agents harmless from any claims resulting from disruption of, or damage to, same.

#### ***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 two working days advance Written Notice prior to entry by the Contractor.

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 City Signal Shop at (425) 587-3920 to coordinate temporary signal wire disconnect and installation of temporary signal detection equipment.

Survey Monuments: When proposed pavement removal is close to existing survey monumentation, or proposed pavement removal includes existing survey monumentation, the Contractor shall provide a minimum 4 Working Days advance notice to the Engineer to allow survey crews to tie the monument out and reset the monument after pavement installation.

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

#### ***1-07.17(2) Utility Construction, Removal or Relocation by Others***

Section 1-07.17(2) is supplemented with the following:

Under no circumstances will discrepancies in location or incompleteness in description of existing utilities or improvements, whether they are visible from the surface, buried, or

otherwise obscured, be considered as a basis for additional compensation to the Contractor.

***(January 4, 2016 APWA GSP)***

#### **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**

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

Verification of coverage shall include:

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

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

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

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

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

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

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

The Commercial General Liability insurance shall be endorsed to provide a per project 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.

**(January 4, 2016 APWA GSP)**

1-07.18(5)D Excess or Umbrella Liability

The Contractor shall provide Excess or Umbrella Liability insurance with limits of not less than **three million dollars (\$3,000,000)** 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.

**(January 4, 2016 APWA GSP)**

1-07.18(5)K Professional Liability

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

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

If insurance is 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.

***(January 1, 2016 APWA GSP)***

**1-07.23 Public Convenience and Safety**

Section 1-07.23 is supplemented with the following:

No road or street shall be closed to the public except as permitted in these plans and specifications or with the approval of the Engineer and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to fire fighting equipment at all times. Provision shall be made by the Contractor to ensure the proper functioning of all gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses, and storm sewer facilities throughout the project. Temporary interruption of service will be allowed only with the permission of the Engineer.

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

The Contractor shall conduct its work and take preventative measures so that dust or other particulate matter in the project area shall not become objectionable to the adjacent property owners or general public. Should the Owner determine the Contractor is not fulfilling its obligation in this regard; the Owner reserves the right to take such action as may be necessary to remedy the objectionable condition and to charge the Contractor with any cost that may be incurred in such remedial action. All work shall be carried on with due regard for the safety of the public. No driveway, whether public, commercial, or private, may be closed without prior approval of the Owner, project supervisor, or Engineer unless written authority has been given by the affected property owner. The Contractor shall be responsible for notifying the affected property owners 24 hours in advance of scheduled interruptions to access.

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

***Pedestrian Control and Protection***

When the work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration must be given to pedestrian safety. Maximum effort must be made to separate pedestrians from the work area. Protective barricades, fencing, and bridges, together with warning and guidance devices and signs, shall be utilized so that the passageway for pedestrians is safe and well defined. Whenever pedestrian walkways are provided across excavations, they shall be provided with suitable handrails. Footbridges shall be safe, strong, free of bounce and sway, have a slip resistant coating, and be free of cracks, holes, and irregularities that could cause tripping. Ramps shall be provided at the entrance and exit of all raised footbridges, again to prevent tripping. Adequate illumination and reflectorization shall be provided during hours of darkness. All walkways shall be maintained with at least 4 feet clear width.

Where walks are closed by construction, an alternate walkway shall be provided, preferably within the planting strip.

Where it is necessary to divert pedestrians into the roadway, barricading or channeling devices shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. At no time shall pedestrians be diverted into a portion of a street used concurrently by moving vehicular traffic.

At locations where adjacent alternate walkways cannot be provided, appropriate signs shall be posted at the limits of construction and in advance of the closure at the nearest crosswalk or intersection to divert pedestrians across the street.

Physical barricades shall be installed to prevent visually impaired people from inadvertently entering a closed area. Pedestrian walkways shall be wheelchair accessible at all times. Pedestrian access shall be maintained to all properties adjacent to the construction site.

***(July 23, 2015, APWA GSP)***

#### **1-07.24 Rights of Way**

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)**

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 detailed below) for all properties disturbed or damaged by the Contractor's operations.

<b>PROPERTY RELEASE</b>	
<div style="text-align: center; margin-bottom: 10px;"> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> <div style="text-align: center; margin-bottom: 10px;"> <i>(Contractor's name and address)</i> </div> <div> DATE: <div style="border-bottom: 1px solid black; width: 100%;"></div>  I, <div style="border-bottom: 1px solid black; width: 100%;"></div> owner of  <div style="border-bottom: 1px solid black; width: 100%;"></div>, hereby release <div style="border-bottom: 1px solid black; width: 100%;"></div>,  <div style="border-bottom: 1px solid black; width: 100%;"></div> <i>(Contractor's name)</i>  from any property damage or personal injury resulting from construction on or adjacent to my  property located at <div style="border-bottom: 1px solid black; width: 100%;"></div>  during construction of the <div style="border-bottom: 1px solid black; width: 100%;"></div>. My signature below is  my acknowledgment and acceptance that my property, as identified above, was returned to a  satisfactory condition. </div>	<div style="margin-top: 100px;"> Signed: <div style="border-bottom: 1px solid black; width: 100%;"></div>  Name: <div style="border-bottom: 1px solid black; width: 100%;"></div>  Address: <div style="border-bottom: 1px solid black; width: 100%;"></div>  <div style="border-bottom: 1px solid black; width: 100%;"></div>  Phone: <div style="border-bottom: 1px solid black; width: 100%;"></div>  <div style="border-bottom: 1px solid black; width: 100%;"></div> </div>

**1-07.28 Additional Potholing (\*\*\*\*\*)**

Add the following new section:

A bid item has been included in the bid proposal. The bid item may be used as a contingency when required by the Engineer to determine the location of existing utilities. The Engineer will identify locations to pothole. This Bid Item does not replace the Contractor's responsibility to locate utilities impacted by construction activities.



The bid item for additional potholing will only be used at the direction of the Engineer.

Payment will be made for the following bid items:

Additional Potholing	Per Each
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## **1-08 PROSECUTION AND PROGRESS**

Add the following new section:

***(May 25, 2006 APWA GSP)***

### **1-08.0 Preliminary Matters**

Add the following new section:

***(October 10, 2008 APWA GSP)***

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

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

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

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

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

Add new Section 1-08.0(2).

#### **1-08.0(2) Hours of Work**

Except in the case of emergency, unless otherwise indicated in the Contract Documents, or unless otherwise approved by the Contracting Agency in advance, the allowable working hours for this Contract Work shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day. A maximum 1-hour lunch break is allowable between 7:00 a.m. and 6:00 p.m. and does not count for purposes of the 8-hour working period. The Contract

assumes a 5-day work week, exclusive of weekends and holidays observed by the City of Kirkland and identified in Section 1-08.5 of the Standard Specifications.

The normal straight time 8-hour working period for the contract shall be established at the preconstruction conference or prior to the Contractor commencing the Work.

Except in the event of an emergency, unless otherwise indicated in the Contract Documents, or unless otherwise approved in advance by the Contracting Agency (including the Contractor obtaining approval for all applicable City of Kirkland permits as required by the City of Kirkland Zoning Code), no Work shall be allowed between the hours of 6:00 p.m. and 7:00 a.m., during weekends (except driveway construction), or during holidays observed by the City of Kirkland and identified in Section 1-08.5 of the Standard Specifications.

The Contracting Agency may consider specific and limited requests by the Contractor to allow Work during one or more periods in which Work is not allowed by this Section, but approval of these requests is solely at the discretion of the Contracting Agency as a benefit to the general public. Contractor shall submit a request in writing to the Engineer, including a full and accurate explanation of the type(s) of work to be performed, the period or periods of time outside normal Work hours, and the explanation(s) for why this work cannot be performed during the allowable Work hours.

The Engineer will consider requests and determine conditions and limitations as the Engineer deems necessary, in conformance with the conditions of support for local permitting described in Section 1-07.6 of the Standard Specifications and these Special Provisions. These conditions and limitations are additional to any conditions or limitations that may be required by Contracting Agency permits and/or variances. These conditions may include, but are not limited to:

1. Require the Engineer or such assistants as the Engineer may deem necessary to be present during the Work, including (but not limited to):
  - a. Survey crews
  - b. Personnel from the Contracting Agency's material testing laboratory
  - c. Inspectors
  - d. City operations and maintenance staff
  - e. Police, fire, or other public safety officials
  - f. Any other Contracting Agency employees who, in the opinion of the Engineer, are a necessary presence for the Work outside of the allowable working hours;
2. Require the Contractor to reimburse the Contracting Agency for all additional costs and expenses in excess of straight-time costs incurred for Contracting Agency employees and expenses during such times;
3. Measure Work performed on nights, weekend days, and holidays as working days with regards to the Contract Time; and/or,
4. Consider multiple work shifts (such as a sequential 8-hour day period followed by an 8-hour night period) as multiple working days with respect to Contract Time, even if those multiple shifts occur in a single 24-hour period.

If the Engineer approves the Contractor's written request and all conditions and/or restrictions the Engineer applies to that approval are acceptable by the Contractor, the Contractor shall be responsible for obtaining work hours and noise variances as required by Section 1-07.6. The Contractor shall apply to the City of Kirkland Planning and Building Department using <http://mybuildingpermit.com>. The Engineer can provide supporting documentation, as deemed appropriate by the Engineer, to the Contractor for submission with this application.

Unless otherwise indicated in the Contract Documents or indicated by the Engineer in writing, no claims for equitable adjustments of Contract will be allowed for review and approval time frames for the Contractor to obtain approval for requests to Work outside the approved working hours in this Section. No claims for equitable adjustments of the Contract will be allowed for requirements, including limitations, in approvals to work outside of the allowed working hours in this Section.

Approved Work outside the allowable working hours in this Section is subject to additional noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency's noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor's operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

#### ***Arterial Streets***

No work will be performed on arterial streets during the peak traffic hours of 7:00 a.m. – 9:00 a.m. and 3:00 p.m. – 6:00 p.m., except emergency work to restore services, unless a City-approved traffic control plan allows work during the peak hours. The following streets are classified as arterials:

<b><i>STREET</i></b>	<b><i>FROM</i></b>	<b><i>TO</i></b>
Central Way/NE 85th St	Market St	132nd Ave NE
Juanita Dr NE /NE Juanita Dr	NE 143 <sup>rd</sup> St (City Limits)	98th Ave NE
Juanita Woodinville Way	100 <sup>th</sup> Ave NE	NE 145 <sup>th</sup> St (City Limits)
Lake St/Lake Washington Blvd/Northup Wy	Central Way	Northup Way (City Limits)
Kirkland Ave/Kirkland Way	Lake St	NE 85 <sup>th</sup> St
Lakeview Dr /NE 68th St/NE 70th St	Lake Washington Blvd	132nd Ave NE
Market St/98th Ave NE/100th Ave NE	Central Way	NE 145 <sup>th</sup> St (City Limits)
NE 116th St	98th Ave NE	Slater Ave NE
NE 120th St/132nd Ave NE	Slater Ave NE	NE 60th St (City Limits)
NE 124th St	100th Ave NE	East City Limits
NE 128th St	116 <sup>th</sup> Ave NE/116 <sup>th</sup> Way NE	120 <sup>th</sup> Ave NE
Simonds Rd NE	92 <sup>nd</sup> Ave NE (City Limits)	100 <sup>th</sup> Ave NE
Slater Ave NE	NE 116 <sup>th</sup> St	NE 124 <sup>th</sup> St
Totem Lake Blvd	NE 132nd St	124th Ave NE

<b>STREET</b>	<b>FROM</b>	<b>TO</b>
3 <sup>rd</sup> Street/State Street	Central Way	NE 68 <sup>th</sup> Street/Lakeview Dr.
6 <sup>th</sup> St/6 <sup>th</sup> St S/108 <sup>th</sup> Ave NE	Central Way/NE 85 <sup>th</sup> St	South City Limits
90 <sup>th</sup> Ave NE/NE 131st Way/NE 132nd St	NE 134 <sup>th</sup> St	132nd Ave NE
120 <sup>th</sup> Ave NE/116 <sup>th</sup> Ave NE/116 <sup>th</sup> Way NE	NE 112 <sup>th</sup> St	NE 132 <sup>nd</sup> St
124th Ave NE	NE 85th St	NE 124th St
124th Ave NE	NE 132 <sup>nd</sup> St	NE 145 <sup>th</sup> Pl (City Limits)

### **1-08.0(2) Hours of Work (\*\*\*\*)**

#### ***Non-Arterial Streets***

Work will be performed on non-arterial streets between the hours of 7:00 a.m. to 4:00 p.m., except emergency work to restore services, unless a City-approved traffic control plan allows work during the peak hours or restricted by a special permit. No new excavation shall begin after 3:30 p.m.

#### ***Public Right-of-Way***

No work in public rights-of-way are allowed on Saturday, Sunday, and holidays observed by the City of Kirkland.

#### ***Service Interruptions***

Service interruption that affects institutional or commercial water users shall occur **and be completed between 9:00pm and 7:00 am, outside of business hours, unless directed by the Engineer.**

***(May 30, 2019 APWA GSP, Option B)***

### **1-08.1 Subcontracting**

Delete the ninth paragraph, beginning with "On all projects, the Contractor shall certify..."

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

### **1-08.1 Subcontracting**

Section 1-08.1 is supplemented with the following:

A Subcontractor or an Agent to the 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 (form 421-012).
2. Statement of Intent to Pay Prevailing Wages (Form 700-029-000).

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Department 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 Agents shall be open to similar inspection or audit for the same period.

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

### **1-08.3 Progress Schedule**

The order of work will be at the Contractor's option, in keeping with good construction practice and the terms of the contract. All work shall be carried out in accordance with the requirements of the City of Kirkland in compliance with the plans and specifications. However, the Contractor shall so schedule the work within the time constraints noted in the various contract documents, including any permits. The Contractor is cautioned to review said documents and permits and schedule the work appropriately as no additional compensation will be made to the Contractor due to the time constraints imposed by such documents.

***(March 13, 2012 APWA GSP)***

#### 1-08.3(2)A Type A Progress Schedule

Revise this section to read:

The Contractor shall submit **electronic** copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

***(July 23, 2015 APWA GSP)***

### **1-08.4 Prosecution of Work**

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

#### **1-08.4 Notice to Proceed and Prosecution of Work**

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence.

No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

**(November 30, 2018 APWA GSP, Option A)**

**1-08.5 Time for Completion**

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 any partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, 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. Documentation of compliance with all terms and conditions of all local, state, and federal permits issued to, or transferred to, the Contractor for the purposes of this Work. This documentation does not include permits issued to the Contracting Agency that were not transferred to the Contractor.
- h. Property owner releases per Section 1-07.24.

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

Section 1-08.5 is supplemented with the following:

This project shall be physically completed in its entirety within **130** working days.

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

#### **1-08.9 Liquidated Damages**

The third paragraph of Section 1-08.9 is revised to read as follows:

Accordingly, the Contractor agrees:

1. To pay (according to the following formula) liquidated damages 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 to the Contractor.

#### **LIQUIDATED DAMAGES FORMULA**

For  $C > \$50,000 \rightarrow LD = 0.15 \times C \div T$ , and

For  $C \leq \$50,000 \rightarrow LD = 0.30 \times C \div T$ .

Where:

LD = liquidated damages per working day (rounded to the nearest dollar)

C = original Contract amount

T = original time for Physical Completion

#### **1-09 MEASUREMENT AND PAYMENT**

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

##### **1-09.2(1) General Requirements for Weighing Equipment**

The second to last last paragraph of Section 1-09.2(1) is supplemented with the following:

### ***Trucks and Tickets***

All tickets shall, at a minimum, contain the following information:

1. Ticket serial number
2. Date and hour of weighing
3. Weigher's identification

Duplicate tally tickets shall be prepared to accompany each truckload of materials delivered to the project.

It is the responsibility of the Contractor to see that tickets are given to the Inspector on the project for each truckload of material delivered. Pay quantities will be prepared on the basis of said tally tickets, delivered to the Inspector at time of delivery of materials. Tickets not collected at the time of delivery will not be honored for payment.

***(May 2, 2017 APWA GSP)***

#### **1-09.2(5) Measurement**

Revise the first paragraph to read:

**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.

#### **1-09.3 Scope of Payment (\*\*\*\*\*)**

Section 1-09.3 is supplemented with the following:

These Special Provisions may describe work that is not covered in the Standard Specifications. Such work shall comply first with the Special Provisions and then the Standard Specifications. If a pay item has not been provided for the described work it shall be considered **incidental** to the project.

***(October 10, 2008 APWA GSP)***

#### **1-09.6 Force Account**

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 Engineer.

***(December 10, 2020 APWA GSP)***

#### **1-09.7 Mobilization**

Delete this Section and replace it with the following:



Mobilization consists of preconstruction expenses and the costs of preparatory Work and operations performed by the Contractor which occur before 10 percent of the total original amount of an individual Bid Schedule is earned from other Contract items on that Bid Schedule. Items which are not to be included in the item of Mobilization include but are not limited to:

1. Any portion of the Work covered by the specific Contract item or incidental Work which is to be included in a Contract item or items.
2. Profit, interest on borrowed money, overhead, or management costs.
3. Any costs of mobilizing equipment for force account Work.

Based on the lump sum Contract price for "Mobilization", partial payments will be made as follows:

1. When 5 percent of the total original Bid Schedule amount is earned from other Contract items on that original Bid Schedule, excluding amounts paid for materials on hand, 50 percent of the Bid Item for mobilization on that original Bid Schedule, 5 percent of the total of that original Bid Schedule, or 5 percent of the total original Contract amount, whichever is the least, will be paid.
2. When 10 percent of the total original Bid Schedule amount is earned from other Contract items on that original Bid Schedule, excluding amounts paid for materials on hand, 100 percent of the Bid Item for mobilization on that original Bid Schedule, 10 percent of the total of that original Bid Schedule, or 10 percent of the total original Contract amount, whichever is the least, will be paid.
3. When the Substantial Completion Date has been established for the project, payment of any remaining amount Bid for mobilization will be paid.

Nothing herein shall be construed to limit or preclude partial payments otherwise provided by the Contract.

(\*\*\*\*)

Payment will be made for the following bid items:

*Schedules A and B:*

Mobilization (Limited to 10 Percent of Other Bid Schedule Items & Excluding Sales Tax)	Per Lump Sum
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*Schedule C:*

Mobilization (Limited to 10 Percent of Other Bid Schedule Items & Including Sales Tax)	Per Lump Sum
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**(March 13, 2012 APWA GSP)**

## **1-09.9 Payments**

Supplement this section with the following:

Lump sum item breakdowns are not required when the bid price for the lump sum item is less than \$20,000.

**(March 13, 2012 APWA GSP)**

#### **1-09.9 Payments**

Delete the first four paragraphs and replace them with the following:

The basis of payment will be the actual quantities of Work performed according to the Contract and as specified for payment.

The Contractor shall submit a breakdown of the cost of lump sum bid items at the Preconstruction Conference, to enable the Project Engineer to determine the Work performed on a monthly basis. A breakdown is not required for lump sum items that include a basis for incremental payments as part of the respective Specification. Absent a lump sum breakdown, the Project Engineer will make a determination based on information available. The Project Engineer's determination of the cost of work shall be final.

Progress payments for completed work and material on hand will be based upon progress estimates prepared by the Engineer. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payments. The progress estimates are subject to change at any time prior to the calculation of the final payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump sum breakdown for that item, or absent such a breakdown, based on the Engineer's determination.
3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or other storage area approved by the Engineer.
4. Change Orders — entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of progress payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed.

The determination of payments under the contract will be final in accordance with Section 1-05.1.

***(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.

***(November 30, 2018 APWA GSP)***

***1-09.11(3) Time Limitation and Jurisdiction***

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that any claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that any such claims or causes of action shall be brought only 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. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to any such claims or causes of action. It is further mutually agreed by the parties that when any claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to any records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

**1-09.13 Claims Resolution**

***(February 1, 2021 COK GSP)***

***1-09.13(3) Claims \$250,000 or Less***

Delete this Section and replace it with the following:

The Contractor and the Contracting Agency mutually agree that those claims that total \$250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding Alternative Dispute Resolution (ADR) processes, **provided Contracting Agency agreed to engage such ADR processes**, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

***(November 30, 2018 APWA GSP)***

***1-09.13(3)A Administration of Arbitration***

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW

36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

## **1-10 TEMPORARY TRAFFIC CONTROL**

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

### **1-10.2 Traffic Control Management**

#### **1-10.2(2) Traffic Control Plans**

The first and second sentences of Section 1-10.2(2) are deleted and replaced with the following:

The Contractor shall submit a traffic control plan or plans showing a method of handling traffic including pedestrian and bicycle traffic. All construction signs, flaggers, spotters and other traffic control devices shall be shown on the traffic control plan(s) except for emergency situations.

***(\*\*\*\*\*)***

The traffic control plan shall include multiple stages corresponding to closure of successive side streets as the work progresses and signage specific to the successive stages.

The traffic control plan and schedule shall be updated immediately to reflect any changes in the proposed construction activities. Engineer may request an updated traffic control plan if they observe a variation from the contractor's current plan. Such update shall be provided within 24 hours of the request.

The traffic control plan shall designate a traffic control supervisor who shall be present on the jobsite daily. Provide a 24—hour contact telephone number for the traffic control supervisor.

The traffic control plan shall include the following requirements:

1. No two intersections may be fully closed at any one time. Residents and businesses within the project zone shall be notified of the work as provided herein and may be restricted for driving into the closure zone during work hours.
2. At the end of work hours, a maximum of 20 feet of unfilled trench line may be left below grade and sheeted. Contractor shall properly shore excavation below the sheet, secure the sheet, ramp the edges of the sheet, and provide appropriate signs. The engineer may revoke this allowance if the contractor fails to properly shore excavation below the sheet, secure the sheet, ramp the edges of the sheet, or provide appropriate signs.
3. As the work zone progresses, the contractor shall distribute City—provided written notices to each resident and business whose driveway will be within the area impacted by a proposed lane closure or blockage during pipe fusing. A first notice shall be provided 4 working days prior to the closure of the road segment and a second the afternoon prior to the closure.

4. Contractor shall coordinate uninterrupted service by US mail, other delivery services, and garbage/recycling services and coordination of route revisions with applicable transit agencies.
5. Contractor shall maintain access for emergency services at all times and shall limit construction activities, including trenching and materials storage, in such a way as to allow immediate access through the work zone for emergency vehicles. Contractor shall have steel sheets onsite suitable to span all excavations and make the roadway safely passable for any emergency vehicle.
6. Contractor shall maintain local access to driveways for vehicular traffic at all times and shall limit construction activities, including trenching and materials storage, in such a way as to allow access through the work zone for vehicles with a delay of no more than 15 minutes. Contractor shall have steel sheets onsite suitable to span all excavations and make the roadway safely passable for vehicles.
7. Pedestrian traffic must be maintained at all times in accordance with section 1-07.23(1) of the special provisions. If at any point, the designated pedestrian corridor will be disturbed by construction activities, provide appropriate signage, barricades, and/or pavement markings as needed to detour pedestrian traffic around the work zone.
8. Damaged or missing signs and traffic controls shall be replaced by the Contractor.
9. Existing street lighting systems shall remain in service throughout construction.
10. Upon failure of the Contractor to provide necessary traffic controls or to implement any portion of the traffic control plan, the city may implement such measures and deduct the cost from payments owed to the contractor.
11. All roadways and pedestrian routes shall be kept clean at all times to allow safe travel and minimize dust.

**(May 16, 2006 COK GSP)**

### **1-10.3 Traffic Control Labor, Procedures, and Devices**

#### 1-10.3(1)B Other Traffic Control Labor

Section 1-10.3(1)B is supplemented with the following:

#### **Off Duty Police**

When construction activities occur at or near a signalized intersection, the Contractor shall provide an off-duty uniformed police officer to control the flow of traffic through the intersection. It is the Contractor's responsibility to coordinate the scheduling of the Uniformed Police Officer (UPO).

#### 1-10.3(3)A Construction Signs (\*\*\*\*\*)

Section 1-10.3(3)A is supplemented with the following:

All signs required by the approved traffic control plan(s) as well as any other signs as may be required during construction or as prescribed by the Engineer will be furnished by the Contractor. The Contractor shall provide the posts or supports and erect and maintain the signs in a clean, neat, and presentable condition until the necessity for them has ceased.

Temporary signing not necessary to maintain vehicular or pedestrian safety overnight shall be covered or removed at the end of work each day and reinstalled or uncovered prior to start of work the next day.

Construction signs that are placed and removed daily, or are used for short duration's which may extended for one or more days shall be mounted on portable or temporary mountings. If it is necessary to add weight to these signs for stability, only a bag of sand that will rupture on impact shall be used. The bag of sand shall (1) be furnished by the Contractor, (2) have a maximum weight of 40 pounds, and (3) be suspended no more than 1 foot from the ground. The Engineer shall make the final determination of whether a construction sign is of short or extended duration.

Signs, posts, and supports that are lost, stolen, damaged, destroyed, or which the Engineer deems to be unacceptable shall be replaced by the Contractor without additional compensation.

**(April 18, 2018 COK GSP)**

1-10.3(3)C Portable Changeable Message Sign

Supplement this section with the following:

Two Portable Changeable Message Signs (PCMS) shall be provided for the duration of the project. Proposed locations shall be shown on Traffic Control Plan(s) submitted by the contractor. Contractor shall submit proposed message(s) to be displayed and receive approval by the Engineer prior to placement. Contractor is responsible for programming of the approved message into the PCMS('s), set-up, placement, and removal upon project completion.

**1-10.5 Payment**

**(January 23, 2006, APWA GSP)**

**1-10.5(1) Lump Sum Bid for Project (No Unit Items) (\*\*\*\*\*)**

Revise the pay item name to read:

Project Temporary Traffic Control (Minimum Bid \$50,0000)	Per Lump Sum
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All traffic control costs shall be included in the bid item "Project Temporary Traffic Control" including flaggers and spotters, traffic control labor, traffic control supervisor, construction signs, traffic control plans, variable message boards, and other temporary traffic control.

At a minimum, two flaggers shall be provided each day, or as directed by the Engineer, during trench excavation, installation of pipes, manholes and appurtenances, backfilling, and pavement restoration, or any such operation that requires traffic control.

A minimum of 2 variable message boards shall be used.

Signage shall be increased and/or modified to accommodate work as it progresses.

**(May 16, 2006 COK GSP)**

**1-10.5(3) Reinstating Unit Items with Lump Sum Traffic Control**

Supplement this Section with the following:

“Project Temporary Traffic Control”, lump sum.

Costs for layout, installation, removal, and transport of project signage shall be included with the Contract lump sum price for “Project Temporary Traffic Control.” This Bid item shall also constitute full compensation for all labor, tools, equipment, and materials necessary and incidental to maintaining temporary driving surface as required by Section 1-07.23(1), traffic and pedestrian control as required throughout the project duration in compliance with the MUTCD including, but not limited to, reflective signage, barricades, lights, traffic cones, and temporary pavement markings. Providing a minimum of two (2) flaggers and one (1) Traffic Control Supervisor during all periods of construction activities shall be included in the lump sum Bid item “Project Temporary Traffic Control”.

Providing, operating, and maintaining two (2) Portable Changeable Message Signs from 7 calendar days prior to the start of construction and throughout the project duration shall be included in the lump sum Bid item “Project Temporary Traffic Control”.

No separate payment will be made for preparation of the Traffic Control or Detour Plans. All costs for developing, updating, and implementing Traffic Control or Detour Plans shall be included in “Project Temporary Traffic Control”.

No separate payment will be made for materials used to maintain temporary traffic that are not incorporated into the final improvements. Such materials shall be included in and considered incidental to “Project Temporary Traffic Control”.

All costs for minimizing drop-offs and maintaining access to existing streets and driveways including, but not limited to, steel sheeting, and channelization devices, shall be included by the Contractor in the lump sum Bid price for “Project Temporary Traffic Control”. No additional or separate compensation will be allowed.

The Lump Sum bid item for “Project Temporary Traffic Control” shall cover the cost to provide temporary traffic control for the for each and every working day (the entire contract duration) allowed as defined in Section 1-08.5 of these Special Provisions. The total allowable working days defined for this contract includes sufficient time to complete all work associated with items paid as “Minor Change” and/or as other Force Account items. Should the Contractor complete the work in fewer working days than allowed the Contract Lump Sum item will be paid in full and shall be consider an incentive to the Contractor for early completion.

For additional working days approved via a change order for work that is not identified to be paid by force account, the daily cost for Project Temporary Traffic Control shall be determined by dividing the lump sum Contract price for “Project Temporary Traffic Control” by the original allowed contract working days as defined in Section 1-08.5 of these Special Provisions.

**END OF DIVISION 1**



## **DIVISION 2 – EARTHWORK**

### **2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP**

#### **2-01.1 DESCRIPTION (\*\*\*\*\*)**

Section 2-01.1 is supplemented with the following:

Do not remove trees, bushes, and shrubs except where necessary to install water services, water meters, side sewers, clean outs, hydrants, or other appurtenances shown on Plans.

Existing landscaping outside the limits shall be protected from damage by the Contractor's operations. All damaged landscaping due to the Contractor's operations outside the limits shall be replaced in coordination with the property owner at the Contractor's expense. Tree replacement shall be per COK Pre-Approved Plan CK-R.48.

Prune minor roots and branches of trees indicated to remain in a manner that will not compromise the survivability of the trees, where such roots and branches obstruct installation of new construction, under the field direction of the Engineer. Approval from the Engineer shall be obtained prior to cutting roots greater than two (2) inches in diameter.

Tree protection and treatment of roots exposed during construction shall be per COK Tree Protection Fencing Detail (previously COK Pre-Approved Plan CK-R.49).

***(February 17, 2022 COK GSP)***

#### **2-01.3(1) Clearing**

This Section is supplemented with the following:

8. Trees removal shall be performed in a manner that does not damage overhead utilities. The Contractor shall coordinate tree removal activities with the affected utility companies, including meeting all applicable requirements.

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

#### **2-01.3(2) Grubbing**

This Section is supplemented with the following:

3. Remove stumps of removed trees by grinding. Contractor shall grind stumps to a minimum of 6 inches below either the existing or final ground surface elevation, whichever is lower. The Contractor shall coordinate stump removal activities with the affected utility companies, including meeting all applicable requirements.

### **2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

#### **2-02.1 Description (\*\*\*\*\*)**

Section 2-02.1 is revised as follows:

The work shall include the removal of any and all surfacing, including asphalt concrete pavement, cement concrete pavement, cement concrete curb and gutter, and sidewalk regardless of the thickness of the material, storm drainage, and sanitary sewer cleanout, and neatly cutting and protecting tree roots as necessary for the construction of new facilities. The limits of removal shall be as shown on the Plans and/or as needed to construct the proposed improvements.

All costs for removal and disposal of materials necessary to construct the proposed improvements shall be considered incidental to and included in the unit contract prices of other items in this contract.

### **2-02.3 Construction Requirements (\*\*\*\*\*)**

Section 2-02.3 is supplemented with the following:

#### ***Sawcutting***

Where sawcutting is required, the sawcut shall be full depth. Care shall be taken to prevent damage to the remaining pavement. Any pavement damaged beyond the sawcut line shall be removed by sawcut and replaced at no cost to the City.

The Contractor shall be responsible for ensuring that special precautions are undertaken in accordance with Department of Ecology guidelines. No concrete (asphalt or cement) or concrete by-products are to be discharged into any storm drain or surface water. Cutting operations will increase the pH of water, therefore filtering is not acceptable.

Thoroughly clean saw cuts where necessary by the use of high pressure water (1,400 psi or greater). All wastewater shall be collected using vacuuming and/or pumped into containers for disposal. Collecting and disposal of waste water shall be considered incidental to and included in the various bid items involved with the operation.

The Contractor is advised that sawcutting shall be performed per these Special Provisions regardless of the number of passes necessary to complete the cut.

Impervious surfaces contaminated from cutting operations shall be cleaned by sweepers to prevent contaminants from entering storm systems.

The Contractor shall have the option to sawcut, wheel-cut, or to grind existing pavement for the initial trench excavation. However, sawcutting shall be used prior to final pavement patch.

### **2-02.3(3) Removal of Pavement, Sidewalks, Curbs and Gutters (\*\*\*\*\*)**

Section 2-02.3(3) is supplemented with the following:

Sidewalk and curb and gutter sections shall be removed at the nearest construction joint or crack control joint. Where a joint is not present, a sawcut shall be used for removal.

Sidewalk and curb and gutter damaged due to construction operations shall be replaced at the Contractor's expense to the satisfaction of the Engineer.

All removed materials shall become the property of the Contractor and shall be disposed of at a legal disposal site obtained by the Contractor.

## **2-02.4 Vacant (\*\*\*\*)**

Section 2-02.4 is supplemented with the following:

### ***Measurement***

The bid item for "Sawcutting" will be measured per linear foot of permanent trench patch, regardless of depth or type of material, along the cut line. Only final sawcutting associated with installation of the permanent trench patch will be measured under this bid item. Contractor shall perform site walk with Inspector prior to proceeding with grinding and overlay to confirm quantity of sawcutting. Failure to perform this task will result in City's measured field quantities being utilized in calculating payment.

## **2-02.5 Payment (\*\*\*\*)**

Section 2-02.5 is deleted and replaced with the following:

Payment shall be made in accordance with Section 1-04.1, for the following Bid item when it is included in the Proposal:

Sawcutting	Per Linear Foot
------------	-----------------

The unit contract price for "Sawcutting" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to provide saw cutting, cleanup, and disposal of debris and waste water as required. The saw cut shall be a minimum of 3 inches deep.

Payment will be made for up to twice the length of installed pipeline where permanent trench patch is shown on the Contract Plans, unless otherwise allowed by the Engineer. No additional payment will be made for additional saw cuts made to replace damaged or raveled edges. Payment per linear foot shall include all saw cutting regardless of depth or type of material cut. Sawcutting associated with installation of mains, services, manholes, curbs, gutters, curb ramps and other appurtenances shall be considered incidental to the related bid items.

## **2-03 ROADWAY EXCAVATION AND EMBANKMENT**

### **2-03.3(7) Disposal of Surplus Material**

#### **2-03.3(7)B Haul (\*\*\*\*)**

Section 2-03.3(7)B is revised as follows:

All costs in connection with hauling and disposal of surplus materials will be considered incidental to the various bid items of the project and no additional compensation will be made.

#### **2-03.3(7)C Contractor-Provided Disposal Site (\*\*\*\*)**

First paragraph of Section 2-03.3(7)C is revised follows:

A waste site has not been provided by the Contracting Agency for the disposal of material and debris. The Contractor shall make all arrangements, at Contractor's expense, for the

disposal of waste materials and shall protect the Contracting Agency from any and all damages arising there from.

## **2-06 SUBGRADE PREPARATION**

### **2-06.3 Construction Requirements**

#### **2-06.3(1) Subgrade for Surfacing (\*\*\*\*\*)**

The sixth paragraph of Section 2-06.3(1) is supplemented with the following:

The City will provide for compaction testing through the services of a contracted testing laboratory. The Project Engineer will determine the location of the compaction tests, the method of testing, and provide the "approval" of the testing results. All tests will be in accordance to Section 2.03.3(14)D.

The Contractor will be responsible for preparation and restoration of all test sites with his own equipment, labor, and materials. All costs for preparation and restoration of test sites shall be considered **incidental** to and included in the unit contract prices of other items in this contract.

Should any of the compaction tests fail these Specifications, the Contractor shall apply additional compaction effort to obtain the required compaction. No additional compensation will be provided for additional compaction.

## **2-07 WATERING**

### **2-07.3 Construction Requirements (\*\*\*\*\*)**

Supplement this Section with the following:

During construction, the Contractor shall have dedicated to the project, a suitable water truck that shall be operated as necessary to control dust. Failure to have a water truck immediately accessible to the job, and failure to use said water truck for dust control, shall be adequate reason to "shutdown" the project construction. Such shutdown is herein agreed to upon submitting a Bid for this project. Shutdowns due to the Contractor's failure to control dust shall not be considered as unworkable days.

Water for this project may be purchased from the City by the Contractor, depending on availability and demand. The City retains the exclusive right to operate all hydrants and valves; and if conditions warrant, the City can and may elect to restrict the use, amount, time, and location of the water source to best comply with the City's own needs. The Contractor shall provide backflow devices and a meter as required by the City. All costs for the water and equipment used shall be at the Contractor's expense. The Contractor shall apply at the City Public Works Department for a permit to use the City's fire hydrants prior to using any water for dust control or street cleaning.

Water placement includes that required for dust control while excavating for the street or the installation of the utilities, for processing and compacting the subgrade, and for dust control between the time of subgrade preparation and the placing of asphalt.

## **2-09 STRUCTURE EXCAVATION**

### **2-09.3 Construction Requirements (\*\*\*\*\*)**

Section 2-09.3 is supplemented with the following:

The Contractor shall have no more than 100 linear feet of trench open at any time, unless approved by the City.

All trenches must be backfilled or plated by the end of each work day. At the end of work hours a maximum of 20 linear feet of unfilled trench line may be left below grade and sheeted and where other requirements shown on the Plans are implemented.

Plating of trenches over weekends requires prior approval from the City.

The Contractor may use temporary pavement (temporary hot mix asphalt) to allow vehicular traffic to travel over the construction areas. Temporary hot mix asphalt shall also be placed around trench plates or other devices used to cover construction activities in a manner that provides a smooth transition between the surfaces, as approved by the Engineer. All temporary asphalt pavement to the depth of the final paving shall be removed from the site by the end of the project and shall not be used as permanent asphalt pavement or its subgrade material. The furnishing, placement, and removal of temporary pavement (temporary hot mix asphalt) shall be considered **incidental** to and included in the unit contract prices of other items in this contract.

Surplus material shall be disposed of in accordance with Section 2-03.3(7) of the Special Provisions.

At a minimum, a trench shoring system is required for trenches and open excavations greater than four feet in depth.

Contractor shall submit design documents signed by a structural engineer licensed in the State of Washington including detailed excavation support drawings and installation and removal plan and sequencing. Provide information required by the Washington Safety Standards for Construction Work (WAC Chapter 296-155 Part N).

#### ***Design Requirements***

It is the responsibility of the Contractor to adequately size the excavation and to ensure that the excavation and shoring design submitted is free of errors or omissions which may affect its safety, functionality, or performance. The Contractor accepts full responsibility for complying with all relevant references, specifications and standards which apply to the design including those which are not named in this Section.

1. Acceptance of design submittals does not relieve the Contractor of the aforementioned responsibility or liability described in this Section.
2. Acceptance of design submittals shall not be regarded in any way as an assumption of risk or liability by the City, Engineer or any of their affiliates.

Design and implementation of the Excavation Support System (ESS) and any other relevant components of the shoring system shall be designed and implemented in accordance with WAC 296-155.

Horizontal strutting below the barrel of a pipe, and the use of the strut as support is not acceptable and shall not be used in the design.

Utilization of materials in the support system shall be done in compliance with all manufacturer's recommendations and requirements.

The support system shall have a minimum factor of safety of 1.5 against the greatest potential load which may be applied.

#### ***Support System Requirements***

1. Contractor to select and design support systems, methods, and details to assure safety to the public, adjacent property and the completed work.
2. The support system shall perform all functions for which it is intended.
3. The support system shall be of adequate strength to withstand all ground and groundwater pressures as well as any additional loads as a result of equipment movement or construction activities at the site.
4. The support system integrity shall not attenuate with time. It is the Contractor's responsibility to adequately protect against construction practices which may result in damage to the shoring system and compromise the system's ability to function as intended.
5. The support system shall not be permanent, and shall be removed upon completion of intended construction activities.
6. The support system shall allow for site restoration to a state equal or superior to that which existed prior to commencement of construction.
7. The support system shall use only undamaged, industry tested and accepted materials in compliance with all federal, state and other regulatory requirements. It is the responsibility of the Contractor to comply with all standards, laws, regulations and requirements that may apply.

#### ***Execution***

1. Construction of the excavation support systems shall be performed in such a manner as not to disturb the state of soil adjacent to or below the excavation.
2. All construction activities shall observe all applicable federal, state and local regulatory requirements as well as any applicable good practice guidelines. It is the Contractor's responsibility to ensure construction activities are in compliance with all pertinent existing laws and regulations.
3. Unless otherwise indicated, the ESS shall be removed after placement and compaction of backfill. No component of the excavation support system shall be left permanently in place.
4. Construction shall be performed in compliance with drawings and submittals provided by the Contractor.
5. Any deviation from the submitted plans shall be presented in writing for acceptance by the Engineer. Any accepted deviation shall be noted on the Contractor Submittals.
6. Acceptance of any deviation by the Engineer does not relieve the Contractor of any responsibility or liability in regards to the functionality, safety and performance of the excavation shoring system.

#### 2-09.3(1)D Disposal of Excavated Material (\*\*\*\*\*)

This section is replaced with the following:

The Contractor shall dispose of excavated material in embankments, backfills, and remove it from the site where required by the Plans, Specifications or Special Provisions or where directed by the Engineer. All costs for loading, hauling, handling and legally disposing of excavated material shall be included in other unit bid items.

#### **2-09.4 Measurement (\*\*\*\*\*)**

Delete this section and replace with the following:

The bid item for "Shoring and Trench Safety Systems" shall be measured per linear foot along the centerline of shored trench required by the Plans, Specifications and Special Provisions and necessary to comply with WISHA requirements. No additional payment shall be made for excavation required solely to install or maintain shoring and trench safety systems. No additional payment shall be made for shoring at manhole locations.

The bid item for "Shoring and Trench Safety Systems for Extra Trench Excavation" shall be measured per linear foot along the centerline of shored trench required by the Plans, Specifications and Special Provisions and necessary to comply with WISHA requirements. No additional payment shall be made for extra excavation required to install or maintain shoring and trench safety systems. Shoring and Trench Safety Systems shall only be measured under this item when conflicts with crossing utilities or connections to existing utilities require that water main, service, valves, hydrants or other appurtenances must be located at a depth more than one foot deeper than the minimum depth required by the Contract Plans, or when required for installation of foundation gravel under sanitary sewer main or water main.

#### **2-09.5 Payment (\*\*\*\*\*)**

Section 2-09.5 is deleted and replaced with the following:

Payment shall be made in accordance with Section 1-04.1, for the following Bid items when included in the Proposal:

Shoring and Trench Safety Systems	Per Linear Foot
Shoring and Trench Safety Systems for Extra Trench Excavation	Per Linear Foot

The unit contract price for "Shoring and Trench Safety Systems", Per WISHA, shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for furnishing, installing, and removing all shoring and other trench safety systems necessary to support trench and excavation walls.

The unit contract price for "Shoring and Trench Safety Systems for Extra Trench Excavation", Per WISHA, shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for furnishing, installing, and removing all shoring and other trench safety systems necessary to support trench and excavation walls, where additional depth excavation is required due to conflicts with crossing utilities, connections to existing utilities, or installation of foundation gravel.

The unit contract price for all Shoring and Trench Safety Systems Bid Items shall include provision of shoring and trench safety systems for City compaction testing services.

**END OF DIVISION 2**



## **DIVISION 5 – SURFACE TREATMENTS AND PAVEMENTS**

***(July 18, 2018 APWA GSP)***

Delete Section 5-04 and all amendments and replace it with the following Section 5-04:

### **5-04 HOT MIX ASPHALT**

#### **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.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP. The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced and not less than ten samples per project. The asphalt content and gradation test data shall be reported to the Contracting Agency when submitting the mix design for approval on the QPL. The Contractor shall include the RAP as part of the mix design as defined in these Specifications.

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01.

Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

#### **5-04.2(1) How to Get an HMA Mix Design on the QPL**

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

#### **5-04.2(1)A Vacant**

#### **5-04.2(2) Mix Design – Obtaining Project Approval**

No paving shall begin prior to the approval of the mix design by the Engineer.

**Nonstatistical** evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

**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, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

**Nonstatistical Mix Design.** Fifteen days prior to the first day of paving the contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- 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  $\frac{1}{4}$  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.

In areas where HMA will be placed, use sand slurry to fill the cracks.



In areas where HMA will not be placed, fill the cracks as follows:

1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
2. Cracks greater than 1 inch in width – fill with sand slurry.

**Hot Poured Sealant:** For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product information and recommendations to the Engineer prior to the start of work, including the manufacturer's recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor's method of sealing the cracks with hot poured sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material.

*5-04.3(4)A2 Crack Sealing Areas Prior to Paving*

In areas where HMA will be placed, use sand slurry to fill the cracks.

*5-04.3(4)A3 Crack Sealing Areas Not to be Paved*

In areas where HMA will not be placed, fill the cracks as follows:

- A. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
- B. Cracks greater than 1 inch in width – fill with sand slurry.

*5-04.3(4)B Vacant*

*5-04.3(4)C Pavement Repair*

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement 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:

<b>Table of Price Adjustment Factors</b>	
<b>Constituent</b>	<b>Factor "f"</b>
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 (Va) (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, Va. 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 compacted to a specified level of relative density. The specified level of relative density shall be a Composite Pay Factor (CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item "Roadway Core" the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at

locations designated by the Engineer. If the Contract does not include the Bid item "Roadway Core" the Contracting Agency will obtain the cores.

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 for preleveling wheel rutting shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

#### ***Test Results***

For a subplot that has been tested with a nuclear density gauge that did not meet the 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 planing 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, unless otherwise specified by the Contract Documents or approved by the Engineer in writing, the Contractor shall comply with the following:

1. Intersections:
  - a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure, must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).
  - b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.
  - c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.
  - d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.

- e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.
2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.
3. Permanent pavement marking must comply with Section 8-22.

#### *5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan*

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be 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.

**5-04.3(15) Sealing Pavement Surfaces**

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

**5-04.3(16) HMA Road Approaches**

HMA approaches shall be constructed at the locations shown in the Plans or where staked by the Engineer. The Work shall be performed in accordance with Section 5-04.

**5-04.4 Measurement (\*\*\*\*\*)**

This section is deleted and replaced in its entirety with the following:

The bid item “HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch” will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

The bid item “Pavement Repair Excavation Including Haul” will be measured by the square yard of surface marked prior to excavation.

The bid items “HMA Class 1/2-inch, PG 58H-22 for Pavement Restoration” and “HMA Class 1/2-inch, PG 58H-22 for Asphalt Overlay” will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

**5-04.5 Payment (\*\*\*\*\*)**

This section is supplemented with the following:

Payment will be made for each of the following bid items:

HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch	Per Ton
--	---------

The unit contract price for “HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch”, including all incidental work, shall be full compensation for all labor, materials, tools, and equipment for surface preparation, place and compact material, tack coat, and any other work necessary for a complete installation meeting the requirements on the Plans and Pre-approved Plans.

Pavement Repair Excavation Including Haul	Per Square Yard
---	-----------------

The unit Contract price per square yard for “Pavement Repair Excavation Including Haul” including all incidental work, shall be full compensation for all labor, materials, tools, and equipment for excavating and removing existing pavement and subgrade to the depth and extents shown on the Plans.

HMA Class 1/2-inch, PG 58H-22 for Pavement Restoration	Per Ton
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The unit contract price for “HMA Class 1/2-inch, PG 58H-22 for Pavement Restoration”, including all incidental work, shall be full compensation for all labor, materials, tools, and equipment for surface preparation, furnishing, placing, and compacting material required to fill voids following pavement repair excavation, tack coat, planing or sawcutting at joints with existing paved areas, and any other work necessary for a complete installation meeting the requirements on the Plans and Standard Specifications.

HMA Class 1/2-inch, PG 58H-22 for Asphalt Overlay	Per Ton
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The unit contract price for “HMA Class 1/2-inch, PG 58H-22 for Asphalt Overlay”, including all incidental work, shall be full compensation for all labor, materials, tools, and equipment for surface preparation, planing existing bituminous pavement to the required depth, place and compact material, tack coat, planing or sawcutting at joints with existing paved areas, and any other work necessary for a complete installation meeting the requirements on the Plans and Pre-approved Plans.

**(April 20, 2012 COK GSP)**

Supplement this section as follows:

**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 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 ¼ 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 Project 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 in a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Project Engineer, will not produce satisfactory results will be removed and replaced at the contractor's expense.

When Portland cement concrete pavement is to be placed on HMA, the surface tolerance of the HMA shall be such that no surface elevation lies above the plan grade minus the specified plan depth of Portland cement concrete pavement. Prior to placing the Portland cement concrete pavement, any such irregularities shall be brought to the required tolerance by grinding or other means approved by the Project Engineer.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the roadway shall be paved before the utility appurtenances are adjusted to the finished grade.

## **5-06 TEMPORARY PAVEMENT (\*\*\*\*\*)**

Add the following new sections:

### **5-06.1 Description**

Pavement areas that have been removed by construction activities must be restored by the Contractor at the end of each working period prior to use by vehicular traffic. The Contractor may use temporary pavement (hot mix asphalt or steel plates) to allow vehicular traffic to travel over the construction areas. Temporary hot mix asphalt shall also be placed around trench plates or other devices used to cover construction activities in a manner that provides a smooth transition between the surfaces.

### **5-06.2 Materials**

The composition of other components of the temporary hot mix asphalt pavement shall be determined by the Contractor to provide a product suitable for the intended application. The Contractor shall not use materials that are a safety or health hazard.

Temporary pavement material that does not form a consolidated surface after compaction shall be considered unsuitable and be removed from the site. Unsuitable temporary pavement shall be disposed of off-site.

### **5-06.3 Construction Requirements**

The roadway subsurface shall be prepared for the temporary pavement as defined in Section 2-06. Pavement areas greater than ten square feet shall be roller compacted to consolidate the temporary pavement. The completed pavement shall be free from ridges, ruts, bumps, depressions, objectionable marks, or other irregularities.

If Commercial HMA is used for temporary hot mix asphalt, it shall be a minimum thickness of 3.0 inches.

The Contractor shall immediately repair, patch, or remove any temporary pavement that does not provide a flat transition between existing pavement areas.

All temporary asphalt pavement shall be removed from the site by the end of the project and shall not be used as permanent asphalt pavement or its subgrade material.

### **5-06.4 Measurement**

No unit of measurement is included for Temporary Pavement.

### **5-06.5 Payment**

No specific bid item is included in the Proposal for Temporary Pavement which shall be incidental to other bid items.

**END OF DIVISION 5**

## **DIVISION 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWER**

### **7-05 MANHOLES, INLETS, CATCH BASINS, AND DRY WELLS**

#### **7-05.1 Description (\*\*\*\*)**

Section 7-05.1 is supplemented with the following:

This Work includes adjusting utility boxes to grade in accordance with the Plans, these Specifications, Special Provisions and the Standard Plans in conformity with the lines and grades staked.

#### **7-05.2 Materials (\*\*\*\*)**

Section 7-05.2 is supplemented with the following:

Rubber Gaskets for Concrete Pipes and Precast Manholes 9-04.4(1)

Bedding Material for Manholes (Crushed Surface Top Course) 9-03.9(3)

A manufacturer's Certificate of Compliance shall be furnished by the Contractor prior to the use of the material in accordance with Section 1-06.

All manhole joints shall use a confined round rubber gasket meeting ASTM C443 specifications.

#### ***Cast Iron Frame and Covers***

Manhole frames and locking covers shall conform to the dimensions and specifications shown on the Drawings. Manhole frame and cover shall have the following features:

- Heavy Duty design load
- Hinged cover with safety stop and which can be removed by operators without removing frame.
- Locking device.
- Neoprene gasket as shown on Plans.
- Tack Coat Applied to Castings shall be emulsified asphalt per Section 9-02.1(6).

Manufacturer shall be ERGO product numbers 00104185L01 or approved equal.

#### ***Pre-Cast Cones***

Standard pre-cast cones shall provide an eccentric reduction from 48 inches to 24 inches and shall not be less than 17 inches in height.

#### ***Steps***

Manhole steps shall conform to the dimensions specifications shown on the City of Kirkland Pre-Approved Plan No. CK-S.14. Steps shall be 1/2-inch diameter galvanized deformed bar conforming to ASTM A615. All steps shall be polypropylene encapsulated (equal to MA Industries) and have reflector strips attached as shown on City of Kirkland Pre-Approved Plan No. CK-S.14.

***Pipe to Manhole Adapters***

Concrete to PVC manhole adapters shall be "Kor-N-Seal" Boots or approved equal.

***Internal Drop Connections***

Internal drop connections shall conform to the dimensions and specifications shown on the City of Kirkland Pre-Approved Plan No. CK-S.12.

***Catch Basin Grates***

Catch basin grates to the dimensions and specifications shown on the City of Kirkland Pre-Approved Plan No. CK-D.14.

**7-05.3 Construction Requirements (\*\*\*\*\*)****7-05.3(1) Adjusting Manholes and Catch Basins to Grade (\*\*\*\*\*)**

Section 7-05.3(1) is supplemented with the following:

All manholes shall be lowered prior to grinding (cold planing) operations. After the manhole has been lowered, the Contractor shall patch the resultant void with cold mix.

After paving, all manholes shall be raised to grade.

The contractor shall expect to encounter existing PAMREX/ERGO style manhole covers. PAMREX/ERGO manhole covers have several small cavities, including key holes and hinges. These cavities must remain free of HMA and any other debris in order to remain operational. The contractor shall protect these covers prior to paving to ensure HMA does not enter the cavities. All utility covers and frames, in addition to the PAMREX/ERGO covers, shall be thoroughly cleaned free of HMA or other debris after paving activities are completed.

All catch basins and similar utility boxes and structures shall be lowered prior to grinding (cold planing) operations. All costs for adjusting shall be paid for under "Raise and Lower Structures to Final Paved Elevation".

After paving, catch basins and similar utility boxes and structures shall be raised to grade. Catch basins and similar utility boxes and structures shall be adjusted to grade by methods of construction as required in Section 7-05 and City of Kirkland Pre-Approved Plans. Steel risers, bricks or Jet Set are not allowed. Patch pavement with Class G asphalt concrete pavement. Seal joint with PG 58H-22 and dry sand after patching.

The Engineer may direct Contractor to replace existing frame and/or grate and/or cover with new frame/grate/cover. Unless specifically paid for under bid item "Replace Catch Basin Grate", the new frame/grate will be furnished by the City and delivered to the job site. The City may elect to have the Contractor replace existing manhole covers with round hinged locking manhole covers and frames provided by the City. Contractor shall install the round hinged locking covers and frames per Pre-Approved Plans CK-D.18A/CK-S.16A and provide risers as necessary to adjust the covers to grade. No additional compensation will be made to the Contractor for replacing frames/grates/covers with City provided frames/grates/covers or for providing additional risers for adjustment.

**7-05.4 Measurement (\*\*\*\*\*)**

Section 7-05.4 is deleted in its entirety and replaced with the following:

The bid items “48-Inch Diameter Manhole” and “54-Inch Diameter Manhole Including Internal Drop Connection” will be measured per each, regardless of depth.

The bid item “Connection to Existing Sanitary Sewer” shall be measured per each.

The bid item “Existing Manhole Demolition” shall be measured per each.

The bid item “Replace Catch Basin Grate” shall be measured per each.

#### **7-05.5 Payment (\*\*\*\*\*)**

Section 7-05.5 is supplemented with the following:

Payment will be made for the following bid items:

48-Inch Diameter Manhole	Per Each
54-Inch Diameter Manhole Including Internal Drop Connection	Per Each

The unit contract price for “48-Inch Diameter Manhole” and “54-Inch Diameter Manhole Including Internal Drop Connection” shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for complete installation of manholes and appurtenances as defined in the Standard Specifications, these Special Provisions and the Plans and specified herein, including the following:

1. Removal and disposal of existing asphalt concrete and cement concrete pavement as necessary for excavations in paved areas. This shall include all necessary work to remove existing pavement (including sawcutting) prior to excavation and to remove existing pavement beyond the excavation as necessary and as indicated on the drawings prior to installing permanent pavement patch.
1. All required potholing to verify locations of existing utilities. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
2. Excavation and dewatering.
3. Removal, loading, hauling, and disposal of native excavation material.
4. Furnishing and installation of structure and all accessories, such as rings, covers, steps, manhole to pipe adapters, internal drop connections, and other miscellaneous items.
5. Handling and proper disposal of interfering portions of existing pipes and fittings. Capping and abandonment of any existing pipes remaining in place.
6. Pipe bedding, pipe zone backfill and compaction, including hauling of required bedding and backfill material.
7. Backfill and compaction, including hauling of required backfill material.
8. Steel sheeting/plating for covering excavations as necessary.
9. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.

10. Cleaning and testing.
11. Crushed Surfacing Top Course and compaction for roadway base.
12. Placing and maintaining temporary hot mix asphalt patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch").
13. Any modifications to the new manhole required to connect to the existing sanitary sewer pipe, including fittings and pipe adapters and all other work necessary for completion of the work as specified shall be considered incidental to and included in the bid item of "Connection to Existing Sanitary Sewer" and no additional payment will be made.

Connection to Existing Sanitary Sewer	Per Each
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The unit contract price for "Connection to Existing Sanitary Sewer" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for making a complete connection to existing sanitary sewer pipe or manhole. This includes coring of existing structures, grouting new pipe connections, rechanneling existing structures, installing structure to pipe adapters, cutting existing pipe, installing pipe couplings, and all other work necessary for completion of the work as specified.

Existing Manhole Demolition	Per Each
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The unit contract price for "Existing Manhole Demolition" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to excavate and demolish the existing manhole structure, backfill all resulting voids with approved pipe zone backfill, and compact the backfill in compliance with the requirements of Section 7-08. The unit contract price shall also include removal, loading, hauling and disposing of demolished materials and providing any dewatering necessary during excavation and demolition.

Replace Catch Basin Grate	Per Each
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The unit contract price for "Replace Catch Basin Grate" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental to remove and dispose of existing grate and furnish and install new grate on existing catch basin.

## 7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

### 7-08.2 Materials (\*\*\*\*\*)

Section 7-08.2 is supplemented with the following:

#### ***Foundation Gravel***

Foundation gravel for trench foundation backfill shall be Crushed Surfacing Top Course meeting the requirements of Section 9-03.9(3) of the Standard Specifications.



### ***Crushed Surfacing Top Course for Trench Backfill***

Crushed Surfacing Top Course for Trench Backfill shall meet the requirements of Section 9-03.9(3) of the Standard Specifications.

## **7-08.3 Construction Requirements (\*\*\*\*)**

### ***7-08.3(1)A Trenches (\*\*\*\*)***

Section 7-08.3(1)A is supplemented with the following:

#### ***Sewer Trench (Sanitary and Storm)***

Prior to excavation through asphalt concrete or Portland cement concrete surfaces, the pavement shall be removed to a width of 24 inches greater than the top width of the trench, centered on the pipe alignment, and removed material shall be disposed. The pavement shall be sawcut in a neat, straight line paralleling the trench centerline prior to removal. The cut edge of concrete pavement shall be beveled so that the cut will be approximately 1-inch wider at the top than at the bottom.

Prior to trenching through areas improved with lawn or through fences, rockeries, shrubs, plants, or other improvements, these improvements shall be removed, stored, and protected. After the sewer installation is complete, the improved area shall be returned to a condition equal or better than the area before the sewer installation. If any stored improvements are not suitable for reuse after construction, they shall be replaced with an improvement of equal or better quality.

The Contractor shall provide all materials, labor, and equipment necessary to adequately shore trenches to protect the work, existing property, utilities, pavement, and any other improvements, and to provide safe working conditions in the trench. The Contractor may use any method of shoring, provided that the method complies with all local, state, and federal safety codes. The Contractor alone shall be responsible for worker safety, and the owner and its agents assume no responsibility. Damages resulting from improper shoring or failure to shore shall be the sole responsibility of the Contractor. Shoring below the pipe will not be removed if, in the opinion of the Engineer, such removal will disturb the pipe bed.

Pipe foundation in poor soil: When soft or unstable material is encountered at the subgrade which, in the opinion of the Engineer, will not uniformly support the pipe, such material shall be excavated to an additional depth as required, or as directed by the Engineer, and backfilled with foundation gravel material placed in lifts not greater than 12-inches and compacted to 95 percent of the maximum dry density to the pipe foundation grade.

Correcting faulty grade: Excess excavation below the required grade shall be backfilled with foundation gravel and thoroughly compacted to the required grade line. Such excavation below the required grade and the required backfill shall not entitle the Contractor to extra compensation.

The Contractor shall adhere to the maximum trench width dimensions shown in the plans. Payment for applicable trench excavation, backfill, and restoration bid items will be limited to the maximum trench width dimensions unless field conditions dictate that a wider trench width is needed. If this situation exists, the Contractor shall obtain approval from the Engineer prior to proceeding.

If sanitary sewer main and water main are under construction at the same time, the Contractor shall use separate crews to construct each utility.

Dewatering of trenches and excavations shall include discharge of water which shall comply with City of Kirkland Department of Public Works Pre-approved Plans Policy E-1.

7-08.3(2)B Pipe Laying - General (\*\*\*\*\*)

Section 7-08.3(2)B is supplemented with the following:

The “stringing” of pipe is prohibited except where pipe is to be installed by pipe bursting methods. The Contractor shall only lay out that length of pipe that will be installed during that day's work shift. Under no circumstances should the pipe be dragged across the ground surface during handling of the pipe.

**Potholing**

The Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed. If a conflict should exist, the Engineer shall be notified.

**7-08.3(3) Backfilling (\*\*\*\*\*)**

Section 7-08.3(3) is supplemented with the following:

**Sewer Trench**

Native material shall be deemed unsuitable for trench backfill. Unsuitable material shall be legally disposed of and trenches shall be backfilled with Crushed Surfacing Top Course to the base of the subgrade. The remaining depth shall be restored as noted on the Preapproved Plans.

Water and sewer spacing shall comply with the City of Kirkland Pre-Approved Plan No. CK-W.01. Backfilling operations shall conform to AWWA C-600.

After backfilling and placement of the base course, the Contractor shall immediately place temporary hot mix asphalt patch or steel plates over all trenches in all areas until such time that the permanent patch can be completed. The Contractor shall grade all roads and shall maintain them during the period required by the General Provisions of this contract in such a manner as to provide safe travel by the public, free of settlement, mud holes, ruts, and high centers. The temporary hot mix asphalt patch shall be removed and hauled away prior to completion of permanent patch. The furnishing, placement, and removal of temporary patching consisting of Commercial HMA shall be considered incidental to the sanitary sewer pipe.

**Compaction**

The backfill shall be compacted by a method approved by the Project Engineer and meeting the provisions of Section 7-08.3(3) of the Standard Specifications. Compaction of backfill shall meet the following density requirements:

1. Paved Areas

Trenches through existing paved areas and shoulders shall be compacted to at least 95 percent of maximum density at optimum moisture content as determined by the

Modified Proctor Compaction Test, ASTM Designation D1557. This includes the foundation, bedding, backfill, and base course materials.

## 2. Unpaved Areas

Trenches through existing unpaved areas shall be compacted to at least 90 percent of maximum density at optimum moisture content as determined by the Modified Proctor Compaction Test, ASTM Designation D1557. This includes the foundation, bedding, backfill, and base course materials.

The City will provide a testing service that will be on site to collect soil samples for laboratory testing and to test the trench backfill compaction. The City's Inspector will coordinate testing.

### 7-08.4 Measurement (\*\*\*\*\*)

Section 7-08.4 is revised as follows:

The bid item "Foundation Gravel For Sanitary Sewer" shall be measured by the ton as determined from Certified delivery tickets furnished with each load of material delivered.

### 7-08.5 Payment (\*\*\*\*\*)

Section 7-08.5 is deleted in its entirety and replaced with the following:

Foundation Gravel For Sanitary Sewer	Per Ton
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The unit contract price for "Foundation Gravel For Sanitary Sewer" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for furnishing, placing and compacting foundation gravel at locations where the ENGINEER determines that the material in the bottom of the trench is unsuitable and needs to be over-excavated and replaced with foundation gravel.

The unit contract price shall also include excavating, loading, hauling and disposing of unsuitable material that is being replaced by foundation gravel.

The quantity shown for this bid item in the Bid Schedule is estimated and may vary. The use of this bid item is subjected to authorization by the ENGINEER and no payment will be made to CONTRACTOR for quantities used without prior authorization by the ENGINEER.

Certified truck weight tickets shall be furnished with each load of material delivered. No payment will be made without a ticket. No payment will be made for over-excavation and subsequent backfill unless the ENGINEER determines that the over-excavation cannot be avoided. Over-excavation shall be defined as trenching outside the limits as shown on the Plans. Additionally, no payment will be made for necessary compaction to correct backfilled areas which are not compacted in accordance with these Specifications.

## 7-09 WATER MAINS

### 7-09.1 Description (\*\*\*\*\*)

Section 7-09.1 is revised as follows:

This Work consists of constructing water mains 8 inches in diameter in accordance with the Plans, these Standard Specifications, the Special Provisions and the Standard Plans, at the location shown on the Plans.

## **7-09.2 Materials (\*\*\*\*)**

This section is supplemented with the following:

Material(s) shall meet the requirements as supplemented herein. All materials shall be as specified on the Plans and in the City of Kirkland's Preapproved Plans, unless otherwise specified herein.

### ***Fittings for Main Lines***

All water main fittings shall be ductile iron conforming to the requirements of Section 9-30.2(1), and shall be installed with appropriate thrust blocking. Other approved means of restraint may be added but are not to be used in lieu of thrust blocking. Thrust blocking shall be per Section 7-09.3(21).

Following assembly, all fitting nuts, bolts, exposed threads, and shackle rods shall be treated with two field coats of asphalt varnish, or other suitable material as approved by the Engineer.

Pipe segments designated to be restrained joints shall utilize flanged fittings or restrained mechanical joint fittings as shown on the Drawings or as specified. Mechanical joint restraints shall be manufactured of ductile iron, meeting the requirements of ASTM A536. They shall be full full-circle design; split followers will not be allowed. Followers shall utilize torque-limiting nuts designed to shear at the manufacturer's recommended value. Joint restraints shall be Megalug, as manufactured by EBBA Iron, Inc. or approved equal.

Couplings between ductile iron and cast iron pipe shall utilize a Romac 501 coupling or approved equal. Coupling of two ductile iron pipes shall utilize a long pattern sleeve.

### ***Foundation Material***

Foundation gravel shall be per Section 9-03.12(1).

### ***Gravel Backfill for Pipe Zone Bedding***

Gravel Backfill for Pipe Zone Bedding shall be Crushed Surfacing Top Course meeting the requirements of Section 9-03.9(3) of the Standard Specifications.

### ***Pipe Zone Backfill***

Pipe Zone Backfill shall be Crushed Surfacing Top Course meeting the requirements of Section 9-03.9(3) of the Standard Specifications.

### ***Trench Backfill***

Trench Backfill shall be Crushed Surfacing Top Course meeting the requirements of Section 9-03.9(3) of the Standard Specifications.

## **7-09.3 Construction Requirements**

### **7-09.3(4) Removal of Existing Street Improvements (\*\*\*\*)**

This section is supplemented with the following:

Driveways, curbs, gutters, sidewalks, and wheelchair ramps shall be removed as necessary to install the improvement as shown on the Plans.

#### **7-09.3(5) Grade and Alignment (\*\*\*\*\*)**

This section is supplemented with the following:

Requirements for the water main depths and profiles, where shown on the Plans, shall be followed unless utilities conflicts arise.

Where vertical bends are used by the Contractor, the bend joints shall be rotated "clocked" so that the horizontal alignment is partially offset.

#### **7-09.3(6) Existing Utilities (\*\*\*\*\*)**

This section is supplemented with the following:

The Contractor shall comply with the General Notes section of the Plans.

The Contractor shall anticipate the potential for crossing over or under an occasional shallow existing side sewer that is not part of the one-call utility locate. If such a side sewer is encountered, the Contractor shall immediately notify the Owner's on-site representative and then take the necessary steps to determine whether or not the side sewer is active. If a side sewer is damaged by construction activity, the Contractor is responsible for repairing the side sewer. All costs associated with determining the viability and repair of the existing side sewer shall be considered incidental to other items in the contract and no additional payment will be made.

##### ***Potholing***

The Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed. If a conflict should exist, the Engineer shall be notified prior to any change in pipeline grade. The Contractor shall pothole connection points prior to scheduling a connection to confirm elevation of connection and confirm size and material of existing water main at the point of connection.

#### **7-09.3(7) Trench Excavation (\*\*\*\*\*)**

This section is supplemented with the following:

Prior to the excavation, the person responsible for making the water service connections must be in contact with the Public Works Inspector and City Water Department.

Prior to excavation through asphalt concrete or Portland cement concrete surfaces, the pavement shall be removed to a width of 24 inches greater than the top width of the trench, centered on the pipe alignment, and removed material shall be disposed. The pavement shall be sawcut in a neat, straight line paralleling the trench centerline prior to removal. The cut edge of concrete pavement shall be beveled so that the cut will be approximately 1-inch wider at the top than at the bottom.

Prior to trenching through areas improved with lawn or through fences, rockeries, shrubs, plants, or other improvements, these improvements shall be removed, stored and protected. After the water installation is complete, the improved area shall be returned to a condition equal or better than the area before the water installation. If any stored

improvements are not suitable for reuse after construction, they shall be replaced with an improvement of equal or better quality.

The Contractor shall provide all materials, labor, and equipment necessary to adequately shore trenches to protect the work, existing property, utilities, pavement, and any other improvements, and to provide safe working conditions in the trench. The Contractor may use any method of shoring, provided that the method complies with all local, state, and federal safety codes. The Contractor alone shall be responsible for worker safety, and the owner and its agents assume no responsibility. Damages resulting from improper shoring or failure to shore shall be the sole responsibility of the Contractor. Shoring below the pipe will not be removed if, in the opinion of the Engineer, such removal will disturb the pipe bed.

The length of the water trench shall not exceed forty (40) feet in advance of pipe laying.

Dewatering of trenches shall include discharge of water which shall comply with City of Kirkland Department of Public Works Pre-approved Plans Policy E-1.

If sanitary sewer main and water main are under construction at the same time, the Contractor shall use separate crews to construct each utility.

All costs associated with dewatering of the trenches and excavations shall be included in the linear foot cost of pipe installed.

#### **7-09.3(8) Removal and Replacement of Unsuitable Materials (\*\*\*\*\*)**

This section is supplemented with the following:

All material removed from the trench shall be hauled to a disposal site provided by the Contractor unless otherwise directed by the Owner's field inspector.

#### **7-09.3(10) Backfilling Trenches (\*\*\*\*\*)**

This section is supplemented with the following:

Native material shall be deemed unsuitable for trench backfill. Unsuitable material shall be legally disposed of and trenches shall be backfilled with Crushed Surfacing Top Course to the base of the subgrade. The remaining depth shall be restored as noted on the Plans.

Trenches shall be backfilled with trench backfill meeting the requirements of 7-09.2 to the base of the subgrade. The remaining depth shall be restored as noted on the Plans.

After backfilling and placement of the base course, the Contractor shall immediately place temporary hot mix asphalt patch or steel plates over all trenches in paved areas until such time that the permanent pavement patch can be completed. The furnishing, placement, and removal of temporary hot mix asphalt patch shall be considered incidental to the water pipe. The Contractor shall grade all roads and shall maintain them during the period required by the General Provisions of this contract in such a manner as to provide safe travel by the public, free of settlement, mud holes, ruts, and high centers. The temporary hot mix asphalt patch shall be removed and hauled away prior to completion of permanent patch. The furnishing, placement, and removal of temporary patching of Commercial HMA shall be considered incidental to the water pipe.

A sand cushion shall be placed between the new water main and any existing utilities within 6 inches of the new water main. Water and sewer spacing shall comply with the City of Kirkland Pre-Approved Plan No. CK-W.01. Backfilling operations shall conform to AWWA C-600.

Open excavations will not be allowed to be left open during non-working hours. All open excavation shall be backfilled or covered with steel sheets with appropriate traffic warning signs. The steel sheets shall not be used over weekends.

#### **7-09.3(11) *Compaction of Backfill (\*\*\*\*\*)***

This section is supplemented with the following:

Backfill shall be compacted to 95 percent of maximum dry density using the modified proctor test in accordance with ASTM D1557.

##### 7-09.3(11)A      *Compaction Testing (\*\*\*\*\*)*

Add the following new section:

The Contractor shall excavate to depths and locations when and as directed by the Engineer to allow for compaction tests. The City will provide all compaction testing services.

Any areas that fail to meet compaction requirements shall be re-tested at the expense of the Contractor. The amount of said expenses shall be computed and determined on the basis of an itemized schedule of engineering, inspection, and testing charges determined for the actual hours of labor taken to retest said area.

No paving will be allowed until trench compaction has been tested and accepted.

#### **7-09.3(13) *Handling of Pipe (\*\*\*\*\*)***

This section is supplemented with the following:

The "stringing" of pipe is prohibited. The Contractor shall only lay out that length of pipe that will be installed during that day's work shift. Under no circumstances should the pipe be dragged across the ground surface during handling of the pipe.

#### **7-09.3(19) *Connections***

##### 7-09.3(19)A      *Connections to Existing Main(\*\*\*\*\*)*

This section is supplemented with the following:

No permanent connections to the existing system shall be made until the new water main has been tested and approved by the Engineer. No temporary connections of the untested, unapproved new water main to the existing system shall be made without the installation of a double check valve assembly between the new water main and existing system.

Connections to the existing water system shall be considered as one (1) connection regardless of connection consisting of a tee, cross, sleeve, coupling, or any other fitting.

Each connection shall be made in compliance with the Plans. Connections to existing mains shall comply with the requirements for maintaining service as described herein.

Connections shall be less than one pipe length; using the “bell end” or a “wedding band” is not permitted.

Connection points between new and existing watermain shall be excavated and exposed at least 24 hours before the connection occurs. All parts necessary for the connection shall be on site before affected property owners are notified of a shutdown, which shall occur a minimum of two (2) working days before the connection occurs. Connection work shall be witnessed by City of Kirkland Water Department personnel.

The Contractor shall submit a Disinfection, Testing and Flushing Plan, for review and approval, a minimum of four (4) weeks in advance of disinfection, testing or flushing. The Plan will provide details of proposed test lengths, water provision, methodology and procedures for filling, disinfection, testing, flushing and disposal of water. The Plan shall include connection sequence plan including a calendar showing the schedule of activities. The Contractor shall implement the approved Disinfection, Testing and Flushing Plan.

Disinfection, Testing and Flushing the new water main must meet the following schedule and notification requirements:

1. It shall be the Contractor's responsibility to notify in writing the City of Kirkland Department of Public Works two (2) business days in advance of scheduling the filling, disinfection and flushing procedures of the new water main upon completion of the water main installation (section to be tested), including all build-outs, lateral, hydrants, services etc. Separate written notification is required for each procedure. The procedures must be approved by the City of Kirkland Department of Public Works prior to commencement of the procedures.
2. Prior to discharging chlorinated water to the sanitary sewer system, the Contractor shall obtain approval from the City of Kirkland Project Manager and Sewer Department Supervisor at (425) 828-1157, and King County Wastewater Treatment Division.
3. The Contractor is responsible for providing advance written notification to all regulatory agencies of its intent to discharge chlorinated water and the scheduled timing of these activities.
4. Fills are to be scheduled for Monday, Tuesday or Wednesday only. No Flushes shall be permitted on Fridays.
5. Fills and Flushes are generally scheduled for 8:30 am.
6. In general, Flushes are scheduled for the next working day after the new water system is filled. It is assumed that the pressure test will also be performed on the day of the Fill. To adhere to this schedule, the water division must be notified by the City Inspector or Project Manager by 1:00 pm on the day of the Fill confirming that the pressure test was successful in order to receive the flush on the following working day.
7. Hyper-chlorinated water will only be allowed to stand in the new main for 24 hrs. After 24 hrs the main will be flushed by the Contractor in the presence of the City of Kirkland's Water Department.
8. Contractor shall contact City of Kirkland Department of Public Works five (5) days prior to any work requiring the shutdown of existing water mains. Service interruption



that affects institutional or commercial water users shall occur and be completed between 9:00pm and 7:00 am, outside of business hours, unless directed by the Engineer.

9. The Contractor is required to give two (2) business days' notice to all customers affected by a water main shutdown. Notices and maps of the affected area will be provided by City of Kirkland Water Division after acceptable purity test results are obtained. The Contractor shall be responsible for filling in the required information and distribution of the door hanging notices.
10. A maximum of one system connection shall be scheduled per day unless multiple connections are advantageous to the water system and have been approved by the Water Division.
11. It shall be the Contractor's responsibility to notify the City of Kirkland Inspector 24 hours in advance of backfilling all water main construction. The Contractor shall be responsible for keeping as-built drawings of all construction not installed according to the approved plans.
12. No connection shall be made between the new main and the existing mains until the new piping has been disinfected, flushed, and passed both pressure and purity testing.
13. Purity samples shall be taken by the Public Works Inspector after achieving a successful pressure test, disinfection and flushing of the new water main.
14. After the new water main has been flushed and purity samples have been taken it must be connected to the existing system within seven (7) days.
15. Results of the purity testing shall be in-hand prior to any commitment to turning on valves.

Disinfection, Testing and Flushing the new water main must meet the following criteria:

1. Taps required by the Contractor for temporary or permanent release of air, chlorination or flushing purposes shall be provided by the Contractor as part of the construction of water mains.
2. Contractor shall provide a backflow prevention device at the hydrant used for providing water for filling and flushing. Contractor shall also provide an air gap device at the discharge sewer manhole to provide a minimum 2' air gap between the discharge pipe invert and the manhole opening.
3. The Contractor shall provide all plugs and temporary blowout assemblies for pressure testing and disinfection prior to final tie-in.
4. Temporary plugs and blocking shall be installed at the points of connection to the existing system.
5. Should the water main work necessitate the closing of certain gate and butterfly valves within the existing system, the City of Kirkland Maintenance Department shall be responsible for the operation of such valves.
6. Only City of Kirkland Water personnel or a designee shall operate valves or hydrants for a Fill or Flush.

7. The City Water Department will be responsible for all tasks involved with shut-off and turn-on of the existing water mains. Unless directed otherwise by the Engineer, the Contractor shall not operate existing water system valves or fire hydrants.
8. Fills and Flushes shall be done from the lowest to the highest elevation.
9. Chlorination water shall be discharged to the sanitary sewer and shall not be discharged to the storm drainage system. Chlorination water shall be dechlorinated to the concentrations required by the City and King County Wastewater Treatment Division.
10. If approved by the Engineer and by the local authority responsible for the sanitary sewer system, disposal of treated water from mains may be made to an available sanitary sewer, provided the rate of disposal will not overload the sewer and an approved air gap is provided.
11. Flushing water conveyed to the sanitary sewer system shall be at a rate which does not exceed the capacity of the City's sewer lines and lift stations and the King County Wastewater Treatment Division sewer lines and lift stations. The Contractor shall provide all necessary tanks and appurtenances for de-chlorination and discharge rate control.
12. Pressure testing shall be done in the presence of, and under the supervision of a City of Kirkland Department of Public Works Inspector.
13. Purity testing shall be taken by the City of Kirkland Department of Public Works Inspector.
14. Purity samples shall be taken from at least every connection point (ie build outs) and other sources as determined by the City of Kirkland Water Department.
15. For construction of new water mains, the services, hydrants, etc. shall be tested with the main.
16. Pressure testing shall require a minimum of 200 psi for 15 minutes with no pressure drop. See 7-09.3(23).

7-09.3(19)B      Maintaining Service (\*\*\*\*\*)

Revise this section to read:

Water service shall be maintained as follows:

The Contractor will be required to notify the City's Project Engineer and Water Department Supervisor five (5) working days prior to any planned, major connection to an existing water main. The City Water Department will be responsible for all tasks involved with shut-off and turn-on of the existing water mains. Unless directed otherwise by the Engineer, the Contractor will not operate existing water system valves. The Contractor will be supplied with "water shut-off notice" cards that shall be distributed 2 business days prior to a system shut-off. The Contractor shall write the date and time that the shut-off will be in effect and distribute them to all affected residents, businesses, property owners, etc. The City will determine the extent of the effected customers to be notified by the Contractor.

Prior to commencement of any work on a connection to an existing water main, the Contractor will assemble all materials, equipment, and labor necessary to properly complete the work. Once the water has been shut off, the Contractor shall diligently pursue

the connection to completion so that the time required for the shut-off will be held to a minimum. All connections to existing water mains shall be completed the same day that they are started. The Contractor shall time his operations so that the water will not be shut off overnight, over weekends, or during holidays.

The existing water mains are intended to remain in service until testing and disinfecting have been approved by the City and until all water service connections have been transferred. If, due to the Contractor's actions, the existing water system fails to provide service to adjacent residences or businesses, then the Contractor shall provide temporary service to the affected residences or businesses. Furthermore, the temporary services, if required, shall be approved by the Engineer prior to installation. All costs of providing and maintaining temporary service for the necessary time durations shall be completely borne by the Contractor. Should the Contractor neglect or needlessly delay in the pursuit of this work item, the City may at its discretion dispatch crews to remedy the situation and deduct all costs associated with the employment of their crews from moneys owed the Contractor.

#### **7-09.3(21) Concrete Thrust Blocking (\*\*\*\*\*)**

Revise this section to read:

The Contractor shall provide concrete blocking at all hydrants, tees, fittings, valves, and horizontal or vertical angle points. Blocking shall conform to the Plans and City of Kirkland standard details for general blocking and vertical blocks. All fittings to be blocked shall be wrapped with 8-mil polyethylene plastic prior to pouring the concrete blocking. Concrete blocking shall be properly formed with plywood or other acceptable forming materials and shall not be poured around joints. The forms shall be stripped prior to backfilling. Concrete shall be Class 3,000.

All fittings and valves at connections shall have Mega-Lugs (or approved equal) and concrete thrust blocks. All concrete blocks are to be hand mixed (with water) or delivered by ready mix truck before placed.

#### **7-09.3(23) Hydrostatic Pressure Test (\*\*\*\*\*)**

Revise this section to read:

All water mains and appurtenances shall be tested under a hydrostatic pressure equal to 200 psi for 15 minutes with no pressure drop. Water service lines will be visually inspected for leakage. All pumps, gauges, plugs, saddles, corporation stops, backflow prevention devices, miscellaneous hose and piping, and other equipment shown on the construction plans and that are necessary for performing the test shall be furnished and operated by the Contractor. The pipeline trench shall be backfilled sufficiently to prevent movement of the pipe under pressure. All thrust blocks shall be in place and sufficiently cured to reach design strength before testing. Where permanent blocking is not required, the Contractor shall furnish and install temporary blocking and remove it after testing. For construction of new water main, the services will be tested with the main.

The mains shall be filled with water and allowed to stand under pressure for a minimum of 24 hours, unless approved by the Engineer, to allow the escape of air and/or allow the lining of the pipe to absorb water. Where the pipe is filled with chlorination water, the chlorinated water shall be purged after 24 hours. The Contractor will provide the water necessary to fill the pipelines for testing purposes at a time of day when excess quantities

of water are available for normal system operation. Where water is obtained from the City of Kirkland water system, an account shall be established by the Contractor with the City and all water used shall be metered and purchased. No connection shall be made between the new main and the existing mains until the new piping has been disinfected, flushed, and passed both pressure and purity testing.

Gauges used in the test shall be accompanied with certifications of accuracy from a testing Laboratory approved by the Engineer. The range of the gauge shall be appropriate for the minimum and maximum pressures required.

Any visible leakage detected shall be corrected by the Contractor to the satisfaction of the Owner. Should the test section fail to meet the pressure test successfully as specified, the Contractor shall, at his own expense, locate and repair the defects and then retest the pipeline.

After the test has been completed, each valve shall be tested by closing each in turn and relieving the pressure beyond. This test of the valves will be acceptable if there is no immediate loss of pressure on the gauge when the pressure comes against the valve being checked. The Contractor shall verify that the pressure differential across the valve does not exceed the rated working pressure of the valve. All tests shall be made with the hydrant auxiliary (foot) valve open and pressure against the hydrant (main) valve.

Sections to be tested shall be limited to 1,000 feet. The Owner may require that the first section of pipe, not less than 500 feet in length, installed by each of the Contractor's crews, be tested in order to qualify the crew and/or the material. Pipe laying shall not be continued more than an additional 500 feet until the first section has been tested successfully.

Prior to calling out the Engineer to witness the pressure test, the Contractor shall have all equipment set up completely ready for operation and shall have successfully performed the test to assure that the pipe is in a satisfactory condition.

Before applying the specified test pressure, air shall be expelled completely from the pipe, valves and hydrants.

A clean container shall be used for holding water for pumping pressure on the main being tested. This makeup water shall be sterilized by the addition of chlorine to a concentration of 50 mg/l.

Testing shall comply with the requirements of 7-09.3(19)A.

7-09.3(23)A      *Testing Extensions From Existing Mains (\*\*\*\*\*)*

This section is supplemented with the following:

When an extension greater than 18 feet is made from an existing valve, or from a section of main without services which can be isolated by an existing valve, the Contractor may have the option of pressure testing the existing section or valve to eliminate the need for a final connection by pretested pre-chlorinated pipe, subject to the consent of the Engineer.

In electing and receiving consent to utilize the method of pretesting and direct connection, the Contractor retains all responsibility for successful final testing of the completed new construction and assumes all risk for damages which may be caused to the existing system valves, piping, or appurtenances.

#### **7-09.3(24) Disinfection of Water Mains (\*\*\*\*)**

This section is supplemented with the following:

Disinfection of water mains shall meet the requirements of 7-09.3(19)A.

#### **7-09.3(24)A Flushing (\*\*\*\*)**

This section is revised as follows:

Work practices shall prevent entry of trench water or other deleterious materials to the pipe at any time. Contractor is responsible for removal of any solids or contaminated material that have become lodged in the pipe. High velocity flushing with flow velocities greater than 2.5 fps shall not be undertaken unless approved by the Engineer.

Final flushing and disposal of disinfection water shall comply with requirements in 7-09.3(19)A, and 7-09-3(24)N.

#### **7-09.3(24)N Final Flushing and Testing (\*\*\*\*)**

The fourth paragraph is revised as follows:

Final flushing and testing shall comply with the requirements of 7-09.3(19)A.

#### **7-09.4 Measurement (\*\*\*\*)**

This section is supplemented with the following:

The bid item "8-Inch Water Main, CL 52 Ductile Iron, with Fittings" shall be per linear foot, measured along the horizontal centerline of the pipe installed.

The bid item "Additional DI Fittings and Joint Restraints" shall be per pound, based on the weight of ductile iron fittings as listed in the AWWA Standards, ANSI/AWWA C110/A21.10-87. Fittings not listed in the above standards will be paid for at the weight listed in the Manufacturer's catalog. Weight will be based on the fitting body only and will not include accessory items such as bolts, glands, etc. Only those extra fittings required during construction, but which are not shown on the Plans, will be paid for under the bid item for "Additional DI Fittings and Joint Restraints".

The bid item "Connection to Existing Water Main" shall be measured per each. Service connections will not be included in the measurement of "Connection to Existing Water Main".

The bid item "Foundation Gravel For Water Main" shall be measured per ton as determined from Certified delivery tickets furnished with each load of material delivered.

The bid item "Extra Trench Excavation and Backfill" shall be per cubic yard as measured in the trench. Excavation and backfill shall only be measured under this item when conflicts with crossing utilities require that water main, service, valves, hydrants or other appurtenances must be located at a depth more than one foot deeper than the minimum depth required by the Contract Plans.

No unit of measurement shall be used for the Disinfection, Flushing and Testing Plan which is incidental to the Contract.

## 7-09.5 Payment (\*\*\*\*\*)

This section is supplemented with the following:

8-Inch Water Main, CL 52 Ductile Iron, With Fittings	Per Linear Foot
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The unit contract price for Water Main Bid Items, shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for installation of water main pipe and fittings as shown on the Plans and specified herein, including:

1. All necessary clearing and grubbing for trench excavations in non-paved areas.
2. Removal and disposal of existing asphalt concrete and cement concrete pavement as necessary for trench excavations in paved areas. This shall include all necessary work to remove existing pavement (including sawcutting) prior to trench excavation and to remove existing pavement beyond the trench as necessary and as indicated on the drawings prior to installing the permanent pavement patch.
3. All required potholing to verify locations of water service crossings and existing utilities in order to identify and/or avoid utility conflicts. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
4. Trench excavation and dewatering.
5. Removal, loading, hauling, and disposal of native trench excavation material.
6. Installation of pipe and fittings.
7. Pipe bedding, pipe zone backfill and compaction, including hauling of required bedding and backfill material.
8. Trench backfill and compaction, including hauling of required backfill material.
9. Steel sheeting/plating for covering excavations as necessary.
10. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.
11. Temporary and permanent thrust blocking and dead man blocks.
12. Mega-Lugs (or approved equal) at all bends at connections.
13. Maintenance of existing pipes and provisions for interim water service.
14. Pressure and purity testing, disinfection of all water mains, flushing, dechlorination of water used for flushing, including provision of water, temporary blow-off, backflow prevention, air gap apparatus' as necessary for testing and cleanup.
15. Crushed Surfacing Top Course and compaction for roadway base.
16. Placing and maintaining temporary hot mix asphalt patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch").

17. Crushed Surfacing Top Course and compaction for surface restoration outside traveled area.
18. All necessary ductile iron pipe and fittings as shown on Drawings shall be paid for under this bid item.

Additional DI Fittings and Joint Restraints	Per Pound
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The unit contract price for "Additional Ductile Iron Fittings and Joint Restraints" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for installation of fittings and joint restraints in the excavated trench. All other costs are incidental to other bid items.

Connection to Existing Water Main	Per Each
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The unit contract price for "Connection to Existing Water Main" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for complete connection to existing system as shown on the Plans and specified herein including gaskets, bolts, pipe, spools, adapters, couplings, fittings, vertical bends, polyethylene wrap, lighting, and all other necessary appurtenances; thrust blocking; trench excavation and dewatering, backfill and compaction of native material; maintenance, restoration and relocation, if required, of culverts, storm drainage pipe, other utilities and structures; pressure and purity testing, including temporary blow-offs necessary for testing; extra depth excavation, backfill and compaction required to clear buried utilities or other obstructions; and cutting, removal and disposal of existing CI pipe.

Foundation Gravel For Water Main	Per Ton
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The unit contract price for "Foundation Gravel for Water Main" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for furnishing, placing and compacting foundation gravel at locations where the Engineer determines that the material in the bottom of the water main trench is unsuitable and needs to be over-excavated and replaced with foundation gravel.

The unit contract price shall also include excavating, removing, loading, hauling and disposing of unsuitable material that is being replaced by foundation gravel.

Extra Trench Excavation and Backfill	Per Cubic Yard
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The unit contract price for "Extra Trench Excavation and Backfill" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for excavation and compaction, and for furnishing, placing and compacting trench zone backfill at locations where extra trench depth is required to clear existing buried utilities or other obstacles.

## **7-12 VALVES FOR WATER MAINS**

### **7-12.2 Materials (\*\*\*\*)**

This section is supplemented with the following:

#### ***Gate Valves – 6 to 12 Inch***

Gate valves shall be Class 250 and conform to the standards of AWWA C-509 and/or C-515. Gate valves shall be iron body, bronze mounted, resilient seated, non-rising stem, operating stems equipped with standard 2-inch operation nut, and o-ring stem seals, suitable for installation with the type and class of pipe being installed. Ends to be as specified. Valve opening direction shall be counterclockwise. The gate valves shall be as manufactured by Mueller, Dresser, M&H, Pacific States, or approved equal.

#### ***Valve Boxes***

Valve boxes shall be as shown in the Plans and installed per City of Kirkland's standard details.

### **7-12.3 Construction Requirements (\*\*\*\*)**

This section is supplemented with the following:

All valves with operating nuts located more than five (5) feet below finished grade shall be equipped with extension stems per City of Kirkland's standard details.

The water main valves shall have resilient seats for all valves, no matter which type (gate or butterfly). The valve nut shall be centered in the valve box. The valve shall be checked for proper operation before and after the new line is pressurized.

#### ***Water Valve Box Adjustment – Lowering***

Water valve boxes shall be lowered prior to grind (cold planing) operations. All water valve boxes located in the City of Kirkland water service area shall receive temporary paving rings/steel risers after being lowered to fill the resultant void and to allow continuous emergency access to the valves. All paving rings/steel risers shall be removed prior to final valve box adjustment (raising). Voids created by lowering on all water valve boxes located outside the City of Kirkland water service area shall be patched with cold mix. If necessary to adjust valve boxes to grade, valve extensions shall be provided per Pre-Approved Plan CK-W.05 or water valve extension detail on plans. All costs for lowering valve boxes shall be paid for under "Raise and Lower Structures to Final Paved Elevation".

#### ***Water Valve Box Adjustment – Raising***

Water valve boxes shall be brought to finished grade by methods of construction as required in Section 7-12 and Kirkland Pre-Approved Plan No. R.02. Water valve box tops and lids shall be replaced as necessary. Multiple steel risers are not allowed for water valve box adjustments. Water valve boxes shall be adjusted in a manner where the "ears" point in the direction of flow of the main. If the direction of flow of the main cannot be determined in the field, the Contractor shall notify the Inspector and coordinate with the City Water Department, Northshore Utility District, or Woodinville Water District to determine the direction of flow. Patch pavement with Class G asphalt concrete pavement. Seal with PG 58H-22 and dry sand after patching. If necessary to adjust valve boxes to grade, valve extensions shall be provided per Pre-Approved Plan CK-W.05 or water valve extension



detail on plans. All costs for raising valve boxes shall be paid for under "Raise and Lower Structures to Final Paved Elevation".

The Contractor shall notify the Inspector if the direction of flow of the main cannot be determined prior to adjusting the valve box. The Inspector can coordinate with the City Water Department to determine the flow direction.

The City Water Department shall have continuous emergency access to all water valves within the City of Kirkland water service area. Normal operational access to water valves shall be made available during holiday non-work hours, or by the end of work hours each Friday. With exception to previous conditions, the contractor shall restore normal operational access to water valves within two working days after paving.

After final adjustment, all water valve lids within the project limits shall be painted with blue enamel. Paint shall be equal to Kelly Moore DTM 5780 gloss enamel - Safety Blue, or approved equal. All painting of the water valve lids shall be incidental to the cost of the water valve assemblies.

All water valve boxes shall be kept clean of all debris associated with grinding, paving, or other operations associated with the work. Existing valve boxes containing debris from the Contractors operations shall be cleaned prior to final acceptance of the work.

Old water main valve boxes shall be totally removed, the holes backfilled and the existing surface restored in-kind after the old water main is abandoned.

#### **7-12.4 Measurement (\*\*\*\*\*)**

This section is supplemented with the following:

The bid item "8-inch Gate Valve Assembly" shall be measured per each.

The bid item "2-inch Air and Vacuum Release Assembly" shall be measured per each.

No unit of measurement is included for painting of the water valve box lids.

#### **7-12.5 Payment (\*\*\*\*\*)**

This section is revised as follows:

8-inch Gate Valve Assembly	Per Each
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The unit contract price for "8-Inch Gate Valve Assembly" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for complete installation of the valve as shown on the Plans and specified herein:

1. All necessary clearing and grubbing for trench excavations in non-paved areas.
2. Removal and disposal of existing asphalt concrete and cement concrete pavement as necessary for trench excavations in paved areas. This shall include all necessary work to remove existing pavement (including sawcutting) prior to trench excavation and to remove existing pavement beyond the trench as necessary and as indicated on the drawings prior to installing permanent pavement patch.

3. All required potholing to verify locations of existing utilities. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
4. Trench and pit excavation and dewatering.
5. Removal, loading, hauling, and disposal of native trench excavation material.
6. Installation of valve complete on the water main.
7. Installation of valve marker, valve box, valve riser and all other necessary appurtenances.
8. Handling and proper disposal of interfering portions of existing pipes and fittings.
9. Pipe bedding, pipe zone backfill and compaction, including hauling of required bedding and backfill material.
10. Trench backfill and compaction, including hauling of required backfill material.
11. Steel sheeting/plating for covering excavations as necessary.
12. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.
13. Temporary and permanent thrust blocking and dead man blocks.
14. Maintenance of existing pipes and provisions for interim water service.
15. Pressure and purity testing, disinfection of the service connection, flushing, dechlorination of water used for flushing, including provision of water, temporary blow-off, backflow prevention, air gap apparatus' as necessary for testing and cleanup.
16. Crushed Surfacing Top Course and compaction for roadway base.
17. Placing and maintaining temporary hot mix asphalt patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch").
18. Crushed Surfacing Top Course and compaction for surface restoration outside traveled area.
19. Providing temporary water service to customers, and notification of customers for service disruptions.

2-inch Air and Vacuum Release Assembly	Per Each
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The unit Contract price for "2-inch Air and Vacuum Release Assembly" includes full compensation for all labor, materials, tools and equipment necessary and incidental for complete installation of the assembly as shown on the plans and specified herein:

1. All necessary clearing and grubbing for trench excavations in non-paved areas.

2. Removal and disposal of existing asphalt concrete and cement concrete pavement as necessary for trench excavations in paved areas. This shall include all necessary work to remove existing pavement (including sawcutting) prior to trench excavation and to remove existing pavement beyond the trench as necessary and as indicated on the drawings prior to final pavement patch.
3. All required potholing to verify locations of existing utilities. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
4. Trench and pit excavation and dewatering.
5. Removal, loading, hauling, and disposal of native trench excavation material.
6. Installation of the air-vac valve, connection at the water main, meter box, valve box, gate valve, pipe and fittings, washed gravel, all other necessary appurtenances.
7. Painting of all exposed piping and fittings
8. Handling and proper disposal of interfering portions of existing pipes and fittings.
9. Pipe bedding, pipe zone backfill and compaction, including hauling of required bedding and backfill material.
10. Trench backfill and compaction, including hauling of required backfill material.
11. Steel sheeting/plating for covering excavations as necessary.
12. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.
13. Temporary and permanent thrust blocking and dead man blocks.
14. Maintenance of existing pipes and provisions for interim water service.
15. Pressure and purity testing, disinfection of the service connection, flushing, dechlorination of water used for flushing, including provision of water, temporary blow-off, backflow prevention, air gap apparatus' as necessary for testing and cleanup.
16. Crushed Surfacing Top Course and compaction for roadway base.
17. Placing and maintaining temporary hot mix asphalt patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch").
18. Crushed Surfacing Top Course and compaction for surface restoration outside traveled area.
19. Providing temporary water service to customers, and notification of customers for service disruptions.

## **7-14 HYDRANTS**

### **7-14.1 Description (\*\*\*\*\*)**

Supplement the section as follows:

Hydrants shall conform to City of Kirkland's standard details.

**7-14.2 Materials (\*\*\*\*)**

Supplement the section as follows:

All fire hydrants shall be approved by the National Board of Fire Underwriters and conform to City of Kirkland's standard details and AWWA Specifications C-502. Each hydrant shall be equipped with a suitable positive acting drain valve, a 5"x4" female Seattle standard thread rigid Storz adaptor, and 1-¼ in pentagonal operating nut (counter clockwise opening). The fire hydrants shall be Mueller (Centurion), M&H (Style 929), Waterous (Pacer), Clow (Medallion), or American Darling (B-62-B). Hydrants shall be painted per City standards with 2 coats of Kelly Moore DTM 5780 enamel - Safety Yellow.

One blue lane marker, Type 2, shall be installed at all fire hydrant locations. The marker shall be permanently adhered to the street pavement.

**7-14.3(1) Setting Hydrants (\*\*\*\*)**

Section 7-14.3(1) is supplemented with the following:

Hydrants shall be installed in accordance with the City of Kirkland standard details.

**7-14.5 Payment (\*\*\*\*)**

Section 7-14.5 is supplemented with the following:

Fire Hydrant Assembly	Per Each
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The unit contract price for "Fire Hydrant Assembly" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for complete installation of fire hydrant assemblies as shown on the Plans and specified herein including the following:

1. All necessary clearing and grubbing for trench excavations in non-paved areas.
2. Removal and disposal of existing asphalt concrete and cement concrete pavement as necessary for trench excavations in paved areas. This shall include all necessary work to remove existing pavement (including sawcutting) prior to trench excavation and to remove existing pavement beyond the trench as necessary and as indicated on the drawings prior to installing permanent pavement patch.
3. All required potholing to verify locations of existing utilities. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
4. Trench excavation and dewatering.
5. Removal, loading, hauling, and disposal of native trench excavation material.
6. Installation of main line tee, 6-inch gate valve and fittings, 6-inch hydrant run, hydrant, vertical bends, restraining rods, thrust blocking, all other necessary appurtenances.
7. Handling and proper disposal of interfering portions of existing pipes and fittings.

8. Pipe bedding, pipe zone backfill and compaction, including hauling of required bedding and backfill material.
9. Trench backfill and compaction, including hauling of required backfill material.
10. Steel sheeting/plating for covering excavations as necessary.
11. Installing new blue reflector on pavement, fire hydrant painting, and bollards where shown on the plans.
12. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.
13. Temporary and permanent thrust blocking and dead man blocks.
14. Maintenance of existing pipes and provisions for interim water service.
15. Pressure and purity testing, disinfection, flushing, dechlorination of water used for flushing, including provision of water, temporary blow-off, backflow prevention, air gap apparatus' as necessary for testing and cleanup.
16. Crushed Surfacing Top Course and compaction for roadway base.
17. Placing and maintaining temporary hot mix asphalt patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch").
18. Crushed Surfacing Top Course and compaction for surface restoration outside traveled area.
19. Providing temporary water service to customers, and notification of customers for service disruptions.
20. Removal and disposal of all existing fire hydrant assemblies.

## **7-15 SERVICE CONNECTIONS**

### **7-15.1 General (\*\*\*\*\*)**

This section is revised as follows:

The work shall include relocating, resetting, and adjusting water meters and water meter boxes, installing new service connections, as shown in the Plans or as directed by the Engineer. This work consists of installing the service connection from the new water main to the customer's service line with fittings required to make a watertight connection. Adjustments to the existing meter location may be required as shown on the Plans. All piping and fittings required to make these adjustments shall also be included in the bid item. All parts to be brass unless approved by the City of Kirkland Water Department Supervisor.

### **7-15.2 Materials (\*\*\*\*\*)**

Section 7-15.2 is supplemented with the following:

**Corporation Stops and Service Saddles**

Service saddles shall be Romac 101 - IPT, or similar painted saddle with a single steel strap. Service saddles for 2-inch services shall be Romac 202- IPT, or similar painted saddle with a double steel strap. Castings shall be high tensile ductile iron and shall meet the requirements of ASTM 536-80, and shall be protected with corrosion resistant paint. All bolts, nuts, and washers shall be stainless steel; all stainless steel shall be type 304 (13-8). Corporation stops shall be Ford 1101 with IPT inlet and IPSPE outlet grip joint, or approved equal.

**7-15.3 Construction Requirements (\*\*\*\*\*)**

Section 7-15.3 is supplemented with the following:

Construction of all new and replacement water service lines shall be in accordance with the details, as shown on the construction plans, and as required by the General Notes.

New service lines will be continuous and un-spliced from the new meter to the new main.

When it becomes necessary to re-plumb the property owner's side of an existing water meter as the result of the relocation of the existing service or to comply with other City of Kirkland Public Works specifications, the property owner's side shall be reconnected with the appropriate new plumbing materials and related fittings such as brass, copper, polyethylene or PVC with a 200 psi rating.

Services shall be installed perpendicular to the main unless otherwise specified on the plans.

Service connections at the main shall be separated by 18" from other service connections, fittings or joints. Service piping shall be separated by 18-inches from other service piping.

If a fitting, either during installation or after, is found to be defective in any way as determined by the City, the Contractor shall replace the entire fitting and not just the defective component.

Each new water service line shall properly tested, flushed, inspected and approved prior to being connected to its respective water meter.

**7-15.4 Measurement (\*\*\*\*\*)**

This section is supplemented with the following:

The bid item "Water Service Connection, 1-inch" shall be measured per each.

**7-15.5 Payment (\*\*\*\*\*)**

Section 7-15.5 is revised as follows:

Water Service Connection, 1-inch	Per Each
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The unit contract price for "Water Service Connection, 1-inch" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for

installing new service lines to replace existing service lines as shown on the Plans including the following:

1. All necessary clearing and grubbing for trench excavations in non-paved areas.
2. Removal and disposal of existing asphalt concrete and cement concrete pavement as necessary for trench excavations in paved areas. This shall include all necessary work to remove existing pavement (including sawcutting) prior to trench excavation and to remove existing pavement beyond the trench as necessary and as indicated on the drawings prior to installing permanent pavement patch.
3. All required potholing to verify locations of existing utilities. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
4. Trench excavation and dewatering.
5. Removal, loading, hauling, and disposal of native trench excavation material.
6. Installation of pipe and fittings using open trench or trenchless methods of installation (e.g. pushing, pulling, jacking or boring). The service replacements shall include 1" diameter polyethylene pipe for 1" services, 1" angle stop for 1" meter; saddle, corporation stop, tracer wire, fittings, adapters for meter size, meter box and lid appropriate for existing surface conditions as shown on the plans, and all other necessary appurtenances.
7. Connections to the water main, the water meter and the existing property owner's side of the water service.
8. Handling and proper disposal of interfering portions of existing pipes and fittings.
9. Pipe bedding, pipe zone backfill and compaction, including hauling of required bedding and backfill material.
10. Trench backfill and compaction, including hauling of required backfill material.
11. Steel sheeting/plating for covering excavations as necessary.
12. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.
13. Temporary and permanent thrust blocking and dead man blocks.
14. Maintenance of existing pipes and provisions for interim water service.
15. Pressure and purity testing, disinfection of the service connection, flushing, dechlorination of water used for flushing, including provision of water, temporary blow-off, backflow prevention, air gap apparatus' as necessary for testing and cleanup.
16. Crushed Surfacing Top Course and compaction for roadway base.
17. Placing and maintaining temporary hot mix asphalt patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch").

18. Crushed Surfacing Top Course and compaction for surface restoration outside traveled area.
19. Providing temporary water service to customers, and notification of customers for service disruptions.
20. Removing existing meter boxes, and then furnish and install all new meter boxes, type as shown on the Plans and in accordance with current City of Kirkland standards. Contractor shall, at no extra charge, provide customer-side water service lines to the old meter location. Minor relocations of existing meter boxes, as shown on the plans or as directed by the OWNER shall be incidental to this bid item.
21. Testing irrigation systems located adjacent to water meters to be replaced for operability before starting service installation. Reconnection of irrigation system if required following installation of new water service.

## **7-17 SANITARY SEWERS**

### **7-17.2 Materials (\*\*\*\*)**

Section 7-17.2 is supplemented with the following:

Gravity sewer pipe shall be Polyvinyl Chloride (PVC) sewer pipe as specified herein. The Contractor shall provide two copies of the pipe manufacturer's technical literature and tables of dimensional tolerances to the Project Engineer. Any pipe found to have dimensional tolerances in excess of those prescribed or having defects which prevent adequate joint seal or any other damage shall be rejected. If requested by the Engineer, not less than three, nor more than five, lengths of pipe for each size, selected from stock by the Engineer, shall be tested as specified for maximum dimensional tolerance of the respective pipe.

#### ***PVC Pipe and Fittings – Gravity***

All PVC pipe and fittings shall meet ASTM D3034, SDR35 for 4 inch to 15 inch diameters.

#### ***Pipe Plugs***

All plugs shall be of the same material as the pipe being plugged. The plug shall be capable of withstanding all test pressures without leakage.

#### ***Joints and Gaskets***

Rubber or elastomeric gaskets for gravity sewer pipe shall conform to ASTM F477.

### **7-17.3 Construction Requirements (\*\*\*\*)**

#### **7-17.3(2)A General (\*\*\*\*)**

Section 7-17.3(2)A is revised as follows:

The Contractor shall inspect all sanitary sewers to be modified by the project using CCTV. Side launch CCTV shall also be undertaken as specified in 7-18.3. A copy of the video inspection shall be submitted to the City a minimum of two weeks before beginning mainline sewer installation.

Cleaning, testing of the sanitary sewer system is required prior to placing the new section into service and shall be incidental to the sanitary sewer pipe and structures, unless



otherwise specified under bid items herewith. Such tests shall be conducted in accordance with the reference material specification for the material being used. Tests on the completed installation shall be made as specified below and in Section 7-17.3(3).

***Cleaning and Flushing***

All gravity sewer pipes shall be cleaned and flushed after side sewer installation and after backfilling and compaction. The pipe shall be cleaned and flushed by passing an inflatable rubber ball through the completed section or using a flush truck. Any obstruction, such as cemented grout or debris found in the completed section, shall be removed.

***Alignment and Grade***

All gravity sewers installed using open cut methods shall be inspected for alignment and grade by lamping each completed section. Any section which appears to exceed the allowance for variance in line or grade shall be further inspected by an approved video monitoring system (TV inspection). If this inspection confirms that the section does not meet the specified requirements for the line and grade, the sections or portion not in compliance shall be re-excavated and re-laid at Contractor's expense.

All gravity sewers shall be inspected by an approved video monitoring system (TV inspection) prior to final acceptance.

All costs incurred for TV inspection shall be considered incidental to and included in various related bid item included in the proposal.

7-17.3(2)H Television Inspection (\*\*\*\*\*)

Section 7-17.3(2)H is revised as follows:

All new sanitary sewer lines shall be inspected by the use of a television camera before final acceptance. A copy of the video inspection shall be submitted to the City. All costs incurred for TV inspection shall be considered incidental to and included in various related bid item included in the proposal.

7-17.3(2)I Temporary Sewer Bypass (\*\*\*\*\*)

Add the following new section:

The Contractor shall install a temporary bypass in order to maintain uninterrupted sewer service where construction work will interfere with sewage flow in the existing sanitary sewer. The bypass shall be made by diverting the effluent flow at an upstream access manhole or other approved collection point and bypassing it through a separate conduit to a downstream reentry point or to an adjacent sanitary sewer system. Pump equipment and bypass conduit shall be of adequate size and capacity to handle the flow. The effluent level in the upstream access manhole or approved collection point shall not be allowed to rise more than 1 foot above the crown of the incoming sanitary sewer pipe. Work shall be conducted in such a manner as to comply with the requirements of Section 1-07.5. The bypass shall accommodate television inspection as necessary (see Section 7-17.3(2)H).

The Contractor shall submit drawings and complete design data to the Engineer showing methods and equipment proposed to be utilized in the sanitary sewer bypassing. The Contractor shall allow at least 10-days for review and return of comments. Such approval shall not relieve the Contractor of the Contractor's responsibilities or any public liability for

sewerage spills under this Contract that may result from the Contractors negligence, inadequate or improper installation maintenance and operation of the bypass system.

At a minimum the Contractor shall provide the following information:

1. Drawings including the location of the temporary sewer plugs and bypass discharge lines.
2. Capacities of the pumps, and stand by equipment.
3. Design calculations demonstrating adequacy of the system and selected equipment. Temporary bypass systems shall be designed by a registered professional engineer in the State of Washington.
4. Provide listings of onsite standby equipment, materials, and spare parts used for the sewer bypass.
5. Provide procedures for pipe connection.
6. Provide a list of personnel on-call at all times to service (maintain) the bypass system during non-working hours.
7. The Contractor shall be responsible for bypass between shifts, on holidays and weekends and during work stoppage.

#### **7-17.4 Measurement (\*\*\*\*)**

Section 7-17.4 is supplemented with the following:

The bid item “\_\_-Inch Sanitary Sewer Main, D3034 SDR-35 PVC” will be measured per linear foot installed.

The bid item “Temporary Sewer Bypassing” will be per lump sum.

#### **7-17.5 Payment (\*\*\*\*)**

Section 7-17.5 is supplemented with the following:

6-Inch Sanitary Sewer Main, D3034 SDR-35 PVC	Per Linear Foot
8-Inch Sanitary Sewer Main, D3034 SDR-35 PVC	Per Linear Foot

The unit contract prices for “\_\_-Inch Sanitary Sewer Main, D3034 SDR-35 PVC” shall be full compensation for all labor, material, tools and equipment necessary for and incidental to furnish and install the sanitary sewer mains and appurtenances as shown on the plans and as specified herein, including the following:

1. All necessary clearing and grubbing for trench excavations in non-paved areas.
2. Removal and disposal of existing asphalt concrete and cement concrete pavement as necessary for trench excavations in paved areas. This shall include all necessary work to remove existing pavement (including sawcutting) prior to trench excavation and to remove existing pavement beyond the trench as necessary and as indicated on the drawings prior to installing permanent pavement patch.

3. All required potholing to verify locations of existing utilities. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
4. Trench excavation and dewatering, furnishing and installation of pipe, special fittings, manhole adapters.
5. Removal, loading, hauling, and disposal of native excavation material.
6. Pipe bedding material and compaction, including hauling of required bedding material.
7. Trench backfill and compaction for all required receiving pits and insertion pits, including hauling of required backfill material.
8. Steel sheeting for covering excavations as necessary.
9. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain. Cleaning and testing of all mains, manholes, and appurtenances including CCTV inspection of the mains.
10. Crushed Surfacing Top Course and compaction for roadway base.
11. Placing and maintaining temporary hot mix asphalt concrete patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch")
12. Crushed Surfacing Top Course and compaction for surface restoration outside traveled area.

Temporary Sewer Bypassing	Per Lump Sum
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The unit contract price for "Temporary Sewer Bypassing" shall be full compensation for all labor, material, tools and equipment necessary for and incidental to maintaining the existing sewer main and providing for continued sewer service past the work area for construction of sewer mainline, side sewers, manholes and other appurtenances.

## 7-18 SIDE SEWERS

### 7-18.3 Construction Requirements (\*\*\*\*\*)

Section 7-18.3 is supplemented with the following:

#### **Side Sewer Service**

A minimum of two weeks before beginning mainline sewer installation, Contractor shall inspect all existing side sewers using CCTV to determine which side sewers are connected and require replacement. Side sewer inspection shall include use of a sonde to facilitate location for potholing. A copy of the video inspection shall be submitted to the City.

Side sewer service shall be installed per details shown on the Plans. Side sewer shall be extended from the sewer main to the edge of the right-of-way or as shown on the Plans, unless directed by the Engineer.

All side sewers shall be visually inspected by the Engineer and pressure tested in accordance with Section 7-17.3(2)F prior to placing back into service.

Contractor shall coordinate with the City and the property owner prior to construction.

#### **7-18.4 Measurement (\*\*\*\*)**

Section 7-18.4 is revised as follows:

The bid item "6-Inch Side Sewer Service, D3034 SDR-35 PVC" will be measured per each.

#### **7-18.5 Payment (\*\*\*\*)**

Section 7-18.5 is supplemented with the following:

6-Inch Side Sewer Service, D3034 SDR-35 PVC	Per Each
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The unit contract price per each for "6-Inch Side Sewer Service, D3034 SDR-35 PVC" shall be full compensation for all labor, material, tools and equipment necessary for and incidental to furnish and install the side sewer main and appurtenances as shown on the plans and as specified herein, including the following:

1. CCTV inspection of existing side sewers.
2. All necessary clearing and grubbing for trench excavations in non-paved areas.
3. Removal, loading, hauling, and disposal of existing asphalt concrete pavement as 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 installing permanent pavement patch.
4. All required potholing to verify locations of existing utilities and potholing existing side sewers. Contractor shall pothole at least 100 linear feet in advance of any excavation or trenching to accommodate remediation of utility conflicts if needed.
5. Trench excavation and dewatering, furnishing and installation 6-inch diameter pipe on line and grade, furnishing and installing, fittings, caps, fusion saddles, marker posts, tracer wire; clean out assembly, connection to existing side sewers.
6. Removal, loading, hauling, and disposal of native excavation material.
7. Pipe bedding material and compaction, including hauling of required bedding material.
8. Trench backfill and compaction, including hauling of required backfill material.
9. Providing temporary sewer service to customers and notice to customers of service disruption.
10. Furnish and install cleanout structure.
11. Steel sheeting for covering excavations as necessary.
12. Maintenance, restoration and/or relocation, if required, of existing culverts, storm drainage pipe, other utilities and structures affected by construction that are to remain.

13. Maintenance of existing sanitary sewer main and provisions for continued sewer service past the work area including Temporary Sewer Bypass.
14. Cleaning and testing.
15. Crushed Surfacing Top Course and compaction for roadway base.
16. Placing and maintaining temporary hot mix asphalt concrete patching over compacted backfill within existing paved areas, and removal of the temporary hot mix asphalt mix prior to placement of permanent trench patch (paid for under "Pavement Repair Excavation Including Haul" or "HMA Class 1/2-inch, PG 58H-22 for Permanent Trench Patch").
17. Crushed Surfacing Top Course and compaction for surface restoration outside traveled area.

## **7-19 SEWER CLEANOUTS**

### **7-19.3 Construction Requirements (\*\*\*\*\*)**

Section 7-19.3 is supplemented with the following:

Cleanouts shall be located in the right-of-way and shall be field fit to avoid dramatically impacting property owners improvements, and to avoid existing utilities and disturbing private driveways extending into the right-of-way. The location of the cleanout shall be coordinated with and approved by the Contracting Agency prior to installation.

Import material for sewer cleanout backfill shall be crushed surfacing top course for trench backfill conforming to the requirements of Section 9-03.9(3).

### **7-19.5 Payment (\*\*\*\*\*)**

Section 7-19.5 is supplemented with the following:

All costs associated with furnishing and installing cleanouts shall be incidental to bid item "6-Inch Side Sewer Service, D3034 SDR-35 PVC".

## **7-20 ABANDON EXISTING WATERMAIN SYSTEM (\*\*\*\*\*)**

Add the following new section:

### **7-20.1 Description**

This Work consists of abandoning the existing cast iron watermain system in place where replaced by new water main where shown on the Plans or required by the Specifications and Special Provisions.

### **7-20.4 Measurement**

The bid item "Abandoning Existing CI Watermain System" shall be per Lump Sum.

### **7-20.5 Payment**

Abandoning Existing CI Watermain System	Per Lump Sum
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The unit contract price for "Abandoning Existing CI Watermain System" shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for abandonment of the existing CI Watermain system in place where shown on the Plans, or required by the Specifications and Special Provisions including

1. Removal, loading, hauling, and disposal of existing pavement.
2. Removing thrust blocking, trench excavation, dewatering.
3. Backfill and compaction of Crushed Surfacing Top Course.
4. Cutting or breaking the existing main at connection, installing end caps and all other necessary appurtenances; removal and disposal of valve cans.
5. Cutting; removing and disposing of existing CI pipe and fittings as necessary for the installation of the proposed improvements (where required).
6. Plugging and capping mains, valves, valve boxes (including plugging) and tees; installing blind flanges, caps, ductile iron spools, couplings.
7. Removing and disposing of existing valves, valve boxes, and appurtenances.
8. Installation of caps or other fittings onto existing main.

Removal of existing fire hydrant assemblies shall be compensated for in bid item Fire Hydrant Assemblies, Section 7-14.5.

#### **END OF DIVISION 7**

## **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:

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 Pre-Approved Plan 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

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.

***Site Specific BMPs and SWPPP Plan***

Temporary Erosion / Water Pollution Control notes and performance criteria are noted in the Contract Documents. The Contractor shall submit his or her own Storm Water Pollution Prevention Plan (SWPPP) to the Contracting Agency for review and approval prior to the commencement of clearing, grubbing, or grading activities.

Water quality testing and discharge volume reporting required by the project permits shall be performed by the Contractor and is a condition of approval of the SWPPP. The reporting data shall be provided to the Engineer as soon as practical, at regular intervals and prior to reporting deadlines established in the permits. The Contractor will provide a copy of the reporting information within 24 hours of a request to do so by the Engineer. All costs to perform these reporting requirements are to be included in the lump sum contract price for "Erosion/Water Pollution Control".

**8-01.3 Construction Requirements (\*\*\*\*\*)**

Section 8-01.3 is supplemented with the following:

The Contractor shall bear sole responsibility for damage to completed portions of the project and to property located off the project caused by erosion, siltation, runoff, or other related items during the construction of the project. The Contractor shall also bear sole responsibility for any pollution of rivers, streams, groundwater, or other water that may occur as a result of construction operations.

Any area not covered with established, stable vegetation where no further work is anticipated for a period of 15 days, shall be immediately stabilized with the approved erosion and sedimentation control methods (e.g., seeding and mulching, straw). Where seeding for temporary erosion control is required, fast germinating grasses shall be applied at an appropriate rate (e.g., perennial rye applied at approximately 80 pounds per acre).

At no time shall more than 1 foot of sediment be allowed to accumulate within a catch basin. All catch basins and conveyance lines shall be cleaned at a time designated by the Contracting Agency Construction Inspector.

The cleaning operation shall not flush sediment-laden water into the downstream system. The cleaning shall be conducted using an approved vacuum truck capable of jet rodding the lines. The collection and disposal of the sediment shall be the responsibility of the Contractor at no cost to the Contracting Agency.

**8-01.3(1) General**

**8-01.3(1)A Submittals (\*\*\*\*\*)**

Section 8-01.3(1)A is supplemented with the following:

***Stormwater Pollution Prevention Plan***

The Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Department of Ecology requirements.



The Contractor shall incorporate the SWPPP implementation schedule into the Contractor's progress schedule. The SWPPP and implementation schedule shall be submitted in accordance with Sections 1-05.3 and 1-08.3.

In addition, the SWPPP shall outline the procedures to be used to prevent high pH stormwater. The plan shall include how the pH of the water will be maintained between pH 6.5 and pH 8.5 prior to being discharged from the project or entering surface waters. Prior to beginning any concrete or grinding work, the Contractor shall submit the plan, for the Engineer's review and approval.

The Ecology template can be found at the following link:

<http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

The SWPPP is considered a "living" document that shall be revised to account for additional erosion control/pollution prevention BMPs as they become necessary and are implemented in the field during project construction. A copy of the most current SWPPP shall remain on-site at all times and an additional copy shall be forwarded to the Engineer. At the Contractor's preference, revisions to the SWPPP may be forwarded to the Engineer rather than submitting a complete document. Revisions to the SWPPP may be kept on-site in a file along with the original SWPPP document.

8-01.3(1)B Erosion and Sediment Control (ESC) Lead (\*\*\*\*\*)

Supplement the second paragraph with the following:

5. Inspecting all on-site erosion and sediment control BMPs at least once every five working days and within 24 hours of every runoff event. A SWPPP Inspection report or form shall be prepared for each inspection and shall be included in the SWPPP file. A copy of each SWPPP Inspection report or form shall be submitted to the Engineer no later than the end of the next working day following the inspection. The report or form shall include, but not be limited to the following:
  - a. When, where, and how BMPs were installed, maintained, modified, and removed.
  - b. Observations of BMP effectiveness and proper placement.
  - c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal SWPPP inadequacies.
  - d. Approximate amount of precipitation since last inspection and when last inspection was performed.
6. Updating and maintaining a SWPPP file on site that includes, but is not limited to the following:
  - a. SWPPP Inspection Reports or Forms.
  - b. SWPPP narrative.
  - c. Other applicable permits.

8-01.3(1)C Water Management (COK GSP)

Section 8-01.3(1)C is supplemented with the following:

The Contractor will be responsible for meeting the SWPPP requirements.

The Bid Item "Erosion/Water Pollution Control" shall include the cost of providing temporary detention/retention facilities as illustrated in the Contractor's SWPPP Plan as well as modifications, additions and removals of such facility as dictated by the Contractor's sequence of work and may include, but are not limited to:

1. Temporary detention/retention facilities such as ponds, Baker Tanks, or other facilities.
2. If any permanent stormwater facilities are utilized, such as the detention vault, for SWPPP compliance, the Contractor shall remove accumulated sediment and clean the facility prior to final acceptance at no additional cost to the Contracting Agency.
3. Temporary facilities such as wheel wash stations or similar.
4. Temporary construction entrances.

No additional compensation shall be made for construction, alteration, removal, maintenance, and any additional requirements necessary for "Erosion/Water Pollution Control". No additional compensation shall be made for conflicts with existing or proposed improvements or construction sequencing of work when facilities are utilized to meet permit requirements.

#### **8-01.4 Measurement (\*\*\*\*\*)**

Section 8-01.4 is supplemented with the following:

The bid item "Erosion/Water Pollution Control" shall be Lump Sum.

#### **8-01.5 Payment (\*\*\*\*\*)**

Section 8-01.5 is supplemented with the following:

Erosion/Water Pollution Control	Per Lump Sum
---------------------------------	--------------

The lump sum contract price for "Erosion/Water Pollution Control" shall include the cost of providing temporary detention/retention facilities as illustrated in the Contractor's SWPPP Plan as well as modifications, additions and removals of such facility as dictated by the Contractor's sequence of work and may include, but are not limited to:

1. Preparation of SWPPP.
2. Temporary detention/retention facilities such as ponds, Baker Tanks, or other facilities.
3. If any permanent stormwater facilities are utilized, such as the detention vault, for SWPPP compliance, the Contractor shall remove accumulated sediment and clean the facility prior to final acceptance at no additional cost to the Contracting Agency.
4. Temporary facilities such as wheel wash stations or similar.
5. Temporary construction entrances.
6. Catch basin / inlet sedimentation traps.

No additional compensation shall be made for construction, alteration, removal, maintenance, and any additional requirements necessary for "Erosion/Water Pollution Control". No additional compensation shall be made for conflicts with existing or proposed improvements or construction sequencing of work when facilities are utilized to meet permit requirements.

## **8-02 ROADSIDE RESTORATION**

### **8-02.3 Construction Requirements**

#### **8-02.3(17) Property Restoration (\*\*\*\*\*)**

Section 8-02.3(17) is added as follows:

Property restoration shall apply to the construction limits, both within the public right-of-way and private property. Construction limits shall be defined as the area impacted by activities by the Contractor required to complete the work shown on the Drawings.

Property restoration shall consist of fine grading landscaped areas disturbed during construction, replant and/or replacement of plant materials, seed, sod, bark mulch, tree protection, irrigation system repair or replacement, remove and replace fencing, rockeries, and other non-specified items within the construction limits to return the work area to a condition as good as or better than conditions that existed prior to construction activities. Topsoil shall be Type A and bark mulch shall be in accordance with Section 9-14.4(3) of the Special Provisions. Disturbed grass areas shall be restored with 4 inches of topsoil and sod or hydroseed at the option of the property owner or as directed by the Engineer. The Contractor will be responsible to contact property owners to determine their selection of restoration options.

Existing plant material that are temporarily removed and relocated during construction activities will be stored using commonly accepted practices that will ensure the long term survival of the plantings upon replanting. Any plantings that do not survive replanting along with any new plants furnished to replace existing plants in lieu of relocation and replacement will be subject to a one-year survival guarantee as provided for in the Contractor' Performance and Payment Bond.

New plant material provided shall be compatible to the existing landscaping as approved by the Engineer.

#### **8-02.4 Measurement (\*\*\*\*\*)**

Section 8-02.4 is supplemented with the following:

The bid item "Property Restoration" shall be Lump Sum.

#### **8-02.5 Payment (\*\*\*\*\*)**

Section 8-02.5 is supplemented with the following:

Property Restoration	Per Lump Sum
----------------------	--------------

The unit contract price for "Property Restoration", including all incidental work, shall be full pay for all labor, material, tools and equipment necessary to satisfactorily complete the work as defined in these Special Provisions and the Plans.

## **8-04 CURBS, GUTTERS, AND SPILLWAYS**

### **8-04.3 Construction Requirements**

#### **8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways (\*\*\*\*\*)**

The first paragraph of Section 8-04.3(1) is revised to read as follows:

Cement concrete curb or curb and gutter shall be constructed with air entrained concrete Class 4000 conforming to the requirements of Section 6-02.

Cement concrete curb at curb ramps and landings shall conform to City of Kirkland Pre-Approved Plan No. CK-R.17C.

Cement concrete curb adjacent to street shall conform to City of Kirkland Pre-Approved Plan No. CK-R.17A.

Cement concrete curb and gutter shall conform to City of Kirkland Pre-Approved Plan No. CK-R.17.

#### **8-04.5 Payment (\*\*\*\*\*)**

Section 8-04.5 is supplemented with the following:

Cement Concrete Curb	Per Linear Foot
----------------------	-----------------

The unit contract price for "Cement Curb" shall be full compensation for all labor, materials, tools, and equipment and any other work necessary and incidental to restore and make necessary connections to replace existing curb reasonably disturbed by Contractor as shown on the Drawings, or where directed by the Project Engineer. Unit price shall include cutting, breaking, removal, loading, hauling and disposal of the existing damaged sections.

Cement Concrete Curb and Gutter	Per Linear Foot
---------------------------------	-----------------

The unit contract price for "Cement Curb and Gutter" shall be full compensation for all labor, materials, tools, and equipment and any other work necessary and incidental to restore and make necessary connections to replace existing curb and gutter reasonably disturbed by Contractor as shown on the Drawings, or where directed by the Project Engineer. Unit price shall include cutting, breaking, removal, loading, hauling and disposal of the existing damaged sections.

## **8-13 MONUMENT CASES**

### **8-13.3 Construction Requirements (\*\*\*\*\*)**

The last paragraph of Section 8-13.3 is revised to read as follows:

### ***Adjustment of Monument Cases - Lowering***

Prior to grinding (cold planing) operations, the Contractor shall vertically adjust the monument case and cover below the limits for planing bituminous pavement. After the monument case and cover have been lowered, the Contractor shall patch the resultant void with cold mix asphalt.

### ***Adjustment of Monument Cases - Raising***

After paving, the Contractor shall adjust monument cases to finish grade in accordance with City of Kirkland Pre-Approved Plan CK-R.03. The use of riser rings in lieu of adjustment will not be allowed. If the monument is displaced by the Contractor's operations the Contractor shall remove and replace the case and coordinate reestablishment of the monument by a Professional Land Surveyor at no additional cost to the Contracting Agency.

The Contractor shall furnish, set and tie out the monument. Tie out and resetting of monument shall be performed by a professional land surveyor registered in the State of Washington. Refer to Section 1-07.16 of these Special Provisions for protection of monuments requirements.

It is the responsibility of the Contractor to submit and satisfy all requirements of the "Application for Permit to Remove or Destroy a Survey Monument" with the Department of Natural Resources prior to removal of the existing monuments. The Contractor shall provide a copy of the permit application to the Engineer.

## **8-13.4 Measurement (\*\*\*\*\*)**

Section 8-13.4 is supplemented with the following:

The bid item "Raise and Lower Structures to Final Paved Elevation" will be per each structure adjusted to final paved elevation. Intermediate adjustments, if required to accommodate planing or other activities, shall be considered incidental to this bid item.

The bid item "Reset Monument Box" will be per each monument box.

## **8-13.5 Payment (\*\*\*\*\*)**

Section 8-13.5 is supplemented with the following:

Raise and Lower Structures to Final Paved Elevation	Per Each
---	----------

The unit contract price for "Raise and Lower Structures to Final Paved Elevation" shall be full compensation for all labor, materials, tools, and equipment and any other work necessary and incidental to adjust elevation of existing structures, including but not limited to valve boxes, catch basins, and manholes to final paved elevation.

Reset Monument Box	Per Each
--------------------	----------

The unit contract price for "Reset Monument Box" shall be full compensation for all labor, materials, tools, and equipment and any other work necessary and incidental to reset monument box to final paved elevation.

## **8-14 CEMENT CONCRETE SIDEWALK**

### **8-14.3 Construction Requirements**

Section 8-14.3(5) is replaced with the following:

#### **8-14.3(5) ADA Sidewalk Ramps**

Construction of ADA sidewalk ramps shall conform to the technical requirements of Washington State Dept of Transportation (WSDOT) Standards included herein. Pre-approved manufactured products include: Detectable Warning Systems, Inc or approved equivalent.

### **8-14.4 Measurement (\*\*\*\*\*)**

Section 8-14.4 is revised to read as follows:

The bid item "Cement Concrete Curb Ramp" will be measured per each curb ramp installed and includes the ramp, landing area, detectable warning surface and any other features included within the pay limits shown on the WSDOT Standard Curb Ramp Plans.

The bid item "Cement Concrete Sidewalk" will be measured by the square yard of finished surface.

### **8-14.5 Payment (\*\*\*\*\*)**

Section 8-14.5 is revised to read as follows:

Cement Concrete Curb Ramp	Per Each
---------------------------	----------

The unit contract price for "Cement Concrete Curb Ramp" shall be full compensation for all labor, materials, tools, and equipment, including but not limited to, survey of property corners, gravel for curb ramp base and compaction, expansion joints, joint fillers, surface finishes, thickened edges, wheelchair/ADA ramps, landing area, truncated dome detectable warning surface, as shown on the Drawings, or where directed by the Project Engineer. Unit price shall include cutting, breaking, removal, loading, hauling and disposal of the existing damaged sections of sidewalk, curb ramp, curb, and gutter.

Cement Concrete Sidewalk	Per Square Yard
--------------------------	-----------------

The unit contract price for "Cement Concrete Sidewalk" shall be full compensation for all labor, materials, tools, and equipment, including but not limited to, gravel for sidewalk base and compaction, expansion joints, joint fillers, surface finishes, thickened edges, and any other work necessary and incidental to restore and make necessary connections to replace existing sidewalks reasonably disturbed by Contractor as shown on the Drawings, or where directed by the Project Engineer. Unit price shall include cutting, breaking, removal, loading, hauling and disposal of the existing damaged sections.

## **8-21 PERMANENT SIGNING**

### **8-21.2 Materials (\*\*\*\*)**

Section 8-21.2 is supplemented with the following:

Contractor shall provide and erect temporary signs prior to, or immediately following, removal of existing signs. Temporary signs shall be maintained by the Contractor until the permanent signs have been reinstalled.

Signs shall be reinstalled per City of Kirkland Pre-Approved Plan CK-R.43. The Contractor shall coordinate permanent sign location with the City's Sign Shop prior to installation. If existing post of permanent sign is not 2" Schedule 40 galvanized pipe, then a new post shall be installed per City of Kirkland Pre-Approved Plan CK-R.43.

### **8-21.4 Payment (\*\*\*\*)**

Section 8-21.4 is revised to read as follows:

The bid item "Permanent Signing" shall be per lump sum.

### **8-21.5 Payment (\*\*\*\*)**

Section 8-21.5 is supplemented with the following:

Permanent Signing	Per Lump Sum
-------------------	--------------

The lump sum contract price for "Permanent Signing" shall be full compensation for all work and materials necessary to remove, reinstall, or replace existing signs and posts, including all costs associated with furnishing, installing, and maintaining temporary signs and posts during the relocation of the permanent signs.

## **8-22 PAVEMENT MARKING**

### **8-22.1 Description (\*\*\*\*)**

Section 8-22.1 is supplemented with the following:

This work shall consist of furnishing and placing painted pavement markings upon the roadway for delineation in the form of centerlines, edge stripes, crosswalks, directional arrows, traffic letters, and stop bars, to restore and match existing pavement markings and/or striping affected by Contractor's operations.

Pavement markings as referred to herein shall comply with the following definitions:

Plastic Bicycle Lane Marking – Bicycle lane markings shall be per City of Kirkland Pre-Approved Plans No. CK-R.34, CK-R.36A, and CK-R.36C.

Plastic Crosswalk Line – Crosswalk line shall be per City of Kirkland Pre-Approved Plan No. CK-R.28.

#### **8-22.2 Materials (\*\*\*\*\*)**

Section 8-22.2 is revised as follows:

Materials for bid items “Plastic Bicycle Lane Marking” and “Plastic Cross Walk Line” shall be thermoplastic as required by the City of Kirkland Pre-Approved Plans referenced in Section 8-22.1. Materials shall be selected from approved materials listed in the Qualified Products List.

#### **8-22.4 Payment (\*\*\*\*\*)**

Section 8-22.4 is revised to read as follows:

The bid items “Plastic Bicycle Lane Marking” and “Plastic Cross Walk Line” shall be measured per square foot.

#### **8-22.5 Payment (\*\*\*\*\*)**

Section 8-22.5 is supplemented with the following:

Plastic Bicycle Lane Marking	Per Square Foot
Plastic Cross Walk Line	Per Square Foot

The unit contract prices for “Plastic Bicycle Lane Marking” and “Plastic Cross Walk Line”, including all incidental work, shall be full pay for all labor, material, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Special Provisions and the Plans.

Removal of existing raised pavement marking, paint, and thermoplastic markings shall be considered incidental to the Contract.

**END OF DIVISION 8**



## DIVISION 9 – MATERIALS

### 9-14 EROSION CONTROL AND ROADSIDE PLANTING

The materials for Property Restoration shall meet the requirements of Section 9-14 of the Standard Specifications supplemented as follows. Irrigation water shall conform to the provisions of Section 9-25.2.

#### 9-14.1(1) *Topsoil Type A* (\*\*\*\*\*)

Section 9-14.4(1) is supplemented with the following:

Topsoil Type A shall be two-way soil mix or approved equal, with the following specifications:

Soil mix shall be a mixture of pure compost, and sand, sandy loam or silty sand. The soil shall be high in organic content and comprised of fully composted and mature organic materials. No fresh sawdust or other fresh wood by-products shall be added to extend the volume after the composting process.

Compost shall be 98 percent minimum material derived from the aerobic decomposition of recycled plant waste and/or secondary sewage treatment. It shall be free of viable weed seeds and other plant propagules and shall have a moisture content that has no visible free water or dust produced when handling the material.

Chemical/physical characteristics shall comply with the following:

Screen Size (approx. particle size)	7/16" maximum
Total Nitrogen	.25% minimum
Organic Matter	10% minimum
pH Range	5.5-7.5
Conductivity	5 mmhos/cm maximum

The following are acceptable sources/products for Topsoil:

Pacific Topsoil Environmental Mix, Cedar Grove 2 Way Mix, or approved equal.

#### 9-14.2 *Seed* (\*\*\*\*\*)

Section 9-14.2 is supplemented with the following:

Hydroseed Mix #1 (Master Lawn Mix) as follows, available from Grass Master, Redmond, WA (425) 867-1117, or approved equal:

<u>Common Name</u>	<u>Volume Percentage</u>
Chewing Fescue	20%
Hard Fescue	10%
Perennial Rye Grass (3 different varieties)	70%

Hydroseed Mix #2 (Wetlands Area Seed Mix) as follows, available from Grass Master, Redmond, WA (425) 867-1117, or approved equal.

<u>Common Name</u>	<u>Volume Percentage</u>
Meadow Fescue	45%
Meadow Foxtail	20%
Red Top	20%
Seaside Bentgrass	10%
Birdsfoot Trefoil	5%

#### **9-14.3 Fertilizer (\*\*\*\*\*)**

Section 9-14.3 is supplemented with the following:

Fertilizers shall be delivered to job sites, mixed as specified in standard size unopened containers showing weight, analysis, and name of manufacturer. Material shall be uniform in composition, free-flowing, and suitable for application by mechanical equipment. All fertilizers shall be protected from the weather, particularly moisture, both on and off the job site.

The Contractor shall submit material certification for all fertilizers to the Project Engineer for approval before beginning planting or seeding work.

Fertilizer for initial planting of trees, shrubs and ground covers shall have N-P-K analysis of 4-2-2. Fertilizer shall be slow release, non-burning, contain Nitroform, Frittered Trace Elements (FTE), and MagAmp.

Acceptable product: Agro "Transplanter" or approved equal.

Fertilizer for plant establishment during the one (1) year maintenance period shall have N-P-K analysis of 6-10-8 and shall meet the following requirements:

1. 50 percent of nitrogen (N) derived from Nitroform "Blue Chip".
2. 50 percent of potash (K) derived from sulfate of potash-magnesium.
3. Additives, including 2 percent Frittered Trace Elements (FTE) and 0.5 percent Multitracin.

Fertilizer for plant establishment shall have the following sieve analysis:

1. 0 percent retained No. 4 sieve.
2. 65 percent retained No. 20 sieve.
3. 100 percent retained No. 80 sieve.

Acceptable product: Lilly Miller or approved equal.

Fertilizer for hydroseeding shall be as recommended by seed supplier.

#### **9-14.4 Mulch and Amendments**

##### **9-14.4(3) *Bark or Wood Chips* (\*\*\*\*)**

Section 9-14.4(3) is supplemented with the following:

Bark mulch - mulch shall be 2-way mix consisting of the following:

50% composted ground fir or hemlock bark

50% composted manure

Bark shall be uniform in color, free from weed seeds, sawdust and splinters. Mulch shall not contain resin, tannin, wood fiber or other compounds detrimental to plant life. Moisture content of bagged mulch shall not exceed 22%. The acceptable size range of bark mulch material is ½ inch with a maximum of 20% passing the ½ inch screen.

**END OF DIVISION 9**

# **PREVAILING WAGE RATES**



# **PREVAILING WAGE RATES**

Prevailing wage rates can be found at:  
[www.lni.wa.gov/tradeslicensing/prevwage/wagerates](http://www.lni.wa.gov/tradeslicensing/prevwage/wagerates)

Use August 31, 2023 rates

King County

A copy of the applicable wage rates is available for viewing in our office:

City Hall Annex  
310 1<sup>st</sup> Street  
Kirkland, WA 98033

The City of Kirkland will mail a hard copy of the applicable wage rates upon request.  
Send your request to the Project Engineer.



# APPENDICES





**Appendix 1**

**Contract Drawings**  
**(Under a Separate Cover)**

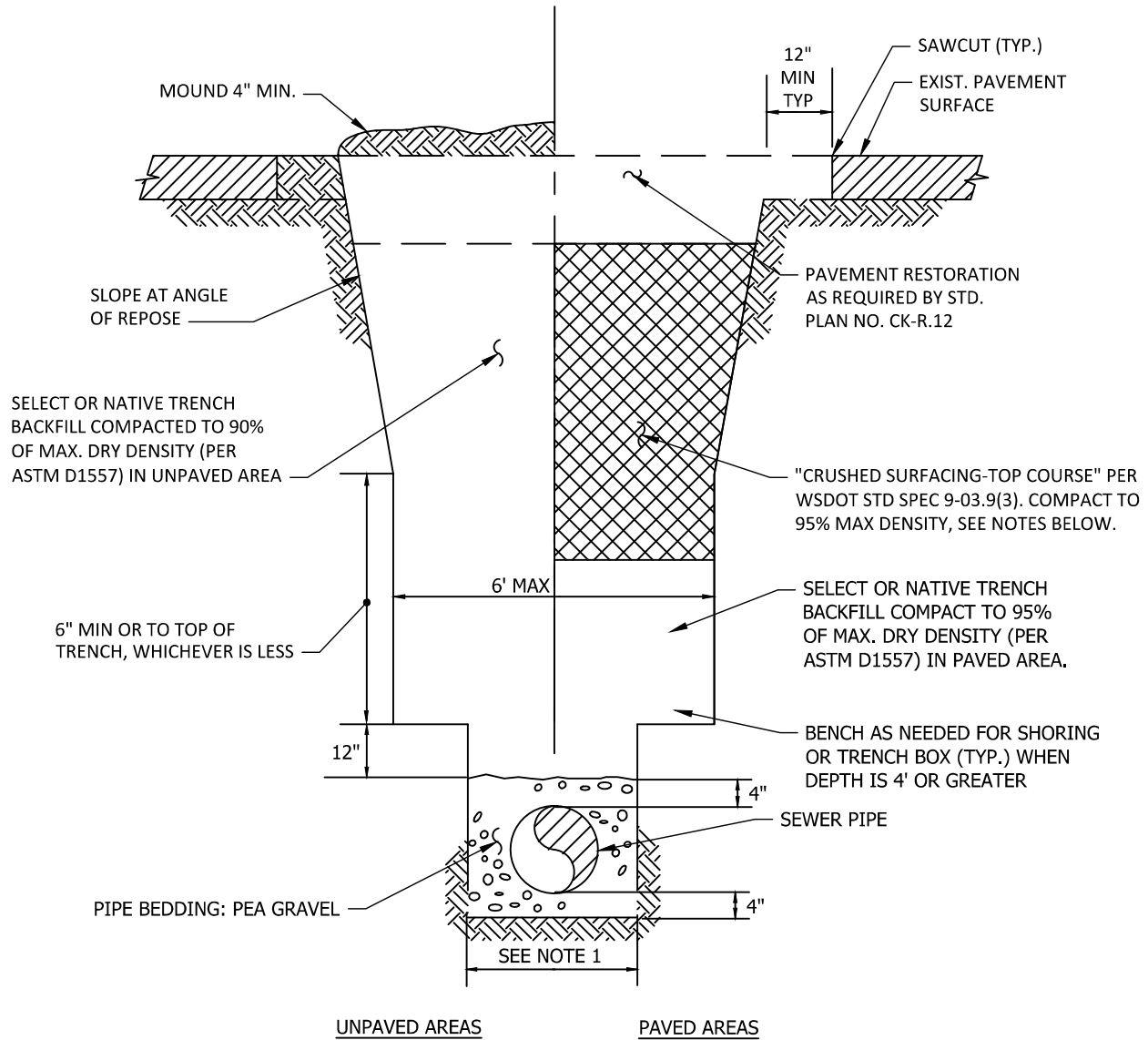


**Appendix 2**

**Pre-Approved Plans  
& Public Works  
Policies**



# **SANITARY SEWER**



#### NOTES

1. TRENCH BACKFILL BELOW TOP 4 FEET MAY BE NATIVE MATERIALS OR AS REQUIRED BY THE SPECIFICATIONS, OR AS DIRECTED BY THE PUBLIC WORKS INSPECTOR.
2. MINIMUM TRENCH WIDTH SHALL BE PIPE ID + 24".
3. IN PAVED AREAS USE CRUSHED ROCK BACKFILL
  - \* FULL DEPTH OF TRENCH WHERE SEWER MAIN CROSSES PERPENDICULAR TO THE TRAVELED LANE OR DRIVEWAY.
  - \* TOP FOUR FEET WHERE SEWER MAIN RUNS PARALLEL TO THE TRAVELED LANE, UNLESS EXISTING MATERIAL IS DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL.
4. THE STREET SHALL BE OVERLAID WHEN THE ASPHALT ROADWAY IS LESS THAN 5YRS OLD FOR UTILITY CROSSINGS, THE STREET SHALL BE OVERLAID AT LEAST 25 FEET ON EACH SIDE OF THE TRENCH. SEE OVERLAY POLICY R-7.

**CITY OF KIRKLAND**

PLAN NO. CK- S.01



**SANITARY SEWER  
TRENCH DETAIL**

NATIVE BACKFILL COMPACTED  
TO DENSITY OF ADJACENT  
SOIL, SEE SPECS

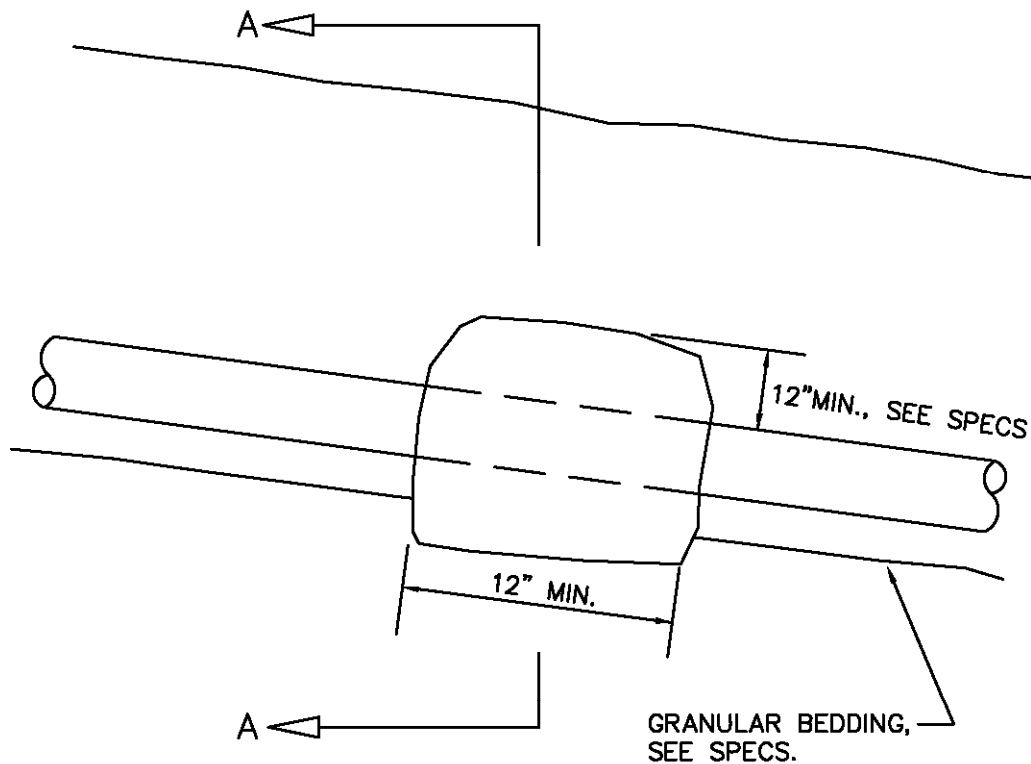
SOIL-CEMENT MIX  
PLACED AS DIRECTED  
BY ENGINEER

GRAVITY OR PRESSURE PIPE

12" MIN.

12" MIN.

SECTION A-A



**NOTE:**

1. SOIL CEMENT BLOCKS PLACED OVER AND AROUND PIPE. TAMPED INTO PLACE BEFORE PLACING BACKFILL. USE 10% CEMENT WITH 90% NATIVE SOIL AND WATER TO SUIT TO FORM A DRY MIX THAT WILL HOLD ITS SHAPE WHEN MOLDED INTO A BALL. SOIL CEMENT BLOCKS REQUIRED ON SLOPES 20% OR GREATER.

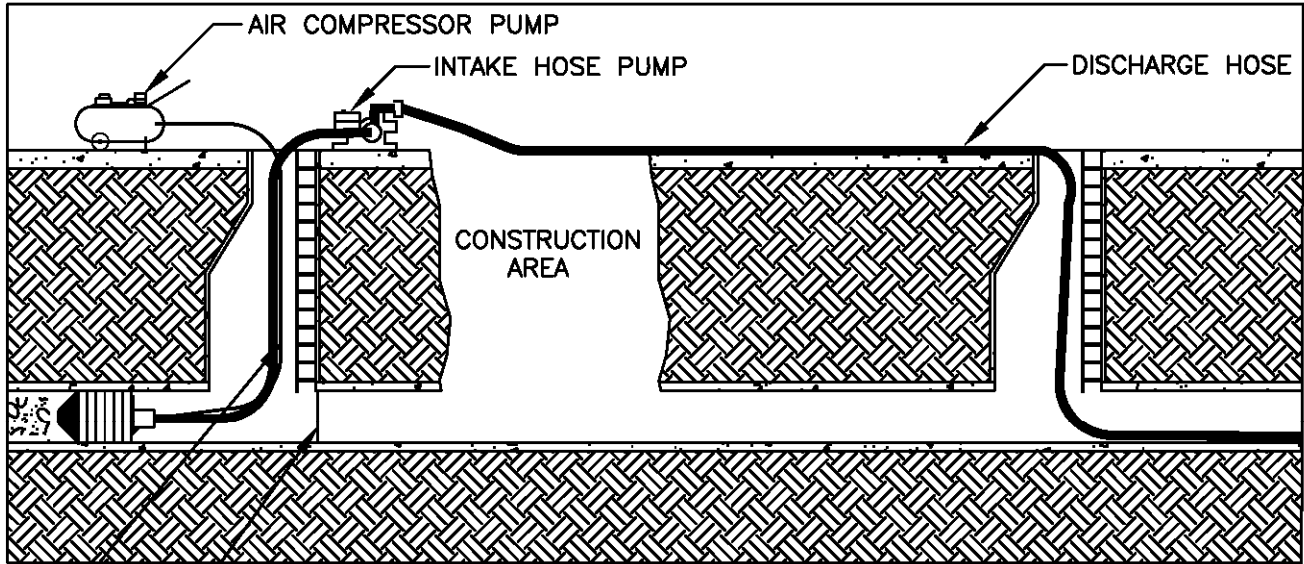
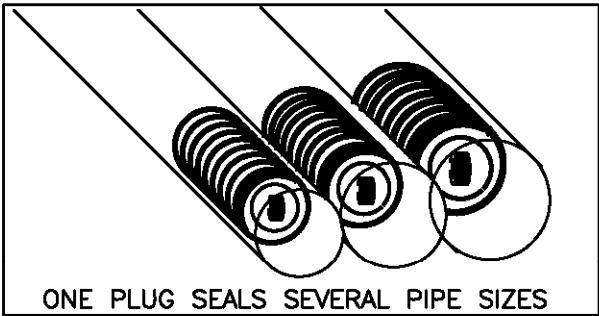
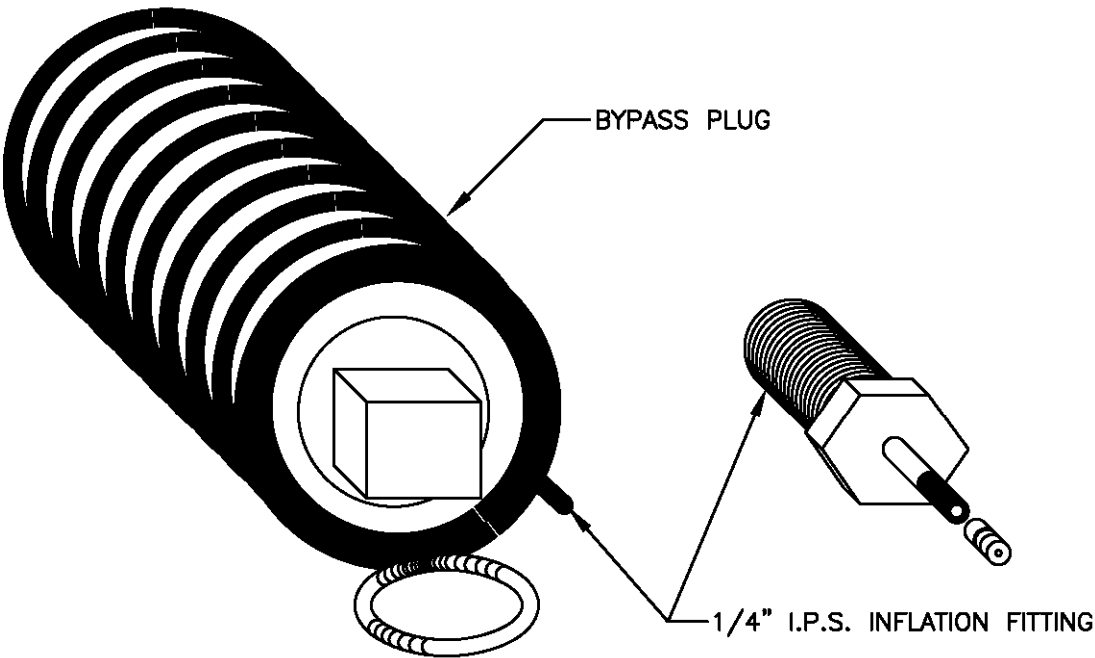
CITY OF KIRKLAND

PLAN NO. CK-S.04



SOIL/CEMENT  
PIPE ANCHOR



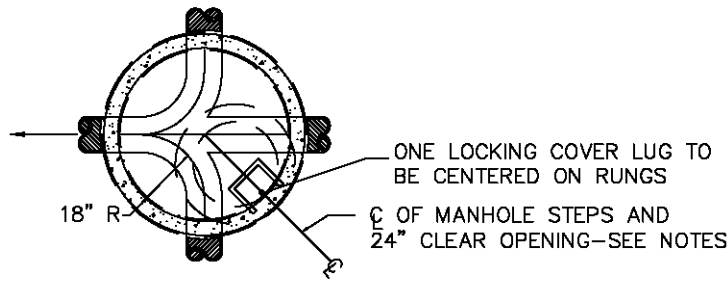


CITY OF KIRKLAND

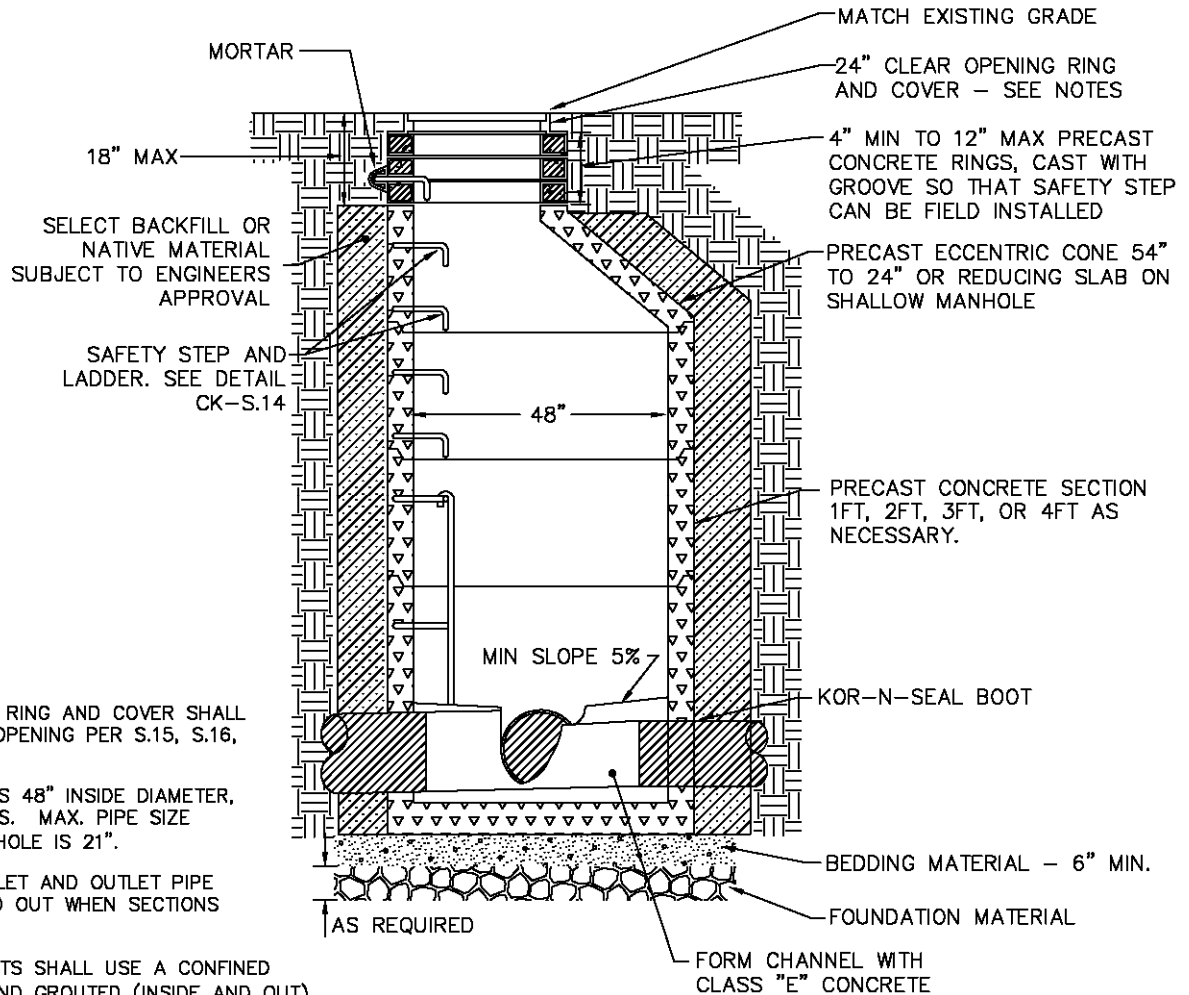
PLAN NO. CK-S.08



SEWER MAIN  
BYPASS PLUG



PLAN VIEW



NOTES:

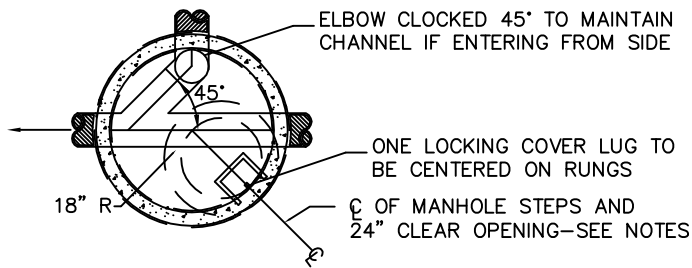
1. LOCKING MANHOLE RING AND COVER SHALL HAVE 24" CLEAR OPENING PER S.15, S.16, S.16A.
2. MANHOLE SHOWN IS 48" INSIDE DIAMETER, 5" WALL THICKNESS. MAX. PIPE SIZE FOR THE 48" MANHOLE IS 21".
3. ALL HOLES FOR INLET AND OUTLET PIPE SHALL BE BLOCKED OUT WHEN SECTIONS ARE CAST.
4. ALL MANHOLE JOINTS SHALL USE A CONFINED RUBBER GASKET AND GROUTED (INSIDE AND OUT) TO MEET ASTM C-443 SPECIFICATIONS.
5. ALL PIPE THROUGH MANHOLE WALL SHALL HAVE A "KOR-N-SEAL" BOOT OR EQUAL.
6. MANHOLE STEPS SHALL BE 1/2" DIA. DEFORMED REINFORCING BARS
7. BEDDING AND FOUNDATION MATERIAL REQUIRED AS SHOWN ON DETAL AND AS NOTED IN THE SPECIFICATIONS. NATIVE MATERIAL MAY BE USED IF APPROVED BY ENGINEER.
8. LOCATION OF MANHOLE STEPS SHALL NOT BE OVER FLOW LINES AND SHALL BE APPROVED BY THE ENGINEER
9. 54" MANHOLE      27" MAX. PIPE  
    72" MANHOLE      36" MAX. PIPE  
    96" MANHOLE      48" MAX. PIPE

CITY OF KIRKLAND

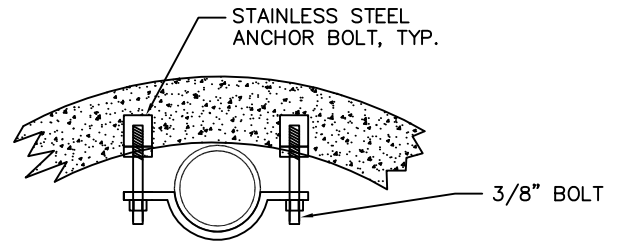
PLAN NO. CK-S.09



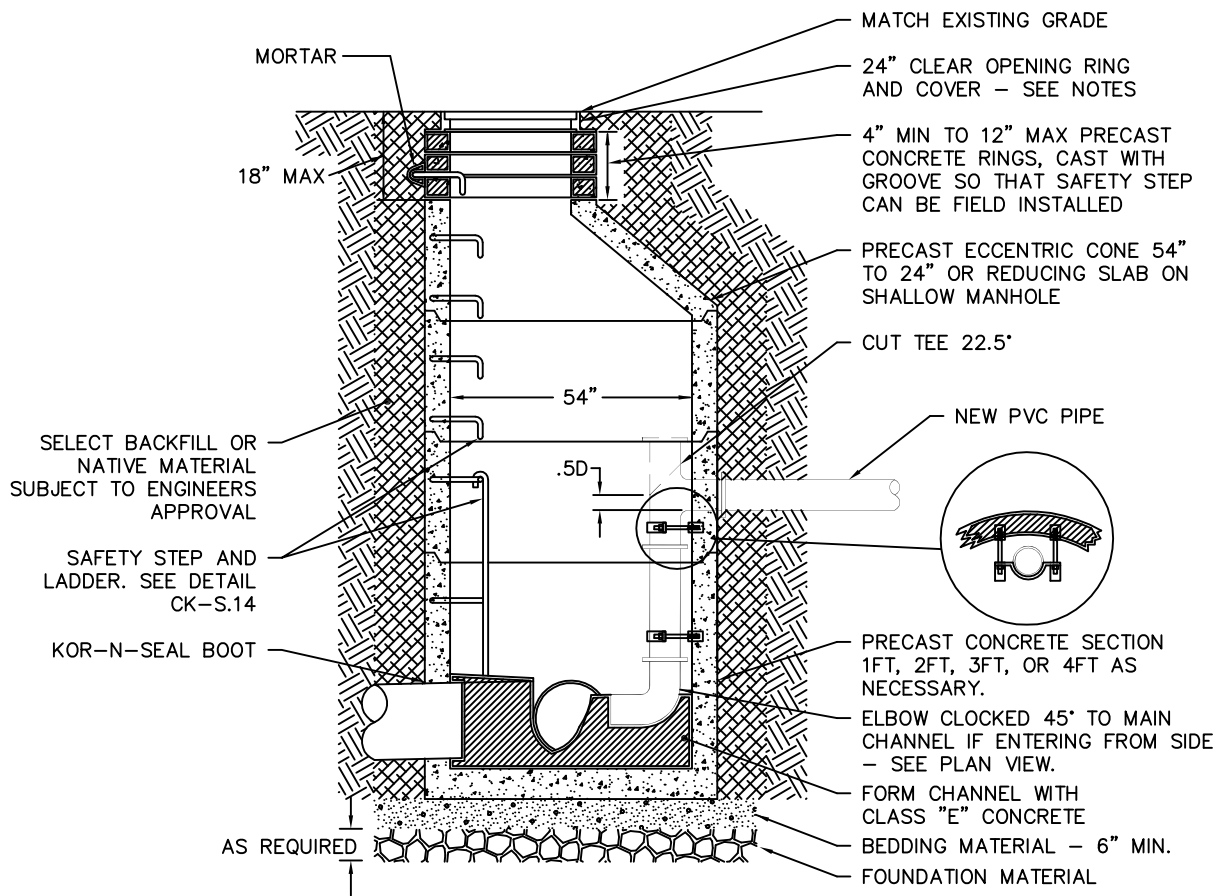
STANDARD 48"  
SANITARY SEWER  
MANHOLE



PLAN VIEW



STAINLESS STEEL PIPE STRAPPING  
PLAN VIEW



NOTES:

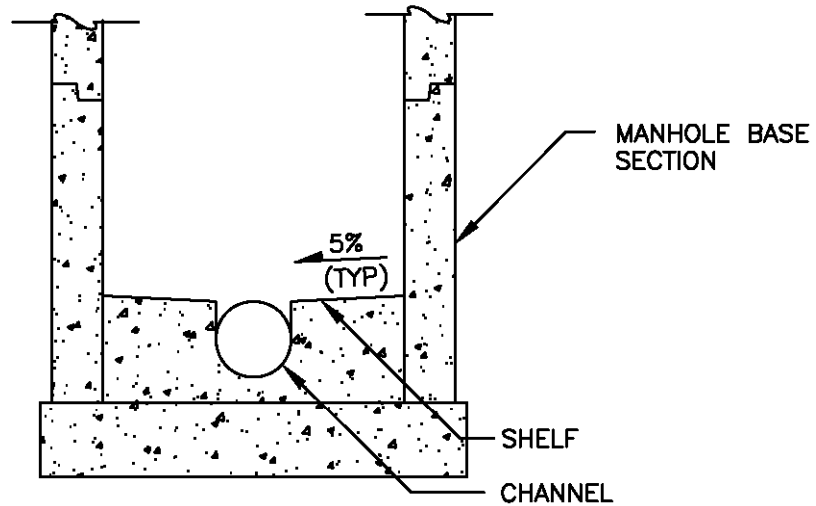
1. USE ONLY WHEN APPROVED BY PUBLIC WORKS.
2. NO EXTERNAL DROPS ALLOWED.

CITY OF KIRKLAND

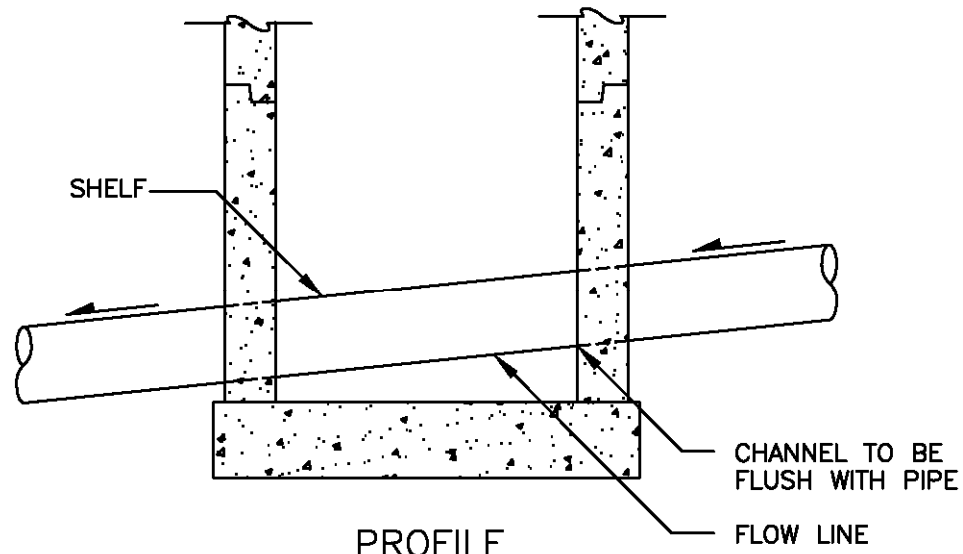
PLAN NO. CK-S.12



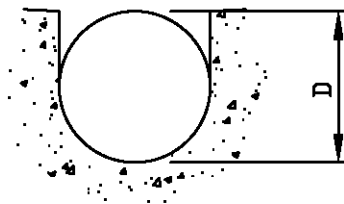
SANITARY SEWER  
INTERNAL DROP  
CONNECTOR



CROSS SECTION



PROFILE



CHANNEL SECTION

NOTES

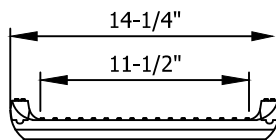
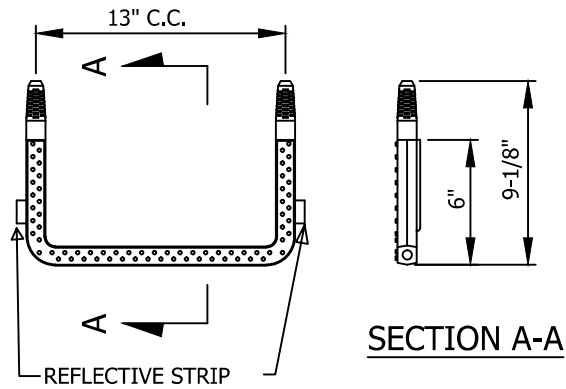
1. DEPTH OF CHANNEL MUST BE SAME AS PIPE DIAMETER.
2. MINIMUM 0.1' DROP ACROSS CHANNEL;  
MAXIMUM 1.0' DROP ACROSS CHANNEL.

CITY OF KIRKLAND

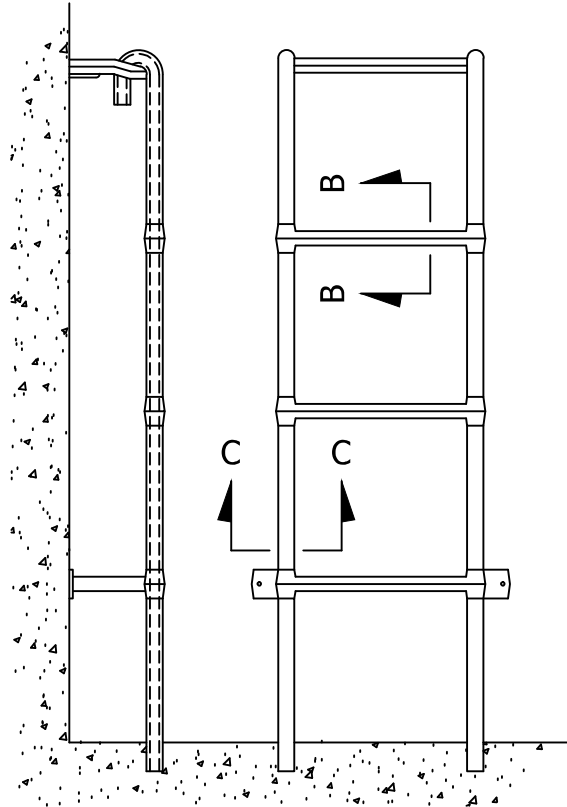
PLAN NO. CK-S.13



SEWER MANHOLE  
MAIN CHANNEL  
AND SHELF



**P-14938**  
**POLYPROPYLENE STEP**



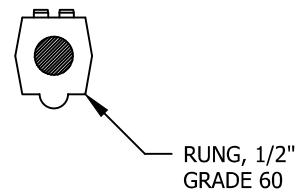
**SPECIFICATIONS:**

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. 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.

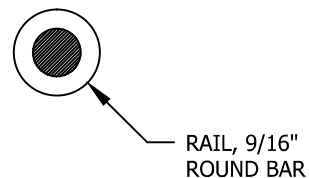
**INSTALLATION:**

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**



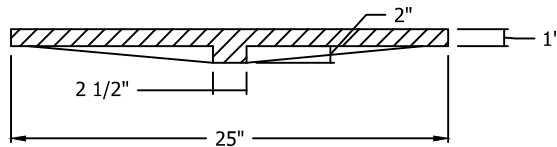
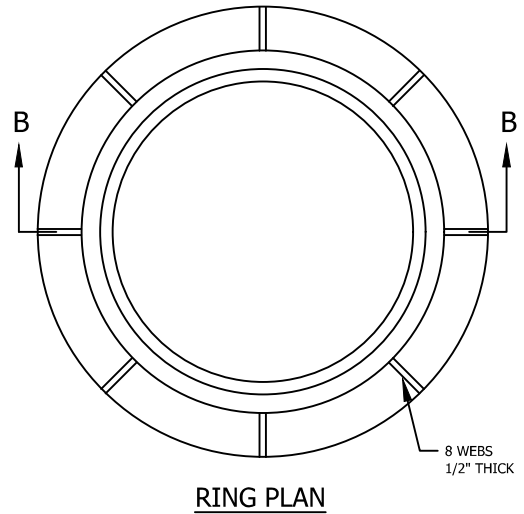
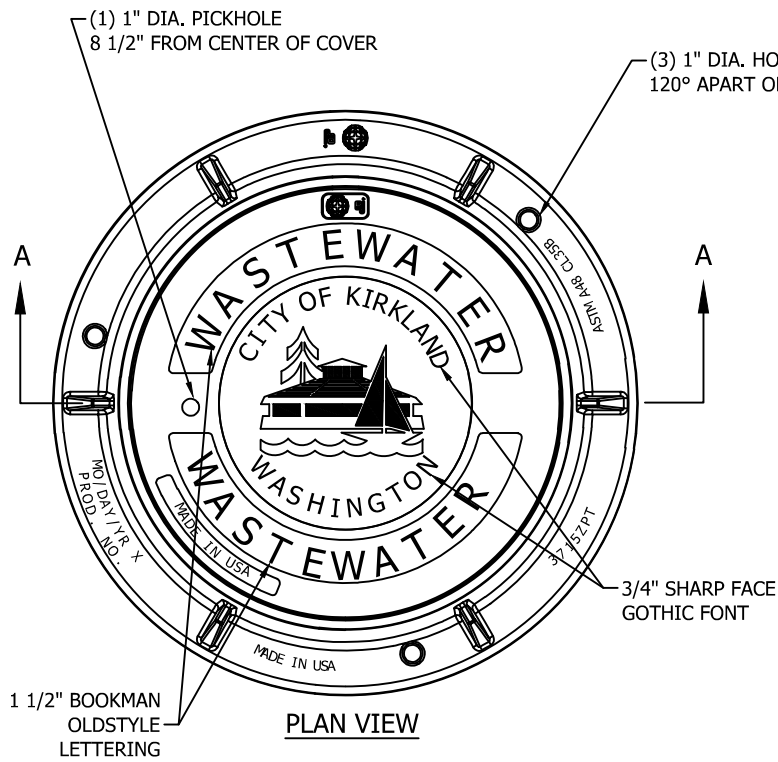
**SECTION C-C**

**CITY OF KIRKLAND**

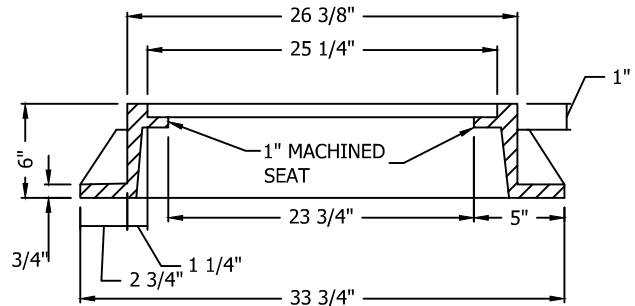
PLAN NO. CK-S.14



**LADDER AND  
MANHOLE STEPS**




COVER SECTION A-A

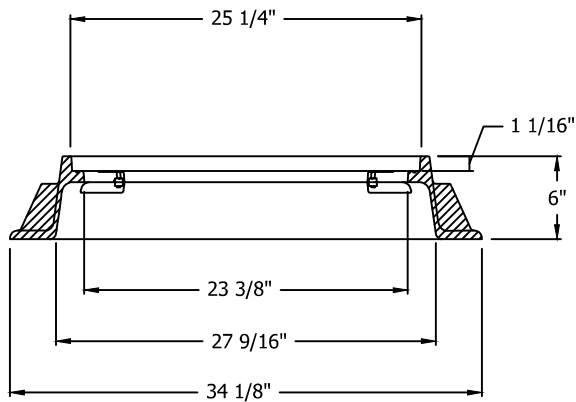
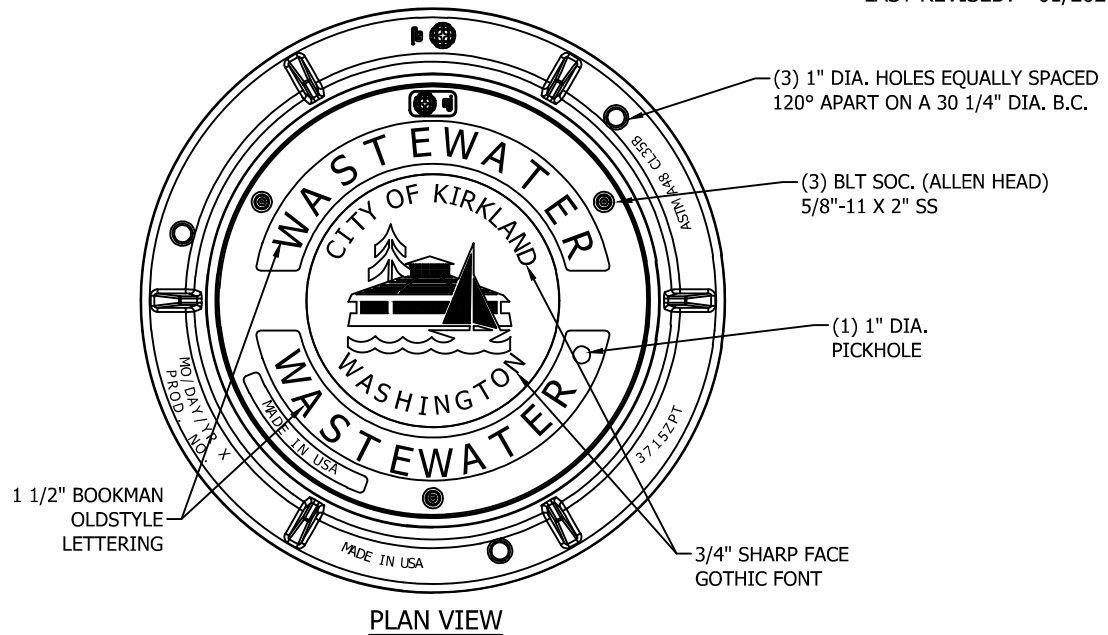


FRAME SECTION B-B

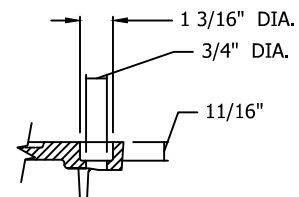
NOTES:

1. VERIFY SLOTTED FRAMES ARE THOROUGHLY FILLED IN WITH MORTAR FOR EFFICIENT INTERACTION WITH IRON AND STRUCTURE.
2. REQUIRED ON ALL ARTERIALS, COLLECTORS OR ANY TIME THAT THE IRON WILL BE WITHIN THE TRAVEL LANE.
3. LID SHALL BE MARKED "WASTEWATER".
4. CITY OF KIRKLAND LOGO REQUIRED.
5. LID MUST BE COVERED WITH TAR PAPER BEFORE OVERLAY.
9. DRILL AND TAP THREE 5/8"-11 NC HOLES THROUGH RING AT 120° AND 23-1/16" DIA. B.C.
10. COVER MATERIAL IS DUCTILE IRON ASTM A 48 CL35B, WITH A MINIMUM WEIGHT OF 141 LBS.
11. FRAME MATERIAL IS DUCTILE IRON ASTM A48 CL35B, WITH A MINIMUM WEIGHT OF 134 LBS.
12. PRODUCT SUPPLIED BY EJ, OR APPROVED EQUAL.
13. FRAME AND COVER SHALL BE H-20 LOADING RATED IF INSTALLED IN ROADWAY.

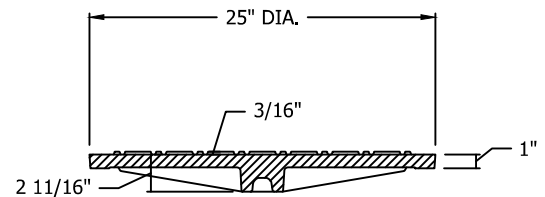
CITY OF KIRKLAND	
PLAN NO. CK - S.15	
	24" MANHOLE RING AND COVER



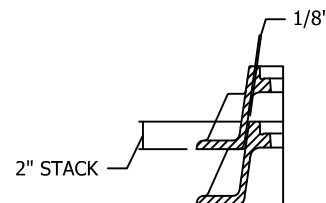
FRAME SECTION



BOLTHOLE DETAIL



COVER SECTION



STACKING DETAIL

NOTES:

1. VERIFY SLOTTED FRAMES ARE THOROUGHLY FILLED IN WITH MORTAR FOR EFFICIENT INTERACTION WITH IRON AND STRUCTURE.
2. REQUIRED ON ALL ARTERIALS, COLLECTORS OR ANY TIME THAT THE IRON WILL BE WITHIN THE TRAVEL LANE.
3. LID SHALL BE MARKED "WASTEWATER".
4. CITY OF KIRKLAND LOGO REQUIRED.
5. LID MUST BE COVERED WITH TAR PAPER BEFORE OVERLAY.
6. USE WITH THREE LOCKING BOLTS 5/8"-11 BOLT SOCKET (ALLEN HEAD), 2" LONG DRILL HOLES SPACED 120° APART ON 23-1/16" DIA. B.C.
7. COVER MATERIAL IS DUCTILE IRON ASTM A48 CL35B, WITH A MINIMUM WEIGHT OF 141 LBS.
8. FRAME MATERIAL IS DUCTILE IRON ASTM A48 CL35B, WITH A MINIMUM WEIGHT OF 134 LBS.
9. DRILL AND TAP THREE 5/8"-11 NC HOLES THROUGH RING AT 120° AND 23-1/16" DIA. B.C.
10. PRODUCT SUPPLIED BY EJ, OR APPROVED EQUAL.
11. FRAME AND COVER SHALL BE H-20 LOADING RATED IF INSTALLED IN ROADWAY.

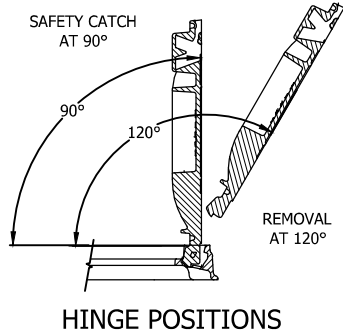
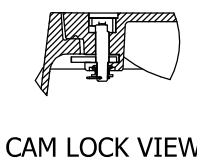
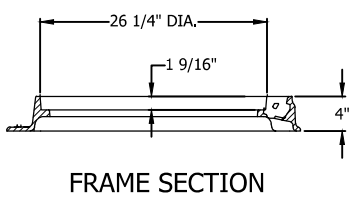
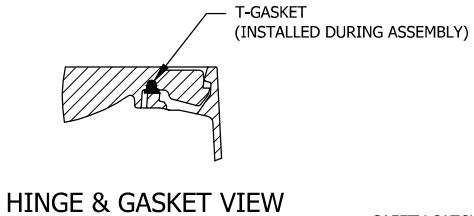
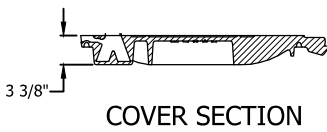
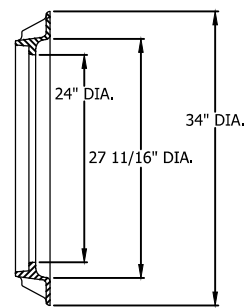
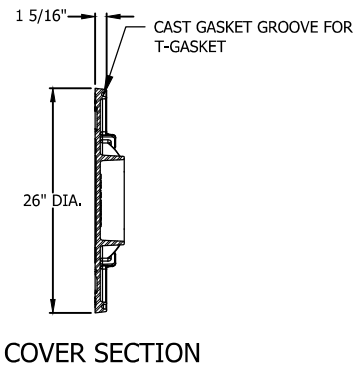
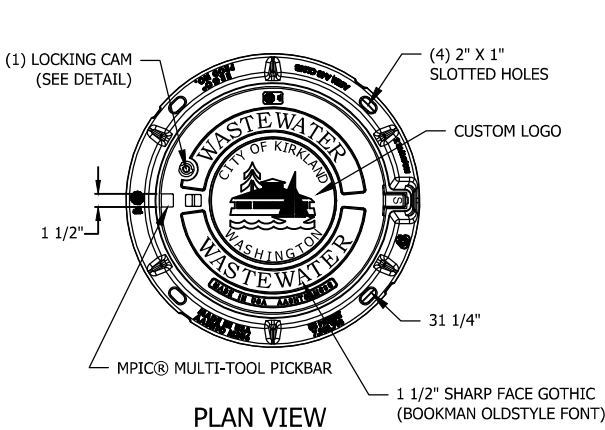
**CITY OF KIRKLAND**

**PLAN NO. CK - S.16**




**24" MANHOLE FRAME  
W/LOCKING COVER  
AND LOGO**

LAST REVISED: 01/2019

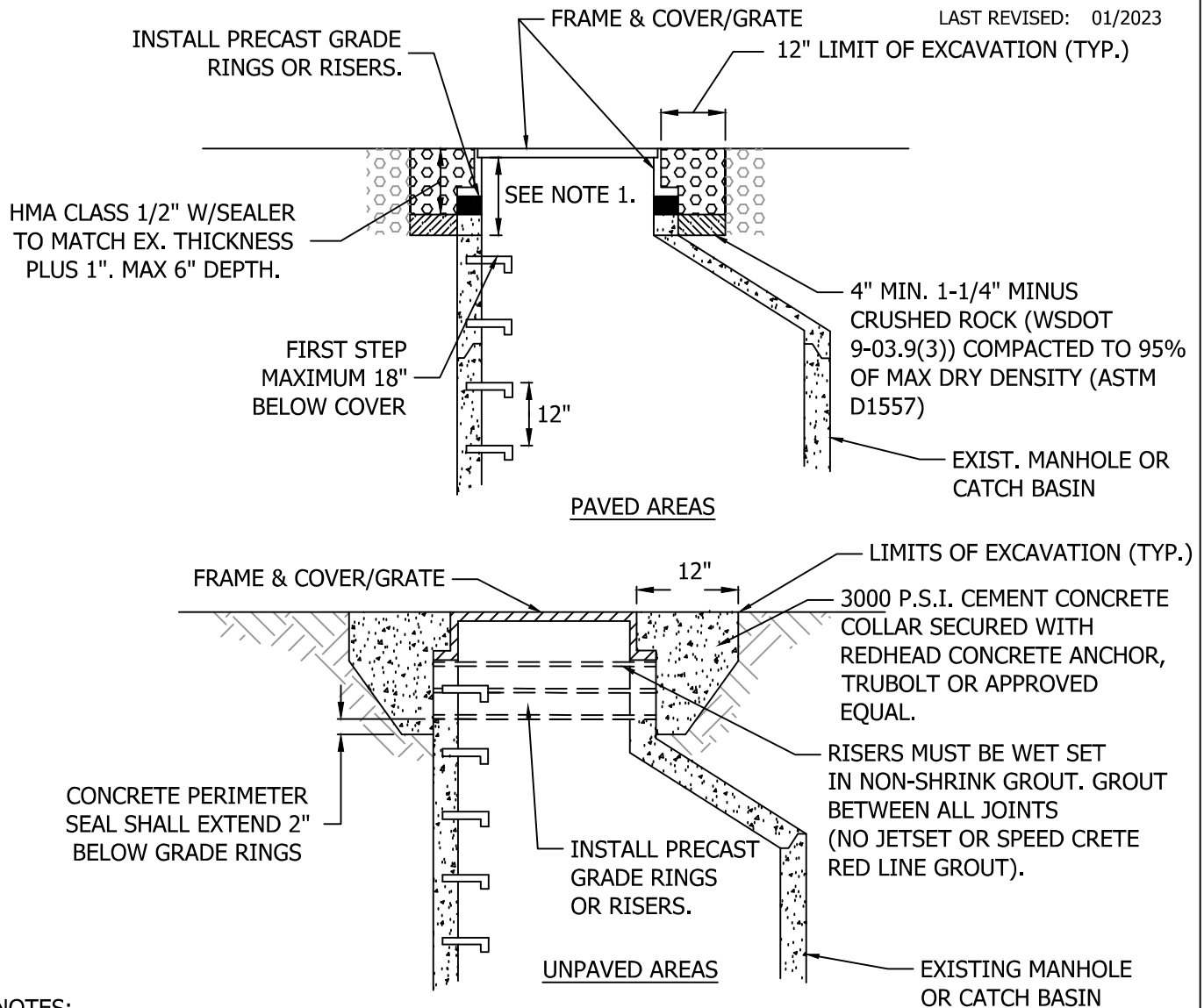


**NOTES:**

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 "WASTEWATER".
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 IF INSTALLED IN ROADWAY.

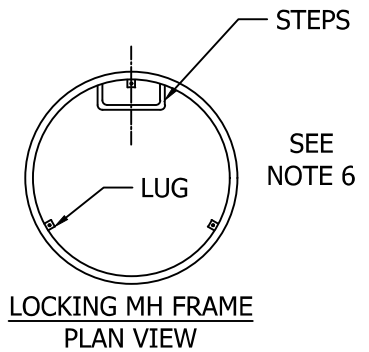
CITY OF KIRKLAND	
PLAN NO. CK-S.16A	
	MODIFIED 24" MANHOLE FRAME W/ LOCKING COVER





**NOTES:**

1. WHERE DEPTH OF NECK EXCEEDS 18 INCHES (INCLUDING FRAME AND COVER), ADJUST MANHOLE/CATCH BASIN TO GRADE BY INSERTING NEW BARREL SECTION BETWEEN THE CONE/SLAB AND EXISTING BARREL.
2. GRADE RINGS, RISERS AND FRAME SHALL BE SET IN 3/4" NON-SHRINK GROUT, GROUT BETWEEN ALL JOINTS. ALL SURFACES MUST BE CLEAN OF DEBRIS AND DIRT, AND WETTED PRIOR TO GROUTING. GROUT SMOOTH INSIDE AND OUTSIDE SURFACES PRIOR TO BACKFILL.
3. STEPS OR HAND HOLDS SHALL BE ADDED PER ASTM C478.
4. PRECAST GRADE RINGS AND RISERS MUST BE CAST WITH GROOVE TO ALLOW FIELD INSTALLATION OF SAFETY STEP WHEN RISER IS 4" OR HIGHER.
5. REPLACE EXISTING FRAME AND COVER/GRATE IF NOT MEETING CURRENT SPECIFICATIONS.
6. IF REQUIRED: LOCKING MH SHALL BE POSITIONED WITH ONE LUG CENTERED OVER STEPS, UNLESS USING CK-S.16A CASTING.



**CITY OF KIRKLAND**

**PLAN NO. CK - S.26**



**MANHOLE  
FRAME AND GRATE  
ADJUSTMENT**

# **WATER**

## **CITY OF KIRKLAND**

123 FIFTH AVENUE • KIRKLAND, WASHINGTON 98033-6189 • (425) 587-3800

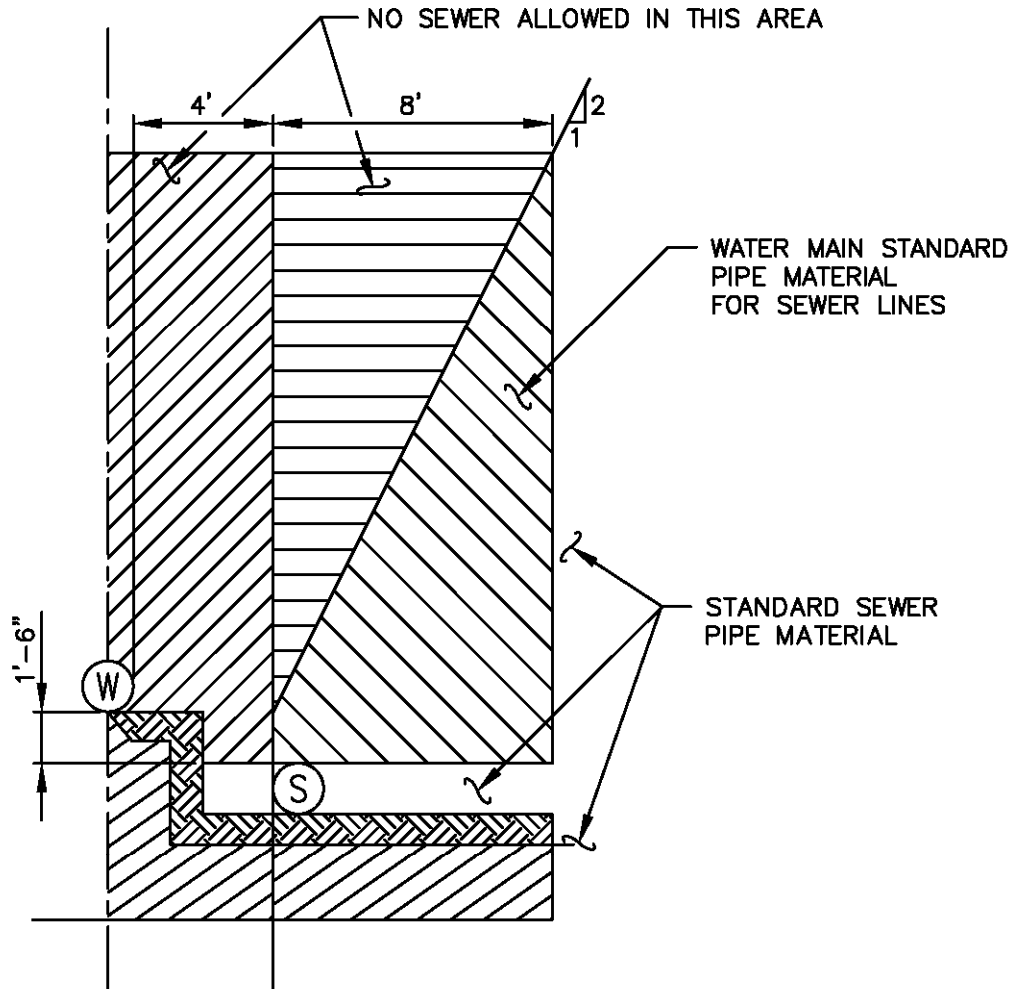
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### **PRE-APPROVED PLANS POLICY**

#### **Policy W-5: NEW WATER SYSTEM DOCUMENTATION**

Developers or Contractors shall submit a preliminary blueline copy of the water construction Record Drawings showing any changes to the design made during construction. These drawing must be provided immediately after the new water system is tied in to the existing water system.

1. Drawings to show all changes to the system design (valves, lengths, size, tie-in method, additions, deletions, etc.).
2. Preliminary drawings do not have to bear the stamp of a licensed professional surveyor or engineer.



PARALLEL CONSTRUCTION

TABLE 1  
WATER MAIN STANDARD PIPE MATERIAL

AWWA STANDARD			
TYPE OF PIPE	PIPE	JOINT	FITTINGS
DUCTILE IRON	C 1.52	C 111	C 110
CONCRETE CYLINDER	C 303		

NOTES

1. TO BE USED WHEN 10' MINIMUM SEPARATION CANNOT BE OBTAINED.

CITY OF KIRKLAND

PLAN NO. CK-W.01



WATER AND SEWER  
SPACING AND  
CLEARANCE

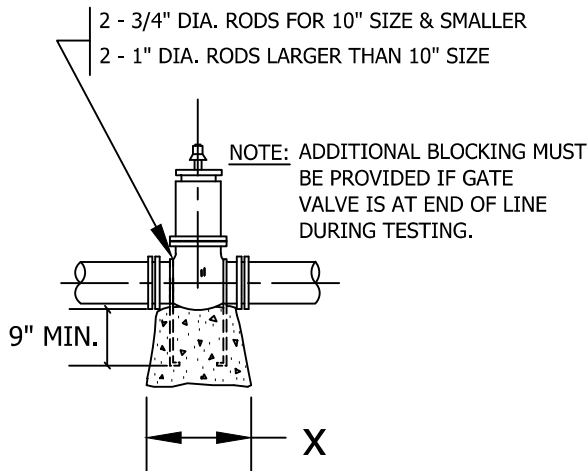
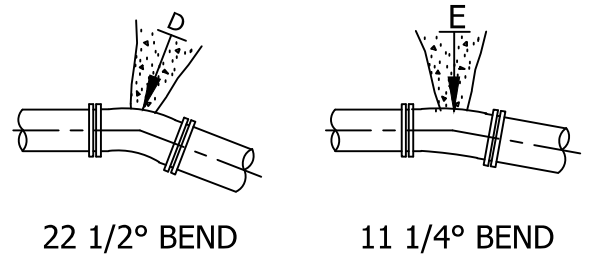
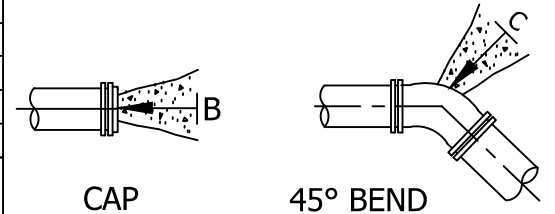
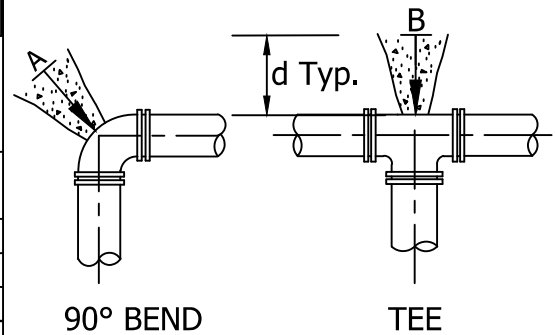
# THRUST BLOCK TABLE

**Minimum Bearing Area Against Undisturbed Soil (Ft<sup>2</sup>)**  
(block sizes based on 200 psi test pressure)

Pipe Size	A	B	C	D	E	x (in)	d (ft)
4"	3	2	2	1	1	None	1
6"	5	4	4	2	2	None	1.25
8"	9	6	5	3	2	4	1.5
10"	13	10	7	4	3	5	2
12"	19	13	11	6	4	6	2.25
14"	26	19	14	7	4	9	2.75
16"	27	25	19	10	6	12	2.75
18"	42	30	23	12	6	15	3.25
20"	52	37	28	15	9	19	3.75
24"	74	53	41	21	11	27	4.5

## Notes:

For different test pressure multiply bearing area by (actual test pressure ÷ 200)



## GATE VALVE

### NOTES:

1. SQUARE FEET OF CONCRETE THRUSTS - BLOCK AREA BASED ON SAFE BEARING LOAD OF 2000 POUNDS PER SQUARE FOOT.
2. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPE, PRESSURES & SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE & HAVE MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.

4. BLOCK SHALL BEAR AGAINST FITTINGS ONLY & SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING JOINT.
5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
6. IN CLAY OR FINE SILT, MULTIPLY BLOCK BEARING AREA BY 2.
7. IN MUCK OR PEAT, ALL THRUSTS SHALL BE RESTRAINED BY PILES OR TIE RODS TO SOLID FOUNDATIONS OR BY REMOVAL OF MUCK OR PEAT AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THRUST.

**CITY OF KIRKLAND**

PLAN NO. CK-W.02

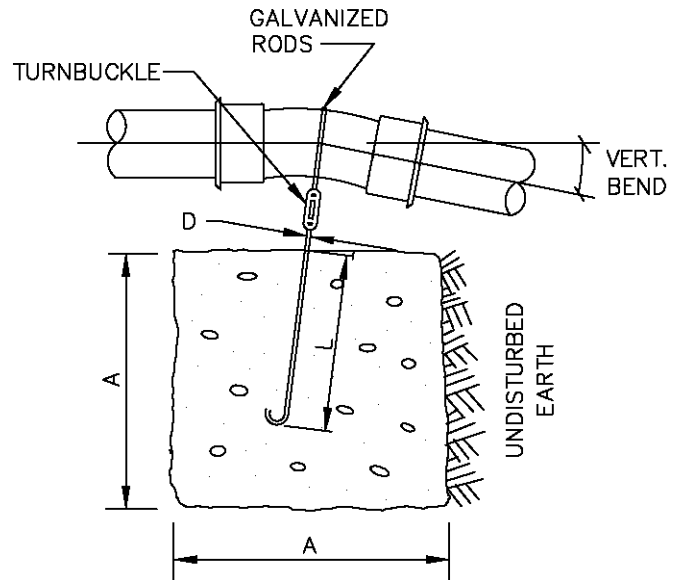


**CONCRETE THRUST  
BLOCKING**

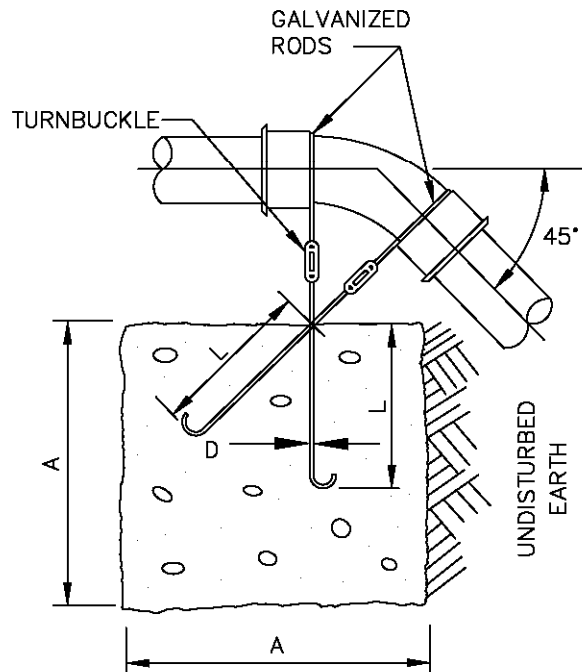
VERTICAL BLOCKING FOR 11 1/4°-22 1/2°-30° BENDS					
PIPE SIZE	V B	CU FT	A	D	L
4"	11 1/4°	8	2.0'	5/8"	1.5'
	22 1/2°	11	2.2'		2.0'
	30°	17	2.6'		
6"	11 1/4°	11	2.2'	5/8"	2.0'
	22 1/2°	25	2.9'		
	30°	41	3.5'		
8"	11 1/4°	16	2.5'	5/8"	2.0'
	22 1/2°	47	3.6'		
	30°	70	4.1'		2.5'
12"	11 1/4°	32	3.2'	3/4"	2.0'
	22 1/2°	88	4.5'		3.0'
	30°	132	5.1'		
16"	11 1/4°	70	4.1'	7/8"	3.0'
	22 1/2°	184	5.7'		4.0'
	30°	275	6.5'		1 1/4"
20"	11 1/4°	91	4.5'	7/8"	3.0'
	22 1/2°	225	6.1'		4.0'
	30°	330	6.9'		4.5'
24"	11 1/4°	128	5.0'	1"	3.5'
	22 1/2°	320	6.8'		4.5'
	30°	480	7.9'		5.5'
VERTICAL BLOCKING FOR 45° BENDS					
4"	45°	30	3.1'	5/8"	2.0'
6"		68	4.1'		
8"		123	5.0'		
12"		232	6.1'	3/4"	2.5'
16"		478	7.8'	1 1/8"	4.0'
20"		560	8.2'	1 1/4"	
24"		820	9.4'	1 3/8"	4.5'

NOTES:

1. CONCRETE BLOCKING BASED ON 200 PSI PRESSURE AND 3000 PSI CONCRETE.



VERTICAL BLOCKING  
FOR 11 1/4°, 22 1/2°, & 30° BENDS



VERTICAL BLOCKING  
FOR 45° BENDS

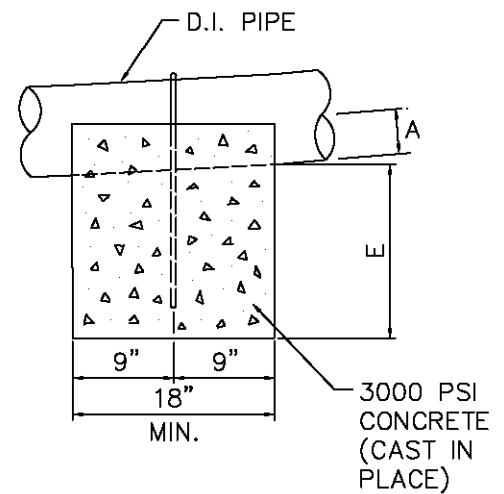
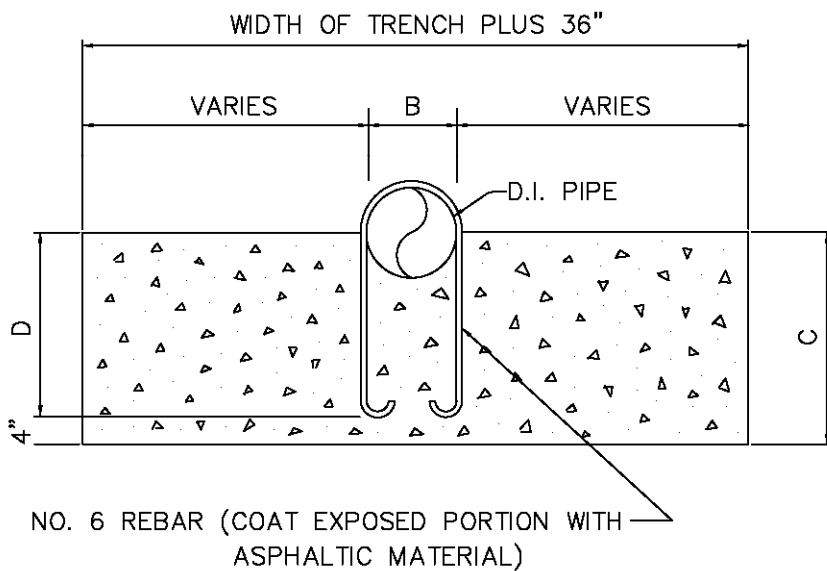
CITY OF KIRKLAND

PLAN NO. CK-W.03



VERTICAL THRUST  
BLOCKING

PIPE SIZE	DIMENSIONS (INCHES)				
	A	B	C	D	E
4"	2.4	4.8	17	13	14.6
6"	3.5	6.9	18	14	14.5
8"	4.5	9.1	19	15	14.5
10"	5.6	11.1	20	16	14.4
12"	6.6	13.2	21	17	14.4
14"	7.7	15.3	22	18	14.3
16"	8.7	17.4	23	19	14.3
18"	9.8	19.5	24	20	14.2



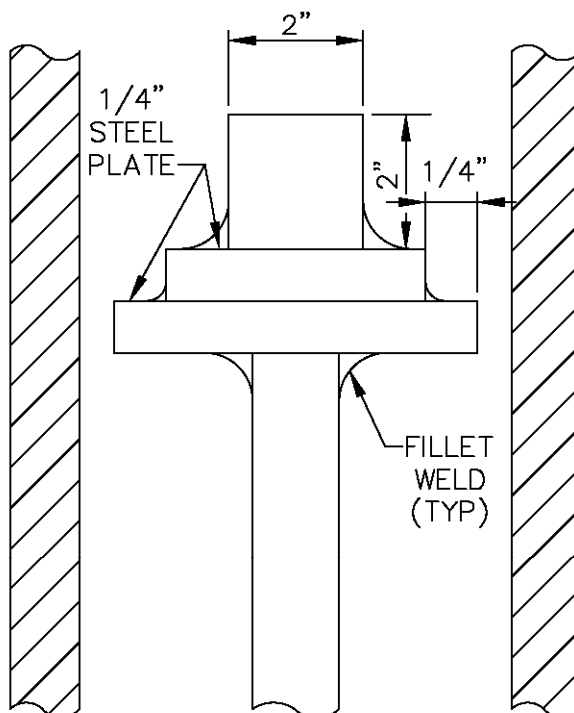
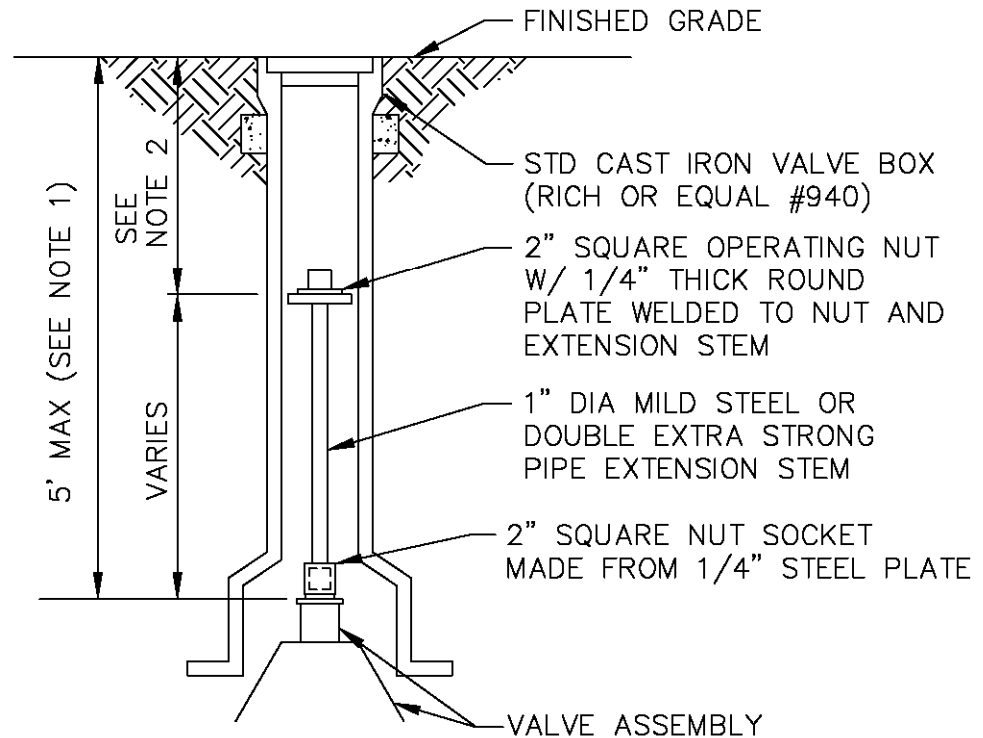
SLOPES > 20% - PROVIDE CONCRETE SLOPE  
ANCHORS (20' TO 25'  
ON CNTR.)

CITY OF KIRKLAND

PLAN NO. CK-W.04



CONCRETE  
SLOPE ANCHOR  
DETAIL



EXTENSION DETAIL

NOTE:

1. VALVE EXTENSIONS ARE ONLY REQUIRED IF DEPTH FROM FINISHED GRADE TO TOP OF OPERATING NUT IS GREATER THAN 5 FEET.
2. WHEN AN EXTENSION IS USED, THE DEPTH FROM EXTENSION OPERATING NUT TO FINISHED GRADE SHALL NOT BE LESS THAN 3 FEET.

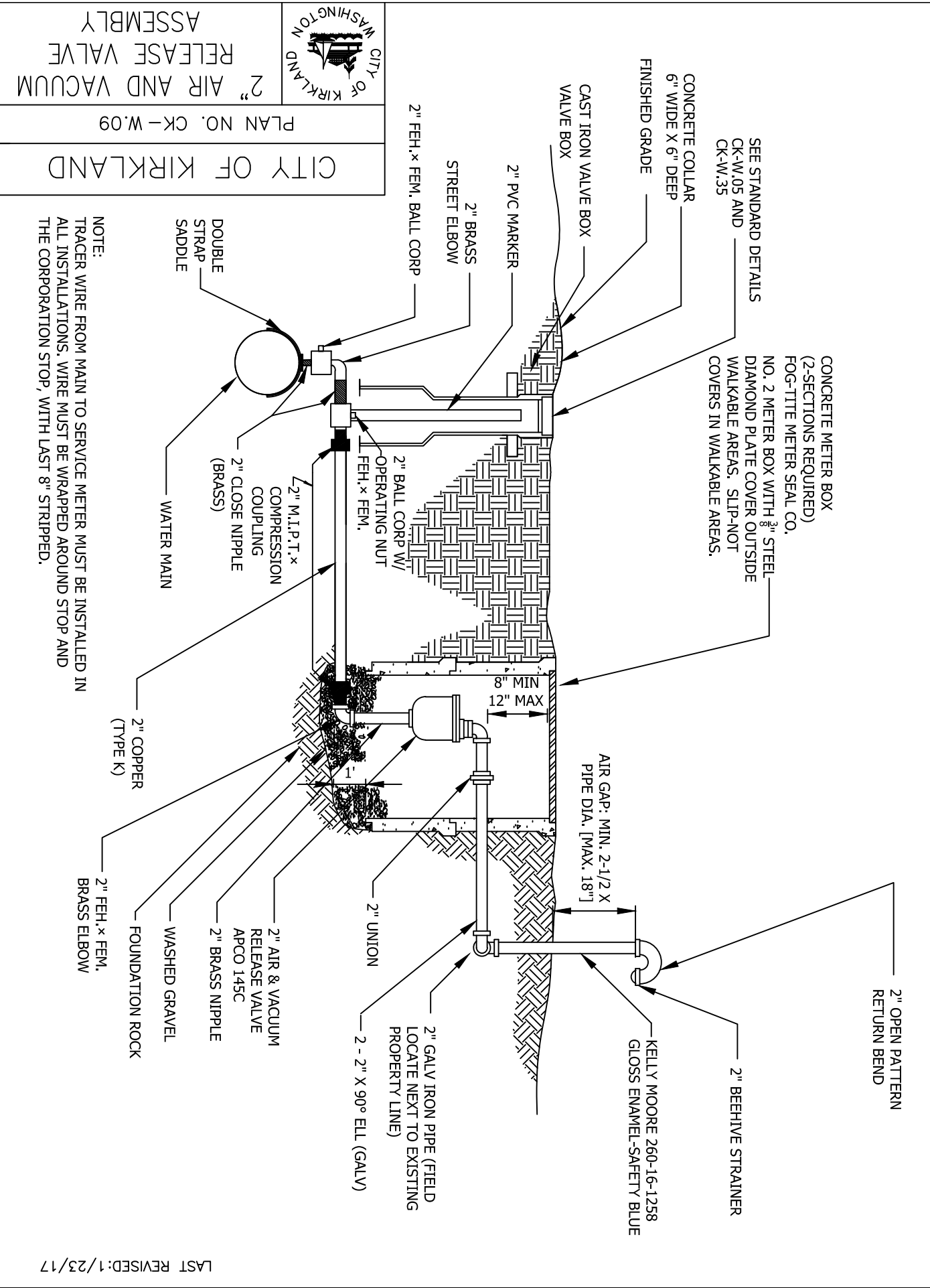
CITY OF KIRKLAND

PLAN NO. CK-W.05



WATER  
VALVE  
EXTENSION





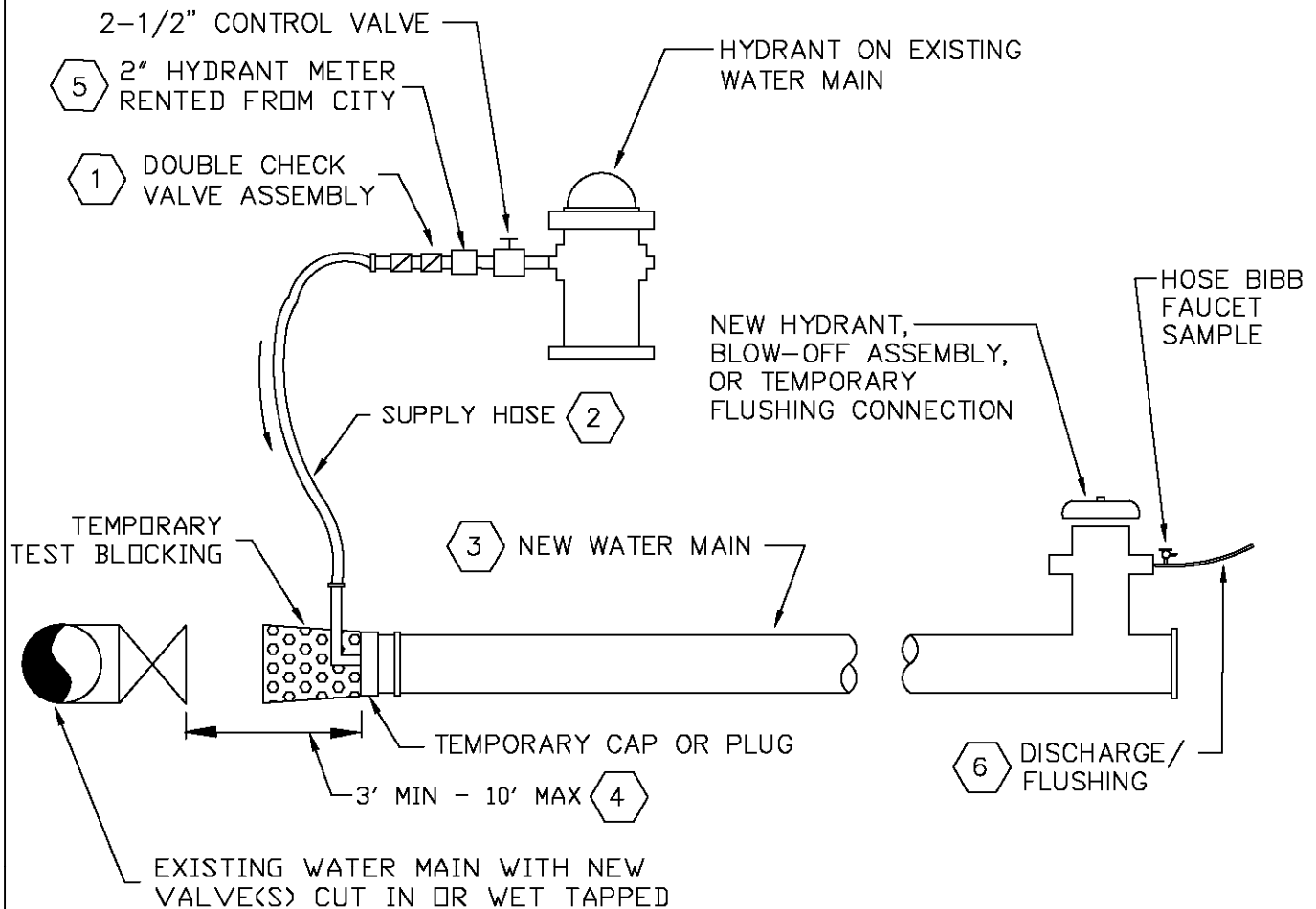
LAST REVISED: 1/23/17

CITY OF KIRKLAND

PLAN NO. CK-W.09

2" AIR AND VACUUM  
RELEASE VALVE  
ASSEMBLY

CITY OF KIRKLAND  
WASHINGTON



NOTES:

- 1 AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED BETWEEN THE EXISTING AND NEW WATER LINES DURING DISINFECTION AND FLUSHING OF NEW WATERMAIN.
- 2 THE BACKFLOW PREVENTION ASSEMBLY AND SUPPLY HOSE MUST BE DISCONNECTED DURING HYDROSTATIC PRESSURE TESTING OF THE NEW MAIN.
- 3 THE NEW WATERMAIN SHALL BE CONNECTED TO THE EXISTING SYSTEM ONLY AFTER NEW MAIN IS FLUSHED, DISINFECTED AND SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS ARE OBTAINED.
- 4 THE INTERIORS OF ALL PIPES AND FITTINGS TO BE USED IN FINAL CONNECTION MUST BE SWABBED OR SPRAYED WITH A 1% AVAILABLE CHLORINE SOLUTION.
- 5 2" HYDRANT METER SHALL BE OBTAINED FROM THE CITY OF KIRKLAND PUBLIC WORKS DEPARTMENT.
- 6 DISCHARGE FLUSHING TO SEWER ONLY. PROVIDE AIR GAP AT DISCHARGE.

CITY OF KIRKLAND

PLAN NO. CK-W.10



FILLING  
NEW  
WATER MAINS

- NOTES:

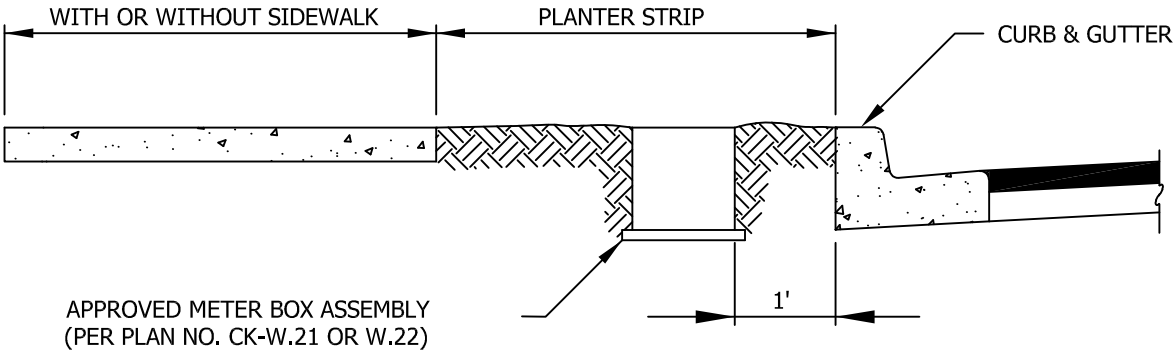
1. FIRE HYDRANT EXTENSION, IF REQUIRED.
2. FIRE HYDRANT TO BE PAINTED WITH TWO COATS OF HIGH GLOSS OSHA SAFETY YELLOW ENAMEL PAINT.
3. INSTALL BLUE - TYPE 2 R.P.M. ON STREET SURFACE ADJACENT TO MAIN PORT.

## CITY OF KIRKLAND

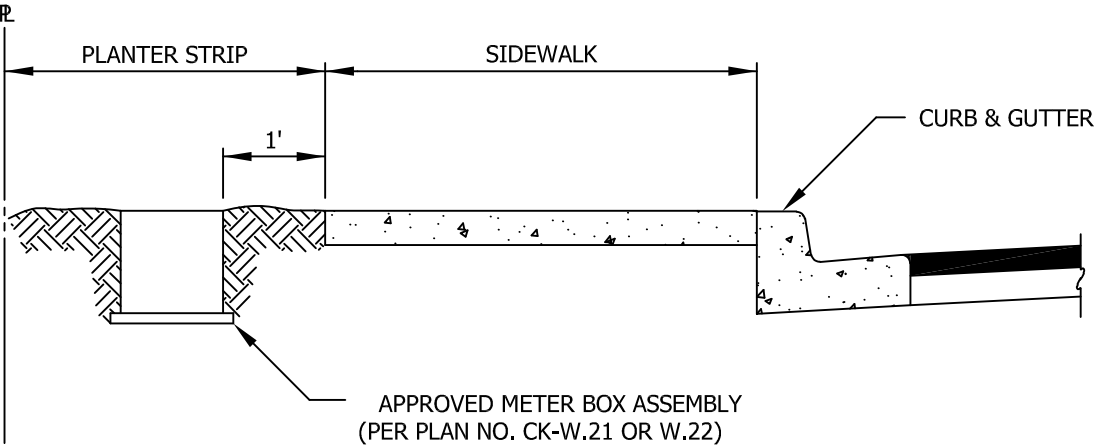
PLAN NO. CK-W.14



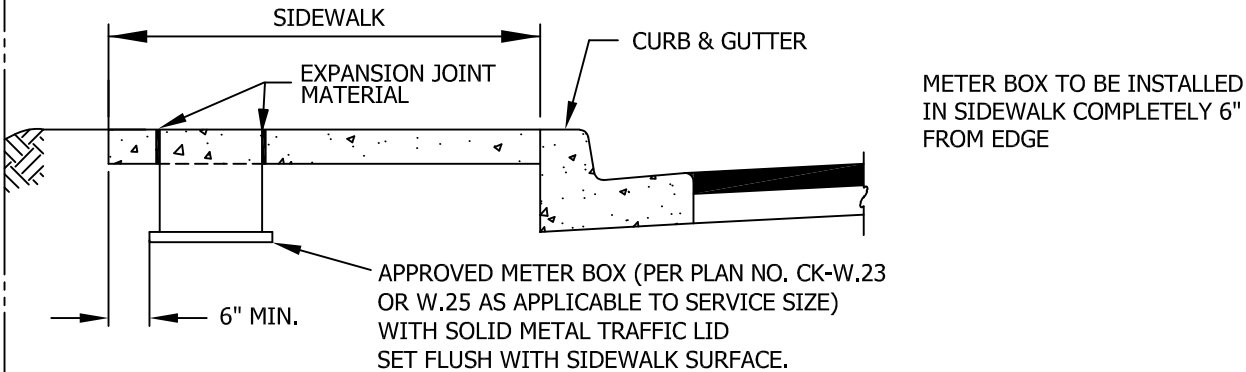
# FIRE HYDRANT ASSEMBLY



INSTALLATION IN PLANTER STRIP 3' OR WIDER



INSTALLATION BEHIND SIDEWALK



INSTALLATION IN SIDEWALK

NOTES:

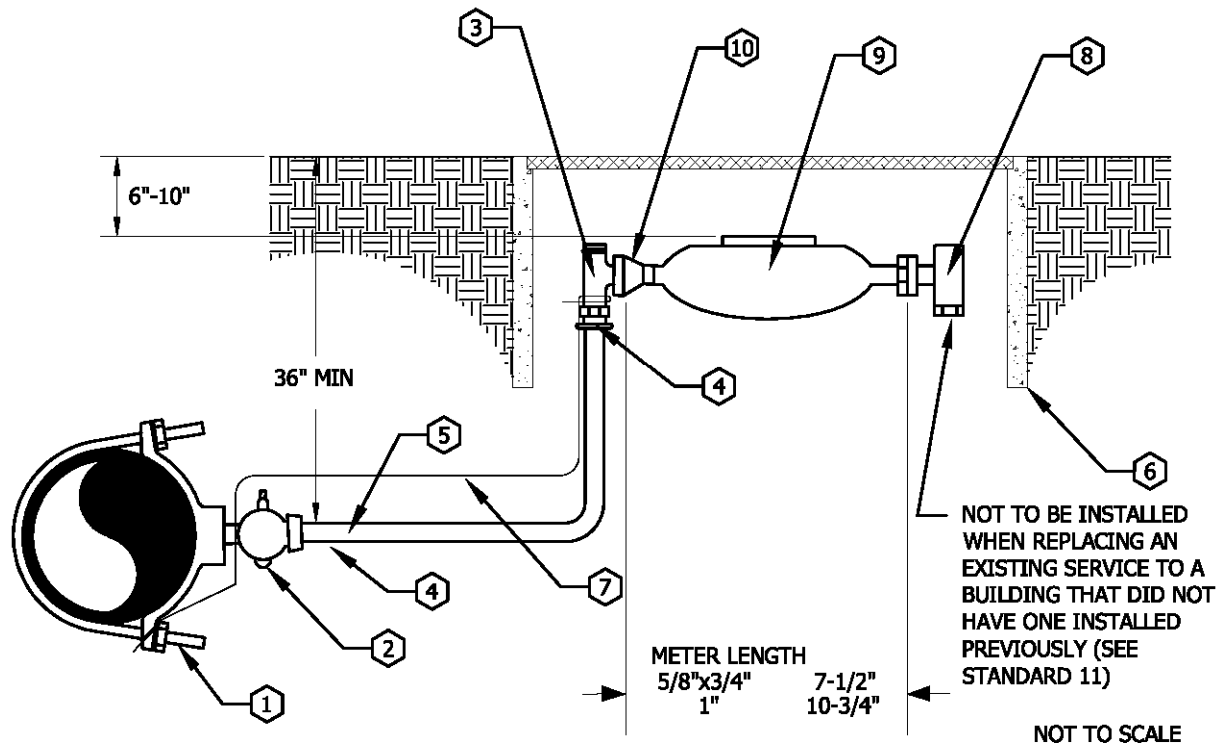
WATER METERS MUST BE LOCATED ALONG THE FRONTAGE THAT THE PROPERTY IS ADDRESSED FROM UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DEPARTMENT.

CITY OF KIRKLAND

PLAN NO. CK-W.17



WATER METER  
PLACEMENT  
DETAILS



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:**

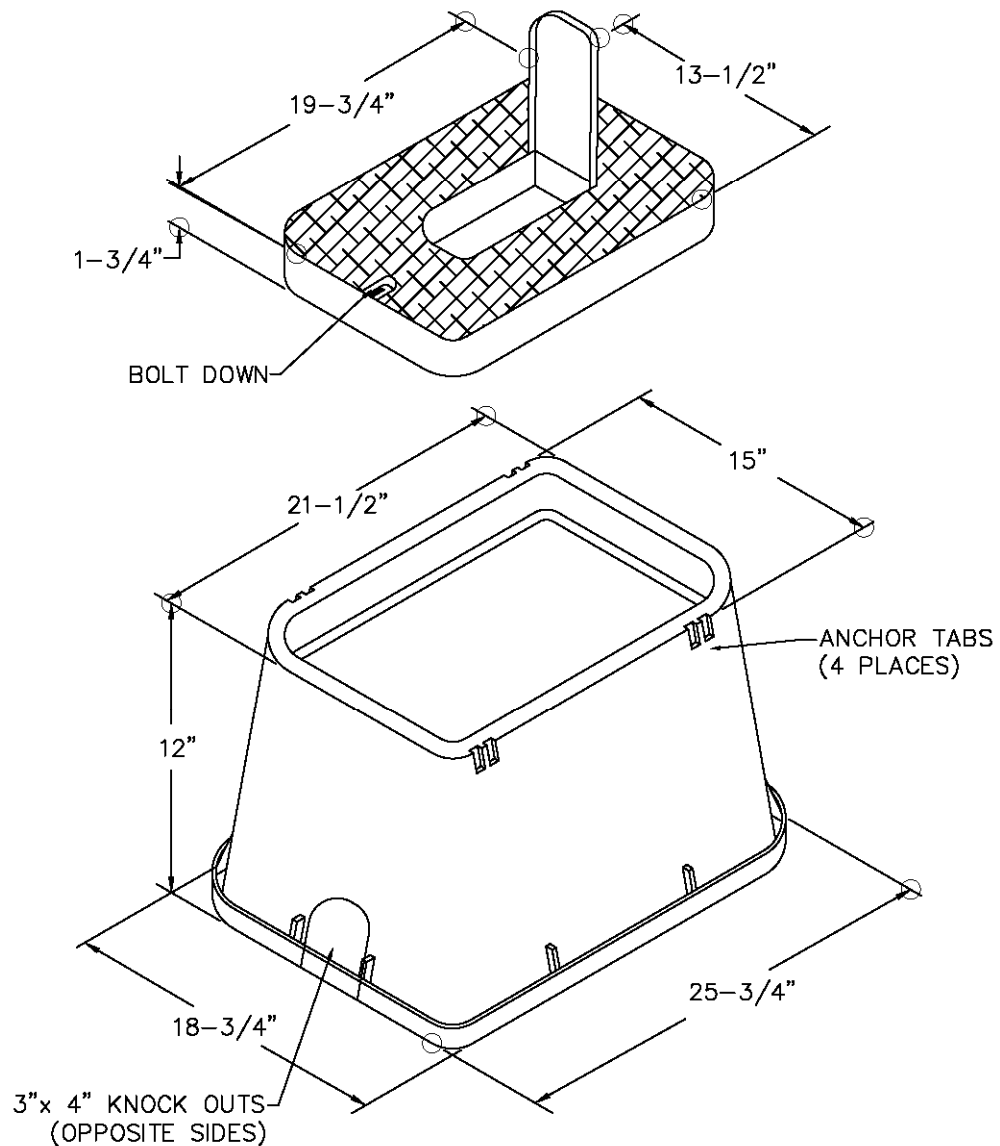
- ALL FITTINGS MUST BE FORD OR EQUAL.
- TRACER WIRE FROM MAIN TO SERVICE METER MUST BE INSTALLED IN ALL INSTALLATIONS. WIRE MUST BE WRAPPED AROUND ANGLE STOP AND THE CORPORATION STOP, WITH LAST 8" STRIPPED.
- POLY SERVICE LINE IS TO BE CONTINUOUS FROM MAIN TO METER-NO SPLICES OF ANY KIND.
- POLY PIPE TO BE 1" FROM MAIN TO METER.
- METERS SHALL NOT BE LOCATED IN CONCRETE OR ASPHALT PAVING UNLESS UNAVOIDABLE.
- 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:

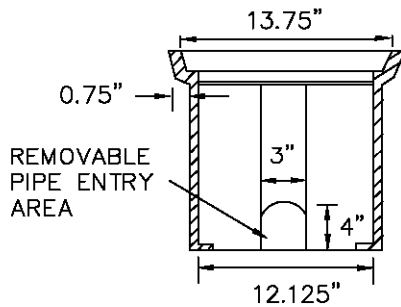
1. USE — CARSON MODEL 1220-12 WITH METER READING COVER OR EQUAL.
2. COVER MUST DISPLAY "W.M." OR EQUAL.
3. METER READING FLIP-UP LID SHALL BE PLASTIC.

CITY OF KIRKLAND

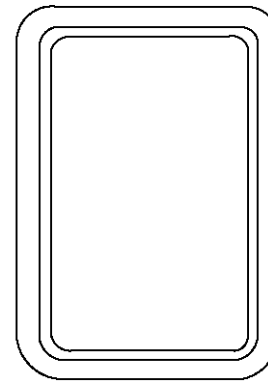
PLAN NO. CK- W.21



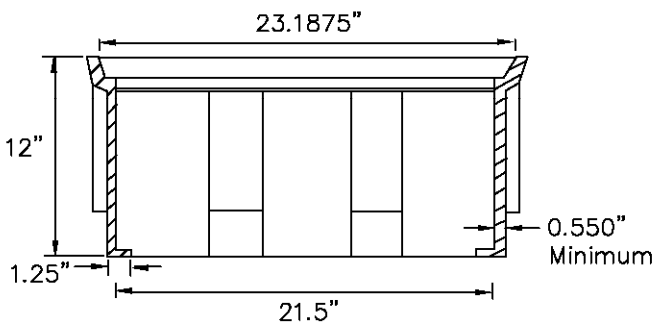
3/4" & 1" WATER  
METER BOX  
PLACED IN PLANTER



SHORT SIDE VIEW



TOP VIEW



LONG SIDE VIEW

**NOTE:**

MID-STATES PLASTICS, INC. PART NUMBER MSBCF 1324-12 (or equal).

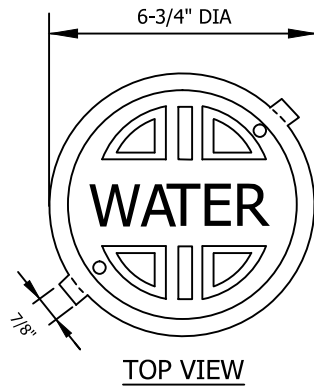
The Meter Box shall be high-density polyethylene of one-piece molded construction for durability and impact strength, and with a ductile iron cover (with flip-up meter reading window) installed shall be able to bear a 20,000lb load in a wheel load; and shall have a wall thickness of no less than 0.550". The Meter Box shall be black on the exterior to prevent UV degradation, and bright white on the interior to reflect light and ease meter reading service.

CITY OF KIRKLAND

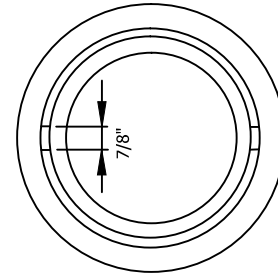
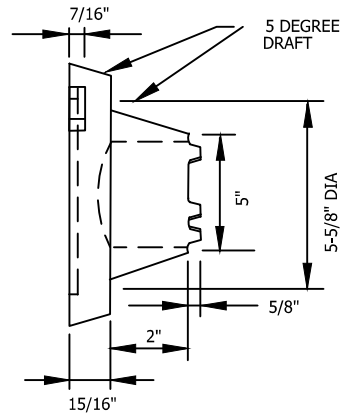
PLAN NO. CK- W.23



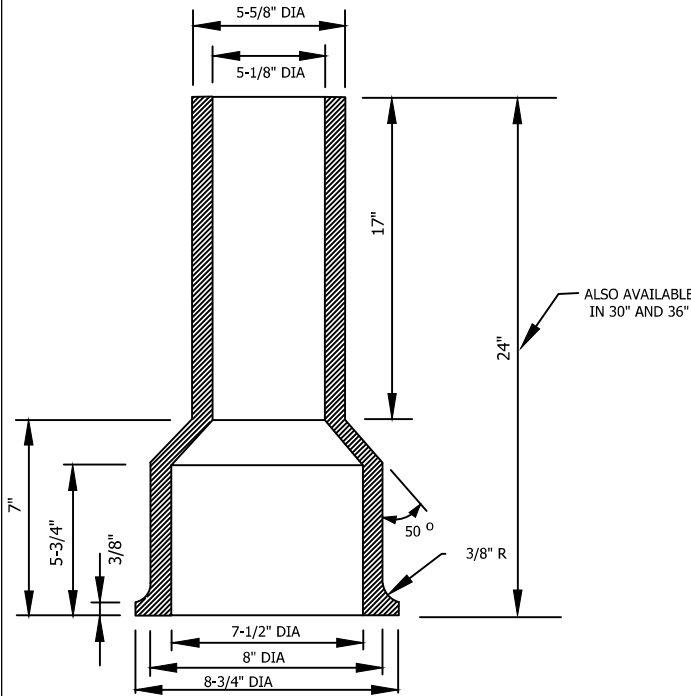
3/4" AND 1" WATER  
METER TRAVEL BOX



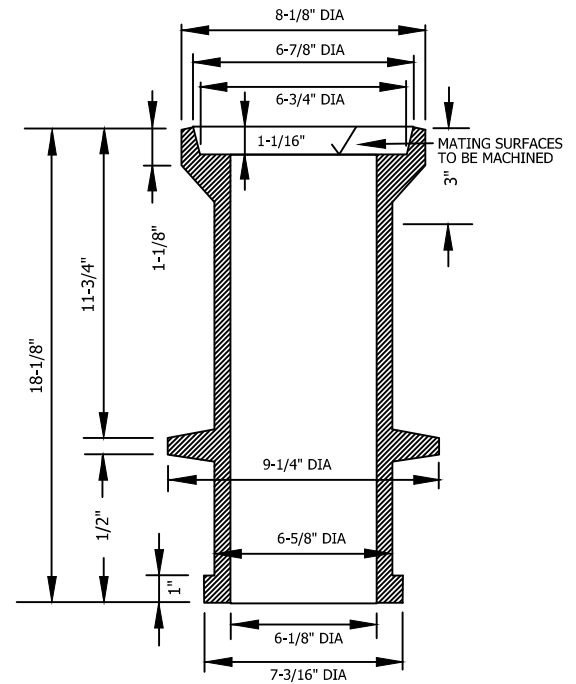
**TOP VIEW**



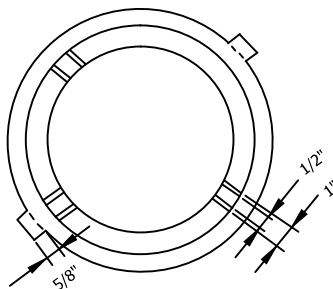
**TOP VIEW**



**24", 30", 36" VALVE BOX BASE**  
NOT TO SCALE



**18" VALVE BOX TOP**  
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.

**CITY OF KIRKLAND**

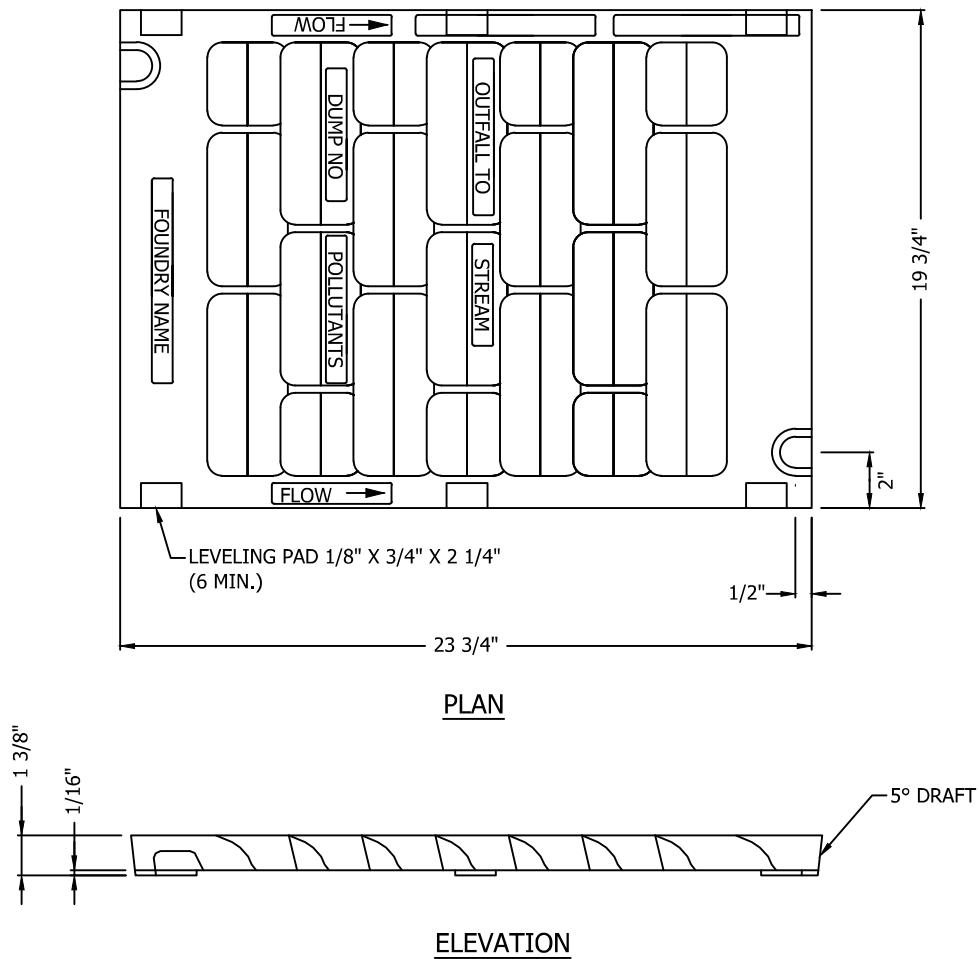
PLAN NO. CK-W.35



**WATER VALVE BOX**




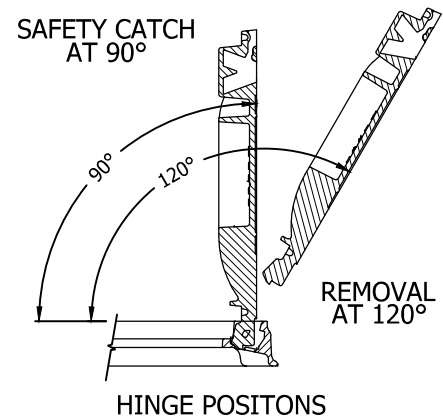
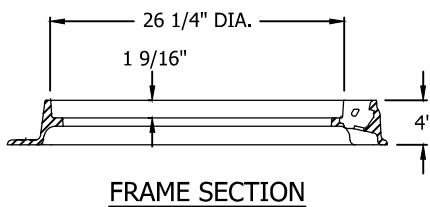
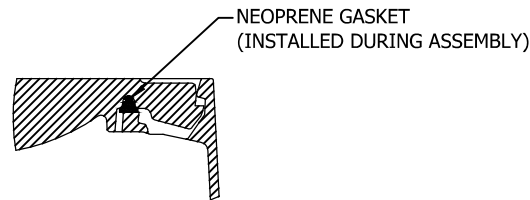
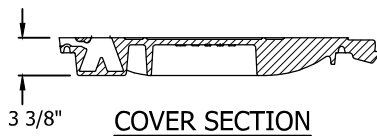
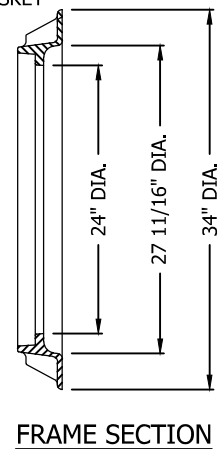
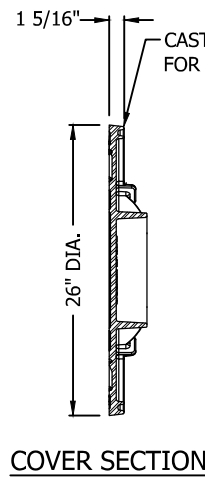
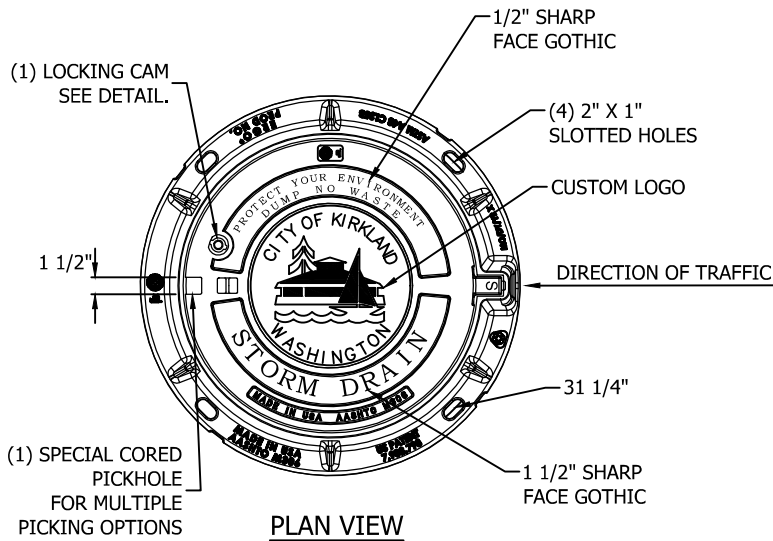
# **STORM DRAINAGE**



**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. FRAMES SHALL INCLUDE THREADS AS DROP-OUT REPLACEABLE NUTS.
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	
	<b>VANED GRATE FOR CATCH BASIN AND INLET</b>



**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**

# ROADWAY

**CITY OF KIRKLAND**  
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**DEPARTMENT OF PUBLIC WORKS  
PRE-APPROVED PLANS POLICY**

**Policy R-8:      PLACING CONCRETE OR ASPHALT IN ADVERSE WEATHER  
CONDITIONS**

Once a permit has been issued, the Contractor shall call 24 hours in advance of paving or the placement of concrete to coordinate construction efforts with the inspector. The contractor shall obtain approval from the City's inspector or Development Engineer prior to placing asphalt or concrete. The following criteria is a basis for placing concrete or asphalt:

**1.      Asphalt**

- A.      Shall not be placed in the rain.
- B.      All final 2"-lift of Hot Mix Asphalt must be placed when the air temperature is 45 degrees and rising.
- C.      ATB shall not be placed when the air temperature is below 35 degrees.
- D.      Shall not be placed on frozen or ice-coated ground or subgrade.

**2.      Concrete**

- A.      Shall not be placed in the rain.
- B.      Shall not be placed when the air temperature is above 90 degrees.
- C.      Shall not be placed on frozen or ice-coated ground or subgrade, against or on ice-coated forms.
- D.      **IF** freezing conditions result within 72 hours following the pour, all concrete shall be covered with plastic and straw or some other method (i.e. blankets) to keep the concrete from freezing.

WSDOT Standard Specifications shall be recognized and adhered to, specifically sections 5-04.3(16), 6-02.3(14), 5-05.3(14). If a conflict occurs between the above criteria and WSDOT, the stricter of the two shall apply.

## **CITY OF KIRKLAND**

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### **DEPARTMENT OF PUBLIC WORKS PRE-APPROVED PLANS POLICY**

#### **Policy R-15: Permitted Landscaping in Public Right-of-way**

Kirkland Municipal Code (KMC) 19.04.050 allows property owners to incorporate unused public right-of-way into the landscaping design of the abutting property. KMC 19.04.010 does not allow a person to place objects within the public right-of-way that obstruct or tend to obstruct vehicles or pedestrians traveling thereon except as provided for in 19.010.40 or without City of Kirkland authorization. The KMC does not define "landscaping" sufficiently to help the property owner choose appropriate landscaping that preserves the right-of-way for public use, now or in the future. To preserve the public right-of-way, the restrictions in 19.04.010 shall take precedence over the exception allowed in 19.04.050.

Landscaping shall be limited in size to not impact or obstruct the installation or maintenance of existing or future utilities. (ex. No trees, arborvitae or large bushes)

In addition, landscaping shall not obstruct sight distance of drivers exiting driveways or at intersections in accordance with Kirkland Zoning Code 115.135 and Policy R-13 – Intersection Sight Distance.

Policy R-15 clarifies acceptable landscaping for the following three situations:

- In the public right-of-way Between the curb and sidewalk and back of sidewalk
- In the public right-of-way between the property line and curb when a sidewalk or other designated path does not exist
- In the public right-of-way between the property line and edge of pavement when a curb does not exist

Public Works will evaluate other situations on a case-by-case basis.

#### **Permit and Hold Harmless Agreement**

Depending on the landscaping, the City might require the adjacent property owner to obtain a City Right-of-way Permit, sign a City Hold Harmless Agreement (Agreement) and the Agreement must be recorded. The City can revoke a Right-of-way Permit at any time. The Agreement informs the signatory the City will not be held responsible for any damages resulting from the construction of a fence within a public right-of-way. The property owner should meet with City staff to review the proposed or existing landscaping to determine the need for a permit and Agreement.

#### **In Public Right-of-way Between Curb and Sidewalk and Back of Sidewalk**

Plantings selection and installation shall conform to Kirkland Zoning Code Chapter 95. Plant selection should be guided by the Kirkland Plant List referenced in KZC 95.50.5.a and available on the City's website. Between curb and sidewalk, plant height shall be maintained no higher than 12 inches, except for required street trees. Landscaping shall not encroach on or overhang the sidewalk or curb in the public right-of-way.

#### **In Public Right-of-Way between Property Line and Curb without a Sidewalk or Path**

Public Works will allow property owners to implement the following ground treatments in the public street right-of-way between the property line and curb.

- Grass
- Gravel
- Mulch
- Low-growth plants no more than 12 inches maximum height, provided the landscaping design leaves a minimum 5-foot wide continuous opening available for pedestrian passage in the right-of-way, and the plants do not encroach on the 5-foot wide opening or overhang the curb.

Landscaping shall not obstruct or tend to obstruct pedestrian passage along the public right-of-way per Kirkland Municipal Code Section 19.04.010. Landscaping shall not block access to curb at intersections. River cobbles, boulders, ground modifications, fencing or other treatments are not allowed if these treatments might impede pedestrian passage.

### **In Public Right-of-Way without a Curb between Property Line and Edge of Pavement**

A property owner can implement the following ground treatments in the public street right-of-way between the property line and edge of pavement.

- Grass
- Gravel
- Mulch

These treatments shall be implemented in a manner that does not remove or otherwise restrict parking. River cobbles, boulders, shrubs, trees or other objects shall not be placed in the road shoulder that would obstruct or tend to obstruct vehicles or persons per Kirkland Municipal Code Section 19.04.010.

If the City's Street Division installs gravel in lieu of landscaping, the City will maintain the graveled portion.

### **Public Right-of-way Landscaping Maintenance**

The owner of the abutting property is responsible for maintaining the landscaping, including watering, trimming, and weeding, unless the property owner obtains a written agreement from the City's Maintenance Center agreeing to perform this work.

## **CITY OF KIRKLAND**

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### **DEPARTMENT OF PUBLIC WORKS PRE-APPROVED PLANS POLICY**

#### **Policy R-16: FENCES IN OR NEXT TO PUBLIC RIGHT-OF-WAY**

Kirkland Zoning Code (KZC) 115.40 and 115.115 establish location and other criteria for fences or fences combined with retaining walls installed on private property or in the public right-of-way. Fences are subject to sight distance requirements in KZC 115.135 and Policy R-13 – Intersection Sight Distance. Kirkland Municipal Code (KMC) 19.04.010 does not allow objects to be placed in public right-of-way that impedes vehicle or pedestrian travel, as applicable. Objects can include fences and/or retaining walls.

The purpose of Policy R-16 is to clarify situations not specifically identified in City Codes, such as where fences might meet criteria, but, because of other factors, create a potential traffic safety issue or unnecessarily restrict the public right-of-way. In other situations, fences might not meet prescriptive criteria and yet are not creating a traffic safety issue because of topography or other existing conditions. Public Works and/or the Planning Department are allowed to consider requests for special fencing situations on a case-by-case basis. Public Works can also take action to mitigate issues existing fences create in the public right-of-way, after considering the circumstances, consequences and benefits.

#### **Permit and Hold Harmless Agreement**

For a fence built in the public right-of-way, the fence owner must obtain a City Right-of-way Permit, sign a City Hold Harmless Agreement (Agreement) and the Agreement must be recorded. The City can revoke a Right-of-way Permit at any time. The Agreement informs the signatory the City will not be held responsible for any damages resulting from the construction of a fence within a public right-of-way.

#### **Special Considerations**

KZC 115 allows fences to be:

1. 3.5 feet in height within 3 feet of the property line abutting a principal or minor arterial except where the abutting arterial contains an improved landscape strip between the street and sidewalk; or
2. No closer than 15 feet to any street curb or the edge of pavement if no curb exists, unless the location of the property line is closer than 15 feet; or
3. Fences over 3 feet in height are not allowed within the areas of a sight distance triangle on each side of streets or driveways at intersections.

However, Public Works can reduce the fence height to less than 3 feet and/or alter location criteria next to streets or existing driveways when fences in the public right-of-way would obstruct sight



distance in accordance with Policy R-13 - Intersection Sight Distance. If the fence is on private property, the City can enforce KZC 115.135 based on Policy R-13.

The combined height of fences plus retaining walls cannot exceed heights specified in KZC 115.115. In addition, these heights are also subject to KZC 115.135 and R-13.

### **Gate Requirements on Private Property Fences (for access to publicly maintained systems)**

Provide an access gate for the Public Works Department to inspect and maintain publicly maintained utility systems (example: storm drainage or sanitary sewer system) installed in a public utility easement that is located on private property. Gate specifications:

- Install the gate on private property fencing abutting the right-of-way.
- The location of the gate is either specified on the LSM or Building permit plans, and may be augmented by the Public Works construction inspector during construction.
- Gate width shall be a minimum of 12' wide, unless a larger gate is required by Public Works.
- Gate height shall be equal to the property fence (typically 6' tall).
- Gate material shall be equal to construction and appearance to the property fence.
- A Gate Keeper lock will be required to allow access to both the property owner and the City. Contact the Public Works construction inspector for details about the Gate Keeper lock.
- Maintenance of the gate, as with the property fencing, is the responsibility of the homeowner.

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**DEPARTMENT OF PUBLIC WORKS  
PRE-APPROVED PLANS POLICY****Policy R-29: Guidelines for Temporary Traffic Control Plan Preparation****PURPOSE:**

The purpose of these guidelines is to assist in the preparation of Temporary Traffic Control Plans (TTCPs) in the City of Kirkland.

An acceptable TTCP provides the guidance and warning necessary for the orderly and predictable movement of traffic through and around work zones thereby minimizing inconvenience to the public while providing safety and accessibility for all road users and workers.

A Temporary Traffic Control Plan (TTCP) is required for any project that may include work within traffic lanes, shoulders, sidewalks, crosswalks, parking and bicycle facilities:

- Along arterial and collector streets.
- Within 200 feet of signalized intersections.
- Central Business District.

In addition, a TTCP is required for:

- Projects that require full or partial road closures.
- Special Events (public or private) expected to have traffic impacts on City streets.
- Work on any street that Public Works deems necessary.

For projects or work activities that do not require a TTCP, the contractor is responsible for implementing appropriate traffic control per MUTCD (Manual of Uniform Traffic Control Devices) recommendations.

TTCPs require a minimum two-week review period for each submittal by Public Works.

**GENERAL NOTES:**

1. TTCPs must conform to the most recent edition of the Manual of Uniform Traffic Control Devices (MUTCD) and any supplements.
2. TTCP must be site and project specific; therefore, typical drawings, taper tables and MUTCD illustrations, by themselves, are insufficient. All TTCP shall clearly indicate all existing transportation facilities impacted by work including roads, bike lanes, sidewalks, transit stops, and driveways.
3. TTCPs must fit field conditions so field check of the project site is recommended prior to and during the preparation of a TTCP.
4. Based upon the complexity of a project, a suitable sequence of construction must be discussed with City Staff prior to fully developing TTCPs. Each construction phase shall be provided with appropriate work zone traffic control and the impacts of utility relocation, traffic delays, detours and capacity restrictions must be considered and addressed.

5. No more than one TTCP shall be in use at any given time for a single project. If multiple TTCPs are submitted for review and approval at one time, then the TTCPs shall be clearly labelled as separate plans.
6. Previously approved TTCPs cannot be combined into a new TTCP without review and approval by Public Works.
7. Road and/or sidewalk closure must be evaluated by Public Works with respect to both the necessity as well as the impact of the closure to the public. Road closures shall require additional temporary traffic control including advance notification, approach and detour signage. The utilization of VMS (Variable Message Signs) is recommended to convey information to the public on the proposed closure at least two weeks in advance.
8. Any work impacting sidewalks, pedestrian crossings and bike facilities shall be specified and appropriate detour shall be included in the proposed TTCP.
9. Any work requiring the temporary closure of a crosswalk equipped with Pedestrian Flags will require the flags to be removed and the flag holders bagged. Flags will be returned to holders when crosswalk access is restored.
10. Any work within the public right of way shall be restricted to the hours of 9:00 AM to 3:00 PM, Monday through Friday on arterial streets. Work on Holidays, weekends or at night shall not occur unless an exception is granted by Public Works.
11. Reduced work hours may be required for any project located near a school to minimize traffic impacts during pick-up and drop-off times.
12. Construction activity, loading and unloading of equipment shall not block any traffic lane other than those previously specified on the TTCP.
13. Modifications to traffic signal operations during construction must be requested in writing two weeks in advance of submittal of the TTCP.
14. Access shall be maintained to all driveways unless permission for closure is granted by the property owner or manager.
15. Accessibility for emergency vehicles shall be maintained at all times.
16. Pavement excavation shall be limited to a maximum of one travel lane at a time unless otherwise specified on the TTCP.
17. Temporary "No Parking" signs shall be placed 24 hours prior to commencing work.
18. All Temporary Traffic Control (TTC) devices shall be removed as soon as practical when they are no longer needed. Similarly, when work is suspended for short periods of time, TTC devices that are no longer necessary shall be removed or covered.
19. Two travel lanes (one for each approach) have to be open at all times on arterial streets unless an exception is granted by Public Works.
20. TTCPs that require the presence of UPO (Uniform Police Officer) to manage traffic at signalized intersections need input from Public Works Traffic Group regarding whether or not the traffic signal will be operated in red flashing mode. Public Works Traffic Group must be notified at least one day in advance for any signal that will be placed in red flashing mode.
21. TTC shall be placed in locations that minimize impacts to sidewalk and bike lanes to the extent feasible.
22. Approved night work requires all traffic control devices to be retroreflective.

## TTCP REQUIREMENTS:

This section specifies the elements (in content and format) that need to be included on a TTCP in order for the plan to be approved. Failure to include any of the following elements may require resubmittal of a TTCP:

1. Description of the work, address/location, work hours, and contact information.
2. Vicinity map showing the location of the project.
3. The TTCP shall be drawn on 11" X 17" sheets. Electronic submittal is encouraged.
4. The TTCP drawings must use legible lettering and clear, contrasting, symbols for viewing or printing and must indicate north arrow and scale.
5. Nearby streets with street names to assure proper orientation.
6. Posted speed limit.
7. Existing channelization including travel lanes, left /right turn bays, two-way left turn lanes, curbs and gutter, driveways, sidewalks, shoulders, bike lanes, parking lanes, median islands, traffic control devices including traffic signals and signs within the traffic control zone including areas affected by taper transition.
8. Existing bus stop locations within the extents of the traffic control zone.
9. Dimensions of all the work zone components shown in **Figure 1**. These include:
  - **Advance Warning Area** - Where traffic first recognizes a work zone is approaching.
  - **Transition Area**- Where traffic is redirected from the normal travel path. Transitions can occur as a lane or shoulder closure, lane shifting, or an entirely new alignment via a crossover or on-site diversion. Use of the proper **Taper Length (L)** is recommended (See **Table 1**) to increase the safety performance of the transition area. There are four types of tapers: merging, shifting, shoulder, one-lane/ two-way and downstream. These are shown in **Figure 2**.
  - **Buffer space** - Provides protection for motorists and workers, typical length is 50 to 100 ft. There are two types of buffer spaces: longitudinal, which provides a recovery area for errant vehicles prior to reaching the work area, and lateral buffer or "shy distance, which is developed between the edge of the travel lane and the edge of the work area.
  - **Work Area** - Where work is being conducted.
  - **Termination area** – where traffic resumes normal path, typical length 50-100 ft)
10. The TTCP drawings must show the type and size of all the appropriate TTC devices (signs, drums, cones, barricades, arrow panels, etc.) using MUTCD coding designation and sign names on each component of the work zone. The size of advanced warning signs shall be based on the posted speed (See **Table 2**); larger signs may be used if a smaller sign size is not available.
11. The TTCP drawings must show the spacing of signs, barricades, delineators, drum and cones and identify taper length. **Table 3** shows recommended sign spacing and **Table 4** shows recommended channelizing device spacing.
12. TTCP shall show all the traffic control devices required to guide pedestrian through or around the work zone.

**Table 1, Taper Length Criteria and Formula**

Type of Taper	Taper Length	Taper Formula: $L=WS^2/60$ , W(typical offset =12ft ), S(Speed)			
		25 MPH	30MPH	35MPH	40MPH
Merging	L	120-150'	150-200'	200-250'	250-300'
Shifting	0.5L	60-80'	80-100'	100-125'	125-150'
Shoulder	0.33L	50'	60'	80'	80'
One Lane/two-Lane Taper	50-100'	50'	60'	80'	100'
Downstream	50-100'	50'	60'	80'	100'

**Table 2, Sign Sizing**

Posted Speed Limit (MPH)	Sign Size
Not Allowed	24"x24"
25 or 30	30"x30"
35	36"x36"
40	48"x48"

**Table 3, Sign Spacing**

Posted Speed Limit (MPH)	Spacing (ft)
25	100-150
30	150-200
35	200-300
40	300-350

**Table 4, Channelizing Device Spacing**

Posted Speed Limit (MPH)	Taper Spacing (ft)	Tangent Spacing (ft)
25 or 30	20	40
35 or 40	30	60

**Figure 1. Component Parts of a Temporary Traffic Control Zone**

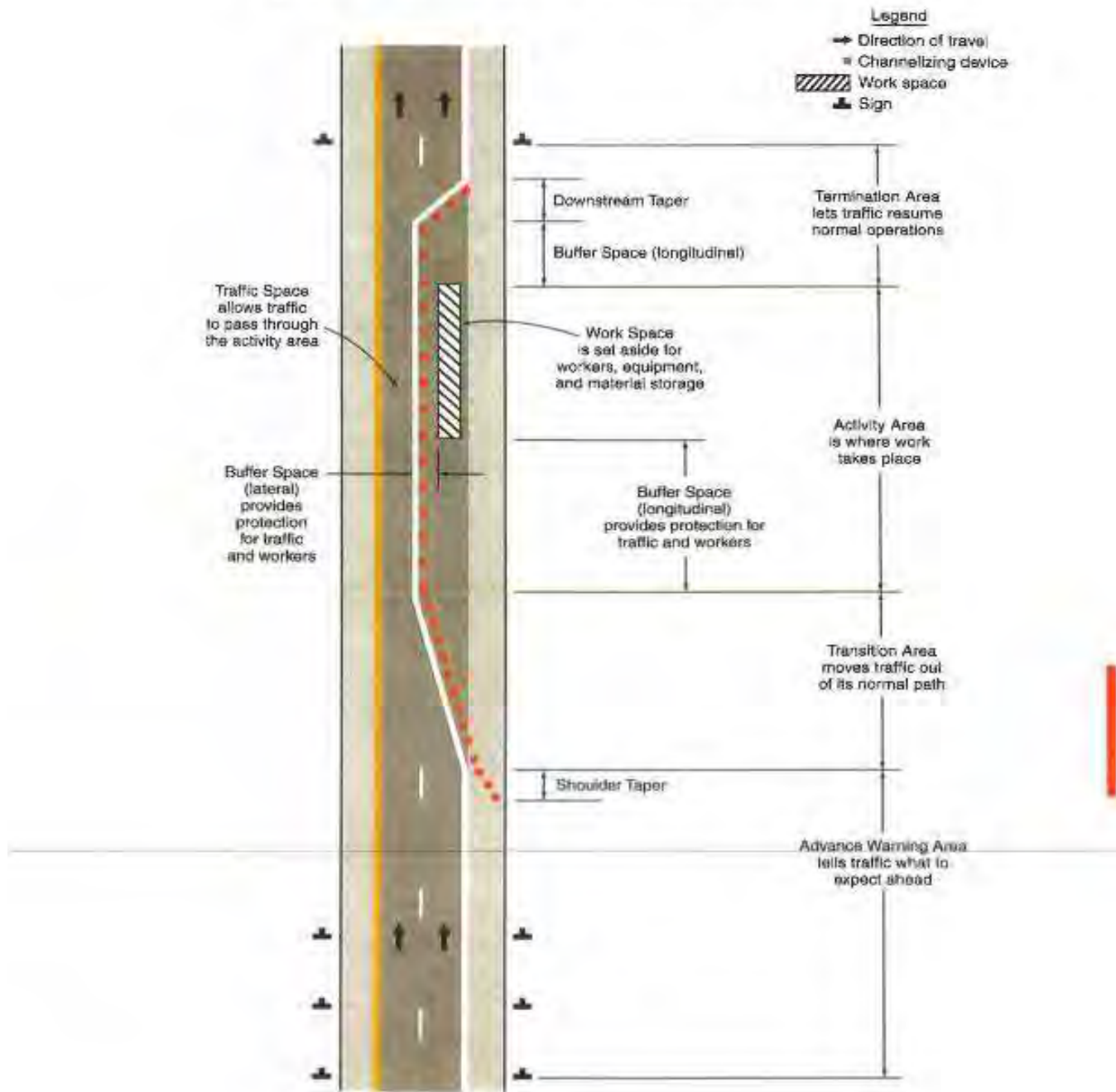
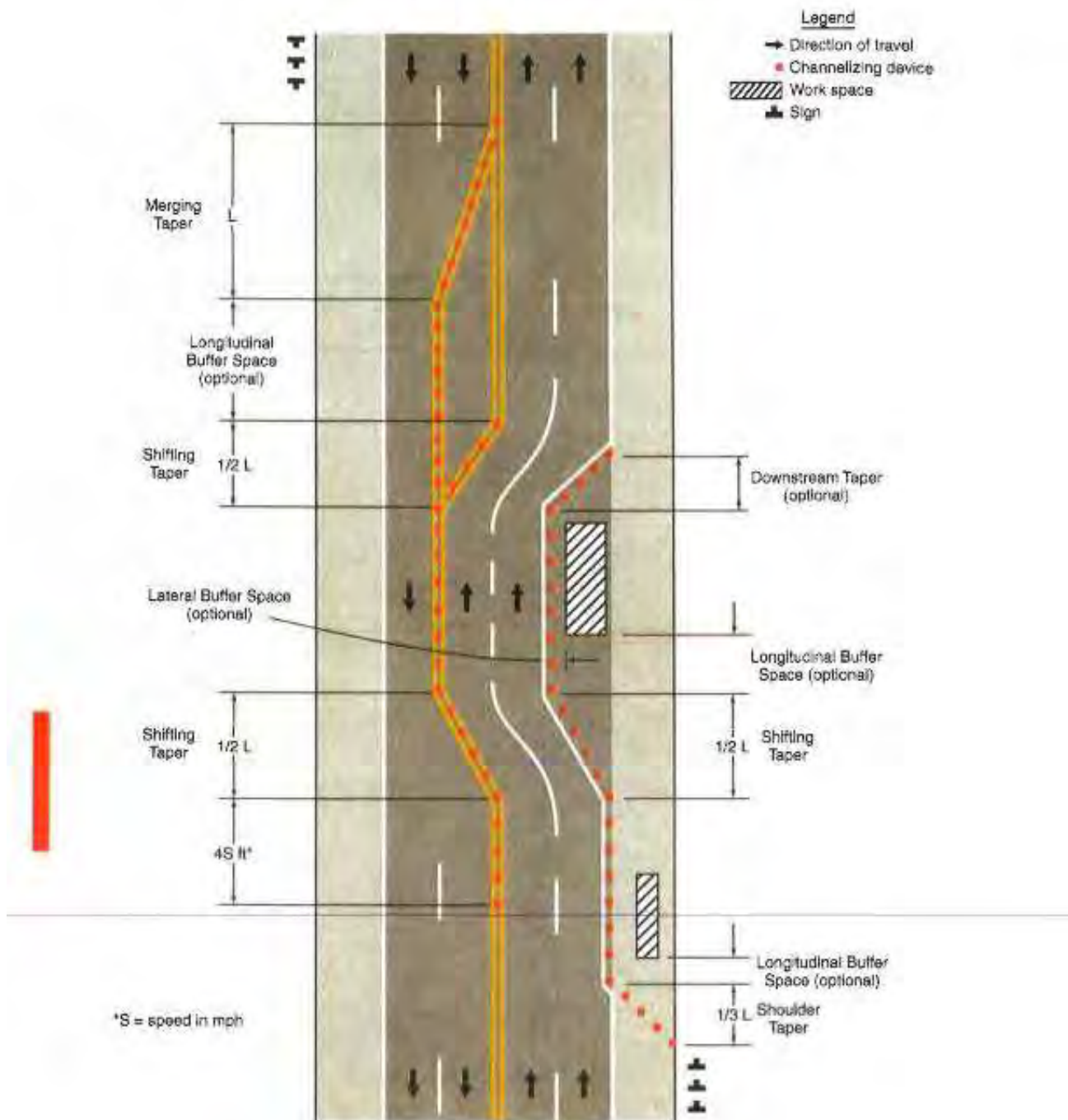
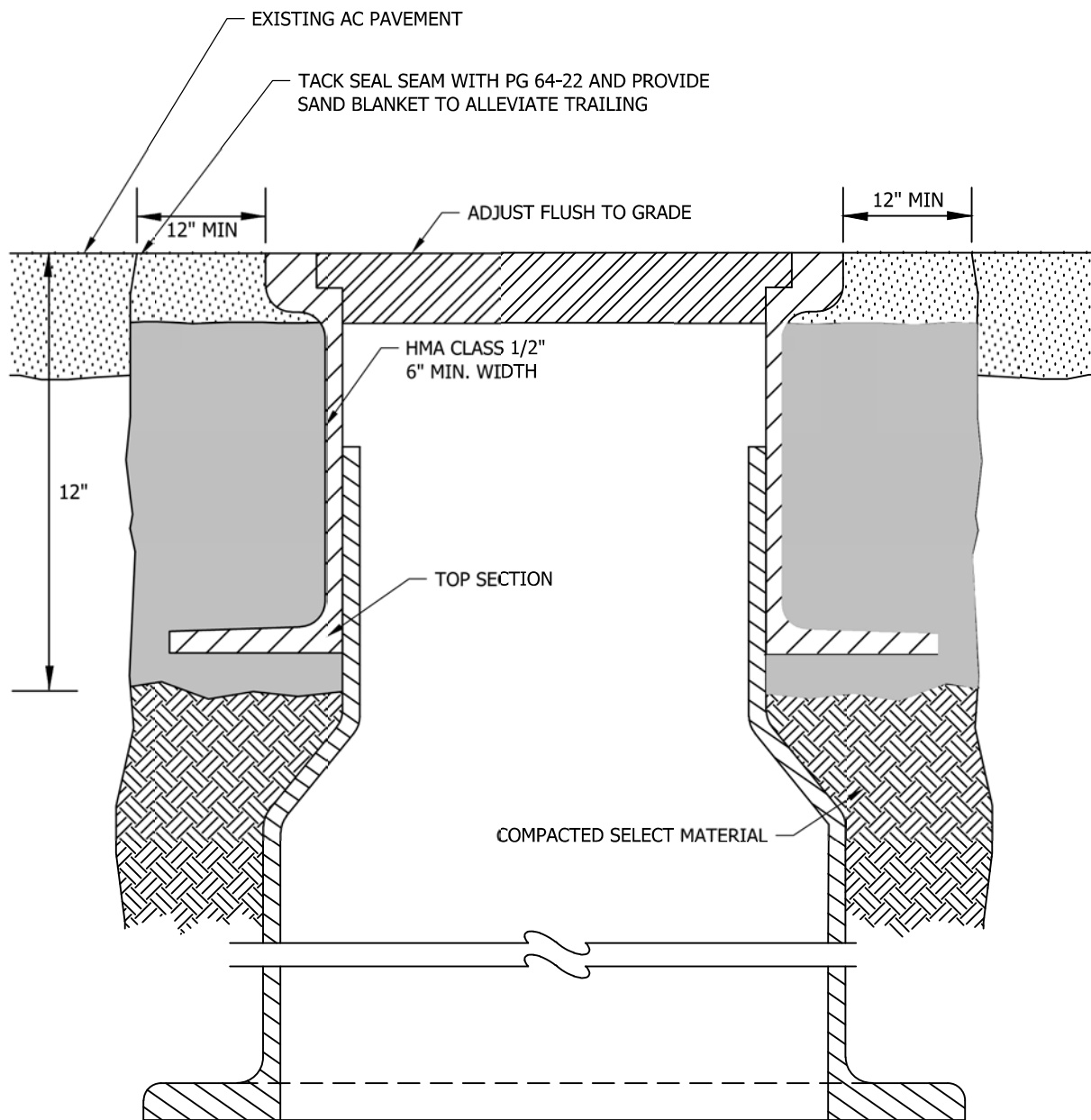


Figure 2. Types of Tapers and Buffer Spaces





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.

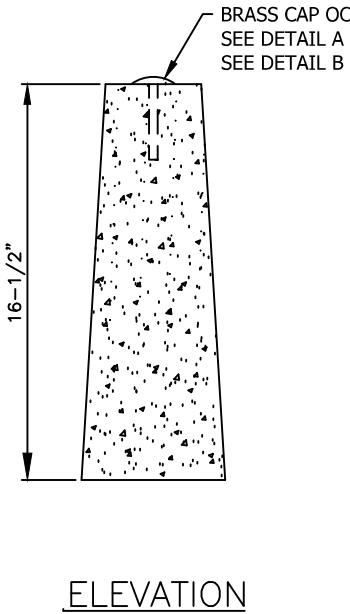
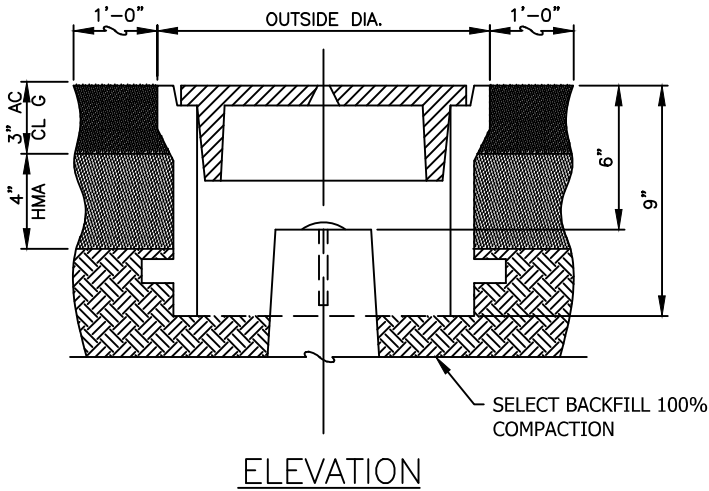
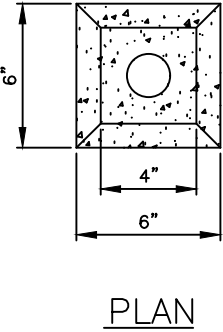
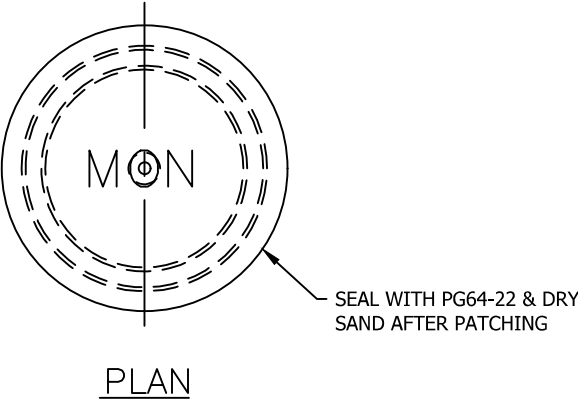
CITY OF KIRKLAND

PLAN NO. CK- R.02



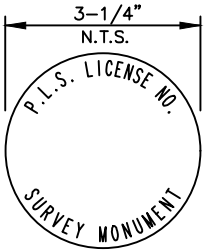
GENERAL UTILITY  
ADJUSTMENT  
H.M.A. PAVEMENT




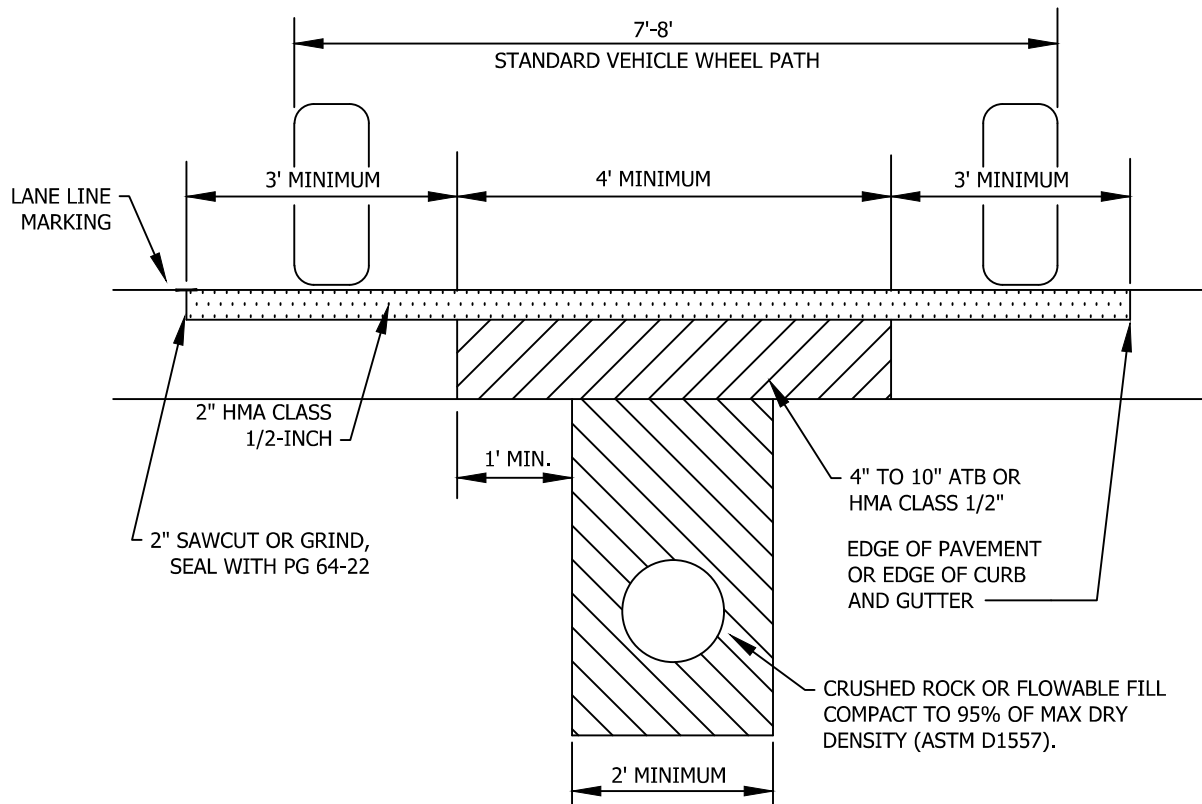


NOTES:

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



CITY OF KIRKLAND	
PLAN NO. CK-R.03	
	MONUMENT CASE AND COVER



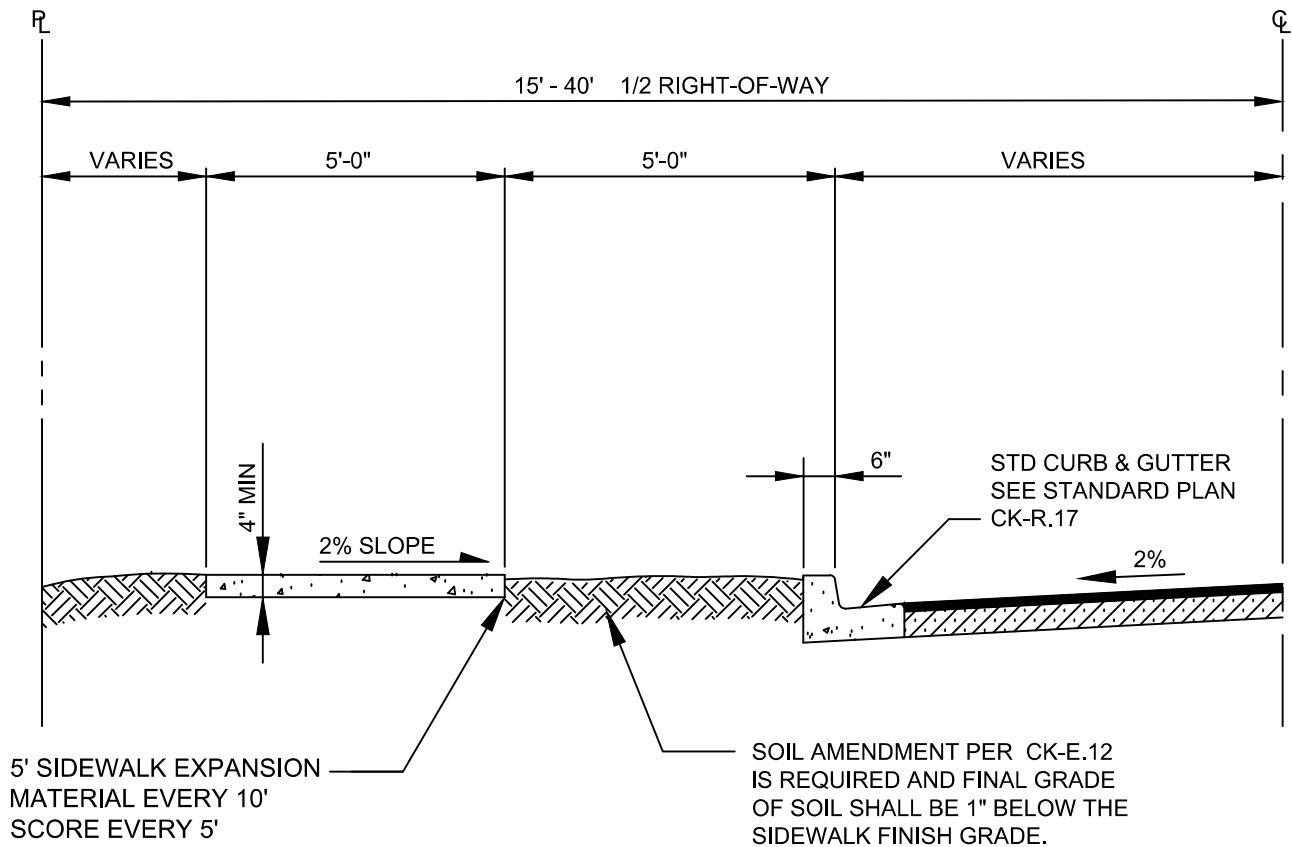
LESS THAN FULL WIDTH OVERLAY

CITY OF KIRKLAND

PLAN NO. CK- R.07




SECTION OF  
LONGITUDINAL OR  
TRANSVERSE CUT

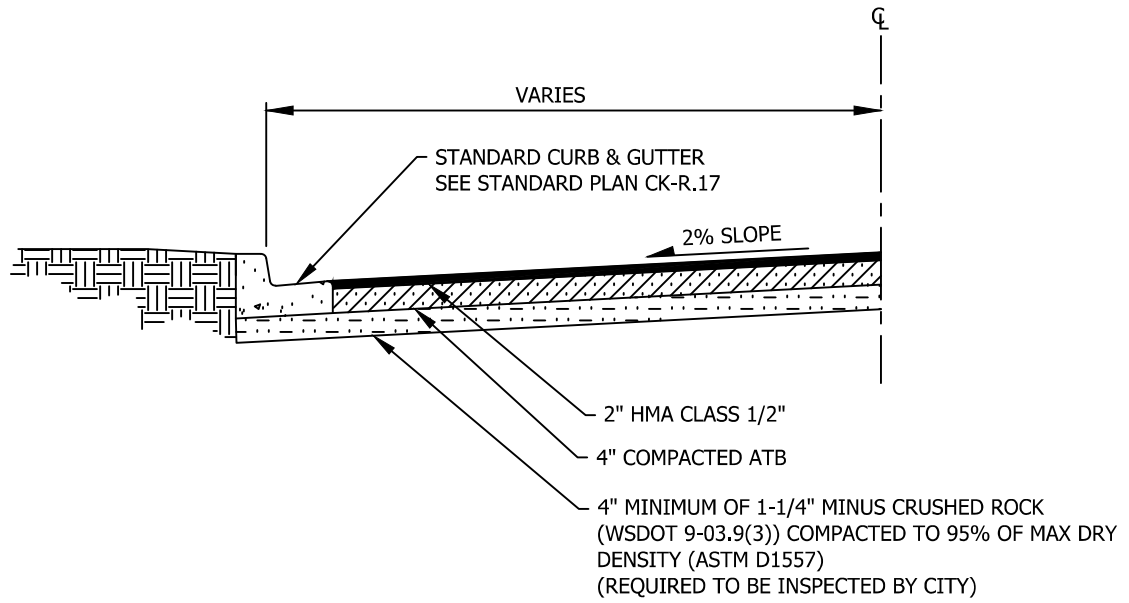


STANDARD HALF-STREET IMPROVEMENT SECTION

NOTE:  
ABOVE DIMENSIONS MINIMUM, SEE  
PUBLIC WORKS AND/OR PLANNING FOR  
INFORMATION ON SPECIFIC STREETS

STREET TREES ARE REQUIRED EVERY  
30' O.C. PER POLICY R-10.

CITY OF KIRKLAND	
PLAN NO. CK-R.08	
	HALF-STREET SECTION



**NOTES:**

1. HOT MIX ASPHALT CLASS 1/2" MAY BE USED IN LIEU OF ATB.
2. MAXIMUM ALLOWABLE GRADE OF A STREET IS 15% UNLESS DIRECTED BY ENGINEER.
3. SIDE SLOPES SHALL BE 2:1 MAXIMUM.
4. WHEN PLACING NEW CURB AND GUTTER ALONG AN EXISTING ROADWAY, THE ASPHALT SHOULD BE SAWCUT AT A WIDTH TO ALLOW FOR A 20" TO 24" ASPHALT PATCH AS MEASURED FROM THE OUTER EDGE OF THE GUTTER.

CITY OF KIRKLAND

PLAN NO. CK-R.09



STANDARD ROAD  
CROSS SECTION

## TYPICAL PATCH FOR PAVEMENT

NOTES:

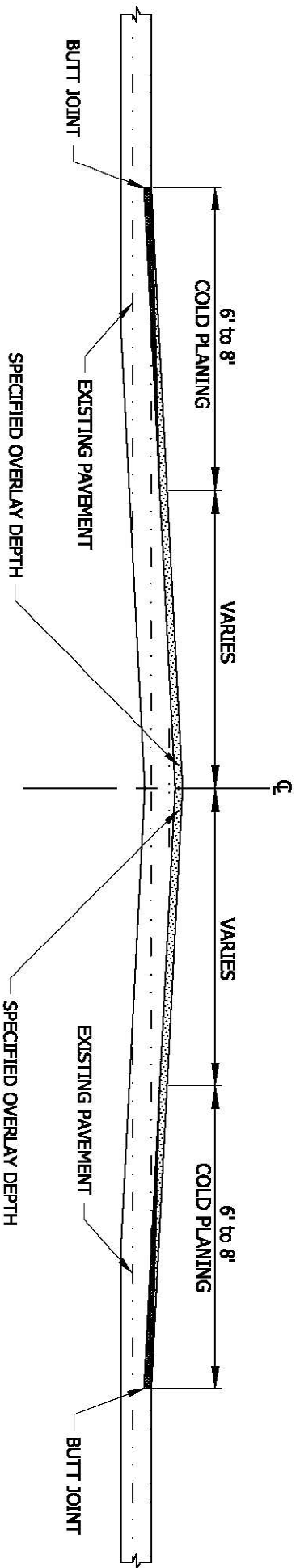
1. IF THE DISTANCE FROM THE EDGE OF PATCH TO THE EDGE OF PAVEMENT OR CURB AND GUTTER IS LESS THAN 3', THE PATCH MUST CONTINUE TO THE EXISTING EDGE; UNLESS ROADWAY IS OVERLAID WITHIN 60 DAYS.
2. HOT MIX ASPHALT SHALL BE CLASS 1/2".
3. ALL TRENCH BACKFILL SHALL BE CRUSHED SURFACING TOP COURSE MATERIAL FOR PERPENDICULAR TRENCHES, OR AS DIRECTED BY ENGINEER.
4. HMA CLASS 1/2" MAY BE USED IN LIEU OF ATB.
5. PATCH MUST ALWAYS BE 1" DEEPER THAN EXISTING ASPHALT; MAX 6" DEEP, OR AS DIRECTED BY ENGINEER.
6. TOP SEAL-USE PG 64-22 AND PROVIDE A SAND BLANKET TO ALLEVIATE TRAILING.
7. REFER TO COK STD. PLAN NO. CK-R.13C FOR REQUIREMENTS FOR GEOTECH BORING ASPHALT PATCHES.

CITY OF KIRKLAND

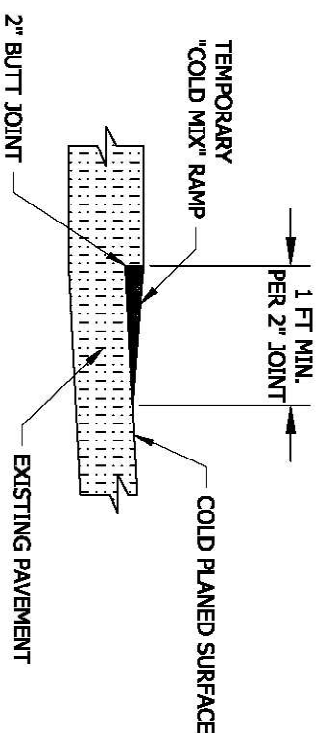
PLAN NO. CK- R.12



## RESTORATION DETAIL AND PAVEMENT PATCHING



### BUTT JOINT COLD PLANING



### "COLD MIX" RAMP

#### NOTES:

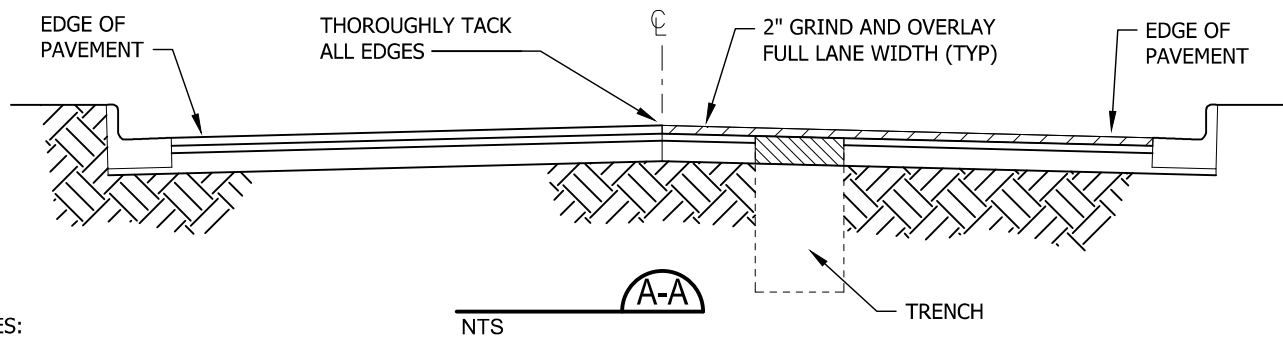
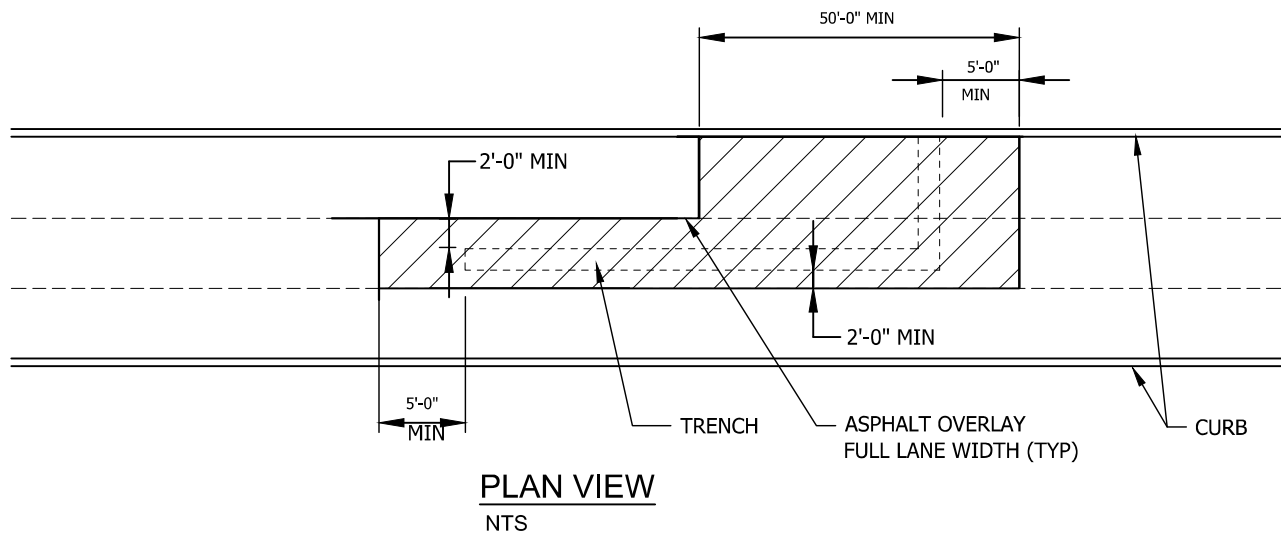
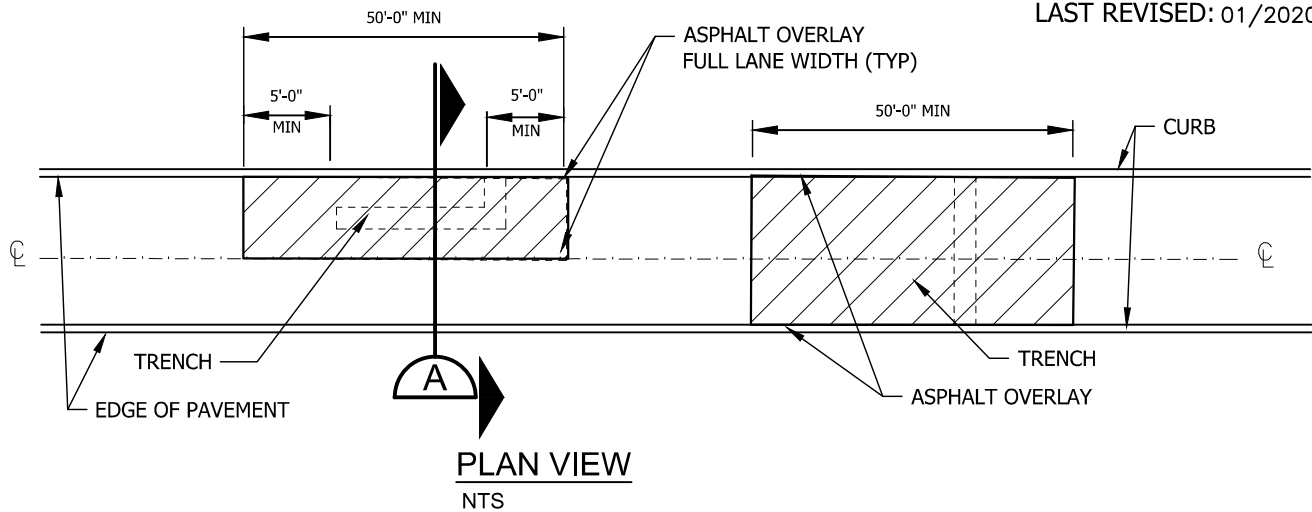
1. ALL JOINTS PLANED PERPENDICULAR TO TRAVEL LANES SHALL BE IMMEDIATELY PAPER JOINTED, COLD MIXED, AS PER THIS DETAIL, AND MAINTAINED UNTIL NEW HMA LAYER IS INSTALLED. PAPER JOINTS WILL BE REMOVED JUST PRIOR TO PLACEMENT OF WEARING COURSE.



BUTT JOINT,  
COLD PLANING AND  
COLD MIX RAMP

PLAN NO. CK-R.13

CITY OF KIRKLAND



NOTES:

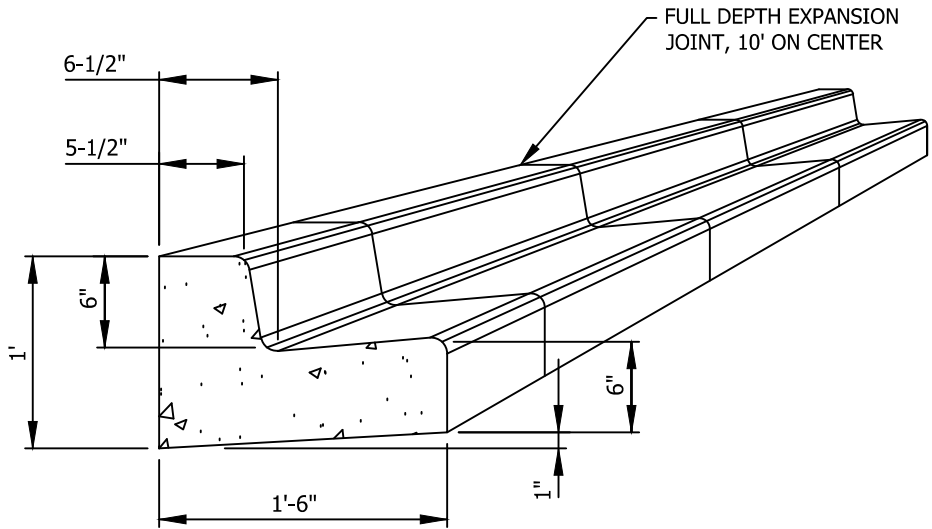
1. THIS STANDARD APPLIES TO ALL CUTS AND ARTERIAL STREETS AND ALL PAVEMENT LESS THAN 5 YEARS OLD.
2. OVERLAY AREA MAY BE MODIFIED BY CITY ON OLDER PAVEMENT DEPENDING ON CONDITIONS OR SCHEDULED CONSTRUCTION/MAINTENANCE.
3. ADJUST ALL UTILITY CASTING TO FINISH GRADE AND RESTORE CHANNELIZATION AND LOOP DETECTORS.
4. POTHOLES TO BE RESTORED WITH A 1' T-CUT. IF AFTER THE 1' T-CUT THE PATCH IS MORE THAN 4'x4', A GRIND AND OVERLAY IS REQUIRED UNLESS OTHERWISE APPROVED BY PUBLIC WORKS. IF THE PATCH IS WITHIN 2 LANES OF TRAVEL, THE GRIND AND OVERLAY WILL BE REQUIRED ON BOTH LANES. 50' MIN. LENGTH.
5. REFER TO COK STD. PLAN NO. CK-R.13C FOR REQUIREMENTS FOR GEOTECH BORING ASPHALT PATCHES.

CITY OF KIRKLAND

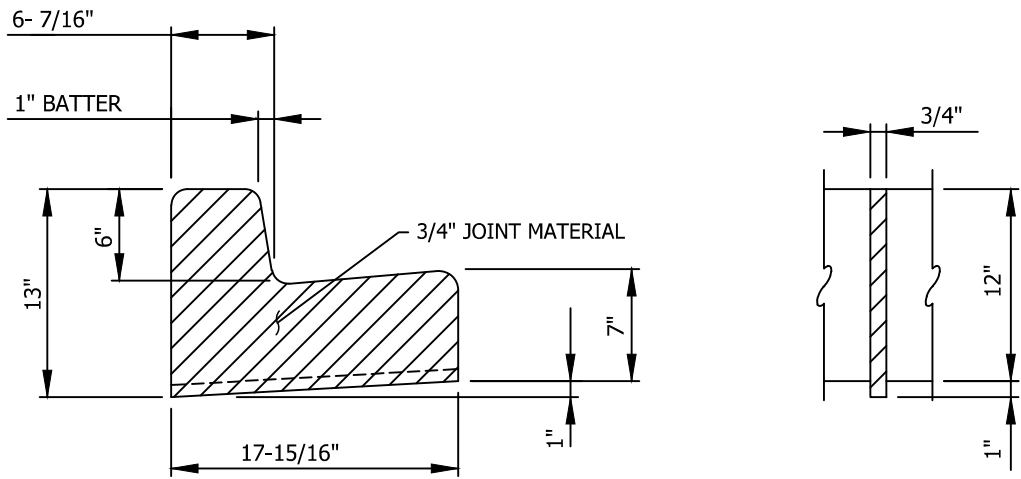
PLAN NO. CK- R.13A



ASPHALT OVERLAY  
FOR ROADWAY  
TRENCH REPAIR




TYPICAL SECTION FOR CURB & GUTTER, TYPE A



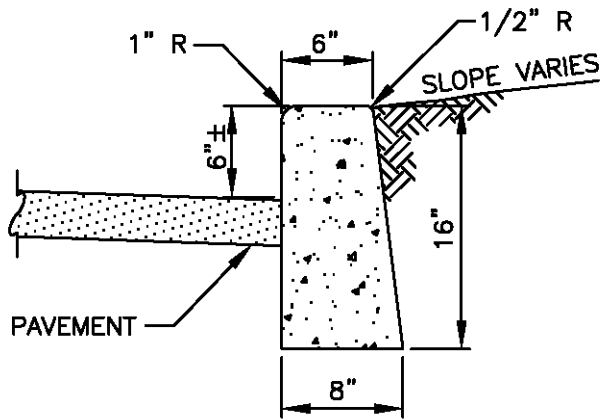
JOINT DETAIL

NOTES:

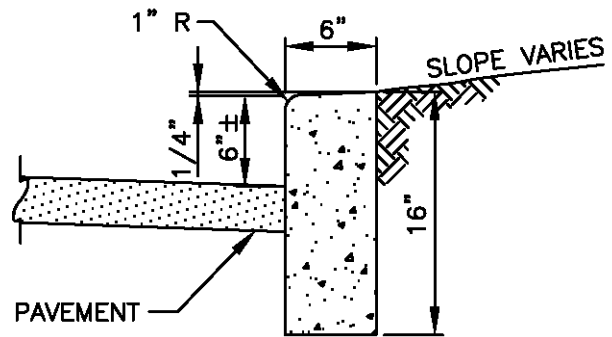
1. FORMS SHALL BE STEEL AND SET TRUE TO LINE AND GRADE (INSPECTION IS REQUIRED PRIOR TO PLACEMENT OF CONCRETE) UNLESS SPECIFIED DIFFERENTLY BY CITY PROJECT ENGINEER.
2. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.
3. BASE COURSE SHALL BE 4" OF 5/8" MINUS CRUSHED ROCK.
4. SURVEY REQUIRED FOR CURB ALIGNMENT.

CITY OF KIRKLAND	
PLAN NO. CK-R.17	
	CONCRETE CURB AND GUTTER, TYPE "A"

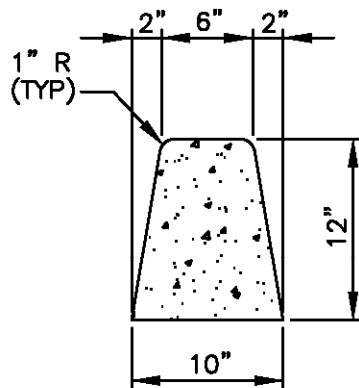




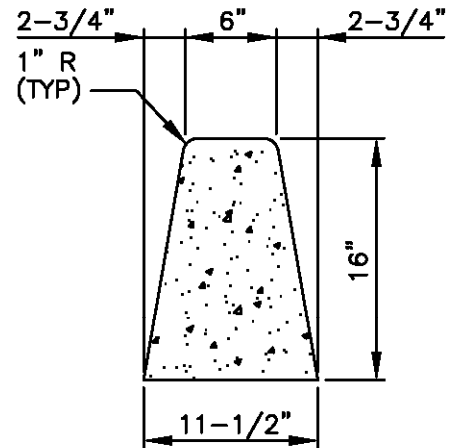
TYPE E-1 CURB



TYPE E-2 CURB



TYPE E-3 CURB



TYPE E-4 CURB

**NOTES**

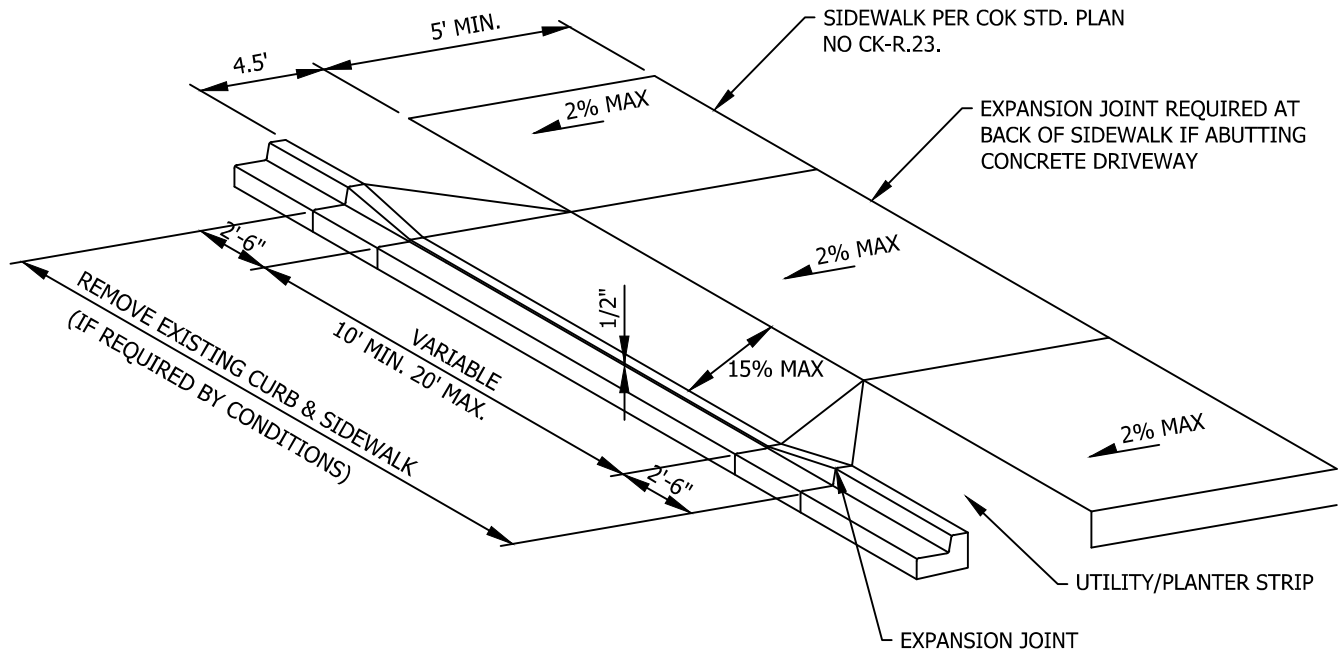
1. DUMMY JOINTS SHALL BE PLACED NOT TO EXCEED 15' CENTER TO CENTER, THEY SHALL BE NOT LESS THAN 3/16" IN THICKNESS AND SHALL EXTEND 2" BELOW THE GUTTER LINE.
2. 3/4" THRU JOINTS SHALL BE PLACED AT ALL COLD JOINTS OR AS DIRECTED BY THE ENGINEER AND SHALL EXTEND 1" BELOW BOTTOM OF CONCRETE.
3. MATERIALS 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



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](http://WWW.WSDOT.WA.GOV/DESIGN/STANDARDS/PLANS.HTM)

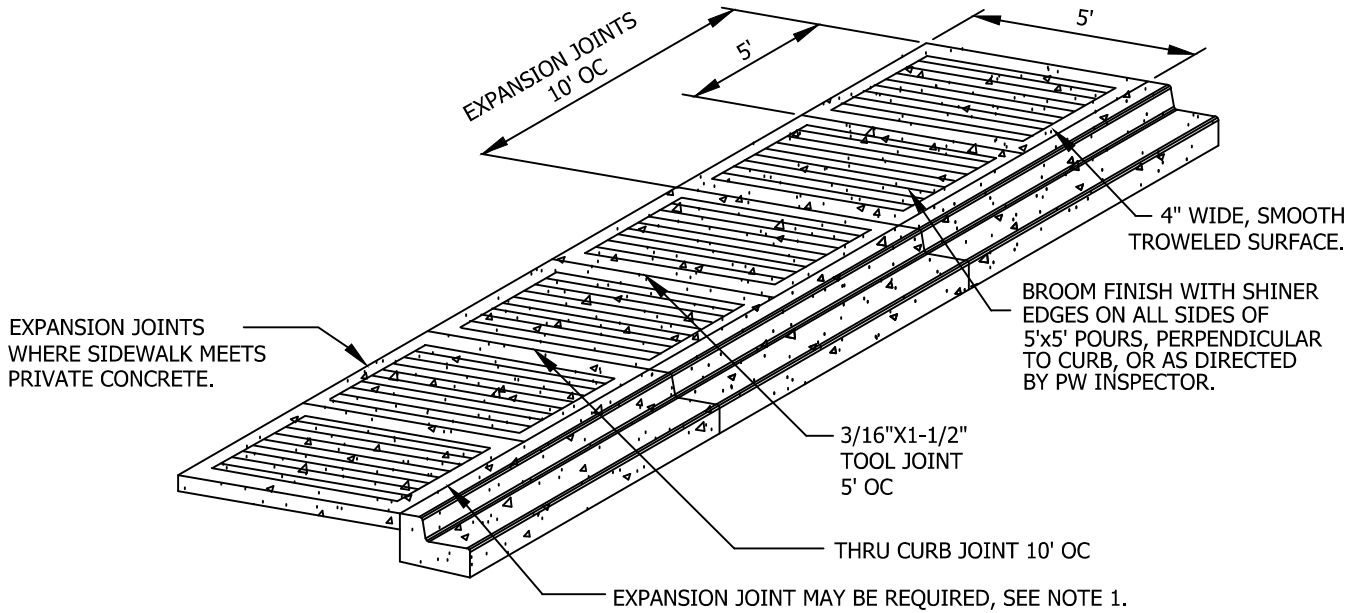
2. LANDING SHALL BE A MINIMUM OF 5' BY 5'.
3. EXPANSION JOINT SPACING NOT TO EXCEED 10'.

CITY OF KIRKLAND

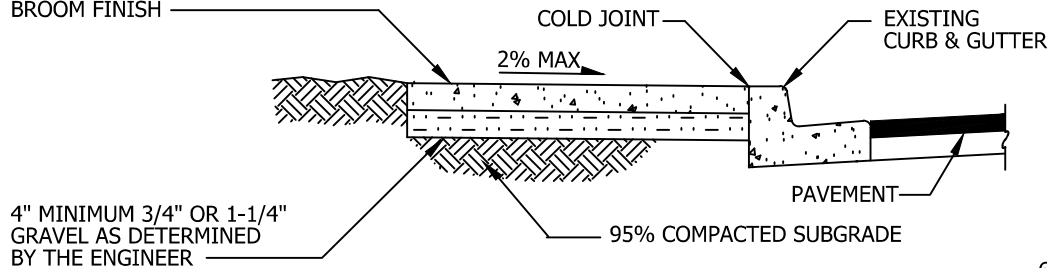
PLAN NO. CK-R.21



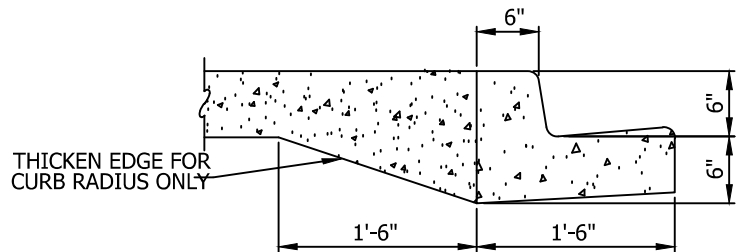
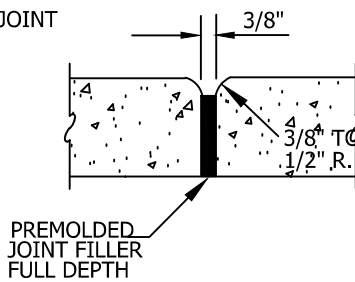
DRIVEWAYS AND  
WHEEL CHAIR RAMPS



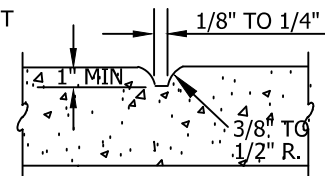
5' WIDE CONCRETE SIDEWALK  
4" MIN THICKNESS (6" AT DRIVEWAYS)  
BROOM FINISH



EXPANSION JOINT



CONTRACTION JOINT



**NOTES:**

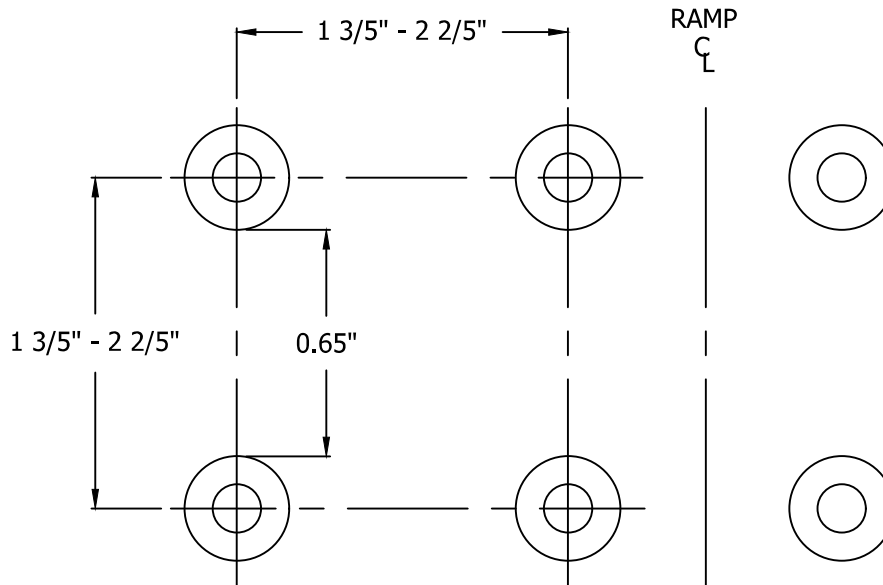
1. SIDEWALK AND CURB & GUTTER CANNOT BE POURED MONOLITHICALLY. EXPANSION JOINT WILL BE REQUIRED WHEN CONCRETE SIDEWALK IS SURROUNDED BY OTHER HARD SURFACES (E.G., DRIVEWAY); OR AS DIRECTED BY PW INSPECTOR.
2. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000 PSI MINIMUM, WITH AIR ENTRAINMENT. NO COLOR OR 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

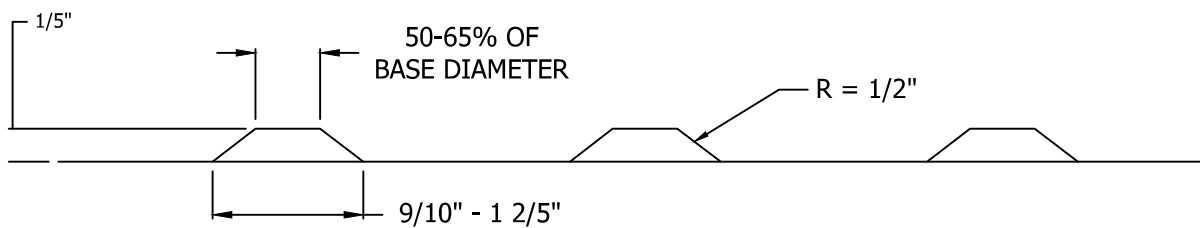
PLAN NO. CK- R.23



SIDEWALK  
SECTION



PLAN



ELEVATION

NOTE:

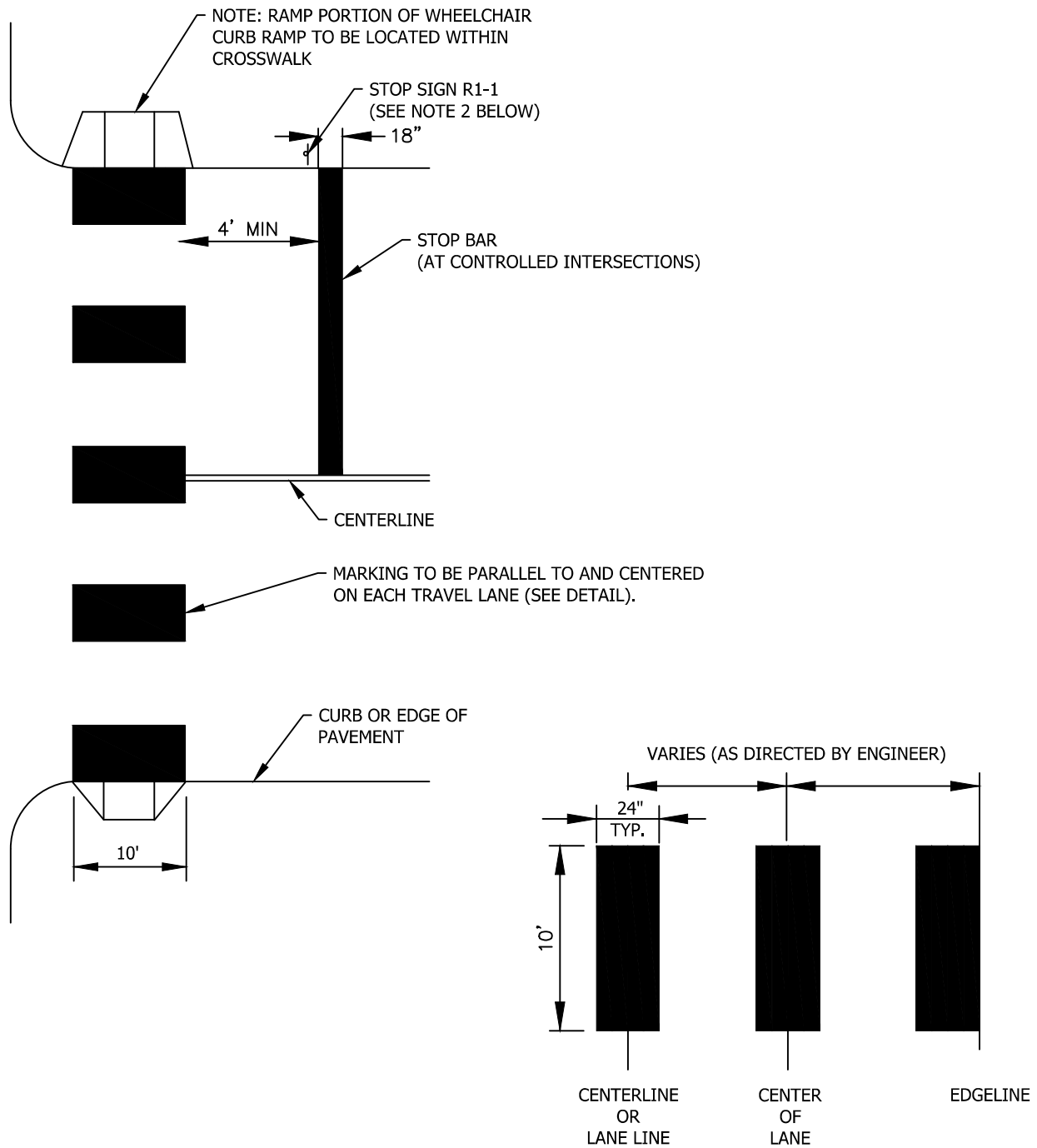
1. THE DETECTABLE WARNING PATTERN SHALL BE FORMED BY ADDING A MANUFACTURED MATERIAL BEFORE THE CONCRETE HAS CURED.
2. THE TWO-FOOT WIDE DETECTABLE WARNING PATTERN AREA ON THE RAMP SHALL BE YELLOW AND SHALL MATCH THE COLOR OF "STANDARD INTERSTATE YELLOW" PAINT AS SPECIFIED IN FORMULA K-2-83.
3. EMBOSSING THE WET CONCRETE OR INSTALLING MASONRY OF CERAMIC TILES MUST BE APPROVED BY CITY ENGINEER.

**CITY OF KIRKLAND**

**PLAN NO. CK - R.25B**



**TRUNCATED DOME  
TEXTILE WARNING  
SURFACE**



DETAIL

NOTES:

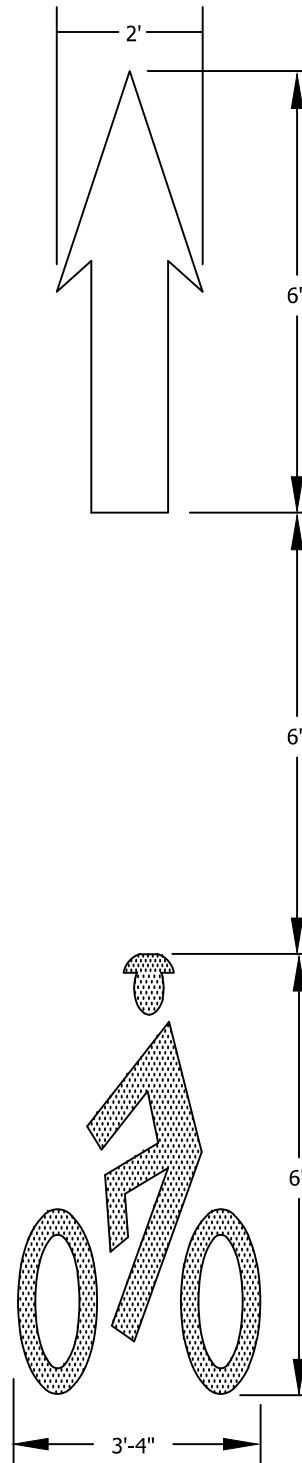
1. MARKINGS SHALL BE THERMOPLASTIC.
2. STOP SIGN LOCATION ADJACENT TO STOP BAR, OR AS DIRECTED BY ENGINEER

CITY OF KIRKLAND

PLAN NO. CK-R.28



CROSSWALK AND  
STOP BAR DETAIL



NOTES:

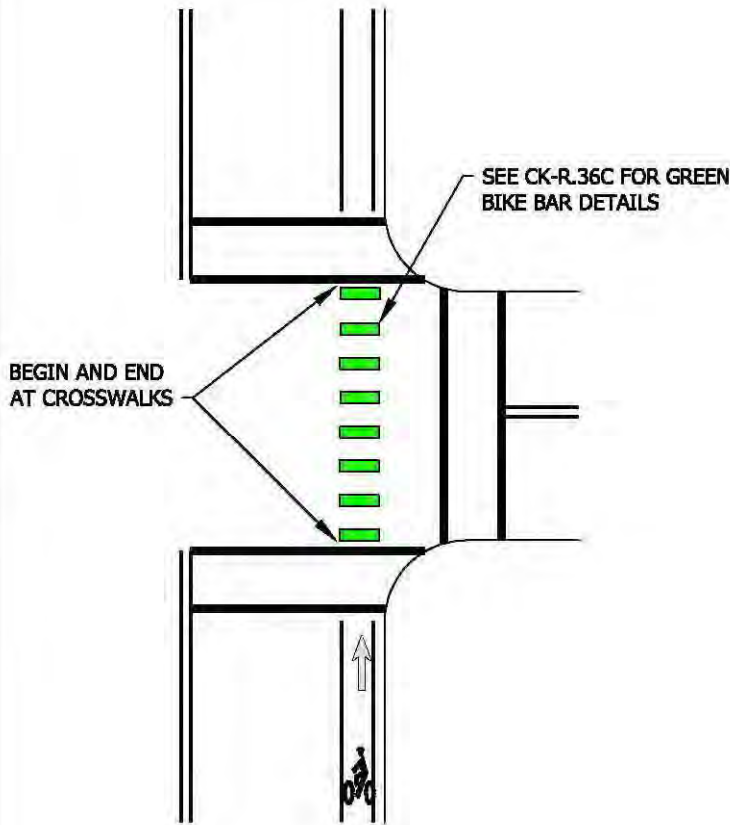
1. BIKE LANE SYMBOLS AND ARROW MATERIAL SHALL BE 90 MILL, PREFORMED, SKID RESISTANT THERMOPLASTIC.
2. BICYCLE SYMBOL FACES ROADWAY CENTERLINE.

CITY OF KIRKLAND

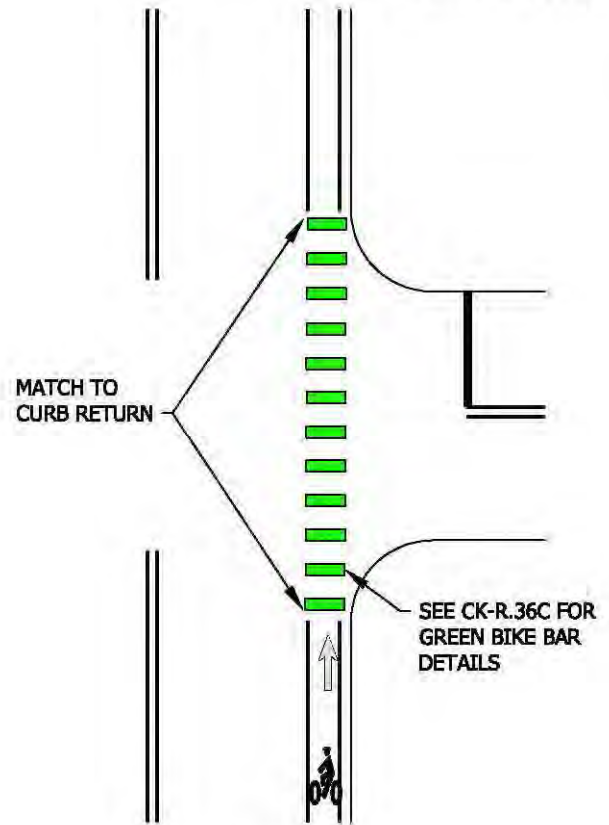
PLAN NO. CK-R.34



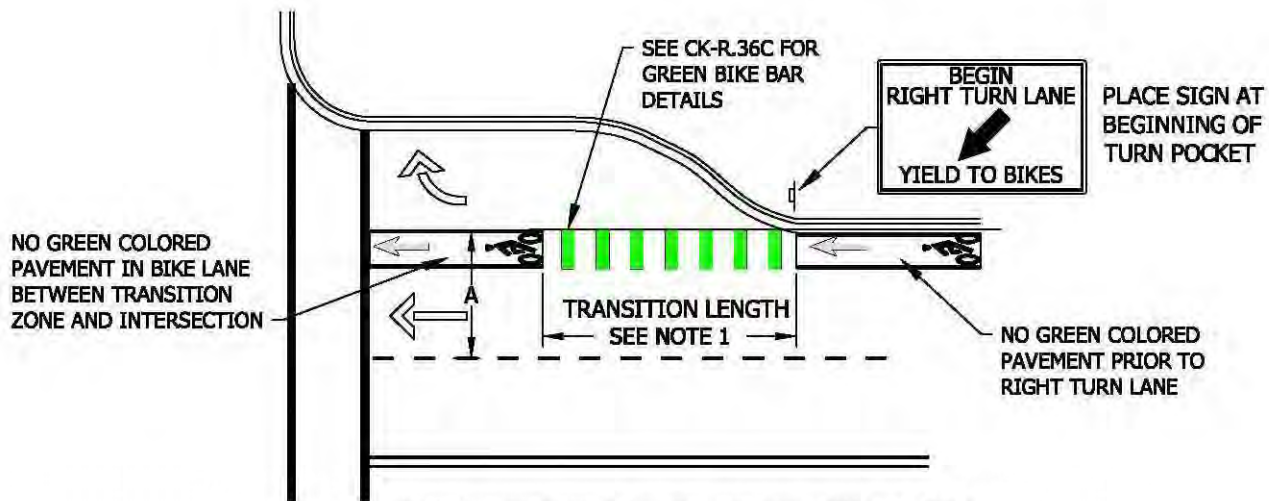
BICYCLE LANE  
MARKINGS



**TYPICAL TREATMENT THROUGH INTERSECTION WITH CROSSWALKS**



**TYPICAL TREATMENT THROUGH INTERSECTION WITHOUT CROSSWALKS**



**TYPICAL TREATMENT AT A RIGHT TURN POCKET (BICYCLE LANE CONTINUES THROUGH INTERSECTION)**

**NOTES:**

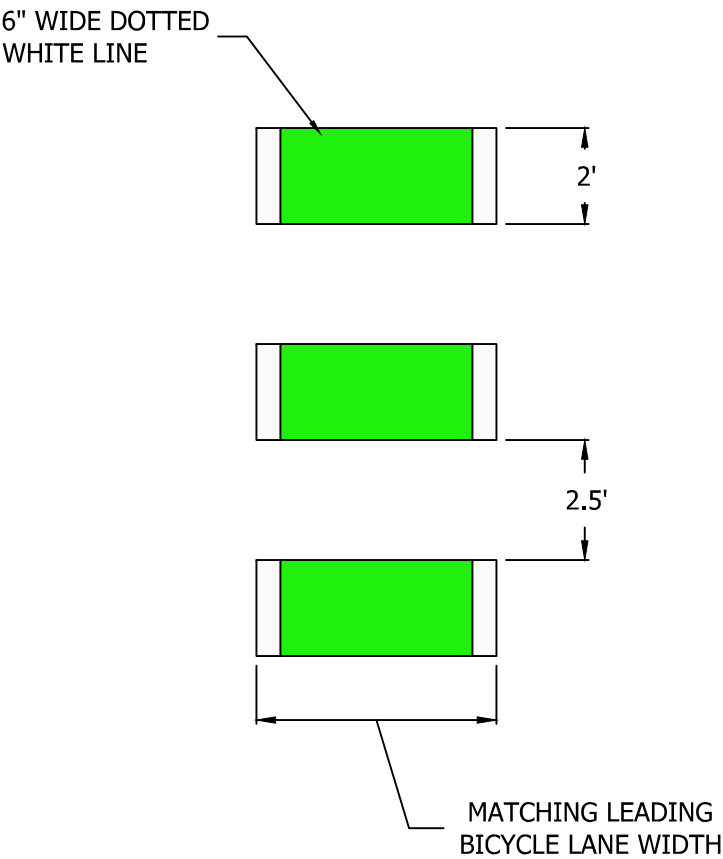
1. TRANSITION LENGTH =  $5 \times A$  (TYPICALLY 80' AS SHOWN).
2. GREEN COLORED PAVEMENT, BIKE LANE SYMBOL, AND ARROW SHALL BE EITHER 90 MIL PREFORMED THERMOPLASTIC OR METHYL METHACRYLATE (MMA).
3. SEE PLAN NO. CK-R.34 FOR MORE DETAILS ABOUT BIKE LANE SYMBOLS AND ARROWS.
4. MARKING UNSIGNALIZED INTERSECTIONS WITH GREEN PAVEMENT IS EVALUATED ON A CASE-BY-CASE BASIS

CITY OF KIRKLAND

PLAN NO. CK-R.36A



GREEN BIKE  
LANE AT  
INTERSECTION

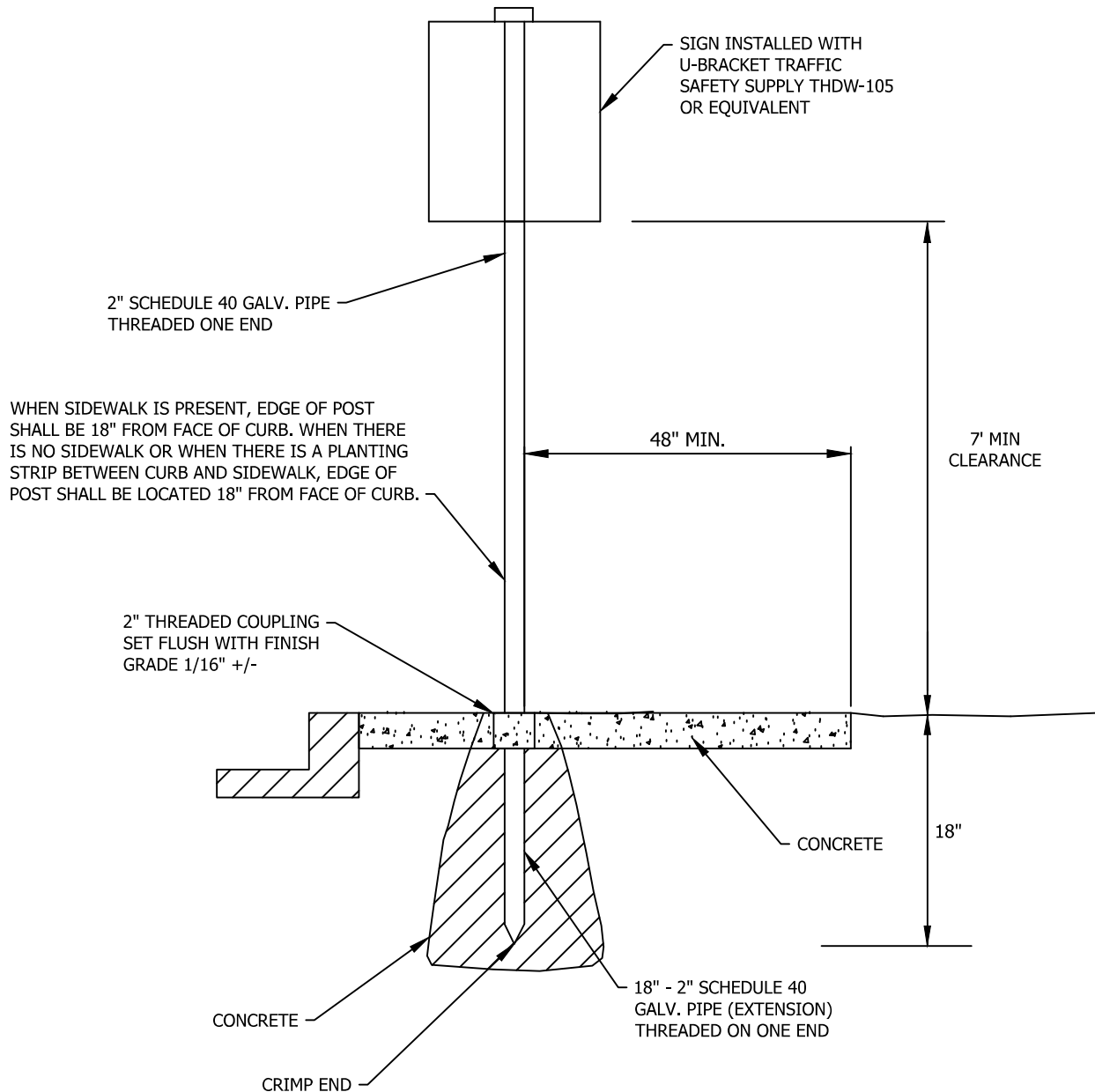


NOTE:

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





NOTES:

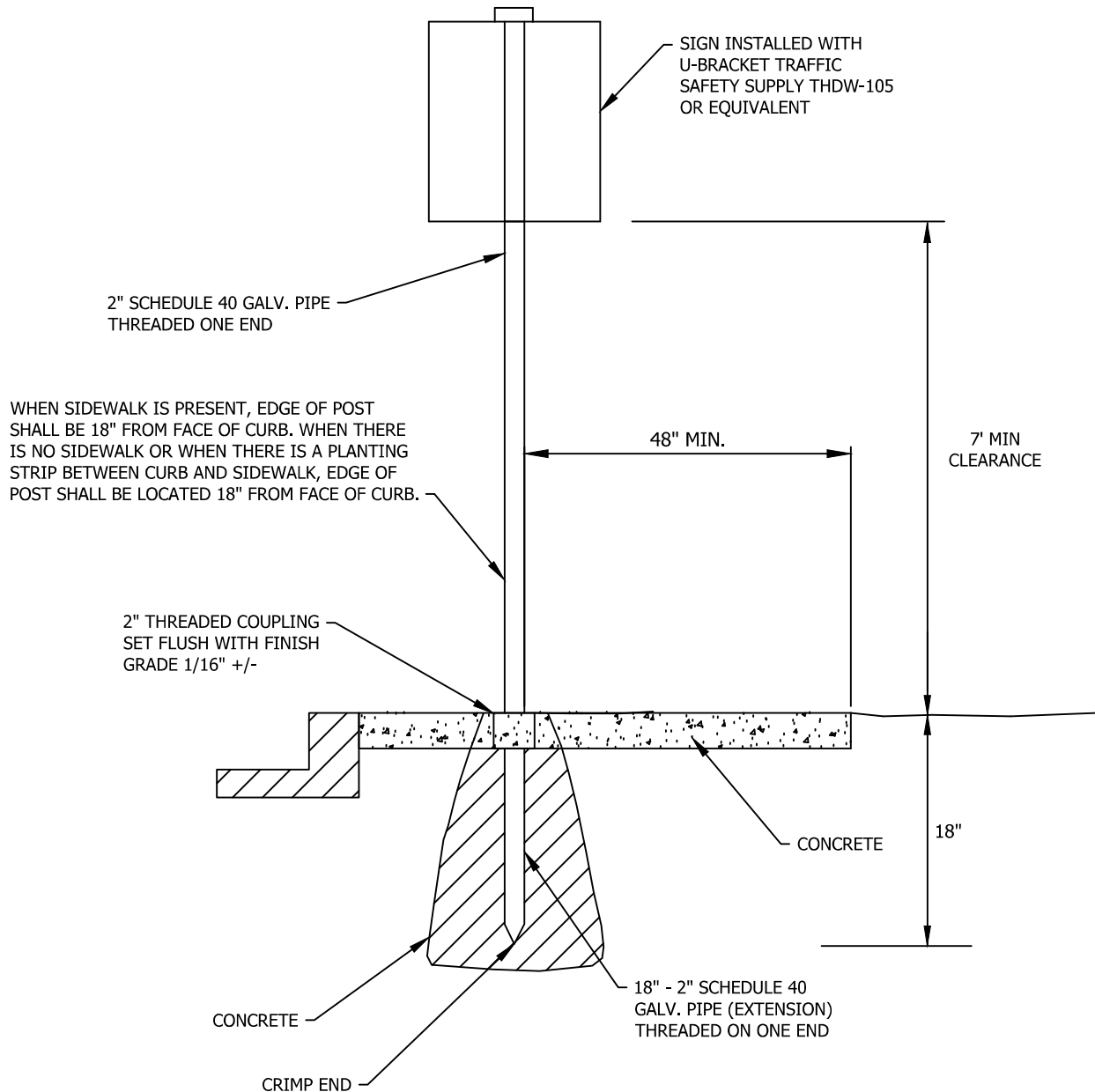
1. IF SIGN MUST BE PLACED IN EXISTING CONCRETE, CORE HOLE SHALL BE 8" DIAMETER.
2. S1-1 SIGNS SHALL BE BLACK ON FLUORESCENT GREEN.
3. W11-2 SIGNS SHALL BE BLACK ON YELLOW.

CITY OF KIRKLAND

PLAN NO. CK-R.43



STANDARD SIGN  
INSTALLATION



NOTES:

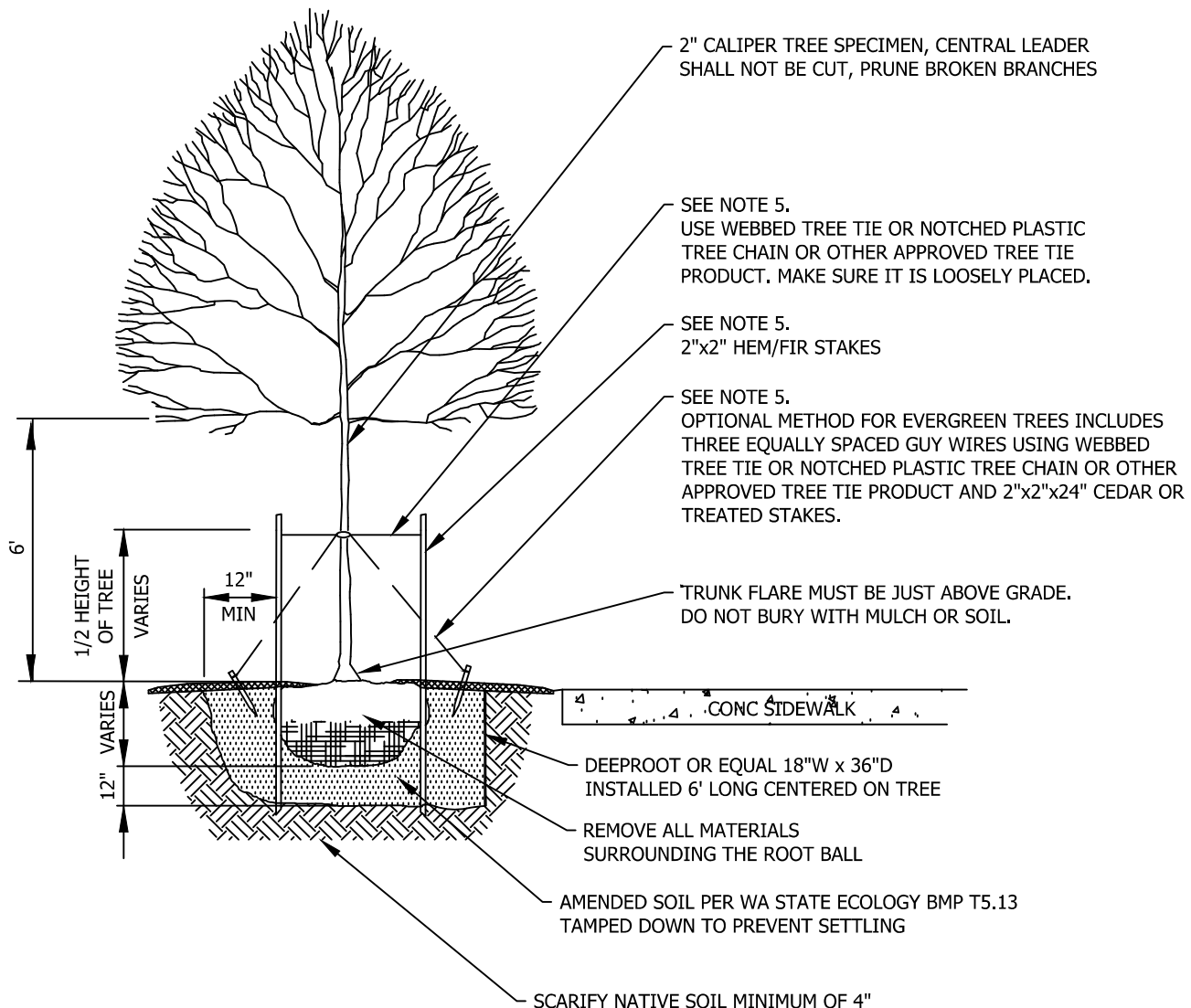
1. IF SIGN MUST BE PLACED IN EXISTING CONCRETE, CORE HOLE SHALL BE 8" DIAMETER.
2. S1-1 SIGNS SHALL BE BLACK ON FLUORESCENT GREEN.
3. W11-2 SIGNS SHALL BE BLACK ON YELLOW.

CITY OF KIRKLAND

PLAN NO. CK-R.43



STANDARD SIGN  
INSTALLATION



**NOTES:**

1. SIZE OF PLANTING PIT SHALL BE 4' BY 6' BY 3' DEEP.
2. FOR DECIDUOUS TREES, 2" CALIPER MINIMUM AND BRANCHING STARTS 5' ABOVE GRADE (UNLESS OTHER APPROVED BY CITY.)
3. FOR PLANTING DISTANCES NEAR INTERSECTIONS AND DRIVEWAYS, REFER TO PRE-APPROVED PLANS NOTEBOOK.
4. TREES SHALL NOT BE PLANTED WITHIN 10' OF ANY UG UTILITY ACCESS WHICH MAY BE LOCATED IN THE PLANTER STRIP OR ADJACENT SIDEWALK.
5. STAKE ONLY WHEN NECESSARY OR IF REQUIRED BY THE CITY AND INCLUDE TIMELINE FOR REMOVAL OF STAKES AND TIES.
6. ROOT BARRIER TO BE DEEPROOT (OR APPROVED EQUAL 18" BY 36" BY 6' LONG INSTALLED ON BOTH CURB AND SIDEWALK SIDE.

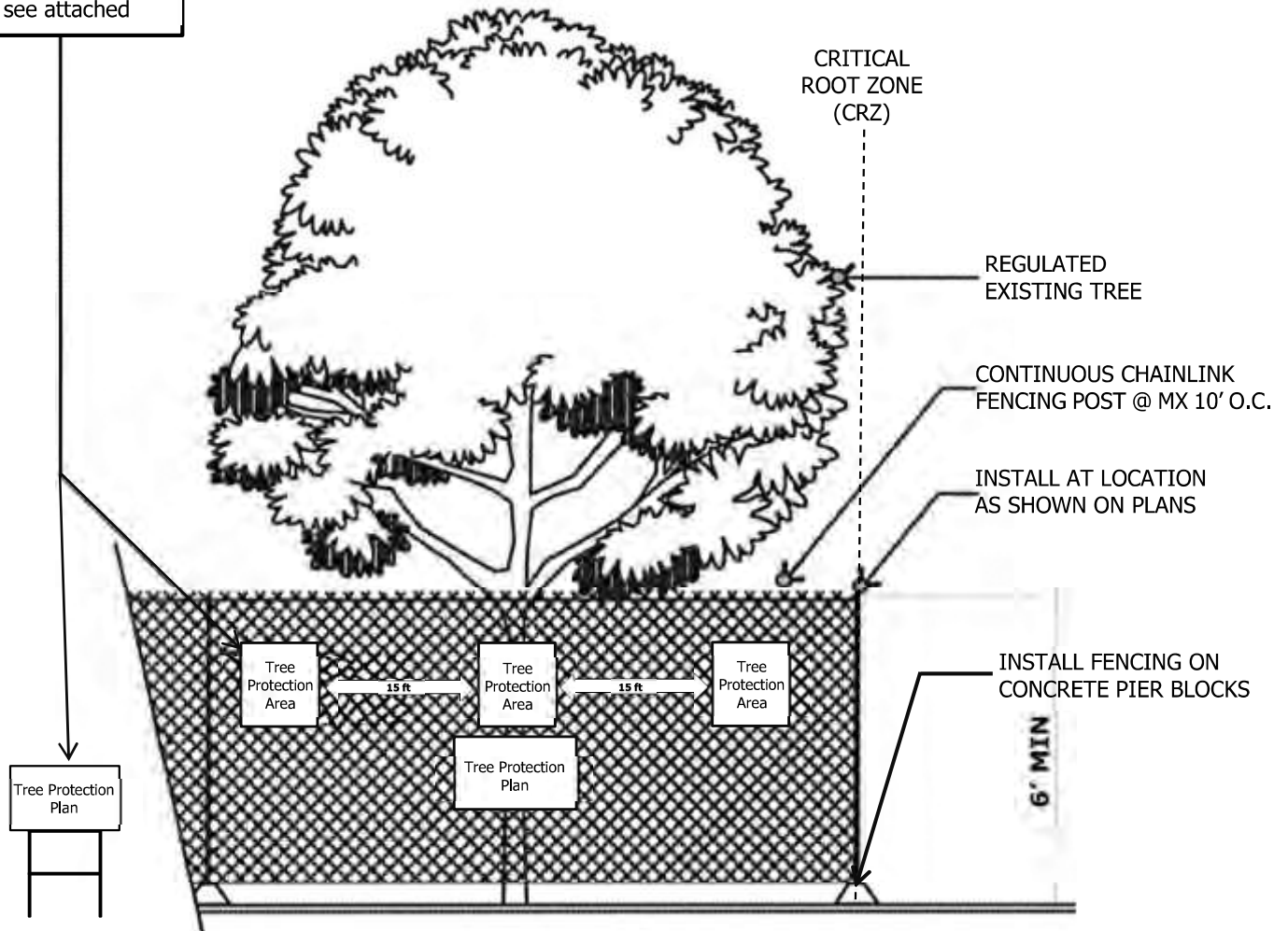
CITY OF KIRKLAND

PLAN NO. CK-R.48



**TREE PLANTING  
DETAIL**

Required Signage  
per KZC 95.32.2,  
see attached



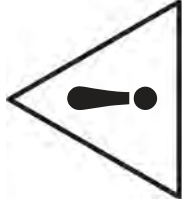
1. MINIMUM SIX (6) FOOT HIGH CHAINLINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE (CRZ) OR DESIGNATED TREE PROTECTION ZONE (TPZ) OF THE TREE TO BE SAVED. FENCE SHALL BE INSTALLED PER APPROVED TREE FENCING PLAN CONFIGURATION. INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. NO ENTRY, GROUND DISTURBANCE, STOCKPIILING 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.
3. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION OUTSIDE OF TREE FENCE AREA: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE.
4. TREE PROTECTION AREA FENCING SIGNAGE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE AS DETAILED ABOVE (SEE SHEET 3 - ATTACHED)
5. SITE PLANS SHOWING APPROVED TREE RETENTION/PROTECTION SHALL BE DISPLAYED ON DEVELOPMENT SITES IN PLAIN VIEW WITH GENERAL CONTRACTOR OR OTHER RESPONSIBLE PARTY'S PHONE NUMBER (SEE SHEET 4 - ATTACHED)



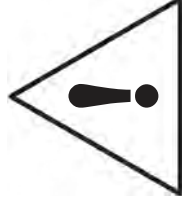
## TREE PROTECTION FENCING DETAIL

(for public and private trees)

# TREE



## PROTECTION AREA



### Entrance Prohibited

**No work, excavation, trenching, material storage, cleaning, or dumping is allowed behind this fence.**

**DO NOT REMOVE OR RELOCATE THIS FENCE.**

**This fencing must remain in its approved location  
throughout construction.**

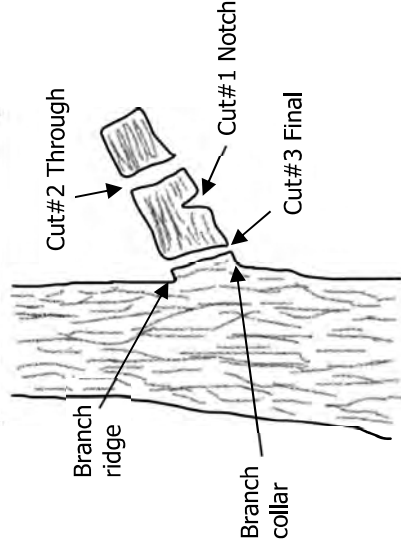
**To report violations contact: City Code Enforcement  
At (425) 587-3600.**



# INSTRUCTIONS

- Install fence securely using concrete pier blocks
- Fence panels should be securely attached by clamping together or other methods approved by Planning Official
- Plastic laminate both the **Tree Protection Area Sign (8.5" x 11")** & **Tree Protection Plan (11" x 17")** for weather resistance
- Affix the laminated signs to the tree protection fencing using zip or twist ties, wire, or twine at the circles shown in the corners
- Place signs on fencing so it is visible to construction personnel and, to the greatest extent possible, from the street
- Keep the sign in a readable condition for the entire duration of the project
- Display second **Tree Protection Plan (11" x 17")** at the front of the project site (see next page for instructions)
- For information on these requirements contact the Planning & Building Department planning official at 425-587-3600
- Should pruning be needed outside of the tree protection area, see instructions below

## **Proper Pruning**

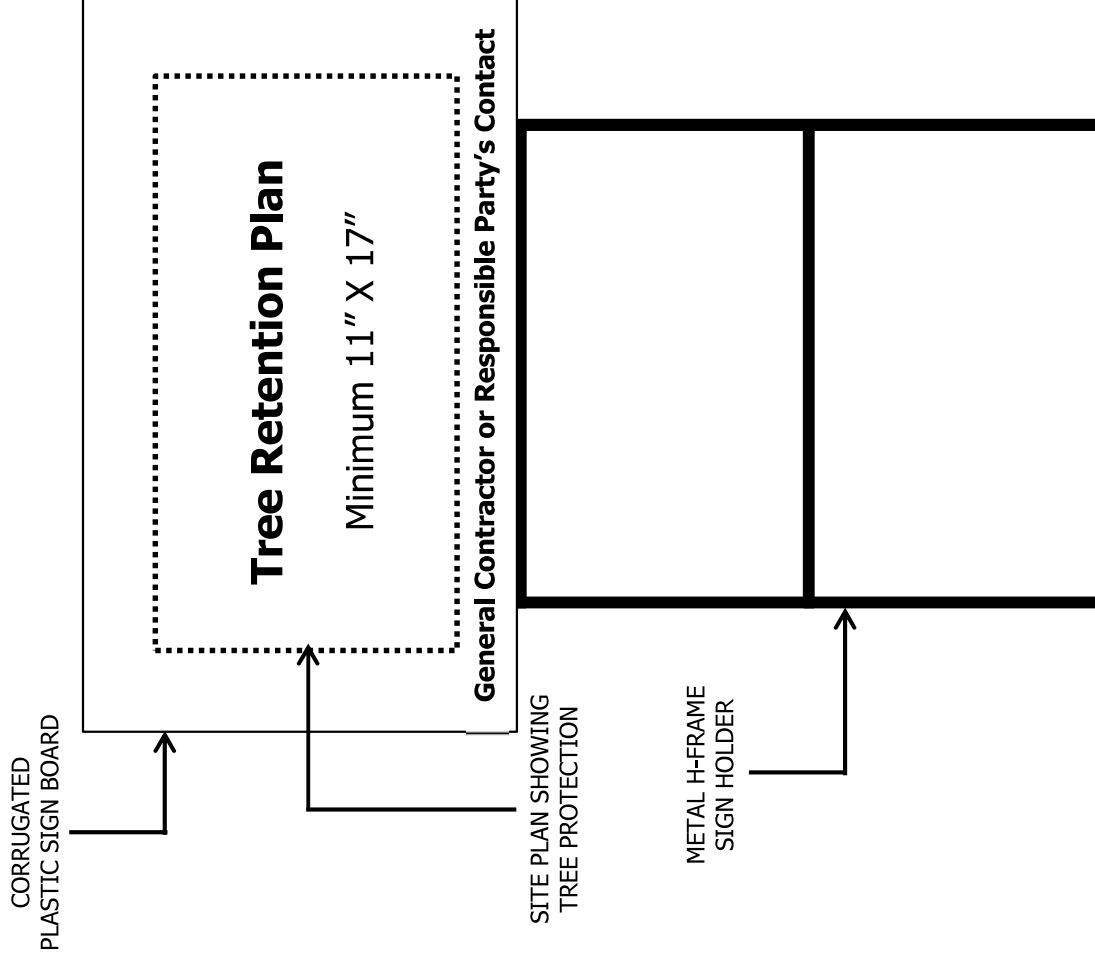


### **Three-Cut Pruning Method**

When pruning branches outside the tree protection area use the three-cut method:

- Cleanly cut using the "three-cut" method to avoid tearing / peeling remaining bark
- Do not cut branches flush with the trunk or stem – leave the branch bark ridge and collar or about 1 inch of space

# Tree Protection Plan Sign Installation Instructions



## Construction:

### Frame

- Metal H-frame sign holder (alternative durable materials such as wood stakes accepted)
- Minimum 24" height

### Sign

- Corrugated plastic weather resistant sign board
- Laminate or use clear tape to affix Tree Retention Plan to sign board
- Include general contractor or responsible party's contact information
- Minimum size of site plan shall be 11" x 17"

### Placement

- Insert sign firmly into ground at front of project site
- Sign must be viewable from the street

### Maintenance

- Maintain sign in good, readable condition until project completion

# EROSION CONTROL



**CITY OF KIRKLAND**123 FIFTH AVENUE • KIRKLAND, WASHINGTON 98033-6189 • (425) 587-3800

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**DEPARTMENT OF PUBLIC WORKS  
PRE-APPROVED PLANS POLICY****Policy E-1: USE OF TEMPORARY SEDIMENT SETTLING TANKS****Purpose**

Temporary sediment settling (TSS) tanks are commonly used to remove sediment from stormwater runoff and groundwater associated with construction activities. Common trade names for these facilities include "Baker Tanks" or "Rain For Rent" tanks. Alternative sediment retention facilities include in-ground sediment traps or ponds. TSS tanks are often a good option in cases where the building footprint covers a large portion of the site. The tanks are portable so they can be moved to accommodate construction and require less area than an in-ground sediment pond or trap.

**FREQUENTLY ASKED QUESTIONS ASSOCIATED WITH TSS TANKS & CONSTRUCTION DEWATERING****1. *What are the requirements in Kirkland for Construction Dewatering?***

It may be necessary during construction to pump groundwater or excess stormwater away from the project site. This water can be contaminated with pollutants (including sediment) and cannot be discharged directly into the street or down a storm drain without any precautions. Discharges to the public stormwater drainage system must be below 25ntu, and not considered an illicit discharge (per KMC 15.52.090). If your construction project causes an illicit discharge to the municipal storm drain system, the City of Kirkland Storm Maintenance Division will be called to clean the public storm system, and other affected public infrastructure. The contractor(s), property owner, and any other responsible party may be charged all costs associated with the clean-up and may also be assessed monetary penalties (KMC 1.12.200).

The following options are available to applicants for construction dewatering:

- 1) Pump the excess water to another area of the site and allow it to disperse or infiltrate on site.
- 2) If infiltration/dispersion is not possible, water can temporarily be pumped to a storage facility (e.g., a pond or tank) to allow settling prior to discharge to storm or sanitary sewer.
  - To discharge to the storm system, water turbidity must be less than 25ntu and cannot have an odor of solvent gasoline, hydrogen sulfide (rotten egg odor), oil sheen, or unusual color.
- 3) Before discharging to the sanitary sewer:
  - Notify the City of Kirkland, Public Works Inspector at (425) 587-3800.
  - All projects (except Single Family Infill) must obtain permit authorization from the King County Industrial Waste Program (206-477-5300). More information is available at the website listed below.
  - Single family infill projects may discharge to sanitary sewer without a permit from King County Industrial Waste Program as long as the discharge is less than 7 mg/L of suspended solids.

[www.kingcounty.gov/environment/wastewater/IndustrialWaste/GettingDischargeApproval/Construction.aspx](http://www.kingcounty.gov/environment/wastewater/IndustrialWaste/GettingDischargeApproval/Construction.aspx)

## **2. *Where can I get a TSS tank?***

Vendors providing TSS tanks can be found on the internet, ask other contractors for recommendations, or look at the list below. The City of Kirkland provides this list for your convenience and makes no recommendation whatsoever regarding these firms. If you would like your business added to this list, please contact a Surface Water Utility Engineer at (425) 587-3800.

**BAKERCORP**  
9715 – 24<sup>th</sup> Place West  
Everett, WA 98204  
Phone: (425) 347-8811  
Or 1-800-225-3712  
www.unitedrentals.com

**RAIN FOR RENT**  
19430 – 59<sup>th</sup> Ave. NE  
Arlington, WA 98223  
Phone: (360) 403-3091  
Or 1-800-742-7246  
www.rainforrent.com

## **3. *How do I determine what size TSS tank to use?***

To determine the appropriate size of a TSS tank, see calculations in the 2021 King County Surface Water Design Manual (Appendix D) or use the size recommended by the product manufacturer.

## **4. *How do I pump sediment-laden storm runoff into a TSS tank?***

Excavate a small “sump”, like a 4’x4’x4’ pit filled with cobbles, at the naturally occurring low elevation on-site. The inlet hose from the sump pump will then discharge storm/ground water collected within this sump into the TSS tank.

## **5. *How do I determine where and when water in a TSS tank may be discharged?***

The contractor shall coordinate water quality sampling and discharge with the PW Inspector. Prior to discharge, the PW Inspector will verify water quality sampling results, and will determine whether runoff meets guidelines for discharge into a piped stormwater system or a natural drainage course, or for discharge to the sanitary sewer system.

Sampling is used to determine whether storm/ground water meets the discharge guidelines outlined below. The purpose of the guidelines is to keep excess sediment and other contaminants out of natural waterways, the storm drainage system, and the sanitary sewer. The PW Inspector may require a sampling log be kept for record keeping purposes (see sample log on page 4).

<b>WATER QUALITY GUIDELINES FOR CONSTRUCTION DEWATERING DISCHARGE</b>	
< 25 NTUs	May be discharged to a piped stormwater system or “natural” discharge location.
> 25 NTUs	May be discharged to sanitary sewer based upon PW Inspector’s discretion. Discharge must be translucent, without odor or oil sheen.
> 7 ml/L*	Not allowed for discharge to Storm or Sanitary Sewer.
<b>Notes:</b> The discharge of construction dewatering runoff to the sanitary sewer system requires prior approval from King Co. Dept. of Natural Resources (Contact King Co. Industrial Waste Program, 206-477-5300). In addition, permission from the City of Kirkland Public Works	

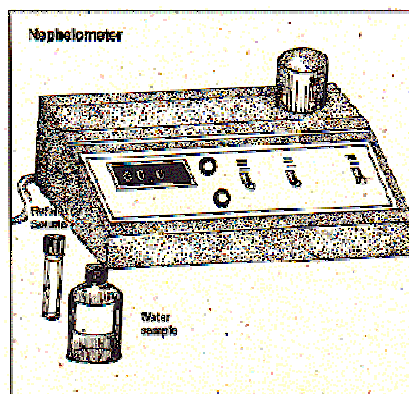
Department is required (contact the PW inspector).  
\*Units are based upon weight/volume ratio.

#### **6. *What is the difference between Total Suspended Solids and Turbidity?***

Total suspended solids (TSS) concentrations and turbidity both indicate the amount of solids suspended in the water, whether mineral (like soil particles) or organic (like algae). The TSS test measures an actual weight of material per volume of water, while turbidity measures the amount of light scattered from a sample (more suspended particles cause greater scattering). TSS concentrations are reported in units of milligrams of suspended solids per liters of water (mg/L). Turbidity is reported as nephelometric turbidity units (NTUs). Although the correlation between turbidity and total suspended solids is inexact and depends on site soils, the City has found that turbidity is a reasonable indicator of the magnitude of the total suspended solids load in the water.

#### **Nephelometer Sampling Process**

Turbidity measurement does not require any sample preparation, other than shaking the sample bottle well before analysis. The sample is simply poured into a glass tube, placed inside the instrument with a reference solution and the result is read directly from the instrument.



#### **Imhoff Cone Sampling Process**

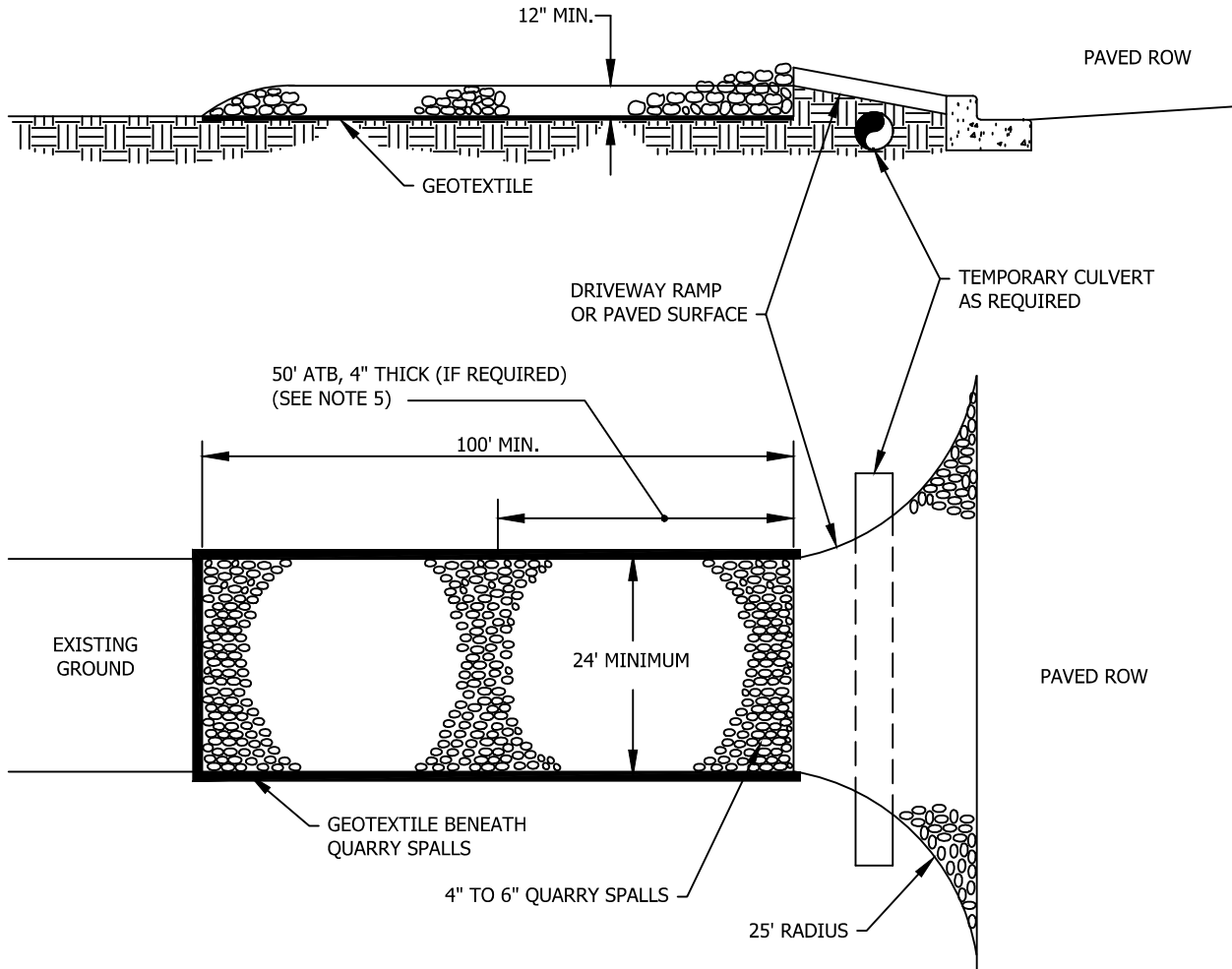
A wastewater sample is poured into an Imhoff cone for settleable solids analysis. The sample is added to the 1-liter mark. After 45 minutes, the cone will be turned to loosen material which has stuck to the sides during settling. After another 15 minutes, the volume of collected material will be read, in milliliters, from graduations marked near the bottom of the cone.



### TEMPORARY SEDIMENT SETTLING TANK SAMPLING LOG EXAMPLE

This TSS Tank Sampling Log example has been prepared to assist construction contractors and PW Inspectors. City policy provides the PW Inspector with discretion to require the use and maintenance of a TSS Tank Sampling Log to document the effectiveness of this Best Management Practice. In addition to the log, the City will continue to rely upon Federal, State, and municipal regulations to insure water quality requirements have been achieved.

TEMPORARY SEDIMENT SETTLING TANK SAMPLING LOG					
C.E.S.C.L. Name: _____ 24 Hour Emergency Contact Number: _____ Applicant: _____ Permit No.: _____ - _____ Site Address: _____					
	Activity Date	Turbidity Reading (NTUs)	Imhoff Cone Reading (ml/L)	Discharge Location (Storm, Stream, or Sanitary sewer)	Total Discharge Volume – Estimated
Tank Installation:	___/___/___				
Water Quality Sample Verification #1	___/___/___	___ NTUs	___ ml/L	Storm system, Stream, or Sanitary sewer	___ Gal's.
Water Quality Sample Verification #2	___/___/___	___ NTUs	___ ml/L	Storm system, Stream, or Sanitary sewer	___ Gal's.
Water Quality Sample Verification #3	___/___/___	___/___/___	___ ml/L	Storm system, Stream, or Sanitary sewer	___ Gal's.
Water Quality Sample Verification #4	___/___/___	___/___/___	___ ml/L	Storm system, Stream, or Sanitary sewer	___ Gal's.
Water Quality Sample Verification #5	___/___/___	___/___/___	___ ml/L	Storm system, Stream, or Sanitary sewer	___ Gal's.
Water Quality Sample Verification #6	___/___/___	___/___/___	___ ml/L	Storm system, Stream, or Sanitary sewer	___ Gal's.
Tank Removal	___/___/___				
Notes/Comments: _____ _____ _____					



PLAT/COMMERCIAL

NOTES:

1. PAD SHALL BE REMOVED AND REPLACED WHEN SOIL IS EVIDENT ON THE SURFACE OF THE PAD OR AS DIRECTED BY THE CITY CLEARING AND GRADING INSPECTOR.
2. PAD SHALL BE INSTALLED IN PLANTING STRIP AS APPROPRIATE.
3. PAD THICKNESS SHALL BE INCREASED IF SOIL CONDITIONS DICTATE AND/OR PER THE DIRECTION OF THE CITY CLEARING AND GRADING INSPECTOR.
4. CONTRACTOR RESPONSIBLE FOR CURB & GUTTER CONDITION.
5. ATB MAY BE REQUIRED PER PW INSPECTOR.
6. RECYCLED CONCRETE SHALL NOT BE USED FOR THE CONSTRUCTION ENTRANCE DUE TO HIGH LEVELS OF PH.
7. ALTERNATIVE DESIGN ALLOWABLE WITH PUBLIC WORKS APPROVAL.

CITY OF KIRKLAND

PLAN NO. CK-E.02



TEMPORARY  
PLAT/COMMERCIAL  
CONST. ENTRANCE

# **Appendix 3**

## **Pavement Coring Data**





**GEOSCIENCES INC.**  
DBE/MWBE

October 9, 2023  
HWA Project No. 2023-077-21

Tetra Tech, Inc.  
2003 Western Avenue, Suite 700  
Seattle, Washington 98121

Attn: **David Scott, P.E.**  
Subject: **8<sup>TH</sup> AVENUE W SEWER/WATER IMPROVEMENT**  
**Pavement Coring**  
**Kirkland, Washington**

Mr. Scott:

In accordance with your request, HWA GeoSciences Inc. (HWA) completed pavement coring at 12 locations in support of the 8th Avenue W Sewer/Water Improvement project in Kirkland, Washington. This report presents the results of pavement coring and shallow excavations made through the pavement core holes.

## **PROJECT DESCRIPTION**

Twelve pavement cores were completed to assess pavement layer thicknesses and shallow subgrade support conditions in the vicinity of a proposed watermain replacement project. Figure 1, Vicinity Map, shows the location of the project alignment. Our scope of work included performing pavement coring at 12 locations, selected by HWA, performing shallow subsurface explorations through each core hole using hand digging tools, backfill/patching, and preparation of this report. The locations of the pavement cores are shown on the Site and Explorations Plans, Figures 2A through 2C.

## **PAVEMENT CORES**

Appendix A provides photographic logs of each pavement core. Appendix B provided photos of pavement condition at each pavement core location. Pavement coring and subsurface explorations were performed by two geologists from HWA. All core holes were backfilled with compacted soil and gravel then patched with compacted Aquaphalt cold patch. Table 1 provides the Hot Mix Asphalt (HMA) and Crushed Aggregate Base thicknesses encountered along with relevant notes pertaining to subgrade conditions encountered.



**Table 1. Pavement Core Results.**

<b>Designation</b>	<b>Street, Lane</b>	<b>HMA Thickness, in.</b>	<b>Crushed Aggregate Base Thickness, in.</b>	<b>Subgrade Notes</b>
Core-1	5 <sup>th</sup> St W, EB	5.0	2.5	Medium dense, silty SAND.
Core-2	5 <sup>th</sup> St W, WB	4.0	2.0	Medium dense, silty SAND.
Core-3	5 <sup>th</sup> St W, WB	5.5	-	Dense, asphalt grindings and silty SAND.
Core-4	8 <sup>th</sup> Ave W, SB	1.75	3.25	Medium dense, very silty SAND.
Core-5	8 <sup>th</sup> Ave W, SB	1.0	2.0	Dense, silty SAND with gravel.
Core-6	8 <sup>th</sup> Ave W, NB	3.0	1.0	Medium dense to dense, silty SAND.
Core-7	8 <sup>th</sup> Ave W, SB	3.0	-	Medium dense, silty SAND with gravel.
Core-8	8 <sup>th</sup> Ave W, NB	1.0	1.0	Medium dense, silty SAND.
Core-9	8 <sup>th</sup> Ave W, NB	1.75	1.25	Medium dense, silty SAND with gravel.
Core-10	8 <sup>th</sup> Ave W, SB	1.5	-	Dense, silty SAND with gravel.
Core-11	8 <sup>th</sup> Ave W, SB	2.5	-	Very dense to dense, silty GRAVEL with asphalt fragments.
Core-12	8 <sup>th</sup> Ave W, NB	2.0	-	Very dense to dense, silty SAND with gravel and asphalt fragments.

## CONDITIONS AND LIMITATIONS

We have prepared this report for Tetra Tech and the City of Kirkland for use in design of this project. 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 and pavement engineering 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 or toxic substances in the soil, surface water, or ground water at this site.



We appreciate this opportunity to provide geotechnical and pavement engineering services on this project. If you have any questions or if we may be of further assistance, please contact the undersigned at (425) 774-0106.

Sincerely,

HWA GEOSCIENCES INC.

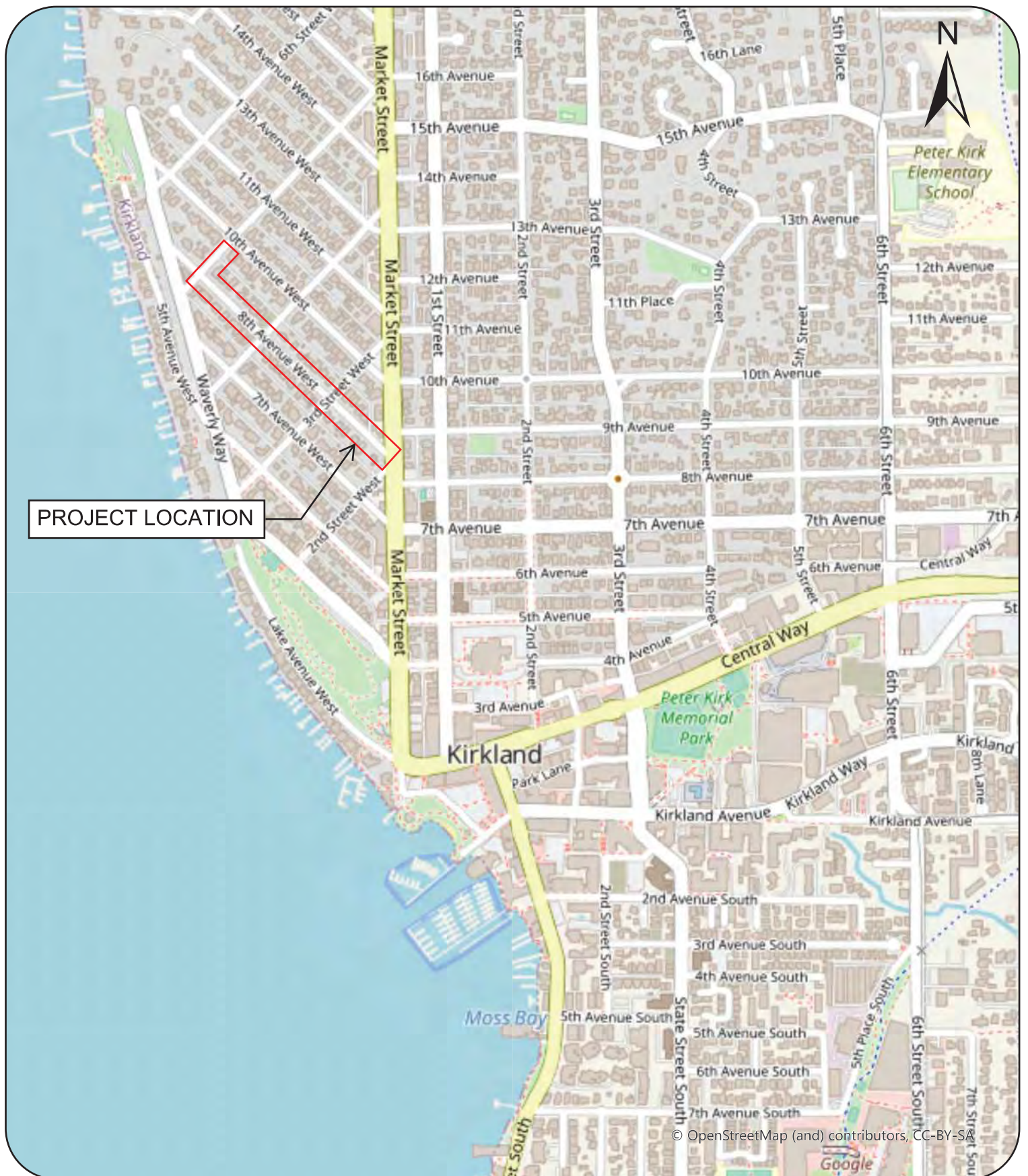
A handwritten signature in blue ink, appearing to read "Bryan K. Hawkins".

Bryan K. Hawkins, P.E.

Senior Geotechnical Engineer

**ATTACHMENTS:**

Figure 1	Vicinity Map
Figures 2A through 2C	Site and Exploration Plans
Appendix A	Pavement Core Logs
Appendix B	Pavement Condition Photos



VICINITY MAP

FIGURE NO.

1

PROJECT NO.

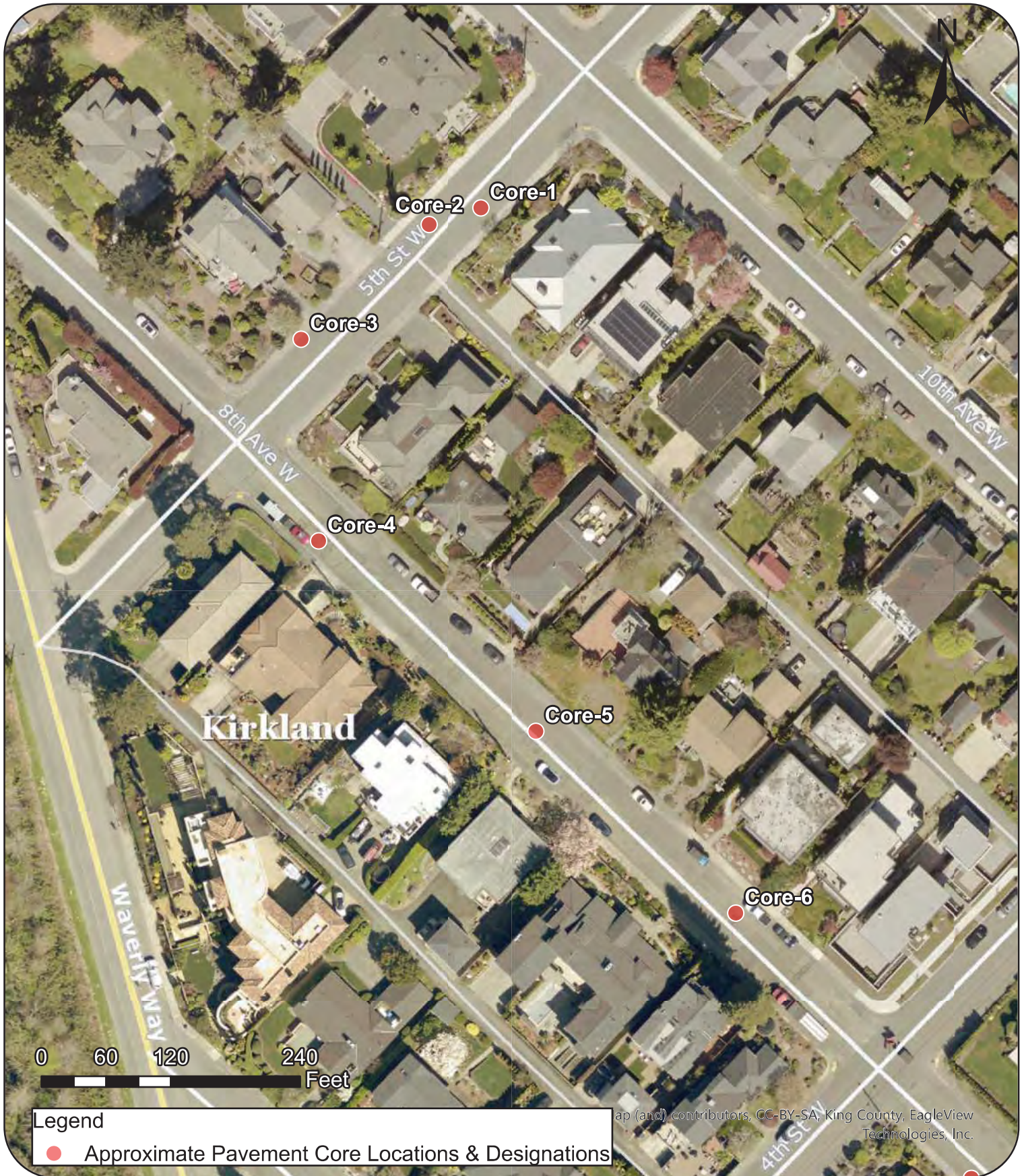
2023-077



**GEOSCIENCES INC.**  
DBE/M/WBE

8th Ave W Sewer/Water Replacement  
Pavement Coring  
Kirkland, Washington





**SITE & EXPLORATION PLAN**

8th Ave W Sewer/Water Replacement  
Pavement Coring  
Kirkland, Washington

FIGURE NO.

**2A**

PROJECT NO.

2023-077





## SITE & EXPLORATION PLAN

8th Ave W Sewer/Water Replacement  
 Pavement Coring  
 Kirkland, Washington

FIGURE NO.

**2B**

PROJECT NO.

2023-077





# SITE & EXPLORATION PLAN

8th Ave W Sewer/Water Replacement  
Pavement Coring  
Kirkland, Washington

FIGURE NO.

**2C**

PROJECT NO.

2023-077



**GEOSCIENCES INC.**  
DBE/MWBE

# **Appendix A**

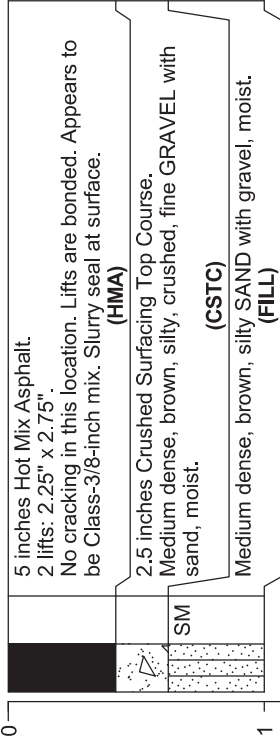
## **Pavement Core Logs**



EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 5th St EB, 4' from curb

LOCATION: See Figure 2A  
DATE COMPLETED: 10/4/23  
LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	--------	------------------	-------------	-------------	---------------	---------------------	-------------



Corehole was terminated at 12 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



GEOSCIENCES INC.

8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

PAVEMENT CORE  
Core- 1

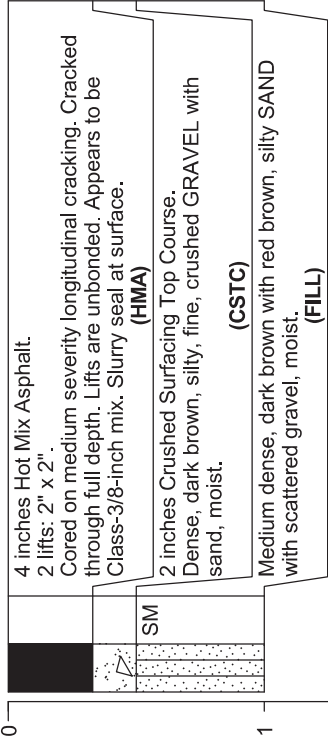
PAGE: 1 of 1



EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 5th St WB, 16' from curb

LOCATION: See Figure 2A  
DATE COMPLETED: 10/4/23  
LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	--------	------------------	-------------	-------------	---------------	---------------------	-------------



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.



8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

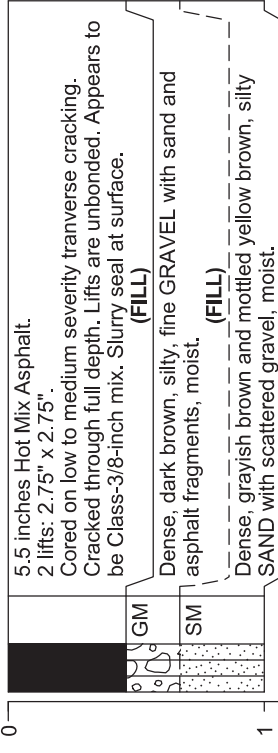
PAVEMENT CORE  
Core-2

PAGE: 1 of 1

EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 5th St WB, 7.5' from curb

LOCATION: See Figure 2A  
DATE COMPLETED: 10/4/23  
LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	--------	------------------	-------------	-------------	---------------	---------------------	-------------



Corehole was terminated at 12 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

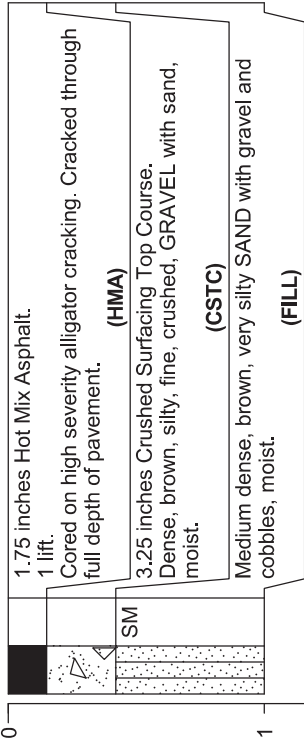
PAVEMENT CORE  
Core- 3

PAGE: 1 of 1

EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave SB, 12.5' from curb

LOCATION: See Figure 2A  
DATE COMPLETED: 10/4/23  
LOGGED BY: S. Pemble

DEPTH (feet)	USCS SOIL CLASS.	SYMBOL	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	------------------	--------	-------------	-------------	---------------	---------------------	-------------



Corehole was terminated at 12 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



GEOSCIENCES INC.

8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

PAVEMENT CORE  
Core- 4

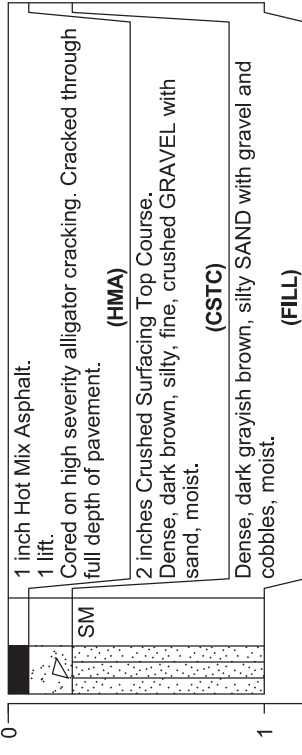
PAGE: 1 of 1



EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave SB, 16' from curb

LOCATION: See Figure 2A  
DATE COMPLETED: 10/4/23  
LOGGED BY: S. Pemble

DEPTH (feet)	USCS SOIL CLASS.	SYMBOL	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	------------------	--------	-------------	-------------	---------------	---------------------	-------------



Corehole was terminated at 12 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



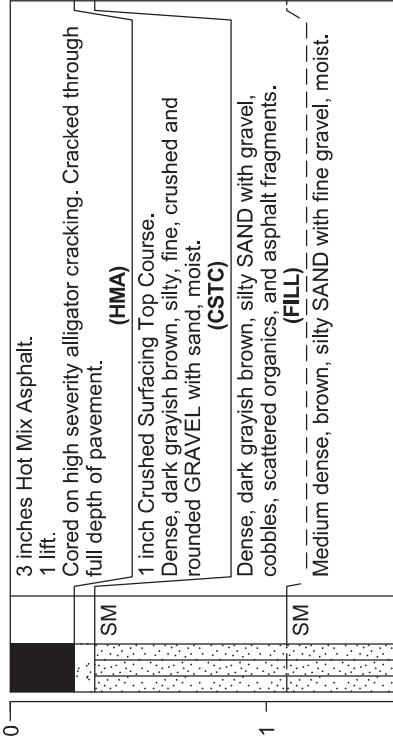
8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

PAVEMENT CORE  
Core- 5  
PAGE: 1 of 1

EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave NB, 11.5' from curb

LOCATION: See Figure 2A  
DATE COMPLETED: 10/4/23  
LOGGED BY: S. Pemble

USCS SOIL CLASS.  
SYMBOL  
DEPTH (feet)  
DESCRIPTION  
SAMPLE TYPE  
SAMPLE NUMBER  
MOISTURE  
CONTENT(%)  
OTHER TESTS



Corehole was terminated at 18 inches below ground surface. No groundwater seepage was observed during the exploration.

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.

PAVEMENT CORE PHOTO



GEOSCIENCES INC.

8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

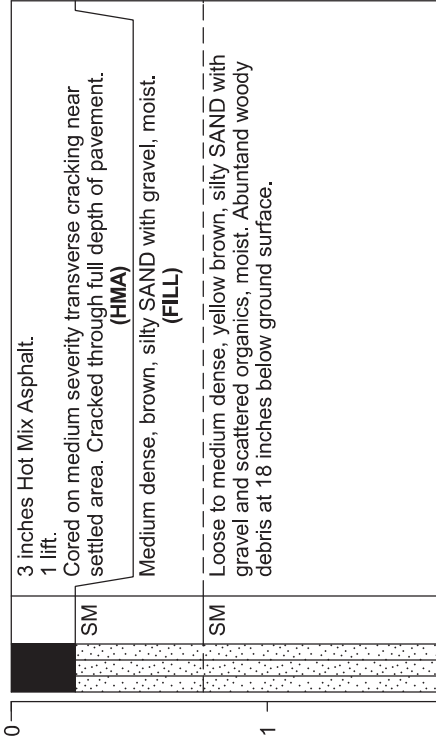
PAVEMENT CORE  
Core- 6

PAGE: 1 of 1

EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave SB, 7.5' from curb

LOCATION: See Figure 2B  
DATE COMPLETED: 10/4/23  
LOGGED BY: S. Pemble

USCS SOIL CLASS.  
SYMBOL  
DEPTH (feet)  
DESCRIPTION  
SAMPLE TYPE  
SAMPLE NUMBER  
MOISTURE  
CONTENT(%)  
OTHER TESTS



Corehole was terminated at 20 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



GEOSCIENCES INC.

8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

PAVEMENT CORE  
Core-7

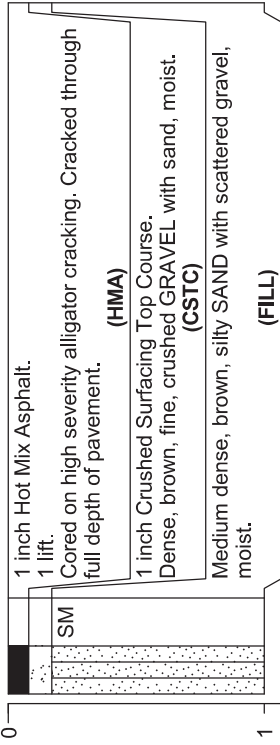
PAGE: 1 of 1



EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave NB, 16' from curb

LOCATION: See Figure 2B  
DATE COMPLETED: 10/5/23  
LOGGED BY: S. Pemble

USCS SOIL CLASS.  
SYMBOL  
DEPTH (feet)  
DESCRIPTION  
SAMPLE TYPE  
SAMPLE NUMBER  
MOISTURE  
CONTENT(%)  
OTHER TESTS



Corehole was terminated at 12 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

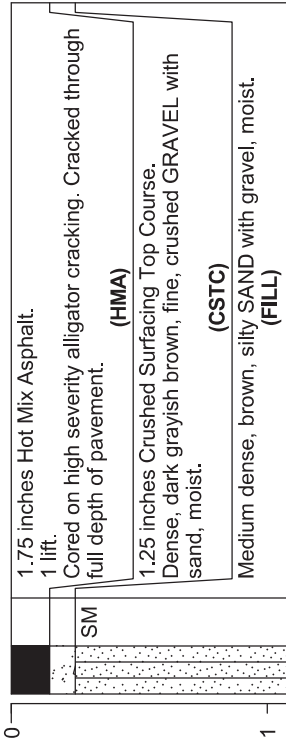
PAVEMENT CORE  
Core- 8

PAGE: 1 of 1

EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave NB, 11' from curb

LOCATION: See Figure 2B  
DATE COMPLETED: 10/5/23  
LOGGED BY: S. Pemble

DEPTH (feet)	USCS SOIL CLASS.	SYMBOL	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	------------------	--------	-------------	-------------	---------------	---------------------	-------------



Corehole was terminated at 13 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



GEOSCIENCES INC.

8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

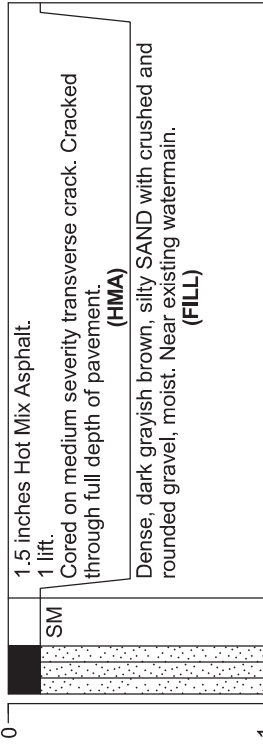
PAVEMENT CORE  
Core- 9  
PAGE: 1 of 1



EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave SB, 11' from curb

LOCATION: See Figure 2B/2C  
DATE COMPLETED: 10/5/23  
LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	--------	------------------	-------------	-------------	---------------	---------------------	-------------



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.



GEOSCIENCES INC.

8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

PAVEMENT CORE  
Core-10

PAGE: 1 of 1

EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave SB, 18.5' from curb

LOCATION: See Figure 2C  
DATE COMPLETED: 10/5/23  
LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
--------------	--------	------------------	-------------	---------------	---------------------	-------------

DESCRIPTION

0			2.5 inches Hot Mix Asphalt. 1 lift.
0.5	GM		Cored on medium severity alligator cracking. Cracked through full depth of pavement. (HMA)
0.75	SM		Very dense, dark grayish brown, silty, fine GRAVEL with sand and asphalt fragments, moist. (FILL)
1			Dense, brown and gray, silty SAND with gravel, moist.

Corehole was terminated at 12 inches below ground surface. No groundwater seepage was observed during the exploration.

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.



8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

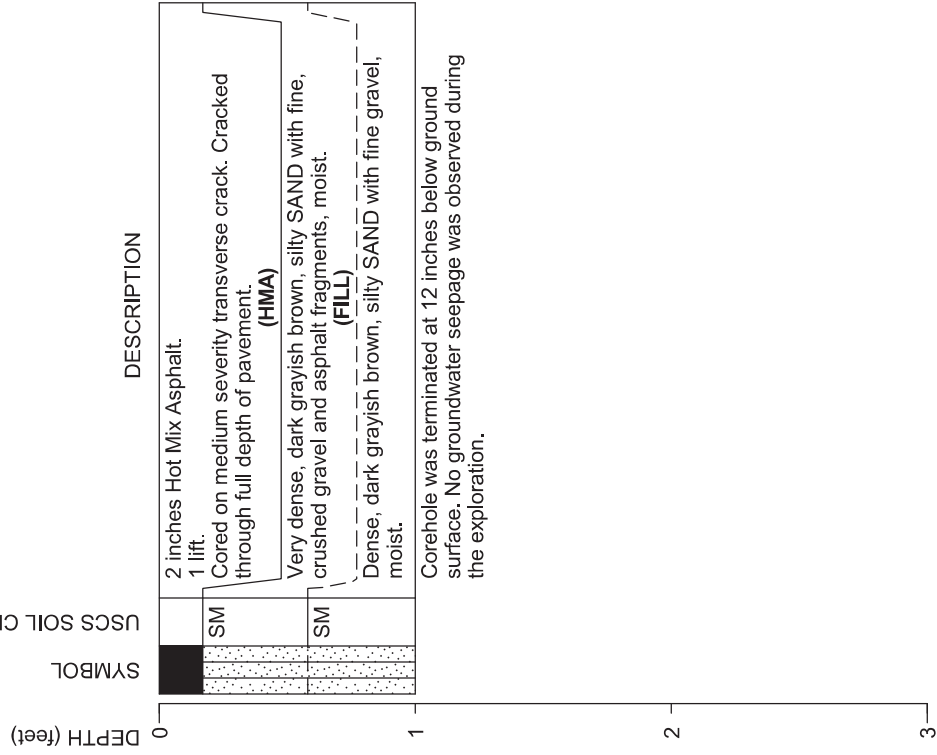
PAVEMENT CORE  
Core-11

PAGE: 1 of 1

EXCAVATION COMPANY: HWA GeoSciences Inc.  
EXCAVATING EQUIPMENT: 6-inch Diameter Core Barrel  
STREET: 8th Ave NB, 6.5' from curb

LOCATION: See Figure 2C  
DATE COMPLETED: 10/5/23  
LOGGED BY: S. Pemble

USCS SOIL CLASS.  
SYMBOL  
DEPTH (feet)  
SAMPLE TYPE  
SAMPLE NUMBER  
MOISTURE  
CONTENT(%)  
OTHER TESTS



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.



GEOSCIENCES INC.

8th Avenue W Sewer/Water Improvement  
Pavement Coring  
Kirkland, Washington

PAVEMENT CORE  
Core-12  
PAGE: 1 of 1

# **Appendix B**

## **Pavement Condition Photos**





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-1



**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-2





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-3





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-4





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-5





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-6





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-7





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-8





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-9





**GEO SCIENCES INC.**

DBE/MWBE

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-10





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-11





**GEO SCIENCES INC.**

**DBE/MWBE**

**Project:** 8<sup>th</sup> Avenue W Sewer/Water Improvement

**Client:** Tetra Tech

**Project No.:** 2023-077-21



**Core Designation:** Core-12



# **Appendix 4**

## **Pothole Data**





TEST HOLE DATA SHEET  
APPLIED PROFESSIONAL SERVICES INC.

Job # 6874

Lead: Rob

Overlay Thickness (in):

Asphalt (in): 7"

Concrete (in): -

Brick (in): -

soil type: Gravel + Sand

Pothole Number: 1

Date: 12/6/23

Notes:

Target Utility:

Utility Type: Water

Size: 8"

Top (in): 52"

Bottom (in): 60"

Width (in): -

Thickness (in): -

Pipe Direction: NW to SE

Material: D-I

Additional Utility:

Utility Type: -

Size: -

Top (in): -

Bottom (in): -

Width (in): -

Thickness (in): -

Pipe Direction: -

Material: -

Utility Config Facing: NW

8"



(10th AVE W)

Sewer  
manhole  
cover lid

8'

5'

6'

Two  
water  
valve  
cover  
lids

Approx. C.L.

Address  
# 443

to include: lane dividers, 3 offsets, street names, pothole location, north arrow



TEST HOLE DATA SHEET  
APPLIED PROFESSIONAL SERVICES INC.

Job # 6874

Lead: Rob

Pothole Number: 2

Overlay Thickness (in):

Asphalt (in): 6"

Concrete (in): -

Brick (in): -

soil type: Clay + Rock

Date: 12/6/23

Notes:

Target Utility:

Utility Type: Sewer

Size: 6"

Top (in): 48"

Bottom (in): 54"

Width (in): -

Thickness (in): -

Pipe Direction: E 1/2 W

Material: Concrete

Additional Utility:

Utility Type: -

Size: -

Top (in): -

Bottom (in): -

Width (in): -

Thickness (in): -

Pipe Direction: -

Material: -

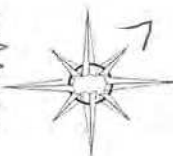
Utility Config Facing: East



to include: lane dividers, 3 offsets, street names, pothole location, north arrow

(5th St W)

address  
# 443



Sewer  
M.H.O

ALLEY

Storm C.B. CID.

power  
pole

Approx. C.C.

30'

3'  
22'



TEST HOLE DATA SHEET  
APPLIED PROFESSIONAL SERVICES INC.

Job # 6874

Lead: Rob

Pothole Number: 3

Date: 12/6/23

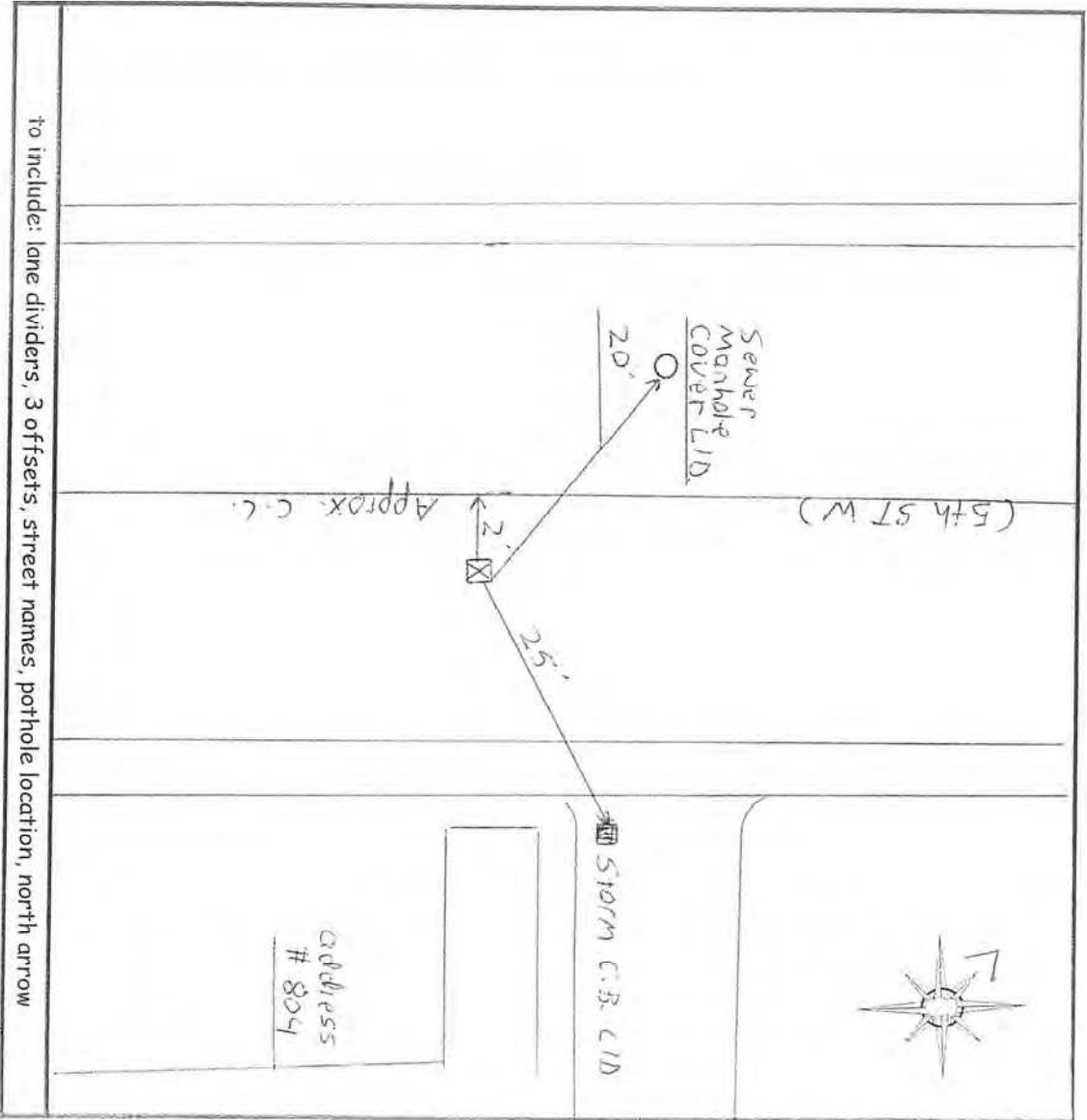
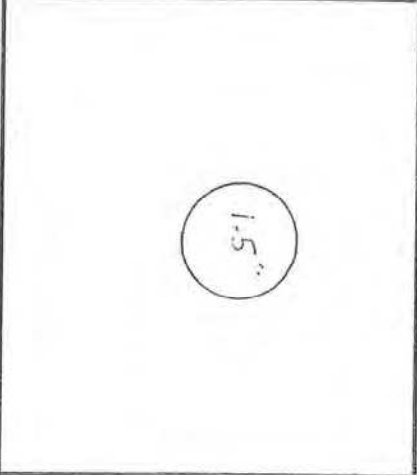
Overlay Thickness (in):  
Asphalt (in): 5"  
Concrete (in): -  
Brick (in): -  
soil type: clay

Target Utility:  
Utility Type: F/O  
Size: 1.5"  
Top (in): 20"  
Bottom (in): 21.5"  
Width (in): -  
Thickness (in): -  
Pipe Direction: E/W  
Material: PVC

Additional Utility:  
Utility Type: -  
Size: -  
Top (in): -  
Bottom (in): -  
Width (in): -  
Thickness (in): -  
Pipe Direction: -  
Material: -

Notes:

Utility Config Facing: East







TEST HOLE DATA SHEET  
APPLIED PROFESSIONAL SERVICES INC.

Job # 6874

Lead: Rob

Overlay Thickness (in):

Asphalt (in): 5"

Concrete (in): -

Brick (in): -

soil type: Clay & Wet

Pothole Number: 4

Date: 12/6/23

Notes:

Target Utility:

Utility Type: GAS

Size: 2"

Top (in): 39"

Bottom (in): 41"

Width (in): -

Thickness (in): -

Pipe Direction: E & W

Material: STW

Additional Utility:

Utility Type: Water

Size: 4"

Top (in): 23"

Bottom (in): 27"

Width (in): -

Thickness (in): -

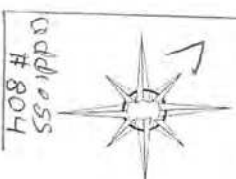
Pipe Direction: N & S

Material: Steel

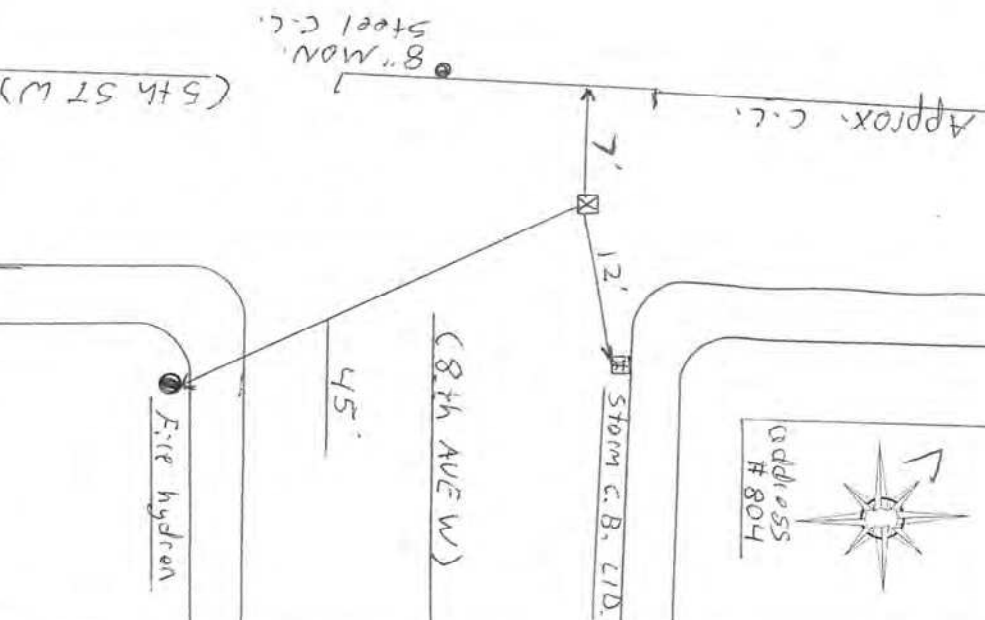
Utility Config Facing: EAST



to include: lane dividers, 3 offsets, street names, pothole location, north arrow



Address  
#804





TEST HOLE DATA SHEET  
APPLIED PROFESSIONAL SERVICES INC.

Job # 6874

Lead: Rob

Pothole Number: 5

Overlay Thickness (in):

Asphalt (in): N.A.

Concrete (in): N.A.

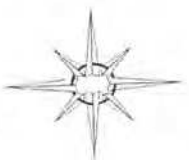
Brick (in): N.A.

soil type: N.A.

Date: 12/6/23

Notes:

Didn't pothole because  
no one call locates  
painted on ground.  
F10 doesn't locate,  
because no trace  
wife.  
Needs to be located  
by one call service.



Target Utility:

Utility Type: F10

Size: N.A.

Top (in): N.A.

Bottom (in): N.A.

Width (in): N.A.

Thickness (in): N.A.

Pipe Direction: N.A.

Material: N.A.

Additional Utility:

Utility Type: -

Size: -

Top (in): -

Bottom (in): -

Width (in): -

Thickness (in): -

Pipe Direction: -

Material: -

Utility Config Facing:

N.A.

to include: lane dividers, 3 offsets, street names, pothole location, north arrow



TEST HOLE DATA SHEET  
APPLIED PROFESSIONAL SERVICES INC.

Job # 6874

Lead: ROB

Overlay Thickness (in):

Asphalt (in): 5"

Concrete (in): -

Brick (in): -

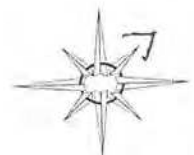
soil type: Clay & Gravel

Pothole Number: 6

Date: 12/6/23

Notes:

*Found Power and com  
in a joint trench.*



address  
# 310

Concrete  
Dwy

Telephone  
pole

27'

6'

13'

Approx. C-L.

(8th AVE W)

Sewer  
manhole  
cover lid

Utility Config Facing: NE

Additional Utility:

Utility Type: -

Size: -

Top (in): -

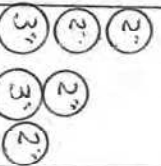
Bottom (in): -

Width (in): -

Thickness (in): -

Pipe Direction: -

Material: -



to include: lane dividers, 3 offsets, street names, pothole location, north arrow





TEST HOLE DATA SHEET  
APPLIED PROFESSIONAL SERVICES INC.

Job # 6874

Lead: Rob

Pothole Number: 7

Overlay Thickness (in):

Asphalt (in): 8"

Concrete (in): -

Brick (in): -

soil type: Rocky & Wet

Date: 12/6/23

Notes:

Target Utility:

Utility Type: Water

Size: 8"

Top (in): 43.5"

Bottom (in): 51.5"

Width (in): -

Thickness (in): -

Pipe Direction: E-W

Material: D-I

Utility Config Facing: West

Additional Utility:

Utility Type: -

Size: -

Top (in): -

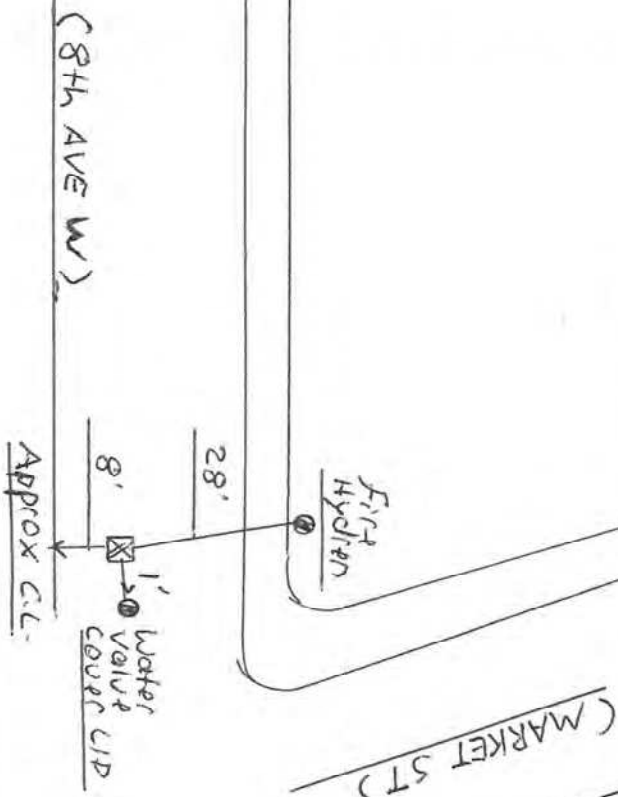
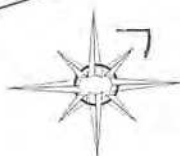
Bottom (in): -

Width (in): -

Thickness (in): -

Pipe Direction: -

Material: -



to include: lane dividers, 3 offsets, street names, pothole location, north arrow