Set No. _____

Specifications, Proposal,
and Contract Documents for:

NE 131st Way /90th Avenue NE Nonmotorized Improvements

CIP NO. NMC08720000

Job No. 29-22-PW

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

CITY OF KIRKLAND
DEPARTMENT OF PUBLIC WORKS

NE 131st Way / 90th Avenue NE Nonmotorized Improvements
CIP NO. NMC08720000
JOB NO. 29-22-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.

04/10/2023

Janessa M. Donato

Janessa Donato, P.E.

Approved for Construction:

Rod Steitzer, P.E.
Capital Projects Manager

CITY OF KIRKLAND
GENERAL TABLE OF CONTENTS

INVITATION TO BID

City of Kirkland

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 3:00 P.M., local time on May 2, 2023, for the project hereinafter referred to as:

NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS
CIP NO. NMC08720000
PROJECT JOB NO. 29-22-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.

The work to be performed under these specifications consists of furnishing all labor, tools, materials, and equipment necessary for constructions of the **NE 131st Way / 90th Avenue NE Nonmotorized Improvements.** Specific work includes, but is not limited to the improvements along NE 131st Way / 90th Avenue NE including the installation of curbs and tubular markers for separation between the pedestrian and bicyclist walkway and the roadway, centerline rumble strips, pavement markings, miscellaneous drainage improvements, spot guardrail repair, and installation of illumination system at 92nd Avenue NE and 94th Avenue NE.

The estimated cost for this project is in the range of $770,000 to $800,000.

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

Questions regarding this project shall be submitted in writing to Matt Brooks at mbrooks@kirklandwa.gov. Questions via phone will not be accepted. Bidders shall submit questions no later than 11:59 P.M. on April 19, 2023.

The City reserves the right to reject any and all bids, and to waive any informalities in the bidding, and to make the award to the lowest, responsive, responsible bidder as best serves the interests of the City.

No bids may be withdrawn within forty-five (45) after the actual date of the bid opening.

Published: Daily Journal of Commerce – April 12, 2023

GENERAL INFORMATION, PROPOSAL, & CONTRACT

City of Kirkland

CITY OF KIRKLAND

TABLE OF CONTENTS – PROPOSAL

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, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.

☐ 6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.

CITY OF KIRKLAND
SUBCONTRACTOR RESPONSIBILITY CRITERIA

☐ A. The Contractor shall include the language of this section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.

☐ B. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:

☐ 1. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;

☐ 2. Have a current Washington Unified Business Identifier (UBI) number;

☐ 3. Have:

a) Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RC
b) A Washington Employment Security Department number, as required in Title 50 RCW;
c) A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
d) An electrical contractor license, if required by Chapter 19.28 RCW;
e) An elevator contractor license, if required by Chapter 70.87 RCW.

☐ 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3). **Meet responsibility criteria in RCW 39.04.350**

☐ 5. Until December 31, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.

☐ 6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.

CITY OF KIRKLAND
BID PROPOSAL

NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS
CIP NO. NMC08720000
JOB NO. 29-22-PW

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

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

The bidder further declares that it has carefully examined the contract documents for the construction of the project; that it has 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.

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 **NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS; JOB NO. 29-22-PW** for the following:

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

Washington State Sales Tax 10% *(in figures)*: $*not applicable*

Total Bid *(in figures)*: $_____

Total Bid *(in words)*: _____

_____

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

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

CONTRACTOR (Firm Name)	Location or Place Executed: (City, State)
By	Name and title of person signing
(Indicate whether Contractor is Partnership, Corporation, or Sole Proprietorship)	Date
Washington State Contractor's Registration Number	Contractor's Industrial Insurance Account Number

MUST BE SUBMITTED WITH PROPOSAL

Employment Security Identification Number	Uniform Business Identification (UBI) Number

Contractor's Address:

	Telephone Number
	Fax Number
	EMAIL

** Bid proposal to be submitted in a **sealed envelope** marked "**Bid Enclosed**" for **NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS, JOB NO. 29-22-PW.**

CITY OF KIRKLAND
BID SCHEDULE

NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS
JOB NO. <<29-22-PW>>

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

Item No.	Item Description	Spec Ref.	Est. Qty.	Unit	Unit Price	Amount
1	Unexpected Site Changes	1-04 SP	1	EST	$10,000	$10,000
2	Roadway Surveying	1-05 SP	1	LS		
3	Record Drawings	1-05 SP	1	LS		
4	SPCC Plan	1-07 SP	1	LS		
5	Archaeological and Historical Salvage	1-07 SP	1	EST	$5,000	$5,000
6	Mobilization	1-09	1	LS		
7	Pedestrian Traffic Control	1-10	1	LS		
8	Project Temporary Traffic Control	1-10 SP	1	LS		
9	Clearing and Grubbing	2-01	1	LS		
10	Removal of Structures and Obstructions	2-02 SP	1	LS		
11	Saw Cutting Existing Pavement	2-02 SP	1,070	LF		
12	Removing Curb	2-02 SP	2,020	LF		
13	Removing Cement Conc. Curb and Gutter	2-02 SP	50	LF		
14	Roadway Excavation Incl. Haul	2-03	260	CY		
15	Gravel Borrow Incl. Haul	2-03	60	CY		
16	Controlled Density Fill	2-09	50	CY		
17	Construction Geotextile for Separation	2-12	80	SY		
18	Crushed Surfacing Top Course	4-04	210	TON		
19	HMA CL. 1/2" PG 58H-22	5-04 SP	130	TON		
20	Asphalt Berm	5-04 SP	50	LF		
21	Schedule A Storm Sewer Pipe 12 In. Diam	7-04 SP	80	LF		
22	Adjust Manhole	7-05 SP	1	EA		
23	Adjust Catch Basin	7-05 SP	20	EA		

24	Curb Inlet	7-05 SP	8	EA		
25	Catch Basin Type 2	7-05 SP	1	EA		
26	Connection to Drainage Structure	7-05 SP	9	EA		
27	Locking Solid Metal Cover and Frame for Catch Basin	7-05 SP	1	EA		
28	Locking Solid Metal Cover and Frame for Sanitary Sewer	7-05 SP	1	EA		
29	ADA Grate for Rectangular Frame	7-05 SP	19	EA		
30	Erosion/Water Pollution Control	8-01 SP	1	EST	$15,000	$15,000
31	Property Restoration	8-02 SP	1	LS		
32	Cement Conc. Curb and Gutter, Type A	8-04 SP	70	LF		
33	Extruded Cement Concrete Curb	8-04 SP	440	LF		
34	Median Curb	8-04 SP	3,280	LF		
35	Centerline Rumble Strip	8-08 SP	3,430	LF		
36	Raised Pavement Marker Type 2	8-09	2	HUND		
37	Flexible Delineator	8-10 SP	20	EA		
38	Beam Guardrail Type 31-6 Ft. Long Post	8-11	140	LF		
39	Removing Guardrail	8-11	140	LF		
40	Quarry Spalls	8-15	185	TN		
41	Illumination System - 92nd Ave NE	8-20 SP	1	LS		
42	Illumination System – 94th Ave NE	8-20 SP	1	LS		
43	Permanent Signing	8-21 SP	1	LS		
44	Paint Line	8-22	3,660	LF		
45	Paint Line, 6-In.	8-22 SP	2,530	LF		
46	Profiled Plastic Wide Line	8-22 SP	4,300	LF		
47	Plastic Crosswalk Line	8-22 SP	130	SF		
48	Plastic Stop Line	8-22 SP	50	LF		
49	Plastic Shared Lane Marking	8-22 SP	12	EA		
50	Removing Paint Line	8-22	10,580	LF		
51	Removing Plastic Line	8-22 SP	20	LF		

TOTAL COMPUTED PRICE: $_____

BID DEPOSIT

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

SIGN HERE_____

BID BOND

KNOW ALL 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

_____ _____
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
NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS
CIP NO. NMC08720000
JOB NO. 29-22-PW

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

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

_____ _____
Firm Name Authorized Signature

_____
Type Name

_____
Title

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

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

NOTICE TO ALL BIDDERS

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

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

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

CITY OF KIRKLAND
STATEMENT OF BIDDER'S QUALIFICATIONS

Contractor Name: _____ Contact: _____

Business Address: _____

Business phone: _____ Fax: _____

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

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

_____

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

Project Name	Amount	Owner/Agency	Contact	Phone	Year Completed

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

_____

_____

_____

Bank reference(s): _____

Washington State Contractor Registration No.: _____

Uniform Business Identification No.: _____

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

Authorized Signature: _____

Print Name: _____ Title: _____

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

RCW 39.30.060 requires the following:

> "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 <u>not</u> 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:

CITY OF KIRKLAND
PUBLIC WORKS AGREEMENT
NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS
JOB NO. 29-22-PW

This agreement is made and entered into this _____day of_____, 20____, by and between **CONTRACTOR NAME**, hereinafter called the "Contractor" and the City of Kirkland, hereinafter called the "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: "NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS, Job No. 29-22-PW"

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

A. 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 **NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS**, **Job #29-22-PW**, which is hereby made a part of this bond as if fully set forth herein;

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

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

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

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

Signed this _____ day of _____, 2____.

Principal:	_____	Surety:	_____
By:	_____	By:	_____
Title:	_____	Title:	_____
Address:	_____	Address:	_____
City/Zip:	_____	City/Zip:	_____
Telephone: ( )	_____	Telephone: ( )	_____

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

LABOR, MATERIAL AND TAXES PAYMENT BOND

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

Bond No. _____

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

WHEREAS, Principal has been awarded, and is about to enter into, a Contract with City of Kirkland for **NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS, Job #29-22-PW**, which contract is by this reference made a part hereof;

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

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

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

(Form continues on next page)

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

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

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

Signed this _____ day of _____ , 2____

Principal: _____	Surety: _____
By: _____	By: _____
Title: _____	Title: _____
Address: _____	Address: _____
City/Zip: _____	City/Zip: _____
Telephone: ( ) _____	Telephone: ( ) _____

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

END OF LABOR, MATERIAL AND TAXES PAYMENT BOND FORM

CITY OF KIRKLAND
CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT OF STATUTORY RETAINED PERCENTAGE
NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS
JOB NO. 29-22-PW

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

Select One

[ ] (1) Retained in a fund by the City. No interest will be earned on the retained percentage amount under this election.

[ ] (2) Retainage Bond

[ ] (3) Placed in escrow with a bank or trust company by the City. When the monies reserved are to be placed in escrow, the City will issue a check representing the sum of the monies reserved payable to the bank or trust company and the Contractor jointly. Such check shall be converted into bonds and securities chosen by the Contractor and approved by the City and the bonds and securities held in escrow. (For the convenience of those Contractors choosing option (3) a City approved Form of Escrow Agreement is included on the next page and should be completed and submitted with the executed contract.)

The Contractor in choosing option (3) agrees to assume full responsibility to pay all costs which may accrue from escrow services, brokerage charges or both, and further agrees to assume all risks in connection with the investment of the retained percentages in securities.

[ ] (4) Deposited by the City in an interest-bearing account at the FDIC insured bank currently providing contracted banking services to the City of Kirkland. Interest on such account shall be paid to the contractor. Any fees incurred shall be the responsibility of the contractor.

CONTRACTOR:

Signature: _____

Print or Type Name: _____

Title: _____

Date: _____

RETAINAGE BOND
RETURN THIS FORM IF RETAINAGE BOND OPTION IS SELECTED

Contract Title	_____
Contract Number	_____
Contractor Name	

The Undersigned, _____, existing under and by virtue of the laws of the State of Washington and authorized to do business in the State of Washington as Principal, and _____ organized and existing under the laws of the State of _____ and authorized to transact business in the State of Washington as Surety, are jointly and severally held and bound unto_____, hereinafter called Obligee, and are similarly held and bound unto the beneficiaries of the trust fund created by RCW 60.28, in the penal sum of _____
($_____), Which is 5% of the principal's price on Contract ID_____.

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

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

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

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

PROVIDED HOWEVER, that:

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

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

SURETY **PRINICPAL**

By:_____ By:_____
Name/Title 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
NE 131ST WAY / 90TH AVENUE NE NONMOTORIZED IMPROVEMENTS
JOB NO. 29-22-PW

Escrow No. _____

City of Kirkland
123 Fifth Avenue
Kirkland, Washington 98033

Contractor: _____

Address: _____

Project Description: _____

_____

_____

TO: Escrow Bank or Trust Company:

Name: _____

Address: _____

_____

Attention: _____

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

INSTRUCTIONS

1. Warrants or checks made payable to you and the Contractor jointly upon delivery to you shall be endorsed by you and forwarded for collection. The moneys will then be used by you to purchase, as directed by the Contractor, bonds or other securities chosen by the Contractor and approved by the City of Kirkland. Attached is a list of such bonds, or other securities approved by the City of Kirkland. Other bonds or securities, except stocks, may be selected by the Contractor, subject to the express written approval of the City of Kirkland. Purchase of such bonds or other securities shall be in a form which shall allow you alone to reconvert such bonds or other securities into money if you are required to do so at the direction of the City of Kirkland and Contractor.

2. When and as interest on the securities held by you pursuant to this agreement accrues and is paid, you shall collect such interest and forward it to the Contractor at its address designated below unless otherwise directed by the Contractor.

3. You are not authorized to deliver to the Contractor all or any part of the securities held by you pursuant to this agreement (or any moneys derived from the sale of such securities, or the negotiation of the City of Kirkland's warrants) except in accordance with written instructions from the City of Kirkland. Compliance with such instructions shall relieve you of any further liability related thereto. The estimated completion date on the contract underlying this Escrow Agreement is _____.

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

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

5. This agreement shall not be binding until executed by the Contractor and the City of Kirkland and accepted by you.

6. This instrument contains the entire agreement between you, the Contractor and the City of Kirkland, with respect to this escrow and you are not a part nor bound by any instrument or agreement other than this; you shall not be required to take notice of any default or any other matter nor be bound by nor required to give notice or demand, nor required to take any action whatever, except as herein expressly provided; you shall not be liable for any loss or damage not caused by your own negligence or willful misconduct.

7. The foregoing provisions shall be binding upon the assigns, successors, personal representatives, and heirs of the parties hereto.

8. The Contractor's Federal Income Tax Identification number is _____.

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

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

CONTRACTOR:

By: _____
Signature

_____
Print or Type Name

_____
Title

Address: _____

_____

CITY OF KIRKLAND:

By: _____
Signature

_____
Print or Type Name

_____
Title

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

SPECIAL PROVISIONS

Supplement to

2023

WSDOT Standard Specifications

City of Kirkland
TABLE OF CONTENTS - SPECIAL PROVISIONS

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 **NE 131st Way / 90th Avenue NE Nonmotorized Improvements** project.

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

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

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

General Special Provisions (GSPs) are similar to Standard Specifications in that they typically apply to many 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.
- Revised Draft Guidelines for Accessible Public Rights-of-Way, November 23, 2005 (commonly referred to as the 2005 PROWAG).

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

DIVISION 1 – GENERAL REQUIREMENTS

DESCRIPTION OF WORK
(March 13, 1995 WSDOT GSP)

This contract provides for **the improvements along NE 131st Way / 90th Avenue NE including the installation of curbs and tubular markers for separation between the pedestrian and bicyclist walkway and the roadway, centerline rumble strips, pavement markings, miscellaneous drainage improvements, spot guardrail repair, installation of illumination system** and all related Work, all in accordance with the Contract Plans, these Contract Special Provisions, and the Standard Specifications.

1-01 DEFINITIONS AND TERMS

1-01.3 Definitions
(January 19, 2022 APWA GSP)

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

Dates
Bid Opening Date
The date on which the Contracting Agency publicly opens and reads the Bids.
Award Date
The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.
Contract Execution Date
The date the Contracting Agency officially binds the Agency to the Contract.
Notice to Proceed Date
The date stated in the Notice to Proceed on which the Contract time begins.
Substantial Completion Date
The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.
Physical Completion Date
The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.
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”.

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

1-02.1 PREQUALIFICATION OF BIDDERS

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder

(January 24, 2011 APWA GSP)
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.

(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.

1-02.2 Plans and Specifications
(June 27, 2011 APWA GSP)

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:

To Prime Contractor	No. of Sets	Basis of Distribution
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")	1	Furnished only upon request.

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

1-02.4(1) General
(December 30, 2022 APWA GSP Option A)

The first sentence of the ninth paragraph, beginning with "Prospective Bidder desiring…", is revised to read:

Prospective Bidders desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business 5 business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.

1-02.4(2) Subsurface Information
(March 8, 2013 APWA GSP)

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.

1-02.5 Proposal Forms
(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

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

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

1-02.6 Preparation of Proposal
(December 10, 2020 APWA GSP)

Supplement the second paragraph with the following:

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

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

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

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

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

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

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

1-02.7 Bid Deposit
(March 8, 2013 APWA GSP)

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;

5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, 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.

1-02.8 Noncollusion Declaration and Lobbying Certification
(January 1, 2016 COK GSP)

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.

1-02.12 Public Opening of Proposal
Section 1-02.12 is supplemented with the following:

(******)
Date of Opening Bids
Sealed Bids are to be received at the following location prior to the time specified:

1. At the City of Kirkland in the office of the City of Kirkland Council Chambers, City Hall, 123 Fifth Avenue, Kirkland, Washington 98033 until 3:00 P.M. of the Bid opening date.

The Bid opening date for this project is May 2, 2023. Bids received will be publicly opened and read after 3:00 P. M. on this date. Bids will not be received after this date and time.

1-02.13 Irregular Proposals
(December 30, 2022 APWA GSP)

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 (WSDOT Form 271-015), if applicable, as required in Section 1-02.6;
h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification (WSDOT Form 272-056), if applicable, as required in Section 1-02.6;
i. The Bidder fails to submit Written Confirmations (WSDOT Form 422-031) from each DBE firm listed on the Bidder's completed DBE Utilization Certification that they are in agreement with the bidder's DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
k. The Bidder fails to submit a DBE Bid Item Breakdown (WSDOT Form 272-054), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
l. The Bidder fails to submit DBE Trucking Credit Forms (WSDOT Form 272-058), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
m. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
n. More than one Proposal is submitted for the same project from a Bidder under the same or different names.

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

1-02.14 Disqualification of Bidders
(May 17, 2018 APWA GSP)

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.

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). To assess bidder responsibility, the Contracting Agency reserves the right to request documentation as needed from the Bidder and third parties concerning the Bidder's compliance with the mandatory bidder responsibility criteria.

If the Contracting Agency determines the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1) 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.

1-02.15 Pre Award Information

(December 30, 2022 APWA GSP)

Revise this section to read:

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

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

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(December 30, 2022 APWA GSP)

Revise this section to read:

After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the highest percentage of recycled materials in the Project, per the form submitted with the Bid

Proposal. If those percentages are also exactly equal, then the tie-breaker will be determined by drawing as follows: Two or more slips of paper will be marked as follows: one marked “Winner” and the other(s) marked “unsuccessful”. The slips will be folded to make the marking unseen. The slips will be placed inside a box. One authorized representative of each Bidder shall draw a slip from the box. Bidders shall draw in alphabetic order by the name of the firm as registered with the Washington State Department of Licensing. The slips shall be unfolded and the firm with the slip marked “Winner” will be determined to be the successful Bidder and eligible for Award of the Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest responsive Bid, and with a proposed recycled materials percentage that is exactly equal to the highest proposed recycled materials amount, are eligible to draw.

1-03.3 Execution of Contract
(January 19, 2022 APWA GSP)

Revise this section to read:

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

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

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

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

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

1-03.4 Contract Bond
(January 1, 2016 COK GSP)

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).

1-03.7 Judicial Review

(December 30, 2022 APWA GSP)

Revise this section to read:

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

(April 25, 2019 COK GSP)

Add new Section 1-03.8.

1-03.8 Escrow Bid Document Preservation

Scope and Purpose
The purpose of this specification is to preserve the Contractor's Bid documents for use by the Contracting Agency in any litigation between the Contracting Agency and Contractor arising out of this Contract.

The Contractor shall submit a legible copy of all documentation used to prepare the Bid for this Contract to a banking institution designated by the Contracting Agency. Such documentation shall be placed in escrow with the banking institution and preserved by that institution as specified in the following sections of this specification.

Definition: Bid Documentation
The term "Bid documentation" as used in this specification means any writings, working papers, computer printouts, charts, and any other data compilations which contain or reflect all information, data, and calculations used by the Contractor to determine the Bid in bidding for this project. The term "Bid documentation" includes but is not limited to Contractor equipment rates, Contractor overhead rates, labor rates, efficiency or productivity factors, arithmetic extensions, and quotations from Subcontractors and materialmen to the extent that such rates and quotations were used by the Contractor in formulating and determining the amount of the Bid. The term "Bid documentation" also includes any manuals which are standard to the industry used by the Contractor in determining the Bid for this project. Such manuals may be included in the Bid documentation by reference. The term does not include Bid documents provided by the Contracting Agency for use by the Contractor in bidding on this project.

Submittal of Bid Documentation
The Contractor shall submit the Bid documentation, as defined in this section, to the banking institution. The Bid documentation shall be submitted to the banking institution within seven calendar days after the Contract for this project has been executed by the Contracting Agency. The Bid documentation shall be submitted in a sealed container. The container shall be clearly marked "Bid Documentation" and shall also show on the face of the container the Contractor's name, the date of submittal, the project title, and the Contract number.

Affidavit
The sealed container shall contain, in addition to the Bid documentation, an affidavit signed under oath by an individual authorized by the Contractor to execute bidding Proposals. The affidavit shall list each Bid document with sufficient specificity so a comparison can be made between the list and the Bid documentation to ensure that all of the Bid documentation listed in the affidavit has been enclosed in the sealed container. The affidavit shall show that the affiant has personally examined the Bid documentation and that the affidavit lists all of the documents used by the Contractor to determine the Bid for this project and that all such Bid documentation has been enclosed in the sealed container.

Verification
The banking institution upon receipt of the sealed container shall place the container in a safety deposit box, vault, or other secure place, and immediately notify the Contracting Agency in writing that the container has been received. Upon receipt of such notice, the

Contracting Agency will promptly notify the Contractor in writing that the Contracting Agency will open the sealed container to verify that the affidavit has been enclosed and to compare the Bid documents listed in the affidavit with the Bid documents enclosed in the container to ensure that all of the Bid documentation has been submitted and that the copies are legible. The notification will advise the Contractor of the date and time the container will be opened and the name of the Contracting Agency employee who will verify the contents of the container.

The employee verifying the contents of the escrow container will not be involved or connected with the review, evaluation, or resolution of any claim by the Contractor made to the Contracting Agency in connection with the Contract for which the verification was made. The Contractor may have representatives present at the opening.

Supplementation
Documents listed in the affidavit but not enclosed in the sealed container through error or oversight shall be submitted in a sealed container within five calendar days after the opening of the original container. Also, any Bid documentation that is illegible shall be replaced with legible copies and furnished within five calendar days after the opening of the original container. The face of the container shall show the same information as the original container except the container shall be marked "Supplemental Bid Documentation". The same procedure used in verifying the contents of the original container shall be used in verifying the contents of the supplemental submittal.

Duration and Use
The Bid documentation and affidavit shall remain in escrow during the life of the Contract and will be returned to the Contractor by the banking institution, provided that the Contractor has signed the final Contract voucher certification and has not reserved any claims on the final Contract voucher certification against the Contracting Agency arising out of the Contract. In the event that claims against the Contracting Agency are reserved on the final Contract voucher certification, the Bid documentation and affidavit shall remain in escrow.

If the claims are not resolved and litigation ensues, the Contracting Agency may serve a request upon the Contractor to authorize the banking institution, in writing, to release the Bid documentation and affidavit in escrow to the Contracting Agency. The Contractor shall respond to the request within 20 days after service of the request. If the Contractor objects or does not respond to the request within 20 days after service of the request, the Contracting Agency may file a motion under the Civil Rules requesting the court to enter an order directing the banking institution to deliver the Bid documentation and affidavit in escrow to the Contracting Agency.

The Contractor shall respond to the request within the time required by the then applicable Civil Court Rules for the Superior Court of the Contracting Agency of Washington. If the Contractor objects or does not respond to the request within the time required by the then applicable Civil Rules, the Contracting Agency may file a motion pursuant to such rules requesting the court to enter an order directing the banking institution to deliver the Bid documentation and affidavit in escrow to the Contracting Agency.

The banking institution shall release the Bid documentation and affidavit as follows:

1. To the Contracting Agency upon receipt of a letter from the Contractor authorizing the release;
2. To the Contracting Agency upon receipt of a certified copy of a court order directing the release of the documents;
3. To the court for an in camera examination pursuant to a certified copy of a court order;
4. The Bid documentation and affidavit shall be returned to the Contractor if litigation is not commenced within the time period prescribed by law.

The Contractor agrees that the sealed container placed in escrow and any supplemental sealed container placed in escrow contain all of the Bid documentation used to determine the Bid and that no other Bid documentation shall be utilized by the Contractor in litigation over claims brought by the Contractor arising out of this Contract unless otherwise ordered by the court.

Remedies for Refusal or Failure to Provide Bid Documentation
Failure or refusal to provide Bid documentation shall be deemed a material breach of this Contract. The Contracting Agency may at its option refuse to make payment for progress estimates under Section 1-09.9 until the Contractor has submitted the Bid documentation required by this specification. The Contracting Agency may at its option terminate the Contract for default under Section 1-08.10. These remedies are not exclusive and the Contracting Agency may take such other action as is available to it under the law.

Confidentiality of Bid Documentation
The Bid documentation and affidavit in escrow are and will remain the property of the Contractor. The Contracting Agency has no interest in or right to the Bid documentation and affidavit other than to verify the contents and legibility of the Bid documentation unless litigation ensues between the Contracting Agency and Contractor over claims brought by the Contractor arising out of this Contract. In the event of such litigation, the Bid documentation and affidavit may become the property of the Contracting Agency for use in the litigation as may be appropriate subject to the provisions of any court order limiting or restricting the use or dissemination of the Bid documentation and affidavit as provided in the preceding section entitled Duration and Use.

Cost and Escrow Instructions
The cost of the escrow will be borne by the Contracting Agency. The Contracting Agency will provide escrow instructions to the banking institution consistent with this specification.

1-04 SCOPE OF THE WORK

1-04.1 Intent of the Contract
(January 1, 2016 COK GSP)

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.

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

(December 30, 2022 APWA GSP)

Revise the second paragraph to read:

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

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

1-04.4 Changes

1-04.4(1) Minor Changes

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

(******)

1-04.4(1) Unexpected Site Changes

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

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

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

1-04.11 Final Cleanup

(January 1, 2016 COK GSP)

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.

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

(January 27, 2021 COK GSP)

Add new Section 1-04.12.

Except where specifically indicated otherwise in the Contract Documents, the Contractor shall make all necessary arrangements and bear all costs as incidental to the Contract for permits, temporary hook-ups, 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

1-05.1 Authority of the Engineer
(January 27, 2021 COK GSP)

Section 1-05.1 is supplemented with the following:

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

1-05.4 Conformity with and Deviations from Plans and Stakes
(January 1, 2020 COK GSP)

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 Contractors responsibility.

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

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.
   a. 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.
   b. Each pole riser and stub up, shall have at least one set of off-set hubs provided with cut/fills to finish ground elevations.
   c. Finish grade elevations of all structures shall be determined by the Contractor based on the typical sections and details provide on the Contract Drawings.
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.

1-05.4 Measurement

Section 1-05.4 is supplemented with the following:

(******)

No unit of measurement shall apply to the lump sum price for roadway surveying

1-05.5 Payment

Section 1-05.5 is supplemented with the following:

(******)
Payment will be made in accordance with Section 1-04.1 of these Specifications for the following bid item:

"Roadway Surveying", per lump sum.

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

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

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.

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

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.

1-05.10 Guarantees
(January 1, 2016 COK GSP)

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.

1-05.11 Final Inspection
(October 1, 2005 APWA GSP)

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.

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

Delete the sixth and seventh paragraph of this section.

1-05.14 Cooperation With Other Contractors

Section 1-05.14 is supplemented with the following:

(March 13, 1995 WSDOT GSP)
Other Contracts Or Other Work
It is anticipated that the following work adjacent to or within the limits of this project will be performed by others during the course of this project and will require coordination of the work:

*** Pole and light fixture installation efforts by PSE ***

1-05.15 Method of Serving Notices
(December 30, 2022 APWA GSP)

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.

Add new Section 1-05.18.

1-05.18 Record Drawings
(March 8, 2013 APWA GSP)

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 Drawings to produce a complete set of Record Drawings for the Contracting Agency without further investigative effort by the Contracting Agency.

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

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

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

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

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

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 Drawings (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 $ 5,000)	Lump Sum

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

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

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.

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

Revise the first paragraph to read:

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

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

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

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

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in 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

1-07.1 Laws to Be Observed
(January 1, 2021 COK GSP)

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.

1-07.2 State Taxes

(June 27, 2011 APWA GSP)

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).

1-07.5(2) State Department of Fish and Wildlife
(January 1, 2021 COK GSP)

Supplement this section with the following:

New Zealand mud snails are an aquatic invasive species of concern for the Puget Sound region, as they have already invaded waterways near the City of Kirkland. Contractors working in-water (e.g. natural stream, small ponds and lakes, wetlands, etc.), including all construction equipment and vehicles used in-water, shall follow the Level 1 decontamination protocols and implement all Special Protocols for personnel and equipment as described in the "Invasive Species Management Protocols" published by the Washington State Department of Fish and Wildlife (WDFW) (Draft Version 3, February 2016). This document can be found on the WDFW website.

For Work that will be performed in-water in the City of Kirkland, all Contractor vehicles and/or heavy equipment previously used for in-water work outside the City of Kirkland shall be cleaned by the Contractor as indicated for "Boats and other Large Aquatic Conveyances Transported Overland", as described in the "Invasive Species Management Protocols" published by the Washington State Department of Fish and Wildlife (WDFW) (Draft Version 3, February 2016).

The Contractor is only required to follow Level 2 Decontamination Protocols in the Work area when indicated in the Contract documents.

All labor and materials required for completing decontamination and cleaning protocols shall be incidental to the Contract bid items, unless otherwise indicated in the Contract Documents.

1-07.5(3) State Department of Ecology
(January 1, 2021 COK GSP)

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.

1-07.5(6) U.S. Fish and Wildlife Service and National Marine Fisheries Service
(January 1, 2021 COK GSP)

Delete this section and replace it with the following:

The Contractor shall provide all required fish exclusion and handling services required by the Work, unless otherwise indicated in the Contract Documents. If the Contractor discovers any fish stranded by the project, they shall immediately transfer and release the fish alive into a flowing stream or open water outside the Work area.

1-07.6 Permits and Licenses
(January 1, 2021 COK GSP)

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)).

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

Add new Section 1-07.6(1)

(January 1, 2021 COK GSP)
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.

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

Add new Section 1-07.6(2)

(January 1, 2021 COK GSP)
The Contracting Agency has not obtained any City of Kirkland Temporary Use Permits for temporary use(s) of off-site areas or properties in the City of Kirkland for the purposes of staging, materials storage, and/or any other Contractor-desired temporary uses during the Work. A City of Kirkland Temporary Use Permit must be obtained by the Contractor for temporary use for the Work of any off-site areas or properties not located in a City of Kirkland right-of-way (ROW). This requirement is in addition to any permissions and/or agreements reached between the Contractor and the property owner(s) as required in Section 1-07.24.

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

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

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

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

1-07.9 Wages

1-07.9(5) Required Documents
(January 3, 2020 APWA GSP)

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.

Intents 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).

1-07.14 Responsibility for Damage
(January 1, 2016 COK GSP)

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

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

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

(January 10, 2019 COK GSP)
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.”

1-07.16 Protection and Restoration of Property

1-07.16(3) Fences, Mailboxes, Incidentals

(January 1, 2016 COK GSP)

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.

1-07.16(4) Archaeological And Historical Objects

(December 6, 2004 WSDOT GSP)

Section 1-07.16(4) is supplemented with the following:

The project area potentially contains archaeological or historical objects that may have significance from a historical or scientific standpoint. To protect these objects from damage or destruction, the Contracting Agency, at its discretion and expense, may monitor the Contractor's operations, conduct various site testing and perform recovery and removal of such objects when necessary. The Contractor may be required to conduct its operations in a manner that will accommodate such activities, including the reserving of portions of the work area for site testing, exploratory operations and recovery and removal of such objects as directed by the Engineer. If such activities are performed by consultants retained by the Contracting Agency, the Contractor shall provide them adequate access to the project site. Added work necessary to uncover, fence, dewater, or otherwise protect or assist in such testing, exploratory operations and salvaging of the objects as ordered by the Engineer shall be paid by force account as provided in Section 1-09.6. If the discovery and salvaging activities require the Engineer to suspend the Contractor's work, any adjustment in time will be determined by the Engineer pursuant to Section 1-08.8. To provide a common basis for all bidders, the Contracting Agency has entered an amount for the item "Archaeological and Historical Salvage" in the Proposal to become a part of the total bid by the Contractor.

Section 1-07.16) is supplemented with the following:

(******)
A Cultural Resources Inadvertent Discovery Plan for this project is included in Appendix C of these Contract Documents.

1-07.17 Utilities and Similar Facilities

(January 1, 2020 COK GSP)

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:

4. Water, sewer, storm, streets – minimum two working days in advance
5. Power (Electric and Natural Gas) – minimum 48 hours in advance
6. Telephone – minimum 30 days in advance
7. Natural Gas – minimum 48 hours in advance
8. Cable Television – minimum 48 hours in advance
9. 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	Josh Pantzke	(425) 587-3900
Storm Drainage	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Josh Pantzke	(425) 587-3900
Water/Sewer (North area of Kirkland)	Northshore Utility District	6380 NE 185th St Kenmore, WA 98028	George Matote Kelly Nesbitt	(425) 398-4400 (425) 521-3750
Street	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Glenn Akramoff	(425) 587-3900
Natural Gas	Puget Sound Energy	P.O. Box 97034 EST-11W Bellevue, WA 98009-9734	Patty Miller	(206) 305-7950
Electric	Puget Sound Energy	35131 SE Center St Snoqualmie, WA 98065	Fremont Aguinaldo	(425) 223-0936
Telephone/ FIOS	Ziply Fiber	P.O. Box 1127 Everett, WA 98206	Cheryl Schneider	(425) 949-0230
FIOS	Zayo	22651 83rd Ave. S. Kent, WA 98032	Jason Accuradi	(971) 344-0530
Cable Television	Comcast	1525 - 75th St SW, Suite 200 Everett, WA 98203	Joe Fordon	(425) 263-5348
Network	Verizon/MCI	11311 NE 120th 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
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.

1-07.17(2) Utility Construction, Removal or Relocation by Others
(January 1, 2016 COK GSP)

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.

1-07.18 Public Liability and Property Damage Insurance
(December 30, 2022 APWA GSP)

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

1-07.18 Insurance
(December 30, 2022 APWA GSP)

1-07.18(1) General Requirements

A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.

B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.

C. If any insurance policy is written on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.

E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency

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

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

1-07.18(2) Additional Insured

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

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers
- Perteet Inc.
- HWA GeoSciences

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.

1-07.23 Public Convenience and Safety
(January 1, 2016 COK GSP)

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.

1-07.23(1) Construction under Traffic

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

(******)

Vehicle Traffic

The Contractor shall maintain access to driveways at all times. The Contractor shall maintain access to all transit stops and coordinate with Transit Agencies to maintain their operations. Short duration road closures may be acceptable with approved Traffic Control measures (devices, flaggers, signage, etc), as approved prior by the Engineer. Steel plates shall not be permitted for use during weekends.

Pedestrian Traffic

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

1-07.24 Rights of Way

(July 23, 2015 APWA GSP)

Delete this section and replace it with the following:

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

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

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

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

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

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may

desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

(January 1, 2021 COK GSP)

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.

PROPERTY RELEASE

_____
_____
_____
(Contractor's name and address)

DATE: _____

I, _____ owner of _____, hereby release _____, *(Contractor's name)*
from any property damage or personal injury resulting from construction on or adjacent to my property located at _____ during construction of the _____. My signature below is my acknowledgment and acceptance that my property, as identified above, was returned to a satisfactory condition.

Signed: _____
Name: _____
Address: _____
_____
Phone: _____

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters

(May 25, 2006 APWA GSP)

Add the following new section:

1-08.0(1) Preconstruction Conference

(October 10, 2008 APWA GSP)

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.

Add new Section 1-08.0(2).

1-08.0(2) Hours of Work

(January 1, 2021 COK GSP; may not be used on FHWA-funded projects)

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:

STREET	***FROM***	***TO***
Central Way/NE 85th St	Market St	132nd Ave NE
Juanita Dr NE /NE Juanita Dr	NE 143rd St (City Limits)	98th Ave NE
Juanita Woodinville Way	100th Ave NE	NE 145th St (City Limits)
Lake St/Lake Washington Blvd/Northup Wy	Central Way	Northup Way (City Limits)
Kirkland Ave/Kirkland Way	Lake St	NE 85th 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 145th 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	116th Ave NE/116th Way NE	120th Ave NE
Simonds Rd NE	92nd Ave NE (City Limits)	100th Ave NE
Slater Ave NE	NE 116th St	NE 124th St
Totem Lake Blvd	NE 132nd St	124th Ave NE
3rd Street/State Street	Central Way	NE 68th Street/Lakeview Dr.
6th St/6th St S/108th Ave NE	Central Way/NE 85th St	South City Limits
90th Ave NE/NE 131st Way/NE 132nd St	NE 134th St	132nd Ave NE
120th Ave NE/116th Ave NE/116th Way NE	NE 112th St	NE 132nd St
124th Ave NE	NE 85th St	NE 124th St
124th Ave NE	NE 132nd St	NE 145th Pl (City Limits)

1-08.1 Subcontracting
(December 30, 2022 APWA GSP)

Delete the ninth paragraph, beginning with “On all projects, the Contractor shall certify…”.

1-08.1 Subcontracting
(January 1, 2016 COK GSP)

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.

1-08.3 Progress Schedule
(January 1, 2016 COK GSP)

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.

1-08.3(2) Progress Schedule Types

(December 30, 2022 APWA GSP)
1-08.3(2)A Type A Progress Schedule
Revise this section to read:

The Contractor shall submit 1 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.

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
(July 23, 2015 APWA GSP)

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.

Section 1-08.4 is supplemented with the following:

(******)

Order of Work

The sequence of Work described herein is meant to provide general direction in the prosecution of Work. The Contractor shall remain responsible for the details of performing the Work, and the limits of each portion of the Work. Variations from the following general Work sequence must be approved in writing by the Engineer.

The general order of work is as follows:

- Installation of TESC measures
- Installation of construction signing

Following the completion of the final lift of HMA, the following elements of Work shall be completed:

- Raising of existing utility surface structures

The following areas of Work may be completed at any time:

- Installation of signs

1-08.5 Time for Completion

(December 30, 2022 APWA GSP)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and all partial or whole days the Engineer declares as unworkable The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as

having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
   a. Certified Payrolls (per Section 1-07.9(5)).
   b. Material Acceptance Certification Documents
   c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
   d. Final Contract Voucher Certification
   e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
   f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
   g. Property owner releases per Section 1-07.24

(January 1, 2016 COK GSP)

Section 1-08.5 is supplemented with the following:

This project shall be substantially completed in its entirety within 50 working days.

1-08.9 Liquidated Damages
(March 3, 2021 APWA GSP)

Replace Section 1-08.9 with the following:

Time is of the essence of the Contract. Delays inconvenience the traveling public, obstruct traffic, interfere with and delay commerce, and increase risk to Highway users. Delays also cost tax payers undue sums of money, adding time needed for administration, engineering, inspection, and supervision.

Accordingly, the Contractor agrees:

1. To pay liquidated damages in the amount of *** $$2,150$$ *** for each working day beyond the number of working days established for Physical Completion, and

2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract Work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, liquidated damages identified above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

Liquidated damages will not be assessed for any days for which an extension of time is granted. No deduction or payment of liquidated damages will, in any degree, release the Contractor from further obligations and liabilities to complete the entire Contract.

1-09 MEASUREMENT AND PAYMENT

1-09.2 Weighing Equipment
(December 30, 2022 APWA GSP)

1-09.2(1) General Requirements for Weighing Equipment

Revise the third paragraph to read:

Scale Operations – "Contractor-provided scale operations" are defined as operations where a scale is set up by the Contractor specifically for the project and most, if not all, material weighed on the scale is utilized for Contract Work. In this situation, the Contractor shall provide, set up, and maintain the scales necessary to perform this Work. The Contracting Agency will provide a person to operate the project scale, write tickets, perform scale checks and prepare reports.

1-09.2(1) General Requirements for Weighing Equipment
(January 1, 2016 COK GSP)

The second to 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:

7. Ticket serial number

8. Date and hour of weighing
9. 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.

(December 30, 2022 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.

1-09.6 Force Account

(December 30, 2022 APWA GSP)

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by the Engineer.

1-09.7 Mobilization

(December 30, 2022 APWA GSP)

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 typically occurring 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. Portions 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. Costs incurred for 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.

1-09.9 Payments
(March 13, 2012 APWA GSP)

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.

(December 30, 2022 APWA GSP)

Section 1-09.9 is revised to read:

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.

Failure to perform obligations under the Contract by the Contractor may be decreed by the Contracting Agency to be adequate reason for withholding any payments until compliance is achieved.

Upon completion of all Work and after final inspection (Section 1-05.11), the amount due the Contractor under the Contract will be paid based upon the final estimate made by the Engineer and presentation of a Final Contract Voucher Certification to be signed by the Contractor. The Contractor's signature on such voucher shall be deemed a release of all claims of the Contractor unless a Certified Claim is filed in accordance with the requirements of Section 1-09.11 and is expressly excepted from the Contractor's certification on the Final Contract Voucher Certification. The date the Contracting Agency signs the Final Contract Voucher Certification constitutes the final acceptance date (Section 1-05.12).

If the Contractor fails, refuses, or is unable to sign and return the Final Contract Voucher Certification or any other documentation required for completion and final acceptance of the Contract, the Contracting Agency reserves the right to establish a Completion Date (for the purpose of meeting the requirements of RCW 60.28) and unilaterally accept the Contract. Unilateral final acceptance will occur only after the Contractor has been provided the opportunity, by written request from the Engineer, to voluntarily submit such documents. If voluntary compliance is not achieved, formal notification of the impending establishment of a Completion Date and unilateral final acceptance will be provided by email with delivery confirmation from the Contracting Agency to the Contractor, which will provide 30 calendar days for the Contractor to submit the necessary documents. The 30 calendar day period will begin on the date the email with delivery confirmation is received by the Contractor. The date the Contracting Agency unilaterally signs the Final Contract Voucher Certification shall constitute the Completion Date and the final acceptance date (Section 1-05.12). The reservation by the Contracting Agency to unilaterally accept the Contract will apply to

Contracts that are Physically Completed in accordance with Section 1-08.5, or for Contracts that are terminated in accordance with Section 1-08.10. Unilateral final acceptance of the Contract by the Contracting Agency does not in any way relieve the Contractor of their responsibility to comply with all Federal, State, tribal, or local laws, ordinances, and regulations that affect the Work under the Contract.

Payment to the Contractor of partial estimates, final estimates, and retained percentages shall be subject to controlling laws.

(January 1, 2016 COK GSP)

Unless otherwise agreed to by both parties, the work period shall coincide with the calendar month. A check will be mailed or made available to the Contractor no later than thirty (30) days following the last day of the work period.

1-09.11 Disputes and Claims

1-09.11(3) Time Limitation and Jurisdiction

(December 30, 2022 APWA GSP)

Revise this section to read*:*

For the convenience of the parties to the Contract it is mutually agreed by the parties that all 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 all 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 all such claims or causes of action. It is further mutually agreed by the parties that when 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 all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13 Claims Resolution

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

(February 1, 2021 COK GSP)

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.

1-09.13 (4) Venue for Litigation

(December 30, 2022 APWA GSP)

Revise this section to read:

Litigation shall be brought in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. It is mutually agreed by the parties that when litigation occurs, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.2 Traffic Control Management

1-10.2(1) General

Section 1-10.2(1) is supplemented with the following:

(January 10, 2022 WSDOT GSP)
The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
https://www.nwlett.edu

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778
https://www.esc.org

The American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, Virginia 22406-1022
Training Dept. Toll Free (877) 642-4637
Phone: (540) 368-1701
https://altssa.com/training

Integrity Safety
13912 NE 20th Ave.
Vancouver, WA 98686
(360) 574-6071
https://www.integritysafety.com

US Safety Alliance
(904) 705-5660
https://www.ussafetyalliance.com

K&D Services Inc.
2719 Rockefeller Ave.
Everett, WA 98201
(800) 343-4049
https://www.kndservices.net

1-10.2(2) Traffic Control Plans
(January 1, 2016 COK GSP)

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.

1-10.3 Traffic Control Labor, Procedures, and Devices

1-10.3(3)C Portable Changeable Message Sign
(April 18, 2018 COK GSP)

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

1-10.5(3) Reinstating Unit Items with Lump Sum Traffic Control
(May 16, 2006 COK GSP)

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 “Unexpected Site Changes” 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:

(******)
Selective clearing, grubbing, and pruning on this project shall be performed within, but not limited to, the following limits:

90th Avenue NE, Station 100+40 LT to 112+50 LT
NE 131st Way, Station 112+50 LT to 133+00 LT
NE 132nd Street, Station 133+00 LT to 135+25 LT
Other locations as may be directed by the Engineer.

Selective clearing and grubbing shall primarily consist of removing encroaching vegetation onto shoulders of the roadway.

Selective pruning shall primarily consist of pruning overhead materials such as tree branches or vines.

2-02 Removal of Structures and Obstructions

2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

(******)
Removal of Obstructions
The following items shall be included in the lump sum item “Removal of Structures and Obstructions”:

Item	Location	Approximate Quantity
Asphalt Berm	90th Avenue NE, Approx Sta 108+22 to STA 109+27	105 LF
Asphalt Berm	NE 131st Way, Approx Sta 116+22.5 to STA 116+37.5	15 LF
Asphalt Berm	NE 131st Way, Approx Sta 118+08.5 to STA 118+38	3 LF

These quantities are not guaranteed accurate or to be all the necessary items of Work as required in Section 2-02 of the Standard Specifications and as modified herein. Quantities are for the Contractor's convenience and should be verified prior to Bidding.

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

Section 2-03.3(3) is supplemented with the following:

(******)

Pavement, sidewalks and curbs shall be saw cut in such a fashion to form a neat break line. All transitions to existing asphalt, except planing butt joints, or cement concrete roadways or driveways, curb and gutter, extruded curb, and walkways shall be vertically saw cut straight, with uniform edges. Saw cut lines in the existing roadway section will be perpendicular or parallel to the traveled way unless otherwise directed by the Engineer, or shown in the Plans.

Care shall be taken in removing the pavement so as not to damage any of the existing pavement that is to remain in place. Any remaining pavement damaged due to the Contractor's operations shall be replaced by the Contractor, to the satisfaction of the Engineer at the Contractor's expense.

2-02.3(4) Sawcutting

Section 2-02.3(4) is added as follows:

(******)

The Contractor shall be responsible for ensuring that special precautions are undertaken so that no concrete or concrete by-products, or products and by-products used in the sawcut of asphalt or concrete, are discharged into any storm drain or surface water system.

In accordance with the Department of Ecology guidelines, wastewater from Portland cement concrete, masonry, and asphalt concrete cutting operations shall not be discharged to storm drainage systems or surface waters. Cutting operations increase the pH of wastewater, therefore, filtering prior to discharge is **NOT** acceptable.

To thoroughly clean sawcuts where necessary, the Contractor shall use high pressure water (high pressure water is considered greater than 1400 psi).

All wastewater shall be collected using a wet-dry vacuum or pumped into drums for disposal. Disposal of the waste liquid may be to soil or other porous surfaces away from storm drains and surface water, only if the Contractor collects and disposes of remaining sediment after water has filtered into soil or evaporated. Impervious surfaces contaminated with sediment and grit from cutting operations shall be cleaned by sweepers to prevent contaminants from entering the storm drainage system or surface waters when it rains.

2-02.4 Measurement

Section 2-02.4 is supplemented with the following:

(******)

Sawcutting will be measured per linear foot along the surface being cut. No additional measurement will be made if the Contractor is required to make more than one saw cut to achieve the required saw cut depth.

Removing curb and curb and gutter will be measured by the linear foot along the line and slope of the existing curb or curb and gutter.

2-02.5 Payment

Section 2-02.5 is supplemented with the following:

(******)
The lump sum Contract price for "Removal of Structures and Obstructions" shall include all costs for the Work required to completely remove items; furnish and place backfill material; compact the voids; and dispose of items not to be salvaged or reinstalled.

"Sawcutting Existing Pavement," per linear foot.

The unit Contract price per linear foot for "Sawcutting Existing Pavement" shall be full compensation for all Work to sawcut to remove existing improvements, regardless of material type or depth being sawcut, including collection, removal, and disposal of slurry. No additional payment will be made if the Contractor is required to make more than one sawcut to achieve the required sawcut depth, including due to conditions of layering of different types of pavement materials. No separate payment for sawcutting will be made when sawcutting is included in the unit Contract price of other Bid items.

"Removing Curb," per linear foot.

The unit Contract price per linear foot for "Removing Curb" shall be full compensation to perform the Work as specified including disposal.

"Removing Cement Conc. Curb and Gutter", per linear foot.

The unit Contract price per linear foot for "Removing Cement Conc. Curb and Gutter" shall be full compensation to perform the Work as specified including disposal.

END OF DIVISION 2

DIVISION 5 – SURFACE TREATMENTS AND PAVEMENTS

5-04 Hot Mix Asphalt

(July 18, 2018 APWA GSP)

Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the following:

5-04.1 Description

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

APWA GSP Section 5-04.1 is supplemented with the following:

(******)

This work shall also consist of the construction of asphalt berms as shown in the Plans.

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 & sig-nature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.**

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Approval of a mix design for "Commercial Evaluation" will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL's) appropriate for the required use.

5-04.2(2)B Using Warm Mix Asphalt Processes

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

- Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.
- Before using additives, obtain the Engineer's approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Minimum Surface Temperature for Paving

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55◦F	45◦F
0.10 to .20	45◦F	35◦F
More than 0.20	35◦F	35◦F

5-04.3(2) Paving Under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

Plants used for the preparation of HMA shall conform to the following requirements:

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.
2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.
3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.
4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).
5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:
    a. A mechanical sampling device attached to the HMA plant.
    b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include, precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that

contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

5-04.3(3)C Pavers

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless other-wise required by the contract.

Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4) Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A Crack Sealing

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks ¼ inch in width and greater.

Cleaning: Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material when filling with crack sealant material. Use a hot compressed air lance to dry and warm the pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do not overheat pavement. Do not use direct flame dryers. Routing cracks is not required.

Sand Slurry: For cracks that are to be filled with sand slurry, thoroughly mix the components and pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off cracks that were not completely filled with additional sand slurry. Do not place the HMA overlay until the slurry has fully cured.

The sand slurry shall consist of approximately 20 percent CSS-1 emulsified asphalt, approximately 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). The components shall be thoroughly mixed and then poured into the cracks and joints until full. The following day, any cracks or joints that are not completely filled shall be topped off with additional sand slurry. After the sand slurry is placed, the filler shall be struck off flush with the existing pavement surface and allowed to cure. The HMA overlay shall not be placed until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland cement and sand used in the sand slurry.

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.

APWA GSP Section 5-04.3(4)C is supplemented with the following:

(******)

Pavement repair areas, including full depth pavement removal and repair areas, shall be reviewed in the field by the Engineer, prior to beginning Work. Contractor may request a walk-through of areas prior to beginning the Work.

Unless otherwise approved or directed by the Engineer, all pavement removed resulting from excavation activities in existing streets and roads shall be restored in accordance with the details in the Plans.

Pavement areas that have been removed by construction activities must be restored to a paved surface by the Contractor at the end of each working period prior to use by vehicular traffic. In addition, where pavement is removed adjacent to driveways, when the driveway entrance is more than 1 inch above the roadway grade during construction activities, the Contractor shall provide a temporary wedge constructed on a 20H:1V slope.

Temporary pavement restoration measures shall be a hard, non-gravel surface such as CDF, steel trench plating, or sacrificial HMA and may be used at Contractor expense. Unless allowed by the Engineer, temporary measures shall not be in place longer than five (5) calendar days. A temporary pavement restoration measure shall be defined as pavement restoration not in conformance with details in the Plans and shall be incidental to the cost of other items.

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 ¾” and HMA Class ½”	
wearing course	0.30 feet
other courses	0.35 feet
HMA Class ⅜”	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 Con**tent – 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 sublot shall be equal to one day's production or 800 tons, whichever is less except that the final sublot 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 sublot.

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall to be tested.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.
- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing

Testing of HMA for compliance of V_a will at the option of the Contracting Agency. If tested, compliance of V_a will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	**Factor "f"**
All aggregate passing: 1½″, 1″, ¾″, ½″, ⅜″ and No.4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids (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 sublot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency, V_a. The results of the retest will be used for the acceptance of the HMA in place of the original sublot 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 sublot 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 sublot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the sublot 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 sublot 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 sublot shall be equal to one day's production or 400 tons, whichever is less except that the final sublot 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 sublot per WSDOT T 738.

The sublot 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 sublot, with one test per sublot.

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 sublot 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 ½ 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 ion 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 ⅛ 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 Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of $500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing (Milling) Bituminous Pavement

The planning plan must be approved by the Engineer and a pre planning meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planning submittals.

Locations of existing surfacing to be planed are as shown in the Drawings.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. 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.

APWA GSP Section 5-04.3 is supplemented with the following:

(******)
5-04.3(17) Asphalt Berms
Just prior to placing the asphalt berm, a tack coat of asphalt shall be applied if the berm is constructed on an existing pavement surface. The HMA shall have a dense, uniform surface and shall be thoroughly and uniformly compacted. Compaction shall be by hand tampers or equivalent. The completed asphalt berm shall be free from ridges, ruts, humps, depressions, objectionable marks, and irregularities, and shall confirm to the line and detail shown in the Plans.

5-04.4 Measurement
HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA 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.

Roadway cores will be measured per each for the number of cores taken.

Preparation of untreated roadway will be measured by the mile once along the centerline of the main line Roadway. No additional measurement will be made for ramps, Auxiliary Lanes, service roads, Frontage Roads, or Shoulders. Measurement will be to the nearest 0.01 mile.

Soil residual herbicide will be measured by the mile for the stated width to the nearest 0.01 mile or by the square yard, whichever is designated in the Proposal.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Asphalt for prime coat will be measured by the ton in accordance with Section 1-09.2.

Prime coat aggregate will be measured by the cubic yard, truck measure, or by the ton, whichever is designated in the Proposal.

Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.

Longitudinal joint seals between the HMA and cement concrete pavement will be measured by the linear foot along the line and slope of the completed joint seal.

Planing bituminous pavement will be measured by the square yard.

Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.

Water will be measured by the M gallon as provided in Section 2-07.4.

APWA GSP Section 5-04.4 is supplemented with the following:

(******)
"Asphalt Berm" will be measured per linear foot along the line and slope of the completed berm, including bends.

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"HMA Cl. ___ PG ___", per ton.

"HMA for Approach Cl. ___ PG ___", per ton.

"HMA for Preleveling Cl. ___ PG ___", per ton.

"HMA for Pavement Repair Cl. ___ PG ___", per ton.

"Commercial HMA", per ton.

The unit Contract price per ton for "HMA Cl. ___ PG ___", "HMA for Approach Cl. ___ PG ___", "HMA for Preleveling Cl. ___ PG ___", "HMA for Pavement Repair Cl. ___ PG ___", and "Commercial HMA" shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

"Preparation of Untreated Roadway", per mile.

The unit Contract price per mile for "Preparation of Untreated Roadway" shall be full pay for all Work described under 5-04.3(4) , with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for "HMA Cl. ___ PG ___" which was used for patching. If the Proposal does not include a Bid item for "Preparation of Untreated Roadway", the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

"Preparation of Existing Paved Surfaces", per mile.

The unit Contract Price for “Preparation of Existing Paved Surfaces” shall be full pay for all Work described under Section 5-04.3(4) with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ___ PG ___” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Crack Sealing”, by force account.

“Crack Sealing” will be paid for by force account as specified in Section 1-09.6. For the purpose of providing a common Proposal for all Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the total Bid by the Contractor.

“Pavement Repair Excavation Incl. Haul”, per square yard.

The unit Contract price per square yard for “Pavement Repair Excavation Incl. Haul” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4) with the exception, however, that all costs involved in the placement of HMA shall be included in the unit Contract price per ton for “HMA for Pavement Repair Cl. ___ PG ___”, per ton.

“Asphalt for Prime Coat”, per ton.

The unit Contract price per ton for “Asphalt for Prime Coat” shall be full payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).

“Prime Coat Agg.”, per cubic yard, or per ton.

The unit Contract price per cubic yard or per ton for “Prime Coat Agg.” shall be full pay for furnishing, loading, and hauling aggregate to the place of deposit and spreading the aggregate in the quantities required by the Engineer.

“Asphalt for Fog Seal”, per ton.

Payment for “Asphalt for Fog Seal” is described in Section 5-02.5.

“Longitudinal Joint Seal”, per linear foot.

The unit Contract price per linear foot for “Longitudinal Joint Seal” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(12).

“Planing Bituminous Pavement”, per square yard.

The unit Contract price per square yard for “Planing Bituminous Pavement” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14).

“Temporary Pavement Marking”, per linear foot.

Payment for “Temporary Pavement Marking” is described in Section 8-23.5.

"Water", per M gallon.

Payment for "Water" is described in Section 2-07.5.

"Job Mix Compliance Price Adjustment", by calculation.

"Job Mix Compliance Price Adjustment" will be calculated and paid for as described in Section 5-04.3(9)C6.

"Compaction Price Adjustment", by calculation.

"Compaction Price Adjustment" will be calculated and paid for as described in Section 5-04..3(10)D3.

"Roadway Core", per each.

The Contractor's costs for all other Work associated with the coring (e.g., traffic control) shall be incidental and included within the unit Bid price per each and no additional payments will be made.

"Cyclic Density Price Adjustment", by calculation.

"Cyclic Density Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)B.

APWA GSP Section 5-04.5 is supplemented with the following:

(******)
The unit Contract price per linear foot for "Asphalt Berm" shall be full payment for all costs incurred to perform the Work described in Sections 5-04.1 and 5-04.3(17). Payment for HMA material used for asphalt berm shall be made separately under the bid item "HMA Cl. ___ PG ___", per ton.

(January 2, 2018 WSDOT GSP)
Asphalt Cost Price Adjustment
The Contracting Agency will make an Asphalt Cost Price Adjustment, either a credit or a payment, for qualifying changes in the reference cost of asphalt binder. The adjustment will be applied to partial payments made according to Section 1-09.9 for the following bid items when they are included in the proposal:

"HMA Cl. ___ PG ___"
"HMA for Approach Cl. ___ PG ___"
"HMA for Preleveling Cl. ___ PG ___"
"HMA for Pavement Repair Cl. ___ PG ___"
"Commercial HMA"

The adjustment is not a guarantee of full compensation for changes in the cost of asphalt binder. The Contracting Agency does not guarantee that asphalt binder will be available at the reference cost.

The Contracting Agency will establish the asphalt binder reference cost twice each month and post the information on the Agency website at:

http://www.wsdot.wa.gov/Business/Construction/EscalationClauses.htm
The reference cost will be determined using posted prices furnished by Poten & Partners, Inc. If the selected price source ceases to be available for any reason, then the Contracting Agency will select a substitute price source to establish the reference cost.

The base cost established for this contract is the reference cost posted on the Agency website with an effective date immediately preceding the bid opening date.

Adjustments will be based on the most current reference cost for Western Washington or Eastern Washington as posted on the Agency website, depending on where the work is performed. For work completed after all authorized working days are used, the adjustment will be based on the posted reference cost during which contract time was exhausted. The adjustment will be calculated as follows:

No adjustment will be made if the reference cost is within 5% of the base cost.

If the reference cost is greater than or equal to 105% of the base cost, then
Adjustment = (Current Reference Cost – (1.05 x Base Cost)) x (Q x 0.056).

If the reference cost is less than or equal to 95% of the base cost, then
Adjustment = (Current Reference Cost – (0.95 x Base Cost)) x (Q x 0.056).

Where Q = total tons of all classes of HMA paid in the current month's progress payment.

"Asphalt Cost Price Adjustment", by calculation.

"Asphalt Cost Price Adjustment" will be calculated and paid for as described in this section. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the total bid by the Contractor.

(April 4, 2016)
"Asphalt Binder Revision" by calculation.
"Asphalt Binder Revision" shall be calculated and paid for as described in Section 5-04.3.

END OF DIVISION 5

DIVISION 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

7-04 Storm Sewers

7-04.2 Materials

(COK GSP)
The materials list in Section 7-04.2 is modified as follows:

Acceptable pipe materials within City of Kirkland right of way are:

Solid Wall PVC Storm Sewer Pipe	9-05.12(1)
PVC Pressure Pipe	9-30.1(5)
Ductile Iron Pipe	9-30.1

7-04.3 Construction Requirements

(COK GSP)
7-04.3(2) Existing Utilities

Section 7-04.3(2) is added as follows:

Existing utilities of record are shown on the Plans. These are shown for convenience only, and the Engineer assumes no responsibility for improper locations or failure to show utility locations on the Plans. When utility services occupy the same space as the new storm sewer main, the Contractor shall complete necessary excavation to fully expose such services. The Contractor shall protect said services, and work around them during excavating and pipe laying operations. Any damages to services resulting from the Contractor's operation shall be reported to the appropriate utility. Such damage shall be repaired at the Contractor's expense.

The Contractor shall anticipate the potential for crossing over or under an occasional shallow existing side sewers and roof drains that are not part of the one-call utility locate. If such a side sewer or drain 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 the cost of the storm sewer pipe and no additional payment will be made.

7-04.5 Payment

Section 7-04.5 is supplemented with the following:

(******)
The unit contract prices for Storm Sewer Pipe, regardless of size and material, shall be full compensation for all labor, material, tools and equipment necessary for and incidental to

furnish and install the storm sewer as shown on the plans and as specified herein, including the following:

1. 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 final pavement patch.
2. All required potholing to verify locations of existing utilities.
3. Structure Excavation Class B Incl. Haul as specified in Section 2-09.
4. Shoring or Extra Excavation Class B as specified in Section 2-09.4
5. Trench excavation and dewatering, furnishing and installation of pipe on line and grade, wyes, tees, special fittings, manhole adapters.
6. Removal, loading, hauling, and disposal of native excavation material.
7. Pipe bedding material and compaction.
8. Extra depth, including excavation, backfill and compaction, required to clear existing buried utilities or other obstacles.
9. Steel sheeting 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. Cleaning and testing of all storm sewers and catch basins including CCTV inspection of the mains.
12. Crushed Surfacing Top Course and compaction for roadway base.
13. Placing and maintaining temporary cold mix asphalt concrete patching consisting of a minimum 3-inches of cold asphalt mix over compacted backfill within existing paved areas, and removal of the temporary cold mix asphalt mix prior to placement of trench patch (paid for under “HMA Class 1/2-inch, PG 58H-22”).

7-05 Manholes, Inlets, Catch Basins, and Drywells

7-05.1 Description

Section 7-05.1 is supplemented with the following:

(******)
This Work consists of providing and installing locking solid metal covers and frames, adjusting drainage Structures to finished grade, connecting existing drainage Structures to new drainage Structures, and abandoning existing drainage Structures in accordance with the Plans, these Specifications, and the Standard Plans, in conformity with the lines and grades staked.

7-05.3 Construction Requirements

The third paragraph of Section 7-05.3 is supplemented with the following:

(******)
Where called for, frames conforming to WSDOT Standard Plan B-30.15-00 shall be furnished and installed on existing catch basins.

Section 7-05.3 is supplemented with the following:

(******)

Frames, Grates, and Covers

The Contractor shall provide and install curb inlets in accordance with City of Kirkland Standard Plan CK-D.06.

The Contractor shall provide and install vaned frames and grates in accordance with City of Kirkland Standard Plan CK-D.14. Solid locking covers shall be provided and installed in accordance with City of Kirkland Standard Plan CK-D.18A.

Where called for, frames conforming to WSDOT Standard Plan B-30.15-00 shall be furnished and installed on existing catch basins. The Contractor shall provide a Certificate of Compliance that the slip-resistant covers meet a Static Coefficient of Friction (SCOF) requirement of 0.6 or greater and meet ASTM C501 and ASTM D1709 test requirements.

(COK GSP)

Contractor shall install agency supplied storm drain markers and adhesive on any new or altered catch basins that have a vaned grate and/or inlet. To install, follow the "Storm Drain Marking" instruction sheet supplied with the storm drain markers. Any work associated with installation of storm drain markers is incidental to other bid items.

7-05.3(1) Adjusting Manholes and Catch Basins to Grade

(COK GSP)

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

(******)

Catch basins and similar structures shall be brought to finished grades by methods of construction as required in Section 7-05 and City of Kirkland Pre-Approved Plans. Steel risers are not allowed. Patch adjacent pavement with Class G asphalt concrete pavement. Seal joint with AR4000W and dry sand after patching.

"Adjust Manhole" shall be constructed in accordance with the Plans.

"Adjust Catch Basin" shall be constructed in accordance with the Plans.

Any damage to existing catch basins resulting from the Contractor's operations shall be repaired at the Contractor's expense.

7-05.3(5) Connections to Existing Structures

Section 7-05.3(5) is added as follows:

(******)

Where shown in the Plans, the Contractor shall connect new drainage pipe to existing drainage Structures such as catch basins, manholes, and inlets, or shall connect new drainage Structures such as catch basins, manholes, and inlets to existing drainage pipe.

7-05.4 Measurement

The sixth paragraph of Section 7-05.4 is deleted and replaced with the following:

(******)
Connections to existing drainage structures will be measured per each structure, regardless of the number of pipes requiring connection.

Section 7-05.4 is supplemented with the following:

(******)
Curb inlets will be measured per each.

ADA Grate for Rectangular Frames shall be measured per each.

Frames, grates, or solid covers installed on existing structures will be measured per each.

Frames, grates, and solid covers installed on new drainage structures will not be measured.

7-05.5 Payment

Section 7-05.5 is supplemented with the following:

(******)
The unit Contract price per each for manholes, inlets and catch basins of the kind and size specified shall be full pay for all Work to complete the installation, including excavation, bedding material, native or imported backfill, compaction, and disposal of native excavated materials not used for backfill.

The unit contract price per each for “Curb Inlet” shall include excavation, dewatering, backfill, backfill material, compaction, and adjustments to finished grade.

The unit Contract price per each for “Catch Basin Type ___” shall include excavation, dewatering, backfill, backfill material, compaction, and adjustments to finish grade.

The unit Contract price per each for “Connection to Drainage Structure” shall be full pay for all costs necessary to connect new drainage pipe to existing drainage structures such as catch basins, manholes, and inlets or to connect new drainage structures such as catch basins, manholes, and inlets to existing drainage pipe. Connection to existing pipe shall be PVC coupling or bell on freshly beveled end. ROMAC coupler is also acceptable. For connection to existing catch basin, sand collar shall be utilized.

“Locking Solid Metal Cover and Frame ___”, per each.
The unit Contract price per each for “Locking Solid Metal Cover and Frame” shall be full pay for removing and disposing of the existing frame and grate and installing the frame and cover.

“ADA Grate for Rectangular Frame”, per each.
The unit Contract price per each for “ADA Grate for Rectangular Frame” shall be full pay for removing and disposing of the existing frame and grate and installing the frame as specified in Section 7-05.3 and as shown in the Plans.

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:

(June 20, 2017 COK GSP)
Implementation of appropriate TESC BMP's at the appropriate construction phases is very important to prevent siltation of the subgrade, aggregate courses, and final permeable pavement. The Contractor shall install and maintain all temporary and permanent erosion control measures and Best Management Practices (BMPs) in accordance with the Contract Documents, Standard Specifications, Permit Conditions, the Contractors "Stormwater Pollution Prevention Plan" (SWPPP) and as directed by the Engineer prior to clearing, grubbing, or grading or as necessary, as clearing and grading progress. Such measures shall include, but are not necessarily limited to:

- Commercial construction entrances per CK-E.02.
- Quarry Spall outfall pads for temporary erosion control
- Rock, Wattle, Compost sock check dams
- Straw mulch, netting and tackifier
- Concrete wash
- Baker tanks and/or Settling ponds
- Stabilized construction entrance / exit
- Inlet protection on existing and proposed drainage structures
- Reinforced silt fencing
- Plastic Covering
- Temporary pipe slope drains
- Temporary HMA Curb
- Disposal of sediments and materials
- TESC seeding
- Maintenance of BMPs including in the event of emergencies and as weather and field conditions dictate; and also including installation of additional BMPs which may become required as field and weather conditions evolve.
- Street sweeping and Cleaning
- ESC Lead per 8-01 of the Standard Specifications
- All materials, tools and equipment necessary to meet these requirements

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:

(June 20, 2017 COK GSP)

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 Construction Stormwater Pollution Prevention Plan (CSWPPP) in accordance with Department of Ecology and City of Kirkland requirements.

The Contractor shall incorporate the CSWPPP implementation schedule into the Contractor's progress schedule. The CSWPPP and implementation schedule shall be submitted in accordance with Sections 1-05.3 and 1-08.3.

In addition, the CSWPPP 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 CSWPPP template can be found at the following link:

https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/PW-Forms/CSWPPP

The CSWPPP 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 CSWPPP 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 CSWPPP may be forwarded to the Engineer rather than submitting a complete document. Revisions to the CSWPPP may be kept on-site in a file along with the original CSWPPP document.

(June 20, 2017 COK GSP)

8-01.3(1)B Erosion and Sediment Control (ESC) Lead

Supplement this the second paragraph with the following:

3. 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.

4. 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.

(June 20, 2017 COK GSP)

8-01.3(1)C Water Management

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.

(******)

8-01.3(1)F Stormwater Sampling

Section 8-01.3(1)F is added as follows:

Stormwater sampling shall be performed by the Contractor or authorized representative at the frequencies required in the Construction Stormwater General Permit (weekly at minimum). Samples shall be analyzed for turbidity and pH in accordance with the Construction Stormwater General Permit. Sampling shall be conducted in accordance with the EPA 180.1 analytical method and the Washington State Department of Ecology's *How to do Stormwater Monitoring: A guide for construction sites*, available online at http://www.ecy.wa.gov/pubs/0610020.pdf. Samples shall be taken at the point of discharge from the site. Reports of the sampling results shall be recorded in the project SWPPP and shall be submitted monthly to the Contracting Agency and the Washington State Department of Ecology. The DMR forms are mailed to permittees when permit coverage is granted for the project. If there are no discharges during the month, the Contractor is still required to submit a form stating "no discharge". The sampling results shall be submitted via mail to:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, Washington 98504-7696

Ecology must receive DMR's within 15 days after the end of each month. If the permittee monitors more frequently than required by the permit, these results also need to be submitted in the DMR.

Corrective measures shall be taken if benchmark values are exceeded.

The key benchmark turbidity value is 25 nephelometric turbidity units (NTU) for the downstream receiving water body. If the 25 NTU benchmark is exceeded in any sample collected from the discharge point, the following steps will be conducted:

a. Ensure all BMPs specified in this SWPPP are installed and functioning as intended.

b. Assess whether additional BMPs should be implemented, and document modified BMPs in the SWPPP as necessary.

c. Sample discharge daily until the discharge is 25 NTU or lower.

If the turbidity exceeds 250 NTU at any time, the following steps will be conducted:

a. Notify Ecology by phone within 24 hours of analysis.

b. Continue sampling daily until the discharge is 25 NTU or lower Initiate additional treatment BMPs such as off-site treatment, infiltration, filtration and chemical treatment within 24 hours, and implement those additional treatment BMPs as soon as possible, but within a minimum of 7 days.

    1. Describe inspection results and remedial actions taken in the site log book and in monthly discharge monitoring reports.

Sampling and monitoring for pH will occur during the phase of construction when concrete pouring will be conducted until fully cured (3 weeks from pour). Samples will be collected weekly at all discharge points prior to discharge to surface water. Samples will be analyzed for pH using a calibrated pH meter and recorded in the site log book.

The key benchmark pH value for stormwater is a maximum of 8.0. If a pH greater than 8.0 is measured at a discharge point that has the potential to discharge to surface water, the following steps will be conducted:

a. Assess whether additional BMPs should be implemented and whether associated revisions to the SWPPP are necessary.

b. Stop (detain) all discharges from leaving the site and entering surface waters or storm drains if the pH is greater than 8.5.

c. Sample sedimentation pond the following day, and if the pH exceeds 8.0 for the second consecutive day, implement CO_2 sparging treatment.

d. Sample and measure pH daily until there are 3 consecutive pH measurements less than 8.0.

e. If there are 3 consecutive pH measurements greater than 8.0, notify the Washington Department of Ecology by phone within 24 hours of the 3rd measurement exceeding a pH of 8.0 and initiate discussions with Ecology regarding additional treatment BMPs.

f. Describe inspection results and remedial actions that are taken in the site log book and in monthly Discharge Monitoring Reports.

8-01.5 Payment

Section 8-01.5 is supplemented with the following:

(******)
"Erosion/Water Pollution Control", lump sum.

"Erosion/Water Pollution Control" shall also be full pay for all Work and materials necessary to develop and implement the SWPPP and achieve the runoff turbidity and pH levels compliant with the identified benchmarks and permit requirements, as approved by the Engineer. All erosion control measures are included in "Erosion/Water Pollution Control", except as otherwise noted in the Contract Documents.

8-02 Roadside Restoration

8-02.3 Construction Requirements
(December 14, 2005 COK GSP)

Section 8-02.3 is supplemented with the following:

Property Restoration
Property restoration shall consist of placement of topsoil, seed, bark mulch, slope restoration behind sidewalks, guardrail, retaining walls, and other work necessary to restore all disturbed areas to original condition or better.

8-02.4 Measurement

Section 8-02.4 is supplemented with the following:

(******)
Topsoil will not be measured separately. The cost for furnishing and installing topsoil as specified is included in the unit contract prices for "Property Restoration".

Seeding will not be measured separately. The cost for furnishing and installing seeding as specified is included in the unit contract prices for "Property Restoration".

No unit of measure shall apply to the lump sum price for property restoration.

8-02.5 Payment

Section 8-02.5 is supplemented with the following:

Payment will be made in accordance with Section 1-04.1 of these Specifications for the following bid item(s):

"Property Restoration", per lump sum.

8-04 Curbs, Gutters, and Spillways

8-04.3 Construction Requirements

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways

Section 8-02.3(1) is supplemented with the following:

(******)
Cement Concrete Curb and Gutter Type A shall be constructed in accordance with City of Kirkland Pre-Approved Plan CK-R.17.

Extruded Curb shall be constructed in accordance with City of Kirkland Pre-Approved Plan CK-R.19.

Median Curb shall be constructed in accordance with City of Kirkland Pre-Approved Plan CK-R.19A.

8-04.5 Payment

Section 8-04.5 is supplemented with the following:

(******)
"Cement Conc. Curb and Gutter, Type A", per linear foot.

"Extruded Cement Concrete Curb", per linear foot.

"Median Curb", per linear foot.
The unit Contract price per each for "Median Curb" shall be full payment for all costs for the work required to furnish and install the median curb, including cleaning and painting of the curb, in the locations as shown on the Plans.

8-08 Rumble Strips

8-08.4 Measurement

Section 8-08.4 is deleted and replaced with the following:

(******)
Centerline rumble strips will be measured to the nearest linear foot along the mainline roadway for the centerline.

8-08.5 Payment

Section 8-08.5 is deleted and replaced with the following:

(******)
"Centerline Rumble Strip", per linear foot.

Layout of the rumble strip pattern on the centerline for grinding purposes is the responsibility of the Contractor. All costs involved in the Work shall be included in the appropriate Bid item.

8-10 Guide Posts

8-10.1 Description

Section 8-10.1 is supplemented with the following:

(******)
This Work shall consist of furnishing and installing surface mounted flexible delineators at the locations indicated in the Plans or where designated by the Engineer.

8-10.3 Construction Requirements

Section 8-10.3 is supplemented with the following:

(******)
The Contractor shall install the flexible delineators in accordance with the manufacturer's Specifications and Installation Guide and Recommendations.

8-10.4 Measurement

Section 8-10.4 is supplemented with the following:

(******)
Flexible delineators will be measured by the unit for each flexible delineator furnished and installed.

8-10.5 Payment

Section 8-10.5 is supplemented with the following:

(******)
"Flexible Delineator", per each.

The unit Contract price per each for "Flexible Delineator" shall be full pay for all Work as specified to furnish and install flexible delineators.

8-20 Illumination, Traffic Signal Systems, and Electrical

8-20.1 Description

Section 8-20.1 is supplemented with the following:

(******)
This Work shall consist of the following:

- A new illumination system along 92nd Ave NE
- A new illumination system along 94th Ave NE

All Work shall be performed as shown in the Plans in accordance with applicable Standard Specifications, Standard Plans, City of Kirkland Standards, Puget Sound Energy Standards, and the following Special Provisions.

The Work involves, but shall not be limited to, the following:

- Junction boxes
- Conduit and wire
- Street light tube

The Work includes furnishing, installing, and field-testing all materials necessary to provide complete and operational illumination systems that include but are not limited to: conduits, wiring, junction boxes and other incidental materials as may be required to complete construction of above listed systems and comply with the Plans and these Specifications.

Unless otherwise noted, the location of poles, conduits, junction boxes and appurtenances shown in the Plans are approximate; and the exact location will be established by the Engineer in the field.

8-20.2 Materials

Section 8-20.2 is supplemented with the following:

(******)

General

All materials for the completion of the Work described herein and in the Plans shall be furnished by the Contractor.

The Engineer reserves the right to inspect the manufacturing process of all materials. Final inspection of the installed materials will not be given until final installation and testing has been completed on the systems. Approval to install materials and equipment must be obtained from the Engineer at the job site before installation.

8-20.2(1) Equipment List and Drawings

Section 8-20.1(1) is supplemented with the following:

(******)

Catalog cuts are required for the following items: junction boxes, conduit and fittings, wire and cable conductors, and all associated equipment.

Thirty (30) days prior to start of installation of items in this Section, the Contractor shall provide submittals for each type of product noted in the Plans or in these Specifications. Manufacturer's product literature, including operations and maintenance manuals, shall be submitted with technical data sufficient to demonstrate that the product meets these Specifications for Engineer review and approval. The Contractor shall provide supplemental operations and maintenance input.

8-20.3 Construction Requirements

8-20.3(2) Excavating and Backfilling

Section 8-20.3(2) is supplemented with the following:

(******)
All adjacent surfaces damaged by the Contractor's operations shall be repaired at its expense. The Contractor shall protect all private and public utilities from damage resulting from the Work.

All conduit shall be in place prior to placement of the base course of the final pavement.

Conduit Trench Construction
To avoid conflicts with other utilities, the trench may be sloped or drifted.

When open trench construction is used on existing surfaces which will not be resurfaced, the pavement shall be removed and replaced as detailed in the Plans.

When open trenching is allowed, trench construction shall conform to the following:

1. The pavement shall be saw cut a minimum of 3 inches deep. The cuts shall be parallel to each other and extend 12 inches beyond each edge of the trench.
2. Pavement shall be removed in an approved manner.
3. Trench depth shall provide 2 feet minimum cover over conduits.
4. Trench width shall be the conduit diameters plus 2 inches between conduits plus 2 inches on each side of trench.
5. Trenches located within paved roadway areas shall be backfilled with controlled density fill (CDF) meeting the requirements of Section 2-09.3(1)E, and including non-chloride accelerating admixtures in accordance with Section 9-23.6. The controlled density fill shall be placed level to, and at the bottom of the existing pavement. The pavement shall be replaced with paving material that matches the existing pavement.
6. No steel sheets will be allowed over weekends or holidays observed by the Contracting Agency.

Where minimum cover of 24" cannot be maintained, as determined by the Engineer, the Contractor shall be required to place a concrete cap over the conduits.

8-20.3(5) Conduit

Section 8-20.3(5) is supplemented with the following:

(******)
The conduit runs shown in the Plans are schematic, however, they shall be followed as closely as site conditions will allow and may be revised, as directed by the Engineer, to allow for unforeseen obstructions. Conduits installed under paved roadway shall be located approximately parallel to the curb line, unless otherwise indicated in the Plans or directed by the Engineer.

All conduit in Roadways shall be placed prior to any pavement construction.

Each conduit run shall contain a 200-pound breaking strength polyolefin pull cord, which shall be tied off at both ends.

All conduit installed underground shall have polyethylene underground hazard marking tape, six (6) inches wide, red, legend "Caution-Electric Line Buried Below," placed approximately twelve (12) inches above the conduit.

Conduits installed for future use shall be prepared as follows: After final assembly in place, the conduit shall be blown clean with compressed air. Then, in the presence of the Engineer, a cleaning mandrel correctly sized for each size of conduit shall be pulled through to ensure that the conduit has not been deformed. As soon as the mandrel has been pulled through, both ends of the conduit shall be sealed with conduit caps. All conduits scheduled for future use shall originate in a foundation or junction box as detailed in the Plans and terminate in a junction box. All equipment grounding conductors, and the bonding conductor for metallic conduits shall be bonded in all junction boxes in accordance with Section 8-20.3(9).

Detectable Pull Tape
For all conduits that do not contain electrical conductors, the Contractor shall add a detectable pull tape in one of the conduits in the same trench. All other spare conduit may utilize non-detectable pull tape.

Temporary Trench Patch
The Contractor shall be required to provide either a temporary cold mix trench patch, or permanent paving, at the end of the working day following installation of utilities crossing an operational Roadway. Cold mix patches shall be compacted, rolled, and maintained to a smooth surface until permanent paving is accomplished.

8-20.3(5)B Conduit Type
The first paragraph of Section 8-20.3(5)B is revised to read as follows:

> Conduit type for this project, where underground, shall be PVC or high density polyethylene (HDPE).

8-20.3(6) Junction Boxes, Cable Vaults, and Pull Boxes

Section 8-20.3(6) is supplemented with the following:

(******)
The locations of the junction boxes as shown in the Plans are approximate and the exact locations shall be determined in the field. Junction boxes shall be located outside the traveled way, wheelchair ramps and landings, and driveways. The new junction box shall not interfere with any other previous or relocated installation. The lid shall also be flush with its frame and with the surrounding area whether it is shoulder, sidewalk, or other surface.

When junction boxes are installed or adjusted prior to construction of finished grade, pre-molded joint filler for expansion joints may be placed around the junction boxes. The joint filler shall be removed prior to adjustment to finished grade.

8-20.3(10) Services, Transformer, Intelligent Transportation System Cabinet
(December 9, 2004 COK GSP)

Section 8-20.3(10) is supplemented with the following:

Connection to Puget Sound Energy power source shall be where shown on the plans. All connections and interfacing with Puget Sound Energy shall conform to Puget Sound Energy requirements.

8-20.4 Measurement

Section 8-20.4 is supplemented with the following:

(******)
When the following is shown as lump sum in the Plans or in the Proposal, no specific unit of measurement will apply, but measurement will be for the sum total of all items for a complete system to be furnished and installed.

"Illumination System (___)"

8-20.5 Payment

Section 8-20.5 is supplemented with the following:

(******)
"Illumination System (___)", lump sum.

The unit Contract price for "Illumination System (___)" shall include all labor, tools, equipment, methods, and materials necessary or incidental to install the Illumination System in accordance with all applicable details and Special Provisions of the Contract Documents and the Standard Specifications. Work includes but is not limited to any required excavation and backfill, wiring, conduit, and junction boxes, in accordance with the details and Special Provisions of the Contract Documents and all applicable Standard Specifications.

8-21 Permanent Signing

8-21.2 Materials

Section 8-21.2 is supplemented with the following:

(******)
Sign sheeting shall be Type III (High Intensity Grade) retroreflective in accordance with Section 9-28.

8-21.3 Construction Requirements

Section 8-21.3 is supplemented with the following:

(******)
Salvaged signs shall be stockpiled and/or delivered to a location as designated by the Engineer.

8-22 Pavement Marking

8-22.1 Description

Section 8-22.1 is supplemented with the following:

(******)
Profiled Plastic Wide Line
A white profiled thermoplastic marking conforming to detail as shown in the Plans.

Paint Line, 6-In
A white painted line conforming to detail as shown in the Plans.

Plastic Crosswalk Line
A white thermoplastic marking conforming to City of Kirkland Standard Plan No. CK-R.28 and as shown in the Plans.

Plastic Stop Line
A white thermoplastic marking conforming to City of Kirkland Standard Plan No. CK-R.28 and as shown in the Plans.

Plastic Shared Lane Marking
A white thermoplastic marking conforming to City of Kirkland Standard Plan No. CK-R.46 and as shown in the Plans.

8-22.3 Construction Requirements

8-22.3(1) Preliminary Spotting

Section 8-22.3(1) is supplemented with the following:

(******)
The Contractor shall provide 48-hours advance notice to the Engineer for the Engineer's approval of the preliminary spotting layout(s).

8-22.3(3) Marking Application

Section 8-22.3(3) is supplemented with the following:

(******)
Equipment used in the application of pavement markings shall be designed and operated to produce pavement markings of uniform quality meeting the requirements specified.

8-22.3(6) Removal of Pavement Markings

Section 8-22.3(6) is supplemented with the following:

(******)
Existing thermoplastic pavement markings shall be removed prior to installing new thermoplastic materials. The method for removing pavement markings shall be approved by the Engineer.

8-22.4 Measurement

Section 8-22.4 is supplemented with the following:

(******)
Profiled Plastic Wide Line shall be measured per linear foot.

Paint Line, 6-In shall be measured per linear foot.

Plastic Crosswalk Line shall be measured by the square foot of making installed.

Plastic Stop Line shall be measured per linear foot.

Plastic Shared Lane Marking shall be measured per each.

8-22.5 Payment

Section 8-22.5 is supplemented with the following:

(******)
The unit Contract price per linear foot for “Profiled Plastic Wide Line” shall be full pay for all Work as specified to install profiled plastic wide lines.

The unit Contract price per linear foot for “Paint Line, 6-In” shall be full pay for all Work as specified to install 6-inch paint lines.

The unit Contract price per linear foot for “Plastic Crosswalk Line” shall be full pay for all Work as specified to install plastic crosswalk lines.

The unit Contract price per linear foot for “Plastic Stop Line” shall be full pay for all Work as specified to install plastic stop lines.

The unit Contract price per each for “Plastic Shared Lane Marking” shall be full pay for all Work as specified to install plastic shared lane markings.

END OF DIVISION 8

DIVISION 9 – MATERIALS

9-05 Drainage Structures and Culverts

9-05.15 Metal Castings

Section 9-05.15 is supplemented with the following:

(******)

Solid Locking Covers

Castings for rings and solid locking covers shall be ductile iron in accordance with ASTM A536, *Standard Specifications for Ductile Iron Castings* and City of Kirkland Pre-Approved Plan CK-D.18 or CK-S.16.

The covers shall be gasketed, have “STORM” or “SEWER” imprinted on the top surface, and have a diamond patterned slip-resistant top surface. The covers shall include a stainless steel cam lock, and a multi-tool pickbar.

9-29 Illumination, Signal, Electrical

9-29.2 Junction Boxes, Cable Vaults, and Pull Boxes

Section 9-29.2 is supplemented with the following:

(******)

Type 1 and Type 2 junction boxes shall be as noted in the Plans and in conformance with WSDOT Standard Plan J-40.10-04. Type 4 and Type 5 junction boxes shall be as noted in the Plans and in conformance with WSDOT Standard Plan J-40.20-03.

Junction boxes shall be marked for their use in accordance with the following schedule:

System Type	Legend
Illumination	SL

Junction boxes shall have metallic lids. All frames and lids shall be hot-dipped galvanized and bonded to the ground system. All junction boxes installed in the sidewalks shall have non-skid lids. The non-skid surface shall be made of slip resistant steel plate and be 5/16 inch in thickness.

9-29.2(1) Standard Duty and Heavy Duty Junction Boxes

(November 13, 2018 COK GSP)

Section 9-29.2(1) is supplemented with the following:

Junction boxes with metal lids located in pedestrian walkway or sidewalk areas shall have non-slip lids provided and installed. Retrofit or replacement lids shall be non-slip.

9-29.2(1)A2 Non-Concrete Junction Boxes
(November 13, 2018 COK GSP)

Section 9-29.2(1)A2 is supplemented with the following:

Non-concrete junction boxes shall not be accepted in the City of Kirkland.

END OF DIVISION 9

PREVAILING WAGE RATES

City of Kirkland

PREVAILING WAGE RATES

Prevailing wage rates can be found at:
www.lni.wa.gov/tradeslicensing/prevwage/wagerates

Use May 2023 rates
(published date - use bid date)

King County

A copy of the applicable wage rates is available for viewing in our office:

City Hall Annex
310 1st Street
Kirkland, WA 98033

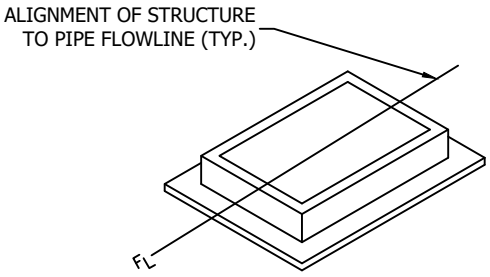
The City of Kirkland will mail a hard copy of the applicable wage rates upon request.
Send your request to the Project Engineer.

APPENDIX A

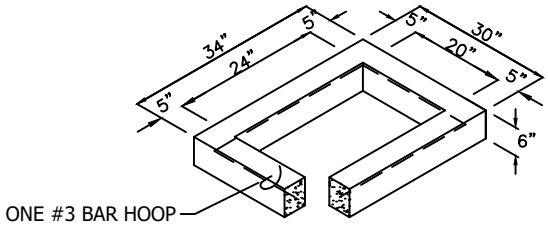
CITY OF KIRKLAND PRE-APPROVED PLANS/WSDOT STANDARD PLANS

City of Kirkland

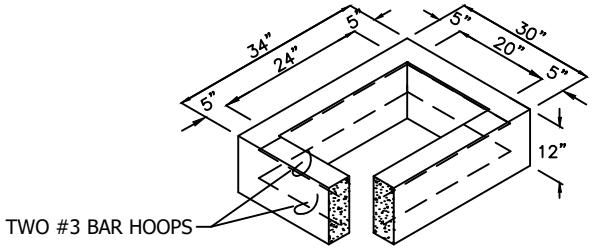
LAST REVISED: 01/2023



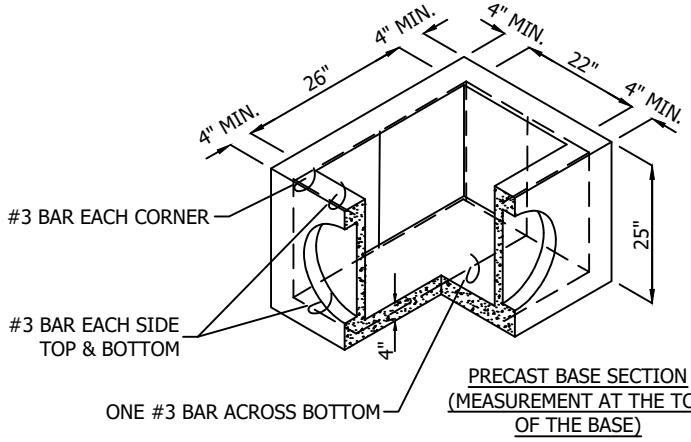
FRAME AND GRATE (SEE APPLICABLE STANDARD DETAILS CK-D.11 THROUGH D.16A.)



6" RISER SECTION



12" RISER SECTION



PRECAST BASE SECTION (MEASUREMENT AT THE TOP OF THE BASE)

NOTES:

1. CONCRETE INLET TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CURB INLET WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 16".
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FOOT.
9. CONCRETE INLET FRAME AND GRATES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE SHALL BE INSTALLED WITH FLANGE DOWN.
11. APPROVAL BY THE CITY OF KIRKLAND REQUIRED.
12. CURB INLET MUST DRAIN TO CATCH BASIN WITH SUMP.
13. ALL NEW PVC PIPES SHALL BE INSTALLED WITH SAND COLLARS AND A NON-SHRINK GROUT. JETSET OR SPEED CRETE RED LINE GROUT NOT ALLOWED.
14. 1", 2", AND 4" RISERS ACCEPTED AS NEEDED.
15. MINIMUM 10' FROM ADJACENT TREES, UNLESS OTHERWISE APPROVED.

CITY OF KIRKLAND

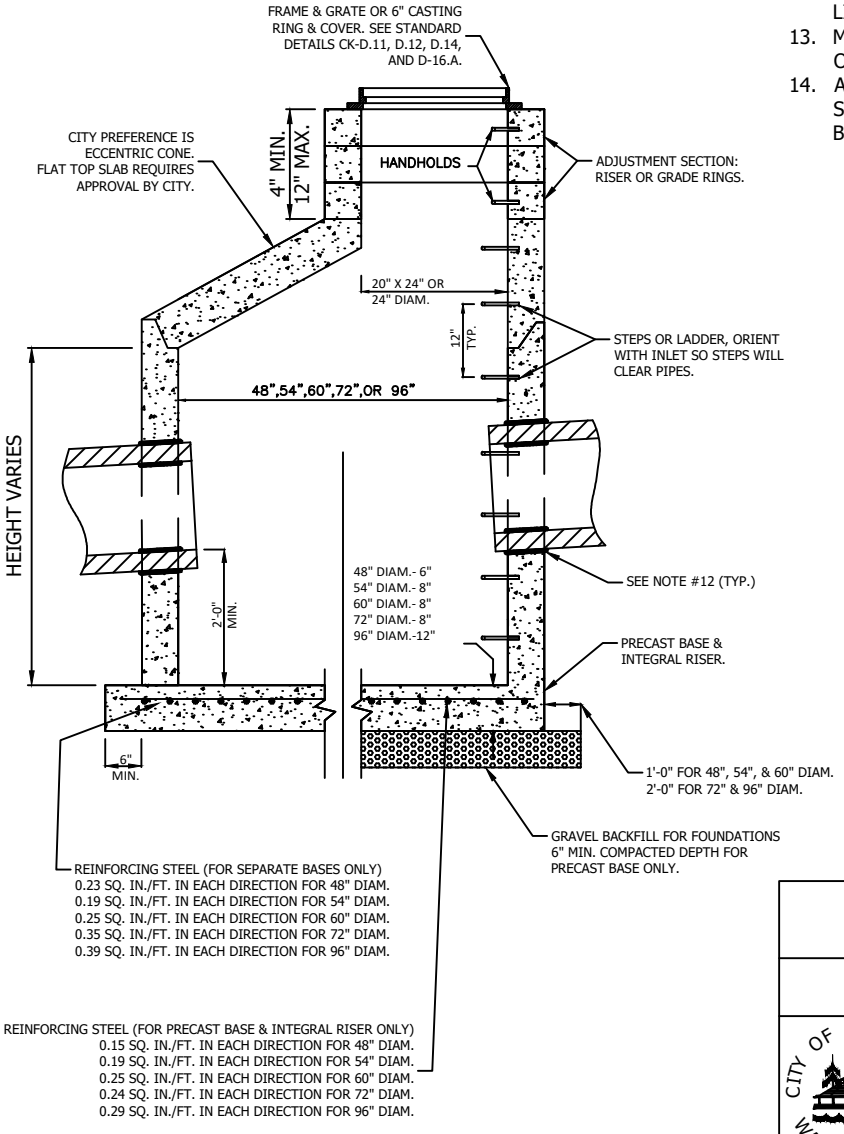
PLAN NO. CK - D.06

CURB INLET

LAST REVISED: 01/2023

NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M199) AND ASTM C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEARANCE. SEE STD. DTL. NO. CK-D.12, CATCH BASIN DETAILS. HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND TOP OF THE FINISHED GRADE.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. CATCH BASIN FRAMES AND GRATES OR COVERS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
6. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
7. MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT.
8. FOR DETAILS SHOWING LADDER, STEPS, HANDRAILS AND TOP SLABS, SEE STD. DTLS. NO. CK-D.12 AND CK-S.14.
9. ALL MANHOLE JOINTS SHALL USE A CONFINED RUBBER GASKET AND GROUTED (INSIDE AND OUT) TO MEET ASTM C-443 SPECIFICATIONS.
10. ROUND SOLID LOCKING LIDS REQUIRED WHENEVER CATCH BASIN DOES NOT COLLECT SURFACE WATER, OR WHEN LOCATED IN SIDEWALK AND PLANTER AREAS. SEE CK-D.18, CK-D.18A, AND CK-D.18B FOR REFERENCE.
11. ROUND CONCRETE RISERS ARE REQUIRED FOR ROUND SOLID LOCKING LIDS.
12. ALL NEW PIPES SHALL BE INSTALLED WITH EITHER A KOR-N-SEAL BOOT, OR SAND COLLARS AND A NON-SHRINK GROUT. JETSET OR SPEED CRETE RED LINE GROUT NOT ALLOWED.
13. MINIMUM 10' FROM ADJACENT TREES, UNLESS OTHERWISE APPROVED.
14. ALL RISERS WILL BE WET SET IN GROUT, AND SMOOTHED INSIDE AND OUT PRIOR TO BEING BURIED.



ACCEPTABLE PIPE SIZES:

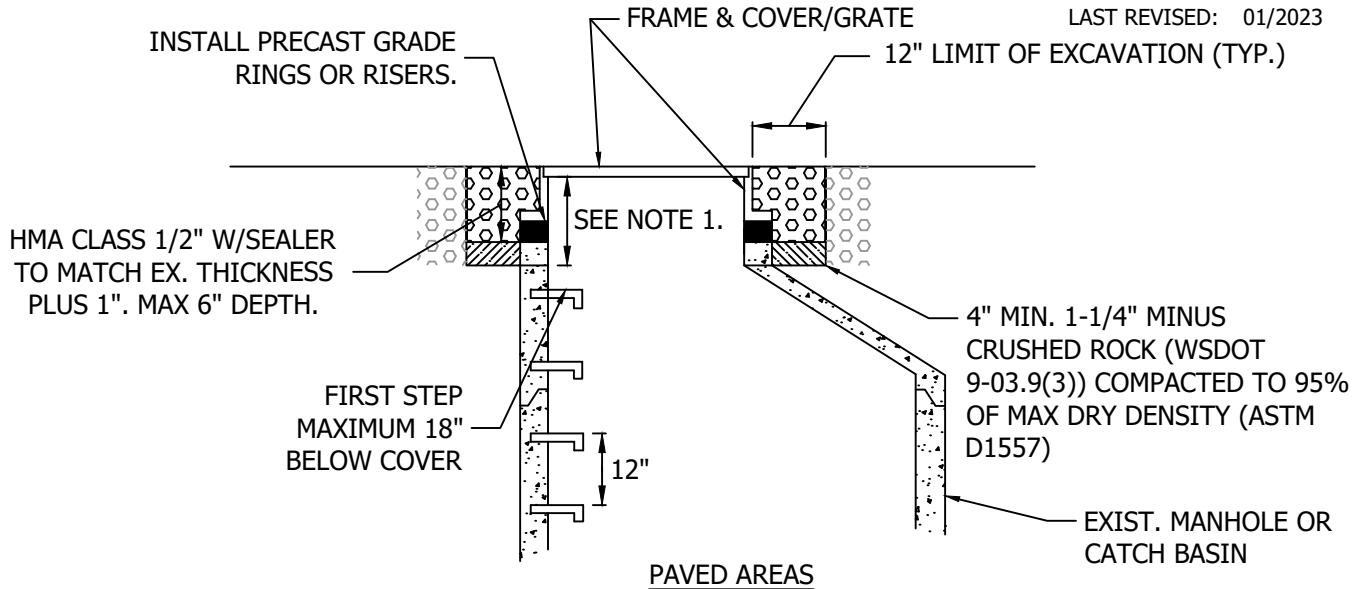
	Pipe Size								
Basin Type	6"	8"	12"	15"	18"	24"	30"	36"	48"
Type II-48" CB	X	X	X	X	X	X	X		
Type II-54" CB	X	X	X	X	X	X	X	X	
Type II-60" CB	X	X	X	X	X	X	X	X	
Type II-72" CB	X	X	X	X	X	X	X	X	X
Type II-96" CB	X	X	X	X	X	X	X	X	X

CITY OF KIRKLAND

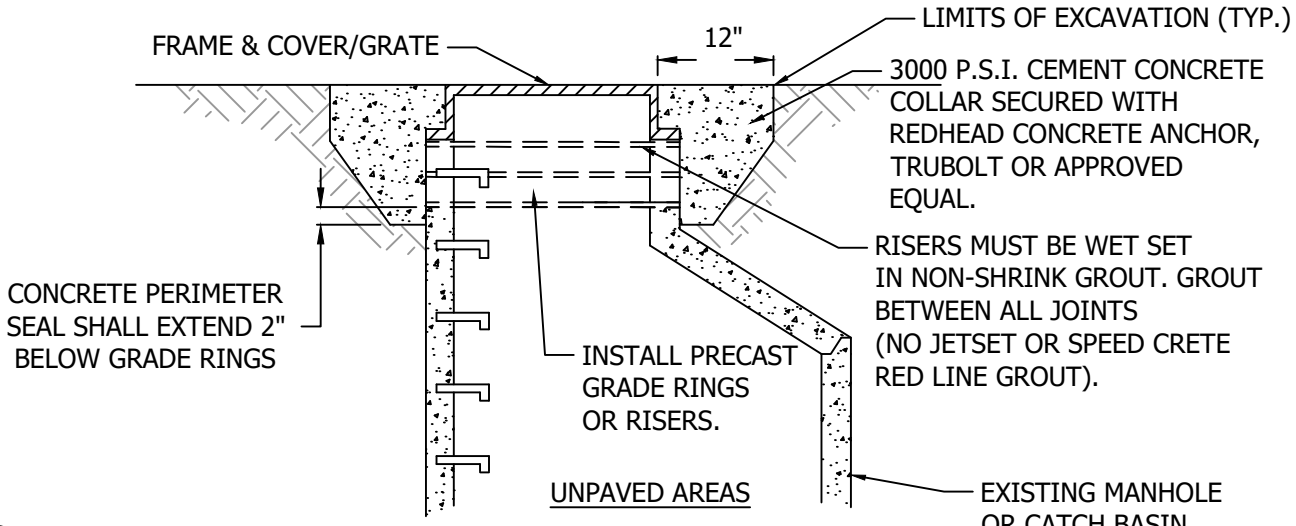
PLAN NO. CK - D.09

CATCH BASIN TYPE 2 48",54",60",72",96"

LAST REVISED: 01/2023



PAVED AREAS



UNPAVED AREAS

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.

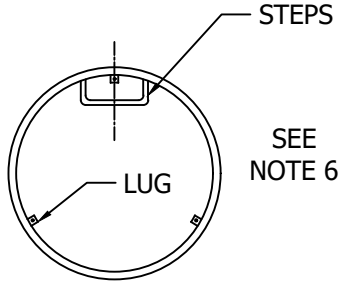
2. GRADE RINGS, RISERS AND FRAME SHALL BE SET IN 3/4" NON-SHRINK GROUT, GROUT BETWEEN ALL JOINTS. ALL SURFACES MUST BE CLEAN OF DEBRIS AND DIRT, AND WETTED PRIOR TO GROUTING. GROUT SMOOTH INSIDE AND OUTSIDE SURFACES PRIOR TO BACKFILL.

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-D.18A CASTING.



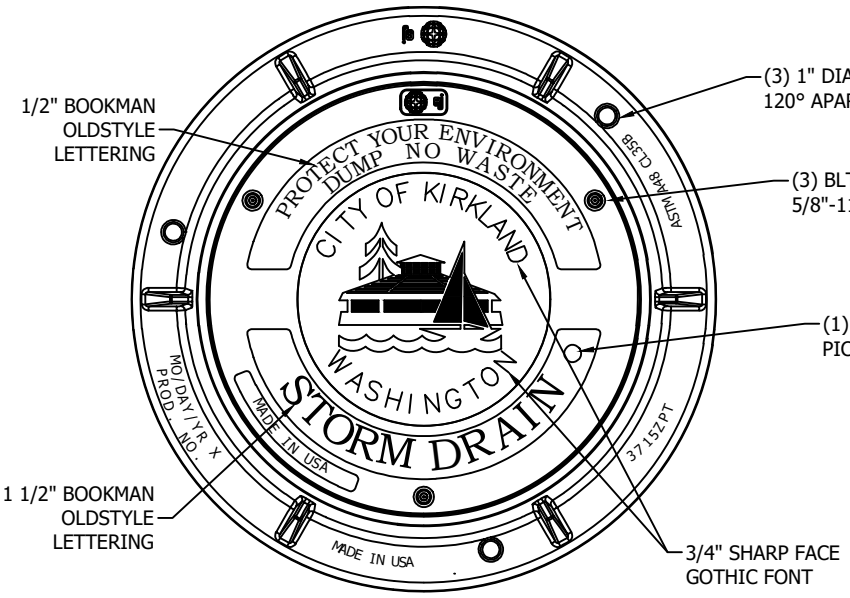
LOCKING MH FRAME
PLAN VIEW

CITY OF KIRKLAND

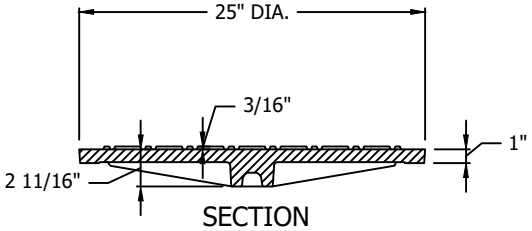
PLAN NO. CK - D.11

MANHOLE/CB
FRAME AND GRATE
ADJUSTMENT

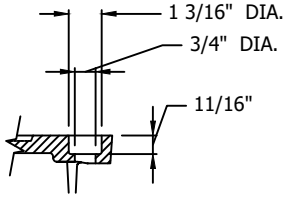
LAST REVISED: 07/2021



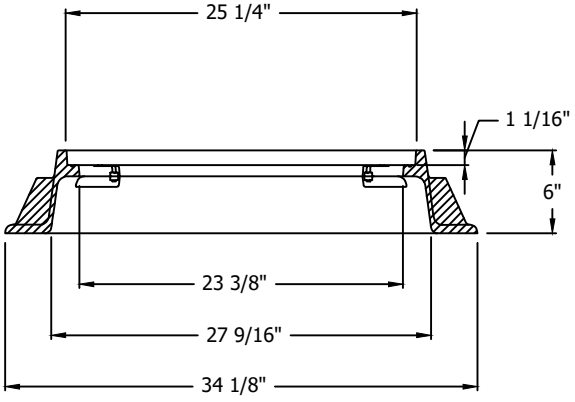
PLAN VIEW



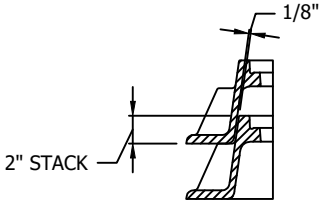
SECTION



BOLTHOLE DETAIL



SECTION



STACKING DETAIL

NOTES:

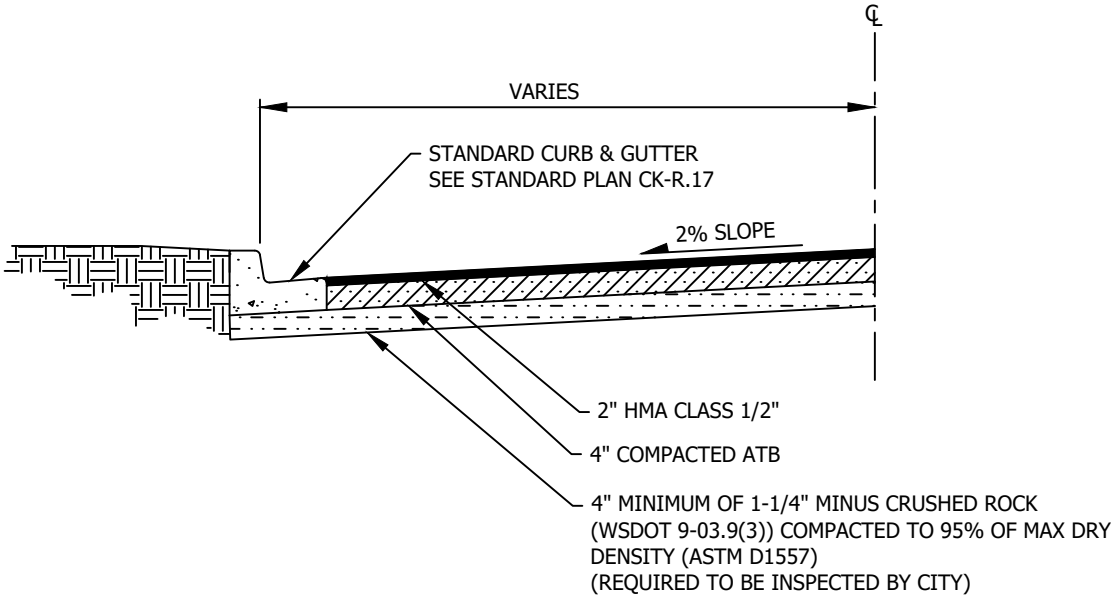
1. COVERS SHALL BE GRAY IRON, LOCKING, WITH A MINIMUM WEIGHT OF 141 LBS.
2. MINIMUM WEIGHT OF FRAME SHALL BE 134 LBS.
3. PRODUCT SUPPLIED BY EJ GROUP, INC., APPROVED EQUAL.
4. CITY OF KIRKLAND LOGO REQUIRED
5. THIS SPEC SHOULD NOT BE USED IN THE ROADWAY.
6. MUST BE MADE IN THE USA.

CITY OF KIRKLAND

PLAN NO. CK - D.18

24" MANHOLE FRAME W/LOCKING COVER AND LOGO

LAST REVISED:01/2020

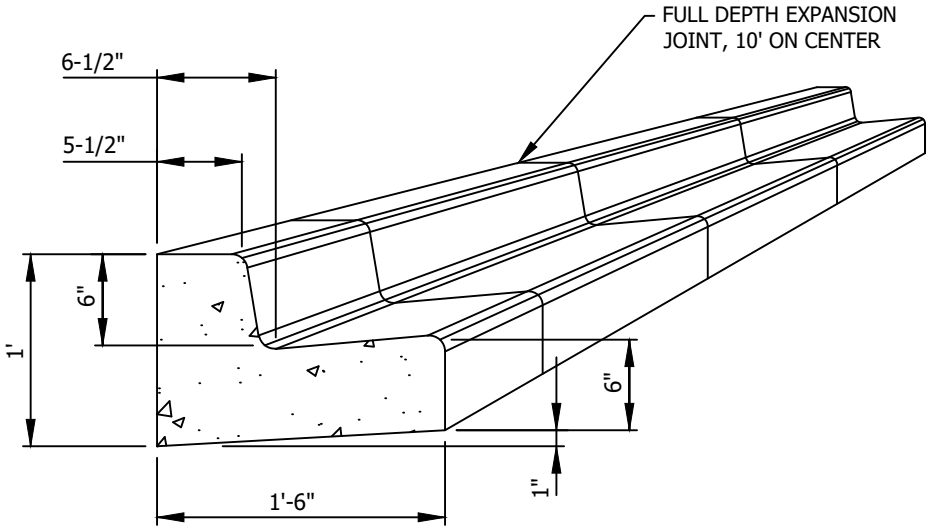


NOTES:

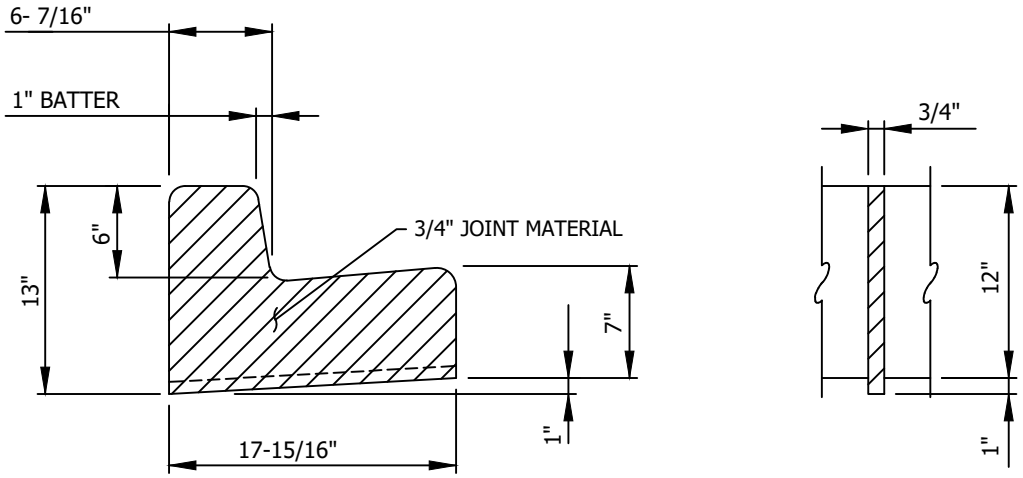
1. HOT MIX ASPHALT CLASS 1/2" MAY BE USED IN LIEU OF ATB.
2. MAXIMUM ALLOWABLE GRADE OF A STREET IS 15% UNLESS DIRECTED BY ENGINEER.
3. SIDE SLOPES SHALL BE 2:1 MAXIMUM.
4. WHEN PLACING NEW CURB AND GUTTER ALONG AN EXISTING ROADWAY, THE ASPHALT SHOULD BE SAWCUT AT A WIDTH TO ALLOW FOR A 20" TO 24" ASPHALT PATCH AS MEASURED FROM THE OUTER EDGE OF THE GUTTER.

CITY OF KIRKLAND	
PLAN NO. CK–R.09	
CITY OF KIRKLAND WASHINGTON	STANDARD ROAD CROSS SECTION

LAST REVISED:01/2023



TYPICAL SECTION FOR CURB & GUTTER, TYPE A



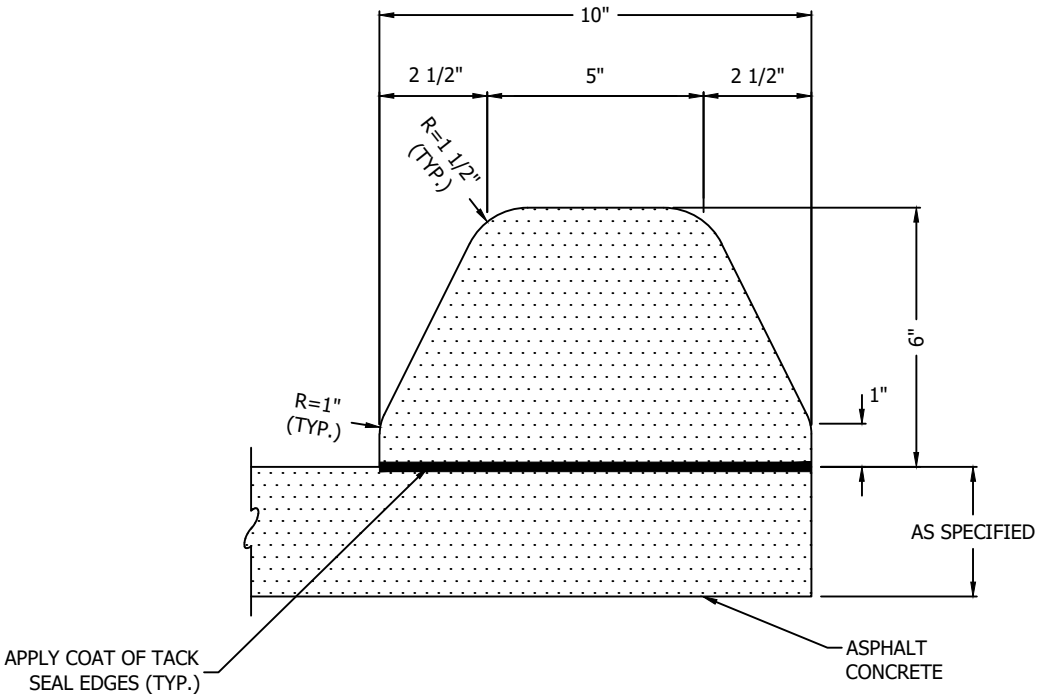
JOINT DETAIL

NOTES:

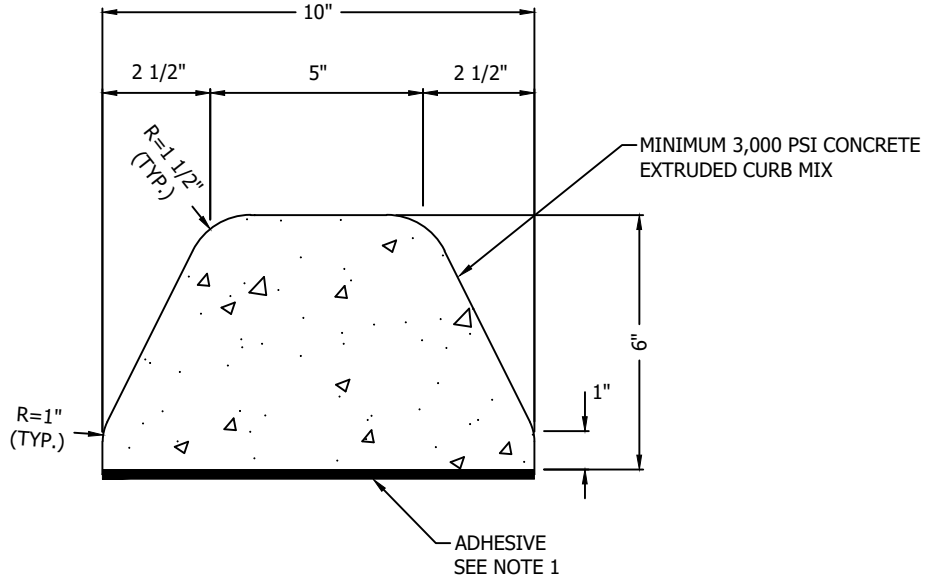
1. FORMS SHALL BE STEEL AND SET TRUE TO LINE AND GRADE (INSPECTION IS REQUIRED PRIOR TO PLACEMENT OF CONCRETE) UNLESS SPECIFIED DIFFERENTLY BY CITY PROJECT ENGINEER.
2. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.
3. BASE COURSE SHALL BE 4" OF 5/8" MINUS CRUSHED ROCK.
4. SURVEY REQUIRED FOR CURB ALIGNMENT.

CITY OF KIRKLAND	
PLAN NO. CK–R.17	
CITY OF KIRKLAND WASHINGTON	CONCRETE CURB AND GUTTER, TYPE "A"

LAST REVISED: 01/2023



EXTRUDED ASPHALT CONCRETE CURB



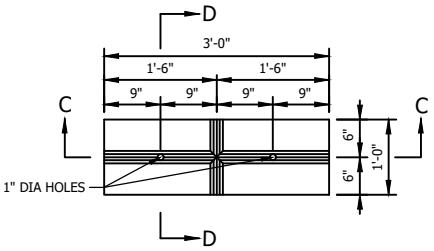
EXTRUDED CEMENT CONCRETE CURB

NOTES:

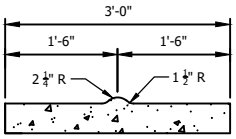
1. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF WSDOT SSRBC SECTION 9-26.1 FOR TYPE-II EPOXY BONDING AGENT.
2. APPLY SUFFICIENT AMOUNT OF ADHESIVE TO ENSURE SQUEEZE OUT ALONG ALL EDGES.

CITY OF KIRKLAND	
PLAN NO. CK - R.19	
CITY OF KIRKLAND WASHINGTON	EXTRUDED CURB

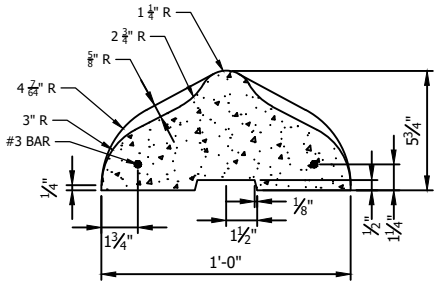
LAST REVISED:01/2023



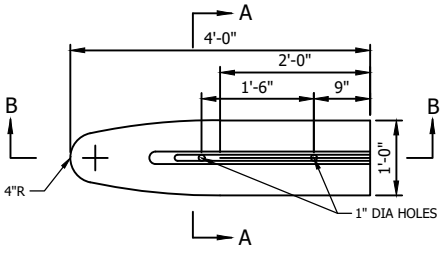
CURB PLAN



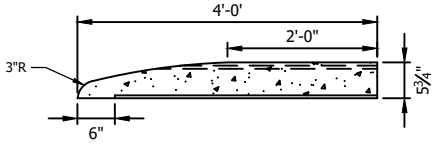
SECTION C-C



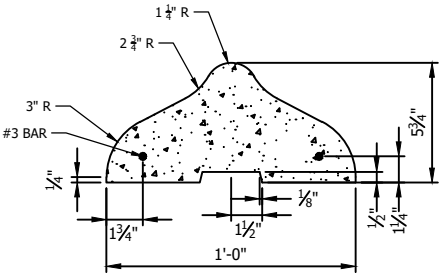
SECTION D-D



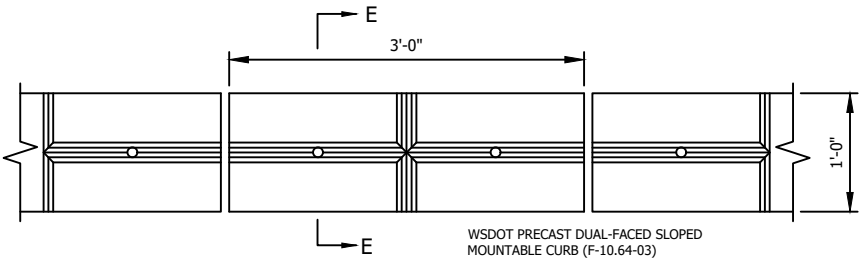
NOSING



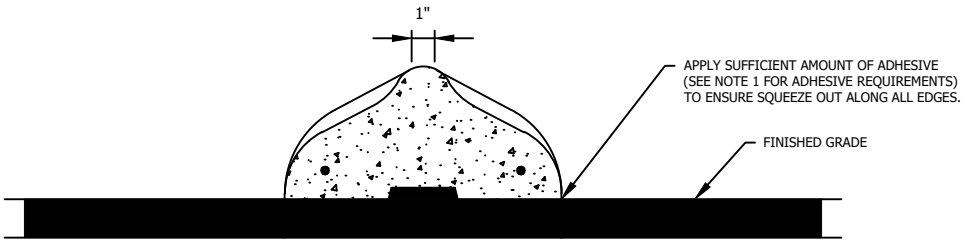
SECTION B-B



SECTION
A-A



INSTALLATION DETAIL FOR STRAIGHT PRECAST TRAFFIC CURB



SECTION
E-E

NOTES:

1. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF SECTION 9.26(1) OF THE WSDOT STANDARD SPECIFICATION. USE APPROPRIATE ADHESIVE TYPE FOR EXISTING CONDITIONS.

2. MEDIAN CURB SHALL BE PAINTED. PAINT SHALL MEET SECTION 9.34.2 OF THE WSDOT STANDARD SPECIFICATION.

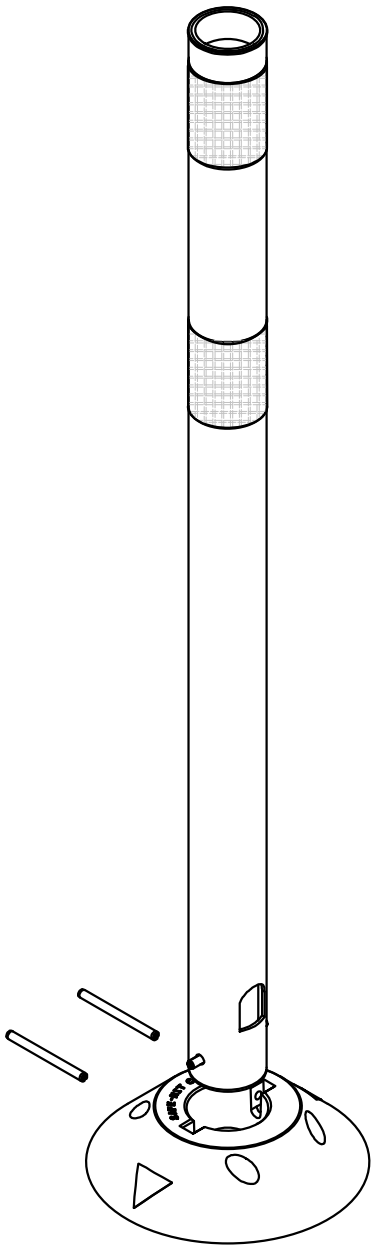
CITY OF KIRKLAND

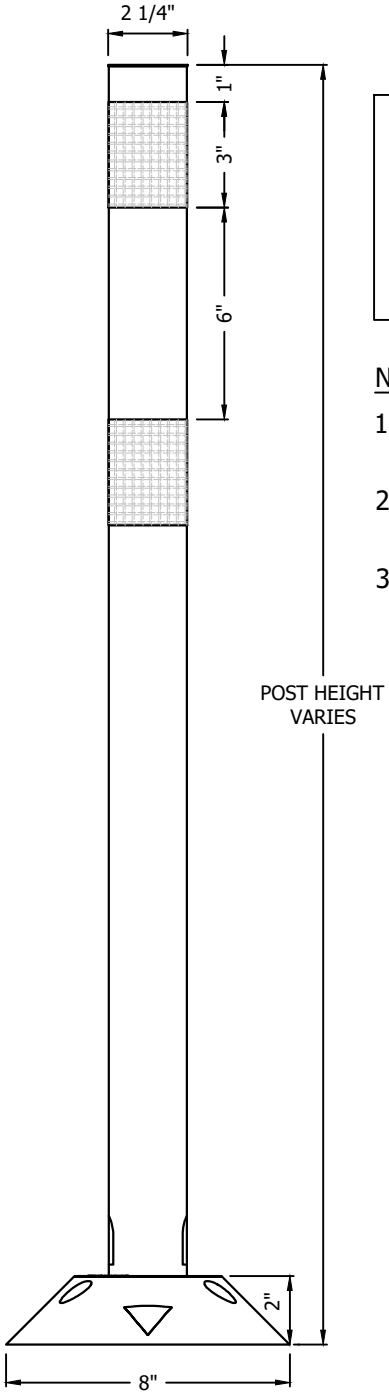
PLAN NO. CK–R.19A

CITY OF KIRKLAND WASHINGTON

MEDIAN CURB

LAST REVISED: 07/2021





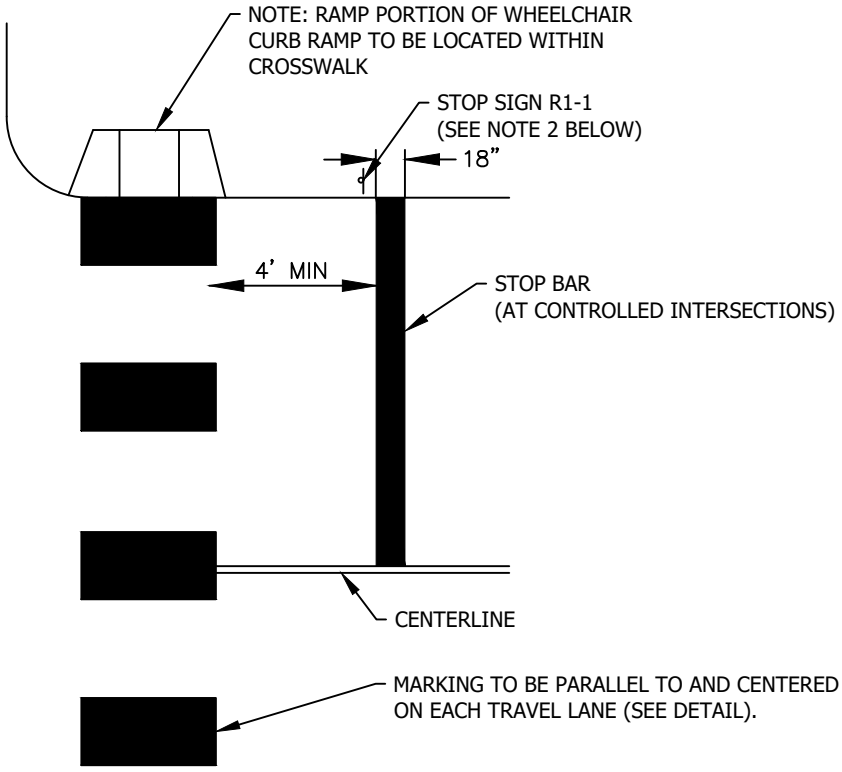
POST HEIGHT VARIES WITH TWO 3-INCH WIDE SILVER HIGH INTENSITY FLEXIBLE PRISMATIC REFLECTIVE BANDS, WITH BLACK PIN-LOCK SURFACE MOUNT BASE

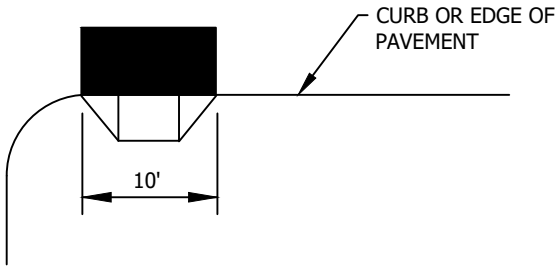
NOTES:

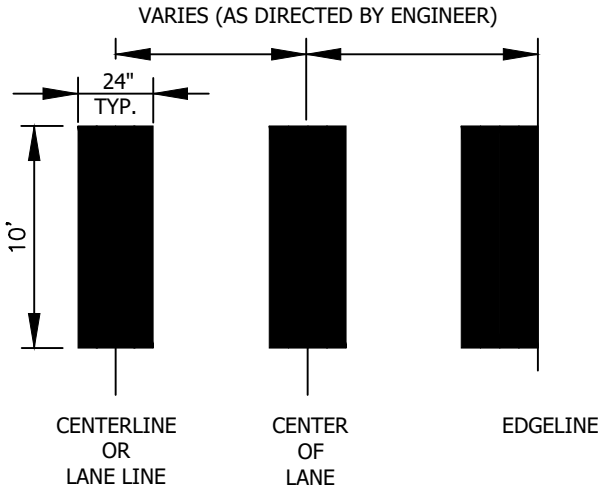
1. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATION.
2. USE ADHESIVE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
3. COLOR AND HEIGHT ACCORDING TO ENGINEER'S SPECIFICATION

CITY OF KIRKLAND	
PLAN NO. CK - R.26	
CITY OF KIRKLAND WASHINGTON	TYPE 5 FLEXIBLE DELINEATOR SURFACE MOUNT

LAST REVISED:01/2020







DETAIL

NOTES:

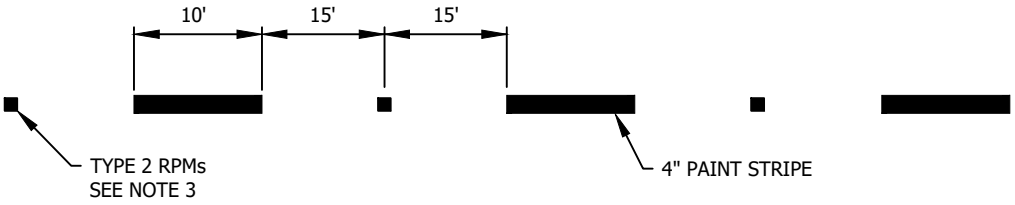
1. MARKINGS SHALL BE THERMOPLASTIC.
2. STOP SIGN LOCATION ADJACENT TO STOP BAR, OR AS DIRECTED BY ENGINEER

CITY OF KIRKLAND

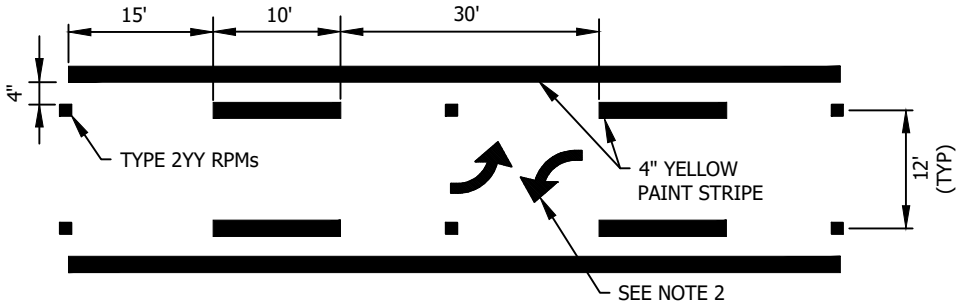
PLAN NO. CK–R.28

CROSSWALK AND STOP BAR DETAIL

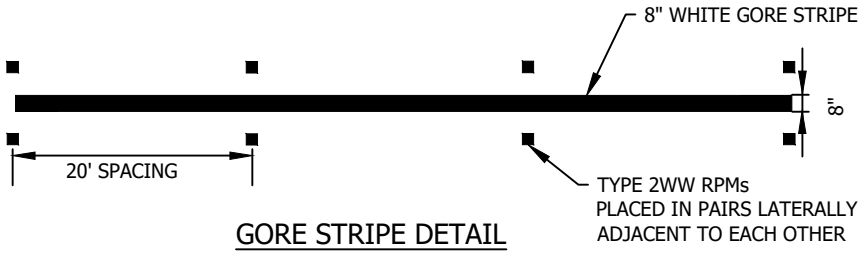
LAST REVISED:01/2023



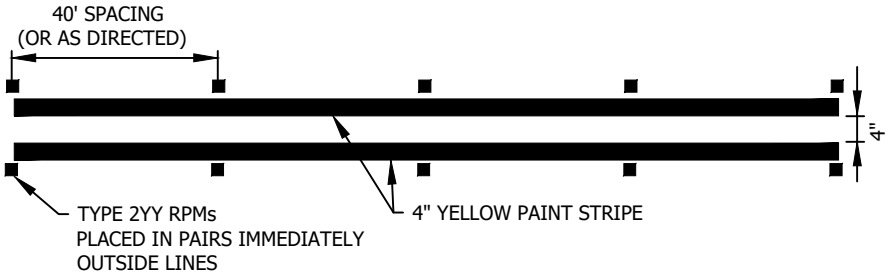
SKIP CENTER & LANE STRIPE DETAIL



TWO-WAY LEFT TURN DETAIL



GORE STRIPE DETAIL



DOUBLE YELLOW CENTER DETAIL

NOTES:

1. MATCH EXISTING PAVEMENT MARKING DIMENSIONS.
2. SEE CK-R.30 FOR TWO-WAY LEFT TURN ARROW PLACEMENT.
3. RAISED PAVEMENT MARKER BODY AND LENS COLOR SHALL CONFORM TO THE COLOR OF THE MARKING FOR WHICH THEY SUPPLEMENT, SUBSTITUTE FOR, OR SERVE AS A POSITIONING GUIDE FOR.

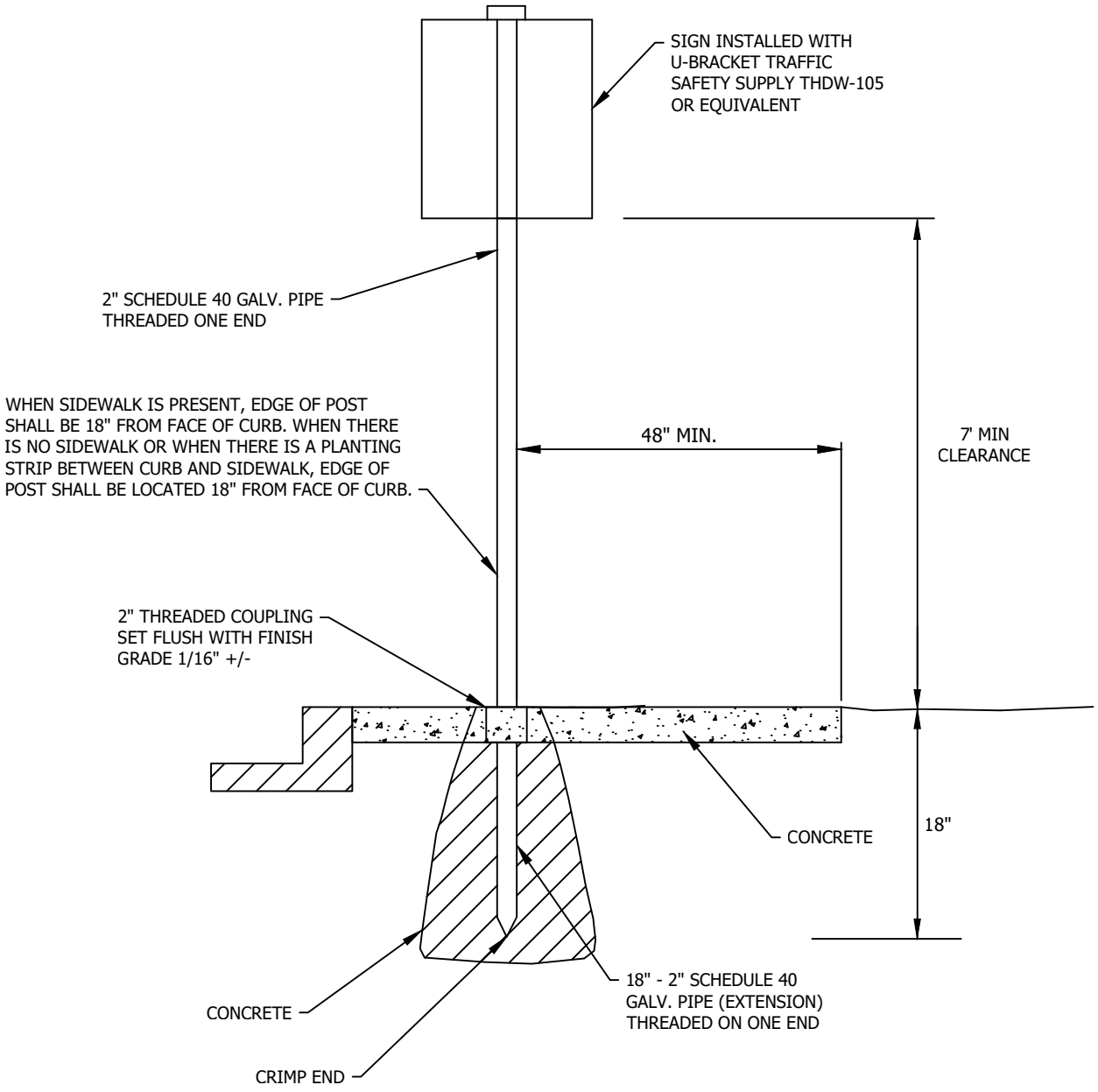
CITY OF KIRKLAND

PLAN NO. CK–R.31

CITY OF KIRKLAND WASHINGTON

PAVEMENT MARKING DETAIL

LAST REVISED:01/2022



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

CITY OF KIRKLAND WASHINGTON

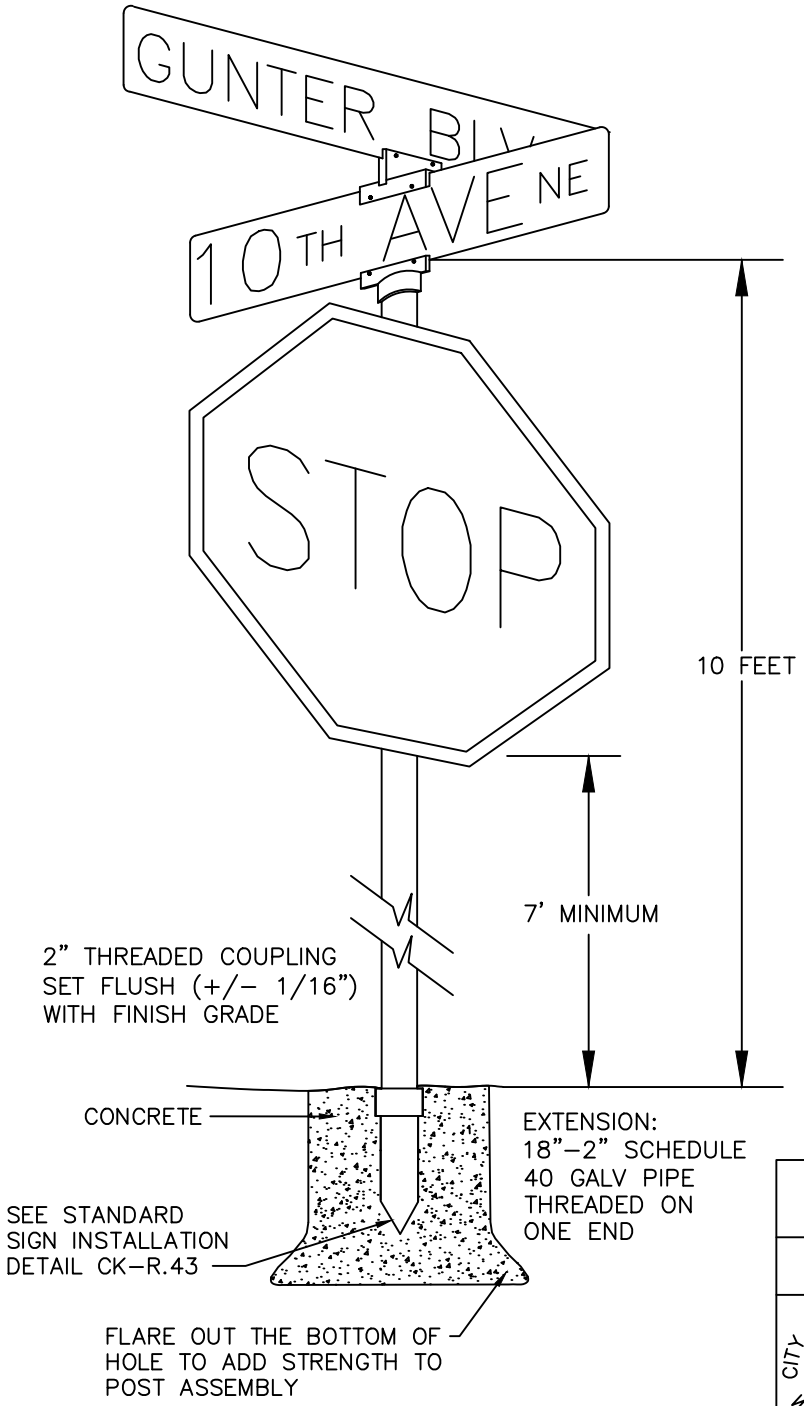
STANDARD SIGN INSTALLATION

LAST REVISED: 01/2020

SIGN:
6"x24" SHEET ALUMINUM 0.080" THICK

BACKGROUND:
GREEN REFLECTIVE SHEETING, OR BLUE FOR PRIVATE ROADS WITH 3/8" WHITE BORDER. SHEETING SHALL MEET MUTCD REQUIREMENTS FOR REFLECTIVITY.

LETTERS
4" UC C SERIES, EXCEPT SUFFIXES AND PREFIXES 3" UC C SERIES



STREET SIGN MOUNTING
HARDWARE:
TRAFFIC SAFETY SUPPLY 16503925
OR EQUIVALENT

STOP SIGN MOUNTING
HARDWARE:
TRAFFIC SAFETY SUPPLY
THDW-105 U BRACKET
OR EQUIVALENT

POST:
10'x2" SCHEDULE 40
GALVANIZED STEEL PIPE

SIGN:
R1-1 30"x30"
HIGH INTENSITY PRISMATIC

NOTE:
IF SIGN MUST BE PLACED IN EXISTING CONCRETE, CORE HOLE SHALL BE 8" DIAMETER.

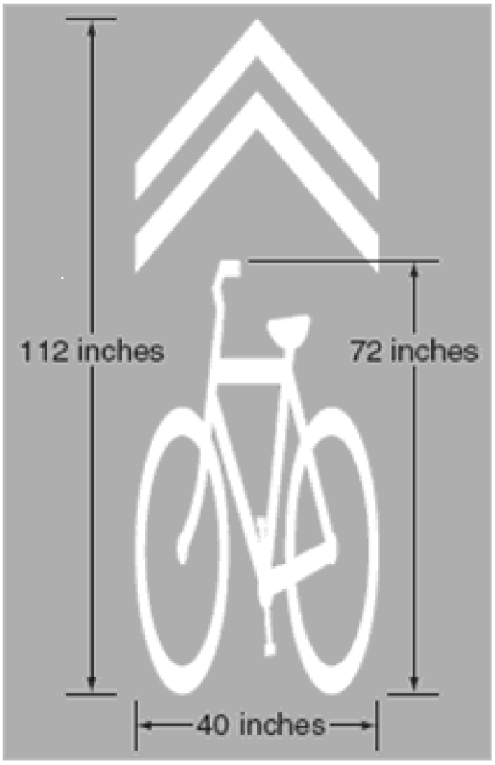
CITY OF KIRKLAND

PLAN NO. CK-R.44

CITY OF KIRKLAND WASHINGTON

STREET NAME SIGN STANDARD

LAST REVISED: 01/18/2018



SHARED LANE MARKING DETAIL

NOT TO SCALE

NOTES:

1. PLACE MARKING IN CENTER OF TRAVELED WAY, EVERY 250'-350'.

2. SEE SECTION 9C.07, 2009 MUTCD FOR MORE GUIDANCE.

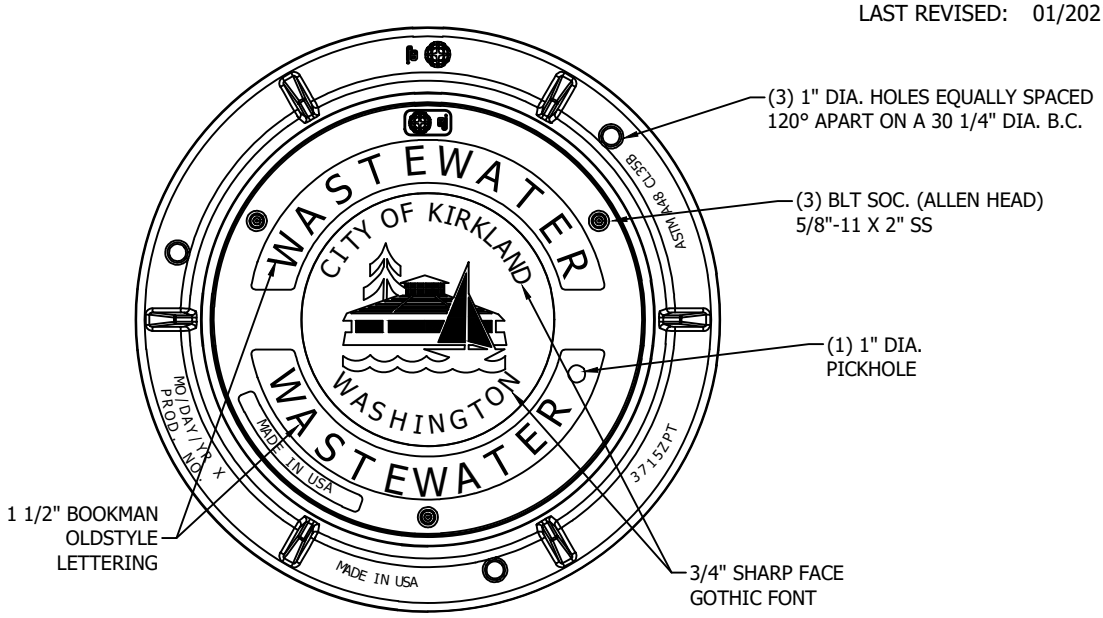
3. SHARED LANE MARKING MATERIAL SHALL BE 90 MILL, PREFORMED, SKID RESISTANT THERMOPLASTIC.

CITY OF KIRKLAND

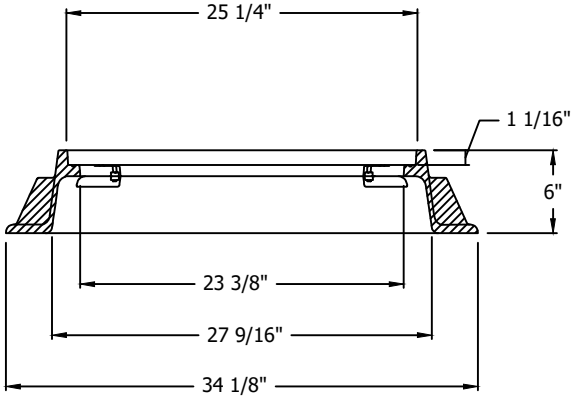
PLAN NO. CK- R.46

SHARED LANE MARKING

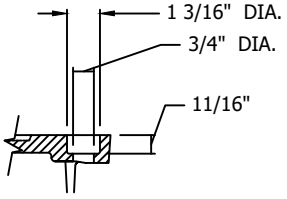
LAST REVISED: 01/2021



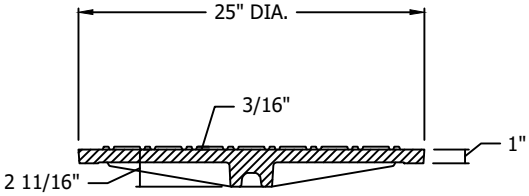
PLAN VIEW



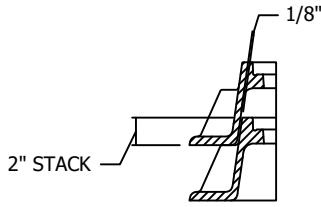
FRAME SECTION



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.

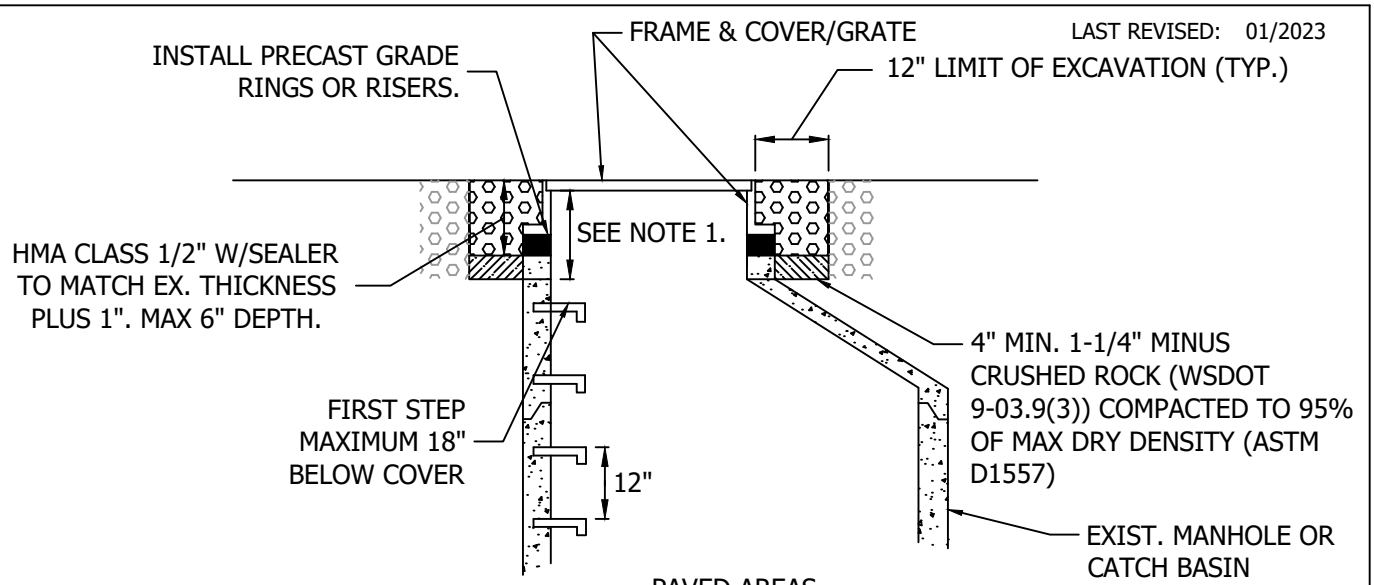
CITY OF KIRKLAND

PLAN NO. CK - S.16

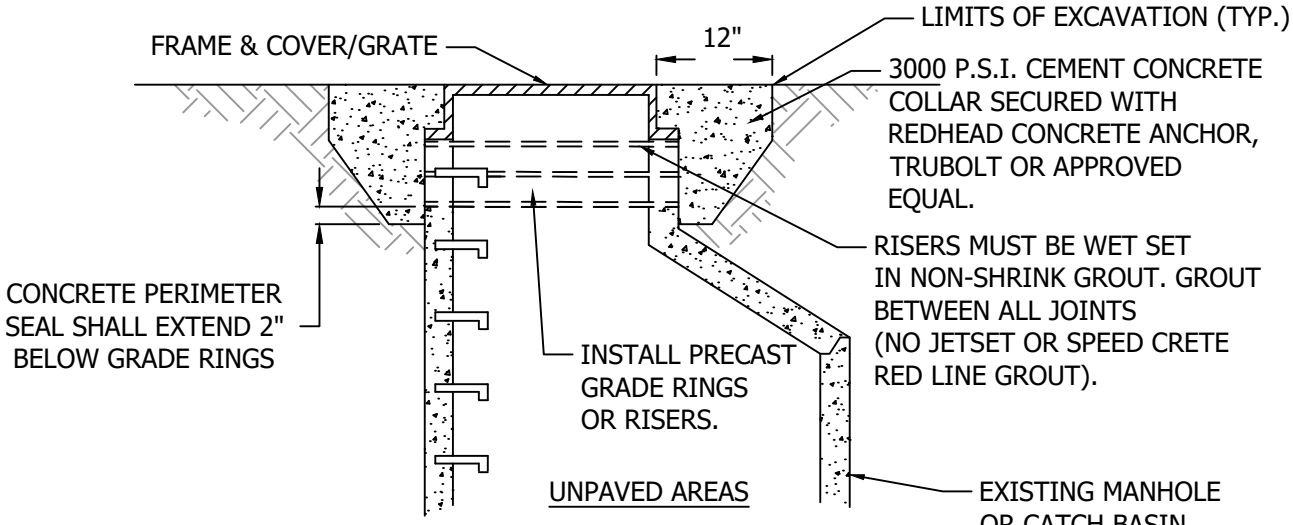
CITY OF KIRKLAND WASHINGTON

24" MANHOLE FRAME W/LOCKING COVER AND LOGO

LAST REVISED: 01/2023



PAVED AREAS



UNPAVED AREAS

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.

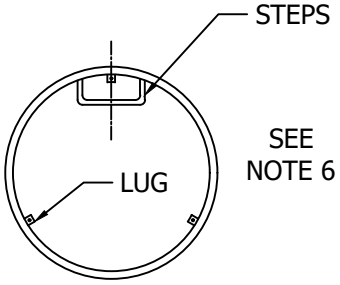
2. GRADE RINGS, RISERS AND FRAME SHALL BE SET IN 3/4" NON-SHRINK GROUT, GROUT BETWEEN ALL JOINTS. ALL SURFACES MUST BE CLEAN OF DEBRIS AND DIRT, AND WETTED PRIOR TO GROUTING. GROUT SMOOTH INSIDE AND OUTSIDE SURFACES PRIOR TO BACKFILL.

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.

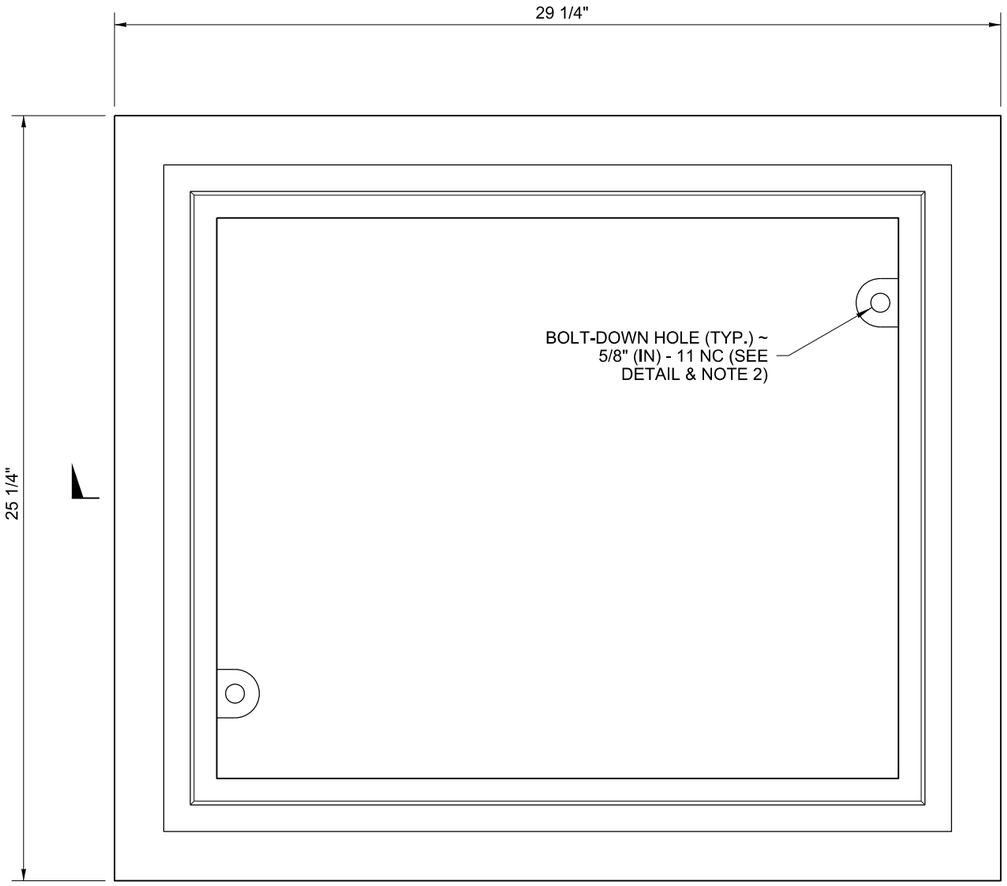


LOCKING MH FRAME
PLAN VIEW

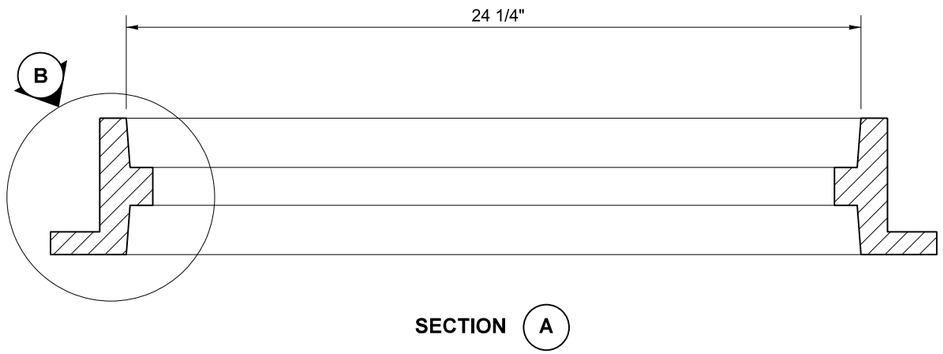
CITY OF KIRKLAND

PLAN NO. CK - S.26

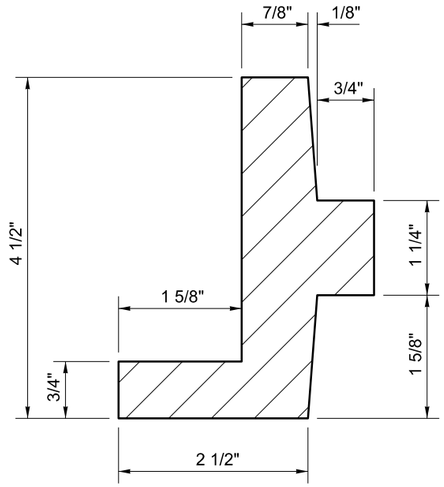
MANHOLE FRAME AND GRATE ADJUSTMENT



TOP



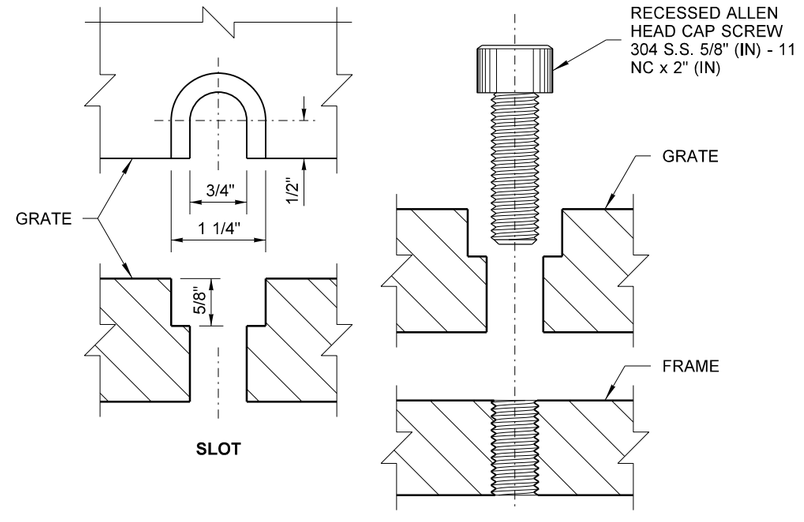
SECTION A



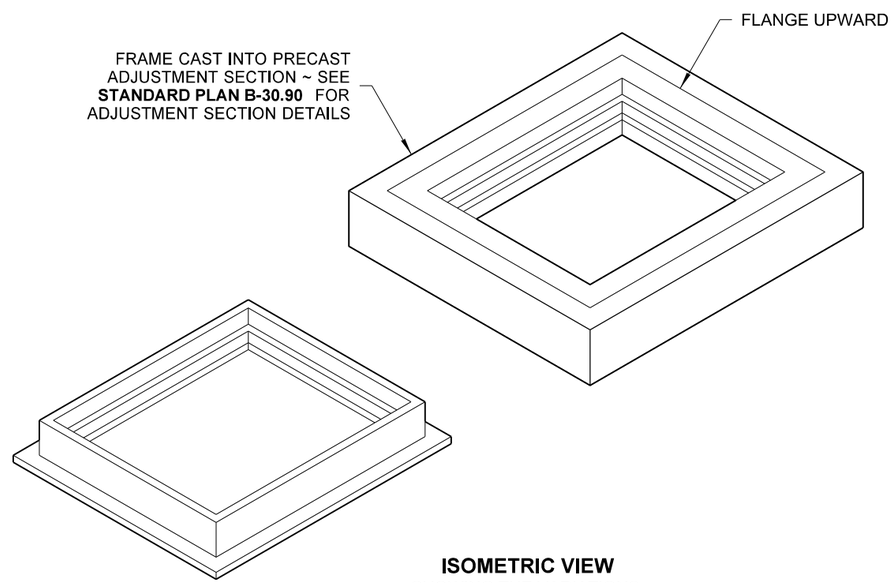
DETAIL B

NOTES

1. This frame is designed to accommodate 20" (in) × 24" (in) grates or covers as shown on **Standard Plans B-30.20, B-30.30, B-30.40,** and **B-30.50.**
2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
3. Refer to **Standard Specification Section 9-05.15** and **9-05.15(2)** for additional requirements.



BOLT-DOWN DETAILS
SEE NOTE 2



ISOMETRIC VIEW
SHOWING THE VARIATIONS

JULIE HEILMAN
STATE OF WASHINGTON
41819
REGISTERED
PROFESSIONAL ENGINEER

Heilman, Julie
Feb 20 2018 12:52 PM
cosign

RECTANGULAR FRAME (REVERSIBLE)

STANDARD PLAN B-30.10-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Feb 27 2018 7:55 AM
cosign

STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL

DRAWN BY: BILL BERENS

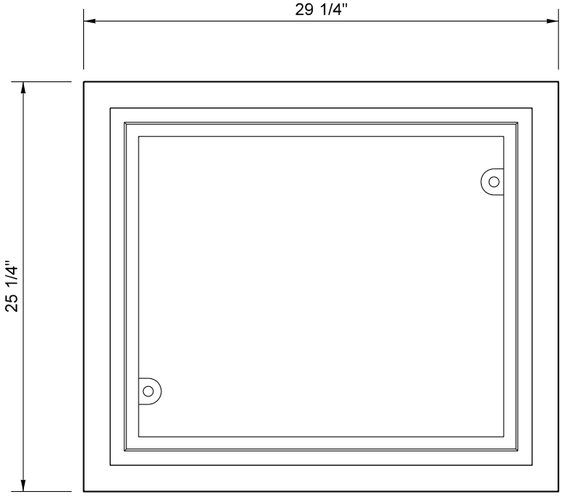
NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) Allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.

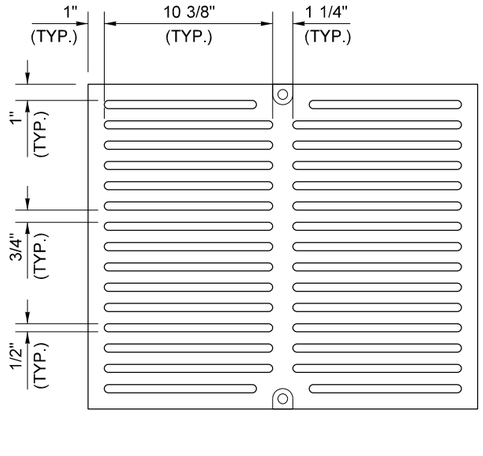
2. All grates shall be 20" (in) x 24" (in).

3. Grate alternatives shown for informational purposes. Grate design varies by manufacturer and must meet ADA requirements.

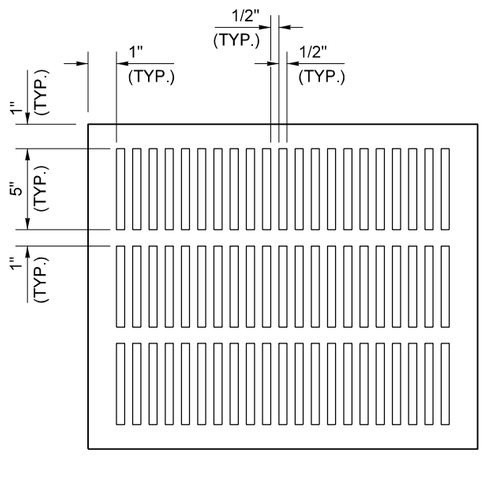
4. Refer to **Standard Specification Section 9-05.15 and 9-05.15 (2)** for additional requirements.



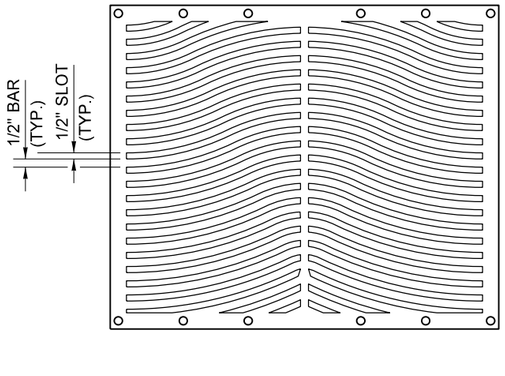
PLAN VIEW
GRATE FRAME
FOR DETAILS NOT SHOWN,
SEE STANDARD PLAN B-30.10



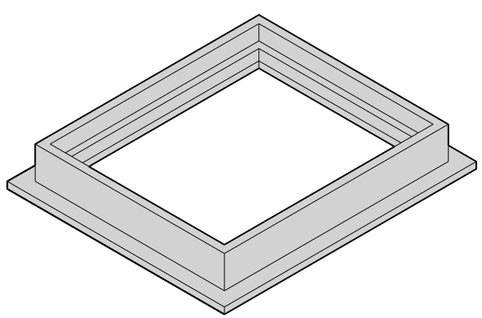
PLAN VIEW
GRATE
ALTERNATIVE 1

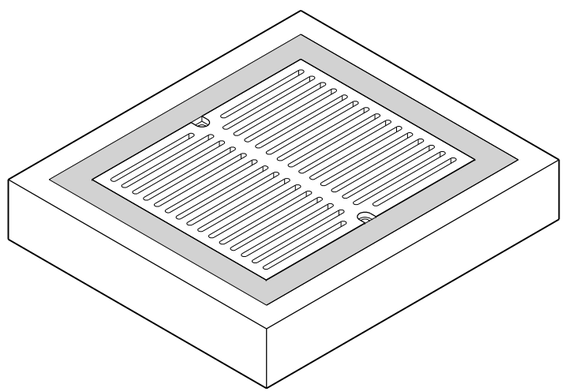


PLAN VIEW
GRATE
ALTERNATIVE 2



PLAN VIEW
GRATE
ALTERNATIVE 3





ISOMETRIC VIEWS
(GRATE ALTERNATIVE 1 SHOWN)

JULIE HEILMAN
STATE OF WASHINGTON
41819
REGISTERED
PROFESSIONAL ENGINEER

Heilman, Julie
Feb 20 2018 12:53 PM
cosign

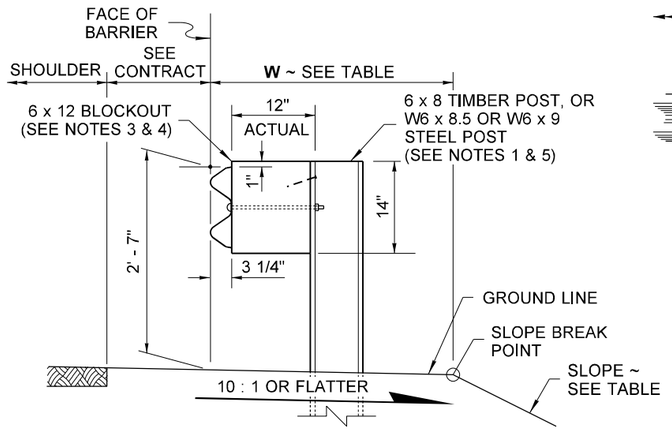
ADA GRATES FOR RECTANGULAR FRAMES

STANDARD PLAN B-30.15-00

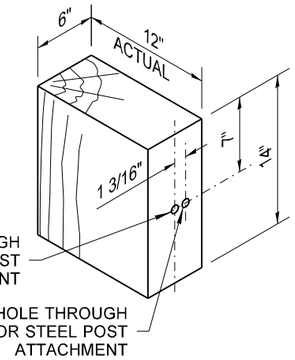
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Feb 27 2018 7:56 AM
cosign
STATE DESIGN ENGINEER
Washington State Department of Transportation

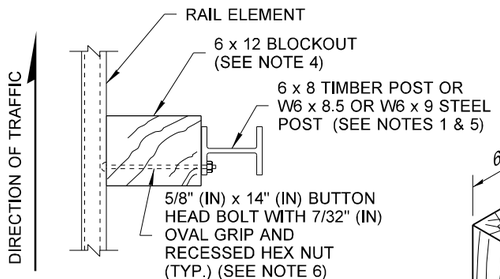
DRAWN BY: FERN LIDDELL



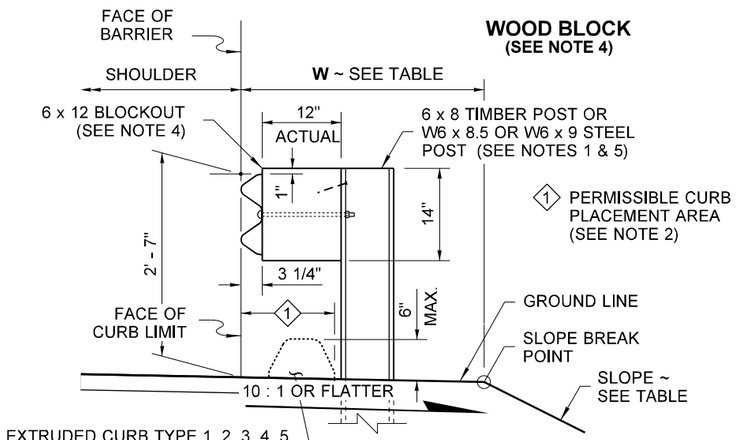
TYPICAL SECTION ~ WITHOUT CURB
(6' - 0" POSTS)



WOOD BLOCK
(SEE NOTE 4)

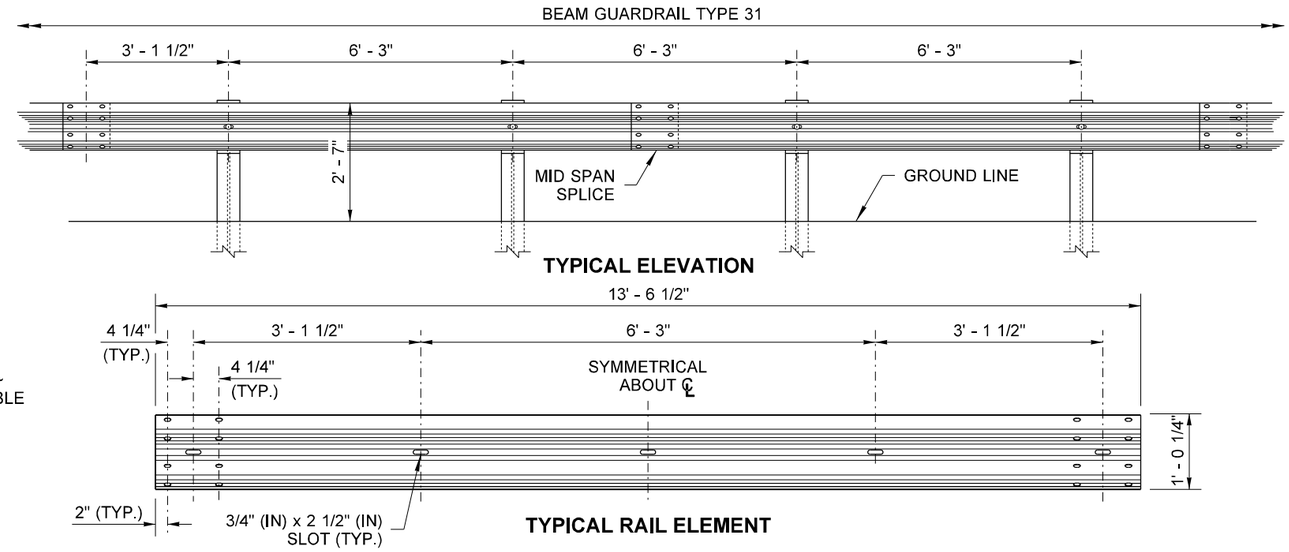


PLAN VIEW



ELEVATION VIEW

TYPICAL SECTION ~ WITH CURB
(6' - 0" LONG POSTS)

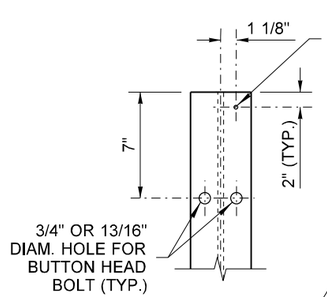


TYPICAL ELEVATION

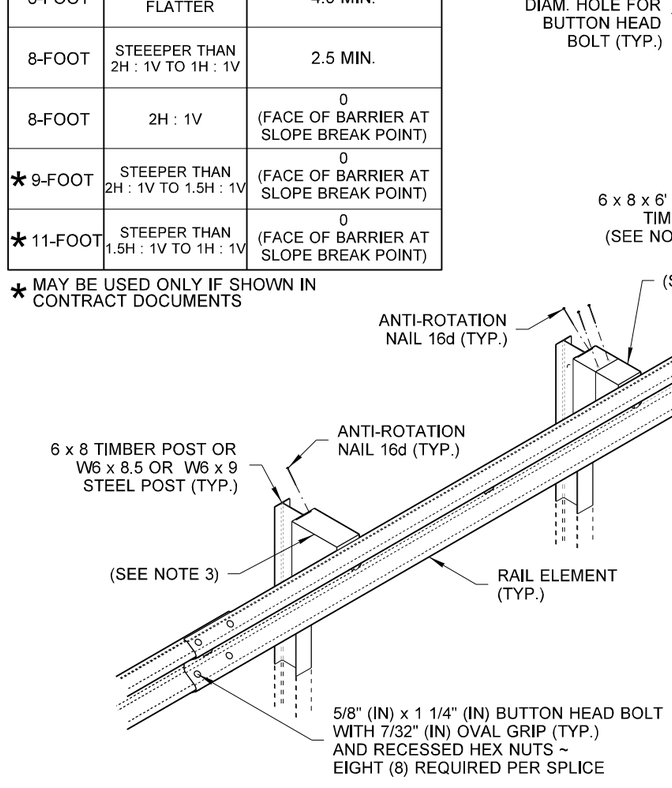
TYPICAL RAIL ELEMENT

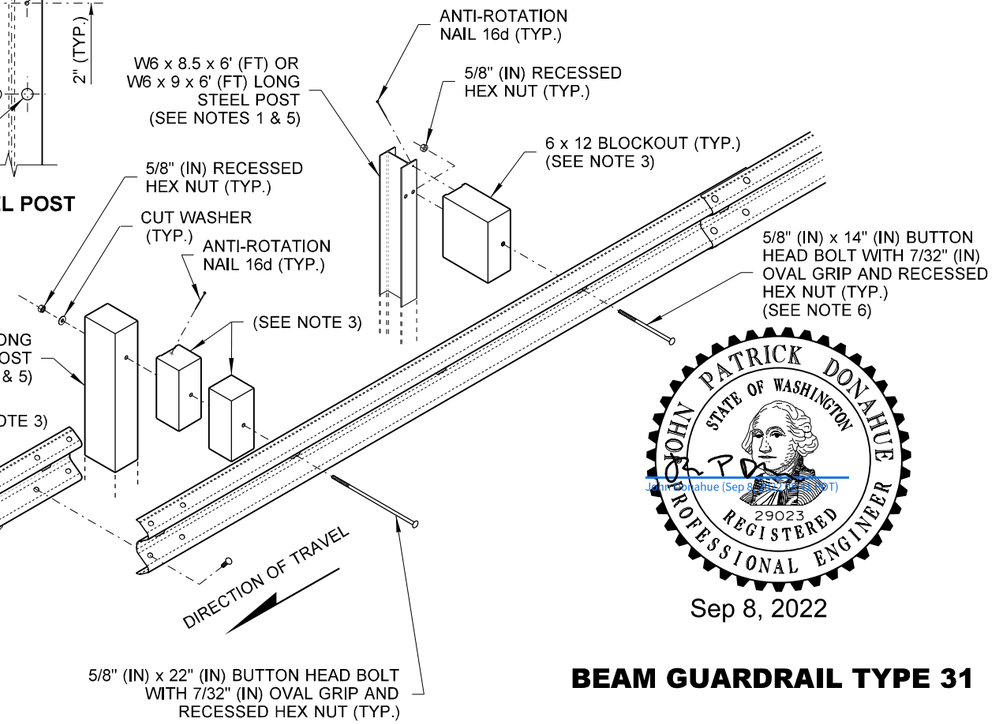
SLOPE/EMBANKMENT TABLE FOR 6', 8', 9', AND 11' LONG POSTS		
POST LENGTH	**SLOPE**	**W (FT)**
6-FOOT	2H : 1V OR FLATTER	2.5 MIN.
6-FOOT	1H : 1V OR FLATTER	4.0 MIN.
8-FOOT	STEEEPER THAN 2H : 1V TO 1H : 1V	2.5 MIN.
8-FOOT	2H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)
* 9-FOOT	STEEPER THAN 2H : 1V TO 1.5H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)
* 11-FOOT	STEEPER THAN 1.5H : 1V TO 1H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)

* MAY BE USED ONLY IF SHOWN IN CONTRACT DOCUMENTS



STEEL POST





ISOMETRIC VIEW

NOTES

1. Refer to **Standard Plan C-1b** for additional details not shown on this plan.
2. Extend shoulder pavement to provide a base for the extruded curb. See Contract Plans for exceptions to distances shown.
3. Use a single block or combination of blocks (no more than two (2) to achieve the actual 12" (in) offset. See **Standard Specification, Section 9-16.3(2)**. Wood blocks shall be secured to the posts with anti-rotation nails. If combination blocks are used, the adjacent blocks shall be toenailed with two 16d galvanized nails to prevent block rotation.
4. Wood blocks are shown. Blocks of an approved alternative material may be used. See **Standard Specification, Section 9-16.3(2).**
5. All posts for any standard barrier run shall be of the same type: timber or steel.
6. Attach blockouts to steel posts using bolt holes on approaching traffic side of post web.
7. Anti-rotation holes in steel posts are not required when using blocks with anti-rotation features (e.g., routered blocks).

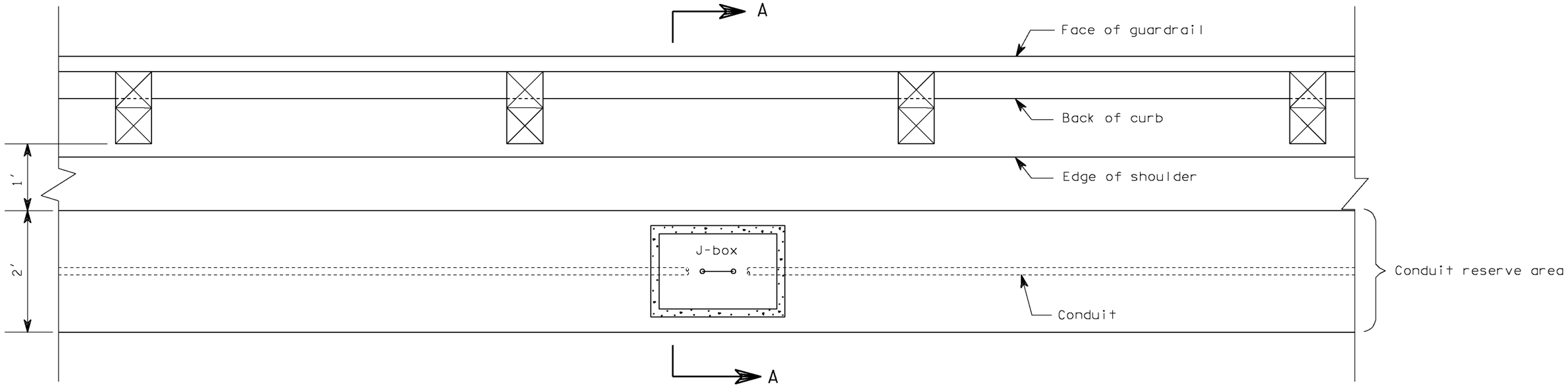
JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED PROFESSIONAL ENGINEER
John Donahue (Sep 8, 2022 10:12 PDT)
Sep 8, 2022

BEAM GUARDRAIL TYPE 31

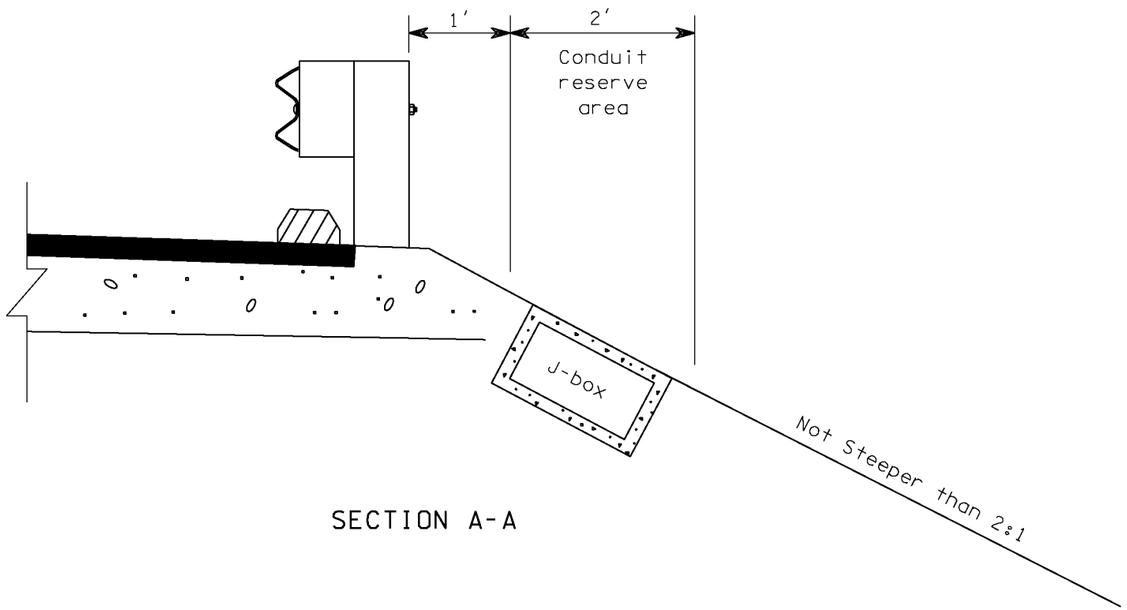
STANDARD PLAN C-20.10-08

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Mark Gaines
Mark Gaines (Sep 8, 2022 10:12 PDT)
Sep 8, 2022
STATE DESIGN ENGINEER
Washington State Department of Transportation



PLAN



SECTION A-A

ELECTRICAL CONDUIT PLACEMENT

WILLIAM D. BROWN
STATE OF WASHINGTON
0014812
REGISTERED
PROFESSIONAL ENGINEER

EXPIRES SEPT 10, 1998

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT WHEN ELECTRONICALLY TRANSMITTED. ONLY A COPY OF THE PLAN SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

STANDARD PLAN J-10

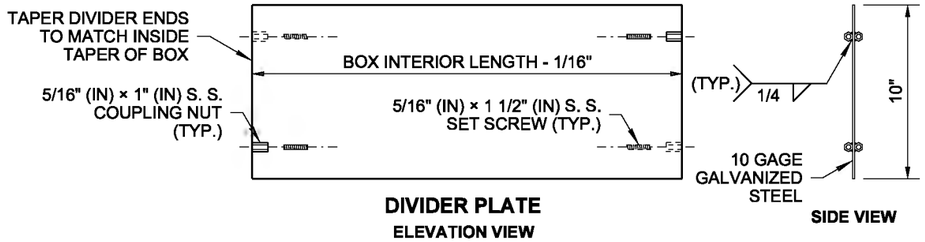
APPROVED FOR PUBLICATION

Clifford E. Mansfield — STATE DESIGN ENGINEER

07-18-97 — DATE

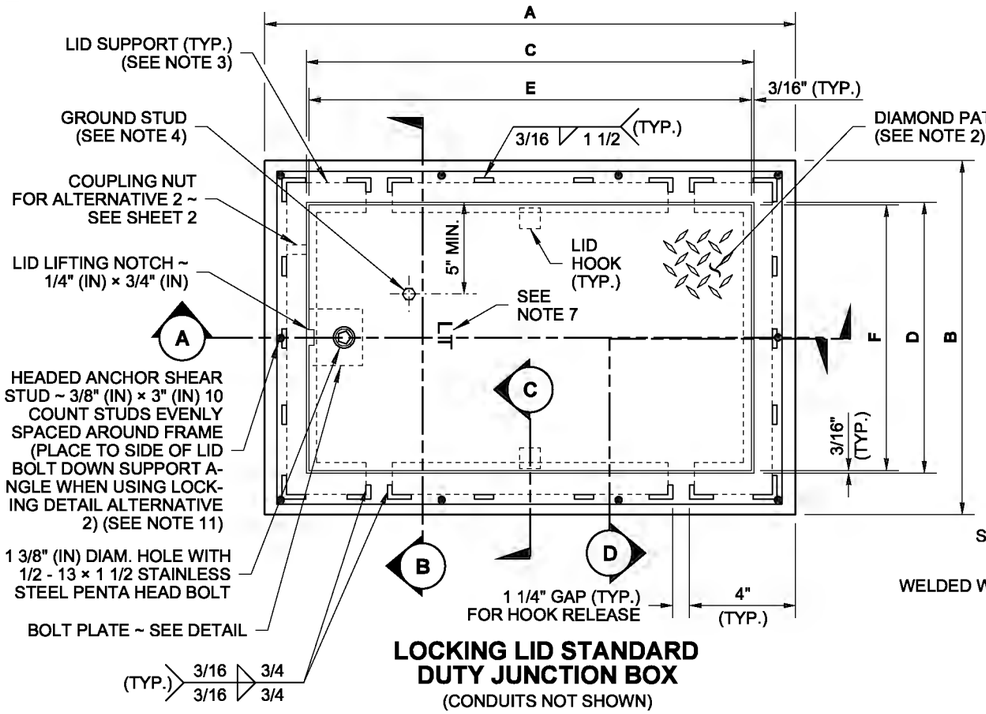
WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

DRAWN BY: LISA CYFORD

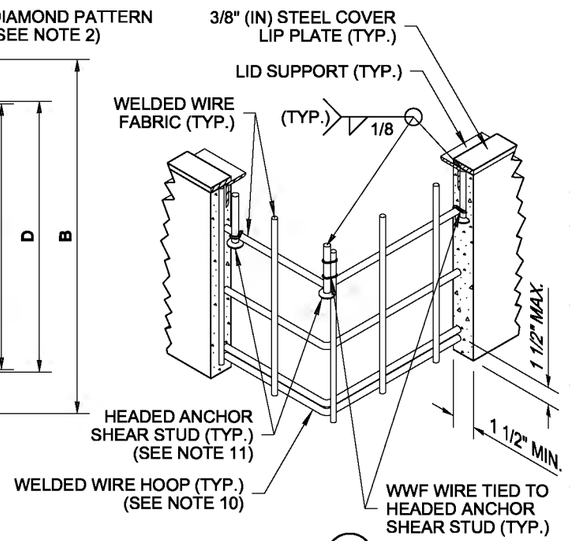


DIVIDER PLATE
ELEVATION VIEW
(FOR TYPE 2 JUNCTION BOX ONLY)

JUNCTION BOX DIMENSION TABLE			
MARK	ITEM	BOX TYPE	
		TYPE 1	TYPE 2
A	OUTSIDE LENGTH OF JUNCTION BOX	22"	33"
B	OUTSIDE WIDTH OF JUNCTION BOX	17"	22 1/2"
C	INSIDE LENGTH OF JUNCTION BOX	18" ~ 19"	28" ~ 29"
D	INSIDE WIDTH OF JUNCTION BOX	13" ~ 14"	17" ~ 18"
E	LID LENGTH	17 5/8"	28 5/8"
F	LID WIDTH	12 5/8"	18 1/8"
	CAPACITY ~ CONDUIT DIAMETER	6"	12"



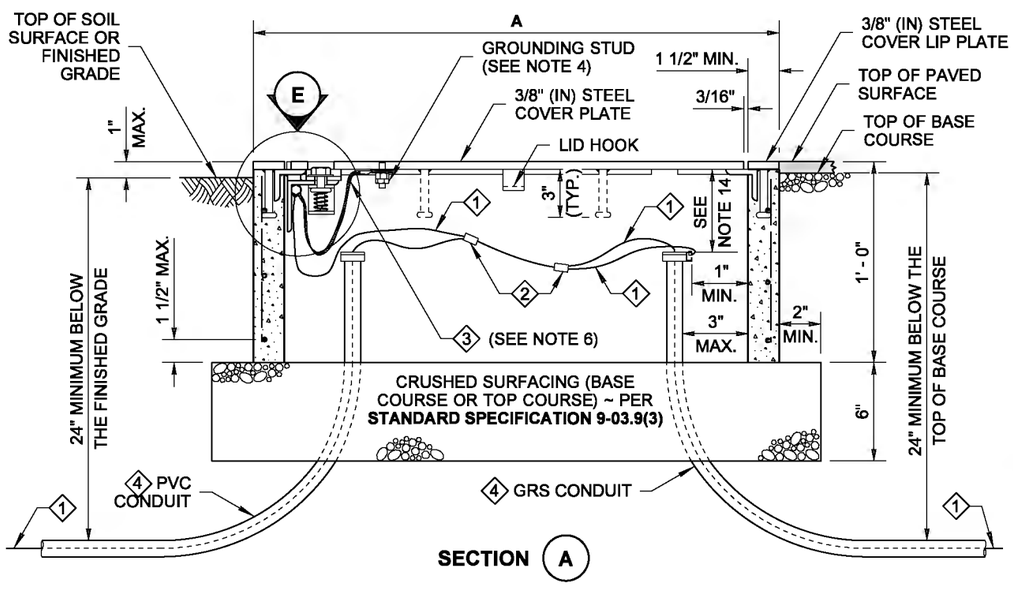
LOCKING LID STANDARD DUTY JUNCTION BOX
(CONDUITS NOT SHOWN)



SECTION D
PERSPECTIVE VIEW

NOTES

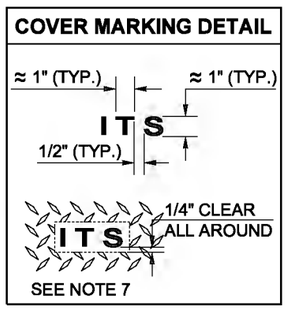
1. All box dimensions are approximate. Exact configurations vary among manufacturers.
2. Minimum lid thickness shown. Junction Boxes installed in sidewalks, walkways, and shared-use paths shall have a slip-resistant coating on the lid and lip cover plate, and shall be installed with the surface flush with and matched to the grade of the sidewalk, walkway, or shared-use path. The non-slip lid shall be identified with permanent markings on the underside, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The permanent marking shall be 1/8" (in) line thickness formed with a mild steel weld bead and shall be placed prior to hot-dip galvanizing.
3. Lid support members shall be 3/16" (in) minimum thick steel C, L, or T shape, welded to the frame.
4. A 1/4-20 NC × 3/4" (in) stainless steel ground stud shall be welded to the bottom of the lid; include (2) stainless steel nuts and (2) stainless steel flat washers.
5. Bolts and nuts shall be liberally coated with anti-seize compound.
6. Equipment Bonding Jumper shall be # 8 AWG min. × 4' (ft) of tinned braided copper.
7. The System Identification letters shall be 1/8" (in) line thickness formed with a mild steel weld bead. See Cover Marking detail. Grind off diamond pattern before forming letters. For System Identification details, see **Standard Specification 9-29.2(4)**.
8. When required in the Contract, provide a 10" (in) x 27 1/2" (in), 10 gage divider plate, complete, with fasteners, in each Type 2 Junction Box where specified.
9. When required in Contract, provide a 12" (in) deep extension for each Type 2 Junction Box where specified.
10. See the **Standard Specifications** for alternative reinforcement and class of concrete.
11. Headed Anchor Shear Studs must be welded to the Steel Cover Lip Plate and wire tied in two places to the vertical Welded Wire Fabric when in contact with each other. Wire tie all other Headed Anchor Shear Studs to the horizontal Welded Wire Fabric.
12. Lid Bolt Down Attachment **T**ab provides a method of retrofitting by using a mechanical process in lieu of welding. Attachment Tab shown depicts a typical component arrangement; actual configurations of assembly will vary among manufacturers. See approved manufacturers' shop drawings for specifics.
13. Unless otherwise noted in the plans or approved by the Engineer, Junction Boxes, Cable Vaults, and Pull Boxes shall not be placed within the sidewalks, walkways, shared use paths, traveled ways or paved shoulders. All Junction Boxes, Cable Vaults, and Pull Boxes placed within the traveled way or paved shoulders shall be Heavy-Duty.
14. Distance between the top of the conduit and the bottom of the Junction Box lid shall be 6" (in) min. to 8" (in) max. for final grade of new construction only. See **Standard Specification 8-20.3(5)**. Where adjustments are to be made to existing Junction Boxes, or for interim construction stages during the contract, the limits shall be from 6" (in) min. to 10" (in) max. See **Standard Specification 8-20.3(6)**.

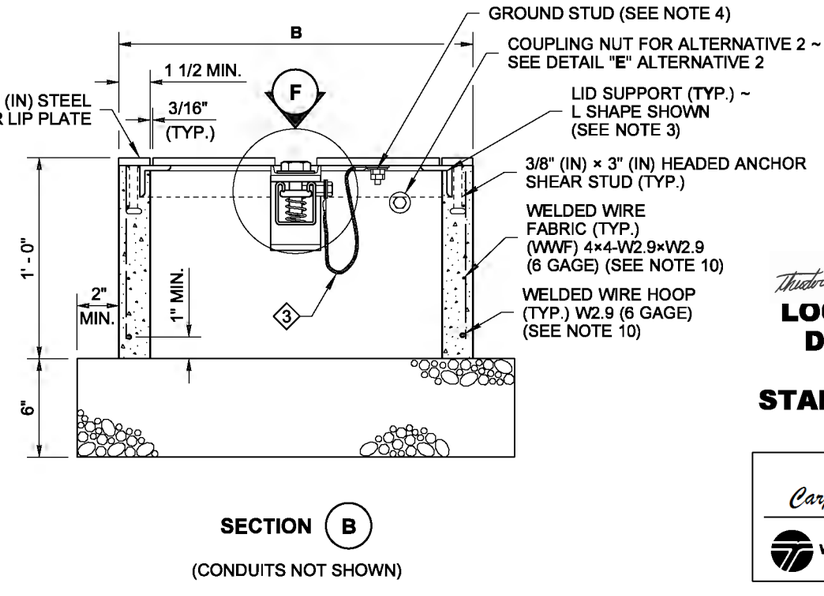


SECTION A

1. Equipment Grounding Conductor
2. Copper Solderless Crimp Connector
3. Equipment Bonding Jumper (See Note 6)
4. See Contract for conduit size and number

COVER MARKING DETAIL





SECTION B
(CONDUITS NOT SHOWN)

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

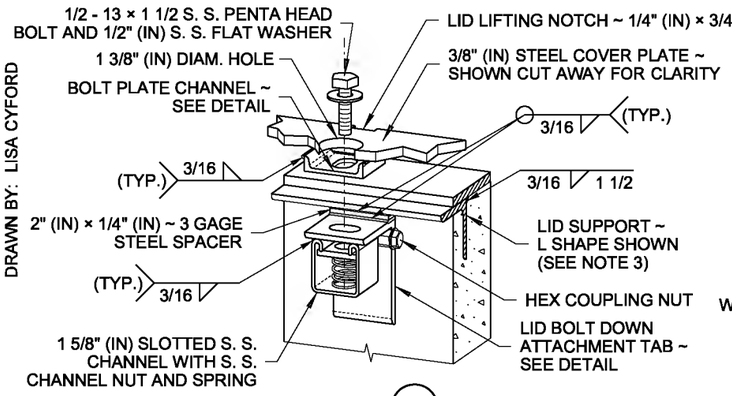
Theodore Joseph Bailey
Bailey, Ted
Apr 25 2016 9:32 AM
cosign

LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2 STANDARD PLAN J-40.10-04

SHEET 1 OF 2 SHEETS

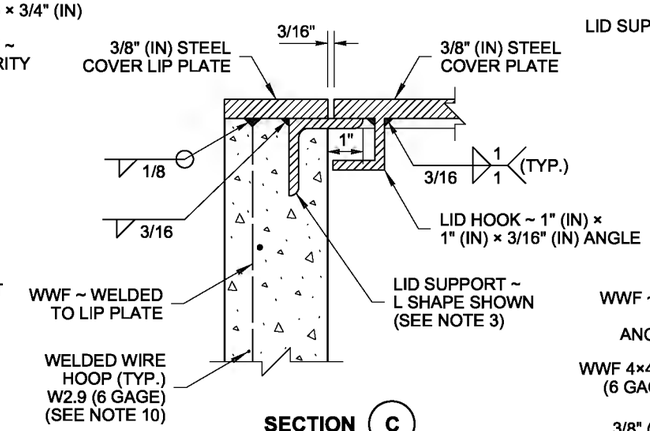
APPROVED FOR PUBLICATION
Carpenter, Jeff
Carpenter, Jeff
Apr 28 2016 3:12 PM
cosign
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: LISA CYFORD

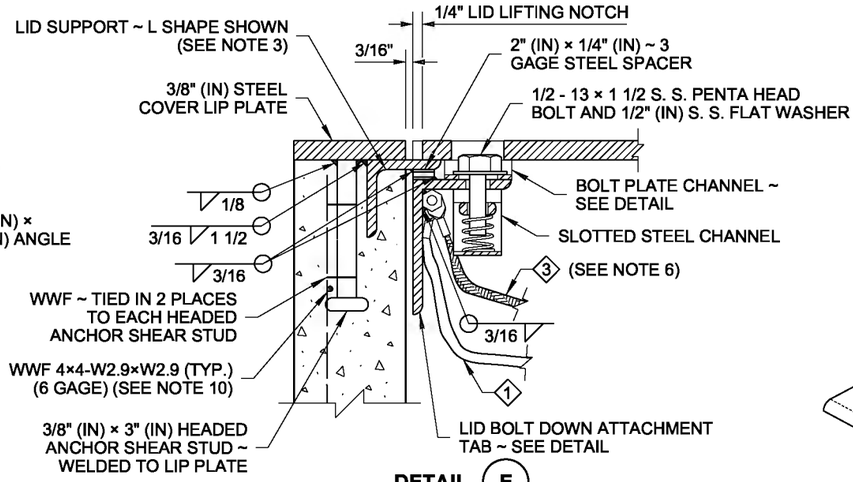


DETAIL (F)

ALTERNATIVE 1 SHOWN
PERSPECTIVE VIEW

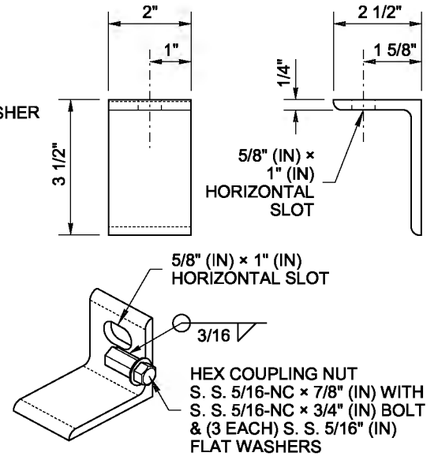


SECTION (C)

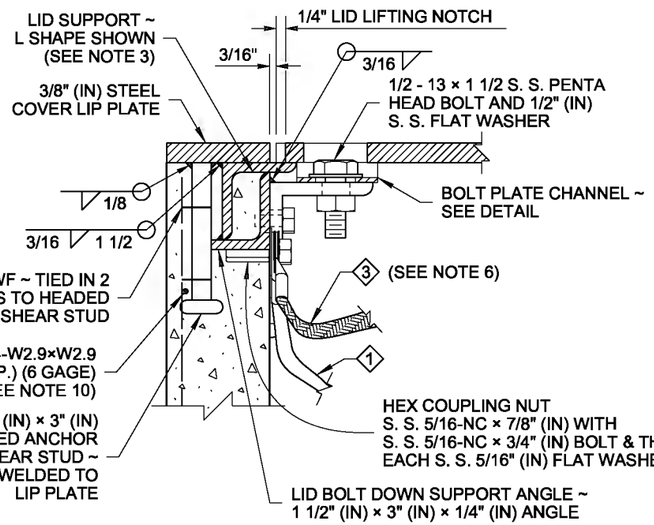


DETAIL (E)

ALTERNATIVE 1 SHOWN

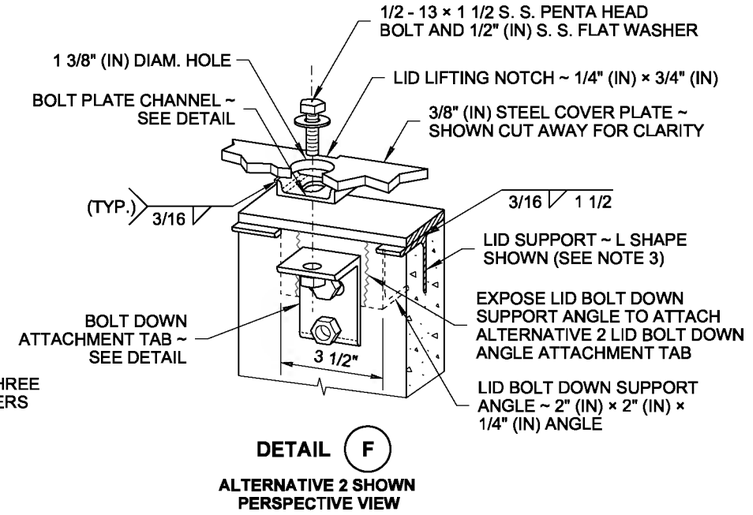


ALTERNATIVE 1
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)



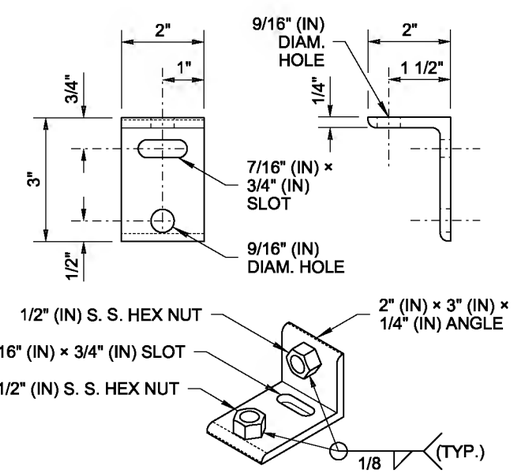
DETAIL (E)

ALTERNATIVE 2 SHOWN

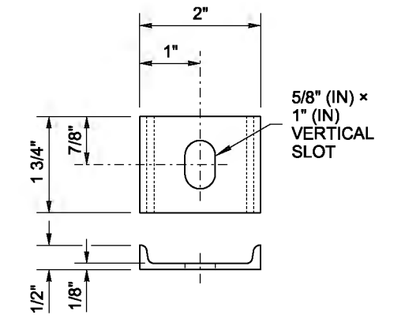


DETAIL (F)

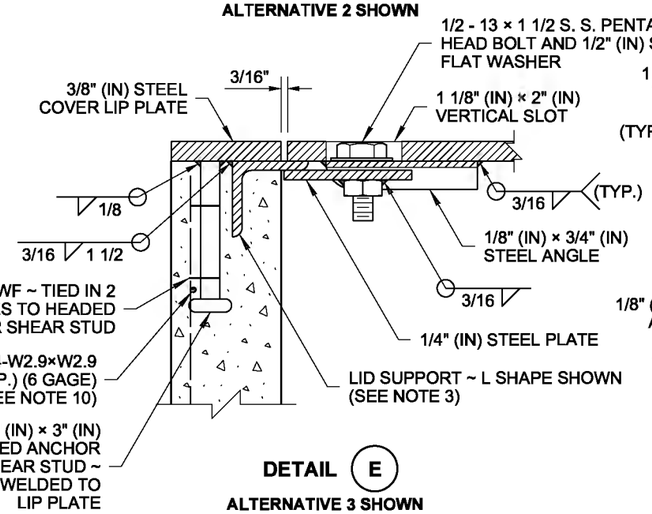
ALTERNATIVE 2 SHOWN
PERSPECTIVE VIEW



ALTERNATIVE 2
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)

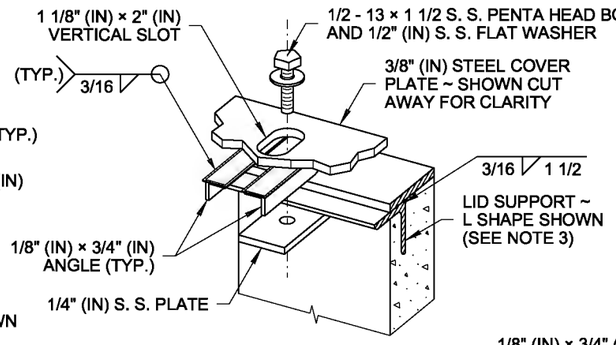


BOLT PLATE CHANNEL



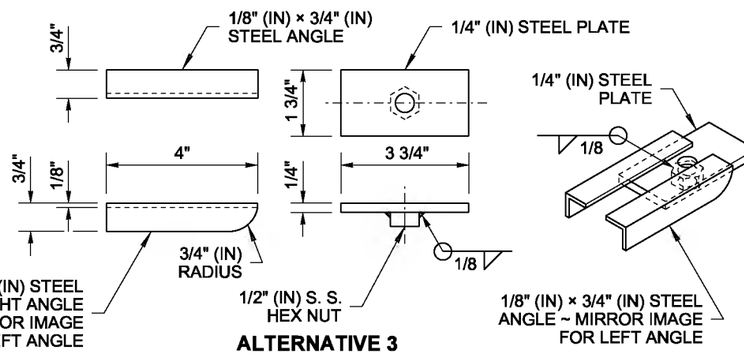
DETAIL (E)

ALTERNATIVE 3 SHOWN



DETAIL (F)

ALTERNATIVE 3 SHOWN
PERSPECTIVE VIEW



ALTERNATIVE 3
LID BOLT DOWN ATTACHMENT TAB
(SEE NOTE 12)

THEODORE JOSEPH BAILEY
STATE OF WASHINGTON
39820
REGISTERED
PROFESSIONAL ENGINEER

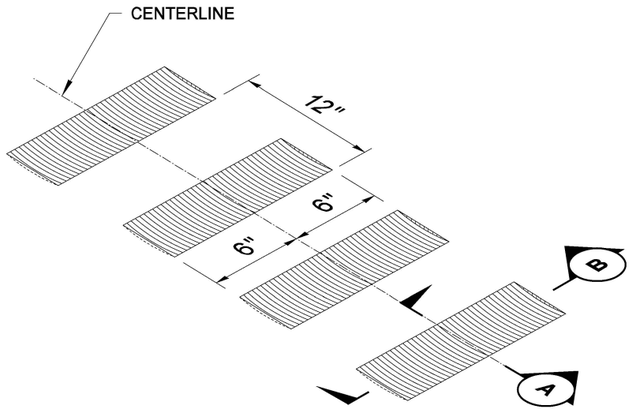
Bailey, Ted
Apr 25 2016 9:33 AM

LOCKING LID STANDARD DUTY JUNCTION BOX TYPES 1 & 2 STANDARD PLAN J-40.10-04

SHEET 2 OF 2 SHEETS

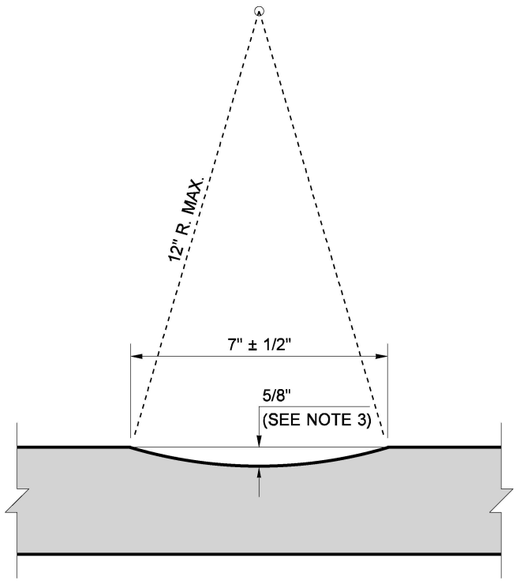
APPROVED FOR PUBLICATION
Carpenter, Jeff
Apr 28 2016 3:12 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



ISOMETRIC VIEW

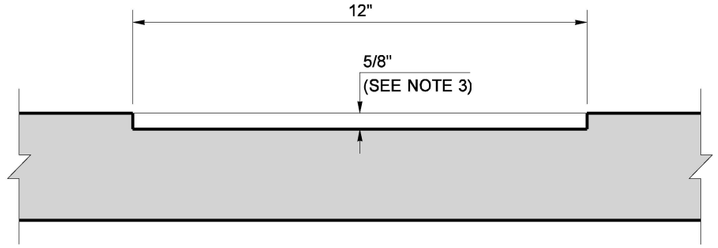
TYPICAL INSTALLATION



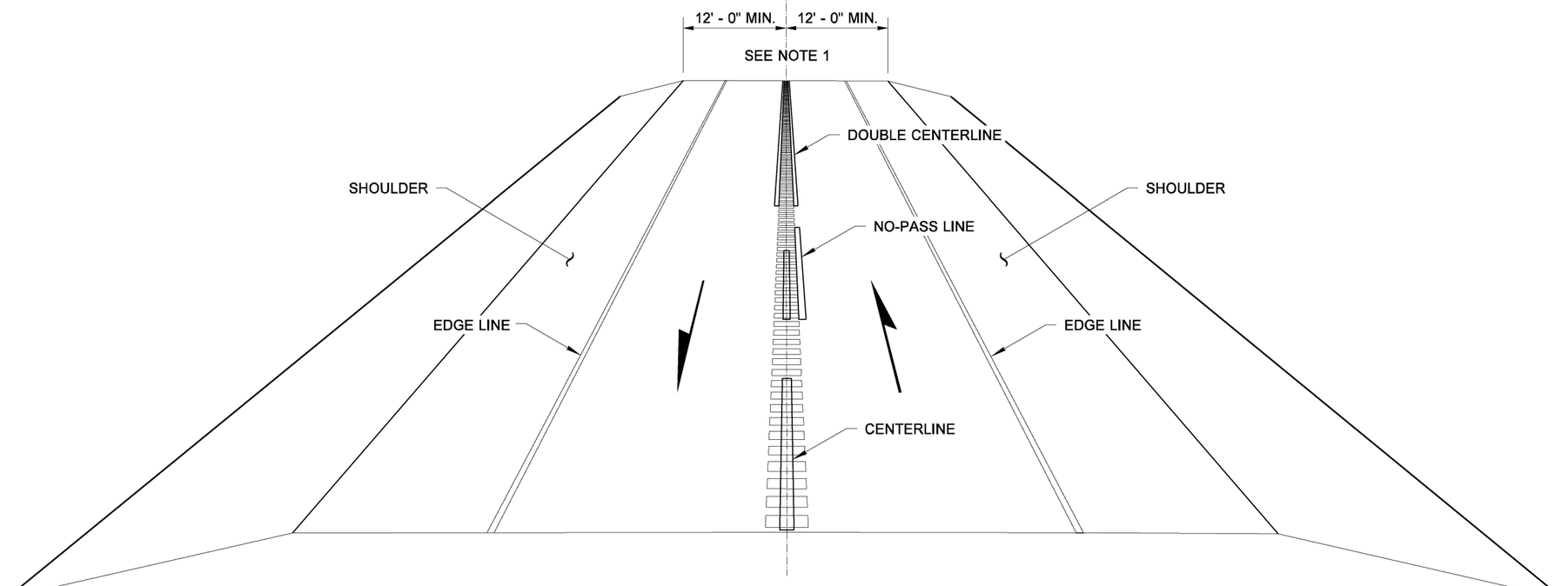
SECTION (A)

NOTES

1. Centerline Rumble Strip installation requires a minimum distance of 12 feet from centerline to edge of paved shoulder.
2. When directed by the Engineer, rumble strips may be installed along the turn pocket taper where there is a history of rear-end collisions in the turn pocket.
3. Increase depth of rumble strips by 1/8" (in) on routes where Bituminous Surface Treatment is normally applied. See contract plans for areas requiring the increased depth.
4. See **Standard Plan M-20.10** for more information on centerline longitudinal pavement marking patterns.



SECTION (B)



PERSPECTIVE VIEW

UNDIVIDED HIGHWAY

JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED
PROFESSIONAL ENGINEER

John Donahue (Aug 17, 2021 12:58 PDT)

Aug 17, 2021

CENTERLINE RUMBLE STRIP

STANDARD PLAN M-65.10-03

SHEET 1 OF 2 SHEETS

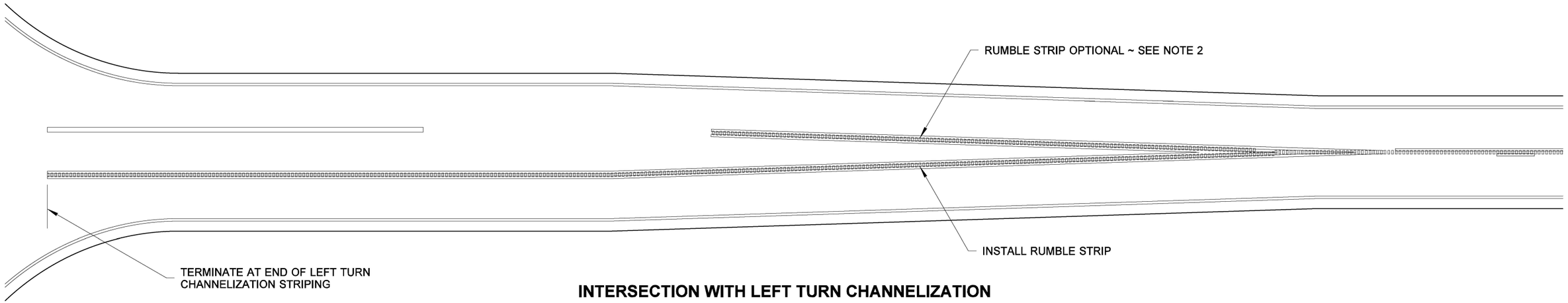
APPROVED FOR PUBLICATION

Aug 17, 2021

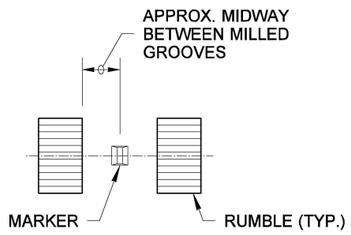
STATE DESIGN ENGINEER

Washington State Department of Transportation

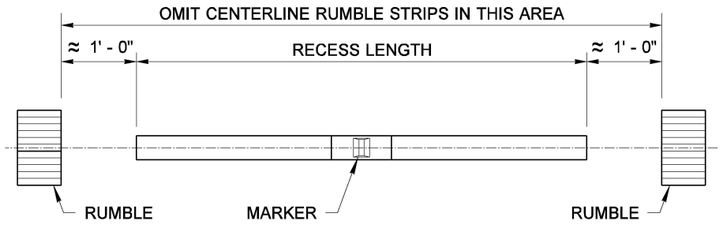
DRAWN BY: FERN LIDDELL



INTERSECTION WITH LEFT TURN CHANNELIZATION

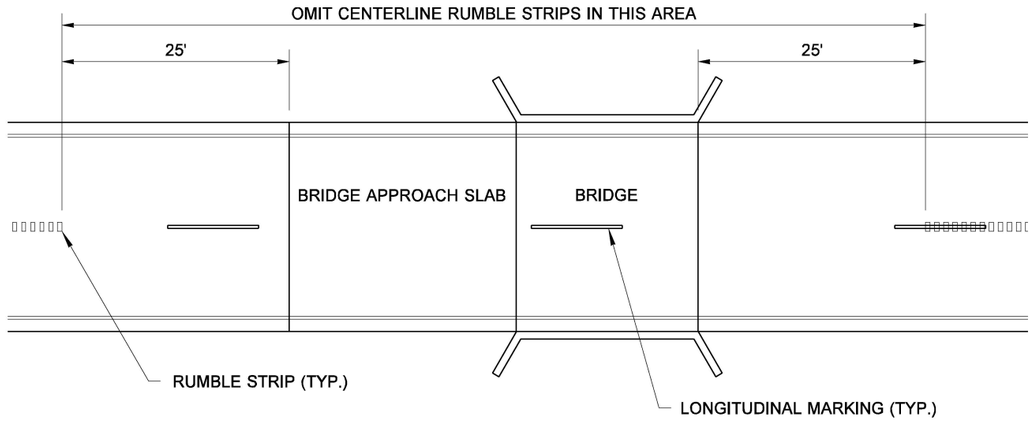


RAISED PAVEMENT MARKER
WHEN SPECIFIED IN CONTRACT

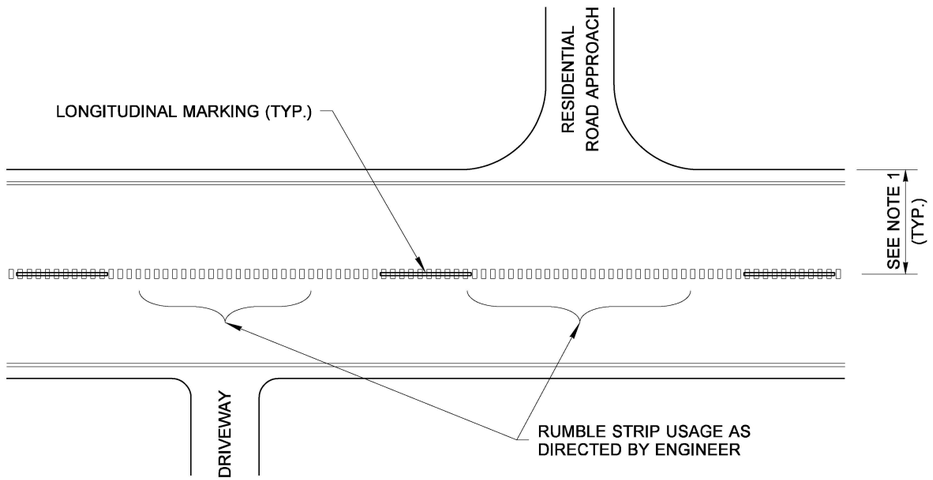


REFER TO **STANDARD PLAN M-20.30** FOR RECESSED PAVEMENT MARKER DETAIL

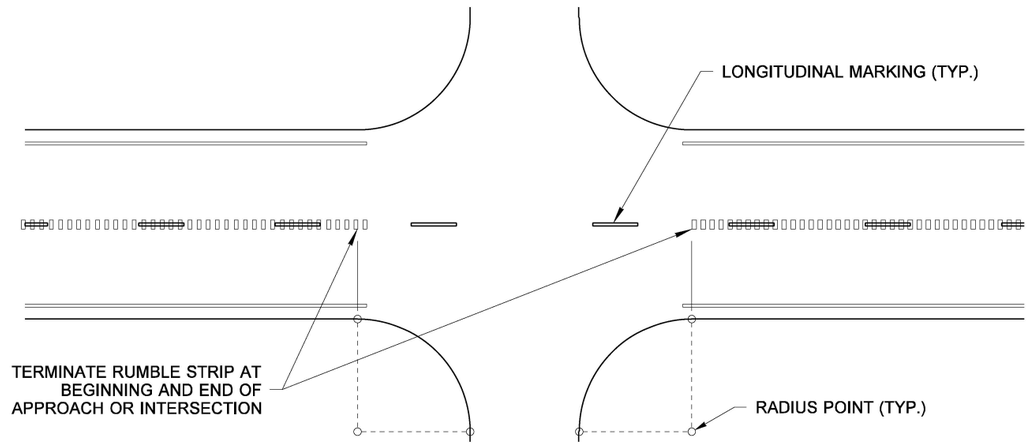
RECESSED PAVEMENT MARKER
WHEN SPECIFIED IN CONTRACT



BRIDGE



NON-COMMERCIAL ROAD APPROACHES AND DRIVEWAYS



UNCHANNELIZED INTERSECTIONS AND COMMERCIAL ROAD APPROACHES

JOHN PATRICK DONAHUE
STATE OF WASHINGTON
29023
REGISTERED PROFESSIONAL ENGINEER
John Donahue (Aug 17, 2021 13:58 PDT)

Aug 17, 2021

CENTERLINE RUMBLE STRIP

STANDARD PLAN M-65.10-03

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION
Aug 17, 2021
STATE DESIGN ENGINEER
Washington State Department of Transportation

APPENDIX B

CRITICAL AREAS REPORT

City of Kirkland

GEOTECHNICAL CRITICAL AREA REPORT
90th Ave/131st Way Nonmotorized Improvements
Kirkland, Washington

HWA Project No. 2021-101-21

Prepared for
City of Kirkland

June 8, 2022

HWA GeoSciences Inc.
DBE/MWBE

Geotechnical Engineering
Pavement Engineering
Geoenvironmental
Hydrogeology
Inspection & Testing

GEOTECHNICAL CRITICAL AREA STUDY REPORT

90TH AVE/131ST WAY NONMOTORIZED IMPROVEMENTS

KIRKLAND, WASHINGTON

HWA Project No. 2021-101-21

June 8, 2022

Prepared for:

Perteet Inc.

&

City of Kirkland

by:

HWA | GeoSciences Inc.

DBE/MWBE

June 8, 2022
HWA Project No. 2021-101-21

Perteet Inc.
2707 Colby Ave., Suite 900
Everett, WA 98201

Attention: Janessa Donato, P.E.

Subject: **GEOTECHNICAL CRITICAL AREA STUDY REPORT**
90th Ave/131st Way Nonmotorized Improvements
Kirkland, Washington

Dear Ms. Donato:

As requested, HWA GeoSciences Inc. (HWA) has performed a geotechnical critical area study for the proposed 90th Ave/131st Way Nonmotorized Improvements project in Kirkland, Washington. This geotechnical critical area study report includes the results of our field explorations and our engineering analyses for design and construction of the proposed improvements.

We appreciate the opportunity to provide geotechnical engineering services on this project. If you have any questions regarding this report or require additional information or services, please contact the undersigned at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

Donald J Huling, P.E.
Geotechnical Engineer, Principal

Mary Alice Benson, G.I.T.
Geologist

Enclosure: Geotechnical Critical Areas Report

TABLE OF CONTENTS

Figures (Following Text)

Appendix A: HWA Explorations

Appendix B: Laboratory Results

GEOTECHNICAL CRITICAL AREA STUDY
90TH AVE/131ST WAY NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

1. INTRODUCTION

1.1 GENERAL

This draft report summarizes the results of the geotechnical critical area study performed by HWA GeoSciences Inc. (HWA) for the proposed 90th Ave/131st Way Nonmotorized Improvements project in Kirkland, Washington. The approximate location of the project site is shown on the Site Vicinity Map, Figure 1, and on the Site and Exploration Plans, Figure 2A through 2C. Our field explorations involved drilling 17 hand-augured holes, designated HH-1 through HH-17, along the proposed project alignment, and a slope reconnaissance from within the City of Kirkland right of way. Appropriate laboratory tests were conducted on selected soil samples to determine relevant engineering properties of the subsurface soils. Qualitative slope stability assessments were made along the project alignment based on visual observations from the right-of way and geotechnical explorations completed. Quantitative slope stability analysis was not completed as undertaking this effort would require the drilling of a significant number of geotechnical borings within the right-of-way and on private property to accurately determine the stratigraphy and geometry of the critical slopes along the alignment. As the proposed improvements do not modify the existing conditions in a way that would affect the stability of the steep slope critical areas, we do not believe that the project warrants the cost associated with completing comprehensive quantitative slope stability modeling and analysis.

1.2 PROJECT UNDERSTANDING

It is our understanding that the city is planning to complete nonmotorized improvements along 90th Ave NE and NE 131st Way, between NE 134th Street and NE 132nd Street. The subject section of roadway extends along the side slopes of a ravine and has steep slopes above and below the road prism. The proposed improvements are planned to take place within the limits of the existing pavement without widening or modification to the adjacent steep slopes. The proposed improvements will not increase the load on the existing roadway prism from the current configuration. As part of the design of the proposed improvements, a geotechnical critical area study must be completed pursuant to Chapter 85 of the Cities development code.

1.3 SURFACE CONDITIONS

The project alignment contains one travel lane in each direction and is oriented roughly west to east from NE 134th Street to NE 132nd Street. The project alignment measures approximately 0.60 miles in length. The roadway traverses a steep slope, with a ravine to the south and/or west side of the roadway, and a steep upslope to the north and/or east. A wooden post and corrugated metal guard rail is present along most of the project alignment on the side of the roadway

adjacent to the ravine. The roadway grade declines from north to south, with an elevation of approximately 400 feet above mean sea level at NE 134th Street, descending to approximately 190 feet above mean sea level at 132nd Street. Specific information regarding steep slope conditions can be found in Section 3.4, Geologically Hazardous Areas.

2. FIELD INVESTIGATION AND LABORATORY TESTING

2.1 GEOTECHNICAL SUBSURFACE EXPLORATIONS

Our geotechnical exploration program included surface reconnaissance of the alignment and adjacent slopes and conducting a total of seventeen (17) hand-augured borings. Hand-augured boring locations were selected in the field based on analysis of LiDAR imagery (as shown in Figure 8), location of documented landslides, and slope conditions observed during our reconnaissance. The subject hand-augured borings were conducted on February 21 through February 24, 2022, using a bucket auger with 5-foot-long handle extensions. Hand-augured borings range in depth from 2.25 to 8 feet below ground surface. Locations of the hand-augured borings are indicated on the Site and Exploration Plans, Figure 2A through Figure 2C.

Each exploration was monitored and logged by an HWA geologist. Representative soil samples were obtained from the explorations at selected intervals and taken to our laboratory in Bothell, Washington for further examination and testing. Hand-augured boring logs of explorations are presented in Appendix A.

2.2 LABORATORY TESTING

Laboratory tests were conducted at HWA's Bothell, Washington laboratory, on selected samples retrieved from the hand-augured borings to determine relevant index and engineering properties of the soils encountered at the site. The tests included visual classifications, natural moisture content, Atterberg Limits, and grain size distribution analyses. The tests were conducted in general accordance with appropriate American Society of Testing and Materials (ASTM) standards. The test results and a discussion of laboratory test methodology are presented in Appendix B, and/or displayed on the exploration logs in Appendix A, as appropriate.

3. SITE CONDITIONS

3.1 GENERAL GEOLOGIC CONDITIONS

The project alignment is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial

advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland. As the most recent glacier retreated, it uncovered a sculpted landscape of elongated, north-south trending hills and valleys between the Cascade and Olympic Mountain ranges, composed of a complex sequence of glacial and interglacial deposits.

Specific geologic information for the project area was obtained from the Geologic Map titled *Surficial Geology of Kirkland* (Troost et al., 2017). A portion of this map, showing the project area, is shown on Figure 3. According to this map, the slope above the project alignment generally consists of Vashon subglacial till (Qvt) underlain by Vashon advance outwash (Qva) and a series of older glacial and nonglacial deposits of Pleistocene age. The map also shows that most of the project alignment is underlain by soils experiencing mass wasting and landslide deposits are noted in specific areas. The geologic map shows the location of several geotechnical explorations along the project corridor. However, these explorations and their associated logs are not readily available for review. Therefore, these explorations have not been considered in our assessment of the critical areas along the project corridor.

3.2 SUBSURFACE SOIL CONDITIONS

The Vashon glacial soils encountered in our explorations were generally consistent with the geologic conditions described in section 3.1. However, the Pleistocene glacial and nonglacial soils depicted in the lower reaches of the hillside, in the geologic map, were not encountered in our explorations. In general, our explorations encountered soils included topsoil overlying colluvium deposits, weathered glacial till, and/or advance outwash. The exploration logs in Appendix A provide more detail of subsurface conditions observed at specific locations and depths.

- **Topsoil:** Topsoil was encountered in hand-augured holes HH-1 through HH-3, HH-5, HH-7 through HH-11, HH-13, and HH-15 through HH-17 to depths ranging from 0.5 to 1.0 feet. Topsoil generally consisted of silty sand with varying amounts of gravel and organics/rootlets.
- **Fill:** Fill was encountered in HH-2 through HH-4, HH-6, HH-7, HH-12, and HH-14, underlying the topsoil in HH-2, HH-3 and HH-7, to depths ranging from 0.5 to 3.9 feet. Fill generally consisted of silty sand with varying amounts of gravel. Angular quarry spalls were encountered in HH-4, HH-6, and HH-14. Silt was encountered in HH-7. For HH-2, HH-3, HH-7, and HH-12, the fill was likely reworked native soils.
- **Colluvium:** Colluvium deposits were encountered in HH-2 through HH-6, HH-8 through HH-10, HH-12 through HH-14, HH-16, and HH-17 underlying the topsoil or fill, to depths ranging from 3 feet to the depth of the boring. Colluvium deposits generally

consisted of silty sand or silty gravel, with varying amounts or organics. Silt was encountered in HH-8 and was heavily oxidized at 5 feet. This unit is formed by mass-wasting upslope, containing reworked native soils.

- **Weathered Vashon Till (Qvt):** Weathered Vashon till was encountered in BH-1 underlying the topsoil and extending to the depth of the boring. Vashon till generally consisted of dense to very dense silty sand, silty gravel, or silt with varying amounts of cobbles. Weathering was indicated by oxidation within the soil. This unit has been overlain and densified by the weight of the ice during the most recent glaciation and is overconsolidated.

  Advance Outwash (Qva): Advance outwash soils were encountered in HH-5, HH-10, HH-11, HH-16, and HH-17 underlying either fill or colluvium deposits and extending to the depth of the boring. Advance outwash soils generally consisted of dense to very dense silty sand, sandy silt, or silt with varying amounts of gravel. These deposits were laid down by streams issuing from the glacial front as the ice sheet advanced. This unit has been overlain and densified by the weight of the ice during the most recent glaciation and is overconsolidated.

3.3 GROUNDWATER CONDITIONS

Perched groundwater seepage was encountered in HH-11 at approximately 2.8 feet below ground surface. No groundwater was encountered in the remaining hand-augured borings or observed on the surface of the slope during our exploration and reconnaissance. Visual observation of the slope surface was obscured by heavy vegetation and limited by conducting our exploration from within the right-of-way. The potential exists that surface water is present on portions of the slope but was not detected under these conditions.

3.4 GEOLOGICALLY HAZARDOUS AREAS

HWA has completed an assessment of the geologically hazardous areas along the 90th Avenue/131st Way corridor. The assessment was completed in accordance with the requirements of the City of Kirkland Zone Code (KZC) Chapter 85 – *Critical Areas: Geologically Hazardous Areas*. Prior to the field exploration, HWA broke the project alignment into seven (7) zones to assess landslide hazards, with each zone encompassing an area with similar slope characteristics. Site and Exploration Plan Figures 2A through 2C shows the field explorations performed along the alignment, and the location and extent for each HWA identified zone. Kirkland's Code designates three geologically hazardous areas including erosion hazard areas, landslide hazard areas, and seismic hazard areas. Each of the geological hazardous areas are discussed in the following sections.

3.4.1 Erosion Hazards

Erosion hazards are defined by the KZC as those areas containing soils which, according to the United States Department of Agriculture (USDA) Natural Resource Conservation Services (NRCS) Web Soil Survey, may experience severe to very severe erosion. The exploration logs, presented in Appendix A provide more detail of subsurface conditions observed, USCS classification, interpreted geologic units and depth of fill materials.

The *Soil Survey of King County Area Washington* (United States Department of Agriculture Soil Conservation Service, 1973) indicates that the project alignment is located within three soil classifications: Kitsap silt loam, 15 to 30 percent slopes, Alderwood gravelly sandy loam, 8 to 15 percent slopes and Alderwood gravelly sandy loam, 15 to 30 percent slopes, as shown in Figure 4. Hazards of water erosion for the Kitsap silt loam are considered to be severe. Hazards of water erosion for the Alderwood gravelly sandy loam 15 to 30 percent slopes are also considered to be severe. Hazards of water erosion for the Alderwood gravelly sandy loam 8 to 15 percent slopes are considered to be moderate. Therefore, portions of the project corridor located within areas maps as Kitsap silt loam, 15 to 30 percent slopes and Alderwood gravelly sandy loam, 15 to 30 percent slopes meet the KZC definition as erosion hazard areas. Portions of the project mapped as Alderwood gravelly sandy loam 8 to 15 percent slopes do not meet the KZC definition of erosion hazard areas.

As the proposed improvements are to take place within the existing pavement, and not extend out to the surrounding soils, we do not expect that the proposed construction activities will result in any erosion hazards. Additionally, the proposed improvements will not increase the erosion hazard with respect to the existing condition.

3.4.2 Landslide Hazards

Landslide hazard areas are defined by KZC as areas at risk of mass movement due to a combination of geologic, topographic, and hydrogeologic factors. Landslide hazard areas include both moderate and high landslide hazard categories.

High Landslide Hazard Areas

High landslide hazard areas are areas that meet the following criteria:

1. Areas that have shown Holocene movement (from 10,000 years ago to the present) or that are underlain or covered by mass wastage debris
2. Areas with both of the following characteristics:
   a) Slopes steeper than 15 percent that intersect geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment; and
   b) Areas with springs

3. Areas potentially unstable because of rapid stream incision, stream bank erosion, or undercutting by wave action

4. Any area with a slope of 40 percent or steeper over a height of at least 10 feet.

5. For areas meeting the criteria of subsections (1) through (4) of this definition, the high landslide hazard area also includes the area within a horizontal distance "H" equal to either the height of the slope or 50 feet, whichever is greater. (Ord. 4643 § 4, 2018)

ArcGIS analysis was conducted to identify landslide hazard zones, analyze slope percentages, and measure slope heights and angles using King County 2016 LiDAR and King County 5-foot digital contour data. High landslide hazard areas are presented, with contours and HWA designated Landslide Hazard Zones shown in Figure 5A through Figure 5C. Slope percentages within each HWA designed landslide hazard zone are shown in Figure 6A through Figure 6F.

Review of the Kirkland *Landslide Susceptibility Map* (Kirkland, 2021) indicates that there are five (5) Holocene landslides mapped along the project alignment. This is further supported by a review of LIDAR imagery for the project alignment, as shown in Figure 8. HWA's slope reconnaissance identified additional areas exhibiting recent slope instability. Each of these areas is described below by HWA designated landslide hazard zone. The locations of mapped landslides and recently identified surficial movement are shown in Figures 2A through 2C. The presence of springs or seepage was not observed emanating from the slopes along the project alignment during our reconnaissance. Therefore, classification of potential high landslide hazard areas, along the 90th Ave/131st Way project alignment, is wholly dependent on areas with previous land movement, and/or slope steepness and height.

Kirkland's *Landslide Susceptibility Map* (Kirkland, 2021) indicate that the majority of the slopes along and immediately adjacent to the project corridor are designated as potentially high landslide hazard areas. The locations of these areas are shown in Figure 5A through 5C. The project alignment is discussed further below, broken into the above-mentioned Zone 1 through Zone 7.

Zone 1: As shown in Figure 2A, Zone 1 is located along the upslope (east) edge of 90th Avenue NE, extending from NE 134th street to approximately 1100 feet to the south. The slope in Zone 1 increases in height from north to south with slope heights ranging from 1 to 15 feet. Slope percentages range from 15% to greater than 40% as shown in Figure 6A. The slope is currently randomly vegetated with Himalayan blackberry, English ivy, and trees, with areas of exposed soil. Multiple trees are either pistol-butted or leaning, indicating an upset to normal growth patterns potentially caused by ground movement. Portions of the lower slope are over-steepened due to road cut construction. Locally, portions of this cut slope were blanketed with burlap stabilization fabric and l quarry spalls to minimize erosion and sloughing of loose soil.

Observations, hand explorations, and probing of the slopes suggest that the subsurface soils consist of glacial till at the north end of Zone 1 and transition to advance outwash as the roadway traverses down through the soil profile to the south. The near surface soils along the side slopes consist of varying thicknesses of weathered soils and colluvium from past near-surface soil movement.

Three small unmapped surface failures were observed towards the northern portion of Zone 1. The locations of these surface failures are within the dashed area on Figure 2A. Each of these areas are evidenced by exposed soil and slumps. These areas were not previously mapped and appear to have occurred relatively recently. We expect that these small surface failures are a result of weathering of the underlaying very dense glacial soils and were likely triggered during periods of increased precipitation.

Zone 1 contains one mapped Holocene landslide, located approximately 650 feet south of NE 134th Street. The location of this mapped landslide is shown in Figure 2A and consists of a hummocky bench rising into a steep slope and head scarp. Slope height was 15 feet and average slope was 67%. No landslide toe was identified and was likely graded during road construction. No documentation, indicating the previous geotechnical study of this landslide, was readily available. Visual observations made from the right-of-way indicate that the area of mapped landsliding consisted of a shallow skin slide that was likely the result of mechanical weathering of the soils along slope. Hand boring HH-5, drilled near the toe of the mapped landslide encountered landslide deposits over advance outwash soils. We expect that the core of the slope in this area consists of very dense glacial soils and slope instability in this area would be limited to shallow skin sliding within the weathered near surface soils along the slope.

Slope Stability Existing Conditions:

HWA's observations and subsurface explorations indicate that the slopes within the Zone 1 area are comprised of very dense glacial till and advance outwash soil. A veneer of loose weathered soils is present along the slope surface throughout the area. Under static loading conditions, we expect that the Zone 1 slopes are stable with respect to deep seated rotational landsliding. However, we expect that the slopes will continue to experience episodes of near surface slope failures within the weathered soils along the slope. The frequency of these near surface failures will increase during periods of wet weather.

Under pseudo-static loading, associated with the design earthquake, we do not expect deep seated rotational slope failures to develop within the very dense glacial till and advance outwash soils. However, the potential for increased occurrence of shallow skin sliding is expected as a result of the design earthquake.

Slope Stability Proposed Conditions:

The proposed improvements adjacent to Zone 1 are to take place completely within the limits of the existing roadway pavement section. The improvements will not include modifications to the slope, changes in road grade, or increase the loading of the roadway. Therefore, implementation of the proposed improvements will have no effect on the stability of the slopes or surrounding properties within Zone 1.

Zone 2: As shown in Figure 2B, Zone 2 is located along the upslope (north) edge of 90th Avenue NE, extending from the southern extent of Zone 1, approximately 440 feet to 92nd Avenue NE. Slope heights ranging from 20 to 40 feet. Slope percentages range from 9% to greater than 40% as shown in Figure 6B. The slope is currently heavily vegetated with Himalayan blackberry, English ivy, and trees, with few areas of exposed soil. A few trees are either pistol-butted or leaning, indicating an upset to normal growth patterns potentially caused by ground movement. Chunks of concrete were observed on the slope above the asphalt path and are potentially efforts by area residents to armor the slope.

Observations, hand explorations, and probing at the elevation of the roadway suggest that the subsurface soils consist of glacially consolidated fine-grained deposits described as advance outwash. As the steep portions of the slopes of Zone 2 were outside the right of way, we were not able to definitively determine the soils that make up the core of the slopes. However, geology would suggest that they comprise of very dense glacial advance outwash soils.

Zone 2 is mapped as containing a large Holocene landslide. This landslide consists of a bowl-shaped feature extending upslope from the roadway, with a hummocky bench adjacent to 90th Avenue NE, rising into a steep slope and head scarp. No documentation, indicating the previous geotechnical study of this landslide, was readily available. Therefore, the exact cause and original geometry of the landslide is unknown. However, landslide surface features, observed from the right-of-way, suggest that the landslide consisted of a deep-seated rotational failure. The presence of glacially consolidated fine-grained soils, near the base of the slide, would suggest that the slide may have been triggered by the development of groundwater seepage along the contact of the fine-grained soils. However, no groundwater seepage was observed at the time of our site reconnaissance. The landslide appears to have occurred prior to construction of the roadway and development of the area. An asphalt path was observed traversing the base of the landslide area, at the time of our reconnaissance. Historical aerial photographs, from the 1930's, shows the original road alignment extending into the landslide bowl and hugging the side slope. The roadway was realigned to its current alignment between 1964 and 1968. Realignment of the roadway significantly changed the surface geometry of the lower reaches of the landslide and erased much of the toe and surface features.

Slope Stability Existing Conditions:

Zone 2 consists predominantly of one large prehistoric landslide feature that failed prior to development of the area. Historical aerial photographs would suggest that this failure had to have occurred prior to the 1930's (over 90 years ago). Since the occurrence of original landsliding, we are not aware of additional deep seated landslide activity occurring in this area. Therefore, it appears that the prehistoric landslide within Zone 2 is at equilibrium, under static loading conditions, with respect to deep seated slope failures. However, a site-specific geotechnical investigation would be required to evaluate the stability of this landslide feature and determine if future deep-seated landslides are expected under static loading conditions. However, given the over steepened nature of the landslide bowl slopes, we do expect periodic episodes of shallow slope instability , within the near surface weathered soils, under static loading conditions. The potential for occurrence and frequency of these near surface failures is expected to increase during periods of wet weather.

Without conducting a significant number of geotechnical borings to define the complete geometry of the original Zone 2 landslide feature, we cannot estimate the behavior of the landslide mass and overlying roadway as result of the design earthquake. It is currently unclear if the pseudo-static loading associated with the design earthquake would result in displacement of the landslide mass and overlying roadway. We do expect that pseudo-static loading conditions will result in increased shallow failures within the near surface weathered soils along the side slopes of Zone 2.

Slope Stability Proposed Conditions:

The proposed improvements adjacent to Zone 2 are to take place completely within the limits of the existing roadway pavement section. The improvements will not include modifications to the slope, changes in road grade, or increase the loading of the roadway. Therefore, implementation of the proposed improvements will have no effect on the stability of the slopes or surrounding properties within Zone 2. Given the fact that the proposed improvements will not affect the stability of the Zone 2 slopes, we do not recommend conducting the field explorations and analysis required to fully analysis the existing landslide feature within Zone 2, for this project.

Zone 3: As shown in Figure 2B, Zone 3 is located along the upslope (north) edge of 90th Avenue NE, extending from 92nd Avenue NE to approximately 235 feet to the east. Slope heights range from 30 to 45 feet. Slope percentages range from 9% to greater than 40% as shown in Figure 6B. The slope and bench are currently heavily vegetated with Himalayan blackberries, English ivy, and trees, with few areas of exposed soil. Multiple trees are either pistol-butted or leaning, indicating an upset to normal growth patterns potentially cause by ground movement.

Observations, hand explorations, and probing at the elevation of the roadway suggest that the subsurface soils consist of glacially consolidated fine-grained deposits identified as advance outwash. As the steep portions of the slopes of Zone 3 were outside the right of

way, we were not able to definitively determine the soils that make up the core of the slopes. However, geology would suggest that they comprise of very dense glacial advance outwash soils.

Zone 3 is mapped as containing as large Holocene landslide. This landslide consists of a bowl-shaped feature extending upslope from the roadway, with a hummocky bench adjacent to 131st Way NE, rising into a steep slope and head scarp. No documentation, indicating the previous geotechnical study of this landslide, was readily available. Therefore, the exact cause and original geometry of the landslide is unknown. However, landslide surface features, observed from the right-of-way, suggest that the landslide consisted of a deep-seated rotational failure. The presence of glacially consolidated fine-grained soils, near the base of the slide, would suggest that the slide may have been triggered by the development of groundwater seepage along the contact of the fine-grained soils. Slow perched groundwater seepage was observed at about 2.8 feet below ground surface. The landslide appears to have occurred prior to construction of the roadway and development of the area. An asphalt path was observed at the southwest corner of the area, at the time of our reconnaissance. Historical aerial photographs, from the 1930's, shows the original road alignment extending into the landslide bowl and hugging the side slope. The roadway was realigned to its current alignment between 1964 and 1968. Realignment of the roadway significantly changed the surface geometry of the lower reaches of the landslide and erased much of the toe and surface features.

Slope Stability Existing Conditions:

Zone 3 consists predominantly of one large prehistoric landslide feature that failed prior to development of the area. Historical arial photographs would suggest that this failure had to have occurred prior to the 1930's (over 90 years ago). Since the occurrence of original landsliding, we are not aware of additional deep seated landslide activity occurring in this area. Therefore, it is likely that the prehistoric landslide within Zone 3 is at equilibrium, under static loading conditions, with respect to deep seated slope failures. However, a site-specific geotechnical investigation would be required to evaluate the stability of this landslide feature and determine if future deep-seated landslides are expected under static loading conditions. However, the over steepened nature of the landslide bowl slopes, we do expect periodic episodes of shallow slope instability, within the near surface weathered soils, under static loading conditions. The potential for occurrence and frequency of these near surface failures is expected to increase during periods of wet weather.

Without conducting a significant number of geotechnical borings to define the complete geometry of the original Zone 3 landslide feature, we cannot estimate the behavior of the landslide mass and overlying roadway as result of the design earthquake. It is currently unclear if the pseudo-static loading associated with the design earthquake would result in displacement of the landslide mass and overlying roadway. However, we do expect that

pseudo-static loading conditions would result in increased potential for shallow failures to occur within the near surface weathered soils along the side slopes of Zone 3.

Slope Stability Proposed Conditions:

The proposed improvements adjacent to Zone 3 are to take place completely within the limits of the existing roadway pavement section. The improvements will not include modifications to the slope, changes in road grade, or increase the loading of the roadway. Therefore, implementation of the proposed improvements will have no effect on the stability of the slopes or surrounding properties within Zone 3. Given the fact that the proposed improvements will not affect the stability of the Zone 3 slopes, we do not recommend conducting the field explorations and analysis required to fully analysis the existing landslide feature within Zone 3, for this project.

Zone 4: As shown in Figures 2B and 2C, Zone 4 is located along the upslope (north) edge of NE 131st Way, extending from the southern extent of Zone 3 to NE 132nd Street. Zone 4 contains a series of north-south trending ridges and gullies. Slopes increases in height from west to east with slope heights ranging from 12 to 123 feet. Slope percentages range from 15% to greater than 40% as shown in Figure 6C. The slopes are currently randomly vegetated with Himalayan blackberry, English ivy, and trees, with areas of exposed soil. Multiple trees are either pistol-butted or leaning, indicating an upset to normal growth patterns potentially caused by ground movement. Locally, portions of this cut slope were blanketed with burlap stabilization fabric and quarry spalls. to minimize erosion and sloughing of loose soil.

Observations, hand explorations, and probing at the elevation of the roadway suggest that the subsurface soils consist of glacially consolidated advance outwash. As the steep portions of the slopes of Zone 4 were outside the right-of-way, we were not able to definitively determine the soils that make up the core of the slopes. However, geology would suggest that they comprise of very dense glacial advance outwash soils.

One small unmapped surface failure was observed towards the eastern portion of Zone 4. The location of this surface failure is shown as a dashed area on Figure 2C. This area is evidenced by exposed soil, exposed tree roots, and slumps. This area was not previously mapped and appears to have occurred relatively recently. We expect that this small surface failure was a result of weathering of the underlying very dense glacial soils and was likely triggered during periods of increased precipitation.

Zone 4 contains one mapped Holocene landslide, located near the eastern terminus. The location of this mapped landslide is shown in Figure 2C and consist of a hummocky linear feature rising into a visible head scarp near the top of the slope. The slope height in the vicinity of the landslide is approximately 123 feet and average slope percentage was 67%. The landslide toe was identified on the opposite side of 131st Way NE and is described in the Zone 5 section. No documentation, indicating the previous geotechnical

study of this landslide, was readily available. Visual observations made from the right-of-way indicate that the area of mapped landsliding consisted of a moderately deep transitional skin slide and associated debris field that likely resulted from mechanical weathering of the soils near the top of the slope. The age of this landslide cannot be readily established using historical aerial photographs due to image resolution and tree cover. However, the presence of mature trees on the landslide surface, and the road bisecting the landslide, imply that movement likely occurred prior to construction of the roadway. Hand boring HH-16, drilled near the toe of the mapped landslide encountered landslide deposits over advance outwash soils.

Slope Stability Existing Conditions:

HWA's observations and subsurface explorations indicate that the slopes within the Zone 4 area are comprised of very dense advance outwash soil. Under static and pseudo-static loading conditions, we expect that the Zone 4 slopes, not identified as exhibiting past or recent landsliding, are stable with respect to deep seated rotational landsliding. However, we expect that the slopes will continue to experience episodic near surface slope failure within the weathered soils along the slope surface. The frequency of these near surface failures would likely increase during periods of wet weather and under loading associated with the design seismic event.

We are not aware of or observed any recent landslide activity in this area of the mapped Holocene landslide since the occurrence of the original failure. Therefore, it is likely that the landslide area and associate debris flow are marginally stable under static loading conditions and current geometry. However, a site-specific geotechnical investigation would be required to evaluate the stability of this landslide feature and determine if future moderate to deep-seated landsliding is expected to occur under static loading conditions. It is currently unclear if the pseudo-static loading associated with the design earthquake would result in displacement of the landslide mass and overlying roadway. Given the over steepened nature of the landslide surface slopes, we do expect the occurrence of episodic shallow slope failures, within the near surface weathered soils. The frequency of near surface instability will increase during periods of wet weather and during seismic events.

Slope Stability Proposed Conditions:

The proposed improvements adjacent to Zone 4 are to take place completely within the limits of the existing roadway pavement section. The improvements will not include modifications to the slope, changes in road grade, or increase the loading of the roadway. Therefore, implementation of the proposed improvements will have no effect on the stability of the slopes or surrounding properties within Zone 4.

Zone 5: As shown in Figure 2C, Zone 5 is located along the downslope (south) edge of NE 131st Way, extending from NE 132nd street to 94th Avenue NE. The slope in Zone 5 increases in height from east to west with slope heights ranging from 10 to 15 feet. Slope percentages range from 9% to greater than 40% as shown in Figure 6D. The slope is currently sporadically vegetated with Himalayan blackberry, English ivy, and trees. Few trees are leaning, indicating an upset to normal growth patterns potentially caused by ground movement.

Observations, hand explorations, and probing of the slopes suggest that the subsurface soils consist of glacial advance outwash overlain by roadway embankment fill at the crest of the slope. The near surface soils along the side slopes consist of varying thicknesses of weathered soils and colluvium from past near surface soil movement.

Zone 5 contains the toe of one mapped Holocene landslide located near the eastern terminus. The location of the toe of this mapped landslide is shown in Figure 2C and consisted of a vaguely hummocky slope. The larger landslide associated with the zone 5 toe is described in more detail in the Zone 4 section. The actual terminus of the landslide toe was not identified, and likely is obscured by a fence that is built parallel to the roadway outside the right-of-way. Hand boring HH-17, drilled into the toe of the mapped landslide, encountered landslide deposits over advance outwash soils. We expect that the core of the slope in this area consist of very dense glacial soils.

Slope Stability Existing Conditions:

HWA's observations and subsurface explorations indicate that the slopes within the Zone 5 area are comprised of very dense advance outwash soil overlain by roadway embankment soils at the crest of the slope. Based on slope geometry alone, the majority of Zone 5 could be categorized as a moderate landslide hazard. However, given the height and proximity of high landslide hazard slopes in Zone 4, portions of Zone 5 must be considered a high landslide hazard. A veneer of loose weathered soils is present along the slope surface throughout the area. Under static loading conditions, we expect that the Zone 5 slopes are stable with respect to deep seated landsliding. However, we expect that the slopes will continue to experience episodic near surface instability within the weathered soils along the slope. The frequency of these near surface skin slides will increase during periods of wet weather.

Under pseudo-static loading, associated with the design earthquake, we do not expect deep seated rotational slope failures to develop within the very dense advance outwash soils. However, increased occurrence of shallow skin sliding, with the near surface soils and landslide deposits, is expected as a result of the design earthquake.

Slope Stability Proposed Conditions:

The proposed improvements adjacent to Zone 5 are to take place completely within the limits of the existing roadway pavement section. The improvements will not require modifications to the slope, changes in road grade, or increase the loading of the roadway. Therefore, implementation of the proposed improvements will have no effect on the stability of the slopes or surrounding properties within Zone 5.

Zone 6: As shown in Figure 2B and 2C, Zone 6 is located along the downslope (south) edge of NE 131st Way and 90th Avenue NE, extending from 94th Avenue NE to approximately 1350 feet to the west. The slope in Zone 6 increases in height from east to west with slope heights ranging from 15 to 115 feet. Slope percentages range from 9% to greater than 40% as shown in Figure 6E. There are two distinctive bench features near each end of the alignment. The slope is currently heavily vegetated with Himalayan blackberry, English ivy, and trees, with few areas of exposed soil. Multiple trees are either pistol-butted or leaning, indicating an upset to normal growth patterns potentially caused by ground movement.

Observations, hand explorations, and probing of the slopes suggest that the subsurface soils consist of advance outwash overlain by roadway embankment fill at the crest of the slope. The near surface soils along the side slopes consist of varying thicknesses of weathered soils and colluvium from past near surface soil movement. As the steep portions of the slopes of Zone 6 were outside the right of way, we were not able to definitively determine the soils that make up the core of the slopes. However, we expect they consist of glacially consolidated advance outwash.

One small surface failure was observed in Zone 6. The location of this surface failure is shown as a dashed area on Figure 2B. This area is evidenced by exposed soil and roadway-shoulder damage. Soil movement adjacent to the roadway appears to have moved out from the pavement, displacing cement barrier blocks. A fresh asphalt patch over the edge of the effected pavement was observed during our site visit. This area was not previously mapped and appear to have occurred relatively recently. We expect that the slope movement in is area is likely due to softening and downslope creep of poor-quality embankment fill, possibly due to stormwater infiltration and increased subsurface seepage in the area.

Slope Stability Existing Conditions:

HWA's observations and subsurface explorations indicate that the slopes within the Zone 6 area are comprised of very dense advance outwash soil overlain by roadway embankment fill near the crest of the slope. A veneer of loose weathered soils is present along the slope surface throughout the area. Under static loading conditions, we expect that the Zone 6 slopes are stable with respect to deep seated rotational landsliding. However, we expect that the slopes will continue to experience episodic near surface slope instability and skin sliding within the weathered soils along the slope. Continued near surface embankment failure and associated pavement distress, in the area identified

in Figure 2B, may occur. Site-specific geotechnical explorations and analysis would be required to identify the geometry and cause of the observed distress and the potential for future movement. The potential for occurrence of near surface slope instability within zone 6 is expected to increase during periods of wet weather.

Under pseudo-static loading, associated with the design earthquake, we do not expect deep seated rotational slope failures to develop within the very dense advance outwash soils. However, the potential for occurrence of shallow skin sliding is expected to increase as a result of the design earthquake. The magnitude of displacement within the identified area of observed pavement distress is also likely to increase as a result of the design earthquake.

Slope Stability Proposed Conditions:

The proposed improvements adjacent to Zone 6 are to take place completely within the limits of the existing roadway pavement section. The improvements will not require modifications to the slope, changes in road grade, or increase the loading of the roadway. Therefore, implementation of the proposed improvements will have no effect on the stability of the slopes or surrounding properties within Zone 6.

Zone 7: As shown in Figures 2A and 2B, Zone 7 is located along the downslope (west) edge of 90th Avenue NE, extending from the western terminus of Zone 6 to NE 134th street. The slope in Zone 7 decreases in height from south to north with slope heights ranging from zero to 60 feet. Slope percentages range from 8% to greater than 40% as shown on Figure 6F. The slope is currently randomly vegetated with Himalayan blackberry, English ivy, and trees, with areas of exposed soil. Multiple trees are either pistol-butted or leaning, indicating an upset to normal growth patterns potentially caused by ground movement.

Observations, hand explorations, and probing of the slopes suggest that the subsurface soils consist of glacial till at the north of zone 7 and transitions to advance outwash as the roadway cuts down through the soil profile to the south. The near surface soils along the side slopes consist of varying thicknesses of fill, weathered native soils and colluvium from past near surface soil movement.

A guard rail parallels the roadway at the top of the slope along the majority of the roadway length within Zone 7. A quarry spall blanket has been placed along portions of the slope below the guard rail covering loose soil. There is a 260-foot-long section of guard rail that is leaning downslope towards the ravine. The location of this portion of guard rail is shown by a black line on Figure 2A. Angles for the wooden support posts of the guard rail in this section range from 85° to 64° (5° to 26° out of plumb). Fill on the downslope side of the leaning guard rail is thicker than in other locations within Zone 7, and quarry spalls were encountered at about 1 foot below ground surface, potentially indicating a previous attempt to shore up this portion of railing by adding additional fill.

The guardrail leaning suggests that the roadway embankment fill in this area is marginally stable and has undergone movement since construction of the guardrail. Surface soils at this location may continue to move over time.

Zone 7 contains one mapped Holocene landslide, located approximately 450 feet south of NE 134th Street. The location of this mapped landslide is shown in Figure 2A and consists of a hummocky slope with a bench traversing midslope, parallel to the roadway. Slope height was 36 feet and average slope percentage was 75%. No landslide scarp was identified and was likely graded and/or filled during road construction. Based on LiDAR imagery and visual observation, this appears to be a moderately deep translational feature. No indications of a deep rotational slide geometry are visible. The age of the landslide cannot be ascertained using historic aerial photographs but there was no change in the roadway geometry in any of the imagery, implying that land movement occurred prior to the 1930s. No documentation, indicating the previous geotechnical study, of this landslide was readily available. Hand borings HH-2 and HH-3, drilled at the top of the mapped landslide encountered fill over colluvium suggesting that the roadway was constructed over the landslide debris.

Slope Stability Existing Conditions:

HWA's observations and subsurface explorations indicate that the slopes within the Zone 7 area are comprised of very dense advance outwash soil overlain by roadway embankment fill near the rest of the slope. Slopes not identified as exhibiting past or recent landsliding possess a veneer of loose weathered soils along the slope surface throughout the area. Under static and pseudo-static loading conditions, we expect that the Zone 7 slopes, not identified as exhibiting past or recent landsliding, are stable with respect to deep seated rotational landsliding. However, we expect that the slopes will continue to experience periods of episodic of near surface veneer sliding within the shallow weathered soils along the slope. The frequency of these near surface failures will increase during periods of wet weather and under loading associated with the design seismic event.

Since the occurrence of mapped landslide, shown in Figure 2A, we are not aware of additional landslide activity occurring in this area. Therefore, it is likely that the landslide area is marginally stable under static loading conditions. However, a site-specific geotechnical investigation would be required to evaluate the stability of this landslide feature and determine if future moderate to deep-seated landslides are expected under static or pseudo-static loading conditions. Given the over-steepened nature of the landslide surface slopes, we do expect the periodic occurrence of shallow skin slides, within the near surface weathered soils, under static loading conditions. The potential of occurrence of these near surface failures will increase during periods of wet weather.

In the area of observed guard rail tilting, the subsurface soils consist of fill over landslide colluvium that extends to the termination depth of the hand borings. We expect that very

dense advance outwash soils are present under the colluvial deposits at some depth. However, additional explorations would be required to determine this geometry. Based on the observed soil conditions and surface deformations, we expect that the poor-quality roadway fill and landslide colluvium will continue to slowly deform over time. This will likely result in increased movement of the guard rail and possible pavement damage under static loading conditions. We expect rate of deformation would increase during prolonged periods of wet weather or storm events. Under static loading conditions, failures through the embankment fill and colluvium could occur. These failures could result in damage to the roadway. Site-specific geotechnical explorations and analysis would be required to determine the subsurface stratigraphy, embankment stability and possible mitigation measures associated with the roadway in this area.

Slope Stability Proposed Conditions:

The proposed improvements adjacent to Zone 7 are to take place completely within the limits of the existing roadway pavement section. The improvements will not include modifications to the slope, changes in road grade, or increase the loading of the roadway. Therefore, implementation of the proposed improvements will have no effect on the stability of the slopes or surrounding properties within Zone 7.

Moderate Landslide Hazard Areas

Moderate landslide hazard areas are areas with slopes between 15 percent and 40 percent which do not meet the definition of high landslide hazard areas. Based on our assessment, although there are a few areas that fit the geometry of a moderate landslide hazard within the project alignment, most of these are located within either 50 feet or the height of a high landslide hazard area and must be considered high landslide hazards as well. The locations of potentially moderate landslide hazard areas along the corridor are shown in Figure 5A.

3.4.3 Seismic Hazard

Seismic hazard areas are defined by the KZC as those areas subject to severe risk of earthquake damage as a result of seismically induced ground shaking, slope failure, settlement or soil liquefaction, which typically occurs in areas underlain by cohesionless soils of low density, usually in association with a shallow groundwater table. A review of the City of Kirkland 2021 City Liquefaction Map (Kirkland, 2021), as shown in Figure 7, indicates that the potential for liquefaction along the project corridor is low. The low potential for liquation along the corridor was verified by our site reconnaissance and subsurface explorations. We do not expect liquefaction to occur along the project corridor and we do not expect potential liquefaction adjacent to the corridor to affect the proposed improvements or the stability of the project corridor. Therefore, liquefaction is not a design consideration for this project.

3.5 POTENTIAL ROADWAY EMBANKMENT REPAIRS

Guardrail and shoulder distress were observed during our site reconnaissance as described above. These areas of damage generally have resulted from static deformation within the roadway embankment fill and underlying colluvial soils. We expect that distress in this area will continue to worsen over time. The proposed project does not include any improvements that would reduce the stability of these areas or increase the rate of their failure. However, the city may want to repair this area and reestablish the guard rail as part of this project. HWA's hand borings HH-4 and HH-6 were drilled in the vicinity of the observed guardrail distress. These explorations encountered poor quality roadway fill over colluvium, to the full depth of the hand explorations, approximately 3.2 feet below ground surface. Refusal of our hand explorations, within the colluvial soils, prevented HWA from determining the depth of dense native soils. We expect that the observed guardrail and pavement distress in this area is due to slow downslope creep within the poor-quality fill and colluvial soils. If the city would like to repair and stabilize the embankment slope in this area, we would recommend that the poor-quality fill and alluvial soils be removed, in the vicinity of the roadway shoulder. The over excavation should extend to the depth of the dense to very dense native soils. The base of the excavation should be benched and verified by a geotechnical engineer. The over excavated area should be backfilled with high shear strength 2-4-inch quarry spalls up to the base of the pavement base course. The quarry spalls should be tamped into place and the final surface rolled to provide a relatively smooth and level surface. A geotextile separator fabric should be placed over the quarry spalls prior to placement of the pavement base coarse aggregate.

This repair could be completed as a maintenance activity without further geotechnical explorations and analysis. Under this option, the extent of the over excavation and replacement would be directed by a geotechnical engineer in the field. The depth and geometry of the over excavation would be dictated by maintenance of traffic requirements and encountered subsurface soils. Alternatively, if desired, the design team could develop a complete design for the repair and stabilization of this area. Development of a complete repair and stabilization design would require additional machine drilled borings be drilled to identify the depth to very dense native soils. The results of these explorations would be used to determine over excavation geometry and develop detailed typical repair sections along the guard rail area.

3.6 SUMMARY

Our evaluation of the project corridor has identified areas of known and observed slope instability. All of the steep slopes along the project corridor are subject to periodic shallow skin sliding occurring within the loose weathered soils present along the slopes. Mitigation measures beyond use of soil stabilizing plantings can be implemented to prevent this from occurring. Therefore, we would not recommend any additional study of these areas. Many of the mapped locations of past slope instability occurred prior to construction of the roadway and have not resulted in additional movement. Evaluating the stability of these areas would require significant geotechnical effort. Given the fact that these areas have not moved since construction of the

roadway, and this project does not include any modification that would affect these past landslide areas, we do not recommend that this project evaluate these areas further. Some areas of guardrail and pavement distress were identified on the down slope edge of the roadway. We understand that repair of these areas may be implemented, through over excavation and replacement of the poor-quality subgrade soils. The proposed improvements along the project corridor will not include any modifications to the steep slopes or any changing in loading of the steep slopes. All work will be completed within the limits of the existing pavement area. Therefore, the proposed project will have no impact to the stability of the existing steep slope and no effect on the stability of the surrounding properties.

3.7 HWA PLAN REVIEW

HWA has reviewed the final project plans dated May 2022. The subject plans are consistent with HWA's understanding of the project, outlined in this report. The project plans reflect all recommendations provided by HWA for this project.

4. CONDITIONS AND LIMITATIONS

We have prepared this draft critical area report for the City of Kirkland and Perteet Inc. for use in design of portions of this project. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as our warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations and may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

We recommend HWA be retained to review the plans and specifications to verify that our recommendations have been interpreted and implemented as intended. Sufficient geotechnical monitoring, testing, and consultation should be provided during construction to confirm the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or groundwater at this site.

HWA does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and cannot be responsible for the safety of personnel other than our own on the site. As such, the safety of others is the responsibility of the contractor(s). The contractor(s) should notify the owner if it is considered that any of the recommended actions presented herein are unsafe.

We appreciate the opportunity to provide geotechnical services on this project. Should you have any questions or comments, or if we may be of further service, please do not hesitate to call.

Sincerely,

HWA GEOSCIENCES INC.

6-8-2022

Donald J Huling, P.E.
Geotechnical Engineer, Principal

Mary Alice Benson, G.I.T.
Geologist

5. REFERENCES

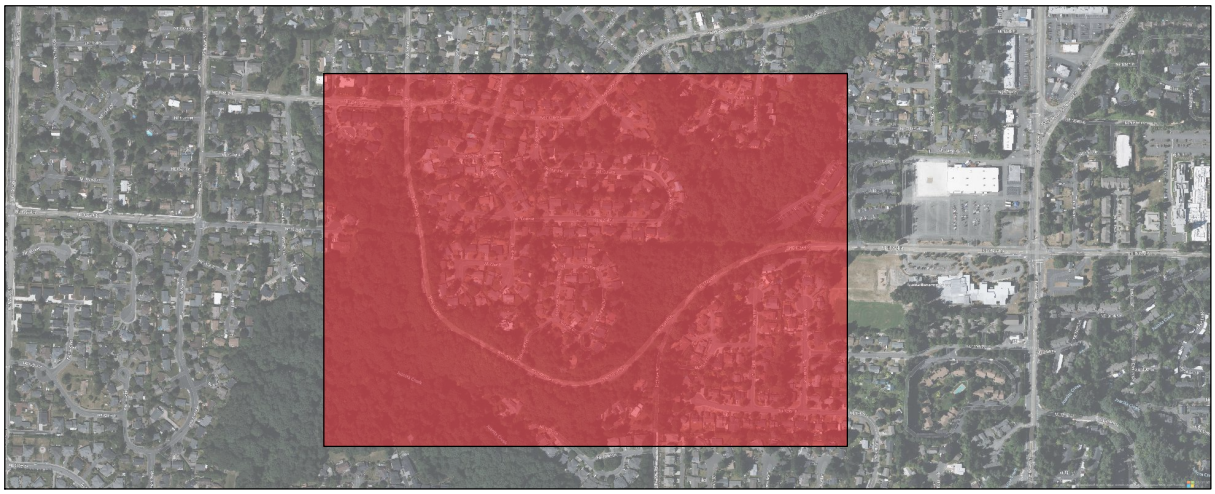
City of Kirkland, 2018, *Kirkland Zoning Code*, Code Publishing Company, Seattle, Washington.

City of Kirkland, 2021, *Kirkland Landslide Susceptibly Map,* Date Saved: September 2021.

City of Kirkland, 2021, *Kirkland Liquefaction Potential Map,* Date Saved: September 2021

Troost, Kathy Goetz, Brooks, Justin L., Kohn, James A., Teague, Katherine, Wisher, Aaron P., Thompson, Lauren K., and Porter, Matthew, 2017, *Surficial Geology of Kirkland*, scale 1:10,000, GeoMapNW, Department of Earth and Space Sciences, University of Washington.

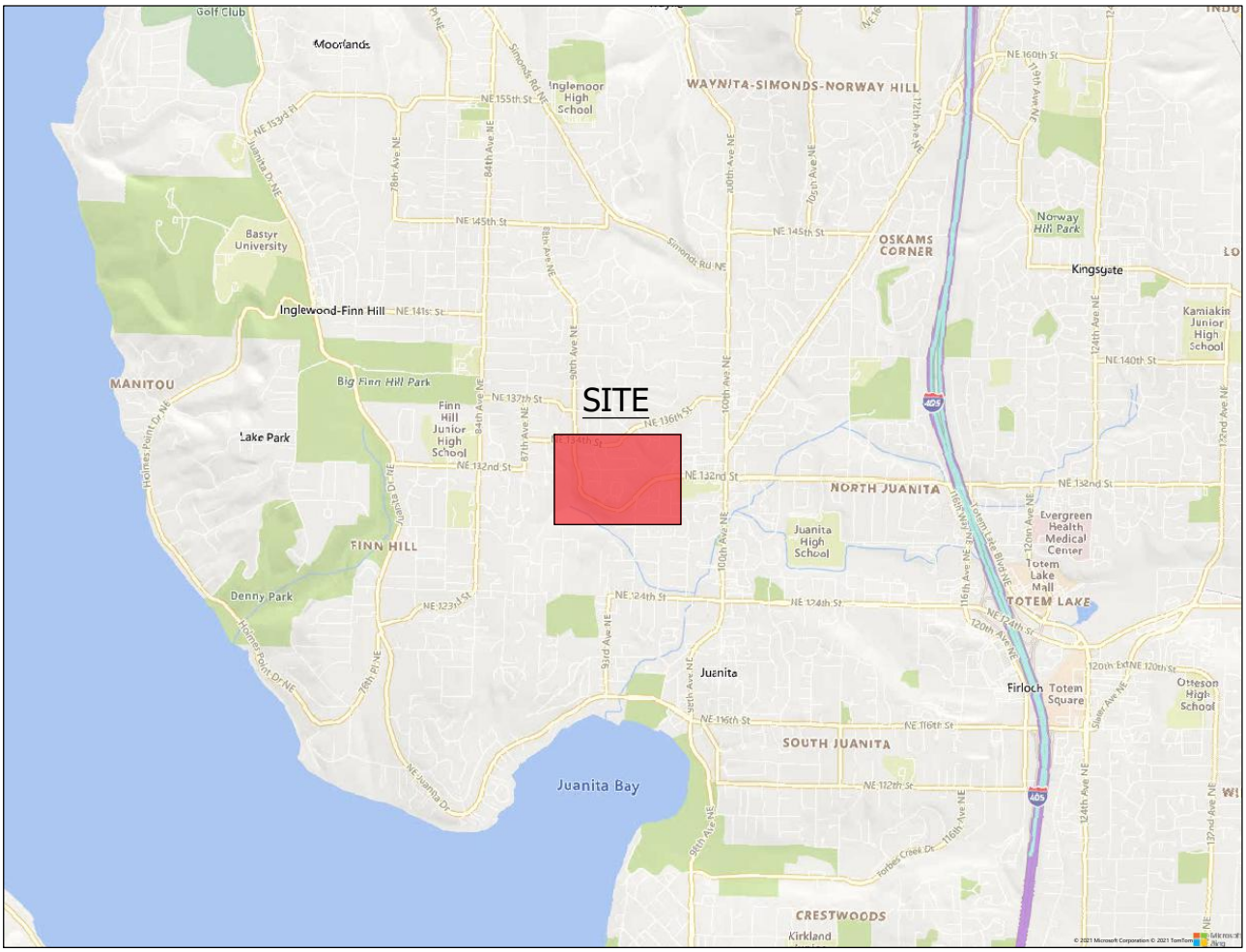
United States Department of Agriculture Soil Conservation Service, 1973, *Soil Survey of King County Area Washington*, November 1973.



SITE MAP

0 500' 1000' 1500' 2000'

SCALE: 1" = 1000'



VICINITY MAP

0 2000' 4000' 6000' 8000'

SCALE: 1" = 4000'

GEOSCIENCES INC.
DBE/MWBE

VICINITY MAP

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

FIGURE NO.: 1

DRAWN BY: CF
CHECK BY: MAB

PROJECT # 2021-101-21

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <1> Plotted: 3/22/2022 9:15 AM

90TH AVE NE
Scale: 1" = 100'-0"

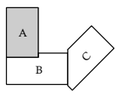
EXPLORATION LEGEND

HH-1 PROPOSED HANDHOLE DESIGNATION AND APPROXIMATE LOCATION

HISTORIC LANDSLIDE > 150 YEARS OLD

MODERN SURFICIAL MOVEMENT

KEY MAP



N

0 50 100 150 200

SCALE: 1" = 100'

BASE MAP PROVIDED BY: BING & PERTEET 09.22.2021

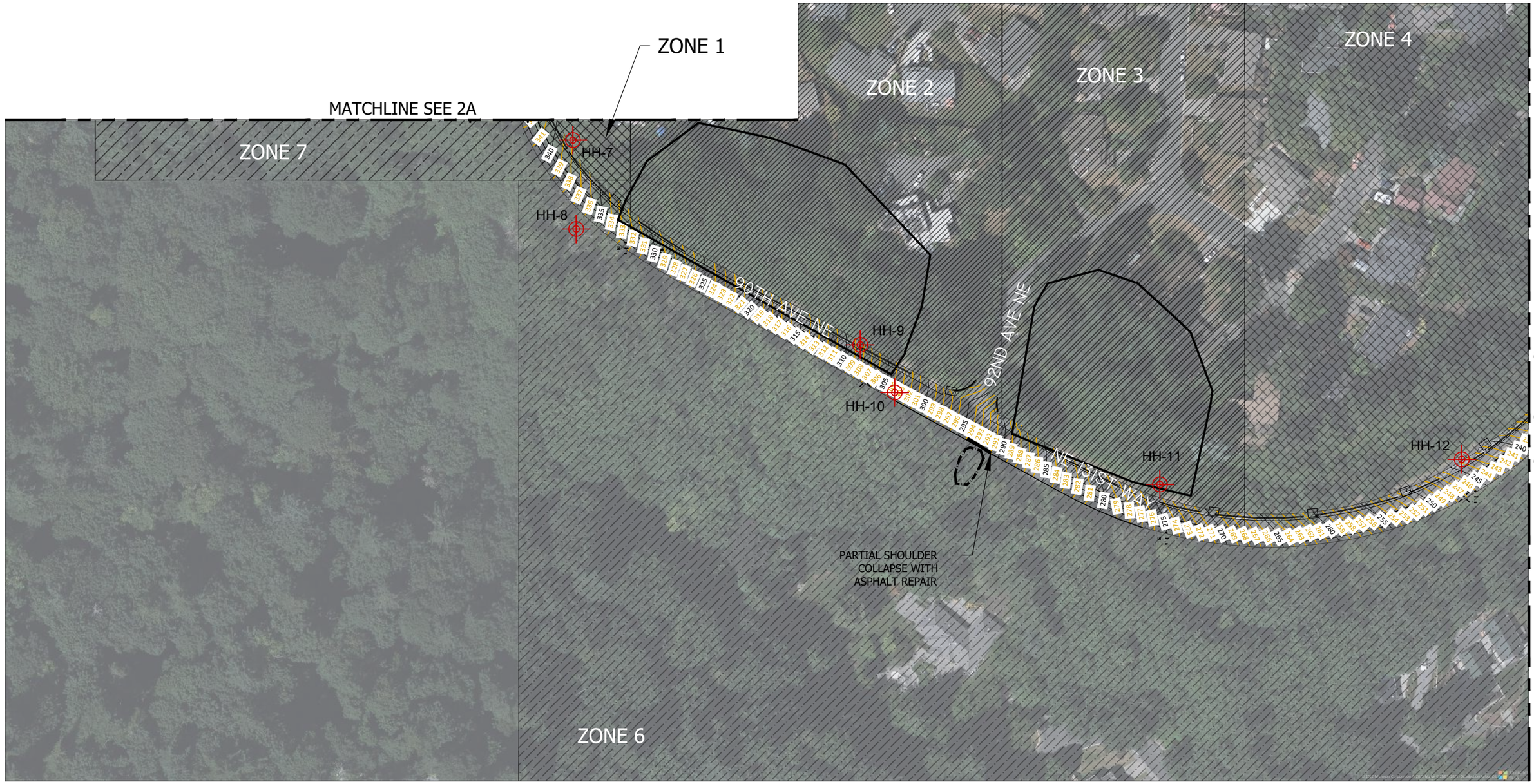
C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <2A> Plotted: 3/22/2022 9:22 AM

GEOSCIENCES INC. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SITE &
EXPLORATION PLAN

DRAWN BY:	FIGURE NO.:
CF	2A
CHECK BY:	PROJECT NO.:
MAB	2021-101-21



90TH AVE NE/NE 131ST WAY

Scale: 1" = 100'-0"

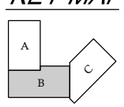
EXPLORATION LEGEND

HH-1 PROPOSED HANDHOLE DESIGNATION AND APPROXIMATE LOCATION

HISTORIC LANDSLIDE > 150 YEARS OLD

MODERN SURFICIAL MOVEMENT

KEY MAP



N

0 50 100 150 200

SCALE: 1" = 100'

BASE MAP PROVIDED BY: BING & PERTEET 09.22.2021

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <2B> Plotted: 3/22/2022 9:21 AM

GeoSciences Inc. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SITE &
EXPLORATION PLAN

DRAWN BY:	FIGURE NO.:
CF	2B
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

NE 131ST WAY/NE 132ND ST
Scale: 1" = 100'-0"

EXPLORATION LEGEND

HH-1 PROPOSED HANDHOLE DESIGNATION AND APPROXIMATE LOCATION

HISTORIC LANDSLIDE > 150 YEARS OLD

MODERN SURFICIAL MOVEMENT

KEY MAP

A B C

0 50 100 150 200
SCALE: 1" = 100'

BASE MAP PROVIDED BY: BING & PERTEET 09.22.2021

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <2C> Plotted: 3/22/2022 9:21 AM

GEOSCIENCES INC. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SITE &
EXPLORATION PLAN

DRAWN BY:	FIGURE NO.:
CF	2C
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

Non Glacial Deposits (Holocene)
- Qw - Wetland deposits
- Qp - Peat and organic-rich deposits
- Qal - Alluvium
- Ql - Lake deposits
- Qf - Fan deposits

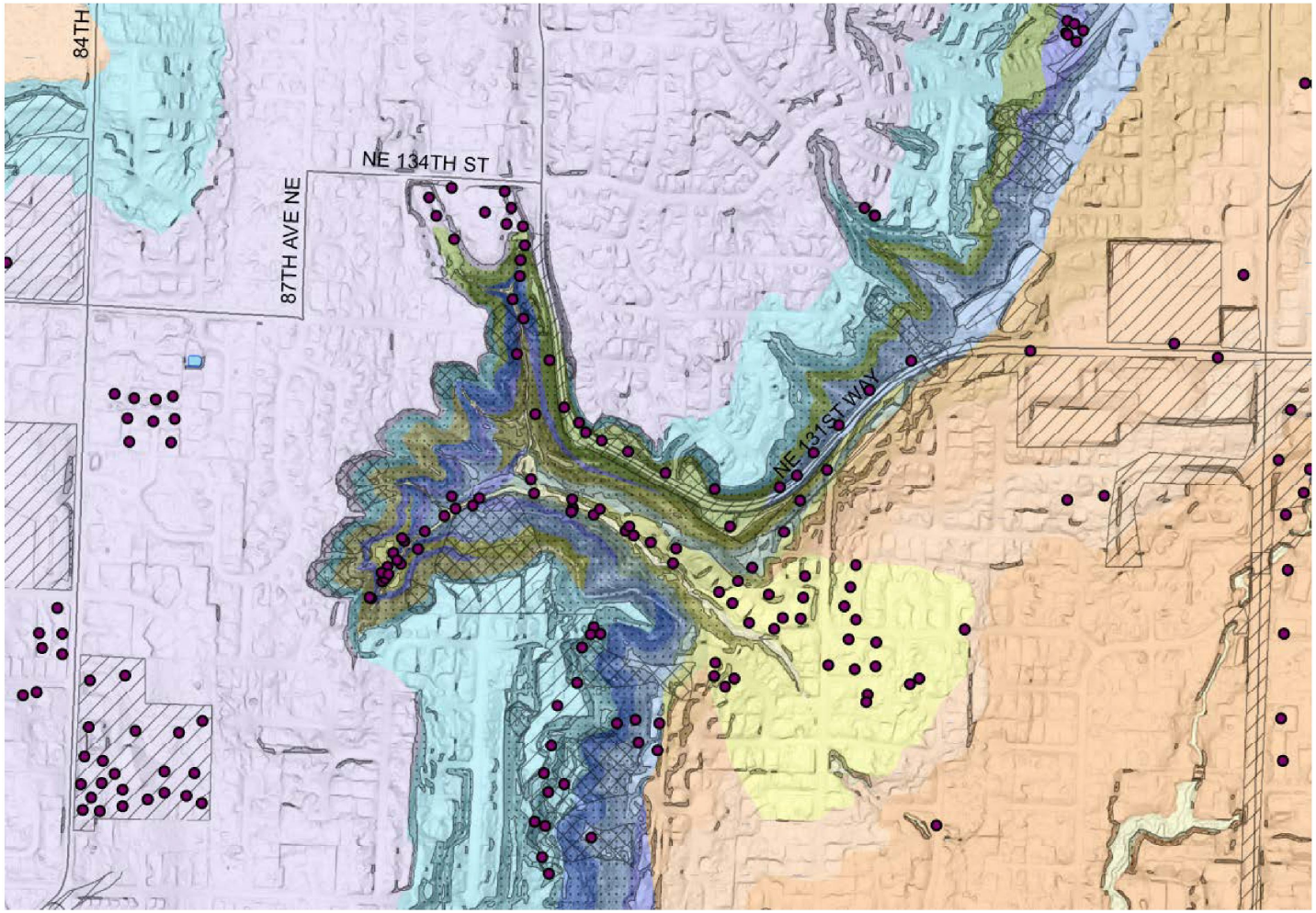
Younger Glacial Deposits (Fraser Glaciation, Pleistocene)
- Qvr - Vashon recessional outwash deposits
- Qvrl - Vashon recessional lacustrine deposits
- Qvrlo - Vashon recessional lacustrine deposits (organic)
- Qvrlj - Vashon recessional Lake Juanita deposits (50'-90')
- Qvrlb - Vashon recessional Lake Bretz deposits (120'-150')
- Qvrlt - Vashon recessional Lake Totem deposits (160'-180')
- Qvrlf - Vashon recessional Lake Forbes deposits (240'-280')
- Qvrlr - Vashon recessional Lake Russell deposits (300'-330')
- Qvrlbt - Vashon recessional Lake Bridle Trails deposits (490'-520')
- Qvi - Vashon ice-contact deposits
- Qvt - Vashon subglacial till
- Qva - Vashon advance outwash deposits
- Qvlc - Lawton Clay member of the Vashon Drift

Older Glacial and Nonglacial Deposits (Pleistocene)
- Qpf - Pre-Fraser glaciation age deposits
- Qpff - Pre-Fraser fine-grained deposits
- Qpfn - Pre-Fraser nonglacial deposits
- Qpfnc - Pre-Fraser coarse-grained nonglacial deposits
- Qpfnf - Pre-Fraser fine-grained nonglacial deposits
- Qpb - Olympia beds
- Qpoc - Pre-Olympia coarse-grained deposits
- Qpof - Pre-Olympia fine-grained deposits
- Qpog - Pre-Olympia glacial deposits
- Qpogc - Pre-Olympia coarse-grained glacial deposits
- Qpogf - Pre-Olympia fine-grained glacial deposits
- Qpogt - Pre-Olympia glacial till
- Qpon - Pre-Olympia nonglacial deposits
- Qponc - Pre-Olympia coarse-grained nonglacial deposits

Waterbodies
- Lakes

Data Points
- Geotechincal Explorations

Modified or Disturbed Land
- Cut and Fill Areas
- Areas of Mass Wasting
- Landslide Areas



Surficial Geology of Kirkland

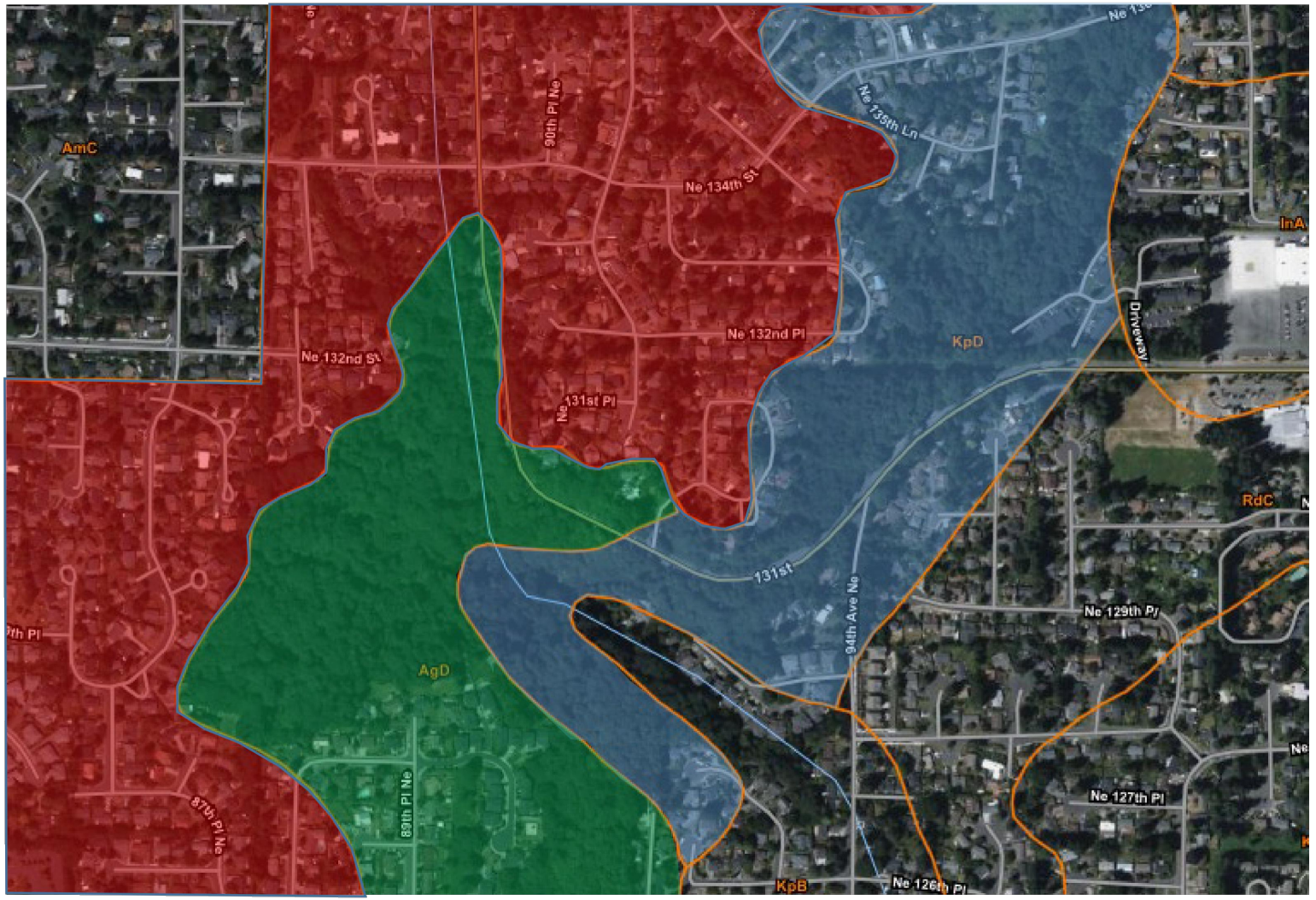
Date: 12/30/2017

Prepared by: GeoMapNW
Department of Earth and Space Sciences
University of Washington

HWA GeoSciences Inc. DBE/MWBE	90TH AVE / 131ST WAY NONMOTORIZED IMPROVEMENTS KIRKLAND, WASHINGTON	GEOLOGIC MAP	DRAWN BY: CF	FIGURE NO.: 3
			CHECK BY: MAB	PROJECT NO.: 2021-101-21

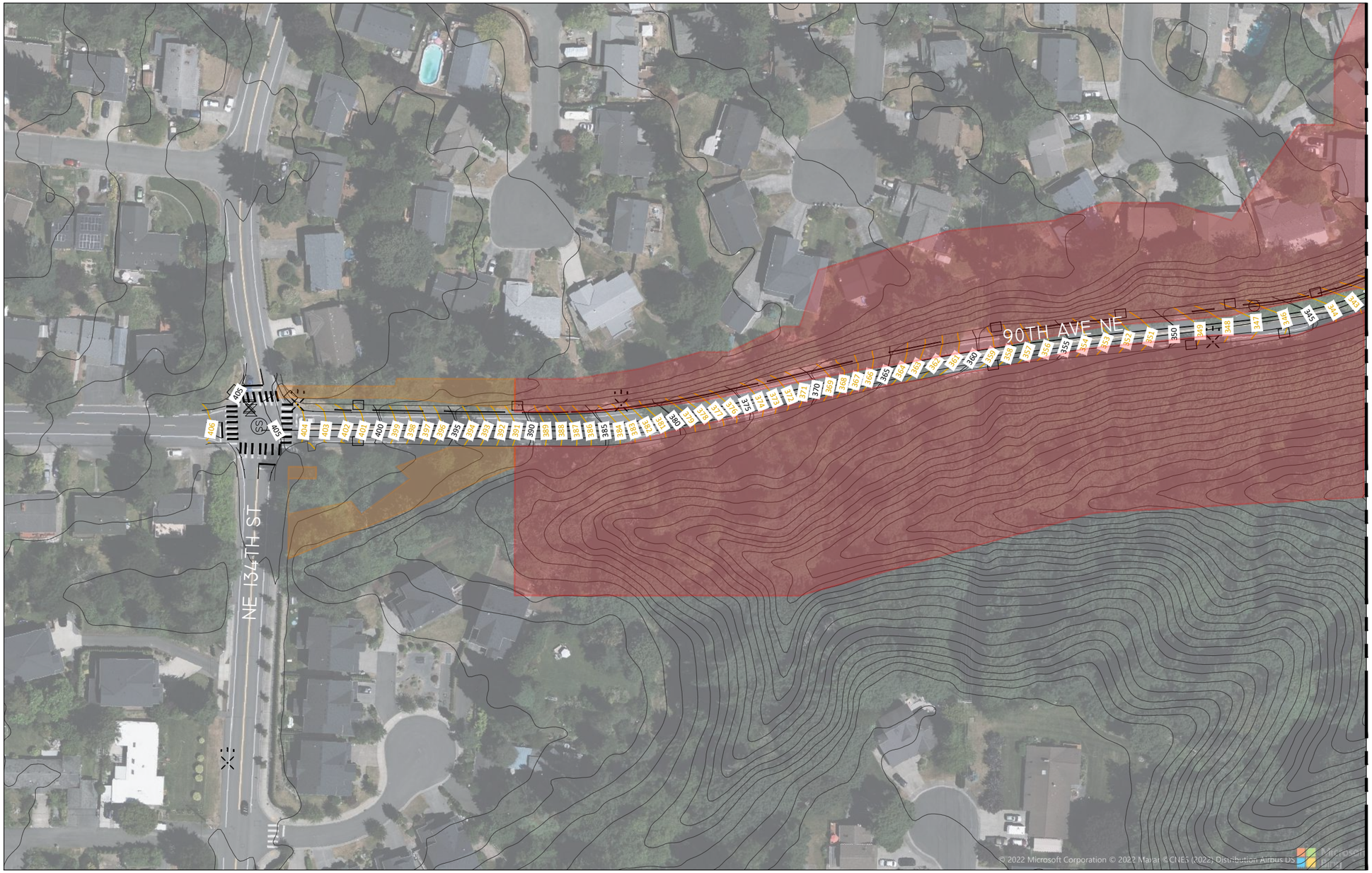
Legend

- AgC — Alderwood gravelly sandy Loam, 8 to 15 percent slop
- AgD — Alderwood gravelly sandy Loam, 15 to 30 percent slopes
- KpD — Kitsap silt loam, 15 to 30 percent slopes



HWA GeoSciences Inc. DBE/MWBE	90TH AVE / 131ST WAY NONMOTORIZED IMPROVEMENTS KIRKLAND, WASHINGTON	USDA SOIL SURVEY MAP	DRAWN BY: CF	FIGURE NO.: 4
			CHECK BY: MAB	PROJECT NO.: 2021-101-21

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <4> Plotted: 3/22/2022 9:46 AM



90TH AVE NE
Scale: 1" = 100'-0"

0 50 100 150 200
SCALE: 1" = 100'

LEGEND

- MODERATE LANDSLIDE HAZARD
- HIGH LANDSLIDE HAZARD

KEY MAP

A B C

BASE MAP PROVIDED BY: BING & PERTEET 09.22.2021

GEOSCIENCES INC. DBE/MWBE

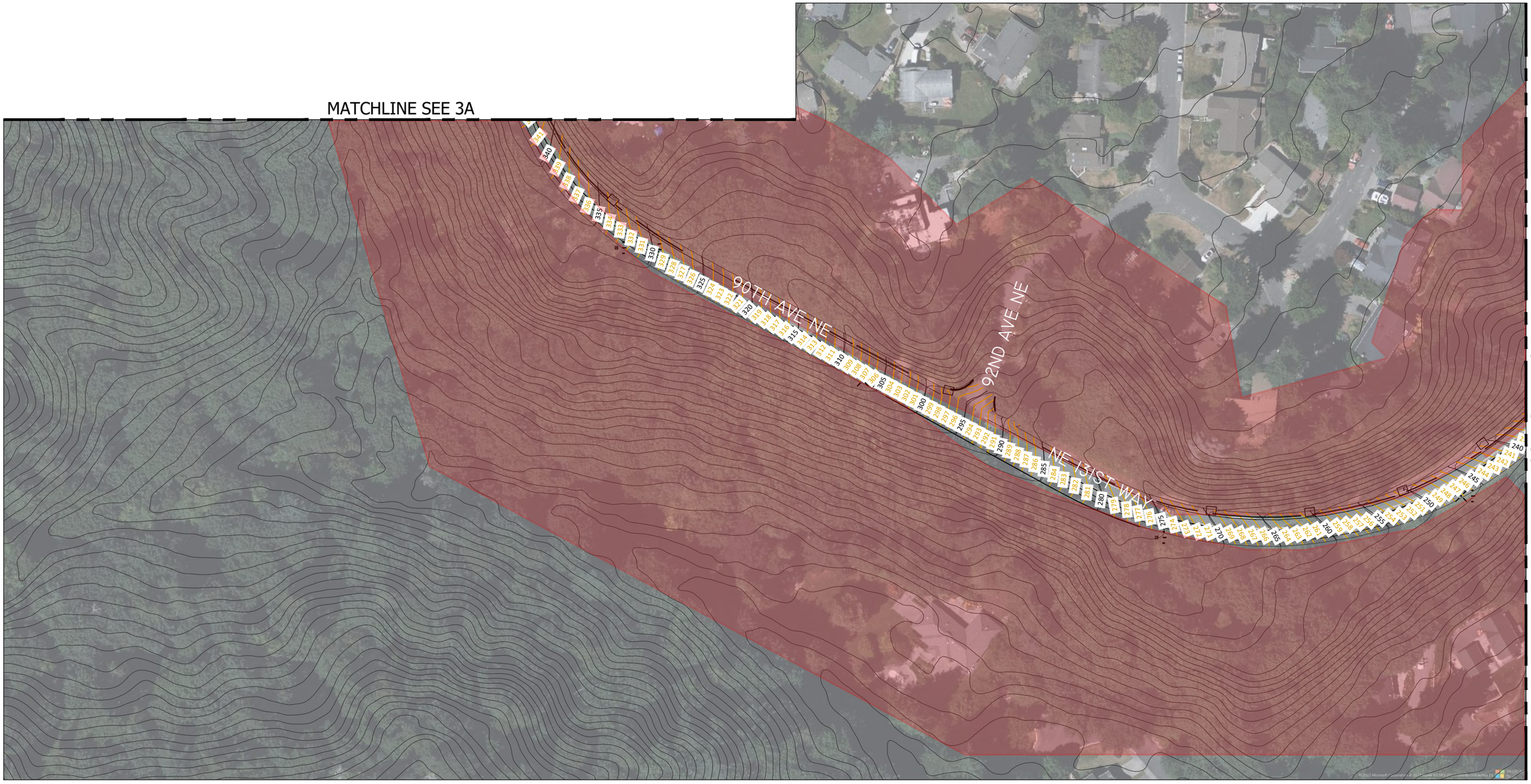
90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

CONTOURS AND
LANDSLIDE HAZARD
ZONES

DRAWN BY:	FIGURE NO.:
CF	5A
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <5A> Plotted: 3/22/2022 9:27 AM

MATCHLINE SEE 3A



MATCHLINE SEE 3C

90TH AVE NE/NE 131ST WAY
Scale: 1" = 100'-0"

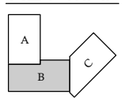
N

0 50 100 150 200
SCALE: 1" = 100'

LEGEND

HIGH LANDSLIDE HAZARD

KEY MAP



BASE MAP PROVIDED BY: BING & PERTEET 09.22.2021

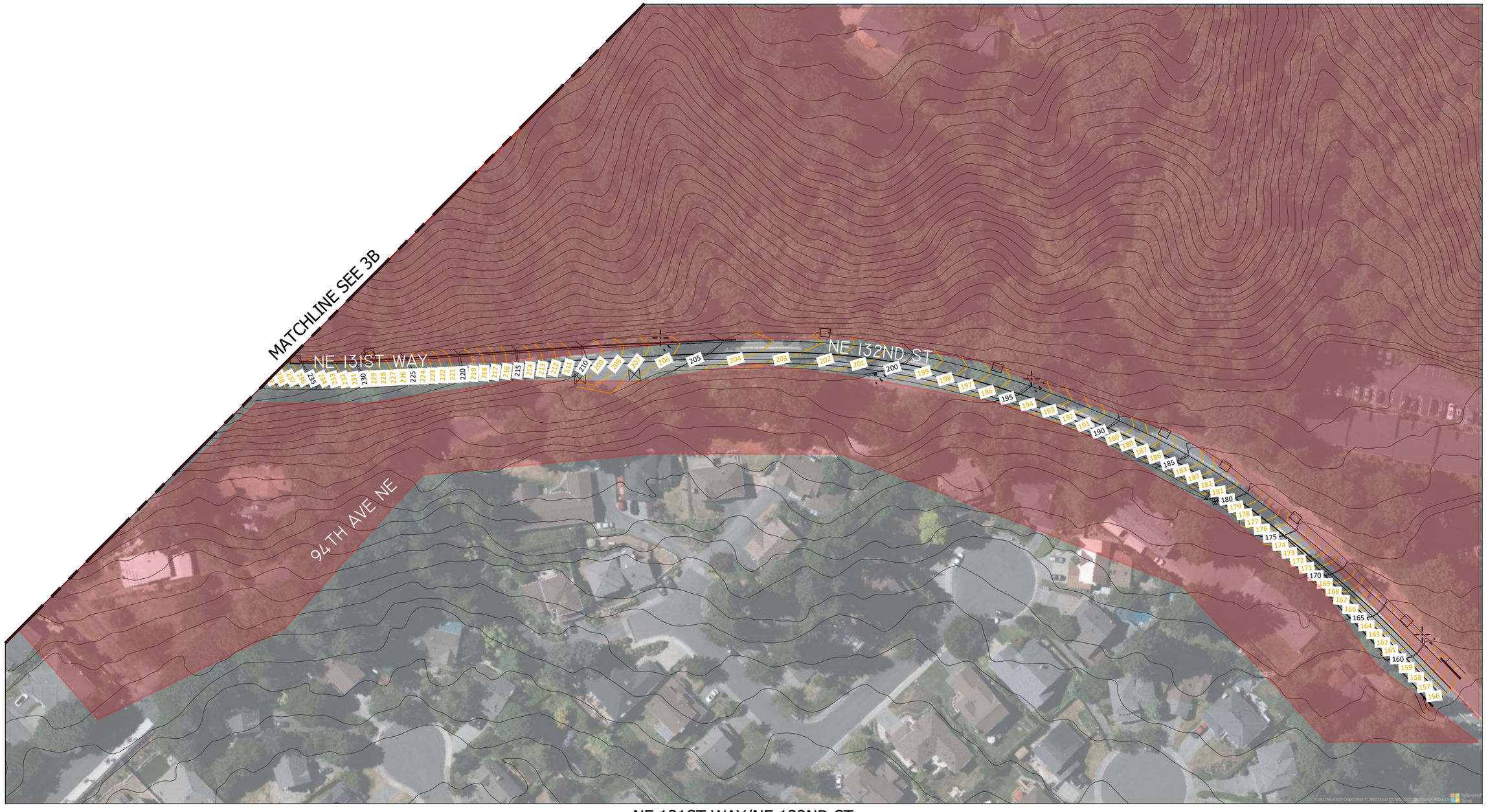
C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <5B> Plotted: 3/22/2022 9:28 AM

GEOSCIENCES INC.
DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

CONTOURS AND
LANDSLIDE HAZARD
ZONES

DRAWN BY:	FIGURE NO.:
CF	5B
CHECK BY:	PROJECT NO.:
MAB	2021-101-21



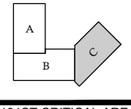
NE 131ST WAY/NE 132ND ST
Scale: 1" = 100'-0"

0 50 100 150 200
SCALE: 1" = 100'

LEGEND

HIGH LANDSLIDE HAZARD

KEY MAP



BASE MAP PROVIDED BY: BING & PERTEET 09.22.2021

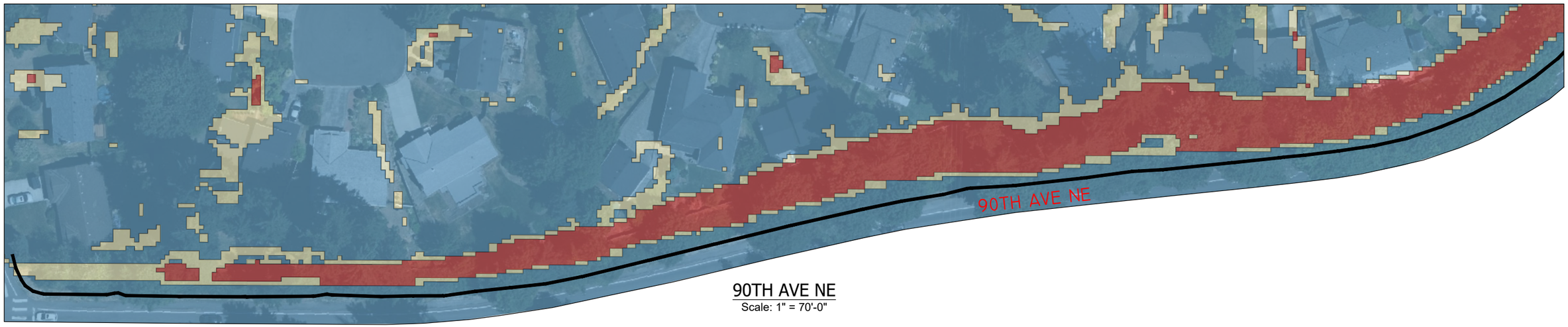
GEOSCIENCES INC.
DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

CONTOURS AND
LANDSLIDE HAZARD
ZONES

DRAWN BY:	FIGURE NO.:
CF	5C
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <5C> Plotted: 3/22/2022 9:28 AM



90TH AVE NE
Scale: 1" = 70'-0"

LEGEND

- GREATER THAN 40% SLOPE
- 15% to 40% SLOPE
- LESS THAN 15% SLOPE

N

0 35 70 105 140

SCALE: 1" = 70'

GEOSCIENCES INC.
DBE/MWBE

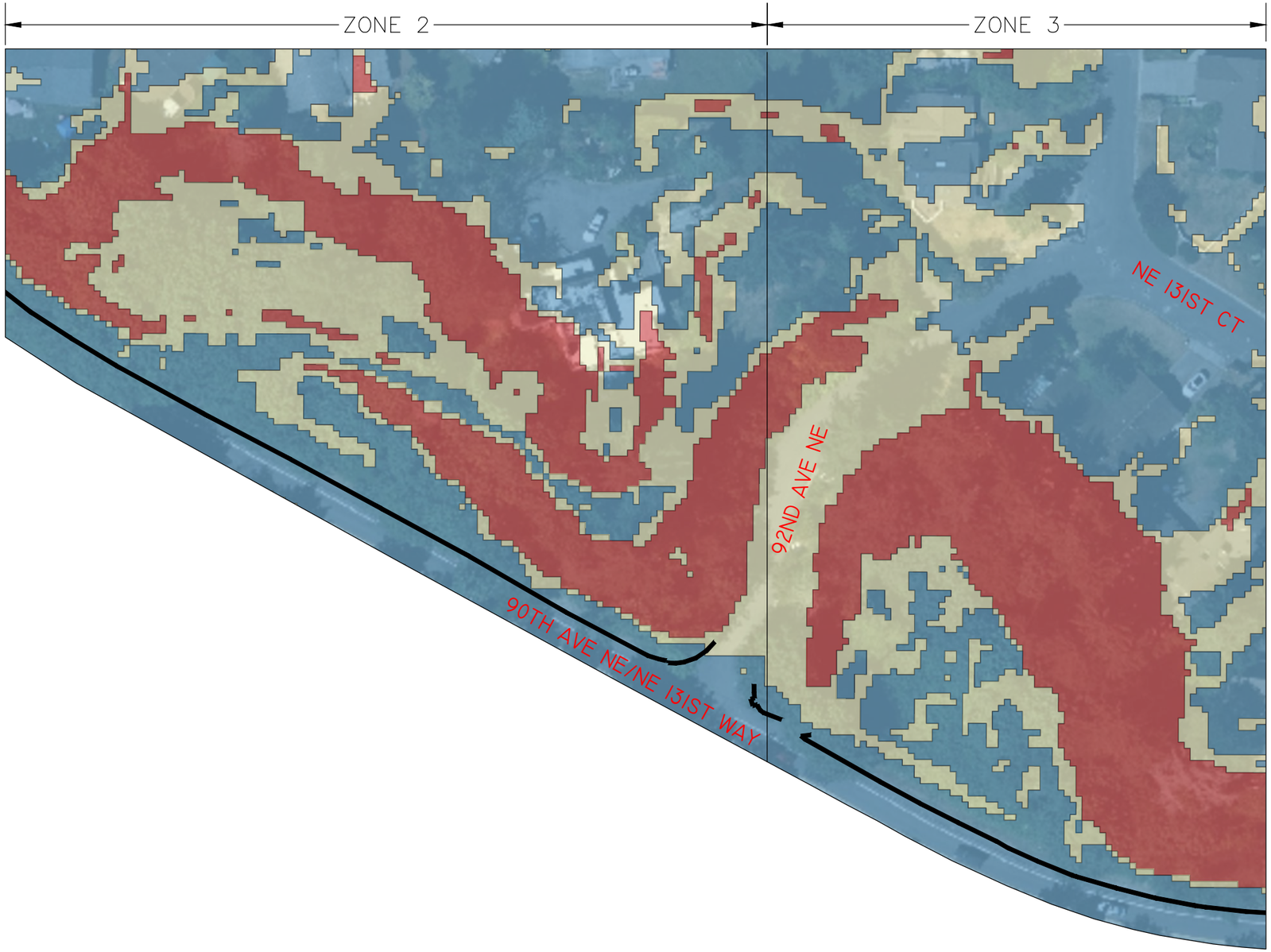
90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SLOPE PERCENTAGES
(ZONE 1)

DRAWN BY:	FIGURE NO.:
CF	6A
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

BASE MAP PROVIDED BY: BING & DNR LIDAR PORTAL, NORTH PUGET 2017

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <6A> Plotted: 3/22/2022 11:21 AM



90TH AVE NE / NE 131ST WAY
Scale: 1" = 60'-0"

LEGEND

- GREATER THAN 40% SLOPE
- 15% to 40% SLOPE
- LESS THAN 15% SLOPE

N

0 30 60 90 120
SCALE: 1" = 60

BASE MAP PROVIDED BY: BING & DNR LIDAR PORTAL, NORTH PUGET 2017

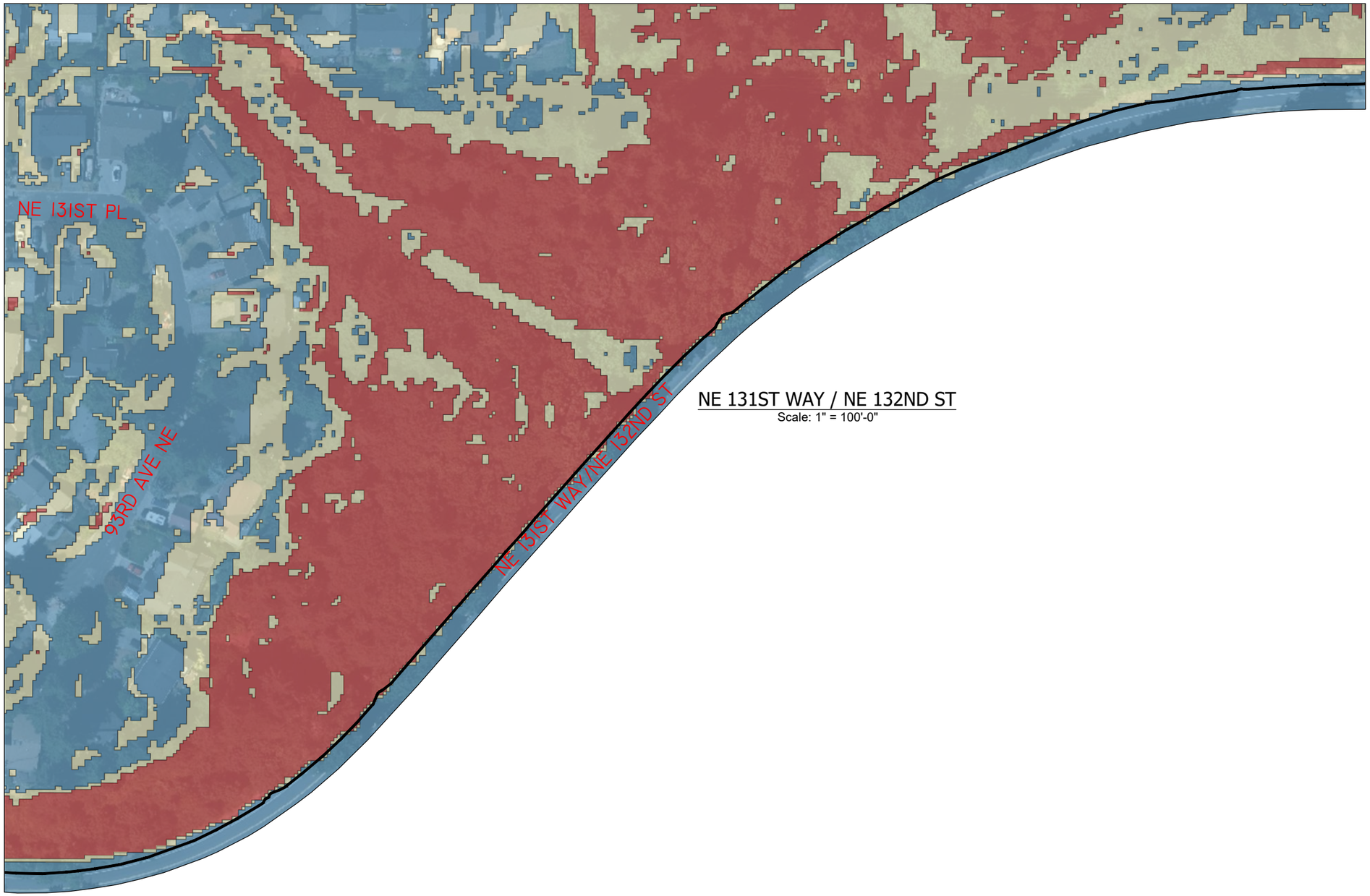
C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <6B> Plotted: 3/22/2022 11:22 AM

HWA GeoSciences Inc. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SLOPE PERCENTAGES
(ZONES 2 & 3)

DRAWN BY:	FIGURE NO.:
CF	6B
CHECK BY:	PROJECT NO.:
MAB	2021-101-21



NE 131ST WAY / NE 132ND ST
Scale: 1" = 100'-0"

LEGEND

- GREATER THAN 40% SLOPE
- 15% to 40% SLOPE
- LESS THAN 15% SLOPE

N

0 50 100 150 200
SCALE: 1" = 100

BASE MAP PROVIDED BY: BING & DNR LIDAR PORTAL, NORTH PUGET 2017

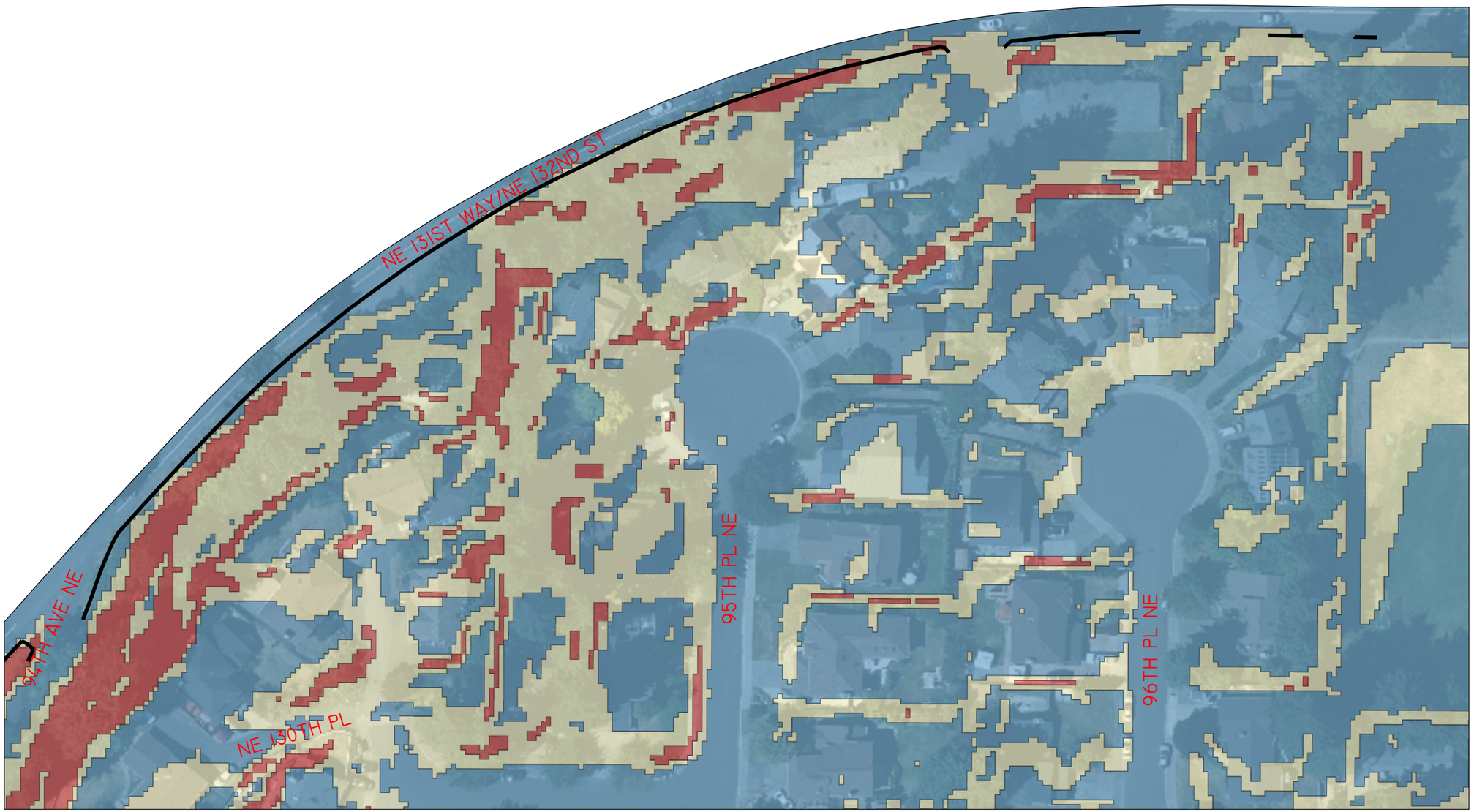
C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <6C> Plotted: 3/22/2022 11:23 AM

GeoSciences Inc. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SLOPE PERCENTAGES
(ZONE 4)

DRAWN BY:	FIGURE NO.:
CF	6C
CHECK BY:	PROJECT NO.:
MAB	2021-101-21



NE 131ST WAY NE / NE 132ND ST

Scale: 1" = 70'-0"

LEGEND

- GREATER THAN 40% SLOPE
- 15% to 40% SLOPE
- LESS THAN 15% SLOPE

N

0 35 70 105 140

SCALE: 1" = 70

BASE MAP PROVIDED BY: BING & DNR LIDAR PORTAL, NORTH PUGET 2017

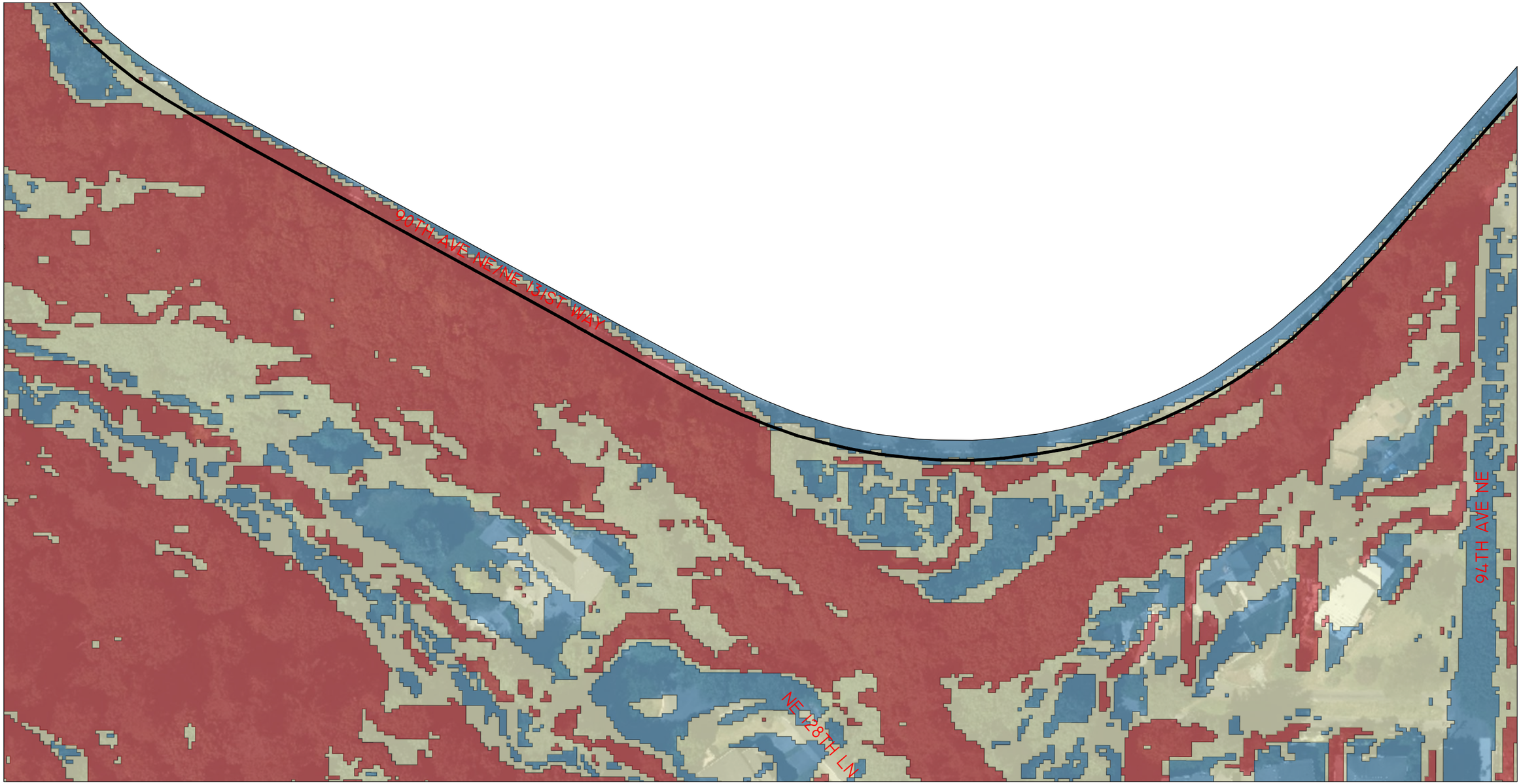
C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <6D> Plotted: 3/22/2022 11:23 AM

GeoSciences Inc. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SLOPE PERCENTAGES
(ZONE 5)

DRAWN BY:	FIGURE NO.:
CF	6D
CHECK BY:	PROJECT NO.:
MAB	2021-101-21



90TH AVE NE / NE 131ST WAY
Scale: 1" = 80'-0"

LEGEND

- GREATER THAN 40% SLOPE
- 15% to 40% SLOPE
- LESS THAN 15% SLOPE

N

0 40 80 120 160
SCALE: 1" = 80'

GEOSCIENCES INC.
DBE/MWBE

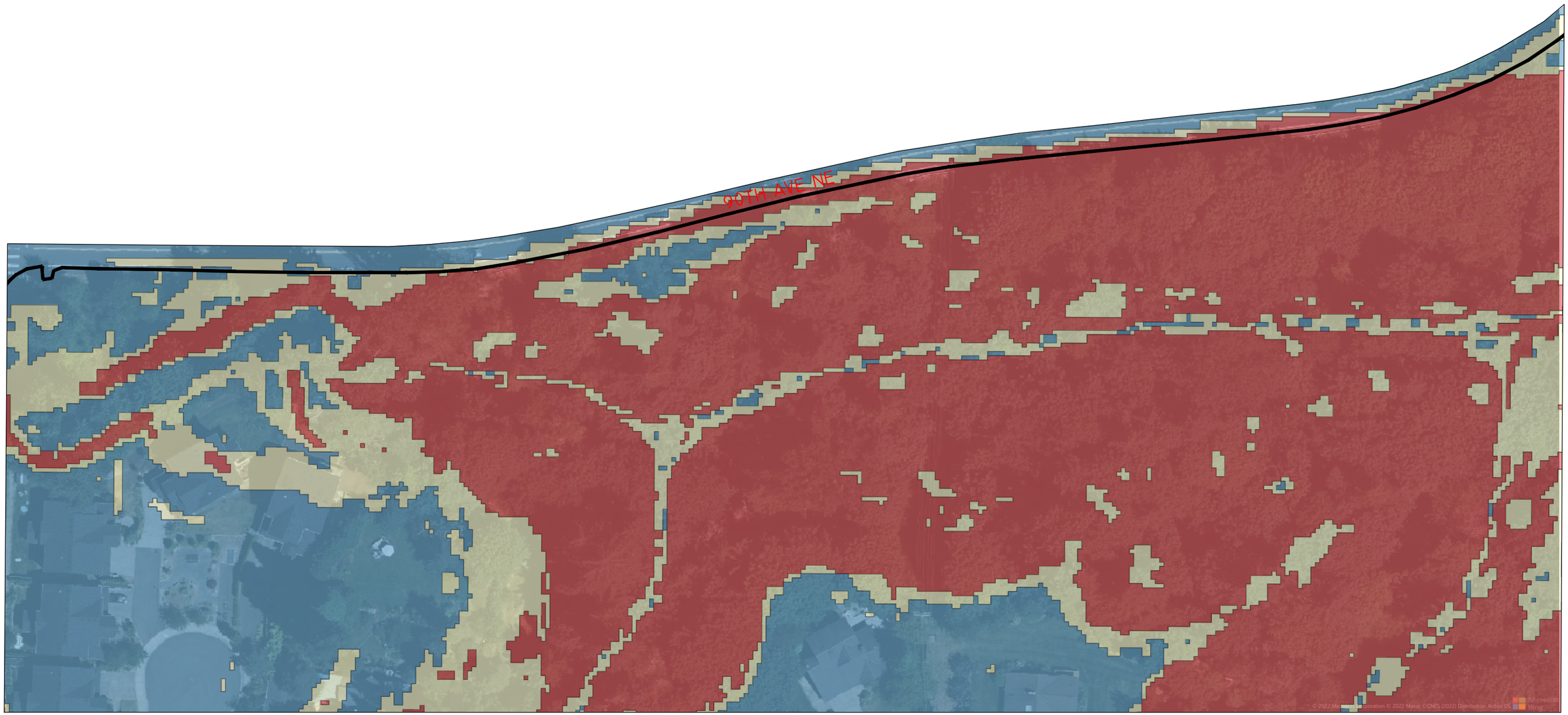
90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

SLOPE PERCENTAGES
(ZONE 6)

DRAWN BY:	FIGURE NO.:
CF	6E
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

BASE MAP PROVIDED BY: BING & DNR LIDAR PORTAL, NORTH PUGET 2017

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <6E> Plotted: 3/22/2022 12:16 PM



90TH AVE NE
Scale: 1" = 70'-0"

LEGEND

- GREATER THAN 40% SLOPE
- 15% to 40% SLOPE
- LESS THAN 15% SLOPE

N

0 35 70 105 140

SCALE: 1" = 70'

BASE MAP PROVIDED BY: BING & DNR LIDAR PORTAL, NORTH PUGET 2017

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <6F> Plotted: 3/22/2022 11:25 AM

HWA GeoSciences Inc. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

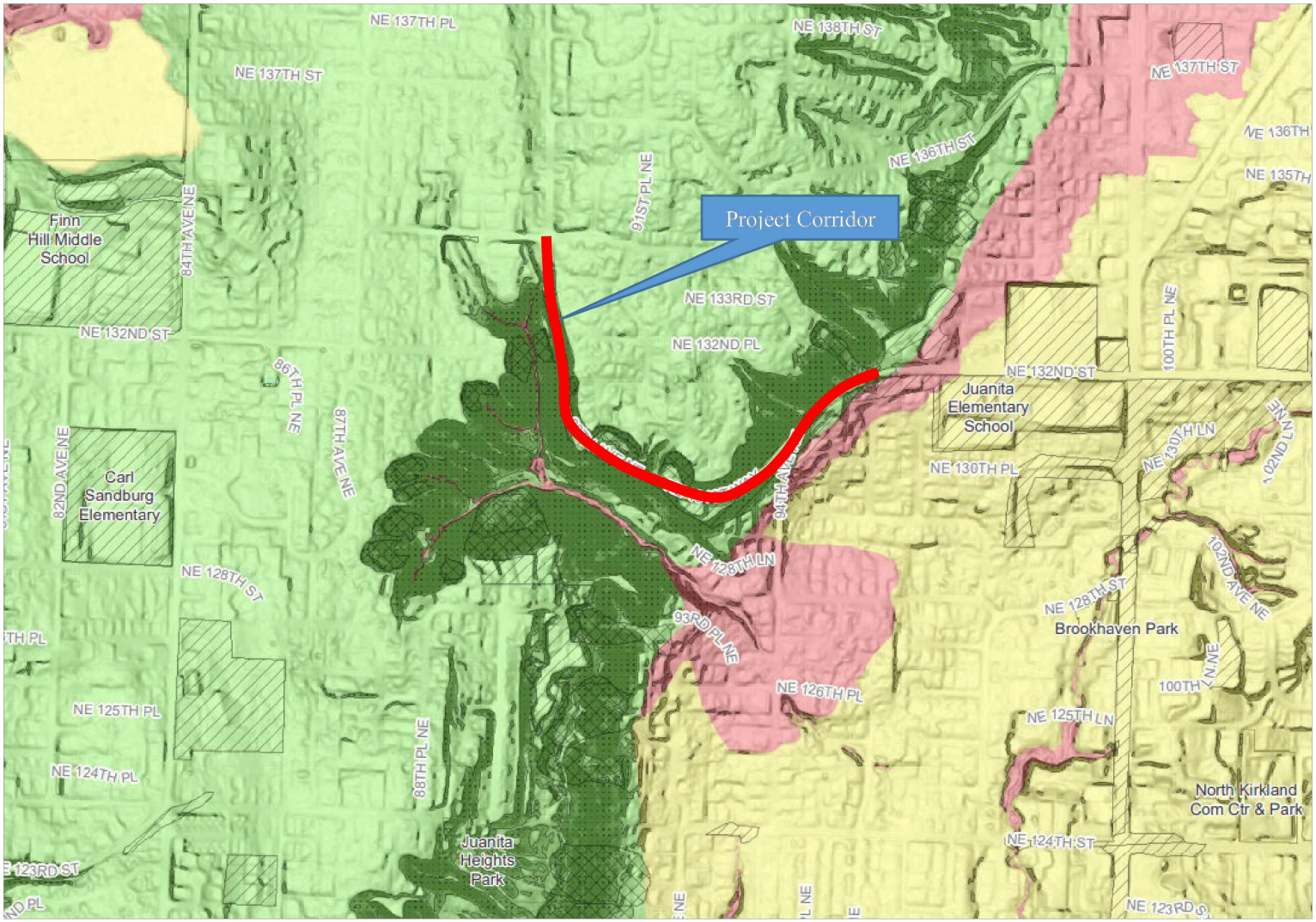
SLOPE PERCENTAGES
(ZONE 7)

DRAWN BY:	FIGURE NO.:
CF	6F
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

Legend

Liquefaction Potential
- High
- Medium or Mixed
- Low

Modified Land and Colluvium
- Cut and Fill Areas
- Areas of Mass Wasting
- Landslide Areas



GeoSciences Inc. DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

CITY OF KIRKLAND
LIQUEFACTION
POTENTIAL MAP

DRAWN BY:	FIGURE NO.:
CF	7
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

C:\USERS\CFRY\DESKTOP\2021-101 131ST CRITICAL AREA STUDY (KIRKLAND)\2021-101-21 KIRKLAND 131ST CRITICAL AREA STUDY.DWG <7> Plotted: 3/22/2022 9:54 AM

NOT TO SCALE

GeoSciences Inc.
DBE/MWBE

90TH AVE / 131ST WAY
NONMOTORIZED IMPROVEMENTS
KIRKLAND, WASHINGTON

LIDAR IMAGE

DRAWN BY:	FIGURE NO.:
CF	8
CHECK BY:	PROJECT NO.:
MAB	2021-101-21

APPENDIX A

HWA EXPLORATION LOGS

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

USCS SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS	
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)	GW	Well-graded GRAVEL
			GP	Poorly-graded GRAVEL
	More than 50% of Coarse Fraction Retained on No. 4 Sieve	Gravel with Fines (appreciable amount of fines)	GM	Silty GRAVEL
			GC	Clayey GRAVEL
More than 50% Retained on No. 200 Sieve Size	Sand and Sandy Soils	Clean Sand (little or no fines)	SW	Well-graded SAND
			SP	Poorly-graded SAND
	50% or More of Coarse Fraction Passing No. 4 Sieve	Sand with Fines (appreciable amount of fines)	SM	Silty SAND
			SC	Clayey SAND
Fine Grained Soils	Silt and Clay	Liquid Limit Less than 50%	ML	SILT
			CL	Lean CLAY
			OL	Organic SILT/Organic CLAY
50% or More Passing No. 200 Sieve Size	Silt and Clay	Liquid Limit 50% or More	MH	Elastic SILT
			CH	Fat CLAY
			OH	Organic SILT/Organic CLAY
Highly Organic Soils			PT	PEAT

TEST SYMBOLS

%F	Percent Fines
AL	Atterberg Limits: PL = Plastic Limit, LL = Liquid Limit
CBR	California Bearing Ratio
CN	Consolidation
DD	Dry Density (pcf)
DS	Direct Shear
GS	Grain Size Distribution
K	Permeability
MD	Moisture/Density Relationship (Proctor)
MR	Resilient Modulus
OC	Organic Content
pH	pH of Soils
PID	Photoionization Device Reading
PP	Pocket Penetrometer (Approx. Comp. Strength, tsf)
Res.	Resistivity
SG	Specific Gravity
CD	Consolidated Drained Triaxial
CU	Consolidated Undrained Triaxial
UU	Unconsolidated Undrained Triaxial
TV	Torvane (Approx. Shear Strength, tsf)
UC	Unconfined Compression

SAMPLE TYPE SYMBOLS

- 2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
- Shelby Tube
- Non-standard Penetration Test (3.0" OD Split Spoon with Brass Rings)
- Small Bag Sample
- Large Bag (Bulk) Sample
- Core Run
- 3-1/4" OD Split Spoon

GROUNDWATER SYMBOLS

- Groundwater Level (measured at time of drilling)
- Groundwater Level (measured in well or open hole after water level stabilized)

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

COMPONENT PROPORTIONS

PROPORTION RANGE	DESCRIPTIVE TERMS
< 5%	Clean
5 - 12%	Slightly (Clayey, Silty, Sandy)
12 - 30%	Clayey, Silty, Sandy, Gravelly
30 - 50%	Very (Clayey, Silty, Sandy, Gravelly)
Components are arranged in order of increasing quantities.	

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation.
Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.

GeoSciences Inc.

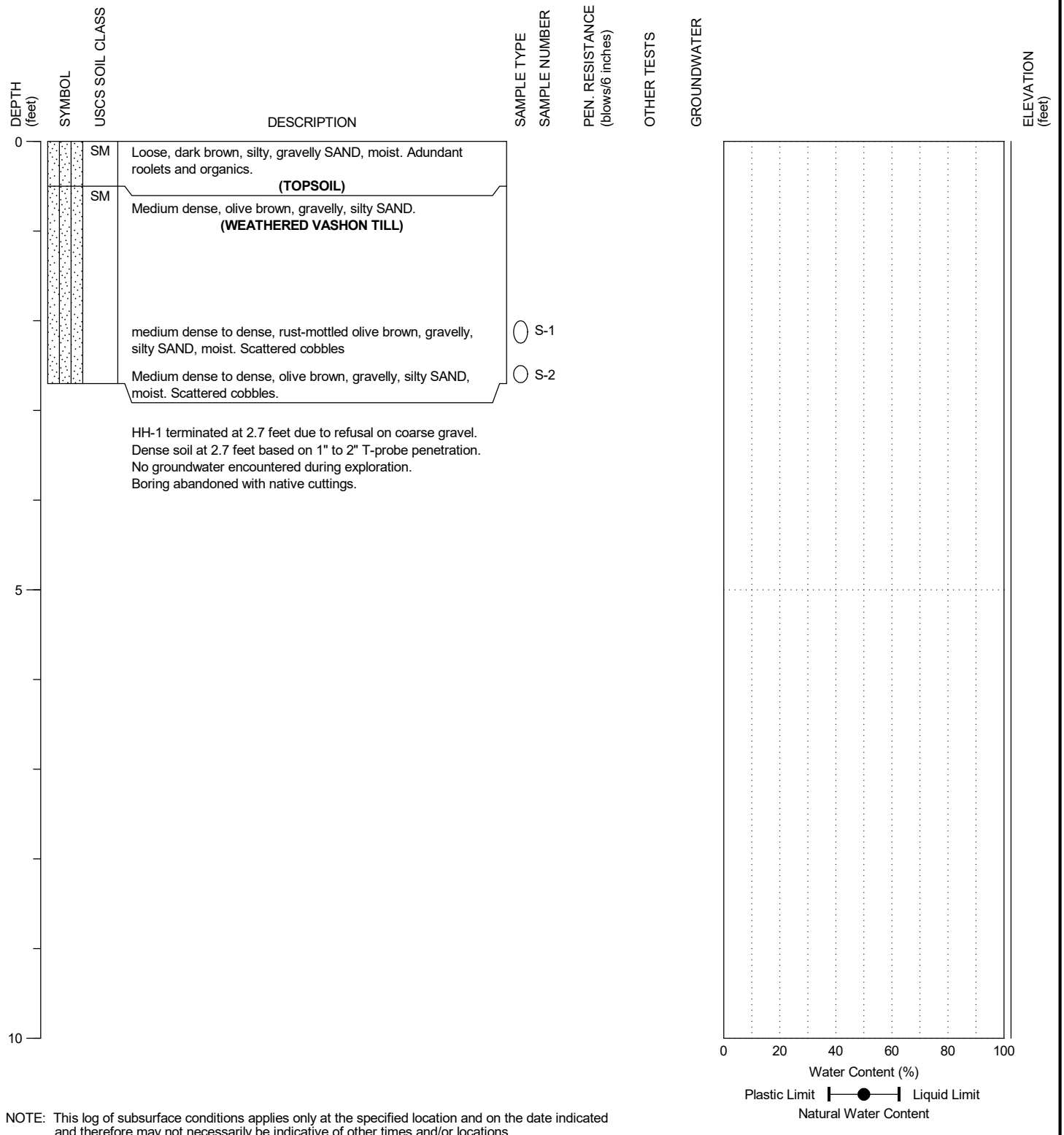
90th/131st Critical Area Study
Kirkland, Washington

LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

PROJECT NO.: 2021-101-21 FIGURE: A-1

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/23/2022
DATE COMPLETED: 2/23/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 1

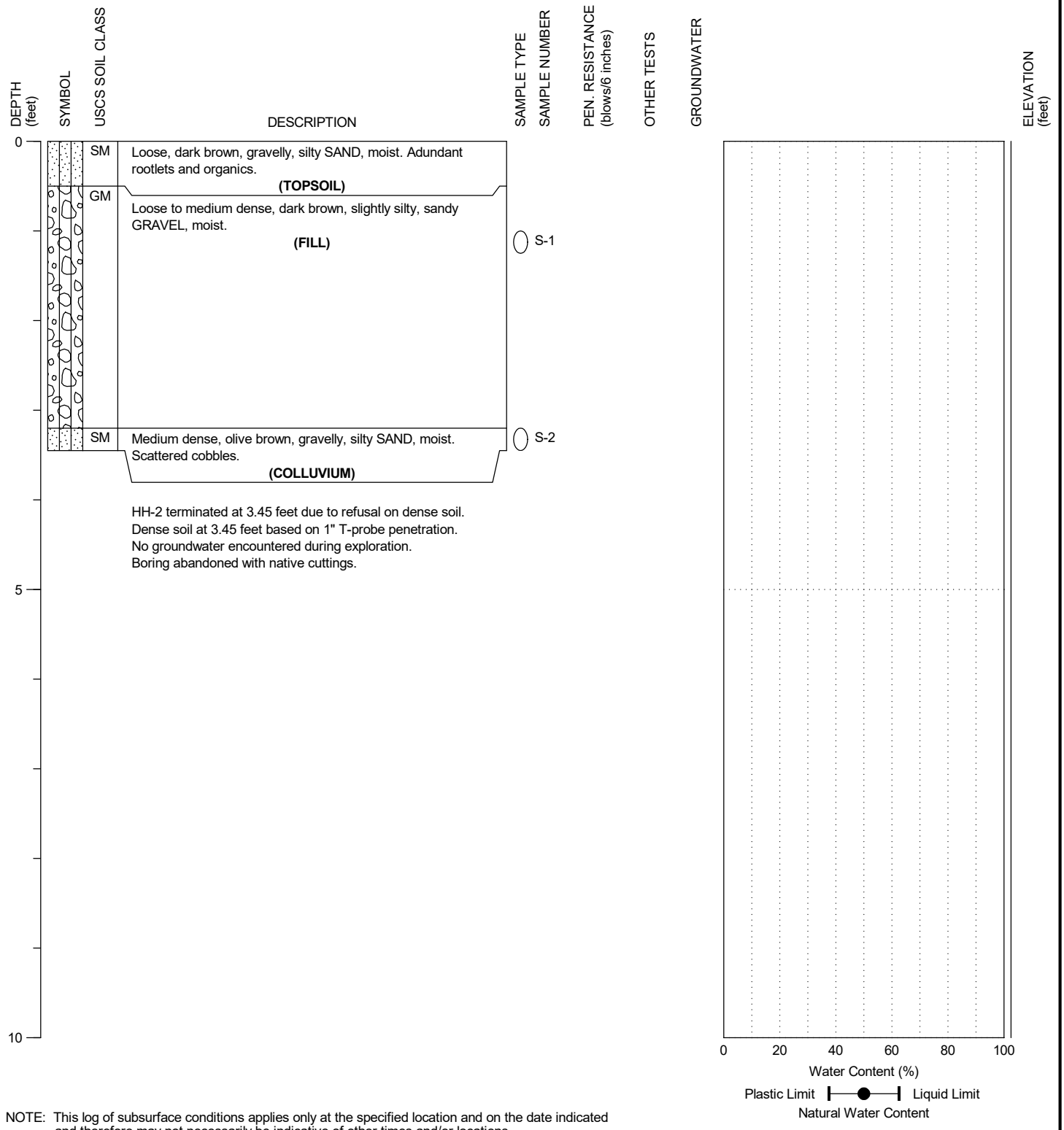
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-2

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/23/2022
DATE COMPLETED: 2/23/2022
LOGGED BY: M.A. Benson



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.

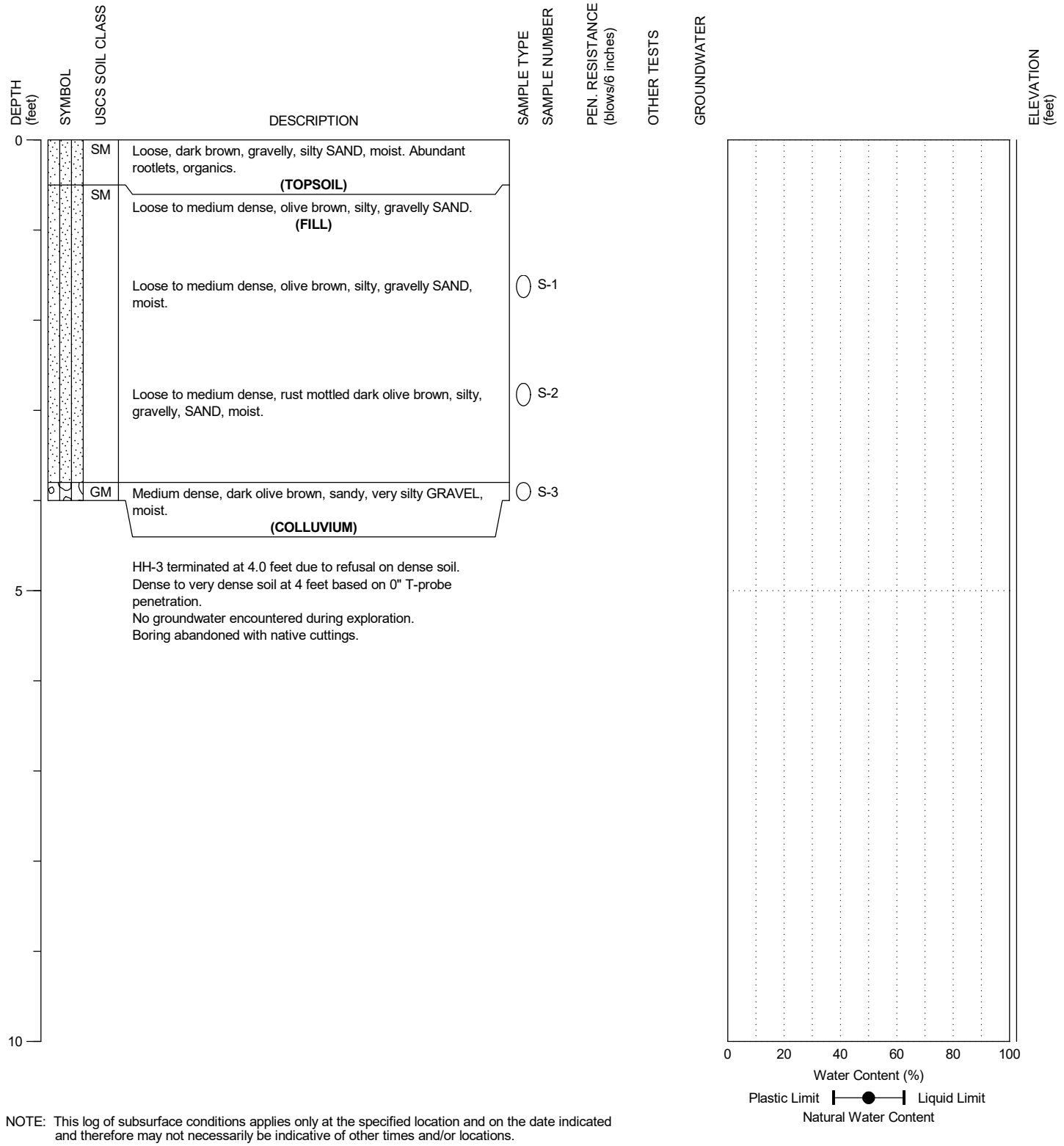
90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 2

PROJECT NO.: 2021-101-21 FIGURE: A-3

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/23/2022
DATE COMPLETED: 2/23/2022
LOGGED BY: M.A. Benson



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.

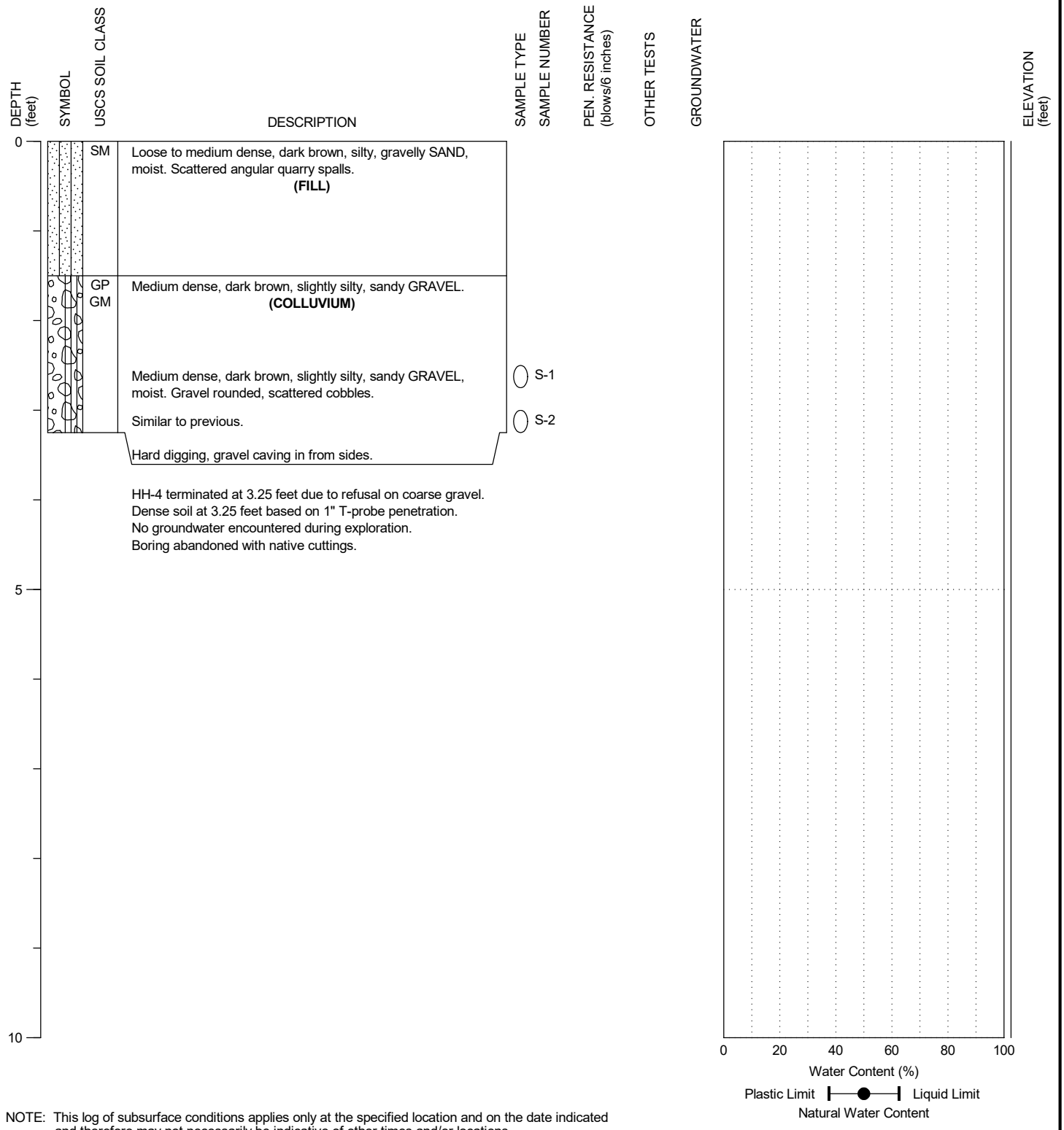
90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 3

PROJECT NO.: 2021-101-21 FIGURE: A-4

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/23/2022
DATE COMPLETED: 2/23/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 4

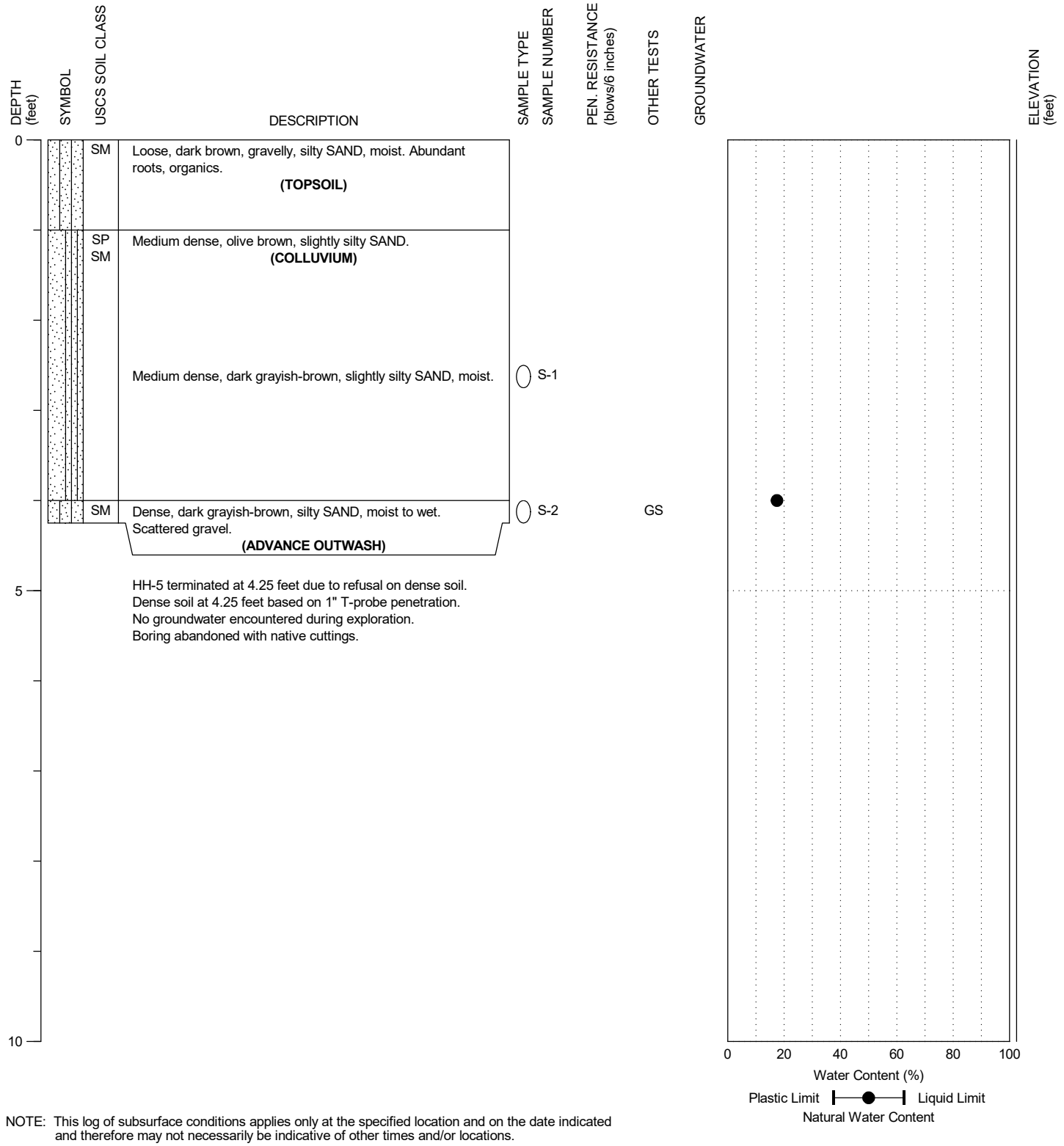
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-5

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/22/2022
DATE COMPLETED: 2/22/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 5

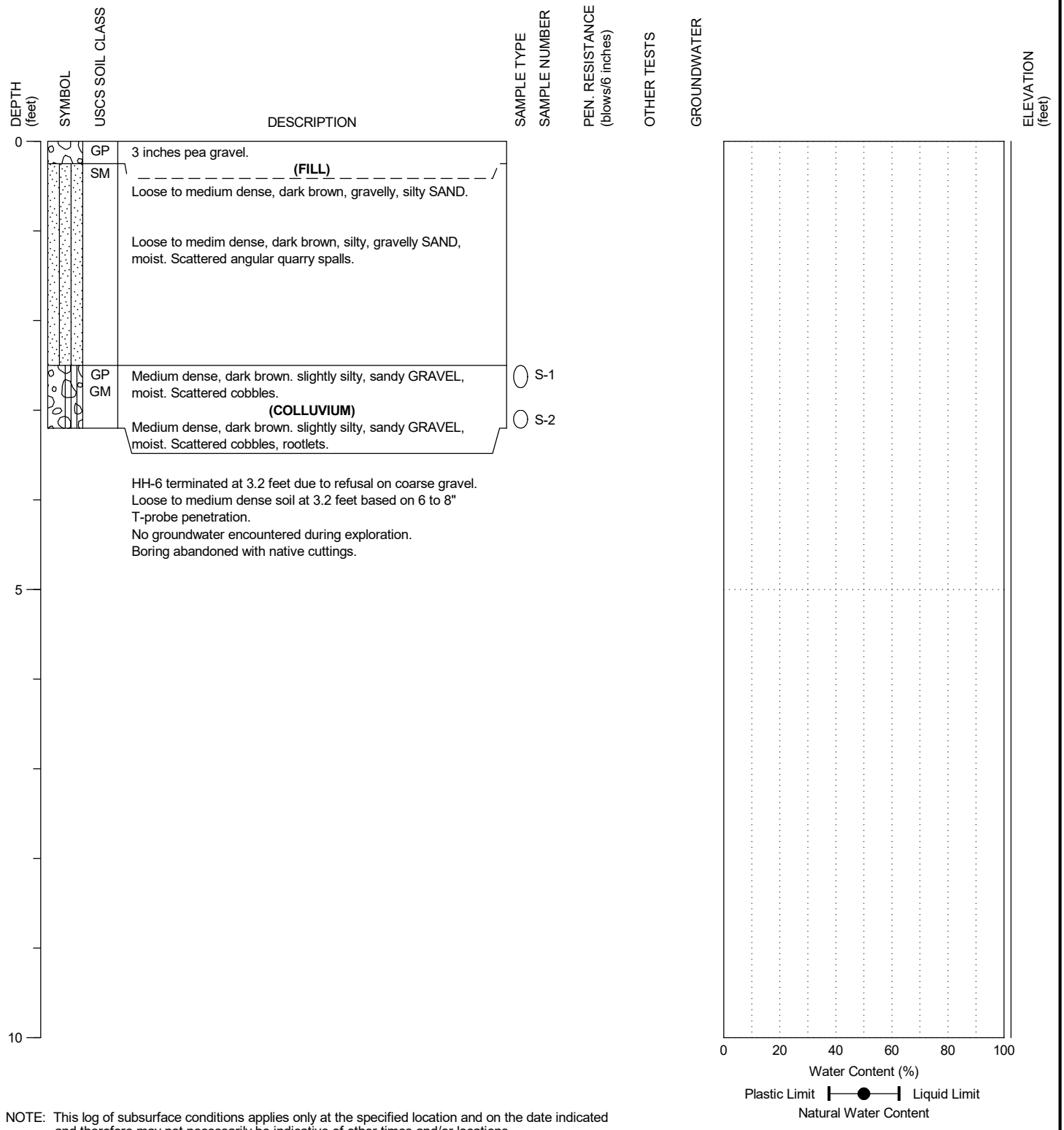
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-6

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/23/2022
DATE COMPLETED: 2/23/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 6

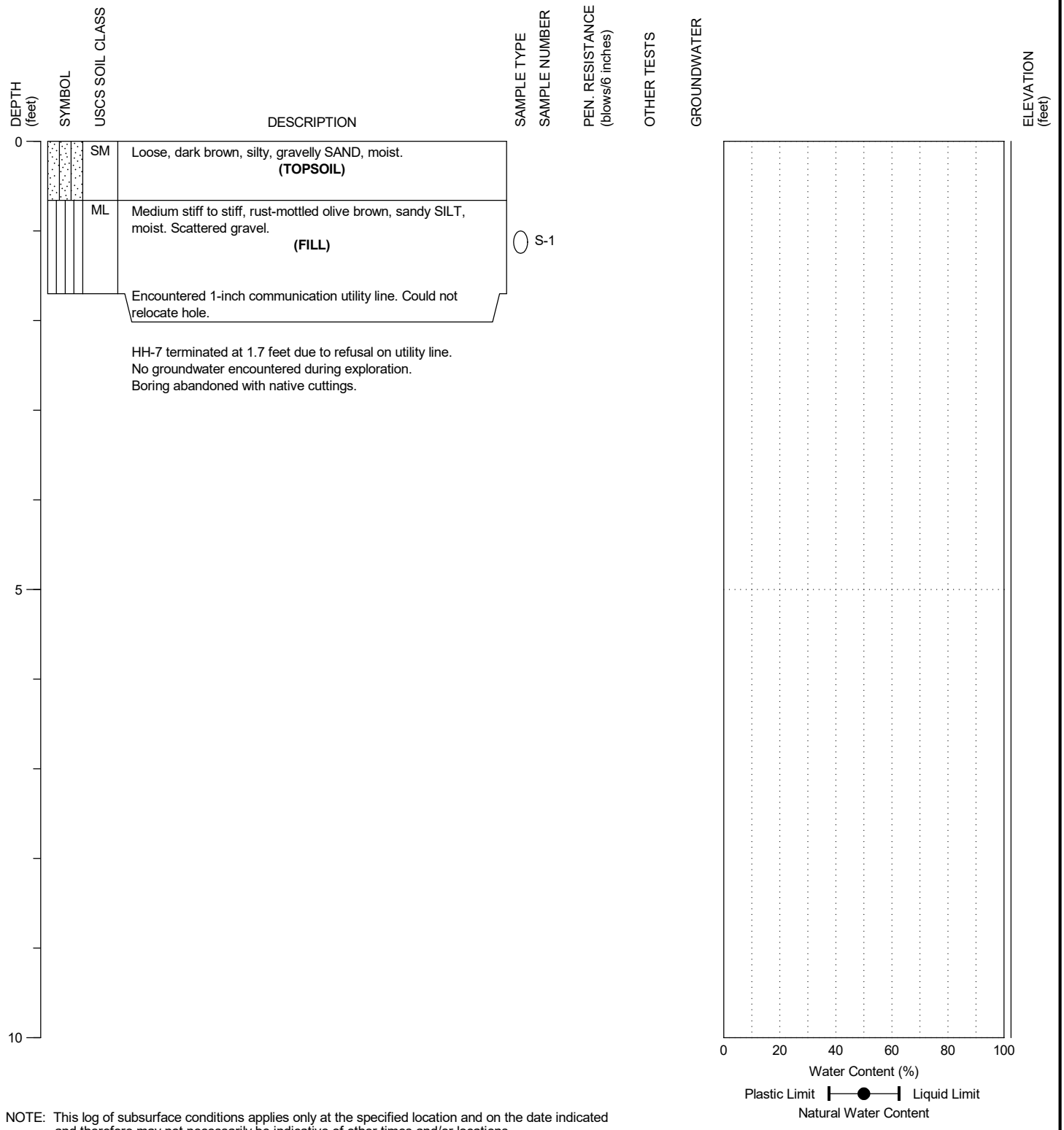
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-7

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/22/2022
DATE COMPLETED: 2/22/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

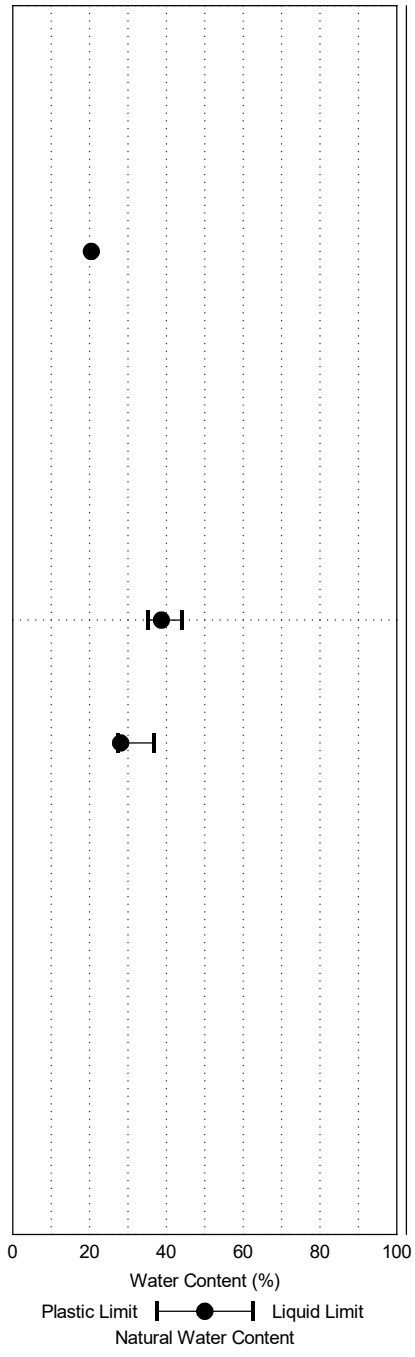
HAND HOLE:
HH- 7

PROJECT NO.: 2021-101-21 FIGURE: A-8

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/22/2022
DATE COMPLETED: 2/22/2022
LOGGED BY: M.A. Benson

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS	GROUNDWATER	ELEVATION (feet)
0		SM	Loose, dark brown, silty, gravelly SAND, moist. Abundant roots, organics. **(TOPSOIL)**						
		SM	Loose to medium dense, olive brown, silty, gravelly SAND, moist. **(COLLUVIUM)** Hard, gravelly drilling.						
		ML	Stiff to very stiff, olive gray, sandy SILT, moist. Scattered gravel. Grades to trace gravel.		S-1		GS		
5			Stiff to very stiff, reddish-brown, SILT, moist.		S-2		AL		
			Stiff to very stiff, bluish-gray, SILT, moist.		S-3		AL		
10			HH-8 terminated at 6.3 feet due to refusal on stiff soil. Stiff to very stiff soil at 6.3 feet based on 0 to 1" T-probe penetration. No groundwater encountered during exploration. Boring abandoned with native cuttings.						



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.

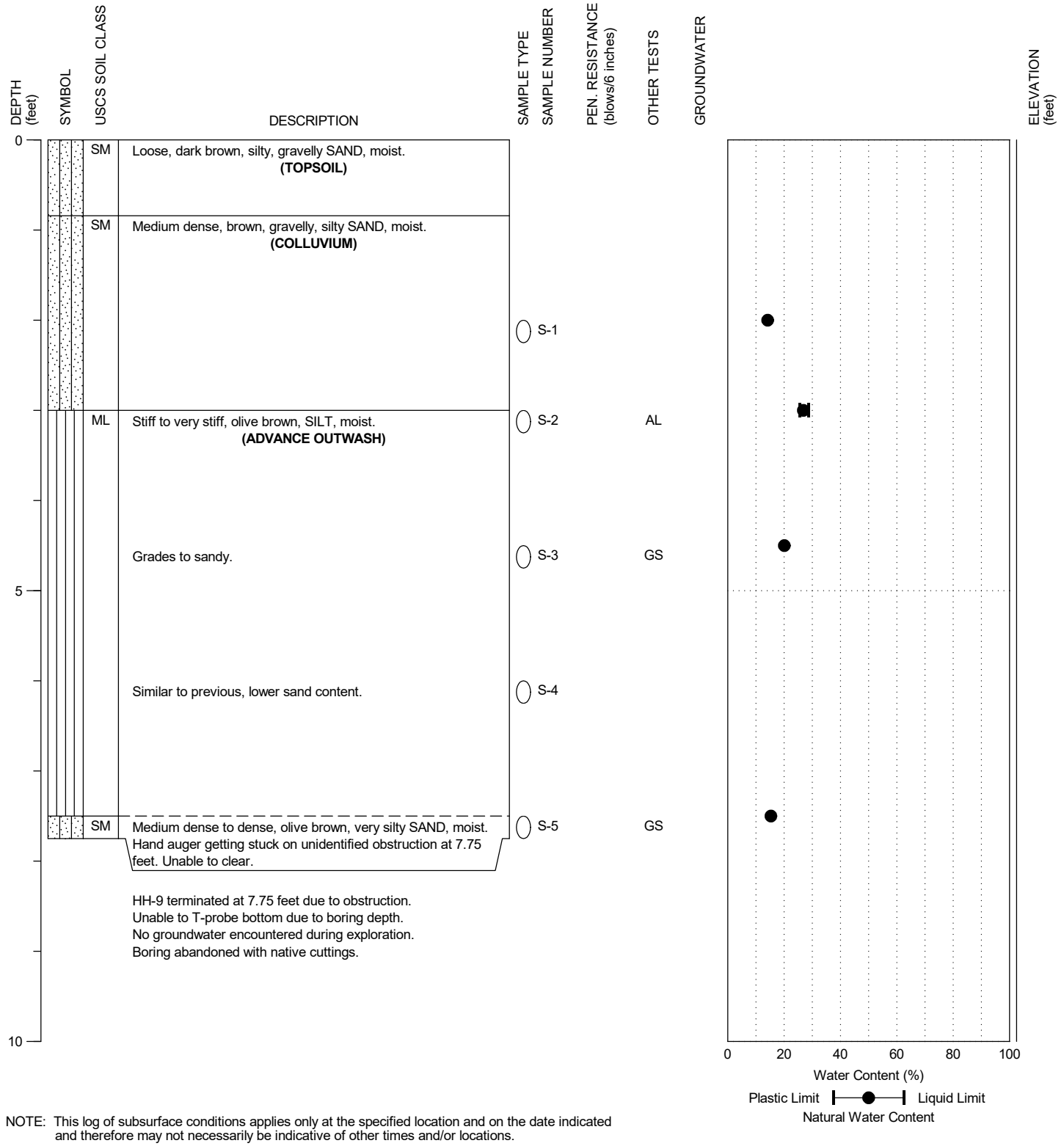
90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 8

PROJECT NO.: 2021-101-21 FIGURE: A-9

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/24/2022
DATE COMPLETED: 2/24/2022
LOGGED BY: M.A. Benson



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.

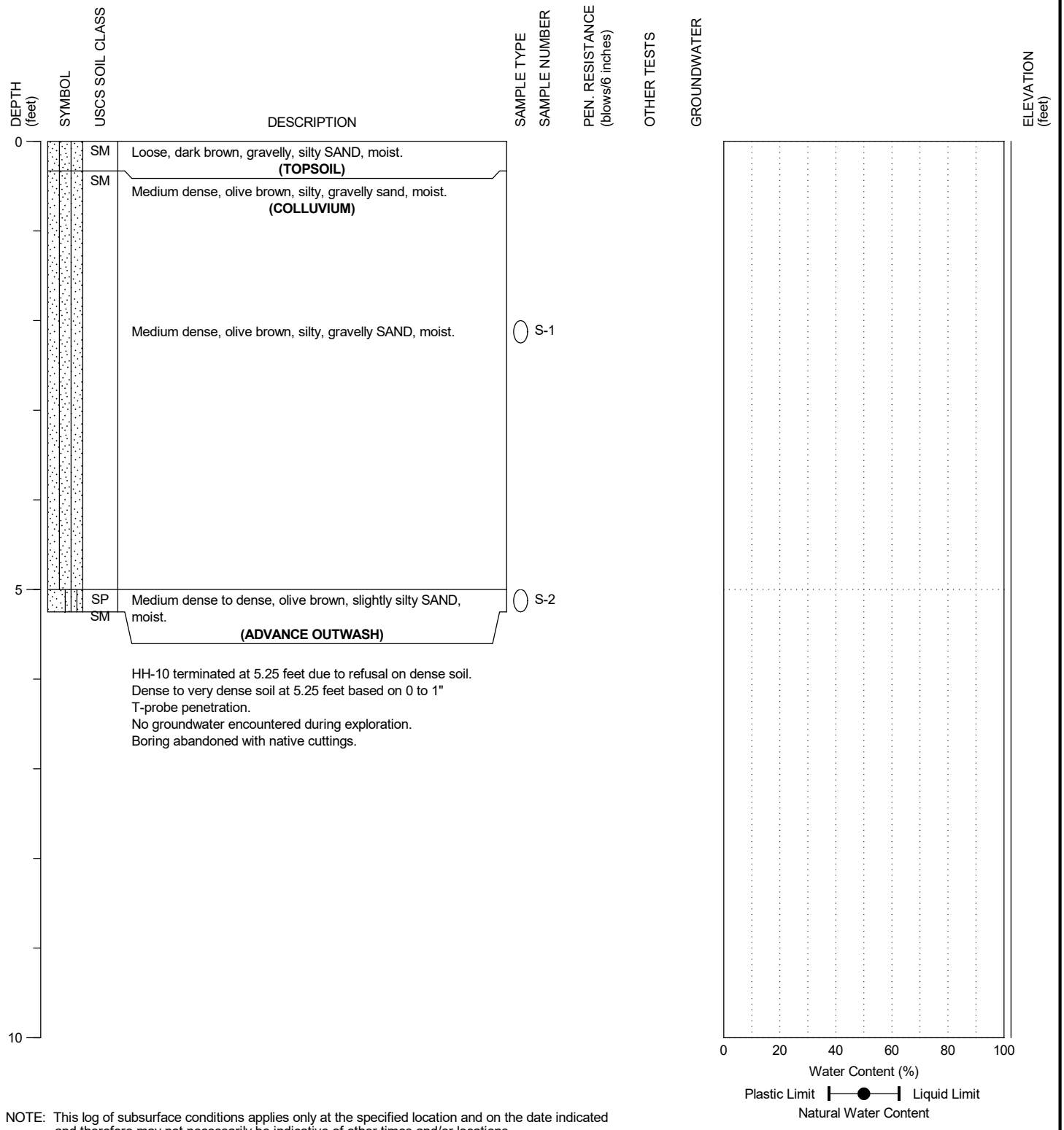
90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH- 9

PROJECT NO.: 2021-101-21 FIGURE: A-10

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/22/2022
DATE COMPLETED: 2/22/2022
LOGGED BY: M.A. Benson



HH-10 terminated at 5.25 feet due to refusal on dense soil.
Dense to very dense soil at 5.25 feet based on 0 to 1" T-probe penetration.
No groundwater encountered during exploration.
Boring abandoned with native cuttings.

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.

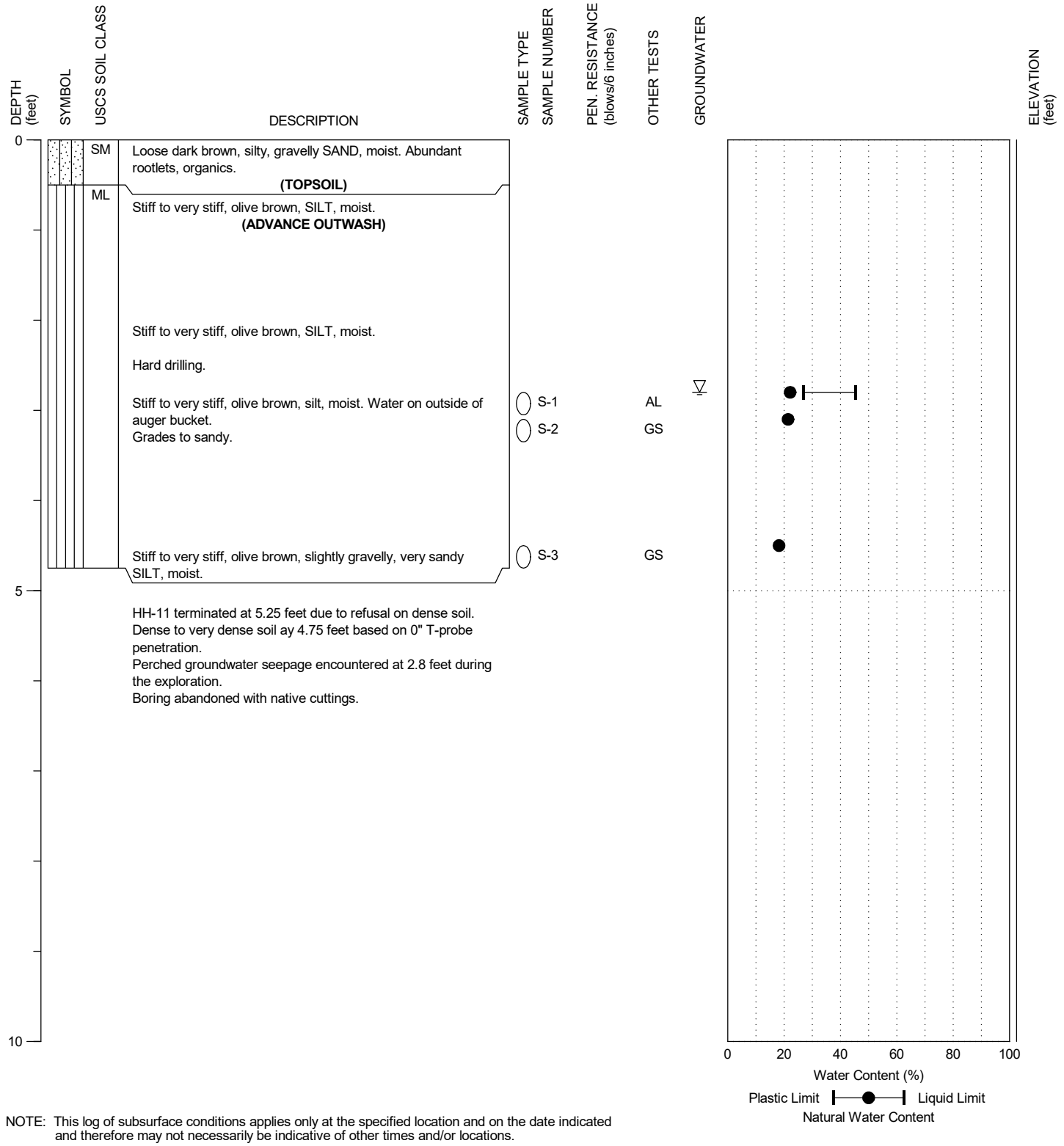
90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-10

PROJECT NO.: 2021-101-21 FIGURE: A-11

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/24/2022
DATE COMPLETED: 2/24/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-11

PAGE: 1 of 1

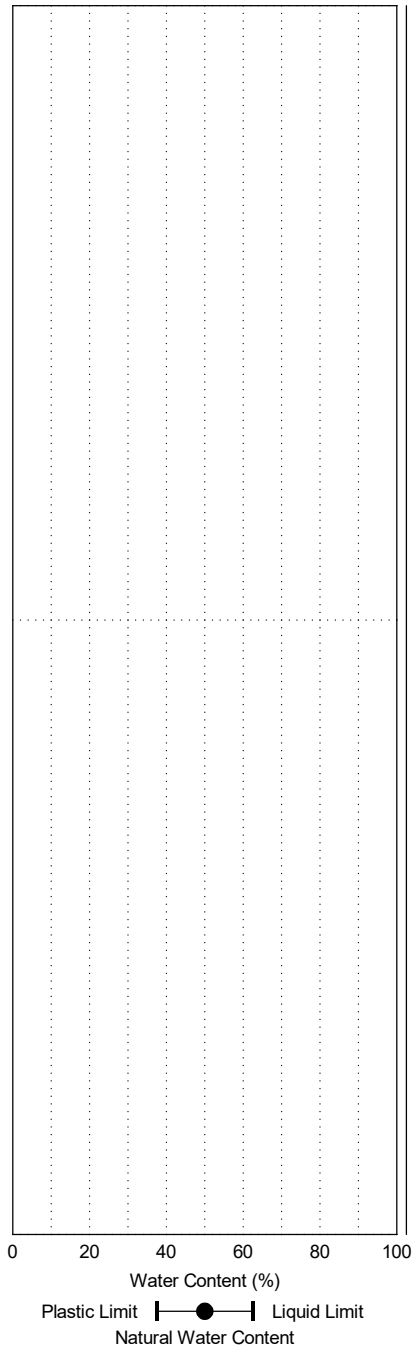
PROJECT NO.: 2021-101-21 FIGURE: A-12

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/21/2022
DATE COMPLETED: 2/21/2022
LOGGED BY: M.A. Benson

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE / SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS	GROUNDWATER	ELEVATION (feet)
0		SM	Loose to medium dense, dark brown, silty, gravelly SAND, moist. **(FILL)**					
		SM	Medium dense, olive brown, gravelly, silty SAND, moist. **(COLLUVIUM)**					
			Medium dense, olive brown, silty SAND, moist. Scattered gravel.	S-1				
			Medium dense, dark brown, gravelly, silty SAND, moist.	S-2				
5			HH-12 terminated at 3.3 feet due to refusal on dense soil. Dense to very dense soil at 3.3 feet based on 0 to 1" T-probe penetration. No groundwater encountered during exploration. Boring abandoned with native cuttings.					
10								



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-12

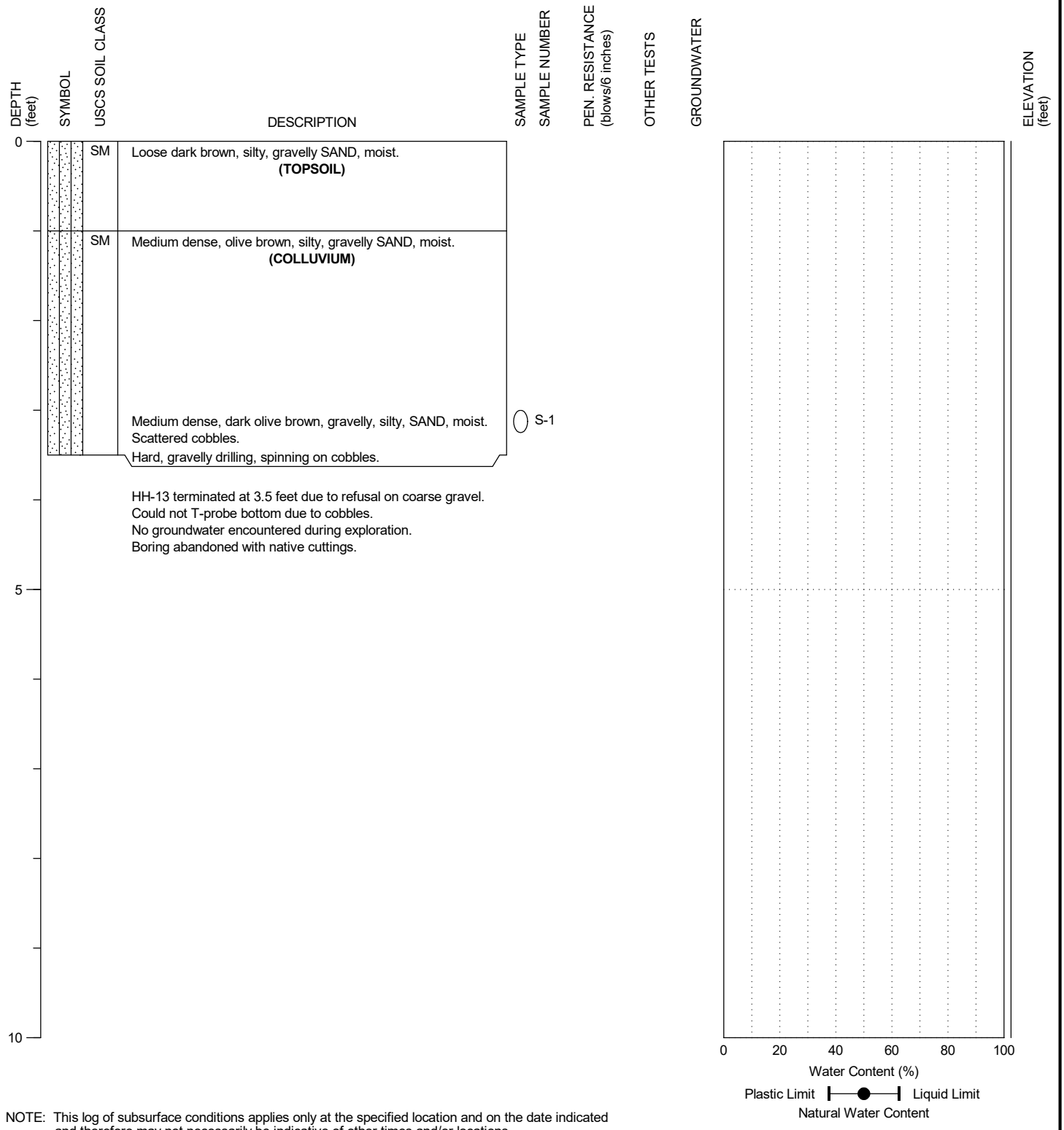
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-13

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/21/2022
DATE COMPLETED: 2/21/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-13

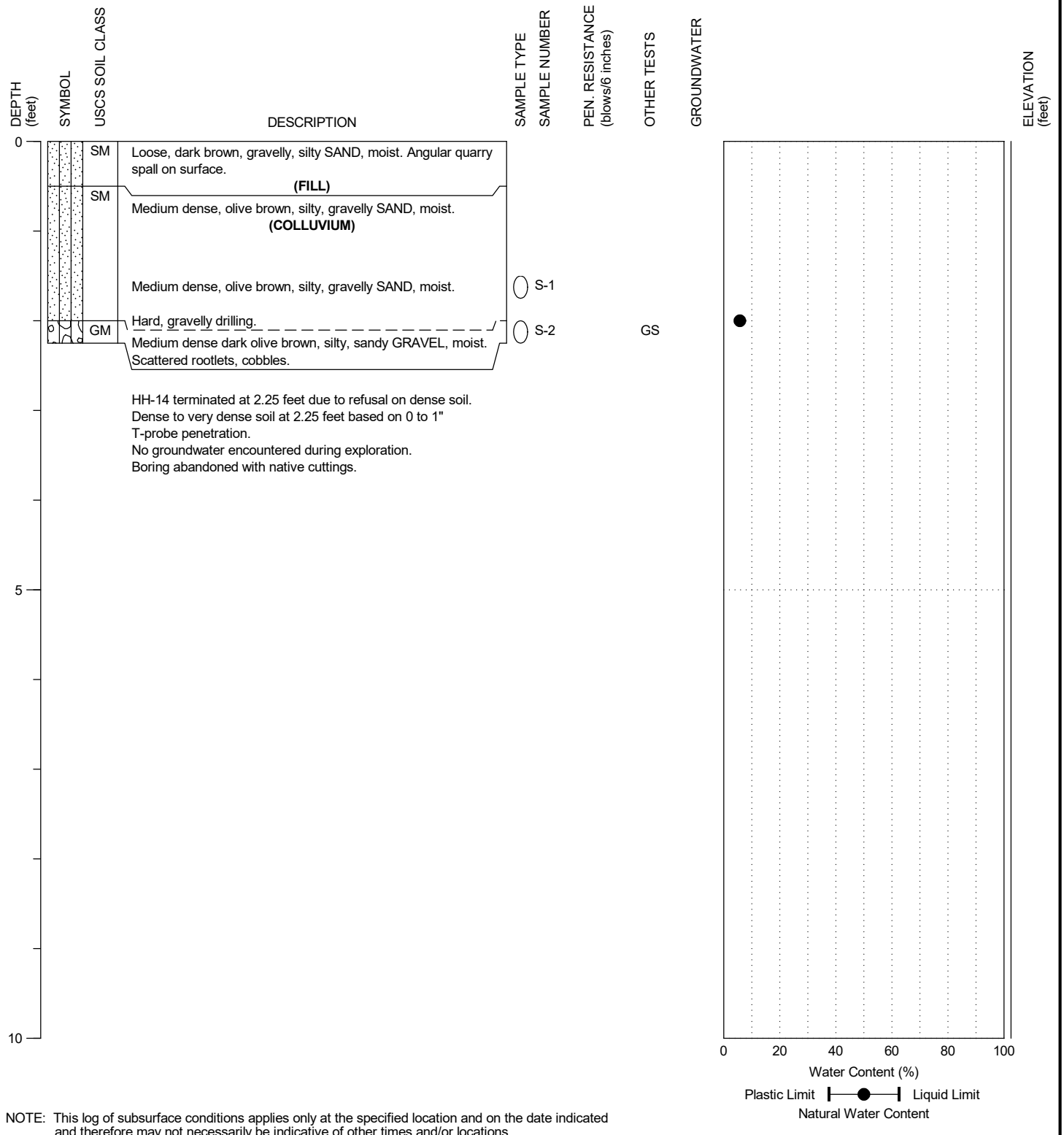
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-14

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/21/2022
DATE COMPLETED: 2/21/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-14

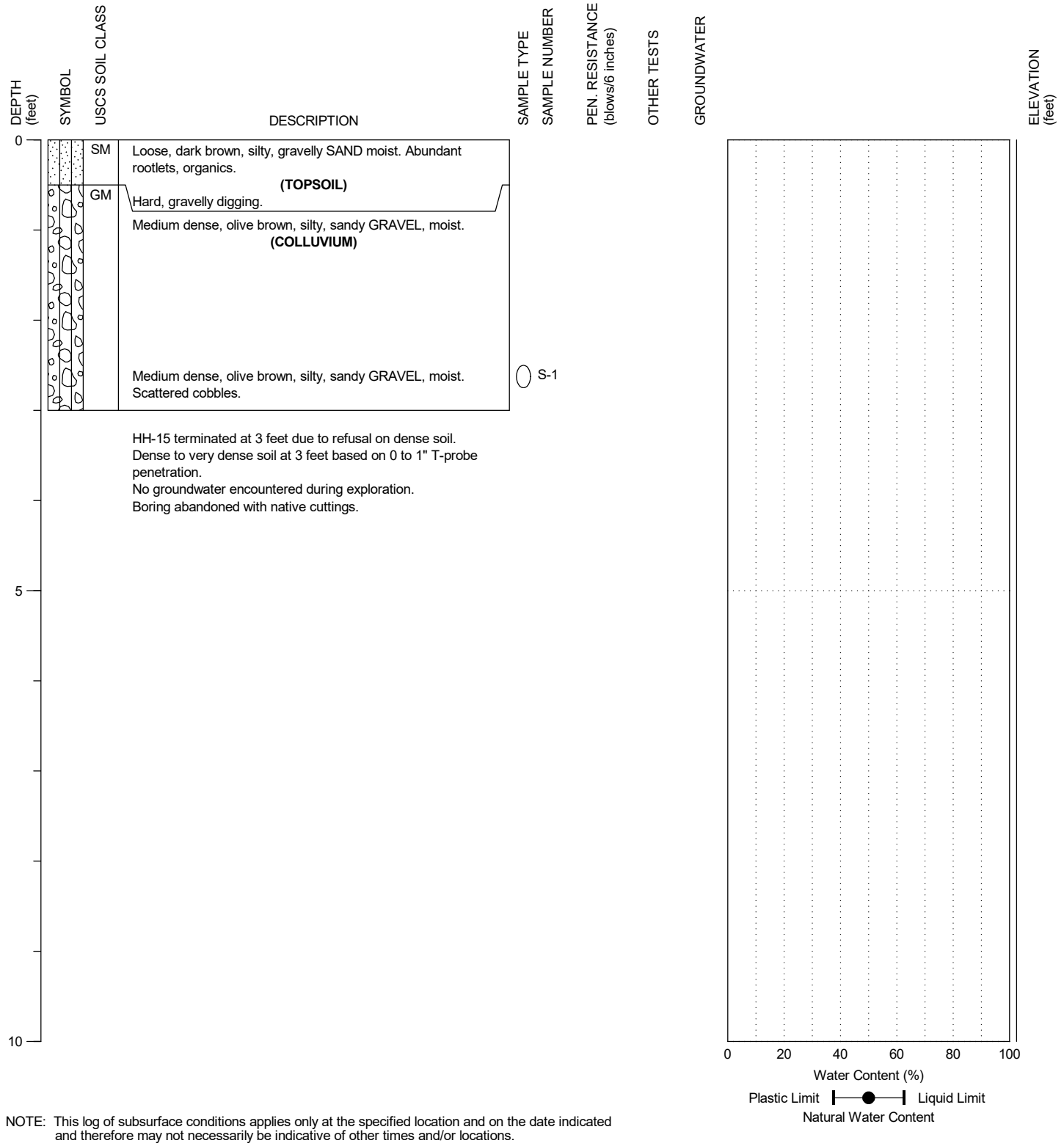
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-15

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/21/2022
DATE COMPLETED: 2/21/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-15

PAGE: 1 of 1

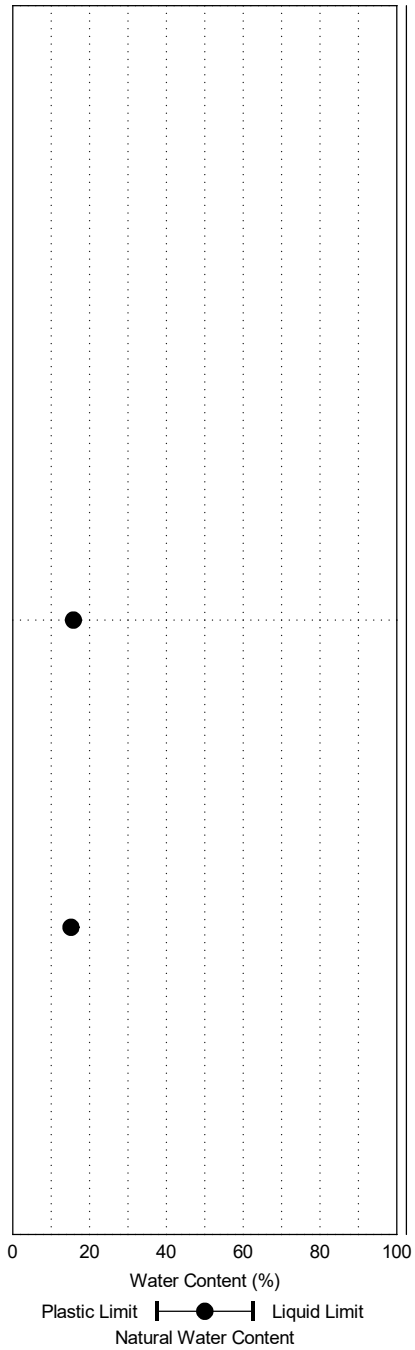
PROJECT NO.: 2021-101-21 FIGURE: A-16

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/21/2022
DATE COMPLETED: 2/21/2022
LOGGED BY: M.A. Benson

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE / SAMPLE NUMBER	PEN. RESISTANCE (blows/6 inches)	OTHER TESTS	GROUNDWATER	ELEVATION (feet)
0		SM	Loose, dark brown. silty, gravelly SAND, moist. Abundant rootlets, organics. **(TOPSOIL)**					
		SM	Medium dense, brown, slightly gravelly, very silty SAND. Moist. **(COLLUVIUM)**					
			Medium dense, brown, slightly gravelly, very silty SAND, moist. Scattered silt clods.	S-1				
5		SM	Medium dense to dense, brown, very silty SAND, moist. Scattered gravel. **(ADVANCE OUTWASH)**	S-2		GS		
			Medium dense to dense, olive brown, slightly gravelly, very silty SAND, moist to wet.	S-3				
10			HH-16 terminated at 8 feet due to refusal on dense soil. Dense to very dense soil at 8 feet based on 0 to 1" T-probe penetration. No groundwater encountered during exploration. Boring abandoned with native cuttings.					



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-16

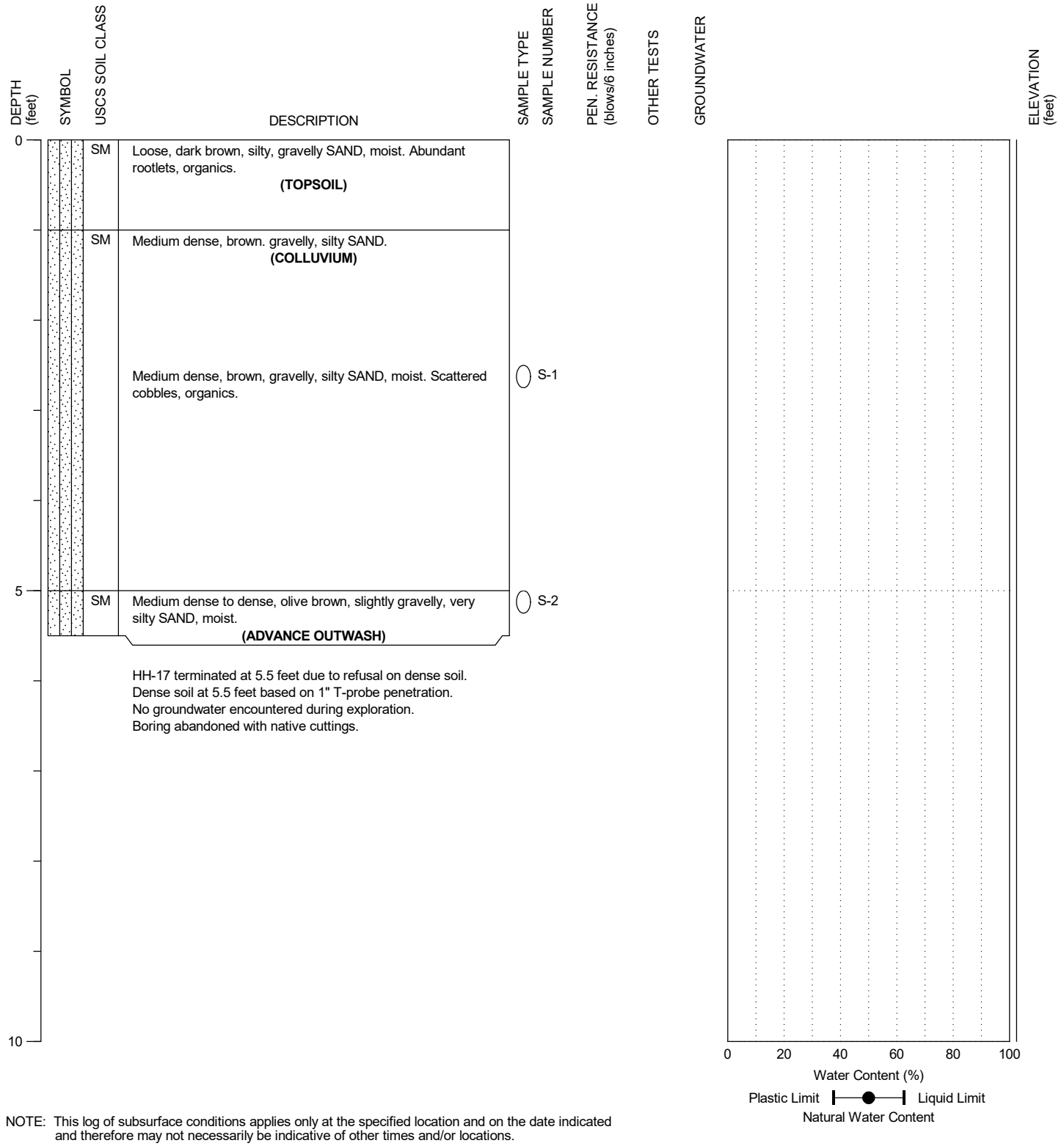
PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-17

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

DRILLING COMPANY: HWA GeoSciences Inc.
DRILLING METHOD: Hand Auger
SAMPLING METHOD: Small Bag Grab Sample
LOCATION: See Figure 2

DATE STARTED: 2/21/2022
DATE COMPLETED: 2/21/2022
LOGGED BY: M.A. Benson



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.

90th/131st Critical Area Study
Kirkland, Washington

HAND HOLE:
HH-17

PAGE: 1 of 1

PROJECT NO.: 2021-101-21 FIGURE: A-18

HANDHOL-DSM 2021-101-21.GPJ 3/24/22

APPENDIX B

LABORATORY TEST RESULTS

LABORATORY INVESTIGATION

Representative soil samples obtained from the explorations were placed in plastic bags to prevent loss of moisture and transported to our Bothell, Washington, laboratory for further examination and testing. Laboratory tests were conducted on selected soil samples to characterize relevant engineering and index properties of the site soils. The laboratory testing program was performed in general accordance with appropriate ASTM Standards, as outlined below.

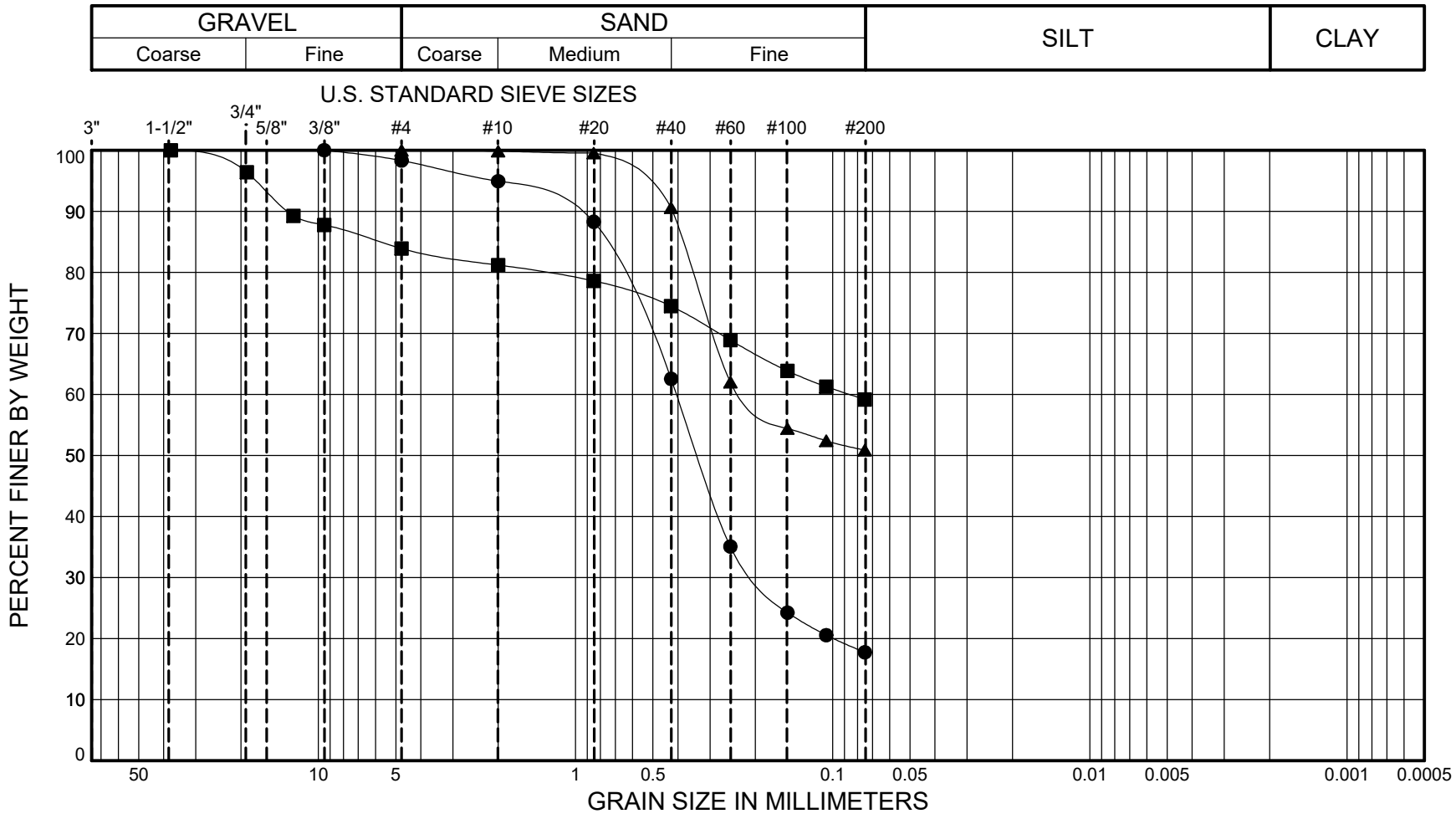
MOISTURE CONTENT OF SOIL: The moisture content of selected soil samples (percent by dry mass) was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate summary logs in Appendix A, or in Figure B-1, Appendix B.

PARTICLE SIZE ANALYSIS OF SOILS: Selected granular samples were tested to determine the particle size distribution of material in accordance with ASTM D 422 (wash sieve or wash sieve and hydrometer methods). The results are summarized on the attached Particle-Size Distribution reports (Figures B-2 through B-4, Appendix B), which also provide information regarding the classification of the samples and the moisture content at the time of testing.

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS (ATTERBERG LIMITS): Selected samples were tested using method ASTM D 4318, multi-point method. The results are reported on the attached Liquid Limit, Plastic Limit, and Plasticity Index report found in Figure B-5.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
HH- 5,S-2	4.0	4.3	17.4						1.7	80.6	17.7	SM	Dark grayish-brown, silty SAND
HH- 8,S-1	2.0	2.3	20.5						16.1	24.7	59.2	ML	Olive-brown, sandy SILT with gravel
HH- 8,S-2	5.0	5.3	38.7			44	35	9				ML	Dark yellowish-brown, SILT
HH- 8,S-3	6.0	6.3	28.1			37	27	10				ML	Olive-gray, SILT
HH- 9,S-1	2.0	2.3	14.2									SM	Yellowish-brown, silty SAND
HH- 9,S-2	3.0	3.3	26.8			29	26	3				ML	Light olive-brown, SILT
HH- 9,S-3	4.5	4.8	20.1							49.1	50.9	ML	Light olive-brown, sandy SILT
HH- 9,S-5	7.5	7.8	15.3						6.0	48.5	45.5	SM	Light olive-brown, silty SAND
HH-11,S-1	2.8	3.1	22.1			45	27	18				ML	Grayish-brown, SILT
HH-11,S-2	3.1	3.4	21.4						0.3	20.4	79.3	ML	Light olive-brown, SILT with sand
HH-11,S-3	4.5	4.8	18.2						0.9	46.5	52.7	ML	Olive-brown, SILT with sand
HH-14,S-2	2.0	2.3	5.7						72.7	22.8	4.5	GP	Dark grayish-brown, poorly graded GRAVEL with sand
HH-16,S-2	5.0	5.3	15.8						4.6	66.8	28.7	SM	Olive-brown, silty SAND
HH-16,S-3	7.5	7.8	15.2									SM	Grayish-brown, silty SAND

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.



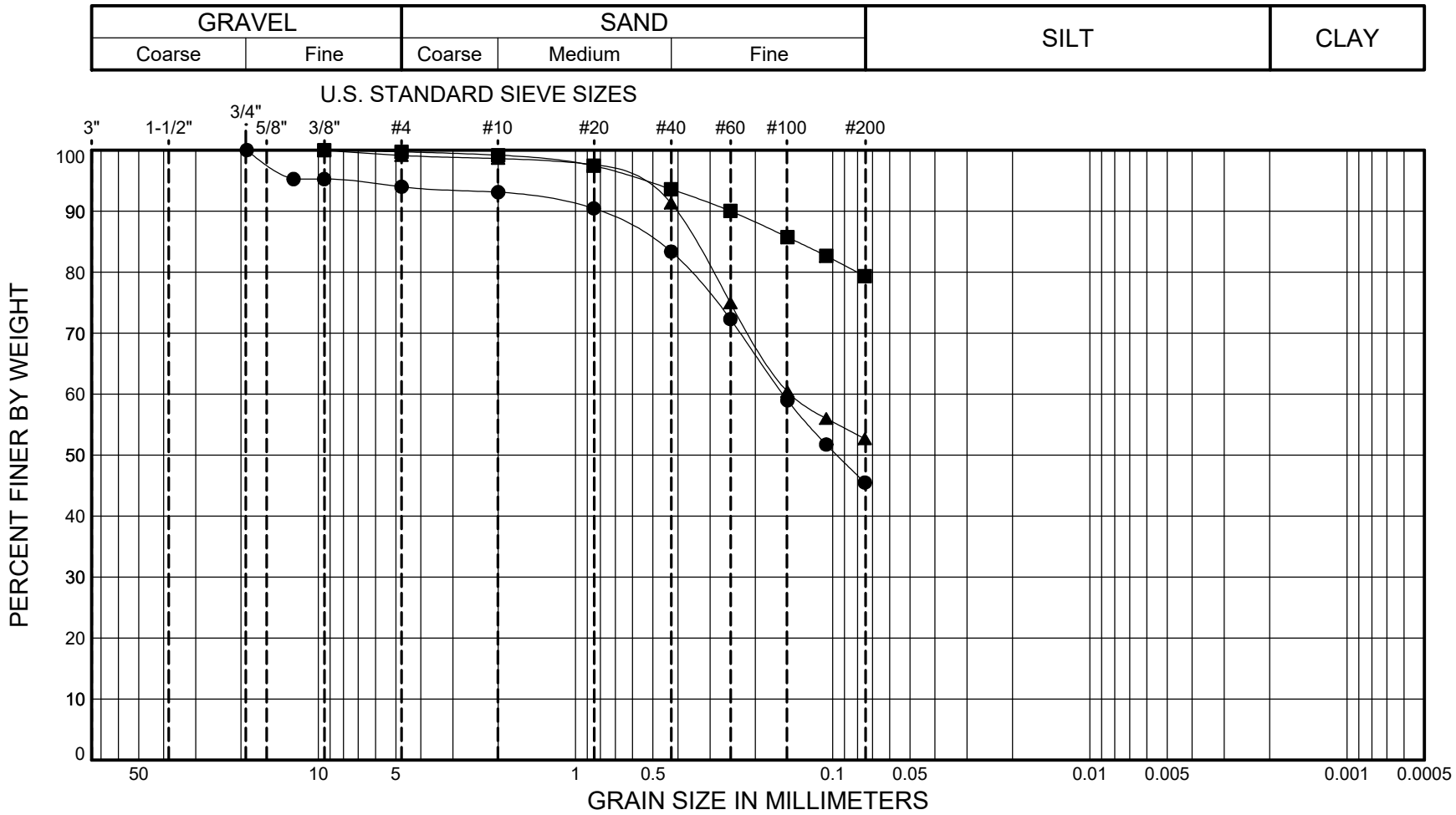
SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HH- 5	S-2	4.0 - 4.3	(SM) Dark grayish-brown, silty SAND	17				1.7	80.6	17.7
■	HH- 8	S-1	2.0 - 2.3	(ML) Olive-brown, sandy SILT with gravel	20				16.1	24.7	59.2
▲	HH- 9	S-3	4.5 - 4.8	(ML) Light olive-brown, sandy SILT	20					49.1	50.9

HWA GEOSCIENCES INC.

131st Critical Area Assessment

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2021-101 FIGURE: B-2



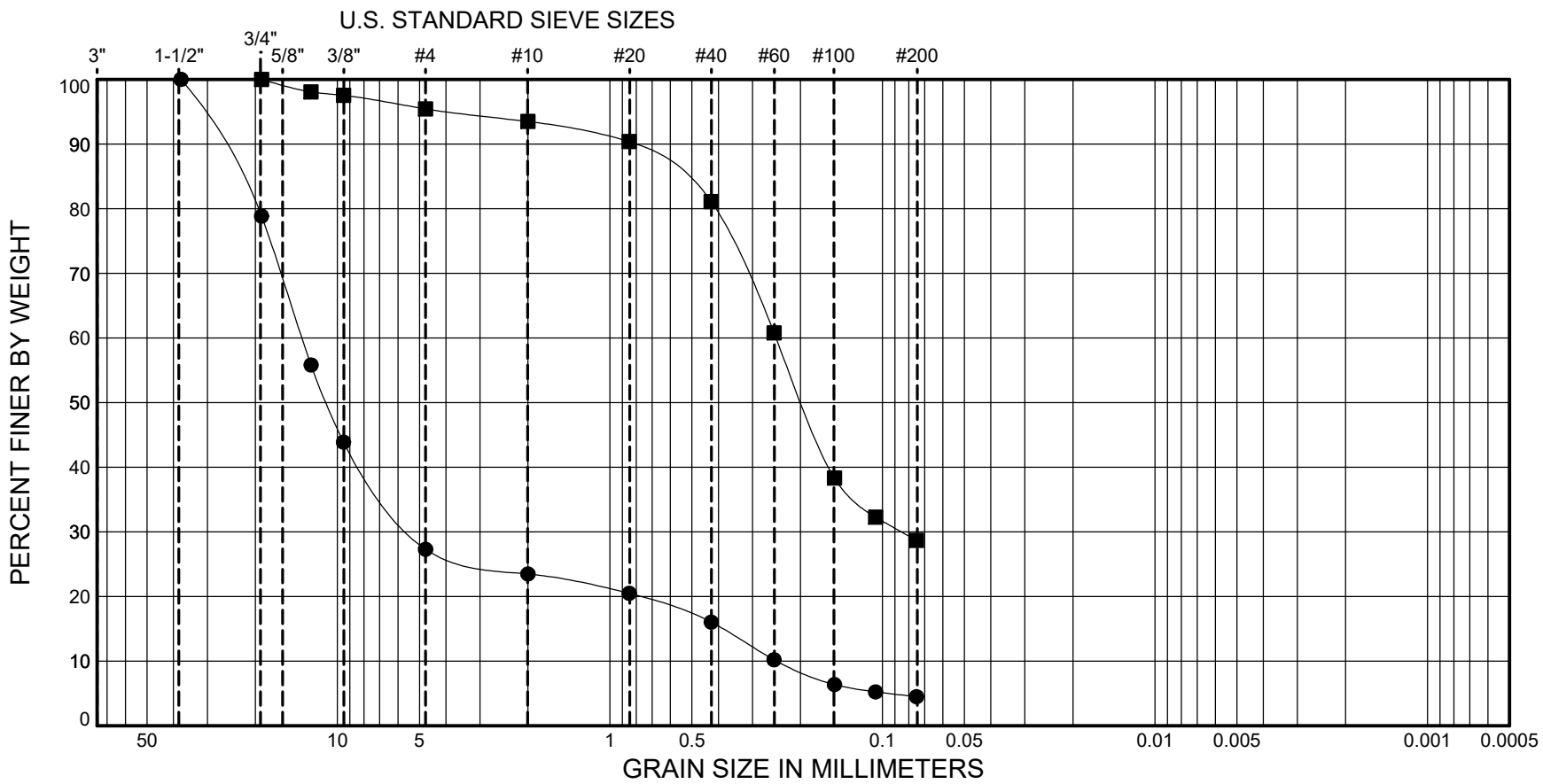
SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HH- 9	S-5	7.5 - 7.8	(SM) Light olive-brown, silty SAND	15				6.0	48.5	45.5
■	HH-11	S-2	3.1 - 3.4	(ML) Light olive-brown, SILT with sand	21				0.3	20.4	79.3
▲	HH-11	S-3	4.5 - 4.8	(ML) Olive-brown, SILT with sand	18				0.9	46.5	52.7

HWA GeoSciences Inc.

131st Critical Area Assessment

PARTICLE-SIZE ANALYSIS OF SOILS METHOD ASTM D6913

PROJECT NO.: 2021-101 FIGURE: B-3



SYMBOL	SAMPLE		DEPTH (ft.)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HH-14	S-2	2.0 - 2.3	(GP) Dark grayish-brown, poorly graded GRAVEL with sand	6				72.7	22.8	4.5
■	HH-16	S-2	5.0 - 5.3	(SM) Olive-brown, silty SAND	16				4.6	66.8	28.7

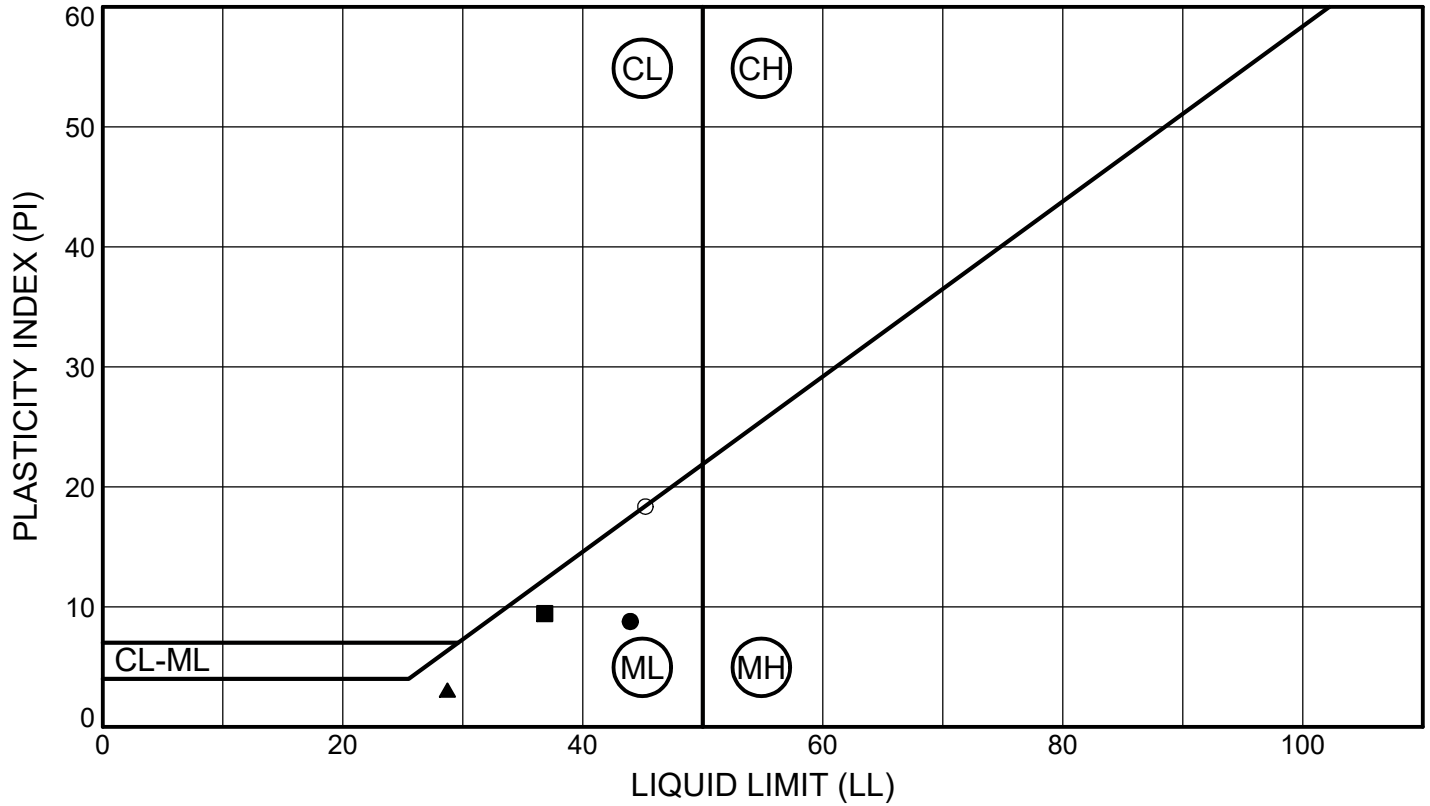
HWA GeoSciences Inc.

131st Critical Area Assessment

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D6913

PROJECT NO.: 2021-101 FIGURE: B-4

HWAGRSZ 2021-101-21.GPJ 3/3/22



SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION	% MC	LL	PL	PI	% Fines
●	HH- 8	S-2	5.0 - 5.3	(ML) Dark yellowish-brown, SILT	39	44	35	9	
■	HH- 8	S-3	6.0 - 6.3	(ML) Olive-gray, SILT	28	37	27	10	
▲	HH- 9	S-2	3.0 - 3.3	(ML) Light olive-brown, SILT	27	29	26	3	
○	HH-11	S-1	2.8 - 3.1	(ML) Grayish-brown, SILT	22	45	27	18	

HWA GeoSciences Inc.

131st Critical Area Assessment

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS METHOD ASTM D4318

PROJECT NO.: 2021-101 FIGURE: B-5

APPENDIX C

INADVERTENT DISCOVERY PLAN

City of Kirkland

Cultural Resources Monitoring and Inadvertent Discovery Plan

Prepared for
The City of Kirkland

March 6, 2023

NE 131st Way/90th Avenue NE Nonmotorized Improvements Project

CONTAINS CONFIDENTIAL INFORMATION – NOT FOR GENERAL DISTRIBUTION

PERTEET.COM
801 SECOND AVENUE, SUITE 302
SEATTLE, WA 98104
206.436.0515

PERTEET
Better communities, by design

TABLE OF CONTENTS

CULTURAL RESOURCES MONITORING AND INADVERTENT DISCOVERY PLAN

INTRODUCTION

Project Location and Description

The City of Kirkland is improving the NE 131st Way corridor for both nonmotorized and vehicular safety. The project is in Sections 19 and 30 of Township 26 North, Range 5 East (Figure 1). The project area is the arterial corridor from the intersection of 90th Avenue NE and NE 134th Street in the west and the intersection of NE 132nd Street and 97th Avenue NE in the east (Figure 2-3). At present the roadway consists of two 11-foot-wide travel lanes with 4 to 7.5-foot-wide paved shoulders on both sides. It curves around the edge of the forested, steep side slope of a glacial landform which levels out at the east end of the project area just west of Juanita Elementary School. Ground disturbing project elements include replacement of damaged guardrail and posts, which will extend up to 5.5 feet below surface (fbs), new illumination at 94th and 92nd Avenue intersections, which will extend up to 8 fbs, trenching for illumination, which will extend up to 4 fbs, and new inlets and storm pipes at up to 20 existing catch basins, which will extend 3.5 to 4.

Regulatory Context

This project is funded by the Washington State Department of Commerce and is therefore subject to Governor's Executive Order on Cultural Resources 21-02 (GEO 05-05). Under GEO-21-02, state agencies implementing or assisting capital projects using funds appropriated in the State's biennial Capital Budget must consult with the Washington Department of Archaeology and Historic Preservation (DAHP), and concerned Tribes and afford them the opportunity to review and provide comments about potential project impacts on significant cultural and historic places. The consultation process requires initiation, identification of historic properties and determination of eligibility, assessment of project adverse impacts, and resolution of adverse effects. The department of Commerce delegated responsibility for conducting consultation required by GEO 21-02 to the City of Kirkland for this Project. The City completed an EZ-1 form to initiate consultation with the DAHP. The DAHP review resulted in a determination of no effect and recommended preparation of an Inadvertent Discovery Plan. The City also initiated consultation with Tulalip Tribes, Snoqualmie Indian Tribe, Muckleshoot Indian Tribe, Suquamish Tribe, and Stillaguamish Tribe of Indians. The Snoqualmie Indian Tribe responded and requested archaeological monitoring during ground disturbing activities and an inadvertent discovery plan. This Monitoring and Inadvertent Discovery Plan establishes monitoring methods and inadvertent discovery protocols to comply with the Tribe's request.

Additional Washington state laws address archaeological sites and Native American burials. The Archaeological Sites and Resources Act (RCW 27.53) prohibits knowingly excavating or disturbing prehistoric and historic archaeological sites on public or private land. The Indian Graves and Records Act (RCW 27.44) prohibits knowingly destroying American Indian graves. In the event of inadvertent disturbance through construction or other activities, human remains and artifacts from American Indian graves must be reintered under supervision of the appropriate Indian Tribe. Additionally, RCW 42.56.300 exempts all records, maps, or other information identifying the location of archaeological sites, historic sites, artifacts, or sites of traditional, ceremonial, or social uses and activities of Indian Tribes from disclosure in order to prevent the looting or depredation of sites.

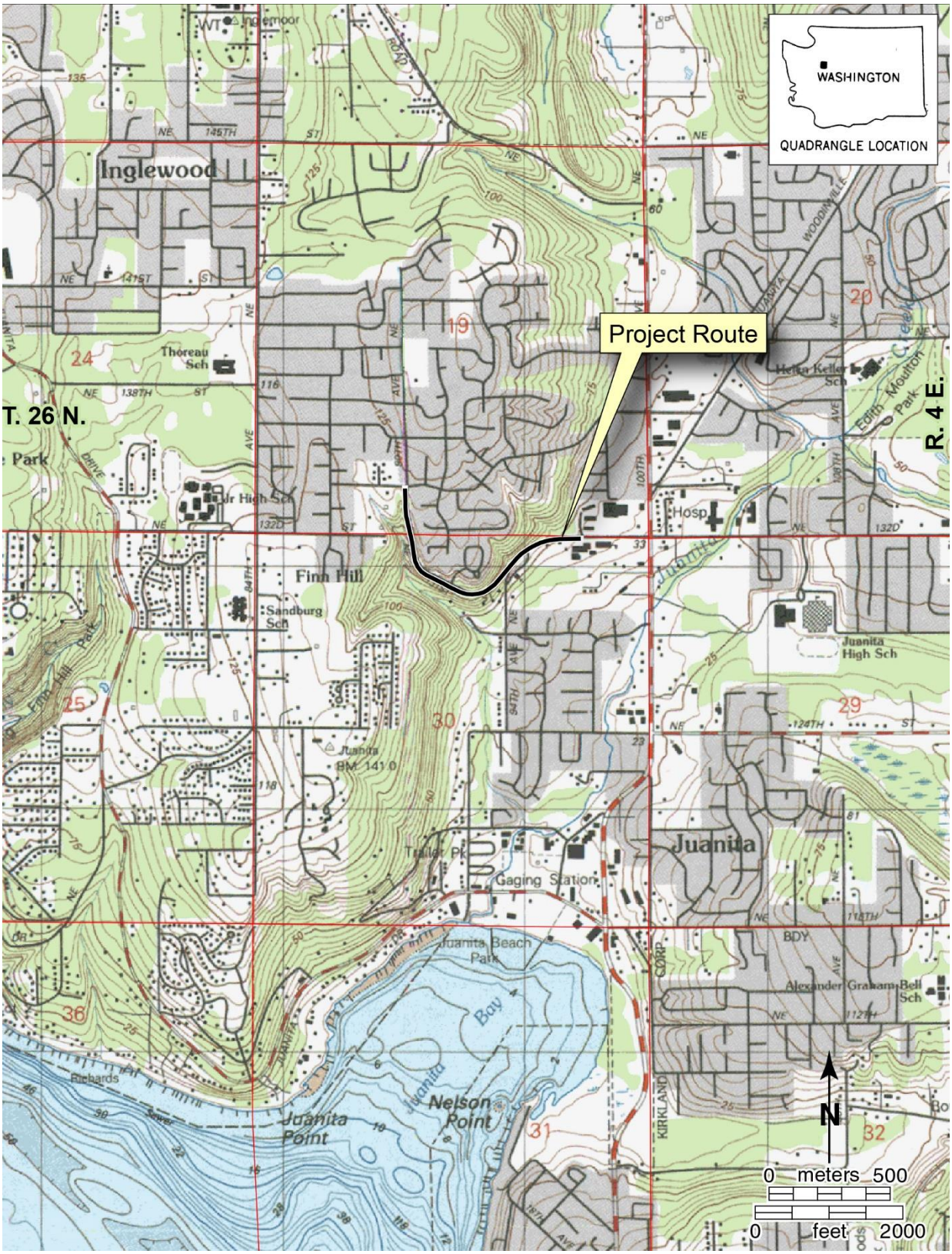


Figure 1. Project location.

Figure 2. Aerial photograph showing project area.

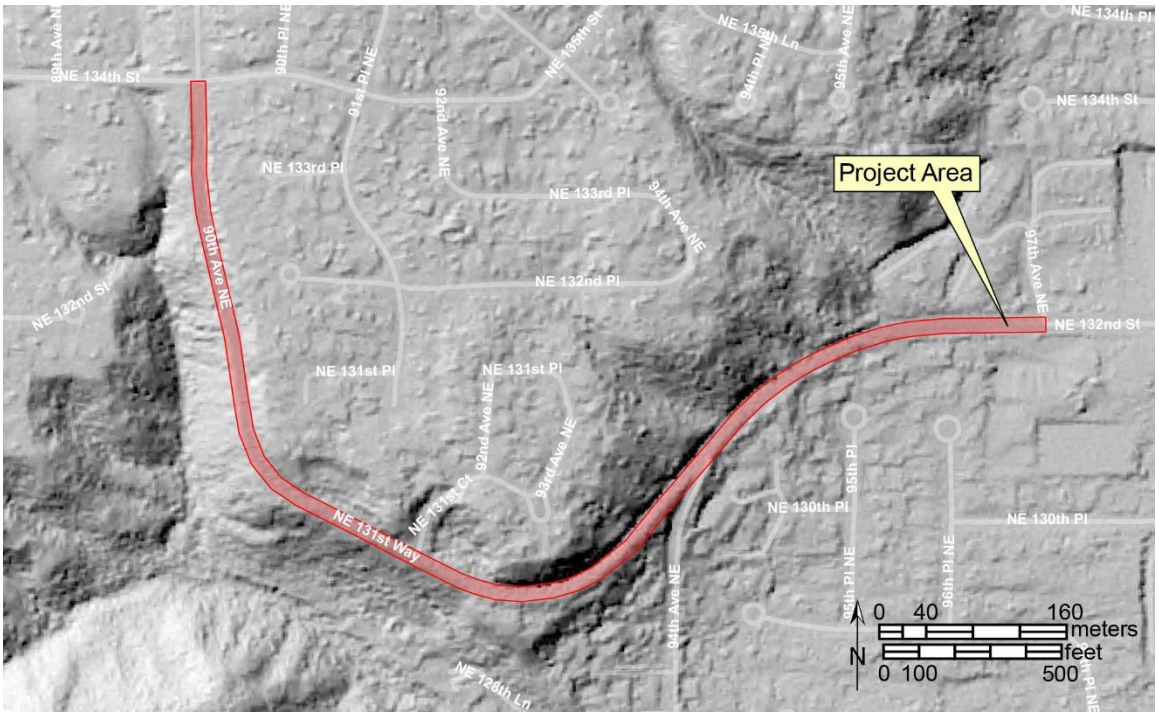


Figure 3. Bare earth LiDAR showing topography of the project vicinity.

Potential for Discovery

No archaeological sites have been recorded within the project area boundary, and the closest recorded sites are more than one mile away. General Land Office Survey maps do not show any features in the vicinity other than the steep slope of the glacial landform. No existing buildings or structures will be impacted as a result of project activities. Hand auger excavations for a geotechnical investigation encountered shallow fill deposits, glacial till, and colluvium, including historical landslides. In general, there is a low probability of encountering archaeological materials. However, the City will comply with the Snoqualmie Indian Tribe's request for archaeological monitoring during ground disturbance. If present, cultural resources are most likely to be present in deposits underlying fill.

Figures 4-5 depict examples of potentially significant cultural material. If present, potentially significant evidence of pre-contact or ethnographic-period human activity might include fire-modified rock, animal bone, concentrations of shell, ground and flaked stone tools, flaked stone tool-making debris, burned earth, cordage or fiber, organically stained sediments, charcoal, ash, and exotic rocks and minerals. All pre-contact material is potentially significant and must be evaluated by an archaeologist. Examples of potentially significant post-contact cultural resources include:

- An area of charcoal or charcoal-stained soil in association artifacts, especially if marine shells;
- Human remains (see below);
- Clearly prepared surfaces that suggest temporary stability, such as a corduroy road, a flat lying layer of brick, or a plastered surface;
- Large concentrations or dumps of historic bottles, cans, ceramics, and other artifacts
- Privies;
- Buried fire pits or ovens;
- Buried foundations or intact walls, especially in the vicinity of the 1905 and 1917 buildings in the southern project area;
- Industrial tools and/or equipment that is clearly older than 50 years.

Examples of cultural materials that are probably not significant include:

- Pilings without attached structural wood materials,
- Fragments of asphalt and concrete,
- Loose bricks,
- Broken glass fragments or scattered pieces of broken ceramics,
- Concentrations of coal, cinders, lumber, wood debris, or sawdust without associated artifacts.

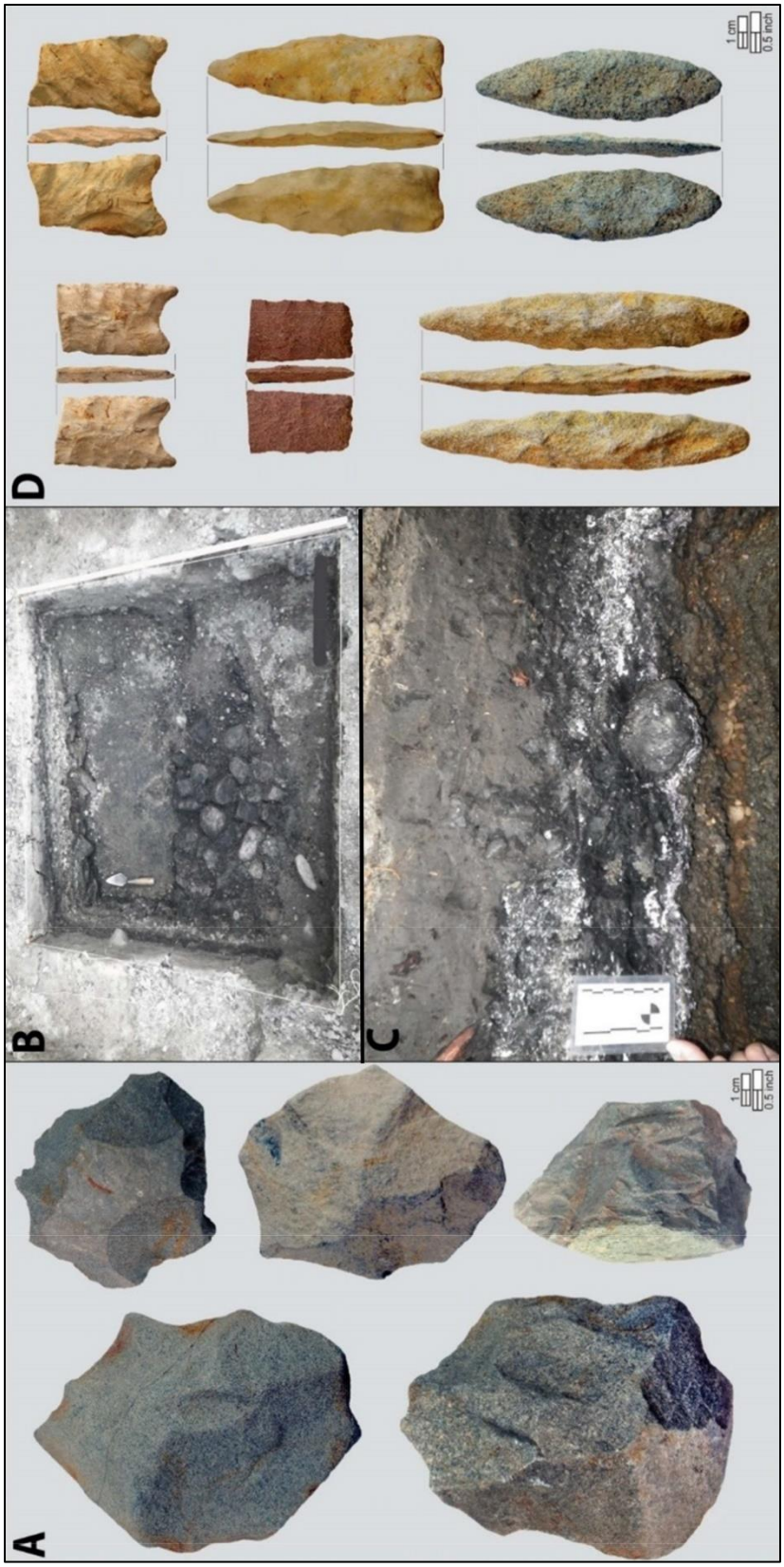


Figure 4. Examples of potentially significant pre-contact period cultural materials that may be buried below the fill in the project area: A) lithic cores; B) oven or hearth feature; C) shell midden; D) projectile points.

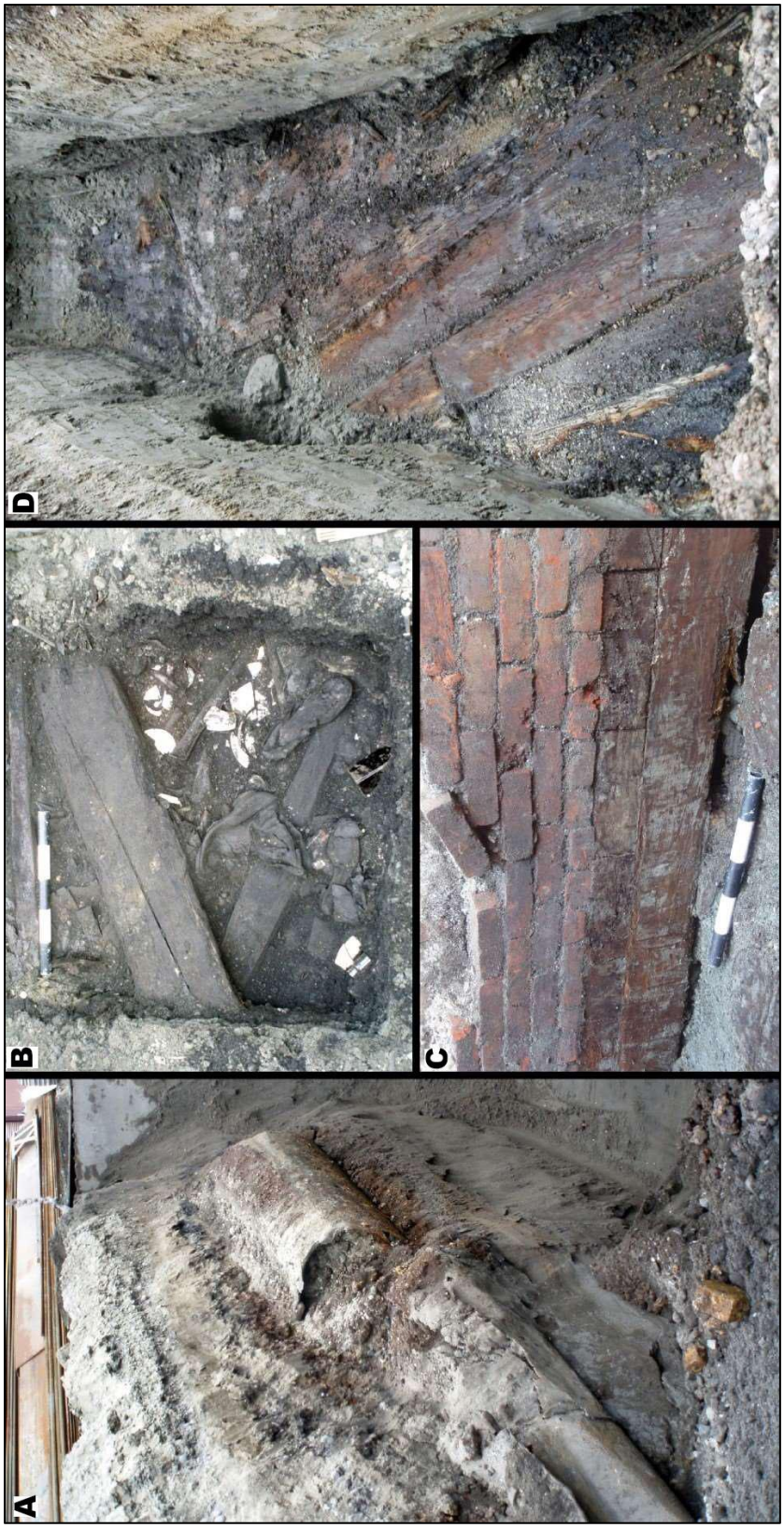


Figure 5. Examples of potentially significant historical cultural materials that may be within the fill in the project area: A) riveted chimney pipe and riveted oven in trench wall; B) historic debris layer; C) two-tier lumber supporting a brick wall in ruin, and D) wood plank floor.

MONITORING AND DISCOVERY PLAN

Briefing

Prior to construction, a Perteet archaeologist will brief key construction personnel on the contents of this plan. The briefing will include information on the legal context of cultural resources protection and on the kinds of cultural resources that may be encountered during construction. The primary goal of the briefing is to familiarize construction personnel with the procedures to be followed in the event that potentially significant cultural resources are discovered during construction. This briefing will be informal and will occur before work on the first day of the project. Additional briefings may be arranged by the archaeological monitor if new personnel or subcontractors are brought on for the project.

Monitoring Procedures

The *Archaeological Monitor* will be a professional archaeologist, trained in archaeological monitoring. The monitor will be present during trenching for illumination and will intermittently observe other ground-disturbing construction activities (grading, storm improvements, guardrail installation). Though the monitor is not required to be onsite throughout the entire execution of the project, a monitor will be available throughout the duration of the project to respond in the event of an inadvertent discovery. The *Project Representative* will be responsible for notifying Perteet in advance of ground disturbing activities. For other than emergency situations, a minimum of 48 hours notification of the need for an *Archaeological Monitor* is required. Qualified personnel will respond within 8 hours or less in the case of an inadvertent discovery of human remains.

During ground disturbing construction activities, the *Archaeological Monitor* will examine surfaces exposed by grading, trenching or other excavation to identify any previously undocumented pre-contact or historic archaeological materials. The *Archaeological Monitor* will observe construction equipment and sediment removal from multiple perspectives around and in front of working equipment, requiring close communication with construction supervisors and equipment operators. The *Archaeological Monitor* will be safely stationed to observe excavation and. If necessary, will coordinate through the *Project Representative* with construction personnel to enter trenches, excavations, or shored spaces. In addition, the *Archaeological Monitor* will examine excavation spoils. The *Archaeological Monitor* will be responsible for maintaining daily work records and documenting any discoveries. Perteet will notify the affected Tribes to inform them when the *Archaeological Monitor* will be monitoring construction. The *Monitoring Supervisor* will decide when monitoring is no longer required, once sterile glacial sediments are exposed or sufficient evidence showing archaeological materials are not present in the project area is observed.

The *Project Representative* will ensure that the provisions of this document are carried out. The *Archaeological Monitor* will be responsible for notifying the *Project Representative*, *Construction Supervisor*, and *Monitoring Supervisor* of any discoveries. The *Project Representative* will then be responsible for notifying the concerned parties including the Department of Archaeology and Historic Preservation, the Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Suquamish Tribe, Tulalip Tribes, and, if necessary, the King County Medical Examiner and Sheriff. The *Monitoring Supervisor* may assist with notifications. A list of important contacts is on the last page of this MIDP.

Monitored Discovery Protocols

The primary goal of archaeological monitoring will be discovery and documentation of previously unknown intact cultural deposits in the project area. This section details the procedures to be followed in the event of a discovery while the *Archaeological Monitor* is present.

Cultural Resources

The following procedures outline the steps and contact protocol that will be followed if pre-contact or significant historical archaeological resources are discovered:

1. If the *Archaeological Monitor* determines that potentially intact cultural deposits have been exposed, mechanical excavation will pause for a preliminary assessment of the find by the *Archaeological Monitor*. The *Archaeological Monitor* may ask the *Project Representative* to modify construction excavation procedures to provide exposures of subsurface stratigraphy in order to confirm the presence of any such resources in that area. The *Archaeological Monitor* will record all pre-contact and historic cultural material on standard forms, ensuring proper documentation and assessment of finds. Initial effort will focus on establishing the nature, provenience, and integrity of any discovery. Documentation methods may include photographs, sketches, scaled drawings, and written descriptions, as appropriate. Isolated artifacts will be examined, but generally will not cause work stoppage.
2. Where complex or extensive cultural remains are encountered, the *Monitoring Supervisor* may assign a team of archaeologists to provide timely documentation and assessment of the resource.
3. If, in the opinion of the *Archaeological Monitor*, potentially important cultural material has been encountered, the *Archaeological Monitor* will immediately contact the *Project Representative,* who will communicate with the equipment operator, the *Construction Supervisor* and the *Monitoring Supervisor* to arrange for the re-direction or the halt of construction as needed. Where such cultural material is encountered during construction, but in the opinion of the *Archaeological Monitor* additional project effects to the resource are not anticipated, project construction may continue with an *Archaeological Monitor* as needed while cultural resource evaluation proceeds. If the *Archaeological Monitor* is of the opinion that continued construction could cause additional impacts to such resources, project activities may be stopped as described in the section *Work Stoppage* below.
4. Important cultural material will be reported by the *Archaeological Monitor* to the *Construction Supervisor* and *Monitoring Supervisor* upon discovery. The *Monitoring Supervisor* will ensure that the Washington State Department of Archaeology and Historic Preservation (DAHP) and the Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Suquamish Tribe, and the Tulalip Tribes cultural resources departments are fully briefed on the discovery, as well.
5. Perteet will assemble all documentation produced by the *Archaeological Monitor* and compose a preliminary assessment that will accompany draft site records. If warranted, site registration forms will be filed with DAHP.

Work Stoppage

If preliminary observations indicate that a resource may be significant, work may be stopped in an area to assess resources and sufficient time will be provided for additional evaluation by field archaeologists.

The following steps will be taken:

1. The *Project Representative* will contact the DAHP and affected Tribes within one working day.
2. The *Project Representative* shall arrange for all parties to conduct a joint viewing of the discovery within forty-eight (48) hours of the notification, or, if that is not feasible, at the earliest time thereafter.
3. The Project proponent shall consult with the DAHP and affected Tribes on a plan for data recovery or other mitigation. Resumption of work in the area of the discovery will be consistent with the results of the consultation.

Human Remains

If any construction activity exposes anything that appears to be human remains, either burials or isolated teeth or bones, or other mortuary items, construction in the vicinity of the find will halt immediately in an area sufficient to maintain integrity of the deposit. Suspected human remains will not be handled by anyone other than tribal representatives, archaeologists, or law enforcement. With the exception of archaeological documentation, photographing the remains is prohibited. The protocol listed below follows RCW 68.50.645, RCW 27.44.055, and RCW 68.60.055. In the event that human remains are discovered in the project parcel, the following protocol will be followed:

1. All ground disturbing activity within 50 feet of the discovery will cease immediately and the area of the find will be secured and protected from further disturbance until the State provides notice to proceed. The Archaeological Monitor will immediately contact the *Project Representative* and the *Monitoring Supervisor*.
2. The *Project Representative* will notify the *Kirkland Police Department* and the *King County Medical Examiner* in the most expeditious manner possible. The *Project Representative* will ensure that any discovered human remains and artifacts are treated with dignity and respect. The remains will be kept covered and they will not be removed from the ground or touched.
3. The *King County Medical Examiner* will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the *King County Medical Examiner* determines that the remains are part of a crime scene (forensic), the *Seattle Police Department* has jurisdiction over the remains. If the *King County Medical Examiner* determines that the remains are not part of a crime scene (non-forensic), the *King County Medical Examiner* will notify the *SHPO at DAHP*, who will then take jurisdiction over the remains. The *DAHP* will notify any appropriate cemeteries and all affected *Tribes* of the find.
4. The *State Physical Anthropologist* at DAHP will determine if the remains are of Native American ancestry. If the *State Physical Anthropologist* determines the remains are of Native American ancestry, he will report the findings to appropriate cemeteries and the affected *Tribes*. The *DAHP* will be responsible for consultation with the appropriate *Tribes* and any other involved parties to determine appropriate treatment of the remains. If the *State Physical Anthropologist* determines the remains are non-Indian, the *DAHP* will handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

INADVERTENT DISCOVERY

If ground disturbing activities encounter cultural resources when the no archaeological monitor is not present, all ground disturbing activity in the find location will stop and the find location will be secured from any additional impacts .It will be the responsibility of the *Project Representative*, or their designated representative to contact the *Monitoring Supervisor* to have an archaeologist evaluate the discovery as soon as possible. When the archaeologist arrives, they will follow the discovery procedures outlined in the monitoring procedures section

above. DAHP and affected Tribes should also be notified by the *Project Representative*. If human remains are encountered when the *Archaeological Monitor* is not present, All ground disturbing activity within 50 feet of the discovery will cease immediately and the area of the find will be secured and protected from further disturbance until the State provides notice to proceed. The *Project Representative* will follow steps 2—4 of the human remains protocol above.

Collection of artifacts by employees, construction personnel, or others with access to the construction zone is prohibited.

CONFIDENTIALITY

Archaeological properties are of a sensitive nature, and sites where cultural resources are discovered can become targets of vandalism and illegal removal activities. All parties shall keep and maintain as confidential all information regarding any discovered cultural resources, particularly the location of known or suspected archaeological properties. This information is exempt from public disclosure consistent with state law (RCW 42.56.300). Project personnel and contractors should especially keep the discovery of any found or suspected human remains confidential, including refraining from contacting the media or sharing information regarding the discovery with the public. Any reports prepared as a result of a cultural resources discovery during construction are confidential.

While any party is in possession of this confidential information, such party shall limit access to these records to authorized persons with a need to know the information and shall keep a log identifying all persons who access the record, that person's governmental agency or private affiliation, the date the access was permitted, any materials copied, and the purpose and for whom such records were copied. The DAHP will keep all information received permanently secured and confidential.

CONTACTS

Project Representative
Matt Brooks, Project Manager 425.587.3845

Construction Supervisor
TBD ..... XXX.XXX.XXXX

Law Enforcement
Kirkland Police Non-Emergency 425.587.3400
King County Medical Examiner 206.731-3232

Washington State Department of Commerce
Emily Hafford 360.764.0118

Washington State Department of Archaeology and Historic Preservation
Dennis Wardlaw, Transportation Archaeologist..... 360.485.5014
Dr. Allyson Brooks, State Historic Preservation Officer 360.480.6922
Dr. Rob Whitlam, State Archaeologist 360.890.2615
Dr. Guy Tasa, State Physical Anthropologist 360.790.1633

AFFECTED TRIBES

Muckleshoot Indian Tribe
Jaison Elkins, Muckleshoot Indian Tribe Chairperson 253.939.3311
Laura Murphy, Muckleshoot Indian Tribal Archaeologist..... 253.876.3272

Snoqualmie Tribe
Robert de los Angeles, Snoqualmie Indian Tribe Chairperson..... 425.888.6551
Steven Moses, Director of Archaeology and Historical Preservation..... 425.495.6097
Adam Obsekoff, Assistant Director of Archaeology and Historic Preservation 425.292.0249

Suquamish Tribe
Leonard Forsman, Suquamish Tribe Chairperson..... 360.394.8401
Dennis Lewarch, Suquamish Tribal Historic Preservation Officer..... 360.940.8529

Tulalip Tribes
Teri Gobin, Tulalip Tribe Chairperson 360.716.4000
Richard Young, Tulalip Cultural Resources 360.716.2652

Perteet
Cameo Kale, Archaeological Monitor ..... 218.464.3053(cell)
Emily Peterson, Monitoring Supervisor..... 206.436.0519
..... 206.818.9765 (cell)