

# CARRIER SE 8TH SUBDIVISION

## BASIS OF BEARING

MERIDIAN: WASHINGTON STATE PLAN COORDINATE SYSTEM - NORTH ZONE (NAD 83/91)

## DATUM

ORIGINATING BENCHMARK:  
KING COUNTY MONUMENT DESIGNATION 1940, AS PUBLISHED IN WGS SURVEY DATA WAREHOUSE.  
VERTICAL DATUM: NAVD 88  
ELEVATION: 393.25

## LEGAL DESCRIPTION

TPN: 1240700035  
THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 25 NORTH, RANGE 6 EAST, W.M., IN KING COUNTY, WASHINGTON;

EXCEPT THE SOUTHERLY 30 FEET FOR COUNTY ROAD;  
(ALSO KNOWN AS THE WESTERLY HALF OF TRACT 16 OF THE UNRECORDED PLAT OF BURKE & FARRAR'S KIRKLAND ADDITION, DIVISION NO. 18)

TOGETHER WITH THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 25 NORTH, RANGE 6 EAST, W.M., IN KING COUNTY, WASHINGTON;

EXCEPT THE SOUTH 30 FEET AND THE WEST 30 FEET FOR ROADS;  
(ALSO KNOWN AS TRACT 7 OF THE UNRECORDED PLAT OF BURKE & FARRAR'S ADDITION TO KIRKLAND DIVISION NO. 18)

SITUATE IN THE CITY OF SAMMAMISH, COUNTY OF KING, STATE OF WASHINGTON.

## REFERENCES

- 1. RECORD OF SURVEY FOR THE CITY OF SAMMAMISH REC. IN VOL. 155 OF SURVEYS, PGS. 22 AND 22A, REC. NO. 2002091090001.
- 2. RECORD OF SURVEY FOR CHAFFEY HOMES, INC. REC. IN VOL. 167 OF SURVEYS, PG. 166, REC. NO. 2004020990002.

## BENCHMARKS

ORIGINAL BM: TOP OF CONC MON WITH 3" BRASS DISC STAMPED KING COUNTY SURVEY MONUMENT 1940" DOWN 0.75" IN CASE AT THE INTERSECTION OF SE 8TH ST. AND 212TH AVE. SE. SW CORNER SEC. 33, TWP. 25N., RGE. 6E., W.M. WGS SURVEY DATA WAREHOUSE POINT NO. 1429. ELEV.=393.25

TBM - A: WEST CAP BOLT OF FIRE HYDRANT 8.5' NORTH OF NORTH EDGE OF ASPHALT, SE 8TH ST. AND ABOUT 140' EAST OF THE INTERSECTION OF SE 8TH ST. AND 214TH AVE. SE. ELEV.=389.10

## SCHEDULE B SPECIAL EXCEPTIONS

- 1. SUBJECT TO THE NOTICE OF TAP OR CONNECTION CHARGES DUE OR SHALL BE DUE WITH DEVELOPMENT OR RE-DEVELOPMENT TO SAMMAMISH PLATEAU WATER AND SEWER DISTRICT AS RECORDED UNDER RECORDING NUMBERS: 9011150905, 9307301617, 9811051363, 9901150606, 2004041002865, 2004120100040, 20060126001770, 20110106000751, 20110106000800, 20110106000801, 20110106000802, 20130917002142, 0130917002143, 20130917002144, 20130917002145, 2014201000777, 2014201000778, 2014201000779 AND 2014201000780.
- 2. SUBJECT TO SEWER CAPACITY CHARGES LEVIED BY KING COUNTY AND/OR THE CITY OF SAMMAMISH DUE IN CONNECTION WITH THE DEVELOPMENT OF SAID PREMISES.
- 3. SUBJECT TO EXCEPTIONS AND RESERVATIONS IN DEED FROM WEYERHAEUSER TIMBER CO. UNDER REC. NO. 382928, RESERVING RIGHTS TO ALL ORES AND MINERALS.

## NOTES

- 1. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.
- 2. UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.). THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.

## SITE AREAS

LOT AREA:	176,578 SF	(4.05 AC)
ACCESS/UTILITY: (TRACT A)	2,154 SF	(0.05 AC)
ACCESS/UTILITY: (TRACT B)	2,148 SF	(0.05 AC)
RECREATION SPACE: (TRACT C)	13,811 SF	(0.32 AC)
CRITICAL AREA: (TRACT D)	320,446 SF	(7.36 AC)
ACCESS/UTILITY: (TRACT E)	2,583 SF	(0.06 AC)
PUBLIC ACCESS: (TRACT F)	502 SF	(0.01 AC)
RECREATION SPACE: (TRACT G)	14,434 SF	(0.33 AC)
OPEN SPACE: (TRACT H)	30,943 SF	(0.71 AC)
ROW DEDICATION:	52,273 SF	(1.20 AC)
TOTAL SITE AREA:	615,872 SF	(14.14 AC)

## DENSITY CALCULATIONS

GROSS AREA:	615,872 SF
EXISTING CRITICAL AREAS & BUFFERS:	305,102 SF
ROW DEDICATION:	52,273 SF
OTHER ROADS (TRACTS A & E):	4,737 SF
NET SITE AREA:	253,761 SF (5.83 AC)
MAX DENSITY: 6 DU/AC X 5.83 AC = 34.98 UNITS	
PROPOSED UNITS: 35	

\*SEE SHEET EC-01

## SHEET INDEX

1	CV-01	COVER SHEET
2	CA-01	CONDITIONS OF APPROVAL
3	GN-01	GENERAL NOTES, DETAILS & LEGEND
4	EC-01	EXISTING CONDITIONS & DEMO PLAN
5	BA-01	BUFFER AVERAGING PLAN
6	TP-01	TESC PLAN
7	TD-01	TESC DETAILS
8	TD-02	TESC DETAILS & NOTES
9	GP-01	GRADING & WALL PLAN
10	GD-02 TO GD-02	ROCKERY DETAILS (BY GEOTECH)
12	AL-01	ALIGNMENT & MAILBOX PLAN
13	CR-01	CURB RAMP DETAILS
14	CR-02	CUL-DE-SAC DETAILS
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16	CU-01	COMPOSITE UTILITY PLAN
17-20	RS-01 TO RS-04	ROAD & STORM DRAINAGE PLAN
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26-27	ESD-01 TO ESD-02	ENTERING SIGHT DISTANCE
28	SSD-01	STOPPING SIGHT DISTANCE
29	CH-01	CHANNELIZATION PLAN
30	VT-01	WEST VAULT PLAN
31	VT-02	WEST VAULT SECTIONS & DETAILS
32	VT-03	EAST VAULT PLAN
33	VT-04	EAST VAULT SECTIONS & DETAILS

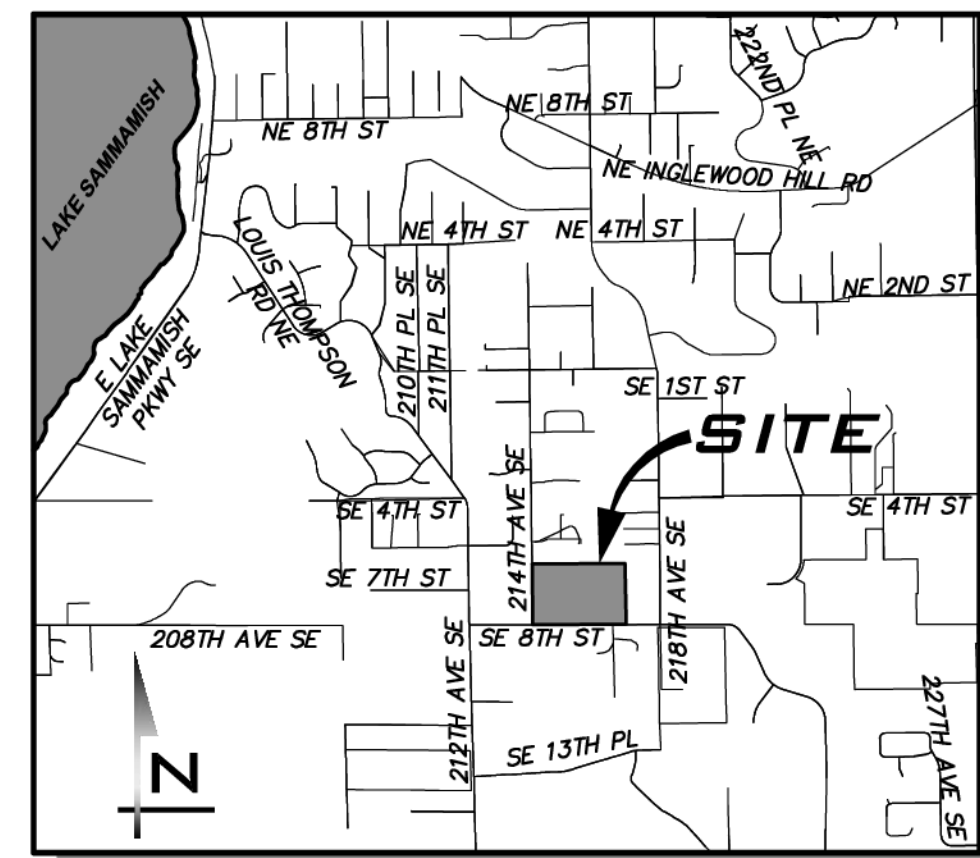
34	SD-01	STORM FILTER / STORM DRAIN DETAILS
35	SD-02	STORM DRAIN / LID NOTES & DETAILS
36-39	DT-01 TO DT-04	TREE RETENTION PLANS
40-43	TR-01 TO TR-05	TREE RETENTION CALC
44	TR-05	TREE RESTORATION PLAN
45	LS-01	VAULT TRACT PLANING PLANS
46	LS-02	NOTES & PLANTING DETAILS
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<b>FINAL MITIGATION PLAN</b>		
1-3	W1-W3	FINAL MITIGATION PLAN
<b>RED-ROCK WALL DETAILS</b>		
1		ROADWAY B REDI-ROCK WALL PROFILE
2		TYPICAL RED-ROCK SECTION DETAIL
3		REDI-ROCK WALL DETAILS
4-5		REDI-ROCK BLOCK LAYOUT DETAILS
<b>STREET LIGHTING PLANS</b>		
IL1-IL2		STREET LIGHTING PLANS

## VESTING INFORMATION

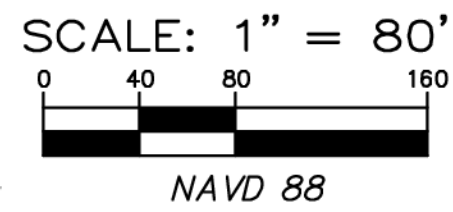
PER THE DECISION, PROJECT VESTING DATE IS 2/2/2016.  
• 2009 KCSMDM (LEVEL 3 DETENTION, SENSITIVE LAKE WQ.)  
• APRIL 2000 INTERIM PUBLIC WORKS STANDARDS

U. S. POSTAL SERVICE APPROVED FOR MAILBOX LOCATION(S)

BY: KENNETH STEVENS  
US POSTAL SERVICE (ORIGINAL SIGNATURE IN FILE)  
DATE: 04/17/2019



VICINITY MAP NOT TO SCALE



## PROJECT TEAM

### APPLICANT

TOLL BROTHERS, INC.  
8815 122ND AVE NE, SUITE 200  
KIRKLAND, WA 98033  
CONTACT: JEFF PETERSON  
(425) 825-1955

### CIVIL ENGINEER

THE BLUELINE GROUP  
25 CENTRAL WAY, SUITE 400  
KIRKLAND, WA 98033  
CONTACT: BRETT K PUDISTS, PE  
(425) 250-7247

### GEOTECH ENGR

ROBINSON NOBLE  
2105 SOUTH C STREET  
TACOMA, WASHINGTON  
CONTACT: RICK B POWELL, PE  
(253) 475-7711

### UTILITY PURVEYORS

WATER SUPPLY:	SAMMAMISH PLATEAU WATER & SEWER DISTRICT	425-392-4931
SANITARY SEWER:	SAMMAMISH PLATEAU WATER & SEWER DISTRICT	425-392-4931
FIRE DISTRICT:	EASTSIDE FIRE AND RESCUE	425-313-3200
SCHOOL DISTRICT:	LAKE WASHINGTON #414	425-936-1200
POWER:	PUGET SOUND ENERGY	253-437-6771
GAS:	PUGET SOUND ENERGY	253-437-6771
CABLE:	COMCAST COMMUNICATIONS	425-263-5353
TELEPHONE:	FRONTIER COMMUNICATIONS	425-263-4023
PUBLIC WORKS INSPECTION:		425-295-0625

## SITE DATA

SITE ADDRESS:	742 214TH AVE SE SAMMAMISH, WA
TAX ACCOUNT NUMBERS:	1240700035 & 1240700086
EXISTING ZONING:	R6
PROPOSED ZONING:	R6
GROSS SITE AREA:	615,872 SF (14.14 AC)
AVERAGE LOT SIZE:	5,030 SF
MINIMUM LOT SIZE:	4,297 SF (LOT 15)
REC SPACE REQUIRED:	35 x 390 = 13,650 SF REQUIRED
REC SPACE PROVIDED:	27,799 SF (TRACT C + TRACT G)
SETBACKS:	
STREET:	10'
GARAGE:	20'
INTERIOR:	5'
FROM CAT:	15'

## UTILITY BORE

SEE SEWER AND WATER PLANS, UNDER SEPARATE COVER, FOR DETAILS ON UTILITY BORING BENEATH TRACT D.

## EROSION CONTROL SUPERVISOR

CONTACT: AARON KOPEL PHONE: (425) 825-1955 EXT 124

ROW2019-03272

CITY OF SAMMAMISH APPROVAL BLOCK  
The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.  
REVIEWED FOR CODE COMPLIANCE per 19.300 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.  
PLANNING DEPT. APPROVAL  
BY: ABary  
DATE: 08/16/2019  
APPROVED WITH MARKUPS

CITY FILE NO: SDP 2018-06254

## UNDERGROUND UTILITY NOTE

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.



25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDISTS, PE  
PROJECT ENGINEER: BRETT K PUDISTS, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACB	REVISED PER CITY COMMENTS
3	8/5/19	RAB	REVISED PER CITY COMMENTS

COVER SHEET  
CARRIER SE 8TH SUBDIVISION  
ROAD & STORM PLANS  
CITY OF SAMMAMISH  
WASHINGTON



8/5/19  
JOB NUMBER: 15-111  
SHEET NAME: CV-01  
SHT 1 OF 48



CONDITIONS OF APPROVAL

HEARING EXAMINER DECISION AFTER REMAND
RE: PSUB2016-00026 (Carrier)
PAUE2018-00068 (Water and sewer PAUE)
PAUE2018-00068 (Road PAUE)
August 27, 2018
Page 23 of 26

This Preliminary Subdivision and associated Public Agency and Utility Exception are subject to compliance with all applicable provisions, requirements, and standards of the Sammamish Municipal Code, standards adopted pursuant thereto, and the following special conditions:

- 1. Exhibit 49 is the approved preliminary plat (and supporting plans). Revisions to approved preliminary subdivisions are subject to the provisions of SMC 19A.12.040.
2. The Platlor or subsequent owner(s) shall comply with the payment of street impact fees, impact fees for park and recreational facilities, and school impact fees in accordance to SMC Chapters 14A.15, 14A.20, and 21A.105, respectively.
3. The Platlor shall have site stripping work monitored by Tierra Right of Way Services, Ltd., or other comparable firm qualified to perform cultural resources assessments, during work performed on the east portion of the property. (See Exhibits 14:187 and 25.)
4. If cultural resources are unearthed during the development process, immediately cease and desist ALL operations and contact the City of Sammamish, the Washington State Department of Archeology and Historic Preservation (DAHP) Historic Preservation Officer, regional Native American Tribes, and King County concerning the appropriate treatment of archaeological and historic resources. Do not resume work until appropriate approvals are received and the City of Sammamish has authorized development to resume. (See Exhibits 14:200 and 25:877 - 880.)
5. No open trench utility crossings across Stream B and Wetland B shall be allowed. The project utility design shall be modified as follows:
a. For the gravity sewer system, the Platlor shall work with SPWater to design a gravity sewer line across Tract D that is constructed by auger boring. This provides the preferred system for long-term operation and maintenance by a construction method that avoids wetland and stream impacts. The bore casing should be at least 36-inch diameter to allow clearing from within the casing any obstructions encountered. The boring machine should be of sufficient size/power to be successful in the existing soil conditions.
b. For the water system, the Platlor shall work with SPWater to either:
i. Provide dead-ends at Road A and Road B (no crossing of Stream B, Wetland B, or Tract D); or
ii. Provide a looped system across Tract D with the water main co-located within the casing used for the sewer line. Co-locating the utilities will require mitigation measures in accordance with Section C1-9.1.2 of the Washington State Department of Ecology Criteria for Sewage Works Design. An engineer should be consulted to determine the minimum casing size based on the mitigation measures, soil conditions, grade constraints, carrier pipe material, outer diameter of carrier pipe casings, and line and grade tolerances of the auger bore; or
iii. Provide a looped system across Tract D with the water main directionally drilled under Stream B and Wetland B and separated from the casing in which the sewer line is located.

Site Development Permit Special Conditions:

- 6. A final updated Critical Areas Mitigation Plan in substantial conformance with Exhibit 50 shall be prepared in support of construction permits. The final Critical Areas Mitigation Plan shall include a final accounting of all temporary and permanent impacts and shall provide complete mitigation plans including provision for contingency, maintenance, and monitoring associated with required mitigation and restoration measures.
7. Public Works variations have been approved. (Exhibit 40)
8. SE 8th Street is classified as a collector arterial with 60 feet of existing right-of-way. Half-street frontage improvements and a right-of-way dedication varying from 2.5 to 3.5 feet in width shall be provided along the development frontage with SE 8th Street consistent with Exhibit 49, Sheet 4 of 13.
9. 214th Avenue SE is classified as a local road with 60 feet of existing right-of-way. Half street frontage improvements shall be provided on 214th Ave SE consistent with the local road standard. No right-of-way dedication is required along 214th Avenue SE.
10. 214th Avenue SE shall be re-graded as required to accommodate entering sight distance as shown in the Entering Sight Distance (ESD) diagram exhibit; or a variation request may be submitted by the Platlor to address compliance with entering sight distance requirements.
11. Illumination shall be provided on SE 8th Street consistent with the PWS standards for average foot candle and uniformity for a collector road. The pole shall be powder coated black steel with full cut off luminaire consistent with WSDOT standard J-28.10-01 Type 1 Davit Mast Arm with fixed base.
12. Illumination shall be provided on 214th Avenue SE and within the internal plat roads consistent with the City's standards for average foot candles and uniformity for a local road. Luminaires shall be full cut off. Pole type and style shall be approved by Public Works.
13. Individual lot flow control BMPs shall be required consistent with the applicable drainage standards.
14. Drainage plans, Technical Information Reports, and analysis shall comply with the applicable drainage manual, the City of Sammamish Surface Water Design Manual Addendum, the City of Sammamish Stormwater Management Comprehensive Plan, and the East Lake Sammamish Basin Plan.
15. The Platlor shall make every reasonable effort to preserve the two trees marked for retention on Exhibit 86 located in the northwest corner of Proposed Lot 17.

Prior to or Concurrent with Final Plat:

- 16. Right-of-way dedication on SE 8th Street shall be 2.5 to 3.5 feet in width along the plat frontage consistent with Exhibit 49, Sheet 4 of 13, and subject to the approved Public Works Standards variations.
17. The plat internal local roads shall be dedicated as right-of-way.
18. Off-site improvements, including all frontage improvements on SE 8th Street and 214th Avenue SE, shall be fully installed and approved.
19. Private roads shall be constructed under the site development permit.
20. Driveway curb cuts shall be completed prior to final plat. Any joint use driveways shall be bonded for or constructed under the Site Development permit.
21. A public stormwater easement shall be provided for access, inspection, maintenance, repair, and replacement of the detention and water quality facilities within Tract C and Tract G.
22. Off-site stormwater easements required by the stormwater design shall be recorded.

Conditions to appear on the face of the final plat (italicized words to appear verbatim):

- 23. Trees retained in accordance with SMC 21A.37 shall be identified on the face of the final plat for retention. Trees shall be tagged in the field and referenced on the face of the final plat with the applicable tag number.
24. Trees identified on the face of this plat have been retained pursuant to the provisions of Chapter 21A.37 SMC. Retained trees are subject to the tree protection standards of Chapter 21A.37 SMC. Removal of these trees is prohibited unless the tree is removed to prevent imminent danger or hazard to persons or property, and may be subject to a clearing and grading permit approved by the City of Sammamish. Trees removed subject to this provision shall be replaced in compliance with Chapter 21A.37 SMC.
25. Covenant and easement language pertaining to individual lot and tracts with flow control BMPs shall be shown on the face of the final plat. Public Works shall approve the specific language prior to final plat.
26. Unless located within a recreation tract and public easements provided, all Surface Water Management Facilities required for this subdivision shall be contained within a separate tract of land and shall be dedicated to the City of Sammamish for inspection, maintenance, operation, repair, and replacement. Language to this effect shall be shown on the face of the final plat.
27. Maintenance of all landscape strips along the plat roads shall be the responsibility of the Homeowners Association or adjacent property owners. Under no circumstances shall the City bear any maintenance responsibilities for landscaping strips created by the plat.
28. Maintenance of landscaping atop the stormwater vaults shall be the responsibility of the Homeowners Association.
29. Individual lot flow control BMP's in accordance to the applicable drainage manual shall be provided with each single family residential building permit unless otherwise incorporated into the subdivision site development plans.
30. Maintenance of illumination along all local and private roads shall be the responsibility of the Homeowners Association or jointly shared by the owners of the development.
31. All building permits shall be subject to the applicable drainage manual to determine the best management practices for all surface water runoff. All connections of roof drains shall be constructed and approved prior to final building inspection approval.

Prior to City Acceptance of Improvements:

- 32. Prior to acceptance into the Maintenance and Defect period, project close-out documents including the final acceptance construction punch list, as-builts, and final corrected Technical Information Report shall be submitted to Public Works for approval.

p:\admin services\deputy city clerk\hearing examiner\2018\12 - carrier preliminary sub\pub2016-00026i.doc



801 - 228th Avenue SE • Sammamish, WA 98075-9509
Phone: 425-295-0500 • Fax: 425-295-0600 • www.sammamish.us

February 27, 2017

Brett Pudists, P.E.
Project Manager
The BlueLine Group
25 Central Way, Suite 400
Kirkland, WA 98033

SUBJECT: Carrier Subdivision
PSUB2016-00026
Public Works Approval of Variation Request

Dear Mr. Pudists:

The Public Works Department has received your request for variation from the Interim Public Works Standards (PWS) in your letter dated September 29, 2016 (the "Request").

Variation from PWS Figure 01-05 Local Road Section

The Sammamish Municipal Code Chapter 14.01 adopts the Interim Public Works Standards and authorizes the Public Works Director to administratively amend the standards to allow for changes in street design. The Interim Public Works Standards was additionally adopted by City Ordinance 2000-060 and later the local road standard was updated and adopted by City Ordinance 2005-191. As such, under the review authority granted by the Interim Public Works Standards Section 10.170, a variation to the following standard is approved:

- PWS Table I Minimum Public Street Design Standards and PWS Figure 01-05 Local Road Standard (both as modified by City Ordinance 2005-191)

Public Works will allow the following variation along the internal plat road identified as Road A and a portion (as depicted on attached Exhibit) of the internal plat road identified as Road B:

- 28-foot pavement width
- No Parking signs on one side
- 5.5-foot from behind back of sidewalk to edge of ROW on each side

This local road cross section is consistent with direction from the City Council and environmental considerations of promoting low impact development where feasible. The criteria on which approvals for variations to the Interim Public Works Standards, including safety, environmental considerations, appearance, function, and maintainability have been examined and are fully satisfied. This variation is based on my sound engineering judgment and is in the best interest of the public.

Variation from PWS.15.110 Street Frontage Improvements - Collector Arterial

The Sammamish Municipal Code Chapter 14.01 adopts the Interim Public Works Standards and authorizes the Public Works Director to administratively amend the standards to allow for changes in street design. The Interim Public Works Standards was additionally adopted by City Ordinance 2000-060. As such, under the review authority granted by the Interim Public Works Standards Section 10.170, a variation to the following standard is approved:

- PWS.15.110 Street Frontage Improvements

Public Works will allow the following variation on the frontage along SE 8th Street between the 214th Avenue SE intersection and the intersection with the road designated as Road B in the preliminary plat plan:

- 24.5-foot pavement width from centerline of right-of-way
- Elimination of landscape strip
- 2.5-foot right-of-way dedication inclusive of a 1.5-foot added width north of sidewalk for street lights and utility poles

This collector arterial road cross section is consistent with direction from the City Council and environmental considerations of both protecting significant trees on the south side of SE 8th Street and protecting the critical areas on the north side of SE 8th Street along this portion of the project frontage of this roadway. The criteria on which approvals for variations to the Interim Public Works Standards, including safety, environmental considerations, appearance, function, and maintainability have been examined and are fully satisfied. This variation is based on my sound engineering judgment and is in the best interest of the public.

Summary

The variations listed above are approved as noted and shall be incorporated into the preliminary subdivision approval. This variation shall not be precedence setting and shall be reviewed for consistency with all criteria under SMC 21A Development Code. All final engineering design elements will be reviewed with the required permits for this project.

Sincerely,

Andrew Zagars, P.E.
City Engineer

Attachments:

- Sammamish Variation Verification Form
Letter of a Roadway Variance Request for Carrier
cc: Haim Strasbourger, P.E., Development Review Engineer
Doug McIntyre, Senior Planner
Development Review File

CITY OF SAMMAMISH APPROVAL BLOCK
The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.
REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 15.15 SMC, subject to field inspection and correction.
PLANNING DEPT. APPROVAL BY: ABary DATE: 08/16/2019

UNDERGROUND UTILITY NOTE
UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

BLUELINE
25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033
P: 425.216.4051 F: 425.216.4052 WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED
PROJECT MANAGER: BRETT K PUDISTS, PE
PROJECT ENGINEER: BRETT K PUDISTS, PE
DESIGNER: AARON C LANCE
ISSUE DATE: 8/5/2019

Table with columns: NO, DATE, BY, REVISIONS, REVISED PER CITY COMMENTS. Includes revision 1 dated 5/10/18 by RAB.

CONDITIONS OF APPROVAL
CARRIER SE 8TH SUBDIVISION
ROAD & STORM PLANS
CITY OF SAMMAMISH WASHINGTON

Professional Engineer seal for Brett K. Pudists, No. 37925, State of Washington.

8/5/19
JOB NUMBER: 15-111
SHEET NAME: CA-01
SHT 2 OF 48



**GENERAL NOTES**

- ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, THE SAMMAMISH MUNICIPAL CODE (SMC), THE SAMMAMISH PUBLIC WORKS STANDARDS (PWS) AND THE CONDITIONS OF APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR DEVIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO THE CITY OF SAMMAMISH.
- THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THE CITY OF SAMMAMISH PUBLIC WORKS DEVELOPMENT REVIEW CHECKLIST. ANY DEVIATION FROM ADOPTED STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY IN WRITING PRIOR TO CONSTRUCTION.
- APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL OF UTILITIES NOT OWNED BY THE CITY (E.G. DOMESTIC WATER CONVEYANCE, SEWER CONVEYANCE, GAS, ELECTRICAL, ETC.).
- PRIOR TO ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING SHALL BE HELD BETWEEN THE CITY OF SAMMAMISH, THE APPLICANT(S), AND THE APPLICANT'S CONSTRUCTION REPRESENTATIVE.
- A COPY OF THESE APPROVED PLANS SHALL BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- CONSTRUCTION HOURS ARE 7:00 AM TO 8:00 PM MONDAY THROUGH FRIDAY AND 9:00 AM TO 6:00 PM ON SATURDAYS. WORK IS NOT ALLOWED ON SUNDAYS AND SOME HOLIDAYS IN ACCORDANCE WITH SMC 16.05.030.
- IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY CONSTRUCTION EASEMENTS BEFORE INITIATING ANY OFF-SITE WORK.
- VERTICAL DATUM SHALL BE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) UNLESS OTHERWISE APPROVED BY THE CITY OF SAMMAMISH. HORIZONTAL DATUM SHALL BE IN THE WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE, USING NORTH AMERICAN DATUM OF 1983 (NAD 83 (1983)) UNLESS OTHERWISE APPROVED BY THE CITY.
- DEWATERING (GROUNDWATER) SYSTEM CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT WSDOT STANDARD SPECIFICATIONS.
- OPEN CUTTING OF ROADWAYS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY AND NOTED ON THESE APPROVED PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY. WORK IN RIGHT-OF-WAY IS NOT AUTHORIZED UNTIL A TRAFFIC CONTROL PLAN IS APPROVED BY THE CITY.
- ANY CHANGES TO THE APPROVED PLANS MUST BE SUBMITTED TO THE CITY IN WRITING. NO CONSTRUCTION ON THESE CHANGES SHALL BEGIN UNTIL APPROVED BY THE CITY.
- PER ROW SECTION 19.122, CALL 811 BETWEEN TEN (10) AND TWO (2) BUSINESS DAYS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED. FAILURE TO DO SO COULD MEAN BEARING SUBSTANTIAL REPAIR COSTS.
- APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UTILITY LOCATIONS WHETHER OR NOT THESE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE TO ANY UTILITY. IF CONFLICTS WITH EXISTING UTILITIES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS CONSTRUCTION INSPECTOR AND ANY CHANGES REQUIRED SHALL BE APPROVED BY THE CITY OF SAMMAMISH PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCEMENT OF RELATED CONSTRUCTION ON THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT UTILITY LOCATES ARE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
- ALL DAMAGES INCURRED TO PUBLIC AND/OR PRIVATE PROPERTY BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPAIRED TO THE SATISFACTION OF THE PUBLIC WORKS CONSTRUCTION INSPECTOR BEFORE PROJECT APPROVAL AND/OR THE RELEASE OF THE PROJECT'S PERFORMANCE BOND.
- ALL LANDSCAPED AREAS OF THE PROJECT SHALL INCLUDE A MINIMUM OF 8-INCHES OF COMPOSTED SOIL AMENDMENT ATOP A MINIMUM OF 4-INCHES SCARIFIED SOIL.
- NO FINAL CUT OR FILL SLOPE SHALL EXCEED SLOPES OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL WITHOUT STABILIZATION BY ROCKERY OR BY A STRUCTURAL RETAINING WALL, UNLESS DESIGNED AND COMPLETED UNDER THE SUPERVISION OF A LICENSED GEOTECHNICAL ENGINEER.
- THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. STRUCTURES SUCH AS BRIDGES, VAULTS, AND RETAINING WALLS REQUIRE ADDITIONAL PERMITS FROM THE CITY PRIOR TO CONSTRUCTION.
- NO MATERIALS OR EQUIPMENT SHALL BE PLACED OR STORED ON PUBLIC RIGHT-OF-WAY AT ANY TIME.
- NO ANY CONSTRUCTION RESULTING IN A NEED FOR TRAFFIC CONTROL WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE A RIGHT-OF-WAY PERMIT APPROVED BY THE CITY.
- CONSTRUCTION NOISE SHALL BE LIMITED TO THE CONSTRUCTION HOURS AS STATED IN SMC 16.05.030.

**ROADWAY PLAN NOTES**

- ALL CONCRETE FOR SIDEWALKS AND CURB AND GUTTER MUST BE 4,000-PSI MINIMUM AND FOUR (4) INCHES THICK WHEN NOT VEHICLE ACCESSIBLE AND SIX (6) INCHES THICK WHEN ACCESSIBLE TO VEHICLES OR EIGHT (8) INCHES THICK IN COMMERCIAL DRIVEWAYS.
- IN THE CASE OF NEW ROAD CONSTRUCTION OR RECONSTRUCTION REQUIRING MAILBOXES TO BE MOVED OR REARRANGED, THE APPLICANT/CONTRACTOR SHALL COORDINATE WITH THE U.S. POSTAL SERVICE FOR THE NEW LOCATION OF THE MAILBOX STRUCTURE, AND SHALL NOTIFY THE CITY PUBLIC WORKS CONSTRUCTION INSPECTOR AND MAILBOX USER(S) OF THE CHANGE A MINIMUM OF TWO (2) WEEKS BEFORE IT OCCURS.
- ANY ROADWAY SIGNAGE OR STRIPING THAT IS DAMAGED, REMOVED, OR TEMPORARILY RELOCATED BY THE CONTRACTOR SHALL BE RESTORED TO MEET THE CURRENT CITY OF SAMMAMISH PUBLIC WORKS STANDARDS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY TRAFFIC CONTROL TO ENSURE TRAFFIC SAFETY DURING CONSTRUCTION. THEREFORE, THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE CITY PUBLIC WORKS CONSTRUCTION INSPECTOR AT LEAST 48 HOURS PRIOR TO STARTING ANY WORK IN THE RIGHT-OF-WAY. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) OR AS APPROVED BY THE TRAFFIC ENGINEER.
- WHERE A SIDEWALK IS TO BE CONSTRUCTED ABOVE A SLOPE OR ADJACENT TO A ROCKERY OR RETAINING WALL WHERE THE LOWEST FINISHED ELEVATION OF THE SLOPE, ROCKERY, OR RETAINING WALL IS TO BE THIRTY INCHES (30") OR MORE BELOW THE FINISHED ELEVATION OF THE SIDEWALK, A SAFETY RAILING SHALL BE REQUIRED WHEN: (A) THE VERTICAL WALL FACE IS LESS THAN FOUR FEET IN HORIZONTAL DISTANCE FROM THE NEAR SIDE FACE OF THE FACILITY; (B) THE VERTICAL WALL FACE IS GREATER THAN FOUR FEET HORIZONTALLY TO THE NEAR SIDE FACE OF THE FACILITY AND THE SLOPE TO THE WALL IS STEEPER THAN 1V:3H; (C) THE SLOPES ADJACENT TO THE FACILITY AVERAGE GREATER THAN 1V:2H. SEE FIGURE 15.3 OF THE PUBLIC WORKS STANDARDS.
- DEAD-END STREETS SHALL BE SIGNED IN ACCORDANCE WITH THE MUTCD, WHERE A ROADWAY CONNECTION IS PLANNED, SIGNAGE SHALL BE PROVIDED TO DESIGNATE A FUTURE ROADWAY EXTENSION.
- SIDEWALK AND CURB AND GUTTER CANNOT BE POURED MONOLITHICALLY. THERE MUST BE A FULL DEPTH EXPANSION JOINT BETWEEN THEM.
- THE DEVELOPER SHALL COORDINATE WITH PURED SOUND ENERGY FOR THE DESIGN AND INSTALLATION OF STREETLIGHTS ON ALL NEWLY CREATED PUBLIC ROADWAYS AND EXISTING ROADWAYS THAT ARE LOCAL STREETS. NEW STREETLIGHTS ON ARTERIAL STREETS SHALL BE DESIGNED BY CONSULTANT ENGINEER AND APPROVED BY THE CITY.
- WHEN AN EXISTING ROADWAY IS TO RECEIVE A HALF-STREET OVERLAY, THE EXISTING ROADWAY MUST BE COLD PLANNED AT THE EDGE OF THE GUTTER AND CENTERLINE, WHEN THE EXISTING ROADWAY IS TO RECEIVE A FULL-STREET OVERLAY, IT MUST BE COLD PLANNED FOR THE FULL WIDTH OF THE ROADWAY.
- ALL NEW CHANNELIZATION AND SIGNAGE SHALL BE PROVIDED AND LAID OUT CONSISTENT WITH THE CITY OF SAMMAMISH PUBLIC WORKS TRAFFIC ENGINEER APPROVAL. CONTACT THE CITY TRAFFIC ENGINEER AT LEAST ONE (1) WEEK PRIOR TO SCHEDULING CHANNELIZATION.
- ALL NEW SIGNS REQUIRED IN THE PUBLIC RIGHT-OF-WAY MUST BE INSTALLED BY THE APPLICANT/CONTRACTOR PER CITY OF SAMMAMISH PUBLIC WORKS STANDARDS. PROCUREMENT AND INSTALLATION SHALL BE PAID FOR BY THE APPLICANT/CONTRACTOR. TO INITIATE SIGNAGE INSTALLATION, CONTRACTOR SHALL CONTACT THE PUBLIC WORKS INSPECTOR A MINIMUM OF SIX (6) WEEKS PRIOR TO FINAL PLAT/FINAL ACCEPTANCE. TEMPORARY STREET SIGNS MAY BE REQUIRED FOR INTERNAL PLAT ROADS FOR EMERGENCY VEHICLE ACCESS. ANY NO PARKING SIGNS SHALL BE INSTALLED PRIOR TO FINAL PLAT.
- WHEN INSTALLING NEW SIDEWALK, THE AREA BEHIND THE SIDEWALK MUST BE GRADED SO THAT SURFACE WATER DOES NOT DRAIN OVER THE SIDEWALK.
- ANY EXISTING PUBLIC IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED PRIOR TO RELEASE OF MAINTENANCE AND DEFECT.
- OPEN CUT ROAD CROSSINGS FOR UTILITY TRENCHES ON EXISTING TRAVELED ROADWAY SHALL BE BACKFILLED ONLY WITH 5/8" MINUS CRUSHED ROCK AND MECHANICALLY COMPACTED (UNLESS OTHERWISE APPROVED BY THE CITY). FOR STREETS CLASSIFIED AS ARTERIALS, BACKFILL FOR CROSSINGS SHALL BE COLD CUTS WITH THE EXISTING ASPHALT SHALL BE HEAT LINE CUT WITH SAW CUT JACKHAMMER IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 30 DAYS AND SHALL BE A MINIMUM OF 1" THICKER THAN THE ORIGINAL ASPHALT WITH A MINIMUM THICKNESS OF 2".
- ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY (MODIFIED PROCTOR ASTM-D1557) IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 90 PERCENT DENSITY (MODIFIED PROCTOR ASTM-D1557) IN UNPAVED AREAS. ALL PIPE ZONE COMPACTION SHALL BE 95 PERCENT (MODIFIED PROCTOR ASTM-D1557).
- WHEN CONSTRUCTING NEW CURB AND GUTTER THAT DOES NOT ALIGN WITH THE EXISTING EDGE OF PAVEMENT, THE ROADWAY MUST BE TAPERED AND SHALL MEET THE CURRENT CITY PUBLIC WORKS STANDARDS.
- WHEN AN EXISTING ROADWAY IS TO BE WIDENED, THE EXISTING PAVEMENT MUST BE SAW CUT AT LEAST ONE FOOT FROM THE EDGE TO PROVIDE A PROPER MATCH BETWEEN NEW AND EXISTING ASPHALT. WHEN THE EXISTING PAVEMENT CONDITION PREVENTS A STRAIGHT CUT, THE SAW CUT MUST BE MADE AT THE NEAREST LANE EDGE. ALL SAW CUTS SHALL BE PARALLEL OR PERPENDICULAR TO THE RIGHT-OF-WAY CENTERLINE.
- ALL PEDESTRIAN ACCESS AREAS INCLUDING SIDEWALKS AND SIDEWALK RAMPS SHALL BE CONSISTENT WITH CURRENT ADA REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING CONTRACTOR AND APPLICANT'S PEDESTRIAN ACCESS MEET CURRENT ADA STANDARDS. WHEN THIS CANNOT BE MET, MAXIMUM EXTENT FEASIBLE (MEF) DOCUMENTATION SHALL BE SUBMITTED TO THE CITY PRIOR TO FINAL ACCEPTANCE.
- PROOF ROLLING SHALL BE REQUIRED OF ALL SIDEWALKS, CURBS, AND ROADWAYS AT THE DISCRETION OF THE CITY PUBLIC WORKS CONSTRUCTION INSPECTOR TO ENSURE ADEQUATE COMPACTION.

**DRAINAGE PLAN NOTES**

- PROOF OF LIABILITY INSURANCE SHALL BE SUBMITTED TO PUBLIC WORKS PRIOR TO THE CONSTRUCTION OF THE DRAINAGE FACILITIES, PREFERABLY AT THE PRECONSTRUCTION MEETING.
- ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT SPECIFICATIONS. THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL, AND ANY REQUIRED PIPE BEDDING, TO A UNIFORM GRADE SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY DENSE UNYIELDING BASE.
- A LICENSED SURVEYOR SHALL SURVEY AND STAKE ALL STORM DRAIN FACILITIES AND CONVEYANCE LINES WITH ASSOCIATED EASEMENTS AND DEDICATIONS NOT LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY. PUBLIC WORKS CONSTRUCTION INSPECTOR SHALL INSPECT AND VERIFY LOCATIONS PRIOR TO FINAL PLAT AND EASEMENT RECORDING.
- STEEL PIPE SHALL BE ALUMINIZED, OR GALVANIZED WITH ASPHALT TREATMENT #1 OR BETTER INSIDE AND OUTSIDE.
- ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS.
- ALL DRIVEWAY CULVERTS LOCATED WITHIN SAMMAMISH RIGHT-OF-WAY SHALL BE OF SUFFICIENT LENGTH TO PROVIDE A MINIMUM 3:1 SLOPE FROM THE EDGE OF THE DRIVEWAY TO THE BOTTOM OF THE DITCH. CULVERTS SHALL HAVE BEVELED END SECTIONS TO MATCH THE SIDE SLOPE.
- DRAINAGE OUTLETS (STUB-OUTS) SHALL BE PROVIDED FOR EACH INDIVIDUAL LOT, EXCEPT FOR THOSE LOTS APPROVED FOR INFILTRATION. STUB-OUTS SHALL CONFORM TO THE FOLLOWING:
  - EACH OUTLET SHALL BE SUITABLY LOCATED AT THE LOWEST ELEVATION ON THE LOT, SO AS TO SERVICE ALL FUTURE ROOF DOWNSPOUTS AND FOOTING DRAINS, DRIVEWAYS, YARD DRAINS, AND ANY OTHER SURFACE OR SUBSURFACE DRAINS NECESSARY TO RENDER THE LOTS SUITABLE FOR THEIR INTENDED USE. EACH OUTLET SHALL HAVE FREE-FLOWING, POSITIVE DRAINAGE TO AN APPROVED STORMWATER CONVEYANCE SYSTEM OR TO AN APPROVED OUTFALL LOCATION.
  - OUTLETS ON EACH LOT SHALL BE LOCATED WITH A FIVE-FOOT-HIGH, 2" X 4" STAKE MARKED "STORM" OR "DRAIN". THE STUB-OUT SHALL EXTEND ABOVE SURFACE LEVEL, BE VISIBLE, AND BE SECURED TO THE STAKE.
  - PIPE MATERIAL SHALL CONFORM TO UNDERDRAIN SPECIFICATIONS DESCRIBED IN THE PUBLIC WORKS STANDARDS AND, IF NON-METALLIC, THE PIPE SHALL CONTAIN WIRE OR OTHER ACCEPTABLE DETECTION.
  - DRAINAGE EASEMENTS ARE REQUIRED FOR DRAINAGE SYSTEMS DESIGNED TO CONVEY FLOWS THROUGH INDIVIDUAL LOTS.
  - THE APPLICANT/CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS OF ALL STUB-OUT CONVEYANCE LINES WITH RESPECT TO THE UTILITIES (E.G. POWER, GAS, TELEPHONE, TELEVISION).
  - ALL INDIVIDUAL STUB-OUTS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE LOT HOMEOWNER.
- ACCEPTABLE STORM PIPE MATERIAL IS AS FOLLOWS: PLAIN AND REINFORCED CONCRETE PIPE, CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, CORRUGATED STEEL PIPE (ALUMINIZED OR GALVANIZED WITH TREATMENTS 1, 2 OR 5); SPIRAL RIB STEEL PIPE (ALUMINIZED OR GALVANIZED WITH TREATMENTS 1, 2 OR 5); DUCTILE IRON PIPE (WATER SUPPLY, CLASS 50 OR 52); POLYPROPYLENE CULVERT OR STORM SEWER PIPE (WSDOT SECTION 9-05.24), HIGH DENSITY POLYETHYLENE PIPE (HDPE, INCLUDING SOLID WALL POLYETHYLENE PIPE). REFER TO THE 2016 KING COUNTY SURFACE WATER DESIGN MANUAL SECTION 4.2 AND THE 2016 SAMMAMISH SURFACE WATER DESIGN MANUAL ADDENDUM CHAPTER 4 FOR DETAILS.
- MINIMUM COVER OVER STORM DRAINAGE PIPES AND FACILITIES SHALL BE TWO FEET (2') UNLESS OTHERWISE SHOWN AND APPROVED.
- THE MOST RECENTLY UPDATED WSDOT STANDARD PLANS SECTION B SHALL BE USED TO DETERMINE ACCEPTABLE DESIGN AND CONSTRUCTION STANDARDS FOR DRAINAGE STRUCTURES.
- CATCH BASINS WITH A DEPTH OF OVER FIVE FEET (5') TO THE PIPE INVERT SHALL BE A TYPE II CATCH BASIN. TYPE II CATCH BASINS EXCEEDING FIVE FEET (5') IN DEPTH SHALL HAVE A STANDARD LADDER INSTALLED. ALL MANHOLE LADDERS SHALL BE FIRMLY ATTACHED AND EXTEND TO WITHIN 16" OF THE BOTTOM OF THE STRUCTURE. LADDERS REQUIRED WITHIN DRAINAGE STRUCTURES SHALL NOT BLOCK INLET OR OUTLET PIPES AND MUST BE ACCESSIBLE FROM STRUCTURE OPENING. REFER TO WSDOT STANDARD PLANS FOR DETAILS AND SPECIFICATIONS.
- ALL CATCH BASIN INLETS LOCATED OUTSIDE OF SURFACE WATER FLOW LINE SHALL BE TYPE 2 WITH SOLID ROUND LOCKING COVERS. FOR STRUCTURES LOCATED IN ROADWAYS, LIDS SHALL NOT BE LOCATED WITHIN THE WHEEL PATH.
- ALL INLET, MANHOLE, AND CATCH BASIN FRAMES AND GRATES SHALL NOT BE ADJUSTED TO GRADE UNTIL PRIOR TO FINAL PAVING, EXCEPT CATCH BASIN INLETS LOCATED IN THE CURB FLOW LINE. ALL CATCH BASIN GRATES SHALL BE SET 0.10" BELOW PAVEMENT LEVEL.
- ALL CATCH BASIN GRATES SHALL BE VANED GRATES OR SOLID LID COVERS. HERRINGBONE GRATES ARE NOT ALLOWED. ALL CATCH BASINS LOCATED IN UNPAVED AREAS MUST HAVE AT LEAST A TWO (2) FEET WIDE AND FOUR (4) INCH THICK ASPHALT RING AROUND THE PERIMETER.
- 12-INCH IS THE MINIMUM NOMINAL SURFACE WATER CONVEYANCE PIPE DIAMETER TO BE MAINTAINED BY THE CITY.
- MAXIMUM PIPE RUN BETWEEN STRUCTURES SHALL BE 300 FEET FOR MAINTENANCE OF STRUCTURES, A TRUCK TURNAROUND SHALL BE PROVIDED. MAXIMUM DISTANCE BETWEEN MAINTENANCE VEHICLE ACCESS AND DRAINAGE STRUCTURE SHALL BE 150 FEET.
- MINIMUM PIPE SLOPE SHALL BE 0.5%.
- ONCE BACKFILL IS COMPLETE, THE LINE AND GRADE AT PIPE FLOW LINE LEAVING STANDING WATER GREATER THAN ONE-HALF INCH IN DEPTH SHALL NOT BE ACCEPTED AND MUST BE REPAIRED PRIOR TO ACCEPTANCE BY THE CITY.
- ROOF AND FOOTING DRAINS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM SEPARATELY.
- ALL PUBLIC STORMWATER FACILITIES SHALL BE DRAINED, JETTED, AND CLEANED PRIOR TO FINAL PLAT, PRIOR TO ACCEPTANCE INTO MAINTENANCE AND DEFECT PERIOD AND PRIOR TO THE RELEASE OF MAINTENANCE AND DEFECT INCLUDING ALL STORM PONDS, VAULTS, CATCH BASINS, AND CONVEYANCE PIPES.
- ALL PRIVATE STORMWATER FACILITIES SHALL BE DRAINED, JETTED, AND CLEANED PRIOR TO FINAL OCCUPANCY.
- ALL FILTER CARTRIDGES SHALL BE INSPECTED EVERY SIX MONTHS DURING THE MAINTENANCE AND DEFECT PERIOD TO PROVIDE PROPER FUNCTION AND SHALL BE REPLACED PRIOR TO RELEASE OF MAINTENANCE AND DEFECT.
- PRIOR TO FINAL PAVING ALL STORMWATER PIPE LOCATED IN THE PUBLIC RIGHT-OF-WAY OR IDENTIFIED TO BE MAINTAINED BY THE CITY IN A PUBLIC EASEMENT SHALL BE RECORDED UNDER CLOSED CIRCUIT TELEVISION (CCTV). AN ELECTRONIC COPY SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL.
- LOW IMPACT DEVELOPMENT (LID) INFILTRATION AND DISPERSION AREAS SHALL BE PROTECTED FROM COMPACTION AND SEDIMENT ACCUMULATION DURING CONSTRUCTION. SCARIFY BOTTOM OF ALL INFILTRATION FACILITIES INCLUDING RAIN GARDENS, BIORETENTION AREAS, POROUS PAVEMENTS, INFILTRATION TRENCHES, DRY WELLS, AND INFILTRATION FACILITIES MINIMUM 12-INCHES PRIOR TO BACKFILL WITH ROCK OR MEDIA. ALL BACKFILL SHALL BE MINIMALLY COMPACTED UP TO 85% DENSITY OR AS SPECIFIED ON PLANS.
- ALL ROCKERY OR RETAINING WALL DRAINS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM, OR DAYLIGHTED TO AN ACCEPTABLE DISCHARGE LOCATION AS APPROVED BY THE CITY.
- PRIOR TO FINAL PLAT APPROVAL, ALL PUBLIC AND PRIVATE STORMWATER FACILITIES SHALL BE CONSTRUCTED AND IN FULL OPERATION. THESE FACILITIES SHALL INCLUDE THE STORMWATER CONVEYANCE SYSTEM, DETENTION, WATER QUALITY, LOW IMPACT DEVELOPMENT BEST MANAGEMENT PRACTICES (LID BMPs) AND ANY REQUIRED MONITORING FACILITIES. THE CONVEYANCE SYSTEM SHALL INCLUDE ALL DRAINAGE STRUCTURES, PIPING, DITCHING, CURB, GUTTER, AND ROAD PAVING WITH THE EXCEPTION OF THE FINAL LIFT OF ASPHALT. UNLESS USED TO REDUCE THE SIZE OF DETENTION OR WATER QUALITY FACILITIES, LID BMPs SUCH AS BASIC DISPERSION AND INFILTRATION DEVICES LOCATED ON INDIVIDUAL SINGLE FAMILY RESIDENTIAL LOTS MAY BE CONSTRUCTED WITH SFR BUILDING PERMIT AND ARE NOT REQUIRED TO BE CONSTRUCTED PRIOR TO FINAL PLAT. IF SINGLE FAMILY LID BMPs WERE USED TO REDUCE THE SIZE OF DETENTION OR WATER FACILITIES (CREDIT GIVEN), LID BMPs SHALL BE CONSTRUCTED AND IN FULL OPERATION PRIOR TO FINAL PLAT APPROVAL.
- THE DEVELOPER SHALL PURCHASE FROM THE CITY AND INSTALL STORM DRAIN MARKERS AND ADHESIVE, STATING "ONLY RAIN DOWN THE DRAIN"; ON ALL CATCH BASINS. INSTALLATION INSTRUCTIONS ARE PROVIDED WITH THE DRAIN MARKERS. PLACEMENT ON ROADWAY ASPHALT SHALL BE AVOIDED.
- THE 100-YEAR DESIGN ELEVATION OF DOWNSTREAM STORMWATER FACILITIES SUCH AS STORMWATER PONDS OR VAULTS SHALL BE AT OR BELOW ALL PIPE INVERTS. EXCEPTION TO THIS STANDARD IS THE PIPE FROM THE FIRST CATCH BASIN JUST UPSTREAM OF THE STORMWATER FACILITY MAY BE SUBMERGED TO ALLOW PIPE INLET TO FACILITY TO BE SUBMERGED.
- IMPROVEMENTS AND/OR BUILDINGS SHALL NOT BE INSTALLED UNTIL DRAINAGE FACILITIES ARE IN OPERATION". (SMC 13.20.060).

UTILITY CROSSING TABLE			
NO.	PIPE ELEVATIONS (FT)	CLEARANCE (FT)	
1	12" SD EX 8" SS CE 393.27	2.29	
2	12" SD EX 8" WA IE 397.26 CE 395.65	1.61	
3	8" WA IE 390.84	1.69	
4	12" SD 12" SD 8" SS CE 389.15 IE 388.05 CE 381.67	6.38	
5	EX 8" WA 8" SS CE 388.45 CE 381.36	7.09	
6	EX 8" WA 12" SD 12" SD CE 378.82 CE 378.32 CE 378.36	1.50	
7	12" SD 3" SSSFM CE 377.59	1.77	
8	3" SS IE 372.57 CE 371.79	0.78	
10	EX 8" WA 12" SD CE 368.26	1.25	
11	18" SD 6" WA CE 360.86 CE 361.20	0.50 *	
12	EX 8" WA 12" SD CE 360.70 CE 361.69	0.75	
13	EX 8" WA 12" SD CE 360.94 CE 400.40	14.30	
14	8" SS CE 386.10 CE 402.36	0.86	
15	12" SD 12" SD 8" WA CE 403.14 CE 401.59	1.55	
16	12" SD 12" SD 8" SS CE 401.88 CE 386.49	15.39	
19	12" SD 8" SS CE 387.12 CE 410.02	17.94	
20	12" SD 8" WA CE 409.53 CE 403.38	6.15	
21	12" SD 12" SD 8" SS CE 404.33 CE 387.64	16.69	
23	8" WA 12" SD CE 404.77 CE 402.18	2.59	
24	12" SD 8" SS CE 401.24 CE 388.17	13.07	
25	12" SD 12" SD 8" WA CE 400.66 CE 396.84	3.82	
26	8" WA 12" SD CE 393.57 CE 392.02	1.55	
27	12" SD 8" SS CE 391.09 CE 388.82	2.27	
28	8" WA 12" SD CE 378.70 CE 377.70	1.00	
29	12" SD 3" SS CE 376.77 CE 376.27	0.50 *	
30	EX 6" WA 12" SD CE 368.06 CE 368.72	2.10	
31	8" WA 12" SD CE 369.72 CE 368.14	1.58	
32	8" WA 12" SD CE 375.30 CE 370.57	4.73	
33	EX 6" WA 12" SD CE 375.44 CE 372.26	3.18	
34	12" SD 3" SS CE 376.90 CE 376.40	0.50 *	
37	EX 6" WA 8" WA CE 389.01 CE 376.68	2.28	
38	12" SD 6" WA CE 374.50 CE 367.03	1.54	
39	12" SD 6" WA CE 365.49 CE 406.01	8.49	
40	12" SD EX 6" WA CE 397.52 CE 383.20	0.61	
41	12" SD EX 6" WA CE 382.59		

NOTE:  
\*\* REQUIRES ETHAFOAM PAD

**LEGEND**

**PROPOSED FEATURES**

- BOUNDARY
- RIGHT-OF-WAY
- LOT LINE
- CURB FLOWLINE
- SIDEWALK
- CENTER LINE
- SAWCUT
- EASEMENT
- BUILDING SETBACK (BSBL)
- CURB RAMP
- ASPHALT PAVEMENT
- SIDEWALK
- GRIND & OVERLAY
- CENTERLINE MONUMENT

**GRADING AND TESC FEATURES**

- 10' PROPOSED CONTOURS
- 2' PROPOSED CONTOURS
- DAYLIGHT LINE
- FILL RETAINING WALL
- CUT RETAINING WALL
- FILL ROCKERY
- CUT ROCKERY
- FILTER FENCE
- CONSTRUCTION FENCE
- CLEARED AREA
- LIMITS OF CLEARING
- INTERCEPTOR SWALE
- INTERCEPTOR CULVERT
- TEMPORARY STORM PIPE
- SLOPE DAGGER

**PROPOSED STORM DRAINAGE**

- STORM DRAIN PIPE
- ROOF & FOOTING DRAIN
- ROCKERY DRAIN
- RIPRAP PAD
- TYPE II CB - STANDARD GRATE
- PIPE FLOW
- CULVERT END
- STORM CLEANOUT
- YARD DRAIN
- OVERFLOW STRUCTURE

**PROPOSED SANITARY SEWER AND WATER**

- SEWER MAIN
- SEWER FORCE MAIN
- SEWER SERVICE
- WATER MAIN
- SEWER MANHOLE
- PIPE FLOW
- SEWER CLEANOUT
- WATER METER
- IRRIGATION METER
- FIRE HYDRANT
- BLOW OFF
- GATE VALVE
- TEE W/ CONC BLOCKING
- BEND W/ CONC BLOCKING
- RESTRAINED JOINT
- REDUCER
- SLEEVE

**EXISTING FEATURES**

- ADJACENT PLAT/PARCEL LINE
- ADJACENT RIGHT-OF-WAY
- CENTERLINE
- EASEMENT
- SURFACE FEATURES
- BUILDING FOOTPRINT
- WETLAND BUFFER
- 10' CONTOURS
- 2' CONTOURS
- SD - STORM DRAIN PIPE
- SS - SEWER MAIN
- W - WATER MAIN
- OHP - AERIAL POWER LINE
- X - WIRE FENCE
- CHAINLINK FENCE
- BOARD FENCE
- DITCH OR SWALE
- CATCH BASIN, TYPE I
- SEWER MANHOLE
- SS PIPE FLOW
- FIRE HYDRANT
- WATER METER
- GATE VALVE
- POWER POLE
- GAS VALVE
- TELEPHONE RISER
- MAIL BOX
- SIGN
- ASPHALT
- CONCRETE
- GRAVEL

**CROSSING NOTES**

- SEWER-STORM AND STORM-WATER:**
- PREFERRED VERTICAL SEPARATION BETWEEN PIPES IS 12" MIN. SEPARATION.
  - PROVIDE ETHAFOAM PAD BETWEEN PIPES IF CLEARANCE BETWEEN OUTER PIPE WALLS IS LESS THAN 1".

**TREE LEGEND**

- EXISTING TREE TO BE REMOVED
- EXISTING IMPACTED TREE TO REMAIN IF POSSIBLE
- DRIP LINE
- EXISTING TREE TO BE SAVED (INSIDE CRITICAL AREA)
- EXISTING TREE TO BE SAVED (OUTSIDE CRITICAL AREA)
- LOD (LIMITS OF DISTURBANCE)
- EXISTING OFF-SITE TREE
- EXISTING TREE IN POOR CONDITION

**CITY OF SAMMAMISH**

APPROVAL BLOCK

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.

REVIEWED FOR CODE COMPLIANCE per 13.20.040 SMC, and 14.1.040 SMC, subject to field inspection and correction.

PLANNING DEPT. APPROVAL

By: ABarby  
DATE: 08/16/2019

harrisaourge08/09/2019  
City of Sammamish Public Works Department

ROW2019-03272

**UNDERGROUND UTILITY NOTE**

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**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDIUS, PE

PROJECT ENGINEER:  
BRETT K PUDIUS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

REVISIONS

NO	DATE	BY	REASON
1	8/07/19	AKB	REVISED PER CITY COMMENTS
2	7/28/19	RMB	REVISED PER CITY COMMENTS
3	8/5/19	RMB	REVISED PER CITY COMMENTS

GENERAL NOTES, DETAILS & LEGEND

GARRIERSE 8TH SUBDIVISION ROAD & STORM PLANS

CITY OF SAMMAMISH WASHINGTON

8/5/19

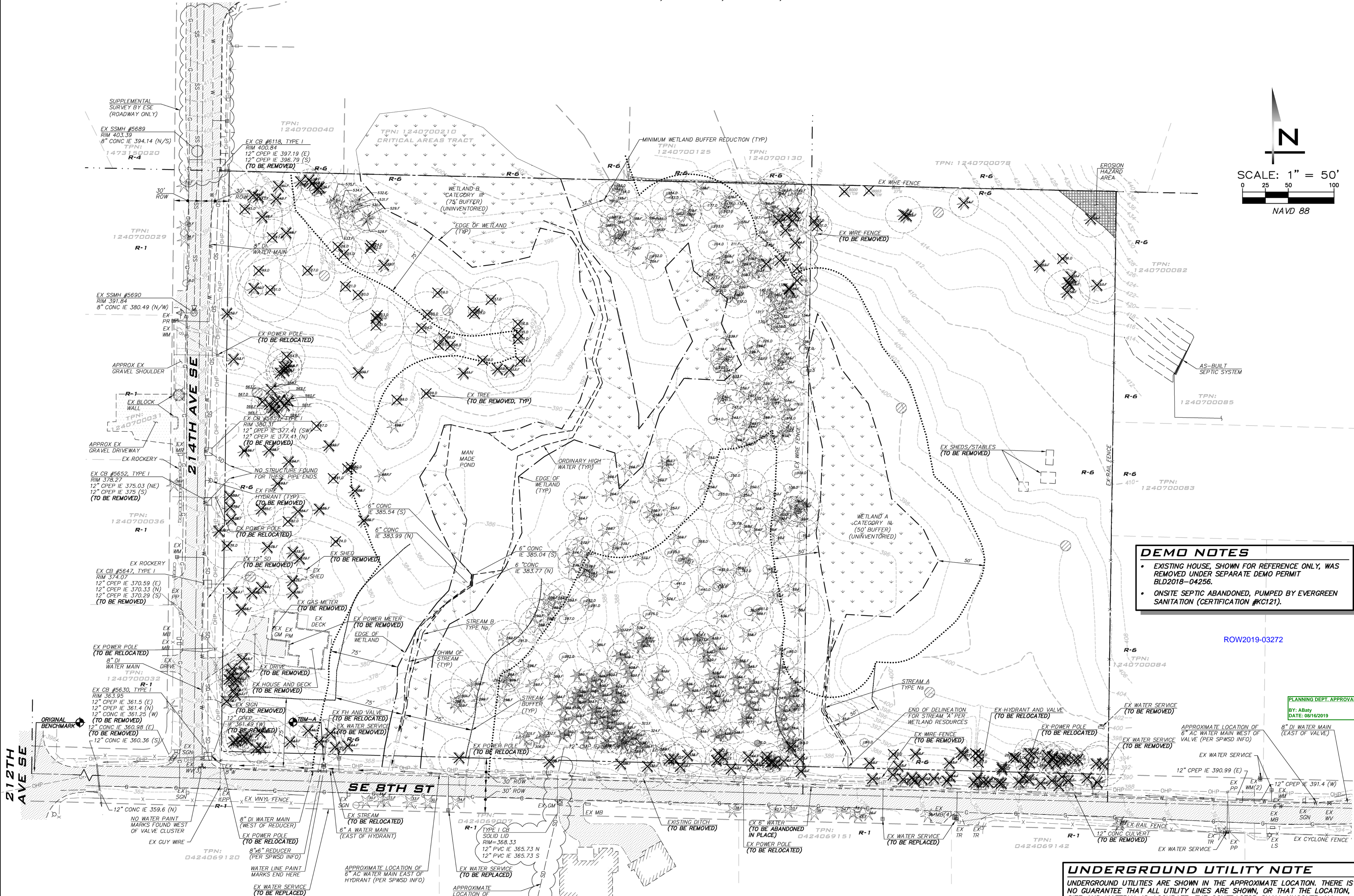
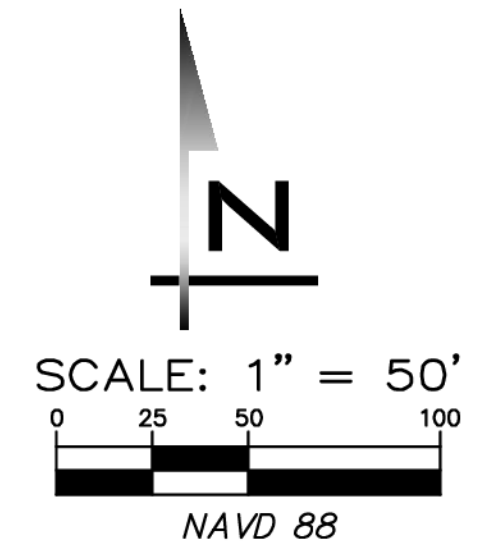
JOB NUMBER:  
**15-111**

SHEET NAME:  
**GN-01**

SHT **3** OF **48**



SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019



**DEMO NOTES**

- EXISTING HOUSE, SHOWN FOR REFERENCE ONLY, WAS REMOVED UNDER SEPARATE DEMO PERMIT BLD2018-04256.
- ONSITE SEPTIC ABANDONED, PUMPED BY EVERGREEN SANITATION (CERTIFICATION #KCI21).

PLANNING DEPT. APPROVAL  
 By: A.Baty  
 DATE: 08/16/2019

**SURVEY NOTES**

- ORIGINAL SURVEY BY MEAD GILMAN & ASSOCIATES
- LIMITED SUPPLEMENTAL SURVEY IN 2018 (AS NOTED) PROVIDED BY ESE CONSULTANTS, INC.

**AREA SUMMARY**

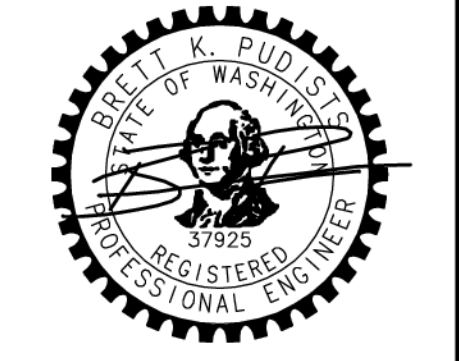
GROSS SITE AREA: 615,872 SF (14.14 ACRES)  
 ONSITE CRITICAL AREA AND BUFFER: 305,102 SF (7.00 ACRES)

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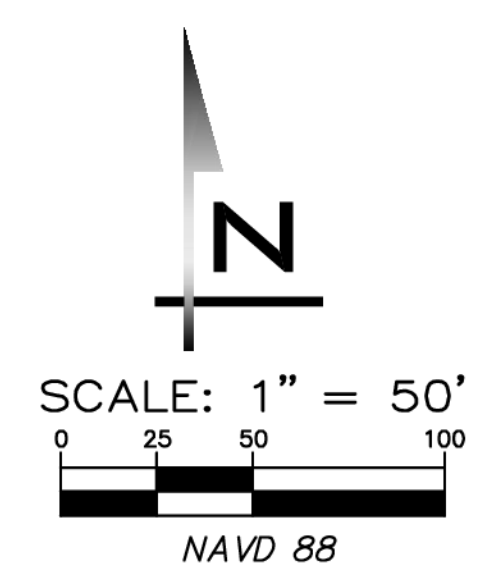
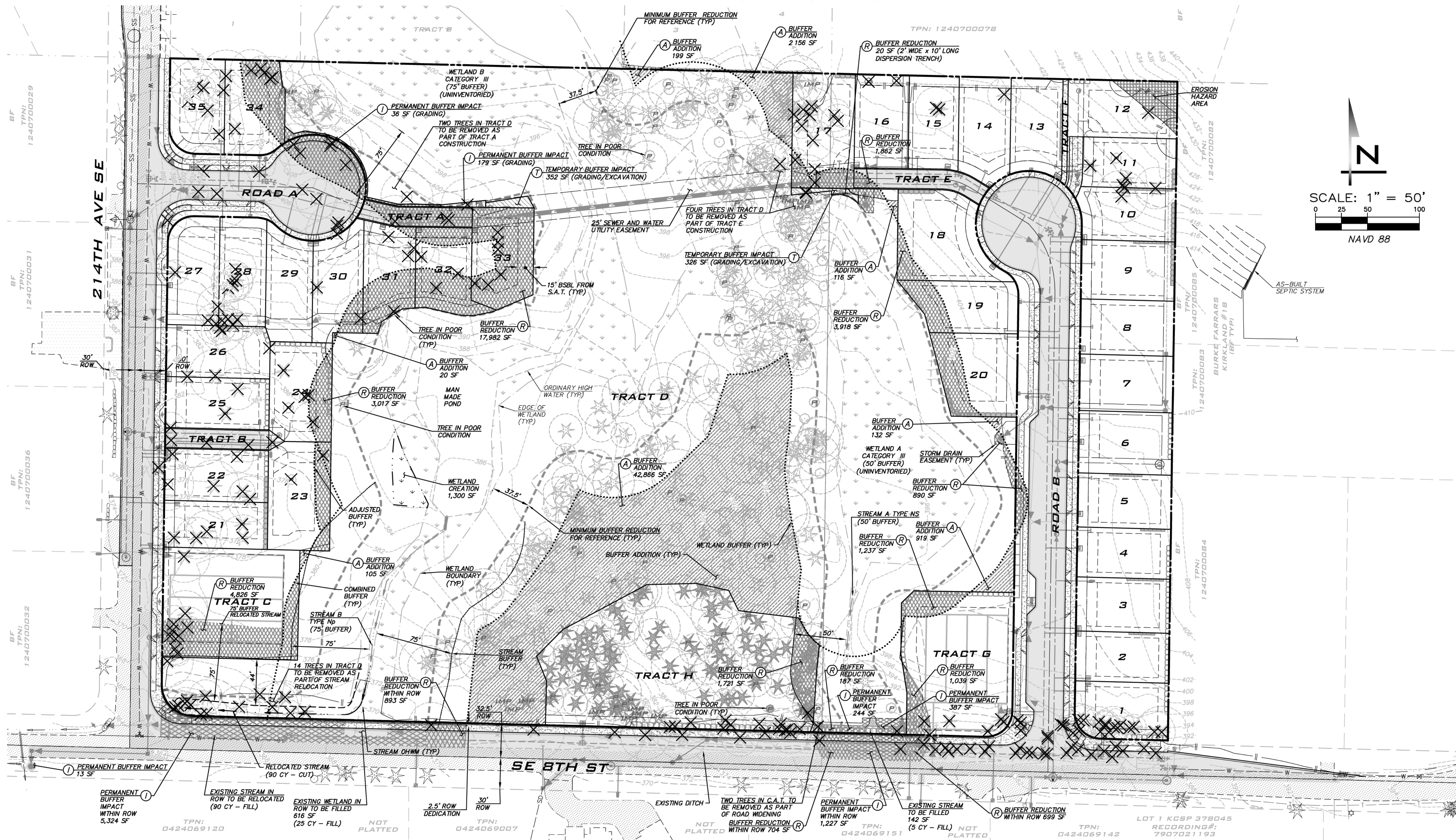
NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

EXISTING CONDITIONS & DEMO PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON



8/5/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**EC-01**  
 SHT 4 OF 48





**BLUELINE**  
 25 CENTRAL WAY, SUITE 400,  
 KIRKLAND, WA 98033  
 P: 425.216.4051 F: 425.216.4052  
 WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS
3	8/5/19	RAB	REVISED PER CITY COMMENTS

**BUFFER AVERAGING PLAN**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON

**TREE LEGEND**

- EXISTING TREE TO BE REMOVED
- DRIP LINE
- EXISTING ON-SITE TREE TO BE SAVED
- DRIP LINE
- EXISTING C.A.T. TREE TO BE SAVED
- EXISTING TREE IN POOR CONDITION
- TREE IMPACTED BY DEVELOPMENT

**CRITICAL AREA NOTE**  
 REFER TO CRITICAL AREA STUDY AND MITIGATION PLAN BY WETLAND RESOURCES, INC FOR FURTHER INFORMATION ON CRITICAL AREAS AND BUFFERS.

**TREE NOTES**

- REFER TO LANDSCAPE PLANS FOR SUMMARY OF TREE RETENTION AND REPLANTING CALCULATIONS.
- TREES REMOVED IN TRACT D AND AS PART OF SE 8TH ST STREAM RELOCATION TO BE PLACED IN TRACT D. REFER TO PLANS BY WETLAND RESOURCES FOR DETAILS.

**BUFFER REDUCTION NOTES**  
 SMC 21A.50.290 (7)  
 THE WETLAND BUFFER WIDTH CANNOT BE REDUCED TO LESS THAN 50% OF THE STANDARD BUFFER WIDTH  
 SMC 21A.50.330 (4)  
 THE STREAM BUFFER WIDTH CANNOT BE REDUCED TO LESS THAN 50% OF THE STANDARD BUFFER WIDTH

**CRITICAL AREA BUFFER SUMMARY**

TOTAL BUFFER REDUCTION (R):	38,995 SF
TOTAL PERMANENT BUFFER IMPACT (I):	7,410 SF
TOTAL BUFFER IMPACT/REDUCTION:	46,405 SF
TOTAL BUFFER ADDITION (A):	46,513 SF

**\* OTHER IMPACTS / MITIGATION**

PERMANENT WETLAND B IMPACT (ROW)	616 SF	MITIGATED BY 1,300 SF OF ONSITE WETLAND CREATION
PERMANENT STREAM A IMPACT (ROW)	142 SF	MITIGATED BY HABITAT FEATURES (LWD)
STREAM B RELOCATION (ROW)	163 LF	MITIGATED BY 163 LF OF STREAM CREATION
TEMPORARY IMPACT (T):	678 SF	TO BE REPLANTED

\* SEE CRITICAL AREA NOTE, THIS SHEET

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 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.

PLANNING DEPT. APPROVAL  
 BY: ABarby  
 DATE: 08/16/2019

hairsbourge09/09/2019  
 City of Sammamish Public Works Department

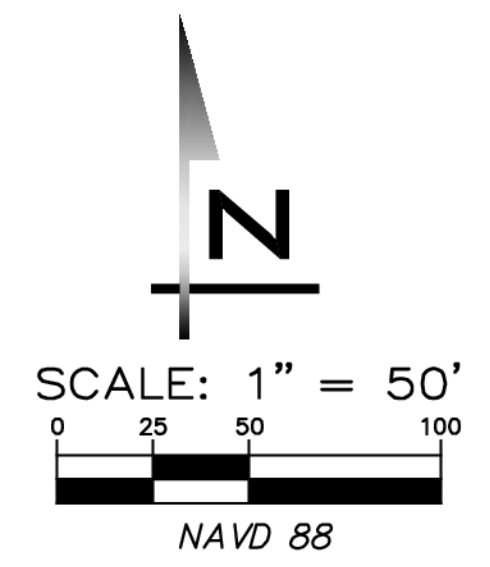
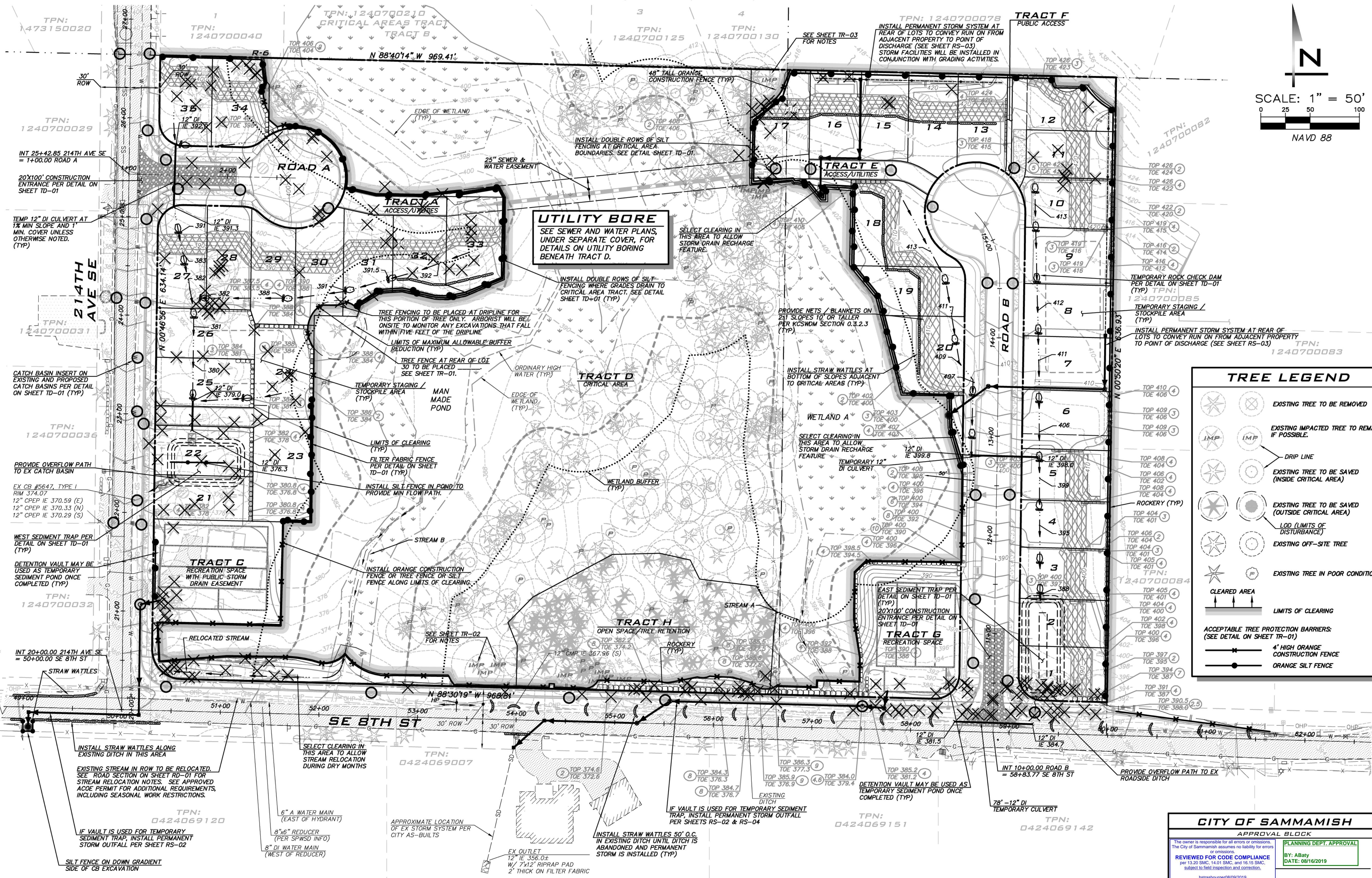
ROW2019-03272

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8/5/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**BA-01**  
 SHT **5** OF **48**





25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUelineGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDIST, PE

PROJECT ENGINEER:  
BRETT K PUDIST, PE

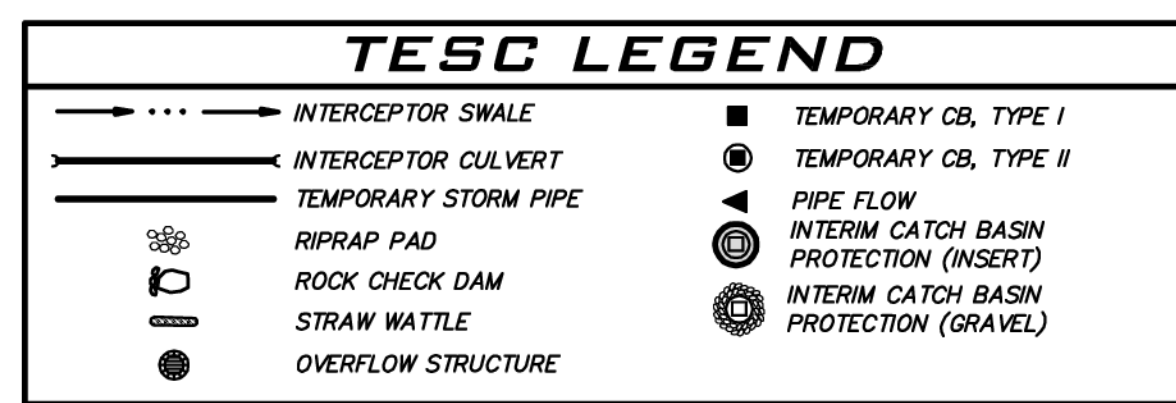
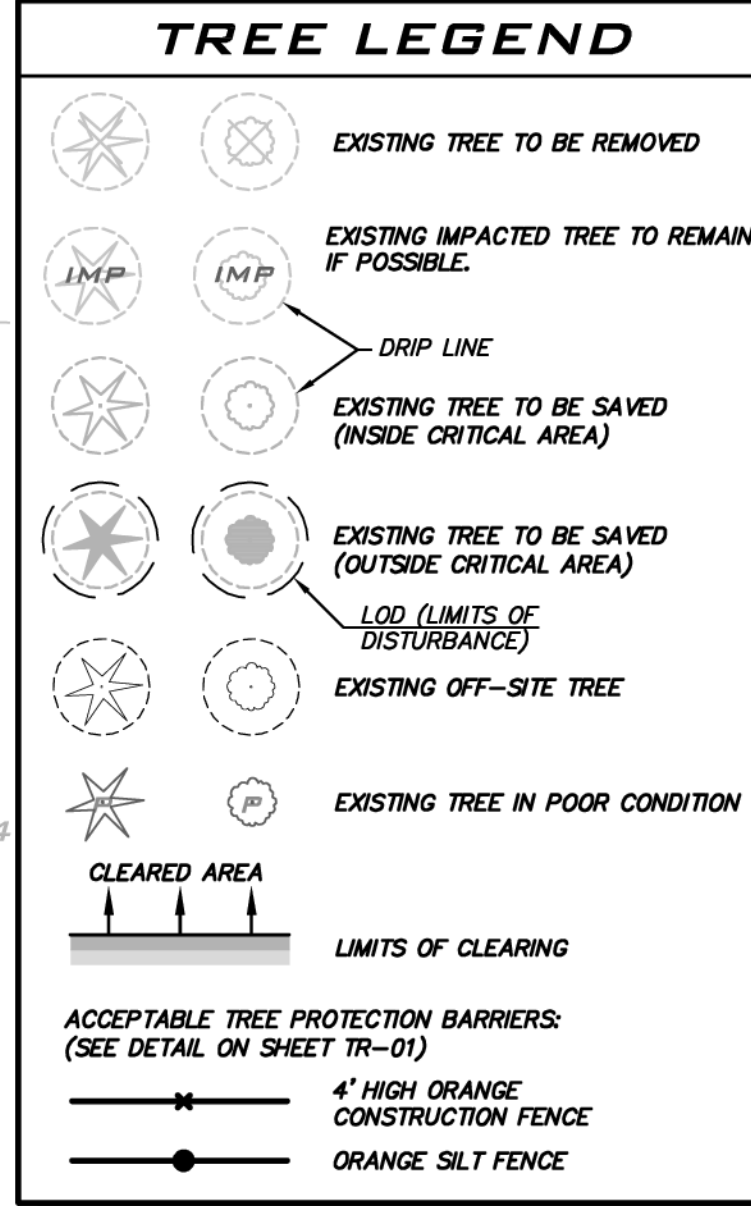
DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
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TESC PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH  
 WASHINGTON

**UTILITY BORE**  
SEE SEWER AND WATER PLANS,  
UNDER SEPARATE COVER, FOR  
DETAILS ON UTILITY BORING  
BENEATH TRACT D.



**DEMO NOTE**  
SEE SHEET EC-01 FOR ITEMS TO BE REMOVED.

**CLEARING LIMITS NOTES**  
ONSITE DISTURBED AREA: 6.2± ACRES  
LIMITS OF CLEARING ALONG CRITICAL AREA TRACT D TO BE DELINEATED BY ONE OF THE FOLLOWING:  
• WHERE TRACT D IS DOWN GRADIENT, INSTALL 2 ROWS OF ORANGE SILT FENCE.  
• WHERE TRACT D IS UP GRADIENT, INSTALL EITHER 48" TALL ORANGE CONSTRUCTION FENCE OR ORANGE SILT FENCE.

**TREE NOTES**  
SEE SHEETS TR-01 TO TR-02 AND LS-01 THROUGH LS-03 FOR TREE RELATED INFORMATION INCLUDING NOTES REGARDING REMOVAL OF SELECT TREES LOCATED BEHIND CLEARING LIMITS.

**SWPPP NOTE**  
THIS TESC PLAN AND THE SWPPP REPORT UNDER SEPARATE COVER COMPRISE THE SWPPP PLAN. THE TEMPORARY MEASURES INCLUDED IN THIS PLAN ARE CONSIDERED THE MINIMUM NECESSARY FOR CONSTRUCTION. ADDITIONAL BMP'S MAY BE NEEDED, AS DETERMINED BY THE SITE CESAL. THE BMP'S SHOWN ON THIS PLAN MAY REQUIRE RELOCATION DURING CONSTRUCTION, AS DETERMINED BY THE SITE CESAL.

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REVIEWED FOR CODE COMPLIANCE per 19.301 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.

DATE: 08/16/2019

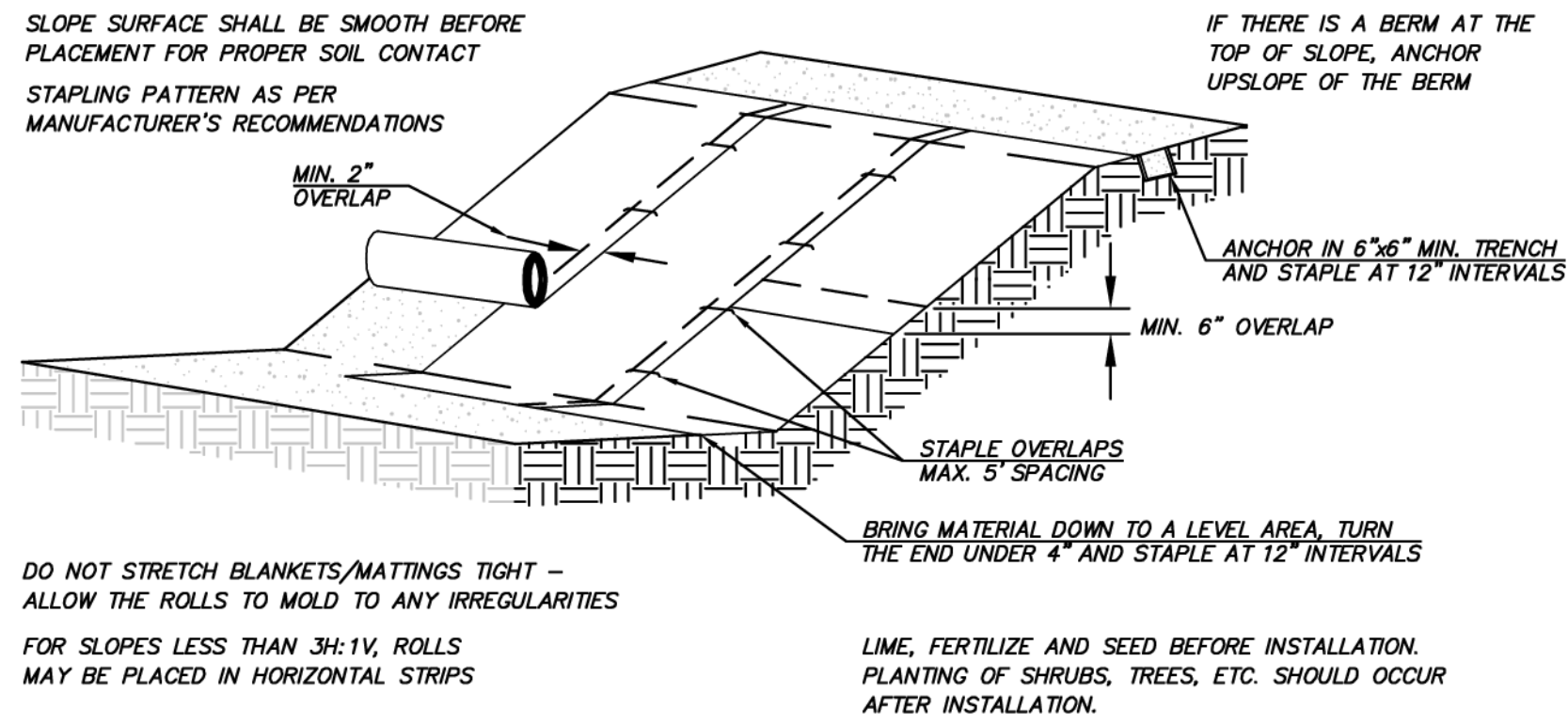
APPROVED WITH MARKUPS

ROW2019-03272

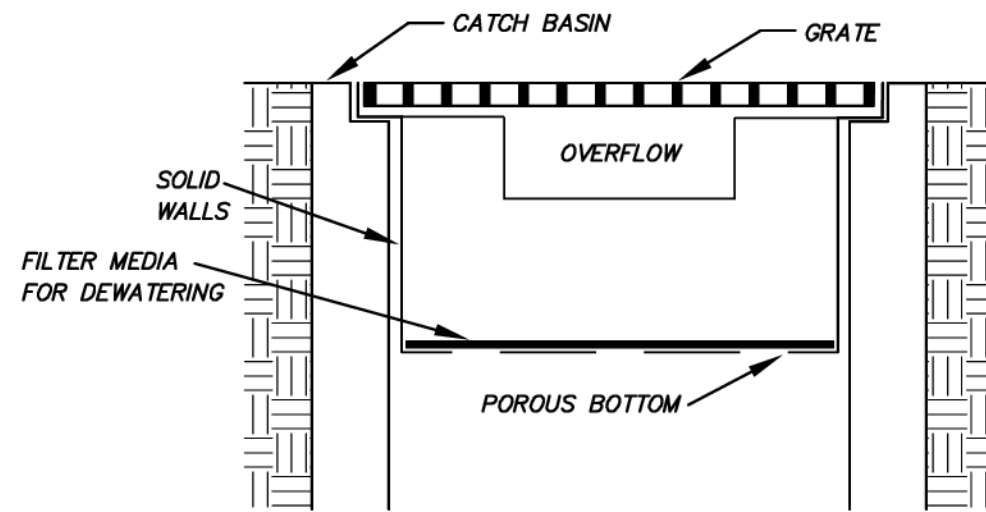


8/5/19  
JOB NUMBER:  
15-111  
SHEET NAME:  
TP-01  
SHT 6 OF 48



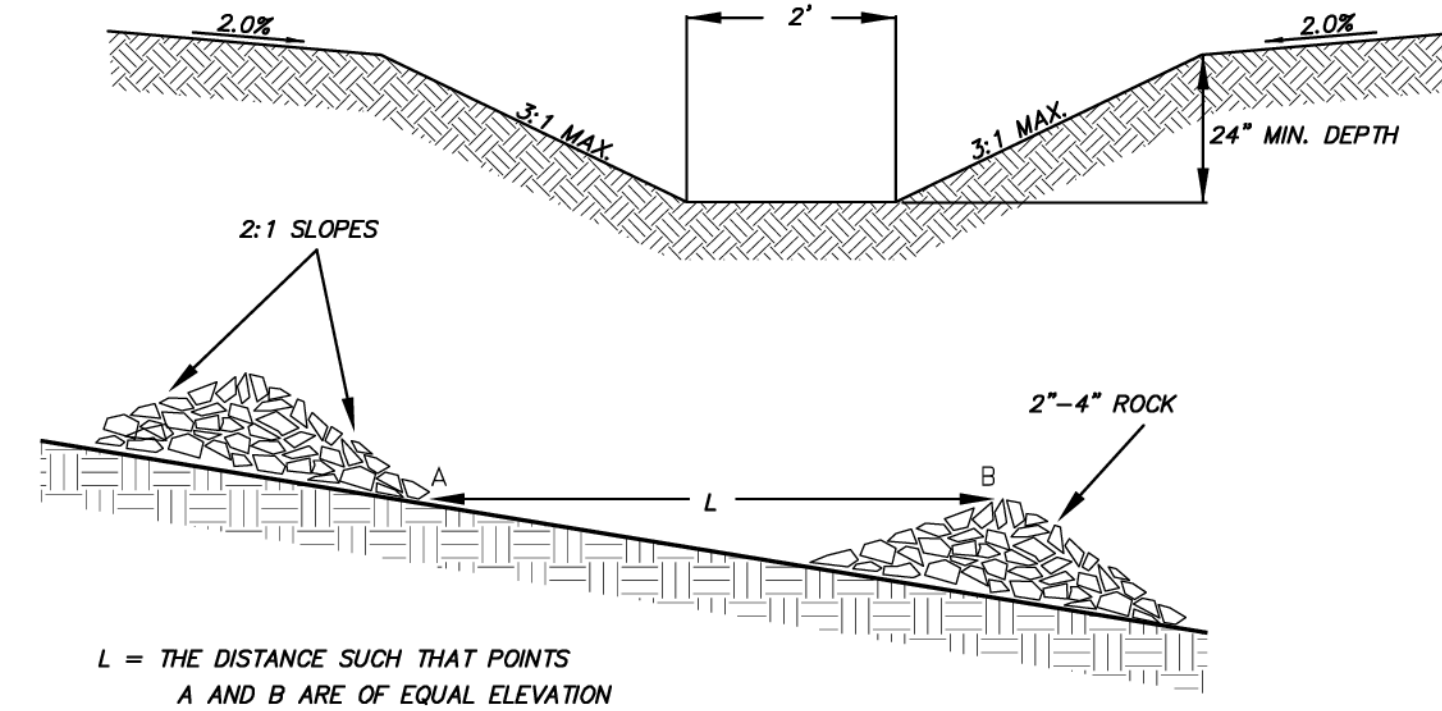


**JUTE MATTING**  
NOT TO SCALE

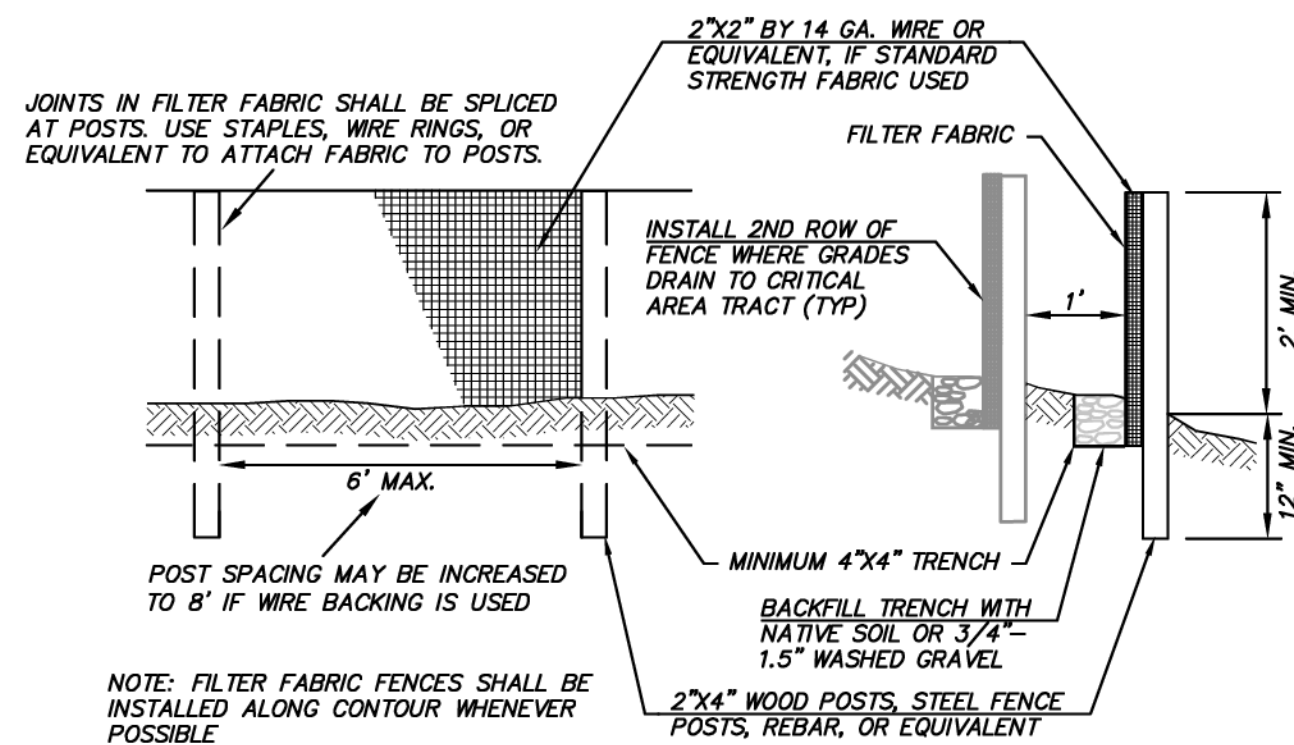
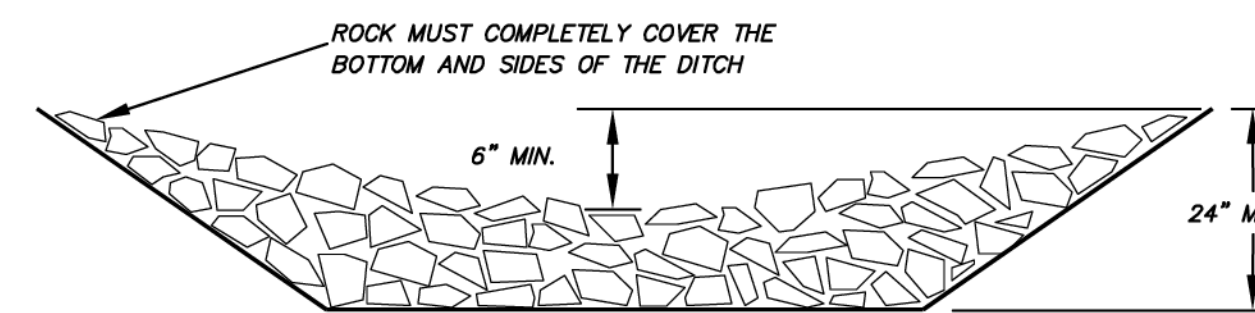


**CATCH BASIN INSERT**  
NOT TO SCALE

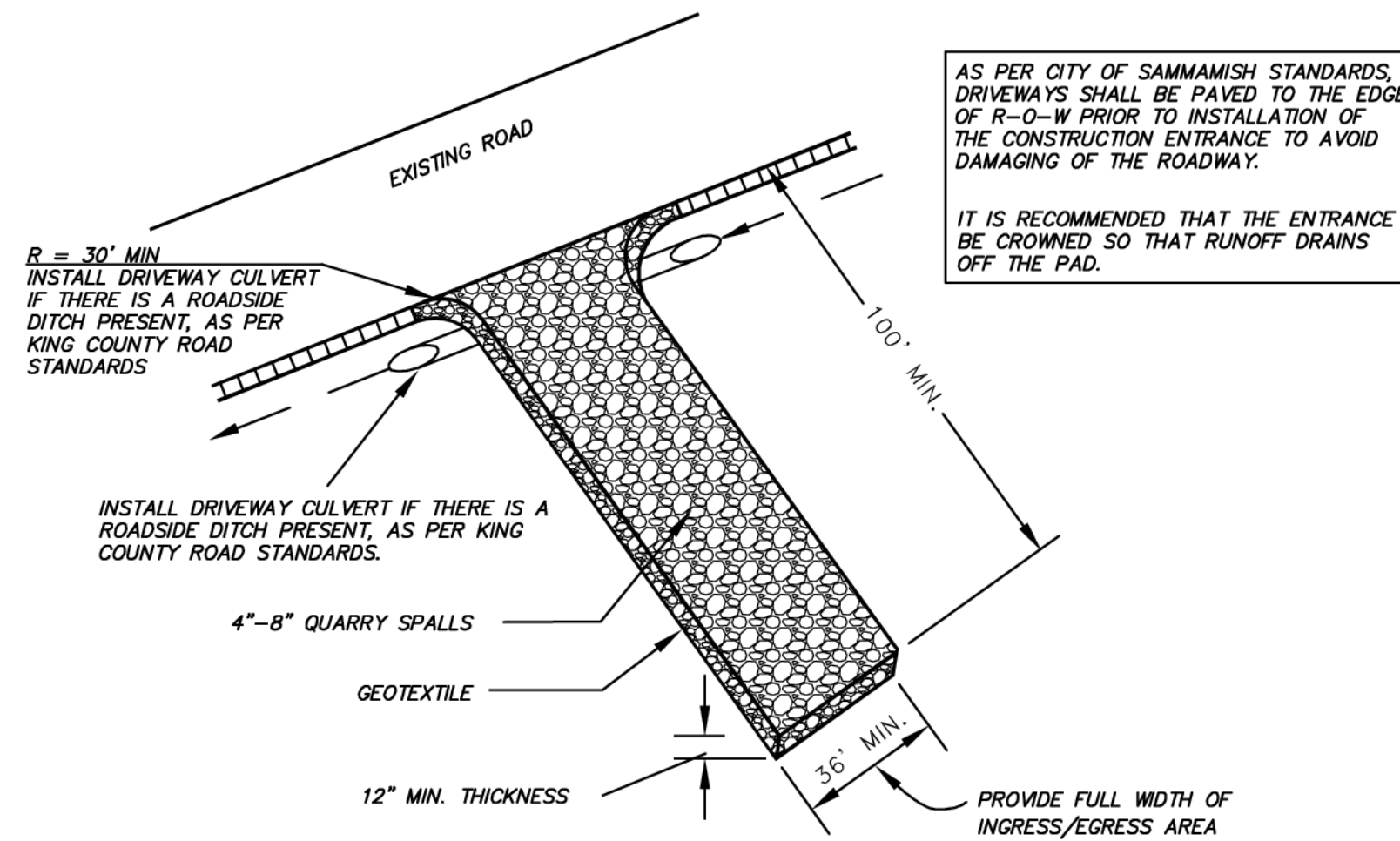
NOTE: THIS DETAIL IS ONLY SCHEMATIC. ANY INSERT IS ALLOWED THAT HAS A MIN. 0.5 CF. OF STORAGE, THE MEANS TO DEWATER THE STORED SEDIMENT, AN OVERFLOW, AND CAN BE EASILY MAINTAINED.



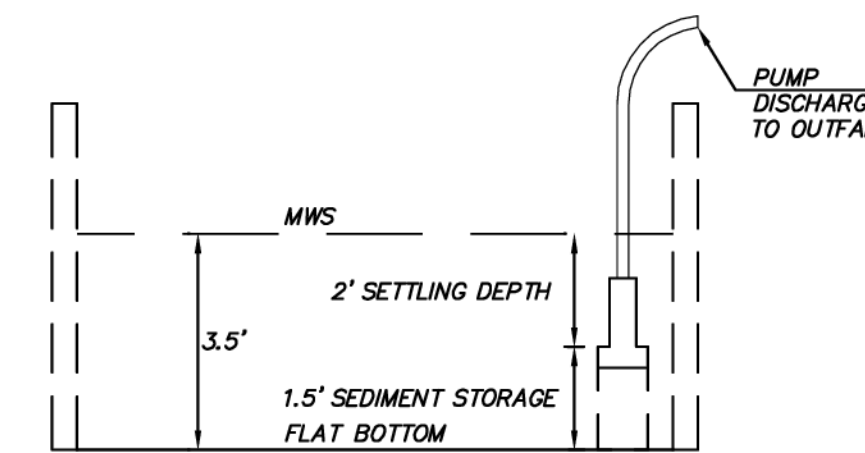
**TEMPORARY INTERCEPTOR SWALE WITH ROCK CHECK DAMS**  
NOT TO SCALE



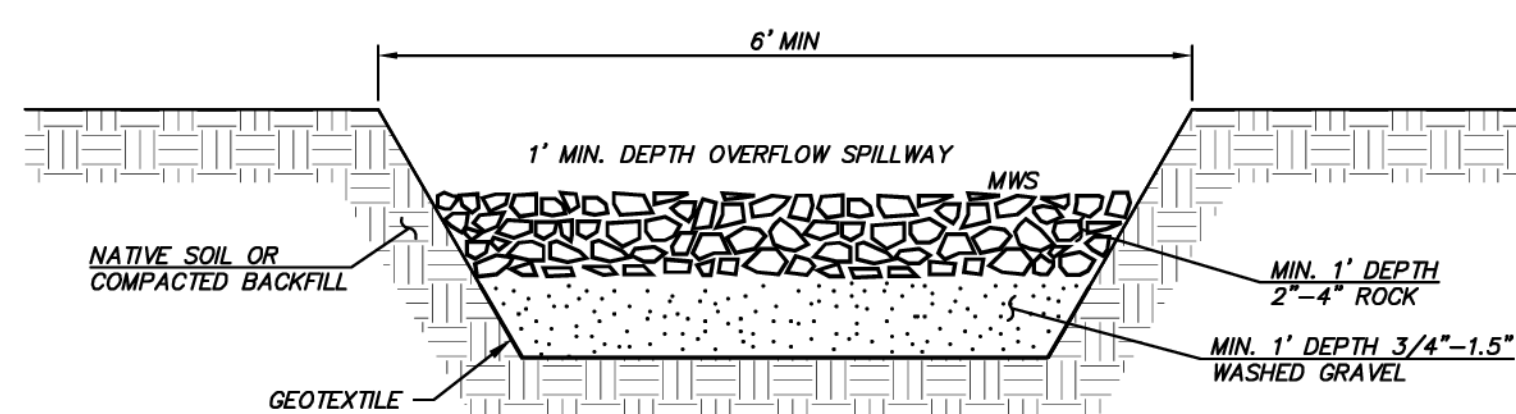
**FILTER FABRIC FENCE**  
NOT TO SCALE



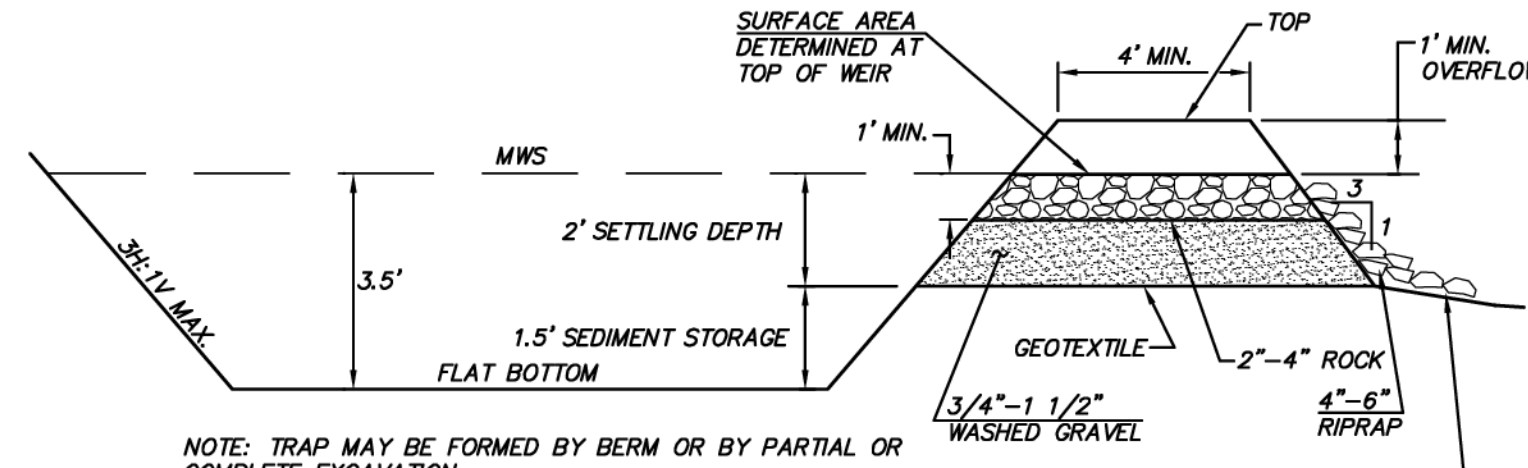
**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE



**VAULT SEDIMENT TRAP**  
NOT TO SCALE



**SEDIMENT TRAP OUTLET**  
NOT TO SCALE



**SEDIMENT TRAP CROSS SECTION**  
NOT TO SCALE

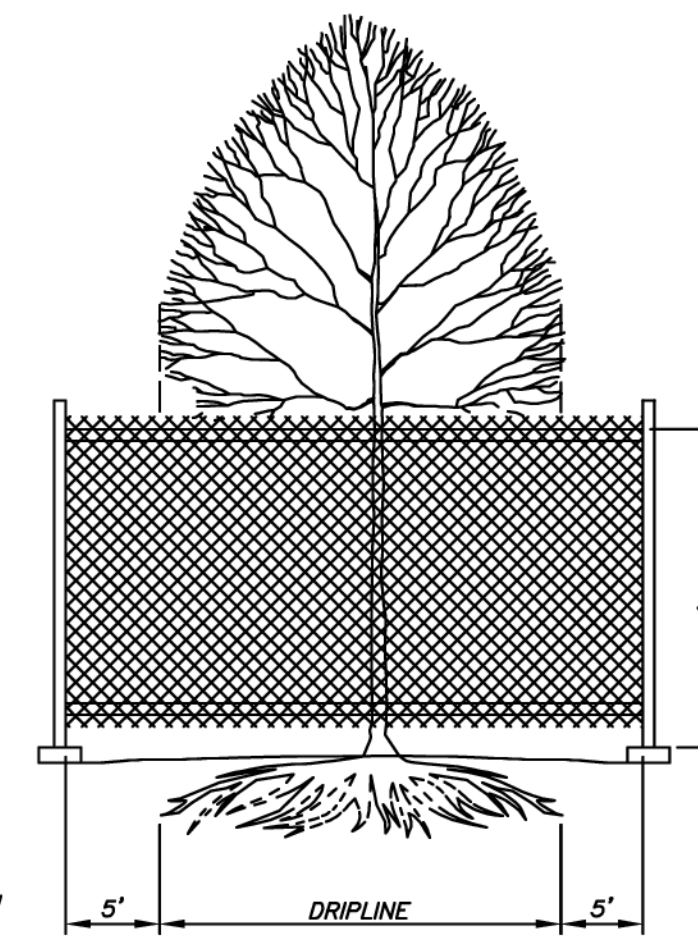
TRAP	TOP	MWS	BOTTOM	REQUIRED AREA @ MWS	DIM @ MWS	PROVIDED AREA @ MWS
EAST	387.00	386.00	382.50	3,229	95'x35'	3,325
WEST	379.00	378.00	374.50	2,745	70'x40'	2,800

NOTE: CONFIGURATION OF SEDIMENT TRAPS MAY BE MODIFIED GIVEN THAT 1,345 SF OF SEDIMENT TRAP SURFACE AREA IS PROVIDED PER 1 ACRE OF TRIBUTARY AREA.

\* INSTALL SILT FENCE LONGITUDINALLY ALONG CENTER OF SEDIMENT TRAP PER PLAN TO PROVIDE REQUIRED FLOW PATH.

**NOTES**

- 4' HIGH ORANGE CONSTRUCTION FENCE OR SILT FENCE SHALL BE PLACED 5' FROM DRIPLINE OF TREE TO BE SAVED UNLESS OTHERWISE NOTED. FENCE SHALL COMPLETELY ENIRCLE TREE(S) WITH SIGNS READING "TREE SAVE AREA". INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
- TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER 1" IN DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
- NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.



**TREE PROTECTION BARRIER**  
NOT TO SCALE

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

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PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 08/16/2019

htrassourge09/09/2019  
City of Sammamish Public Works Department

ROW2019-03272

**BMP MAINTENANCE NOTE**  
MAINTENANCE STANDARDS FOR EROSION CONTROL BMPs ARE PROVIDED ON SHEET TD-02

**BLUELINE**

25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4851 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED

PROJECT MANAGER: BRETT K PUDISTS, PE

PROJECT ENGINEER: BRETT K PUDISTS, PE

DESIGNER: AARON C LANCE

ISSUE DATE: 8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	RAB	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

TESG DETAILS

CARRIER SE 8TH SUBDIVISION ROAD & STORM PLANS

CITY OF SAMMAMISH WASHINGTON

BRETT K. PUDISTS  
REGISTERED PROFESSIONAL ENGINEER

8/5/19

JOB NUMBER: 15-111

SHEET NAME: TD-01

SHT 7 OF 48



**EROSION/SEDIMENTATION CONTROL PLAN NOTES**

- APPROVAL OF THIS ESC PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, DISTURBANCE BEYOND THE CLEARING LIMITS IS NOT PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT-OF-WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, FLOW CONTROL BMP LOCATIONS (EXISTING AND PROPOSED), AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) OR AS DIRECTED BY THE CITY.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR DURING NON-RAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT, AND AT THE END OF EVERY RAINFALL, AND MAINTAINED TO ENSURE THEIR CONTINUED PROPER FUNCTIONING. IN ADDITION, TEMPORARY SILTATION PONDS AND ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT 30).
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH (MORE FREQUENTLY AS REQUIRED BY THE PUBLIC WORKS CONSTRUCTION INSPECTOR) OR WITHIN TWENTY-FOUR (24) HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE PERMANENT FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN, ELSE THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY. NO UNDERGROUND DETENTION TANKS, DETENTION VAULTS, OR SYSTEM WHICH BACKS UNDER OR INTO A POND SHALL BE USED AS A TEMPORARY SETTLING BASIN. FLOW CONTROL BMP AREAS (EXISTING OR PROPOSED) SHALL NOT BE USED AS TEMPORARY FACILITIES AND SHALL BE PROTECTED FROM SEDIMENTATION AND INTRUSION.
- COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE KING COUNTY SURFACE WATER DESIGN MANUAL.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCTOBER 1) OF EACH YEAR, ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. THE IDENTIFIED DISTURBED AREA SHALL BE SEEDED WITHIN ONE WEEK AFTER OCTOBER 1. A SKETCH MAP DEPICTING THE AREAS TO BE SEEDED AND THE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR. THE INSPECTOR MAY REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR

**DRAINAGE FACILITIES:**

- ALL EROSION/SEDIMENTATION CONTROL PONDS WITH A DEAD STORAGE DEPTH EXCEEDING SIX INCHES (6") MUST HAVE A HIGHLY VISIBLE PERIMETER FENCE WITH A MINIMUM HEIGHT OF THREE FEET (3').
- ALL LOTS ADJOINING OR HAVING ANY NATIVE GROWTH PROTECTION EASEMENTS (NOPE) OR SENSITIVE AREA TRACT SHALL HAVE A MINIMUM FOUR-FOOT (4') HIGH TEMPORARY CONSTRUCTION FENCE (CYCLONE OR PLASTIC MESH) SEPARATING THE LOT (OR BUILDABLE PORTIONS OF THE LOT) FROM THE AREA RESTRICTED BY THE NOPE AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR CLEARING AND REMAIN IN PLACE UNTIL A DWELLING IS CONSTRUCTED AND OWNERSHIP TRANSFERRED TO THE FIRST OWNER/OCCUPANT.
- CLEARING LIMITS SHALL BE DELINEATED WITH A CLEARING CONTROL FENCE. THE CLEARING CONTROL FENCE SHALL CONSIST OF A FOUR-FOOT (4') HIGH TEMPORARY CONSTRUCTION FENCE. CLEARING CONTROL FENCES ALONG YETLANDS OR STREAM BUFFERS OR SENSITIVE SLOPES SHALL BE ACCOMPANIED BY TWO ROWS OF EROSION CONTROL FENCE. IF DETERMINED APPROPRIATE BY CITY OF SAMMAMISH A SIX-FOOT (6') HIGH CHAIN LINK FENCE MAY BE REQUIRED.
- IF SEDIMENT IS TRACKED OFFSITE, PUBLIC ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY, OR MORE FREQUENTLY DURING WET WEATHER, IF NECESSARY TO PREVENT SEDIMENT FROM ENTERING WATERS OF THE STATE. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR PICKUP SWEEPING AND SHALL BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING WILL BE CONTROLLED BY PUMPING BACK ONSITE, OR OTHERWISE BE PREVENTED FROM DISCHARGING INTO DRAINAGE SYSTEMS TRIBUTARY TO SURFACE WATERS.
- ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION. CATCH BASINS DIRECTLY DOWNSTREAM OF THE CONSTRUCTION ENTRANCE OR ANY OTHER CATCH BASIN AS DETERMINED BY THE PUBLIC WORKS CONSTRUCTION INSPECTOR SHALL BE PROTECTED WITH A FILTER FABRIC SOCK OR EQUIVALENT. AT NO TIME SHALL MORE SEDIMENT THAN ONE-THIRD (1/3) OF THE AVAILABLE STORAGE BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN INSERT. SEE SECTION D.2.1.5.3 OF THE 2016 KCSWDM APPENDIX D.
- THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION AS DETERMINED BY THE CITY OF SAMMAMISH PUBLIC WORKS CONSTRUCTION INSPECTOR. ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-HALF FOOT (0.5') DEPTH.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1' AND MUST MEET WSDOT SPECIFICATIONS 4"-8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; AND 1"-2" ROCK/10%-20% PASSING.
- FLUSHING CONCRETE BY-PRODUCTS OR TRUCKS NURD INTO THE STORM DRAINAGE SYSTEM SHALL NOT BE ALLOWED. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT MAY RESULT IN RE-INSPECTION AND RE-CLEANING THE ENTIRE AFFECTED DOWNSTREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINE.
- MAXIMUM RELEASE RATE FROM THE SITE AT ANY TIME DURING CONSTRUCTION AND DURING THE MAINTENANCE AND DEFECT PERIOD SHALL BE NO MORE THAN ONE-HALF OF THE 2-YEAR PEAK FLOW WHEN THE FLOW CONTROL STRUCTURE IS BYPASSED.
- DURING THE WET SEASON (OCTOBER 1 - APRIL 30) NOTES:
  - THE ALLOWED TIME THAT A DISTURBED AREA MAY REMAIN UNWORKED WITHOUT COVER MEASURES IS REDUCED TO TWO CONSECUTIVE WORKING DAYS, RATHER THAN SEVEN (SECTION D.2.1.2).
  - STOCKPILES AND STEEP CUT AND FILL SLOPES ARE TO BE PROTECTED IF UNWORKED FOR MORE THAN 12 HOURS (SECTION D.2.1.2).
  - COVER MATERIALS SUFFICIENT TO COVER ALL DISTURBED AREAS SHALL BE STOCKPILED ON SITE (SECTION D.2.1.2).
  - ALL AREAS THAT ARE TO BE UNWORKED DURING THE WET SEASON SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON (SECTION D.2.1.2.6).
  - MULCH IS REQUIRED TO PROTECT ALL SEEDED AREAS (SECTION D.2.1.2.2).
  - FIFTY LINEAR FEET OF SILT FENCE (AND THE NECESSARY STAKES) PER ACRE OF DISTURBANCE MUST BE STOCKPILED ON SITE (SECTION D.2.1.3.1).
  - CONSTRUCTION ROAD AND PARKING LOT STABILIZATION ARE REQUIRED FOR ALL SITES UNLESS THE SITE IS UNDERLAIN BY COARSE-GRAINED SOIL (SECTION D.2.1.4.2).
  - SEDIMENT RETENTION IS REQUIRED UNLESS NO OFFSITE DISCHARGE IS ANTICIPATED FOR THE

**SPECIFIED DESIGN FLOW (SECTION D.2.1.5).**

- SURFACE WATER CONTROLS ARE REQUIRED UNLESS NO OFFSITE DISCHARGE IS ANTICIPATED FOR THE SPECIFIED DESIGN FLOW (SECTION D.2.1.6).
  - PHASING AND MORE CONSERVATIVE BMPs MUST BE EVALUATED FOR CONSTRUCTION ACTIVITY NEAR SURFACE WATERS (SECTION D.2.4.3).
  - ANY RUNOFF GENERATED BY DEWATERING MAY BE REQUIRED TO DISCHARGE TO THE SANITARY SEWER (WITH APPROPRIATE DISCHARGE AUTHORIZATION), PORTABLE SAND FILTER SYSTEMS, OR HOLDING TANKS (SECTION D.2.2).
  - WHEN LOCATED WITHIN AN ENVIRONMENTALLY CRITICAL AREA, A WET SEASON PERMIT IS REQUIRED.
26. A DETAILED CONSTRUCTION SEQUENCE IS REQUIRED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A CONSTRUCTION SEQUENCE TEMPLATE IS PROVIDED BELOW, TO BE UPDATED TO SPECIFICALLY MATCH THE PROJECT:
- PRE-CONSTRUCTION MEETING.
  - POST SIGN WITH NAME AND PHONE NUMBER OF CSWPP/ESC SUPERVISOR.
  - FLAG OR FENCE CLEARING LIMITS.
  - INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
  - GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
  - INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
  - CONSTRUCT SEDIMENT PONDS AND TRAPS.
  - GRADE AND STABILIZE CONSTRUCTION ROADS.
  - CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
  - MAINTAIN EROSION CONTROL MEASURE IN ACCORDANCE WITH CITY PUBLIC WORKS STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
  - RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY ESC MINIMUM REQUIREMENTS.
  - COVER ALL AREAS WITHIN THE SPECIFIED TIME FRAME WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, CRUSHED ROCK OR EQUIVALENT.
  - STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN (7) DAYS.
  - NEED OR SOO ANY AREAS TO REMAIN UNWORKED FOR MORE THAN THIRTY (30) DAYS.
  - UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES (BMPs) REMOVED IF APPROPRIATE.

**BMP MAINTENANCE NOTES**

**STABILIZED CONSTRUCTION ENTRANCE:**

- QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
  - IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
  - ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ONSITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREETS, A SMALL SUMP MUST BE CONSTRUCTED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP WHERE IT CAN BE CONTROLLED. WASH WATER MUST BE PUMPED BACK ONTO THE SITE AND CAN NOT DISCHARGE TO SYSTEMS TRIBUTARY TO SURFACE WATERS.
  - ANY QUARRY SPALLS THAT ARE LOOSENEED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- MULCHING:**
- THE THICKNESS OF THE MULCH COVER MUST BE MAINTAINED.
  - ANY AREAS THAT EXPERIENCE EROSION SHALL BE RE-MULCHED AND/OR PROTECTED WITH A NET OR BLANKET. IF THE EROSION PROBLEM IS DRAINAGE RELATED, THEN THE DRAINAGE PROBLEM SHALL BE ASSESSED AND ALTERNATE DRAINAGE SUCH AS INTERCEPTOR SWALES MAY BE NEEDED TO FIX THE PROBLEM AND THE ERODED AREA RE-MULCHED.

**MARK CLEARING LIMITS:**

- FENCING SHALL BE INSPECTED REGULARLY AND REPAIRED OR REPLACED AS NEEDED.
- SILT FENCE:
  - ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
  - IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
  - IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
  - SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
  - IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

**STORM DRAIN INLET PROTECTION:**

- ANY ACCUMULATED SEDIMENT ON OR AROUND INLET PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON SITE OR HAULED OFF SITE.
- ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.
- REGULAR MAINTENANCE IS CRITICAL FOR ALL FORMS OF CATCH BASIN/INLET PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.

**INTERCEPTOR DIKES AND SWALES:**

- DAMAGE RESULTING FROM RUNOFF OR CONSTRUCTION ACTIVITY SHALL BE REPAIRED IMMEDIATELY.
- IF THE FACILITIES DO NOT REGULARLY RETAIN STORM RUNOFF, THE CAPACITY AND/OR FREQUENCY OF THE DIKES/SWALES SHALL BE INCREASED.

**JUTE MATTING**

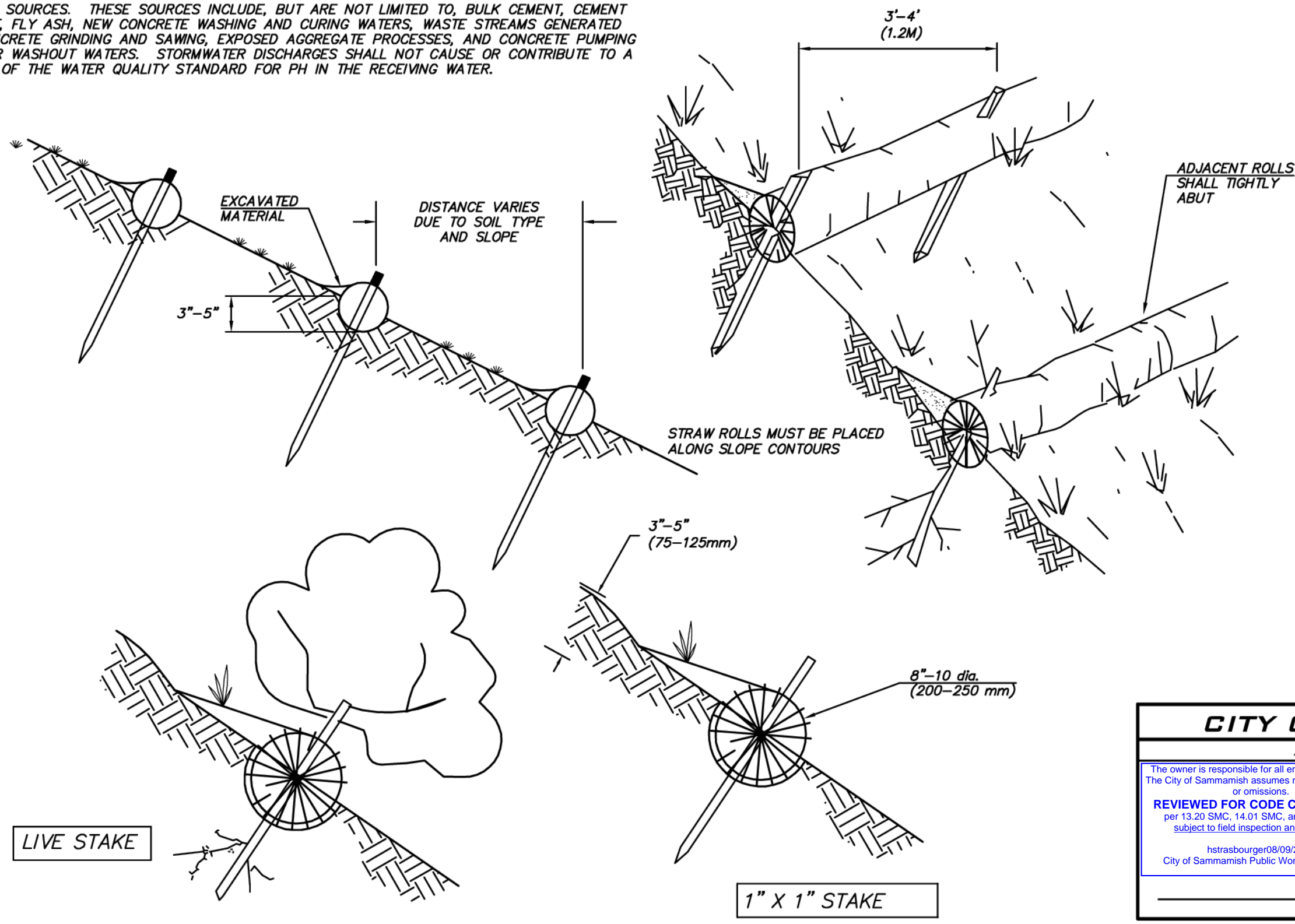
- GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND THERE MUST NOT BE EROSION BENEATH THE NET OR BLANKET.
- ANY AREAS OF THE NET OR BLANKET THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED.
- IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA PROTECTED.

**SEDIMENT TRAP**

- SEDIMENT SHALL BE REMOVED FROM THE TRAP WHEN IT REACHES 1 FOOT IN DEPTH.
- ANY DAMAGE TO THE TRAP EMBANKMENTS OR SLOPES SHALL BE REPAIRED.

**SWPPS PLAN NOTES**

- ALL POLLUTANTS, INCLUDING WASTE MATERIALS, THAT OCCUR ONSITE SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.
- COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND NON-INERT WASTES PRESENT ON THE SITE (SEE CHAPTER 173-304 WAC FOR THE DEFINITION OF INERT WASTE). ONSITE FUELING TANKS SHALL INCLUDE SECONDARY CONTAINMENT.
- MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. EMERGENCY REPAIRS MAY BE PERFORMED ONSITE USING TEMPORARY PLASTIC PLACED BENEATH AND, IF RAINING, OVER THE VEHICLE.
- APPLICATION OF AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, SHALL BE CONDUCTED IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO STORMWATER RUNOFF. MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION RATES AND PROCEDURES SHALL BE FOLLOWED.
- MEASURES SHALL BE USED TO PREVENT OR TREAT CONTAMINATION OF STORMWATER RUNOFF BY PH MODIFYING SOURCES. THESE SOURCES INCLUDE, BUT ARE NOT LIMITED TO, BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATERS, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED AGGREGATE PROCESSES, AND CONCRETE PUMPING AND MIXER WASHOUT WATERS. STORMWATER DISCHARGES SHALL NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE WATER QUALITY STANDARD FOR PH IN THE RECEIVING WATER.



**CITY OF SAMMAMISH**  
APPROVAL BLOCK

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.

**REVIEWED FOR CODE COMPLIANCE**  
per 19.30.030-14.01 SMC, and 16.15 SMC, subject to field inspection and correction.

hairsbourger09/09/2019  
City of Sammamish Public Works Department

**PLANNING DEPT. APPROVAL**  
By: ABaty  
DATE: 09/16/2019

ROW2019-03272

**UNDERGROUND UTILITY NOTE**

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

**NOTICE OF PROPOSED CONSTRUCTION ACTIVITY**

CITY OF SAMMAMISH  
801 228TH AVE SE  
SAMMAMISH, WA 98075  
425-295-0500

APPLICANT: TOLL BROTHERS, INC  
TYPE OF ACTION: SITE DEVELOPMENT PERMIT  
PROJECT NO: SDP 2018-06254  
DESCRIPTION: 35 LOT SUBDIVISION  
ESTIMATED COMPLETION DATE: 7/2020  
HOURS OF CONSTRUCTION: 7:00 AM TO 8:00 PM M-F  
9:00 AM TO 6:00 PM Saturday  
No work permitted on Sunday

CITY CONTACT: HAIM STRASBOURGER, PE, 425-295-0562  
DEVELOPER CONTACT: ERIC WEISENSTEIN, 908-892-2873  
TESC SUPERVISOR: AARON KOPET, 425-825-1955, EXT 124

AFTER HOURS FOR ENVIRONMENTAL OR SAFETY-RELATED EMERGENCIES: 911

- At a location 5 feet inside the street property line; a notice board structurally attached to an existing building shall be exempt from the setback provisions, provided that the notice board is located not more than 5 feet from the property line without approval from City staff.
- So that the top of the notice board is between 7 to 9 feet above grade.
- So that it is totally visible to pedestrians.

**Maintenance and Removal of Notice Board:**

The applicant/developer shall maintain the notice board in good condition throughout the site improvement construction period, which shall extend through the time of final construction approval by City. The notice board shall be removed within 14 days after final construction approval.



**Notice of Construction Activity Signs**

**Requirements**  
A Notice-of-Construction signboard is required for all formal subdivisions, grading permits subject to SEPA and Building permits subject to SEPA. The sign must be prepared and posted for any of these projects prior to the start of any work. The notice board shall be constructed and displayed to the specifications described below.

**Notice Board Construction Specifications:**

The notice board shall be constructed with 4' x 4' x 1/2" plywood, exterior grade, good surface one side. Professionally prepared plastic board overlays, permanently affixed to the board are permissible. The notice board shall display the information as shown in the figure and as specified at the pre-construction meeting. Notice boards may be reused, but they must be clean and show no evidence of former wording.

- Lettering style: Helvetica or similar typeface
- Lettering size: Title should be 3" capital letters (NOTICE OF PROPOSED CONSTRUCTION ACTIVITY). Other letters should be 1.5" letters and the "Emergency" text and phone may be 1" letters. The size of the City logo shall fit the available space as shown. Border area and lines of text shall be evenly spaced to approximate the sample shown.
- Lettering: Black (permanent ink or silk-screen)
- Background Color: White
- Logo: City of Sammamish emblem, in black

The applicant/developer shall erect the notice board by solidly setting two 4" x 4" posts a minimum of 24 inches into the ground; or structurally attaching to an existing building. Post length shall be at least 7 feet above the ground. Two 2" x 4" diagonal braces should be nailed to the inside back of the posts and staked at the ground to provide stability against wind or soft soil conditions if posts are less than 24 inches into the ground. The notice board shall be attached to the posts with four lag bolts and washers (3/8" diameter and 3" long).

**Notice Board Location:**

- At the midpoint on the site street frontage or as otherwise directed by City staff to maximize visibility.

**STRAW WATTLES**  
NOT TO SCALE

**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425-216-4851 F: 425-216-4052  
WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDIETS, PE

PROJECT ENGINEER:  
BRETT K PUDIETS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACJ	REVISED PER CITY COMMENTS
3	8/5/19	RAB	REVISED PER CITY COMMENTS
			WALT PLANS MODIFIED TO MATCH STRUCTURAL

**TESC DETAILS & NOTES**  
**GARRIER 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON

**BRETT K. PUDIETS**  
REGISTERED PROFESSIONAL ENGINEER  
1975

8/5/19

JOB NUMBER:  
**15-111**

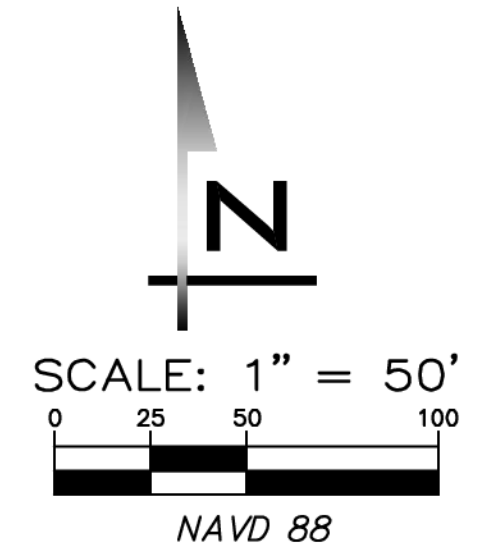
SHEET NAME:  
**TD-02**

SHT **8** OF **48**



25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUelineGROUP.COM

SCALE:  
AS NOTED  
PROJECT MANAGER:  
BRETT K PUDIETS, PE  
PROJECT ENGINEER:  
BRETT K PUDIETS, PE  
DESIGNER:  
AARON C LANCE  
ISSUE DATE:  
8/5/2019



### WALL LEGEND

FILL ROCKERY  
 CUT ROCKERY  
 REDI-ROCK WALL  
 SEGMENTAL BLOCK WALL

NOTES:

- WALLS > 4' EXPOSED HEIGHT REQUIRE SEPARATE BUILDING PERMIT AND ARE SHOWN FOR REFERENCE ONLY.
- REFER TO PLANS BY ROBINSON NOBLE FOR WALL DESIGN.
- CONNECT FOOTING DRAIN TO STUB PROVIDED MARKED (F).

NOTE: SIZE OF WALL SYMBOLS IS SCHEMATIC.

### TREE LEGEND

EXISTING TREE TO BE REMOVED  
 EXISTING IMPACTED TREE TO REMAIN IF POSSIBLE.  
 DRIP LINE  
 EXISTING TREE TO BE SAVED (INSIDE CRITICAL AREA)  
 EXISTING TREE TO BE SAVED (OUTSIDE CRITICAL AREA)  
 LOD (LIMITS OF DISTURBANCE)  
 EXISTING OFF-SITE TREE  
 EXISTING TREE IN POOR CONDITION  
 CLEARED AREA  
 LIMITS OF CLEARING  
 ACCEPTABLE TREE PROTECTION BARRIERS: (SEE DETAIL ON SHEET TR-01)  
 4' HIGH ORANGE CONSTRUCTION FENCE  
 ORANGE SILT FENCE

PUSH TOE OF WALL DOWN TO 387.0 TO ACCOMMODATE FUTURE SIDEWALK EXTENSION BY OTHERS. PLACE INTERIM 2:1 SLOPE IN FRONT OF WALL.

INTERIM 2:1 SLOPE IN FRONT OF WALL AT THIS LOCATION.  
If 3:1 slope not feasible, pedestrian protection will be necessary at temporary sidewalk end.

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	RAB	REVISED PER CITY COMMENTS
3	8/5/19	RAB	REVISED PER CITY COMMENTS

GRADING & WALL PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON

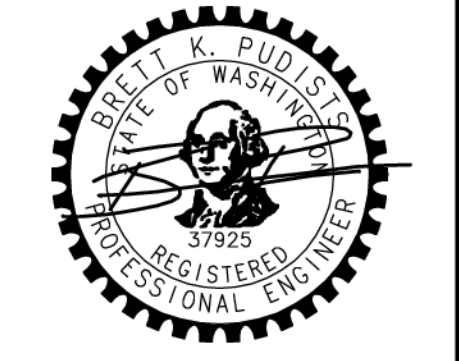
### CITY OF SAMMAMISH APPROVAL BLOCK

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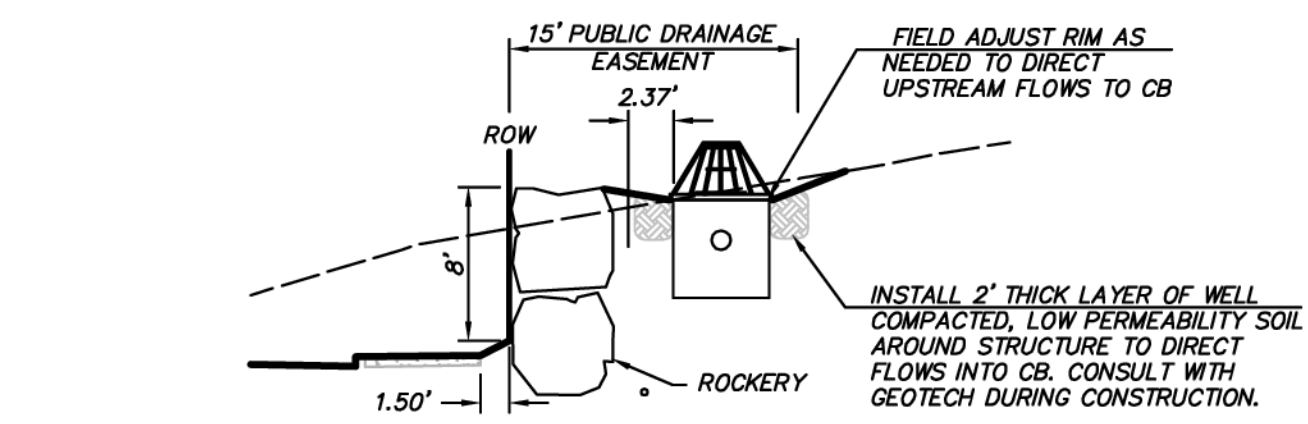
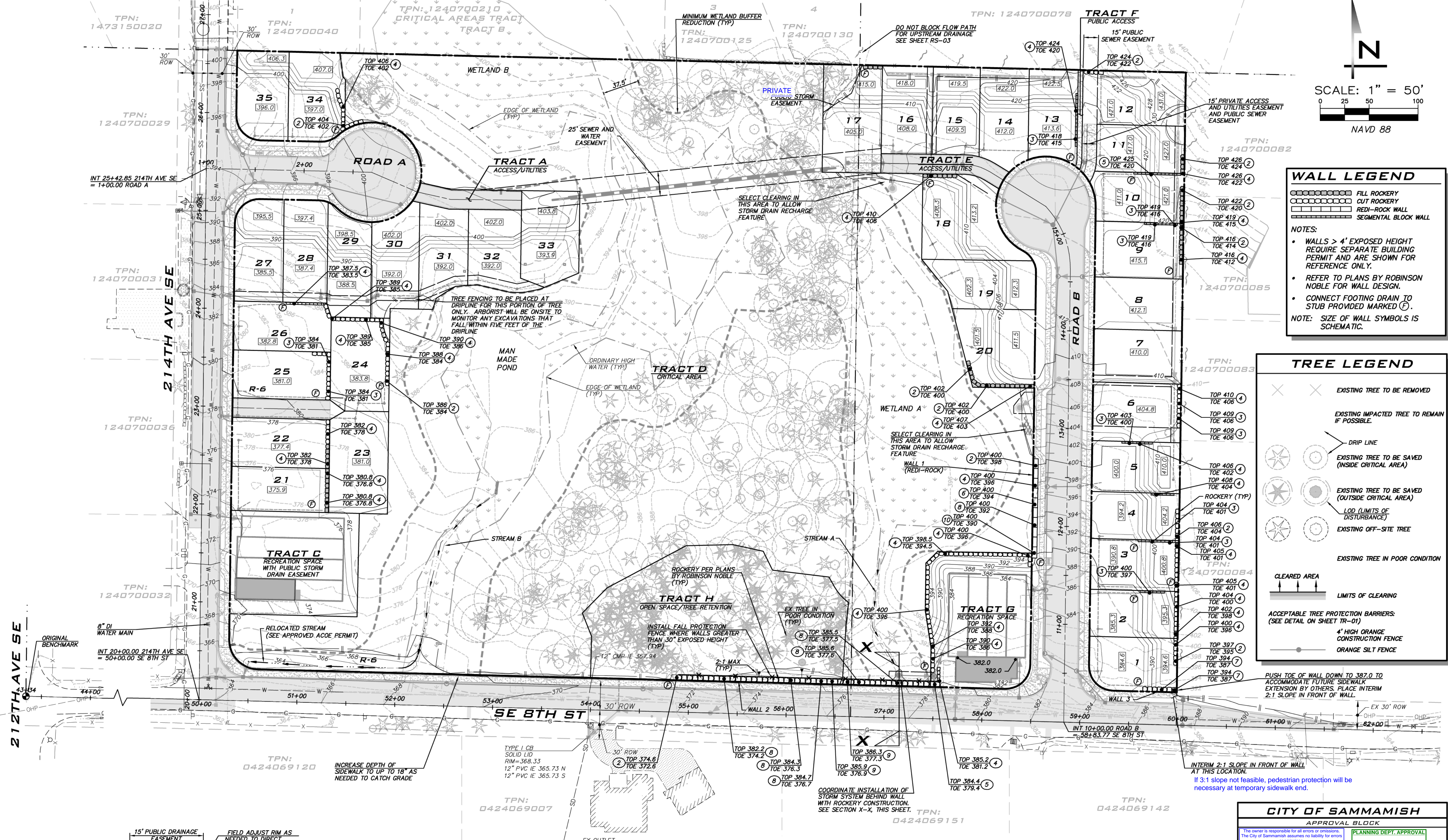
REVIEWED FOR CODE COMPLIANCE per 19.300 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.  
 htrabourge09/09/2019  
 City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
 BY: ABarty  
 DATE: 09/16/2019

APPROVED WITH MARKUPS  
ROW2019-03272



8/5/19  
JOB NUMBER:  
15-111  
SHEET NAME:  
GP-01  
SHT 9 OF 48



### TREE NOTES

SEE SHEETS TR-01 TO TR-02 AND LS-01 THROUGH LS-03 FOR TREE RELATED INFORMATION INCLUDING NOTES REGARDING REMOVAL OF SELECT TREES LOCATED BEHIND CLEARING LIMITS.

### WALL NOTES

- INSTALL FALL PROTECTION FENCE ALONG WALLS GREATER THAN 30" EXPOSED HEIGHT. FENCE TO BE 4" BLACK VINYL COATED CHAIN LINK FENCE PER WSDOT STD PLAN L-20.10-03 OR APPROVED EQUAL.
- CONNECT WALL DRAINS TO ADJACENT STORM SYSTEM.

### EARTHWORK QUANTITIES

\*CUT: 37,000 CY  
FILL: 7,650 CY

\* INCLUDES 6,950 CY OF CUT ASSOCIATED WITH VAULTS.  
QUANTITIES ARE APPROXIMATE AND SHALL NOT BE USED FOR CONTRACTUAL PURPOSES.

### SWPPP NOTE

THIS TESC PLAN AND THE SWPPP REPORT UNDER SEPARATE COVER COMPRISE THE SWPPP PLAN. THE TEMPORARY MEASURES INCLUDED IN THIS PLAN ARE CONSIDERED THE MINIMUM NECESSARY FOR CONSTRUCTION. ADDITIONAL BMP'S MAY BE NEEDED, AS DETERMINED BY THE SITE CESL. THE BMP'S SHOWN ON THIS PLAN MAY REQUIRE RELOCATION DURING CONSTRUCTION, AS DETERMINED BY THE SITE CESL.

### UNDERGROUND UTILITY NOTE

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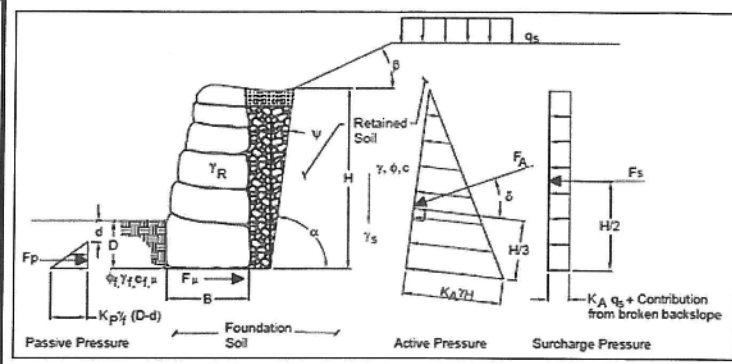
SECTION X-X  
SCALE: 1" = 10'



2006 Federal Highway Administration Rockery Design		Location
Project	Carrier Carlson Sammamish	Sta 54+88 to 57+56
Project Number	2906-002A	
Date	4/26/2019	
Designer/Reviewer	RWCM/RBP	

**Design Inputs**

Soil Unit Weight (pcf)	135
Retained soil	38
Rock Unit Weight (pcf)	150
Rockery Height (ft)	10
Base Rock width (ft)	3.5
Top Rock (ft)	2.5
$\beta$ , Backslope Angle	26.6
$\psi$ , Excavation Cut Angle	0
$\delta$ , Interface Angle	38
Surcharge (psf)	0
Allowable Bearing (psf)	6300
Friction factor	0.7



Note: Design intended for rockeries with face inclinations of 1H:6V

**Calculations**

$K_a$	0.34
$F_a$ (lb)	1810
$F_o$ (lb)	1414
$W$ (lb)	4675
$M_a$ (lb ft)	6034
$E$ (ft)	0.5
$Q_{max}$ (psf)	3084
$F_{jt}$ (lb)	4262
$M_t$ (lb)	13946



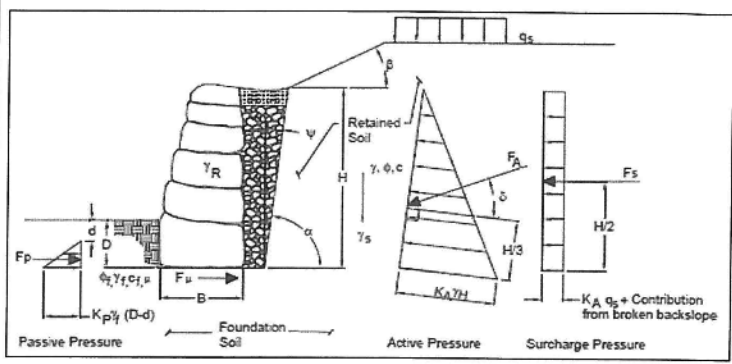
**Factors of Safety**

	Actual	Design
FS Sliding	2.4	1.5
FS Overturning	2.3	2.0
FS Bearing	2.0	2.0
Static Eccentricity Check	0.5	Less than B/6

2006 Federal Highway Administration Rockery Design		Location
Project	Carrier Carlson Sammamish	
Project Number	2906-002A	
Date	4/26/2019	
Designer/Reviewer	RWCM/RBP	

**Design Inputs**

Soil Unit Weight (pcf)	135
Retained soil	38
Rock Unit Weight (pcf)	150
Rockery Height (ft)	12
Base Rock width (ft)	4
Top Rock (ft)	3
$\beta$ , Backslope Angle	0
$\psi$ , Excavation Cut Angle	0
$\delta$ , Interface Angle	38
Surcharge (psf)	0
Allowable Bearing (psf)	6300
Friction factor	0.7



Note: Design intended for rockeries with face inclinations of 1H:6V

**Calculations**

$K_a$	0.23
$F_a$ (lb)	1725
$F_o$ (lb)	1348
$W$ (lb)	6500
$M_a$ (lb ft)	6899
$E$ (ft)	0.4
$Q_{max}$ (psf)	3101
$F_{jt}$ (lb)	5493
$M_t$ (lb)	19557



**Factors of Safety**

	Actual	Design
FS Sliding	3.2	1.5
FS Overturning	2.8	2.0
FS Bearing	2.0	2.0
Static Eccentricity Check	0.4	Less than B/6

**General:**

- The contractor shall have an approved set of plans and specifications on site at all times during the construction of the rockery. The rockery layout is the responsibility of the contractor.
- A professional engineer or representative should observe the construction of the rockery.
- Rockery facing shall be constructed in accordance with Associated Rockery Contractors (ARC) guidelines.
- Rockery rocks shall conform to the Rock Size Schedule. For rockery heights not shown on the schedule and shorter than 10 feet, rock sizes can be interpolated.

**Subgrade Preparation:**

- Strip topsoil and loose soil to expose medium dense native soil as approved by the geotechnical engineer.
- The excavation shall be cleaned of all excess material and protected as necessary from construction traffic to maintain the integrity of the subgrade.

**Drainage:**

- A drainage system shall be installed as shown. The drain shall tightline out from behind the low point of the rockery and connect to the storm drain system.

**External Stability:**

Minimum Factor of Safety against Base Sliding = 1.5  
Minimum Factor of Safety against Overturning = 2.0  
Minimum Factor of Safety against Bearing Capacity = 2.0

**Design Parameters:**

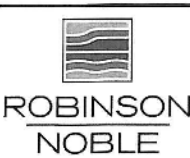
Retained Soil 38 deg;  $c = 0$  PSF; 135 PCF  
Foundation Soil 38 deg;  $c = 0$  PSF; 135 PCF  
Backslope of 2 Horizontal : 1 Vertical

**Inspection:**

Construction shall be periodically inspected under direction of an engineer registered in the State of Washington with experience in the design of reinforced earth retaining walls.

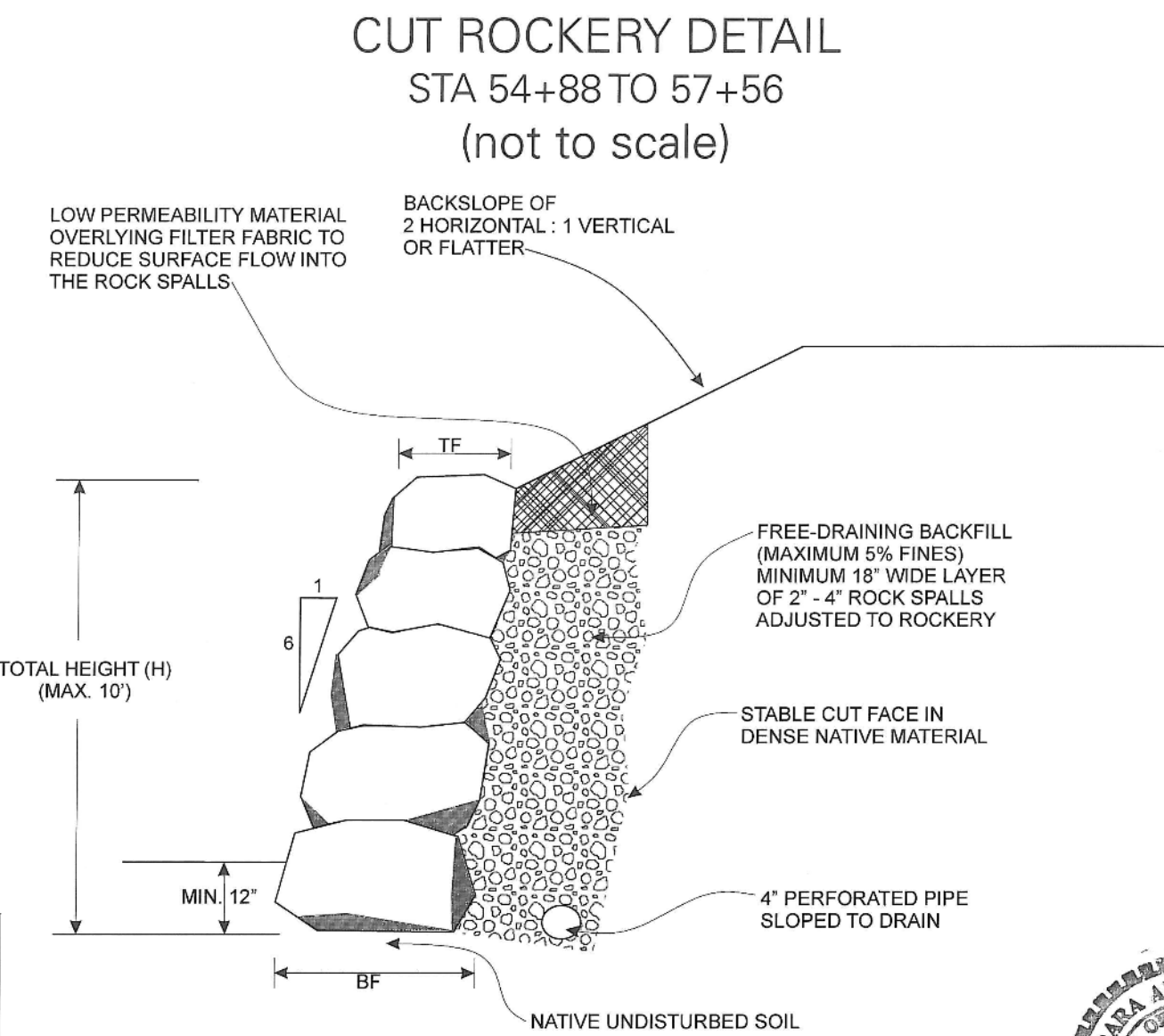
**ROCK SIZE SCHEDULE**

Height (ft)	Base Rock (BF) (ft)	Top Rock (TF) (ft)	Allowable Bearing Capacity (psf)
4	2.0	1.0	1,400
6	2.0	1.5	4,100
8	3.0	2.0	4,400
10	3.5	2.5	6,300



PM: RBP  
April 2019  
2906-002A

Sheet 2  
Cut Rockery Detail  
Toll Brothers, Inc: Carrier Carlson Plat



**General:**

- The contractor shall have an approved set of plans and specifications on site at all times during the construction of the wall. The rockery layout is the responsibility of the contractor.
- A professional engineer or representative should observe the construction of the rockery.
- Rockery facing shall be constructed in accordance with Associated Rockery Contractors (ARC) guidelines.
- All footings shall be set back from the front edge of the rockery a distance of at least 5 feet.
- The rockery should extend below a 3H:1V inclination from the exposed toe face.
- Rockery rocks shall conform to the Rock Size Schedule. For rockery heights not shown on the schedule and shorter than 12 feet, rock sizes can be interpolated.

**Subgrade Preparation:**

- Strip topsoil and loose soil to expose medium dense native soil as approved by the geotechnical engineer.
- The excavation shall be cleaned of all excess material and protected as necessary from construction traffic to maintain the integrity of the subgrade.

**Drainage:**

- A drainage system shall be installed as shown. The drain shall tightline out from behind the low point of the rockery and connect into the storm drain system.

**External Stability:**

Minimum Factor of Safety against Base Sliding = 1.5  
Minimum Factor of Safety against Overturning = 2.0  
Minimum Factor of Safety against Bearing Capacity = 2.0

**Design Parameters:**

Height (ft)	Soil Parameters
4	$\Phi = 32^\circ$ ; $c = 0$ psf; $\gamma = 132$ pcf
6	$\Phi = 34^\circ$ ; $c = 0$ psf; $\gamma = 132$ pcf
8 to 12	$\Phi = 38^\circ$ ; $c = 0$ psf; $\gamma = 135$ pcf

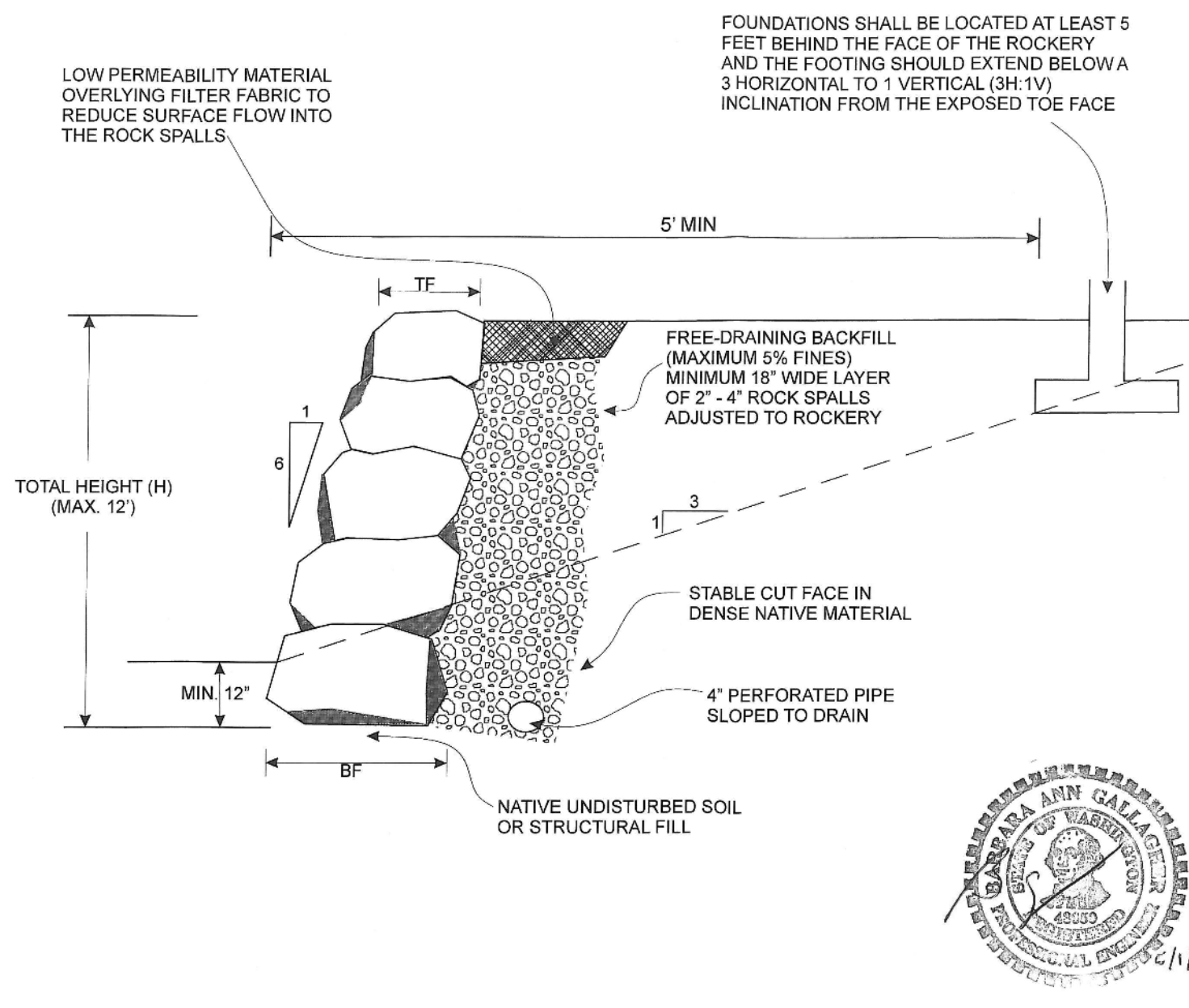
**Inspection:**

Construction shall be periodically inspected under direction of an engineer registered in the State of Washington with experience in the design of reinforced earth retaining walls.

**ROCK SIZE SCHEDULE**

Height (ft)	Base Rock (BF) (ft)	Top Rock (TF) (ft)	Allowable Bearing Capacity (psf)
4	2.0	1.0	1,300
6	2.3	1.5	2,900
8	2.8	2.0	3,900
10	3.3	2.5	5,400
12	4.0	3.0	6,300

**CUT ROCKERY DETAIL (not to scale)**



Sheet 3

Cut Rockery Detail  
Toll Brothers, Inc: Carrier-Carlson Plat

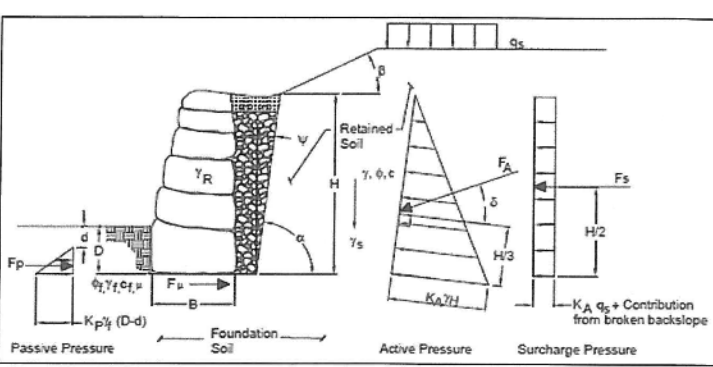


PM: RBP  
April 2019  
2906-002A

2006 Federal Highway Administration Rockery Design		Location
Project	Carrier Carlson Sammamish	
Project Number	2906-002A	
Date	4/29/2019	
Designer/Reviewer	RWCM/RBP	

**Design Inputs**

Soil Unit Weight (pcf)	130
Retained soil	30
Rock Unit Weight (pcf)	150
Rockery Height (ft)	5
Base Rock width (ft)	2.5
Top Rock (ft)	1.5
$\beta$ , Backslope Angle	0
$\psi$ , Excavation Cut Angle	0
$\delta$ , Interface Angle	30
Surcharge (psf)	0
Allowable Bearing (psf)	1900
Friction factor	0.7



Note: Design intended for rockeries with face inclinations of 1H:6V

**Calculations**

$K_a$	0.30
$F_a$ (lb)	418
$F_o$ (lb)	241
$W$ (lb)	1625
$M_a$ (lb ft)	697
$E$ (ft)	0.1
$Q_{max}$ (psf)	906
$F_{jt}$ (lb)	1307
$M_t$ (lb)	2864



**Factors of Safety**

	Actual	Design
FS Sliding	3.1	1.5
FS Overturning	4.1	2.0
FS Bearing	2.1	2.0
Static Eccentricity Check	0.1	Less than B/6

**ROCKERY DETAIL NOTE**

ROCKERY DETAILS WERE PREPARED BY ROBINSON NOBLE AND HAVE BEEN PROVIDED FOR REFERENCE. BLUELINE IS NOT RESPONSIBLE FOR DESIGN.

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.

REVIEWED FOR CODE COMPLIANCE per 19.301 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 05/16/2019

hairsbourge09/09/2019  
City of Sammamish Public Works Department

**UNDERGROUND UTILITY NOTE**

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**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDISTIS, PE

PROJECT ENGINEER:  
BRETT K PUDISTIS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RMB	REVISED PER CITY COMMENTS

ROCKERY DETAILS  
(BY GEOTECH)

CARRIER SE 8TH SUBDIVISION  
ROAD & STORM PLANS

CITY OF SAMMAMISH  
WASHINGTON



8/5/19

JOB NUMBER:  
15-111

SHEET NAME:  
GD-01

SHT 10 OF 48



**SPECIFICATIONS FOR ROCKERY**

**General:**

- The contractor shall have an approved set of plans and specifications on site at all times during the construction of the rockery. The rockery layout is the responsibility of the contractor.
- A professional engineer or representative should observe the construction of the rockery.
- Rockery facing shall be constructed in accordance with Associated Rockery Contractors (ARC) guidelines.
- All footings shall be set back from the front edge of the rockery a distance of at least 5 feet.
- The rockery should extend below a 3H:1V inclination from the exposed toe face.
- Rockery rocks shall conform to the Rock Size Schedule. For heights not shown on the schedule and shorter than 5 feet, rock sizes can be interpolated.

**Subgrade Preparation:**

- Strip topsoil and loose soil to expose medium dense native soil as approved by the geotechnical engineer.
- The excavation shall be cleaned of all excess material and protected as necessary from construction traffic to maintain the integrity of the subgrade.

**Fill Placement:**

- The structural fill immediately behind the rockery should consist of 2 to 4 inch rock spalls.
- Fill soils behind the rock spalls should be compacted to at least 95 percent of the maximum dry density (MDD) as determined by ASTM D 1557.

**Drainage:**

- A drainage system shall be installed as shown in the detail. The drain shall tightline out from behind the rockery at the low point and connect into the storm drain system.

**External Stability:**

Minimum Factor of Safety against Base Sliding = 1.5  
 Minimum Factor of Safety against Overturning = 2.0  
 Minimum Factor of Safety against Bearing Capacity = 2.0

**Design Parameters:**

Retained Backfill:  $\phi = 30$  deg;  $c = 0$  PSF;  $\gamma = 130$  PCF  
 Foundation Soil:  $\phi = 30$  deg;  $c = 0$  PSF;  $\gamma = 130$  PCF

**Inspection:**

Construction shall be periodically inspected under direction of an engineer registered in the State of Washington with experience in the design of reinforced earth retaining walls.

**Rock Size Schedule**

Height (H) (ft)	Base Rock (BF) (ft)	Top Rock (TF) (ft)	Allowable Bearing Capacity (psf)
4	2.0	1.5	1,700
5	2.5	1.5	1,900

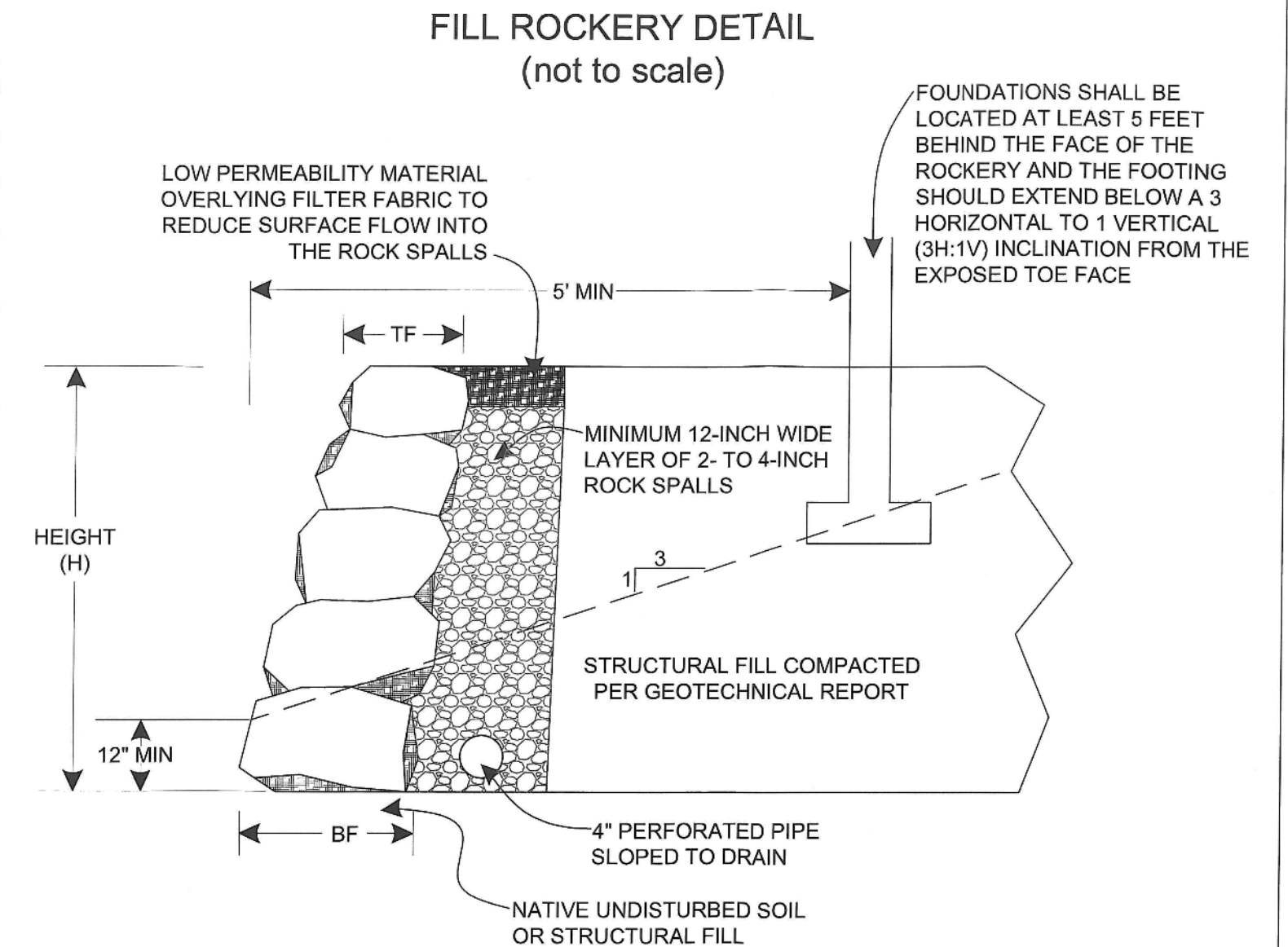


Note: P.M. RBP  
 April 2019  
 2806-002A



Sheet 1

Fill Rockery Detail  
 Toll Brothers, Inc. Carrier-Carlson Plat



**ROCKERY DETAIL NOTE**

ROCKERY DETAILS WERE PREPARED BY ROBINSON NOBLE AND HAVE BEEN PROVIDED FOR REFERENCE. BLUELINE IS NOT RESPONSIBLE FOR DESIGN.

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
 htrabourge08/09/2019  
 City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
 BY: ABaty  
 DATE: 08/16/2019

**UNDERGROUND UTILITY NOTE**

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25 CENTRAL WAY, SUITE 400,  
 KIRKLAND, WA 98033  
 P: 425.216.4051 F: 425.216.4052  
 WWW.THEBLUELINEGROUP.COM

SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDIISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDIISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

ROCKERY DETAILS  
 (BY GEOTECH)  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON

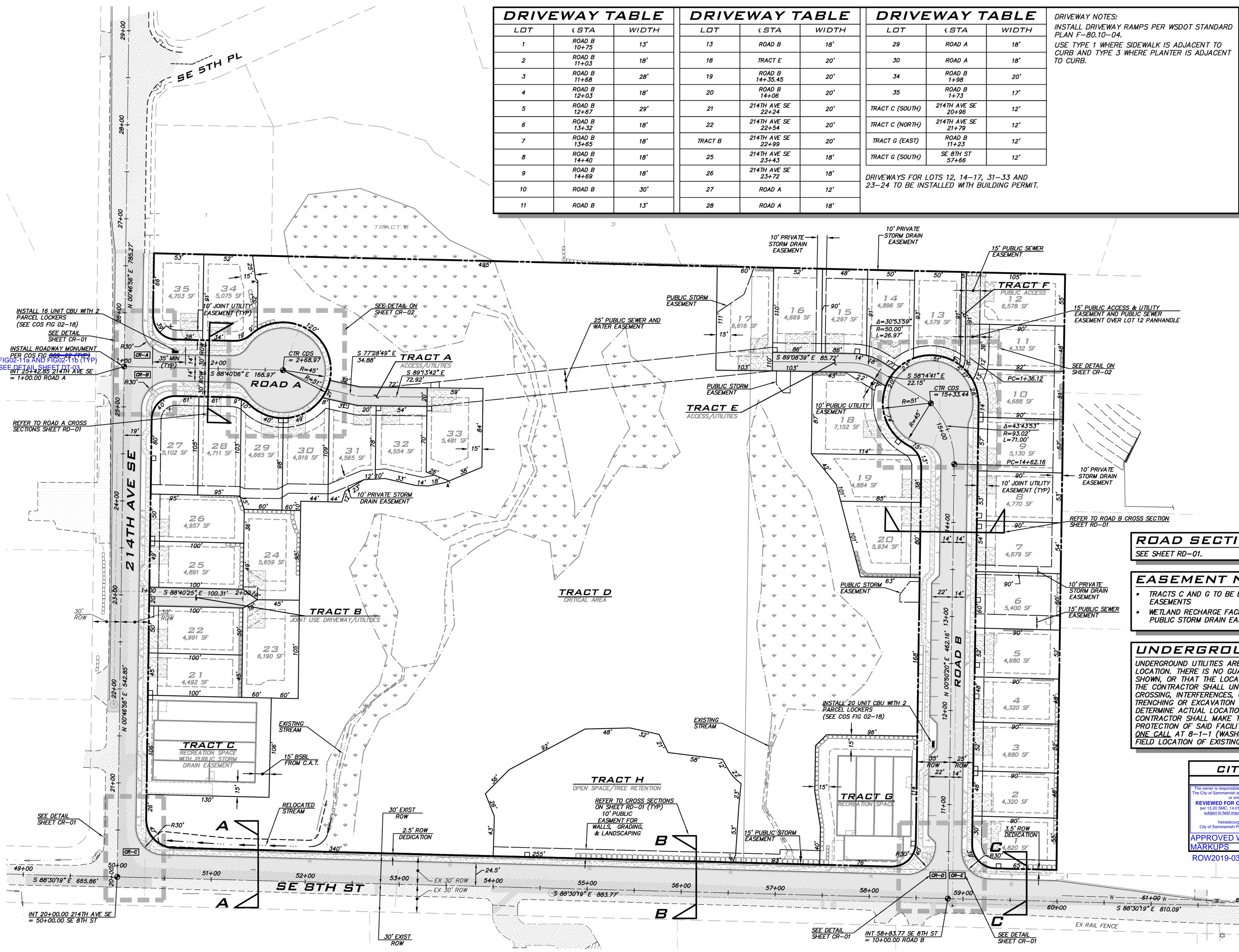
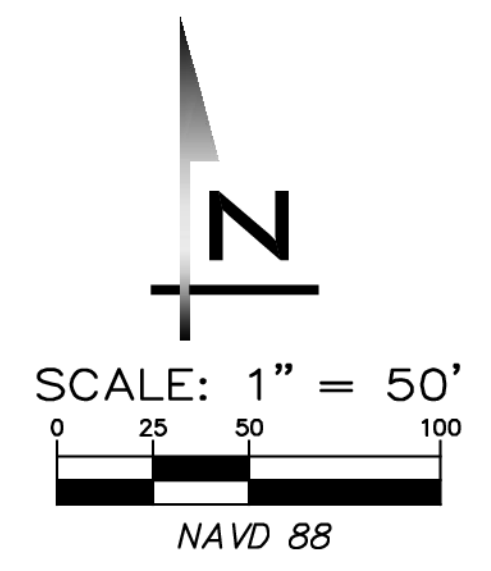


8/5/19  
 JOB NUMBER:  
 15-111  
 SHEET NAME:  
 GD-02  
 SHT 11 OF 48



DRIVEWAY TABLE			DRIVEWAY TABLE			DRIVEWAY TABLE		
LOT	€ STA	WIDTH	LOT	€ STA	WIDTH	LOT	€ STA	WIDTH
1	ROAD B 10+75	13'	13	ROAD B	18'	29	ROAD A	18'
2	ROAD B 11+03	18'	18	TRACT E	20'	30	ROAD A	18'
3	ROAD B 11+88	28'	19	ROAD B 14+35.45	20'	34	ROAD B 1+98	20'
4	ROAD B 12+03	18'	20	ROAD B 14+06	20'	35	ROAD B 1+73	17'
5	ROAD B 12+87	29'	21	214TH AVE SE 22+24	20'	TRACT C (SOUTH)	214TH AVE SE 20+96	12'
6	ROAD B 13+32	18'	22	214TH AVE SE 22+54	20'	TRACT C (NORTH)	214TH AVE SE 21+79	12'
7	ROAD B 13+85	18'	TRACT B	214TH AVE SE 22+99	20'	TRACT G (EAST)	ROAD B 11+23	12'
8	ROAD B 14+40	18'	25	214TH AVE SE 23+43	18'	TRACT G (SOUTH)	SE 8TH ST 57+66	12'
9	ROAD B 14+69	18'	26	214TH AVE SE 23+72	18'	DRIVEWAYS FOR LOTS 12, 14-17, 31-33 AND 23-24 TO BE INSTALLED WITH BUILDING PERMIT.		
10	ROAD B	30'	27	ROAD A	12'			
11	ROAD B	13'	28	ROAD A	18'			

DRIVEWAY NOTES:  
 INSTALL DRIVEWAY RAMPS PER WSDOT STANDARD PLAN F-80.10-04.  
 USE TYPE 1 WHERE SIDEWALK IS ADJACENT TO CURB AND TYPE 3 WHERE PLANTER IS ADJACENT TO CURB.



**ROAD SECTIONS**  
 SEE SHEET RD-01.

**EASEMENT NOTES**

- TRACTS C AND G TO BE ENCUMBERED BY PUBLIC STORM DRAIN EASEMENTS
- WETLAND RECHARGE FACILITIES IN TRACT D TO BE PLACED IN PUBLIC STORM DRAIN EASEMENTS.

**UNDERGROUND UTILITY NOTE**

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**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.300 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and connection.

PLANNING DEPT. APPROVAL  
 BY: ABarty  
 DATE: 08/16/2019

APPROVED WITH MARKUPS  
 ROW2019-03272

**BLUELINE**

25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
 P: 425.216.4051 F: 425.216.4052  
 WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
 PROJECT MANAGER: BRETT K PUDISTIS, PE  
 PROJECT ENGINEER: BRETT K PUDISTIS, PE  
 DESIGNER: AARON C LANCE  
 ISSUE DATE: 8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RMB	REVISED PER CITY COMMENTS

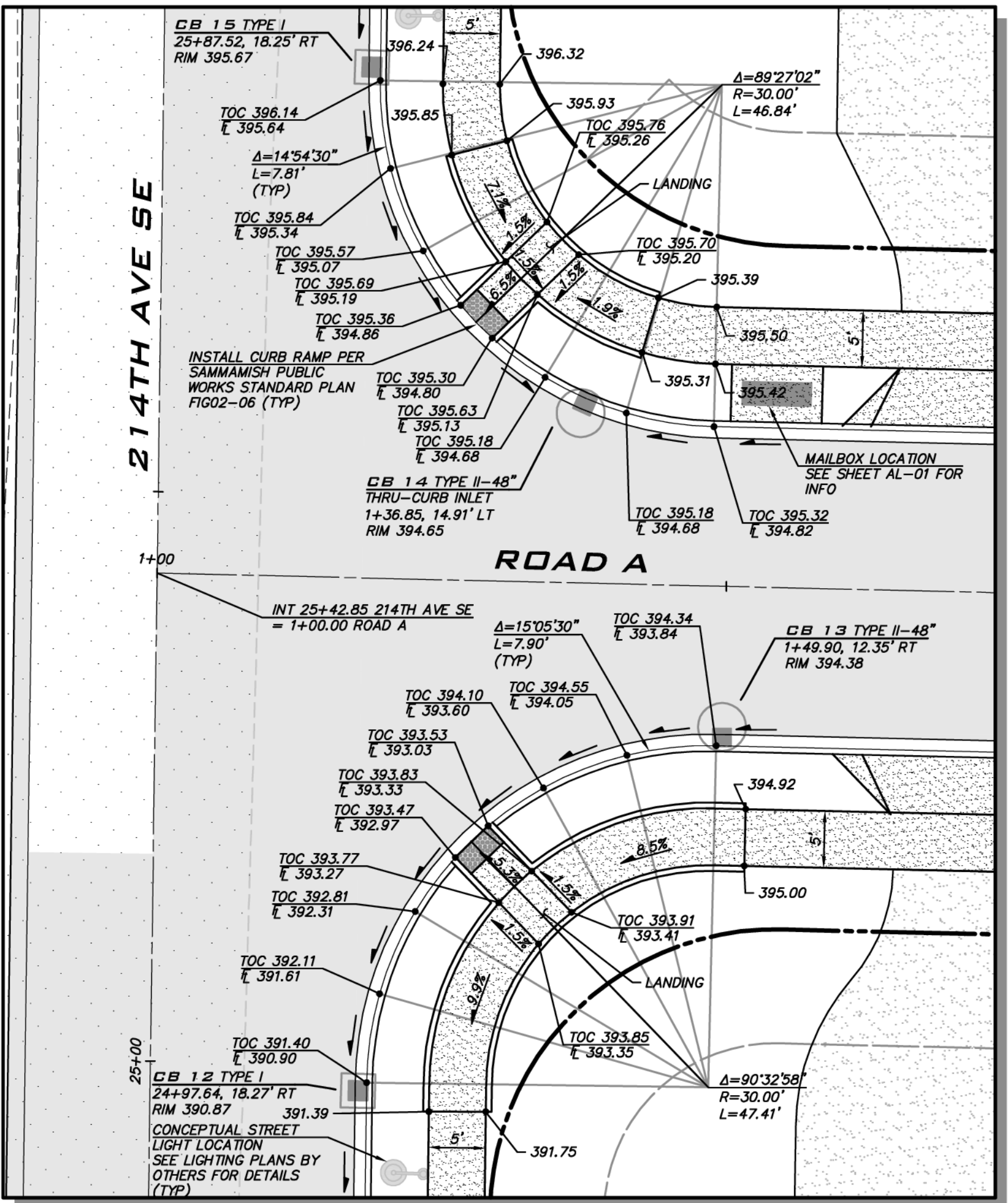
ALIGNMENT & MAILBOX PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON

8/5/19  
 JOB NUMBER: 15-111  
 SHEET NAME: AL-01  
 SHT 12 OF 48

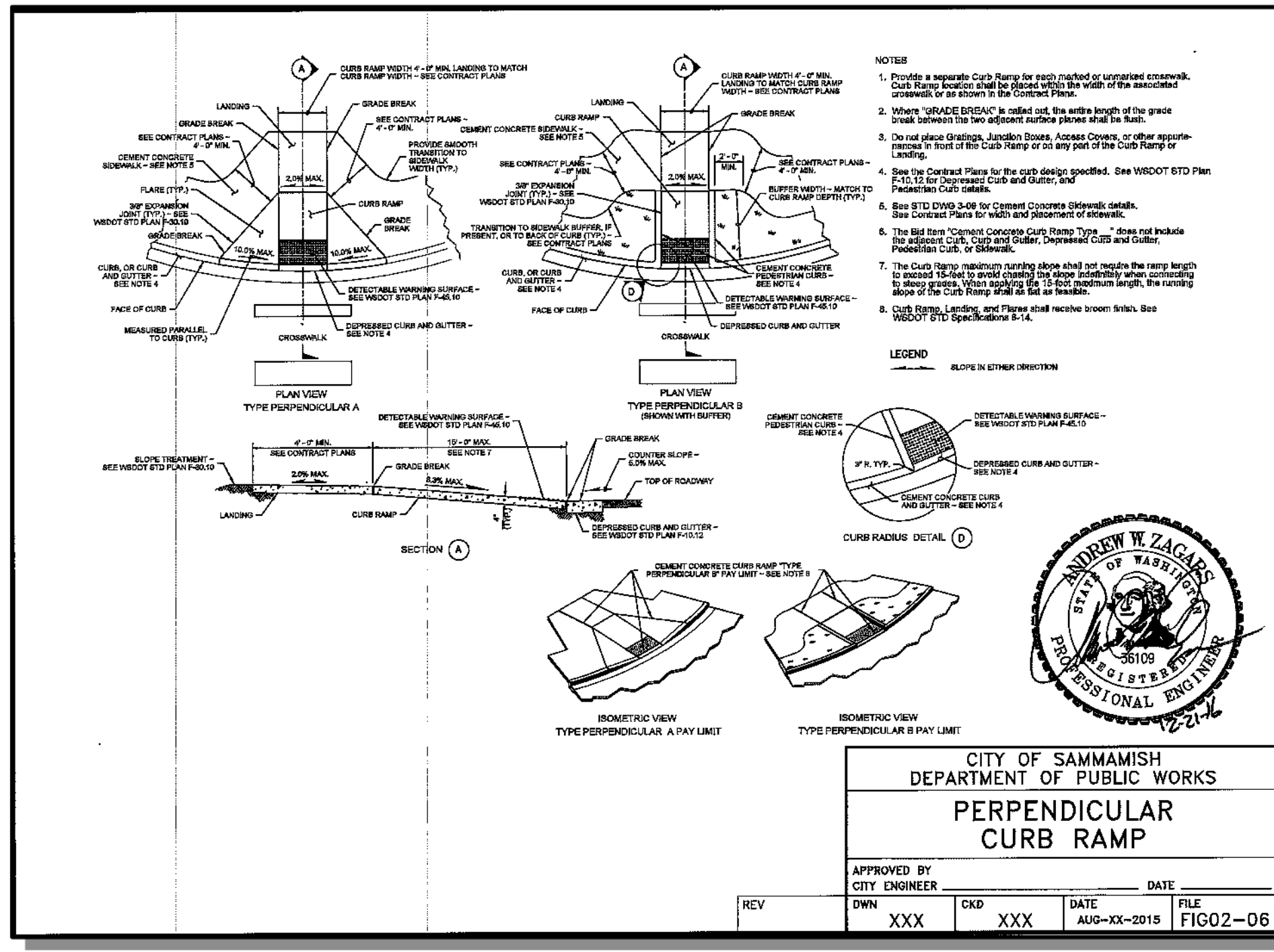
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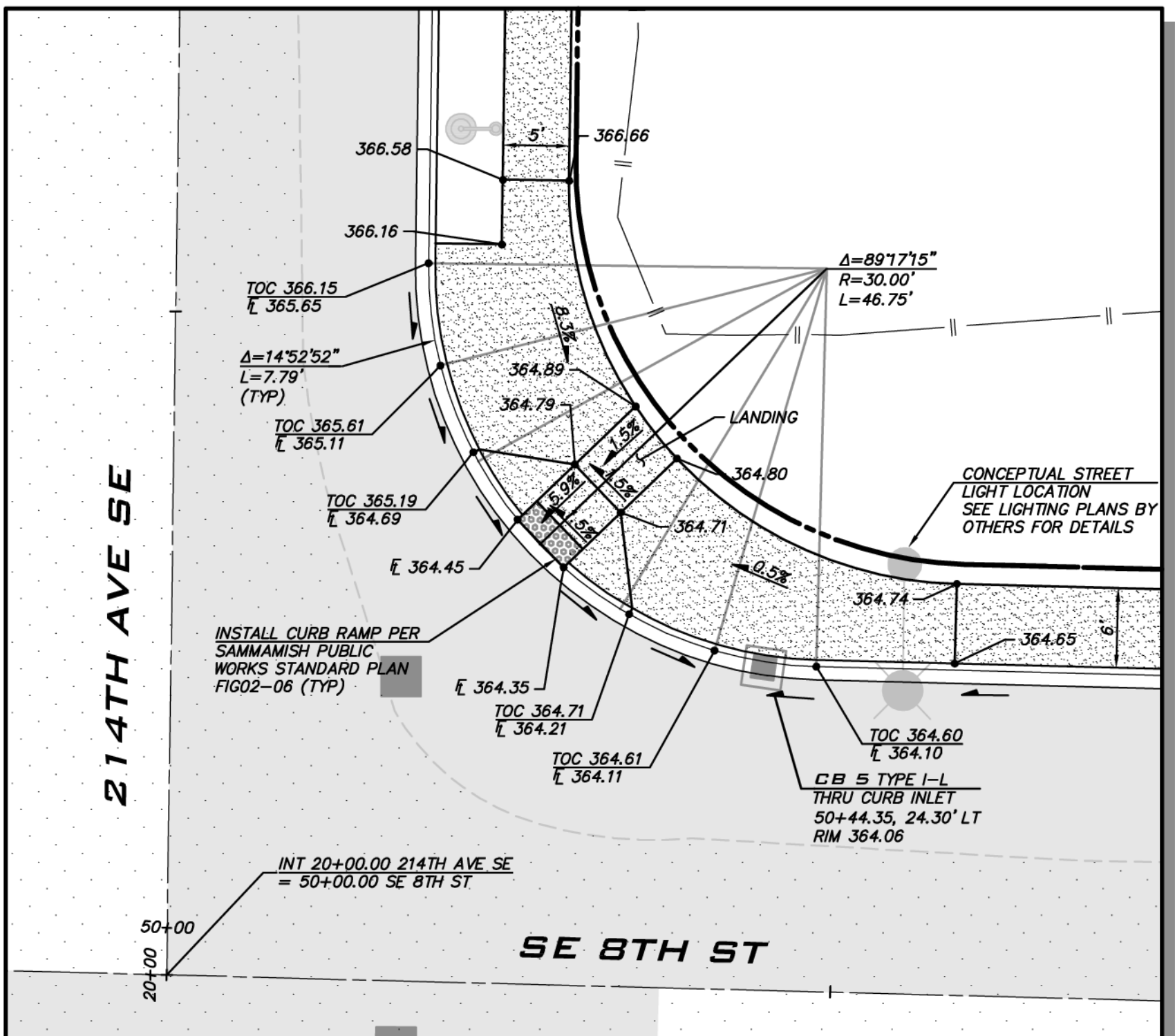
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 AS NOTED  
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 PROJECT ENGINEER:  
 BRETT K PUDIUS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019



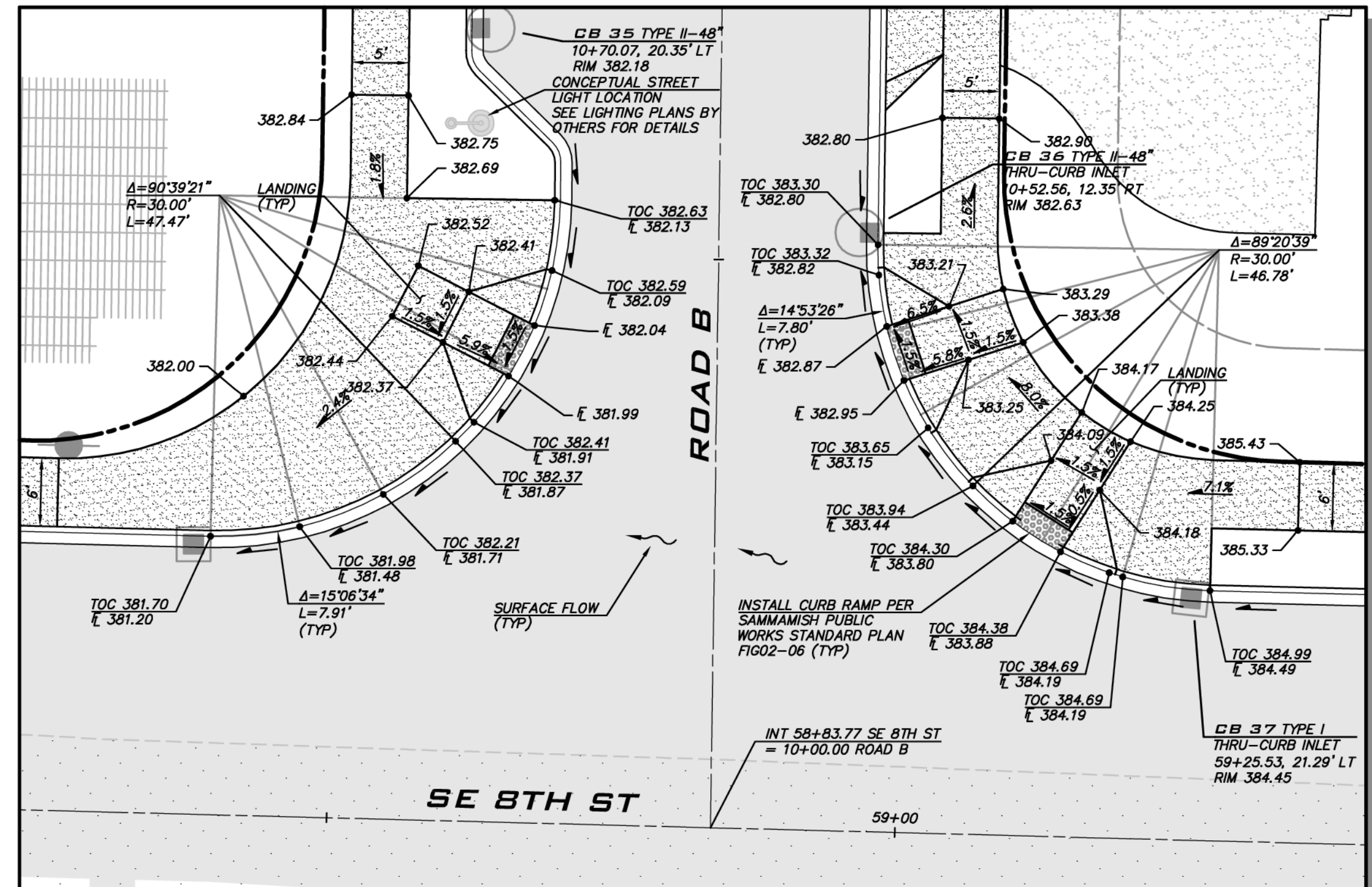
**CR-A & CR-B DETAIL**  
 SCALE: 1"=10'



CITY OF SAMMAMISH  
 DEPARTMENT OF PUBLIC WORKS  
**PERPENDICULAR CURB RAMP**  
 APPROVED BY:  
 CITY ENGINEER  
 DATE: \_\_\_\_\_  
 REV: \_\_\_\_\_  
 DWN: XXX CKD: XXX DATE: AUG-XX-2019 FILE: FIG02-06



**CR-C DETAIL**  
 SCALE: 1"=10'



**CR-D AND CR-E DETAIL**  
 SCALE: 1"=10'

- ADA RAMP NOTES**
1. THE ADA RAMP DEPICTED ON THESE APPROVED PLANS WERE DESIGNED USING THE BEST AVAILABLE INFORMATION. THE CONTRACTOR IS REQUIRED TO USE THE BEST STANDARD OF CARE TO ENSURE THAT THESE RAMP ARE INSTALLED PER THE APPROVED PLANS AND/OR PER ACCEPTABLE ADA STANDARDS. ANY VARIATIONS IN THE INSTALLATION OF THE ADA RAMP FROM THE APPROVED PLANS THAT DOES NOT COMPLY WITH ADA STANDARDS SHOULD BE BROUGHT TO THE DESIGN ENGINEER'S ATTENTION IMMEDIATELY.
  2. THE ADA RAMP ARE DESIGNED TO MEET ADA STANDARDS IN PLACE AT THE TIME OF PROJECT VESTING. ANY VARIATION FROM THIS APPROVED DESIGN DURING CONSTRUCTION COULD RESULT IN ADA RAMP THAT DO NOT COMPLY WITH THESE ADA STANDARDS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT AS-BUILT CONDITIONS MEET THE PLAN DESIGN AND/OR ADA STANDARDS.
  3. LANDINGS DESIGNED TO BE 5'x5' MIN AND SLOPED TO NOT EXCEED 2% IN ANY DIRECTION.

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
 hsharbour@09/09/2019  
 City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
 BY: ABarty  
 DATE: 08/16/2019

ROW2019-03272

**UNDERGROUND UTILITY NOTE**

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CURB RAMP DETAILS  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH  
 WASHINGTON



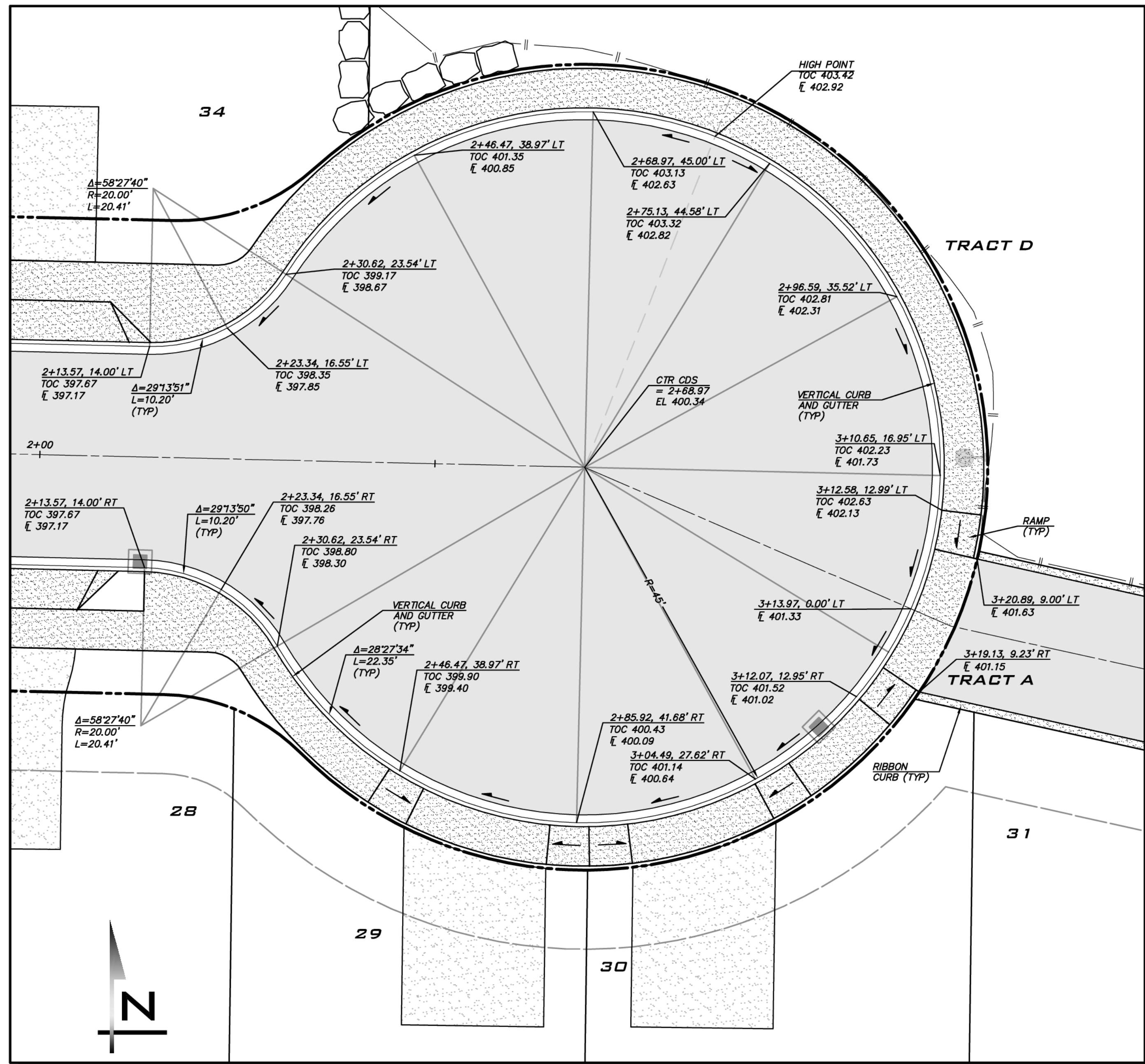
8/5/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**CR-01**  
 SHT 13 OF 48



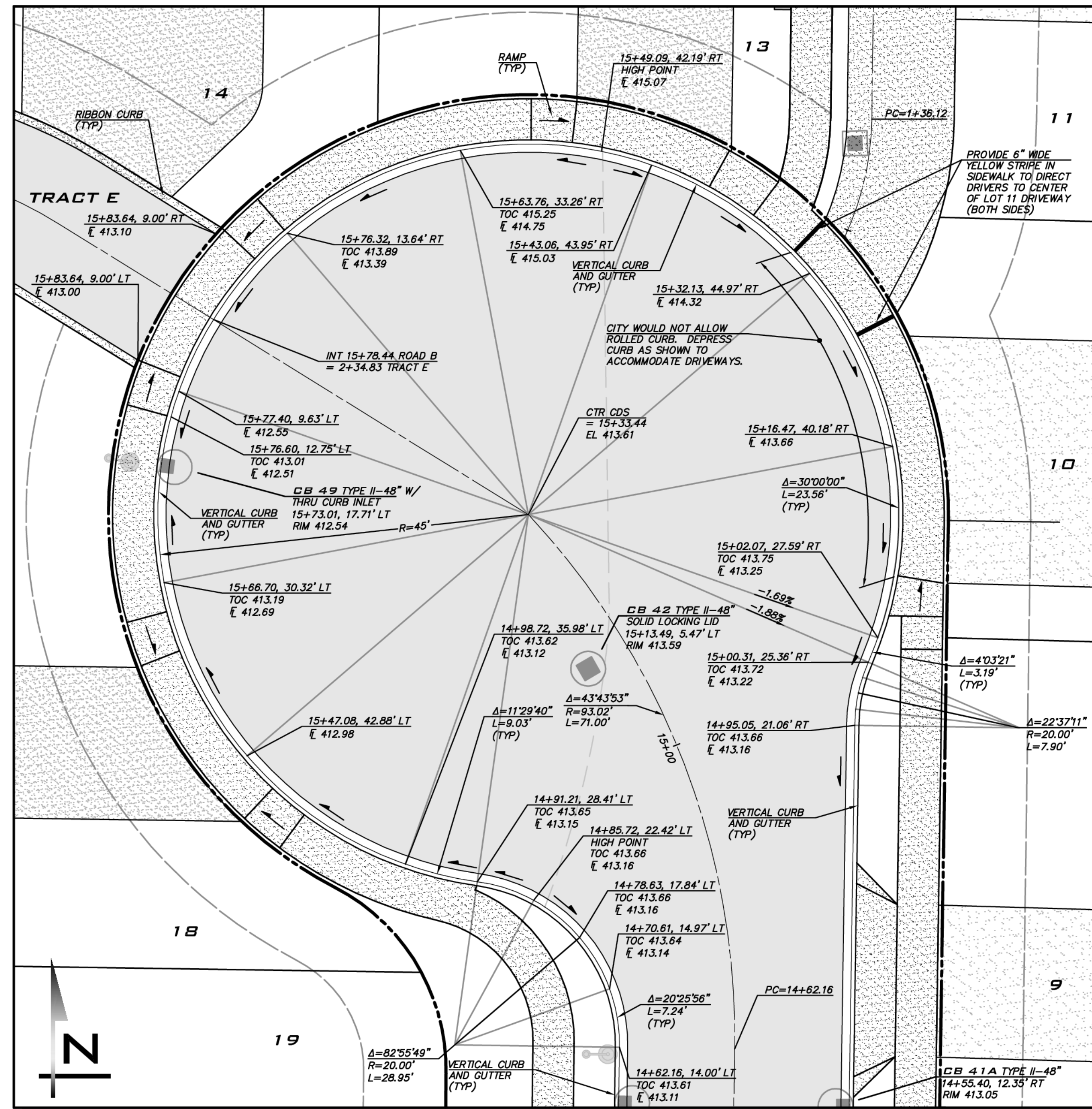
SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019

NO	DATE	BY	REVISIONS
1	7/30/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS
3	8/5/19	RMB	REVISED PER CITY COMMENTS

**CUL-DE-SAC DETAILS**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON



**CUL-DE-SAC ROAD A DETAIL**  
 SCALE: 1"=10'



**CUL-DE-SAC ROAD B DETAIL**  
 SCALE: 1"=10'

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

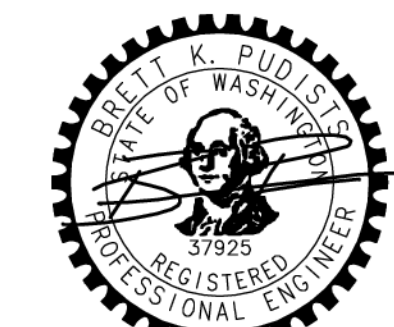
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 per 13.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
 haisbourge08/09/2019  
 City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
 BY: ABaty  
 DATE: 08/16/2019

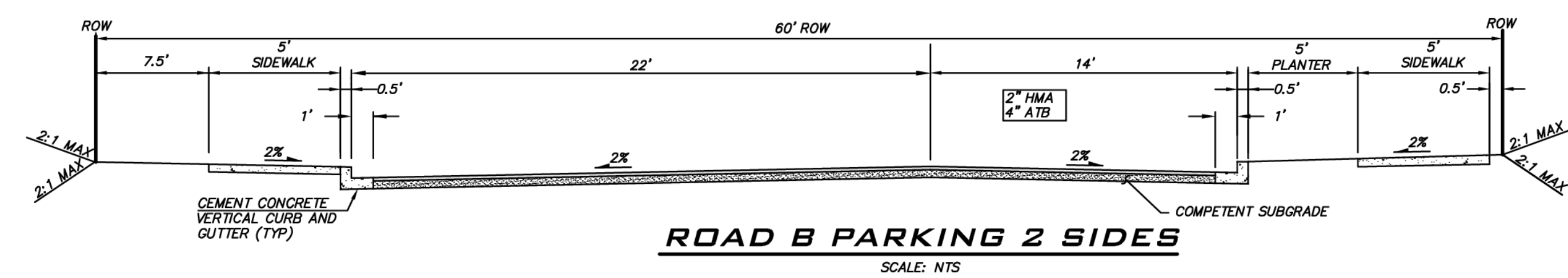
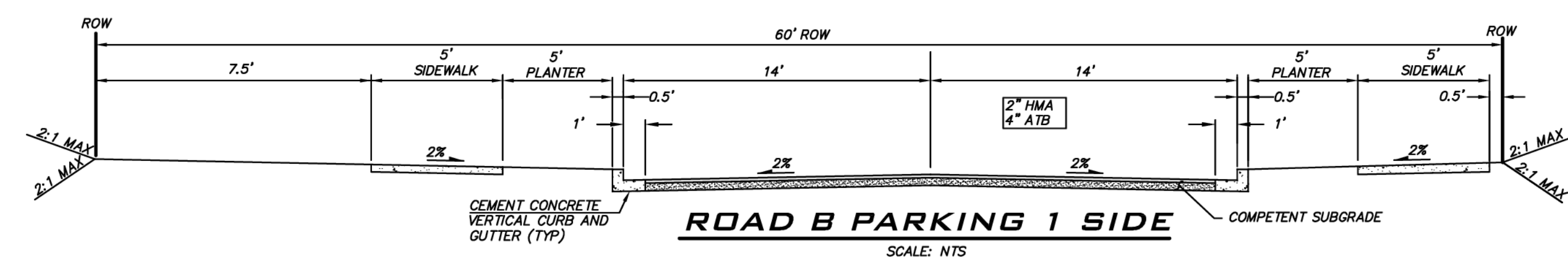
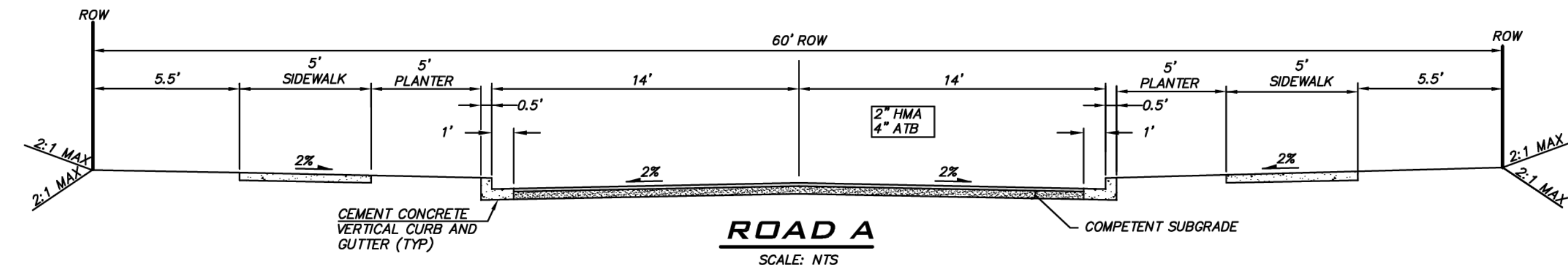
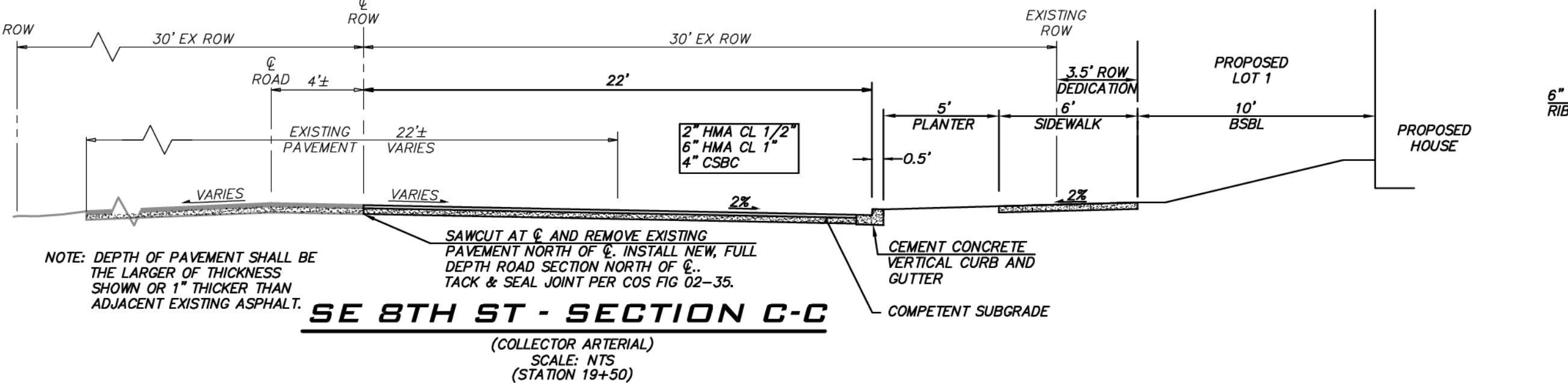
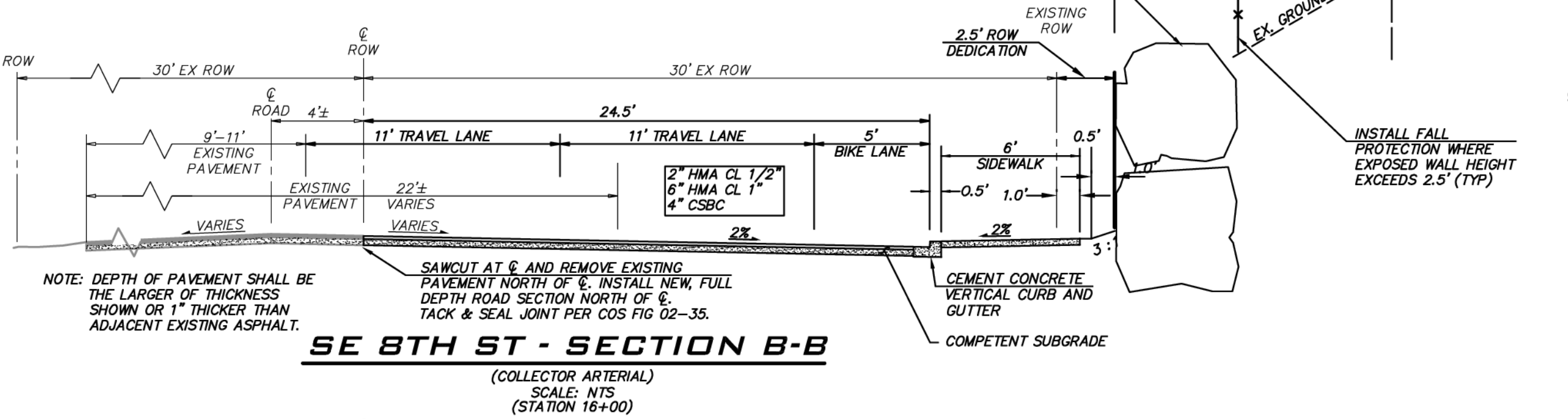
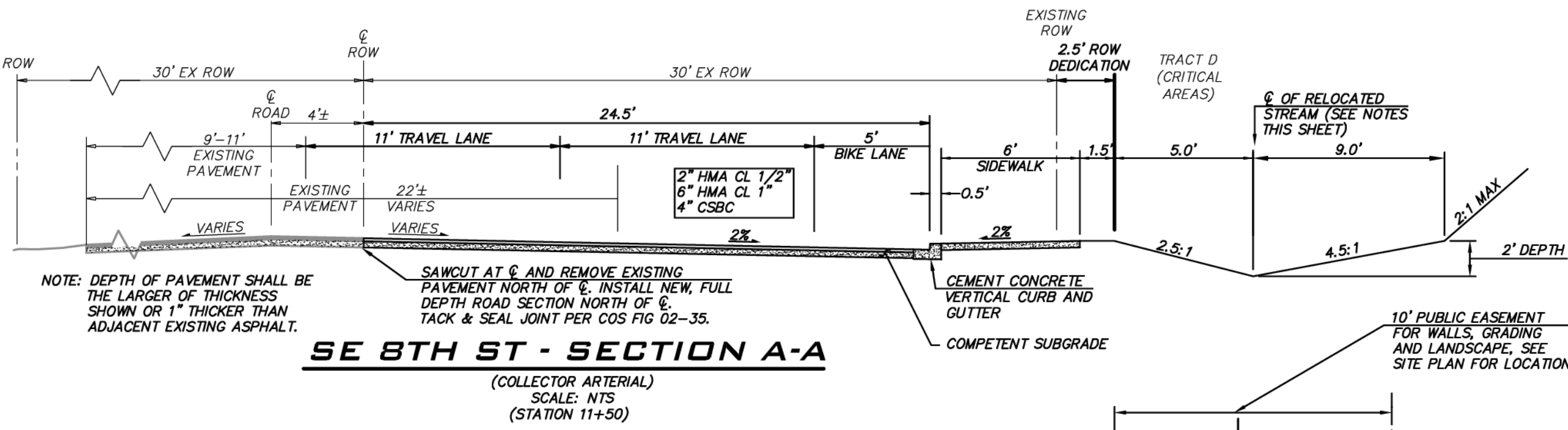
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**CURB / SIDEWALK NOTE**  
 SIDEWALK TO BE 6" THICK AT DRIVEWAYS WHERE SUBJECT TO VEHICULAR TRAFFIC (TYP).



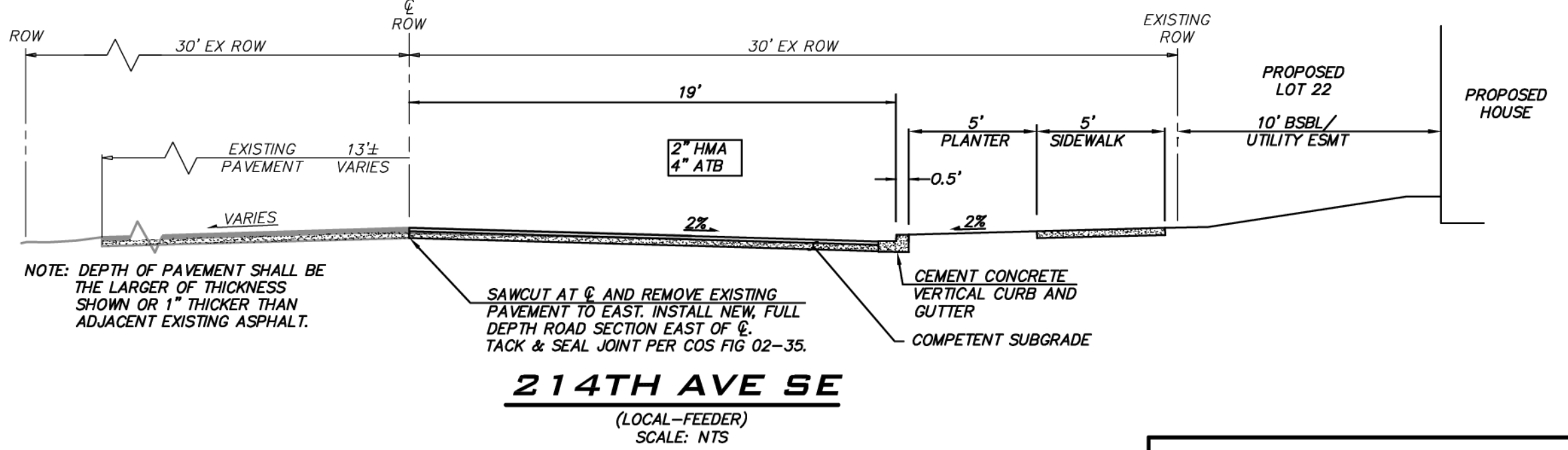
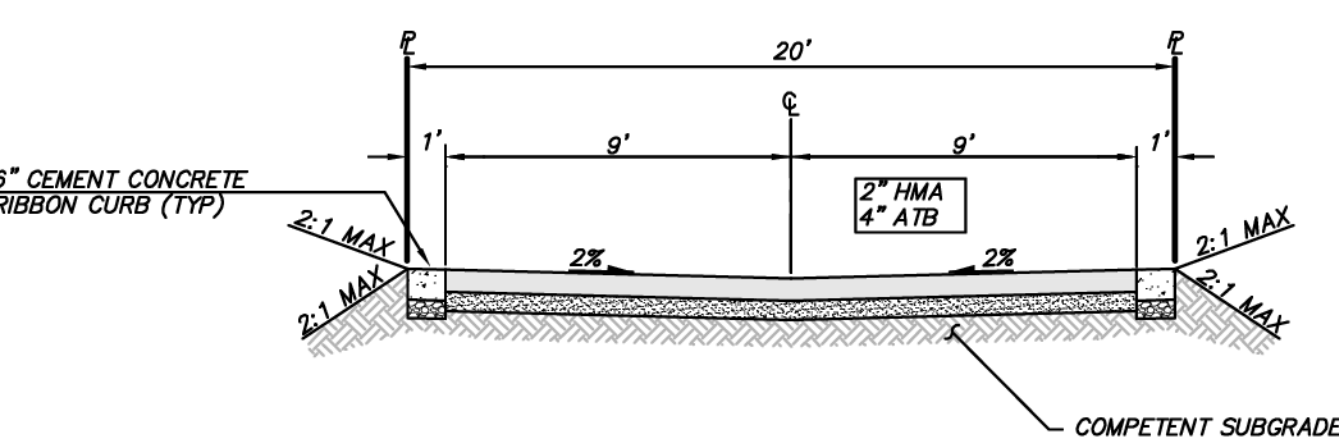
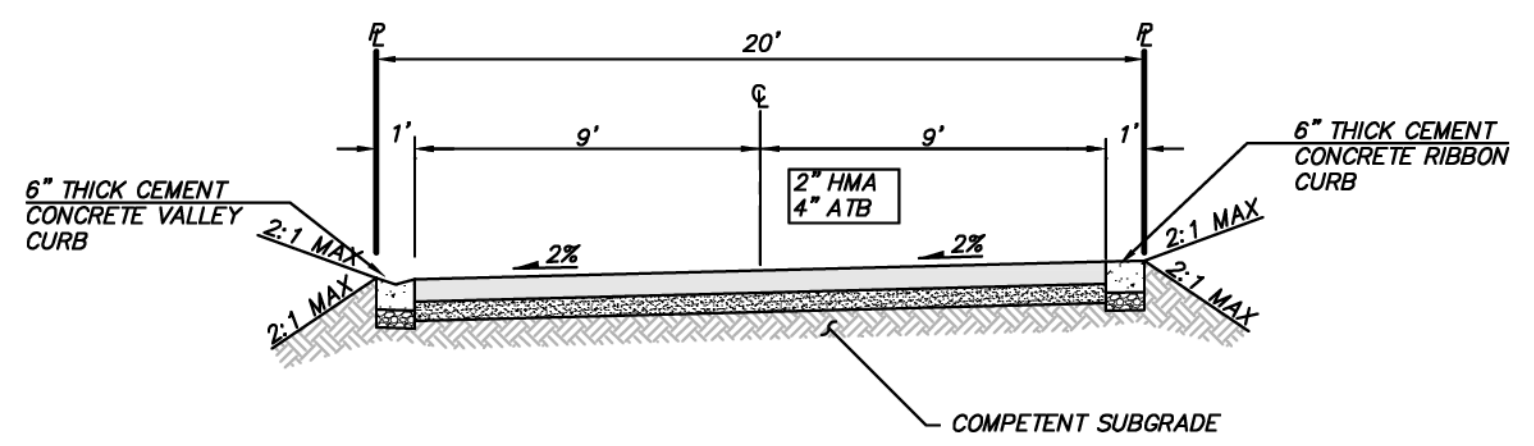
8/5/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**CR-02**  
 SHT 14 OF 48





**STREAM RELOCATION NOTES**

- EXISTING STREAM WAS GRASS LINED AND VEE SHAPED WITH THE FOLLOWING CHARACTERISTICS:  
- AVERAGE DEPTH OF 1.9', 2.2:1 SLOPE ON SOUTH BANK AND 4.4:1 SLOPE ON THE NORTH BANK.
- STREAM TO BE RELOCATED OUTSIDE OF ROW AND PLANTED PER PLANS BY WETLAND RESOURCES.
- REFER TO APPROVED ACOE PERMIT FOR OTHER REQUIREMENTS SUCH AS SEASONAL WORK RESTRICTIONS.



**ROAD SECTION NOTES**

UNLESS OTHERWISE NOTED:

- CEMENT CONCRETE TRAFFIC CURB & GUTTER PER [WSDOT STANDARD PLAN F-10-12-03](#). DETAIL FIG03-08a ON DETAIL SHEET DT-04.
- CEMENT CONCRETE SIDEWALK PER [WSDOT STANDARD PLAN F-30-10-03](#). DETAIL FIG03-06 ON DETAIL SHEET DT-02.
- SIDEWALK TO BE 6" MIN THICKNESS WHERE SUBJECT TO VEHICULAR TRAFFIC SUCH AS AT DRIVEWAYS AND BEHIND ROLLED CURB.

**PAVEMENT SECTION NOTES**

THICKNESS SHOWN IS MINIMUM COMPACTED THICKNESS. ROADWAY IMPROVEMENTS INCLUDING CURB, GUTTER, AND SIDEWALK TO BE PLACED ON COMPETENT SUBGRADE PREPARED PER GEOTECH RECOMMENDATION. IMPROVEMENTS TO SUBGRADE MAY BE REQUIRED DEPENDING ON SOIL CONDITIONS.

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

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ROW2019-03272

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**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4851 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDISTS, PE

PROJECT ENGINEER:  
BRETT K PUDISTS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISD PER CITY COMMENTS
2	7/26/19	ACL	REVISD PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISD PER CITY COMMENTS

ROAD SECTIONS

CARRIER SE 8TH SUBDIVISION

ROAD & STORM PLANS

CITY OF SAMMAMISH

WASHINGTON

8/5/19

JOB NUMBER:  
**15-111**

SHEET NAME:  
**RD-01**

SHT 15 OF 48



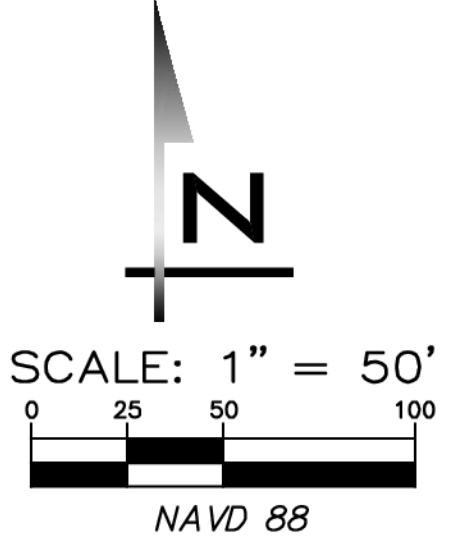
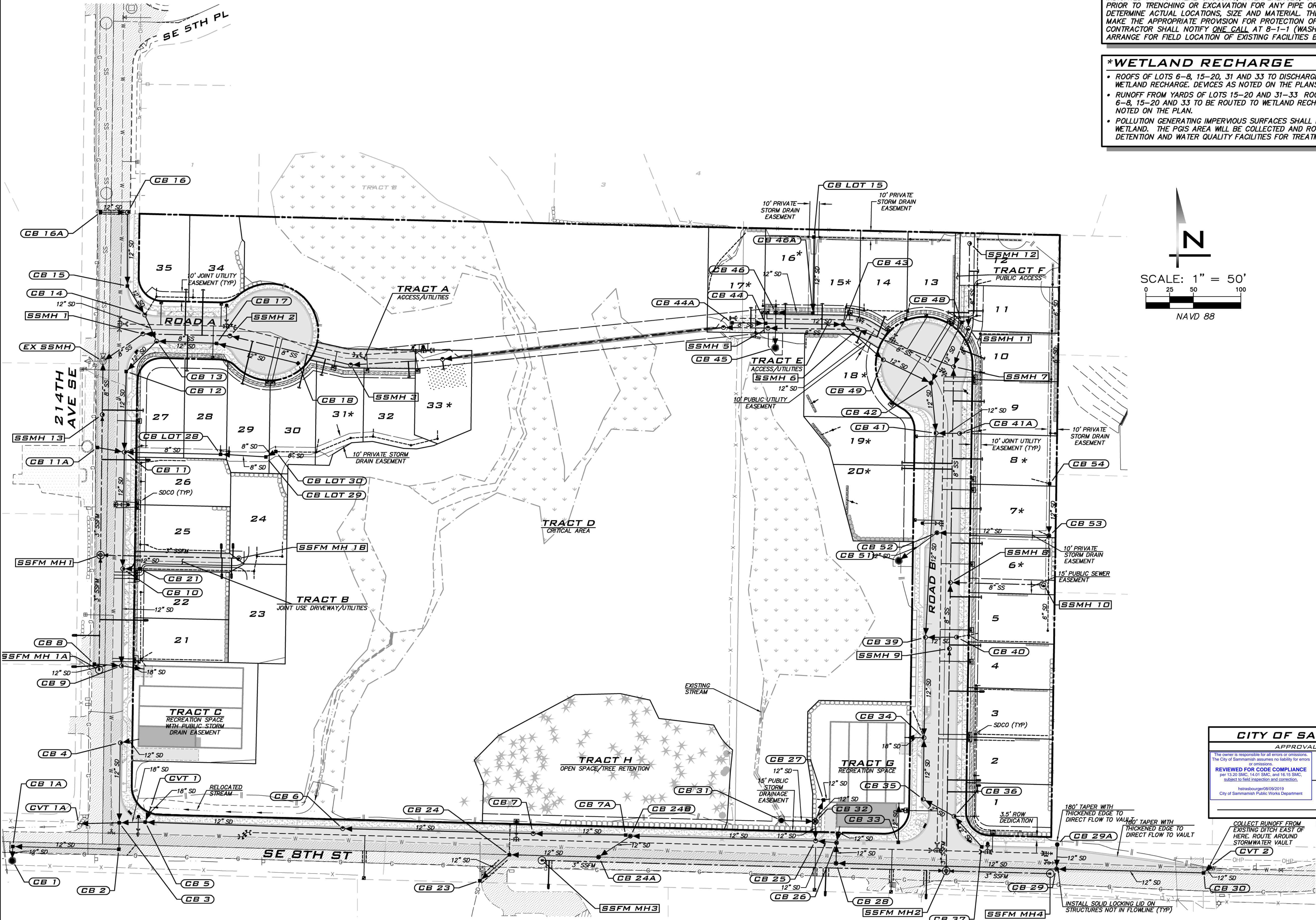
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- RUNOFF FROM YARDS OF LOTS 15-20 AND 31-33 ROOF TOPS FROM LOTS 6-8, 15-20 AND 33 TO BE ROUTED TO WETLAND RECHARGE DEVICES AS NOTED ON THE PLAN.
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SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
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2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RMB	REVISED PER CITY COMMENTS

**COMPOSITE UTILITY PLAN**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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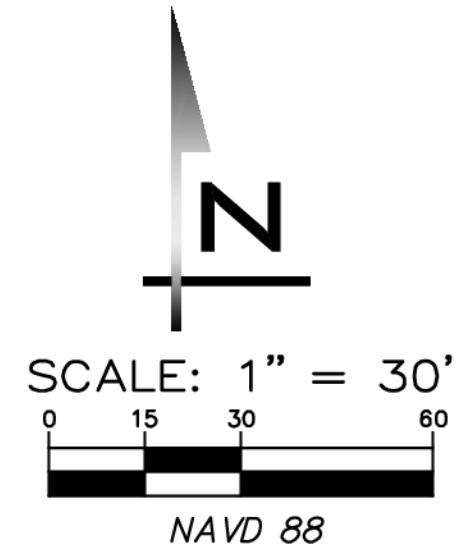
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 DATE: 08/16/2019

ROW2019-03272

8/5/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**CU-01**  
 SHT 16 OF 48

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SD SERVICE		
LOT	RIM	IE
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SDCC 25	380.02	377.0
SDCC 26	382.44	379.4
SDCC 27	384.53	382.0
SDCC 28	387.13	384.2
SDCC 29	388.31	385.3
SDCC 31	393.96	387.8
SDCC 32	392.13	389.0
SDCC 32A	392.92	389.8
SDCC 33	393.44	390.5
SDCC 34	396.50	393.6
SDCC 35	395.72	392.4

**SPLASH BLOCK NOTES**

- LOT 33 TO HAVE 2 SPLASH BLOCKS.
- LOT 31 TO HAVE 1 SPLASH BLOCK.
- DESIGN ALLOWS 600 TO 700 SF OF ROOF TO EACH SPLASH BLOCK ON LOTS 31 AND 33.
- PROVIDE 50' MINIMUM OF VEGETATED FLOW PATH FROM SPLASH BLOCK TO EDGE OF WETLAND.

NOTE: SPLASH BLOCKS ARE REQUIRED TO MEET SEVERAL STORM WATER RELATED DESIGN ELEMENTS. DO NOT ELIMINATE.

**LID BMP NOTES**

- LID SATISFIED ON A PLAT WIDE BASIS BY UTILIZING BASIC DISPERSION (SPLASH BLOCKS, DISPERSION TRENCHES AND REDUCED IMPERVIOUS COVERAGE).
- REFER TO SHEET SD-02 FOR DETAILS.

**CROSSING NOTE**

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- STORM PIPE 12" AND LARGER TO BE LCPE WITH 2.0' MIN. COVER UNLESS OTHERWISE NOTED.
- LOT DRAINS TO BE 6" PVC SDR 35 WITH 2% MIN SLOPE UNLESS OTHERWISE NOTED.
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- PROVIDE STEEL SLEEVE WHERE PIPES EXTEND BENEATH WALLS AND WHERE WALL OR BLDG FOOTINGS SURCHARGE PIPES.
- REFER TO STANDARD DETAILS ON SHEETS DT-01 TO DT-04.
- SEE SHEET GP-01 FOR PAD ELEVATIONS.
- INSTALL "ONLY RAIN DOWN THE DRAIN" MARKERS ON ALL CATCH BASINS.
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**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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 BY: ABary  
 DATE: 08/16/2019

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 ROW2019-03272

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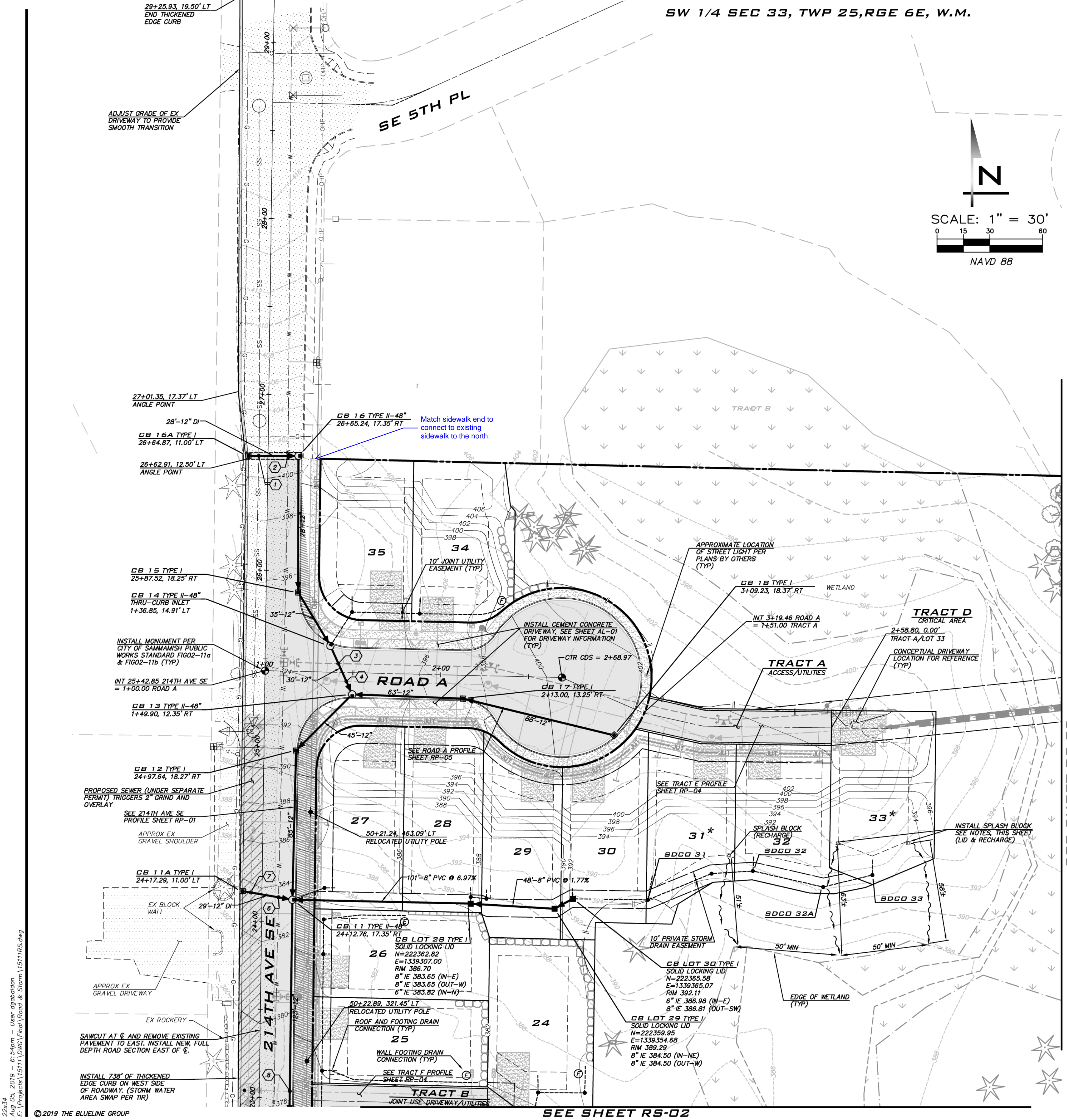
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			REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS	WALT PLANS MODIFIED TO MATCH STRUCTURAL	REVISED PER CITY COMMENTS
1	5/10/19	RAB				
2	7/26/19	ACL				
3	8/5/19	RAB				

ROAD & STORM DRAINAGE PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON

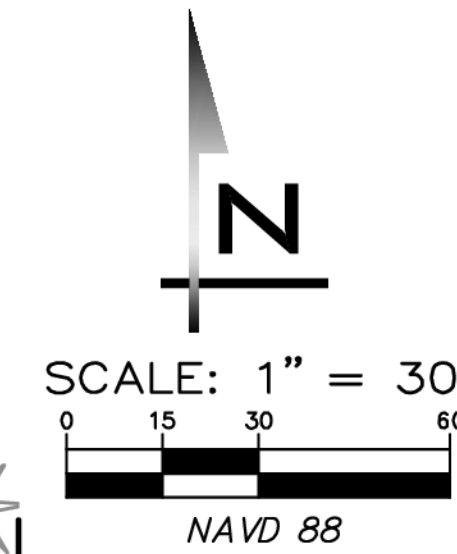


8/5/19  
 JOB NUMBER:  
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 RS-01  
 SHT 17 OF 48



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SD SERVICE		
LOT	RIM	IE
SDCO 21	374.38	371.5
SDCO 22	377.17	374.2
SDCO 23	381.58	376.6

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25 CENTRAL WAY, SUITE 400,  
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SCALE:  
AS NOTED

PROJECT MANAGER:  
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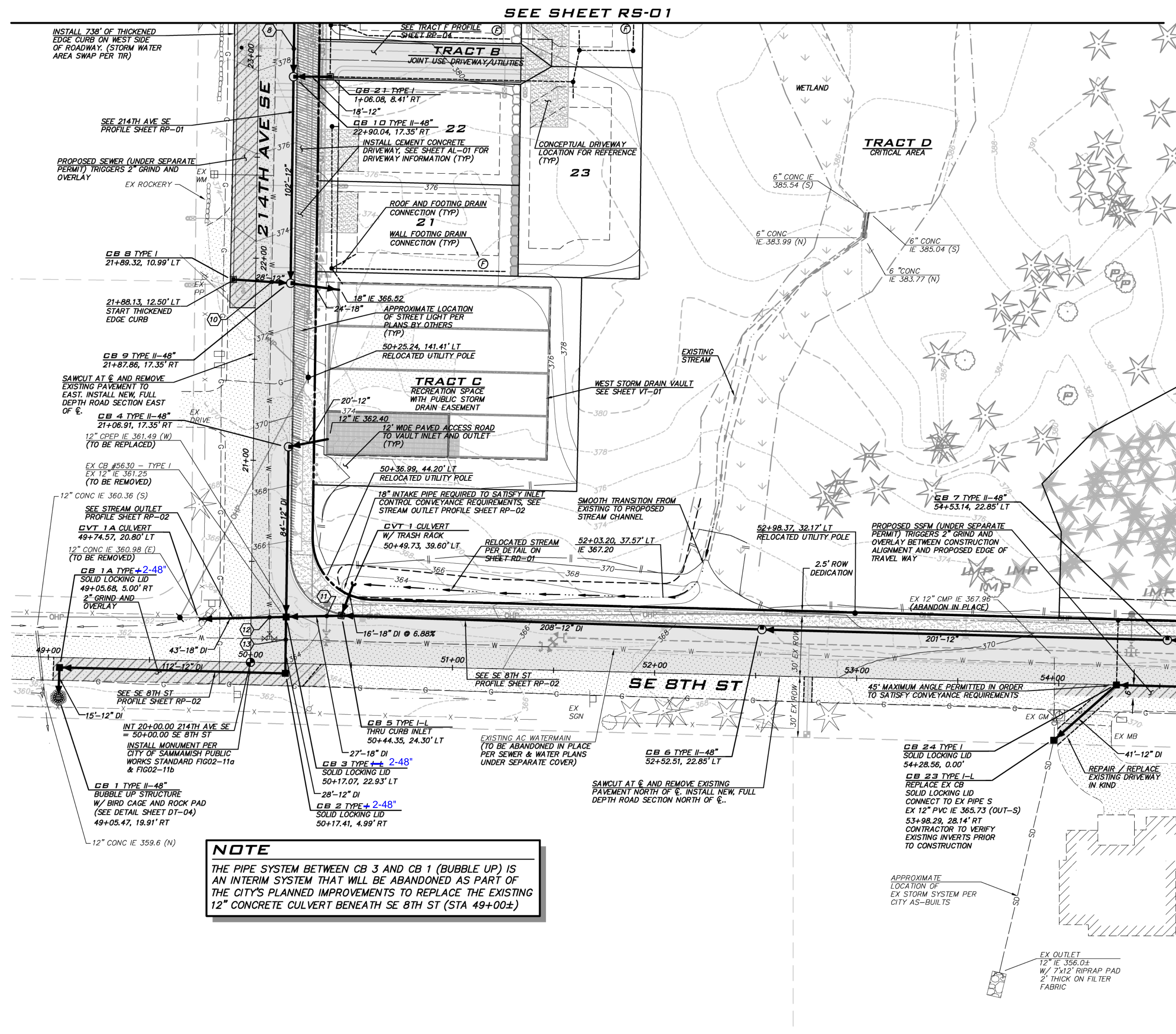
PROJECT ENGINEER:  
BRETT K PUDISTS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
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ROAD & STORM DRAINAGE PLAN  
CARRIER SE 8TH SUBDIVISION  
ROAD & STORM PLANS  
CITY OF SAMMAMISH  
WASHINGTON



**RELOCATED STREAM NOTES**

- REFER TO PERMITS FROM USACE AND WDFW FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH RELOCATED STREAM.
- STREAM RELOCATION TO OCCUR DURING DRY SEASON WHEN STREAM IS NOT FLOWING.
- BUILD AND STABILIZE RELOCATED STREAM CHANNEL AND OUTFALL PIPE BEFORE CONNECTING TO EXISTING STREAM.

**LID BMP NOTES**

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**NOTE**

THE PIPE SYSTEM BETWEEN CB 3 AND CB 1 (BUBBLE UP) IS AN INTERIM SYSTEM THAT WILL BE ABANDONED AS PART OF THE CITY'S PLANNED IMPROVEMENTS TO REPLACE THE EXISTING 12" CONCRETE CULVERT BENEATH SE 8TH ST (STA 49+00±)

**CITY OF SAMMAMISH**

APPROVAL BLOCK

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APPROVED WITH MARKUPS

ROW2019-03272

**WEST VAULT WATER SURFACE**

- PER CALCULATIONS IN APPROVED T.I.R. THE EMERGENCY OVERFLOW WATER SURFACE OF WEST VAULT IS 372.63.
- RIMS OF STORM STRUCTURES DRAINING TO VAULT DESIGNED TO BE AT 372.90 OR HIGHER.
- FUTURE BUILDING FOOTING DRAINS CONNECTING TO VAULT SYSTEM SHALL BE AT 372.90 OR HIGHER.

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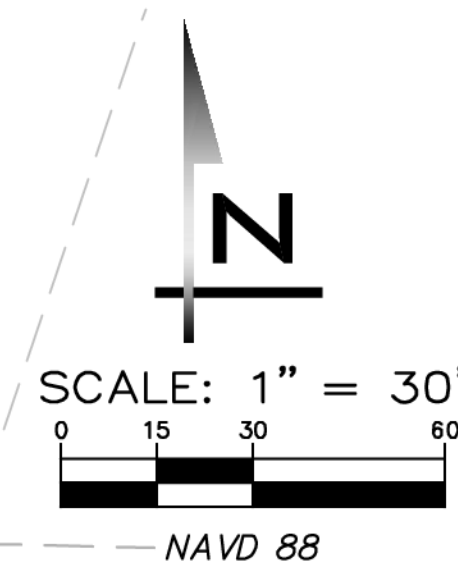
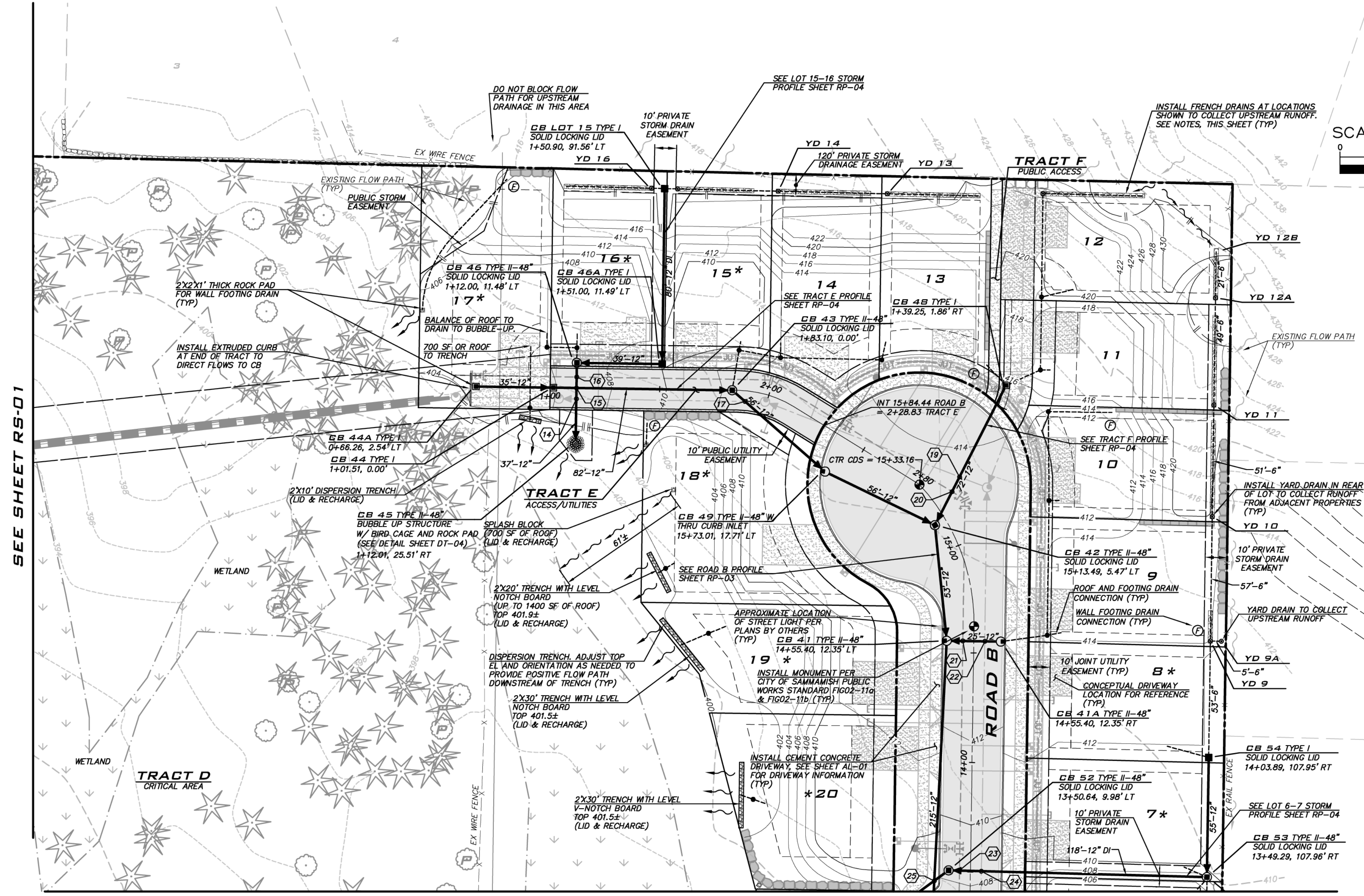
8/5/19

JOB NUMBER:  
**15-111**

SHEET NAME:  
**RS-02**

SHT **18** OF **48**





**FRENCH DRAIN NOTES**

- REFER TO SHEET SD-02 FOR FRENCH DRAIN DETAIL
- COLLECTOR PIPE TO BE PERFORATED PVC SLOPED AT 2% MIN
- CONNECT COLLECTOR PIPE TO DRAINAGE STRUCTURE W/ NON-PERFORATED, SOLID WALL PVC PIPE @ 2% MIN
- FRENCH DRAINS TO BE INSTALLED AT LOCATIONS SHOWN WILL BE PRIVATELY MAINTAINED.

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- REFER TO STANDARD DETAILS ON SHEETS DT-01 TO DT-04.
- SEE SHEET GP-01 FOR PAD ELEVATIONS.
- INSTALL "ONLY RAIN DOWN THE DRAIN" MARKERS ON ALL CATCH BASINS.
- PROVIDE 8' SEPARATION BETWEEN STREET TREES AND STORM DRAIN. SEPARATION MAYBE REDUCED TO 3' IF ROOT BARRIER IS PROVIDED.
- INSTALL 2" ASPHALT RING AROUND PUBLICLY OWNED CATCH BASINS THAT ARE INSTALLED OUTSIDE OF PAVED AREAS.

**\*WETLAND RECHARGE**

- ROOFS OF LOTS 6-8, 15-20, 31 AND 33 TO DISCHARGE TO LEVEL SPREADER WETLAND RECHARGE. DEVICES AS NOTED ON THE PLANS
- RUNOFF FROM YARDS OF LOTS 15-20 AND 31-33 ROOF TOPS FROM LOTS 6-8, 15-20 AND 33 TO BE ROUTED TO WETLAND RECHARGE DEVICES AS NOTED ON THE PLAN.
- POLLUTION GENERATING IMPERVIOUS SURFACES SHALL NOT BE ROUTED TO THE WETLAND. THE PGIS AREA WILL BE COLLECTED AND ROUTED TO THE DETENTION AND WATER QUALITY FACILITIES FOR TREATMENT

**SD SERVICE**

LOT	RIM	IE
SDCC 9	413.96	406.7
SDCC 10	411.71	407.9
SDCC 11	416.73	413.7
SDCC 12	419.36	415.7
SDCC 13	414.05	411.1
SDCC 14	412.21	409.3
SDCC 15	410.34	407.3
SDCC 16	407.75	402.6
SDCC 17	405.88	402.9
SDCC 17S	404.41	402.4
SDCC 18S	402.00	399.1
SDCC 19S	402.79	399.4
SDCC 20S	401.75	397.6
YD 11	426.44	423.4
YD 12	422.92	419.9
YD 12A	427.16	424.2
YD 12B	427.88	427.3
YD 13	418.69	415.6
YD 14	417.34	414.2
YD 16	417.17	412.8

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE  
 per 19.301 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.

PLANNING DEPT. APPROVAL  
 BY: ABarty  
 DATE: 08/16/2019

hairsbourge08/09/2019  
 City of Sammamish Public Works Department

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REVISIONS

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

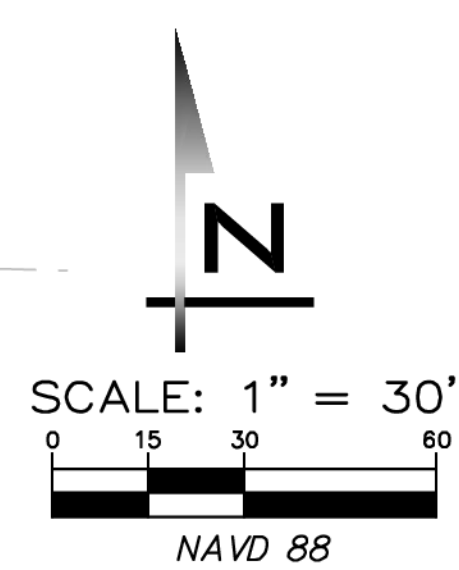
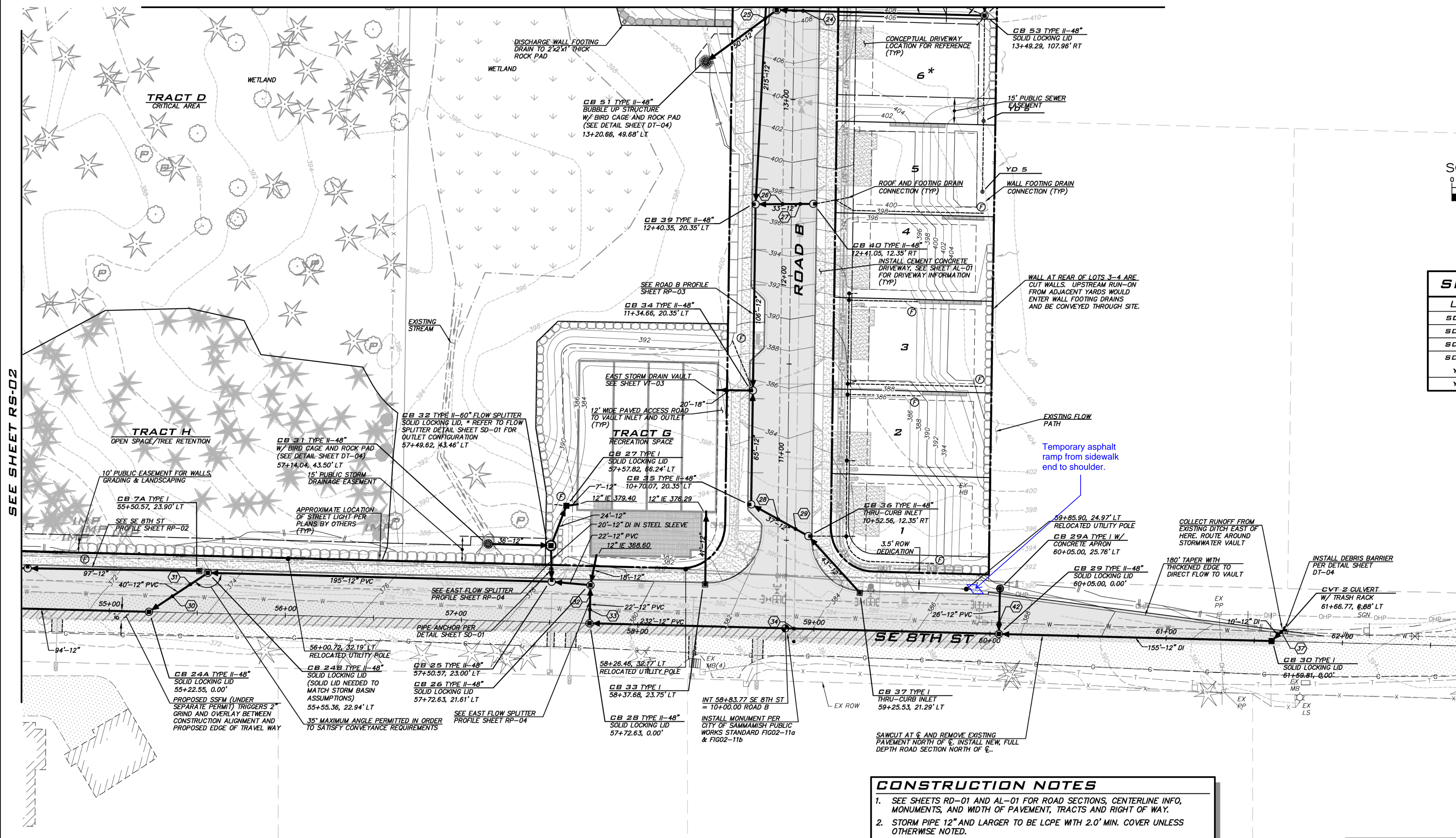
ROAD & STORM DRAINAGE PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON



8/5/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**RS-03**  
 SHT 19 OF 48



SEE SHEET RS-03



SD SERVICE			
LOT	RIM	IE	
SDCO 1	383.76	380.7	
SDCO 2	384.67	382.0	
SDCO 3	387.79	384.8	
SDCO 4	393.08	390.1	
YD 5	408.00	404.4	
YD 6	408.00	403.3	

NO	DATE	BY	REVISIONS			
			REVISIONS	REVISIONS	REVISIONS	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS
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3	8/5/19	RAB	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS

ROAD & STORM DRAINAGE PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH  
 WASHINGTON

**LID BMP NOTES**

- LID SATISFIED ON A PLAT WIDE BASIS BY UTILIZING BASIC DISPERSION (SPASH BLOCKS, DISPERSION TRENCHES AND REDUCED IMPERVIOUS COVERAGE).
- REFER TO SHEET SD-02 FOR DETAILS.

**CROSSING NOTE**

- SEE SHEET GN-01 FOR UTILITY CROSSING INFORMATION.

**DRY UTILITY NOTES**

- LOCATION OF JOINT TRENCH SHOWN IS SCHEMATIC. REFER TO PLANS BY PSE FOR FINAL LOCATION.
- LOCATION OF STREET LIGHTS AND POLES IS SCHEMATIC. REFER TO PLANS BY OTHERS FOR DETAILS.

**FRENCH DRAIN NOTES**

- REFER TO SHEET SD-02 FOR FRENCH DRAIN DETAIL
- COLLECTOR PIPE TO BE PERFORATED PVC SLOPED AT 2% MIN
- CONNECT COLLECTOR PIPE TO DRAINAGE STRUCTURE W/ NON-PERFORATED, SOLID WALL PVC PIPE @ 2% MIN
- FRENCH DRAINS TO BE INSTALLED AT LOCATIONS SHOWN WILL BE PRIVATELY MAINTAINED.

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**CONSTRUCTION NOTES**

- SEE SHEETS RD-01 AND AL-01 FOR ROAD SECTIONS, CENTERLINE INFO, MONUMENTS, AND WIDTH OF PAVEMENT, TRACTS AND RIGHT OF WAY.
- STORM PIPE 12" AND LARGER TO BE LCPE WITH 2.0' MIN. COVER UNLESS OTHERWISE NOTED.
- LOT DRAINS TO BE 6" PVC SDR 35 WITH 2% MIN SLOPE UNLESS OTHERWISE NOTED.
- CATCH BASINS TO BE TYPE I (WSDOT STANDARD PLAN B-5.20-00) OR TYPE II (WSDOT STAND PLAN B-10.20-00) WITH LOCKING VANED GRATES UNLESS OTHERWISE NOTED.
- STORM DRAIN MANHOLES TO BE PER WSDOT STANDARD PLAN B-15.20-01 WITH CHANNELIZED BOTTOMS TO MINIMIZE MAINTENANCE.
- SOLID LOCKING LIDS ON CATCH BASINS SHALL BE ROUND DRAIN LIDS WHEN NOT LOCATED IN CURB AND GUTTER UNLESS OTHERWISE NOTED. COORDINATE WITH INSPECTOR TO DETERMINE METHOD FOR ADAPTING ROUND LIDS TO TYPE I CATCH BASINS.
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APPROVAL BLOCK

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DATE: 08/16/2019

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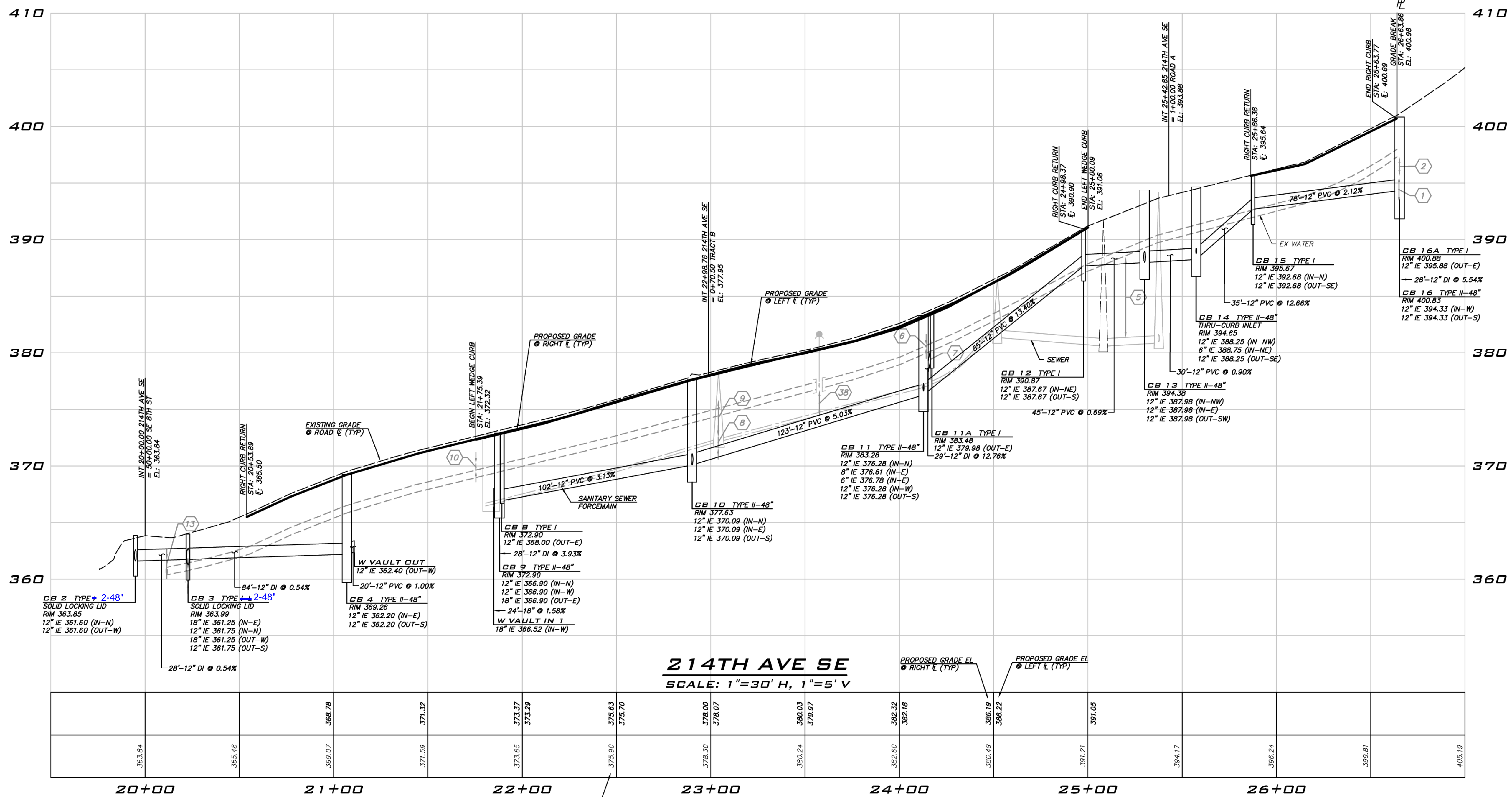
ROW2019-03272

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SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019



NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RMB	REVISED PER CITY COMMENTS

**ROAD PROFILES**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON

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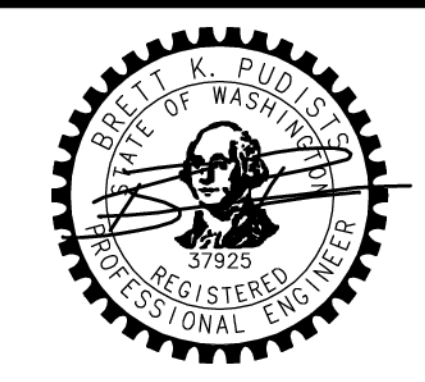
REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
 htrabourge08/09/2019  
 City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
 BY: ABaty  
 DATE: 08/16/2019

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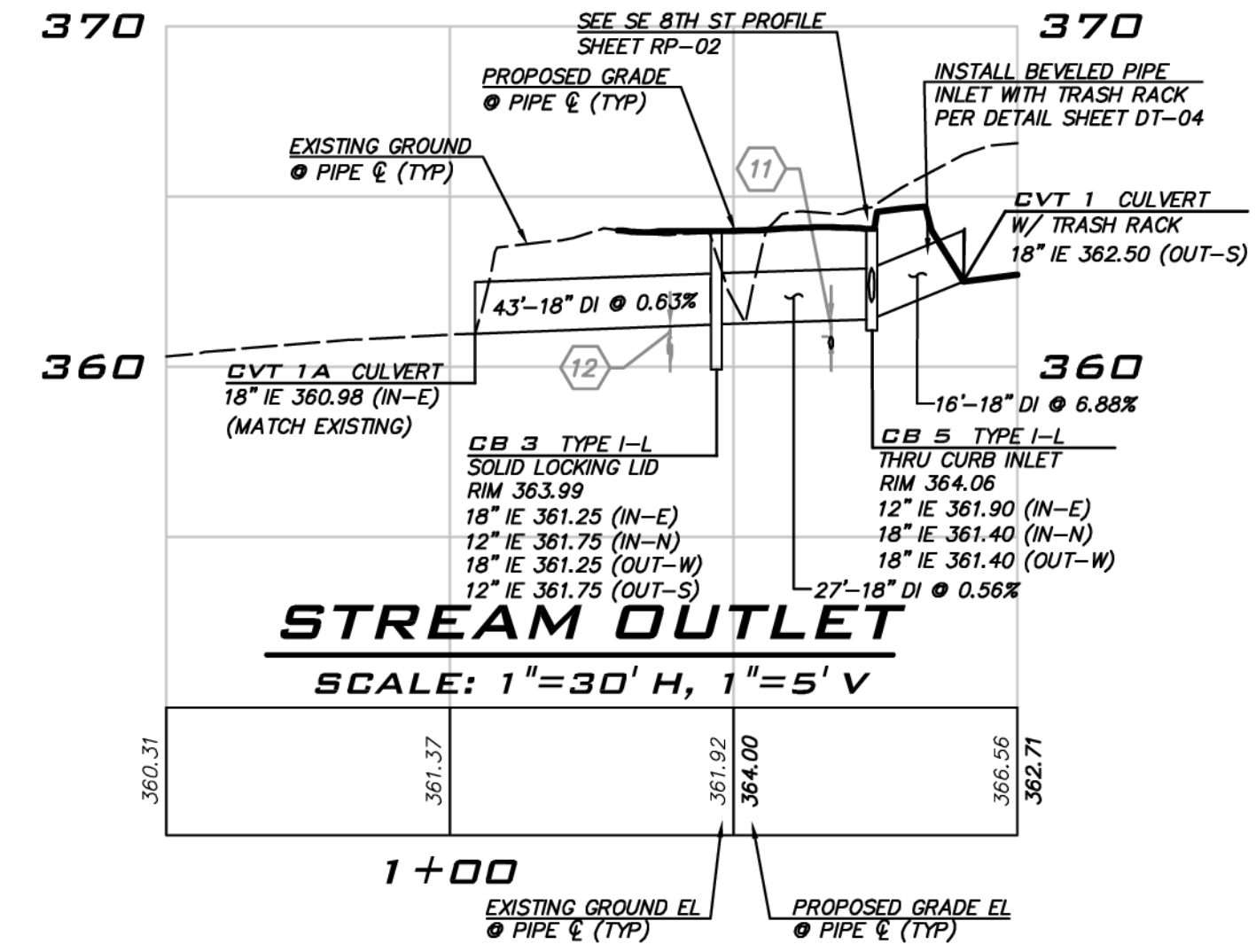
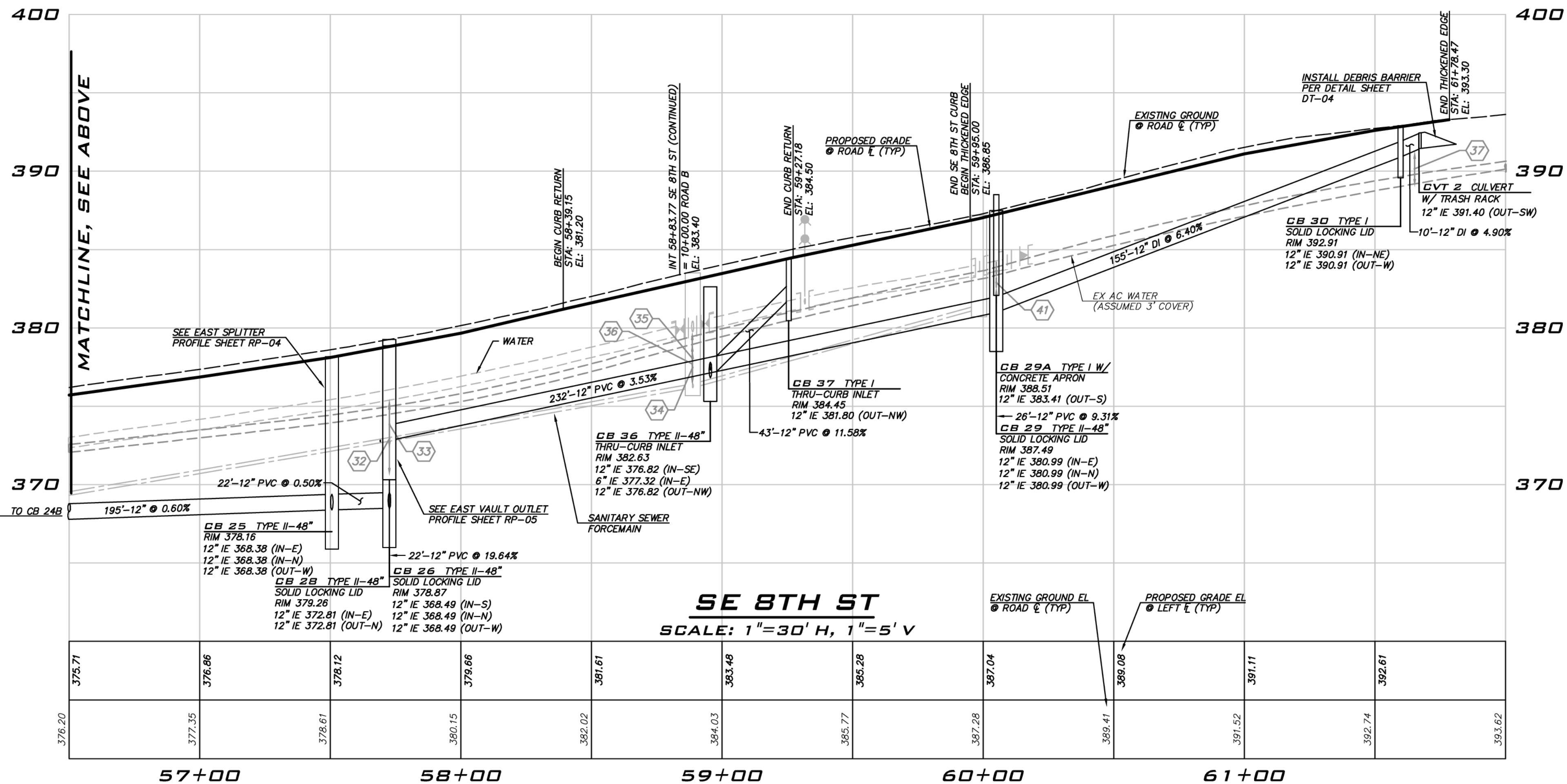
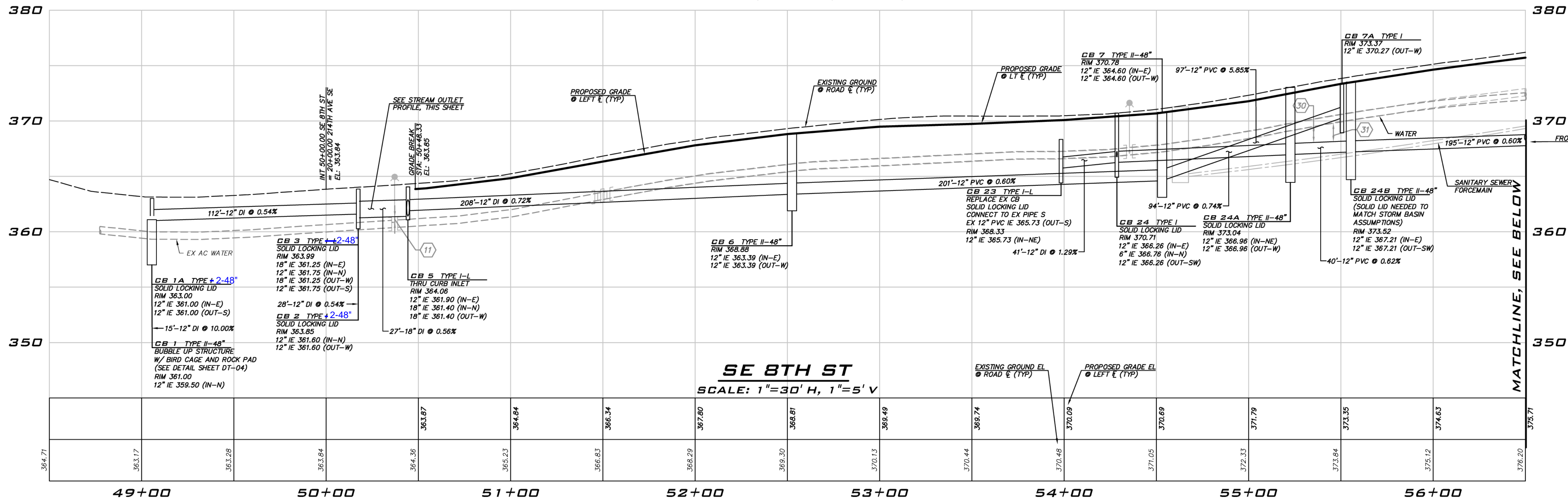
**CROSSING NOTE**  
 SEE SHEET GN-01 FOR UTILITY CROSSING INFORMATION.



8/5/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**RP-01**  
 SHT **21** OF **48**

22.634 Aug 05, 2019 11:57:01 AM User: dgarabedian E:\Projects\151111\Drawings\Plan\Road & Storm\151111RP.dwg ©2019 THE BLUELINE GROUP





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**CROSSING NOTE**

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**BLUELINE**

25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052 WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDIETS, PE  
PROJECT ENGINEER: BRETT K PUDIETS, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

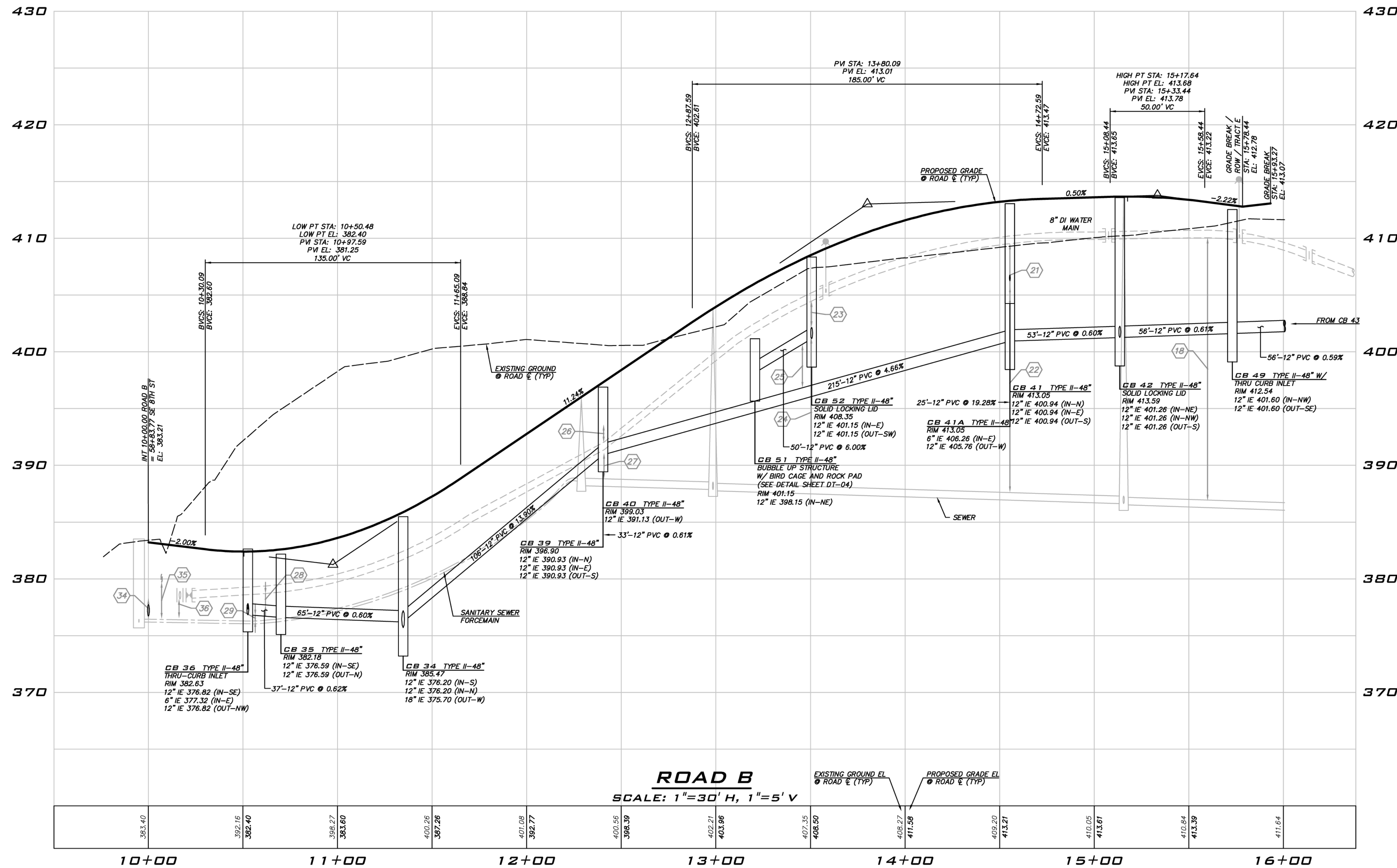
NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

**ROAD PROFILES**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
CITY OF SAMMAMISH WASHINGTON

**BRETT K. PUDIETS**  
REGISTERED PROFESSIONAL ENGINEER  
No. 37925

8/5/19  
JOB NUMBER: 15-111  
SHEET NAME: RP-02  
SHT 22 OF 48





**ROAD B**  
SCALE: 1"=30' H, 1"=5' V

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

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hairsbourge09/09/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 09/16/2019

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DESIGNER:  
AARON C LANCE

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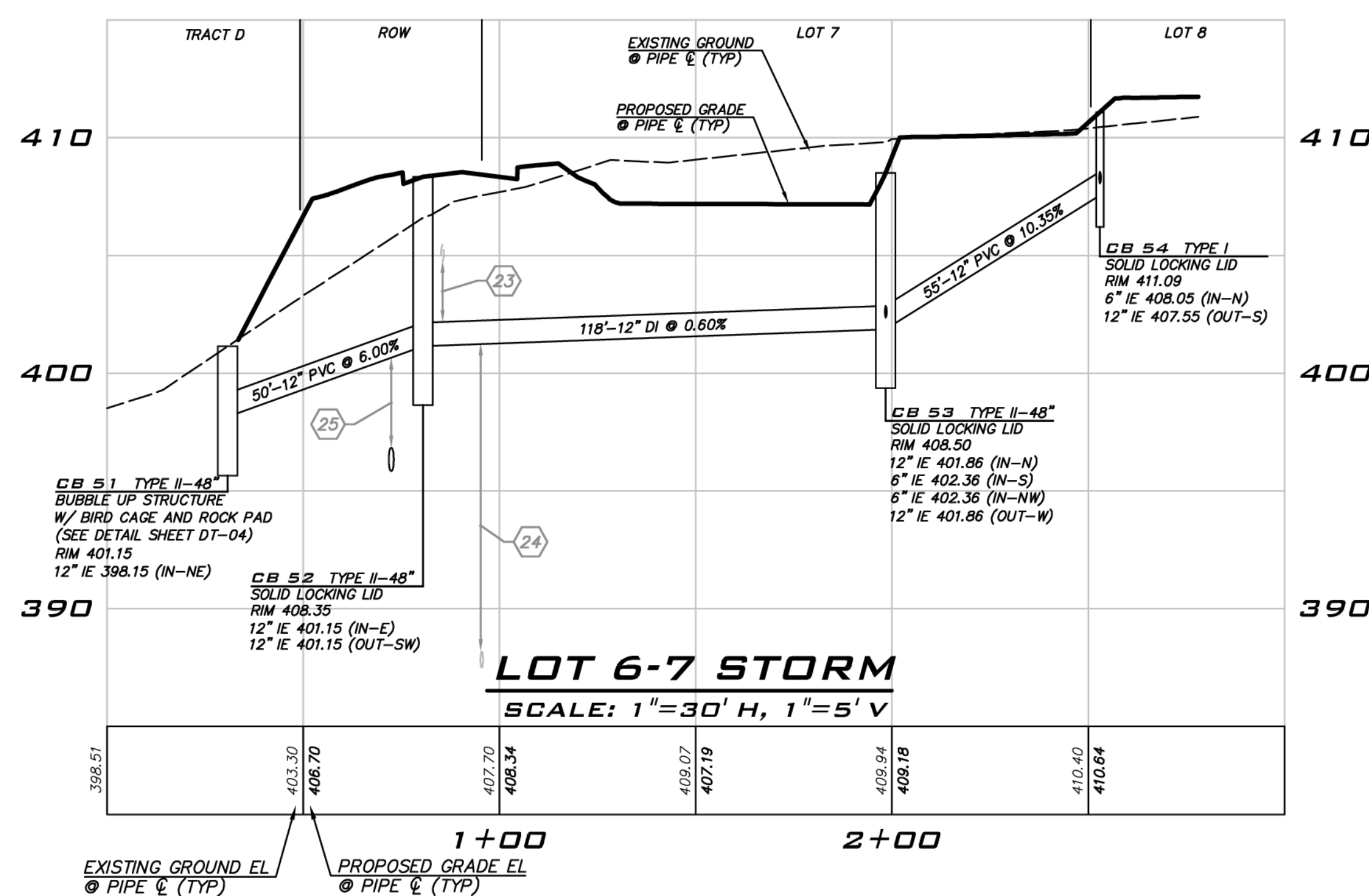
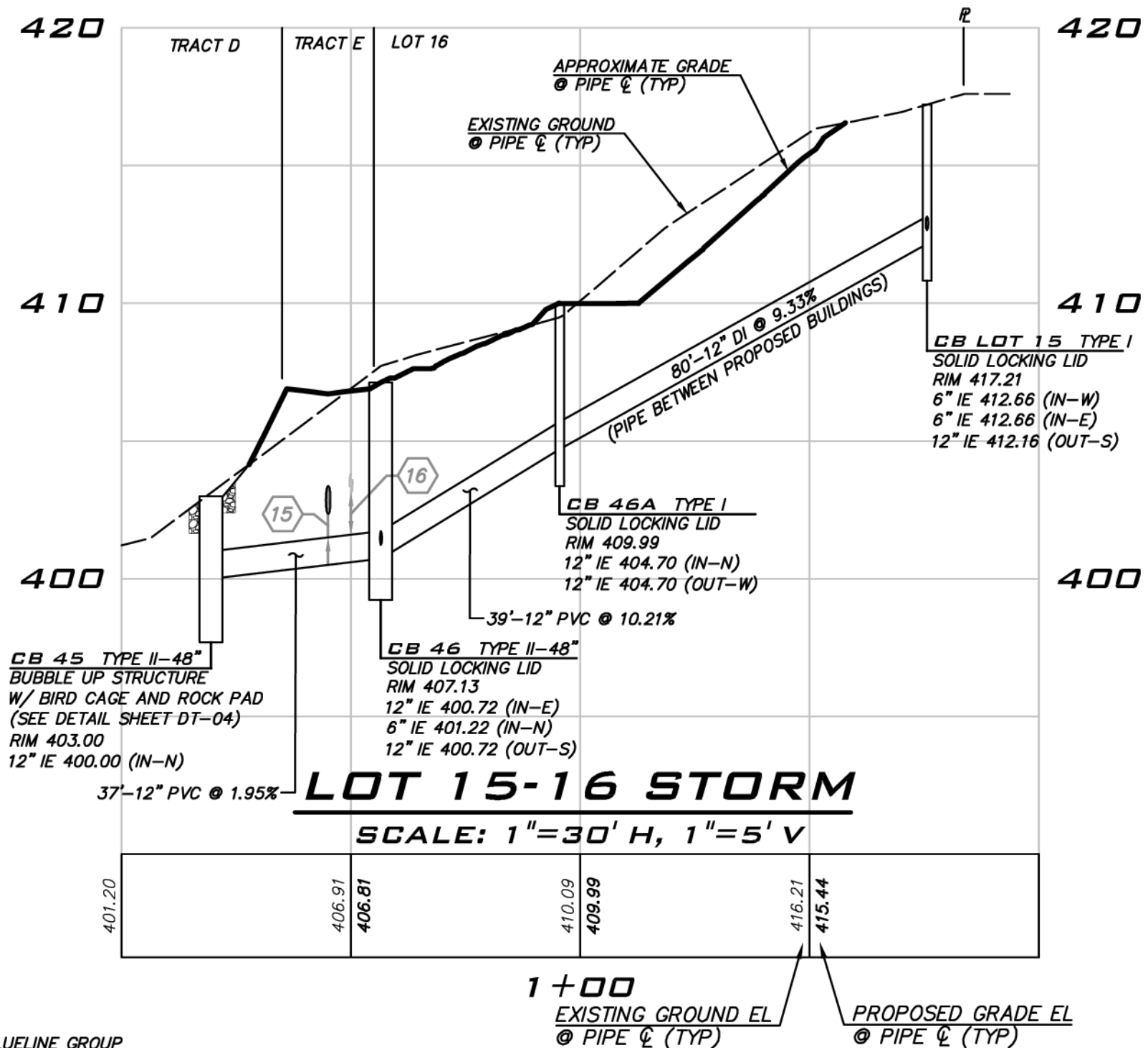
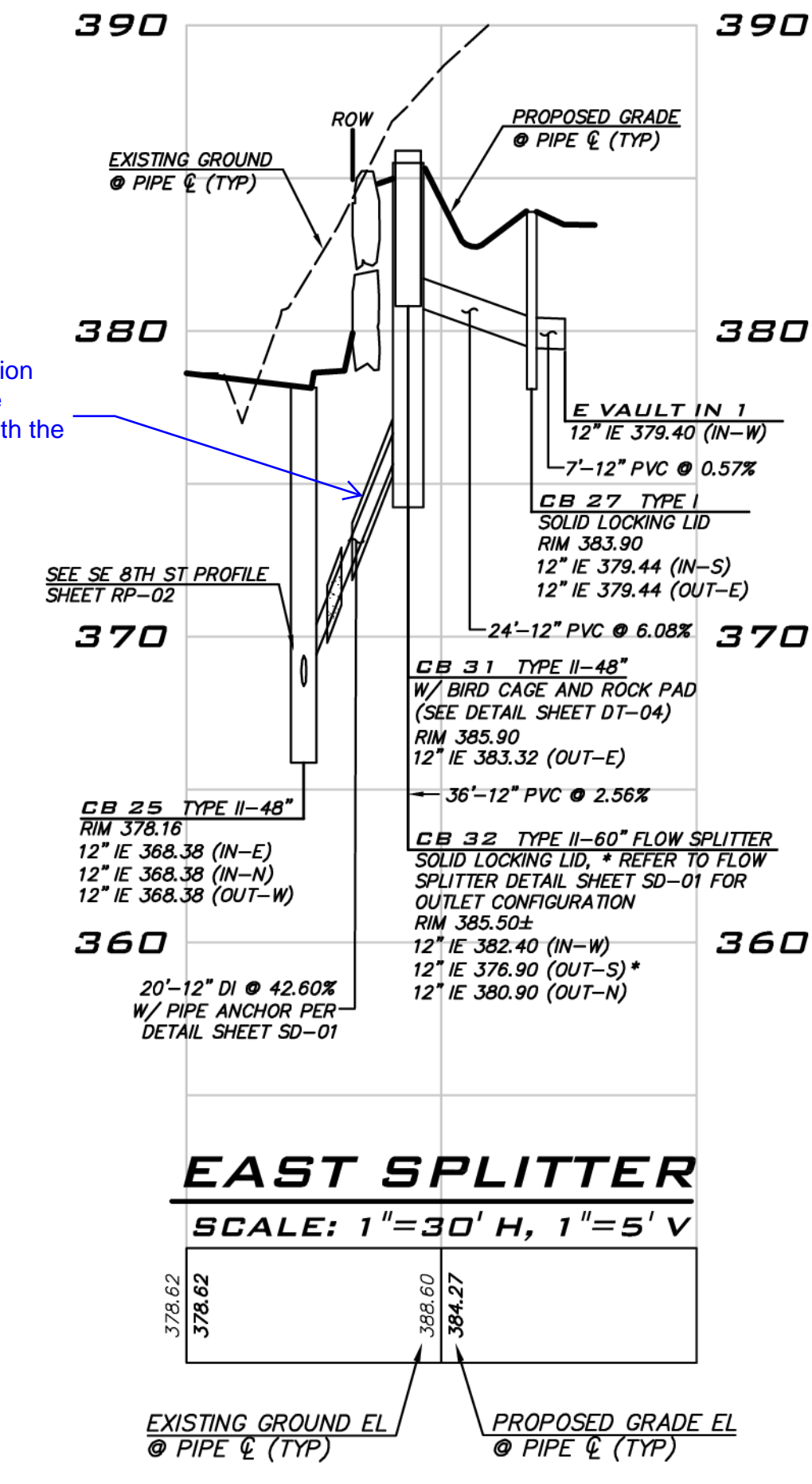
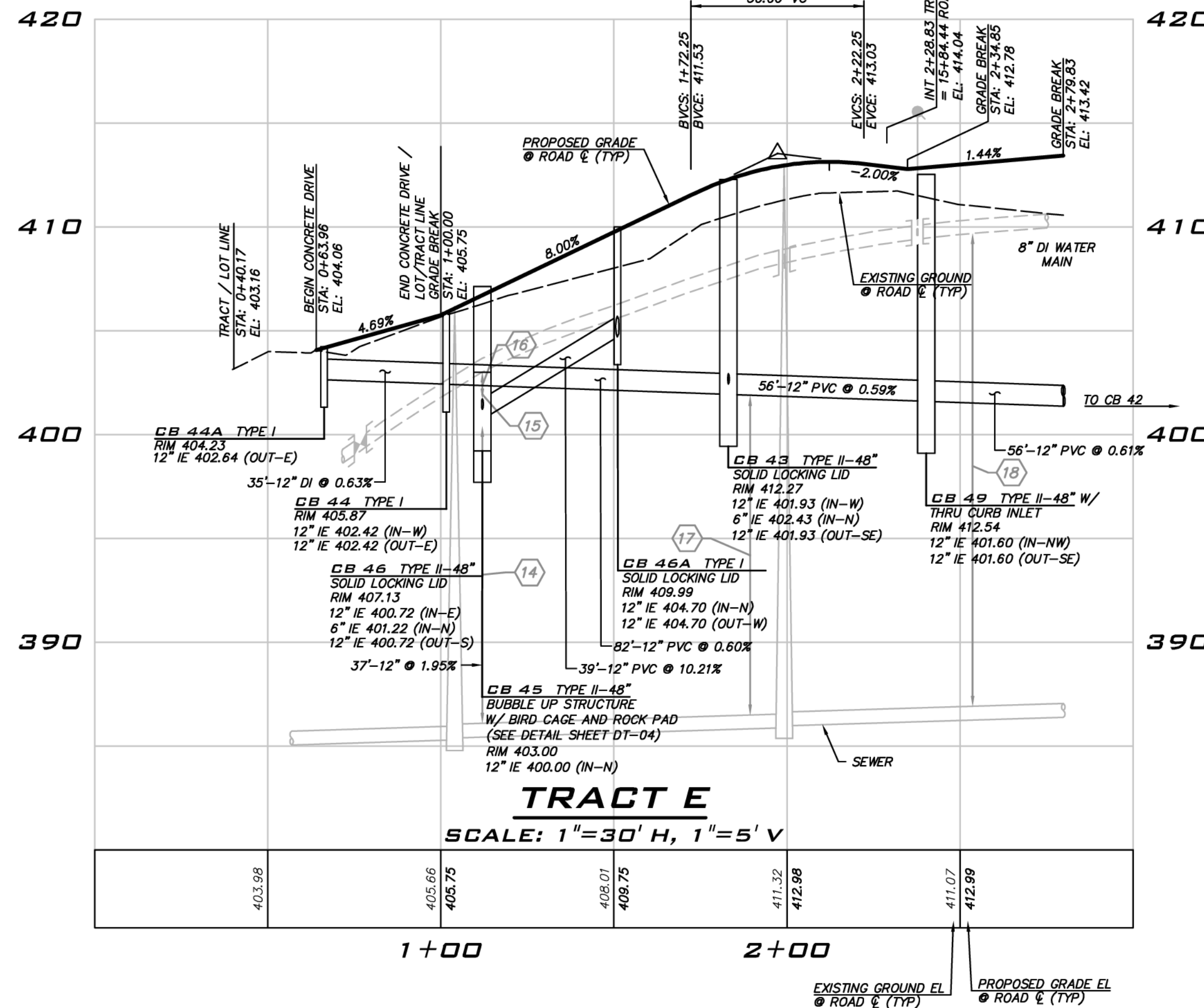
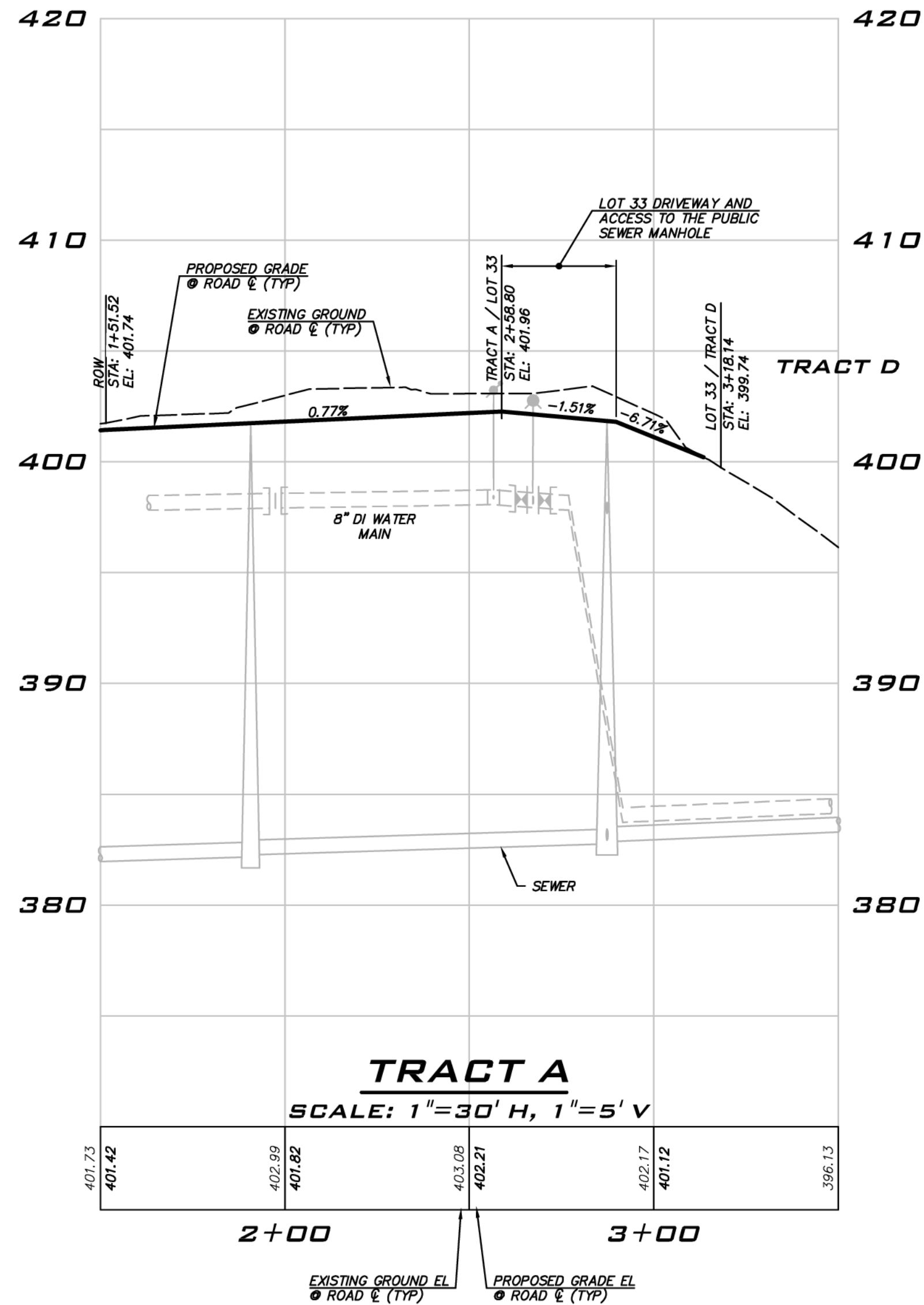
**ROAD PROFILES**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
CITY OF SAMMAMISH WASHINGTON



8/5/19  
JOB NUMBER:  
**15-111**  
SHEET NAME:  
**RP-03**  
SHT **23** OF **48**

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DATE: 09/16/2019

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SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDIETS, PE  
PROJECT ENGINEER: BRETT K PUDIETS, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

NO	DATE	BY	REVISIONS
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2	7/26/19	ACL	REVISED PER CITY COMMENTS. VAULT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

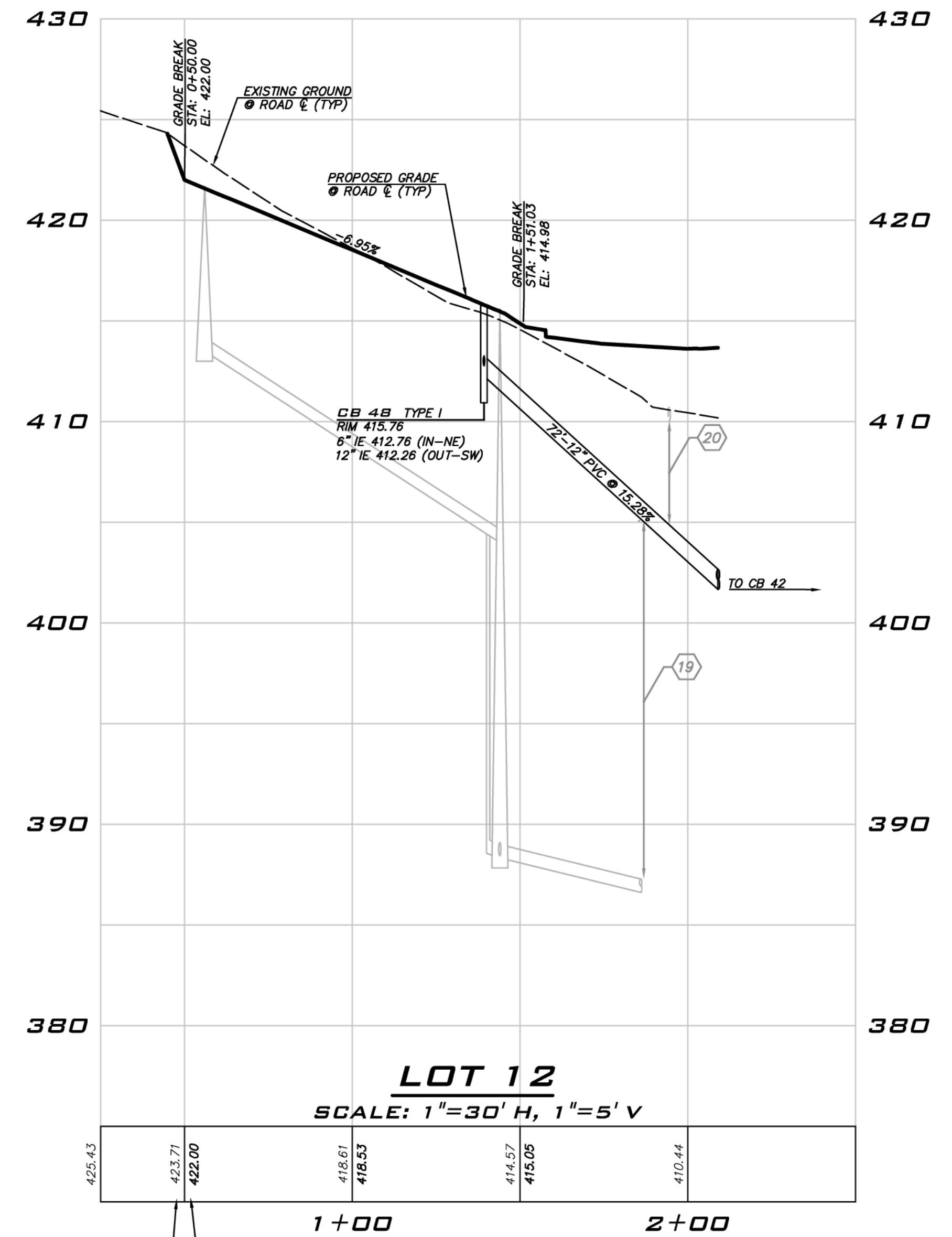
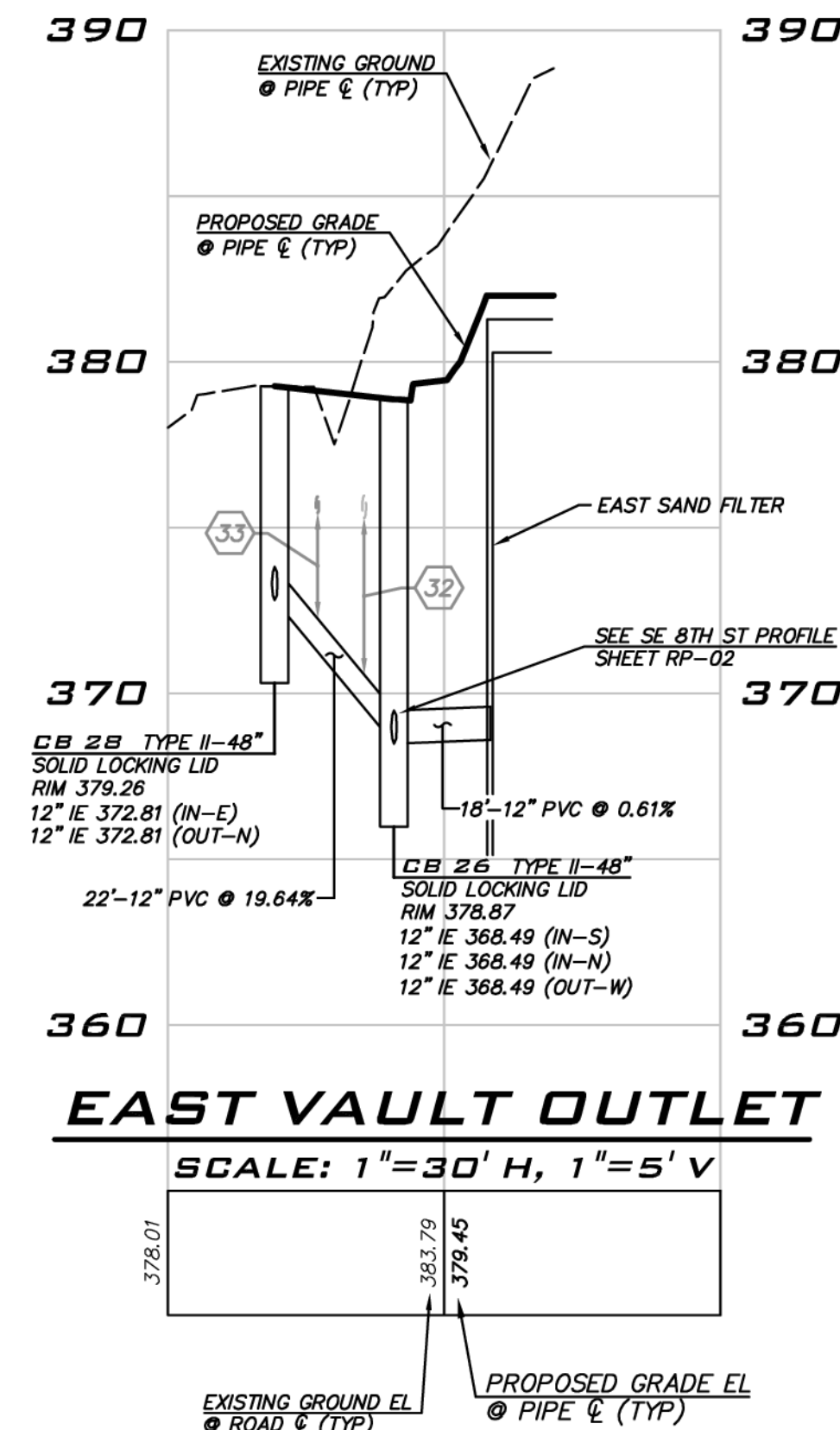
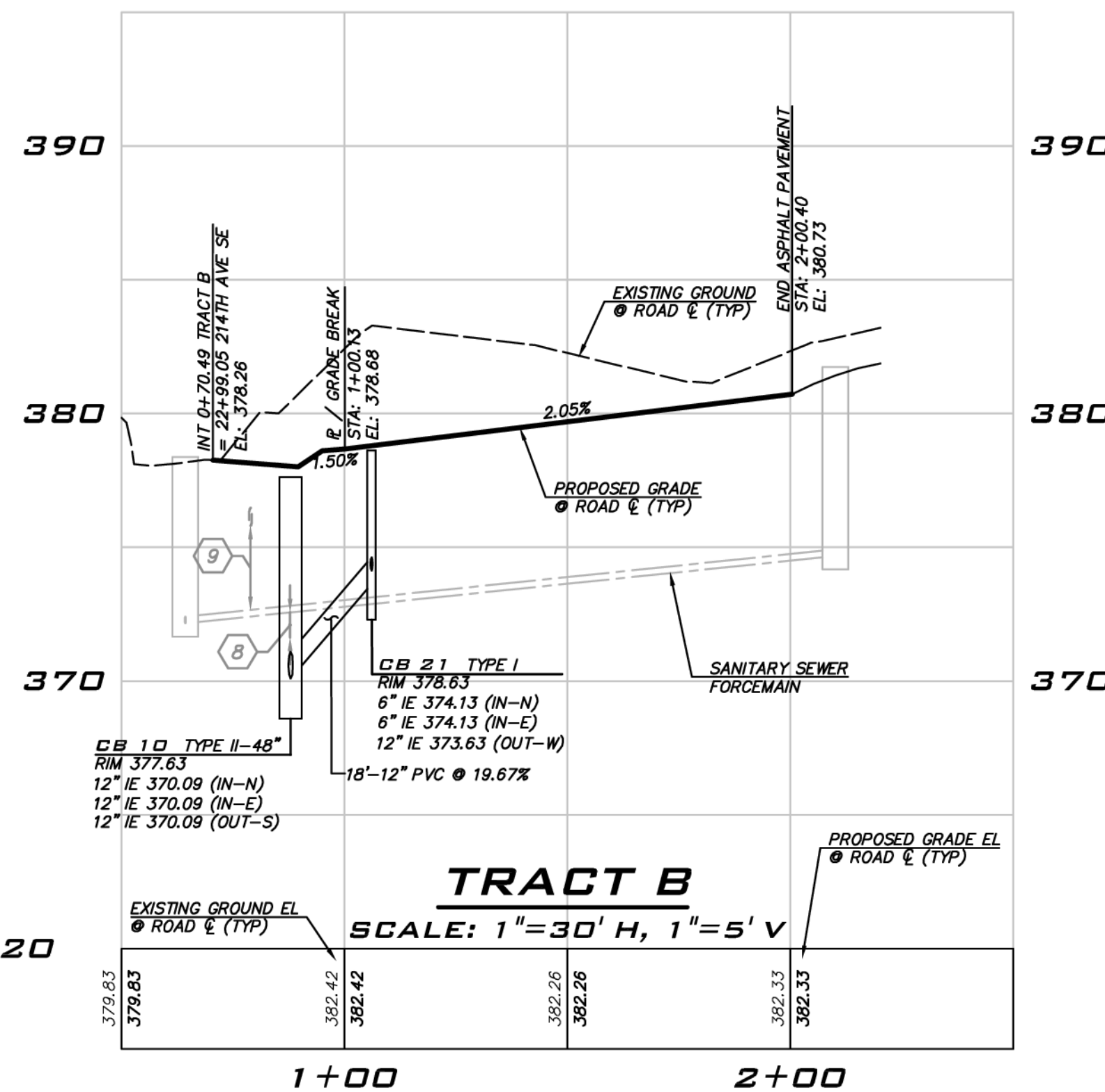
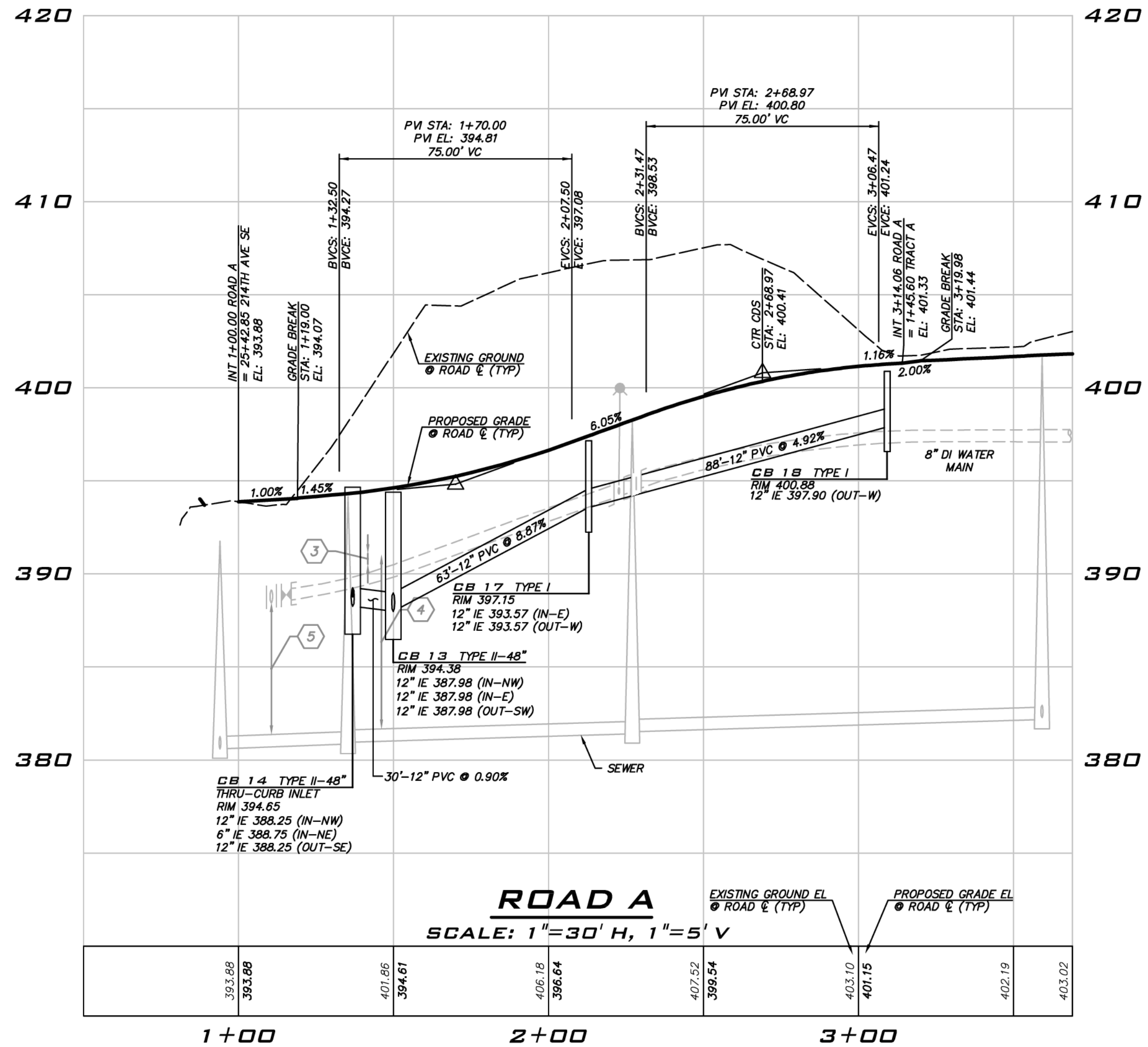
**ROAD PROFILES**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
CITY OF SAMMAMISH WASHINGTON

BRETT K. PUDIETS  
REGISTERED PROFESSIONAL ENGINEER  
8/5/19

JOB NUMBER: 15-111  
SHEET NAME: RP-04  
SHT 24 OF 48

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Aug 05, 2019 11:56:59am - User: dgarland  
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**CROSSING NOTE**

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hairsbourge09/09/2019  
City of Sammamish Public Works Department

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KIRKLAND, WA 98033  
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WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDISTS, PE

PROJECT ENGINEER:  
BRETT K PUDISTS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
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**ROAD PROFILES**

**CARRIER SE 8TH SUBDIVISION**

**ROAD & STORM PLANS**

**CITY OF SAMMAMISH**

**WASHINGTON**

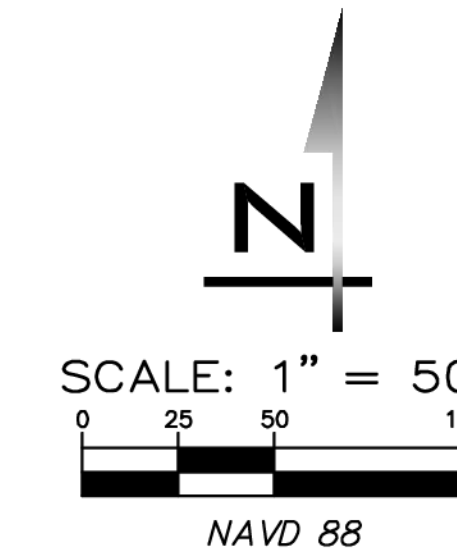
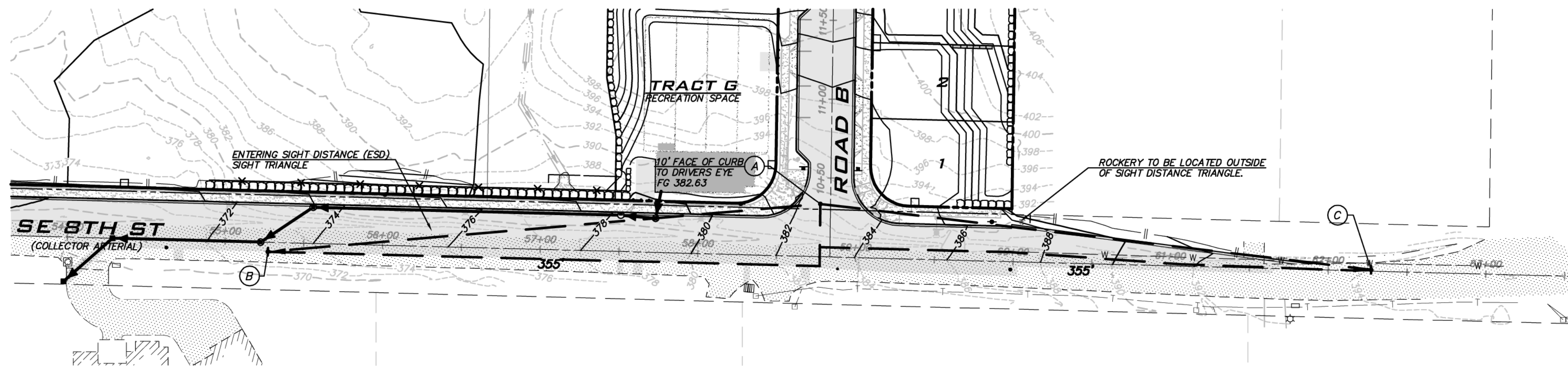
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JOB NUMBER:  
**15-111**

SHEET NAME:  
**RP-05**

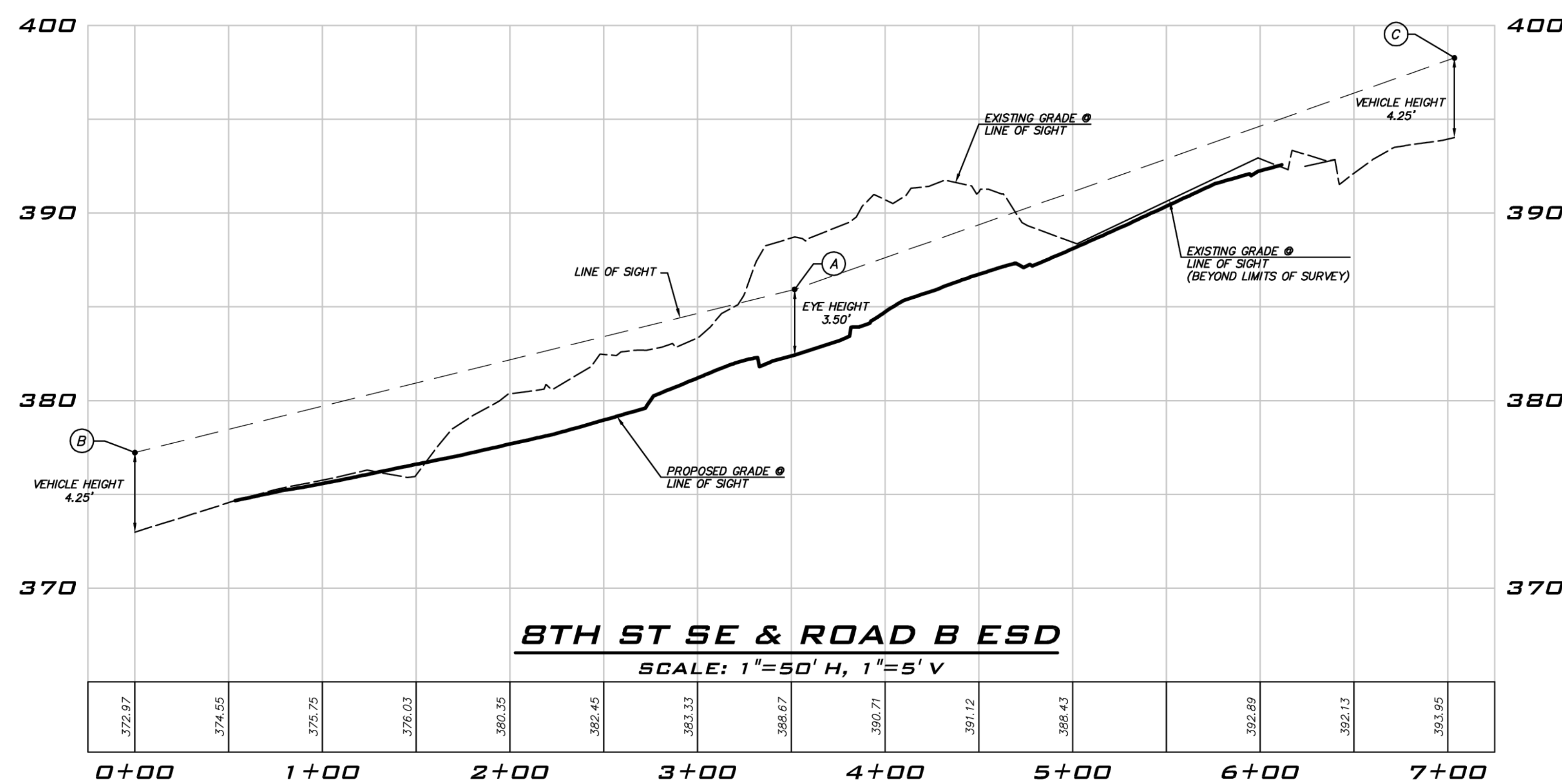
SHT **25** OF **48**





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 KIRKLAND, WA 98033  
 P: 425.216.4051 F: 425.216.4052  
 WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019



**ESD SIGHT TRIANGLE NOTES**  
 AREAS WITHIN THE ESD SIGHT TRIANGLES SHALL BE KEPT CLEAR OF OBSTRUCTIONS TO A MOTOR VEHICLE OPERATOR'S VIEW BETWEEN A HEIGHT OF 3' AND 10' ABOVE THE EXISTING SURFACE OF THE STREET. MINOR OBSTRUCTIONS SUCH AS UTILITY POLES, TRIMMED TREES, ETC MAY BE ALLOWED AS SPECIFIED IN PWS.15.180.

- NOTES**
- POSTED SPEED = 25 MPH
  - SIGHT DISTANCE PARAMETERS PER 2000 CITY OF SAMMAMISH INTERIM PUBLIC WORKS STANDARDS (PWS)

**ESD INFO**

EYE HEIGHT - ENTERING:	3.5'
VEHICLE HEIGHT - APPROACHING:	4.25'
MEASURED AT: 10' FROM TRAVEL LANE	
DESIGN SPEED:	30 MPH
REQUIRED ESD:	= 355'
PROVIDED ESD:	> 355'

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.  
 htrabourge08/09/2019  
 City of Sammamish Public Works Department

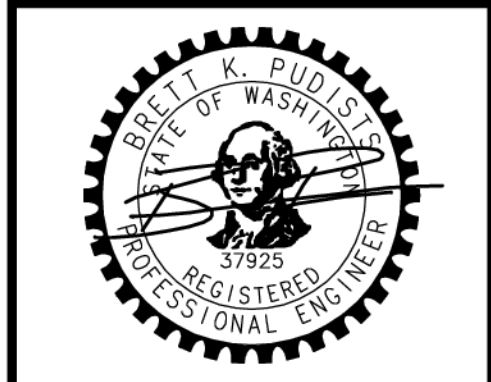
PLANNING DEPT. APPROVAL  
 BY: ABaty  
 DATE: 08/16/2019

ROW2019-03272

**UNDERGROUND UTILITY NOTE**  
 UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

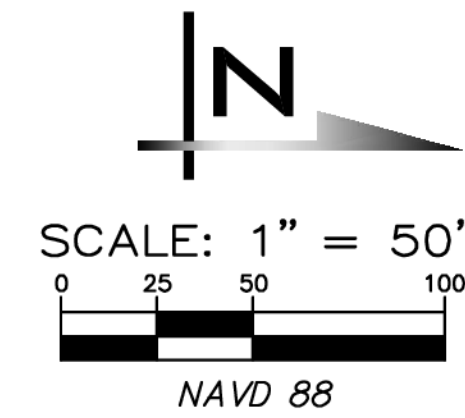
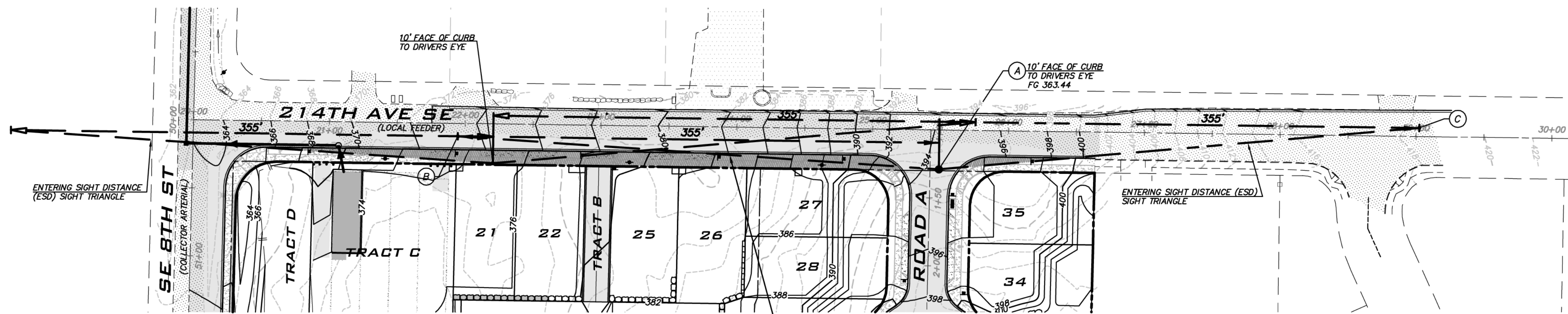
NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

ENTERING SIGHT DISTANCE  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON



8/5/19  
 JOB NUMBER:  
 15-111  
 SHEET NAME:  
 ESD-01  
 SHT 26 OF 48





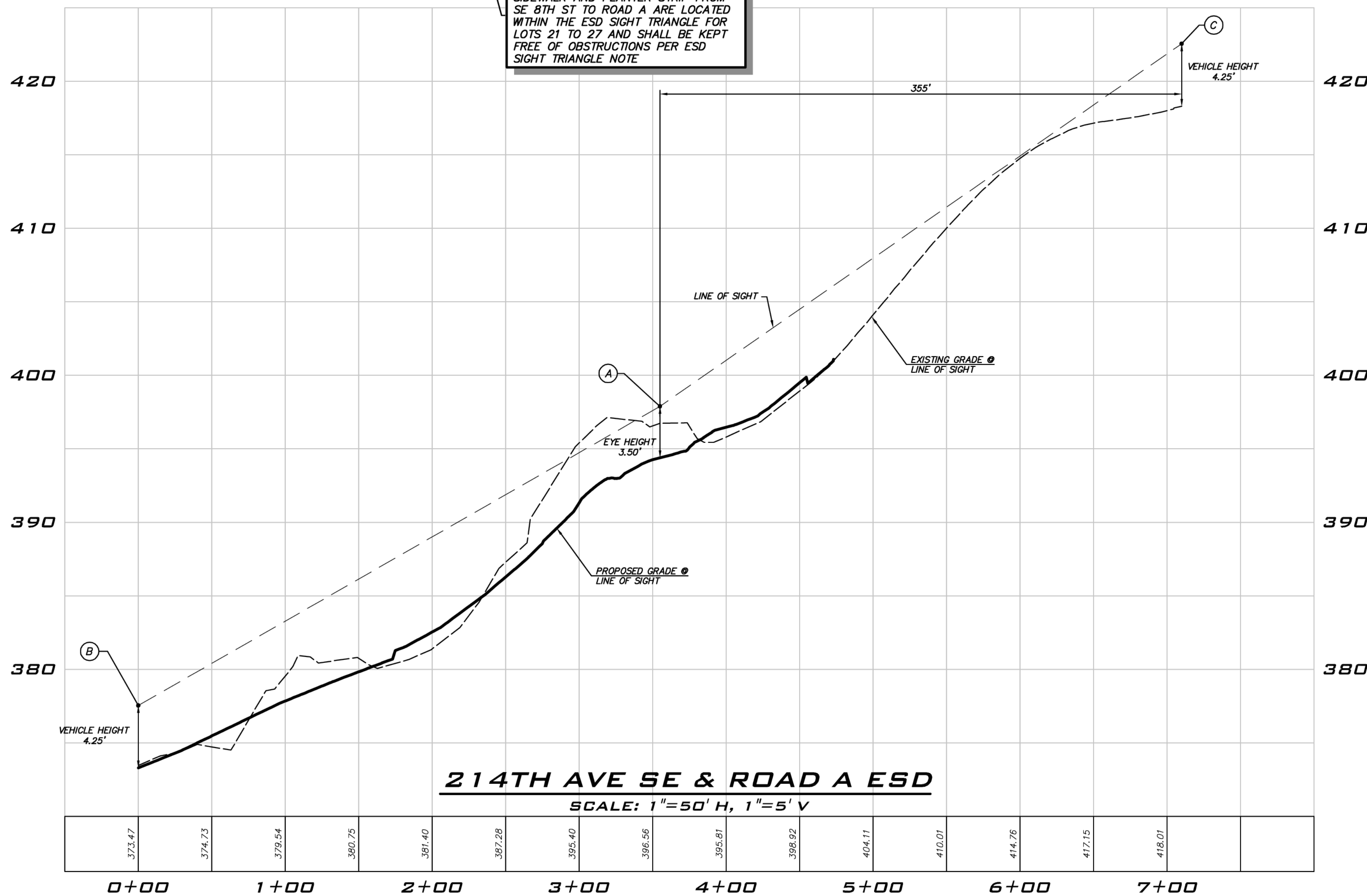
**ESD SIGHT TRIANGLE NOTES**

AREAS WITHIN THE ESD SIGHT TRIANGLES, INCLUDING THE ENTIRE PLANTER STRIP ON THE E. SIDE OF 214TH AVE SE BETWEEN SE 8TH STREET AND ROAD A, SHALL BE KEPT CLEAR OF OBSTRUCTIONS TO A MOTOR VEHICLE OPERATOR'S VIEW BETWEEN A HEIGHT OF 3' AND 10' ABOVE THE EXISTING SURFACE OF THE STREET. MINOR OBSTRUCTIONS SUCH AS UTILITY POLES, TRIMMED TREES, ETC MAY BE ALLOWED AS SPECIFIED IN PWS.15.180.

ESD WAS EVALUATED FOR LOTS 21-26 AND TRACT B AND FOUND TO MEET STANDARDS.

**NOTE**

SIDEWALK AND PLANTER STRIP FROM SE 8TH ST TO ROAD A ARE LOCATED WITHIN THE ESD SIGHT TRIANGLE FOR LOTS 21 TO 27 AND SHALL BE KEPT FREE OF OBSTRUCTIONS PER ESD SIGHT TRIANGLE NOTE



**NOTES**

1. POSTED SPEED = 25 MPH
2. SIGHT DISTANCE PARAMETERS PER 2000 CITY OF SAMMAMISH INTERIM PUBLIC WORKS STANDARDS (PWS)

**ESD INFO**

EYE HEIGHT - ENTERING: 3.5'

VEHICLE HEIGHT - APPROACHING: 4.25'

MEASURED AT: 10' FROM TRAVEL LANE

DESIGN SPEED: 30 MPH

REQUIRED ESD: = 355'

PROVIDED ESD: > 355'



25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDIST, PE  
PROJECT ENGINEER: BRETT K PUDIST, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

NO	DATE	BY	REVISIONS	REVISION PER CITY COMMENTS	REVISION PER CITY COMMENTS	REVISION PER CITY COMMENTS	REVISION PER CITY COMMENTS
1	5/10/19	RAB					
2	7/26/19	ACL					
3	8/5/19	RMB					

ENTERING SIGHT DISTANCE  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.301 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.

hairsbourge@09/09/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 08/16/2019

ROW2019-03272

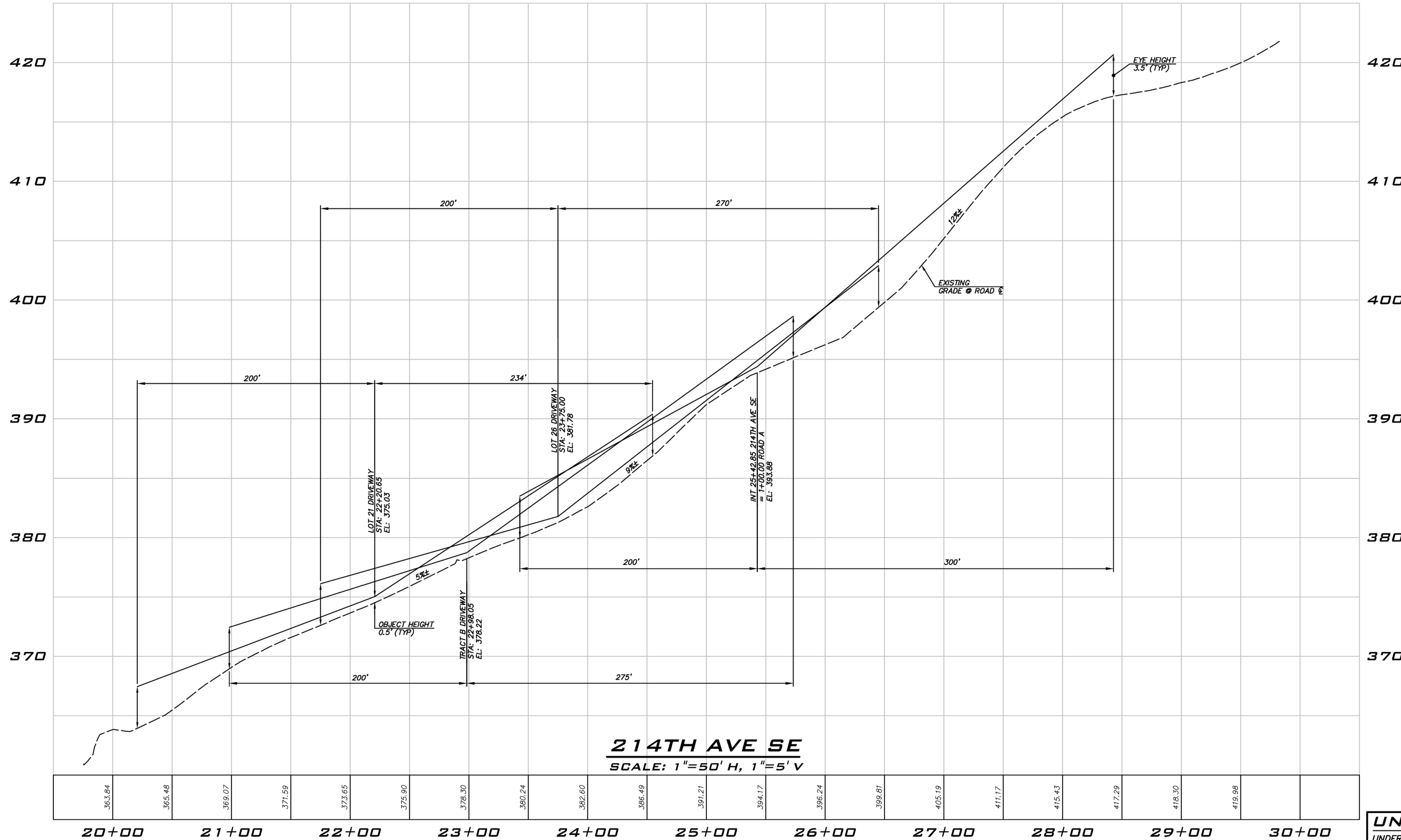
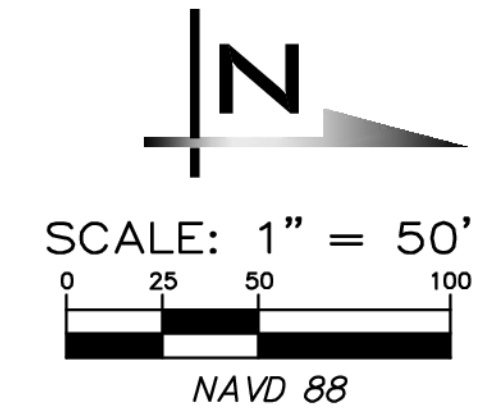
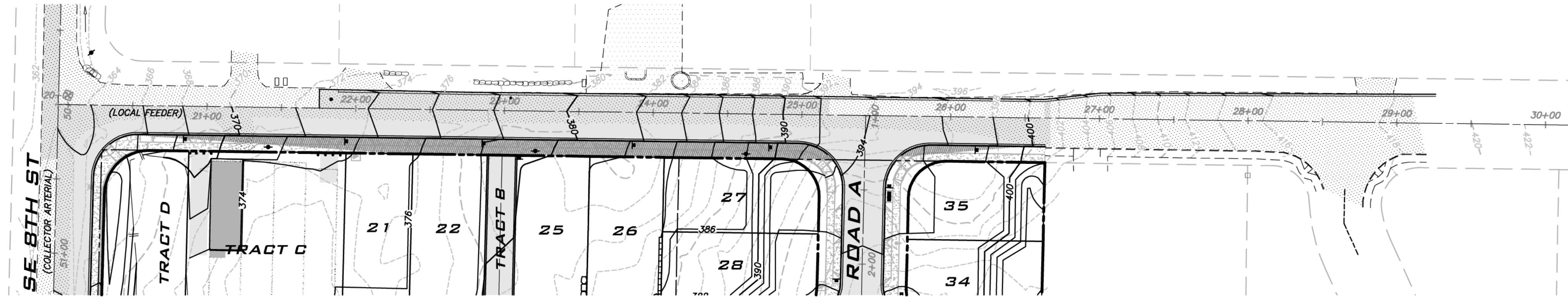
**UNDERGROUND UTILITY NOTE**

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8/5/19  
JOB NUMBER: 15-111  
SHEET NAME: ESD-02  
SHT 27 OF 48





**214TH AVE SE**  
SCALE: 1"=50' H, 1"=5' V

- NOTES**
- POSTED SPEED = 25 MPH
  - SIGHT DISTANCE PARAMETERS PER 2000 CITY OF SAMMAMISH INTERIM PUBLIC WORKS STANDARDS (PWS)

**SSD INFO**

OBJECT HEIGHT:	0.5'
EYE HEIGHT:	3.5'
DESIGN SPEED:	30 MPH
STANDARD SSD:	200 FEET

**ADJUSTMENT FOR DOWNGRADE (PER TABLE IV):**

5%	=	34'
9%	=	70'
12%	=	100'

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
Date: 08/16/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 08/16/2019

ROW2019-03272

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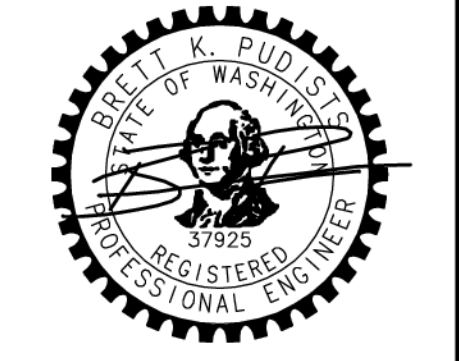
**BLUELINE**

25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052 WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDISTS, PE  
PROJECT ENGINEER: BRETT K PUDISTS, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RMB	REVISED PER CITY COMMENTS

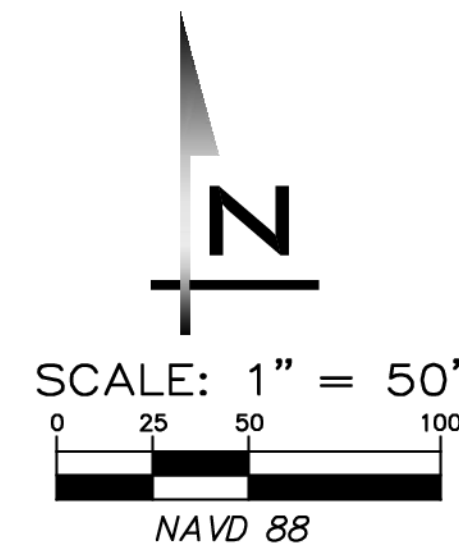
STOPPING SIGHT DISTANCE  
CARRIER SE 8TH SUBDIVISION  
ROAD & STORM PLANS  
CITY OF SAMMAMISH  
WASHINGTON



8/5/19  
JOB NUMBER: 15-111  
SHEET NAME: SSD-01  
SHT 28 OF 48

22.534  
Aug 05, 2019 - 7:00pm - User: digitalation  
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**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUENELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDISTS, PE

PROJECT ENGINEER:  
BRETT K PUDISTS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

**TAPER NOTES**

$L = \frac{WS^2}{60}$        $S = 30\text{MPH (30 OVER POSTED)}$

WEST TAPER (MIN):      EAST TAPER (MIN):  
 $L = 5' \times \frac{30^2}{60} = 75'$        $L = 11' \times \frac{30^2}{60} = 165'$

90' AS SHOWN      181' AS SHOWN

**EX CHANNELIZATION NOTES**

- EXISTING FEATURES SHOWN ARE AT APPROXIMATE LOCATIONS.
- REPLACE EXISTING FEATURES THAT HAVE BEEN DISTURBED WITH LIKE KIND UNLESS OTHERWISE NOTED.

**CHANNELIZATION NOTES**

**SIGNAGE NOTES:**

- SIGNS TO BE INSTALLED PER CITY OF SAMMAMISH PUBLIC WORKS STANDARDS.
- (A) INSTALL 30"x30" (R1-1-MUTCD) STOP ON STREET NAME POST FACING COMPLEX PER SAMMAMISH PUBLIC WORKS FIG04-06
- (B) INSTALL "NO PARKING - FIRE LANE" SIGN (R7-MUTCD)
- (C) INSTALL STREET NAME SIGNS
- (D) INSTALL "NO PARKING THIS SIDE" SIGN
- (E) INSTALL "NO PARKING BOTH SIDES" SIGN
- (F) INSTALL "DEAD END" SIGN
- (G) HOUSE ADDRESS SIGN FOR COMMON DRIVE

**CHANNELIZATION NOTES:**

- CHANNELIZATION & PAVEMENT MARKINGS TO BE PER CITY OF SAMMAMISH PAVEMENT MARKING STANDARDS.
- (1) INSTALL 16" WHITE THERMOPLASTIC STOP BAR PER SAMMAMISH PUBLIC WORKS FIG04-05
- (5) INSTALL BIKE SYMBOLS FOR BIKE LANE 300' O.C. PER SAMMAMISH PUBLIC WORKS FIG02-28.

**NOTES:**

- STRIPING LAYOUT PAVEMENT MARKINGS AND SIGN INSTALLATION SHALL BE APPROVED BY THE CITY OF SAMMAMISH PRIOR TO INSTALLATION.
- ALL SIGNS SHALL BE INSTALLED PER CITY OF SAMMAMISH SIGN INSTALLATION STANDARD DETAILS.
- CONTRACTOR MUST PROVIDE 72 HOUR NOTICE FOR CHANNELIZATION REVIEW.
- SEE DETAILS ON SHEETS DT-01 TO DT-04.

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**CITY OF SAMMAMISH**

APPROVAL BLOCK

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per 19.301 SMC, 14.01 SMC, and 14.15 SMC,  
subject to field inspection and correction.

PLANNING DEPT. APPROVAL  
BY: ABarry  
DATE: 08/16/2019

hbarbour@09/09/2019  
City of Sammamish Public Works Department

ROW2019-03272

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS
3	8/5/19	RAB	REVISED PER CITY COMMENTS

CHANNELIZATION PLAN

CARRIER SE 8TH SUBDIVISION

ROAD & STORM PLANS

CITY OF SAMMAMISH

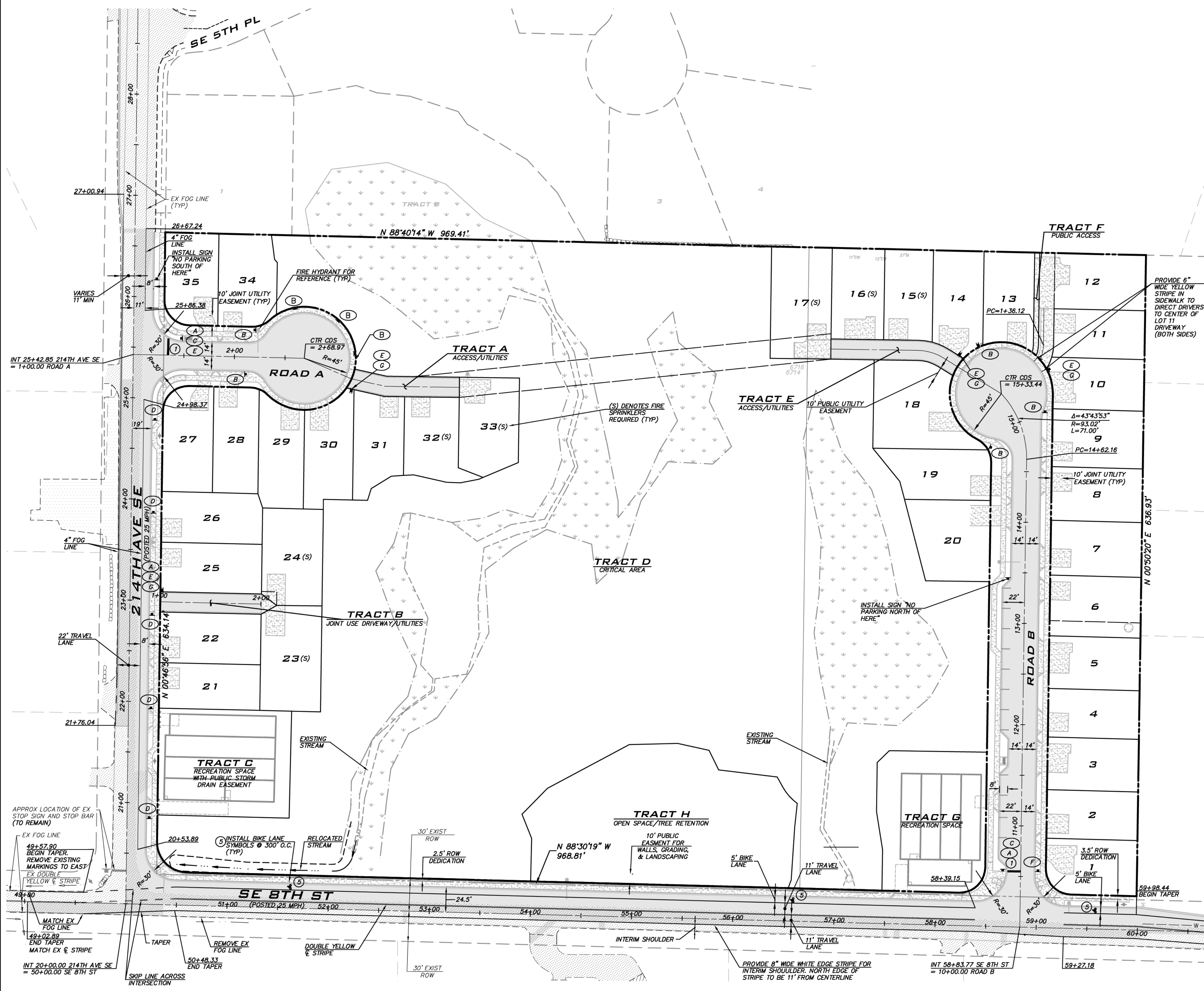
WASHINGTON

8/5/19

JOB NUMBER:  
**15-111**

SHEET NAME:  
**CH-01**

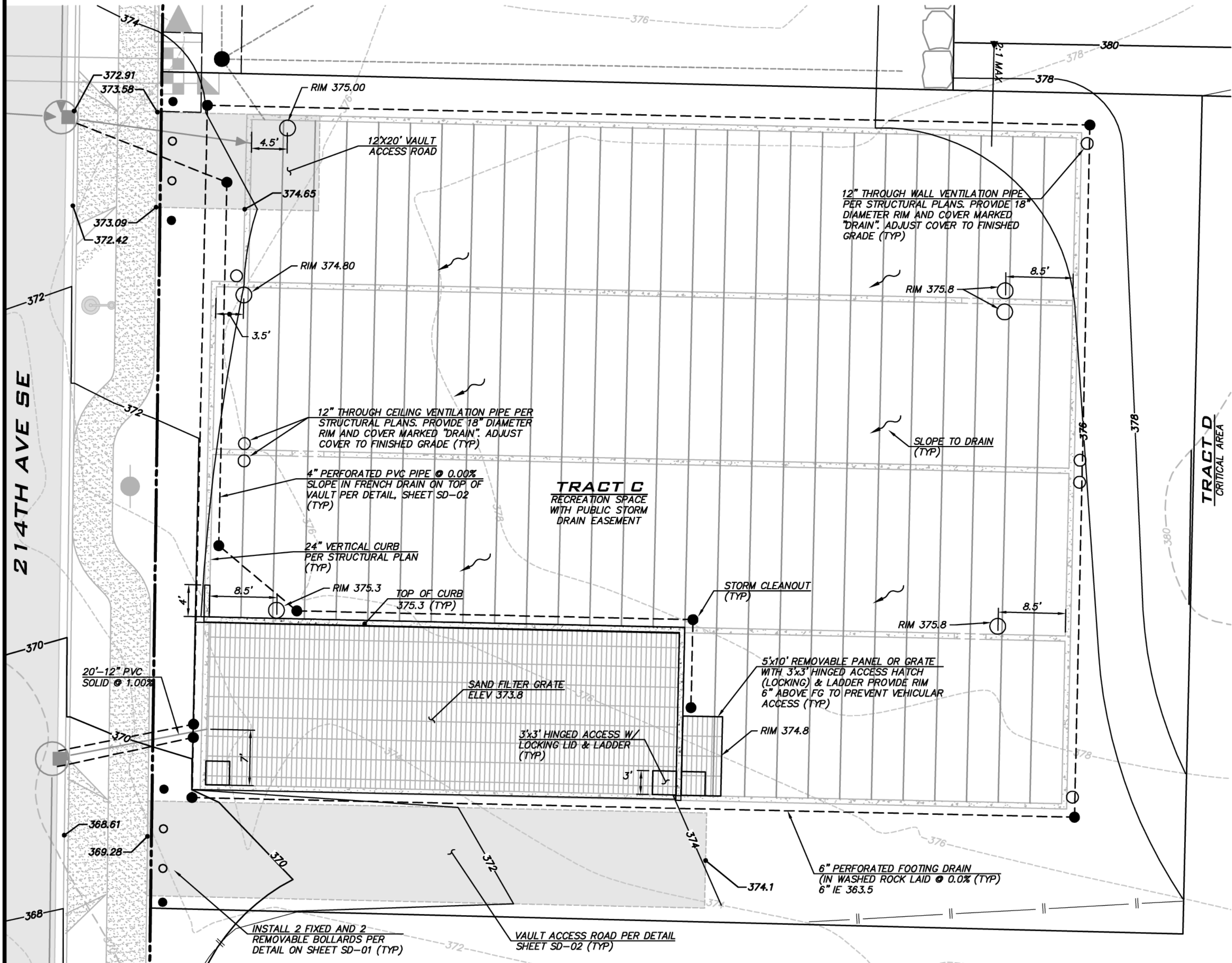
SHT **29** OF **48**



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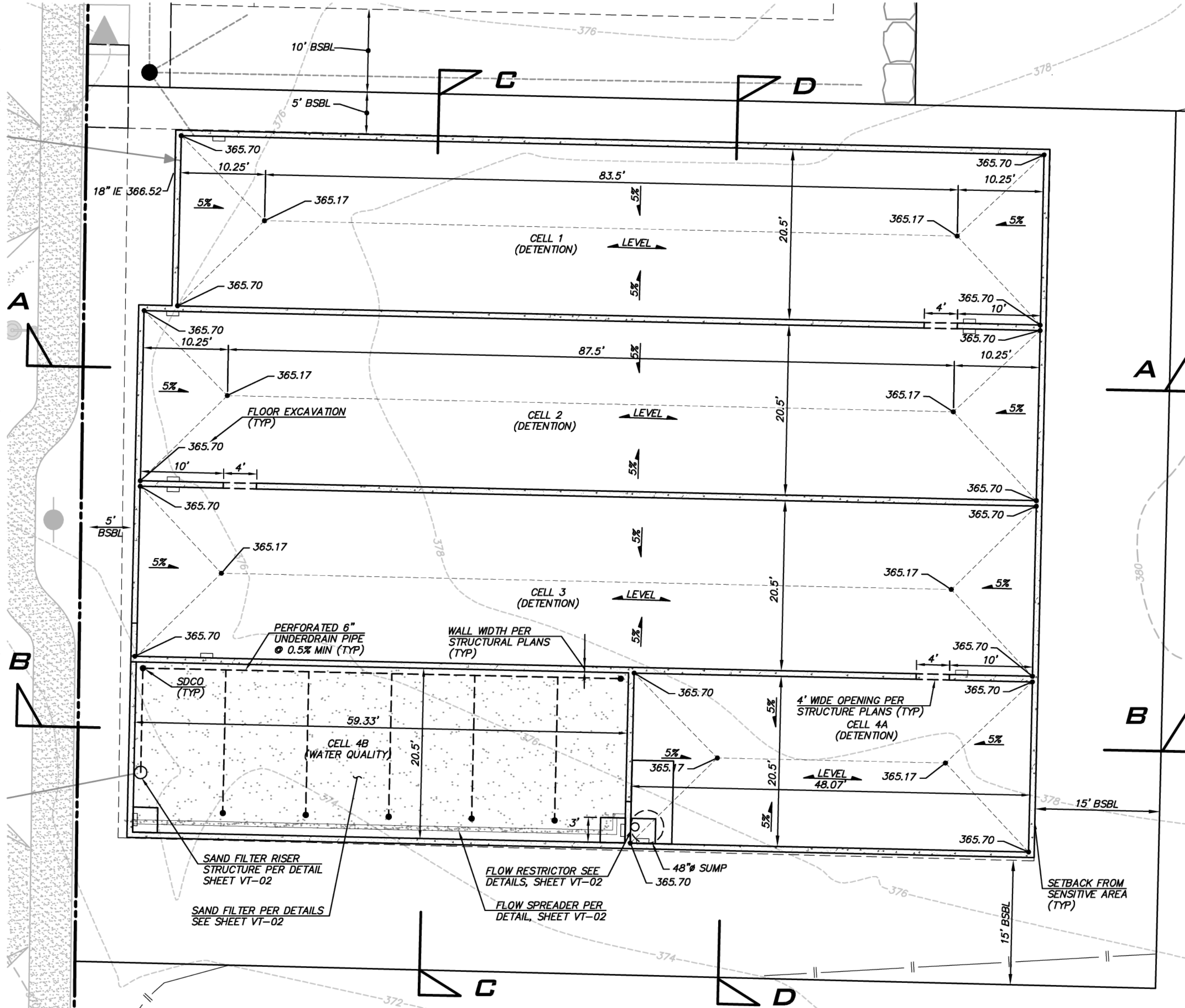


SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019



**WEST VAULT EXTERIOR DETAIL**  
 SCALE: 1"=10'

**VAULT FINISHED GRADES**  
 FINISHED GRADES OVER VAULT VARIES FROM 374.65 MIN TO 377.0 MAX.

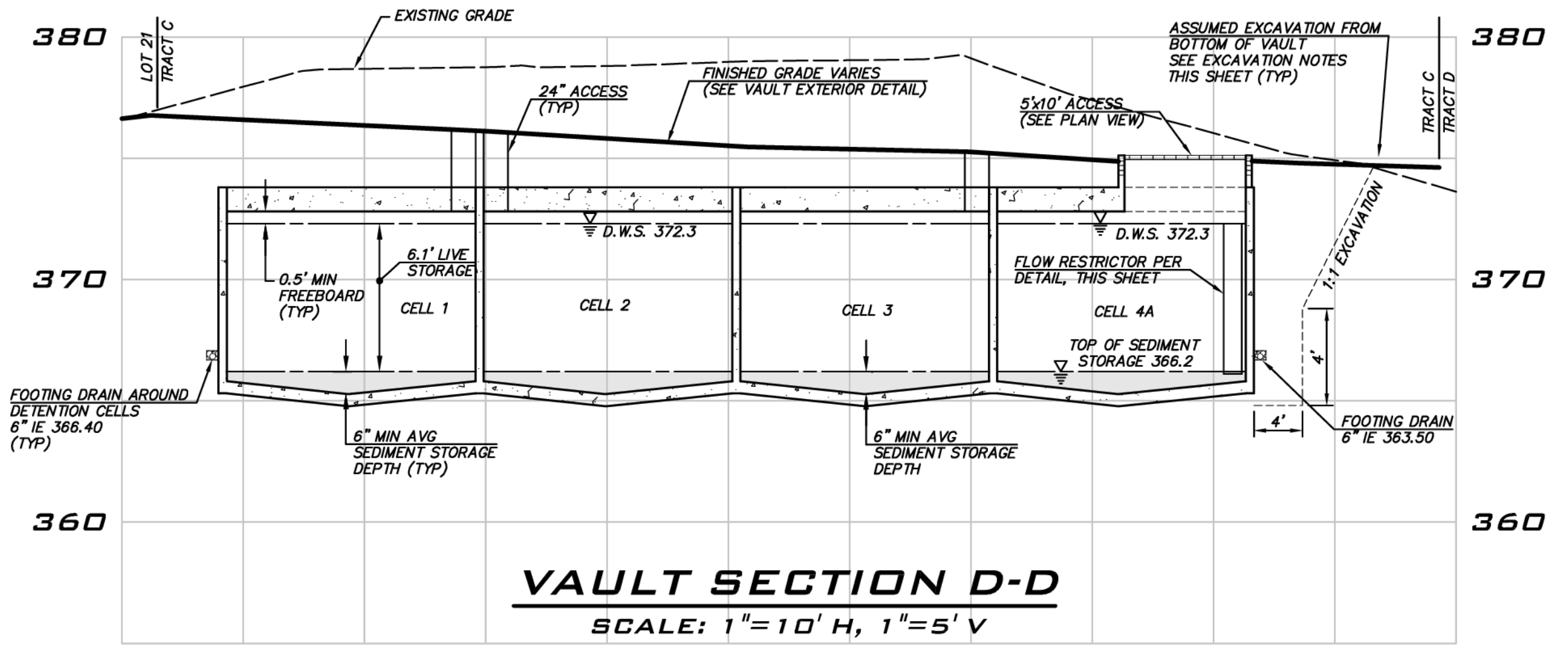
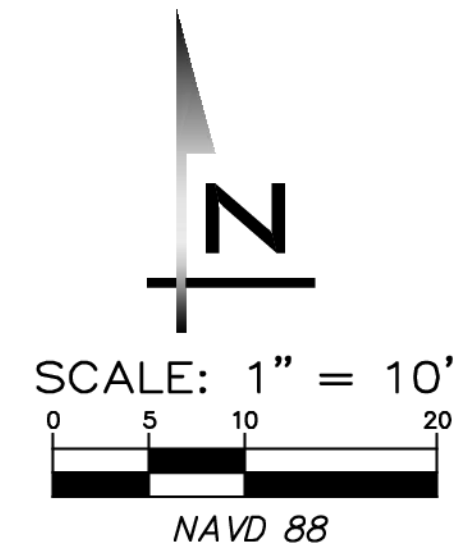


**WEST VAULT INTERIOR DETAIL**  
 SCALE: 1"=10'

**WEST VAULT VOLUMES**

	REQUIRED VOLUME (CF)	PROVIDED VOLUME (CF)	AS-BUILT VOLUME (CF)
LIVE STORAGE	44,937	46,018	
SAND FILTER	915	1,216	

NOTE: SAND FILTER IS DESIGNED TO PROVIDE 1' PONDING DEPTH.



**VAULT SECTION D-D**  
 SCALE: 1"=10' H, 1"=5' V

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.  
 harrisaubourge09/09/2019  
 City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
 BY: ABaty  
 DATE: 08/16/2019

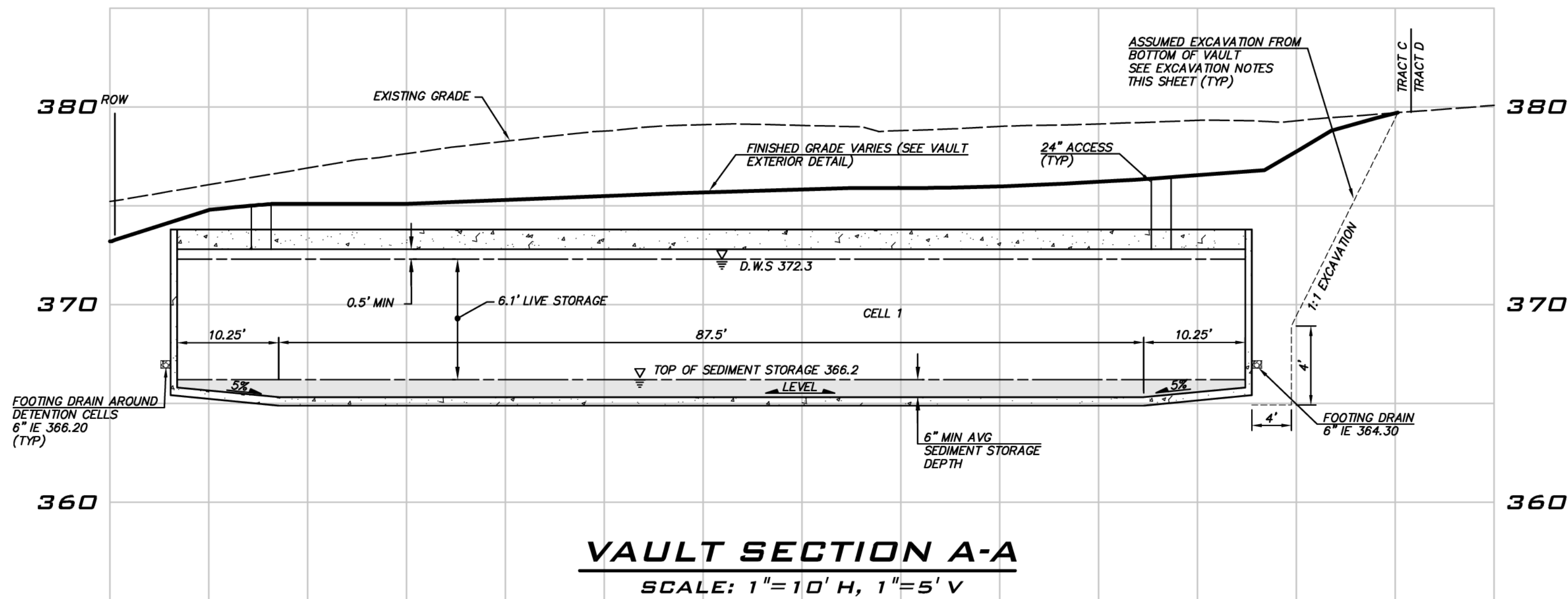
ROW2019-03272

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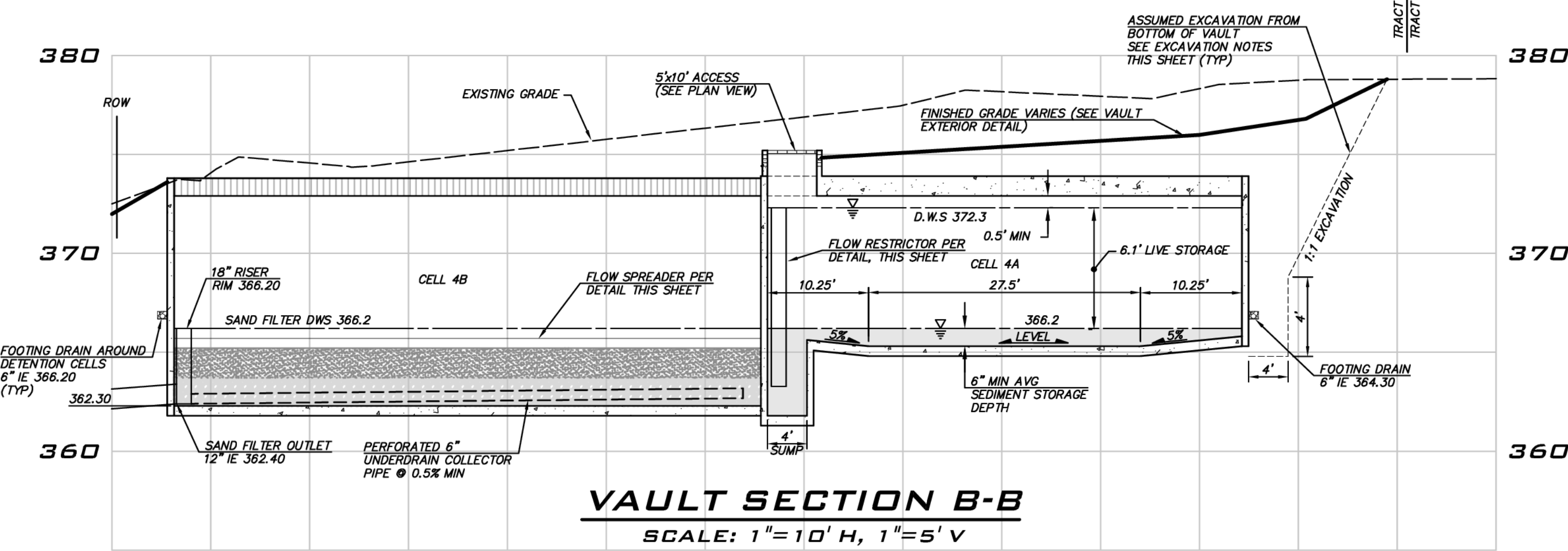
WEST VAULT PLAN  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH  
 WASHINGTON

8/5/19  
 JOB NUMBER:  
 15-111  
 SHEET NAME:  
 VT-01  
 SHT 30 OF 48

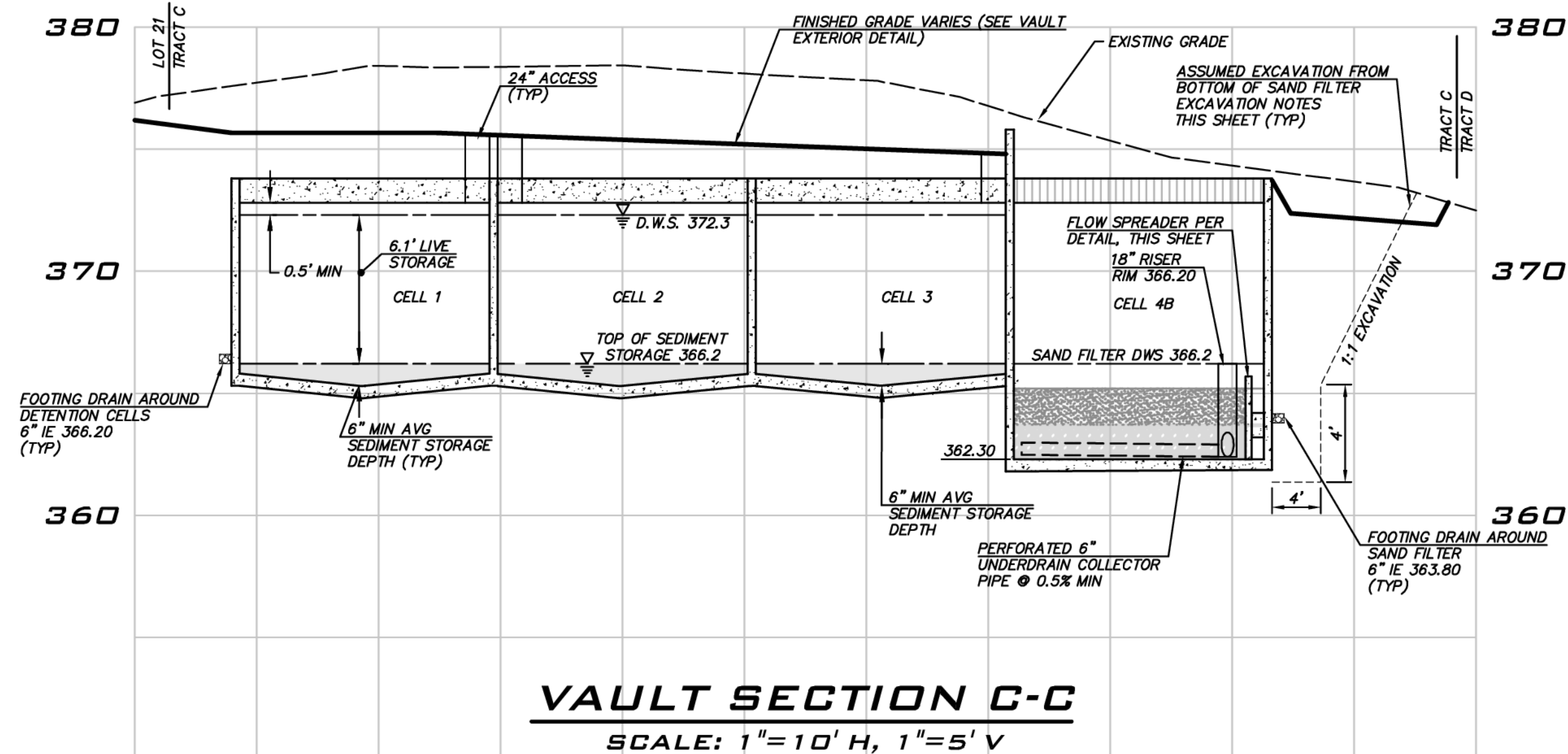




**VAULT SECTION A-A**  
SCALE: 1"=10' H, 1"=5' V



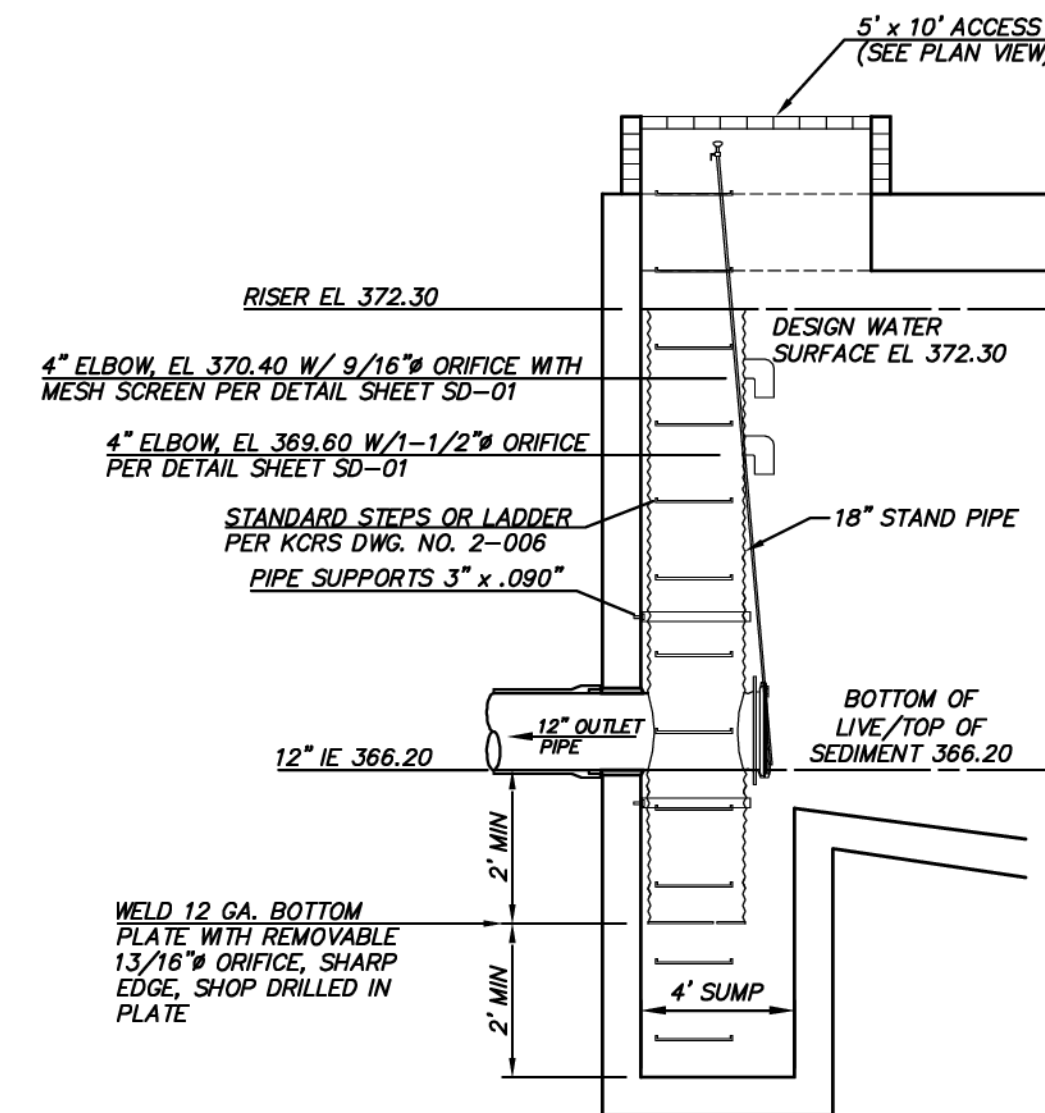
**VAULT SECTION B-B**  
SCALE: 1"=10' H, 1"=5' V



**VAULT SECTION C-C**  
SCALE: 1"=10' H, 1"=5' V

INSTALL A BRASS OR STAINLESS STEEL INFORMATION PLATE INSIDE VAULT. INFORMATION ON THE PLATE SHOULD INCLUDE THE FOLLOWING:

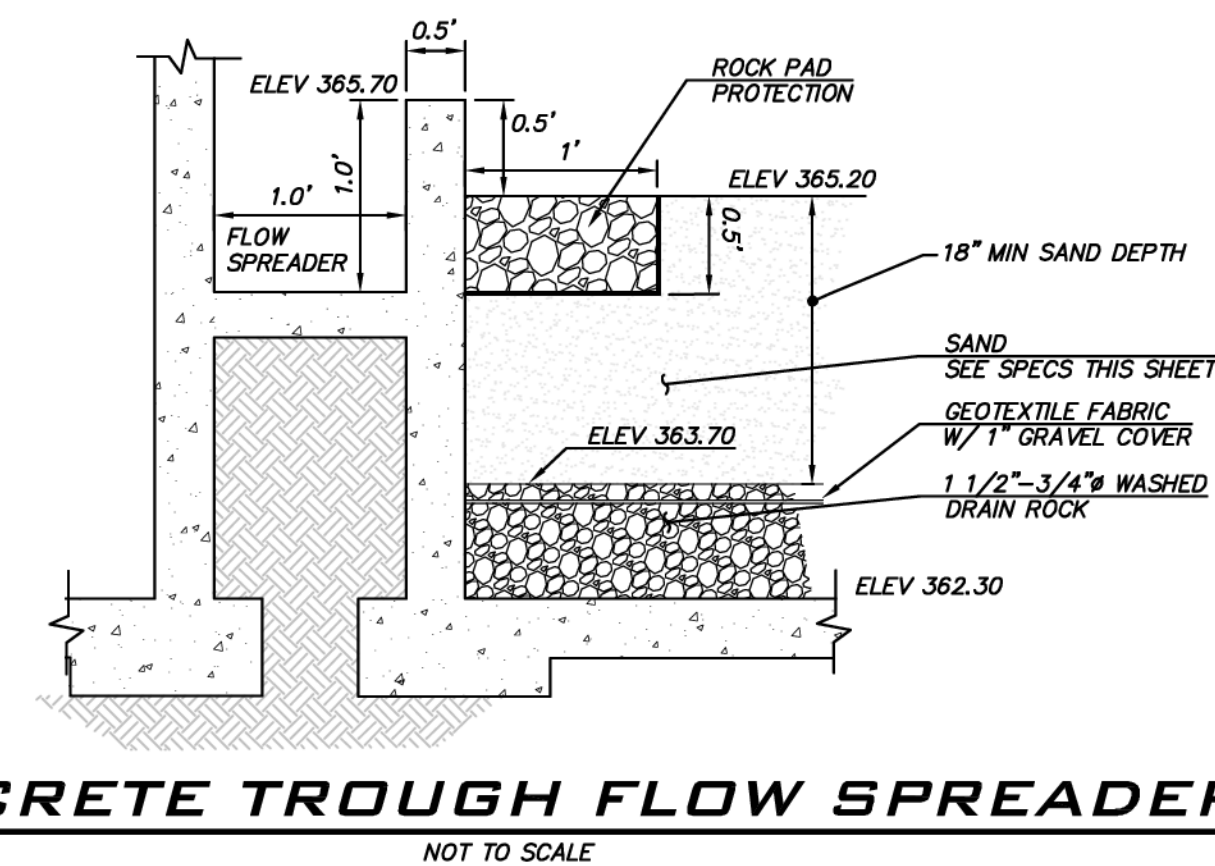
- PROJECT NAME: CARRIER
- PROJECT #: SDP 2018-06254
- DEVELOPER: TOLL BROTHERS
- ENGINEER: THE BLUELINE GROUP
- CONTRACTOR:
- DATE CONSTRUCTED:
- MANUAL USED FOR DESIGN: 2009 KING COUNTY SURFACE WATER DESIGN MANUAL
- OUTFLOW PERFORMANCE CRITERIA - LEVEL III
- VAULT RISER DETAILS:
  - ORIFICE #1: 9/16" Ø, ELEV = 371.20
  - ORIFICE #2: 1-1/2" Ø, ELEV = 370.40
  - ORIFICE #3: 13/16" Ø, ELEV = 364.20
- TOP OF RISER ELEV = 372.30
- INSPECT VAULT FOR MAINTENANCE TWICE/YEAR DURING 1ST YEAR, ONCE/YEAR THEREAFTER.



**CONTROL STRUCTURE (WEST VAULT)**  
NOT TO SCALE

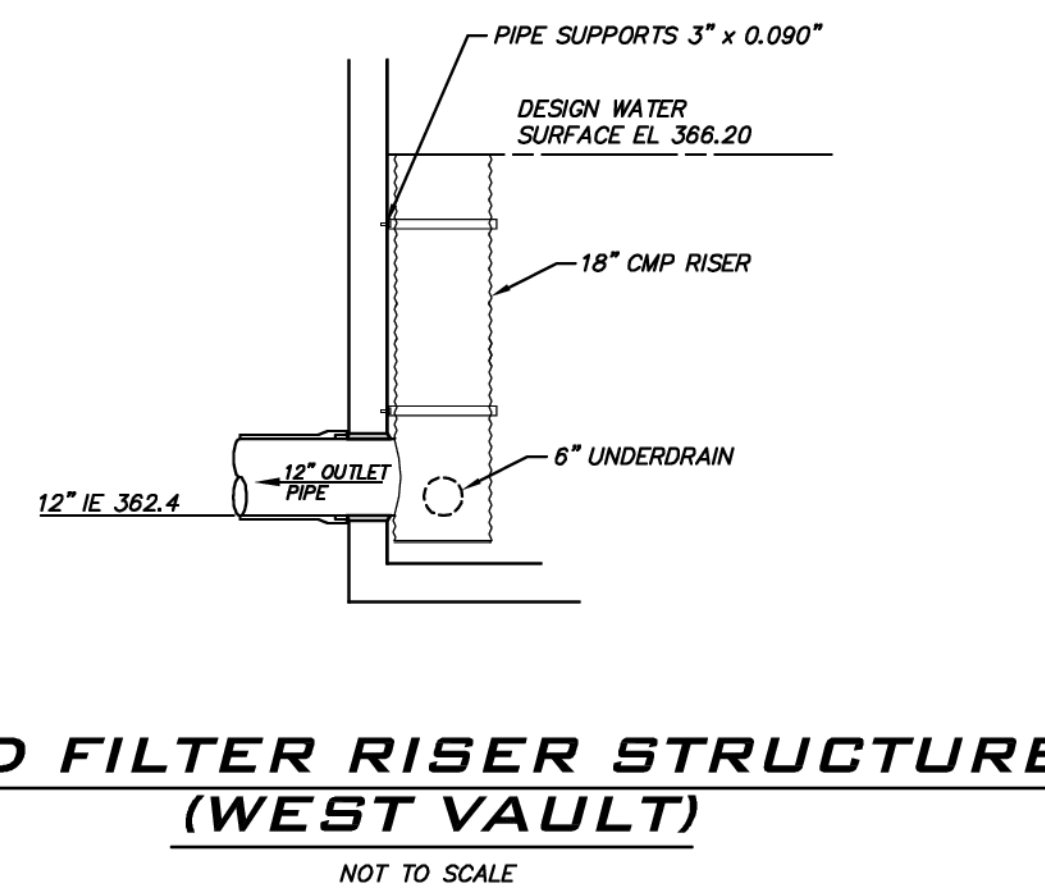
**VAULT NOTES**

- DIMENSIONS DEPICTING OVERALL SIZE OF VAULT ARE FOR REFERENCE ONLY. SEE STRUCTURAL PLANS FOR TOTAL LENGTH, WIDTH, HEIGHT AND WALL THICKNESS DESIGN, AS WELL AS LOCATIONS FOR PENETRATIONS AND ACCESS POINTS.
- COVER OVER VAULT TO BE AS NOTED ON VAULT EXTERIOR DETAIL.
- VAULT TO BE DESIGNED TO ACCOMMODATE H20 VEHICULAR LOADING PER 2009 KING COUNTY SURFACE WATER DESIGN MANUAL AND VACTOR TRUCK LOADING.
- FOOTING DRAINS TO BE PROVIDED AS SHOWN.
- PIPE SIZES AND SLOPES: PER PLANS.
- ACCESS OPENINGS TO HAVE OSHA CONFINED SPACE WARNING.
- JOINTS AND PENETRATIONS IN VAULT AND LID TO BE WATER TIGHT. PROVIDE WATER STOPS IN CAST IN PLACE JOINTS.
- ALL METAL PARTS CORROSION RESISTANT. NO-GALVANIZED PARTS. STAINLESS STEEL PARTS AND ALUMINUM ARE ACCEPTABLE, GALVANIZED PARTS TO HAVE ASPHALT TREATMENT 1.
- PIPE SUPPORTS AND RESTRICTOR/SEPARATOR/TEE SHALL BE OF SAME MATERIAL, AND BE ANCHORED AT 3' MAX. SPACING BY 5/8" DIA. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED 2" IN WALL.
- THE RESTRICTOR/SEPARATOR SHALL BE FABRICATED FROM 0.060" ALUMINUM OR 0.64" ALUMINIZED STEEL, OR 0.064" GALVANIZED STEEL PIPE; IN ACCORDANCE WITH AASHTO M 36, M 196, M 197, AND M 274. GALVANIZED STEEL SHALL HAVE TREATMENT 1.
- OUTLET SHALL BE CONNECTED TO CULVERT OR SEWER PIPE WITH A STANDARD COUPLING BAND FOR CORRUGATED METAL PIPE, OR GROUTED INTO BELL FOR CONCRETE PIPE.
- FRAME AND LADDER OR STEPS OFFSET SO THAT:
  - CLEANOUT GATE IS VISIBLE FROM TOP
  - CLIMB DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
  - FRAME IS CLEAR OF CURB.
- MULTI-ORIFICE ELBOWS MAY BE LOCATED AS SHOWN OR ALL ON ONE SIDE OF RISER TO ASSURE 2" MIN LADDER CLEARANCE.



**CONCRETE TROUGH FLOW SPREADER**  
NOT TO SCALE

**NOTE**  
SEE SHEET SD-01 & SD-02 FOR ADDITIONAL DETAILS.



**SAND FILTER RISER STRUCTURE (WEST VAULT)**  
NOT TO SCALE

**EXCAVATION LIMITS NOTE**  
LIMITS OF EXCAVATION CONSISTENT WITH THE ASSUMPTIONS NOTED ON THIS SHEET ARE SHOWN FOR REFERENCE ON THE TESC AND GRADING PLAN, SHEET TP-01. CONSULT WITH PROJECT GEOTECH TO CONFIRM SITE SPECIFIC EXCAVATION REQUIREMENTS DURING CONSTRUCTION.

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**BLUELINE**  
25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4851 F: 425.216.4052 WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDISTS, PE  
PROJECT ENGINEER: BRETT K PUDISTS, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. VAULT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

**WEST VAULT SECTIONS & DETAILS**  
**CARRIER SE 8TH SUBDIVISION ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

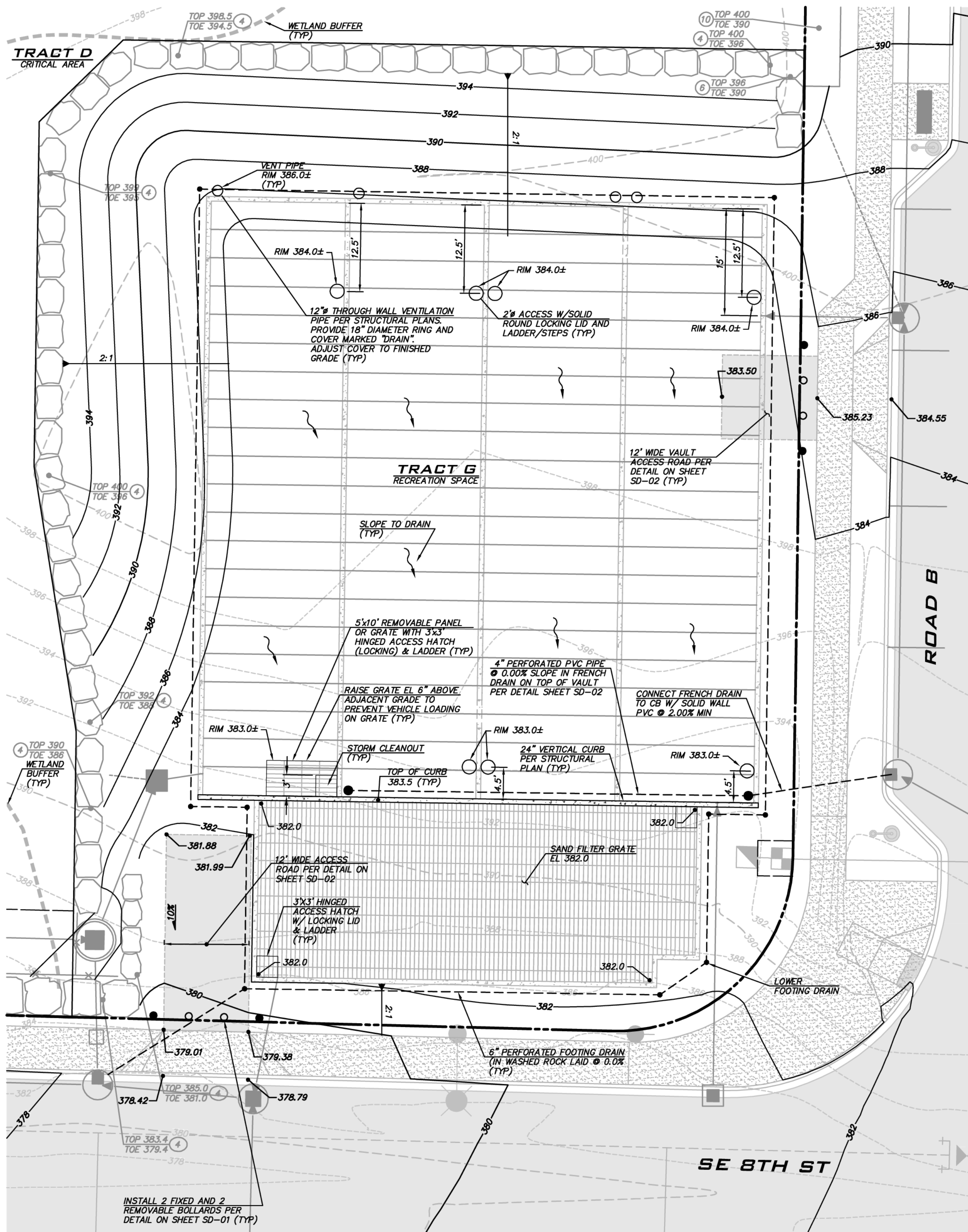
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REVIEWED FOR CODE COMPLIANCE per 19.300 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
htrabourge09/09/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 09/16/2019

8/5/19  
JOB NUMBER: 15-111  
SHEET NAME: VT-02  
SHT 31 OF 48



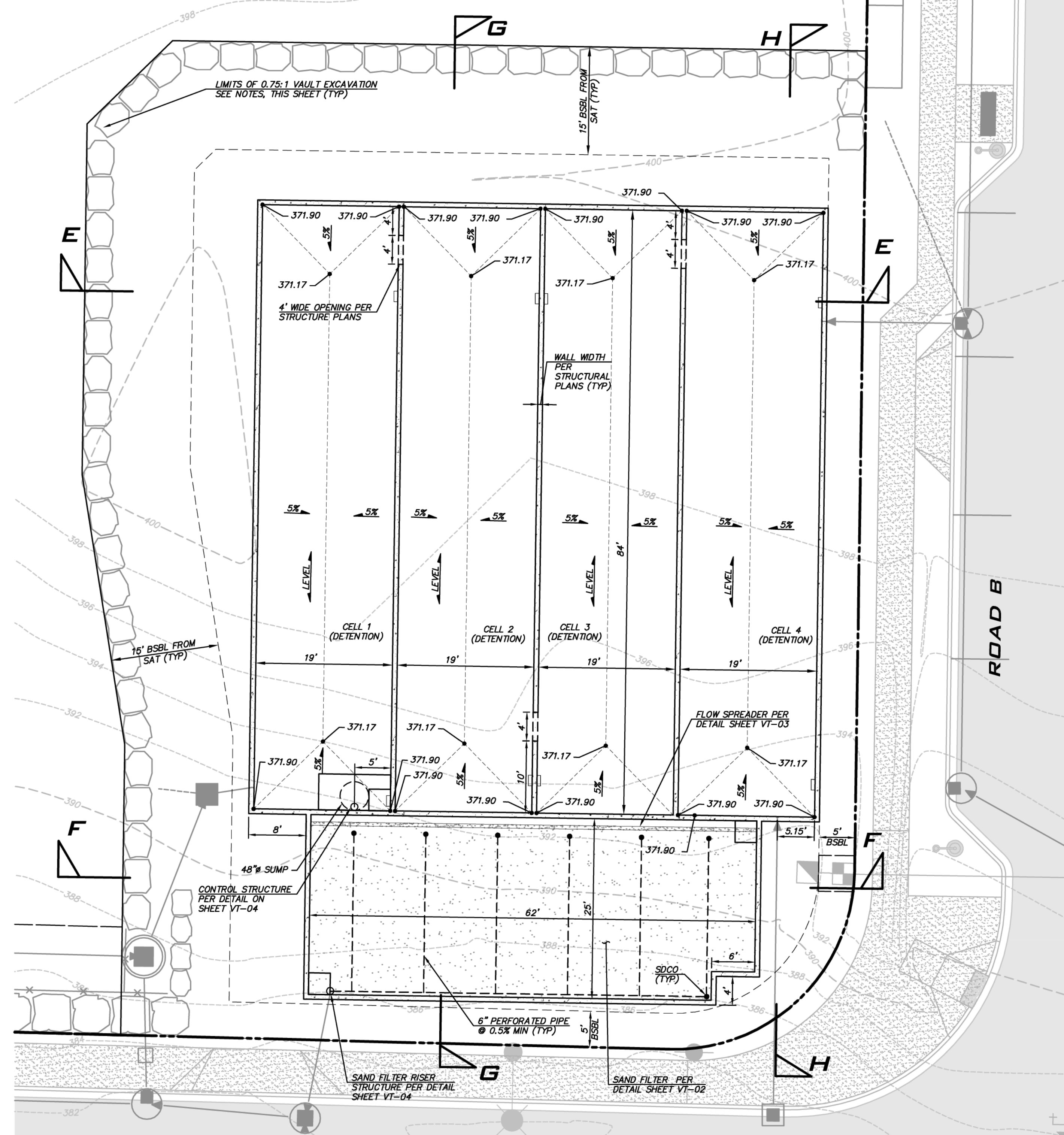


**EAST VAULT EXTERIOR DETAIL**

SCALE: 1" = 10'

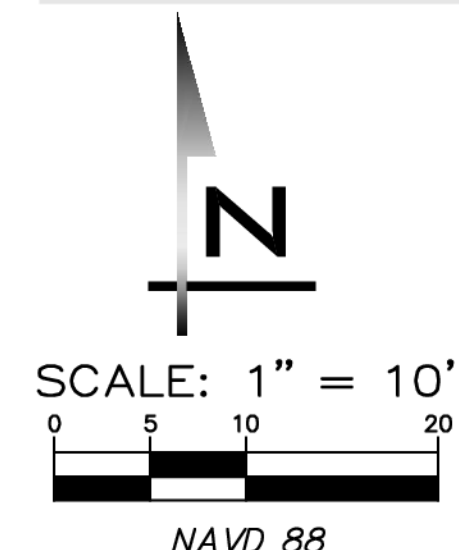
**VAULT FINISHED GRADES**

FINISHED GRADES OVER VAULT VARIES AS SHOWN ON VAULT EXTERIOR DETAIL. MIN FG=383.0 AND MAX FG=386.0.



**EAST VAULT INTERIOR DETAIL**

SCALE: 1" = 10'



**CONCRETE TROUGH FLOW SPREADER**

NOT TO SCALE

**CITY OF SAMMAMISH**  
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REVIEWED FOR CODE COMPLIANCE per 13.03 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and correction.

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 08/16/2019

hairsbourge09/09/2019  
City of Sammamish Public Works Department

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**EXCAVATION LIMITS NOTE**

LIMITS OF EXCAVATION CONSISTENT WITH THE ASSUMPTIONS NOTED ON THIS SHEET ARE SHOWN FOR REFERENCE ON THE TESC AND GRADING PLAN, SHEET TP-01. CONSULT WITH PROJECT GEOTECH TO CONFIRM SITE SPECIFIC EXCAVATION REQUIREMENTS DURING CONSTRUCTION.

EAST VAULT VOLUMES			
	REQUIRED VOLUME (CF)	PROVIDED VOLUME (CF)	AS-BUILT VOLUME (CF)
LIVE STORAGE	48,512	51,072	
DEAD STORAGE	1,425	1,488	

NOTE: SAND FILTER IS DESIGNED TO PROVIDE 1' PONDING DEPTH.

**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUENELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDISTS, PE

PROJECT ENGINEER:  
BRETT K PUDISTS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. VAULT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

**EAST VAULT PLAN**

**CARRIER SE 8TH SUBDIVISION**

**ROAD & STORM PLANS**

CITY OF SAMMAMISH WASHINGTON

**BRETT K. PUDISTS**  
REGISTERED PROFESSIONAL ENGINEER  
37925

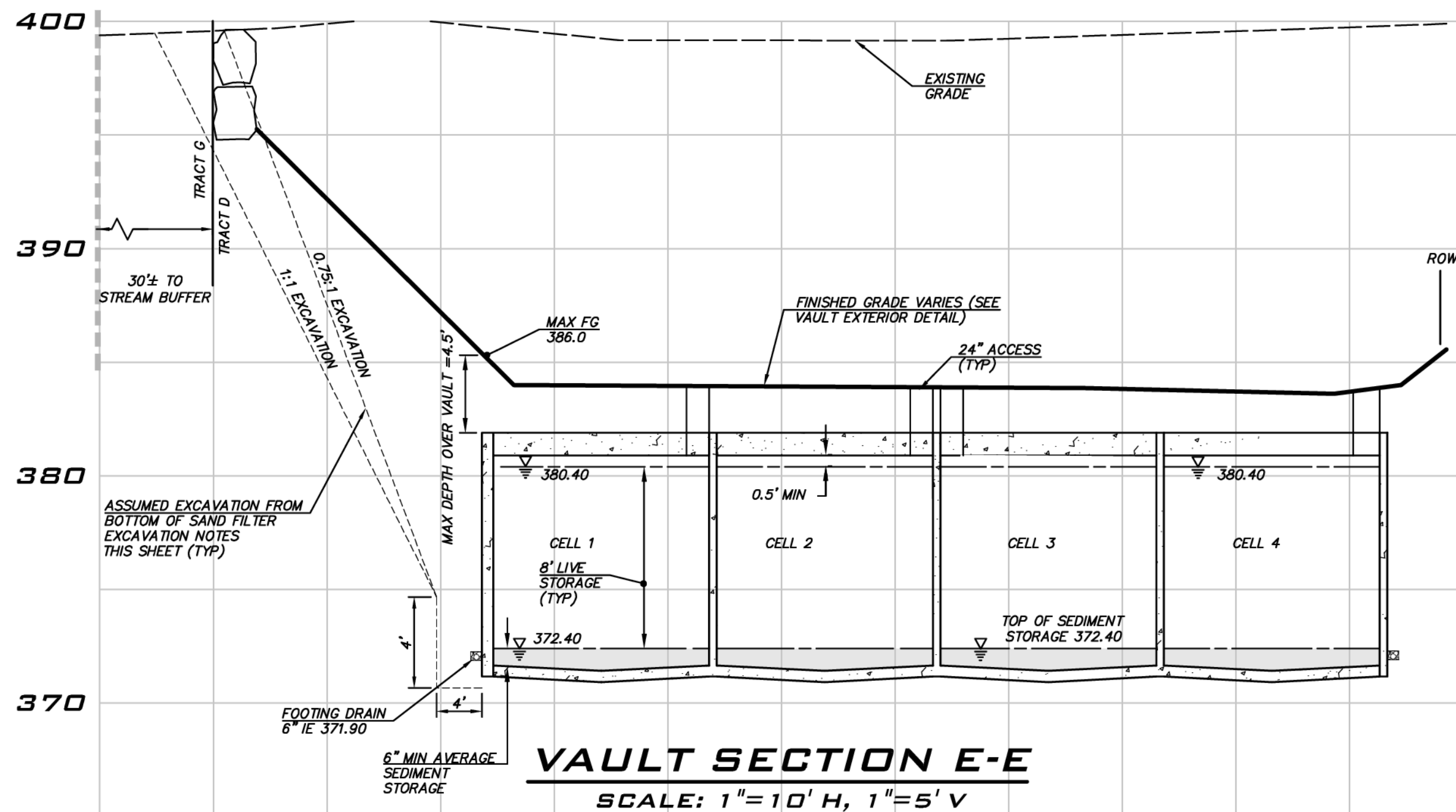
8/5/19

JOB NUMBER:  
**15-111**

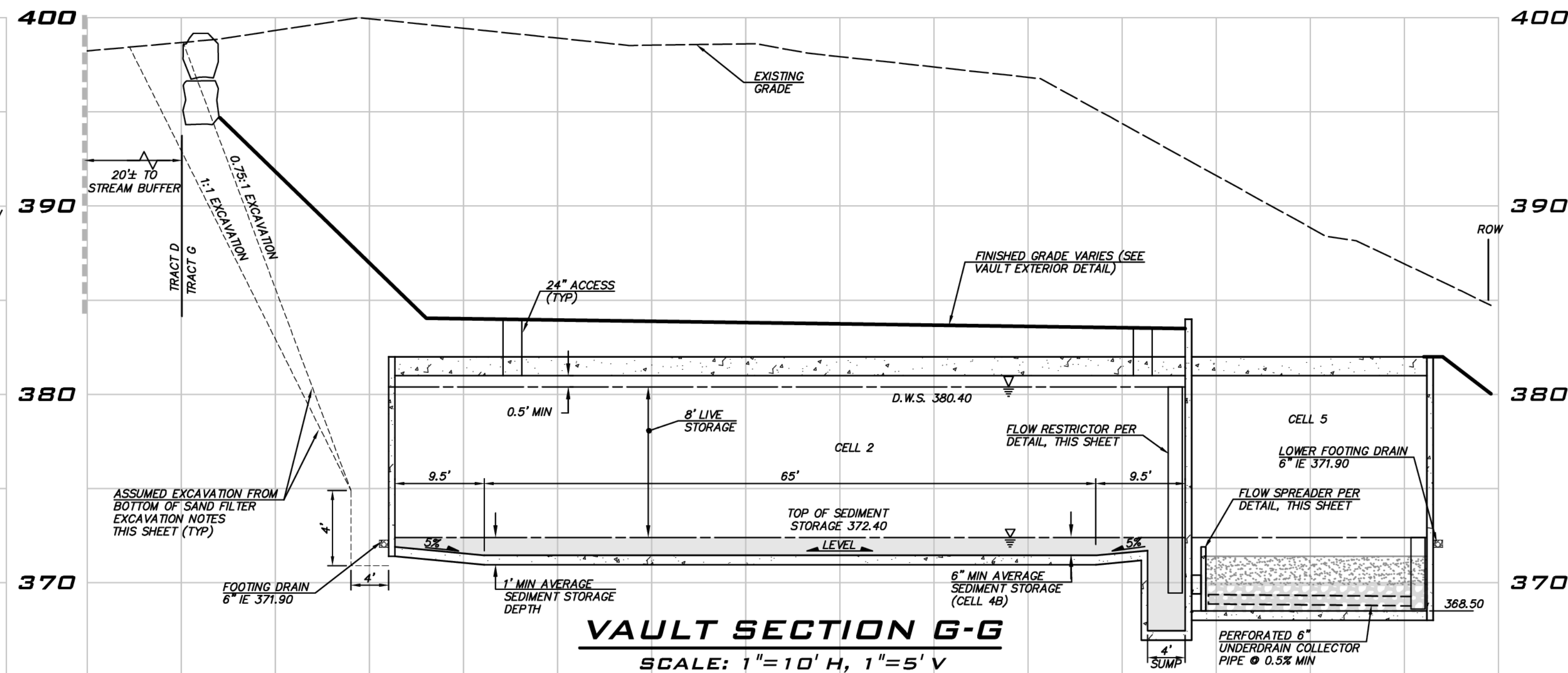
SHEET NAME:  
**VT-03**

SHT **32** OF **48**

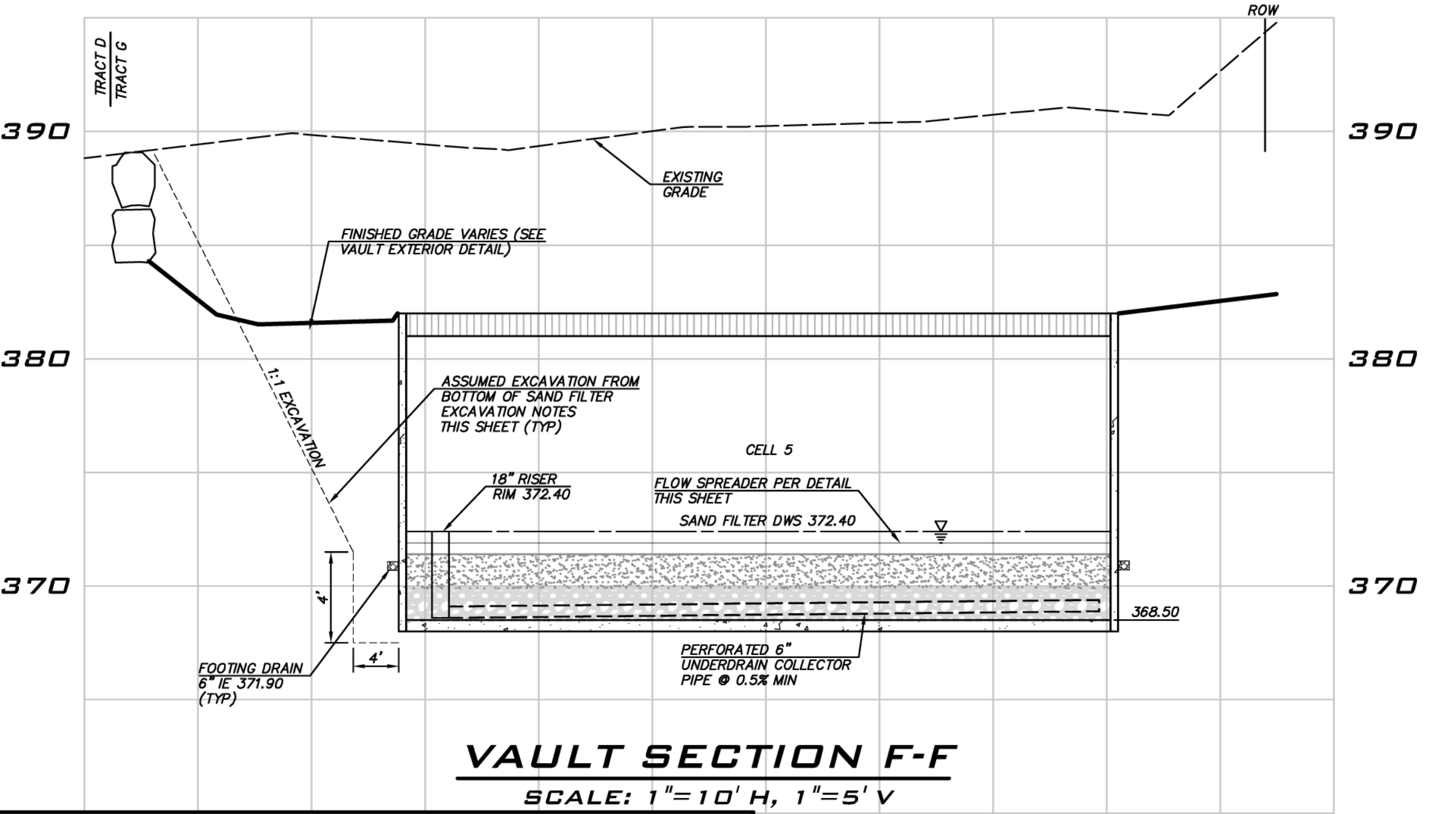




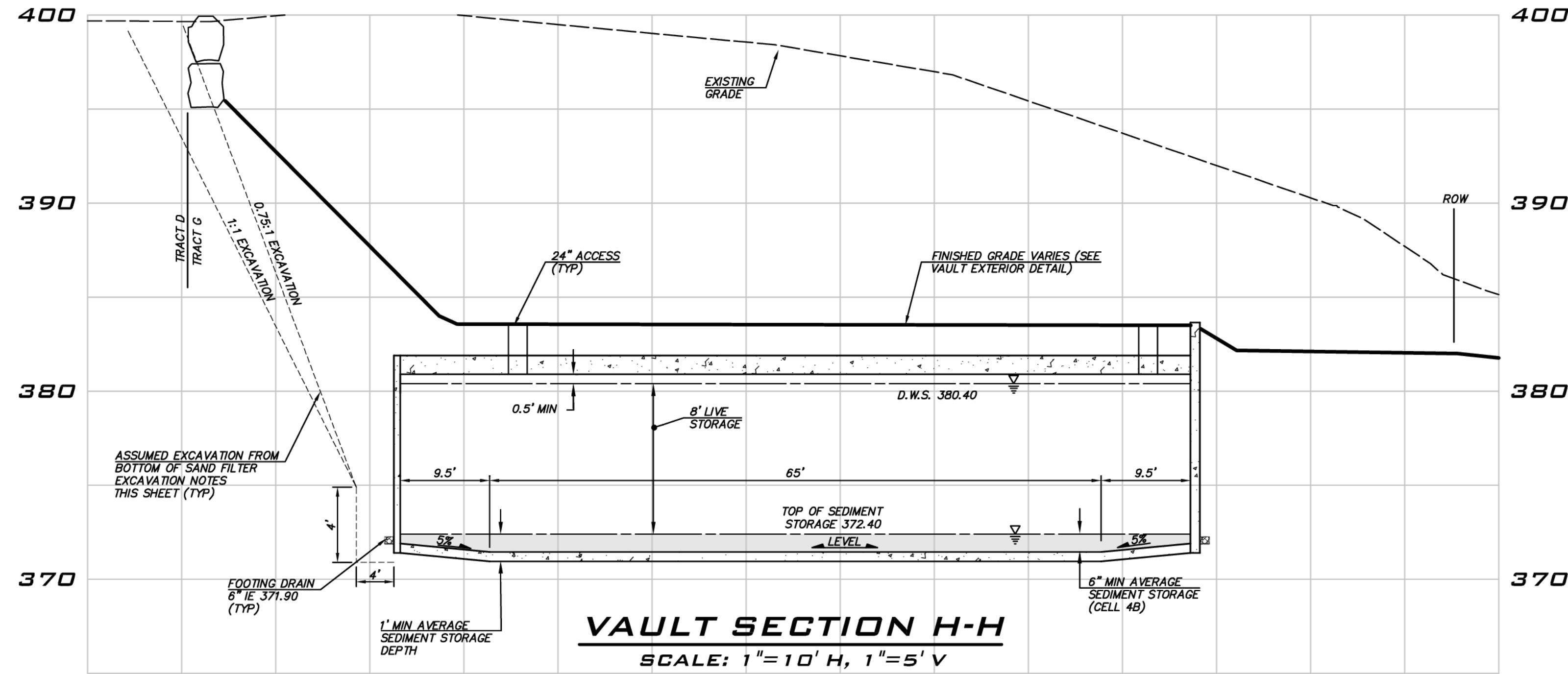
**VAULT SECTION E-E**  
SCALE: 1"=10' H, 1"=5' V



**VAULT SECTION G-G**  
SCALE: 1"=10' H, 1"=5' V



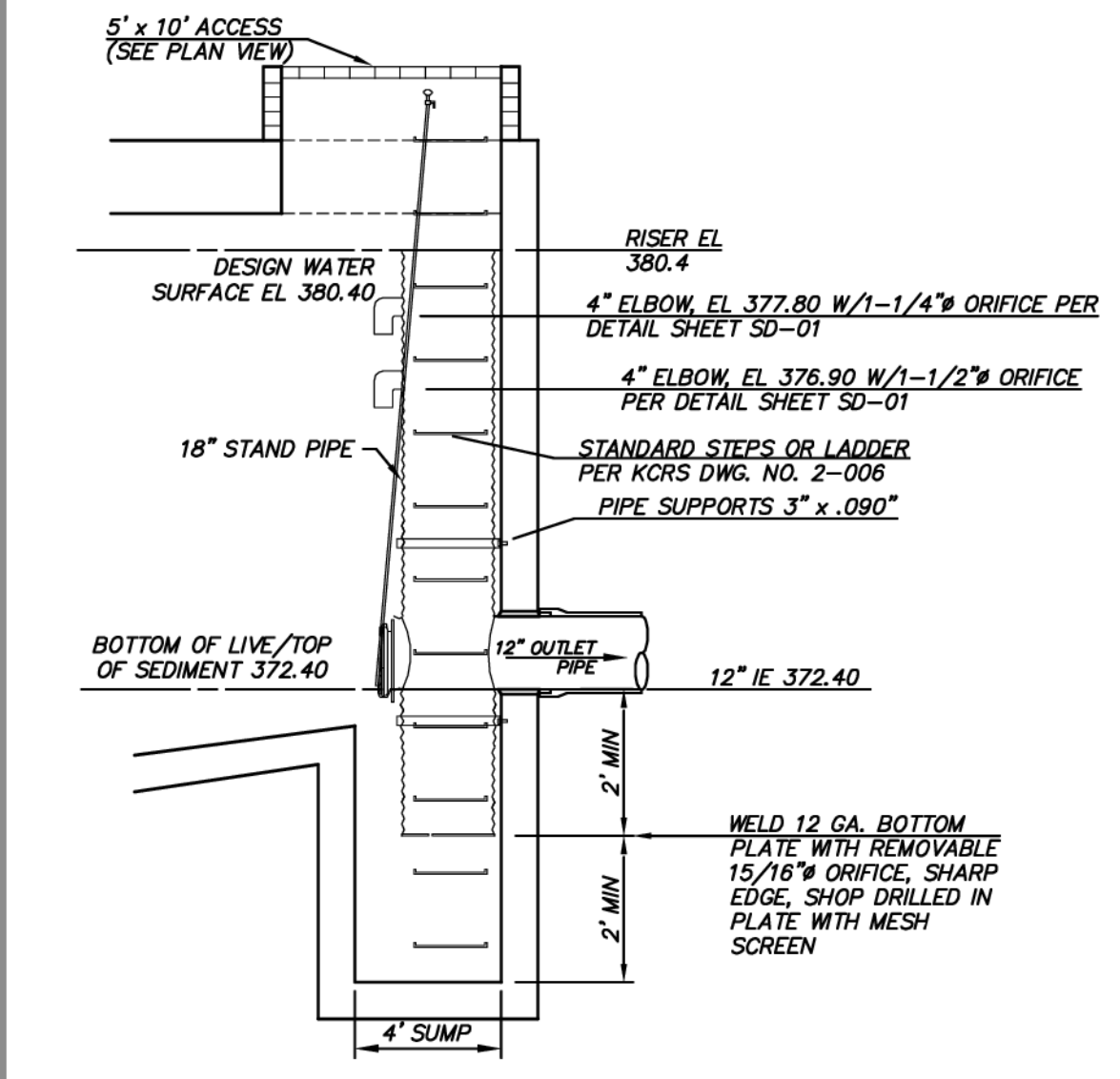
**VAULT SECTION F-F**  
SCALE: 1"=10' H, 1"=5' V



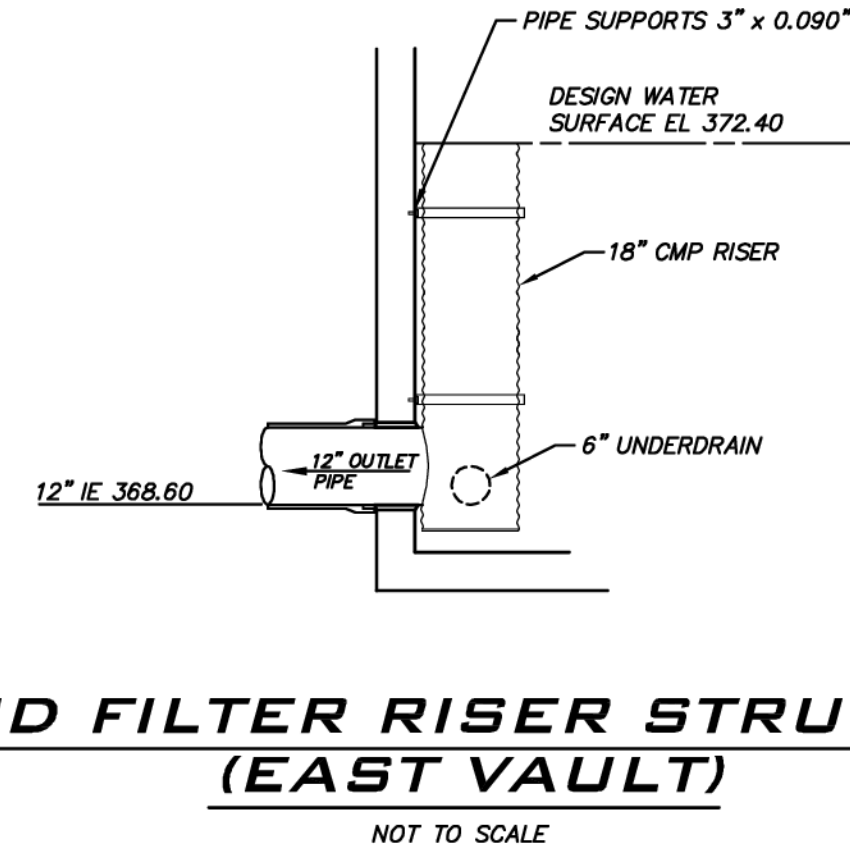
**VAULT SECTION H-H**  
SCALE: 1"=10' H, 1"=5' V

**VAULT NOTES**

- DIMENSIONS DEPICTING OVERALL SIZE OF VAULT ARE FOR REFERENCE ONLY. SEE STRUCTURAL PLANS FOR TOTAL LENGTH, WIDTH, HEIGHT AND WALL THICKNESS DESIGN, AS WELL AS LOCATIONS FOR PENETRATIONS AND ACCESS POINTS.
- COVER OVER VAULT TO BE AS NOTED ON VAULT EXTERIOR DETAIL.
- VAULT TO BE DESIGNED TO ACCOMMODATE H20 VEHICULAR LOADING PER 2009 KING COUNTY SURFACE WATER DESIGN MANUAL AND VECTOR TRUCK LOADING.
- FOOTING DRAINS TO BE PROVIDED AS SHOWN.
- PIPE SIZES AND SLOPES: PER PLANS.
- ACCESS OPENINGS TO HAVE OSHA CONFINED SPACE WARNING.
- JOINTS AND PENETRATIONS IN VAULT AND LID TO BE WATER TIGHT. PROVIDE WATER STOPS IN CAST IN PLACE JOINTS.
- ALL METAL PARTS CORROSION RESISTANT. NO-GALVANIZED PARTS, STAINLESS STEEL PARTS AND ALUMINUM ARE ACCEPTABLE, GALVANIZED PARTS TO HAVE ASPHALT TREATMENT 1.
- PIPE SUPPORTS AND RESTRICTOR/SEPARATOR/TEE SHALL BE OF SAME MATERIAL, AND BE ANCHORED AT 3' MAX. SPACING BY 5/8" DIA. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED 2" IN WALL.
- THE RESTRICTOR/SEPARATOR SHALL BE FABRICATED FROM 0.060" ALUMINUM OR 0.064" GALVANIZED STEEL PIPE; IN ACCORDANCE WITH AASHTO M 36, M 196, M 197, AND M 274. GALVANIZED STEEL SHALL HAVE TREATMENT 1.
- OUTLET SHALL BE CONNECTED TO CULVERT OR SEWER PIPE WITH A STANDARD COUPLING BAND FOR CORRUGATED METAL PIPE, OR GROUTED INTO BELL FOR CONCRETE PIPE.
- FRAME AND LADDER OR STEPS OFFSET SO THAT:
  - CLEANOUT GATE IS VISIBLE FROM TOP
  - CLIMB DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
  - FRAME IS CLEAR OF CURB.
- MULTI-ORIFICE ELBOWS MAY BE LOCATED AS SHOWN OR ALL ON ONE SIDE OF RISER TO ASSURE 2' MIN LADDER CLEARANCE.



**CONTROL STRUCTURE (EAST VAULT)**  
SCALE: NTS



**SAND FILTER RISER STRUCTURE (EAST VAULT)**  
NOT TO SCALE

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INSTALL A BRASS OR STAINLESS STEEL INFORMATION PLATE INSIDE VAULT. INFORMATION ON THE PLATE SHOULD INCLUDE THE FOLLOWING:

- PROJECT NAME: CARRIER PROJECT # SDP 2018-06254
- DEVELOPER: TOLL BROTHERS ENGINEER: THE BLUELINE GROUP CONTRACTOR:
- DATE CONSTRUCTED:
- MANUAL USED FOR DESIGN: 2009 KING COUNTY SURFACE WATER DESIGN MANUAL
- OUTFLOW PERFORMANCE CRITERIA - LEVEL III
- VAULT RISER DETAILS: ORIFICE #1: 1-1/4" #, ELEV = 377.80 ORIFICE #2: 1-1/2" #, ELEV = 376.90 ORIFICE #3: 15/16" #, ELEV = 370.40
- TOP OF RISER ELEV = 380.40
- INSPECT VAULT FOR MAINTENANCE TWICE/YEAR DURING 1ST YEAR, ONCE/YEAR THEREAFTER.

**NOTE**  
SEE SHEET SD-01 & SD-02 FOR ADDITIONAL DETAILS.

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

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PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 08/16/2019

htrabourne@09/09/2019  
City of Sammamish Public Works Department

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25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDISTS, PE  
PROJECT ENGINEER: BRETT K PUDISTS, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

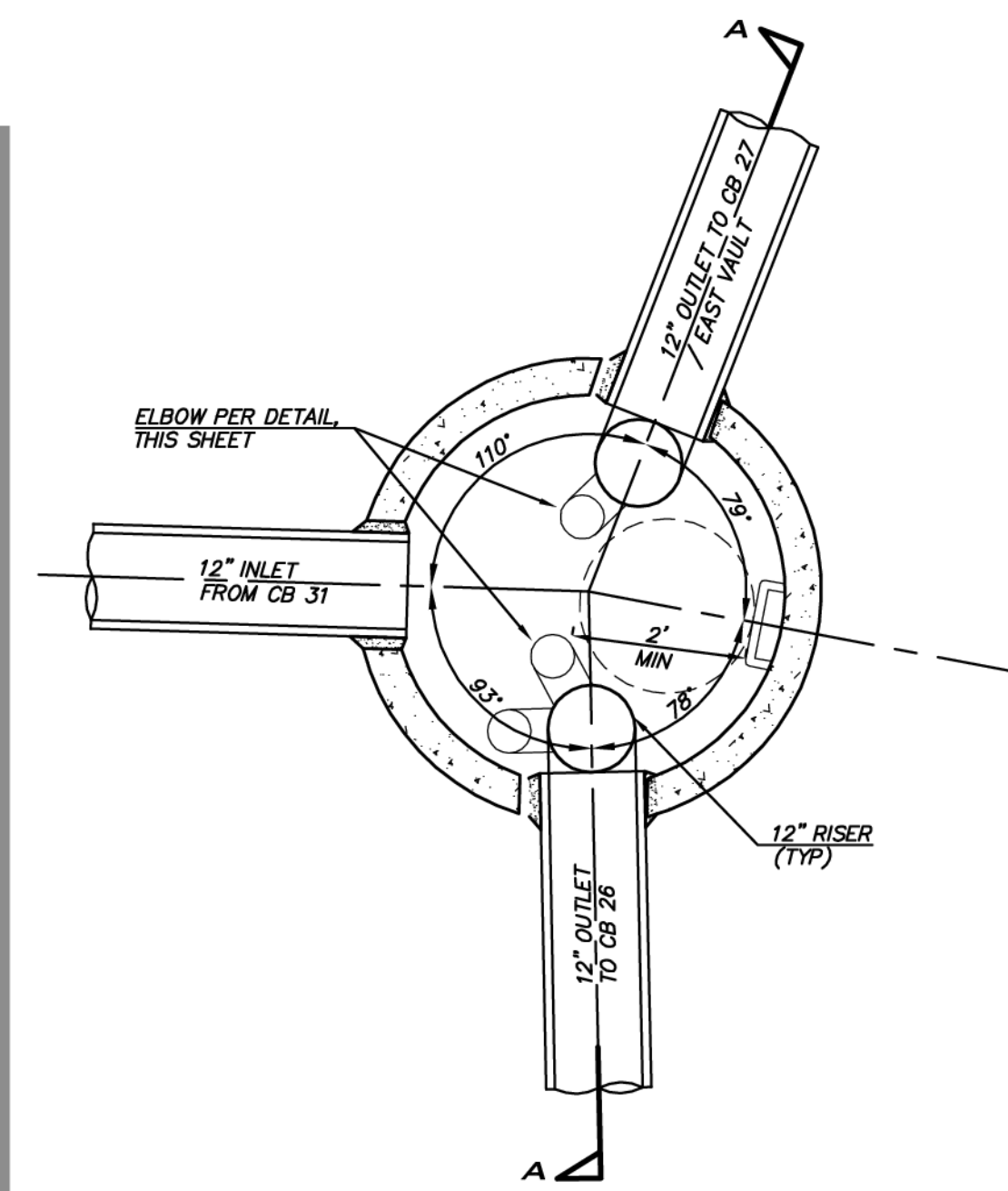
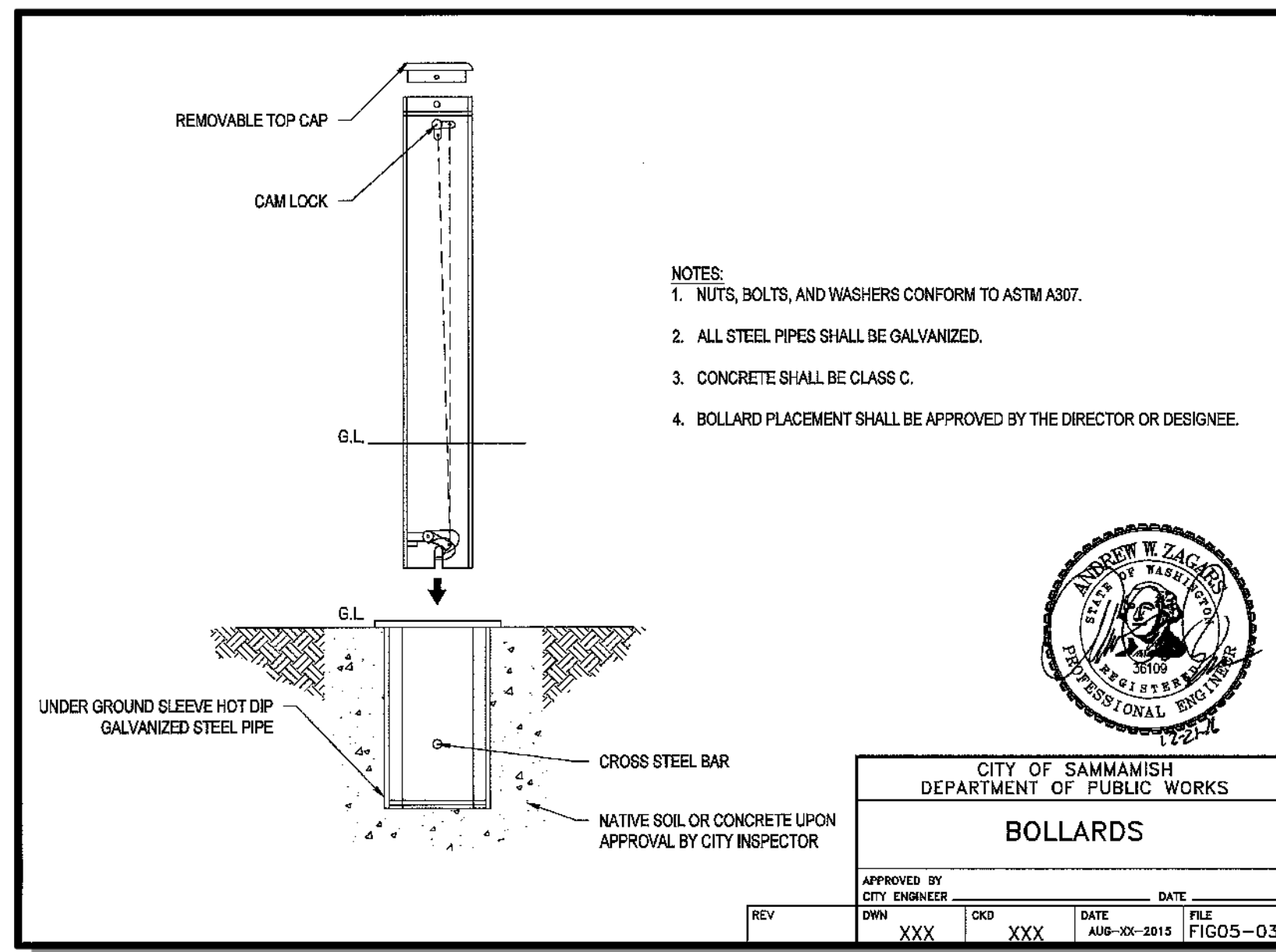
NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. VAULT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RMB	REVISED PER CITY COMMENTS

**EAST VAULT SECTIONS & DETAILS**  
**CARRIER SE 8TH SUBDIVISION ROAD & STORM PLANS**  
CITY OF SAMMAMISH WASHINGTON

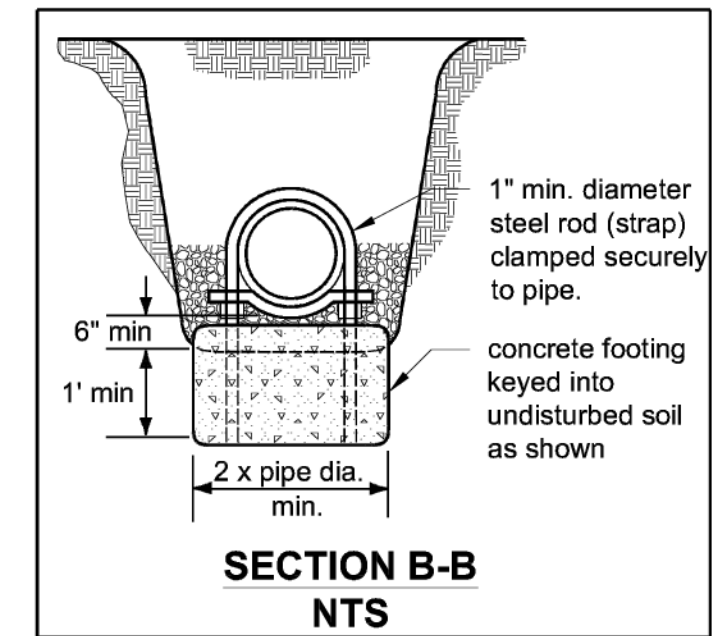
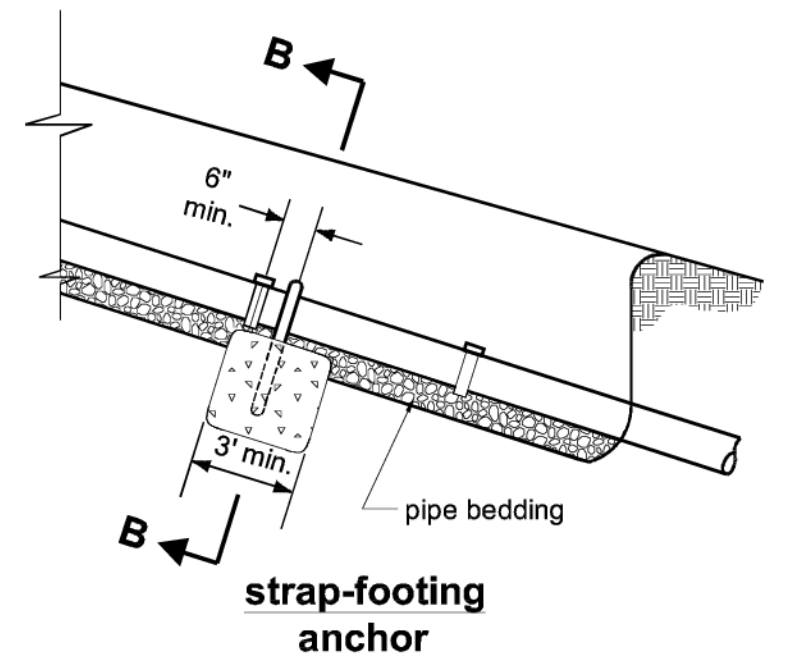


8/5/19  
JOB NUMBER: 15-111  
SHEET NAME: VT-04  
SHT 33 OF 48





**CB 32 - FLOW SPLITTER**  
**PLAN VIEW**  
SCALE: 1" = 2'

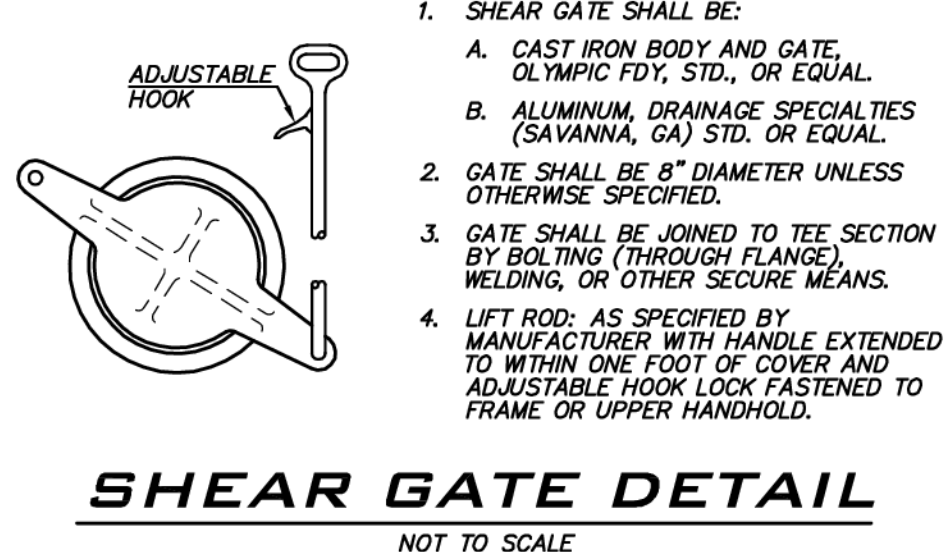
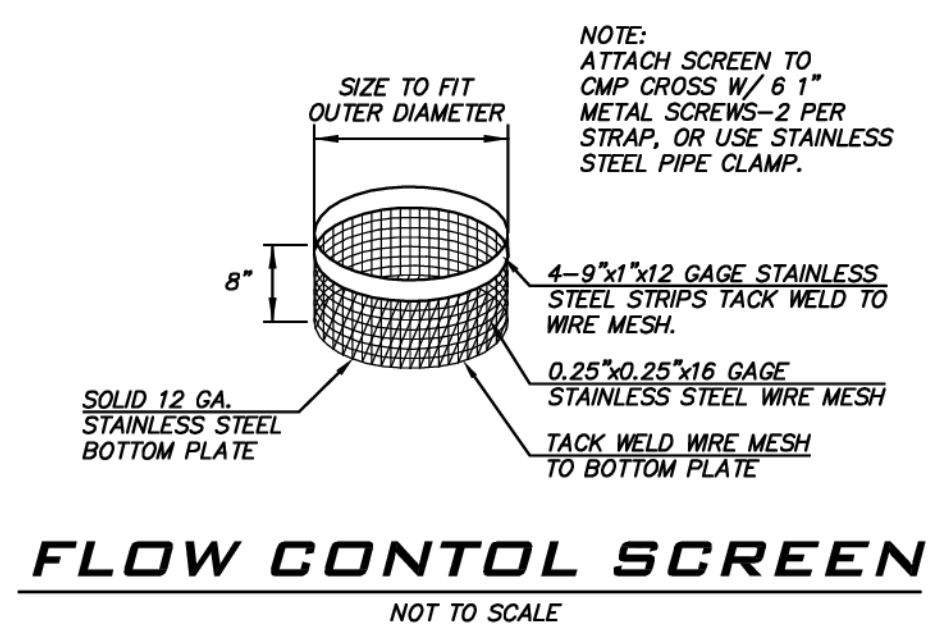
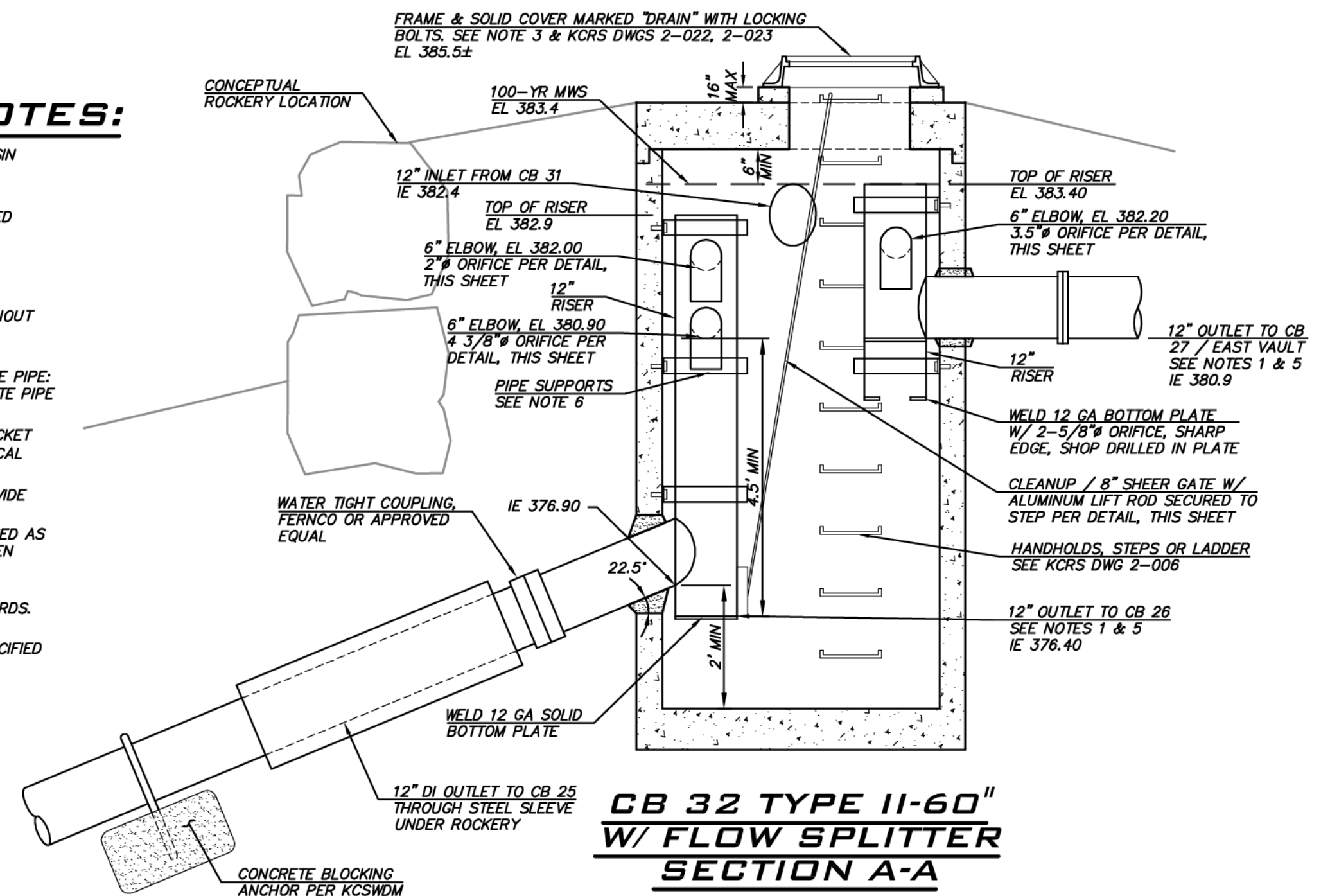


Note: For SWPE, pipe must be free to slide inside a 4' long section of pipe one size diameter larger.

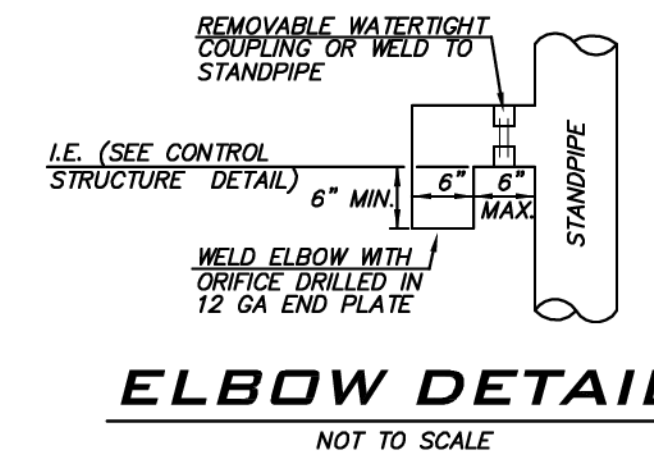
**KCSWDM DETAIL 4.2.1.B**  
NOT TO SCALE

**FLOW SPLITTER NOTES:**

- USE A MINIMUM OF A 60" DIAMETER TYPE 2 CATCH BASIN (UNLESS OTHERWISE SHOWN).
- OUTLET CAPACITY: 100-YEAR DEVELOPED PEAK FLOW.
- METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
- FRAME AND LADDER OR STEPS OFFSET SO.
  - CLEANOUT GATE IS VISIBLE FROM TOP.
  - CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
  - FRAME IS CLEAR OF CURB.
- IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE: OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4"
- PROVIDE AT LEAST ONE 3" X 0.90 GAGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL. (MAXIMUM 3'-0" VERTICAL SPACING).
- LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MINIMUM CLEARANCE AS SHOWN.
- LOCATE ADDITIONAL LADDER RUNGS IN STRUCTURES USED AS ACCESS TO TANKS AND VAULTS TO ALLOW ACCESS WHEN CATCH BASIN IS FILLED WITH WATER.
- TEE SHALL BE CONSTRUCTED OF ALUMINUM CMP OR ALUMINIZED STEEL CMP MEETING WSDOT/APWA STANDARDS.
- CONTRACTOR TO CONFIRM STRUCTURE CORE INVERT NECESSARY TO INSTALL ANGLED OUTLET/RISER AT SPECIFIED ELEVATIONS



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PLANNING DEPT. APPROVAL  
BY: ABarty  
DATE: 09/16/2019  
hairsbourge09/09/2019  
City of Sammamish Public Works Department  
ROW2019-03272



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SCALE:  
AS NOTED  
PROJECT MANAGER:  
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PROJECT ENGINEER:  
BRETT K PUDIETS, PE  
DESIGNER:  
AARON C LANCE  
ISSUE DATE:  
8/5/2019

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STORM FILTER /  
STORM DRAIN DETAILS  
CARRIER SE 8TH SUBDIVISION  
ROAD & STORM PLANS  
CITY OF SAMMAMISH  
WASHINGTON

BRETT K. PUDIETS  
REGISTERED PROFESSIONAL ENGINEER  
8/5/19

JOB NUMBER:  
**15-111**  
SHEET NAME:  
**SD-01**  
SHT **34** OF **48**



LOT/TRACT	BMP	QUANTITY	DIMENSIONS/AREA
1	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 482
2	5% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 216
3	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 468
4	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 432
5	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 468
6	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 540
7	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 488
8	5% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 239
9	5% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 257
10	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 469
11	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 433
12	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 658
13	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 458
14	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 490
15	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 430
16	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 467
17	17% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 1125
	BASIC DISPERSION - DISPERSION TRENCH	1	10 LF / 700 SF ROOF AREA
	17% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 1216
18	BASIC DISPERSION - DISPERSION TRENCH	1	20 LF / 1,400 SF ROOF AREA
	BASIC DISPERSION - SPLASH BLOCK	1	700 SF ROOF AREA/EACH
19	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 488
	BASIC DISPERSION - DISPERSION TRENCH	1	30 LF / 2,100 SF ROOF AREA
20	16% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 949
	BASIC DISPERSION - DISPERSION TRENCH	1	30 LF / 2,100 SF ROOF AREA
21	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 449
22	6% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 299
23	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 619
24	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 566
25	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 489
26	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 496
27	6% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 306
28	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 471
29	5% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 233
30	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 492
31	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 456
	BASIC DISPERSION - SPLASH BLOCK	1	700 SF ROOF AREA/EACH
32	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 455
	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 548
33	BASIC DISPERSION - SPLASH BLOCK	2	700 SF ROOF AREA/EACH
34	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 508
35	10% REDUCED IMPERVIOUS SURFACE CREDIT	-	IMPERVIOUS REDUCTION (SF): 470
H	NATIVE GROWTH RETENTION	-	TRACT LIMITS

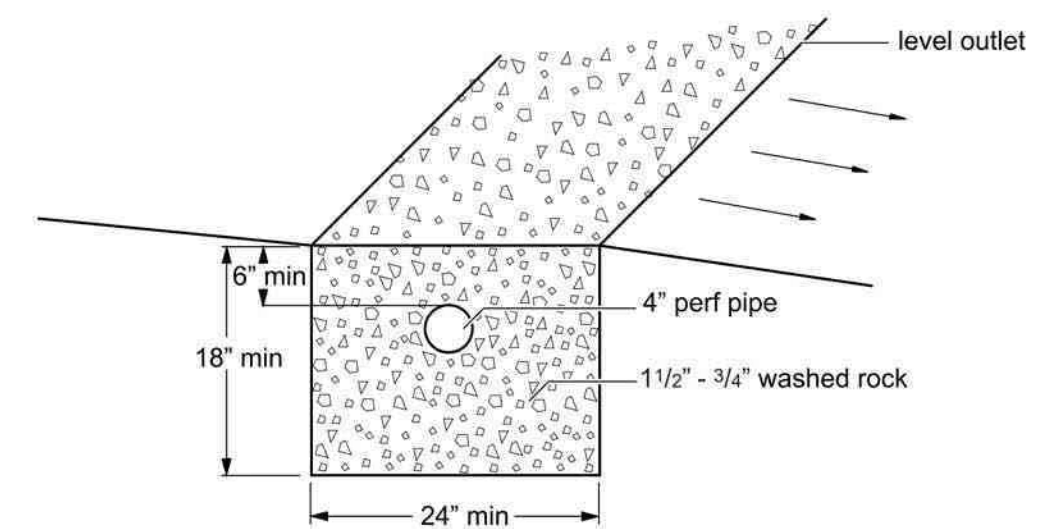
**LID BMP NOTE**

THE LOW IMPACT DEVELOPMENT BEST MANAGEMENT PRACTICES (LID BMPs) NOTED IN THE TABLE ABOVE ARE SUBJECT TO CHANGE PRIOR TO RECORDING OF THE FINAL PLAT. ADJUSTMENTS MAY BE MADE AT THE CLIENT'S DISCRETION WHILE SATISFYING THE MINIMUM REQUIRED BMP AREAS FOR THE OVERALL PLAT. THE FINAL BMP DESIGNATIONS WILL BE INCLUDED ON THE FACE OF THE FINAL PLAT. AS THE PROJECT WILL SATISFY THE LID REQUIREMENT ON A PLAT BASIS, THE REQUIREMENTS SHALL BE CONSIDERED SATISFIED FOR EACH INDIVIDUAL LOT AT TIME OF BUILDING PERMIT AND ADDITIONAL BMP IMPLEMENTATION WILL NOT BE REQUIRED.

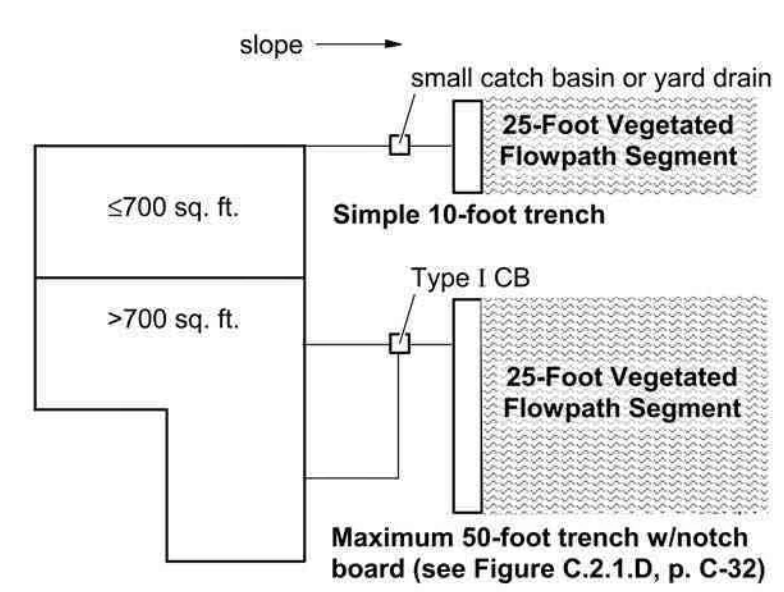
**DISPERSION NOTES**

- SPLASH BLOCKS TO BE INSTALLED PER FIGURE C.2.4.A.
- PADS OF CRUSHED ROCK, 2 FT WIDE (PERPENDICULAR TO FLOW) BY 3 FT LONG BY 6 IN DEEP MAY BE USED AS AN ALTERNATIVE FOR SPLASH BLOCKS.
- SPLASH BLOCKS AND ROCK PADS REQUIRE A VEGETATED FLOW PATH SEGMENT OF AT LEAST 50 FT IN LENGTH.
- DISPERSION TRENCHES DESIGNATED AS 10 LF TO BE INSTALLED PER FIGURE C.2.4.B.
- DISPERSION TRENCHES WITH LENGTHS IN EXCESS OF 10 LF TO BE INSTALLED PER FIGURE C.2.1.D.
- DISPERSION TRENCHES REQUIRE A VEGETATED FLOW PATH SEGMENT OF AT LEAST 25 FT IN LENGTH.
- TRENCHES SHALL BE CONSTRUCTED SO AS TO PREVENT POINT DISCHARGE AND/OR EROSION.
- TRENCH AND GRADE BOARD (IF REQUIRED) MUST BE LEVEL.
- INSTALL SOLID BOARDS ON END OF TRENCHES, AS NECESSARY, TO AVOID CONCENTRATED DISCHARGE FROM ENDS OF TRENCHES AND DIRECT FLOWS OVER NOTCH BOARD.
- ALIGN TRENCHES TO FOLLOW CONTOURS OF SITE AND PROVIDE POSITIVE DRAINAGE ALONG DESIGNATED FLOW PATH.
- REFER TO LID BMP TABLE, THIS SHEET, AND RS SHEETS FOR FACILITY QUANTITIES, LENGTHS, DIMENSIONS, DESIGN AREAS, LOCATIONS AND ELEVATIONS.

FIGURE C.2.4.B TYPICAL GRAVEL-FILLED DISPERSION TRENCH FOR BASIC DISPERSION



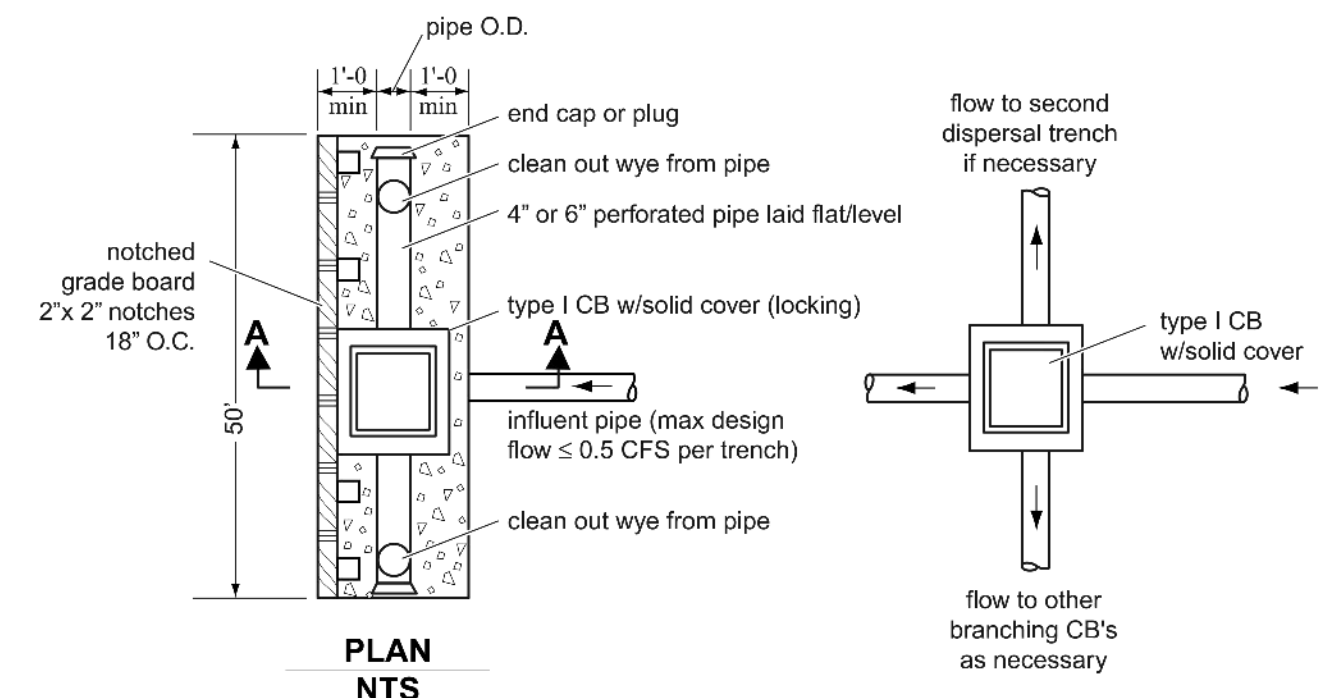
TRENCH X-SECTION NTS



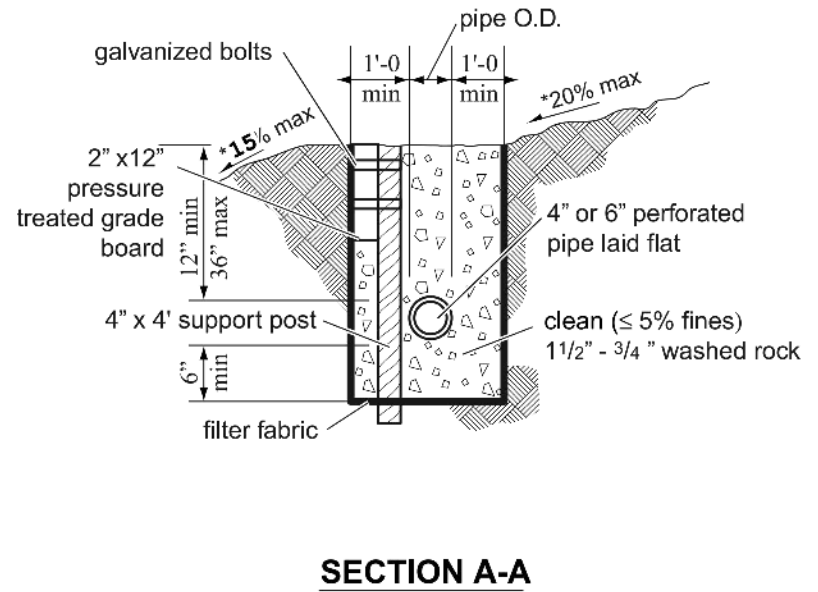
PLAN VIEW OF ROOF NTS

SOURCE: 2009 KING COUNTY SURFACE WATER DESIGN MANUAL - APPENDIX C

FIGURE C.2.1.D 50-FOOT DISPERSION TRENCH WITH NOTCHED BOARD



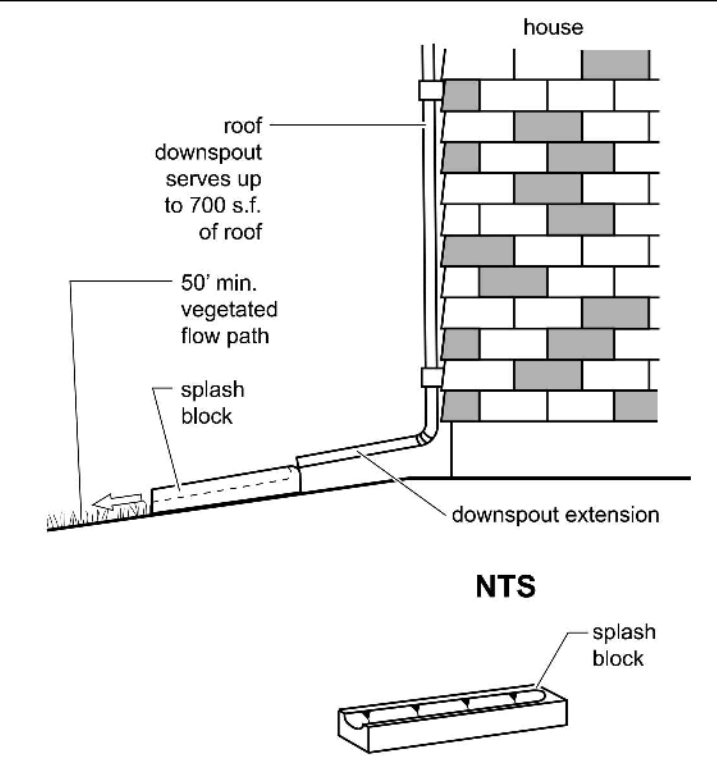
PLAN NTS



SECTION A-A NTS

SOURCE: 2009 KING COUNTY SURFACE WATER DESIGN MANUAL - APPENDIX C

FIGURE C.2.4.A TYPICAL SPLASHBLOCK FOR BASIC DISPERSION



NTS

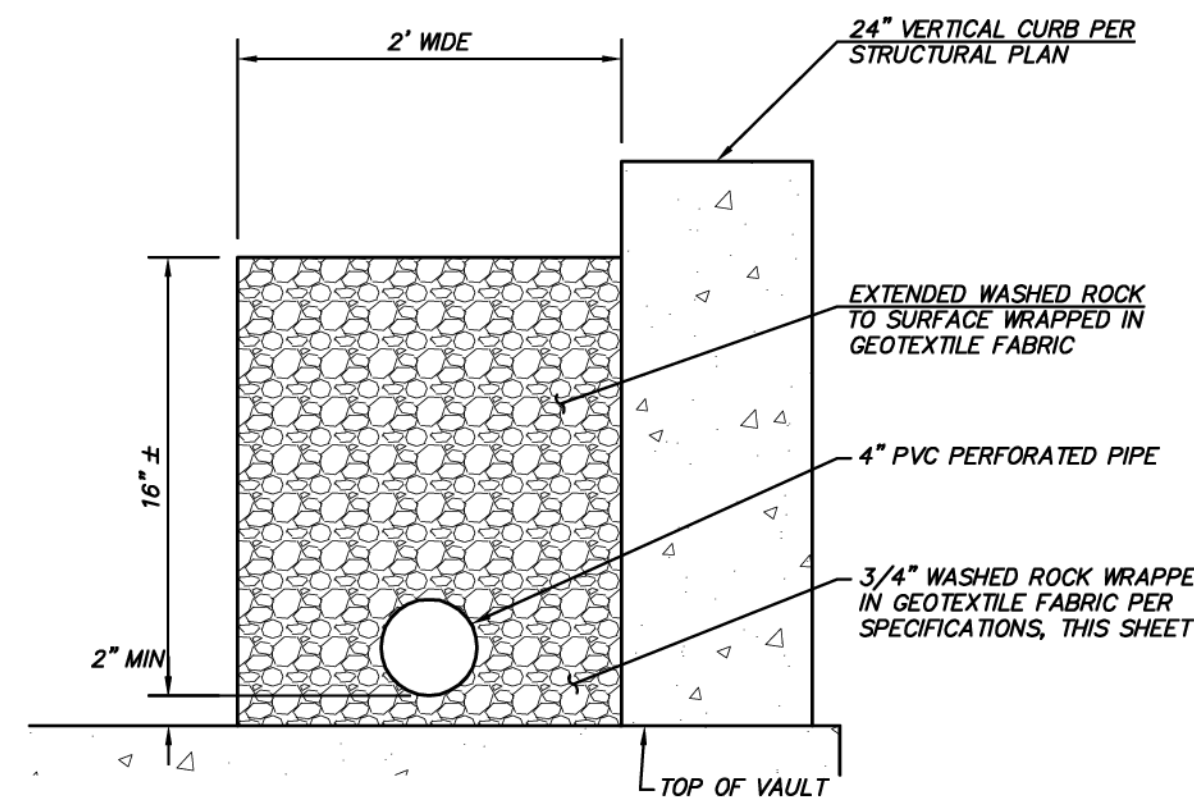
SOURCE: 2009 KING COUNTY SURFACE WATER DESIGN MANUAL - APPENDIX C

**SAND FILTER CONSTRUCTION NOTES**

SAND FILTER MEDIA SHALL BE MEDIUM SAND WITH GRADATION TO MEET THE SPECIFICATIONS LISTED BELOW. CONTRACTOR SHALL OBTAIN A GRAIN SIZE ANALYSIS FROM THE SUPPLIER TO VERIFY THAT THE NO. 100 AND 200 SIEVE REQUIREMENTS ARE MET.

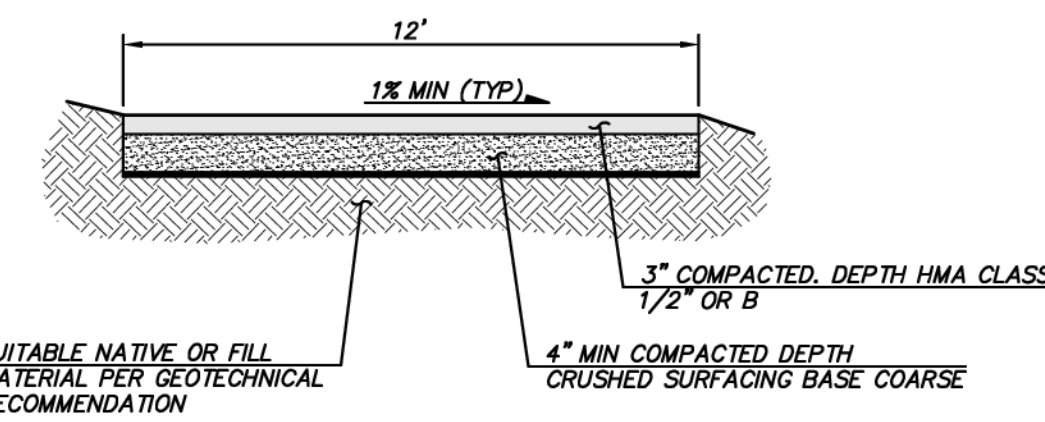
U.S. SIEVE SIZE	PERCENT PASSING
U.S. NO. 4	95 TO 100 PERCENT
U.S. NO. 8	70 TO 100 PERCENT
U.S. NO. 16	40 TO 90 PERCENT
U.S. NO. 30	25 TO 75 PERCENT
U.S. NO. 50	2 TO 25 PERCENT
U.S. NO. 100	LESS THAN 4 PERCENT
U.S. NO. 200	LESS THAN 2 PERCENT

SAND FILTER MEDIA SHALL NOT BE PLACED UNTIL CONSTRUCTION SITE IS STABILIZED. CAREFULLY PLACE SAND NEAR CLEANOUT SO THAT NO VOIDS ARE FORMED. DO NOT OVER-COMPACT THE SAND MEDIA. AFTER THE SAND IS PLACED, FLOOD THE SAND WITH 10-15 GALLONS OF WATER PER CUBIC FOOT OF SAND. PROVIDE TO PW INSPECTOR DISTRIBUTOR/MANUFACTURER'S SPEC SHEET FOR SAND. SAND SHALL MEET REQUIREMENTS FOR NO 100 AND NO 200 SIEVE WITH NO EXCEPTIONS.



FRENCH DRAIN DETAIL - VAULT

NOT TO SCALE



VAULT ACCESS ROAD

**CITY OF SAMMAMISH APPROVAL BLOCK**

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.

REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.

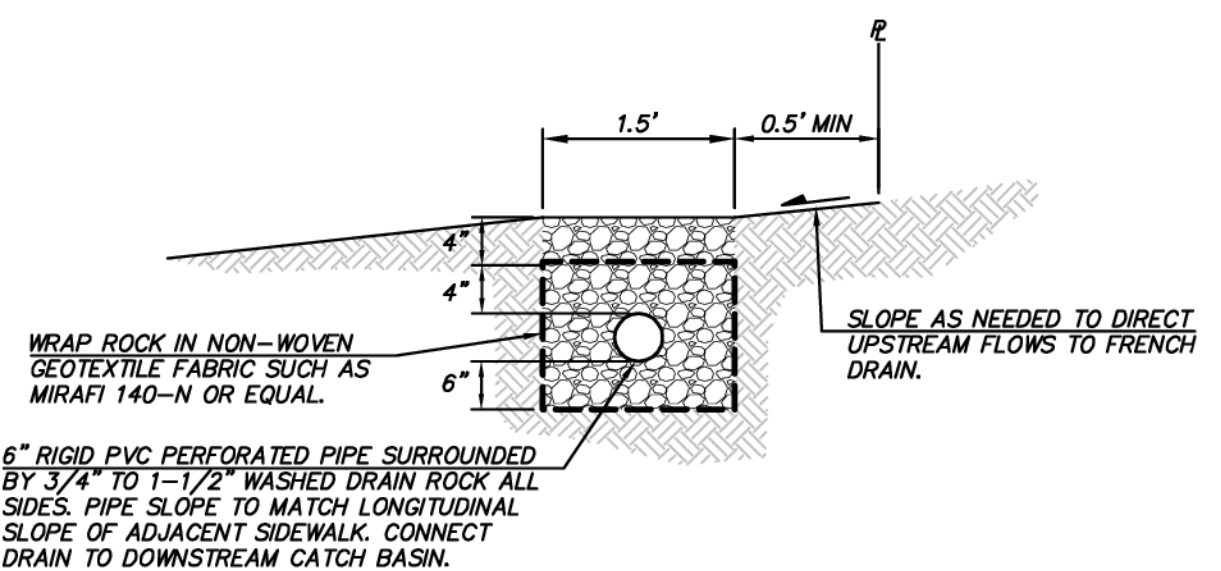
hairsbourge09/09/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 09/16/2019

APPROVED WITH MARKUPS

**UNDERGROUND UTILITY NOTE**

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.



FRENCH DRAIN DETAIL - YARDS

NOT TO SCALE



25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4851 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
PROJECT MANAGER: BRETT K PUDIETS, PE  
PROJECT ENGINEER: BRETT K PUDIETS, PE  
DESIGNER: AARON C LANCE  
ISSUE DATE: 8/5/2019

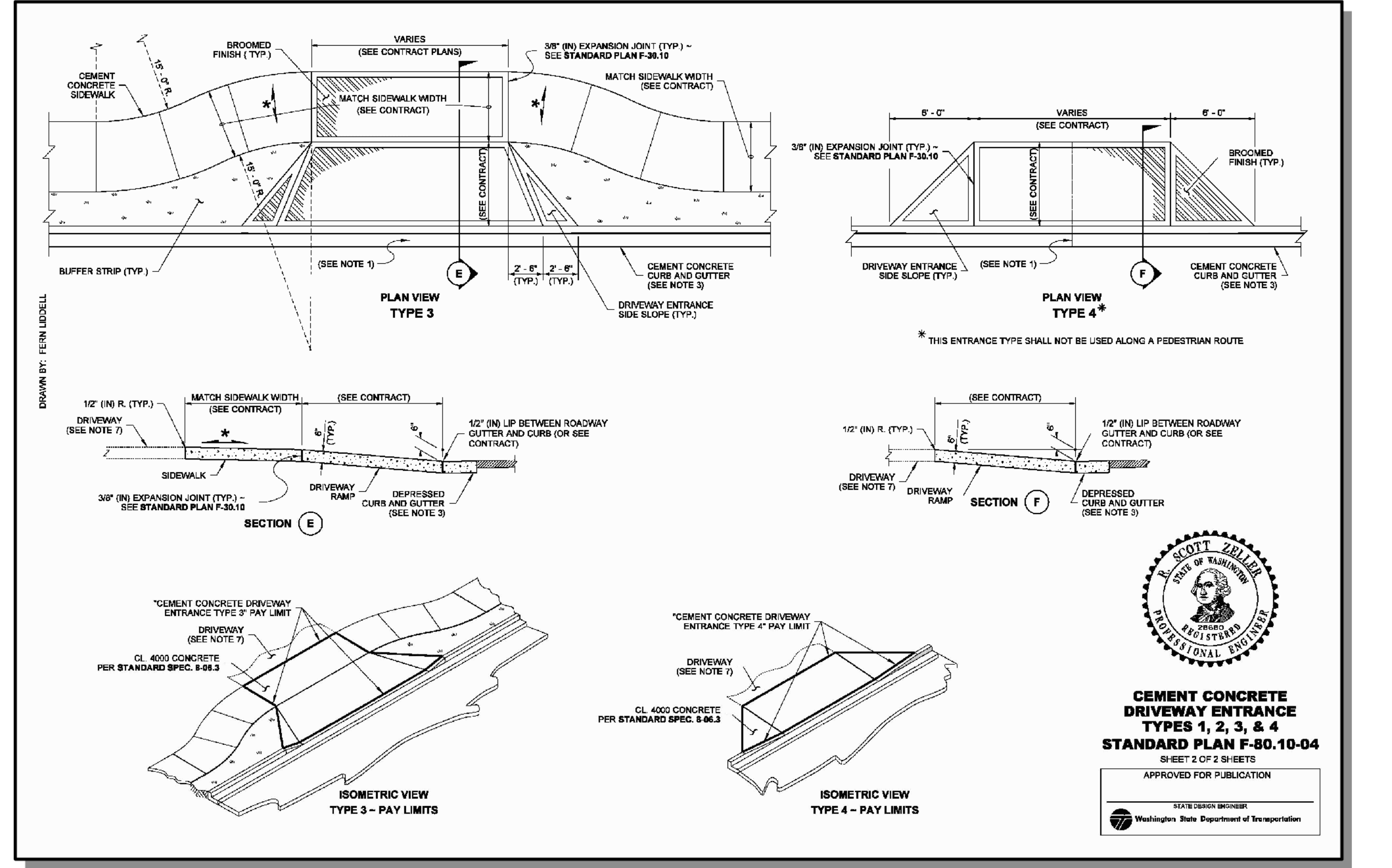
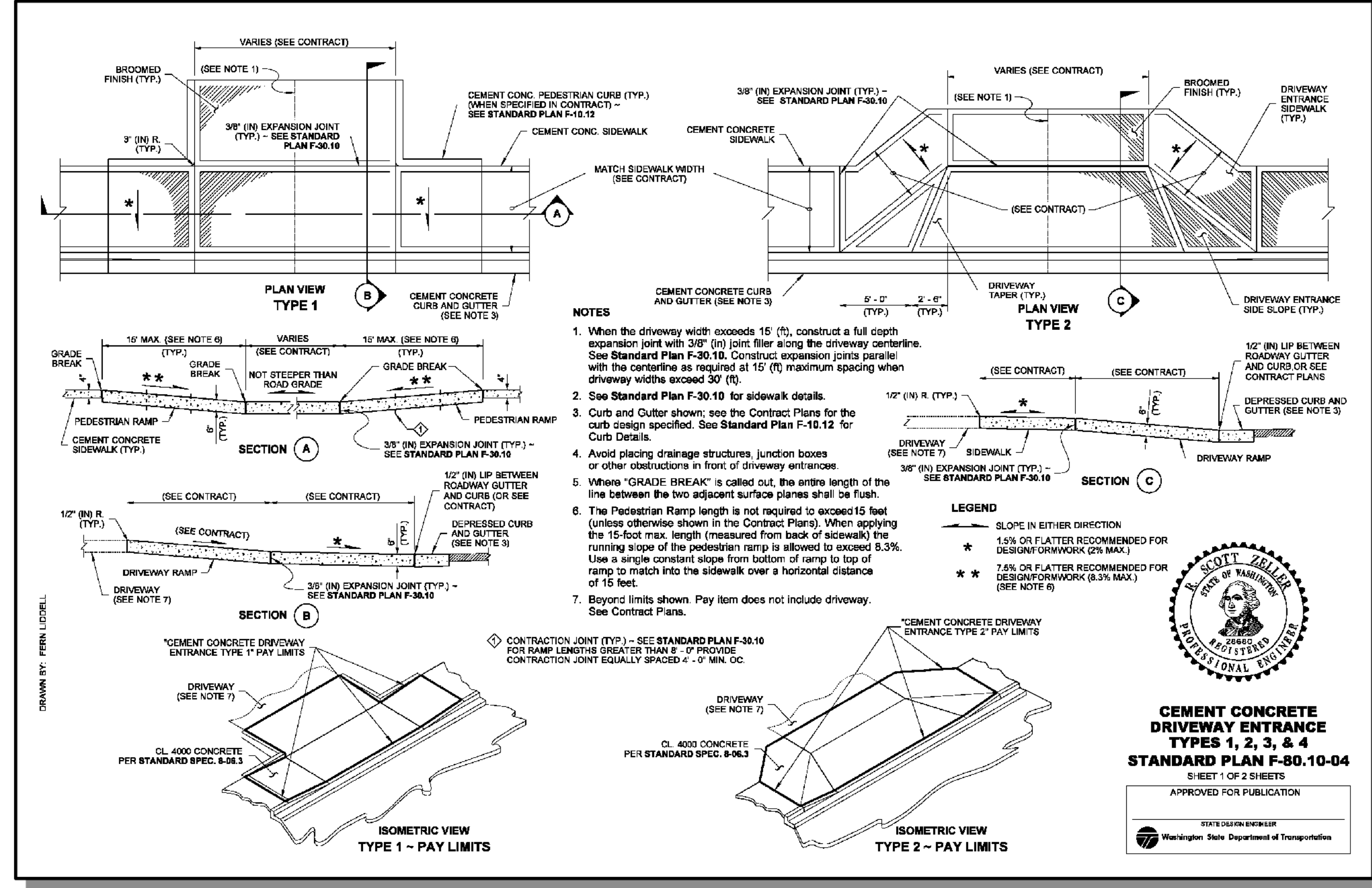
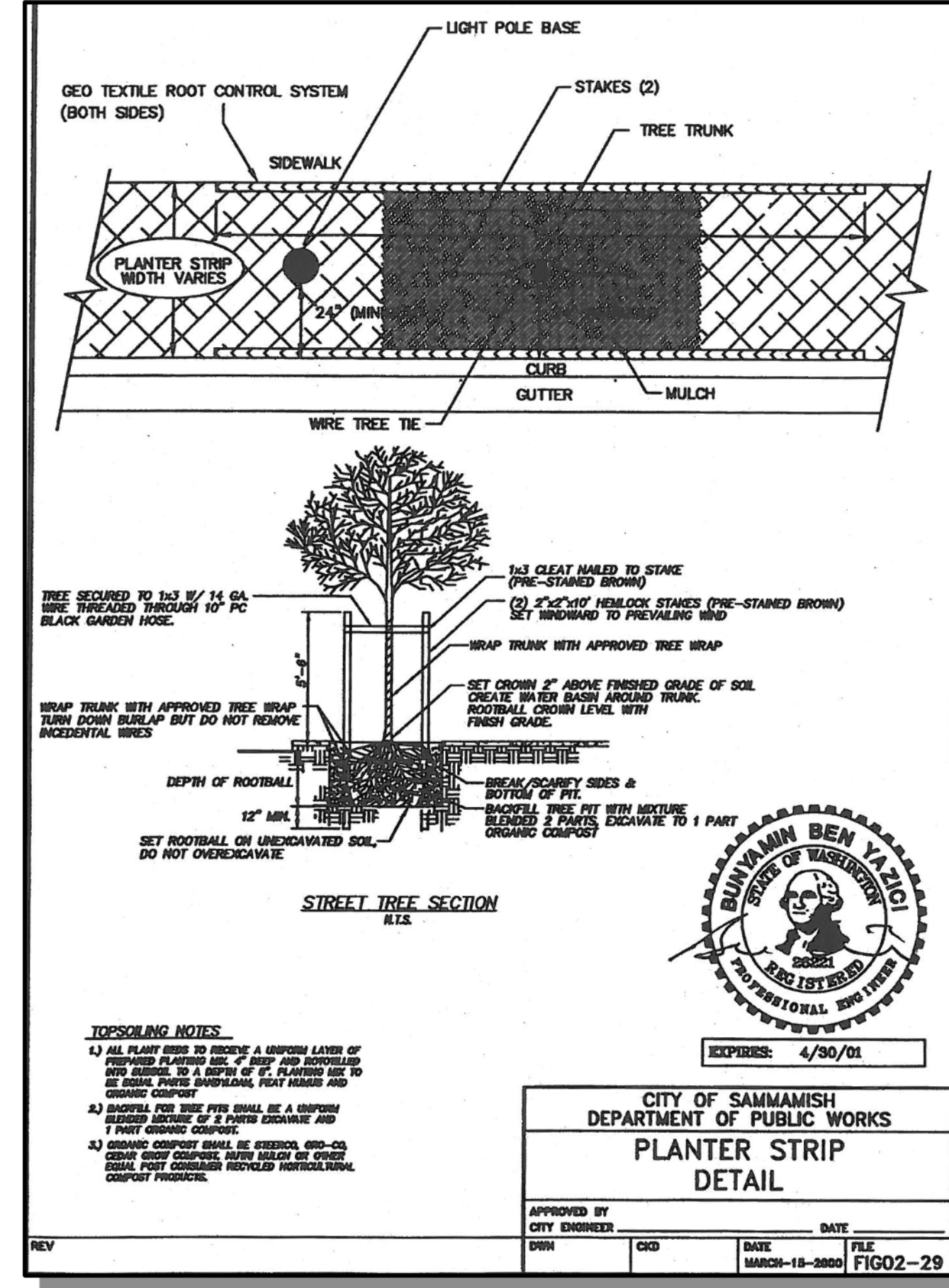
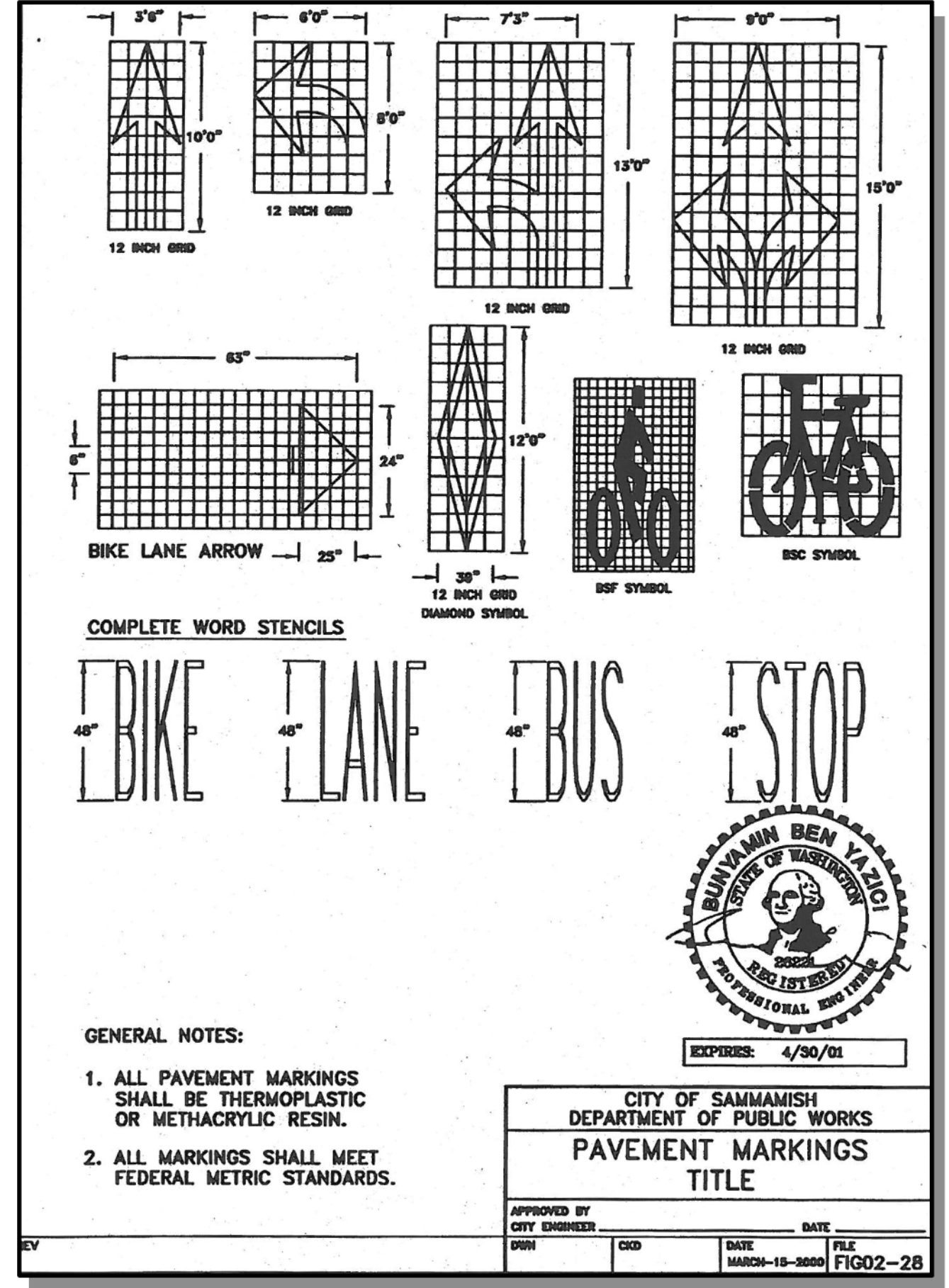
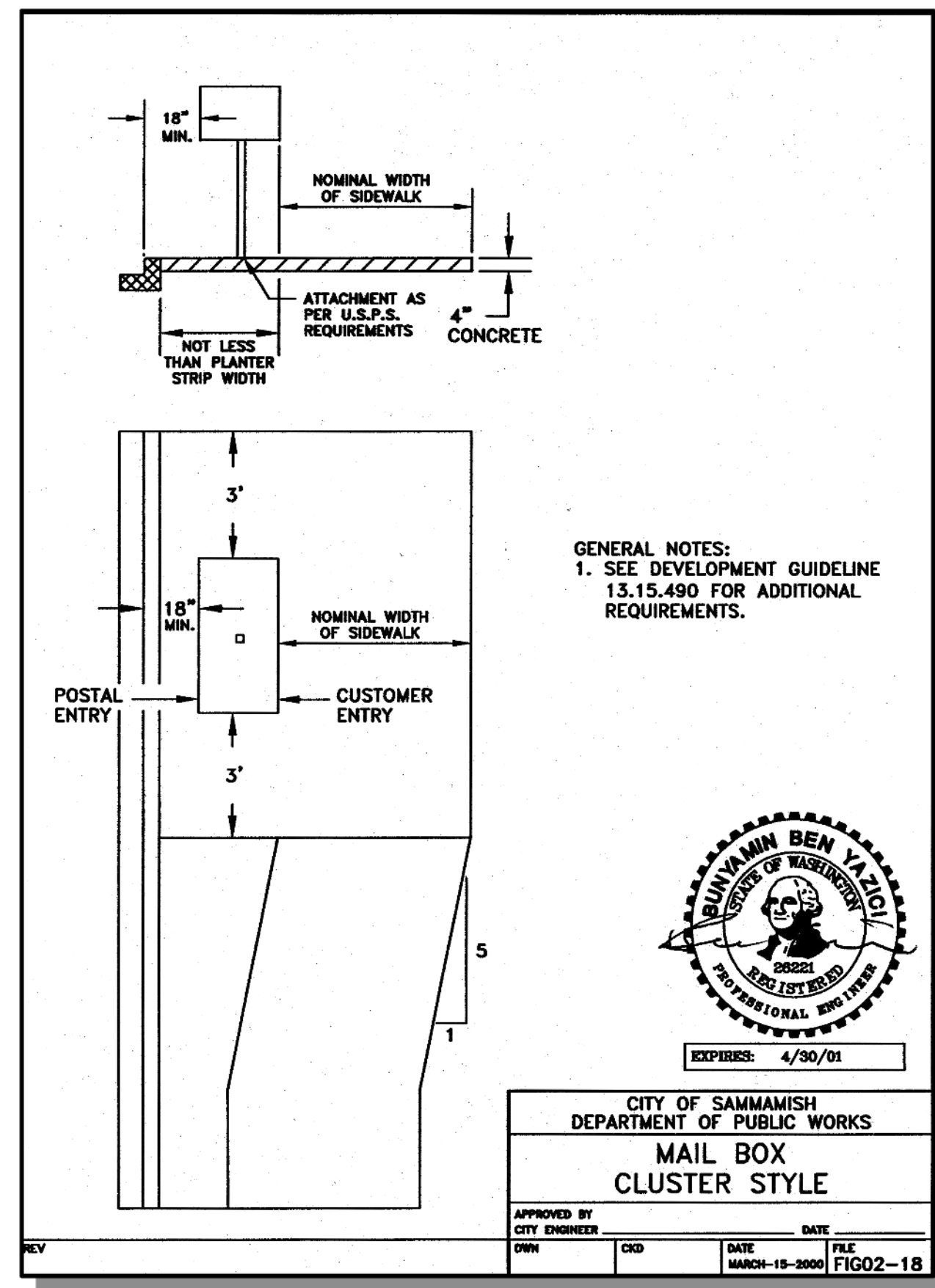
NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALK PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

STORM DRAIN / LID NOTES & DETAILS  
CARRIER SE 8TH SUBDIVISION ROAD & STORM PLANS  
CITY OF SAMMAMISH WASHINGTON



8/5/19  
JOB NUMBER: 15-111  
SHEET NAME: SD-02  
SHT 35 OF 48





SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDIETS, PE

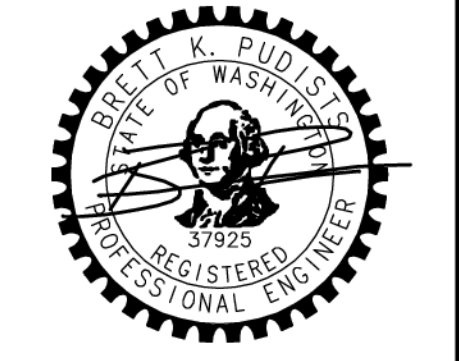
PROJECT ENGINEER:  
BRETT K PUDIETS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

NO	DATE	BY	REVISIONS
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3	8/5/19	RAB	REVISED PER CITY COMMENTS

DETAILS  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH  
 WASHINGTON



8/5/19

JOB NUMBER:  
15-111

SHEET NAME:  
DT-01

SHT 36 OF 48

**CITY OF SAMMAMISH  
APPROVAL BLOCK**

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.

REVIEWED FOR CODE COMPLIANCE  
per 13.20 SMC, 14.01 SMC, and 16.15 SMC,  
subject to field inspection and correction.

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 08/16/2019

Issued on 08/09/2019  
City of Sammamish Public Works Department

22.634  
Aug 05, 2019 - 7:03pm - User: dtablanc - User: dtablanc  
E:\Projects\151111\Drawings\Plan\Road & Storm\151111DT.dwg



**NOTE**  
Ladder rungs for manholes and catch basins shall meet the requirements of AASHTO M 195.

**STEP**  
12" MIN.  
1 1/2" MIN.

**PREFABRICATED LADDER**  
12" (TYP.)  
48" MAX.  
6"

**84" or 96" FLAT SLAB TOP**  
20" x 24" 24" DIAM. 48" DIAM. OR 54" DIAM. HOLE  
2" (TYP.)  
1" MIN. 2 1/2" MAX.

**72" FLAT SLAB TOP**  
20" x 24" 24" DIAM. 48" DIAM. OR 54" DIAM. HOLE  
2" (TYP.)  
1" MIN. 2 1/2" MAX.

**48", 54", or 60" FLAT SLAB TOP**  
20" x 24" 24" DIAM. HOLE  
2" (TYP.)  
1" MIN. 2 1/2" MAX.

**TYPICAL ORIENTATION FOR ACCESS AND STEPS**  
24" MIN.  
18" MIN. 42" MAX.

**RECTANGULAR ADJUSTMENT SECTION**  
As an acceptable alternative to rebar, wire mesh having a minimum area of 0.12 square inches per foot may be used for adjustment sections.

**CIRCULAR ADJUSTMENT SECTION**  
34"  
ONE #3 BAR HOOP

**MISCELLANEOUS DETAILS FOR DRAINAGE STRUCTURES STANDARD PLAN B-30.90-01**  
SHEET 1 OF 1 SHEET  
APPROVED FOR PUBLICATION  
Pasco Bakotich III 09-20-07  
STATE DESIGN ENGINEER  
Washington State Department of Transportation

**NOTE**  
1. No steps are required when height is 4' or less.  
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.  
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.  
4. Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification 9-04.3.

**CATCH BASIN DIMENSIONS**

CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

**PIPE ALLOWANCES**

CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP	SOLID WALL PVC	PROFILE WALL PVC
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

**CATCH BASIN TYPE 2 STANDARD PLAN B-10.20-01**  
SHEET 1 OF 1 SHEET  
APPROVED FOR PUBLICATION  
Pasco Bakotich III 02-07-12  
STATE DESIGN ENGINEER  
Washington State Department of Transportation

**PIPE ALLOWANCES**

PIPE MATERIAL	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP* (STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	15"

\* CORRUGATED POLYETHYLENE STORM SEWER PIPE

**RECTANGULAR ADJUSTMENT SECTION**  
ONE #3 BAR FOR 6" HEIGHT INCREMENT (SPACED EQUALLY)  
2", 4", 6", 12", OR 24"

**PRECAST BASE SECTION**  
#3 BAR EACH CORNER  
#3 BAR HOOP EACH SIDE  
#3 BAR EACH WAY

**ALTERNATIVE PRECAST BASE SECTION**  
#3 BAR EACH CORNER 18" MIN.  
#3 BAR HOOP  
(SEE NOTE 1)

**CATCH BASIN TYPE 1 STANDARD PLAN B-5.20-01**  
SHEET 1 OF 1 SHEET  
APPROVED FOR PUBLICATION  
Pasco Bakotich III 06-16-11  
STATE DESIGN ENGINEER  
Washington State Department of Transportation

**NOTES**  
1. CONCRETE SHALL HAVE 4" PERIMETER EDGING.  
2. SIDEWALK JOINTS SHOULD MATCH EXPANSION JOINTS.

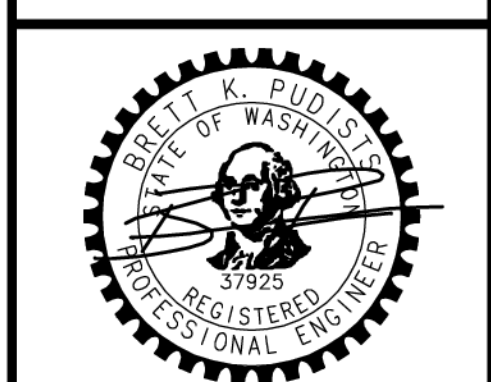
**SIDWALK**  
APPROVED BY CITY ENGINEER  
OWN TTC CKD AWZ DATE AUG-XX-2018 FILE FIG03-06

**CITY OF SAMMAMISH DEPARTMENT OF PUBLIC WORKS**

**SCALE:**  
AS NOTED  
**PROJECT MANAGER:**  
BRETT K PUDIUS, PE  
**PROJECT ENGINEER:**  
BRETT K PUDIUS, PE  
**DESIGNER:**  
AARON C LANCE  
**ISSUE DATE:**  
8/5/2019

NO	DATE	BY	REVISIONS
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2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALL PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

**DETAILS**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
**CITY OF SAMMAMISH WASHINGTON**



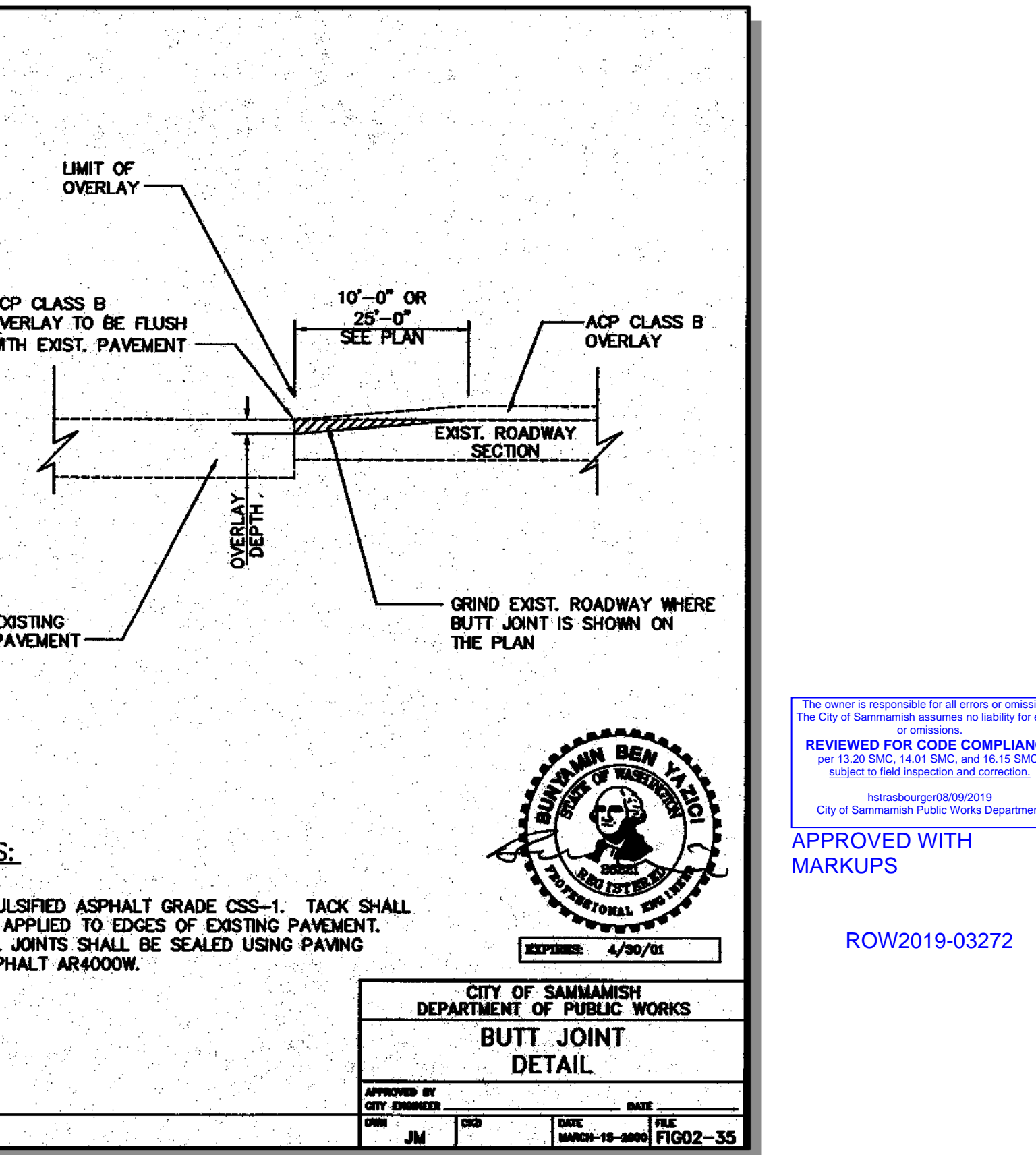
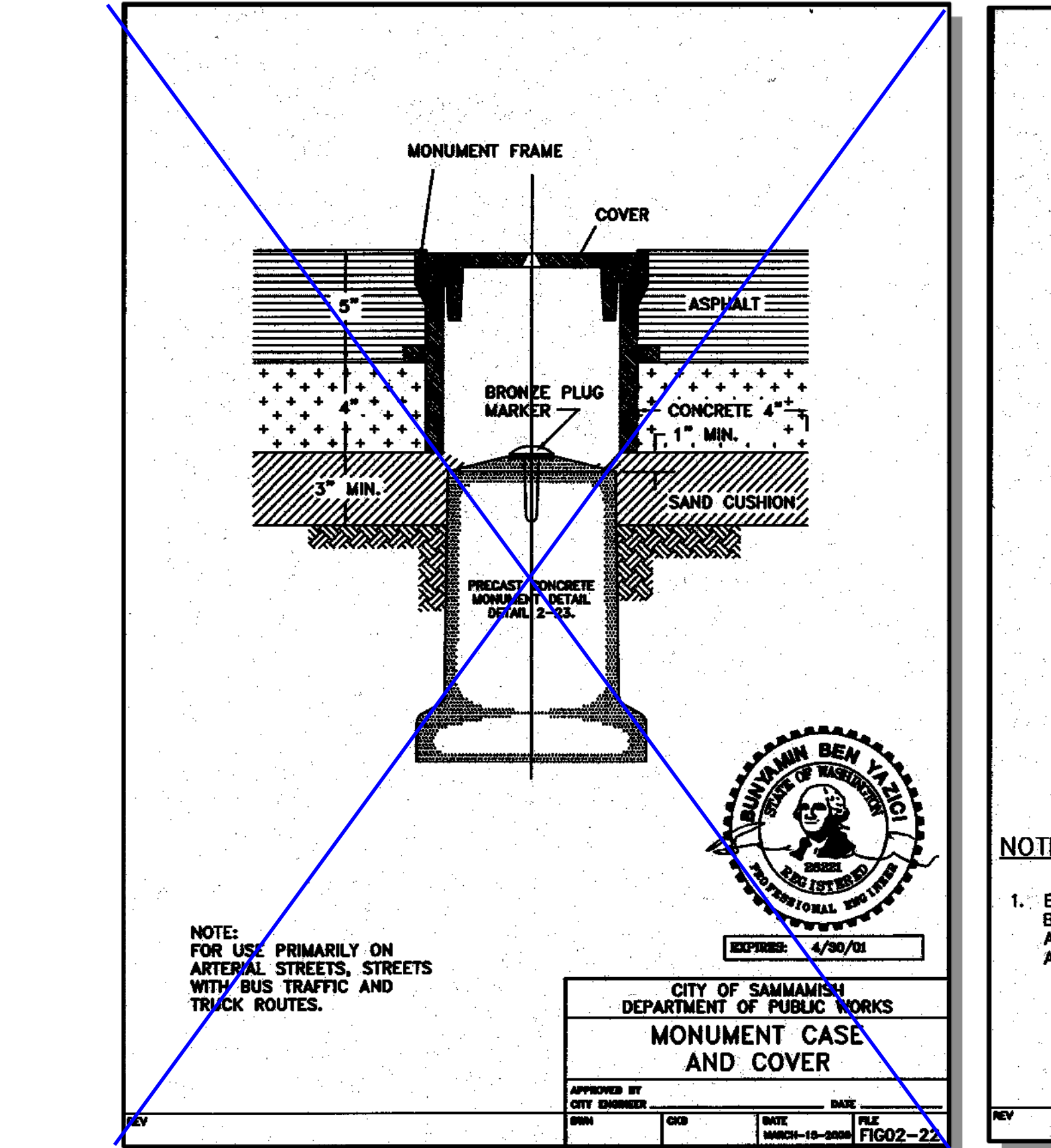
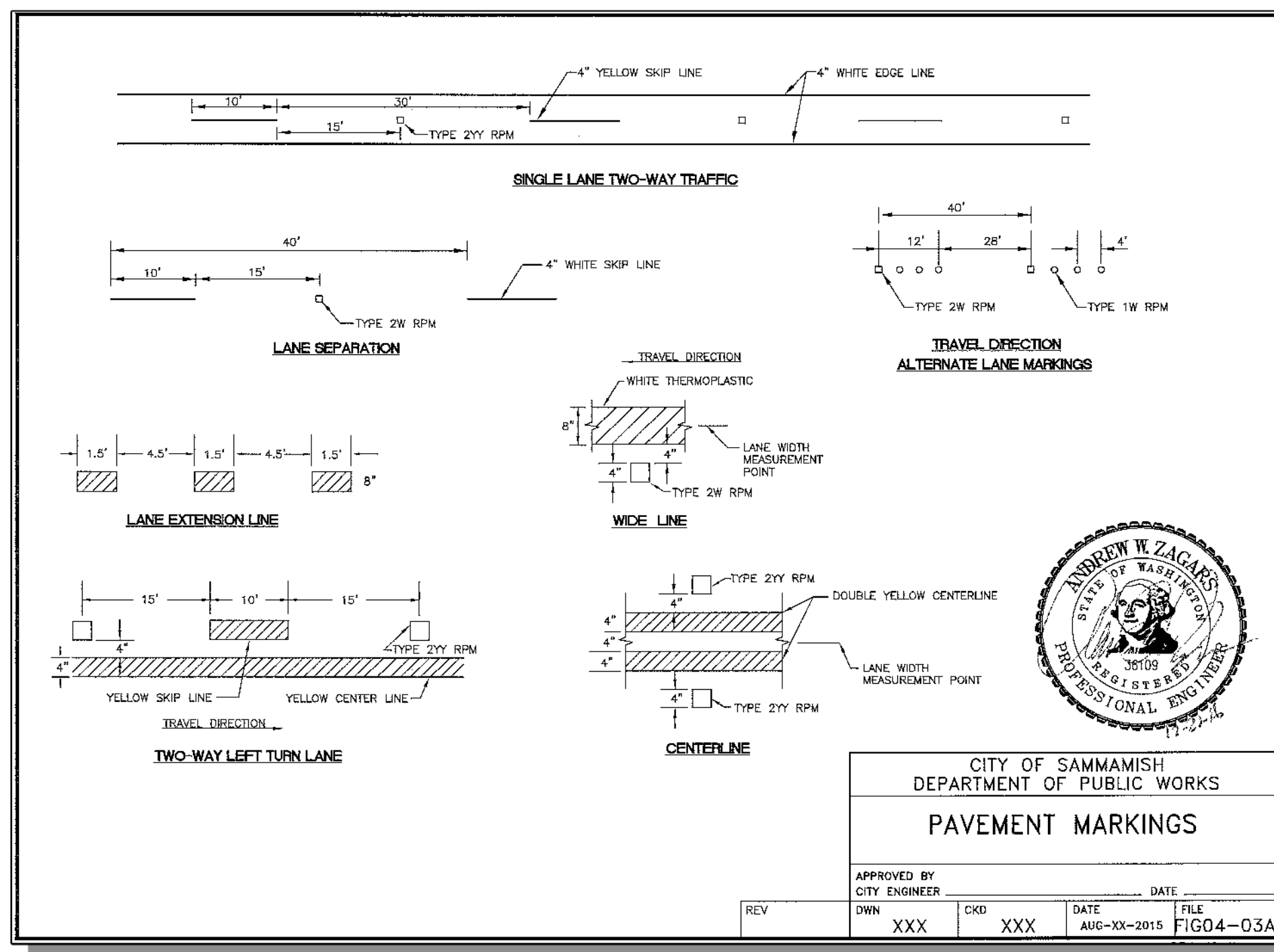
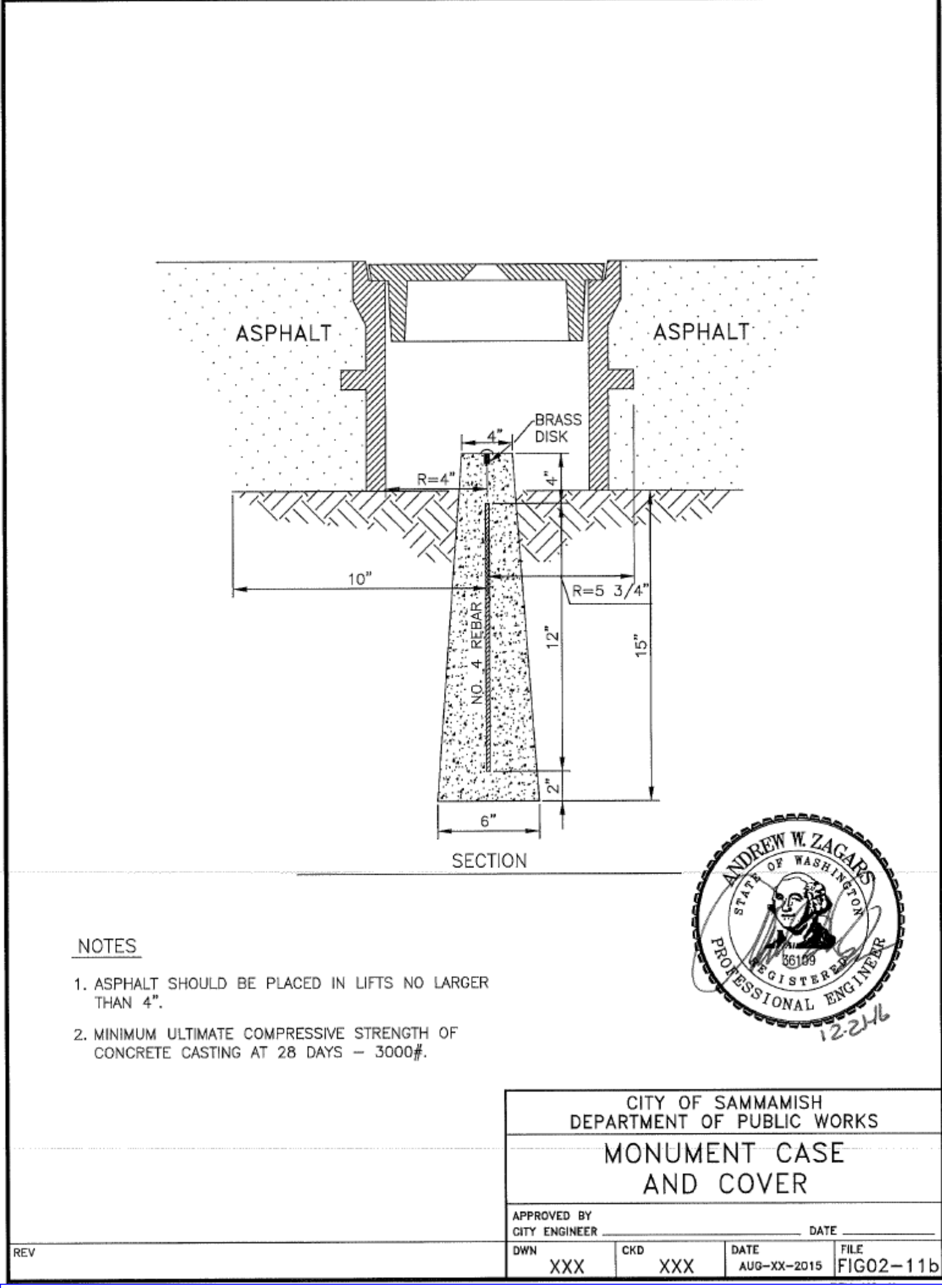
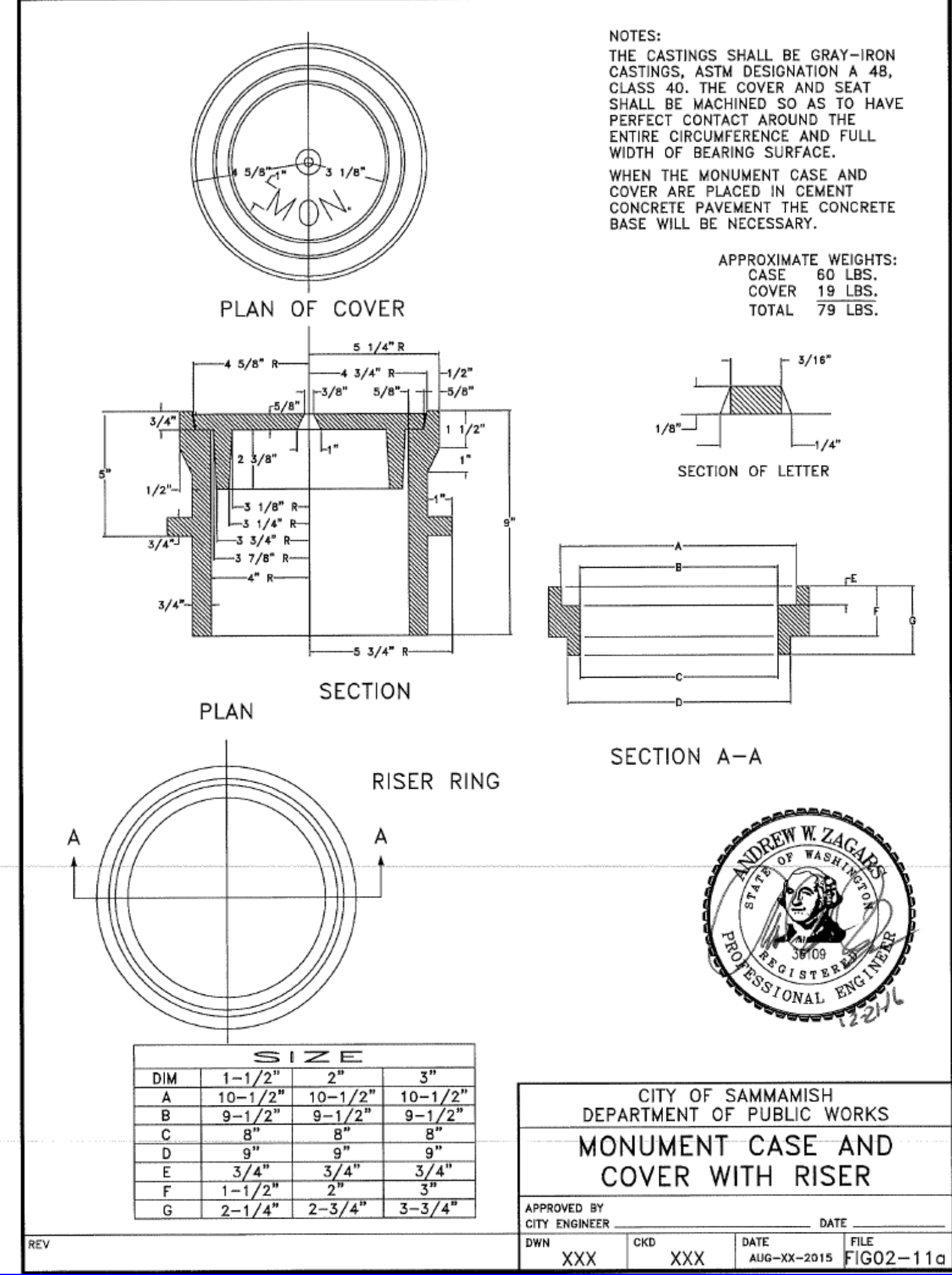
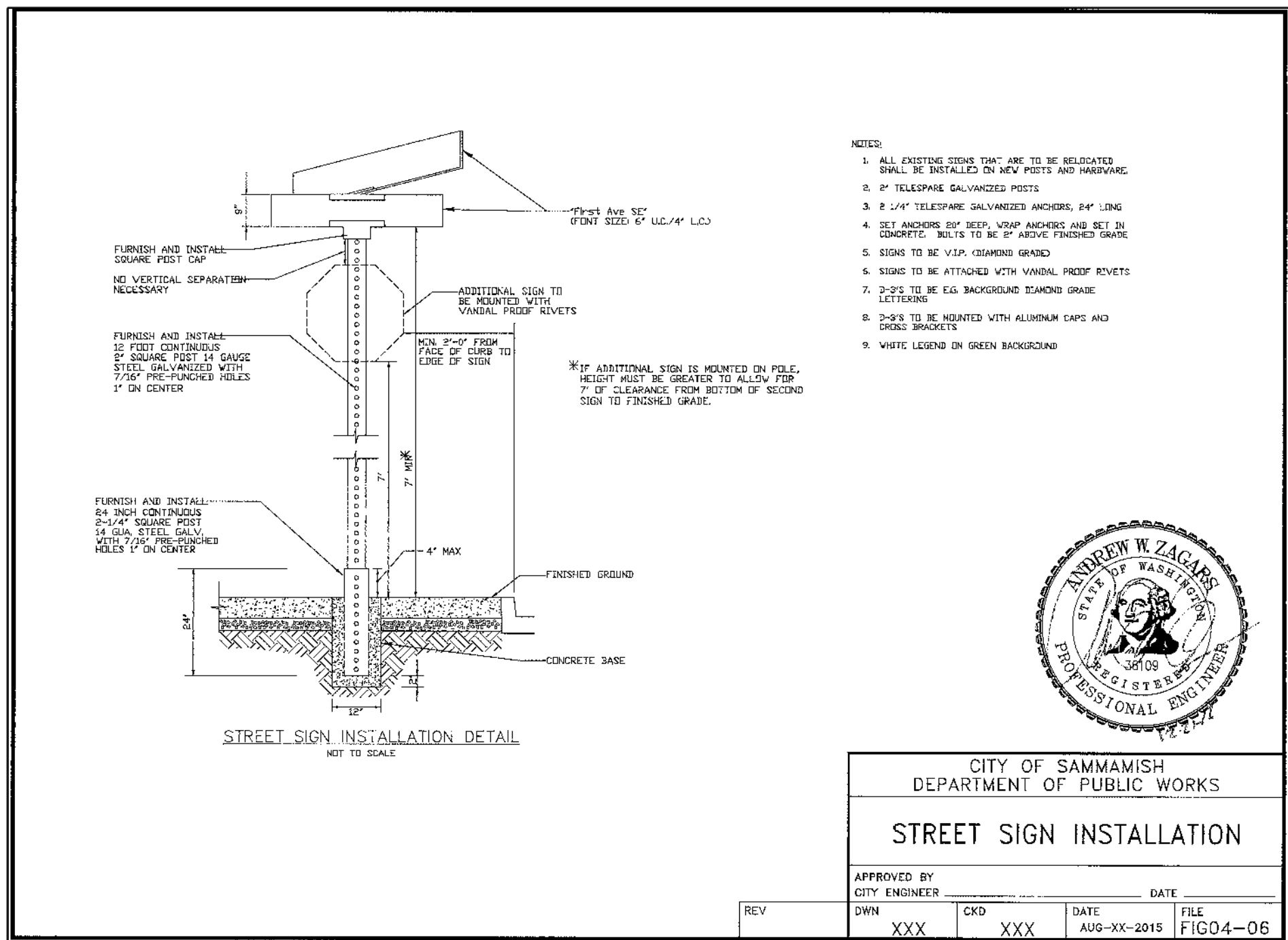
8/5/19  
JOB NUMBER:  
**15-111**  
SHEET NAME:  
**DT-02**  
SHT **37** OF **48**

ROW2019-03272

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.  
**REVIEWED FOR CODE COMPLIANCE**  
per 19.301 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
hairsbourge08/09/2019  
City of Sammamish Public Works Department

**PLANNING DEPT. APPROVAL**  
BY: ABaty  
DATE: 08/16/2019





**SCALE:**  
 AS NOTED

**PROJECT MANAGER:**  
 BRETT K. PUDIST, PE

**PROJECT ENGINEER:**  
 BRETT K. PUDIST, PE

**DESIGNER:**  
 AARON C. LANCE

**ISSUE DATE:**  
 8/5/2019

NO.	DATE	BY	REVISIONS
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**DETAILS**

**CARRIER SE 8TH SUBDIVISION ROAD & STORM PLANS**

**CITY OF SAMMAMISH WASHINGTON**

**PLANNING DEPT. APPROVAL**  
 BY: ABaty  
 DATE: 08/16/2019

**APPROVED WITH MARKUPS**

**ROW2019-03272**

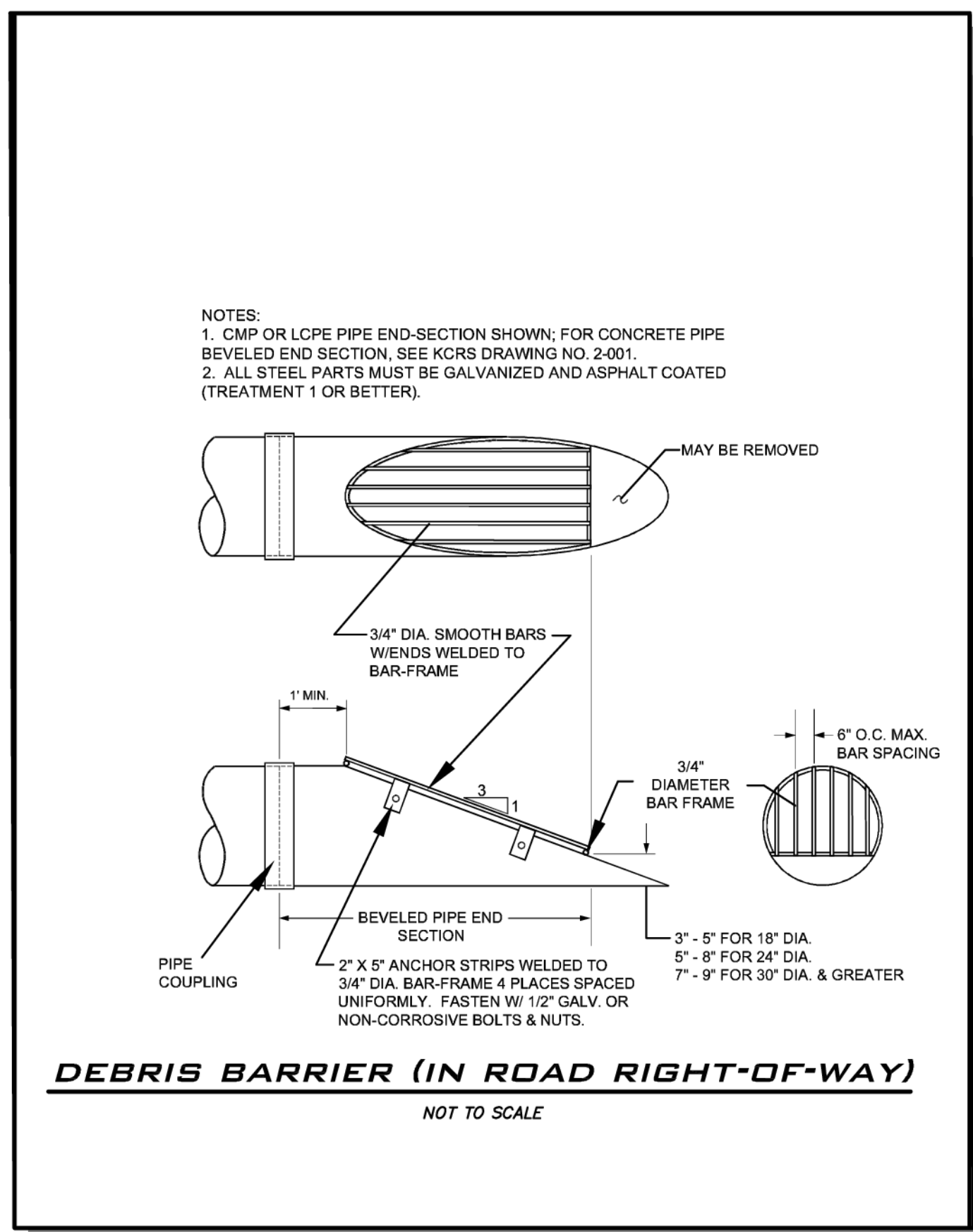
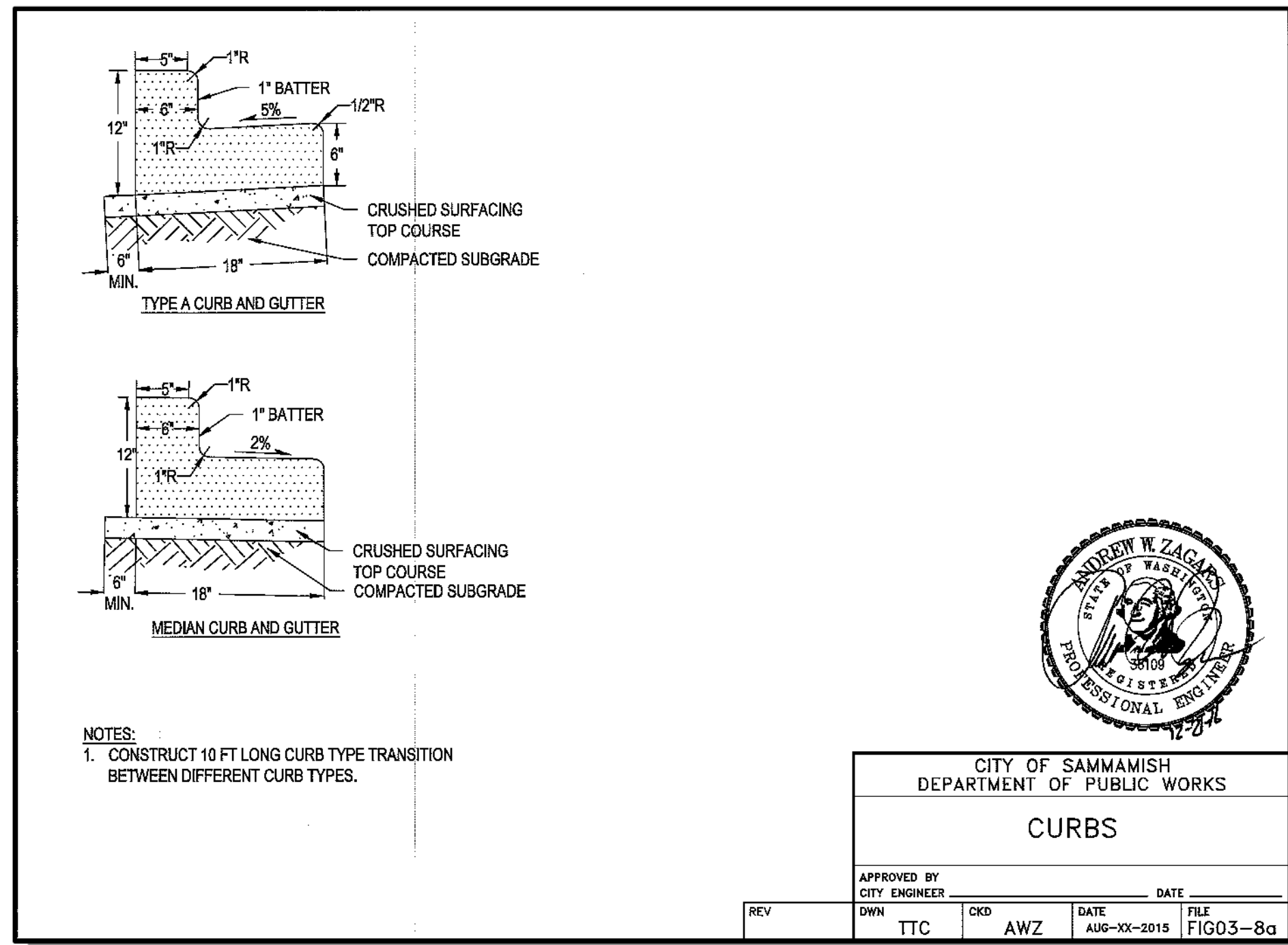
**8/5/19**

**JOB NUMBER:**  
 15-111

**SHEET NAME:**  
 DT-03

**SHT 38 OF 48**





**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED

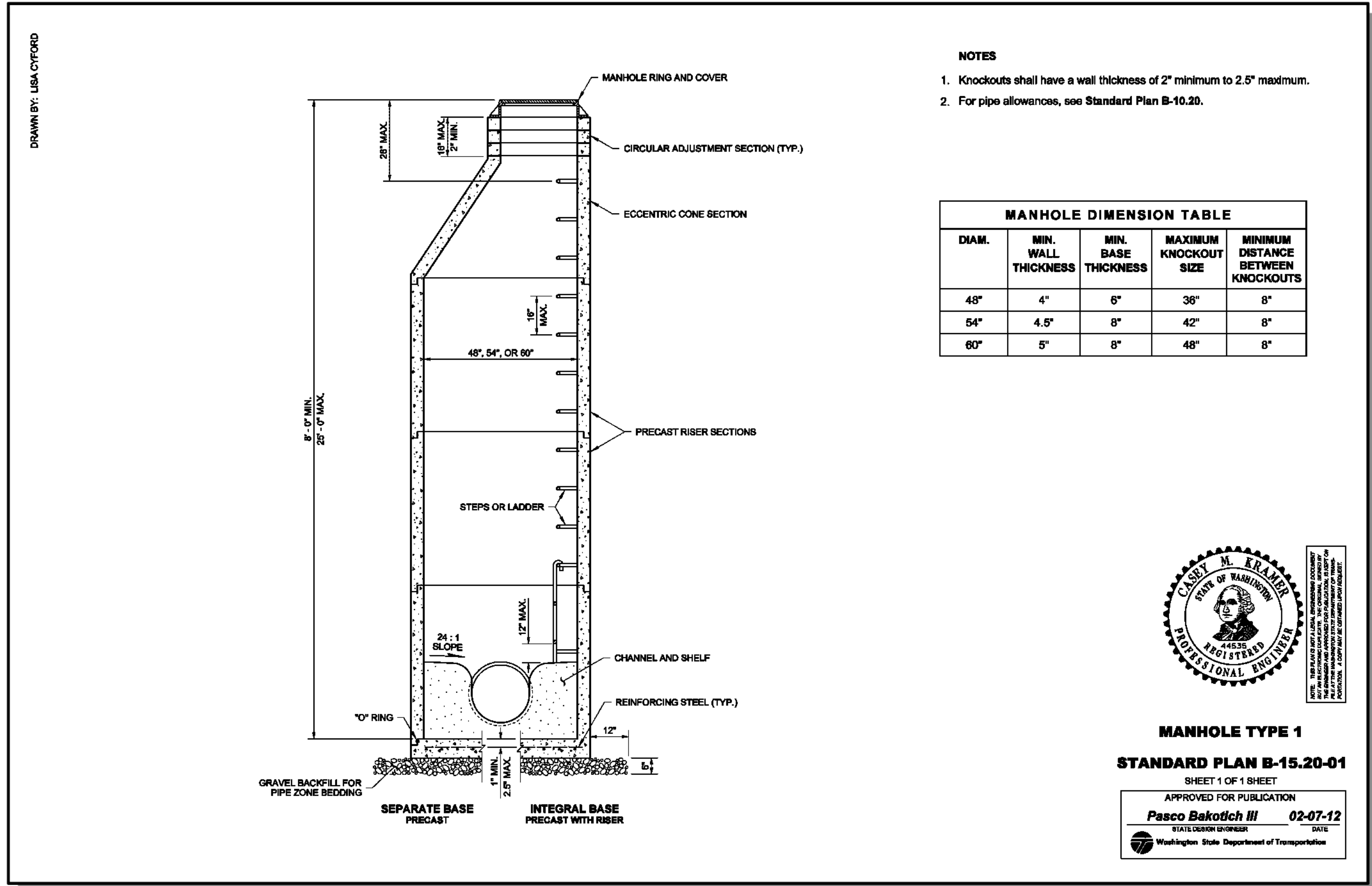
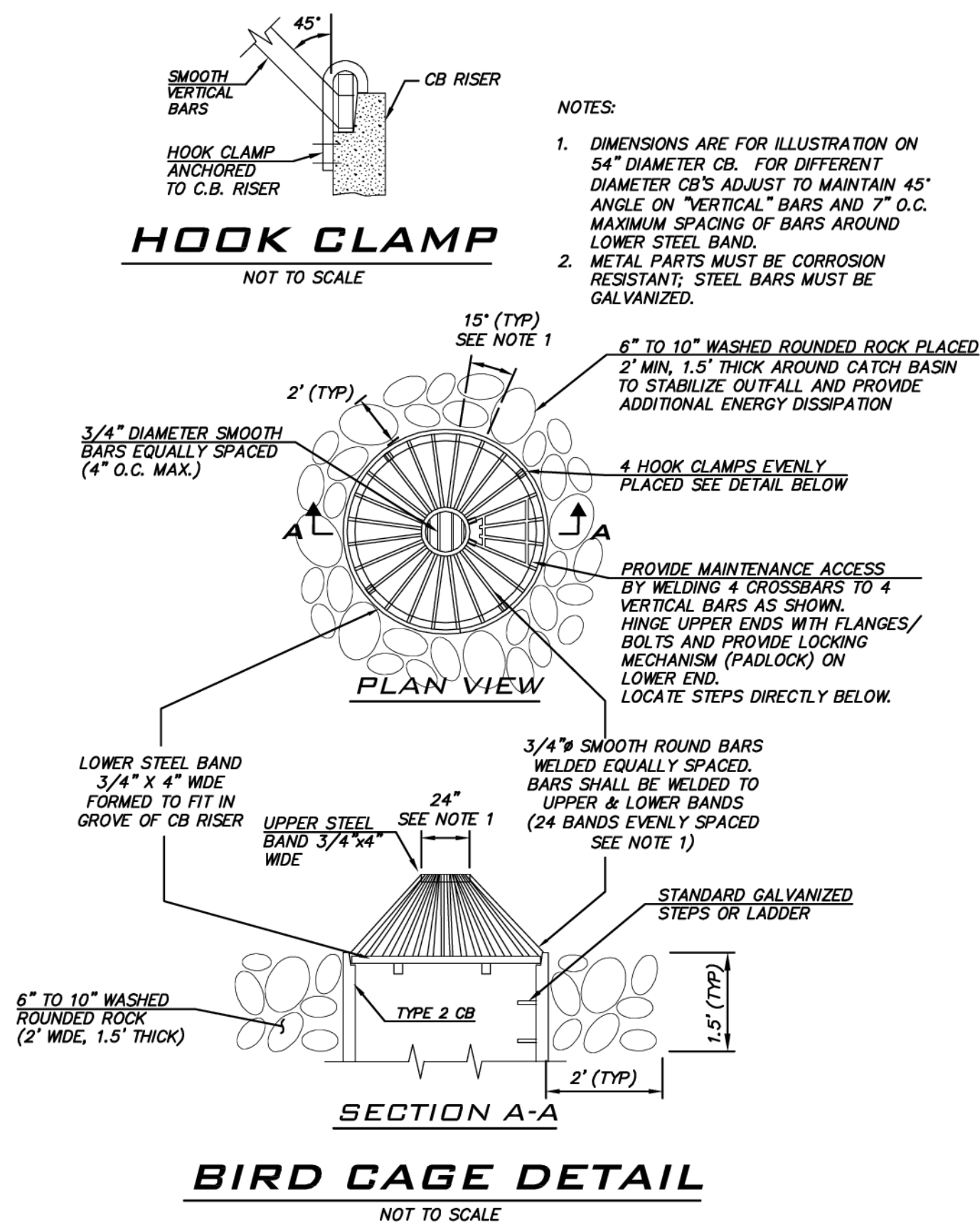
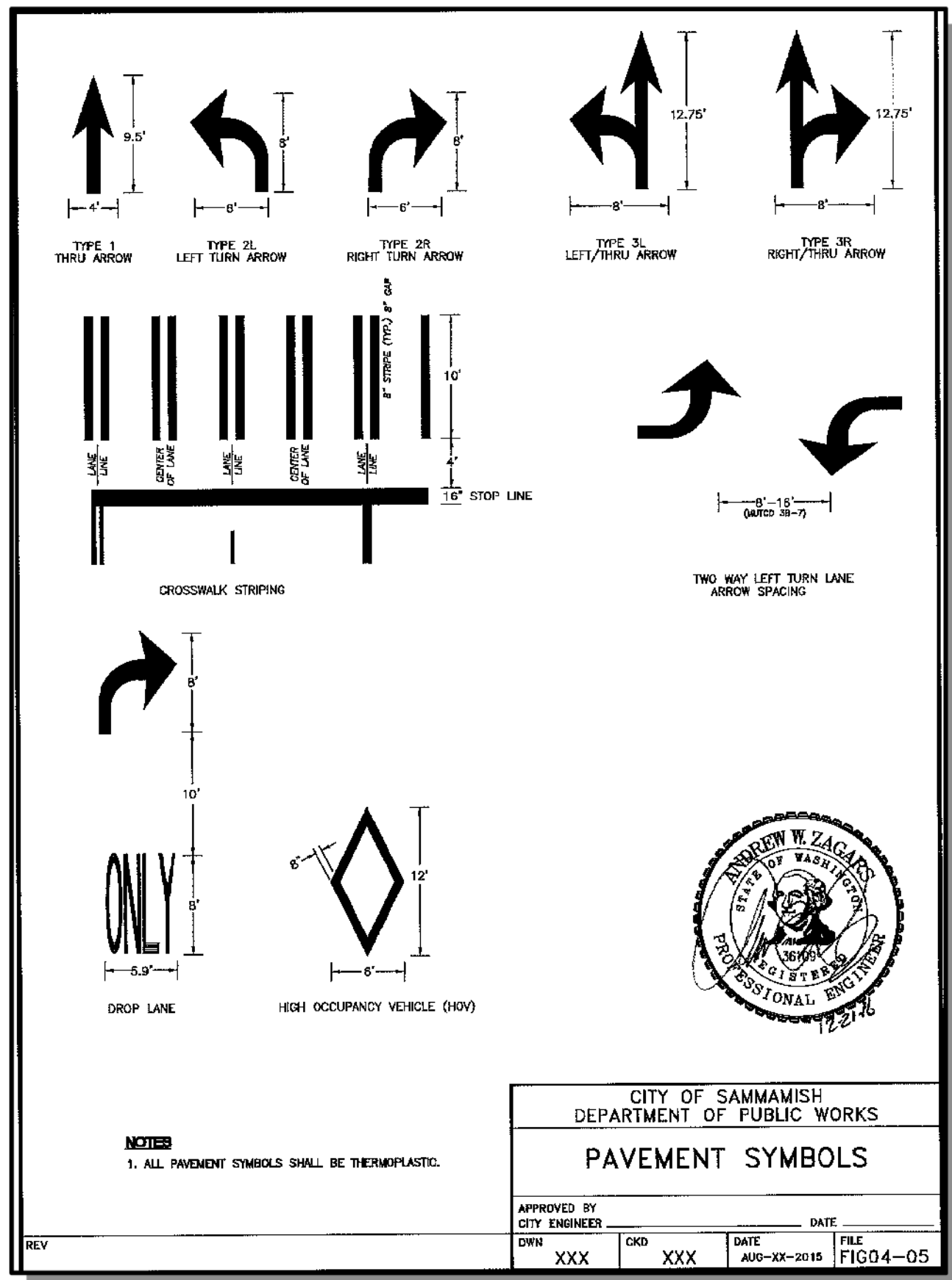
PROJECT MANAGER:  
BRETT K PUDIETS, PE

PROJECT ENGINEER:  
BRETT K PUDIETS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
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3	8/5/19	RAB	REVISED PER CITY COMMENTS



DETAILS

CARRIER SE 8TH SUBDIVISION

ROAD & STORM PLANS

CITY OF SAMMAMISH

WASHINGTON

8/5/19

JOB NUMBER:  
**15-111**

SHEET NAME:  
**DT-04**

SHT **39** OF **48**

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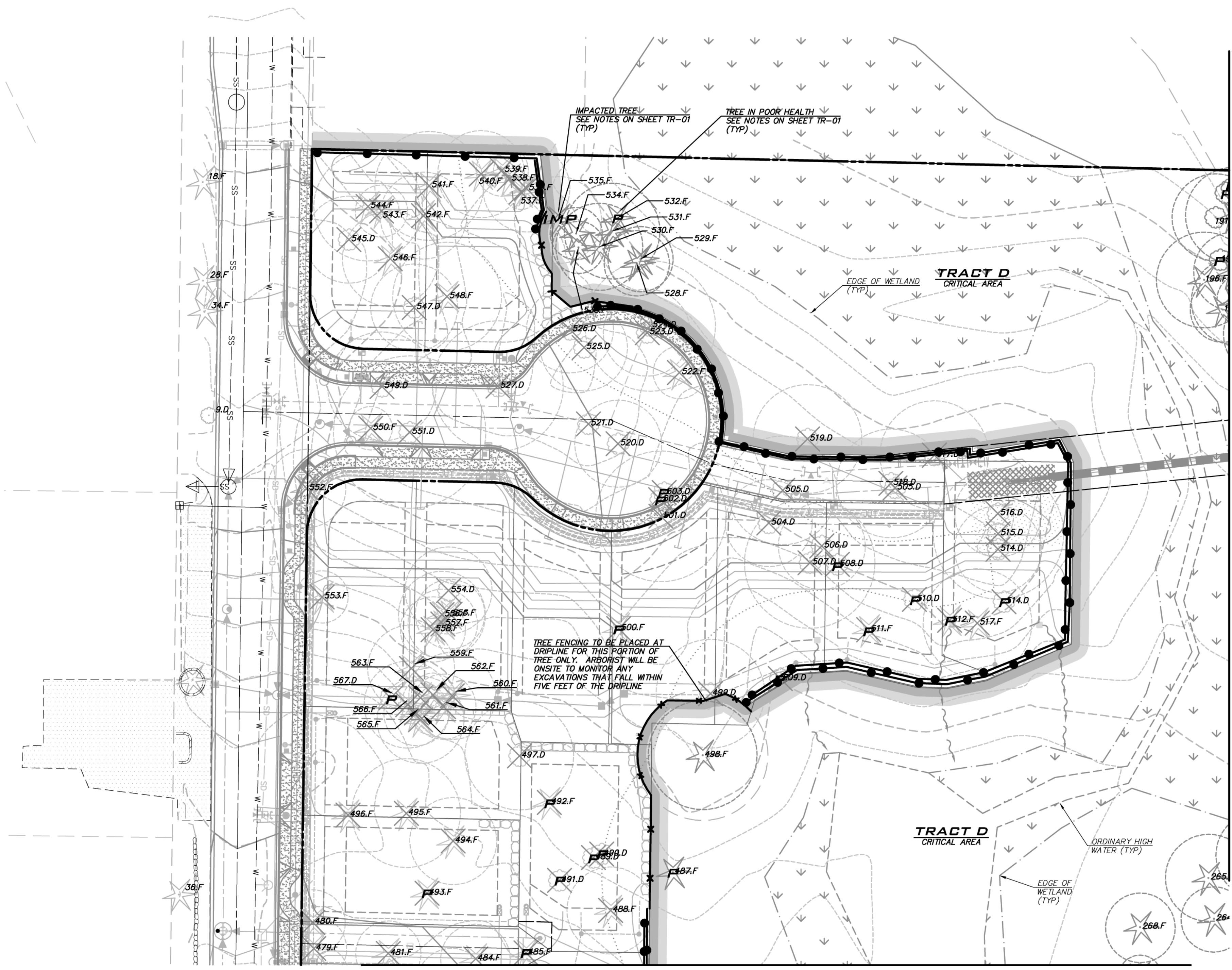
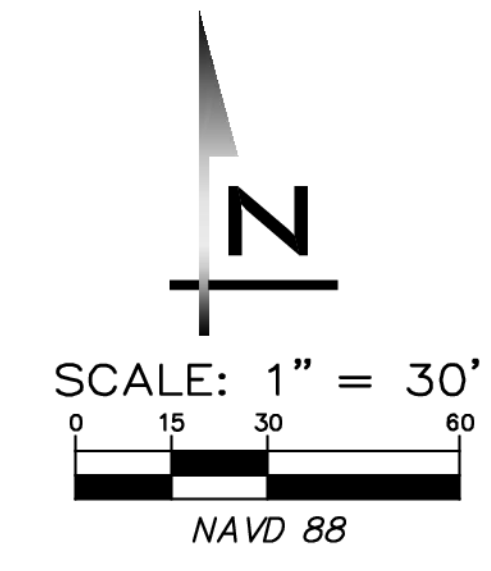
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8/16/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
By: ABaty  
DATE: 08/16/2019

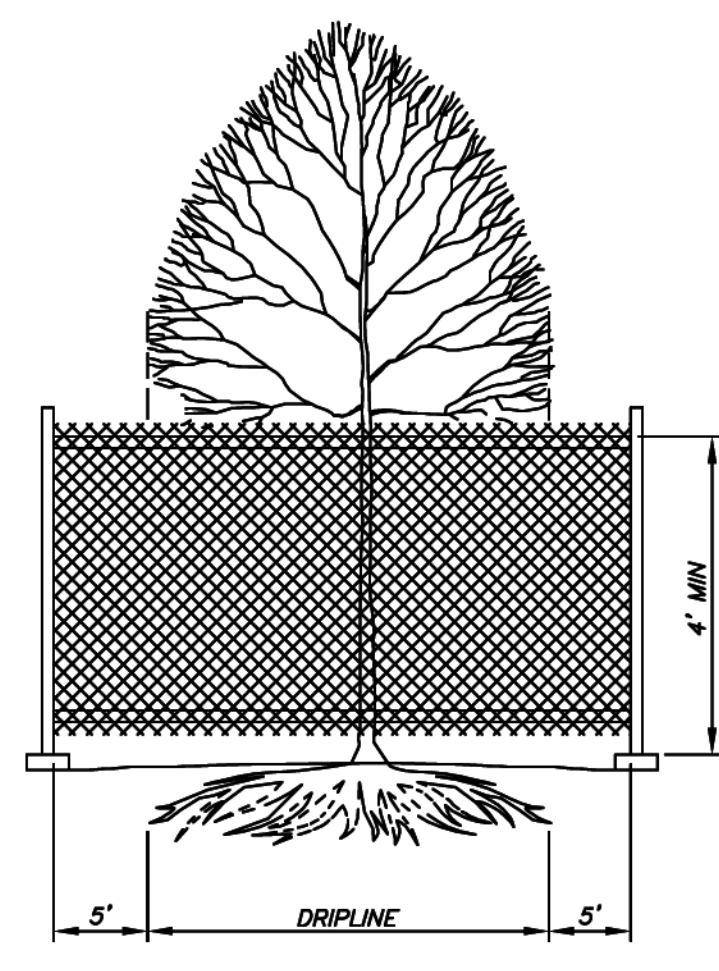
ROW2019-03272





**NOTES**

- 4' HIGH ORANGE CONSTRUCTION FENCE OR SILT FENCE SHALL BE PLACED 5' FROM DRIPLINE OF TREE TO BE SAVED UNLESS OTHERWISE NOTED. FENCE SHALL COMPLETELY ENCLOSE TREE(S) WITH SIGNS READING "TREE SAVE AREA". INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
- TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER 1" IN DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
- NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.



**TREE PROTECTION BARRIER**  
 NOT TO SCALE

**TREE LEGEND**

- EXISTING TREE TO BE REMOVED
- EXISTING IMPACTED TREE TO REMAIN IF POSSIBLE
- DRIPLINE
- EXISTING TREE TO BE SAVED (INSIDE CRITICAL AREA)
- EXISTING TREE TO BE SAVED (OUTSIDE CRITICAL AREA)
- LOD (LIMITS OF DISTURBANCE)
- EXISTING OFF-SITE TREE
- EXISTING TREE IN POOR CONDITION
- CLEARED AREA
- LIMITS OF CLEARING
- ACCEPTABLE TREE PROTECTION BARRIERS: (SEE DETAIL ON SHEET TR-01)
- 4' HIGH ORANGE CONSTRUCTION FENCE
- ORANGE SILT FENCE

**NOTES**

- SEE SHEET LS-01 FOR REPLACEMENT TREE PLANTINGS
- SEE SHEET TR-05 FOR TREE REPLACEMENT TREE CALCULATIONS

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.301 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
 harrisaubourge09/09/2019  
 City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
 BY: ABarty  
 DATE: 09/16/2019

**TREE IN POOR HEALTH NOTES**

- TREE IDENTIFIED BY ARBORIST AS HAVING POOR HEALTH AND COUNTED SEPARATELY IN TREE RETENTION AND REPLACEMENT CALCULATIONS.
- TREE LOCATED BEHIND CLEARING LIMITS SHALL BE EVALUATED BY ARBORIST DURING CONSTRUCTION TO DETERMINE WHETHER OR NOT IT CAN REMAIN WITHOUT BECOMING A HAZARD. IF NOT, TREE SHOULD EITHER BE CUT TO A SAFE HEIGHT AND SNAGGED OR CUT AND LEFT IN TRACT D OR TRACT H FOR HABITAT. STUMP TO BE LEFT IN PLACE AND CARE TAKEN DURING CUTTING TO PREVENT DISTURBANCE TO ADJACENT TREES TO REMAIN.
- POOR TREES THAT ARE CUT SHALL HAVE REPLACEMENT TREES PLANTED AT 1:1 RATIO. SEE CALCULATIONS ON SHEET TR-05. REPLACEMENT TREES SHALL BE LOCATED IN TRACT D OR TRACT H NEAR THE LOCATION OF THE CUT TREE OR AS OTHERWISE APPROVED BY THE ARBORIST.

**IMPACTED TREE NOTES**

- TREE IS IMPACTED BY PROPOSED ACTIVITIES AND DOES NOT MEET "SAVED TREE" CRITERIA.
- TREE TO BE EVALUATED BY ARBORIST DURING CONSTRUCTION TO DETERMINE WHETHER OR NOT IT CAN SURVIVE AND REMAIN WITHOUT BECOMING A HAZARD. IF NOT, TREE SHOULD EITHER BE CUT TO A SAFE HEIGHT AND SNAGGED OR CUT AND LEFT IN TRACT D FOR HABITAT. STUMP TO BE LEFT IN PLACE AND CARE TAKEN DURING CUTTING TO PREVENT DISTURBANCE TO ADJACENT TREES TO REMAIN.
- IMPACTED TREES HAVE BEEN COUNTED AS REMOVED IN TREE RETENTION AND REPLANTING CALCULATIONS.

**UNDERGROUND UTILITY NOTE**

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

SCALE: AS NOTED  
 PROJECT MANAGER: BRETT K PUDISTS, PE  
 PROJECT ENGINEER: BRETT K PUDISTS, PE  
 DESIGNER: AARON C LANCE  
 ISSUE DATE: 8/5/2019

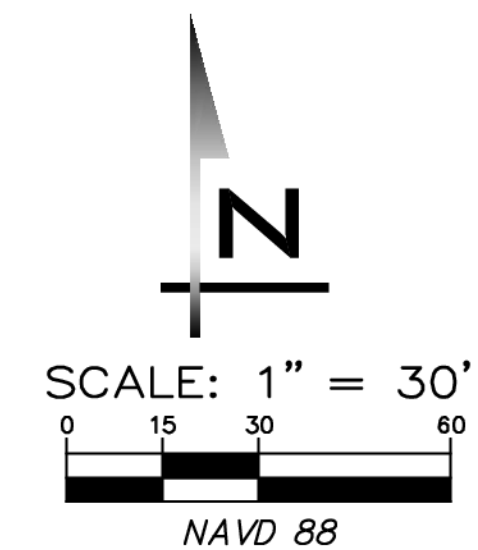
NO	DATE	BY	REVISIONS
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3	8/5/19	RMB	REVISED PER CITY COMMENTS

TREE RETENTION PLANS  
 CARRIER SE 8TH SUBDIVISION  
 ROAD & STORM PLANS  
 CITY OF SAMMAMISH WASHINGTON



5/10/2019  
 JOB NUMBER: 15-111  
 SHEET NAME: TR-01  
 SHT 40 OF 48





SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019

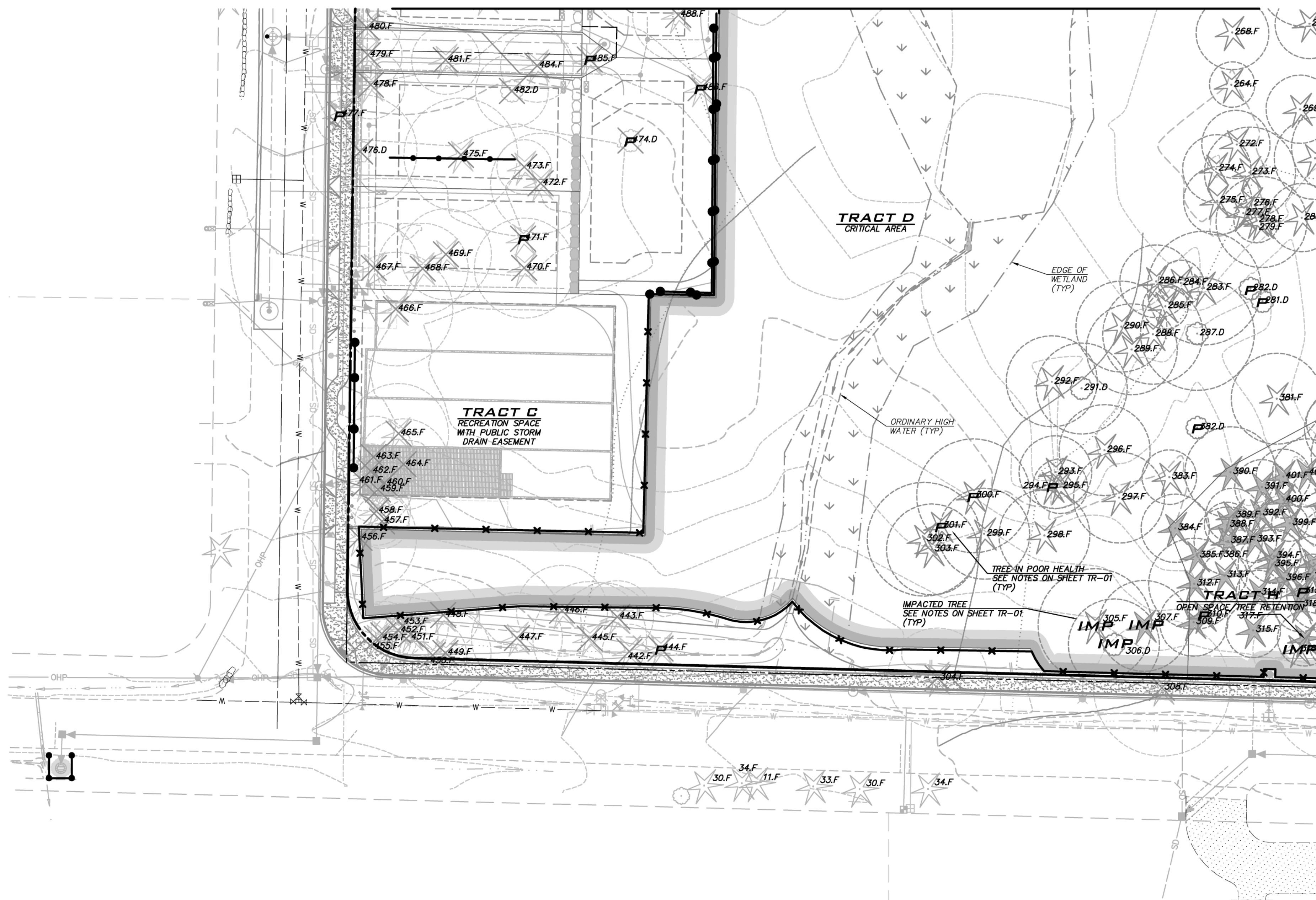
NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

**TREE RETENTION PLANS**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON



5/10/2019  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**TR-02**  
 SHT **41** OF **48**

SEE SHEET TR-01



SEE SHEET TR-04

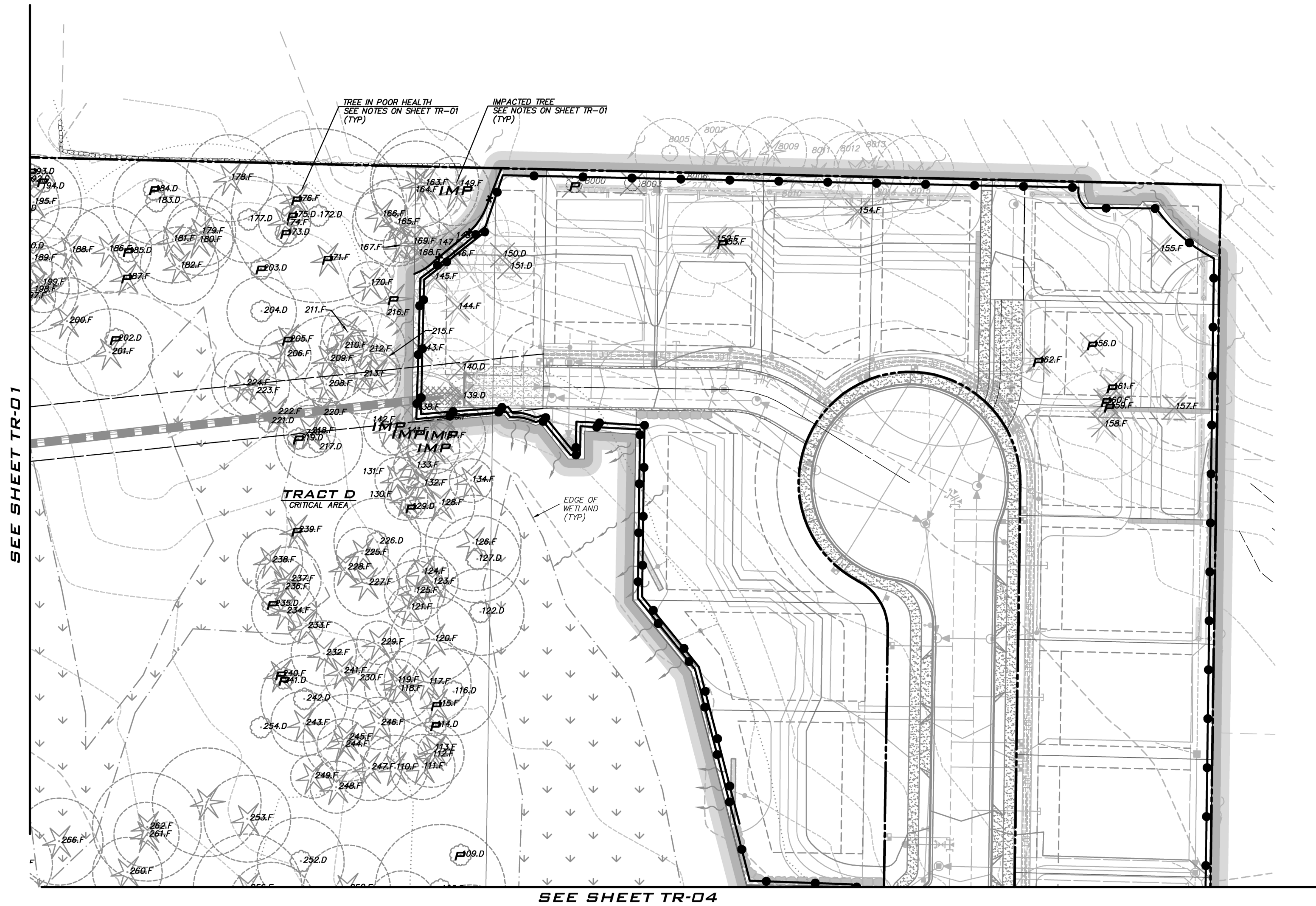
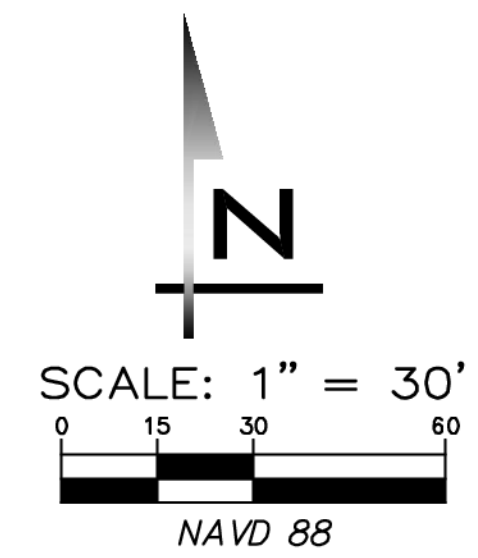
- NOTES**
- SEE SHEET LS-01 FOR REPLACEMENT TREE PLANTINGS
  - SEE SHEET TR-05 FOR TREE REPLACEMENT TREE CALCULATIONS
  - SEE SHEET TR-01 FOR TREE LEGEND & TREE PROTECTION BARRIER DETAIL

**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions. REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction. htrabourge08/09/2019 City of Sammamish Public Works Department	PLANNING DEPT. APPROVAL BY: ABaty DATE: 08/16/2019
---	--

**UNDERGROUND UTILITY NOTE**  
 UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.






- NOTES**
- SEE SHEET LS-01 FOR REPLACEMENT TREE PLANTINGS
  - SEE SHEET TR-05 FOR TREE REPLACEMENT TREE CALCULATIONS
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APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction. htrassbourge09/09/2019 City of Sammamish Public Works Department	

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**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED

PROJECT MANAGER:  
BRETT K PUDISTS, PE

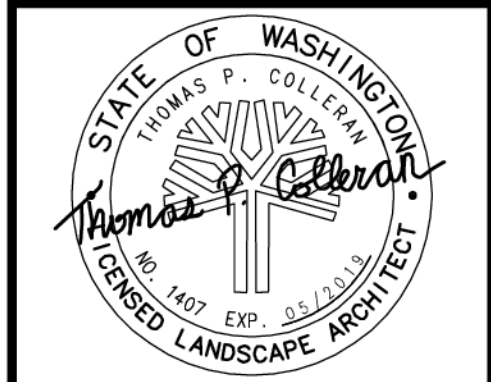
PROJECT ENGINEER:  
BRETT K PUDISTS, PE

DESIGNER:  
AARON C LANCE

ISSUE DATE:  
8/5/2019

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**TREE RETENTION PLANS**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
CITY OF SAMMAMISH WASHINGTON



5/10/2019  
JOB NUMBER:  
**15-111**  
SHEET NAME:  
**TR-03**  
SHT **42** OF **48**





SCALE: 1" = 30'  
0 15 30 60  
NAVD 88

SEE SHEET TR-03



SEE SHEET TR-02

TRACT D  
CRITICAL AREA

TRACT G  
RECREATION SPACE

TRACT H  
OPEN SPACE TREE RETENTION

IMPACTED TREE  
SEE NOTES ON SHEET TR-01  
(TYP)

TREE IN POOR HEALTH  
SEE NOTES ON SHEET TR-01  
(TYP)

- NOTES**
- SEE SHEET LS-01 FOR REPLACEMENT TREE PLANTINGS
  - SEE SHEET TR-05 FOR TREE REPLACEMENT TREE CALCULATIONS
  - SEE SHEET TR-01 FOR TREE LEGEND & TREE PROTECTION BARRIER DETAIL

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APPROVAL BLOCK

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REVIEWED FOR CODE COMPLIANCE  
per 19.30 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
hsharbour@09/09/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
BY: ABaty  
DATE: 09/16/2019

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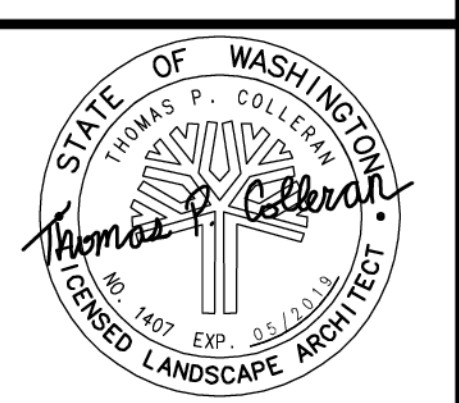
PROJECT ENGINEER:  
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DESIGNER:  
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TREE RETENTION PLANS  
CARRIER SE 8TH SUBDIVISION  
ROAD & STORM PLANS  
CITY OF SAMMAMISH WASHINGTON



5/10/2019  
JOB NUMBER:  
15-111  
SHEET NAME:  
TR-04  
SHT 43 OF 48



SW 1/4 SEC 33, TWP 25, RGE 6E, W.M.

Tree #	Species	DBH (in)	Condition	Crown Position	Drip Line Radius	Root Protection	Healthy Tree	Heritage or Landmark	Planned Saw/Remove	In Tract D	Replacement (Tree Qty)	Tree Credit
1	Douglas-fir	38	Good	Dominant	25	30	Yes		Remove	No	3	0
2	Douglas-fir	20	Good	Intermediate	20	20	Yes		Remove	No	1	0
8	Douglas-fir	22	Good	Co-dominant	20	20	Yes	Heritage	Remove	No	2	0
9	Douglas-fir	14	Fair	Intermediate	12	12	Yes		Remove	No	1	0
10	Douglas-fir	12	Poor	Suppressed	12	12	No		Remove	No	1	0
11	Douglas-fir	19	Fair	Co-dominant	12	15	Yes		Remove	No	1	0
12	Douglas-fir	20	Good	Co-dominant	16	16	Yes		Remove	No	1	0
13	Douglas-fir	22	Good	Dominant	16	16	Yes	Heritage	Remove	No	2	0
14	Douglas-fir	14	Fair	Intermediate	15	14	Yes		Remove	No	1	0
15	Cedar	13	Fair	Suppressed	12	12	Yes		Remove	No	1	0
16	Douglas-fir	24	Good	Co-dominant	15	20	Yes	Heritage	Remove	No	2	0
17	Douglas-fir	13	Fair	Intermediate	12	12	Yes		Remove	No	1	0
23	Douglas-fir	22	Fair	Co-dominant	18	18	Yes	Heritage	Remove	No	2	0
24	Douglas-fir	30	Fair	Dominant	16	25	Yes	Heritage	Remove	No	2	0
25	Douglas-fir	28	Good	Dominant	16	20	Yes	Heritage	Remove	No	2	0
26	Douglas-fir	15	Fair	Co-dominant	15	15	Yes		Remove	No	1	0
27	Red Alder	13	Poor	Intermediate			No		Remove	No	1	0
28	Red Alder	13	Poor	Intermediate			No		Remove	No	1	0
29	Douglas-fir	10	Very-Poor	Suppressed			No		Remove	No	1	0
30	Douglas-fir	11	Very-Poor	Suppressed			No		Remove	No	1	0
37	Red Alder	16	Dead	Co-dominant			No		Remove	No	1	0
38	Red Alder	20	Dead	Dominant			No		Remove	No	1	0
39	Red Alder	16	Dead	Dominant			No		Remove	No	1	0
40	Douglas-fir	12,12	Poor	Intermediate			No		Remove	No	1	0
41	Douglas-fir	28	Poor	Dominant	18	22	No	Poor Health	Remove	No	1	0
45	Douglas-fir	38	Poor	Dominant	16	30	No	Poor Health	Remove	No	1	0
46	Douglas-fir	17	Poor	Intermediate	17	17	No		Remove	No	1	0
47	Douglas-fir	28	Dead	Co-dominant	15	22	No	Dead	Remove	No	1	0
55	Cedar	18	Fair	Intermediate	12	15	Yes		Remove	No	1	0
56	Douglas-fir	16	Poor	Intermediate			No		Remove	No	1	0
57	Maple	50	Poor - Stem	Co-dominant			No	Poor Health	Remove	No	1	0
59	Henlock	22	Poor - Stem	Co-dominant			No	Poor Health	Remove	Yes	1	0
60	Red Alder	16	Poor	Intermediate			No		Save	Yes	0	0
61	Douglas-fir	26	Good	Dominant	20	25	Yes	Heritage	Save	Yes	0	0
63	Douglas-fir	14	Fair	Intermediate	12	12	Yes		Remove	Yes	1	0
64	Maple	13	Poor	Suppressed			No		Save	No	0	0
65	Douglas-fir	15	Fair	Co-dominant	12	12	Yes		Remove	No	1	0
66	Douglas-fir	8	Poor	Suppressed			No		Save	No	0	0
67	Douglas-fir	21	Fair	Dominant	15	15	Yes		Save	No	0	1
68	Maple	14	Poor	Suppressed			No		Save	No	0	0
69	Douglas-fir	30	Fair	Dominant	20	25	Yes	Heritage	Remove	No	2	0
70	Douglas-fir	21	Fair	Co-dominant	12	20	Yes		Remove	No	1	0
71	Douglas-fir	19	Fair	Co-dominant	10	15	Yes		Remove	No	1	0
72	Douglas-fir	22	Fair	Co-dominant	10	15	Yes	Heritage	Remove	No	2	0
73	Douglas-fir	23	Fair	Co-dominant	15	18	Yes	Heritage	Remove	No	2	0
74	Douglas-fir	26	Fair	Dominant	15	20	Yes	Heritage	Remove	No	2	0
75	Maple	35	Very-Poor	Suppressed			No	Poor Health	Save	No	0	0
76	Douglas-fir	16	Fair	Co-dominant	12	15	Yes		Save	No	0	1
77	Douglas-fir	22	Fair	Co-dominant	16	20	Yes	Heritage	Save	No	0	1.75
78	Douglas-fir	14	Fair	Co-dominant	10	14	Yes		Save	No	0	1
79	Douglas-fir	13	Fair	Co-dominant	12	14	Yes		Save	No	0	1
80	Douglas-fir	10	Fair	Intermediate	8	10	Yes		Save	No	0	1
81	Maple	12	Fair	Intermediate	12	12	Yes		Save	No	0	1
82	Maple	13	Fair	Intermediate	12	12	Yes		Save	No	0	1
83	Douglas-fir	18	Fair	Co-dominant	15	15	Yes		Save	No	0	1
84	Douglas-fir	11	Fair	Intermediate	10	10	Yes		Save	No	0	1
85	Maple	13,21	Fair	Intermediate	25	20	Yes		Save	No	0	1
86	Douglas-fir	17	Fair	Co-dominant	15	15	Yes		Save	No	0	1
87	Douglas-fir	8,9	Fair	Intermediate	10	10	Yes		Save	No	0	1
88	Douglas-fir	40	Good	Dominant	30	30	Yes	Heritage	Save	Yes	0	0
89	Douglas-fir	18	Fair	Co-dominant	15	15	Yes		Save	No	0	1
90	Maple	16	Dead				No		Save	Yes	0	0
91	Douglas-fir	40	Fair	Dominant	25	30	Yes	Heritage	Save	Yes	0	0
92	Cedar	28	Good	Co-dominant	20	20	Yes	Heritage	Save	Yes	0	0
93	Douglas-fir	9	Fair	Suppressed	8	8	Yes		Save	Yes	0	0
94	Douglas-fir	36	Fair	Dominant	25	30	Yes	Heritage	Save	Yes	0	0
95	Maple	18	Fair	Intermediate	25	20	Yes		Save	Yes	0	0
96	Douglas-fir	12	Fair	Intermediate	15	12	Yes		Save	Yes	0	0
97	Douglas-fir	22	Good	Co-dominant	20	20	Yes	Heritage	Save	Yes	0	0
98	Maple	18	Fair	Intermediate	20	20	Yes		Save	Yes	0	0
99	Douglas-fir	32	Fair	Dominant	20	25	Yes	Heritage	Save	Yes	0	0
100	Douglas-fir	16	Fair	Intermediate	12	12	Yes		Save	Yes	0	0
101	Douglas-fir	8	Fair	Suppressed	8	8	Yes		Save	Yes	0	0
102	Douglas-fir	21	Fair	Co-dominant	16	16	Yes		Save	Yes	0	0
103	Douglas-fir	18	Fair	Co-dominant	15	15	Yes		Save	Yes	0	0
104	Maple	14	Fair	Suppressed	22	18	Yes		Save	Yes	0	0
105	Douglas-fir	24	Fair	Co-dominant	20	20	Yes	Heritage	Save	Yes	0	0
106	Douglas-fir	9	Fair	Suppressed	6	8	Yes		Save	Yes	0	0

Tree #	Species	DBH (in)	Condition	Crown Position	Drip Line Radius	Root Protection	Healthy Tree	Heritage or Landmark	Planned Saw/Remove	In Tract D	Replacement (Tree Qty)	Tree Credit
107	Douglas-fir	18	Good	Co-dominant	16	16	Yes		Save	Yes	0	0
108	Maple	26	Fair	Co-dominant	30	25	Yes	Heritage	Save	Yes	0	0
109	Maple	17	Poor				No		Save	Yes	0	0
110	Douglas-fir	21	Fair	Co-dominant	15	15	Yes		Save	Yes	0	0
111	Douglas-fir	21	Fair	Co-dominant	15	15	Yes		Save	Yes	0	0
112	Douglas-fir	20	Fair	Co-dominant	15	15	Yes		Save	Yes	0	0
113	Douglas-fir	12	Fair	Suppressed	8	10	Yes		Save	Yes	0	0
114	Red Alder	18	Dead				No		Save	Yes	0	0
115	Douglas-fir	13	Poor	Suppressed			No		Save	Yes	0	0
116	Maple	16	Fair	Intermediate	20	20	Yes		Save	Yes	0	0
117	Douglas-fir	24	Good	Dominant	20	20	Yes	Heritage	Save	Yes	0	0
118	Douglas-fir	22	Good	Dominant	16	16	Yes	Heritage	Save	Yes	0	0
119	Douglas-fir	12	Fair	Suppressed	10	10	Yes		Save	Yes	0	0
120	Douglas-fir	23	Good	Dominant	20	20	Yes	Heritage	Save	Yes	0	0
121	Douglas-fir	8	Fair	Suppressed	10	8	Yes		Save	Yes	0	0
122	Maple	17	Fair	Intermediate	20	20	Yes		Save	Yes	0	0
123	Douglas-fir	17	Fair	Co-dominant	12	15	Yes		Save	Yes	0	0
124	Douglas-fir	14	Fair	Co-dominant	12	14	Yes		Save	Yes	0	0
125	Douglas-fir	16	Fair	Co-dominant	14	15	Yes		Save	Yes	0	0
126	Douglas-fir	34	Good	Dominant	22	30	Yes	Heritage	Save	Yes	0	0
127	Maple	13	Fair	Intermediate	20	15	Yes		Save	Yes	0	0
128	Cedar	18	Good	Intermediate	16	16	Yes		Save	Yes	0	0
129	Red Alder	12	Dead				No		Save	Yes	0	0
130	Douglas-fir	12	Fair	Intermediate	10	10	Yes		Save	Yes	0	0
131	Douglas-fir	9	Fair	Suppressed	10	10	Yes		Save	Yes	0	0
132	Douglas-fir	24	Fair	Dominant	16	20	Yes	Heritage	Save	Yes	0	0
133	Douglas-fir	10	Fair	Intermediate	10	10	Yes		Save	Yes	0	0
134	Cedar	8	Good	Suppressed	10	10	Yes		Save	Yes	0	0
135	Douglas-fir	23	Good	Dominant	20	20	Yes	Heritage	Remove	Yes	2	0
136	Douglas-fir	14	Fair	Co-dominant	12	12	Yes		Save	Yes	0	0
137	Douglas-fir	28	Good	Co-dominant	20	22	Yes	Heritage	Remove	Yes	2	0
138	Douglas-fir	30	Good	Co-dominant	22	25	Yes	Heritage	Remove	Yes	2	0
139	Maple	13	Fair	Intermediate	25	15	Yes		Remove	Yes	1	0
140	Maple	18	Fair	Intermediate	25	20	Yes		Remove	No	1	0
141	Douglas-fir	13	Fair	Suppressed	12	12	Yes		Remove	Yes	1	0
142	Douglas-fir	10	Fair	Suppressed	12	12	Yes		Remove	Yes	1	0
143	Douglas-fir	14	Fair	Intermediate	12	12	Yes		Remove	Yes	1	0
144	Cedar	32	Good	Co-dominant	20	25	Yes	Landmark	Remove	No	3	0
145	Cedar	16	Good	Intermediate	12	15	Yes		Remove	No	1	0
146	Douglas-fir	11	Fair	Intermediate	12	12	Yes		Remove	No	1	0
147	Cedar	9	Good	Suppressed	10	10	Yes		Remove	No	1	0
148	Douglas-fir	38	Good	Dominant	25	30	Yes	Landmark	Remove	No	3	0
149	Douglas-fir	21	Good	Co-dominant	16	16	Yes		Remove	No	1	0
150	Red Alder	13	Fair	Co-dominant	16	15	Yes		Remove	No	1	0
151	Red Alder	15	Fair	Co-dominant	16	15	Yes		Remove	No	1	0
152	Douglas-fir	60	Fair	Dominant	20	45	Yes	Landmark	Remove	No	3	0
153	Cedar	72	Poor	Co-dominant			No	Poor Health	Remove	No	1	0
154	Douglas-fir	16	Fair	Co-dominant	16	16	Yes		Remove	No	1	0
155	Douglas-fir	20	Good	Dominant	20	20	Yes		Remove	No	1	0
156	Red Alder	26	Very-Poor	Intermediate			No	Poor Health	Remove	No	1	0
157	Cedar	48	Very-Poor	Co-dominant	20	30	Yes	Landmark	Remove	No	3	0
158	Douglas-fir	32	Fair	Dominant	25	25	Yes	Landmark	Remove	No	3	0
159	Douglas-fir	16	Poor	Co-dominant			No		Remove	No	1	0
160	Douglas-fir	23	Poor	Co-dominant			No	Poor Health	Remove	No	1	0
161	Douglas-fir	35	Poor	Co-dominant			No	Poor Health	Remove	No	1	0
162	Douglas-fir	42,32	Poor	Dominant			No	Poor Health	Remove	No	1	0
163	Douglas-fir	34	Good	Co-dominant	25	25	Yes	Landmark	Save	No	0	2
164	Douglas-fir	26	Good	Co-dominant	20	20	Yes					



(TABLE CONTINUED FROM TR-05)

SW 1/4 SEC 33, TWP 25, RGE 6E, W.M.

Table with 14 columns: Tree #, Species, DBH (in), Condition, Crown Position, Drip Line Radius, Root Protection, Healthy Tree, Heritage or Landmark, Planned Saw/Remove, In Tract D, Replacement (Tree Qty), Tree Credit. Rows 263-497.

Table with 14 columns: Tree #, Species, DBH (in), Condition, Crown Position, Drip Line Radius, Root Protection, Healthy Tree, Heritage or Landmark, Planned Saw/Remove, In Tract D, Replacement (Tree Qty), Tree Credit. Rows 498-883.

Table with 14 columns: Tree #, Species, DBH (in), Condition, Crown Position, Drip Line Radius, Root Protection, Healthy Tree, Heritage or Landmark, Planned Saw/Remove, In Tract D, Replacement (Tree Qty), Tree Credit. Rows 884-1273.

CITY OF SAMMAMISH APPROVAL BLOCK. Includes owner responsibility statement, code compliance review, and planning department approval stamp.

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BLUELINE logo and contact info. SCALE: AS NOTED. PROJECT MANAGER: BRETT K PUDIST, PE. PROJECT ENGINEER: BRETT K PUDIST, PE. DESIGNER: AARON C LANCE. ISSUE DATE: 8/5/2019. TREE RETENTION CALCULATIONS, GARRIER SE 8TH SUBDIVISION ROAD & STORM PLANS, CITY OF SAMMAMISH WASHINGTON.

22-234 Aug 05, 2019 - 7:03pm - User: dgarland E:\Projects\151111\Drawings\Storm\151111TR.dwg

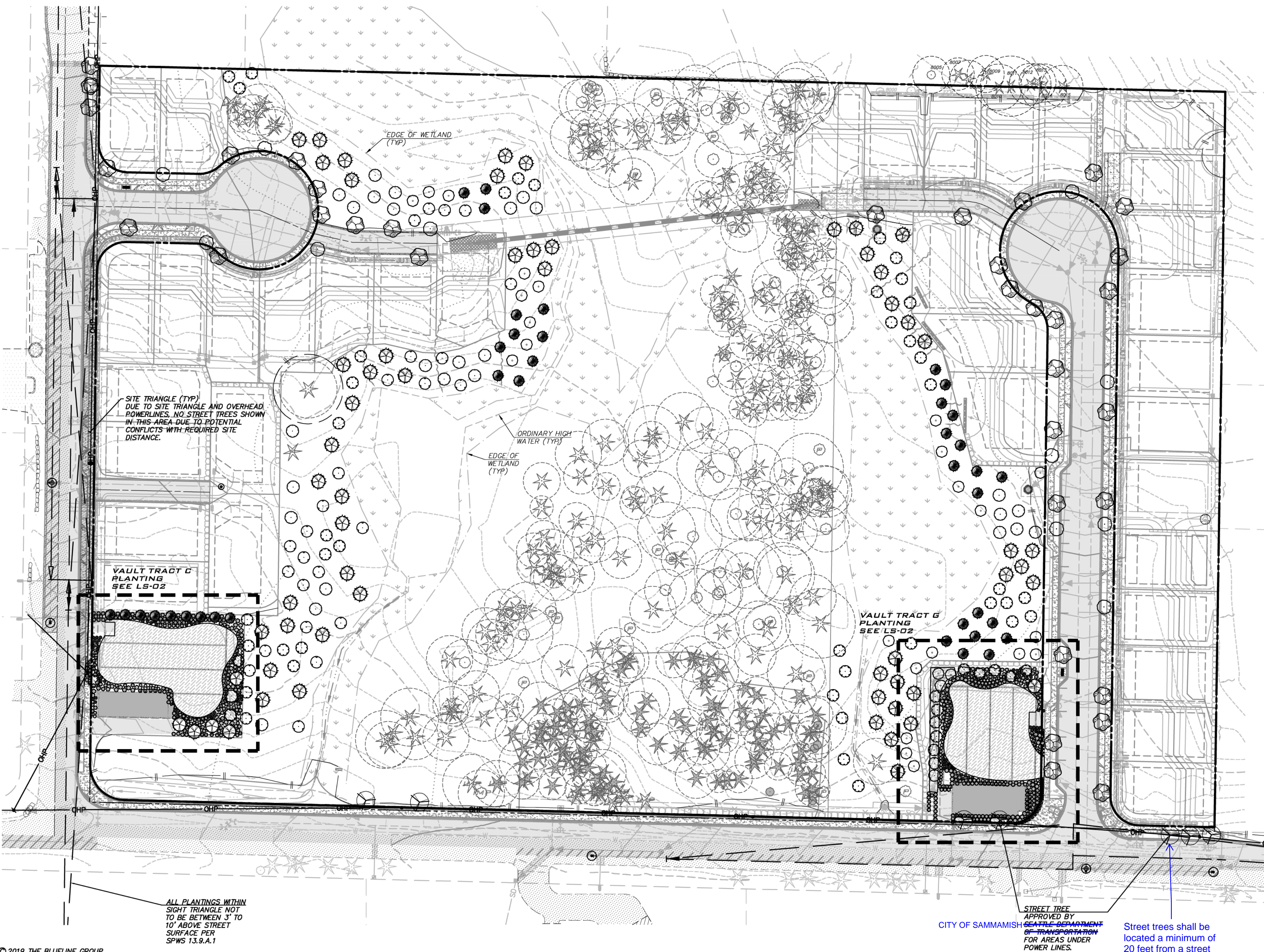




SCALE: 1" = 50'  
0 25 50 100  
NAVD 88

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KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE:  
AS NOTED  
PROJECT MANAGER:  
BRETT K PUDISTS, PE  
PROJECT ENGINEER:  
BRETT K PUDISTS, PE  
DESIGNER:  
AARON C LANCE  
ISSUE DATE:  
8/5/2019



**PLANT SCHEDULE**

MITIGATION TREES	BOTANICAL NAME / COMMON NAME
	Acer circinatum / Vine Maple
	Acer macrophyllum / Big Leaf Maple
	Betula papyrifera / Paper Birch
	Pinus contorta / Shore Pine
	Thuja plicata / Western Red Cedar
	Tsuga heterophylla / Western Hemlock
STREET TREES	BOTANICAL NAME / COMMON NAME
	Acer platanoides 'Columnare' / Columnar Norway Maple
	Acer platanoides 'Warrenred' TM / Pacific Sunset Maple
	Prunus serrulata 'Royal Burgundy' / Royal Burgundy Cherry
SHRUBS	BOTANICAL NAME / COMMON NAME
	Azalea Encore TM / Encore Azalea
	Cornus sericea / Red Twig Dogwood
	Euonymus alatus 'Compactus' / Compact Burning Bush
	Hemerocallis x 'Stella de Oro' / Stella de Oro Daylily
	Pleris japonica 'Mountain Fire' / Mountain Fire Pteris
	Rhododendron x 'Cunningham's Blush' / Cunningham's Blush Rhododendron
	Rhododendron x 'Ramapo' / Ramapo Rhododendron
	Rosa acicularis 'Knock Out' / Prickly Rose
GROUND COVERS	BOTANICAL NAME / COMMON NAME
	Cornus x unalascensis / Bunchberry Dogwood
	Dicentra formosa / Western Bleeding-Heart
	Turf Seed Drought Tolerant Dwarf Fescue Blend

NO	DATE	BY	REVISIONS	
			REVISIONS	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS	WALT PLANS MODIFIED TO MATCH STRUCTURAL
2	7/26/19	ACL	REVISED PER CITY COMMENTS	
3	8/5/19	RAB	REVISED PER CITY COMMENTS	

**TREE RESTORATION PLAN**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON

**CITY OF SAMMAMISH**  
APPROVAL BLOCK

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.

REVIEWED FOR CODE COMPLIANCE per 19.301 SMC, 14.01 SMC, and 14.15 SMC, subject to field inspection and connection.

hairsbourge08/09/2019  
City of Sammamish Public Works Department

PLANNING DEPT. APPROVAL  
BY: ABarty  
DATE: 08/16/2019

APPROVED WITH MARKUPS  
ROW2019-03272

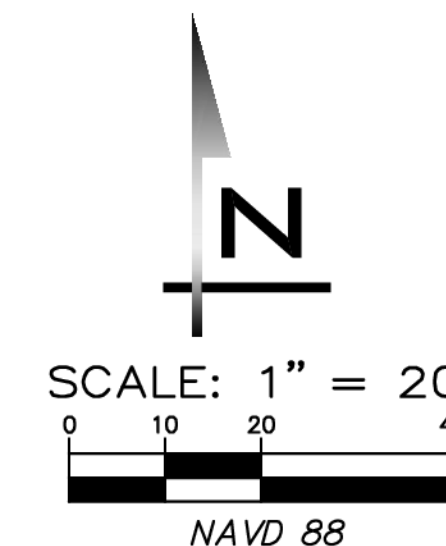
**UNDERGROUND UTILITY NOTE**  
UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.



5/29/19  
JOB NUMBER:  
**15-111**  
SHEET NAME:  
**LS-01**  
SHT **46** OF **48**

22.634 Aug 05, 2019 7:10pm User: dtabraham E:\Projects\151111\Drawings\Plan\Road & Storm\151111LS.dwg



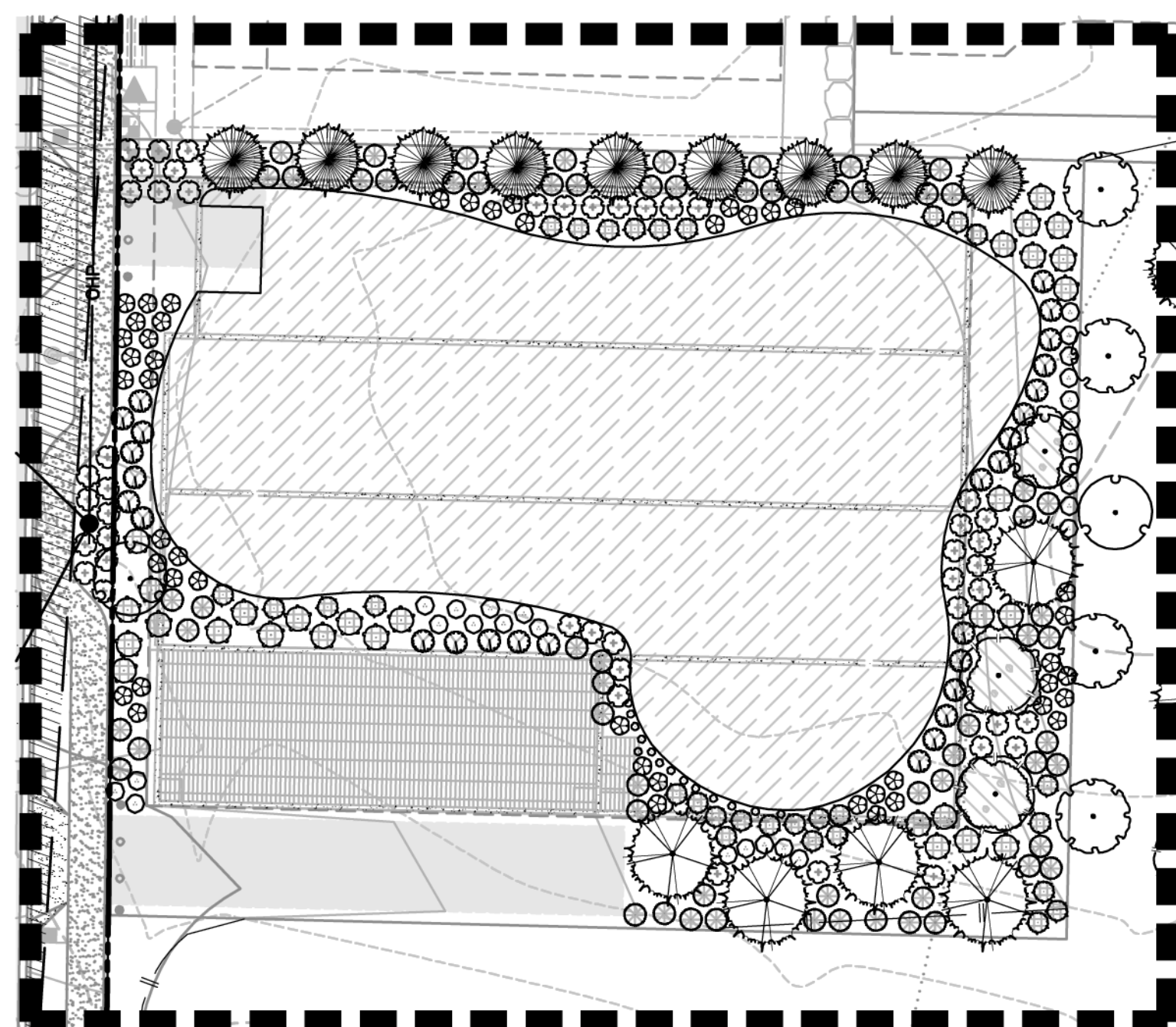


**BLUELINE**  
 25 CENTRAL WAY, SUITE 400,  
 KIRKLAND, WA, 98033  
 P: 425.216.4051 F: 425.216.4052  
 WWW.THEBLUENELINEGROUP.COM

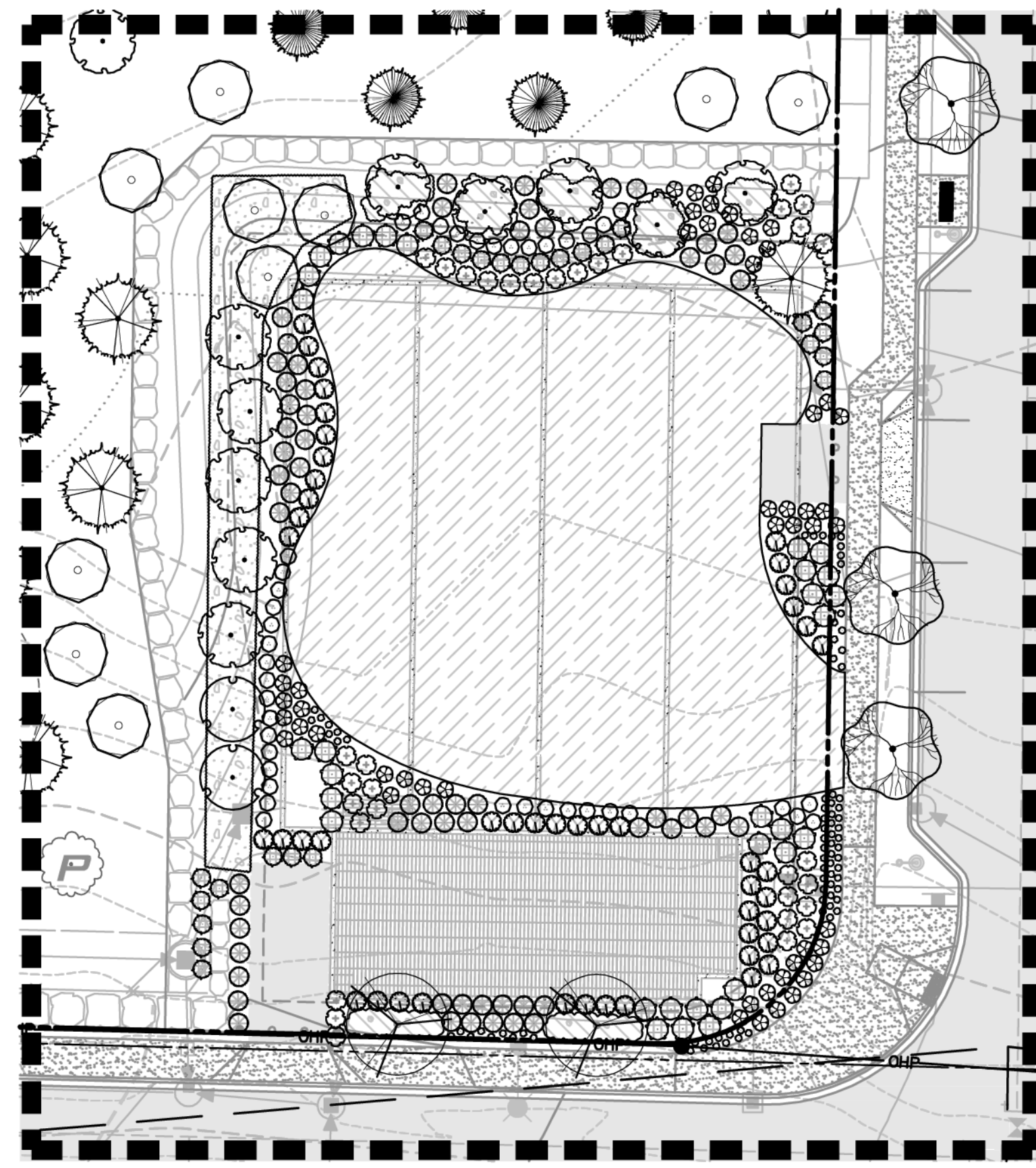
SCALE:  
 AS NOTED  
 PROJECT MANAGER:  
 BRETT K PUDISTS, PE  
 PROJECT ENGINEER:  
 BRETT K PUDISTS, PE  
 DESIGNER:  
 AARON C LANCE  
 ISSUE DATE:  
 8/5/2019

**PLANT SCHEDULE**

MITIGATION TREES	BOTANICAL NAME / COMMON NAME
	Acer circinatum / Vine Maple
	Acer macrophyllum / Big Leaf Maple
	Betula papyrifera / Paper Birch
	Pinus contorta / Shore Pine
	Thuja plicata / Western Red Cedar
	Tsuga heterophylla / Western Hemlock
STREET TREES	BOTANICAL NAME / COMMON NAME
	Acer platanoides 'Columnar' / Columnar Norway Maple
	Acer platanoides 'Warrenred' TM / Pacific Sunset Maple
	Prunus serrulata 'Royal Burgundy' / Royal Burgundy Cherry
SHRUBS	BOTANICAL NAME / COMMON NAME
	Azalea Encore TM / Encore Azalea
	Cornus sericea / Red Twig Dogwood
	Euonymus alatus 'Compactus' / Compact Burning Bush
	Hemerocallis x 'Stella de Oro' / Stella de Oro Daylily
	Pieris japonica 'Mountain Fire' / Mountain Fire Pieris
	Rhododendron x 'Cunningham's Blush' / Cunningham's Blush Rhododendron
	Rhododendron x 'Ramapo' / Ramapo Rhododendron
	Rosa acicularis 'Knock Out' / Prickly Rose
GROUND COVERS	BOTANICAL NAME / COMMON NAME
	Cornus x unalascensis / Bunchberry Dogwood
	Dicentra formosa / Western Bleeding-Heart
	Turf Seed Drought Tolerant Dwarf Fescue Blend



**VAULT TRACT C PLANTING**



**VAULT TRACT G PLANTING**

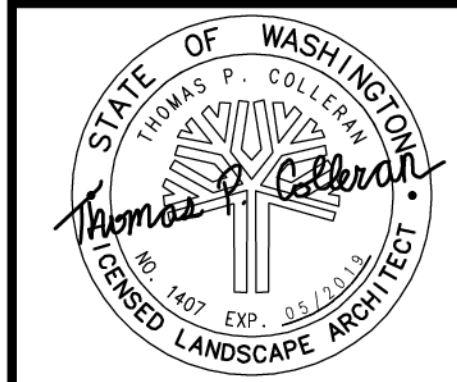
**CITY OF SAMMAMISH**  
 APPROVAL BLOCK

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.	PLANNING DEPT. APPROVAL BY: ABaty DATE: 08/16/2019
REVIEWED FOR CODE COMPLIANCE per 19.20 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction. htrabourge08/09/2019 City of Sammamish Public Works Department	

**UNDERGROUND UTILITY NOTE**  
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NO	DATE	BY	REVISIONS
1	5/10/19	RAB	REVISED PER CITY COMMENTS
2	7/26/19	ACL	REVISED PER CITY COMMENTS. WALT PLANS MODIFIED TO MATCH STRUCTURAL
3	8/5/19	RAB	REVISED PER CITY COMMENTS

**VAULT TRACT PLANTING PLAN**  
**CARRIER SE 8TH SUBDIVISION**  
**ROAD & STORM PLANS**  
 CITY OF SAMMAMISH WASHINGTON



5/29/19  
 JOB NUMBER:  
**15-111**  
 SHEET NAME:  
**LS-02**  
 SHT **47** OF **48**

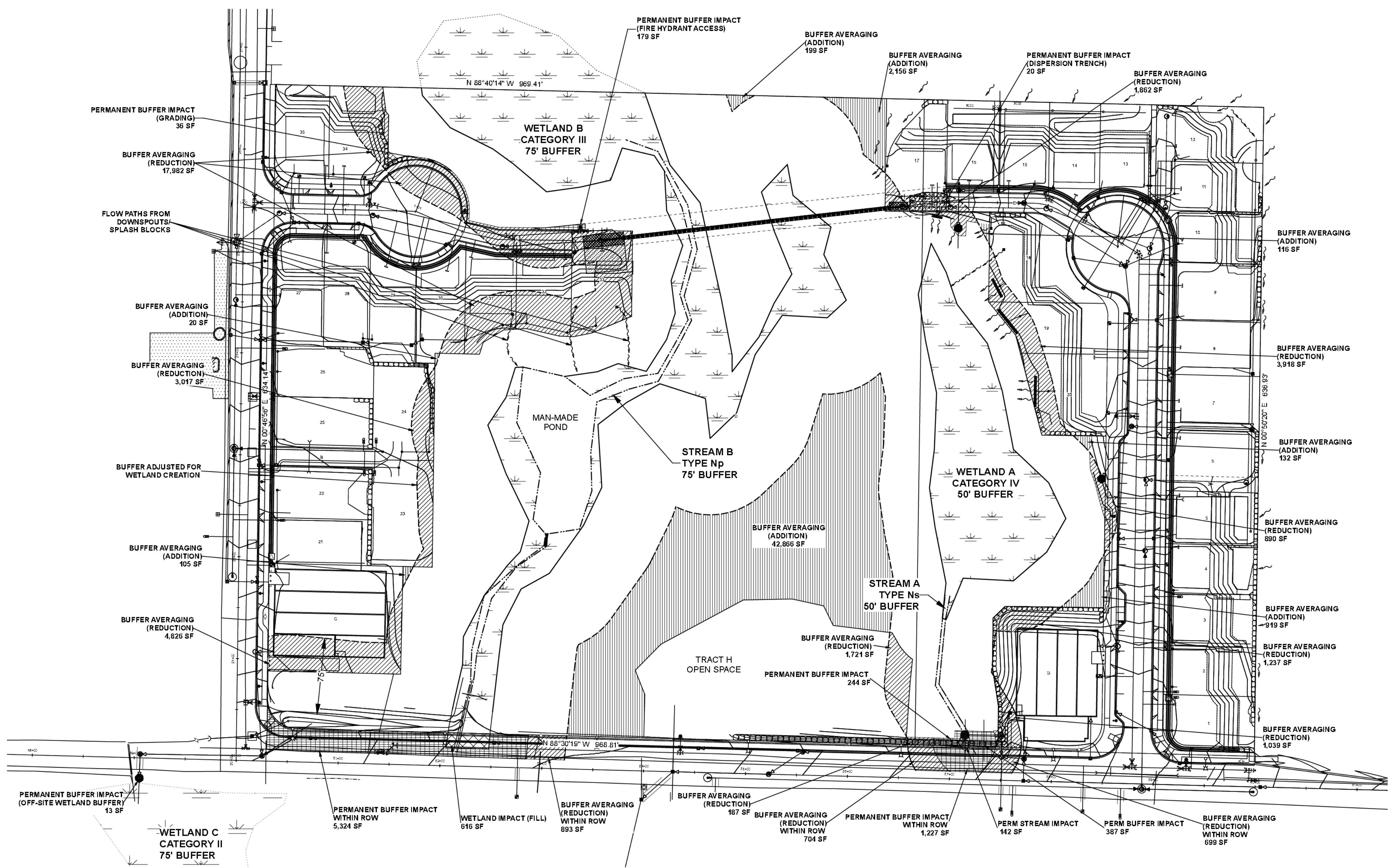
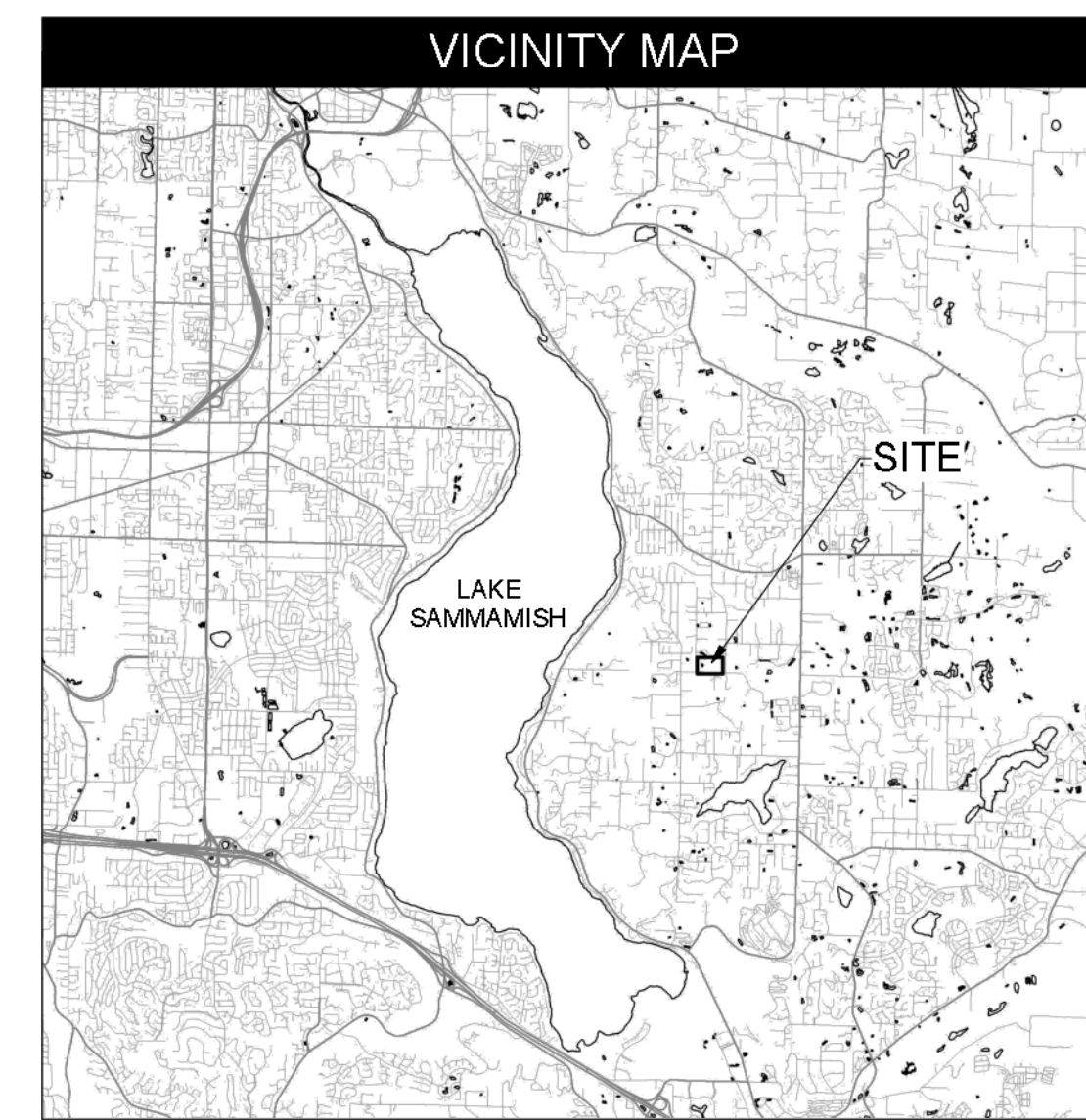


Type 1 and Type 2 Shade Trees	
Caliper	Minimum diameter root ball
1/2 in.	12 in.
3/4 in.	14 in.
1 in.	16 in.
1 1/4 in.	18 in.
1 1/2 in.	20 in.
1 3/4 in.	22 in.
2 in.	24 in.
2 1/4 in.	26 in.
2 1/2 in.	28 in.
3 in.	32 in.
3 1/2 in.	36 in.
4 in.	40 in.
4 1/2 in.	44 in.
5 in.	48 in.
5 1/2 in.	52 in.
6 in.	56 in.
7 in.	64 in.
8 in.	72 in.

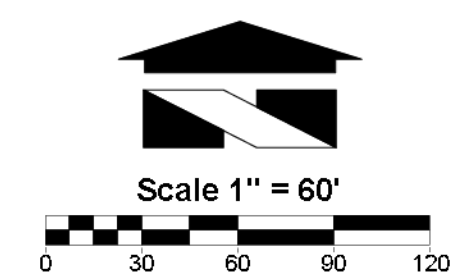
Type 1, 2, and 3 Spreading, semi-spreading, broad spreading, globe, and compact varieties		Type 4 and 5 Pyramidal, broad pyramidal		Type 6* Columnar	
Spread (Type 1 and 2)	Minimum diameter ball	Height caliper	Minimum diameter ball	Height caliper	Minimum diameter ball
7 in.	8 in.	12 in.	8 in.	12 in.	7 in.
12 in.	10 in.	18 in.	10 in.	18 in.	8 in.
15 in.	12 in.	24 in.	12 in.	24 in.	9 in.
18 in.	14 in.	30 in.	14 in.	30 in.	11 in.
24 in.	16 in.	36 in.	16 in.	36 in.	13 in.
30 in.	18 in.	42 in.	18 in.	42 in.	15 in.
36 in.	24 in.	48 in.	20 in.	48 in.	16 in.
42 in.	26 in.	54 in.	22 in.	54 in.	18 in.
48 in.	28 in.	60 in.	24 in.	60 in.	20 in.
54 in.	30 in.	66 in.	26 in.	66 in.	22 in.
60 in.	32 in.	72 in.	28 in.	72 in.	24 in.
66 in.	34 in.	78 in.	30 in.	78 in.	26 in.
72 in.	36 in.	84 in.	32 in.	84 in.	28 in.
78 in.	38 in.	90 in.	34 in.	90 in.	30 in.
84 in.	40 in.	96 in.	36 in.	96 in.	32 in.
90 in.	42 in.	102 in.	38 in.	102 in.	34 in.
96 in.	44 in.	108 in.	40 in.	108 in.	36 in.
102 in.	46 in.	114 in.	42 in.	114 in.	38 in.
108 in.	48 in.	120 in.	44 in.	120 in.	40 in.
114 in.	50 in.	126 in.	46 in.	126 in.	42 in.
120 in.	52 in.	132 in.	48 in.	132 in.	44 in.
126 in.	54 in.	138 in.	50 in.	138 in.	46 in.
132 in.	56 in.	144 in.	52 in.	144 in.	48 in.
138 in.	58 in.	150 in.	54 in.	150 in.	50 in.
144 in.	60 in.	156 in.	56 in.	156 in.	52 in.
150 in.	62 in.	162 in.	58 in.	162 in.	54 in.
156 in.	64 in.	168 in.	60 in.	168 in.	56 in.
162 in.	66 in.	174 in.	62 in.	174 in.	58 in.
168 in.	68 in.	180 in.	64 in.	180 in.	60 in.
174 in.	70 in.	186 in.	66 in.	186 in.	62 in.
180 in.	72 in.	192 in.	68 in.	192 in.	64 in.
186 in.	74 in.	198 in.	70 in.	198 in.	66 in.
192 in.	76 in.	204 in.	72 in.	204 in.	68 in.
198 in.	78 in.	210 in.	74 in.	210 in.	70 in.
204 in.	80 in.	216 in.	76 in.	216 in.	72 in.
210 in.	82 in.	222 in.	78 in.	222 in.	74 in.
216 in.	84 in.	228 in.	80 in.	228 in.	76 in.
222 in.	86 in.	234 in.	82 in.	234 in.	78 in.
228 in.	88 in.	240 in.	84 in.	240 in.	80 in.
234 in.	90 in.	246 in.	86 in.	246 in.	82 in.
240 in.	92 in.	252 in.	88 in.	252 in.	84 in.
246 in.	94 in.	258 in.	90 in.	258 in.	86 in.
252 in.	96 in.	264 in.	92 in.	264 in.	88 in.
258 in.	98 in.	270 in.	94 in.	270 in.	90 in.
264 in.	100 in.	276 in.	96 in.	276 in.	92 in.
270 in.	102 in.	282 in.	98 in.	282 in.	94 in.
276 in.	104 in.	288 in.	100 in.	288 in.	96 in.
282 in.	106 in.	294 in.	102 in.	294 in.	98 in.
288 in.	108 in.	300 in.	104 in.	300 in.	100 in.
294 in.	110 in.	306 in.	106 in.	306 in.	102 in.
300 in.	112 in.	312 in.	108 in.	312 in.	104 in.
306 in.	114 in.	318 in.	110 in.	318 in.	106 in.
312 in.	116 in.	324 in.	112 in.	324 in.	108 in.
318 in.	118 in.	330 in.	114 in.	330 in.	110 in.
324 in.	120 in.	336 in.	116 in.	336 in.	112 in.
330 in.	122 in.	342 in.	118 in.	342 in.	114 in.
336 in.	124 in.	348 in.	120 in.	348 in.	116 in.
342 in.	126 in.	354 in.	122 in.	354 in.	118 in.
348 in.	128 in.	360 in.	124 in.	360 in.	120 in.
354 in.	130 in.	366 in.	126 in.	366 in.	122 in.
360 in.	132 in.	372 in.	128 in.	372 in.	124 in.
366 in.	134 in.	378 in.	130 in.	378 in.	126 in.
372 in.	136 in.	384 in.	132 in.	384 in.	128 in.
378 in.	138 in.	390 in.	134 in.	390 in.	130 in.
384 in.	140 in.	396 in.	136 in.	396 in.	132 in.
390 in.	142 in.	402 in.	138 in.	402 in.	134 in.
396 in.	144 in.	408 in.	140 in.	408 in.	136 in.
402 in.	146 in.	414 in.	142 in.	414 in.	138 in.
408 in.	148 in.	420 in.	144 in.	420 in.	140 in.
414 in.	150 in.	426 in.	146 in.	426 in.	142 in.
420 in.	152 in.	432 in.	148 in.	432 in.	144 in.
426 in.	154 in.	438 in.	150 in.	438 in.	146 in.
432 in.	156 in.	444 in.	152 in.	444 in.	148 in.
438 in.	158 in.	450 in.	154 in.	450 in.	150 in.
444 in.	160 in.	456 in.	156 in.	456 in.	152 in.
450 in.	162 in.	462 in.	158 in.	462 in.	154 in.
456 in.	164 in.	468 in.	160 in.	468 in.	156 in.
462 in.	166 in.	474 in.	162 in.	474 in.	158 in.
468 in.	168 in.	480 in.	164 in.	480 in.	160 in.
474 in.	170 in.	486 in.	166 in.	486 in.	162 in.
480 in.	172 in.	492 in.	168 in.	492 in.	164 in.
486 in.	174 in.	498 in.	170 in.	498 in.	166 in.
492 in.	176 in.	504 in.	172 in.	504 in.	168 in.
498 in.	178 in.	510 in.	174 in.	510 in.	170 in.
504 in.	180 in.	516 in.	176 in.	516 in.	172 in.
510 in.	182 in.	522 in.	178 in.	522 in.	174 in.
516 in.	184 in.	528 in.	180 in.	528 in.	176 in.
522 in.	186 in.	534 in.	182 in.	534 in.	178 in.
528 in.	188 in.	540 in.	184 in.	540 in.	180 in.
534 in.	190 in.	546 in.	186 in.	546 in.	182 in.
540 in.	192 in.	552 in.	188 in.	552 in.	184 in.
546 in.	194 in.	558 in.	190 in.	558 in.	186 in.
552 in.	196 in.	564 in.	192 in.	564 in.	188 in.
558 in.	198 in.	570 in.	194 in.	570 in.	190 in.
564 in.	200 in.	576 in.	196 in.	576 in.	192 in.
570 in.	202 in.	582 in.	198 in.	582 in.	194 in.
576 in.	204 in.	588 in.	200 in.	588 in.	196 in.
582 in.	206 in.	594 in.	202 in.	594 in.	198 in.
588 in.	208 in.	600 in.	204 in.	600 in.	200 in.
594 in.	210 in.	606 in.	206 in.	606 in.	202 in.
600 in.	212 in.	612 in.	208 in.	612 in.	204 in.
606 in.	214 in.	618 in.	210 in.	618 in.	206 in.
612 in.	216 in.	624 in.	212 in.	624 in.	208 in.
618 in.	218 in.	630 in.	214 in.	630 in.	210 in.
624 in.	220 in.	636 in.	216 in.	636 in.	212 in.
630 in.	222 in.	642 in.	218 in.	642 in.	214 in.
636 in.	224 in.	648 in.	220 in.	648 in.	216 in.
642 in.	226 in.	654 in.	222 in.	654 in.	218 in.
648 in.	228 in.	660 in.	224 in.	660 in.	220 in.
654 in.	230 in.	666 in.	226 in.	666 in.	222 in.
660 in.	232 in.	672 in.	228 in.	672 in.	224 in.
666 in.	234 in.	678 in.	230 in.	678 in.	226 in.
672 in.	236 in.	684 in.	232 in.	684 in.	228 in.
678 in.	238 in.	690 in.	234 in.	690 in.	230 in.
684 in.	240 in.	696 in.	236 in.	696 in.	232 in.
690 in.	242 in.	702 in.	238 in.	702 in.	234 in.
696 in.	244 in.	708 in.	240 in.	708 in.	236 in.
702 in.	246 in.	714 in.	242 in.	714 in.	238 in.
708 in.	248 in.	720 in.	244 in.	720 in.	240 in.
714 in.	250 in.	726 in.	246 in.	726 in.	242 in.
720 in.	252 in.	732 in.	248 in.	732 in.	244 in.
726 in.	254 in.	738 in.	250 in.	738 in.	246 in.
732 in.	256 in.	744 in.	252 in.	744 in.	248 in.
738 in.	258 in.	750 in.	254 in.	750 in.	250 in.
744 in.	260 in.	756 in.	256 in.	756 in.	252 in.
750 in.	262 in.	762 in.	258 in.	762 in.	254 in.
756 in.	264 in.	768 in.	260 in.	768 in.	256 in.
762 in.	266 in.	774 in.	262 in.	774 in.	258 in.
768 in.	268 in.	780 in.	264 in.	780 in.	260 in.
774 in.	270 in.	786 in.	266 in.	786 in.	262 in.
780 in.	272 in.	792 in.	268 in.	792 in.	264 in.
786 in.	274 in.	798 in.	270 in.	798 in.	266 in.
792 in.	276 in.	804 in.	272 in.	804 in.	268 in.
798 in.	278 in.	810 in.	274 in.	810 in.	270 in.
804 in.	280 in.	816 in.	276 in.	816 in.	272 in.
810 in.	282 in.	822 in.	278 in.	822 in.	274 in.
816 in.	284 in.	828 in.	280 in.	828 in.	276 in.
822 in.	286 in.	834 in.	282 in.	834 in.	278 in.
828 in.	288 in.	840 in.	284 in.	840 in.	280 in.
834 in.	290 in.	846 in.	286 in.	846 in.	282 in.
840 in.	292 in.	852 in.	288 in.	852 in.	284 in.
846 in.	294 in.	858 in.	290 in.	858 in.	286 in.
852 in.	296 in.	864 in.	292 in.	864 in.	288 in.
858 in.	298 in.	870 in.	294 in.	870 in.	290 in.
864 in.	300 in.	876 in.	296 in.	876 in.	292 in.
870 in.	302 in.	882 in.	298 in.	882 in.	294 in.
876 in.	304 in.	888 in.	300 in.	888 in.	296 in.
882 in.	306 in.	894 in.	302 in.	894 in.	298 in.
888 in.	308 in.	900 in.	304 in.	900 in.	300 in.
894 in.	310 in.	906 in.	306 in.	906 in.	302 in.
900 in.	312 in.	912 in.	308 in.	912 in.	304 in.
906 in.	314 in.	918 in.	310 in.	918 in.	306 in.
912 in.	316 in.	924 in.	312 in.	924 in.	308 in.
918 in.	318 in.	930 in.	314 in.	930 in.	310 in.
924 in.	320 in.	936 in.	316 in.	936 in.	312 in.
930 in.	322 in.	942 in.	318 in.	942 in.	314 in.
936 in.	324 in.	948 in.	320 in.	948 in.	316 in.
942 in.	326 in.	954 in.	322 in.	954 in.	318 in.
948 in.	328 in.	960 in.	324 in.	960 in.	320 in.
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960 in.	332 in.	972 in.	328 in.	972 in.	324 in.
966 in.	334 in.	978 in.	330 in.	978 in.	326 in.
972 in.	336 in.	984 in.	332 in.	984 in.	328 in.
978 in.	338 in.	990 in.	334 in.	990 in.	330 in.
984 in.	340 in.	996 in.	336 in.	996 in.	332 in.
990 in.	342 in.	1002 in.	338 in.	1002 in.	334 in.
996 in.	344 in.	1008 in.	340 in.	1008 in.	336 in.
1002 in.	346 in.	1014 in.	342 in.	1014 in.	338 in.
1008 in.	348 in.	1020 in.	344 in.	1020 in.	340 in.
1014 in.	350 in.	1026 in.	346 in.	1026 in.	342 in.
1020 in.	352 in.	1032 in.	348 in.	1032 in.	344 in.
1026 in.	354 in.	1038 in.	350 in.	1038 in.	346 in.
1032 in.	356 in.	1044 in.	352 in.	1044 in.	348 in.
1038 in.	358 in.	1050 in.	354 in.	1050 in.	350 in.
1044 in.	360 in.	1056 in.	356 in.	1056 in.	352 in.
1050 in.	362 in.	1062 in.	358 in.	1062 in.	354 in.
1056 in.	364 in.	1068 in.	360 in.	1068 in.	356 in.
1062 in.	366 in.	1074 in.	362 in.	1074 in.	358 in.
1068 in.	368 in.	1080 in.	364 in.	1080 in.	360 in.
1074 in.	370 in.	1086 in.	366 in.	1086 in.	362 in.
1080 in.	372 in.	1092 in.	368 in.	1092 in.	364 in.
1086 in.	374 in.	1098 in.	370 in.	1098 in.	366 in.
1092 in.	376 in.	1104 in.	372 in.	1104 in.	368 in.
1098 in.	378 in.	1110 in.	374 in.	1110 in.	370 in.
1104 in.	380 in.	1116 in.	376 in.	1116 in.	372 in.
1110 in.	382 in.	1122 in.	378 in.	1122 in.	374 in.
1116 in.	384 in.	1128 in.	380 in.	1128 in.	376 in.
1122 in.	386 in.	1134 in.	382 in.	1134 in.	378 in.
1128 in.	388 in.	1140 in.	384 in.	1140 in.	380 in.
1134 in.	390 in.	1146 in.	386 in.	1146 in.	382 in.
1140 in.	392 in.	1152 in.	388 in.	1152 in.	384 in.
1146 in.	394 in.	1158 in.	390 in.	1158 in.	386 in.
1152 in.	396 in.	1164 in.	392 in.	1164 in.	388 in.
1158 in.	398 in.	1170 in.	394 in.	1170 in.	390 in.
1164 in.	400 in.	1176 in.	396 in.	1176 in.	392 in.
1170 in.	402 in.	1182 in.	398 in.	1182 in.	394 in.
1176 in.	404 in.	1188 in.	400 in.	1188 in.	396 in.
1182 in.	406 in.	1194 in.	402 in.	1194 in.	398 in.
1188 in.	408 in.	1200 in.	404 in.	12	



# BUFFER AVERAGING AND PERMANENT IMPACTS



LEGEND	
	WETLAND
	STREAM OHWM
	STANDARD BUFFER
	CLEARING LIMITS
	BUFFER AVERAGING REDUCTION
	PERMANENT BUFFER IMPACT
	BUFFER AVERAGING ADDITION
	PERMANENT WETLAND IMPACT - FILL
	PERMANENT STREAM IMPACT



BUFFER AVERAGING/IMPACTS SUMMARY:	
BUFFER AVERAGING REDUCTION:	38,995 SF
PERMANENT BUFFER IMPACT:	7,410 SF
TOTAL BUFFER REDUCTION/IMPACT:	46,405 SF
BUFFER ADDITION:	46,513 SF

### Introduction

The subject property (King County Parcel No. 1240700086 and 1240700035) is located northeast of the intersection of SE 8th Street and 214th Avenue SE in the city of Sammamish, Washington. The site is 14.138 acres in size. The Public Land Survey System identifies the site as a portion of Section 33, Township 25N, Range 6E, W.M. Mitigation for unavoidable wetland, stream, and buffer impacts was required by the City of Sammamish as part of the permitting process.

### Project Description

The applicant is proposing to build 35 single-family homes on the site. Twenty homes with an associated access road and stormwater management system are to be located along the eastern property boundary. Fifteen homes with an access road, and a stormwater management system will be located along the western property boundary. A utility easement will cross the northern portion of the site connecting the two development areas. The water and sewer lines will be installed in the utility easement via directional boring to avoid impacts to wetlands, streams, and buffers. The project will require permanent wetland impacts, permanent and temporary buffer impacts, buffer averaging, and a stream relocation plan.

To achieve the development goals, the applicant is proposing the following:

- Buffer average 38,995 square feet of buffer on Wetland A/Stream A and Wetland B/Stream B to accommodate the lot configuration;
- Permanently impact 616 square feet of Wetland B within the right-of-way of SE 8th St. for city-required frontage improvements;
- Relocate 163 linear feet of Stream B for city-required frontage improvements;
- Permanently impact 5,321 square feet of buffer on Wetland B/Stream B for city-required frontage improvements;
- Permanently impact 142 square feet of Stream A for city-required frontage improvements;
- Permanently impact 1,858 square feet of buffer on Stream A for city-required frontage improvements;
- Temporarily impact 357 square feet of buffer on Stream A for city required frontage improvements;
- Temporarily impact approximately 4,335 square feet of buffer on Stream B for stream relocation;
- Permanently impact 215 square feet of buffer on Wetland B/Stream B for fire hydrant access and grading;
- Temporarily impact approximately 678 square feet of buffer on Wetland A/Wetland B/Stream B for grading within and adjacent to the utility corridor;
- Temporarily impact approximately 2,300 square feet of buffer on Wetland B for wetland creation for mitigation;
- Permanently impact 13 square feet of buffer on Wetland C for a new catch basin south of SE 8th St.;
- Temporarily impact approximately 99 square feet of buffer on Wetland C for installation of the new catch basin.

### Tree Replacement in Buffers

The applicant proposes to provide tree replacement in the critical area buffers, which in some portions of the site are severely degraded. Buffers in the eastern portion of the site consist of pasture and currently have a very low level of buffer function. Buffers in the western portion of the site consist of a mix of native and non-native shrubs with a few trees. Within the critical area buffers on the site, a total of 41 trees that are in poor health have been identified. These trees will be evaluated by an arborist to determine whether they can remain without becoming a hazard. Those that are hazardous will be either cut to a safe height and snagged or cut and left in the critical area tract (Tract D) for habitat. Replacement for cut trees will be at a 1:1 ratio and replacement trees will be located in Tract D near the location of the cut tree or as otherwise approved by the arborist. A total of 9 trees that are located near the outer edge of the buffers may be impacted. These trees will be evaluated by the arborist during construction to determine whether or not they can survive and remain without becoming a hazard. If not, they will be cut to a safe height and snagged or cut and left in Tract D for habitat. Stumps of any cut trees are to be left in place and care taken to prevent disturbance to adjacent trees to remain. The 9 trees that have identified as potentially impacted have been counted as removed in tree retention and replanting calculations. In total, 197 native trees will be planted in the on-site buffers. These trees will significantly enhance water quality, hydrologic, and wildlife habitat functions of the on-site buffers, improving protection of the wetlands and streams.

WRI PROJECT #15052

Drawn by: J. Goodman  
Revision 1: May 10, 2019

**Wetland Resources**  
9505 19TH AVE SE, SUITE 106  
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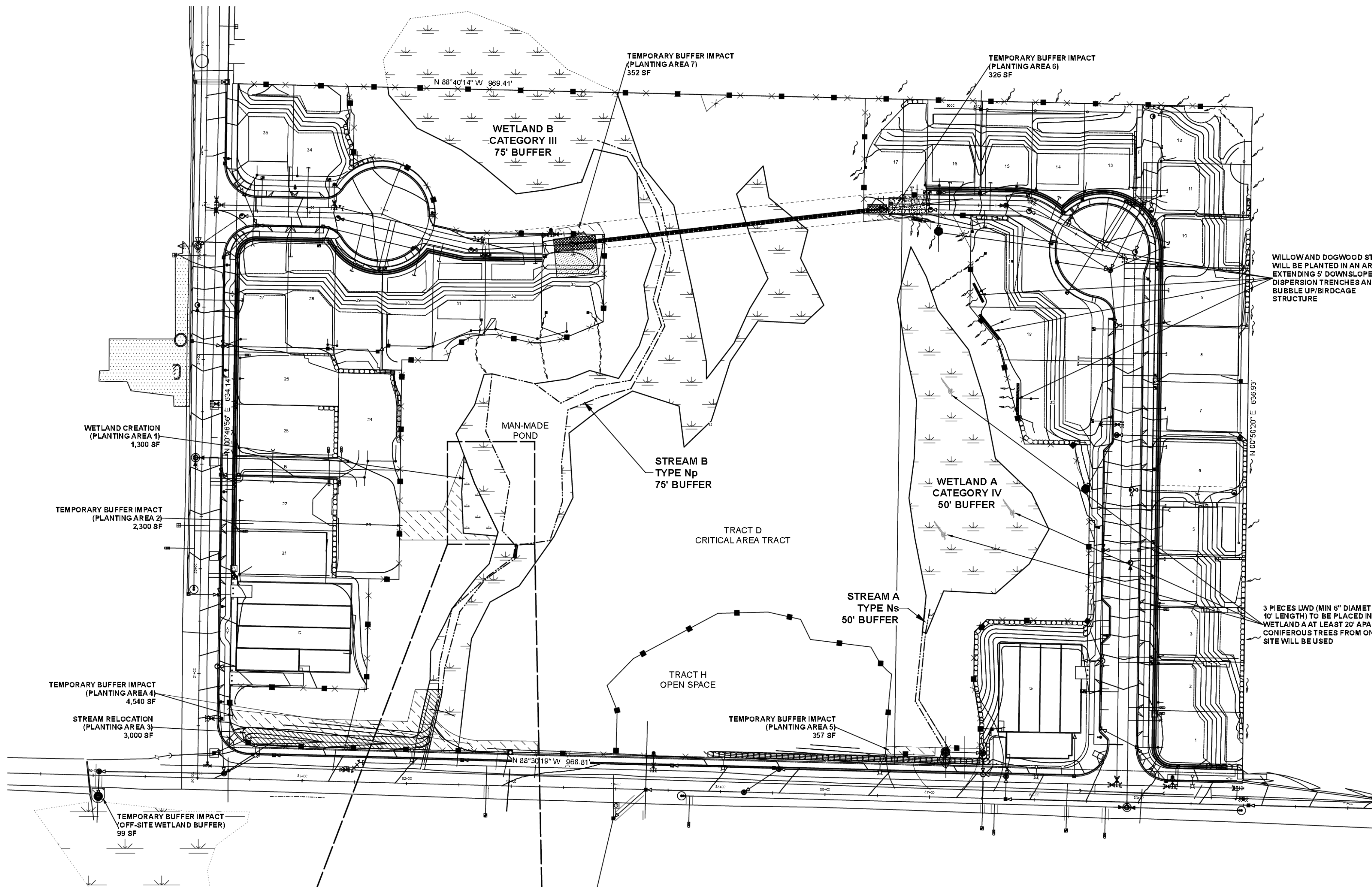
PREPARED FOR:  
Toll Bros, Inc.  
Attn: Jeff Peterson  
8815 122nd Avenue, NE, Suite 200  
Kirkland, WA 98033

FINAL MITIGATION PLAN  
**CARRIER**  
SAMMAMISH, WASHINGTON

PLANNING DEPT. APPROVAL  
By: ABary  
DATE: 08/16/2019



# MITIGATION AND RESTORATION PLAN



WILLOW AND DOGWOOD STA WILL BE PLANTED IN AN AREA EXTENDING 5' DOWNSLOPE C DISPERSION TRENCHES AND BUBBLE UP/BIRDGAGE STRUCTURE

3 PIECES LWD (MIN 6" DIAMETER 10' LENGTH) TO BE PLACED IN WETLAND A AT LEAST 20' APART CONIFEROUS TREES FROM ON SITE WILL BE USED

## Mitigation Plan

### Stormwater Dispersion Features

Live willow (*Salix alba*) and dogwood (*Cornus sericea*) stakes will be planted in areas within 5 feet downslope of dispersion trenches and bubble up/birdgaze structures. Stakes should be installed per the specifications in the planting notes on Sheet W3 at a spacing of 2' on center.

### Wetland Creation - Area 1

With a small to mid-sized excavator, the wetland creation area will be sub-excavated to one foot (12") below the existing grade of the adjacent wetland. The wetland creation area and side slopes will be graded to a 3:1 maximum slope. Topsoil with a minimum of 30 percent organic content will be backfilled into the excavated wetland creation area so that the final elevation will match that of the adjacent existing wetland. The area will be planted with the native species below. The area will also be overseeded with the Wetland/Stream Seed Mix specified on sheet W3.

### Wetland Creation - Planting Area 1 (1,300 SF)

Common Name	Latin Name	Size	Spacing	Quantity
Sitka spruce	<i>Picea sitchensis</i>	2 gallon	9'	8
Western red cedar	<i>Thuja plicata</i>	2 gallon	9'	8
Pacific willow	<i>Salix lucida</i>	1 gallon	6'	7
Sitka willow	<i>Salix sitchensis</i>	1 gallon	6'	7
Salmoubery	<i>Rubus spectabilis</i>	1 gallon	6'	7
Black twinberry	<i>Lonicera involucrata</i>	1 gallon	6'	7
Swamp rose	<i>Rosa prinoscapa</i>	1 gallon	6'	7
Slough sedge	<i>Carex abraypta</i>	plugs	1'	325
Western mangrass	<i>Cyperus elata</i>	plugs	1'	325
Small-fruited bulrush	<i>Scirpus microcarpus</i>	plugs	1'	325
Slender rush	<i>Juncus tenuis</i>	plugs	1'	325

### Wetland B Buffer Restoration - Area 2

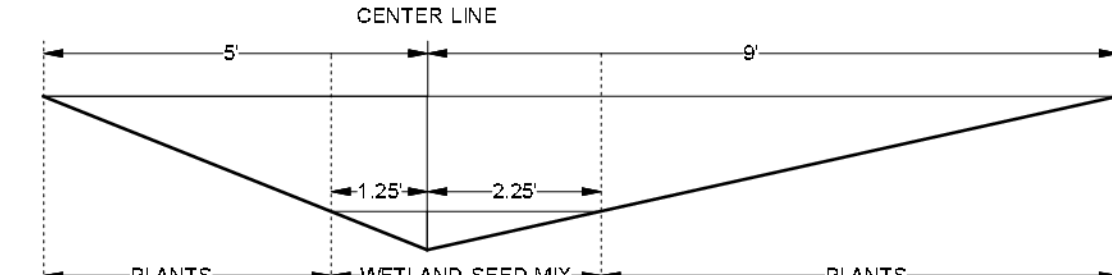
Buffer vegetation that is temporarily disturbed during work for the wetland creation area will be restored with the following species. The area currently consists of native trees and shrubs. Plant quantities may be adjusted as needed to achieve the specified plant spacing in the area of temporary disturbance. The area will be overseeded with the Buffer Grass Seed Mix specified on sheet W3.

### Wetland B Buffer Restoration - Planting Area 2 (Approx. 2,300 SF)

Common Name	Latin Name	Size	Spacing	Quantity
Western red cedar	<i>Thuja plicata</i>	2 gallon	9'	10
Douglas fir	<i>Pseudotsuga menziesii</i>	2 gallon	9'	9
Big leaf maple	<i>Acer macrophyllum</i>	2 gallon	9'	9
Salmoubery	<i>Rubus spectabilis</i>	1 gallon	6'	9
Vine maple	<i>Acer circinatum</i>	1 gallon	6'	9
Snowberry	<i>Symphoricarpos albus</i>	1 gallon	6'	9
Western hazelnut	<i>Corylus cornuta</i>	1 gallon	6'	9
Oregon grape	<i>Mahonia nervosa</i>	1 gallon	6'	9
Indian plum	<i>Oenothera coraeformis</i>	1 gallon	6'	9
Salal	<i>Gaultheria shallon</i>	1 gallon	4'	48
Western swordfern	<i>Polystichum nudatum</i>	1 gallon	4'	48
Fringecup	<i>Tellima grandiflora</i>	1 gallon	4'	48

### Stream B - Area 3

The new stream channel area will total 3,000 square feet in size. Following the stream relocation work, the bottom of the new channel and lower side slopes (approximately 750 square feet) will be seeded with the native Wetland/Stream Seed Mix specified on sheet W3 from a distance of 1.25 feet north of the stream center line to 2.25 feet south of the center line (based on 6 inches expected maximum water depth in the channel). The upper side slopes will be approximately 2,250 square feet in size. The following plants are to be planted along the upper side slopes.



### Stream B Relocation/Restoration - Planting Area 3 (2,250 SF)

Common Name	Latin Name	Size	Spacing	Quantity
Salmoubery	<i>Rubus spectabilis</i>	1 gallon	6'	16
Red-osier dogwood	<i>Cornus sericea</i>	1 gallon	6'	16
Swamp rose	<i>Rosa prinoscapa</i>	1 gallon	6'	16
Black twinberry	<i>Lonicera involucrata</i>	1 gallon	6'	16
Lady fern	<i>Athyrium filix-femina</i>	1 gallon	4'	70
Slough sedge	<i>Carex abraypta</i>	1 gallon	4'	70

### Stream B Buffer Restoration/Enhancement - Area 4

In order to gain access to the stream relocation area, adjacent buffer areas will be temporarily disturbed. Vegetation in these areas currently consists of a mix of native and non-native shrubs. Temporarily disturbed vegetation will be restored with the following native trees and shrubs. Plant quantities may be adjusted as needed to achieve the specified plant densities. The area will be overseeded with the Buffer Grass Seed Mix specified on sheet W3.

### Stream B Buffer Restoration Area 4 (Approx. 4,540 SF)

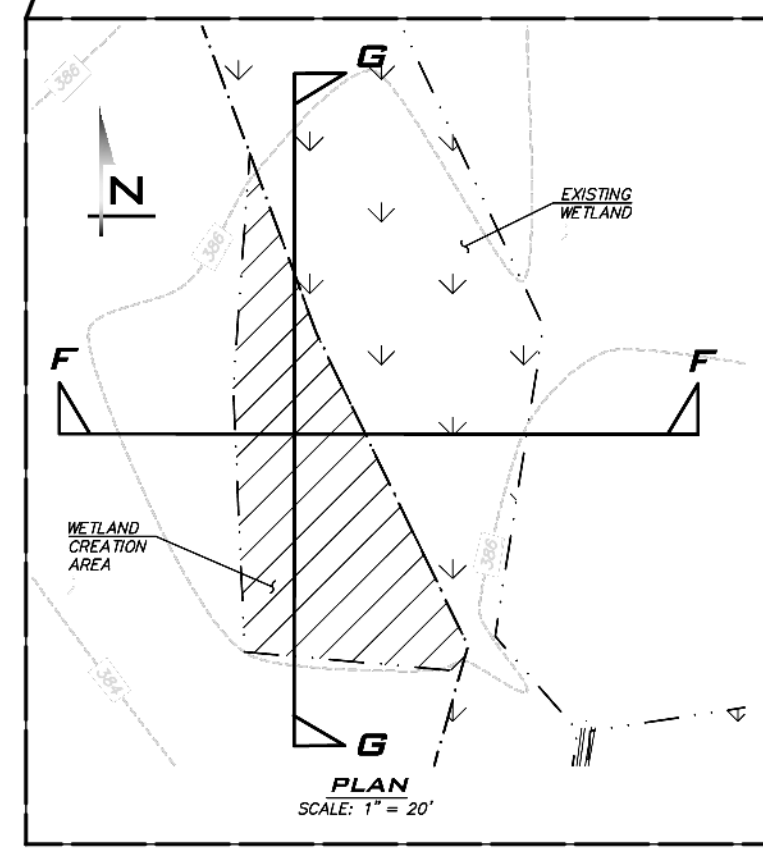
Common Name	Latin Name	Size	Spacing	Quantity
Western red cedar	<i>Thuja plicata</i>	2 gallon	9'	20
Douglas fir	<i>Pseudotsuga menziesii</i>	2 gallon	9'	18
Big leaf maple	<i>Acer macrophyllum</i>	2 gallon	9'	18
Salmoubery	<i>Rubus spectabilis</i>	1 gallon	6'	13
Vine maple	<i>Acer circinatum</i>	1 gallon	6'	13
Snowberry	<i>Symphoricarpos albus</i>	1 gallon	6'	13
Western hazelnut	<i>Corylus cornuta</i>	1 gallon	6'	13
Oregon grape	<i>Mahonia nervosa</i>	1 gallon	6'	13
Indian plum	<i>Oenothera coraeformis</i>	1 gallon	6'	13
Salal	<i>Gaultheria shallon</i>	1 gallon	4'	90
Western swordfern	<i>Polystichum nudatum</i>	1 gallon	4'	90
Fringecup	<i>Tellima grandiflora</i>	1 gallon	4'	90

### Stream A Buffer Restoration - Area 5

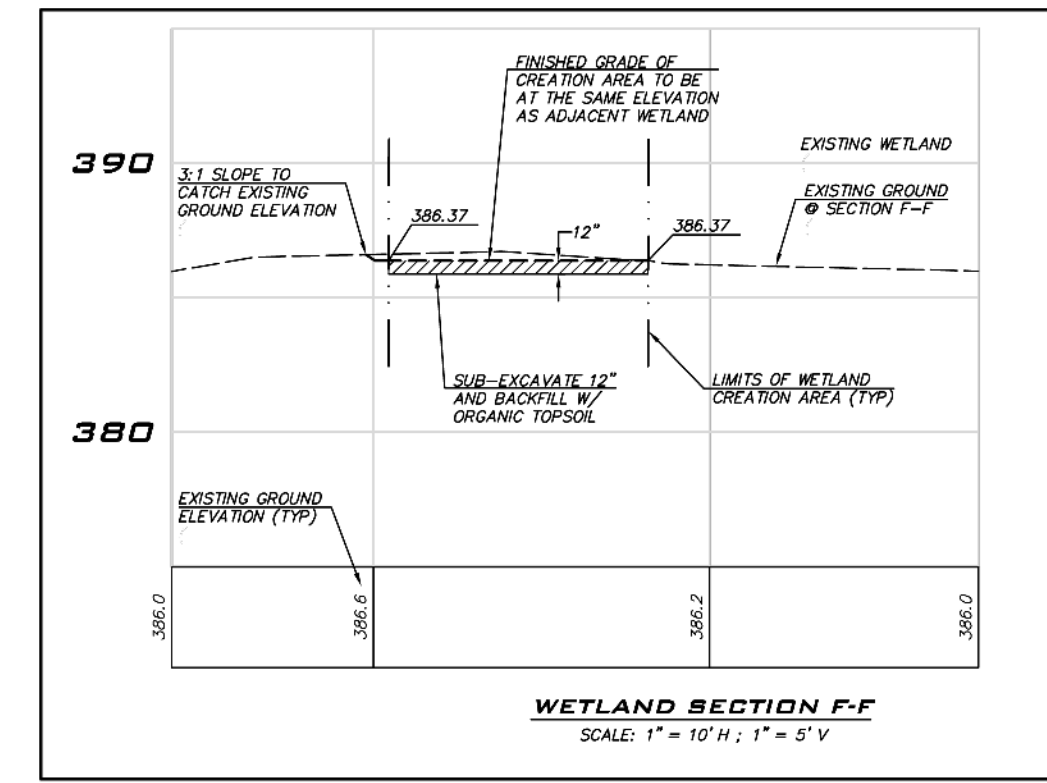
Temporary disturbance of approximately 337 square feet of buffer associated with Stream A will occur for the installation of a retaining wall and catch basin. Willow whips will be planted around the catch basin and the remaining area will be planted with the native species listed below. See Planting Notes on sheet W3 for live stake installation instructions. The area currently consists of a mix of native and non-native shrubs. Plant quantities may be adjusted as needed to achieve the plant densities specified. The area will be overseeded with the Buffer Grass Seed Mix specified on sheet W3.

### Stream A Buffer Restoration - Planting Area 5 (Approx. 357 SF)

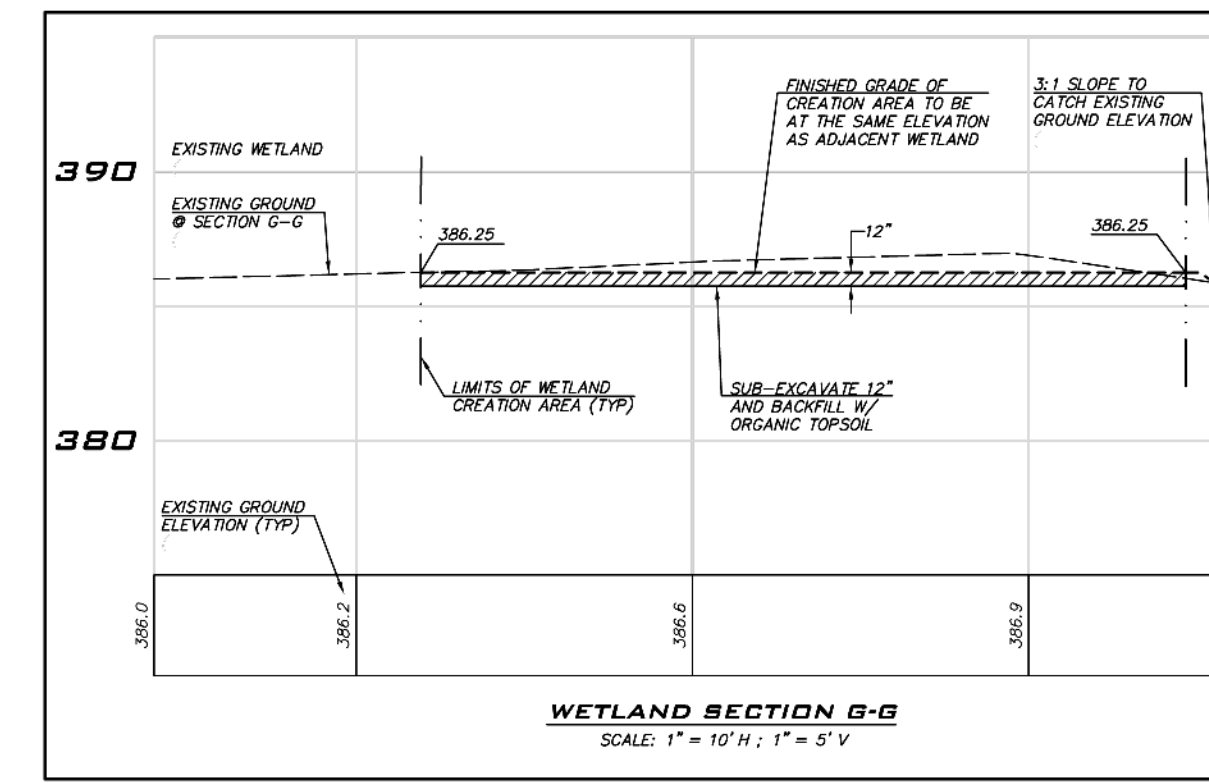
Common Name	Latin Name	Size	Spacing	Quantity
Scouler's willow	<i>Salix scouleriana</i>	1 gallon	2'	10
Salmoubery	<i>Rubus spectabilis</i>	1 gallon	6'	2
Vine maple	<i>Acer circinatum</i>	1 gallon	6'	2
Snowberry	<i>Symphoricarpos albus</i>	1 gallon	6'	2
Indian plum	<i>Oenothera coraeformis</i>	1 gallon	6'	2
Salal	<i>Gaultheria shallon</i>	1 gallon	4'	7
Western swordfern	<i>Polystichum nudatum</i>	1 gallon	4'	7
Fringecup	<i>Tellima grandiflora</i>	1 gallon	4'	7



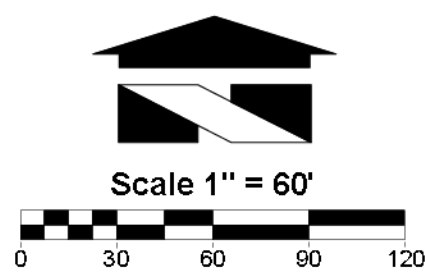
WETLAND CREATION GRADING PLAN



WETLAND SECTION F-F



WETLAND SECTION G-G



Scale 1" = 60'

## LEGEND

- WETLAND
- STREAM OHWM
- FINAL BUFFER/FENCE
- NGPA SIGNS
- WETLAND CREATION
- STREAM RELOCATION
- TEMP BUFFER IMPACTS (TO BE RESTORED)

WRI PROJECT #15052

Drawn by: J. Goodman  
Revision 1: May 10, 2019

Wetland Resources

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FINAL MITIGATION PLAN  
CARRIER  
SAMMAMISH, WASHINGTON

PLANNING DEPT. APPROVAL  
BY: Abay  
DATE: 08/16/2019



**Buffer Restoration - Areas 6 & 7**

Temporarily impacted buffer areas on Wetlands A and B will be restored with the following species. Plant quantities may be adjusted as needed to achieve specified plant densities. These areas will be overseeded with the Buffer Grass Seed Mix specified below.

**Wetland A Buffer Restoration - Planting Area 6 (Approx. 326 SF)**

Common Name	Latin Name	Size	Spacing	Quantity
Salmonberry	<i>Rubus spectabilis</i>	1 gallon	6'	3
Vine maple	<i>Acer circinatum</i>	1 gallon	6'	2
Snowberry	<i>Symphoricarpos albus</i>	1 gallon	6'	2
Indian plum	<i>Oemleria caryocarpus</i>	1 gallon	6'	2
Salal	<i>Gaultheria shallon</i>	1 gallon	4'	8
Western swordfern	<i>Polystichum munitum</i>	1 gallon	4'	6
Fringscup	<i>Tillium grandiflorum</i>	1 gallon	4'	6

**Wetland B Buffer Restoration - Planting Area 7 (Approx. 352 SF)**

Common Name	Latin Name	Size	Spacing	Quantity
Salmonberry	<i>Rubus spectabilis</i>	1 gallon	6'	3
Vine maple	<i>Acer circinatum</i>	1 gallon	6'	3
Snowberry	<i>Symphoricarpos albus</i>	1 gallon	6'	2
Indian plum	<i>Oemleria caryocarpus</i>	1 gallon	6'	2
Salal	<i>Gaultheria shallon</i>	1 gallon	4'	8
Western swordfern	<i>Polystichum munitum</i>	1 gallon	4'	7
Fringscup	<i>Tillium grandiflorum</i>	1 gallon	4'	7

**Wetland / Stream Seed Mix**

Common Name	Latin Name	Ibs./1,000 SF
Western manna grass	<i>Glyceria occidentalis</i>	0.2
Slough sedge	<i>Carex obnupta</i>	0.3
Small-fruited bulrush	<i>Scirpus microcarpus</i>	0.3
Slender rush	<i>Juncus tenuis</i>	0.1

**Buffer Grass Seed Mix**

Common Name	Latin Name	Ibs./1,000 SF
Tall fescue	<i>Festuca arundinacea</i>	0.4
Colonial bentgrass	<i>Agrostis tenuis</i>	0.4
Annual ryegrass	<i>Lolium multiflorum</i>	0.5
Red clover	<i>Trifolium repens</i>	0.2

**Wetland A Enhancement**

To compensate for 142 square feet of unavoidable impact to Stream A, 3 pieces of large woody debris to serve as wildlife habitat features will be placed in Wetland A. The pieces shall be a minimum of 6 inches in diameter and 10 feet long. Coniferous trees that are to be removed onsite during construction will be the source for the material and the pieces shall be placed in Wetland A at least 20 feet apart.

**Project Notes**

*Pre-Construction Meeting*  
Mitigation projects are typically more complex to install than to describe in plans. Careful monitoring by a wetland professional for all portions of this project is strongly recommended. Construction timing and sequencing is important to the success of this type of project. There will be a pre-construction meeting on this site between the Permittee, the consulting wetland professional, and laborers. The objective will be to verify the location of erosion control facilities, verify the location of mitigation areas, and to discuss project sequencing.

*Inspections*

A wetland professional shall be contracted to periodically inspect the mitigation installation described in this plan. Minor adjustments to the original design may be necessary prior to and during construction due to unusual or hidden site conditions. A City of Sammamish representative and/or the consulting professional will make these decisions during construction.

**Clearing/Grading, Timing, & TESC**

Construction activities within wetland and stream areas shall be done during the dry season, from approximately June to late September.

Prior to beginning any development or mitigation activities, construction or siltation fencing shall be installed as described in the grading plan construction drawings.

All sedimentation control facilities shall be kept in place and functioning until vegetation is firmly established. Refer to site engineer's TESC plan for all erosion and sedimentation control details.

**Planting Notes**

Plant in the early spring or late fall and obtain all plants from a reputable nursery. Care and handling of all plant materials is extremely important to the overall success of the project. The origin of all plant materials specified in this plan shall be native plants, nursery grown in the Puget Sound region of Washington. Some limited species substitution may be allowed, only with the agreement of the landscape designer, wetland biologist, and/or City staff.

*Pre-Planting Meeting*

Prior to control of invasive species or installation of mitigation plantings, a site meeting between the contracted landscaper and the consulting wetland professional shall occur to resolve any questions that may arise. During this meeting a discussion regarding plant spacing and locations of plant species including wetland versus buffer species shall occur between the landscape contractor and the consulting wetland professional.

*Handling*

Plants shall be handled so as to avoid all damage, including: breaking, bruising, root damage, sunburn, drying, freezing or other injury. Plants must be covered during transport. Plants shall not be bound with wire or rope in a manner that could damage branches. Protect plant roots with shade and wet soil in the time period between delivery and installation. Do not lift container stock by trunks, stems, or tops. Do not remove from containers until ready to plant. Water all plants as necessary to keep moisture levels appropriate to the species horticultural requirements. Plants shall not be allowed to dry out. All plants shall be watered thoroughly immediately upon installation. Soak all containerized plants thoroughly prior to installation. Bare root plants are subject to the following special requirements, and shall not be used unless planted between November 1 and March 1, and only with the permission of the landscape designer, wetland professional, and City staff. Bare root plants must have enough fibrous root to ensure plant survival. Roots must be covered at all times with: mud and/or wet straw, moss, or other suitable packing material until time of installation. Plants whose roots have dried out from exposure will not be accepted at installation inspection.

*Storage*

Plants stored by the Permittee for longer than one month prior to planting shall be planted in nursery rows and treated in a manner suitable to those species' horticultural requirements. Plants must be re-inspected by the wetland biologist and/or landscape designer prior to installation.

*Damaged plants*

Damaged, dried out, or otherwise mishandled plants will be rejected at installation inspection. All rejected plants shall be immediately removed from the site.

*Quality and condition*

Plants shall be normal in pattern of growth, healthy, well-branched, vigorous, with well-developed root systems, and free of pests and diseases. Damaged, diseased, pest-infested, scraped, bruised, dried out, burned, broken, or defective plants will be rejected. Plants with pruning wounds over 1" in diameter will be rejected.

*Roots*

All plants shall be balled and burlapped or containerized, unless explicitly authorized by the landscape designer and/or wetland professional. Rootbound plants or B&B plants with damaged, cracked, or loose rootballs (major damage) will be rejected. Immediately before installation, plants with minor root damage (some broken and / or twisted roots) must be root-pruned. Matted or circling roots of containerized plants must be pruned or straightened and the sides of the root ball must be roughened from top to bottom to a depth of approximately half an inch in two to four places. Bare root plantings of woody material are allowed only with permission from the landscape designer, wetland professional and/or City staff.

*Sizes*

Plant sizes shall be the size indicated in the plant schedule in approved plans. Larger stock may be acceptable provided that it has not been cut back to the size specified, and that the root ball is proportionate to the size of the plant. Smaller stock may be acceptable, and preferable under some circumstances, based on site-specific conditions. Measurements, caliper, branching, and balling and burlapping shall conform to the American Standard of Nursery Stock by the American Association of Nurserymen (latest edition).

*Form*

Evergreen trees shall have single trunks and symmetrical, well-developed form. Deciduous trees shall be single trunked unless specified as multi-stem in the plant schedule. Shrubs shall have multiple stems and be well-branched.

*Timing of Planting*

Unless otherwise approved by City staff, all planting shall occur between November 1 and March 1. Overall, the earlier plants go into the ground during the dormant period, the more time they have to adapt to the site and extend their root systems before the water demands of spring and summer.

*Weeding*

Existing and exotic vegetation in the mitigation areas will be hand-weeded from around all newly installed plants at the time of installation and on a routine basis throughout the monitoring period. No chemical control of vegetation on any portion of the site is recommended.

*Site conditions*

The contractor shall immediately notify the landscape designer and/or wetland professional of drainage or soil conditions likely to be detrimental to the growth or survival of plants. Planting operations shall not be conducted under the following conditions: freezing weather, when the ground is frozen, excessively wet weather, excessively windy weather, or in excessive heat.

*Planting Pits*

Planting pits shall be circular or square with vertical sides, and shall be 6" deeper and 12" larger in diameter than the root ball of the plant. Break up the sides of the pit in compacted soils. Set plants upright in pits. Burlap shall be removed from the planting pit. Backfill shall be worked back into holes such that air pockets are removed without adversely compacting down soils.

*Live Stake Installation*

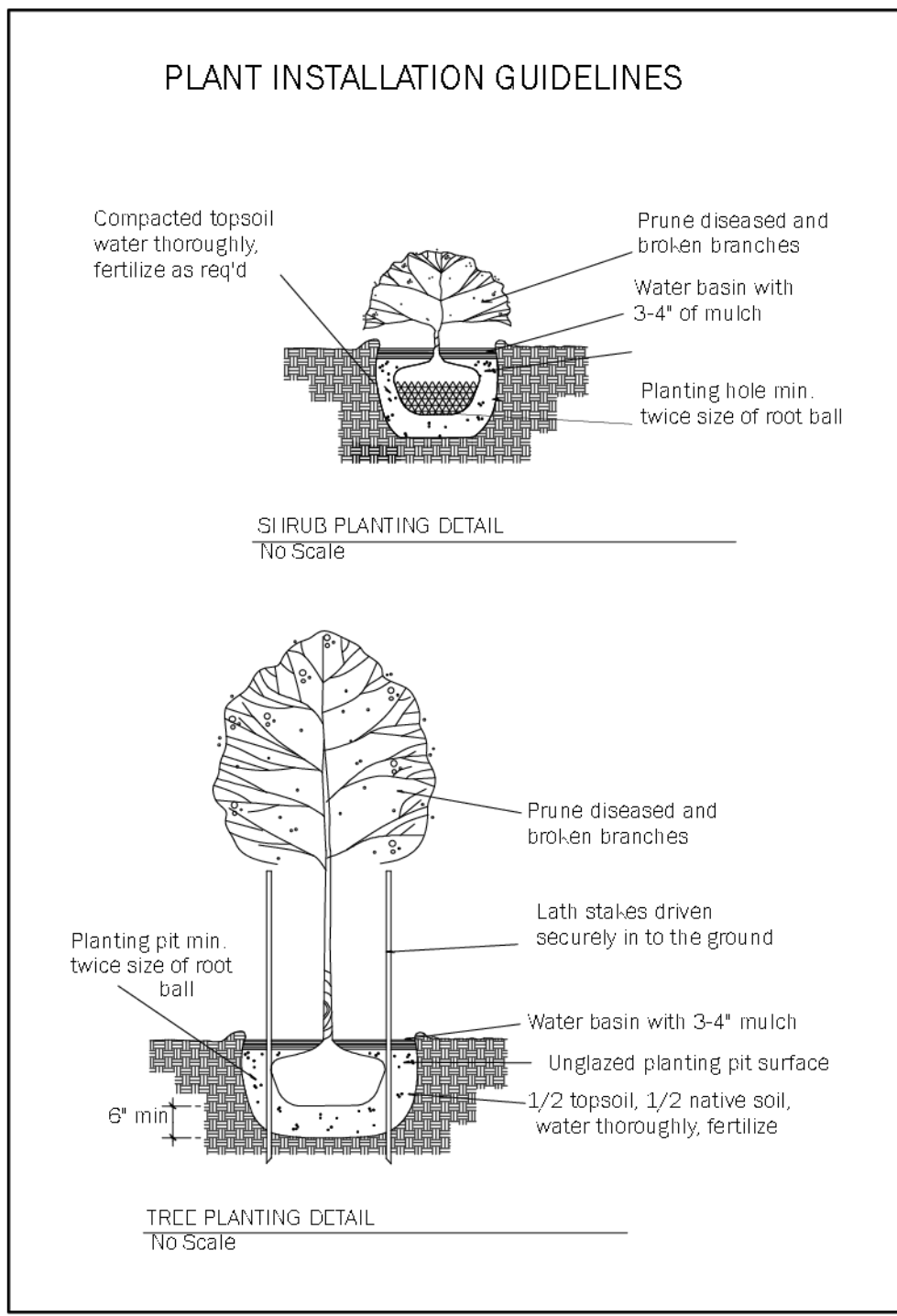
Live stake stock (a.k.a. whips, cuttings) shall be harvested and installed between October 15 and March 15, while the plant is dormant. Live stake stock is highly perishable and shall be stored in shaded, cool, and moist conditions, and installed within 2 weeks of harvesting. Live stakes shall be 3 to 6 feet long, and 0.5 to 1.5 inch diameter. Live stakes shall be installed right side up (branch nodes angled upward) to a depth of 1/3 to 1/2 the length of stock. After installation, soils shall be pressed around each live stake, if necessary.

*Fertilizer*

Slow release fertilizer may be used if pre-approved by the City of Sammamish. Fertilizers shall be applied only at the base of plantings underneath the required covering of mulch (that does not make contact with stems of the plants). No soil amendment or fertilizers will be placed in planting holes.

*Staking*

Most shrubs and many trees DO NOT require any staking. If the plant can stand alone without staking in a moderate wind, do not use a stake. If the plant needs support, then strapping or webbing should be used as low as possible on the trunk to loosely brace the tree with two stakes. Do not brace the tree tightly or too high on the trunk. If the tree is unable to sway, it will further lose the ability to support itself. Do not use wire in a rubber hose for strapping as it exerts too much pressure on the bark. As soon as supporting the plant becomes unnecessary, remove the stakes. All stakes must be removed within two (2) years of installation.



*Plant Location*

Colored surveyors ribbon or other appropriate marking shall be attached to the installed plants to assist in locating the plants while removing the competing non-native vegetation and during the monitoring period.

*Arrangement and Spacing*

The plants shall be arranged in a pattern with the appropriate numbers, sizes, species, and distribution that are required in accordance with the approved plans. The actual placement of individual plants shall mimic natural, asymmetric vegetation patterns found on similar undisturbed sites in the area. Spacing of the plantings may be adjusted to maintain existing vegetation with the agreement of the landscape designer, wetland biologist, and/or City staff.

*Inspection(s)*

A wetland biologist shall be present on site to inspect the plants prior to planting. Minor adjustments to the original design may be required prior to and during construction.

*Mulch*

All landscaped areas denuded of vegetation and soil surface surrounding all planting pit areas shall receive no less than 2 to 4 inches of woodchip mulch after planting. Mulch shall be kept well away (at least 2 inches) from the trunks and stems of woody plants.

**Project Goals**

The goals of this mitigation plan include the following:

- Compensate for the permanent impacts to wetland, stream, and buffer areas.
- Restore temporarily disturbed buffer areas.
- Limit intrusion into the on-site critical areas.

**Project Objectives**

These goals will be met by performing the following objectives:

- Designate 7.21 acres of critical areas and buffers in a permanently protected tract;
- Create 1,300 square feet of wetland adjacent to Wetland B;
- Restore/enhance 2,300 square feet of buffer adjacent to wetland creation area;
- Relocate 163 linear feet of stream channel (Stream B);
- Restore the relocated stream channel by planting 3,000 square feet of new channel and side slopes;
- Restore/enhance 4,335 square feet of buffer adjacent Stream B;
- Provide 3 pieces of large woody debris in Wetland A;
- Restore/enhance 357 square feet of buffer adjacent to Stream A;
- Restore 99 square feet of buffer adjacent to Wetland C.

**Performance Standards**

The performance standards for all of the planted areas include the following:

- A. The planted areas shall support at least 80 percent cover of native species by the end of Year 5. There shall be 100 percent survival of all the plantings after Year 1 or the permittee shall replace the material. There shall be at least 80 percent survival of all the plantings in Years 2-5. The species mix should resemble that proposed in the planting plans, but strict adherence to obtaining all of the species shall not be a criterion for success.
- B. The wetland creation area shall meet all criteria for wetland determination including 1) wetland vegetation, 2) hydric soils, and 3) hydrology.
- C. The mitigation areas shall contain no more than 10 percent cover of non-native invasive species in any monitoring year.
- D. The relocated stream channel will be fully functional, as designed, by Year 5.
- E. Three pieces of large, woody debris that meet the dimensional specifications required will be present in Wetland A.
- F. Buffer areas downslope of the infiltration trenches will be free from scour, erosion, sediment deposition, and/or other buffer impacts.
- G. The earthen berm at the southern end of the manmade pond will be intact and free from any signs of erosion or failure in all monitoring years.

**Invasive Species**

Invasive species control will be accomplished through the use of hand removal of foliage and roots, whenever possible. Moving of reed canarygrass and Himalayan blackberry is also effective if conducted as part of a routine maintenance schedule (five times per year or more for reed canarygrass, at least three times per year for blackberry). Invasive species such as Himalayan blackberry, reed canarygrass, Scot's broom, and Japanese knotweed are to be controlled within the mitigation area. The goal of this maintenance is to ensure that the planted native species establish as designed.

**Monitoring Program**

A five-year monitoring plan will begin with the preparation of an as-built report following plant installation. This report will outline what occurred on the project site during construction and identify if any changes were made to the approved planting plan. Following submittal of the as-built plan, monitoring visits will occur. Monitoring will begin the first year following mitigation installation. Monitoring visits will occur twice yearly (once in the spring, once in the fall) and will continue for five years.

**Vegetation Monitoring Methodology**

Sampling points or transects will be established for vegetation monitoring and photo points will be established from which photos will be taken throughout the monitoring period. Permanent sampling points will be established during the project completion assessment (as-built) and must be identified on the mitigation site plans in the as-built report (they may be drawn on approved plans by hand). Each sampling point shall detail herbaceous, shrub, and tree coverage. Monitoring of vegetation sampling points shall occur annually between May 15 and September 30 (prior to leaf drop), unless otherwise specified.

The following data will be recorded for each data site:

- Species present
- Aerial cover by native and non-native species
- Quantity of plants by species
- Quantity of dead plants
- General observations

**Hydrology Monitoring**

One shallow groundwater monitoring station will be installed in the wetland creation area. The wetland creation area should be saturated within the upper 10 inches of the soil profile for at least 2 consecutive weeks during the growing season (March to mid-April). If positive indicators of hydrology have been achieved within the five-year monitoring period, hydrology monitoring may cease.

Monitoring of hydrology within the stream channels will be conducted through visual observations. The relocated stream segment should flow freely and consistently through the relocated channel. Observations to be recorded include: signs of erosion, changes in flow pattern, vegetation growth, and vegetation coverage within the channel side slopes. In addition, post-project conditions of the existing manmade pond will be visually inspected during each monitoring event, and any changes to the stability of the earthen berm impoundment will be noted. If any erosion of the berm or signs of potential failure are observed, contingency measures to stabilize the berm will be determined and implemented.

**Photo points**

Permanent photo points will be established within the mitigation areas. Photographs will be taken from these points to visually record condition of the mitigation areas. Photos shall be taken annually between May 15 and September 30 (prior to leaf drop), unless otherwise specified.

**Infiltration Trenches**

During each monitoring visit, the infiltration trenches adjacent to the buffer will be visually inspected. The general condition of the trenches will be included in the annual monitoring reports submitted to the City of Sammamish. If scour, erosion, sediment deposition, and/or other localized or buffer impacts occur within the buffer area, temporary erosion and sediment control measures will be installed until the necessary repairs can be made. Prior to any repairs, the project engineers shall be notified of the situation; they will assist with the repair/rehabilitation process and will coordinate with the City of Sammamish engineers to determine a solution. **Monitoring Reports**  
Monitoring reports will be prepared and submitted to the City of Sammamish in the fall of each monitoring year (i.e. following the second annual monitoring visit). The reports will summarize the overall conditions of the planting areas and discuss whether the performance standards are being met. Photos of the planting areas will also be provided. On year 5, the final monitoring report will be prepared and will determine if the mitigation plan has been successful per the established goals, objectives, and performance standards. If the mitigation plan is deemed unsuccessful, contingency actions will be utilized and/or the monitoring period may be extended.

**Contingency**

If, during any of the monitoring visits, 20% of the plants within any planting area are severely stressed, or it appears that 20% may not survive, additional plants will be added to the planting areas. If invasive and non-native species exceed 10% aerial coverage within any of the planting areas at any time, control measures will be initiated. Additional contingency actions may include, but will not be limited to, more aggressive weed control, mulching, species substitution, soil amendments, and/or irrigation. If necessary, a meeting between the consulting biologist and City of Sammamish personnel will be held to develop new contingency actions.

**Maintenance**

The mitigation areas will require periodic maintenance to ensure success of the mitigation measures. Maintenance shall occur in accordance with the approved plans. Maintenance may include, but will not be limited to: removal of competing grasses by hand if necessary), irrigation, fertilization (if necessary), replacement of plant mortality, and the replacement of mulch for each maintenance period. Chemical control, only if approved by City staff, shall be applied by a licensed applicator following all label instructions.

*Duration and Extent*

In order to achieve performance standards, the permittee shall have the mitigation area maintained for the duration of the 5-year monitoring period or until performance standards are met, whichever is greater. Maintenance will include: watering, weeding around the base of installed plants, pruning, replacement, re-staking, removal of all classes of noxious weeds (see Washington State Noxious Weeds List, WAC 16-730-005) as well as Himalayan blackberry, and any other measures needed to ensure plant survival. The landscape designer and/or wetland biologist shall direct all maintenance.

*Survival*

The permittee shall be responsible for the health of 100% of all newly installed plants for one growing season after installation has been accepted by the City of Sammamish. A growing season for these purposes is defined as occurring from spring to spring (March 15 to March 15 of the following year). For fall installation (often required), the growing season will begin the following spring. The permittee shall replace any plants that are: failing, weak, defective in manner of growth, or dead during this growing season, as directed by the landscape designer, wetland biologist, and/or City of Sammamish staff.

*Installation Timing for Replacement Plants*

Replacement plants shall be installed between September 15 and January 15, unless otherwise determined by the landscape designer, wetland professional, and/or City staff.

*Standards for Replacement Plants*

Replacement plants shall meet the same standards for size and type as those specified for the original installation, unless otherwise directed by the landscape designer, wetland professional, and/or City staff.

*Replanting*

Plants that have settled in their planting pits too deep, too shallow, loose, or crooked shall be replanted as directed by the landscape designer, wetland professional, and/or City staff.

*Herbicides / Pesticides*

Chemical controls shall not be used in the mitigation area, sensitive areas, or their buffers. However, limited use of herbicides may be approved depending on site-specific conditions, only if approved by City staff.

*Irrigation / Watering*

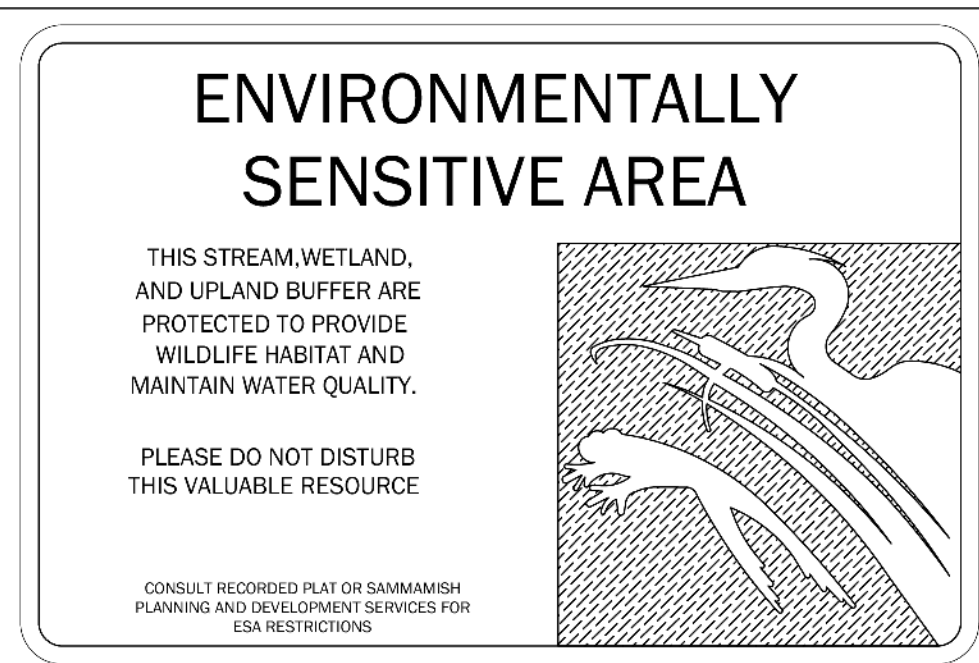
Water shall be provided during the dry season (July 1 through October 15 at minimum) for the first two years after installation to ensure plant survival and establishment. A temporary above ground irrigation system and/or water truck should provide water. Water should be applied at a rate of 1" of water twice per week for Year 1, and 1" per week during Year 2.

*General*

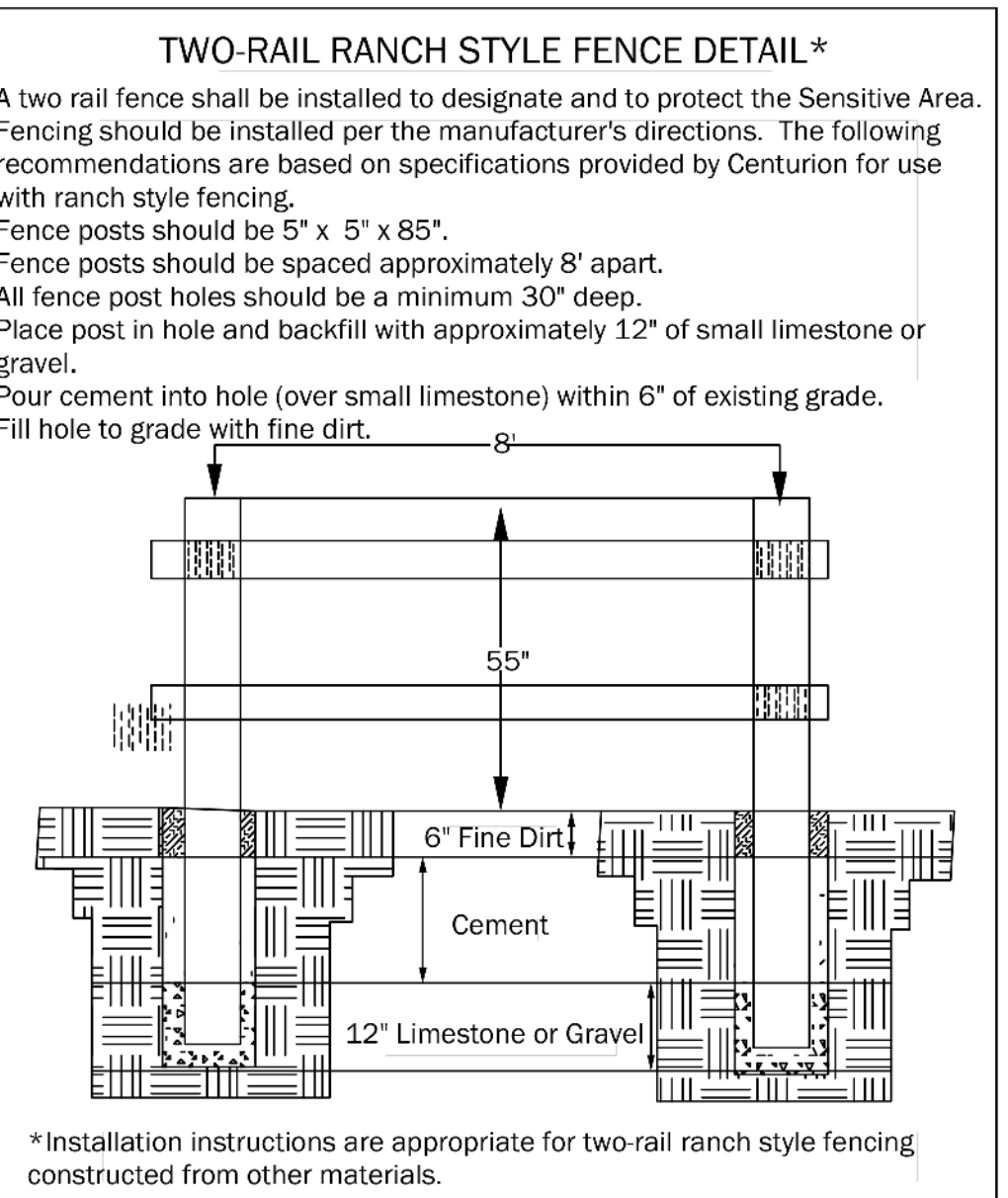
The permittee shall include in general maintenance activities the replacement of any vandalized or damaged signs, habitat features, fences, or other structural components of this mitigation site.

**Critical Area Markers and Signs**

Pursuant to SMC 21A.50.190 the on-site wetlands, streams, and their associated buffers will be placed in a critical area tract for permanent protection. The boundary of the critical area tract shall be marked with permanent survey stakes, signs, and fencing according to the required standards in SMC 21A.50.170. Permanent signs shall be a City-approved type designed for high durability. Signs must be posted at an interval of one per lot or every 50 feet, whichever is less, and must be maintained by the property owner or homeowners' association in perpetuity. The wording, number and placement of the signs may be modified by the director based on specific site conditions. Fencing shall be designed to not interfere with fish and wildlife migration and shall be constructed in a manner that minimizes critical areas impacts.



- NOTES:
1. Affix 12"x 18" Aluminum sign with white reflective background to fence post with a minimum of two galvanized or stainless steel wood lag bolts to firmly secure sign.
  2. ESA signs shall be placed no greater than 50 feet apart around the perimeter of the Environmentally Sensitive Area. Minimum placement shall include one Type 1 sign per wetland, and at least one Type 1 sign shall be placed in any lot that borders the Environmentally Sensitive Area, unless otherwise approved by the City biologist.
  3. Sign placement shall be subject to the approval of the City of Sammamish. Alternative sign designs may be submitted to the City of Sammamish for approval.
  4. All signs must be secure and permanent.



WRI PROJECT #15052

Drawn by: J. Goodman

Revision 1: May 10, 2019

**Wetland Resources**

9605 19TH AVE SE, SUITE 106  
EVERETT, WA 98208  
TEL: 425-337-3174  
FAX: 425-337-3045

PREPARED FOR:

Toll Bros, Inc.  
Attn: Jeff Peterson  
8815 122nd Avenue NE, Suite 200  
Kirkland, WA 98033

FINAL MITIGATION PLAN

**CARRIER**

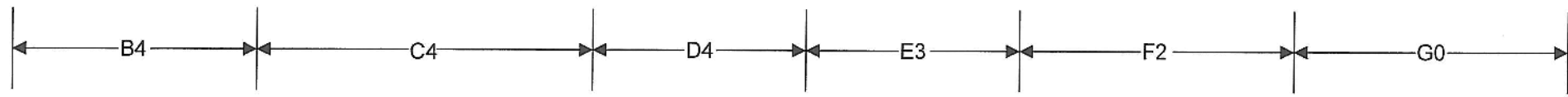
SAMMAMISH, WASHINGTON

PLANNING DEPT. APPROVAL

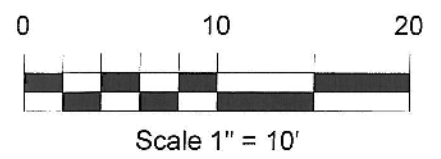
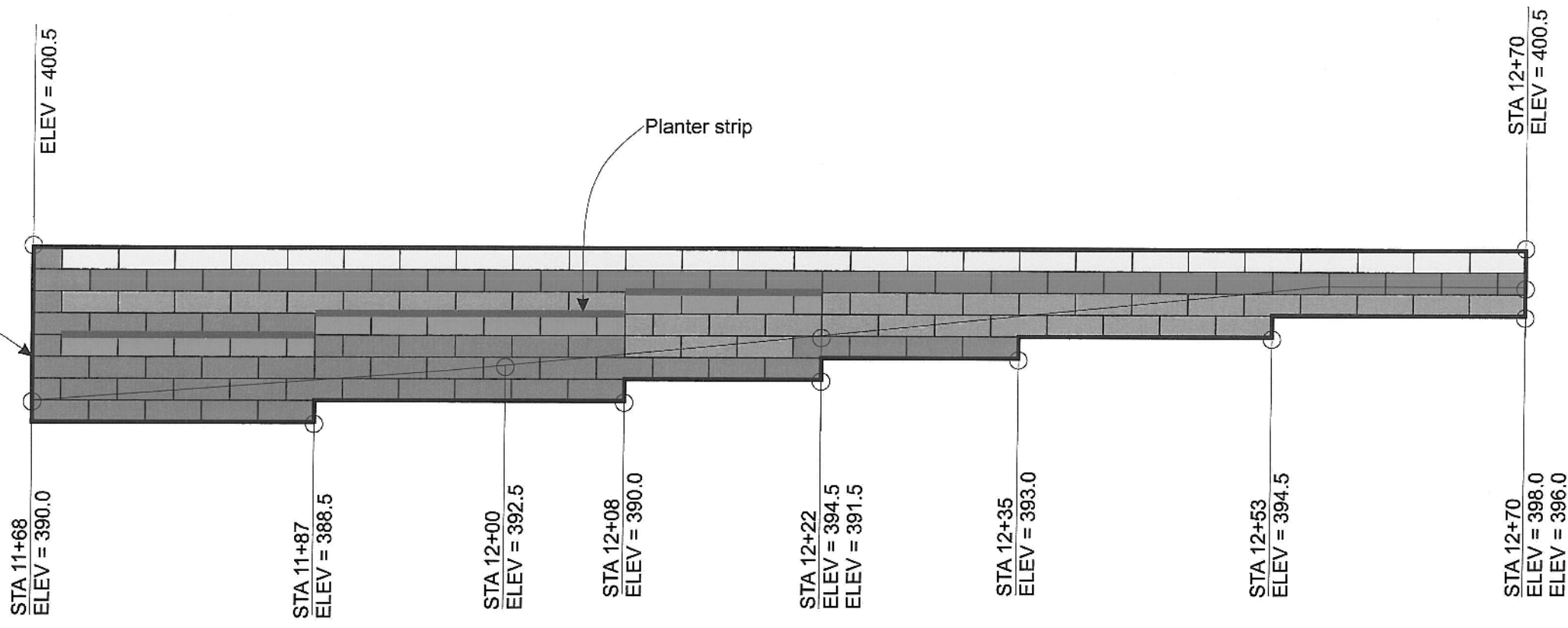
BY: ABaly  
DATE: 09/16/2019

SHEET W3



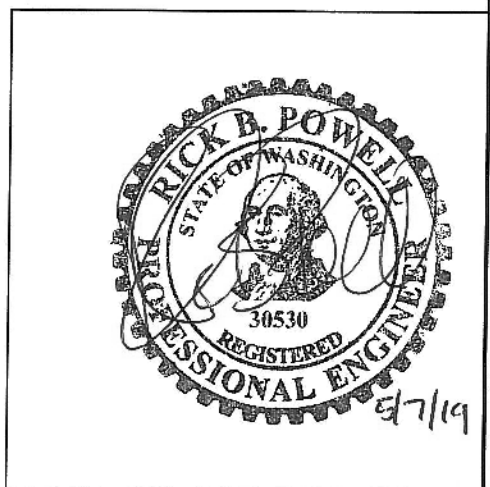


Finish edge - Contractor to consult with block manufacturer how to complete corner. Proposed corner should be approved by the wall designer.



**LEGEND**  
 A4  
 A = Wall section, see Sheet 5 and 6  
 4 = Block course where planter is located

- 24" Planter Block  
Quantity: 25 Full, 2 Half
- 28" Block  
Quantity: 25 Full, 1 Half
- 41" Block  
Quantity: 36 Full, 2 Half
- 41" Planter Block  
Quantity: 12 Full, 3 Half
- 60" Block  
Quantity: 44 Full, 5 Half



PM: RBP  
 May 2019  
 2906-002A



**SPECIFICATIONS FOR REDI-ROCK RETAINING WALL**

**General:**

1. The contractor shall have an approved set of plans and specifications on site at all times during the construction of the wall. The wall layout is the responsibility of the contractor.
2. A professional engineer or representative should observe and monitor the construction of the wall.

**Subgrade Preparation:**

1. The ground should be prepared by removing surficial unsuitable soil, exposing medium dense or firmer inorganic, native soils as approved by the geotechnical engineer.
2. The excavation shall be cleaned of all excess material and protected, as necessary, from construction traffic to maintain the integrity of the subgrade.

**Drainage:**

1. A drainage system shall be installed as shown in the typical cross-section detail. The wall drain shall consist of 1- to 2-inch washed-rock blanket and a 6-inch perforated pipe placed behind the base of the wall. The washed rock should have a minimum width of 12 inches. The rock should be wrapped by filter fabric (Mirafi 140N or equivalent). The perforated pipe should be tightlined to an approved drainage at the low point of the wall.
2. A drainage blanket with a minimum width of 12 inches should be installed directly behind the blocks and shall consist of 5/8" crushed rock or angular free-draining material. All of the drainage material shall have a fines content no greater than 5% passing the number 200 sieve.
3. Surface water shall not be allowed to pond in or near the reinforced fill zone during or after construction, as shown on Sheet 4.

**Redi-Rock Blocks:**

1. Redi-Rock blocks should have a layout corresponding to the wall height as shown in the plans.
2. Stacked blocks should be placed in a manner such that the blocks are interconnected.

**Embedment:**

1. Base blocks should be embedded into bearing, native soils.
2. If native bearing soils are not encountered, a deeper embedment and setback may be necessary.

**Inspection:**

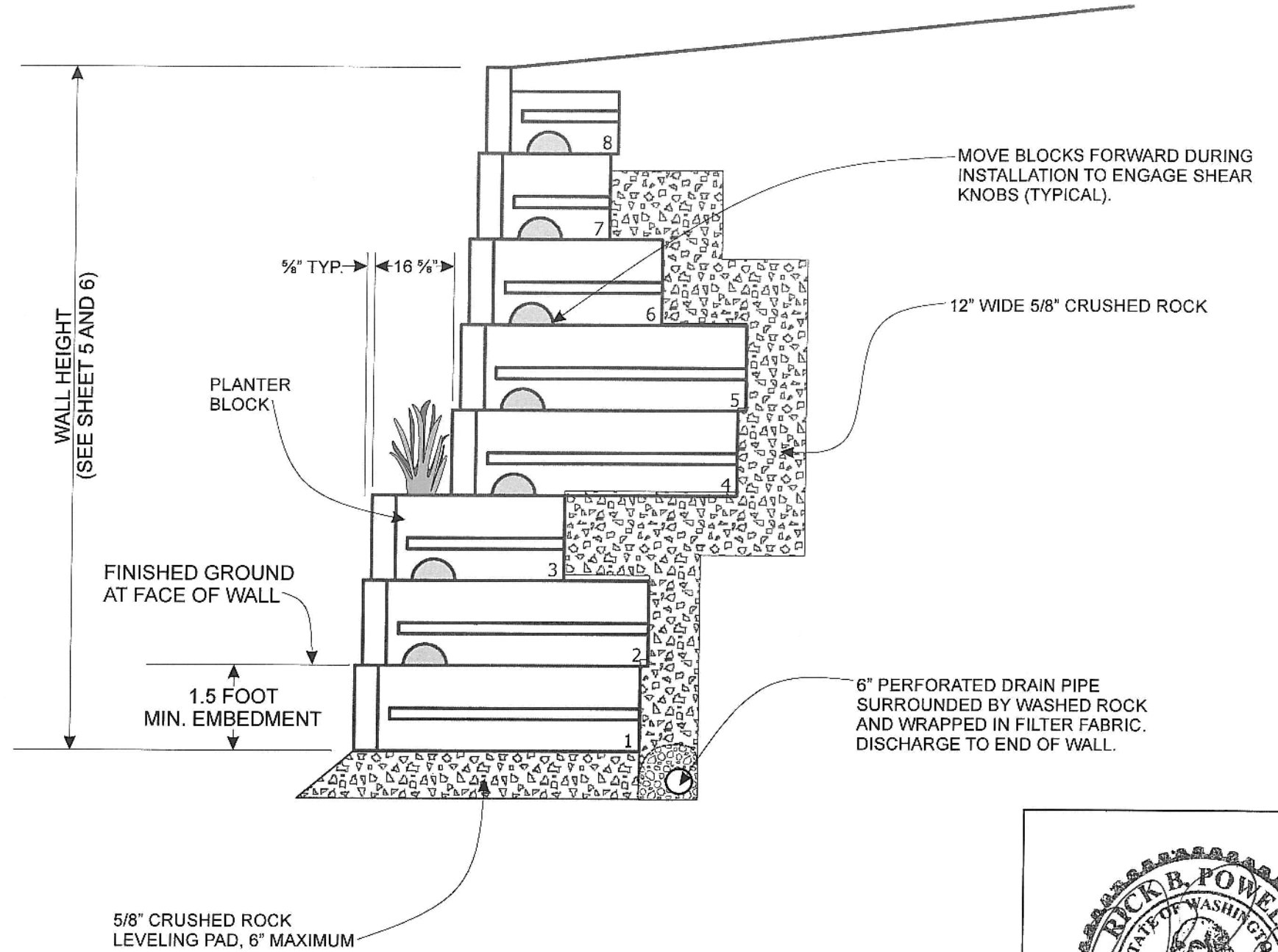
The construction shall be periodically inspected under the direction of an engineer registered in the state of Washington with experience in the design of reinforced earth retaining walls.

**Design Parameters:**

Weathered Till Backfill 32 deg 125 PCF c = 50 psf  
 Undisturbed Till Soil 34 deg 130 PCF c = 250 psf

**External Stability:**

Minimum Factor of Safety against Base Sliding = 1.5  
 Minimum Factor of Safety against Overturning = 2.0  
 Minimum Factor of Safety against Bearing Capacity = 2.5



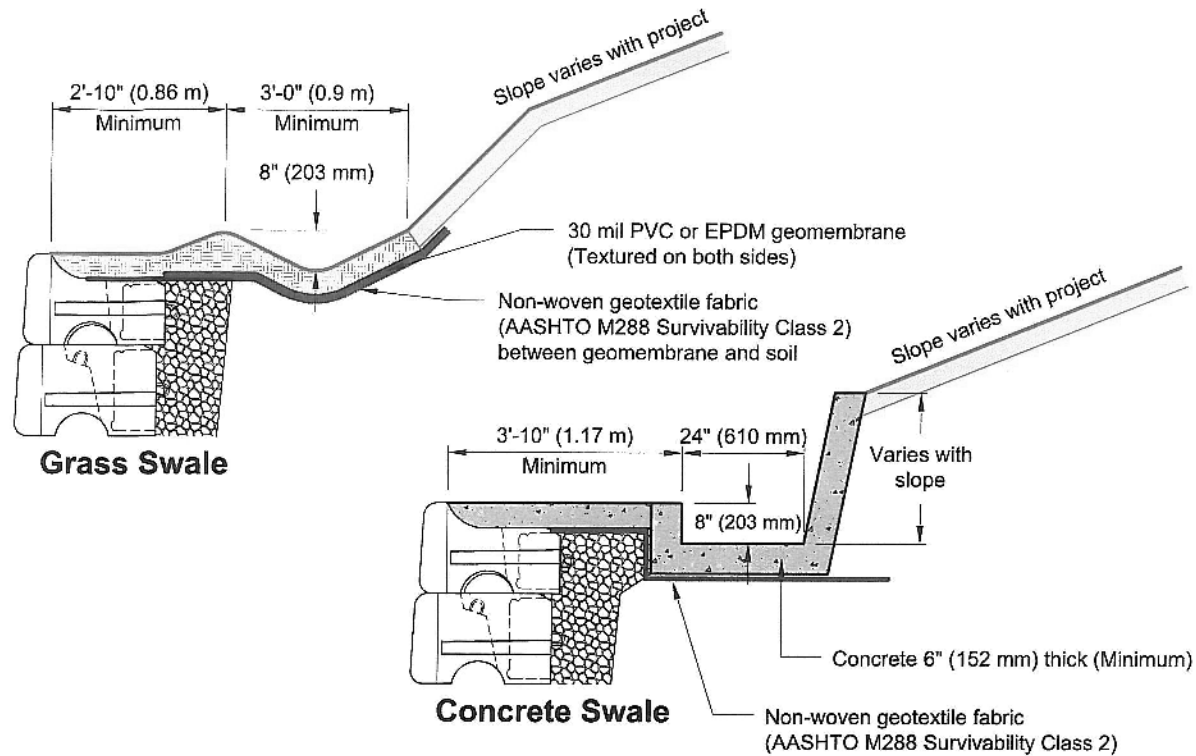
**NOTE:**  
 FILL WEDGE BETWEEN ADJACENT BLOCKS WITH DRAINSTONE (ALL BLOCKS)  
 FILL VERTICAL CORE SLOT WITH DRAIN STONE (PC BLOCKS)



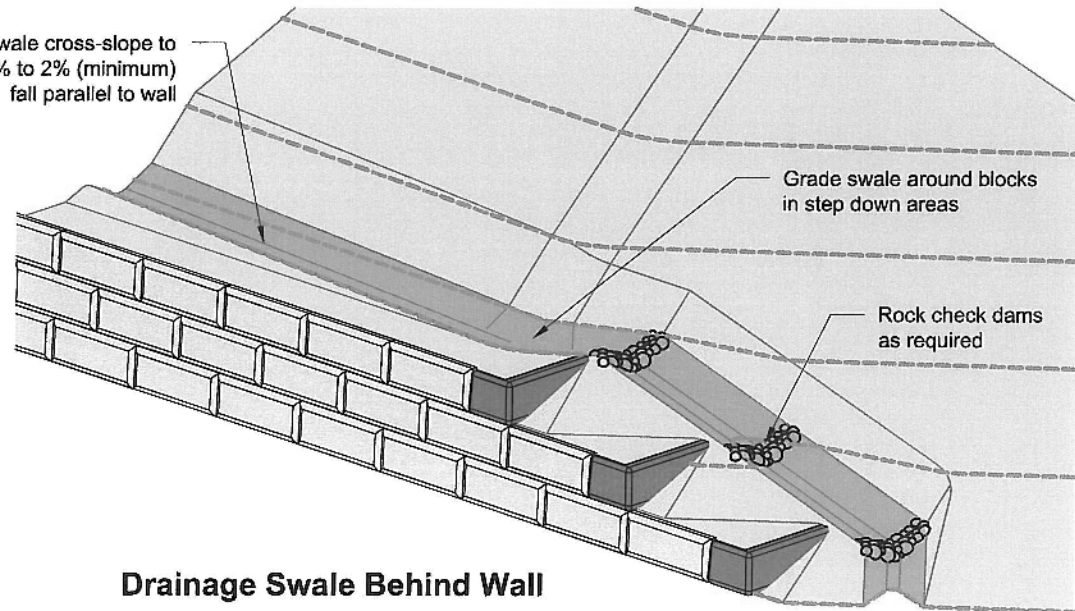
PM: RBP  
 May 2019  
 2906-002A



### Drainage Swale Options



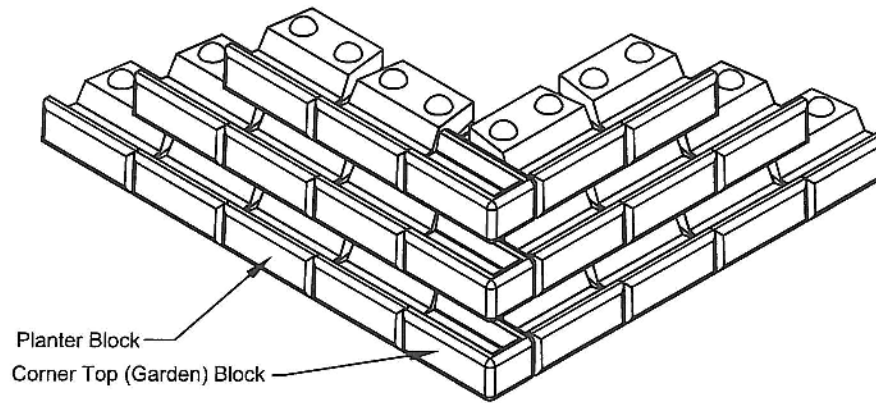
Grade swale cross-slope to provide 1% to 2% (minimum) fall parallel to wall



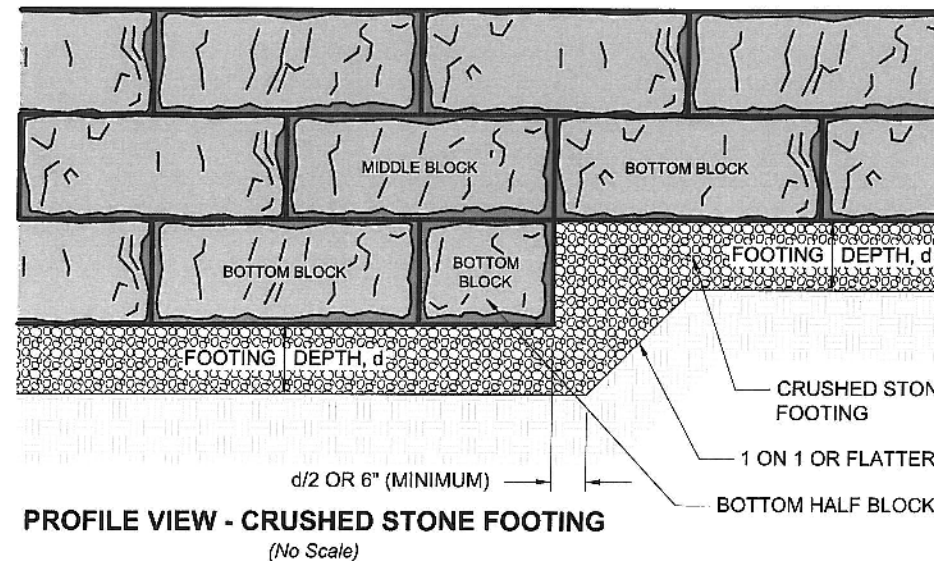
### Drainage Swale Behind Wall

This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

### 90° Outside Corner with Planter Blocks (41" Series)



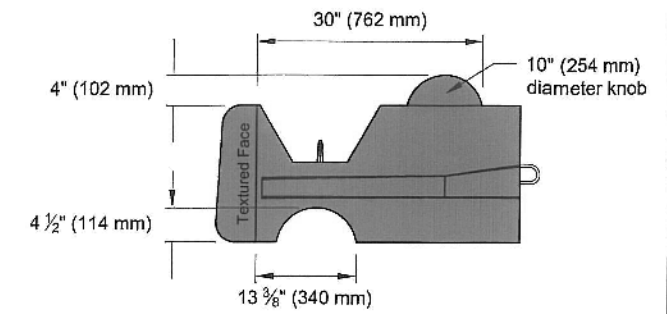
### STEP FOOTING DETAILS



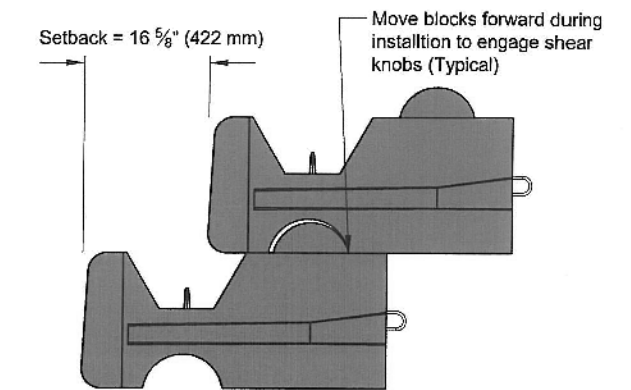
### PROFILE VIEW - CRUSHED STONE FOOTING

(No Scale)

### Planter Blocks



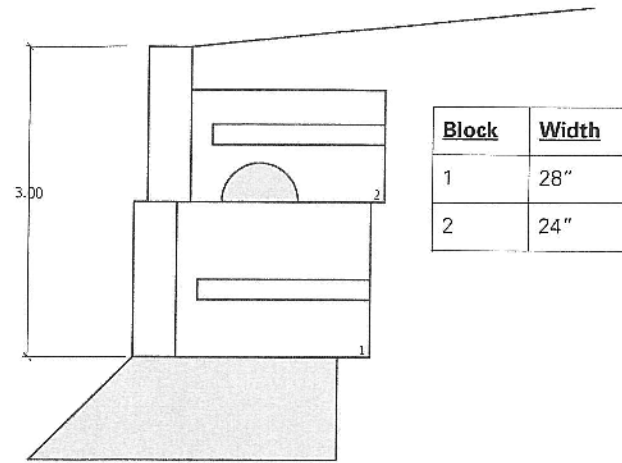
- Available with:
- 41" (1030 mm) blocks (shown here) and 60" (1520 mm) blocks
  - Not available in PC blocks



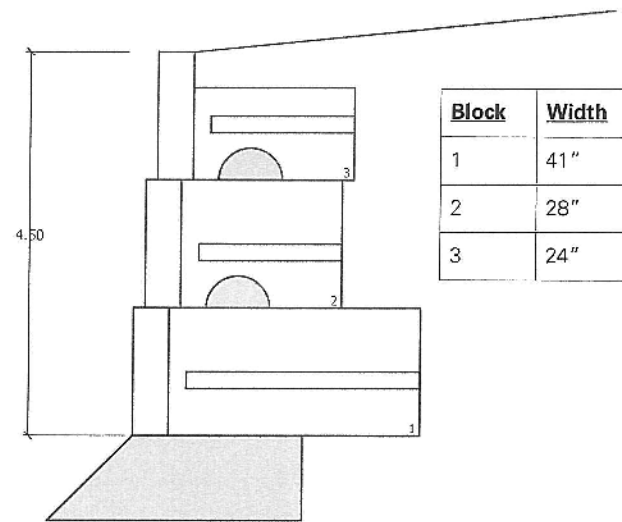
Redi-Rock has two options for large batter retaining walls. Both options are created by relocating the knob so that it is further back in the Redi-Rock blocks compared to our smaller batter walls (5° or less). There are two knob locations further back in the block which create the 9" (230 mm) setback block and the planter block. Blocks made with knobs in either of these locations almost exclusively use 10" (254 mm) diameter knobs.



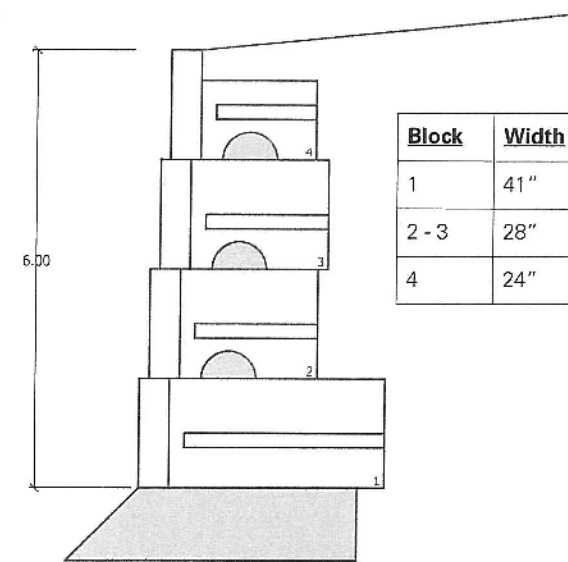




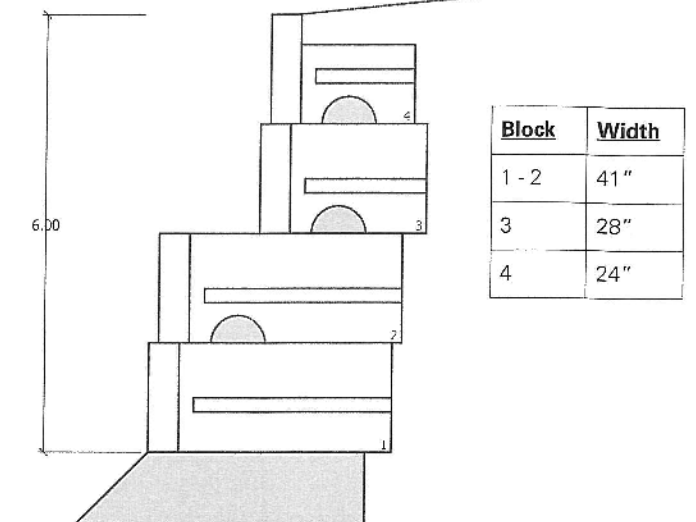
**H0 - 3 foot wall**  
NOT TO SCALE



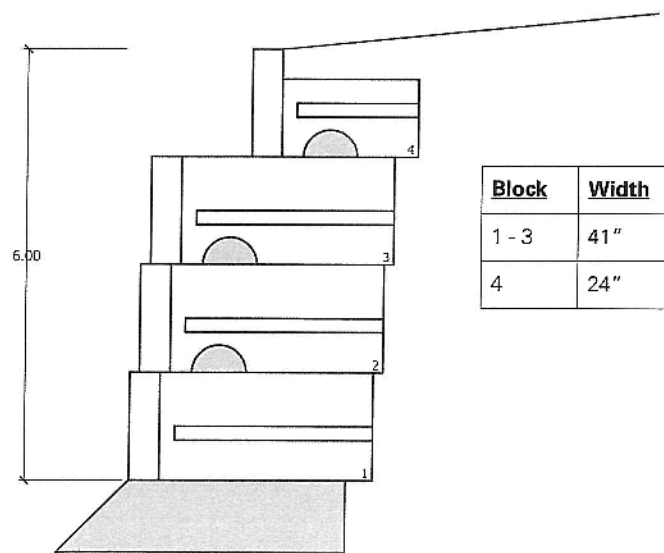
**G0 - 4.5 foot wall**  
NOT TO SCALE



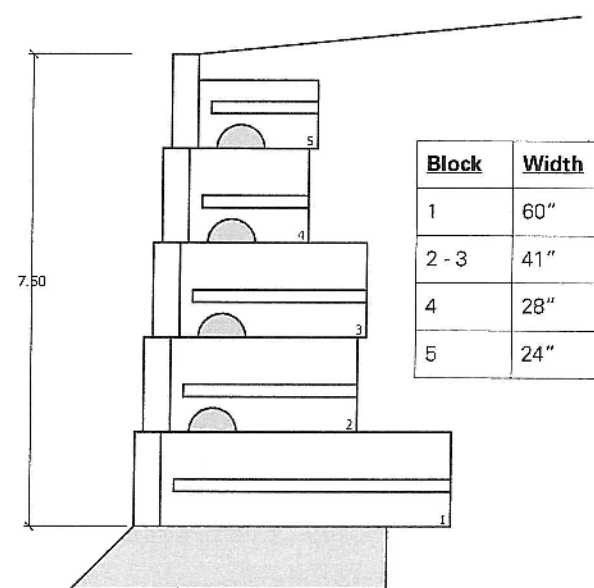
**F0 - 6 foot wall**  
NOT TO SCALE



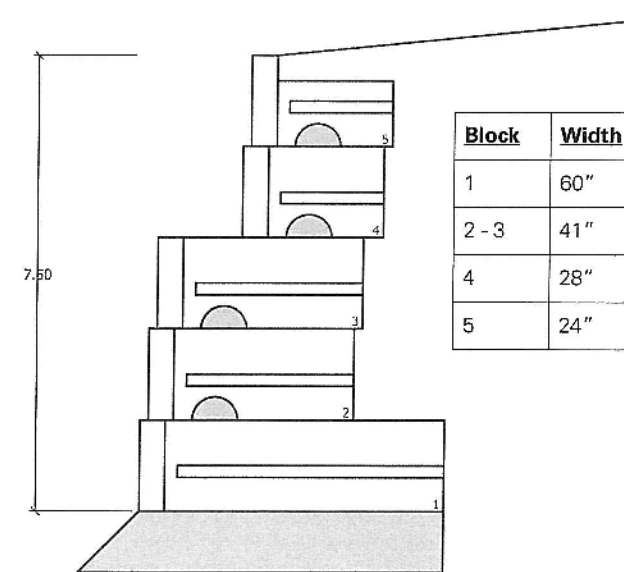
**F2 - 6 foot wall**  
NOT TO SCALE



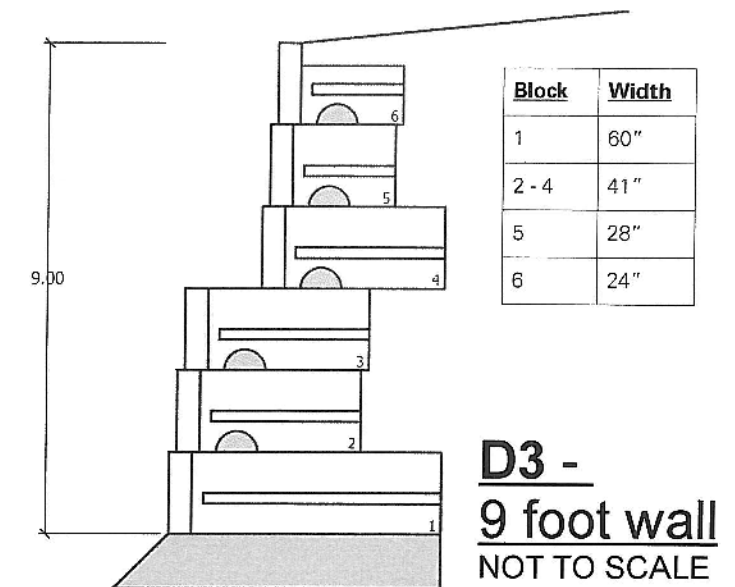
**F3 - 6 foot wall**  
NOT TO SCALE



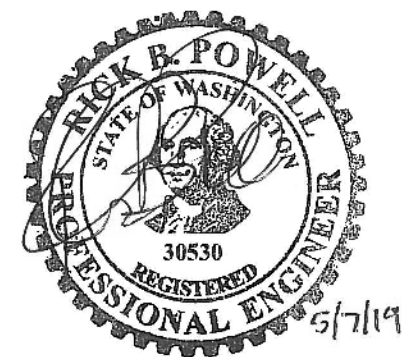
**E0 - 7.5 foot wall**  
NOT TO SCALE



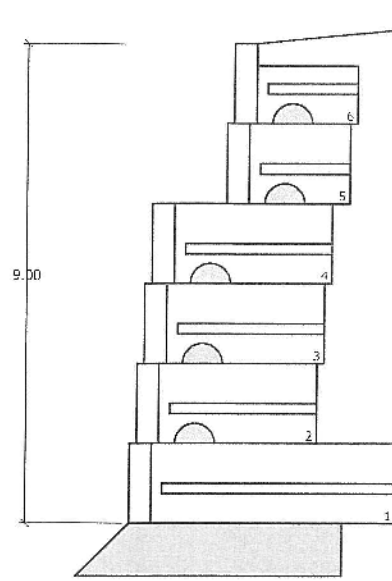
**E3 - 7.5 foot wall**  
NOT TO SCALE



**D3 - 9 foot wall**  
NOT TO SCALE

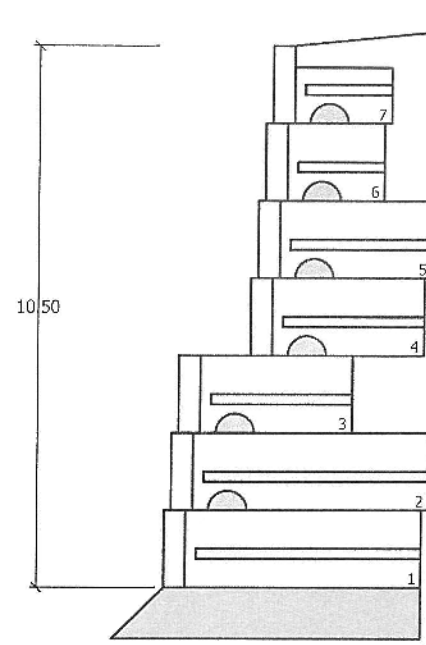






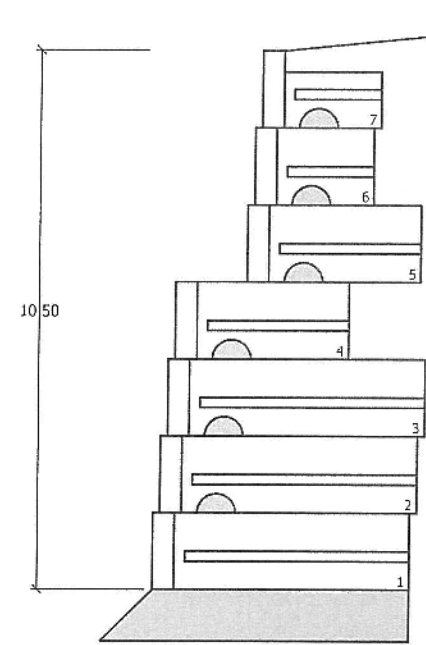
Block	Width
1	60"
2 - 4	41"
5	28"
6	24"

**D4 - 9 foot wall**  
NOT TO SCALE



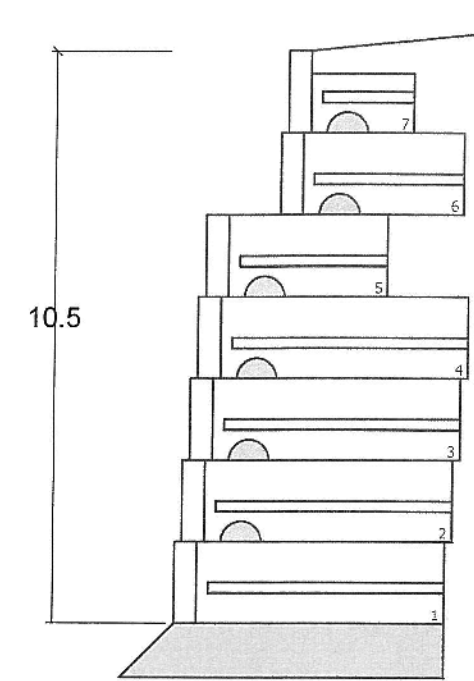
Block	Width
1 - 2	60"
3 - 5	41"
6	28"
7	24"

**C3 - 10.5 foot wall**  
NOT TO SCALE



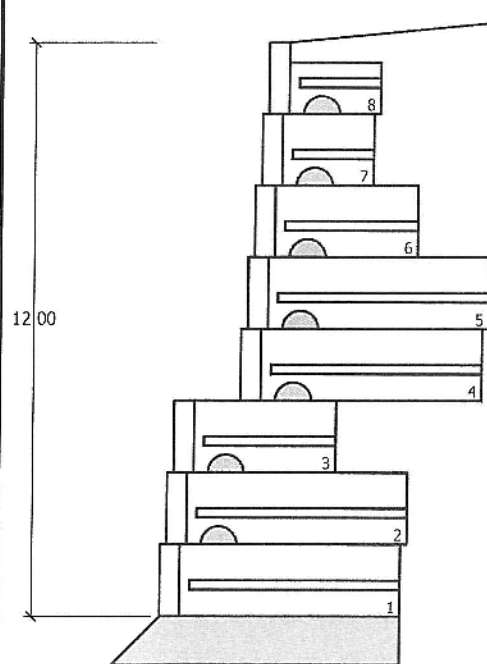
Block	Width
1 - 2	60"
3 - 5	41"
6	28"
7	24"

**C4 - 10.5 foot wall**  
NOT TO SCALE



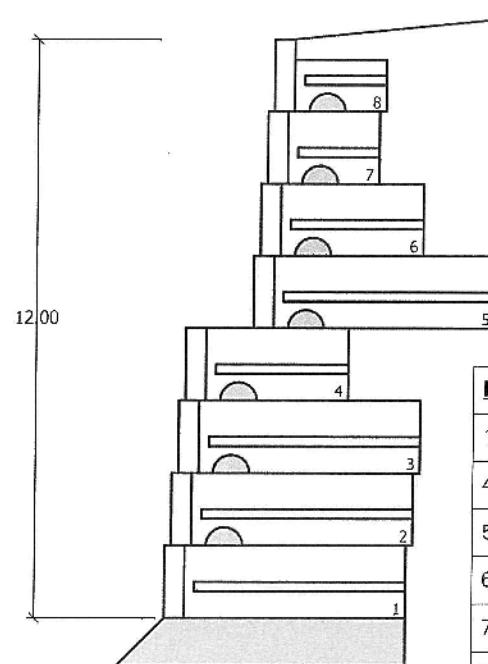
Block	Width
1 - 4	60"
5 - 6	41"
7	24"

**C5 - 10.5 foot wall**  
NOT TO SCALE



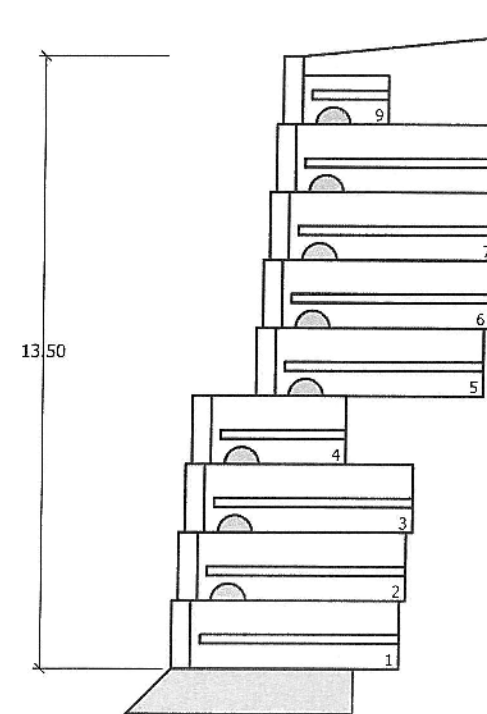
Block	Width
1 - 2	60"
3	41"
4 - 5	60"
6	41"
7	28"
8	24"

**B3 - 12 foot wall**  
NOT TO SCALE



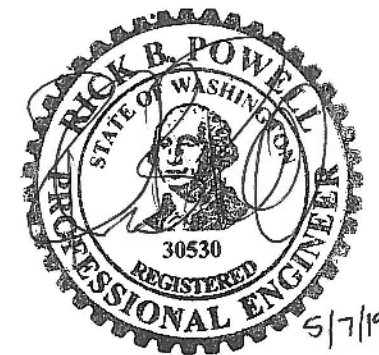
Block	Width
1 - 3	60"
4	41"
5	60"
6	41"
7	28"
8	24"

**B4 - 12 foot wall**  
NOT TO SCALE

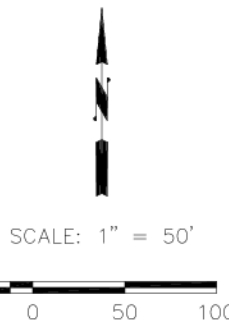


Block	Width
1 - 3	60"
4	41"
5 - 8	28"
9	24"

**A4 - 13.5 foot wall**  
NOT TO SCALE

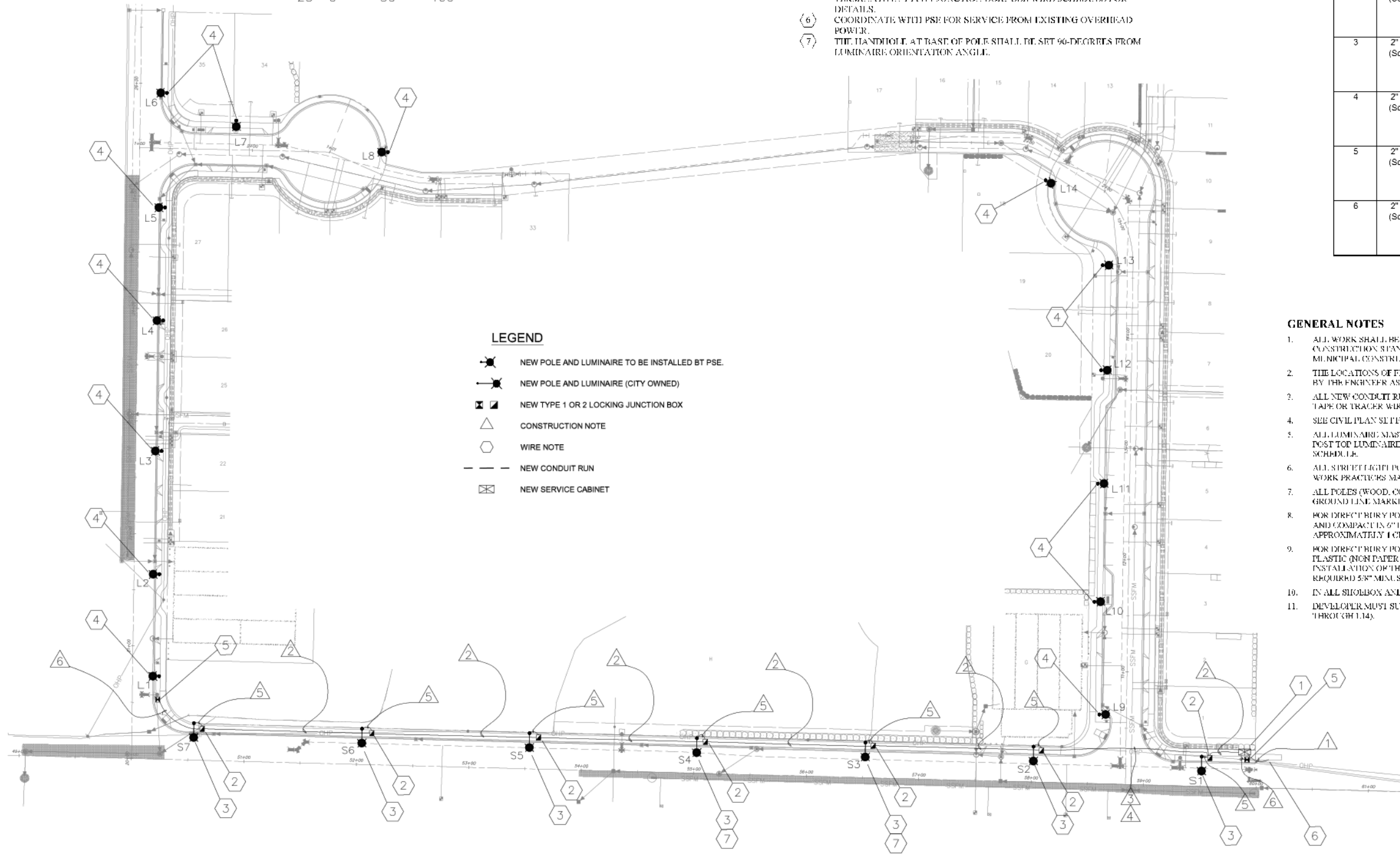






- CONSTRUCTION NOTES**
- ① INSTALL NEW TYPE B MODIFIED SERVICE CABINET (120/240V SINGLE PHASE, 200AMP) AT LOCATION SHOWN APPROXIMATE. COORDINATE WITH PSE FOR SERVICE TO NEW SERVICE CABINET (1-42'). SERVICE CABINET SHALL CONFORM TO WSDOT STANDARD PLAN J10.20-01
  - ② INSTALL TYPE 1 OR TYPE 2 JUNCTION BOX AS SHOWN PER WSDOT STANDARD PLAN J40.10-04
  - ③ INSTALL NEW STREET LIGHT AT LOCATION SHOWN. SEE WSDOT STANDARD PLAN J-28.30-03 FOR FOUNDATION DETAIL AND J-28.40-02 FOR POLE MOUNTING DETAIL. SEE LUMINAIRE SCHEDULE FOR LOCATION, POLE AND LUMINAIRE DETAILS.
  - ④ COORDINATE WITH PSE FOR INSTALLATION OF NEW STREET LIGHT AT LOCATION SHOWN (L1 THRU L14). SEE LUMINAIRE SCHEDULE FOR LOCATION, POLE, AND LUMINAIRE DETAILS.
  - ⑤ EXTEND CONDUIT (SCHEDULE 40) TO PROPERTY LINE AND TERMINATE IN TYPE 1 JUNCTION BOX. SEE WIRE SCHEDULE FOR DETAILS.
  - ⑥ COORDINATE WITH PSE FOR SERVICE FROM EXISTING OVERHEAD POWER.
  - ⑦ THE HANDHOLE, AT BASE OF POLE SHALL BE SET 90-DEGREES FROM LUMINAIRE ORIENTATION ANGLE.

WIRE SCHEDULE			
△ RUN NO	CONDUIT SIZE ( & TYPE)	CONDUCTOR	COMMENTS
1	2" PVC (Sch 40)	2 - #8 1 - #8 detector tape/wire	to service cabinet bare ground in trench on top of conduit
2	2" pvc (Sch 80)	2 - #8 1 - #8 detector tape/wire	new lighting (road crossing) bare ground in trench on top of conduit
3	2" PVC (Sch 40)	2 - #8 1 - #8 detector tape/wire	new lighting bare ground in trench on top of conduit
4	2" PVC (Sch 40)	pull string detector tape/wire	spare conduit in trench on top of conduit
5	2" PVC (Sch 40)	2 - #10 1 - #10	wire to pole bare ground
6	2" PVC (Sch 40)	pull string detector tape/wire	empty for future extension, cap end at property line. in trench on top of conduit



- LEGEND**
- NEW POLE AND LUMINAIRE TO BE INSTALLED BY PSE.
  - NEW POLE AND LUMINAIRE (CITY OWNED)
  - NEW TYPE 1 OR 2 LOCKING JUNCTION BOX
  - CONSTRUCTION NOTE
  - WIRE NOTE
  - NEW CONDUIT RUN
  - NEW SERVICE CABINET

- GENERAL NOTES**
1. ALL WORK SHALL BE IN ACCORDANCE WITH THESE PLANS, THE CITY OF SAMMAMISH CONSTRUCTION STANDARDS, THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (CURRENT EDITION), AND THE WSDOT STANDARD PLANS.
  2. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER AS NECESSARY.
  3. ALL NEW CONDUIT RUNS SHALL HAVE A MINIMUM 24" COVER AND INCLUDE A DETECTABLE PULL TAPE OR TRACER WIRE.
  4. SEE CIVIL PLAN SET FOR FRONTAGE IMPROVEMENTS AND ALL UNDERGROUND UTILITIES.
  5. ALL LUMINAIRE MAST ARMS SHALL BE PERPENDICULAR TO THE ROADWAY CENTERLINE. FOR ALL POST TOP LUMINAIRES, THE LUMINAIRE ORIENTATION ANGLE IS NOTED IN THE LUMINAIRE SCHEDULE.
  6. ALL STREET LIGHT POLES ARE TO BE INSTALLED PER STANDARD 6375.4800 (page 2) IN THE "LINE WORK PRACTICES MANUAL".
  7. ALL POLES (WOOD, CONCRETE OR FIBERGLASS) ARE TO BE SET PLUMB AND EMBEDDED TO THE GROUND LINE MARKED ON THE POLE.
  8. FOR DIRECT BURY POLES L1 THROUGH L14, BACKFILL AROUND POLE WITH 5.8" MINUS GRAVEL AND COMPACT IN 6" LIFTS. (PEA GRAVEL AND NATIVE SOILS ARE NOT ACCEPTABLE.) APPROXIMATELY 1 CU. YD. OF 5.8" MINUS CRUSHED ROCK WILL BE REQUIRED.
  9. FOR DIRECT BURY POLES L1 THROUGH L14, THE DEVELOPER IS REQUIRED TO SUPPLY AND INSTALL PLASTIC (NON PAPER) STREET LIGHT TUBES (MINIMUM 18" DIAMETER) TO AID IN THE INSTALLATION OF THE STREET LIGHTING POLES. THE DEVELOPER MUST ALSO SUPPLY THE REQUIRED 5.8" MINUS GRAVEL AT EACH STREET LIGHT LOCATION.
  10. IN ALL SHOULDER AND COBRAHEAD INSTALLATIONS, THE LUMINAIRE MUST BE LEVELLED.
  11. DEVELOPER MUST SUPPLY DURABLE LID COVER AT EACH STREET LIGHT TUBE (POLES L1 THROUGH L14).

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.

**REVIEWED FOR CODE COMPLIANCE**  
per 13.20 SMC, 14.01 SMC, and 16.15 SMC,  
subject to field inspection and correction.

hstrasbourger08/09/2019  
City of Sammamish Public Works Department

NO.	DATE	BY	APPR.	REVISIONS

**Approved By**

NEIGHBORHOOD SERVICES MANAGER	DATE	BP	05/19
PROJECT MANAGER	DATE	DR	05/19
		BP	05/19
		CHECKED BY	DATE



**CARRIER**  
**CITY OF SAMMAMISH**

STREET LIGHTING  
PLAN SHEET

PERMIT# - SDP2018-0654      **SHT** IL1



**LUMINAIRE SCHEDULE**

per plan LUMINAIRE NO.	(1) (2) CIRCUIT NO.	Road	LOCATION		POLE HEIGHT (ft)	MAST ARM (ft)	POLE TYPE	FITURE TYPE	LUMINAIRE	Luminaire Orientation Angle	COMMENTS
			STATION (FEET)	OFFSET (FEET)							
S1	1	SE 8th St	59+55	26 LT	35	8	BS MT STEEL BLK PWDR	COBRA	GCM2-30H-MV-NW-2R-XX-850S 9927 lms / 82W Type 2 / 4K	0 deg	City owned system Contractor Installed
S2	1	SE 8th St	58+05	31 LT	35	8	BS MT STEEL BLK PWDR	COBRA	GCM2-30H-MV-NW-2R-XX-850S 9927 lms / 82W Type 2 / 4K	0 deg	City owned system Contractor Installed
S3	1	SE 8th St	56+55	31 LT	35	8	BS MT STEEL BLK PWDR	COBRA	GCM2-30H-MV-NW-2R-XX-850S 9927 lms / 82W Type 2 / 4K	0 deg	City owned system Contractor Installed
S4	1	SE 8th St	55+05	31 LT	35	8	BS MT STEEL BLK PWDR	COBRA	GCM2-30H-MV-NW-2R-XX-850S 9927 lms / 82W Type 2 / 4K	0 deg	City owned system Contractor Installed
S5	1	SE 8th St	53+55	31 LT	35	8	BS MT STEEL BLK PWDR	COBRA	GCM2-30H-MV-NW-2R-XX-850S 9927 lms / 82W Type 2 / 4K	0 deg	City owned system Contractor Installed
S6	1	SE 8th St	52+05	31 LT	35	8	BS MT STEEL BLK PWDR	COBRA	GCM2-30H-MV-NW-2R-XX-850S 9927 lms / 82W Type 2 / 4K	0 deg	City owned system Contractor Installed
S7	1	SE 8th St	50+55	31 LT	35	8	BS MT STEEL BLK PWDR	COBRA	GCM2-30H-MV-NW-2R-XX-850S 9927 lms / 82W Type 2 / 4K	0 deg	City owned system Contractor Installed
L1	PSE direct feed	214th Ave SE	20+73	22.5 RT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L2	PSE direct feed	214th Ave SE	21+63	22.5 RT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L3	PSE direct feed	214th Ave SE	22+73	22.5 RT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L4	PSE direct feed	214th Ave SE	23+89	22.5 RT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L5	PSE direct feed	214th Ave SE	24+90	22.5 RT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L6	PSE direct feed	214th Ave SE	25+91	22.5 RT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L7	PSE direct feed	Road B	1+86	25.5 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L8	PSE direct feed	Road B cul- de-sac	3+21	1.21 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	as shown	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L9	PSE direct feed	Road A	10+61	23.5 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L10	PSE direct feed	Road A	11+61	30 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L11	PSE direct feed	Road A	12+67	29 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L12	PSE direct feed	Road A	13+68	27 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L13	PSE direct feed	Road A	14+62	27 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	0 deg	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color
L14	PSE direct feed	Road A cul- de-sac	15+93	18 LT	20	0	Washington (Post Top) Concrete	PSE K595	CV 1-H-MV-40K-2R-XX-035 S 3294 lms / 24W Type 2 / 4K	as shown	PSE owned, Intolight to install: Washington Pole -- Concrete Corten color

**City of Sammamish  
PWS.15.345 – Street Light Construction.**

- A. All workmanship, materials and testing shall be in accordance with the most current Washington State Department of Transportation/American Public Works Association Standard Specifications for Road, Bridge, and Municipal Construction, and National Electrical Code as applicable unless otherwise specified below. In cases of conflict the most stringent guideline shall apply. When the most stringent guideline is not clear, the director of public works/finance will make the determination. The electrical contractor shall be familiar with all above stated publications and guidelines as they will be strictly enforced by the City.
- B. All safety standards and requirements shall be complied with as set forth by the State of Washington Department of Labor and Industries.
- C. The contractor shall be responsible for all traffic control in accordance with the Manual on Uniform Traffic Control Devices. Prior to disruption of any traffic, traffic control plans shall be prepared and submitted to the City for approval. (See WSDOT Standard Plans K2 – K21). No work shall commence until all approved traffic control is in place.
- D. A pre-construction meeting shall be held with the City of Sammamish prior to the start of construction.
- E. All approvals and permits required by the City of Sammamish shall be obtained by the contractor prior to the start of construction.
- F. It shall be the responsibility of the contractor to have a copy of an approved set of plans on the construction site at all times.
- G. All surveying and staking shall be done by a surveying or engineering firm licensed in the state of Washington.
- H. Temporary erosion control/water pollution measures shall be required in accordance with Section 1-07.15 of the WSDOT/APWA Standard Specifications and the King County Surface Water Design Manual. At no time will silt and debris be allowed to drain into an existing or newly installed facility.
- I. If construction is to take place in the county right-of-way, the contractor shall notify the county and obtain all the required approvals and permits.
- J. The contractor shall be fully responsible for the location and protection of all existing utilities. The contractor shall verify all utility locations prior to construction by calling the Underground Locate Line at 1-800-422-5555 a minimum of 48 hours prior to any excavation. The contractor will also be responsible for maintaining all locate marks once the utilities have been located.
- K. Electrical permits and inspections are required for all street lighting installations within the City of Sammamish. The contractor is responsible for obtaining permits prior to construction. These permits are available from the electrical inspection permit counter at Puget Sound Energy. Prior to installation of any materials the electrical contractor shall submit for approval by the City two copies of material catalog cuts, specifications, shop drawings and/or wiring diagrams. Any materials purchased or labor performed prior to such approval shall be at the contractor's risk. Mounting heights, arm length, power source, luminaire type and bolt patterns shall follow PWS.15.340. Modifications of any portion of the lighting system will not be allowed without prior approval by the City.

- L. A rated service disconnect shall be provided for every branch circuit. Light branch circuit breakers shall be 40 amp minimum. The location and installation of the disconnect shall conform to the National Electric Code (NEC) and City of Sammamish Standards. The service disconnect shall be of a type equal to a "MYERS" MEUGL-M100C-UM or "UNICORN" CPHIB-0111A Service, 120/240 VAC, CALTRANS TYPE 3B or City approved equal, with two lighting relays, one three position test switch (Auto/Off/Manual) and one photocell. The photocell shall face north unless otherwise directed by the City.
- M. Service entrance conductors shall be a minimum size of #2 copper. All lighting wire shall be stranded copper with a minimum size of #8 with insulation suitable for wet locations. Phasing tape will not be allowed. All wire shall be installed in schedule 40 PVC conduit with a minimum diameter of one-and-one-quarter inches. All conduit shall be installed in the "utility ditch" or as otherwise directed by the City. A bushing or bell end shall be used at the end of every conduit. All splices shall be in the nearest junction box. Wire nuts will not be allowed. All splices will be made with Type C copper fittings, centered and encased in a 3-M Scotchcast epoxy kit, rated at 600 Volts, Type 82-A1, 82-B1 or City approved equal. If more than one circuit passes through a junction box each is to have a PCV sleeve clearly identifying the circuit. (WSDOT Standard Specification 8-20.3). A 500-volt megger test will be performed by the electrical contractor on each circuit between conductor and ground prior to acceptance of the lighting system. The insulation resistance shall not be less than six mega-ohms to ground 2,500 feet and over nor less than eight mega-ohms under 2,500 feet. A functional test will be performed by the City, in which it is demonstrated that each and every part of the system functions as specified or intended herein. (WSDOT Standard Specifications 8-20.3(11)).
- N. Each luminaire pole shall have an in-line, fused, water tight electrical disconnect located at the base of the pole. Access to these fused disconnects shall be through the hand-hole on the pole. The hand-hole shall be facing away from on-coming traffic from the adjacent street. Load side of in-line fuse to luminaire head shall be cable and pole bracket wire, two conductor, 19-strand copper #10 and shall be supported at the end of the luminaire arm by an approved means (Drawing 2-17.2). Fuse, size, disconnect installation and grounding in pole shall conform to WSDOT Standards.
- O. City approved pull boxes or junction boxes shall be installed per WSDOT Standard Plan J-11a in all street lighting installations. Junction boxes shall be incorporated into the back edge of sidewalk or as directed by City. Where no sidewalks exist, junction boxes shall have a concrete pad per City of Sammamish Standards. No conduit run shall be more than 200 feet between Junction Boxes. A junction box shall be located within 10 feet of each luminaire pole and at every road crossing. No conduit shall be installed in the roadway except at designated road crossings. Conduit entering the junction box shall be perpendicular to the sides of the box and a minimum of six but no more than eight inches below the lid. Boxes shall be clearly and indelibly marked as lighting boxes by the legend "L.T." or "LIGHTING". All J-Boxes shall be supported by a minimum six-inch crushed gravel pad. A three-eighths-inch expansion joint shall be installed between concrete sidewalk and junction box.
- P. All lighting poles shall be as specified in PWS.15.340. In existing developed areas, the City may require the use of other poles to establish uniformity within the developed area. After installation and before acceptance by the City all poles shall be free of dents and marks. Sonotube shall be removed to below ground level. Pole bases shall be grouted and all luminaire heads shall be plumb and level.
- Q. Conduit shall extend between three and six inches above the concrete base.
- R. Any modification to approved lighting plans shall be reviewed and approved by the City prior to installation. Any approved modifications shall be shown on a mylar as-built supplied to the City after the lighting installation is completed and before final acceptance. It shall be the responsibility of the electrical contractor to ensure these as-builts are provided to the City.

The owner is responsible for all errors or omissions. The City of Sammamish assumes no liability for errors or omissions.  
**REVIEWED FOR CODE COMPLIANCE**  
 per 13.20 SMC, 14.01 SMC, and 16.15 SMC, subject to field inspection and correction.  
 hstrasbourg08/09/2019  
 City of Sammamish Public Works Department

**PLANNING DEPT. APPROVAL**  
 BY: ABaty  
 DATE: 08/16/2019

NO.	DATE	BY	APPR.	REVISIONS
1	8/17	BP	APPR.	S1, S2, S3, MODIFICATIONS

**Approved By**

NEIGHBORHOOD SERVICES MANAGER DATE \_\_\_\_\_

PROJECT MANAGER DATE \_\_\_\_\_

BP 01/19  
 DESIGNED BY DATE  
 DR 01/19  
 DRAWN BY DATE  
 BP 01/19  
 CHECKED BY DATE



**CARRIER  
CITY OF SAMMAMISH**

STREET LIGHTING  
PLAN SHEET

PERMIT# – SDP2018-0654 **SHT** IL2