

A PORTION OF THE SE 1/4, NE 1/4 OF SEC. 19, TWN. 39 N., R. 2 . OF W.M., WITHIN THE CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON

- = FOUND BRASS MON
- = FOUND ALUMINUM CAP MON
- = FOUND REBAR AND CAP
- = SET 1/2" REBAR W/ PLASTIC CAP
- = EXISTING STORM DRAIN CATCH BASIN (TYPE 1)
- = PROPOSED STORM DRAIN SERVICE
- = PROPOSED STORM DRAIN CLEANOUT
- = PROPOSED STORM DRAIN CATCH BASIN
- ⊙ = PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- = EXISTING SANITARY SEWER MANHOLE
- ▲ = PROPOSED SANITARY SEWER SERVICE
- = PROPOSED SEWER CLEANOUT
- = EXISTING WATER METER BOX
- ⊗ = EXISTING FIRE HYDRANT
- ⊗ = EXISTING WATER VALVE
- = PROPOSED WATER SERVICE CONNECT
- = PROPOSED WATER METER BOX
- ⊕ = EXISTING POWER/AND OR UTILITY POLE
- Ⓢ C10 = DETAIL CALLOUT

**AS-BUILT NOTE:**  
ONLY INFORMATION NOTED AS AS-BUILT "(AB)"  
HAS BEEN PROVIDED BY CONTRACTOR

ENGINEER'S CERTIFICATION:  
"I HEREBY CERTIFY THAT THE IMPROVEMENTS OF  
THE JAMISON SHORT PLAT HAVE BEEN INSPECTED  
BY FREELAND & ASSOCIATES, INC. AND  
CONSTRUCTED IN GENERAL CONFORMANCE WITH THE  
PLANS APPROVED BY PUBLIC WORKS DIRECTOR FOR  
SAID DEVELOPMENT AND THE GENERAL  
SPECIFICATIONS ADOPTED BY THE CITY OF  
FERNDALE DEPARTMENT OF PUBLIC WORKS."

BY:  DATE: 1-28-19

C1	COVER SHEET
C2	EXISTING CONDITIONS
C3	SITE & UTILITY SERVICE PLAN
C4	SANITARY SEWER EXTENSION PLAN & PROFILE
C5	TEMPORARY EROSION & SEDIMENT CONTROL DETAILS & NOTES
C6	PAVING AND STORM DETAILS
C7	WATER & SEWER DETAILS
C8	STORMWATER DETAILS

SHOULD ARCHAEOLOGICAL MATERIALS (E.G. SKELETTED, MAMMAL, FAUNAL REMAINS, STONE TOOLS) OR HUMAN REMAINS BE OBSERVED DURING PROJECT ACTIVITIES, ALL WORK IN THE IMMEDIATE VICINITY SHALL STOP, AND THE AREA SHALL BE SECURED. THE CONTRACTOR/OWNER SHALL CONTACT THE STATE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (DAPH) AT 360-586-3085, THE LUMMI NATION TRIBAL HISTORIC PRESERVATION OFFICE AT 360-586-3085, OR THE WASHINGTON STATE DEPARTMENT OF ARCHAEOLOGY AT 360-312-2253 IN ORDER TO HELP ASSESS THE SITUATION AND DETERMINE HOW TO PRESERVE THE RESOURCE(S). IN THE EVENT THAT THE FIND INCLUDES HUMAN REMAINS THE FERNDALE POLICE DEPARTMENT SHALL BE CALLED IMMEDIATELY AT 360-384-3590. REGARDING ANCIENT HUMAN REMAINS, THE LINTHROP WILL CONTACT THE APPROPRIATE AGENCY TO OBTAIN THE NECESSARY PERMITS. COMPLIANCE WITH ALL APPLICABLE LAWS PERTAINING TO ARCHAEOLOGICAL RESOURCES IS REQUIRED.

[illegible]

## GENERAL REQUIREMENTS

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION AND THE CITY OF FERNDALE DEVELOPMENT STANDARDS AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE. IN THE EVENT OF A CONFLICT, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED, NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWS ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING SUB-SURFACE CONDITIONS AND SOIL TYPES.
4. THE SURVEYOR SHALL LAY OUT AND SET ANY CONSTRUCTION STAKES AND MARKS NEEDED TO ESTABLISH THE LINES, GRADES, SLOPES OR CROSS-SECTIONS AS SHOWN ON THE PLANS OR AS STAKED BY THE ENGINEER.
5. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE RESULTING FROM THE WORK. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER CONSTRUCTION.
6. WHEN THE CONTRACTOR CONSIDERS THE WORK PHYSICALLY COMPLETE AND READY FOR FINAL INSPECTION, THE CONTRACTOR SHALL REQUEST THAT CITY INSPECTOR SCHEDULE A FINAL INSPECTION. THE INSPECTOR WILL MAKE A FINAL INSPECTION AND NOTIFY THE CONTRACTOR IN WRITING OF ALL PARTICULARS IN WHICH THE FINAL INSPECTION REVEALS THE WORK INCOMPLETE OR UNACCEPTABLE. THE CONTRACTOR SHALL IMMEDIATELY TAKE SUCH CORRECTIVE MEASURES AS ARE NECESSARY TO REMEDY THE LISTED DEFICIENCIES.
7. BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY A PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN THE CONTRACTOR, OWNER, CITY ENGINEER AND PROJECT ENGINEER. (MINIMUM 3 DAYS PRIOR TO STARTING WORK)
8. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY 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. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-07.23-PUBLIC CONVENIENCE AND SAFETY SHALL APPLY.
10. PROOF OF LIABILITY INSURANCE SHALL BE SUBMITTED TO THE CITY PRIOR TO THE PRE- CONSTRUCTION MEETING.
11. NO WORK SHALL OCCUR BETWEEN 7:00 PM & 7:00 AM.
12. ALL HARD SURFACED PAVEMENTS MUST BE REPAIRED AT THE CLOSE OF EACH WORK DAY. THE REPAIRS CAN BE TEMPORARY WITH ASPHALT COLD MIX OR PERMANENT WITH HOT MIX ASPHALT OR CONCRETE. ALL REPAIRS SHALL BE ACCORDING TO CITY OF FERNDALE DRAWING R-11.
13. ALL WORK MUST BE INSPECTED BY A REPRESENTATIVE OF THE CITY OF FERNDALE ENGINEERING DIVISION. A SURVEY NOTICE MUST BE GIVEN PRIOR TO STARTING WORK OR TO SCHEDULE INSPECTIONS IN ACCORDANCE WITH SECTION 302 OF THE DEVELOPMENT STANDARDS.
14. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATION FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT.
15. AS-BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERNDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERNDALE DATUM-VERTICAL (NGVD 29) AND HORIZONTAL (NAD 83/91). CONTRACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.
16. METHOD OF SURVEY, SURVEY DATA, AND SURVEY EQUIPMENT UTILIZED TO CREATE THE BASE MAP/EXISTING CONDITIONS ARE NOTED ON SHEET C2 OF THIS PLAN SET.

## GENERAL REQUIREMENTS CONTINUED

17. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK. PHONE 674-5555 FOR UTILITY LOCATE 48 HOURS PRIOR TO WORK, CONTRACT TO HOLD. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO ALL ADJACENT UTILITIES WHICH INCLUDE BUT ARE NOT LIMITED TO WATER, SEWER, STORM SEWER, POWER, TELEPHONE, CABLE TV, IRRIGATION, AND STREET LIGHTING. THE CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISTURBED BY THE PROJECT UPON COMPLETION OF THE PROJECT.
18. A REVOCABLE ENCROACHMENT PERMIT SHALL BE OBTAINED PRIOR TO COMMENCING WORK IN THE PUBLIC RIGHT-OF-WAY.
19. THE CITY OF FERNDALE DOES NOT GUARANTEE THAT AS BUILT INFORMATION ON RECORD FOR EXISTING UTILITIES ARE CORRECT. THE CITY REQUIRES THAT THE PROJECT OWNER/ENGINEER OF RECORD POT HOLE ALL EXISTING UTILITIES TO AVOID COSTLY DELAYS OR DEVIATIONS FROM YOUR APPROVED PLANS AS PROVIDED BY THE CITY. THE CITY WILL NOT BE HELD RESPONSIBLE FOR COSTS ASSOCIATED TO THESE DELAYS AND OR DEVIATIONS FROM THE APPROVED PLANS DUE TO INACCURATE INFORMATION.
20. CONTRACTOR TO PROVIDE A DETAILED TRAFFIC CONTROL PLAN OR PLANS FOR THE CITY REVIEW AND APPROVAL AT MINIMUM 48 HOURS IN ADVANCE TO ANY PROPOSED WORK IN THE ROW. FULL ROAD CLOSURE IS NOT ALWAYS GRANTED AND CAN ONLY BE USED IF IT IS THE ONLY OPTION AVAILABLE. IT IS THE DEVELOPER'S RESPONSIBILITY TO PROVIDE ADEQUATE TRAFFIC CONTROL TO ENSURE TRAFFIC SAFETY THROUGHOUT CONSTRUCTION. ALL CONSTRUCTION SIGNING AND TEMPORARY PAVEMENT MARKINGS SHALL CONFORM TO THE MUTCD.

## BASES

1. GRAVEL BASES AND BALLAST MAXIMUM PARTICLE SIZE PASSING THE U.S. NO. 200 SIEVE SHALL NOT EXCEED 5%.
2. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY.
3. THE CONTRACTOR OR PROPONENT SHALL BE RESPONSIBLE FOR ALL COMPACTION TESTING. PRIOR TO IMPORTING OF MATERIAL FOR BASE AND CSTC THE CONTRACTOR SHALL PROVIDE EVIDENCE OF SATISFACTORY PASSING GRADING AND DEGRADATION TEST RESULTS TO THE ENGINEER.

## PAVEMENTS

1. WHERE SHOWN ON THE PLANS, PAVEMENT MARKINGS SHALL BE OBLITERATED UNTIL BLEMISHES CAUSED BY THE PAVEMENT MARKING REMOVAL CONFORM TO THE COLORATION OF THE ADJACENT PAVEMENT.
2. SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.
3. A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.
4. ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. AR-4000W SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT.
5. ASPHALT CONCRETE PAVEMENT SHALL NOT BE PLACED NOR COMPACTED DURING HOURS OF DARKNESS.
6. SUBGRADE SHALL BE CERTIFIED IN WRITING BY THE ENGINEER PRIOR TO PAVING.

## WATER MAINS

1. TEST PRESSURE FOR WATERMAIN ACCEPTANCE SHALL BE 225 p.s.i. AT THE HIGHEST POINT ON THE WATER LINE AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. ALL PURIFICATION ACCEPTANCE TESTING SHALL BE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. THE PIPE WILL NOT PASS UNLESS A ZERO BACTERIA COUNT IS OBTAINED FOR TWO CONSECUTIVE TESTS 24 HOURS APART.
2. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705 AND THE MOST RECENT VERSION OF WSDOT STANDARD SPECIFICATIONS.
3. ALL BACKFILL SHALL BE IMPORTED GRAVEL AND SHALL CONFORM TO SECTION 2-09 OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
4. ALL PIPE SHALL HAVE A MINIMUM COVER OF 3.0 FEET.

## EARTHWORK

1. THE CONTRACTOR SHALL CLEAR, GRUB AND CLEAN UP THOSE AREAS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER, IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL ENGINEERING STUDY.
3. MAXIMUM DENSITY AND OPTIMUM MOISTURE FOR GRANULAR MATERIALS WILL BE DETERMINED USING ASTM D-1557 TEST METHOD.
4. THE UNSUITABLE MATERIAL NOT FIT FOR A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL.

## STORM DRAINAGE

1. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT 7-08. 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 PIPE IS SUBSTANTIALLY HORIZONTAL AND UNIFORM.
2. 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.
3. ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".
4. ALL DRIVEWAY CULVERTS LOCATED WITHIN THE 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 PER WSDOT.
5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS OF ALL STUB-OUT CONVEYANCE LINES WITH RESPECT TO THE UTILITIES (E.G. POWER, GAS, TELEPHONE, TELEVISION).

## SANITARY SEWER SPECIFICATIONS

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION AND THE CITY OF FERNDALE DEVELOPMENT STANDARDS SECTION 5 AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.
2. FOUR INCH THROUGH TWELVE-INCH PIPE SHALL BE PVC PIPE CONFORMING TO ASTM D-3034, SDR-35 OR EQUAL. PIPE JOINTS SHALL BE MADE WITH FLEXIBLE GASKETS CONFORMING TO THE REQUIREMENTS OF SECTION 7-17.36 (2)E OF THE STANDARD SPECIFICATIONS.
3. TRENCH EXCAVATION SHALL BE ACCORDING TO SECTION 7-08.3(1) OF THE STANDARD SPECIFICATIONS.
4. THE BEDDING SHALL BE FEA GRAVEL PER SS-1.
5. PIPE LAYING SHALL MEET THE REQUIREMENTS OF SECTION 7-08.3(2)B OF THE STANDARD SPECIFICATIONS.
6. ALL SIDE SEWERS SHALL BE CONSTRUCTED ACCORDING TO THE CITY OF FERNDALE STANDARD PLAN SS-6 THROUGH SS-8. CONNECT SIDE SEWERS PER COW DWG SS-12.
7. ALL TRENCH BACKFILL UNDER EXISTING OR FUTURE PAVING SHALL BE BANK RUN GRAVEL, CLASS "B" AND SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.
8. ALL SEWER PIPE WILL BE PRESSURE TESTED AND WILL BE SCANNED BY MEANS OF A TV CAMERA PRIOR TO ACCEPTANCE BY THE CITY OF FERNDALE.
9. ALL MANHOLES WILL BE ACCORDING TO THE CITY OF FERNDALE STANDARD PLAN NO. SS-2. THROUGH SS-4 AND WSDOT MH TYPE 1 STANDARD PLAN B-15.20.01.
10. ALL CLEANSOUTS SHALL BE ACCORDING TO CITY OF FERNDALE STANDARD PLAN NO. SS-5.
11. ALL HARD SURFACED PAVEMENTS MUST BE REPAIRED AT THE CLOSE OF EACH WORK DAY. THE REPAIRS CAN BE TEMPORARY WITH ASPHALT COLD MIX OR PERMANENT WITH HOT MIX ASPHALT OR CONCRETE.
12. ALL WORK MUST BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF THE CITY OF FERNDALE PUBLIC WORKS, AND 24 HOURS NOTICE MUST BE GIVEN PRIOR TO STARTING WORK OR TO SCHEDULE INSPECTIONS. 13. ALL WORK SHALL BE DONE IN THE PRESENCE AND UNDER THE SUPERVISION OF A REPRESENTATIVE OF THE CITY OF FERNDALE.

**OWNER**

HT & SMITH & JAMISON PARTNERS, LLC  
ADAM JAMISON  
2620 NORTH NUGENT RD  
LUMMI ISLAND, WASHINGTON 98262  
(360) 961-2489

**CIVIL ENGINEER**


**FREELAND & ASSOCIATES, INC.**  
J.P. SLAGLE, PE  
220 W. CHAMPION ST., SUITE 200  
BELLINGHAM, WA 98225  
jslagle@freelandengineering.com  
(360) 650-1408

## SURVEYOR

**NORTHWEST SURVEY & GPS, INC.**  
JEROMY DEMEYER, PLS  
405 5TH STREET  
LYNDEN WA 98264  
(360) 354-1950  
jeromy@nwsurvey.com

1/1"	ONE FOOT/ONE INCH	N	NORTH
AC	ACRE	N#	NUMBER
AD	ABSOLUTE VALUE OF THE ALGEBRAIC	O.C.	ON CENTER
	GIVE DIFFERENCE	P	POINT OF CURVATURE
AF#	AUDITORS FILE NUMBER	PCL	PARCEL
APPROX	APPROXIMATE	PERF	PERFORATED
ASB/AB	AS-BUILT	PI	POINT OF INTERSECTION
ASPH	ASPHALT	PIV	PIVOT INDICATOR VALVE
BLDG	BUILDING	POB	POINT OF BEGINNING
BMP	BEST MANAGEMENT PRACTICE	PP	POWER POLE
BNDRY	BOUNDARY	PROP	PROPERTY
BVCS	BEGINNING OF VERTICAL CURVE STATION	K	LENGTH OF VERTICAL CURVE PER
BVCE	BEGINNING OF VERTICAL CURVE		CENT
ELEVATION		PT/PT	PERCENT GRADE DIFFERENCE
C	COMPACT PARKING STALL	PVC	POLYVINYL CHLORIDE
CB	CURB CUT	PVI	POINT OF VERTICAL INFLECTION
CL	CATCH BASIN	PWR	POWER
CMP	CENTERLINE	R	RADIUS
CMP	CORRUGATED METAL PIPE	R/C	REBAR WITH CAP
CONTR	CONTROL	RCM	REINFORCED CONCRETE PIPE
CONC	CLEANOUT	RET	RETAINING
COR	CORNER	RIM	RIM
CPP	CORRUGATED POLYETHYLENE PIPE		RIGHT-OF-WAY
CSTC	CONCRETE	REDUP	REDUCED PRESSURE PRINCIPAL
CSTC	CRUSHED SURFACING TOP COURSE	RR	RAILROAD
CULV	CULVERT	S	SOUTH
#	DIAMETER	S	SANITARY
DEMO	DEMOLITION	SCH	SCHEDULE
DI	DIMENSION	SD	STORM DRAIN
DWGS	DRAWINGS	SDBC	STORM DRAIN CATCH BASIN
EA	EACH	SDCR	STORM DRAIN CLEANOUT
EL/ELEV	ELEVATION	SDRM	STORM DRAIN MAN HOLE
ENG	ENGINEERING	SERV	SERVICE
ENC	ENCLOSURE	STD/STD	STANDARD
EP/CEP	EASEMENT	SS	SANITARY SEWER
ESMT	EASEMENT	SSCO	SANITARY SEWER CLEANOUT
EVCS	END OF VERTICAL CURVE STATION	SSM	SANITARY SEWER MANHOLE
EVCE	END OF VERTICAL CURVE ELEVATION	STRE	STREET
EXIST/EXIST	EXISTING	TSB	TEMPORARY BENCH MARK
FDC	FIRE DEPARTMENT CONNECTION	TOP	TOP OF CURB
FEE/FF	FINISH FLOOR ELEVATION	TEL	TELEPHONE
FH	FINISH GRADE	TESC	TEMPORARY EROSION & SEDIMENTATION CONTROL
FH	FIRE HYDRANT	TP	TOP OF PAVEMENT
FND	FOUND	TS	TOP OF SIDEWALK
GND	GROUND	TSW	TOP OF WALL
GUTT	GUTTER	TPW	TYPICAL
HP	HIGH POINT	UDG	UNDERGROUND
INV	INVERT	VEG	VEGETATION
IE/AE	INVERT ELEVATION	W	WEST
IRRIG	IRRIGATION	WA	WATER
LF	LINEAR FOOT	W/N	WITHIN
LS	LESS	WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
MAX	MAXIMUM		
MIN	MINIMUM		
MCON	MANHOLE		
MON	NOT IN CONTRACT		

APPROVED  
JAN 30 2019  
CITY OF FERNDALE  
PUBLIC WORKS DEPARTMENT



220 West Champion Street, Suite 200 t: 360.650.1408  
Bellingham, WA 98225 f: 360.650.1401

**F R E E L A N D**  
**& A S S O C I A T E S**

[illegible]

**& SMITH & JAMISON  
PARTNERS, LLC**  
2620 NORTH NUGENT RD  
LUMMI ISLAND, WA 98262

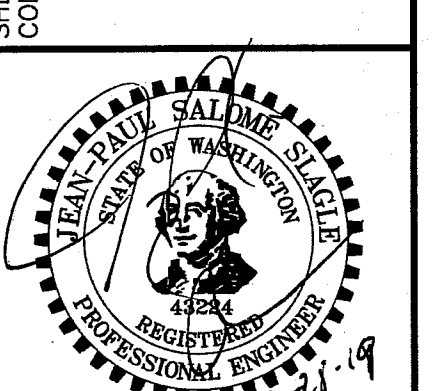
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**CALL BEFORE YOU DIG  
BURIED UTILITY LOCATIONS**  
1-800-424-5555

**JAMISON SHORT PLAT**  
GARDNER DRIVE  
FERDALE, WA 98248

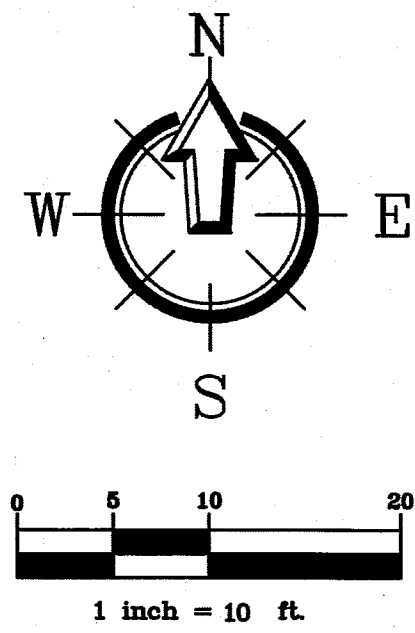
COVER SHEET

## CONTENTS:



JOB #: 16198	DATE: 01-24-2019
SCALE: HORIZ: N/A VERT: N/A	SHEET: <b>C1</b>





MONUMENT FERNOS  
N: 683701.32  
E: 1214911.44  
ELEV: 220.76

SDMH RIM  
EL=148.16'

MONUMENT FERNOS  
N: 685483.06  
E: 1218938.40  
ELEV: 48.96

HYDRANT  
& VALVE

#### SURVEYORS NOTES:

1. CONTROL FOR THIS SURVEY WAS PERFORMED BY STANDARD FIELD TRAVERSE USING A NPL-352 TOTAL STATION WITH A CARLSON EXPLORER 600+ DATA COLLECTOR/FIELD COMPUTER IN JANUARY OF 2013.
2. THIS SURVEY TIED INTO STREET MONUMENTATION AND LOT CORNERS AS SHOWN AND RELIED UPON GARDINER TERRACE No. 2, LOT LINE ADJUSTMENT FILED UNDER AF No. 900820126 FOR BASIS OF BEARINGS AND EXTERIOR LOT DIMENSIONS.
3. THIS SURVEY WAS COMPLETED WITH THE BENEFIT OF A SUBDIVISION GUARANTEE (OR PLAT CERTIFICATE) BUT WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT PURPORT TO SHOW ANY OR ALL EASEMENTS THAT A CURRENT TITLE REPORT MIGHT REVEAL. SEE ALSO PSE EASEMENT FILED UNDER AF No. 910705225 -- AS CONSTRUCTED OR TO BE CONSTRUCTED.
4. VERTICAL DATUM IS PER THE CITY OF FERDALE SURVEY MONUMENT NETWORK (NGVD29).
5. CONTOUR INTERVALS ARE 1 FOOT. CONTOURS ARE COMPUTER GENERATED FROM GROUND FIELD TOPOGRAPHY GATHERED FOR THIS SURVEY.
6. NORTHWEST SURVEYING & GPS INC. ASSUMES NO LIABILITY FOR ANY SUBSURFACE CONDITIONS OR UTILITIES NOT SHOWN HEREON. UNDERGROUND UTILITIES ARE KNOWN TO EXIST WITHIN THE AREA OF CONSTRUCTION. THE LOCATION OF EXISTING UTILITIES SHOWN ARE BASED UPON FIELD SURVEY AND VISUAL IDENTIFICATION. ALL EXISTING UTILITIES MAY NOT BE INDICATED WITHIN THE CONSTRUCTION DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ANY AND ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND TO ALERT THE ENGINEER AND OWNER PROMPTLY IN CASE OF CONFLICT.

#### OCCUPATION NOTES:

- (A) FENCE CORNER LIES 0.4' WEST OF LOT LINE.
- (B) FENCE LINE LIES 0.4' WEST OF LOT CORNER.
- (C) FENCE CORNER AT EAST END OF ROCK WALL LIES 2.5' NORTH OF LOT LINE.
- (D) NORTH EDGE OF CONCRETE LANDSCAPING CURB LIES 2.1' NORTH OF LOT LINE.
- (E) NORTH EDGE OF CONCRETE LANDSCAPING CURB LIES 7.9' NORTH OF LOT LINE.

**AS-BUILT DRAWING**  
AS-BUILT NOTE:  
ONLY INFORMATION NOTED AS AS-BUILT "(AB)"  
HAS BEEN PROVIDED BY CONTRACTOR

ENGINEER'S CERTIFICATION:  
"I HEREBY CERTIFY THAT THE IMPROVEMENTS OF  
THE JAMISON SHORT PLAT HAVE BEEN INSPECTED  
BY FREELAND & ASSOCIATES, INC. AND  
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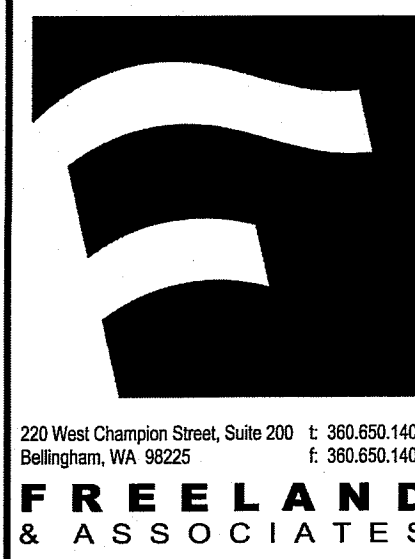
BY: *[Signature]* DATE: 1-27-19

LOT LINE ADJUSTMENT  
AF No. 900820126

APPROVED

JAN 30 2019

BY: *[Signature]*  
CITY OF FERDALE  
PUBLIC WORKS DEPARTMENT

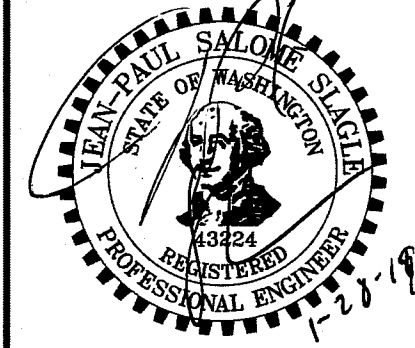


REV:	DATE:	DESCRIPTION:

CLIENT:  
**HT & SMITH & JAMISON  
PARTNERS, LLC**  
2620 NORTH NUGENT RD  
LUMMI ISLAND, WA 98262  
CALL BEFORE YOU DIG  
FOR BURIED UTILITY LOCATIONS  
1-800-424-5555

PROJECT LOCATION:  
**JAMISON SHORT PLAT**  
GARDINER DRIVE  
FERDALE, WA 98248  
DRAWING #: 18198AB1.DWG  
DESIGNED BY: JPS  
DRAWN BY: EJP  
CHECKED BY: MDS

SHEET CONTENTS:  
**EXISTING CONDITIONS**



JOB #: 16198  
SCALE: HORIZ: 1"=10'  
VERT: N/A  
DATE: 01-24-2019  
SHEET: C2



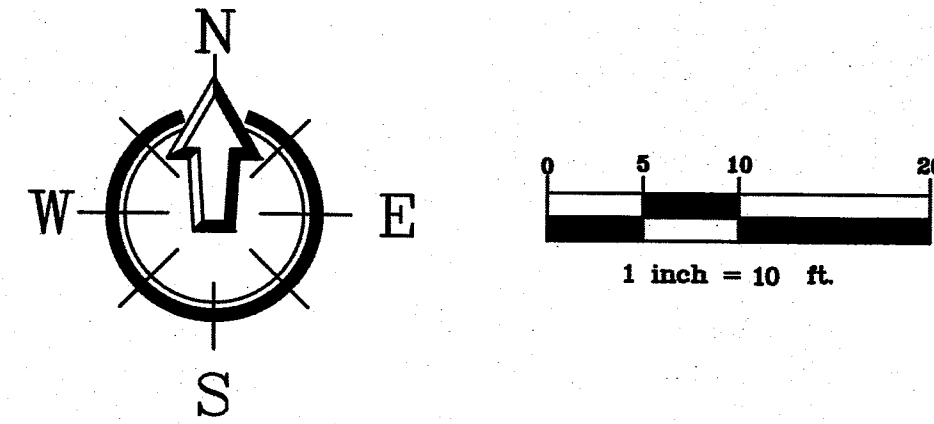
JOB #: 16198	DATE: 01-24-2019
SCALE: HORIZ: 1"=10' VERT: N/A	SHEET: <b>C3</b>

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**TEMPORARY EROSION & SEDIMENTATION CONTROL NOTE**  
SEE SHEET C3 FOR FULL EROSION & SEDIMENTATION CONTROL NOTES

**SANITARY SEWER NOTE**  
150' MAXIMUM EXTENSION MAN HOLE TO CLEANOUT. CONTRACTOR TO MAINTAIN STRAIGHT LINE CONVEYANCE MANHOLE TO CLEANOUT PER CITY STANDARD.



SDMH RIM  
EL.=148.16'



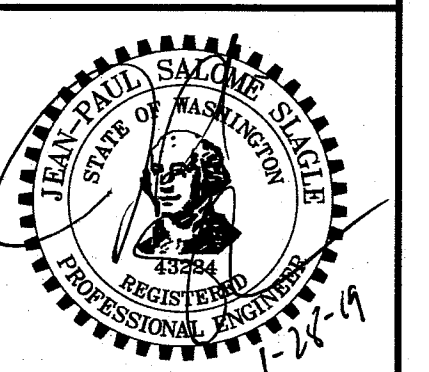
220 West Champion Street, Suite 200  
Bellingham, WA 98225  
T: 360.850.1408  
F: 360.850.1401  
**FREELAND & ASSOCIATES**

REV.	DATE	DESCRIPTION	BY	APP.	D.P.	E.P.
1	01-23-2019	ADD SSMH #1 AND ADJUST SEWER GRADES				
2	10-23-2018	ADJUST ELEVATIONS PER AS-BUILT INFO				

**CLIENT:**  
**HT & SMITH & JAMISON PARTNERS, LLC**  
2620 NORTH NUGENT RD  
LUMMI ISLAND, WA 98262  
**CALL BEFORE YOU DIG FOR BURIED UTILITY LOCATIONS**  
1-800-424-5555

**PROJECT LOCATION:**  
**JAMISON SHORT PLAT**  
GARDINER DRIVE  
FERDALE, WA 98248  
**DRAWING #:** 16198AB1.DWG  
**DESIGNED BY:** JPS  
**DRAWN BY:** EJP  
**CHECKED BY:** MDB

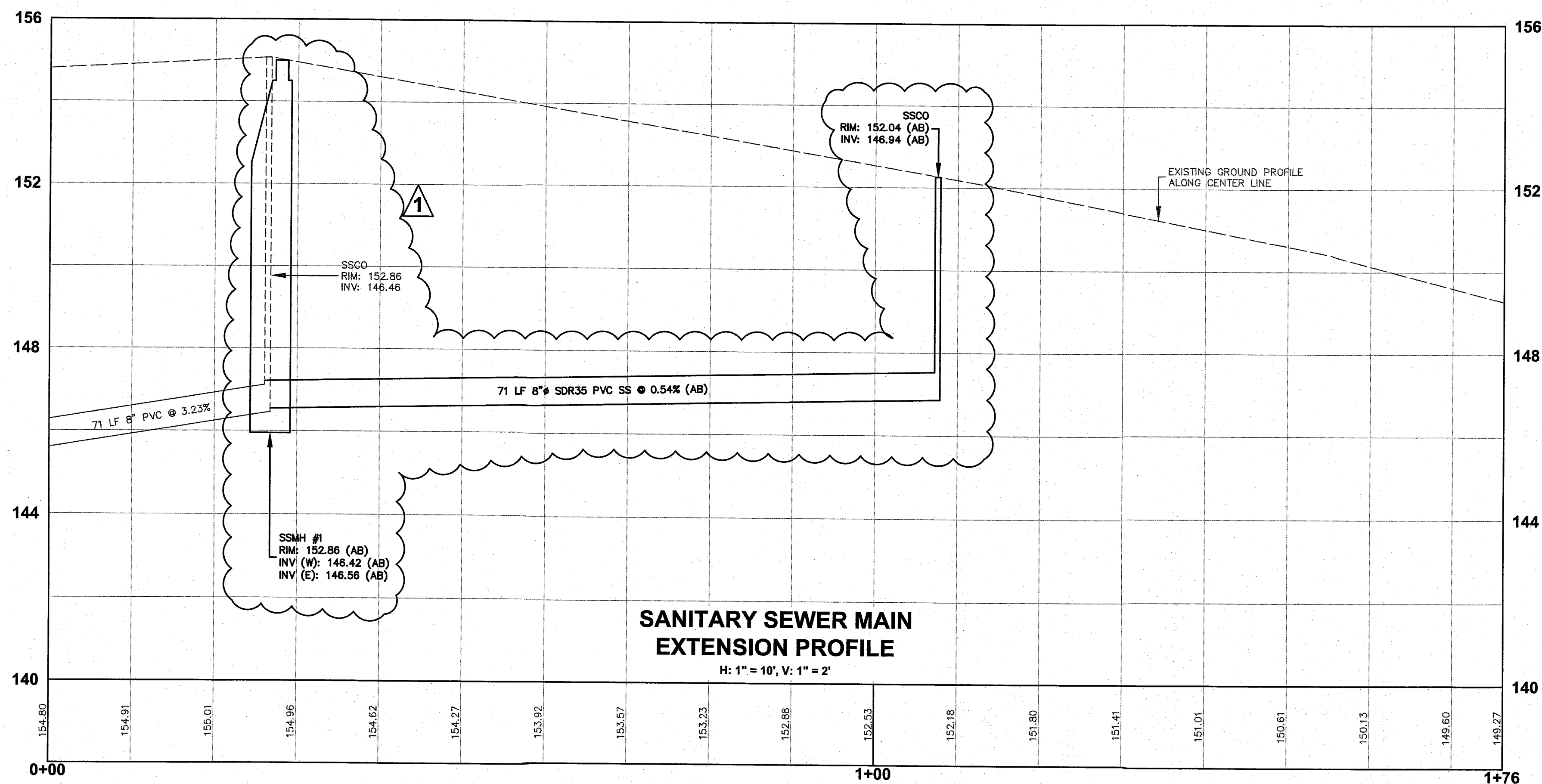
**SANITARY SEWER EXTENSION PLAN & PROFILE**



**JOB #:** 16198  
**DATE:** 01-24-2019  
**SCALE:** HORIZ: 1"=10'  
**VERT:** N/A  
**SHEET:** C4

## SANITARY SEWER MAIN EXTENSION PLAN

H: 1" = 10'



## SANITARY SEWER MAIN EXTENSION PROFILE

H: 1" = 10', V: 1" = 2'

### AS-BUILT DRAWING

AS-BUILT NOTE:  
ONLY INFORMATION NOTED AS AS-BUILT "(AB)" HAS BEEN PROVIDED BY CONTRACTOR

**ENGINEER'S CERTIFICATION:**  
"I HEREBY CERTIFY THAT THE IMPROVEMENTS OF THE JAMISON SHORT PLAT HAVE BEEN INSPECTED BY FREELAND & ASSOCIATES, INC. AND CONSTRUCTED IN GENERAL CONFORMANCE WITH THE PLANS APPROVED BY PUBLIC WORKS DIRECTOR FOR SAID DEVELOPMENT AND THE GENERAL SPECIFICATIONS ADOPTED BY THE CITY OF FERDALE DEPARTMENT OF PUBLIC WORKS."

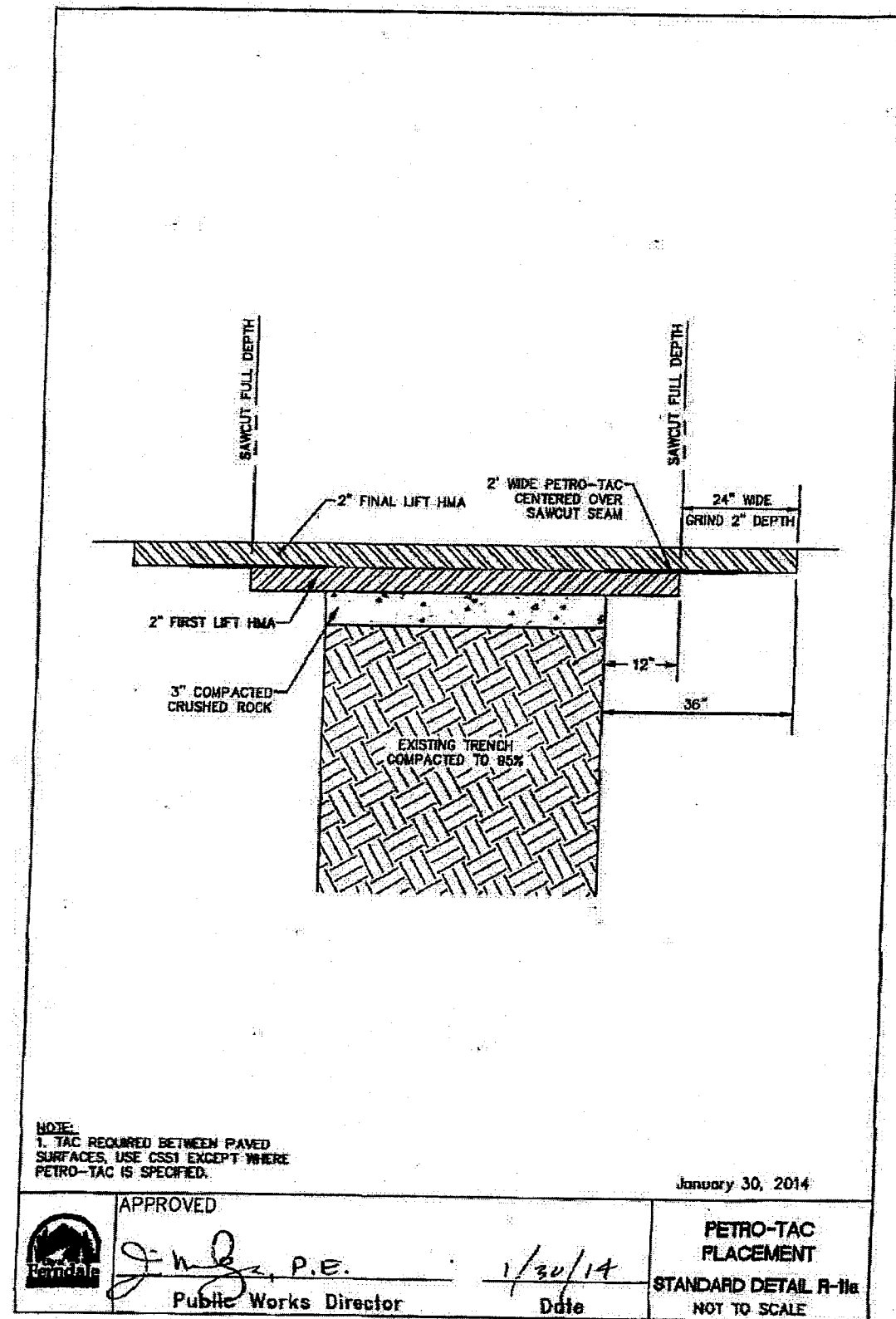
BY: *[Signature]* DATE: 1-28-19

APPROVED

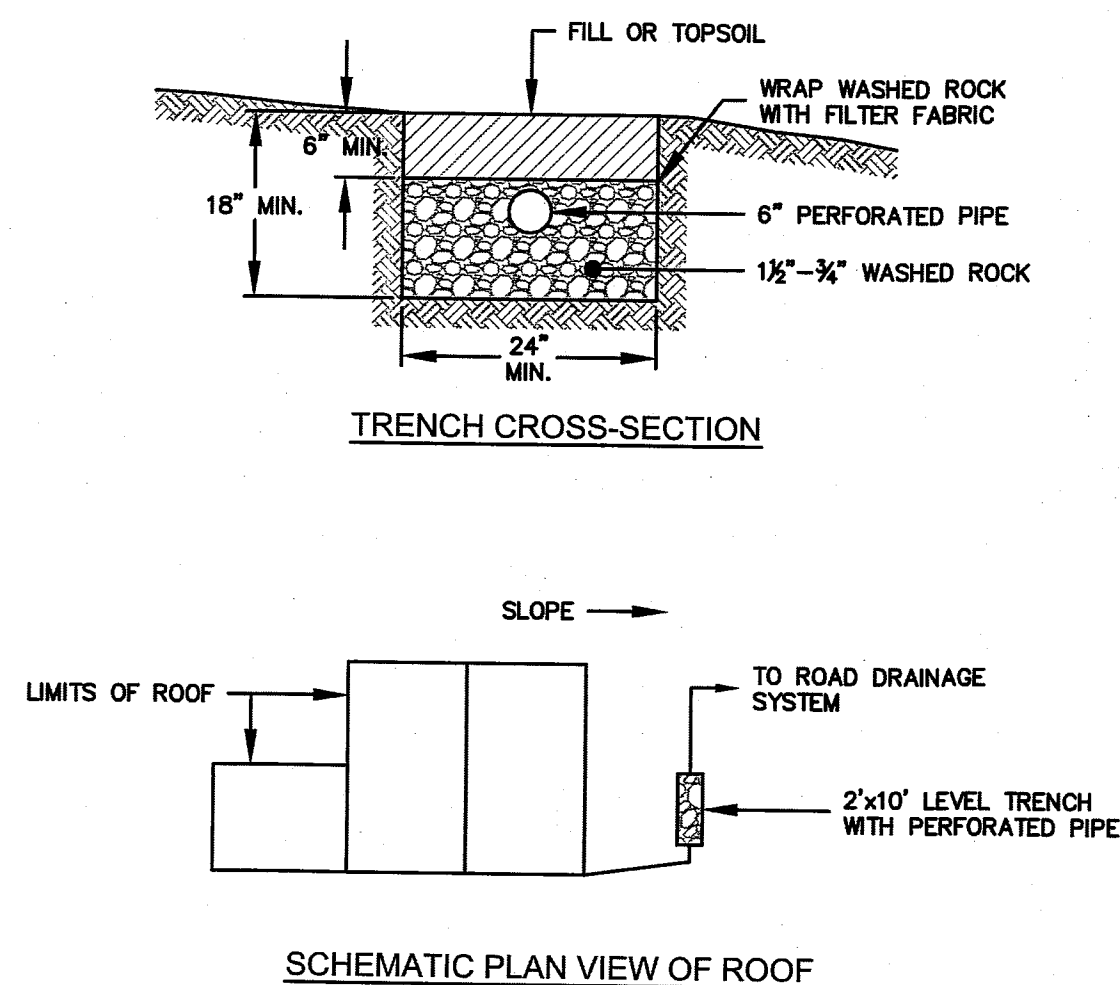
JAN 30 2019

BY: *[Signature]*  
CITY OF FERDALE  
PUBLIC WORKS DEPARTMENT

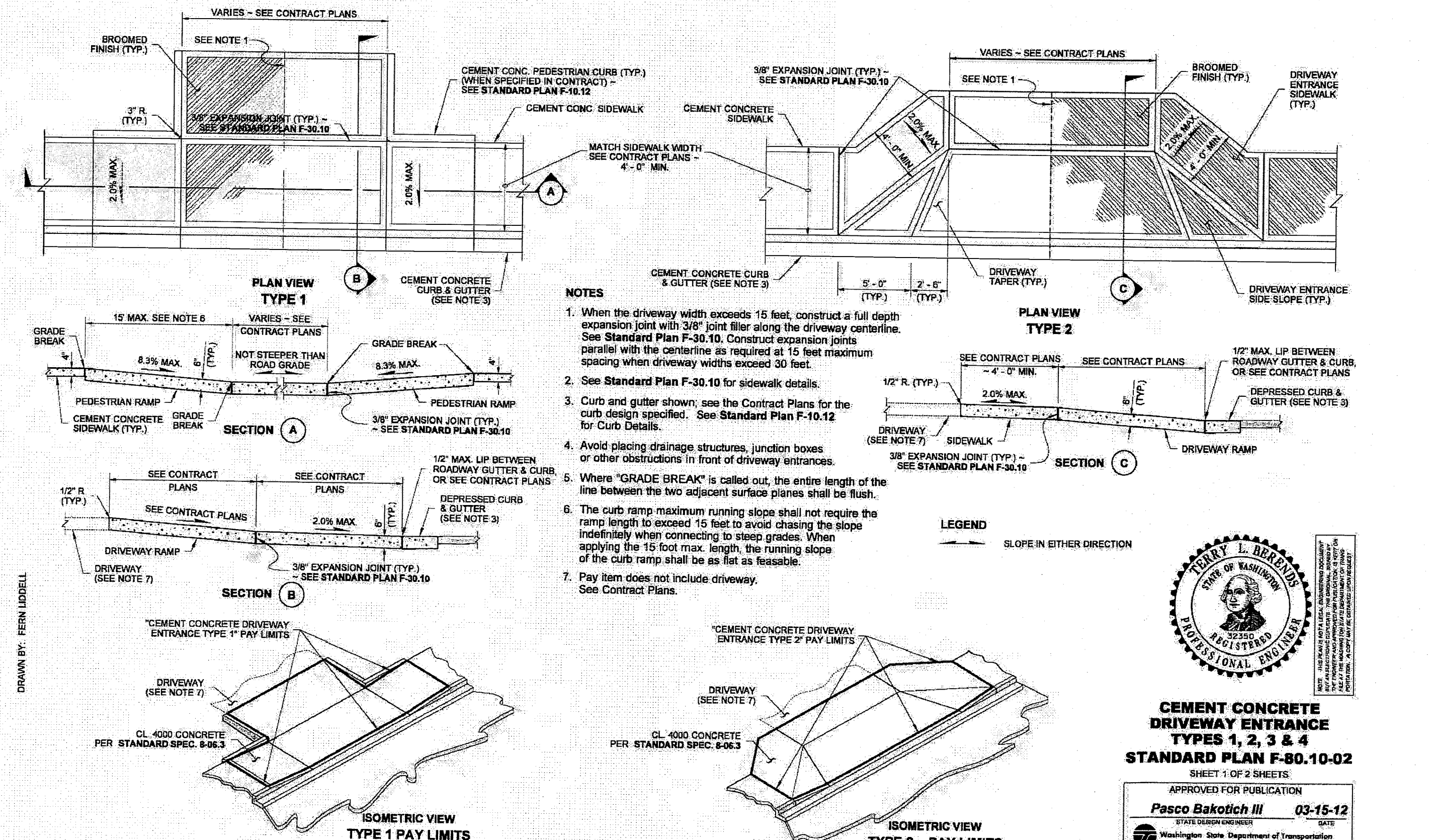




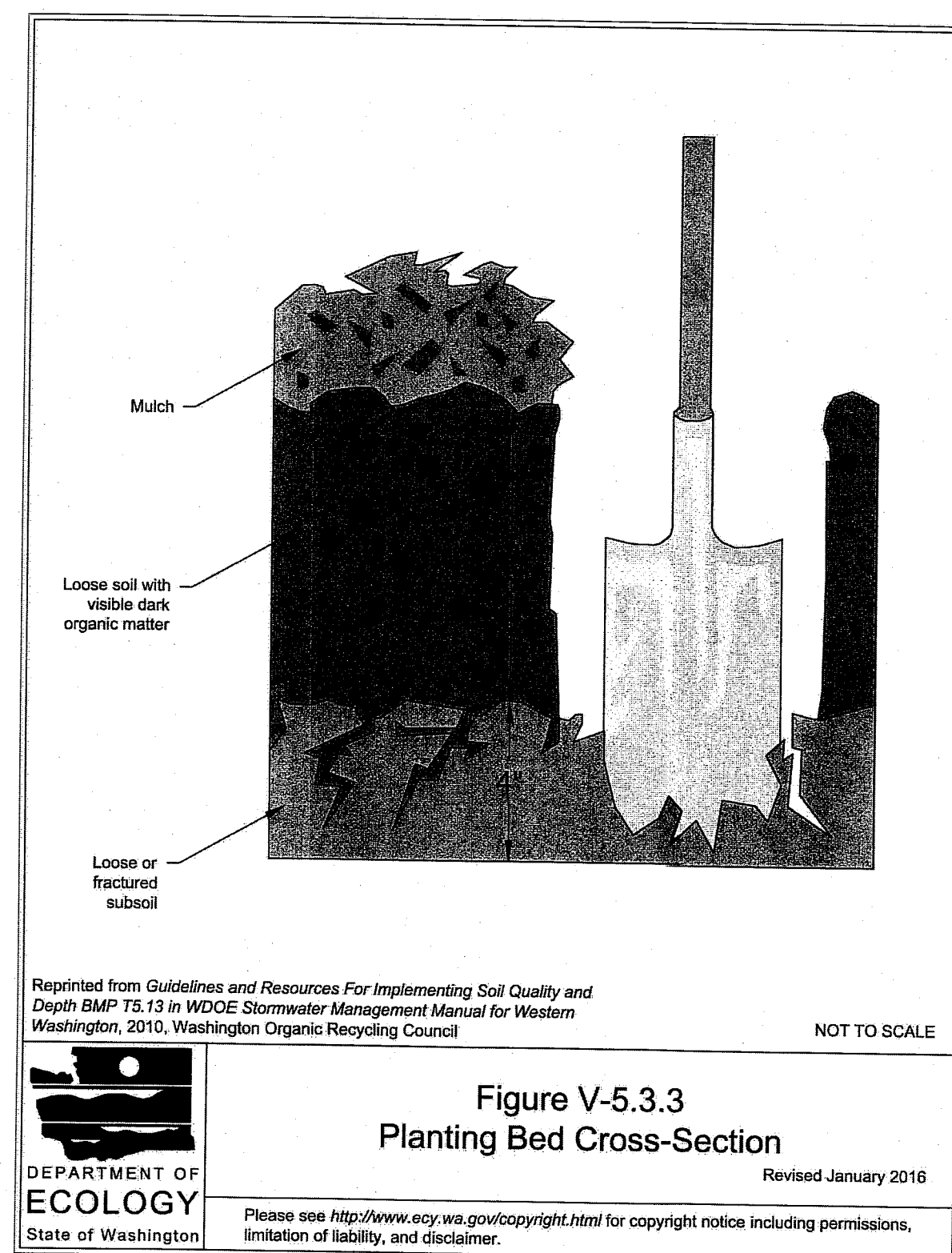
**A** PETRO-TAC PLACEMENT



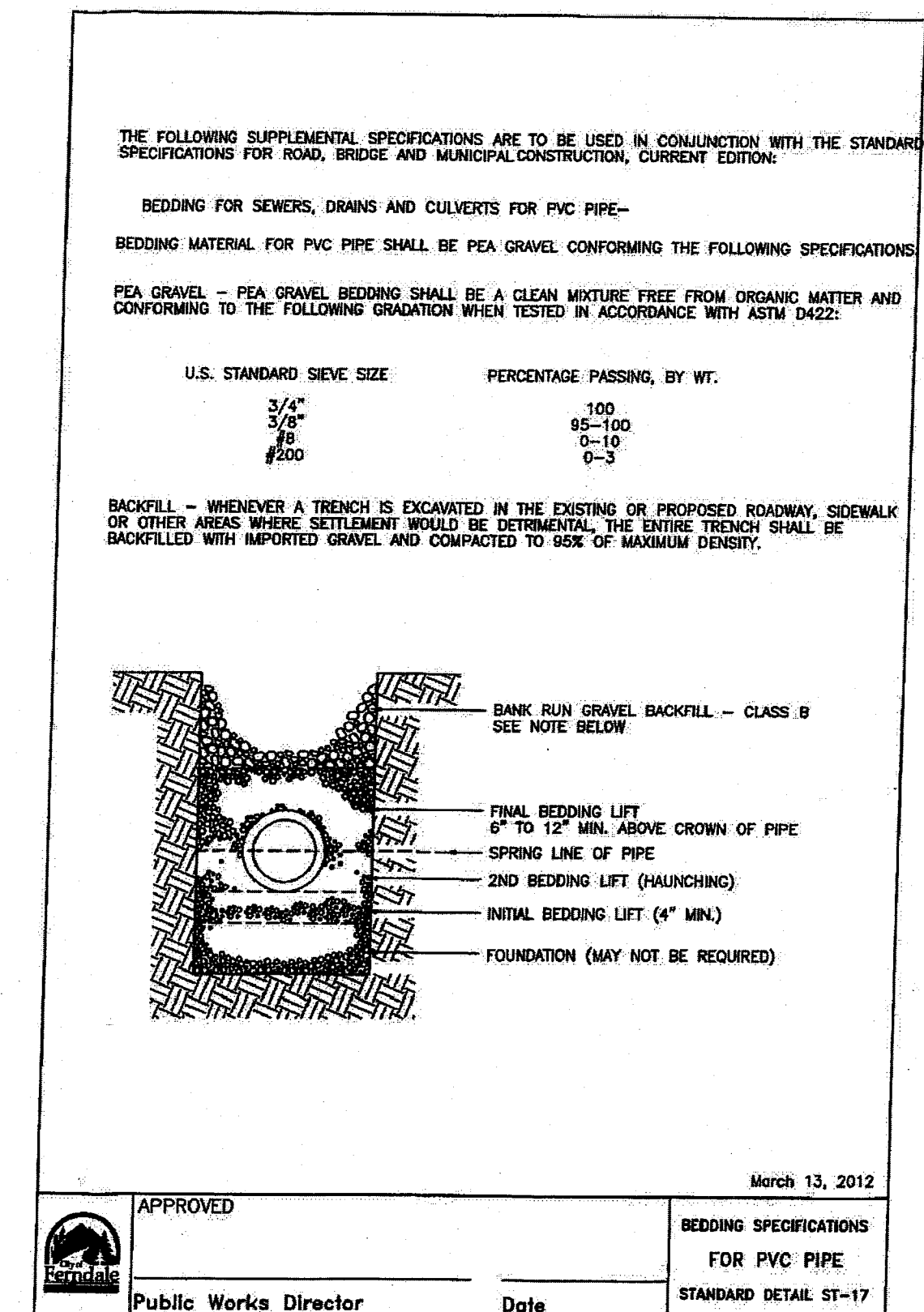
**D** PERFORATED STUB-OUT CONNECTION



**B** CEMENT CONCRETE DRIVEWAY ENTRANCE - TYPE 1



**E** SOIL AMENDMENTS - BMP T5.13



**C** PVC PIPE BEDDING SPECIFICATIONS

**GENERAL NOTES**

ESTABLISHING A MINIMUM SOIL QUALITY AND DEPTH IS NOT THE SAME AS PRESERVATION OF NATURALLY OCCURRING SOIL AND VEGETATION. HOWEVER, ESTABLISHING A MINIMUM SOIL QUALITY AND DEPTH WILL PROVIDE IMPROVED ON-SITE MANAGEMENT OF STORMWATER FLOW AND WATER QUALITY. SOIL ORGANIC MATTER CAN BE ATTAINED THROUGH NUMEROUS MATERIALS SUCH AS COMPOST, COMPOSTED WOODY MATERIAL, BIOSOLIDS, AND FOREST PRODUCT RESIDUALS. IT IS IMPORTANT THAT THE MATERIALS USED TO MEET THE SOIL QUALITY AND DEPTH BMP BE APPROPRIATE AND BENEFICIAL TO THE PLANT COVER AND DO NOT HAVE AN EXCESSIVE PERCENT OF CLAY FINES. THIS BMP CAN BE CONSIDERED INFEASIBLE ON TILL SLOPES GREATER THAN 33 PERCENT.

**DESIGN GUIDELINES**

**SOIL RETENTION:** RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

**SOIL QUALITY:** ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS. AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
2. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
  - a. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIOTENTION (BMP T7.30), WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65% AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
  - b. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIALS MEETING (A) ABOVE, OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND MEETING THE CONTAMINANT STANDARDS OF GRADE A COMPOST.

THE RESULTING SOIL SHOULD BE CONDUCTIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

**IMPLEMENTATION OPTIONS:** THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

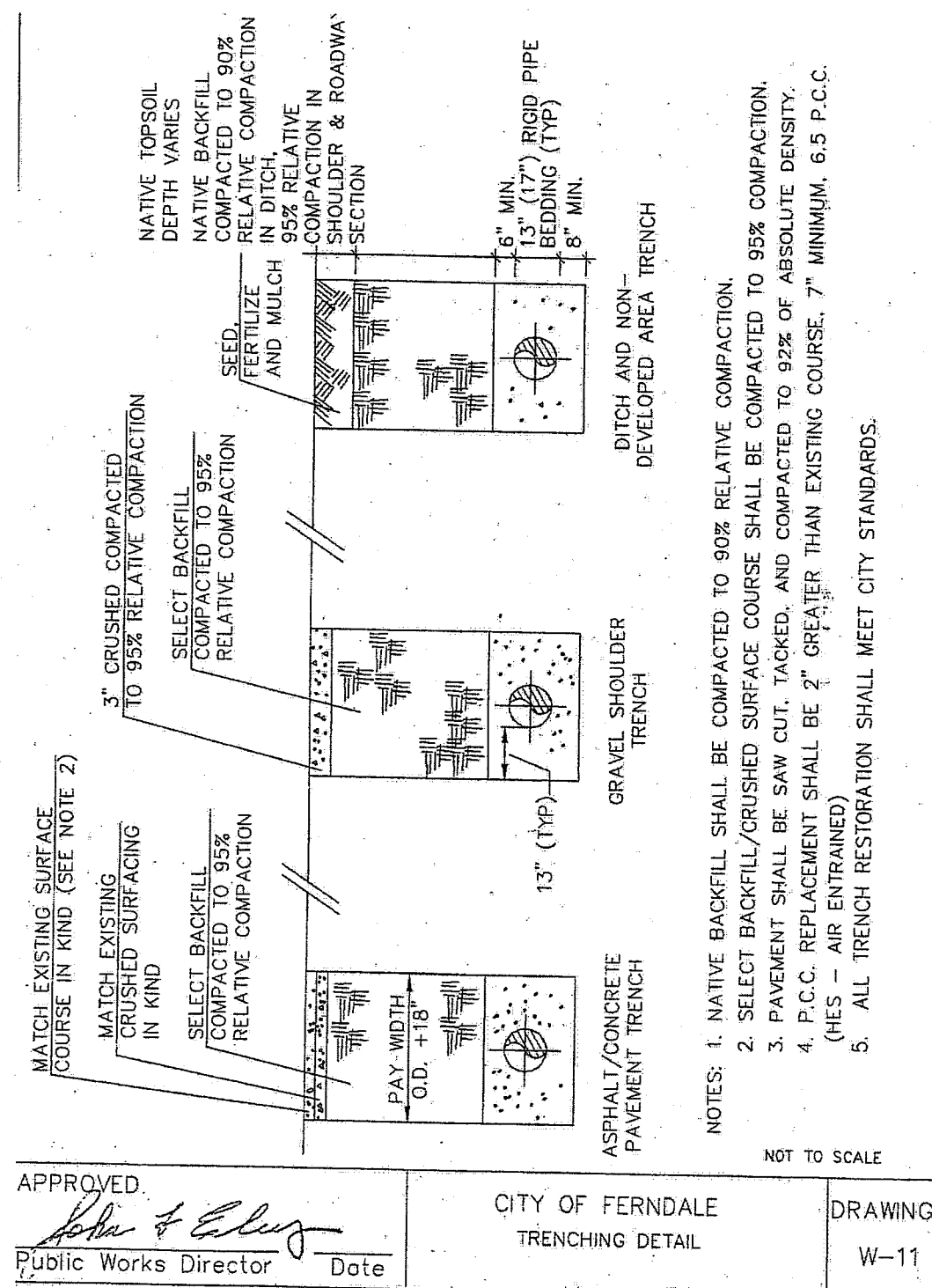
MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

APPROVED  
JAN 30 2019  
BY: [Signature]  
CITY OF FERRISDALE  
PUBLIC WORKS DEPARTMENT

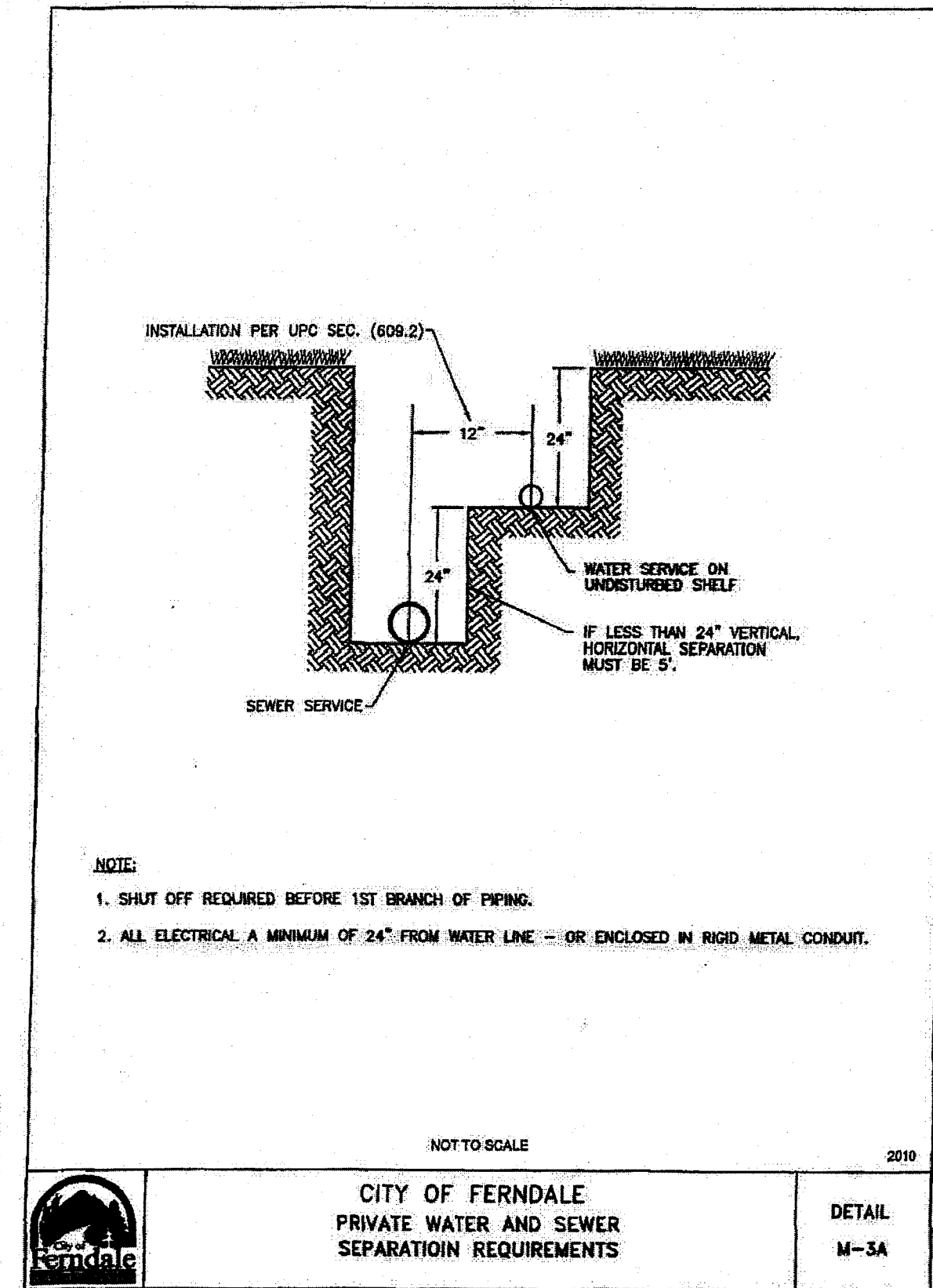
**AS-BUILT DRAWING**  
AS-BUILT NOTE:  
ONLY INFORMATION NOTED AS AS-BUILT "AB"  
HAS BEEN PROVIDED BY CONTRACTOR

 220 West Champion Street, Suite 200 • 300.650.1408 Bellingham, WA 98225 • 300.650.1401 <b>FREELAND &amp; ASSOCIATES</b>	
BY:	
REV:	
DATE:	
DESCRIPTION:	
CLIENT:	<b>HT &amp; SMITH &amp; JAMISON PARTNERS, LLC</b> 2620 NORTH NUGENT RD LUMMI ISLAND, WA 98262 CALL BEFORE YOU DIG FOR BURIED UTILITY LOCATIONS 1-800-424-6565
PROJECT LOCATION:	<b>JAMISON SHORT PLAT</b> GARDNER DRIVE FERRISDALE, WA 98248
DRAWING #:	16198AB1.DWG
DESIGNED BY:	JPS
CHECKED BY:	MDB
<b>PAVING AND STORM DETAILS</b>	
JOB #:	16198
DATE:	01-24-2019
SCALE:	
HORIZ: N/A	
VERT: N/A	
<b>C6</b>	

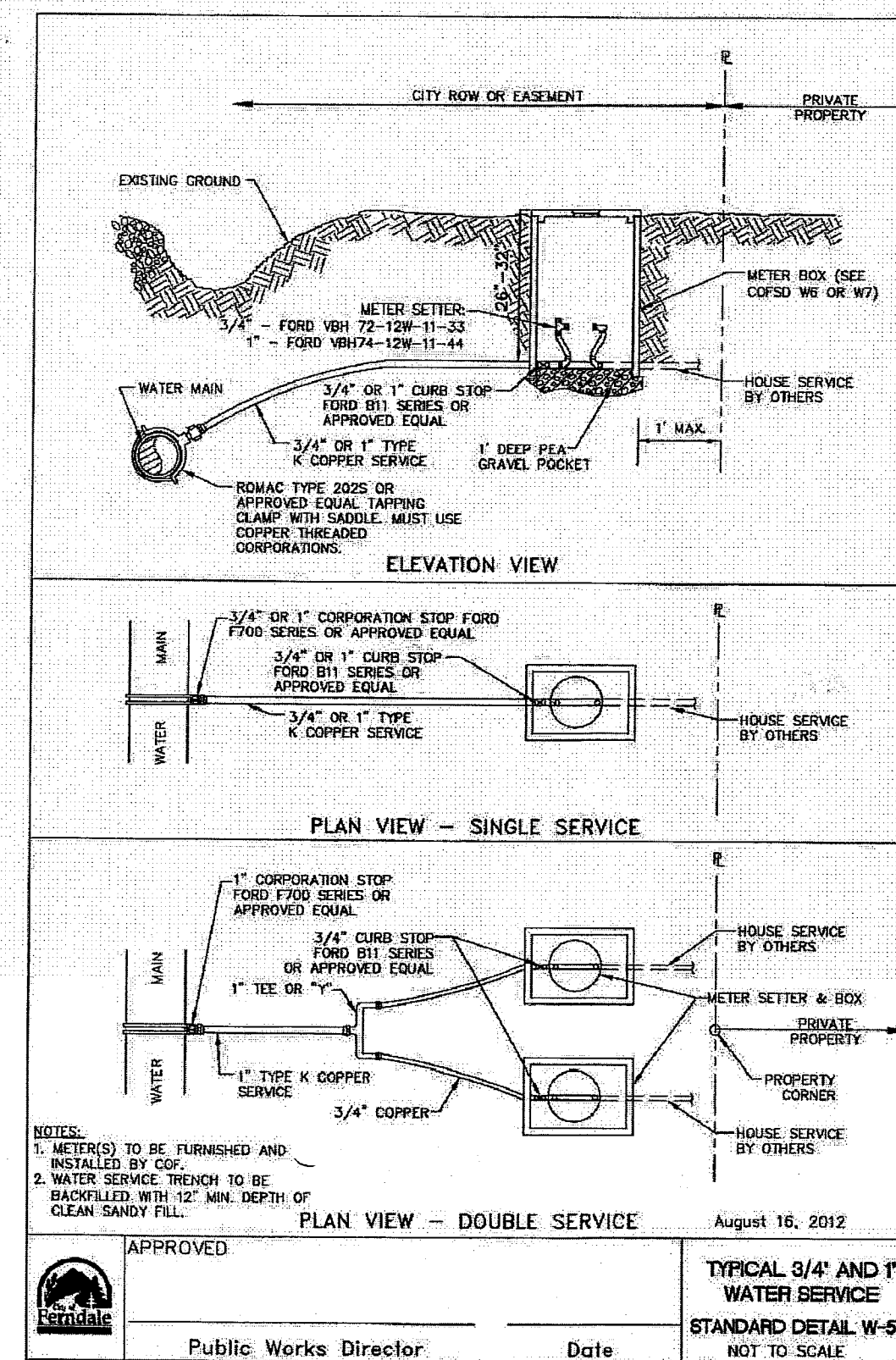




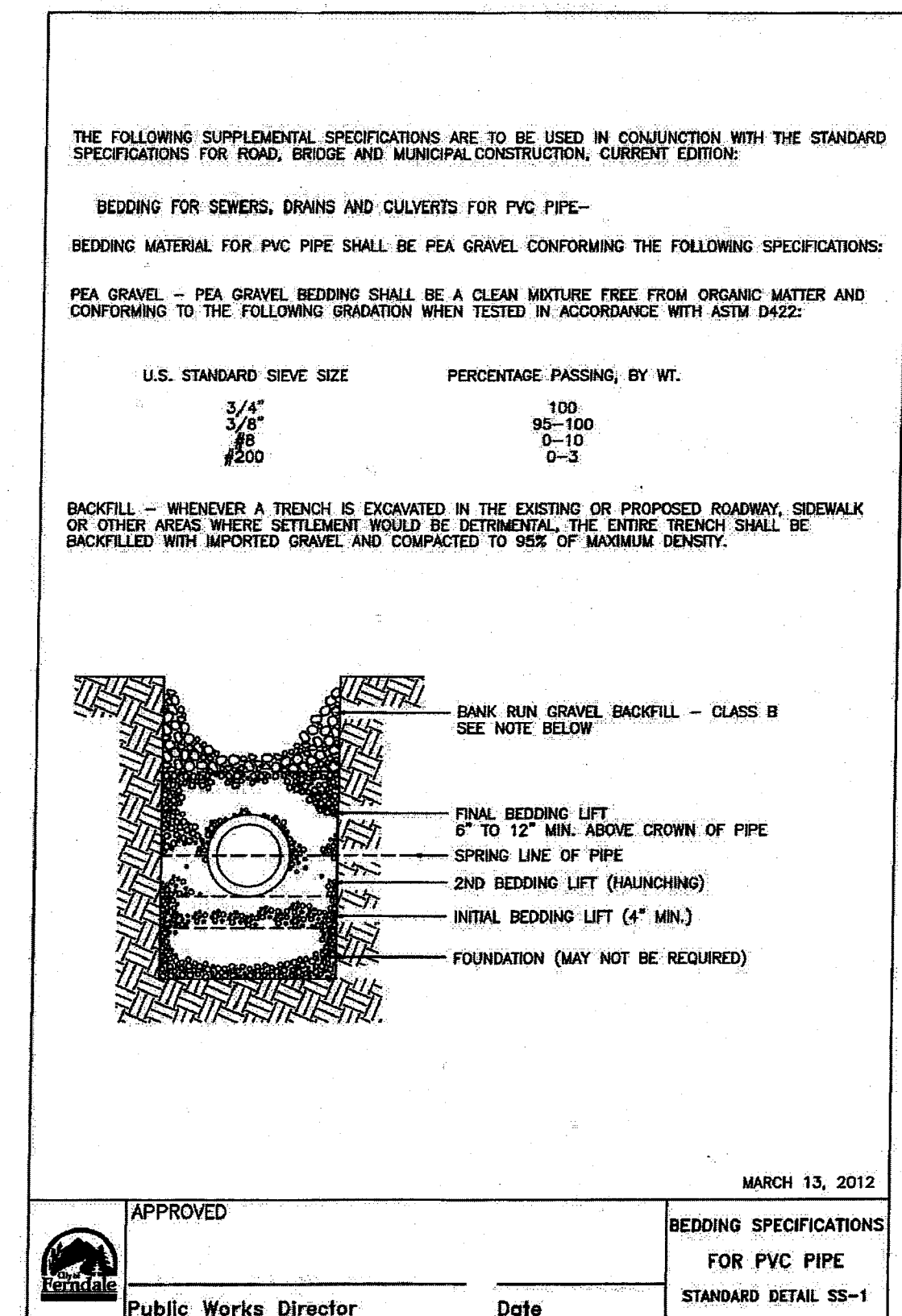
**A** TRENCHING DETAIL  
nts



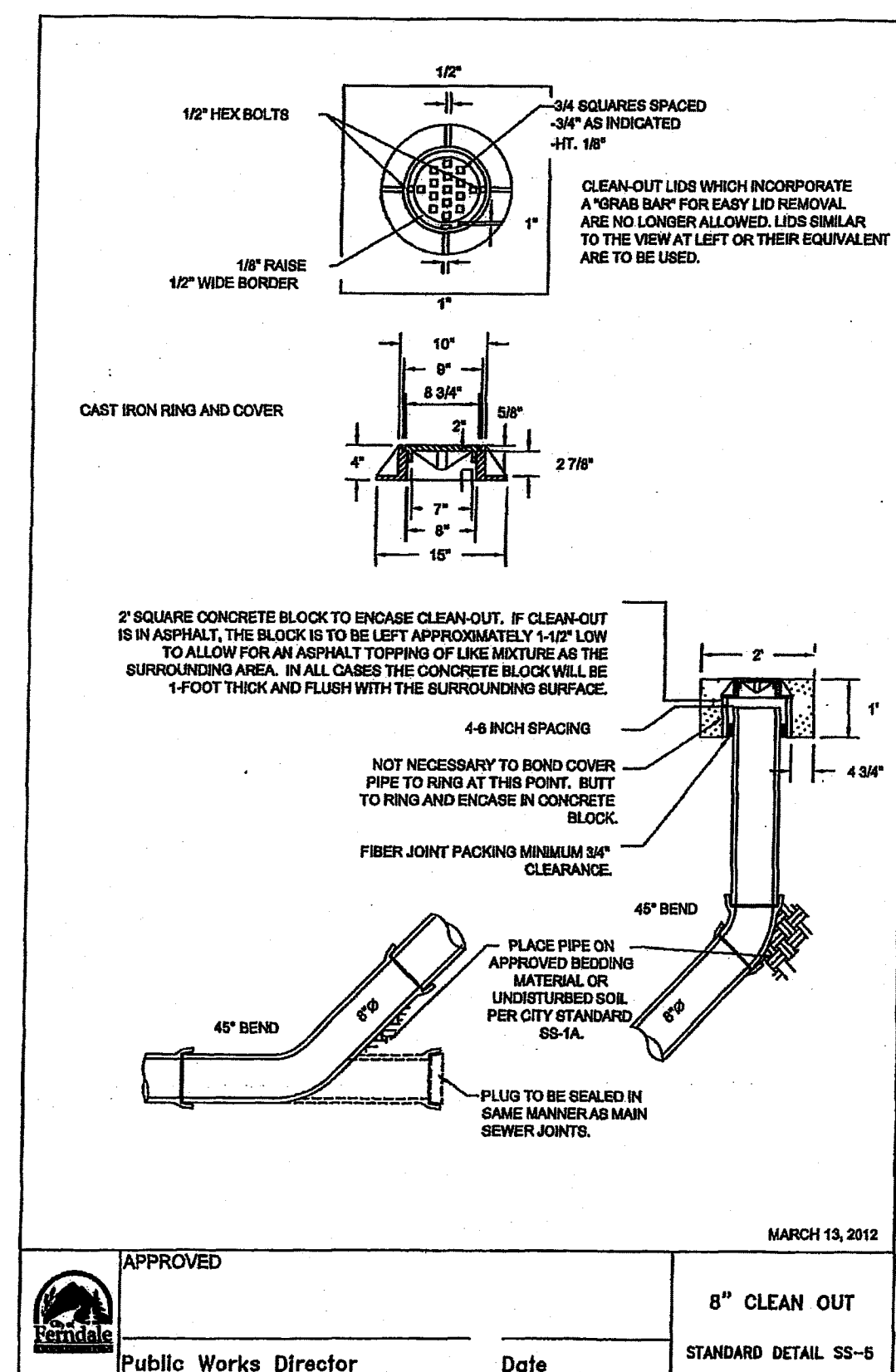
**B** PRIVATE WATER SEPARATION REQUIREMENTS  
nts



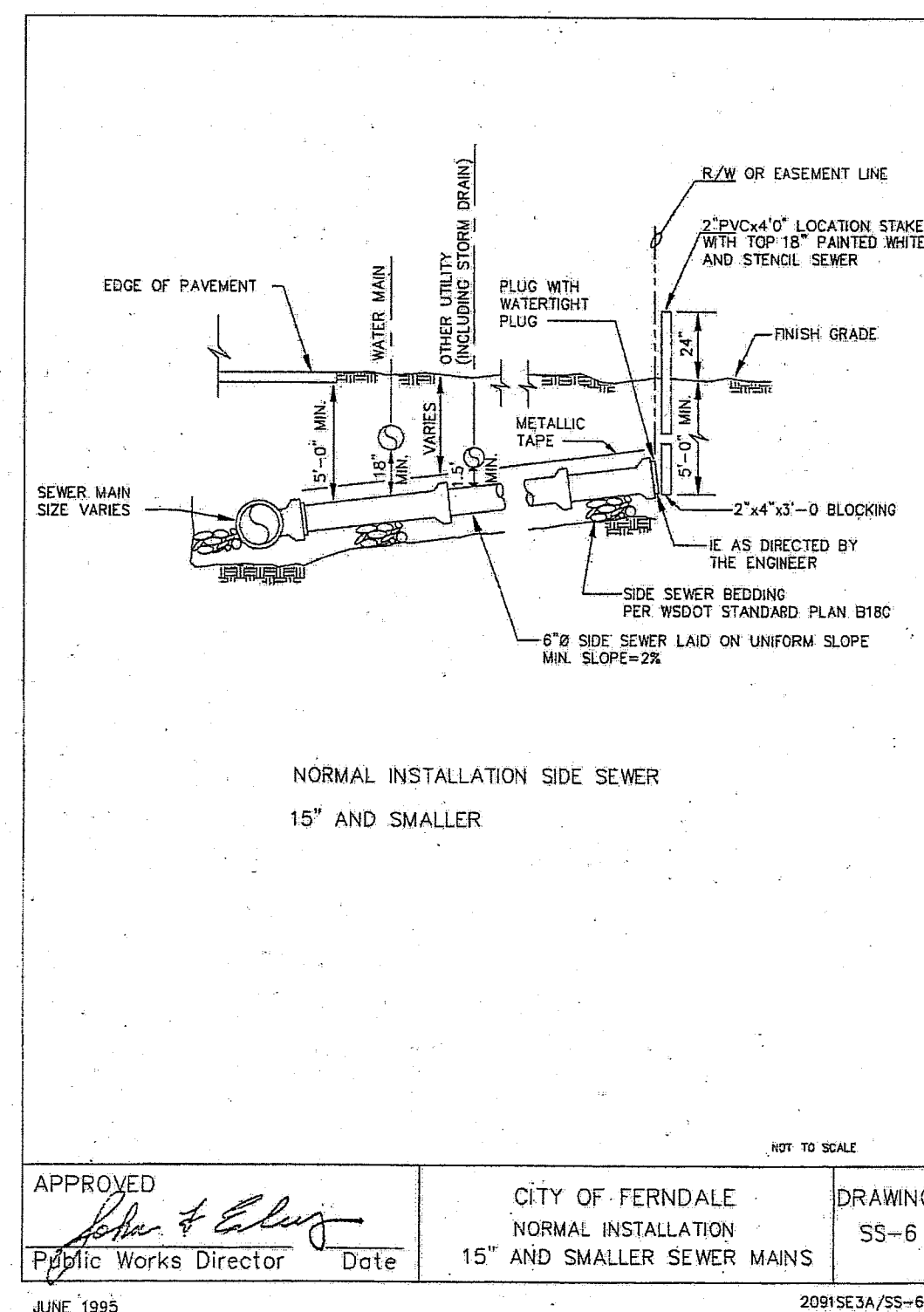
**C** TYPICAL 3/4' AND 1' WATER SERVICE  
nts



**D** PIPE BEDDING FOR SANITARY SEWERS  
nts



**E** SANITARY SEWER CLEAN OUT  
nts



**F** SANITARY SEWER SIDE SERVICE  
nts

APPROVED  
JAN 30 2019  
BY: *John & Elly*  
CITY OF FERNDAL  
PUBLIC WORKS DEPARTMENT

**AS-BUILT DRAWING**  
AS-BUILT NOTE:  
ONLY INFORMATION NOTED AS AS-BUILT "(AB)"  
HAS BEEN PROVIDED BY CONTRACTOR

**FREELAND & ASSOCIATES**  
220 West Champion Street, Suite 200  
Bellevue, WA 98005  
t: 360.650.1408  
f: 360.650.1401

CLIENT: **HT & SMITH & JAMISON PARTNERS, LLC**  
2020 NORTH NUGENT RD  
LUMMI ISLAND, WA 98262  
CALL BEFORE YOU DIG  
FOR BURIED UTILITY LOCATIONS  
1-800-424-5555

PROJECT LOCATION: **JAMISON SHORT PLAT**  
GARDNER DRIVE  
FERNDAL, WA 98248  
DRAWING #: 16198ABT.DWG  
DESIGNED BY: JPS  
DRAWN BY: EJP  
CHECKED BY: MDB

SHEET CONTENTS: **WATER & SEWER DETAILS**

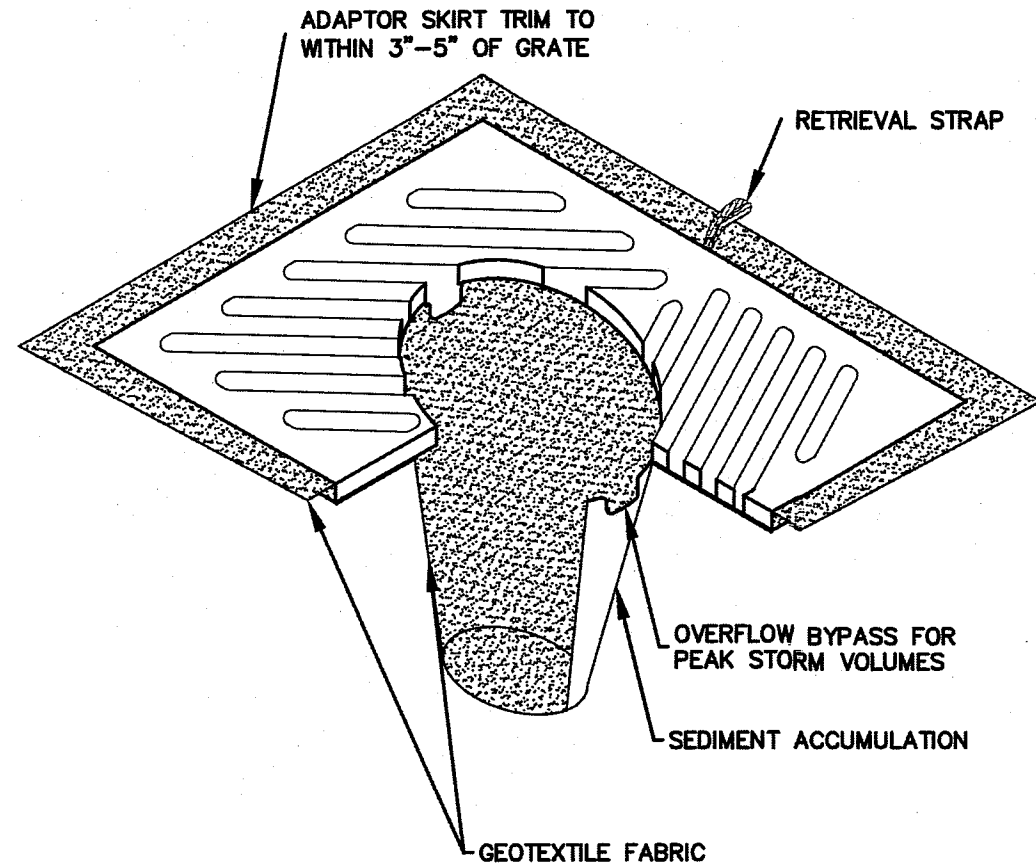
APPROVED: *John & Elly*  
CITY OF FERNDAL  
PUBLIC WORKS DEPARTMENT

**AS-BUILT DRAWING**  
AS-BUILT NOTE:  
ONLY INFORMATION NOTED AS AS-BUILT "(AB)"  
HAS BEEN PROVIDED BY CONTRACTOR

JOB #: 16198  
SCALE: N/A  
VERT: N/A

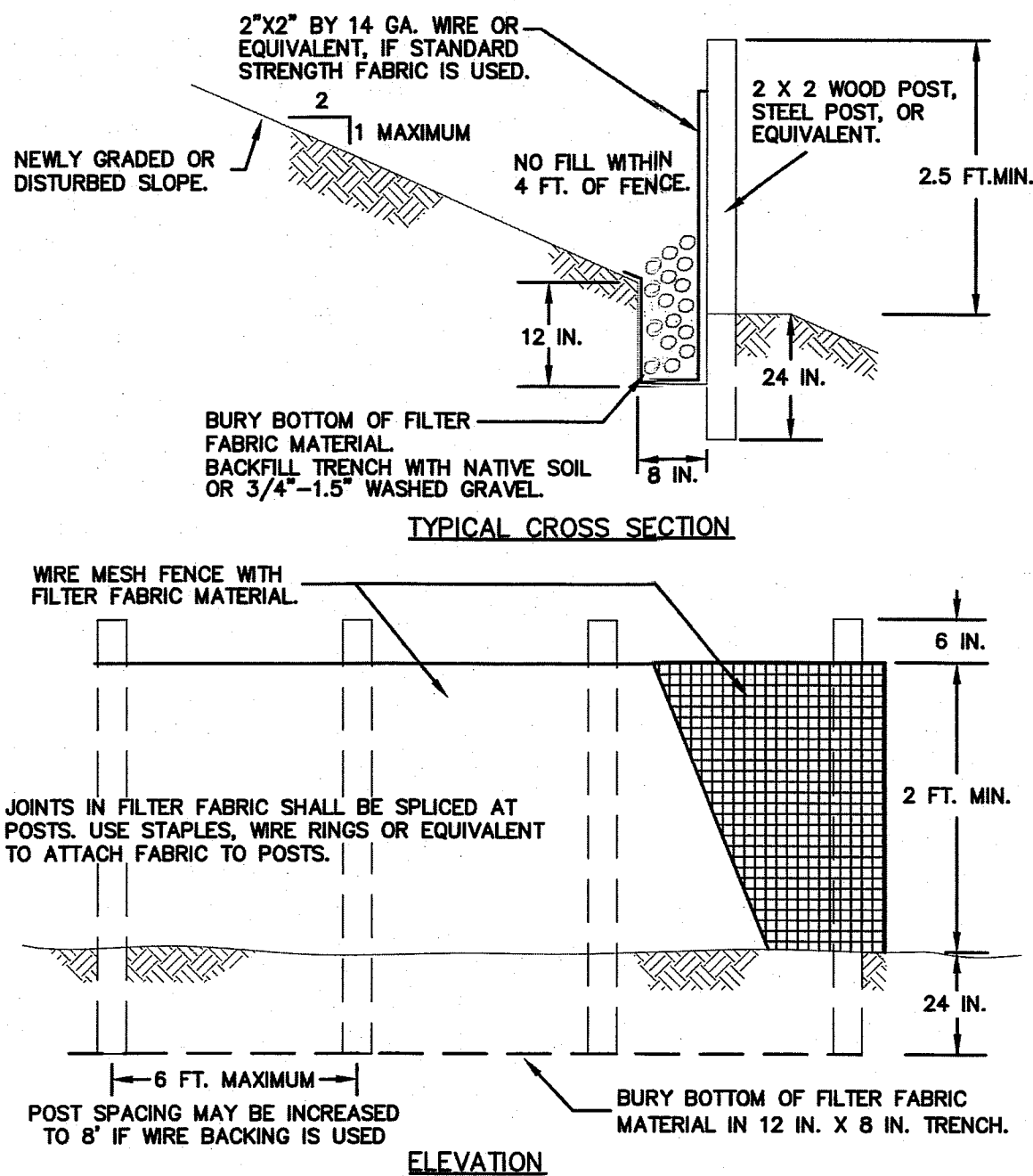
DATE: 01-24-2019  
SHEET: **C7**





- NOTES:
1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
  2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL .
  3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

**A** INLET PROTECTION



- NOTES:
1. FENCE SHALL NOT BE INSTALLED ON SLOPES STEEPER THAN 2 : 1.
  2. JOINTS IN FILTER FABRIC SHALL BE OVERLAPPED 6 INCHES AT POST.
  3. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO WIRE FENCE.
  4. REMOVE SEDIMENT WHEN IT REACHES 1/3 FENCE HEIGHT.

**B** SILT FENCE

**BMP C152: Sawcutting and Surfacing Pollution Prevention**

- Purpose**
- Sawcutting and surfacing operations generate slurry and process water that contains fine particles and high pH (concrete cutting), both of which can violate the water quality standards in the receiving water. Concrete spillage or concrete discharge to surface waters of the State is prohibited. Use this BMP to minimize and eliminate process water and slurry created through sawcutting or surfacing from entering waters of the State.
- Conditions of Use**
- Utilize these management practices anytime sawcutting or surfacing operations take place. Sawcutting and surfacing operations include, but are not limited to, the following:
- Sawing
  - Coring
  - Grinding
  - Roughening
  - Hydro-demolition
  - Bridge and road surfacing
  - Vacuum slurry and cuttings during cutting and surfacing operations.
  - Slurry and cuttings shall not remain on permanent concrete or asphalt pavement overnight.
  - Slurry and cuttings shall not drain to any natural or constructed drainage conveyance including stormwater systems. This may require temporarily blocking catch basins.
  - Dispose of collected slurry and cuttings in a manner that does not violate ground water or surface water quality standards.
  - Do not allow process water generated during hydro-demolition, surface roughening or similar operations to drain to any natural or constructed drainage conveyance including stormwater systems. Dispose process water in a manner that does not violate ground water or surface water quality standards.
  - Handle and dispose cleaning waste material and demolition debris in a manner that does not cause contamination of water. Dispose of sweeping material from a pick-up sweeper at an appropriate disposal site.
- Design and Installation Specifications:**
- Continually monitor operations to determine whether slurry, cuttings, or process water could enter waters of the state. If inspections show that a violation of water quality standards could occur, stop operations and immediately implement preventive measures such as berms, barriers, secondary containment, and vacuum trucks.
- Maintenance Standards**

Volume II – Construction Stormwater Pollution Prevention - August 2012  
4-44

**C** SAWCUTTING

**AS-BUILT DRAWING**

AS-BUILT NOTE:  
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220 West Champion Street, Suite 200  
Bellingham, WA 98225  
t 360.850.1408  
f 360.850.1401

**FREELAND  
& ASSOCIATES**

BY:									
REV:									
DATE:									
DESCRIPTION:									

CLIENT:  
**HT & SMITH & JAMISON  
PARTNERS, LLC**  
2620 NORTH NUGENT RD  
LUMMI ISLAND, WA 98262

CALL BEFORE YOU DIG  
FOR BURIED UTILITY LOCATIONS  
1-800-424-5555

**ELEMENT #1: MARK CLEARING LIMITS**  
CLEARING LIMITS AND NEARBY SENSITIVE AREAS AND THEIR BUFFERS, WILL BE CLEARLY MARKED PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES, WHICH INCLUDES CLEARING AND GRADING. THESE AREAS WILL BE CLEARLY MARKED IN THE FIELD TO PREVENT DAMAGE AND OFFSITE IMPACTS.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMPs CONSIDERED FOR ELEMENT #1 INCLUDE:  
BMP C101: PRESERVING NATURAL VEGETATION  
BMP C103: HIGH VISIBILITY PLASTIC OR METAL FENCE  
BMP C104: STAKE AND WIRE FENCE

**ELEMENT #2: ESTABLISH CONSTRUCTION ACCESS**  
A SINGLE ENTRANCE POINT WILL BE INSTALLED FOR CONSTRUCTION ACCESS TO THE PROPOSED ONSITE IMPROVEMENTS. EARTHWORK EQUIPMENT WILL REMAIN WITHIN THE DISTURBED AREA TO THE MAXIMUM EXTENT PRACTICABLE. CONSTRUCTION TRAFFIC THAT WILL ROUTINELY LEAVE THE SITE (E.G. WORK TRUCKS, PERSONAL VEHICLES) SHALL REMAIN ON PAVED SURFACES TO THE MAXIMUM EXTENT PRACTICABLE. PAVED ROADS & PARKING AREAS SHALL BE CLEANED AT THE END OF EACH DAY. SEDIMENT TRANSPORTED TO ROADS FROM THE SITE SHALL BE SWEEPED AND DISPOSED OF AT A CONTROLLED SEDIMENT DISPOSAL AREA ON SITE OR REMOVED OFF SITE AND DISPOSED AT AN APPROVED FILL SITE. IF STREET WASHING IS NEEDED, IT WILL ONLY OCCUR AFTER SEDIMENT HAS BEEN REMOVED AS DESCRIBED. THE RESULTING WASH WASTEWATER WOULD THEN BE CONTROLLED BY PUMPING IT BACK ON SITE. ALL CONSTRUCTION ACCESS POINTS WILL BE RESTORED TO PRE-CONSTRUCTION OR PROPOSED CONDITIONS.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMPs CONSIDERED FOR ELEMENT #2 INCLUDE:  
BMP C105: STABILIZED CONSTRUCTION ENTRANCE  
HOUSEKEEPING/MAINTENANCE BMP: DAILY STREET SWEEPING  
HOUSEKEEPING/MAINTENANCE BMP: BMP C140 DUST CONTROL

**ELEMENT #3: CONTROL FLOW RATES**  
FLOW RATES SHALL BE CONTROLLED TO THE MAXIMUM EXTENT PRACTICAL. CONTRACTOR SHALL PRESERVE VEGETATED AREAS ON OR NEAR THE SITE AS ALLOWABLE THROUGHOUT THE CONSTRUCTION PROCESS. TEMPORARY SEDIMENT TRAPS OR PONDS MAY BE DESIGNED, LOCATED, AND INSTALLED IF THE CONTRACTOR, PROJECT ENGINEER, OR CESCL DEEMS NECESSARY.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMPs CONSIDERED FOR ELEMENT #3 INCLUDE:  
BMP C241: TEMPORARY SEDIMENT POND

**ELEMENT #4: INSTALL SEDIMENT CONTROLS**  
THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL AND EXISTING VEGETATION WILL BE RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICABLE. ELEMENT #1 OF THIS PLAN, INCLUDING IMPLEMENTING PRESERVING NATURAL VEGETATION, WILL HELP RETAIN SOME AREAS IN AN UNDISTURBED STATE. SILT FENCING WILL BE INSTALLED DOWNHILL FROM DISTURBED AREAS TO TRAP AND RETAIN SEDIMENT ON SITE. OTHER SEDIMENT CONTROLS, SUCH AS TEMPORARY SEDIMENT TRAPS, SUMPS, GRAVEL FILTER BERMS, STRAW BATTLES, ETC. MAY BE INSTALLED IF WARRANTED AS CONDITIONS CHANGE ON SITE DURING CONSTRUCTION.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMPs CONSIDERED FOR ELEMENT #4 INCLUDE:  
BMP C233: SILT FENCE  
BMP C208: TRIANGULAR SILT DIKE

**ELEMENT #5: STABILIZE SOILS**  
IF CONSTRUCTION OCCURS IN THE DRY SEASON, (5/1 THROUGH 9/30) SOILS WILL NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. IF CONSTRUCTION OCCURS IN THE WET SEASON (10/1 THROUGH 4/30) SOILS WILL NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN 2 DAYS. WHEN ACTIVE GRADING IS IN PROGRESS, THE DEADLINE FOR SOIL STABILIZATION MAY BE EXTENDED UPON DETERMINING THAT THE LIKELIHOOD OF EROSION IMPACTS IS LOW BASED ON THE TYPE AND AMOUNT OF SOIL EXPOSED, SITE TOPOGRAPHY, POTENTIAL FOR DISCHARGE TO CRITICAL AREAS AND LAKES, AND OTHER FACTORS. IN ADDITION, WEATHER CONDITIONS WILL CONTINUALLY BE MONITORED, INCLUDING BEFORE HOLIDAYS AND WEEKENDS, FOR PURPOSES OF PREPARING THE SITE FOR PREDICTED WEATHER CONDITIONS. BMPs THAT ARE EFFECTIVE IN STABILIZING SOILS AND PROTECTING THEM FROM EXPOSURE TO RAIN AND WIND OR OTHER CLIMATIC CONDITIONS WILL BE IMPLEMENTED THROUGHOUT THE PROJECT. EVALUATION AND MONITORING OF BMP EFFECTIVENESS WILL OCCUR ON A DAILY BASIS. IN ADDITION, IN THE EVENT OF FORECASTED PRECIPITATION EVENTS, ADDITIONAL MEASURES TO STABILIZE SOILS WILL BE TAKEN.

BMPs THAT WILL BE CONSIDERED THROUGHOUT CONSTRUCTION INCLUDE BUT ARE NOT LIMITED TO TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, PLASTIC COVERING, EROSION CONTROL FABRICS AND MATTING, THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED, AND DUST CONTROL.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMPs CONSIDERED FOR ELEMENT #5 INCLUDE:  
BMP C120: TEMPORARY AND PERMANENT SEEDING  
BMP C121: MULCHING  
BMP C122: NETS AND BLANKETS  
BMP C123: PLASTIC COVERING  
BMP C124: SODDING  
BMP C125: TOPSOLLING  
BMP C140: DUST CONTROL

**ELEMENT #6: PROTECT SLOPES**  
SIGNIFICANT CUT OR FILL SLOPES ARE NOT PROPOSED AS PART OF THIS PROJECT.

**ELEMENT #7: PROTECT DRAIN INLETS**  
STORM DRAIN INLETS ARE PROPOSED AS PART OF THIS PROJECT. OPERABLE STORM DRAIN INLETS ON THE SITE AND WITHIN 500 FEET DOWNSTREAM OF THE CONSTRUCTION AREA ROADS WILL BE PROTECTED SO THAT STORMWATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FILTRATION OR OTHER TREATMENT FOR SEDIMENT. STORM DRAIN INLET PROTECTION WILL BE USED TO DETERMINE THE MOST APPROPRIATE INLET PROTECTION DESIGN FOR THE SITE AND THE DOWNSTREAM AREA.

INLETS WILL BE INSPECTED WEEKLY AT A MINIMUM AND DAILY DURING STORM EVENTS. INLET PROTECTION DEVICES SHALL BE CLEANED OR REMOVED AND REPLACED BEFORE SIX INCHES OF SEDIMENT CAN ACCUMULATE. CONSTRUCTION ACCESS POINTS AND APPROACHES WILL BE MONITORED AND SWEEPED TO MINIMIZE THE POTENTIAL OF SEDIMENT TRANSPORT. IF STREET WASHING OCCURS, THE WASH WASTEWATER WILL BE PUMPED BACK ON SITE.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMPs CONSIDERED FOR ELEMENT #7 INCLUDE:  
BMP C220: STORM DRAIN INLET PROTECTION

**ELEMENT #8: STABILIZE CHANNELS AND OUTLETS**  
NO NEW MANMADE CHANNELS OR OUTLETS ARE PROPOSED AS PART OF THIS PROJECT.

**ELEMENT #9: CONTROL POLLUTANTS**  
WASTE MATERIALS GENERATED ON SITE WILL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER, INCLUDING COVERING SOIL STOCKPILES. ROUTINE INSPECTIONS OF THE WASTE MATERIAL STORAGE AREAS WILL BE CONDUCTED TO MAKE SURE THAT LEAKS OR SPILLS DO NOT OCCUR. ANY LEAKAGE OR SPILLS WILL BE CLEANED UP IMMEDIATELY.

MAINTENANCE OF HEAVY EQUIPMENT INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING AND/OR OTHER ACTIVITIES THAT MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF WILL BE CONDUCTED WITH SPILL PREVENTION MEASURES IN PLACE, INCLUDING CONDUCTING MAINTENANCE ON A TEMPORARY PAD THAT CAN BE USED TO CAPTURE LARGE SPILLS AND THE USE OF DRIP PANS. IN THE EVENT THAT EMERGENCY REPAIRS NEED TO BE PERFORMED AND CLIMATIC CONDITIONS MAY RESULT IN A PRECIPITATION EVENT PRIOR TO THE REPAIR BEING COMPLETED, THE REPAIR AREA, WHICH INCLUDES THE VEHICLE, WILL BE COVERED WITH TARPS OR OTHER PLASTIC SHEETING. DISCHARGES, SPILLS, OR LEAKS WILL BE CLEANED IMMEDIATELY. THE NOTIFICATION PROCEDURE OUTLINED IN THE PERMANENT SITE SWPPP IS AS FOLLOWS:

ALL SPILLS WILL BE REPORTED TO THE DEPARTMENT OF ECOLOGY, SPILL RESPONSE PROGRAM (425) 649-7000.

BMPs CONSIDERED FOR ELEMENT #9 INCLUDE: SPILL CLEANUP AND RESPONSE PRACTICES

**ELEMENT #10: CONTROL DE-WATERING**  
NO DE-WATERING IS PROPOSED AS PART OF THIS PROJECT. IF NECESSARY, CLEAN, NON-TURBID DE-WATERING WATER, SUCH AS WELL-POINT GROUND WATER, CAN BE DISCHARGED TO SYSTEMS TRIBUTARY TO STATE SURFACE WATERS, PROVIDED THE DE-WATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS. THESE CLEAN WATERS SHOULD NOT BE ROUTED THROUGH A STORMWATER SEDIMENT POND.

HIGHLY TURBID OR CONTAMINATED DEWATERING WATER FROM CONSTRUCTION EQUIPMENT OPERATION, CONCRETE TREMIE, POUR, OR WORK INSIDE A COFFERDAM SHALL BE HANDLED SEPARATELY FROM STORMWATER.

- OTHER DISPOSAL OPTIONS, DEPENDING ON SITE CONSTRAINTS, MAY INCLUDE:
- INFILTRATION
  - TRANSPORT OFF SITE IN VEHICLE, SUCH AS A VACUUM FLUSH TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE STATE WATERS.
  - ON-SITE TREATMENT USING CHEMICAL TREATMENT OR OTHER SUITABLE TREATMENT TECHNOLOGIES.
  - SANITARY SEWER DISCHARGE WITH LOCAL SEWER DISTRICT APPROVAL, OR
  - USE OF A SEDIMENTATION BAG WITH OUTFALL TO A DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DEWATERING.

**ELEMENT #11: MAINTAIN BMPs**  
ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPs WILL BE INSPECTED BY THE CESCL AND SHALL BE MAINTAINED, AND REPAIRED BY THE CONTRACTOR TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. MAINTENANCE AND REPAIR SHALL BE CONDUCTED IN ACCORDANCE WITH THE RELEVANT BMP IDENTIFIED IN ELEMENTS #1 THROUGH #10. TEMPORARY EROSION AND SEDIMENT CONTROLS IDENTIFIED ABOVE WILL BE INSPECTED DAILY DURING THE WET SEASON. NEEDED REPAIRS AND MAINTENANCE WILL OCCUR WITHIN SEVEN (7) DAYS OR, IN THE EVENT OF A FORECAST OF INCLEMENT WEATHER, REPAIRS AND MAINTENANCE WILL OCCUR IMMEDIATELY.

TEMPORARY EROSION AND SEDIMENT CONTROL BMPs WILL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT WILL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL RESULTING FROM REMOVAL OF BMPs OR VEGETATION SHALL BE PERMANENTLY STABILIZED.

**ELEMENT #12: MANAGE THE PROJECT CONSTRUCTION**  
EXPOSED AREAS DURING THE CLEARING AND GRADING PROCESS WILL BE MULCHED AS PART OF THE CLEARING AND GRADING ACTIVITIES. CLEARING AND GRADING ACTIVITIES WILL OCCUR AFTER THE APPLICABLE PERMITS HAVE BEEN OBTAINED. REVEGETATION OF EXPOSED AREAS AND MAINTENANCE OF THAT VEGETATION WILL OCCUR AS PART OF THE PLANTING PHASE OF THE PROJECT TO BE INSTALLED AFTER SUB-GRADE ROAD BASE MATERIAL HAS BEEN INSTALLED AND PRIOR TO FINAL GRAVEL SURFACING.

**SEASONAL WORK LIMITATIONS**  
FROM MAY 1 THROUGH SEPTEMBER 30, SOIL WILL NOT BE EXPOSED/UNWORKED FOR 7 DAYS. FROM OCTOBER 1 THROUGH APRIL 30, SOIL WILL NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN 2 DAYS. IN ADDITION, WEATHER CONDITIONS WILL CONTINUALLY BE MONITORED INCLUDING BEFORE HOLIDAYS AND WEEKENDS FOR PURPOSES OF PREPARING THE SITE FOR PREDICTED WEATHER CONDITIONS. BMPs THAT ARE EFFECTIVE IN STABILIZING SOILS AND PROTECTING THEM FROM EXPOSURE TO RAIN AND WIND OR OTHER CLIMATIC CONDITIONS WILL BE IMPLEMENTED THROUGHOUT THE PROJECT. INSPECTION AND EVALUATION OF THE EFFECTIVENESS OF THE BMPs WILL OCCUR ON A DAILY BASIS. IN ADDITION, IN THE EVENT OF FORECASTED PRECIPITATION EVENTS, ADDITIONAL MEASURES TO STABILIZE SOILS WILL BE TAKEN.

COORDINATION WITH UTILITIES AND OTHER CONTRACTORS  
THE STORMWATER MANAGEMENT REQUIREMENTS FOR ALL ASPECTS OF THE CONSTRUCTION PROJECT, INCLUDING UTILITIES, WERE CONSIDERED IN PREPARING THE CONSTRUCTION SWPPP.

**INSPECTION AND MONITORING**  
AS PREVIOUSLY MENTIONED, ALL BMPs WILL BE INSPECTED, MAINTAINED, AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. IN THE EVENT THAT INSPECTION AND/OR MONITORING REVEALS THAT THE BMPs IDENTIFIED IN THIS CONSTRUCTION SWPPP ARE INADEQUATE, DUE TO THE ACTUAL DISCHARGE OF OR POTENTIAL TO DISCHARGE A SIGNIFICANT AMOUNT OF ANY POLLUTANT, THIS SWPPP SHALL BE MODIFIED, AS APPROPRIATE, IN A TIMELY MANNER.

**MAINTENANCE OF THE CONSTRUCTION SWPPP**  
THE CONSTRUCTION SWPPP WILL BE RETAINED ON-SITE AND WILL BE UPDATED ON A REGULAR BASIS. MODIFICATIONS TO THE CONSTRUCTION SWPPP WILL BE MADE WHENEVER THERE IS A SIGNIFICANT CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF ANY BMP.

**ELEMENT #13: PROTECT LOW IMPACT DEVELOPMENT BMPs**  
LOW IMPACT DEVELOPMENT BMPs, SUCH AS BIORETENTION CELLS, INFILTRATION FACILITIES, PERMEABLE PAVEMENTS, RAIN GARDENS, ETC., ARE NOT PROPOSED AS PART OF THIS PROJECT. HOWEVER, EXCESSIVE SOIL COMPACTION SHOULD BE AVOIDED AS MUCH AS POSSIBLE NEAR THE PROPOSED PERFORATED STUB OUT CONNECTIONS.

APPROVED

JAN 30 2019

BY: [Signature]  
CITY OF FERNDALE  
PUBLIC WORKS DEPARTMENT

PROJECT LOCATION:  
**JAMISON SHORT PLAT**  
GARDNER DRIVE  
FERDALE, WA 98248

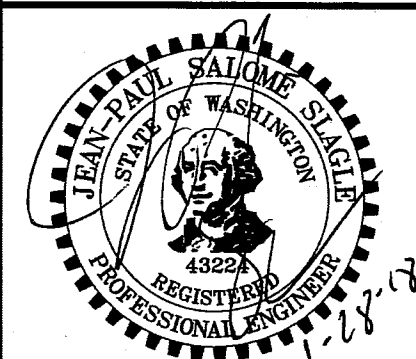
DRAWING #:  
16198ABLDWG

DESIGNED BY:  
JPS

DRAWN BY:  
EJP

CHECKED BY:  
MOB

**TEMPORARY EROSION &  
SEDIMENT CONTROL  
DETAILS & NOTES**



JOB #:  
16198

DATE:  
01-24-2019

SCALE:  
HORIZ: N/A  
VERT: N/A

SHEET:  
**C5**



