

CIVIL IMPROVEMENTS DATA

OWNERS/DEVELOPERS:

SOUTH DOUGLAS, LLC

SURVEY EQUIPMENT & PROCEDURE

THE ACCURACY MEETS OR EXCEEDS THE STANDARDS CONTAINED IN WAC 331-130-090.

BASIS OF BEARINGS

THAT RECORD OF SURVEY FILED UNDER WHATCOM COUNTY A.F. NO. 931119056

PROJECT BENCHMARK

FERN 07 COORDINATE NORTH 679459.13 EASTING 1211031.14

FERN 10 COORDINATE NORTH 673934.78 EASTING 1210873.19

UTILITY LOCATES CALL 2 DAYS BEFORE YOU DIG 1-800-424-5555

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

SECTION 30 TOWNSHIP 39 NORTH RANGE 2 EAST

SHEET INDEX

T-1 TITLE SHEET

EXISTING BOUNDARY CONDITIONS

SL-1 SITE LAYOUT

TESC-1 TESC PLAN

RD-1 ROAD AND DRAINAGE PLAN

RD-2 ROAD AND DRAINAGE PLAN

SANITARY SEWER AND WATER PLAN

SANITARY SEWER AND WATER PLAN

CONSTRUCTION DETAILS

CONSTRUCTION DETAILS

CONSTRUCTION DETAILS

CONSTRUCTION DETAILS

GENERAL NOTES

ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "DOUGLAS LONG PLAT PHASE 2" HAVE BEEN INSPECTED BY RONALD T. JEPSON AND ASSOCIATES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE."

ERTIFICATE NO. 9361

SURVEYOR'S CERTIFICATION

"I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY, USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING CONDITIONS AS

RONALD T. JEPSON, P.E., L.S. CERTIFICATE NO. 9361

JAN 1 3 2012 CITY OF FERNDALE

APPROVED

CERTIFIED EROSION AND SEDIMENT CONTROL LEAD

TONY PETCH, (ECO # 3-10116609)

CL CENTERLINE

CO CLEANOUT

(E) EXISTING

FD FOUND

EP EDGE OF PAVEMENT

FF FINISH FLOOR

FG FINISH GRADE

FL FLOWLINE

HB HOSEBIB

INV INVERT

LF LINEAR FEET

LP LIGHT POST

CRN CROWN OF PIPE

SF SQUARE FEET

LENGTH

ELEV ELEVATION

PROPOSED STORM DRAIN

EXISTING STORM DRAIN

PROPOSED SEWER

EXISTING SEWERLINE

PROPOSED WATERLINE

EXISTING WATERLINE

(E)RETAINING WALL
THE CONTROL OF THE

E EAST S SOUTH

PVI POINT OF VERT. INT.

K RATE OF CURVATURE

BVCE BEGIN VERT. CURVE ELEV.

UNO UNLESS NOTED OTHERWISE

AD ABSOLUTE GRADE DIFFERENCE IN PERCENT

Ferndale

VICINITY MAP

LEGEND

(N) NEW

RBR REBAR

SD STORM DRAIN

TC TOP OF CURB

W WATER, WEST

WM WATER METER

TIP TOP OF IRON PIPE

VC VERTICAL CURVE

STA STATION

DELTA

R RADIUS

EXISTING AERIAL TELEPHONE LINES

EXISTING AERIAL POWER LINE

EXISTING BURIED POWER LINE

BIP BOTTOM OF IRON PIPE

EVCS END VERT. CURVE STATION

EVCE END VERT. CURVE ELEV.

SDCO STORM DRAIN CLEAN OUT

BVCS BEGIN VERT. CURVE STATION

NTS NOT TO SCALE

PL PROPERTY LINE

PCCPORTLAND CEMENT CONCRETE

RCP REINFORCED CONCRETE PIPE

POC POINT OF CONNECTION

PVC POLYVINYL CHLORIDE

SANITARY SEWER

MANHOLE

CATCH BASIN

WATER VALVE

FIRE HYDRANT

WATER METER

STREET LIGHT

POWER VAULT

POWER POLE

♦ MONUMENT PER COF DETAIL S-2

● MONUMENT PER COF DETAIL S-1

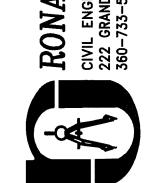
(E) CONTOUR

(N) CONTOUR

REBAR AND PLASTIC CAP

NOTE: NO CHANGES WERE MADE TO THIS SHEET TO DOCUMENT DEVIATIONS FROM THE APPROVED PLANS.

AS-BUILT



SCALE: AS SHOWN 10/5/11 SHEET:

WO: 05055

INSPECTED BY RONALD T. JEPSON AND ASSOCIATES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERMOALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE."

RONALD T. JEPSON P.E., L.S. CERTIFICATE NO. 9361

SURVEYOR'S CERTIFICATION

VERTICAL DATUM

NGVD29 PER CITY OF FERNDALE MAPPING PROGRAM

6	5	4	з	വ	1
7	œ	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

SECTION 30 TOWNSHIP 39 NORTH RANGE 2 EAST

UTILITY LOCATES CALL 2 DAYS BEFORE YOU DIG

1-800-424-5555

APPROVED

SHEET:

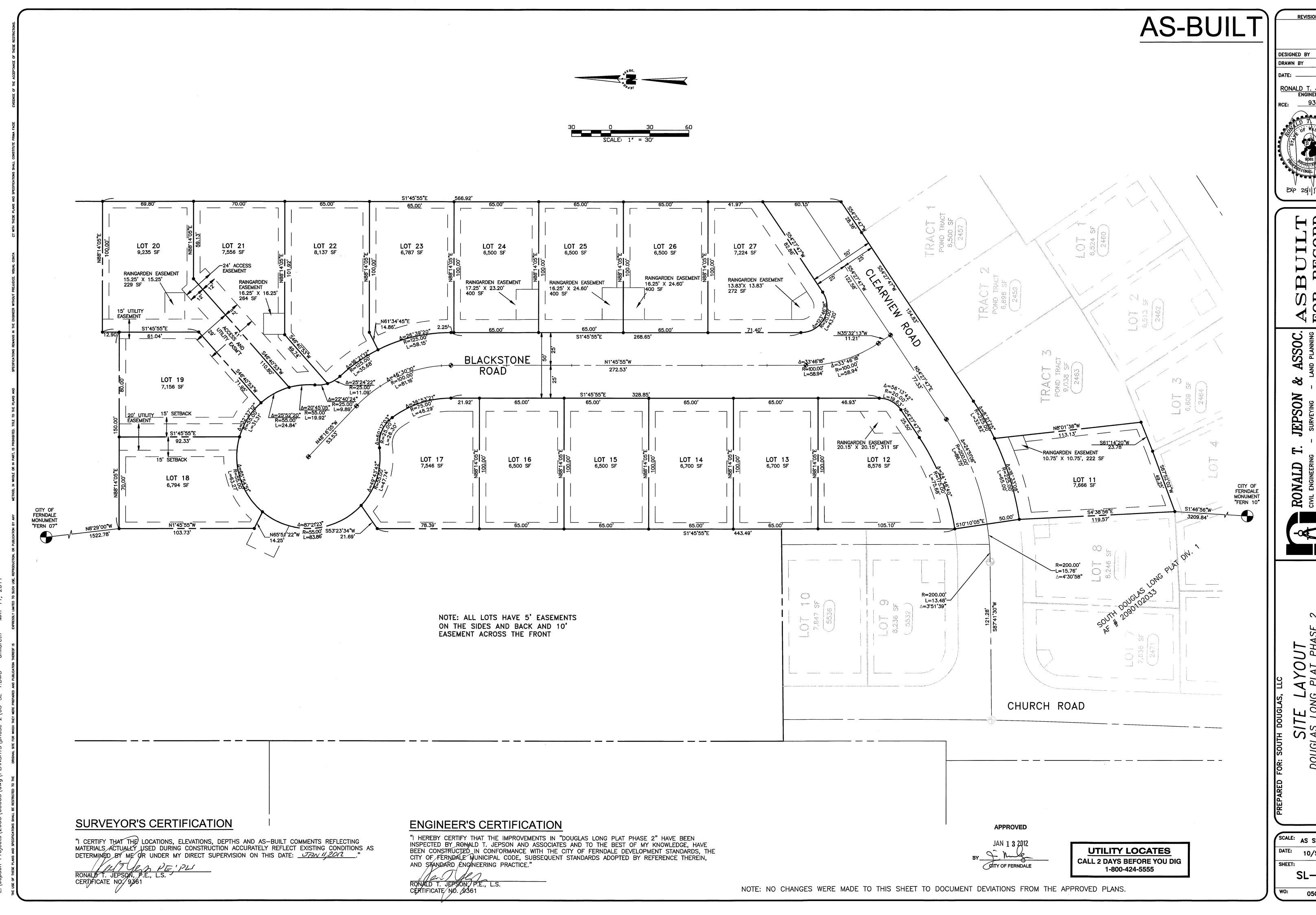
NOTE: NO CHANGES WERE MADE TO THIS SHEET TO DOCUMENT DEVIATIONS FROM THE APPROVED PLANS.

RON CIVIL ENC 222 GRAN 360-733-

DESIGNED BY

CONDITION PHASE 2, FERNDALE

SCALE: AS SHOWN 10/5/11



RONALD T. JEPSON ENGINEER

AS ASSOC.

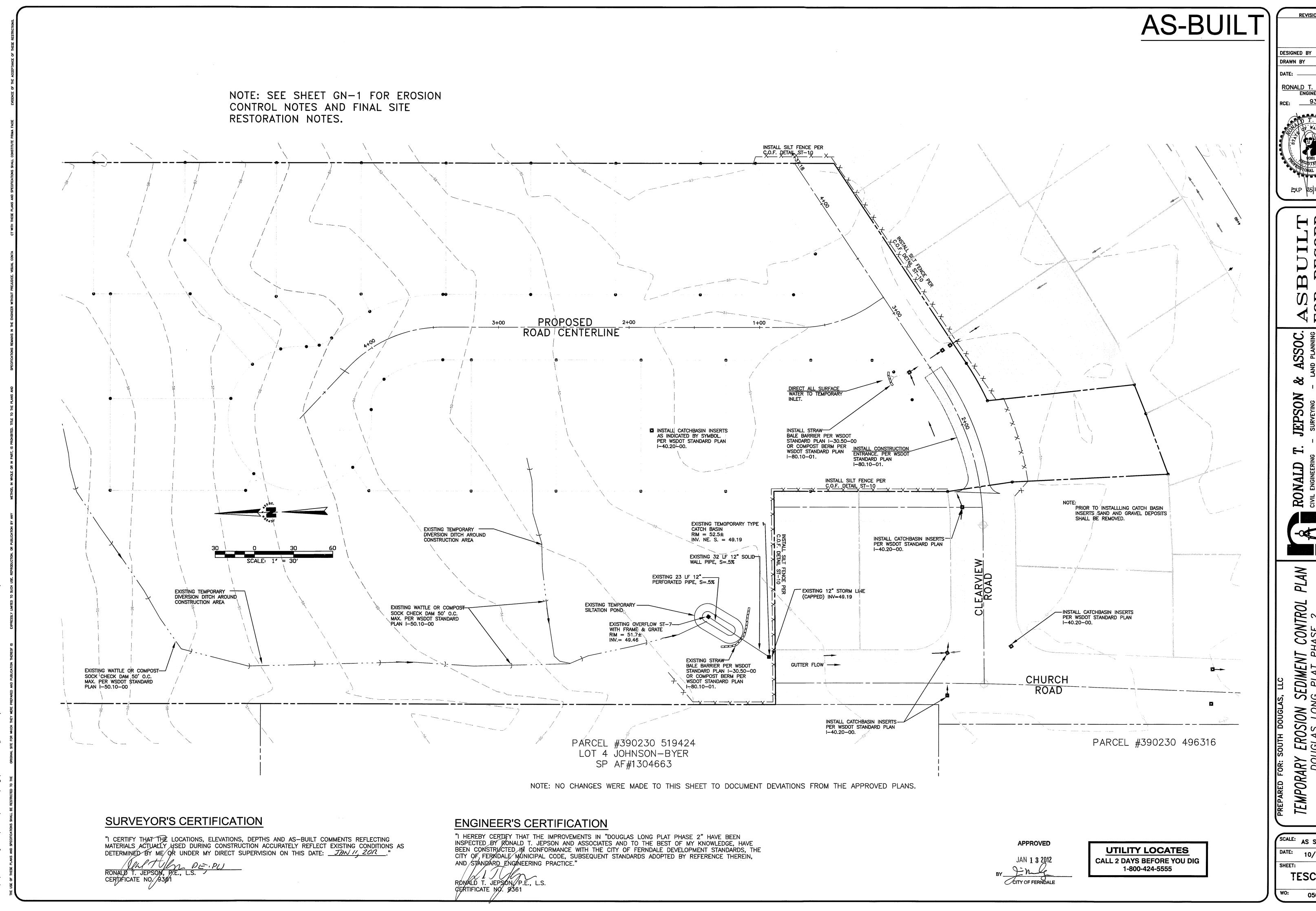
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INGTON 98225

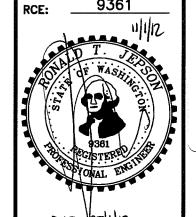
INGINEERING.COM

JEPSON RONALD
CIVIL ENGINEERIN
222 GRAND AVENU
360-733-5760 FA

SCALE: AS SHOWN 10/5/11

SL-1 05055





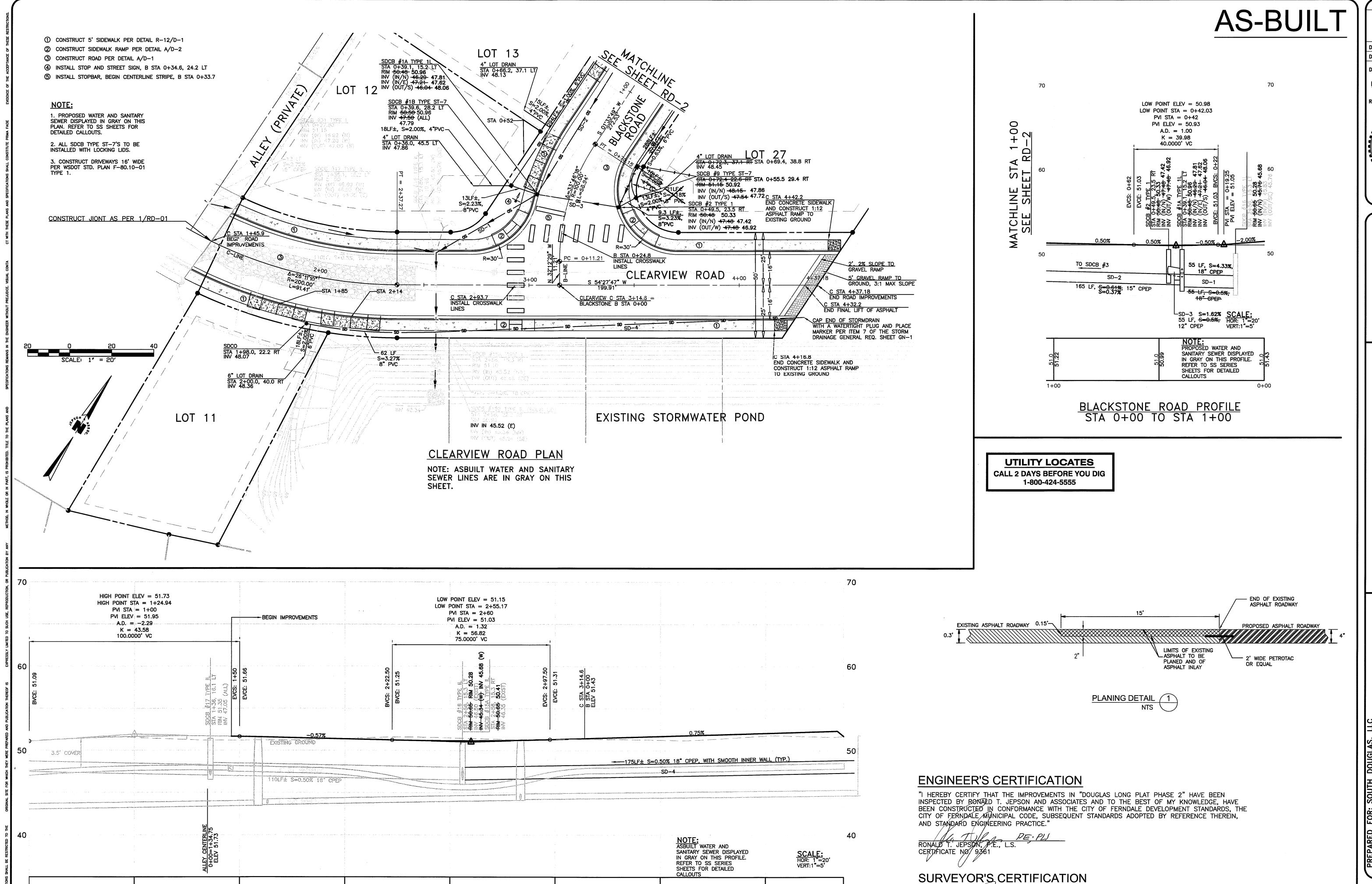
JEPSON



EMPORARY EROSION SEDIMENT CONTROL DOUGLAS LONG PLAT PHASE 2 DOUGLAS/CHURCH ROAD, FERNDALE

10/5/11

SCALE: AS SHOWN TESC-1



4+00

4+37.18

3+00

CLEARVIEW ROAD PROFILE STA 1+50 TO STA 4+37

1+00

REVISIONS

DESIGNED BY DMK
DRAWN BY AH
DATE:

DESIGNED BY DMK

DRAWN BY AH

DATE:

RONALD T. JEPSON
ENGINEER

RCE: 9361

RONALD T. JEPSON
ENGINEER
RCE: 9361

JRD ORD

ASBUILT FOR RECOR

RONALD T. JEPSON & ASSOC.

CIVIL ENGINEERING - SURVEYING - LAND PLANNING
222 GRAND AVENUE, SUITE C, BELLINGHAM, WASHINGTON 98225
360-733-5760 FAX 360-647-8939 WWW.JEPSONENGIENERING.COM

RON
CIVIL EN
222 GRA
360-733

AD AND DRAINAGE PLAN
DOUGLAS LONG PLAT PHASE 2
OUGLAS/CHURCH ROAD, FERNDALE

SCALE: AS SHOWN

DATE: 12/7/2011

SHEET:

APPROVED

JAN 1 3 2012

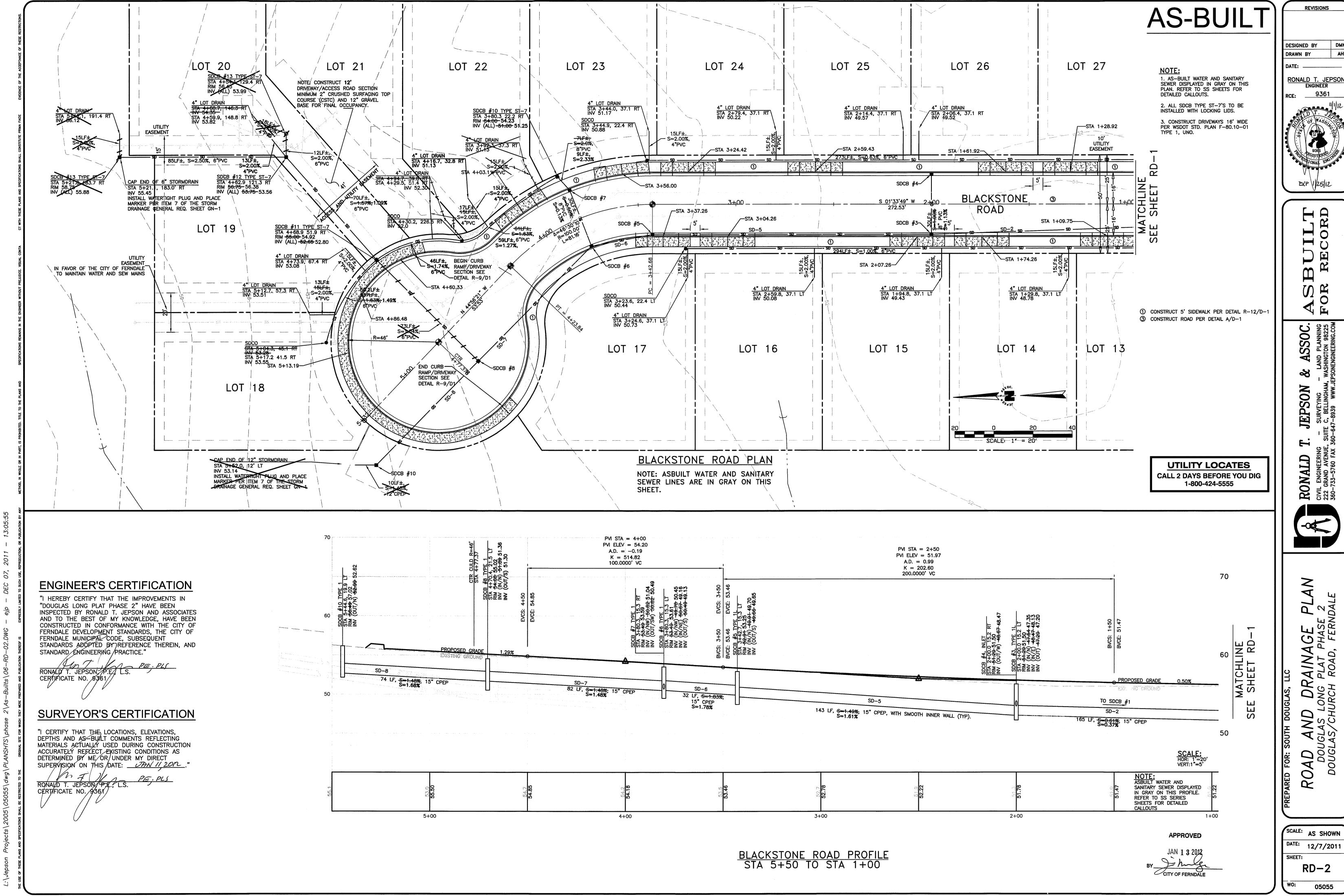
CITY OF FERNDALE

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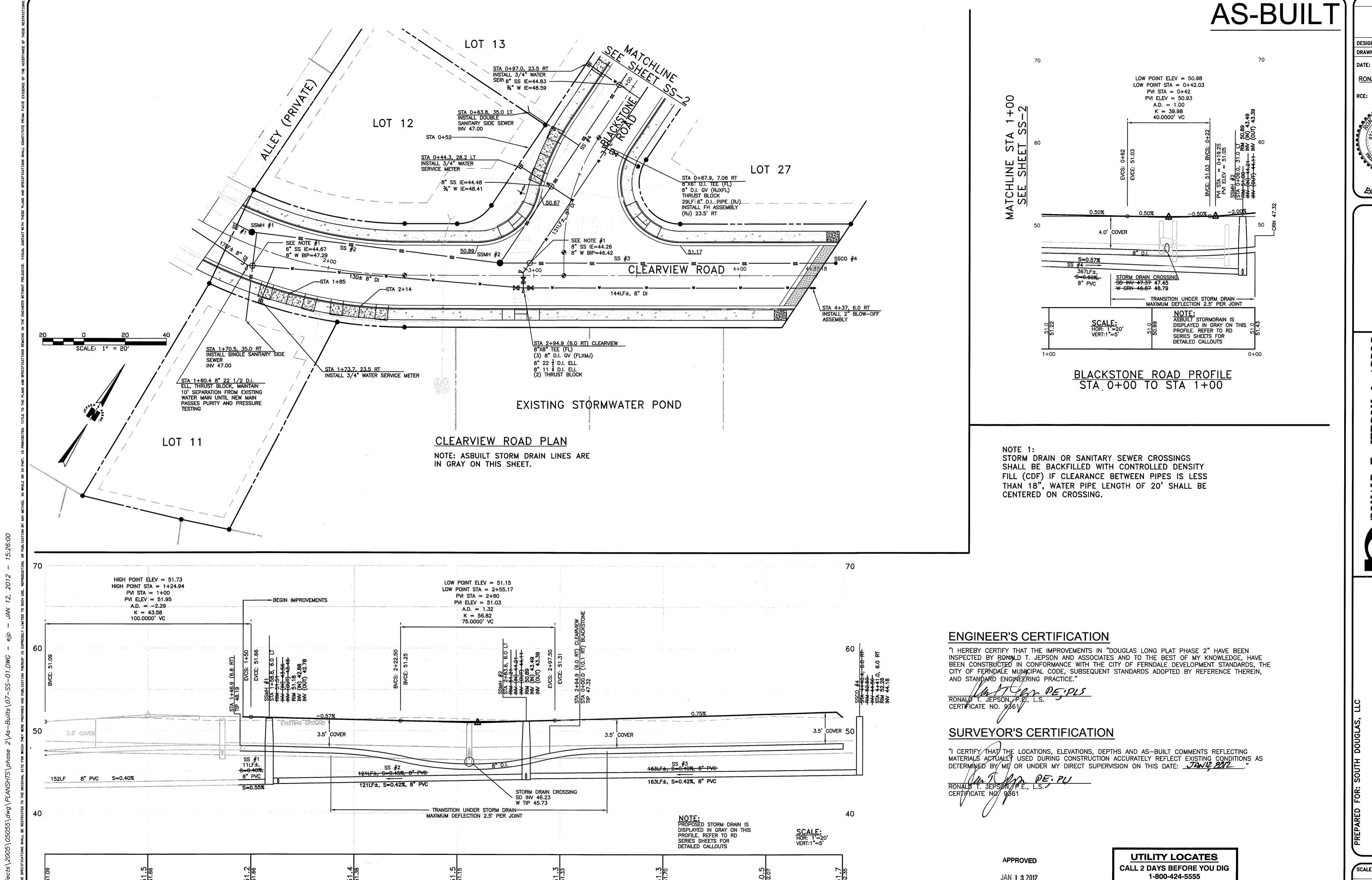
RONALD T. JEPSON, P.E., L.S. CERTIFICATE NO 9361

RO

RD-1



SH2.09.12



3+00

CLEARVIEW ROAD PROFILE STA 0+50 TO STA 4+37

1+00

DESIGNED BY RONALD T. JEPSON ENGINEER

EXP/1/25/12

3 UILT RECORD

ASSOC.

AND PLANNING
SHINGTON 98225 **JEPSON** RONA CIVIL ENG 222 GRAND 360-733-5

9

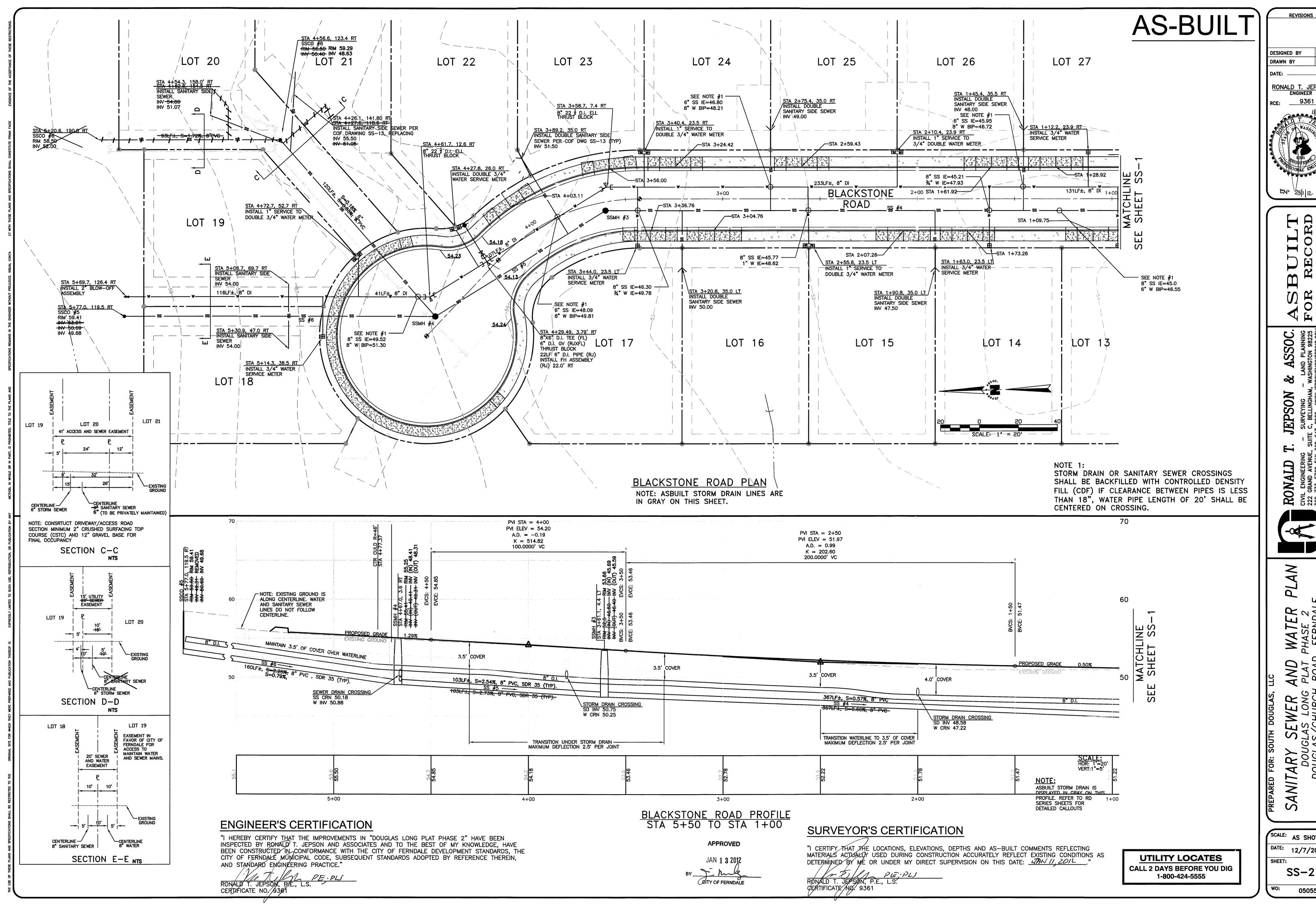
ANITARY SEWER A DOUGLAS LONG I DOUGLAS/CHURCH

SCALE: AS SHOWN DATE: 1/12/2012 SHEET: SS-1 05055

CITY OF FERNDALE

4+37.18

4+00



DMK DESIGNED BY DRAWN BY RONALD T. JEPSON ENGINEER 9361

ASSOC.

ND PLANNING
INGTON 98225
NGINEERING.COM **JEPSON**

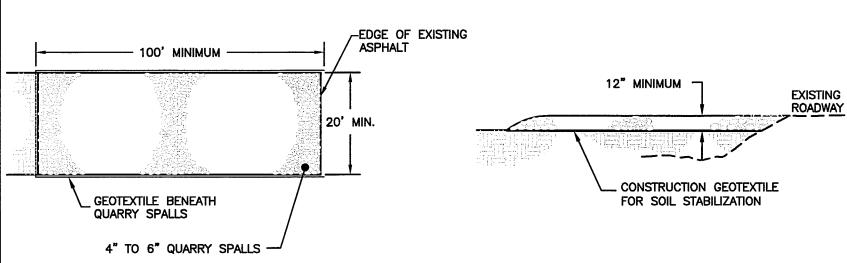


WATER PHASE 2 , FERNDAL AND PLAT ROAD

ANITARY SEWER ADDUCTAS LONG I

SCALE: AS SHOWN DATE: 12/7/2011

SS-2

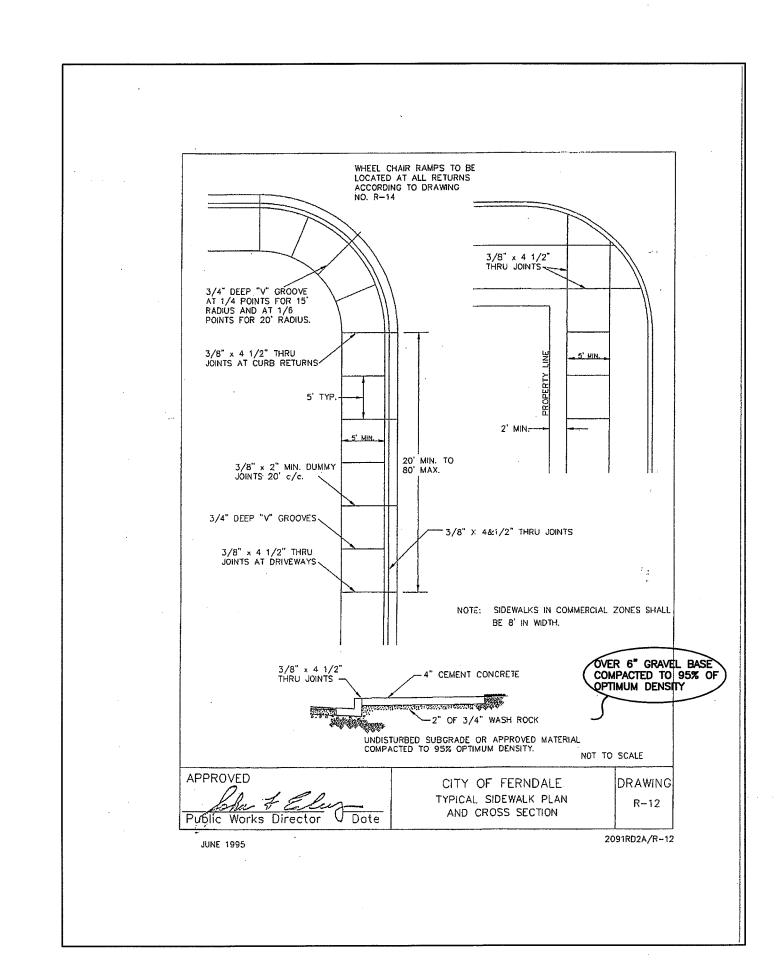


1. PAD SHALL BE REMOVED AND REPLACED WHEN SOIL IS EVIDENT ON THE SURFACE OF THE PAD OR AS DIRECTED BY THE CITY ENGINEER.

2. PAD THICKNESS SHALL BE INCREASED IF SOIL CONDITIONS DICTATE OR AS DIRECTED BY THE CITY ENGINEER.

3. MINIMUM DIMENSIONS MAY BE MODIFIED AS REQUIRED BY SITE CONDITIONS UPON APPROVAL OF THE CITY ENGINEER.

TEMPORARY CONSTRUCTION ENTRANCE DETAIL B NTS -



UTILITY LOCATES CALL 2 DAYS BEFORE YOU DIG

1-800-424-5555

ENGINEER'S CERTIFICATION

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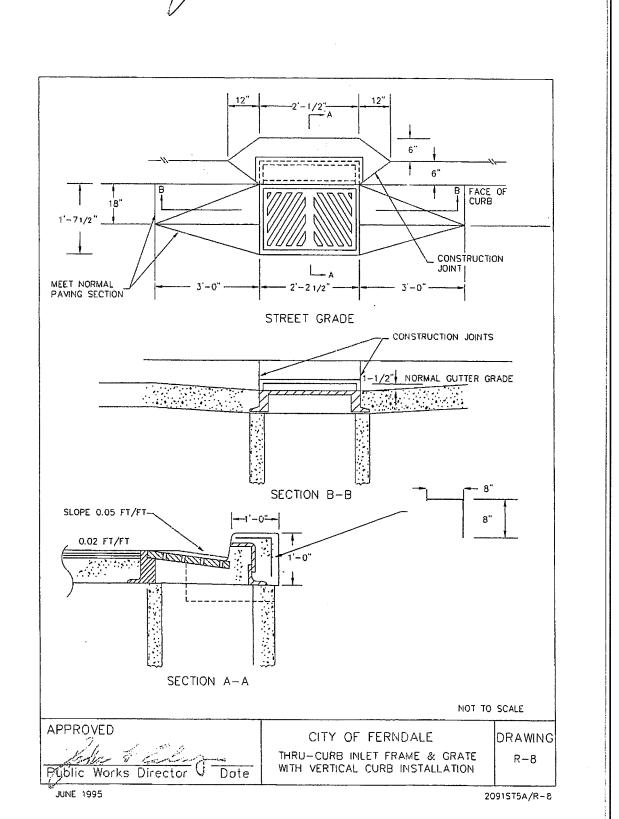
RONALO T. JEPSON, P.E., L.S. CERTIFICATE NO. 9361

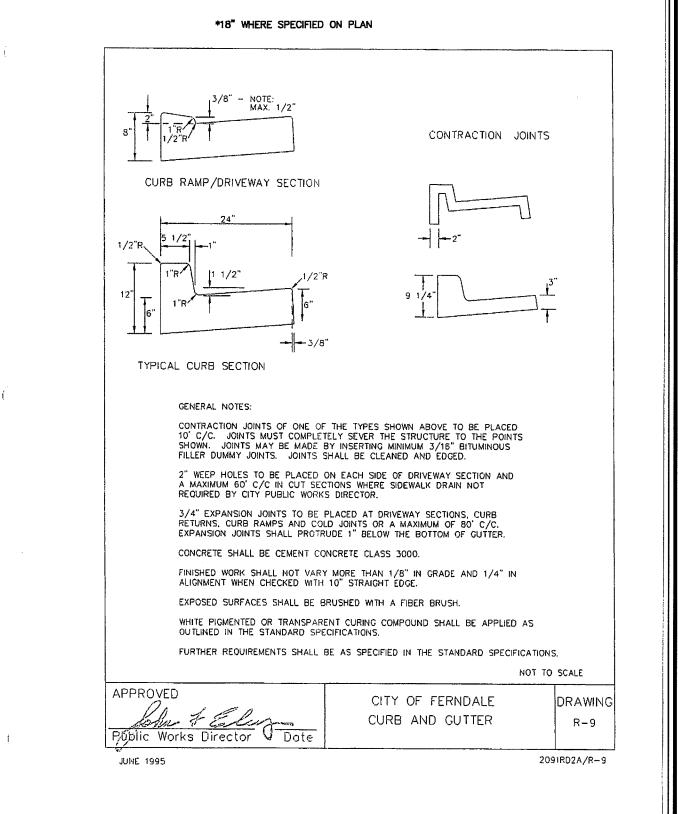
SURVEYOR'S CERTIFICATION

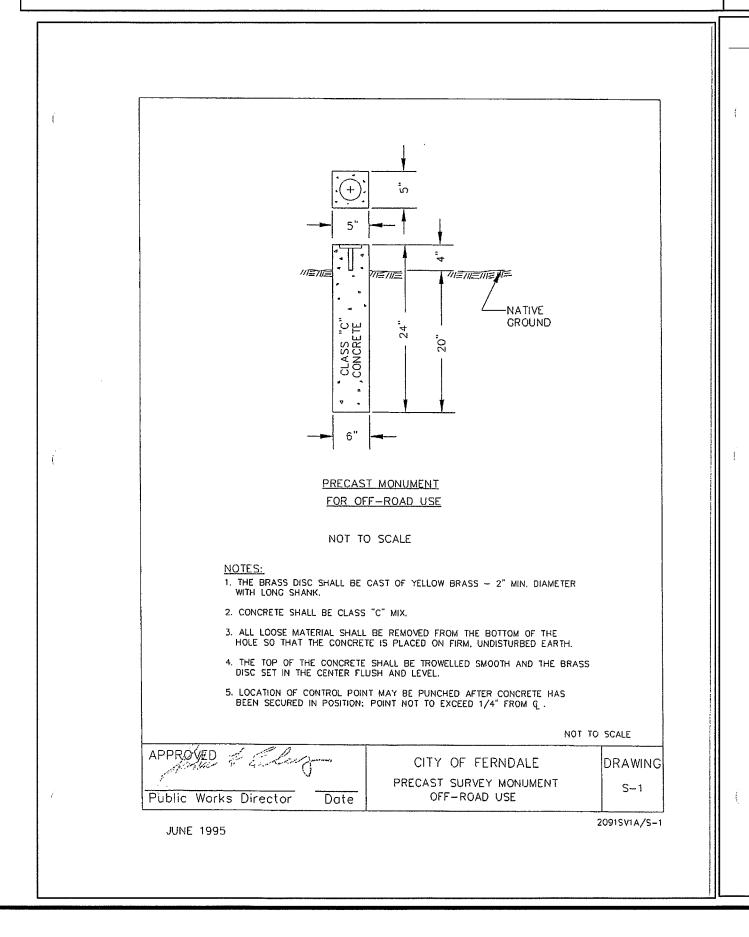
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RONALD T. JEPSON, P.E./ Z.S. CERTIFICATE NO. \$361/

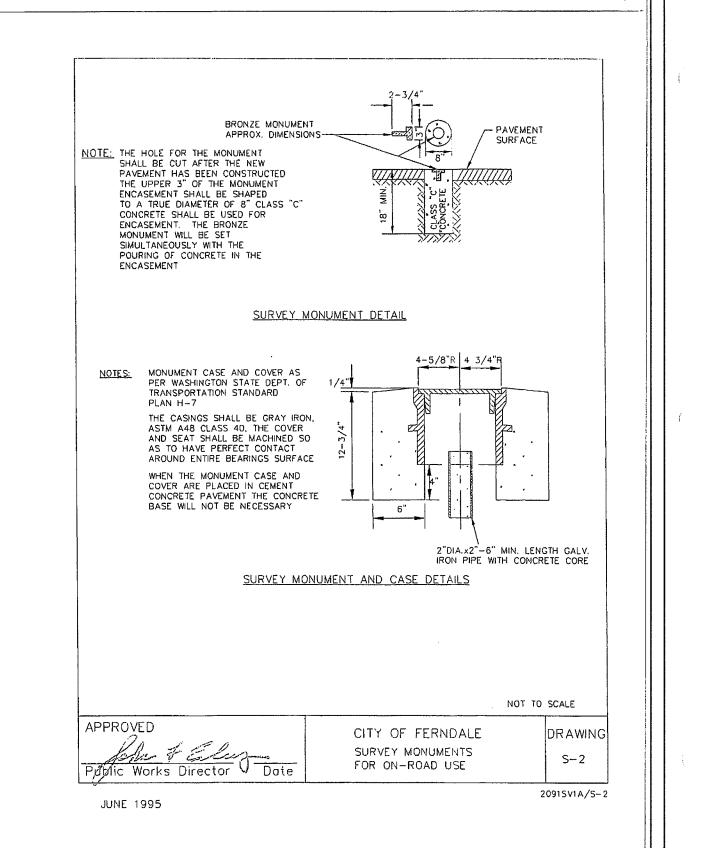


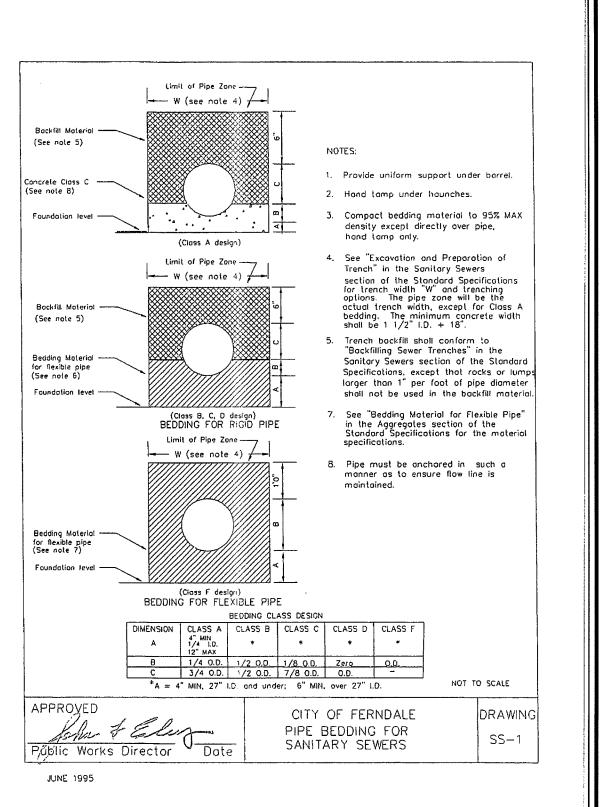




DEVMI BA: LEBN TIDDETT

2.0% MAX.





AS-BUILT

CITY OF FERNDALE

DESIGNED BY

DMK

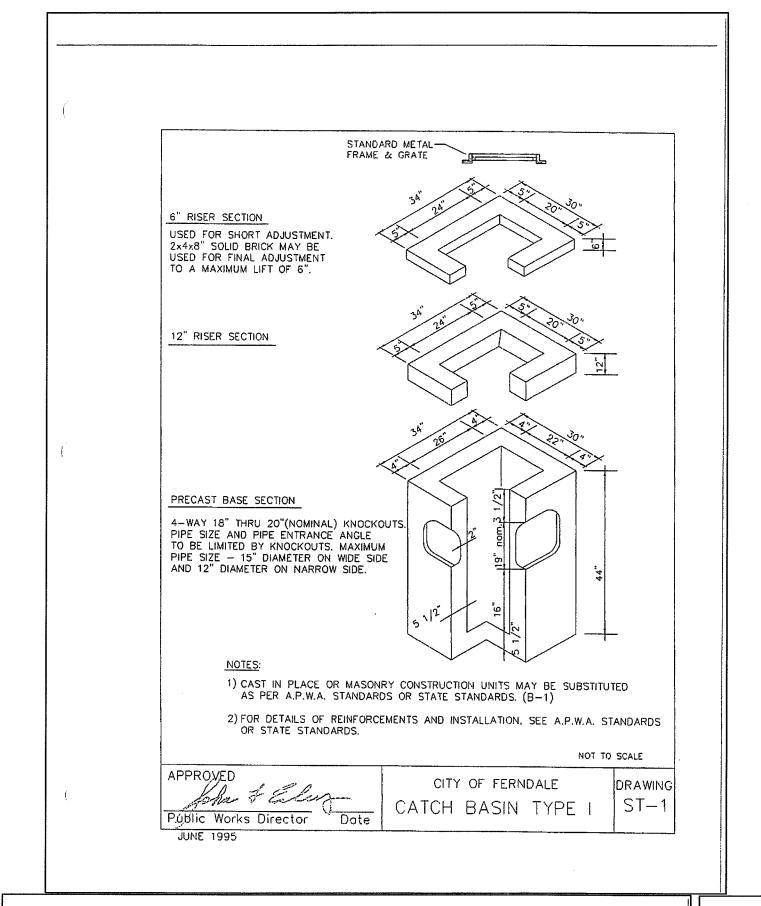
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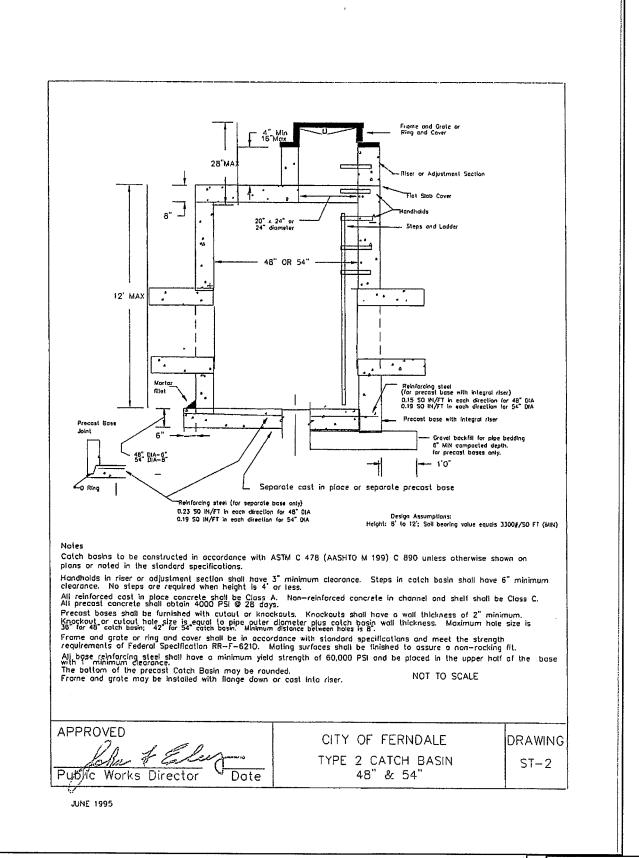
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CIVIL ENGI
222 GRAND
360-722 F

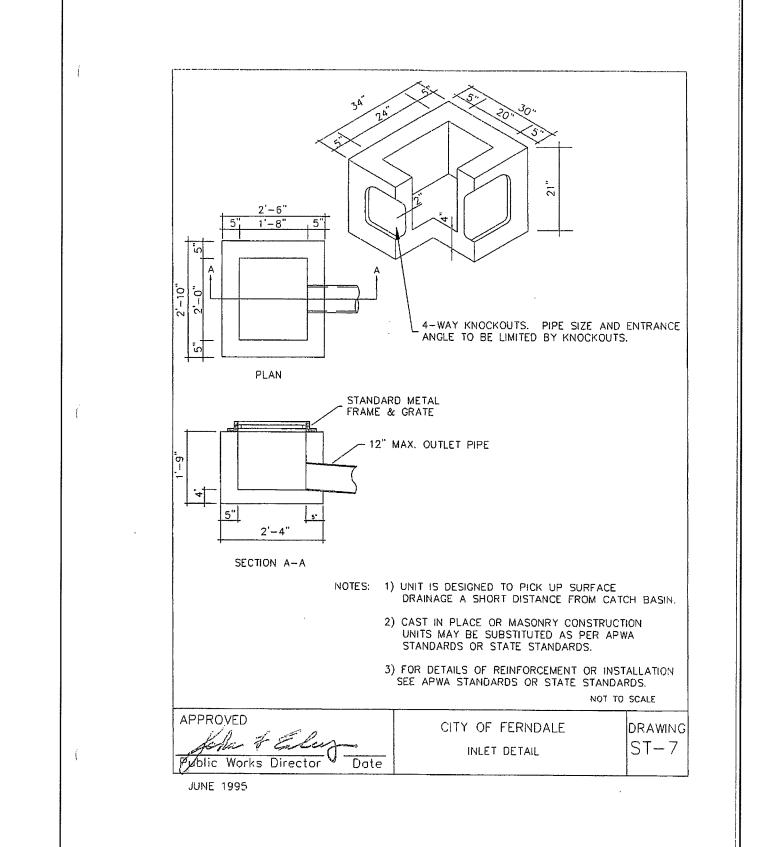
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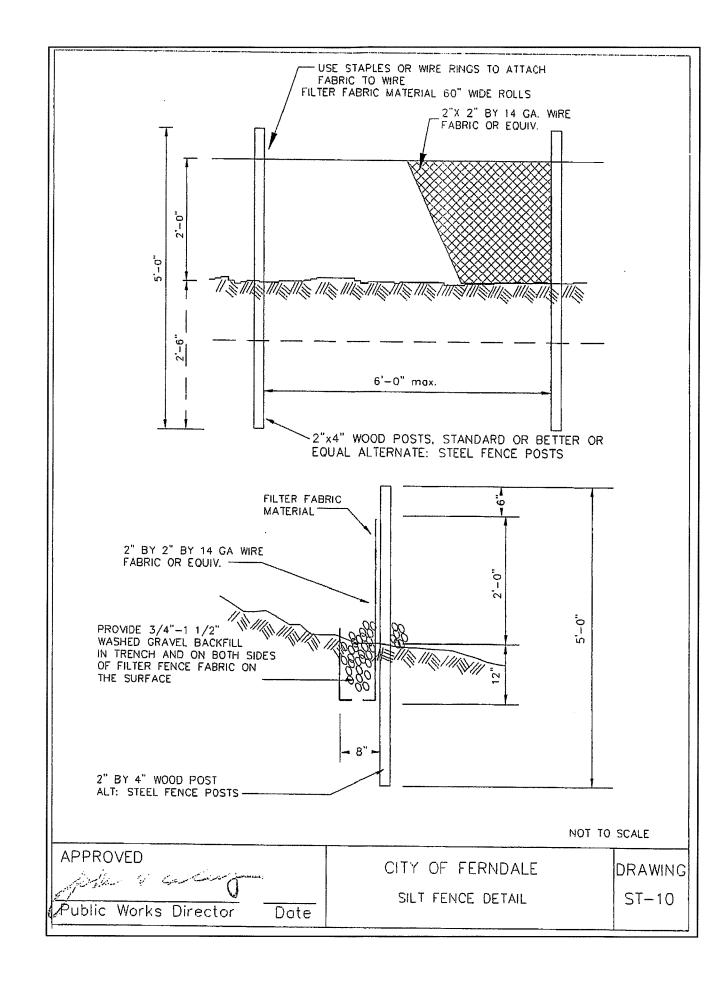
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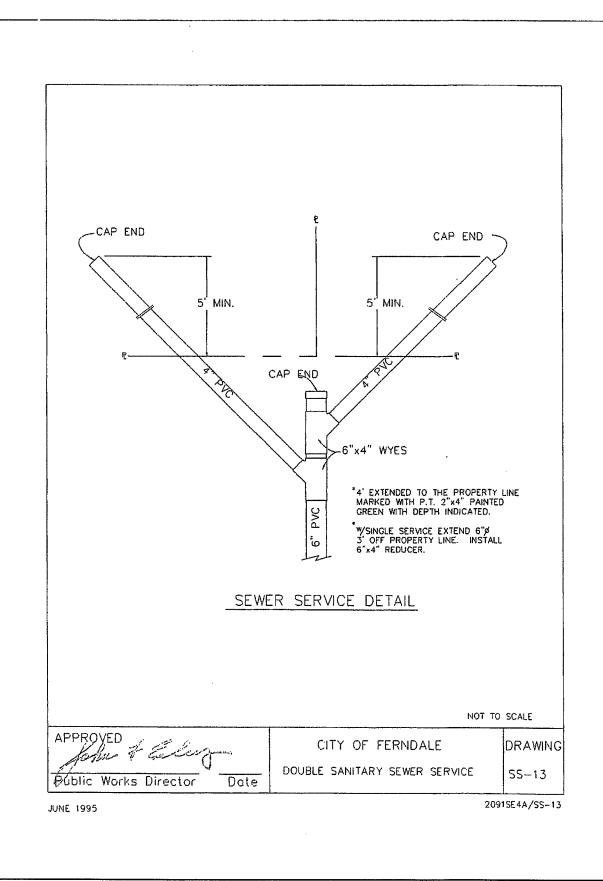
SCALE: AS SHOWN DATE: 10/5/11 SHEET: 05055

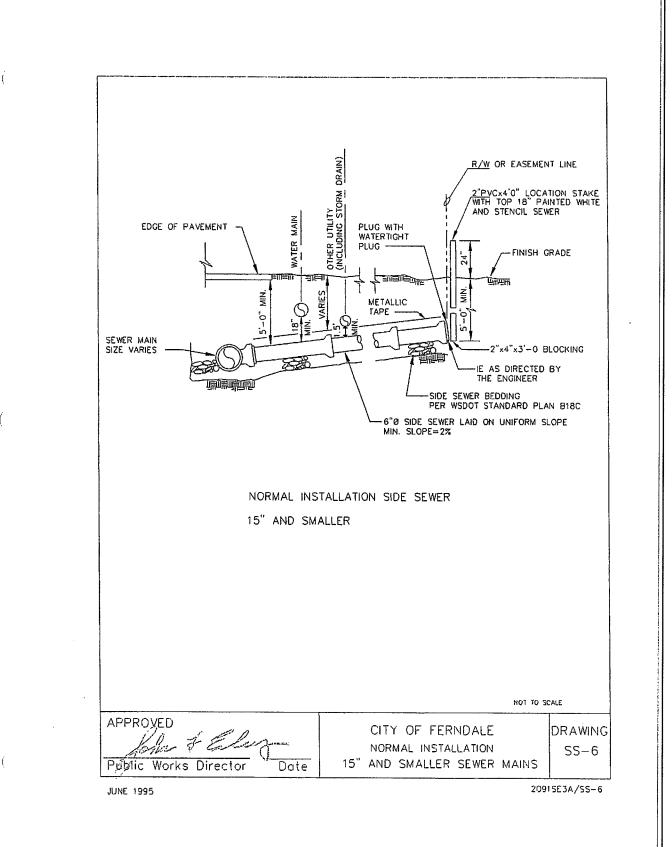


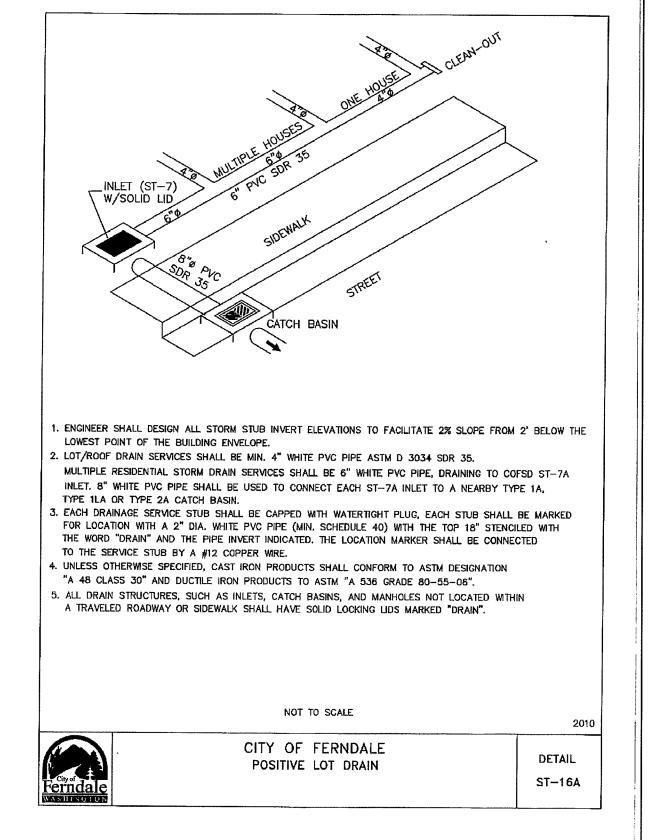


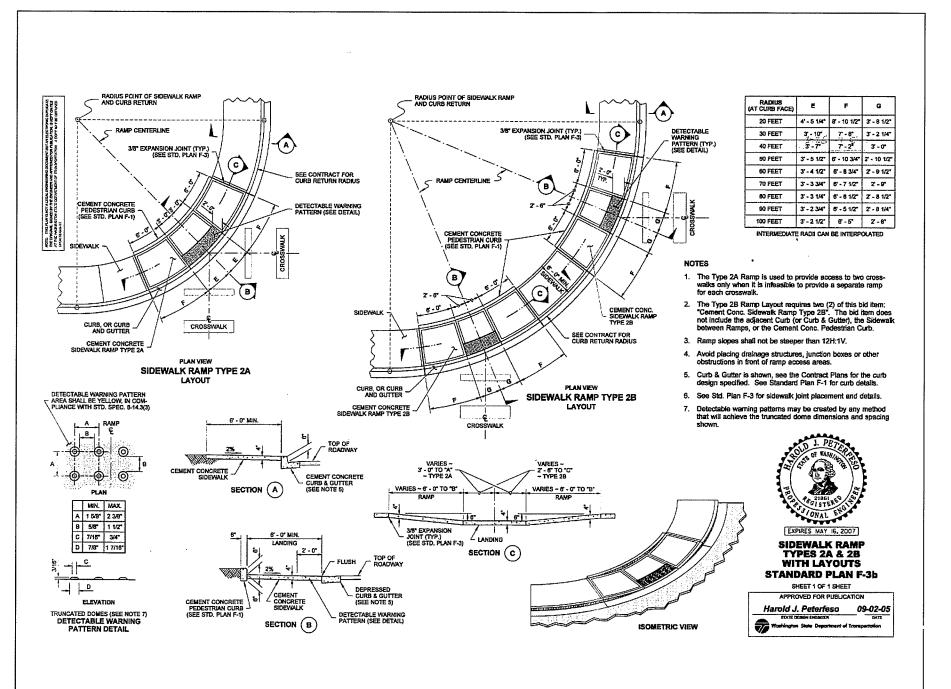












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RONALD T. JEPSON, P.F., L.S.
CERTIFICATE NO. 9361

JAN 1 3 2012

BY ______CITY OF FERNDALE

APPROVED

SIDEWALK RAMP DETAIL

UTILITY LOCATES

CALL 2 DAYS BEFORE YOU DIG
1-800-424-5555

NOTE: NO CHANGES WERE MADE TO THIS SHEET TO DOCUMENT DEVIATIONS FROM THE APPROVED PLANS.

REVISIONS

DESIGNED BY BJW

DRAWN BY AH

DRAWN BY

DATE:

RONALD T. JEPSON
ENGINEER

RCE: 9361

BUILT

T. JEPSON & ASSOC.

ING - SURVEYING - LAND PLANNING

NUE, SUITE C, BELLINGHAM, WASHINGTON 98225

AX 360-647-8939 WWW.JEPSONENGINEERING.COM



STION DETAILS

NG PLAT PHASE 2

RCH ROAD, FERNDALE

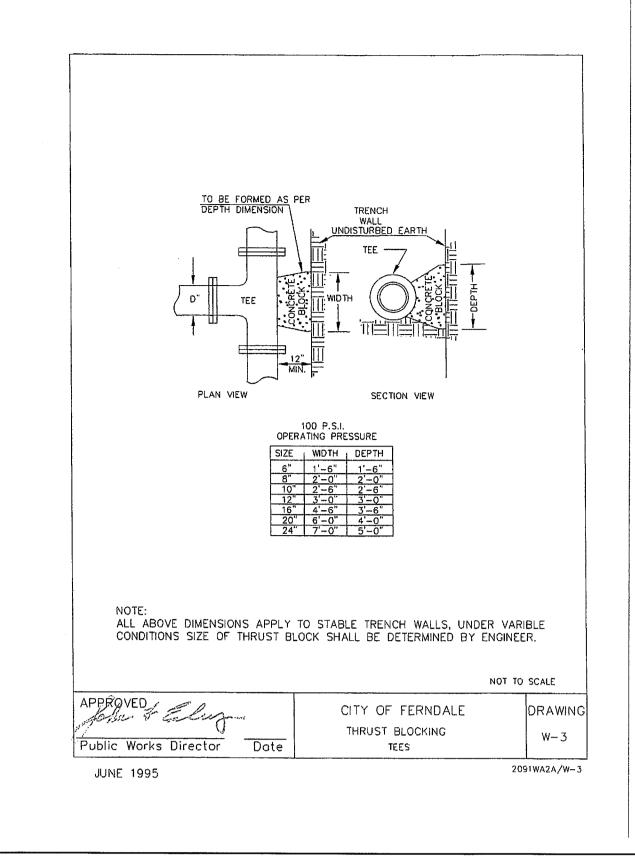
CONSTRUCTIONS
DOUGLAS LONG
DOUGLAS/CHURCH

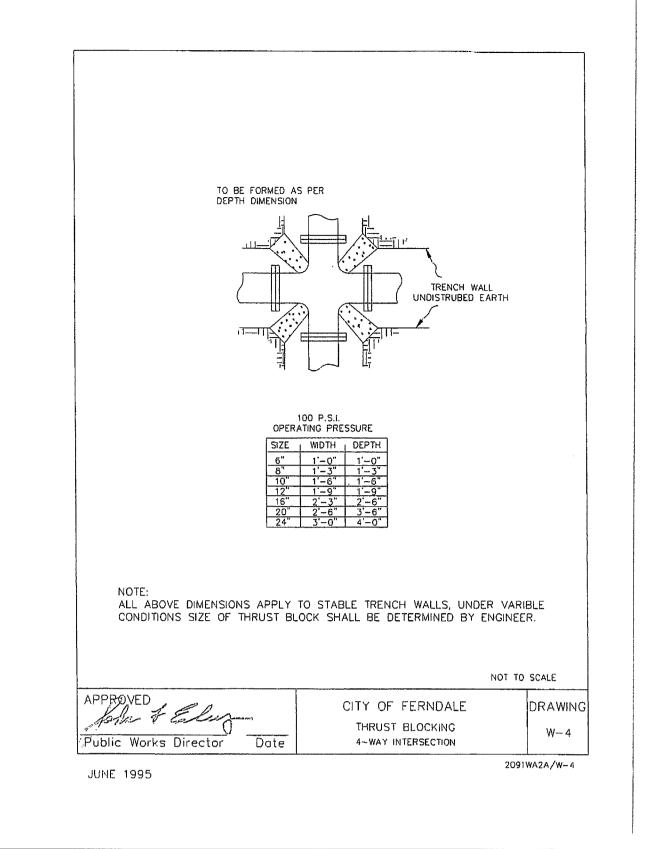
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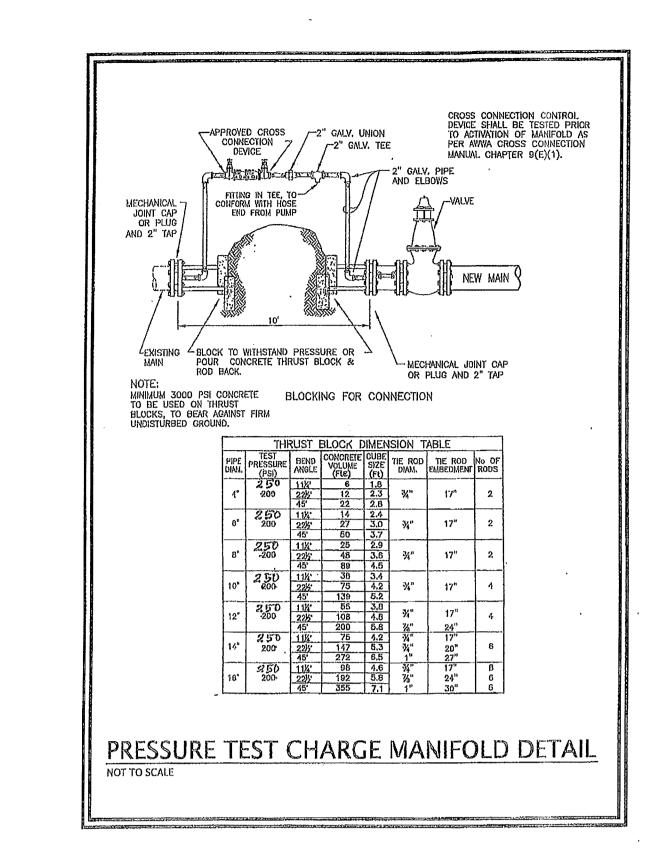
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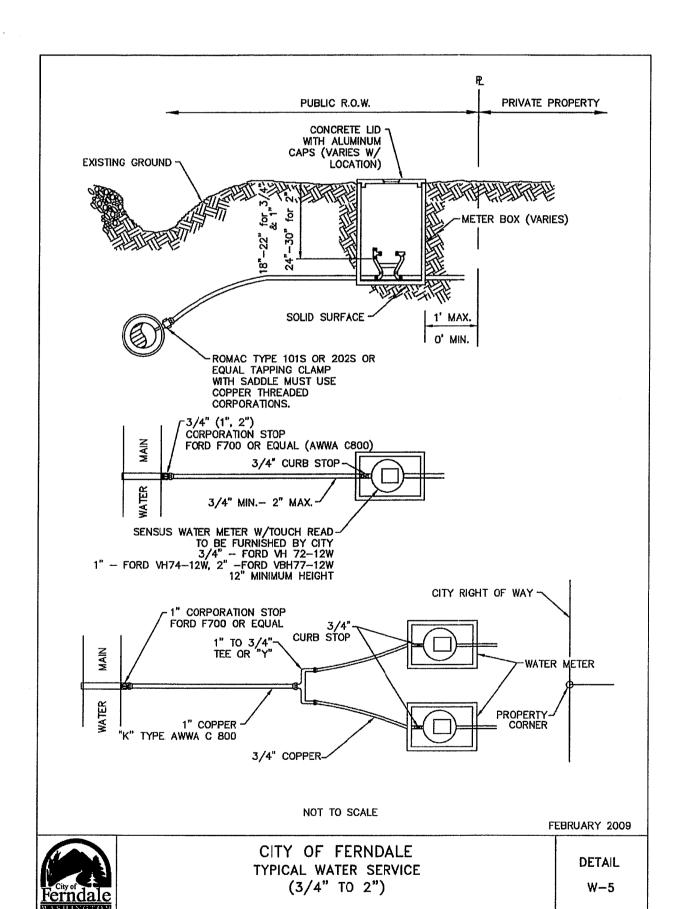
SHEET:

D-2

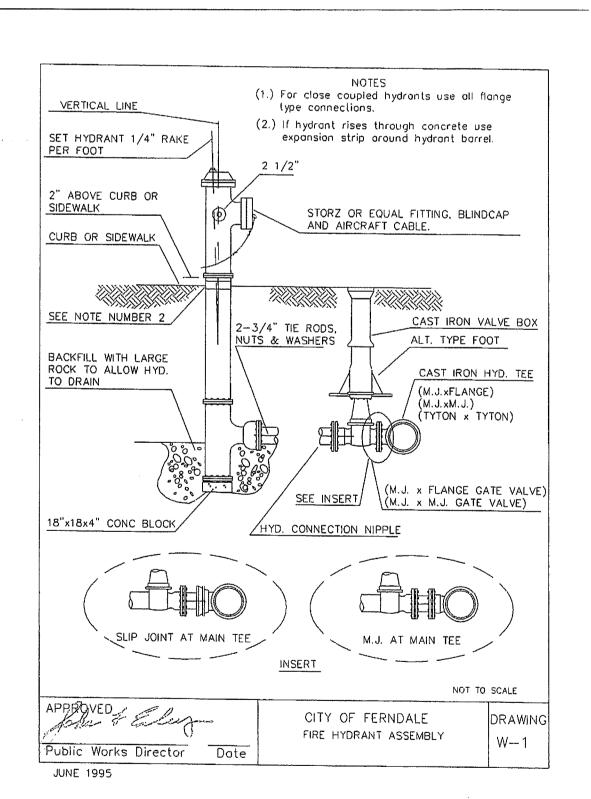


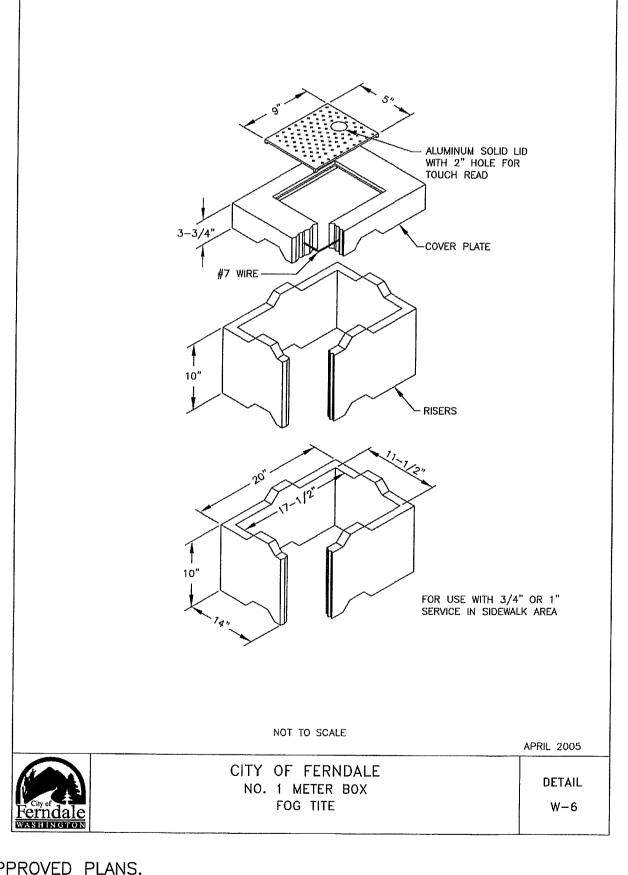












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SURVEYOR'S CERTIFICATION

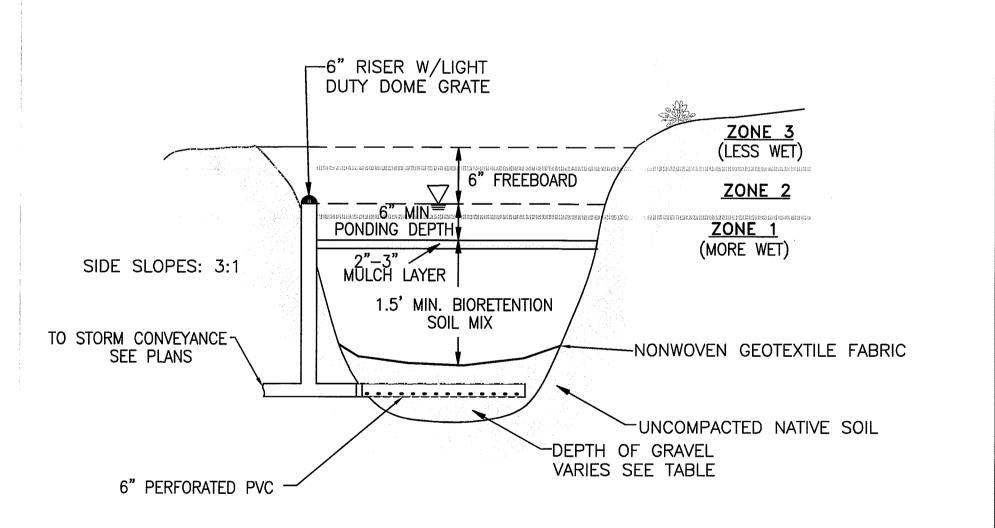
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RONALD T. JEPSON, P.E., L.S.
CERTIFICATE NO. 0361



TO BE INSPECTED BY ENGINEER OF RECORD PRIOR TO OCCUPANCY.

UTILITY LOCATES

CALL 2 DAYS BEFORE YOU DIG 1-800-424-5555

		-GRAVEL DEPTHS	BI	O-RETENTIO	N SOIL
<u>JVER-</u>	FLOW RISE	<u>R ELEVATION</u>	1	DESIGN INFILTRAT	TION RATE:
LOT 11	RISER=52.00	GRAVEL=3'	2.	65% TO 70% GR	
LOT 12	RISER=51.50	GRAVEL=3'	3.	GRAVELLY SAND	GRADATION
LOT 20	RISER=56.50	GRAVEL=3'		SIEVE SIZE	PE
LOT 21	RISER=55.50	GRAVEL=4'		2-INCH	100
LOT 24	RISER=53.00	GRAVEL=4'		3/4-INCH	70-
LOT 25	RISER=52.50	GRAVEL=4'		1/4-INCH	50-
OT 26	PISER-52.50	CDAVEL — 3'		US No. 40	15-

TE: 2 INCHES/HOUR.
SAND AND 30% TO 35% COMPOST (SEE SPECIFICATION BELOW).
ION PER ASTM D 422. PERCENT PASSING

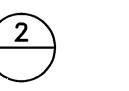
THE SOIL MIXTURE SHOULD BE UNIFORM, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES.
 ON—SITE SOIL MIXING OR PLACEMENT NOT ALLOWED IF SOIL IS SATURATED OR SUBJECT TO WATER WITHIN 48 HOURS.

WATER WITHIN 48 HOURS.
COVER AND STORE SOIL ACCORDINGLY TO PREVENT WETTING OR SATURATION.
TEST SOIL FOR FERTILITY AND MICRONUTRIENTS AND, IF NECESSARY, AMEND MIXTURE
TO CREATE OPTIMUM CONDITIONS FOR PLANT ESTABLISHMENT AND EARLY GROWTH
AT RATES RECOMMENDED BY AN INDEPENDENT LABORATORY SOIL TEST.

APPROVED

JAN 1 3 2012 CITY OF FERNDALE

RAINGARDEN/BIORETENTION DETAIL



BJW DESIGNED BY DATE:

AS-BUILT

ASSOC. **JEPSON**

RONALD CIVIL ENGINEERIN 222 GRAND AVENI 360-733-5760 FA

DETAI PHASE 2 FERNDAI 0

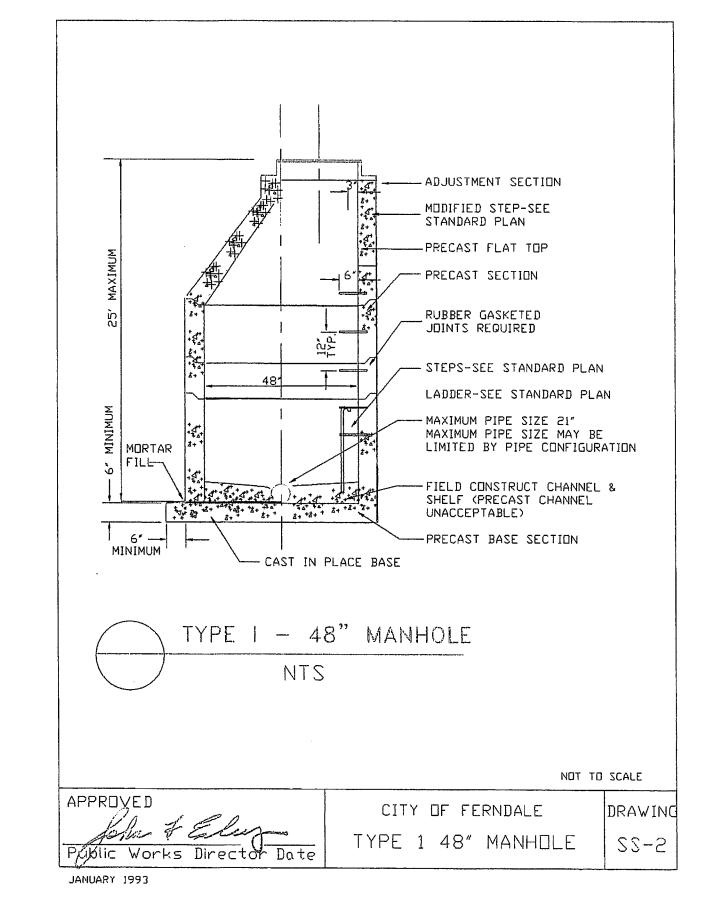
SCALE: AS SHOWN DATE: 10/5/11 SHEET:

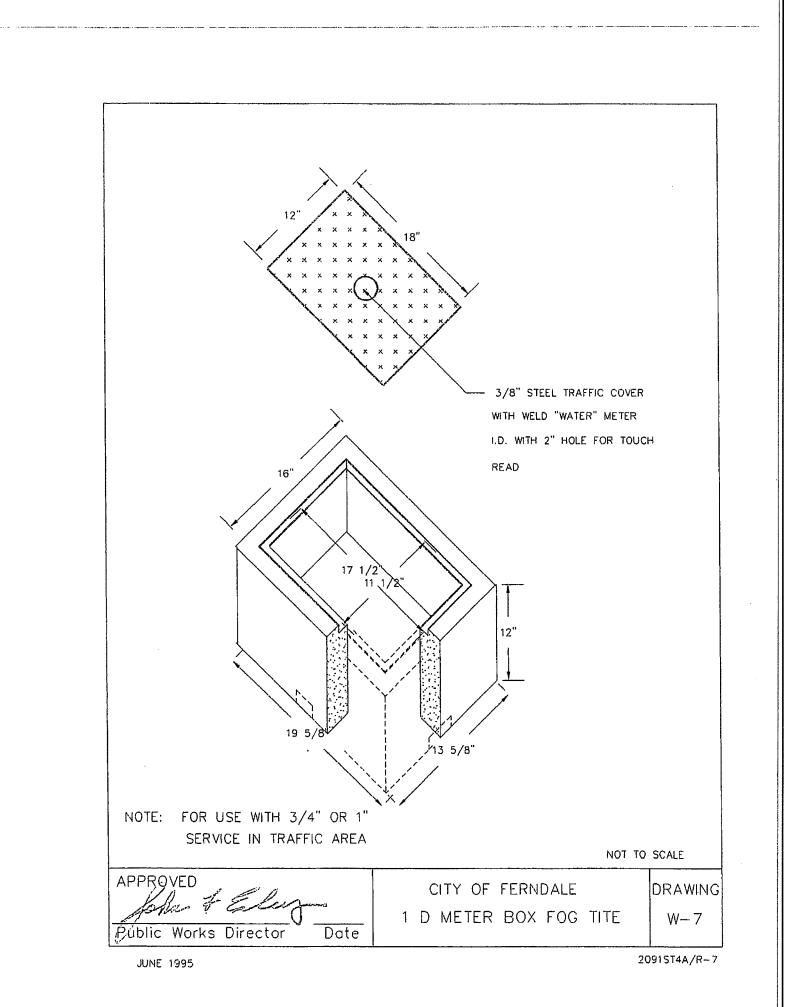
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WO: 05055

LOT 26 RISER=52.50 GRAVEL=3 LOT 27 RISER=51.50 GRAVEL=2'

8. PLACE SOIL IN LIFTS NOT EXCEEDING 6 INCHES.





AS-BUILT

Dril) & los 5/8" . 11 hole for 1 1/2" x 5/8"

stainless sleet socket

head cap screw

SECTION A - A

SECTION B - B

CITY OF FERNDALE

MANHOLE RING & COVER

TYPE 2

BOLT DOWN/WATERTIGHT

NOT TO SCALE

DRAWING

SS-9

Cover Skid Design Detail

SECTION A - A

SECTION B - B

STANDARD

TYPE 1

Casket and groove may be in the seat or underside of cover.

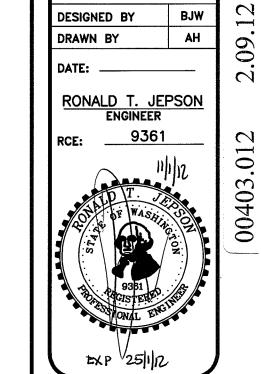
Public Works Director Date

Washer shall be lead or neoprene.

For bolt down manhole ring and covers that are not waterlight, the neoprene gosket, grove and washer are not required.

Unless otherwise shown on the Plans, or specified in the Special provisions, Type 1, Standard Manhole Rings and Covers shall be used on WSDOT contracts.

In lieu of blind pick notch for storm sewer manhale covers, drill three t inch diameter holes at 120 degree spacing.



DESIGNED BY DRAWN BY

SH

ASSOC.

IND PLANNING INGTON 98225 NGINEERING.COM

JEPSON

RONALD CIVIL ENGINEERIN 222 GRAND AVEN 360-733-5760 FA

ON PLAI ROA

0

SCALE: AS SHOWN DATE: 12/7/2011 SHEET:

05055

wo:



ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "DOUGLAS LONG PLAT PHASE 2" HAVE BEEN INSPECTED BY RONALD T. JEPSON AND ASSOCIATES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL GODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE."

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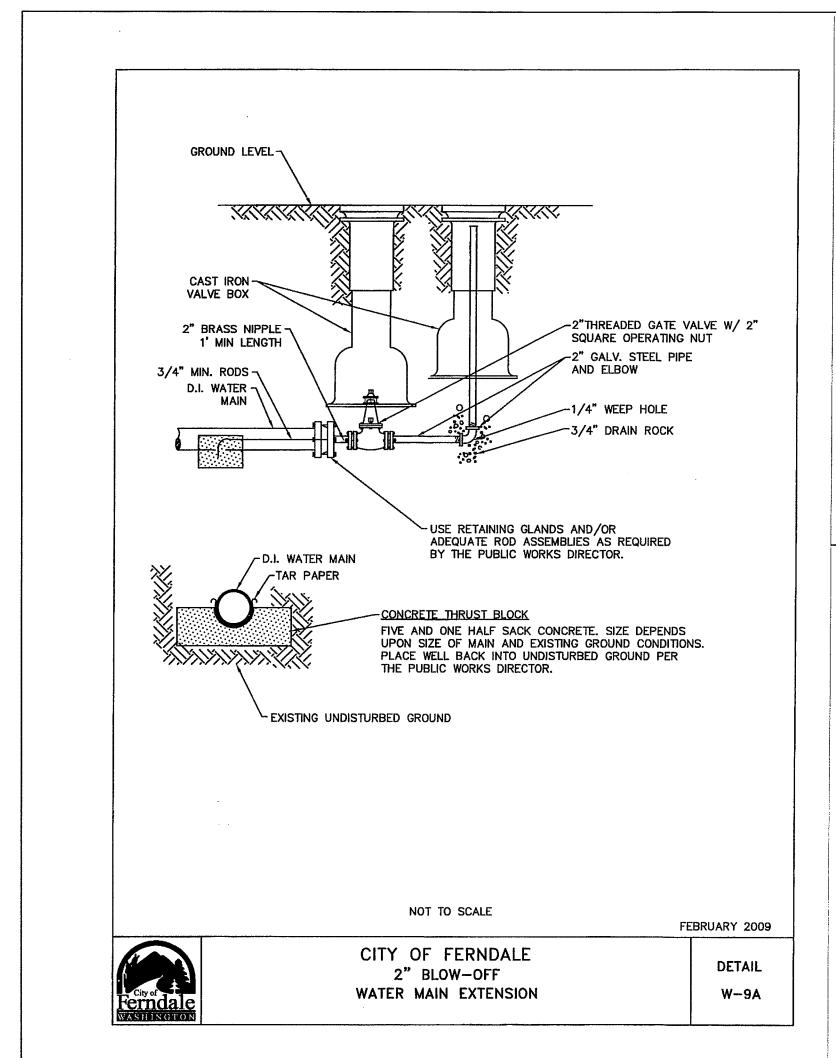
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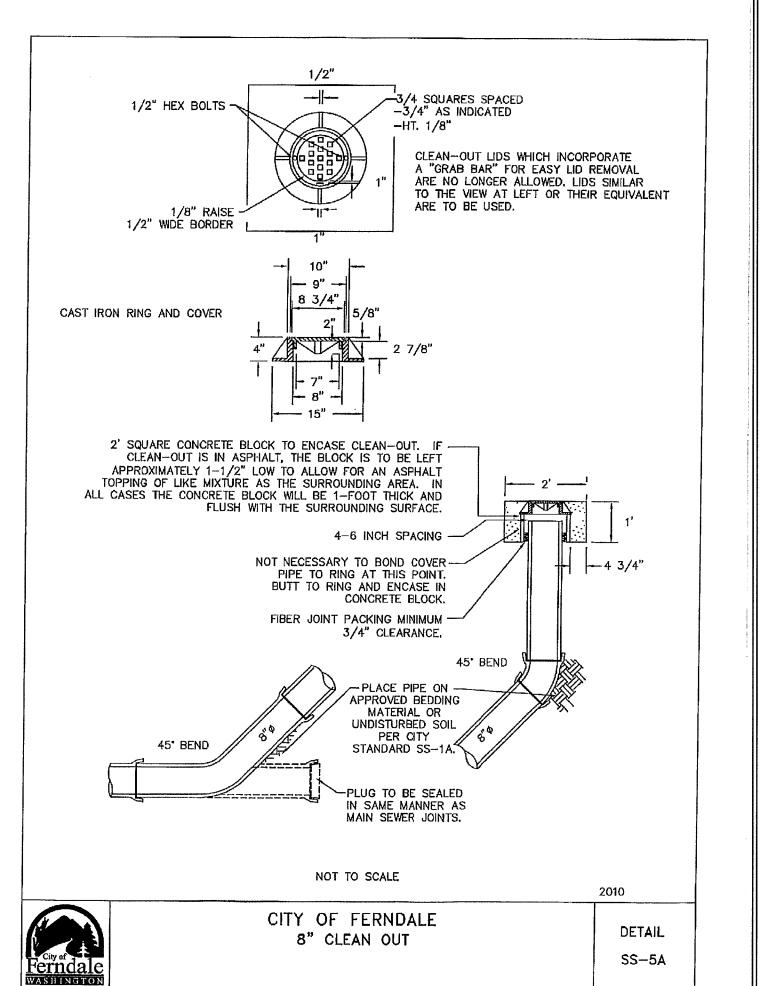
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CONDITIONS AS DETERMINED BY ME OR UNDER MY
DIRECT SUPERVISION ON THIS DATE:

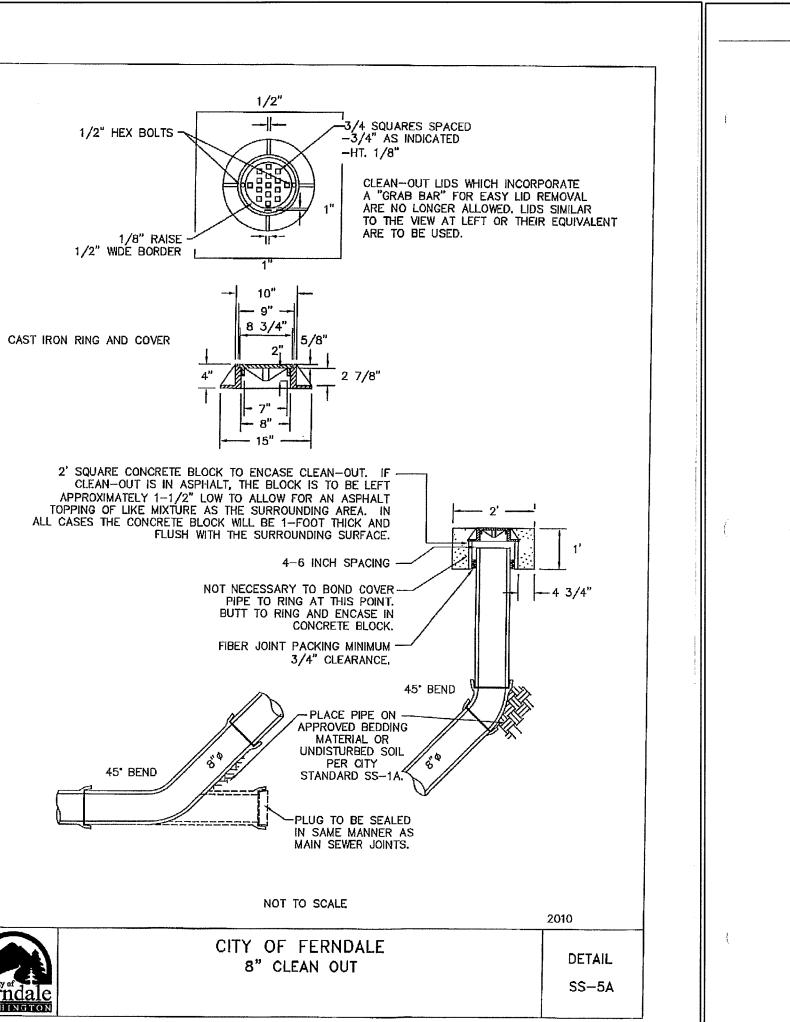
JANII 2012 ."

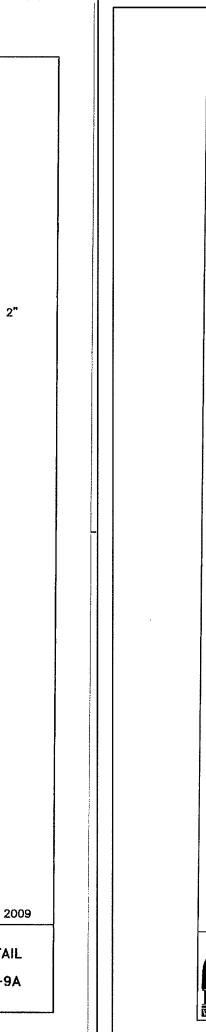
RONALD T. JEPSON P.E., L.S. CERTIFICATE NO. 9361

UTILITY LOCATES CALL 2 DAYS BEFORE YOU DIG 1-800-424-5555









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 REVIEWED ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.

3. THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN PUBLIC RIGHTS-OF-WAY.

4. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT AND THE PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

5. ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE. REPRESENTATIVES FROM THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOWS:

A. PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES. B. PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS-OF-WAY

OR IN WATERLINE EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE. C. PLACEMENT AND BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN

ROAD RIGHTS-OF-WAY OR IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE. D. GRADING OF PUBLIC ROADWAY AT:

COMPLETION OF EXCAVATION TO SUBGRADE COMPLETION OF BALLAST COURSE PLACEMENT.

COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT. POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC ROADWAY.

ASPHALT PAVING IN PROGRESS IN PUBLIC ROADWAY. G. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT

PLACEMENT H. END OF MAINTENANCE PERIOD.

6. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING SUB-SURFACE CONDITIONS AND SOILS TYPES.

7. 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-TRAFFIC CONTROL, SHALL

8. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN

9. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATIONS 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.

10. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE BASED UPON A COMBINATION OF FIELD RECONNAISSANCE, FIELD SURVEY AND UTILITY COMPANY RECORDS AND ARE SHOWN ON THESE PLANS IN AN APPROXIMATE WAY ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES PRIOR TO STARTING CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COSTS INCURRED BECAUSE OF DAMAGE DONE TO EXISTING FACILITIES BY THE CONTRACTOR'S WORK FORCE, INCLUDING COSTS FOR REPAIRS, WHICH WILL BE CONTRACTOR'S SOLE RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT UTILITY LOCATION SERVICE AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-424-5555.

11. 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.

12. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST BETWEEN ACTUAL FIELD CONDITIONS AND THE ASSUMED CONDITIONS SHOWN ON THE APPROVED PLANS PRIOR TO PROCEEDING WITH CONSTRUCTION, SO THAT NECESSARY PLAN OR DESIGN CHANGES CAN BE MADE. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR EXTRA WORK, INCLUDING REMOVAL AND RECONSTRUCTION OF NEWLY BUILT IMPROVEMENTS, MADE NECESSARY BY ERRORS OF DIMENSION OR GRADE ON THE APPROVED PLANS, UNLESS SUCH NOTIFICATION WAS GIVEN.

13. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR

15. ALL MATERIALS TESTING REQUIREMENTS FOR THE IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED IN ACCORDANCE WITH THE INSTRUCTIONS OF THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR. CONTRACTOR SHOULD DETERMINE THESE REQUIREMENTS PRIOR TO THE START OF

16. ALL PORTLAND CEMENT CONCRETE SHALL BE APWA CLASS 3000, PER APWA STANDARD SPECIFICATIONS, SECTION 6-02.3(2)B.

17. UNDERGROUND UTLITIES CONSTRUCTION

A. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO ASSURE ACCURATE AND TIMELY COLLECTION OF ALL REQUIRED AS-BUILT DATA. THIS DATA MUST ACCURATELY REFLECT THE LOCATIONS OF ALL UNDERGROUND UTILITIES, BOTTOM OF PIPE ELEVATIONS, INVERT ELEVATIONS, MANHOLE LOCATIONS, BLOW-OFF LOCATIONS AND INVERTS OF SERVICE CONNECTIONS (BOTH AT PIPE AND AT PROPERTY LINE), VERTICAL AND HORIZONTAL BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS. CALL AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY. THE ENGINEER WILL PROVIDE CERTIFIED AS-BUILT MYLARS TO PUBLIC WORKS UPON PROVISIONAL ACCEPTANCE OF ROAD AND UTILITY IMPROVEMENTS.

B. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:

i. NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.

ii. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF DITCHES.

iii. TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT PONDS.

iv. WHERE PRACTICAL, INSTALL GRAVITY PIPE UTILITIES PRIOR TO INSTALLATION OF OTHER UTILITIES.

C. UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS.

D. TESTING OF NEW WATER LINES, SANITARY SEWER LINES, AND STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF THE STANDARD STREET SECTION:

TYPICAL STREET SECTION PCC CURB AND GUTTER PCC SIDEWALKS PCC CURB RAMPS, ADA APPROACHES SIDEWALK DRAINS

MODIFIED R-4 CITY OF FERNDALE STANDARD DETAIL (COFSD) R-9 COFSD R-12 & TYP. SECTION ON SHEET 1 WSDOT STD. DETAIL F-3 COFSD ST-15

MONUMENTS COFSD S-2 2. ALTERNATE PAVEMENT SECTIONS, WHEN DESIGNED BY A LICENSED GEOTECHNICAL ENGINEER, MAY BE SUBMITTED TO THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR FOR CONSIDERATION AND, IF APPROVED, USED IN PLACE OF THE PAVEMENT SECTION SHOWN ON THESE PLANS.

3. <u>EARTHWORK</u>

A. THE CONTRACTOR SHALL CLEAR, GRUB AND CLEAN UP THOSE AREAS SHOWN ON THE PLANS.

B. THE CONTRACTOR SHALL RAZE, REMOVE AND DISPOSE OF ALL BUILDING AND FOUNDATIONS, STRUCTURES, FENCES AND OTHER OBSTRUCTIONS THAT LIE WHOLLY OR PARTIALLY WITHIN THE PROJECT LIMITS.

C. THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UNCOMPACTED OR POORLY COMPACTED FILL

SOILS WITHIN THE THE ROAD PRISM AT THE DIRECTION OF THE ENGINEER. D. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN

F. UNSUITABLE MATERIAL NOT FIT FOR USE AS A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES

IN THE PLANS OR ESTABLISHED BY THE ENGINEER. E. MAXIMUM DENSITY AND OPTIMUM MOISTURE FOR GRANULAR MATERIALS WILL BE DETERMINED USING

ASTM D-1557 TEST METHOD.

SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL. F. THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING. ROAD (CONTINUED)

4. BASE COURSES

A. GRAVEL BASES AND BALLAST SHALL NOT HAVE THE PERCENT PASSING THE U.S. NO. 200 SIEVE EXCEED 5%.

B. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.

C. OWNER SHALL BE RESPONSIBLE FOR ALL COMPACTION TESTING. ALL TESTING SHALL BE THROUGH ENG. REV. ACCOUNT AND PAID FOR BY OWNER.

A. SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.

B. A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.

C. ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. AR-4000W SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT.

D. WHERE NEWLY CONSTRUCTED PAVING MEETS EXISTING PAVING, THE APPLICANT SHALL OVERLAY AND FEATHER NEW PAVEMENT TO PROVIDE A SMOOTH TRANSITION FROM EXISTING TO PROPOSED PAVING. APPLICATION OF A THIN PAINT COAT OF EMULSIFIED ASPHALT SHALL BE APPLIED TO INSURE PROPER

E. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD.

6. STREET LIGHTING

A. CONTRACTOR SHALL PROVIDE STREET ILLUMINATION IN ACCORDANCE WITH THE PROVISIONS OF SECTION 707 OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS. 100-WATT HIGH PRESSURE SODIUM LAMPS SHALL BE INSTALLED ON STANDARD CONCRETE OCTAGONAL OR ROUND POLES NO LESS THAN 25 FEET HIGH AND SPACED NO MORE THAN 250' APART, MEASURED ALONG THE PAVEMENT CENTERLINE. POLE LOCATIONS ARE SHOWN ON THESE PLANS.

B. FINAL LOCATIONS OF STREET LIGHTS IS TO BE COORDINATED WITH PUGET SOUND ENERGY.

C. CONTRACTOR IS TO COMPLY WITH THE SPECIFICATIONS SHOWN ON WSDOT STANDARD DETAIL J-11A, STANDARD JUNCTION BOX, UNLESS OTHERWISE DIRECTED BY THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR.

D. CONTRACTOR MUST INFORM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR (4) WORKING DAYS IN ADVANCE.

MAILBOXES SHALL BE TYPE I, II, AND/OR III - CBU (CENTRAL BOX UNIT), USPS APPROVED. FINAL LOCATION AS DETERMINED BY USPS.

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS: "MAIN LINE" CATCH BASINS TYPE 1, 1L OR 2, WSDOT STD. DETAILS B-1, B-1A OR B-1E

"RESIDENTIAL SERVICE LINE" CATCH BASINS CITY OF FERNDALE STANDARD DETAIL (COFSD) ST-7 THRU-CURB INLET FRAME AND GRATE CITY OF FERNDALE STANDARD DETAIL (COFSD) ST-8 SIDEWALK DRAINS COFSD ST-15

2. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 7-08.3(1). 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. DRAINAGE MATERIALS SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS SECTION 9-05.

3. STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE CORRUGATED POLYETHYLENE PIPE (CPEP) AND SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS, SECTION 9-05.20. STORM SEWER PIPE HAVING DIAMETERS 8" AND SMALLER SHALL BE POLYVINYL CHLORIDE (PVC) PIPE AND SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS, SECTION 9-05.12.

4. ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".

5. UNLESS OTHERWISE SPECIFIED, CAST IRON PRODUCTS SHALL CONFORM TO ASTM DESIGNATION "A 48 CLASS 30" AND DUCTILE IRON PRODUCTS TO ASTM DESIGNATION "A 536 GRADE 80-55-06".

6. 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.

7. ALL DRAINAGE SERVICE STUBS SHALL BE MARKED FOR LOCATION WITH A PRESSURE TREATED 2" X 4" TIMBER, PAINTED WHITE OR A WHITE 2" DIA. PVC PIPE. BOTH TYPES OF LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

8. MULTIPLE RESIDENTIAL STORM DRAIN SERVICES SHALL BE 6" WHITE PVC PIPE, DRAINING TO A COFSD ST-7 INLET 8" PVC PIPE SHALL BE USED TO CONNECT EACH ST-7 INLET TO A NEARBY TYPE 1 OR TYPE 1L CATCH BASIN.

9. ALL STORM STUB INVERT ELEVATIONS SHALL BE CONSTRUCTED TO FACILITATE POSITIVE FLOW TO CATCH BASIN.

SANITARY SEWER

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING SANITARY SEWER IMPROVEMENTS:

CITY OF FERNDALE STANDARD DETAIL (COFSD) SS-1 COFSD SS-15 & SS-1 & WSDOT STD. SPEC. SEC. 9-03.12 TRENCH BACKFILL SS MANHOLE, TYPE 1-48" COFSD SS-2 SSMH RING & COVER, TYPE 2 COFSD SS-9 (BOLT DOWN/WATERTIGHT) SS CLEANOUTS COFSD SS-5 SIDE SEWERS COFSD SS-6, SS-8 & SS-13

2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH A.P.W.A. STANDARD SPECIFICATIONS, 1996 EDITION,

3. ALL WORK MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERNDALE. 24 HOUR NOTICE MUST BE GIVEN PRIOR TO STARTING WORK. TESTING OF THE SEWER SYSTEM AND ALL CONNECTIONS TO EXISTING MAINS SHALL BE DONE IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDALE REPRESENTATIVE.

4. SANITARY SEWER MAINS SHALL BE A MINIMUM 8 INCH DIAMETER PVC PIPE (SDR-35) CONFORMING TO THE PROVISIONS OF ASTM D 3034 AND INSTALLED TO CITY SPECIFICATIONS.

5. SANITARY SEWER PIPE BEDDING SHALL BE PEA GRAVEL PER COFSD SS-1. ALL TRENCHES SHALL BE BACKFILLED WITH CLASS B BANK RUN GRAVEL OR SUITABLE NATURAL MATERIAL AS DIRECTED BY THE ENGINEER, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.

6. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE SS-2, SS-3 OR SS-4, AND SHALL BE BE PRE-CHANNELED. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL

7. ALL SIDE SEWERS SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS SS-6, SS-8 OR SS-13,

EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4" GREEN PVC.

8. CONTRACTOR SHALL EXTEND SEWER STUBS BEYOND THE STREET RIGHT-OF-WAY LINE.

AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.

9. EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION PER COFSD SS-14, WITH A 2" DIA. PVC PIPE WITH THE TOP 18" PAINTED WHITE AND STENCILED WITH THE WORD "SEWER". THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:

PIPE BEDDING SEE DETAIL, SHEET 27 TRENCH BACKFILL COFSD W-11 & WSDOT STD. SPEC. SEC. 9-03.12 AIR/VACUUM RELEASE VALVE WSDOT STD. DETAIL B21-a BLOW-OFF ASSEMBLY COFSD W-9 & W-10 FIRE HYDRANT ASSEMBLY COFSD W-1 THRUST BLOCKING COFSD W-2, W-3 & W-4 WATER SERVICE COFSD W-5

2. ALL WATERMAIN PIPE SHALL BE DUCTILE IRON, MINIMUM CLASS 50, PER AWWA STANDARDS H3-71 AND C151-71, WITH CEMENT LINING PER AWWA STANDARD C104-71. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705.

MATERIAL FOR FITTINGS SUCH AS CROSSES, TEES, BENDS, REDUCERS AND SLEEVES SHALL BE DUCTILE IRON. JOINTS SHALL BE M.J., FLANGED OR PUSH-ON JOINTS AND SHALL CONFORM TO AWWA SPECIFICATIONS C-110-71 AND C-104-71.

4. CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDALE STANDARD DETAILS W-2, W-3 AND W-4, OR AS DIRECTED BY THE PROJECT ENGINEER. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-09.3(21) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRE-CAST BLOCKS ARE ALLOWED.

5. CONNECTIONS TO EXISTING WATER MAINS - PER WSDOT STD SPEC. 7-09.3(19), THE CONTRACTOR MUST NOTIFY THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE. ALL CONNECTIONS SHALL BE DONE BY THE CONTRACTOR. CONNECTION TO EXISTING CITY WATER SYSTEM SHALL BE PAID IN ADVANCE BY A DEPOSIT.

WATER (CONTINUED)

6. ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTIONS 7-09.3(23) AND AND 7-09.3(24) AND OF THE WSDOT STD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION - CURRENT EDITION. HYDROSTATIC TEST PRESSURE. FOR WATER MAIN ACCEPTANCE SHALL BE 225 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. ALL DISINFECTION AND BACTERIOLOGICAL TESTS SHALL BE CONDUCTED BY THE CITY OF FERNDALE LABORATORY. THE PIPE WILL NOT PASS TESTING UNLESS A ZERO BACTERIAL COUNT IS MEASURED ON TWO CONSECUTIVE TESTS, CONDUCTED 24 HOURS APART.

7. BACKFILL SHALL BE GRAVEL BASE, CLASS B, IN ALL STREET RIGHTS-OF-WAY, COMPACTED TO MINIMUM 95% OPTIMUM DENSITY. IN UNIMPROVED AREAS, MINIMUM COMPACTION SHALL BE 90% OF OPTIMUM DENSITY.

8. ALL PIPE SHALL HAVE A MINIMUM COVER OF 42".

9. ALL VALVES SHALL BE EITHER GATE OR BUTTERFLY TYPE VALVES AND SHALL BE INSTALLED WITH SLIP TYPE CAST IRON VALVE BOXES.

GATE VALVES SHALL BE USED FOR LINES 2 INCHES THROUGH 8 INCHES IN DIAMETER. SHORT-BODY VALVES SUITABLE FOR A NONSHOCK SHUT-OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED.

ALL VALVES SHALL HAVE NONRISING STEMS AND SHALL OPEN COUNTERCLOCKWISE AND SHALL BE EQUIPPED WITH A 2 INCH SQUARE OPERATING NUT. VALVES WILL BE FLANGE OR M.J. JOINTS.

VALVE MARKERS SHALL BE LOCATED OUTSIDE OF PAVEMENT SECTIONS.

10. WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS. ALL WATER SERVICES SHALL BE MARKED FOR LOCATION WITH A METER BOX PER COFSD W-5.

11. FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COF STANDARD DETAIL W-1 (WSDOT B-19) AND THE FOLLOWING STANDARDS:

A. FIRE HYDRANTS SHALL HAVE TWO INDIVIDUALLY-VALVED 2-1/2" PORTS AND ONE 5-1/4" MAIN VALVE OPENING. A 4-1/2" NST PUMPER NOZZLE AND A 5" STORZ PORT WITH CAP AND CABLE SHALL BE SUPPLIED. HYDRANTS SHALL EITHER BE IOWA OR M.H. 929T HYDRANTS.

B. FIRE HYDRANTS SHALL HAVE THE STORZ PORT FACING THE REQUIRED ACCESS AND THE BASE FLANGE OF THE HYDRANT MUST NOT VARY MORE THAN 1 FOOT IN ELEVATION FROM THE GRADE LEVEL OF THE REQUIRED ACCESS. THE LOWEST STEM SHALL BE A MINIMUM OF 14" ABOVE THE GROUND. HYDRANTS PAINTED FACTORY YELLOW MAY NOT REQUIRE ADDITION PAINTING.

C. IF THE PUBLIC WORKS DIRECTOR DETERMINES THAT FIRE HYDRANTS ARE VULNERABLE TO VEHICULAR DAMAGE, APPROPRIATE CRASH POSTS SHALL BE PROVIDED. NO OBSTRUCTIONS SHALL EXIST WITHIN A 3-FOOT WORKING AREA OF EACH REQUIRED ACCESS. CRASH POSTS SHALL BE 4" CEMENT-FILLED PIPE A MIN. OF 3' IN HEIGHT WITH A MIN. OF 2' OF PIPE BELOW GRADE. HYDRANT SHUTOFF VALVES SHALL BE LOCATED BETWEEN 5' AND 20' FROM THE HYDRANT.

D. UNDERGROUND SUPPLIES TO FIRE HYDRANTS MUST BE INSPECTED. SUCH INSPECTION SHALL INCLUDE VISUAL INSPECTION OF PIPING AND HYDROSTATIC PRESSURE TESTING TO A MIN. OF 225 PSI OR 50 PSI IN EXCESS OF STREET MAIN PRESSURE, WHICHEVER IS GREATER. A FLOW TEST WILL BE REQUIRED WHEN INSTALLATION IS COMPLETE.

E. FIRE HYDRANTS MUST BE MAINTAINED IN AN OPERABLE CONDITION AT ALL TIMES AND MUST BE REPAIRED OR REPLACED WHEN DEFECTIVE. HYDRANTS SHALL BE FULLY OPERABLE BEFORE CONSTRUCTION COMMENCES ABOVE GRADE LEVEL.

AS-BUIL7

FINAL SITE RESTORATION NOTES

1. ALL DISTURBED AREAS OF THE SITE SHALL BE VEGETATED OR OTHERWISE PERMANENTLY STABILIZED. AT A MINIMUM, DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITH A HIGH LIKELY HOOD THAT SUFFICIENT COVER WILL DEVELOP SHORTLY AFTER FINAL CONSTRUCTION ACTIVITY IS COMPLETE.

2. STRUCTURAL MEASURES SUCH AS, BUT NOT LIMITED TO, SILT FENCES, PIPE SLOPES DRAINS, CONSTRUCTION ENTRANCES, STORM DRAIN INLET PROTECTION, AND SEDIMENT TRAPS AND PONDS SHALL BE REMOVED FROM THE SITE. MEASURES THAT WILL QUICKLY DECOMPOSE, SUCH AS BRUSH BARRIERS AND ORGANIC MULCHES, MAY BE LEFT IN PLACE. IN THE CASE OF SILT FENCES, IT MAY BE BEST TO REMOVE FENCES IN CONJUNCTION WITH THE SEEDING, SINCE IT MAY BE NECESSARY TO BRING MACHINERY BACK IN TO REMOVE THEM. THIS WILL RESULT IN DISTURBED SOILS THAT WILL AGAIN REQUIRE PROTECTION.

3. ALL PERMANENT SURFACE WATER FACILITIES, INCLUDING CATCH BASINS, MANHOLES, PIPES, DITCHES, CHANNELS, R/D FACILITIES, AND WATER QUALITY FACILITIES, SHALL BE CLEANED. ANY OFFSITE CATCH BASIN THAT REQUIRED PROTECTION DURING CONSTRUCTION SHALL ALSO BE CLEANED.

ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "DOUGLAS LONG PLAT PHASE 2" HAVE BEEN INSPECTED BY RONALD T. JEPSON AND ASSOCIATES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.

RONALD T. JEPSON, P.E., L.S. CERTIFICATE NO. 19361

SURVEYOR'S CERTIFICATION

"I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING/CONDITIONS AS DETERMINED BY ME OR UNDER MY DIRECT SUPERVISION ON THIS DATE: 1 17 2012 ."

RONALD/T. JEPSON, P.E., L.S. CERTIFICATE NO. \$361

EROSION CONTROL NOTES

1. ALL POSSIBLE MEASURES SHALL BE TAKEN TO MINIMIZE CLEARING AND GRADING THAT EXPOSE SOILS TO EROSION. MAINTAIN EXISTING VEGETATION TO THE MAXIMUM

2. THE CONTRACTOR SHOULD CONSIDER THE POSSIBILITY OF WATER ENTERING THE CONSTRUCTION AREAS, AND SHALL REMEDY THIS BY INSTALLING DRAINAGE FEATURES TO CONVEY AND BY PROVIDING GRADING THAT DIRECTS WATER AWAY FROM CONSTRUCTION AREAS.

3. EACH SEDIMENT CONTROL BEST MANAGEMENT PRACTICE (BMP) SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRUBBING, OR SITE GRADING ACTIVITIES.

4. SECTION 8-01 OF THE STANDARD SPECIFICATIONS PROVIDES GUIDANCE ON THE INSTALLATION, INSPECTION, AND MAINTENANCE OF BEST MANAGEMENT PRACTICES. 5. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY SILT FENCES AT THE LOCATIONS SHOWN IN THE PLANS ACCORDING TO STANDARD PLAN I-30.10-01. SILT FENCES SHALL BE CONSTRUCTED IN THE AREAS OF CLEARING, GRUBBING, OR GRADING PRIOR TO STARTING THOSE ACTIVITIES. THE SILT FENCE SHALL BE PLACED TO PREVENT SOIL CARRIED BY RUNOFF FROM GOING BENEATH, THROUGH, OR OVER THE TOP OF THE SILT FENCE. INSTALL THE FENCE SO THAT ONLY WATER IS ALLOWED

TO PASS THROUGH THE FENCE. 6. SILT FENCES SHALL BE LOCATED ON CONTOUR AS MUCH AS POSSIBLE, EXCEPT AT THE ENDS OF THE FENCE WHERE THE FENCE SHALL BE TURNED UPHILL SUCH THAT

THE SILT FENCE CAPTURES THE RUNOFF WATER AND PREVENTS WATER FROM FLOWING AROUND THE END OF THE FENCE 7. IF THE FENCE MUST CROSS CONTOURS, WITH THE EXCEPTION OF THE ENDS OF THE FENCE, CHECK DAMS PER STANDARD PLAN 1-50.10-00, PLACED PERPENDICULAR TO THE BACK OF THE FENCE, SHALL BE USED TO MINIMIZE CONCENTRATED FLOW AND EROSION ALONG THE BACK OF THE FENCE. CHECK DAMS SHALL BE APPROXIMATELY ONE-FOOT DEEP AT THE BACK OF THE FENCE. DAMS SHALL BE CONTINUED PERPENDICULAR TO THE FENCE AT THE SAME ELEVATION UNTIL THE TOP OF THE CHECK DAM INTERCEPTS THE GROUND SURFACE BEHIND THE FENCE. THE SLOPE OF THE FENCE LINE WHERE CONTOURS MUST BE CROSSED SHALL NOT BE

8. CONTRACTOR SHOULD SEED DISTURBED AREAS THAT HAVE REACHED FINAL GRADE OR THAT WILL REMAIN UNWORKED FOR MORE THAN THIRTY (30) DAYS.

9. THE IMPLEMENTATION OF THE TEMPORARY EROSION/SEDIMENTATION CONTROL (TESC) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THE BMPS WITHIN THE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.

10. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION

11. THE TESC FACILITIES SHOWN ON THE PLANS MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.

12. THE TESC FACILITIES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE FACILITIES

SHALL BE UPGRADED (E.G., ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. 13. THE TESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTION.

14. ANY AREA STRIPPED OF VEGETATION, INCLUDING ROADWAY EMBANKMENTS, WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF SEVEN (7) DAYS (MAY 1ST -SEPT. 30TH) OR TWO DAYS (OCT. 1ST - APRIL 1ST) SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED TESC METHODS (E.G., SEEDING, MULCHING, SODDING,

NETTING, PLASTIC COVERING, EROSION BLANKETS, ETC.).

15. ANY AREA NEEDING TESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS. 16. THE TESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT. 17. AT NO TIME SHALL MORE THAN ONE 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. 18. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL

MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT. 19. THE CONTRACTOR SHALL OBTAIN A NPDES STORMWATER PERMIT THROUGH THE DEPARTMENT OF ECOLOGY PRIOR TO INITIATING ANY LAND DISTURBING ACTIVITIES.

20. THE CONTRACTOR SHALL OBTAIN A LAND DISTURBANCE PERMIT FROM THE WHATCOM COUNTY PLANNING AND DEVELOPMENT SERIVICES DEPARTMENT PRIOR TO INITIATING ANY LAND DISTURBING ACTIVITIES OUTSIDE WSDOT RIGHT-OF-WAY.

21. THE CONTRACTOR SHALL PROVIDE A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD TO MONITOR AND MAINTAIN ALL BEST MANAGEMENT PRACTICES INCORPORATED INTO

SEQUENCE FOR EROSION CONTROL CONSTRUCTION

1. HOLD THE PRE-CONSTRUCTION MEETING.

4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.

2. POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN.)

3. FLAG OR FENCE CLEARING LIMITS.

5. GRADE AND INSTALL CONSTRUCTION ENTRANCE.

6. INSTALL PERIMETER PROTECTION (SILT FENCE) TO DELINEATE CONSTRUCTION AREAS.

11. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.

12. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.

13. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMP'S IF APPROPRIATE.

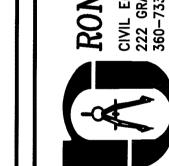
7. CONSTRUCTION SEDIMENT TRAPS AND TEMPORARY CONVEYANCE SWALES.

8. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH D.O.E. STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. 9. RELOCATE EROSION CONTROL MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, SO THAT THEIR CONDITION AND FUNCTION IS ALWAYS IN ACCORDANCE WITH THE STANDARDS.

10. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW. WOOD FIBER, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.

MADE TO THIS SHEET TO DOCUMENT DEVIATIONS FROM THE APPROVED PLANS.

NOTE: NO CHANGES WERE



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CITY OF FERNDALE

APPROVED

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UTILITY LOCATES CALL 2 DAYS BEFORE YOU DIG 1-800-424-5555

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DESIGNED BY

RONALD T. JEPSON

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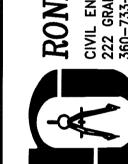
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