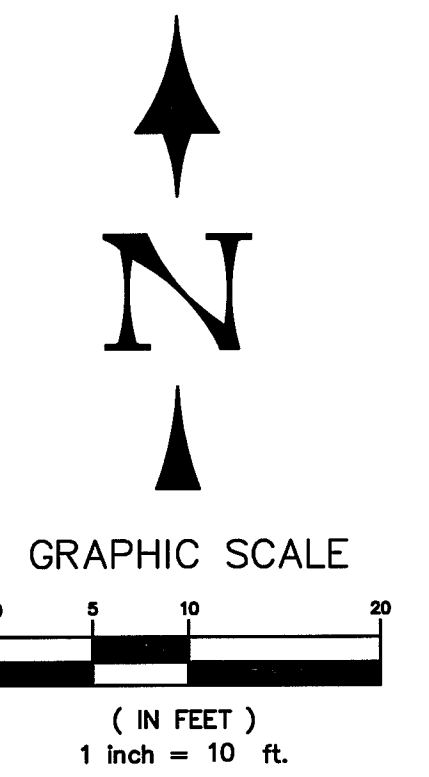
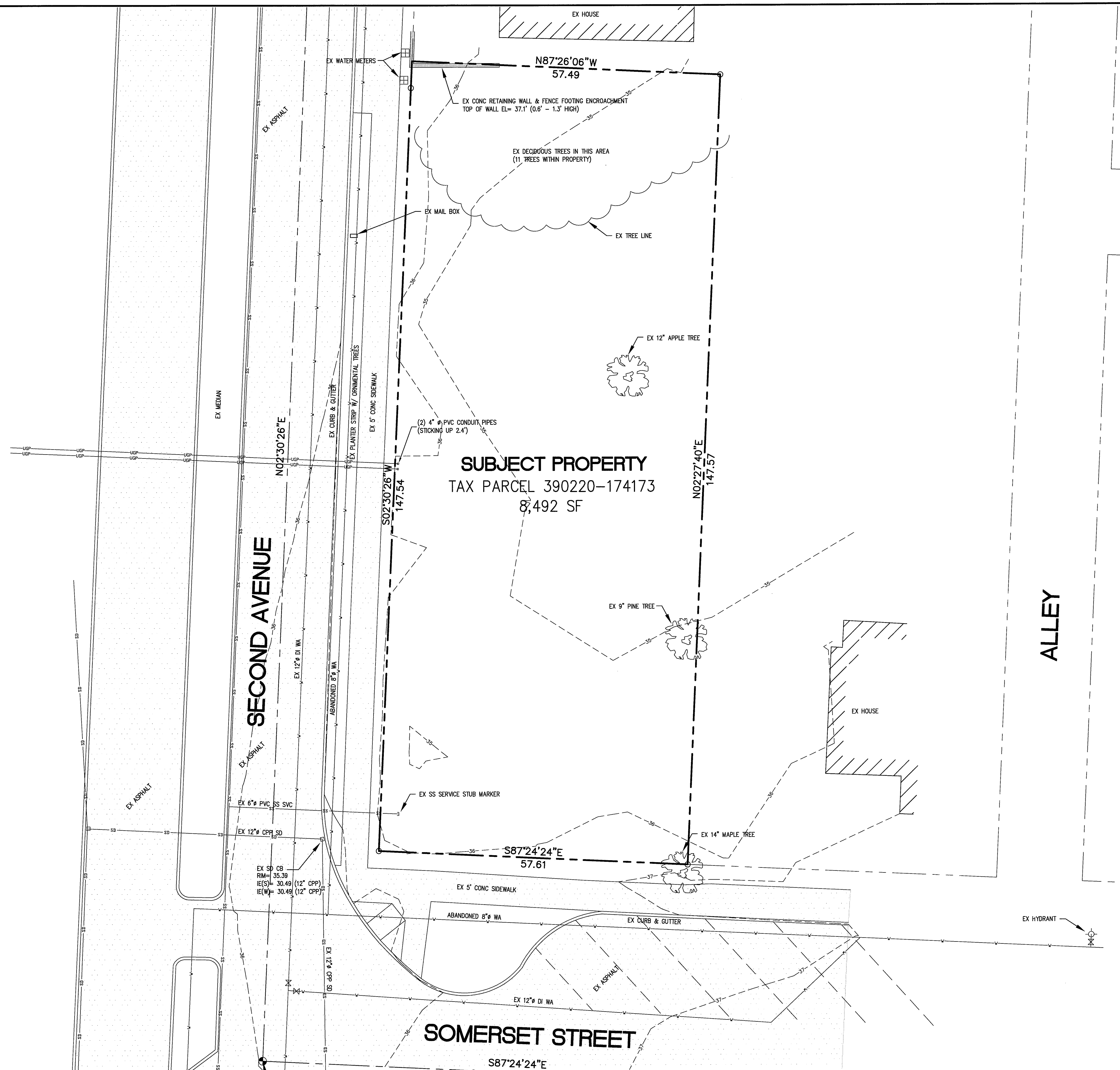


00546.001	3/20/13	5th
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***1980 SOMERSET STREET  
FERNDALE, WASHINGTON  
APRIL 2012***

## NOTES

SHEET:  
**1** OF **8**



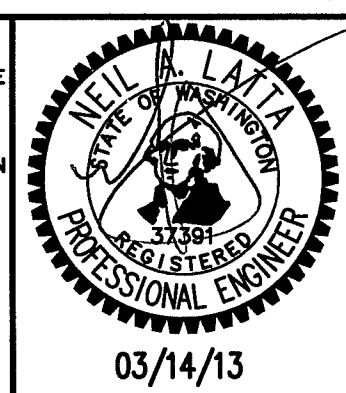
APPROVED  
MAR 15 2013  
BY *J. D. Christie, P.E.*  
CITY OF FERNDALE

**RECORD DRAWING NOTE:**  
THIS DRAWING DOES NOT INCLUDE  
CONSTRUCTION RECORD DATA.

**BOUNDARY AND TOPOGRAPHY SURVEY NOTE:**  
THIS EXISTING CONDITIONS PLAN HAS BEEN PREPARED BASED ON THE BOUNDARY AND  
TOPOGRAPHY SURVEY COMPLETED BY OTHERS (CHRISTIE & CHRISTIE LAND SURVEYORS  
INC, BRIAN D. CHRISTIE, PLS # 18897 DATED MARCH 2012).

NO.	REVISION	BY	DATE
1			
2			
3			
4			

**RECORD DRAWING NOTE:**  
THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREIN ARE  
BASED ON THE ORIGINAL DESIGN PLANS, AS-BUILT SURVEY BY  
OTHERS, AND SITE FIELD OBSERVATIONS. CONSTRUCTION RECORD  
AS-BUILT SURVEY DATA PROVIDED BY "CHRISTIE & CHRISTIE LAND  
SURVEYING" DATED JAN 23, 2013. THE NOTATION "AS-BUILT" WITHIN  
THIS RECORD DRAWING SET REPRESENTS THE ACTUAL MEASURED  
UTILITY LOCATIONS FROM THE REFERENCED AS-BUILT SURVEY BY  
OTHERS. ALL OTHER UTILITY INFORMATION SHOWN HEREIN NOT  
LABELED "AS-BUILT" REPRESENT THE APPROXIMATE LOCATION OF  
UTILITIES ONLY BASED ON THE ORIGINAL CIVIL DESIGN. THE EXACT  
LOCATION OF ALL UTILITIES MUST BE INDEPENDENTLY VERIFIED  
BEFORE COMMENCING ANY ADDITIONAL UNDERGROUND WORK.  
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Ph: (360) 671-7002  
Fax: (360) 671-7081  
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JOB NO.: 09169  
DWG. NAME: COVER  
DESIGNED BY: NL  
DRAWN BY: BUS  
CHECKED BY: NL

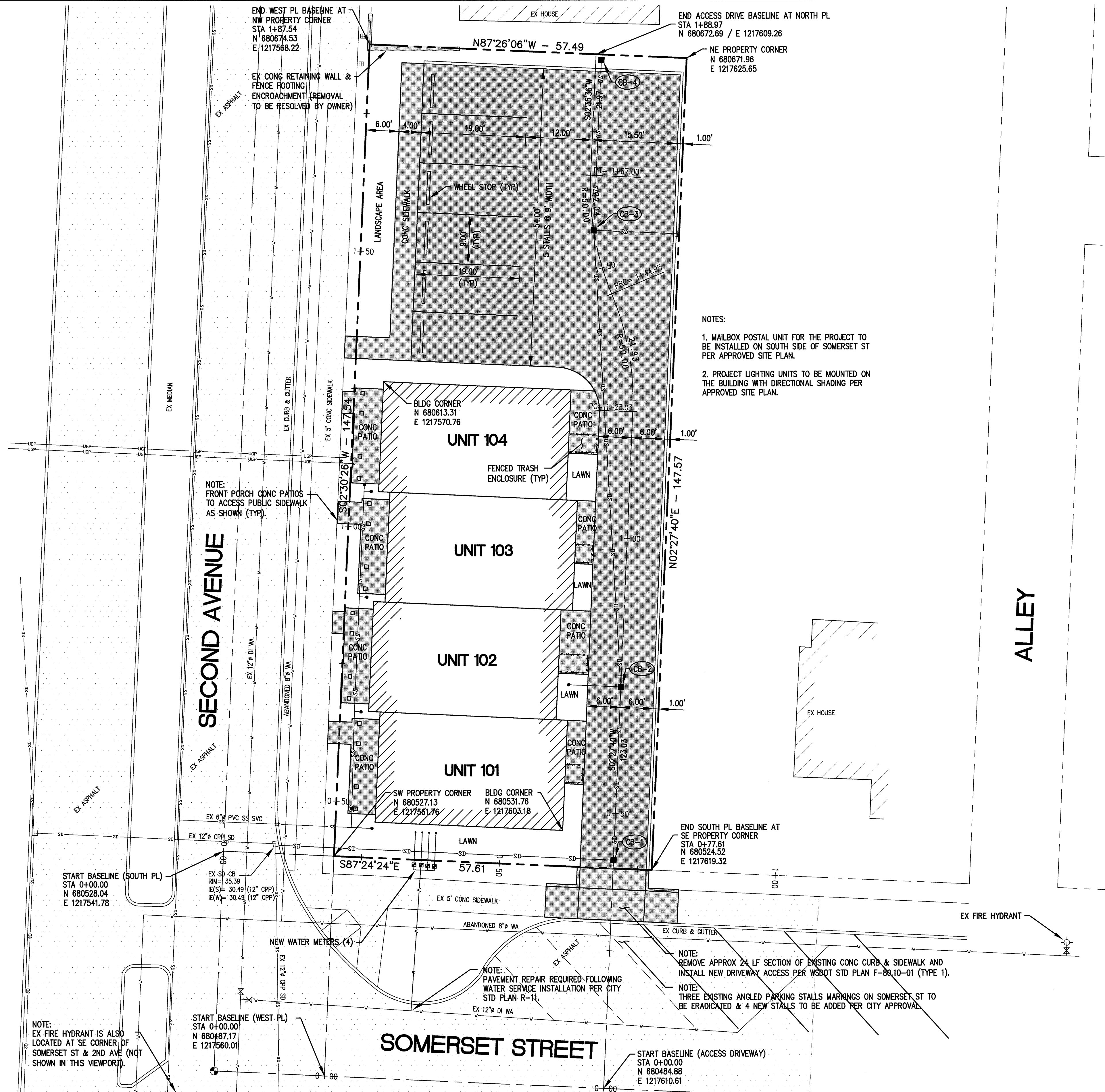
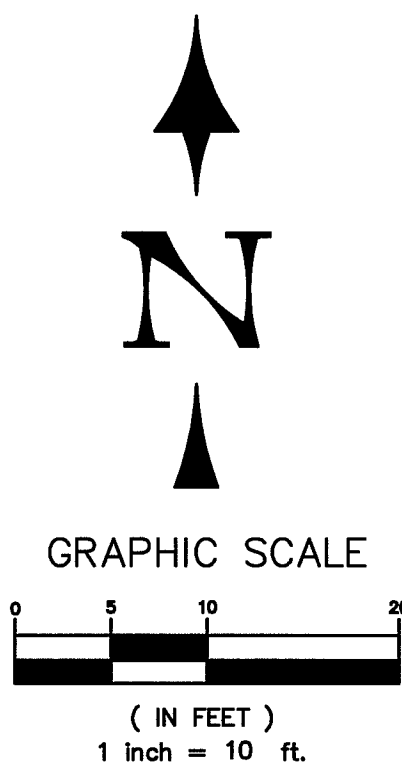
**DJ + DJ CONTRACTING INC**  
7231 SECLUDED LANE  
FERNDAL, WA 98248

**EXISTING CONDITION**  
4 UNIT TOWNHOUSE SITE DEVELOPMENT  
1980 SOMERSET STREET, FERNDAL, WA  
A PORTION OF SECTION 20, TOWNSHIP 39N, RANGE 2E, W.M.  
DATE: APRIL 2012 SCALE: H: 1"=10' V: NA

DRAWING: C - 2  
SHEET: 2 OF 8

00546.002 3/20/13 SH

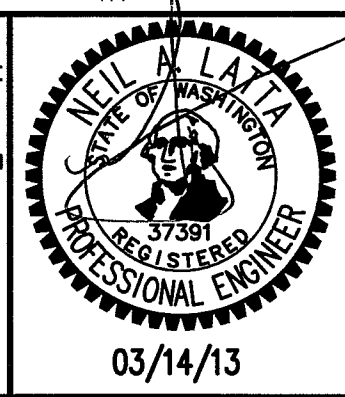




APPROVED  
MAR 15 2013  
BY *J. M. P.E.*  
CITY OF FERDALE

**RECORD DRAWING NOTE:**  
THIS DRAWING DOES NOT INCLUDE  
CONSTRUCTION RECORD DATA.

△	SUBMITTAL FOR CITY REVIEW	NL	04/16/12
1	REVISED PER CITY REVIEW COMMENTS	NL	05/09/12
2	RECORD DRAWING SUBMITTAL	NL	02/17/13
3	RECORD DRAWING SUBMITTAL	NL	03/14/13
NO.	REVISION	BY	DATE



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DWG. NAME: COVER  
DESIGNED BY: NL  
DRAWN BY: BJS  
CHECKED BY: NL

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FERDALE, WA 98248

**HORIZONTAL CONTROL PLAN**

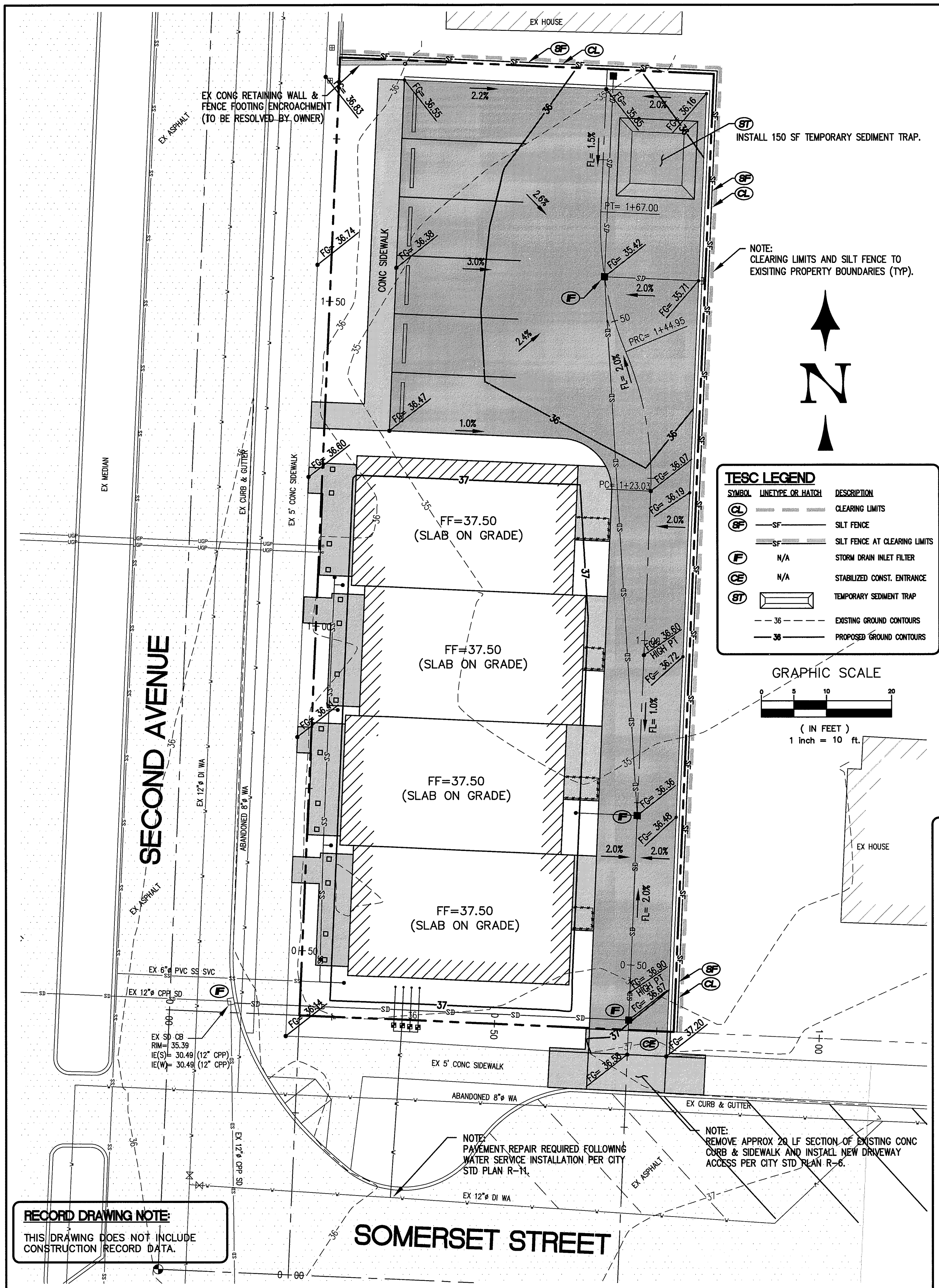
**4 UNIT TOWNHOUSE SITE DEVELOPMENT**  
1880 SOMERSET STREET, FERDALE, WA  
A PORTION OF SECTION 20, TOWNSHIP 39N, RANGE 2E, WM.

DATE: APRIL 2012  
SCALE: H: 1"=10' V: 1"=5'

DRAWING:	C - 3
SHEET:	3 OF 8

00546.003 3/20/13 st





## CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN

### ELEMENT #1: MARK CLEARING LIMITS

The project will not require clearing beyond removal of isolated on site trees and vegetation. A qualified land surveyor will physically mark the property clearing limits on the site.

### ELEMENT #2: ESTABLISH CONSTRUCTION ACCESS

A construction access (BMP C105) is proposed to be constructed to Somerset St in general accordance with the Standard detail (modified due to small property area). Any soil tracked onto paved areas shall be swept up and disposed of on a regular basis.

### ELEMENT #3: CONTROL FLOW RATES

A temporary sediment trap (cleared area less than 3 acres) per BMP C240 in the SWMM has been sized to prevent soil laden waters from exiting the site. WWHM flow frequencies are typically less than those obtained by the Santa Barbara Urban Hydrology or Rational Method, therefore the 10 year flow frequency for the project (using all impervious areas) was utilized. The equations and design criterion for the sediment trap is as follows:

$$\text{Surface Area (SA)} = Q_2 \times 2080$$

$$SA = 0.072 \times 2080 = 150 \text{ sf (Note: } Q_{10} \text{ used for } Q_2)$$

The temporary trap will discharge to the storm drain pea gravel trench.

### ELEMENT #4: INSTALL SEDIMENT CONTROLS

Runoff from disturbed areas will be collected by temporary interceptor swales and directed to the temporary sediment trap. Perimeter silt fencing will be installed. Catch basin inlet filters will be utilized to protect exiting catch basins adjacent to the project site.

### ELEMENT #5: STABILIZE SOILS

All exposed and un-worked soils shall be stabilized and will not remain exposed and un-worked for more than seven days (two days if construction takes place between October 1 through April 30th).

### ELEMENT #6: PROTECT SLOPES

Temporary cut slopes shall be protected with plastic covering per BMP C123.

### ELEMENT #7: PROTECT DRAIN INLETS

Below grate basin filter inserts shall be installed in catch basins prior to completion of the project. The barriers shall be removed upon completion of construction.

### ELEMENT #8: STABILIZE CHANNELS AND OUTLETS

Interceptor swales (if required) will be positively graded and seeded (BMP C120) or lined (BMP C202).

### ELEMENT #9: CONTROL POLLUTANTS

All pollutants including waste materials and construction debris, that occur on-site shall be handled and disposed of in a manner that does not cause contamination of stormwater.

### ELEMENT #10: CONTROL DEWATERING

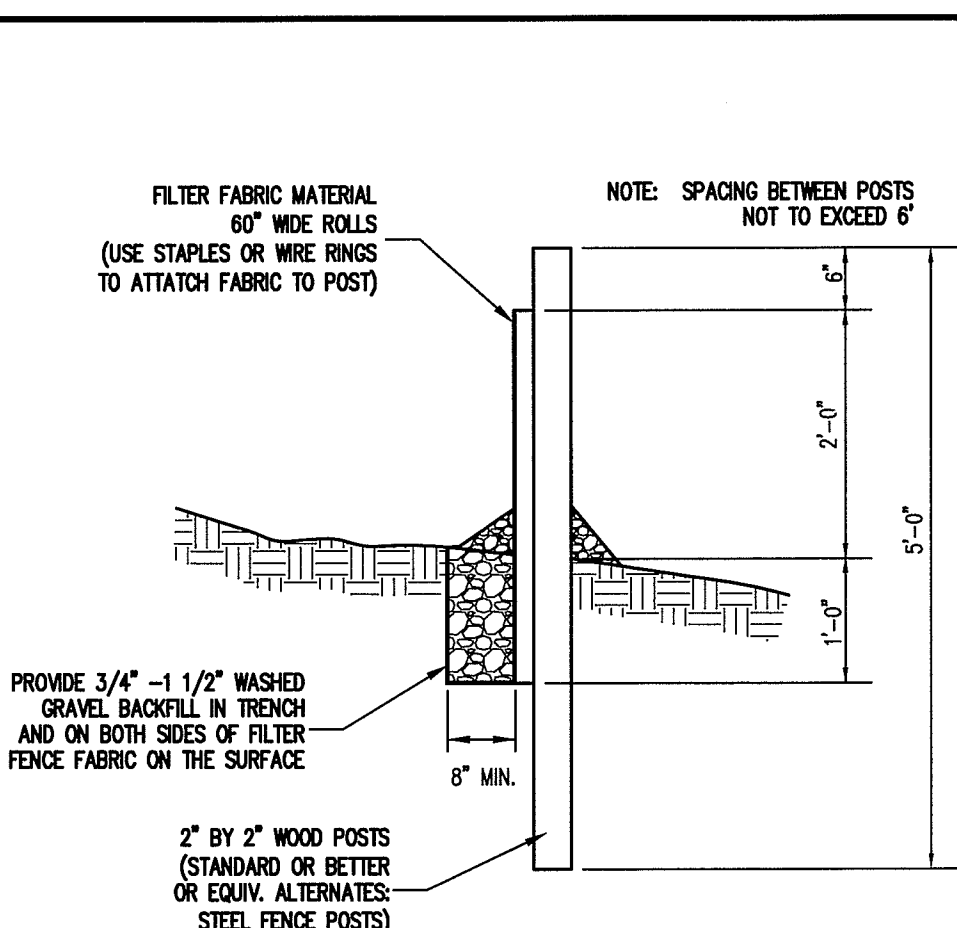
De-watering shall be routed to the on-site temporary sediment trap.

### ELEMENT #11: MAINTAIN BMPs

All temporary and permanent erosion and sediment control BMPs shall be maintained by and repaired as needed to assure continued performance of their intended function. Sediment control BMPs shall be inspected weekly or after a runoff-producing storm event during the dry season (daily if construction takes place during the wet season).

### ELEMENT #12: MANAGE THE PROJECT

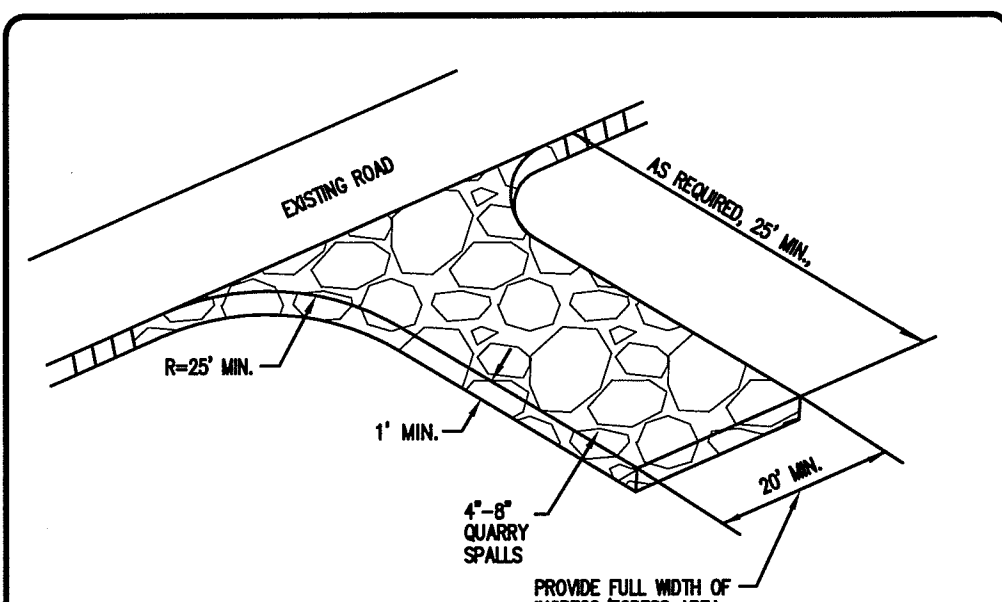
All BMPs shall be inspected and maintained by the Contractor's Certified Erosion and Sediment Control Lead.



### MAINTENANCE OF SILTATION BARRIERS

1. SILTATION BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BARRIERS, END RUNS AND UNDERCUTTING BENEATH BARRIERS. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEED.

### SILT FENCE



### NOTES:

1. INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBSTACLES. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS IN THE PLAN. IF WASH RACKS ARE USED, THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. AGGREGATE: 4" TO 6" CRUSHED BALLAST ROCK
3. ENTRANCE DIMENSIONS: THE AGGREGATE LAYER MUST BE AT LEAST 6 INCHES THICK. IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA. THE LENGTH OF THE ENTRANCE MUST BE AT LEAST 50 FEET.
4. WASHING: IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM VEHICLE TIRES BY CONTACT WITH THE GRAVEL, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC ROAD. WASH WATER MUST BE CARRIED AWAY FROM THE ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. A WASH RACK MAY ALSO BE USED TO MAKE WASHING MORE CONVENIENT AND EFFECTIVE.
5. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

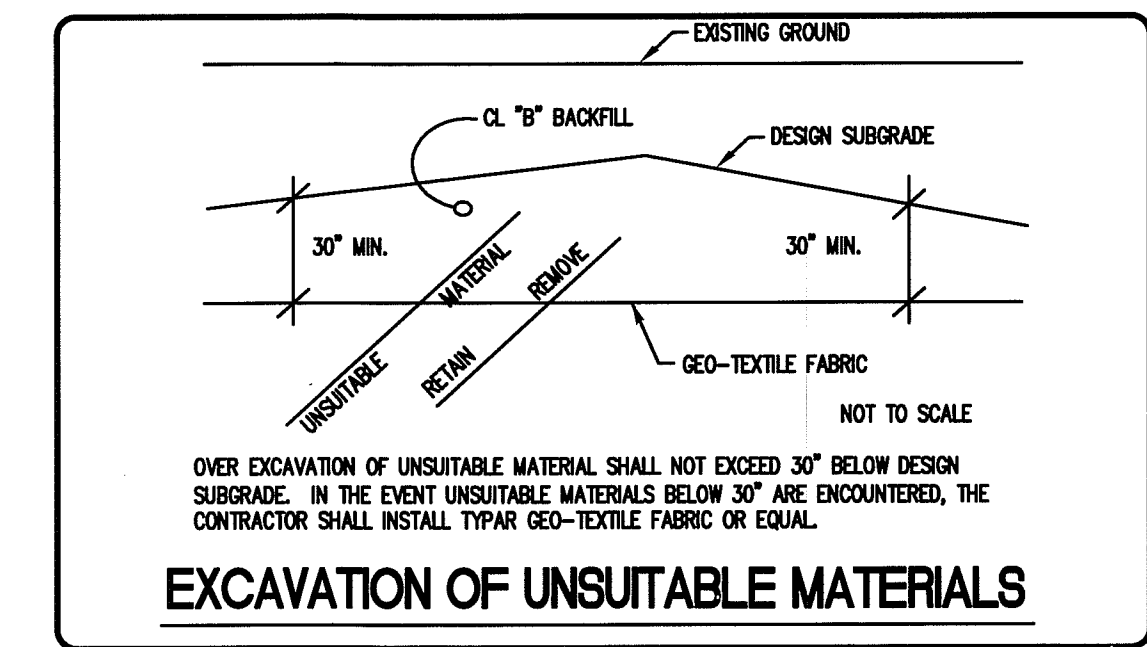
### CONSTRUCTION ENTRANCE

## GRADING SPECIFICATIONS

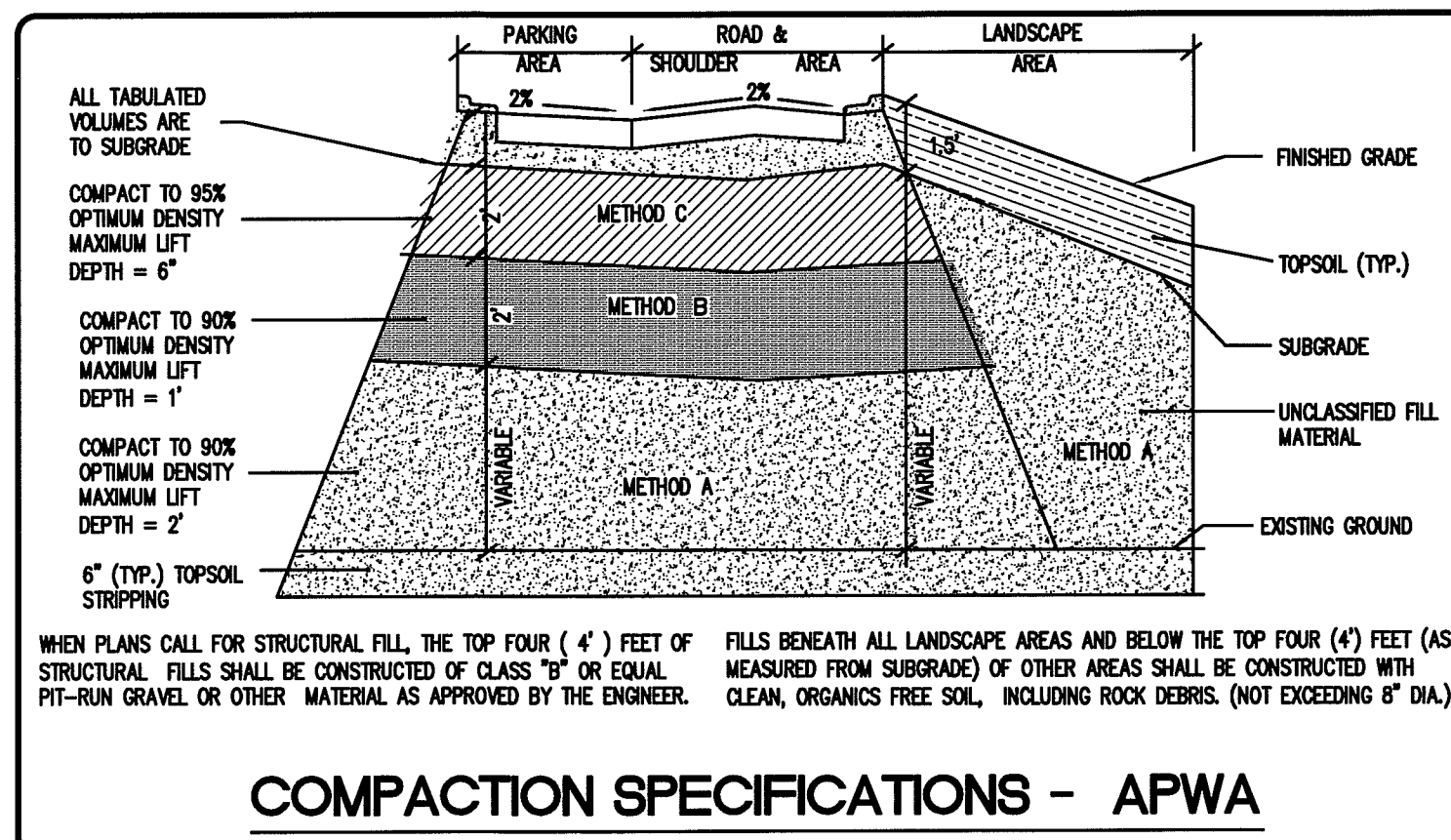
1. SITE SOILS ARE CONSIDERED MOISTURE SENSITIVE AND ARE SUSCEPTIBLE TO DISTURBANCE BY CONSTRUCTION EQUIPMENT, PARTICULARLY DURING WET WEATHER. THE GRADING CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO LIMIT SURFACE DISTURBANCE AND TO PROTECT THE SITE GRADING AREA FROM EXCESSIVE EROSION.
2. AREAS TO RECEIVE FILL SHALL BE CLEARED OF ALL VEGETATION AND DELETERIOUS MATERIAL.
3. AREAS TO RECEIVE FILL SHALL BE PROOF ROLLED. ALL LOOSE OR SOFT AREAS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.
4. ALL FILL MATERIALS SHALL BE FREE OF VEGETATION AND DELETERIOUS MATERIAL AND SHALL NOT CONTAIN ROCKS GREATER THAN SIX INCHES IN DIAMETER.
5. STRUCTURAL FILLS SHALL BE PLACED IN 6"-8" THICK LOOSE HORIZONTAL LIFTS AND SPREAD UNIFORMLY. AFTER EACH LIFT HAS BEEN PLACED AND SPREAD EVENLY, STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY BY MODIFIED PROCTOR TEST (ASTM D-1557-70).
6. NON-STRUCTURAL FILL MAY BE COMPACTED TO 85-90% PROCTOR.
7. THE SURFACE OF ALL SLOPES SHALL BE COMPACTED. THIS MAY BE ACCOMPLISHED BY OVER-BUILDING THE SLOPES, THEN CUTTING BACK TO FINAL GRADES, OR BY RUNNING THE COMPACTOR OVER THE SLOPE AS EACH FILL LIFT IS BEING PLACED. ALL SLOPES SHALL BE COMPACTED BY THE END OF EACH WORKING DAY.
8. FIELD DENSITY TESTS SHALL BE MADE BY A QUALIFIED SOILS ENGINEER. DENSITY TESTS SHALL BE TAKEN AT OR JUST BELOW THE SURFACE OF THE FILL AT A LOCATION AND FREQUENCY DETERMINED BY THE SOILS ENGINEER. WHEN THE SOIL TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR ANY PORTION THEREOF IS BELOW THE SPECIFIED DENSITY, THE PARTICULAR SECTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. COPIES OF TESTING REPORTS SHALL BE PROVIDED TO CITY ENGINEER.
9. PUBLIC STREETS SHALL BE KEPT CLEAR OF DIRT AND DEBRIS DURING GRADING OPERATIONS.
10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EARTHWORK QUANTITIES PRIOR TO BID SUBMITTAL. NO REPRESENTATION IS MADE IN THESE PLANS REGARDING THE CONSTRUCTION SUITABILITY OF ON-SITE SOILS OR THE FINAL CUT/FILL BALANCE.

## EROSION CONTROL NOTES

1. APPROVAL OF THE EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN 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 OF CONSTRUCTION.
4. THE ESC 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.
5. THE ESC FACILITIES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G., ADDITIONAL SLUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS.
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. ANY AREA STRIPPED OF VEGETATION, INCLUDING ROADWAY EMBANKMENTS, WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 7 DAYS, SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, NETTING, EROSION BLANKETS, ETC.).
8. ANY AREA NEEDING ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
9. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT.
10. 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 CLEARED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSIDE DRAINAGE SYSTEM.
11. STABILIZED CONSTRUCTION ENTRANCES AND WASH PADS 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.
12. DURING THE TIME PERIOD OF NOVEMBER 1 THROUGH MARCH 31, ALL PROJECT DISTURBED AREAS GREATER THAN 5,000 SQUARE FEET THAT ARE TO BE LEFT UNWORKED FOR MORE THAN 12 HOURS, SHALL BE COVERED BY ONE OF THE FOLLOWING COVER MEASURES: MULCH, SEEDING OR PLASTIC COVERING.
13. PUBLIC RIGHTS OF WAY SHALL BE KEPT IN A CLEAN AND SERVICEABLE MANNER AT ALL TIMES. IN THE EVENT MATERIAL ARE UNDESIRABLY DEPOSITED ON PUBLIC RIGHTS-OF-WAY, THE MATERIAL SHALL BE PROMPTLY REMOVED. MATERIALS ARE TO BE SWEPT AND REMOVED PRIOR TO ANY FLUSHING. PUBLIC AND PRIVATE DRAINAGE WAYS SHALL BE PROTECTED FROM POLLUTION.



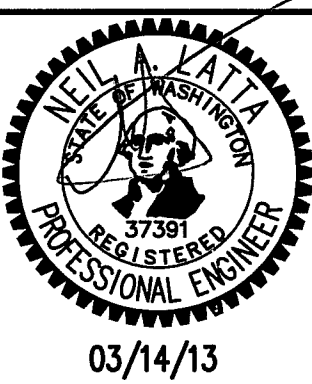
### EXCAVATION OF UNSUITABLE MATERIALS



### COMPACTION SPECIFICATIONS - APWA

0	SUBMITTAL FOR CITY REVIEW	NL	04/16/12
1	REVISED PER CITY REVIEW COMMENTS	NL	05/09/12
2	RECORD DRAWING SUBMITTAL	NL	02/17/13
3	RECORD DRAWING SUBMITTAL	NL	03/14/13
NO.	REVISION	BY	DATE

**RECORD DRAWING NOTE:**  
THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREIN ARE BASED ON THE ORIGINAL DESIGN PLANS, AS-BUILT SURVEY BY OTHERS, AND SITE FIELD OBSERVATIONS. CONSTRUCTION RECORD AS-BUILT SURVEY DATA PROVIDED BY "CHRISTIE & CHRISTIE LAND SURVEYING" DATED JAN 23, 2013. THE NOTATION "AS-BUILT" WITHIN THIS RECORD DRAWING SET REPRESENTS THE ACTUAL MEASURED UTILITY LOCATIONS FROM THE REFERENCED AS-BUILT SURVEY BY OTHERS. ALL OTHER UTILITY INFORMATION SHOWN HEREIN NOT LABELED "AS-BUILT" REPRESENT THE APPROXIMATE LOCATION OF UTILITIES ONLY BASED ON THE ORIGINAL CIVIL DESIGN. THE EXACT LOCATION OF ALL UTILITIES MUST BE INDEPENDENTLY VERIFIED BEFORE COMMENCING ANY ADDITIONAL UNDERGROUND WORK.  
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**DJ + DJ CONTRACTING INC**  
7231 SECLUDED LANE  
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**GRADING AND TESC PLAN**  
4 UNIT TOWNHOUSE SITE DEVELOPMENT  
1980 SOMERSET STREET, FERNDAL, WA  
A PORTION OF SECTION 20, TOWNSHIP 39N, RANGE 2E, W.M.

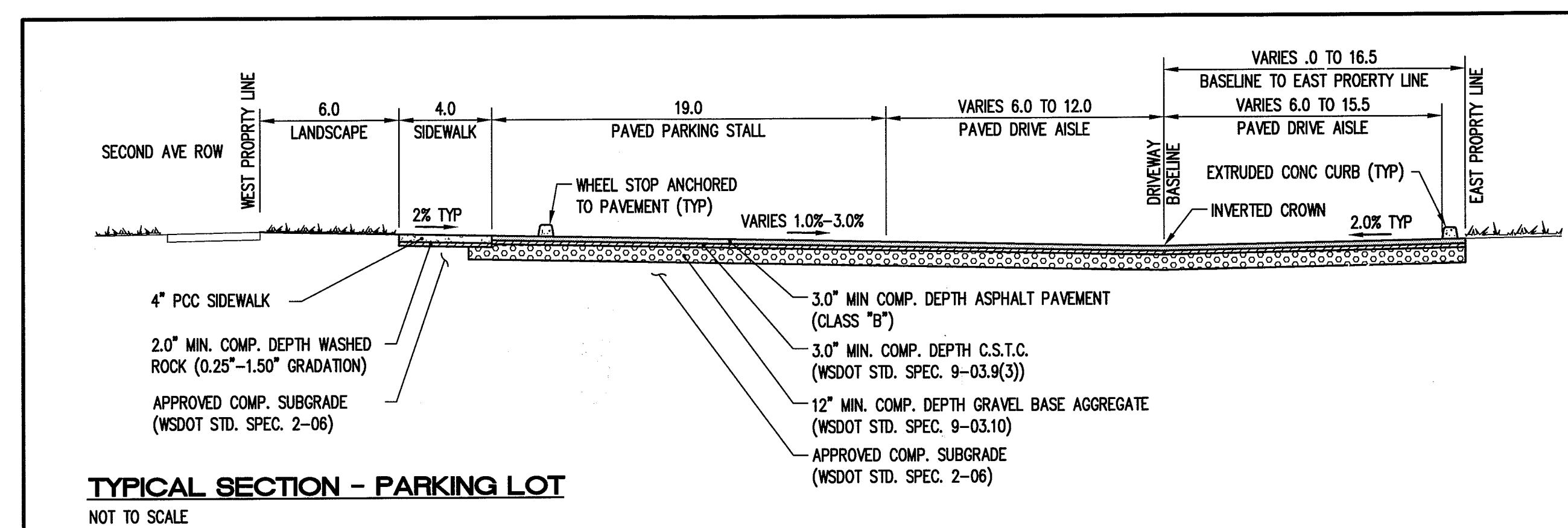
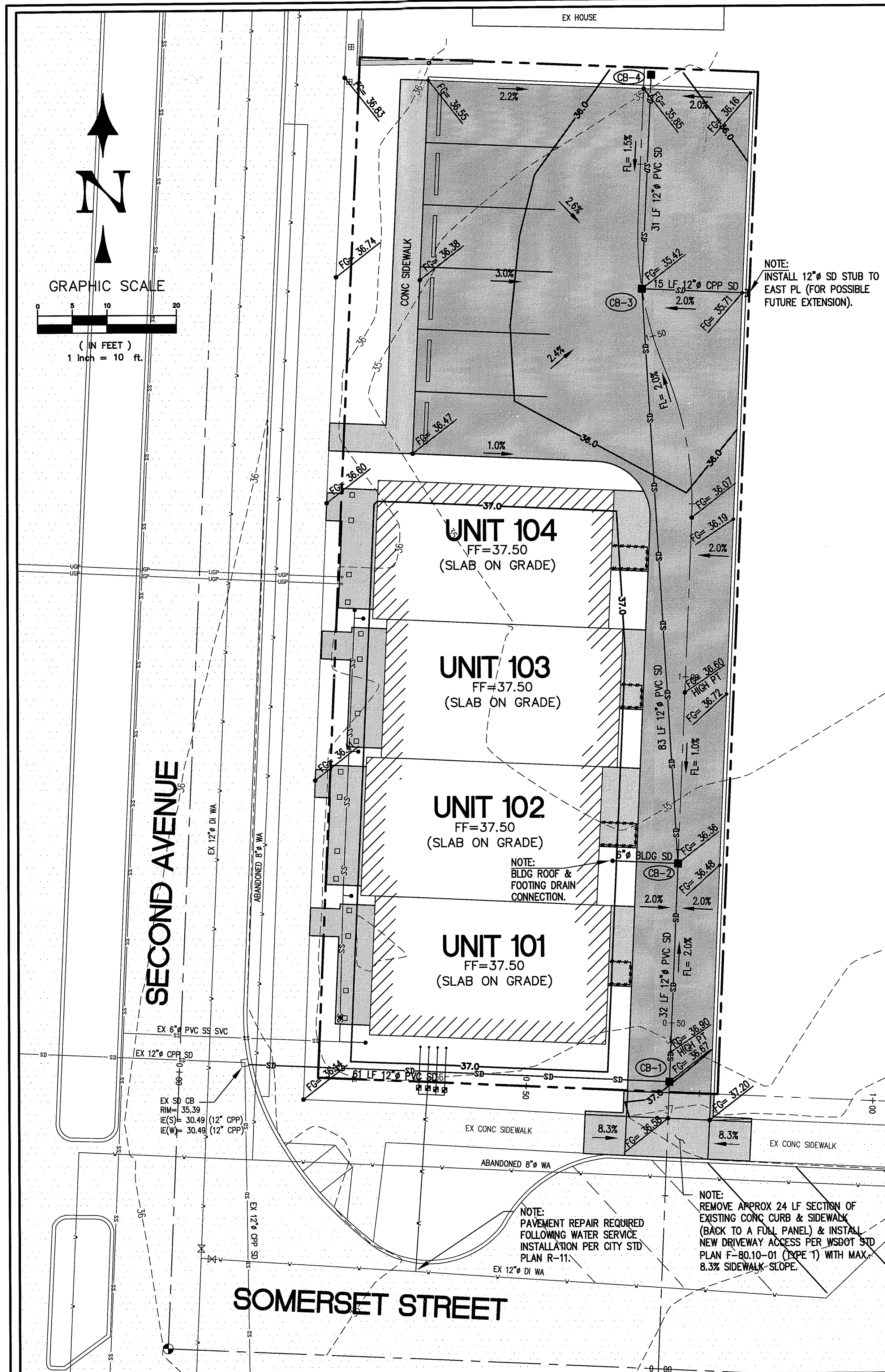
DATE: APRIL 2012  
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**C - 4**

SHEET:  
**4 OF 8**

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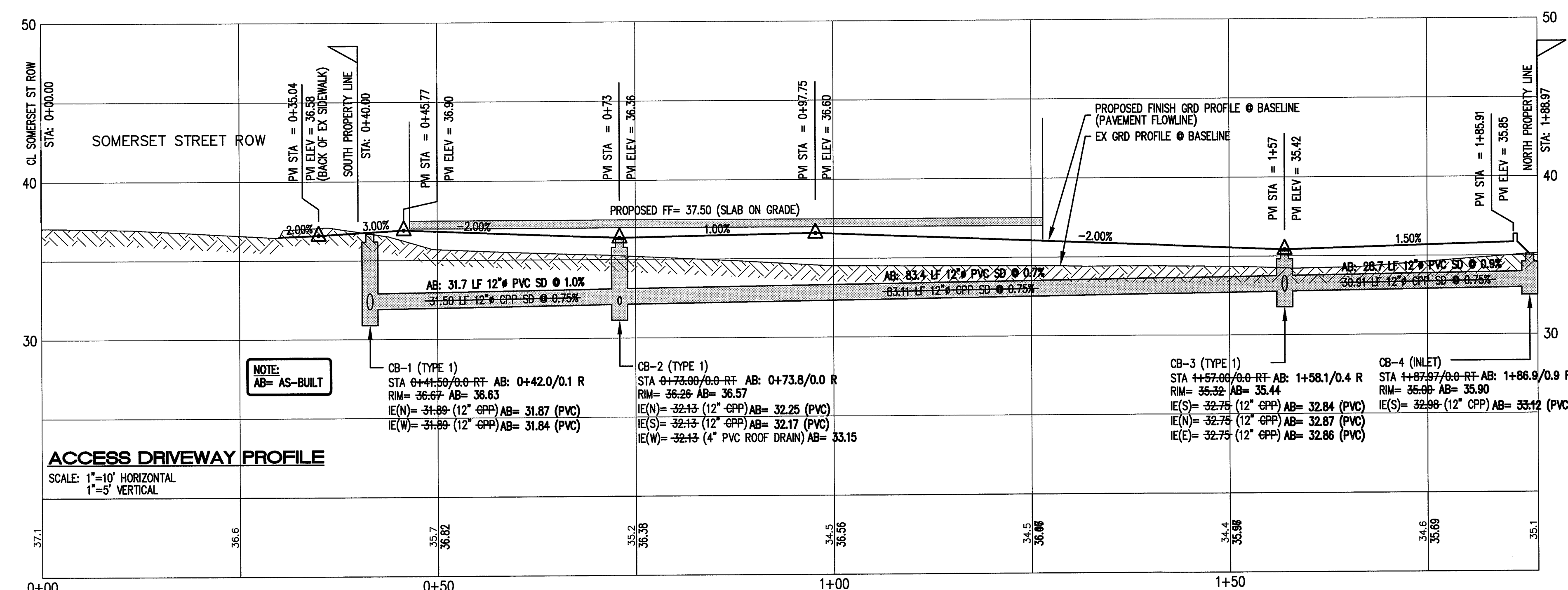
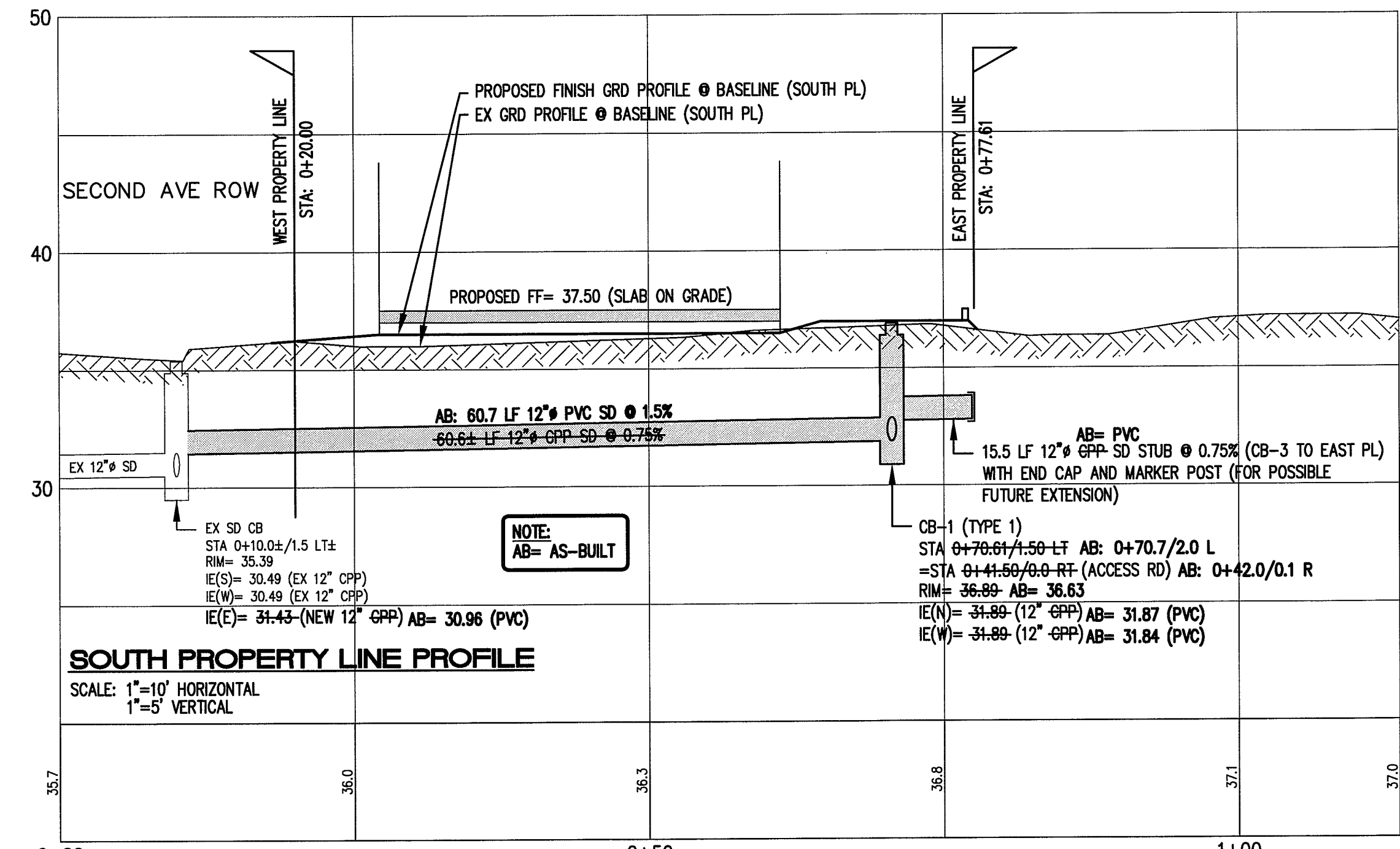


- ### STORM DRAINAGE NOTES
1. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT 7-08.3(1). THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL AND ANY REQUIRED PIPE BEDDING, TO A UNIFORM GRADE, SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY DENSE UNWEAVING BASE. DRAINAGE MATERIALS SHALL CONFORM TO SEC. 9-05.20.
  2. ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, LOCATED IN AREAS HAVING LIMITED PUBLIC SURVEILLANCE SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY OR OIL POLLUTION PREVENTION DEVICE SHALL HAVE SOLID LOCKING LIDS.
  3. ALL STORM DRAIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".
  4. 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.
  5. ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF ONE FOOT AND MUST MEET THE FOLLOWING SPECIFICATIONS: 5\"/>

- ### PAVEMENT NOTES
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 DESIGN ENGINEER PRIOR TO PAVING.

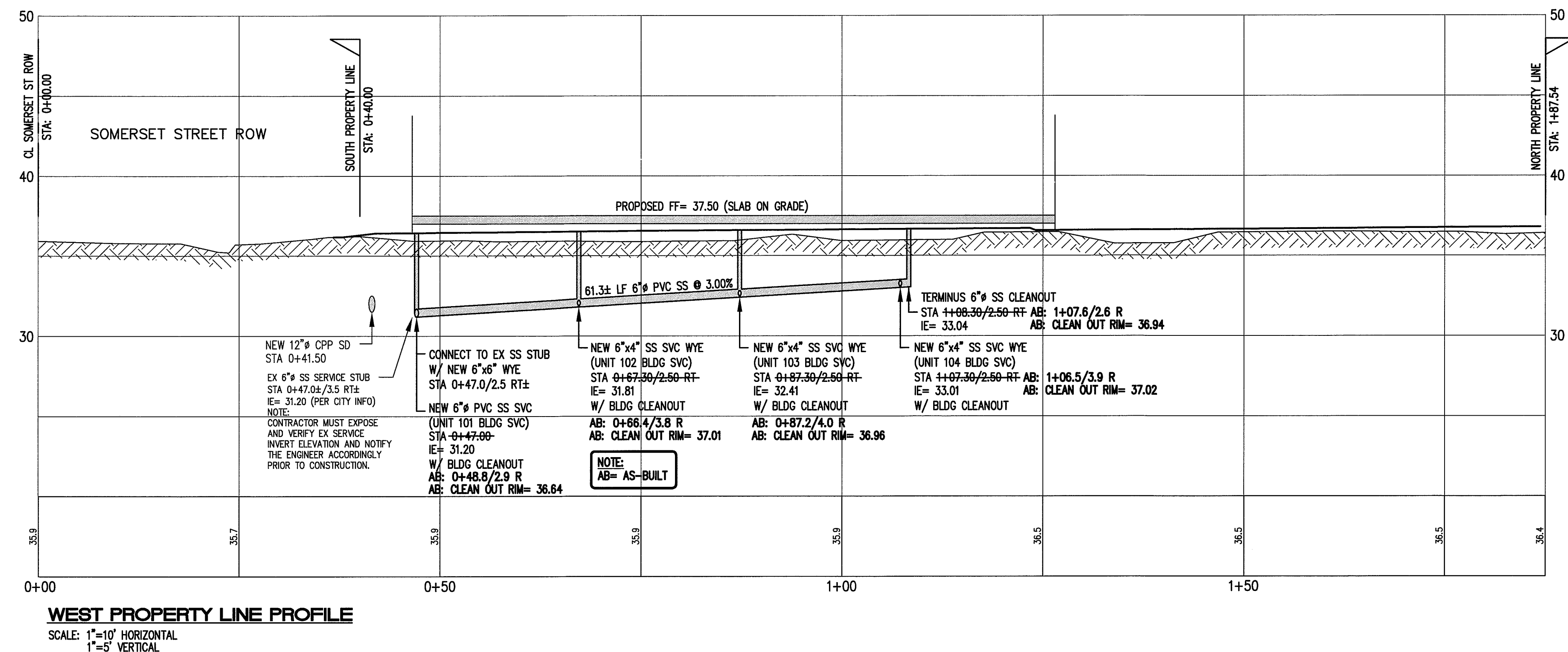
- ### BASE NOTES
1. GRAVEL BASES AND BALLAST MAXIMUM PARTICLE SIZE PASSING THE U.S. NO. 200 SIEVE SHALL NOT EXCEED 5X.
  2. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 98% OF ITS MAXIMUM DRY DENSITY.
  3. CONTRACTOR OR PROPONENT SHALL BE RESPONSIBLE FOR ALL COMPACTION TESTING AND COSTS.
  4. CEMENT CONCRETE DRIVEWAY ENTRANCE SHALL BE CONSTRUCTED PER WSDOT STANDARD PLAN F80-10.01 (TYPE 1) WITH THE FOLLOWING TYPICAL SECTION:
    - 3.0\"/>

APPROVED  
MAR 15 2013  
BY *[Signature]* P.E.  
CITY OF FERNDALE



<div><div><div></div><div></div><div></div><div></div></div><div><div>NO.</div><div>REVISION</div><div>BY</div><div>DATE</div></div></div>				<div><div><div>RECORD DRAWING NOTE:</div><div>THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREIN ARE BASED ON THE ORIGINAL DESIGN PLANS, AS-BUILT SURVEY BY OTHERS, AND SITE FIELD OBSERVATIONS. CONSTRUCTION RECORD AS-BUILT SURVEY DATA PROVIDED BY "CHRISTIE &amp; CHRISTIE LAND SURVEYING" DATED JAN 23, 2013. THE NOTATION "AS-BUILT" WITHIN THIS RECORD DRAWING SET REPRESENTS THE ACTUAL MEASURED UTILITY LOCATIONS FROM THE REFERENCED AS-BUILT SURVEY BY OTHERS. ALL OTHER UTILITY INFORMATION SHOWN HEREIN NOT LABELED "AS-BUILT" REPRESENT THE APPROXIMATE LOCATION OF UTILITIES ONLY BASED ON THE ORIGINAL CIVIL DESIGN. THE EXACT LOCATION OF ALL UTILITIES MUST BE INDEPENDENTLY VERIFIED BEFORE COMMENCING ANY ADDITIONAL UNDERGROUND WORK. CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555</div></div></div>				<div><div><div><div></div><div>NEIL A. WEBB</div><div>PROFESSIONAL ENGINEER</div><div>739</div></div><div>03/14/13</div></div></div>		<div><div><div><div>WEB ENGINEERING LTD</div><div>consulting civil engineers</div><div>125 WEST KELLOGG ROAD, BELLINGHAM, WA 98226</div><div>Ph: (360) 671-7002</div><div>Fax: (360) 671-7081</div><div>2012 (C) WEB ENGINEERING LTD (ALL RIGHTS RESERVED)</div></div></div></div>		<div><div><div>JOB NO.: 09169</div><div>DWG. NAME: COVER</div><div>DESIGNED BY: NL</div><div>DRAWN BY: BJS</div><div>CHECKED BY: NL</div></div></div>		<div><div><div>DJ + DJ CONTRACTING INC</div><div>7231 SECLUDED LANE</div><div>FERNDALE, WA 98248</div></div></div>				<div><div><div>ROAD AND STORM</div><div>4 UNIT TOWNHOUSE SITE DEVELOPMENT</div><div>1980 SOMERSET STREET, FERNDALE, WA</div><div>A PORTION OF SECTION 20, TOWNSHIP 39N, RANGE 2E, W.M.</div></div></div>				<div><div><div>DRAWING: C - 5</div><div>SHEET: 5 OF 8</div></div></div>	
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## SANITARY SEWER NOTES

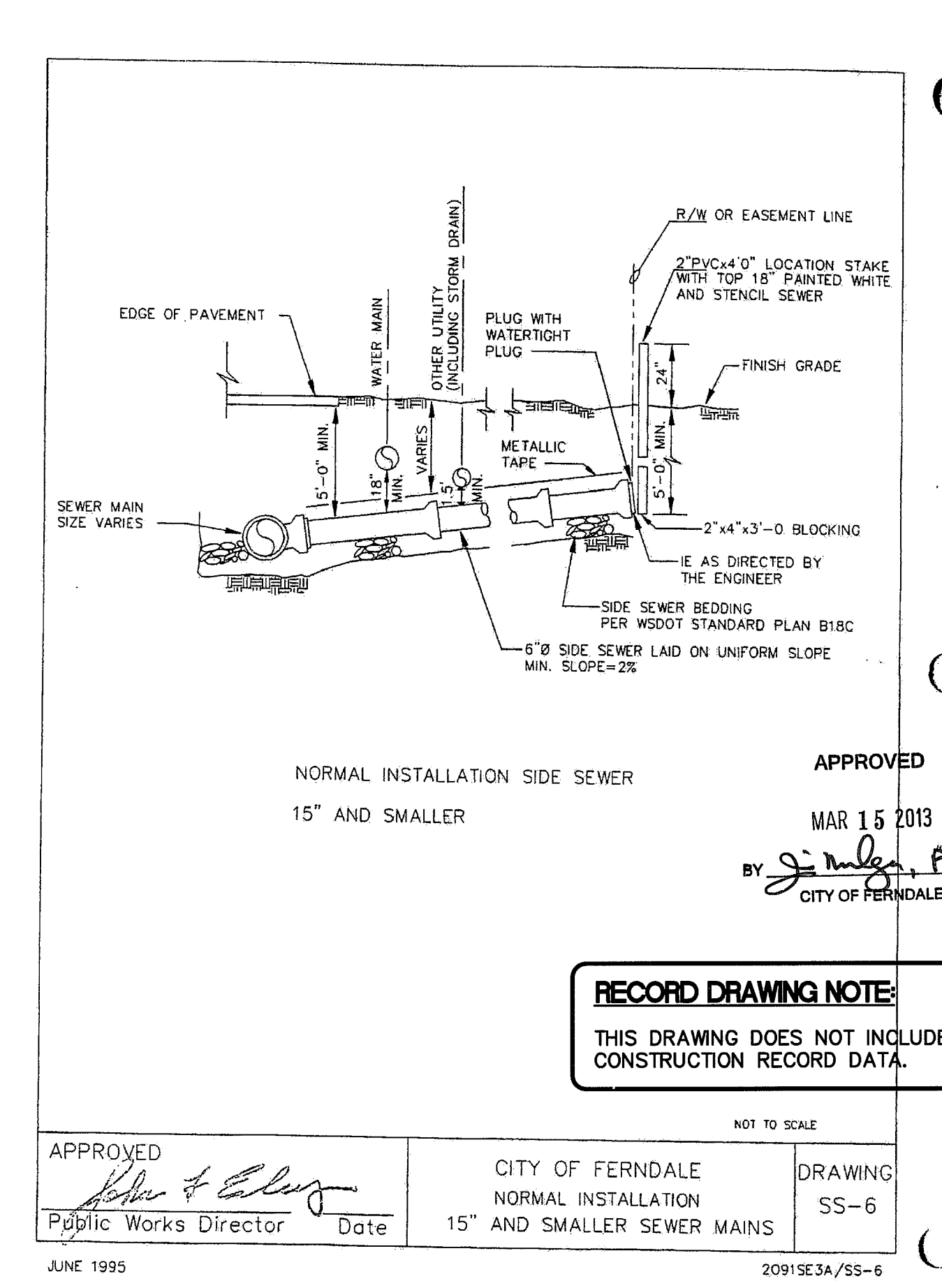
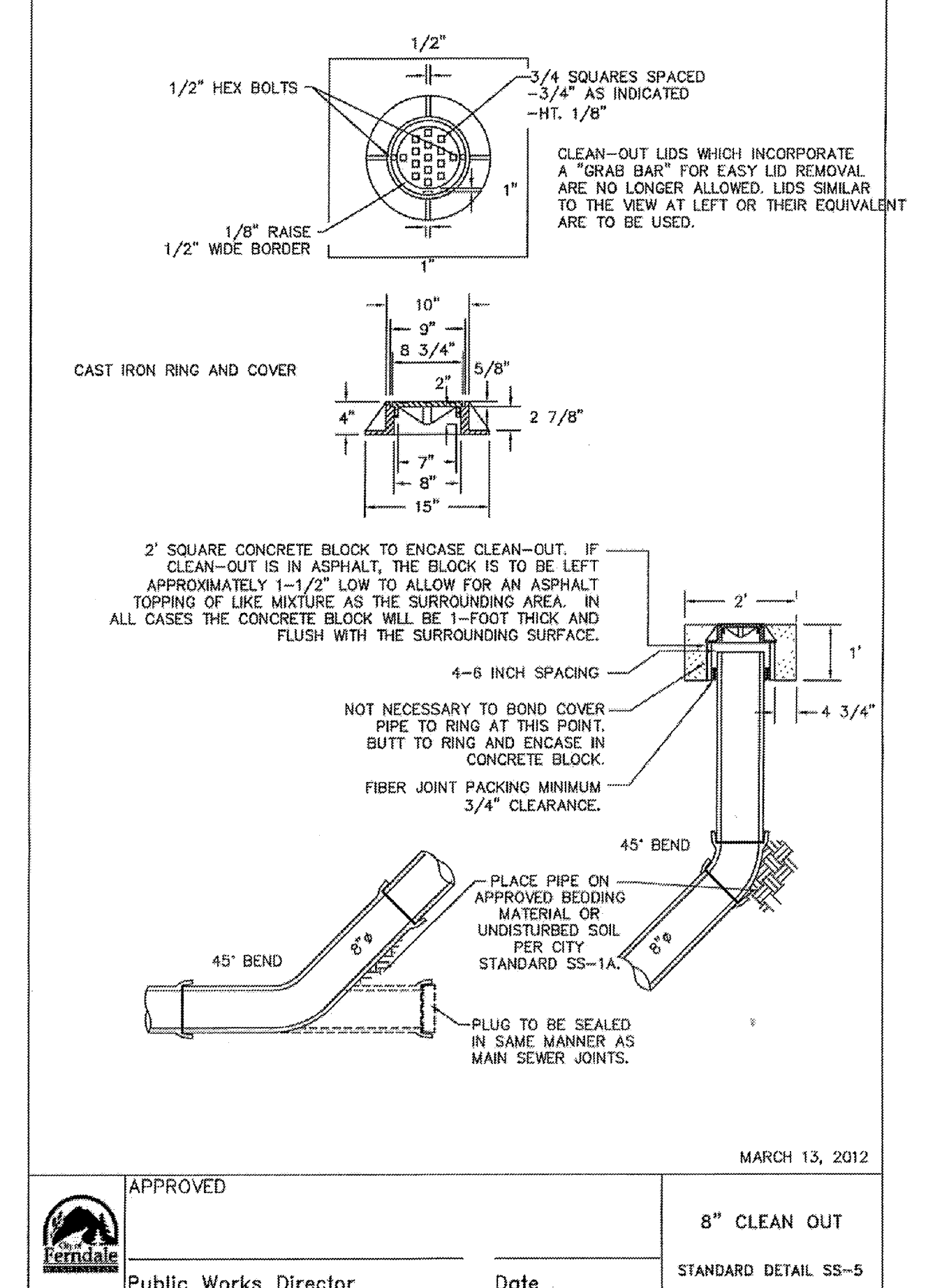
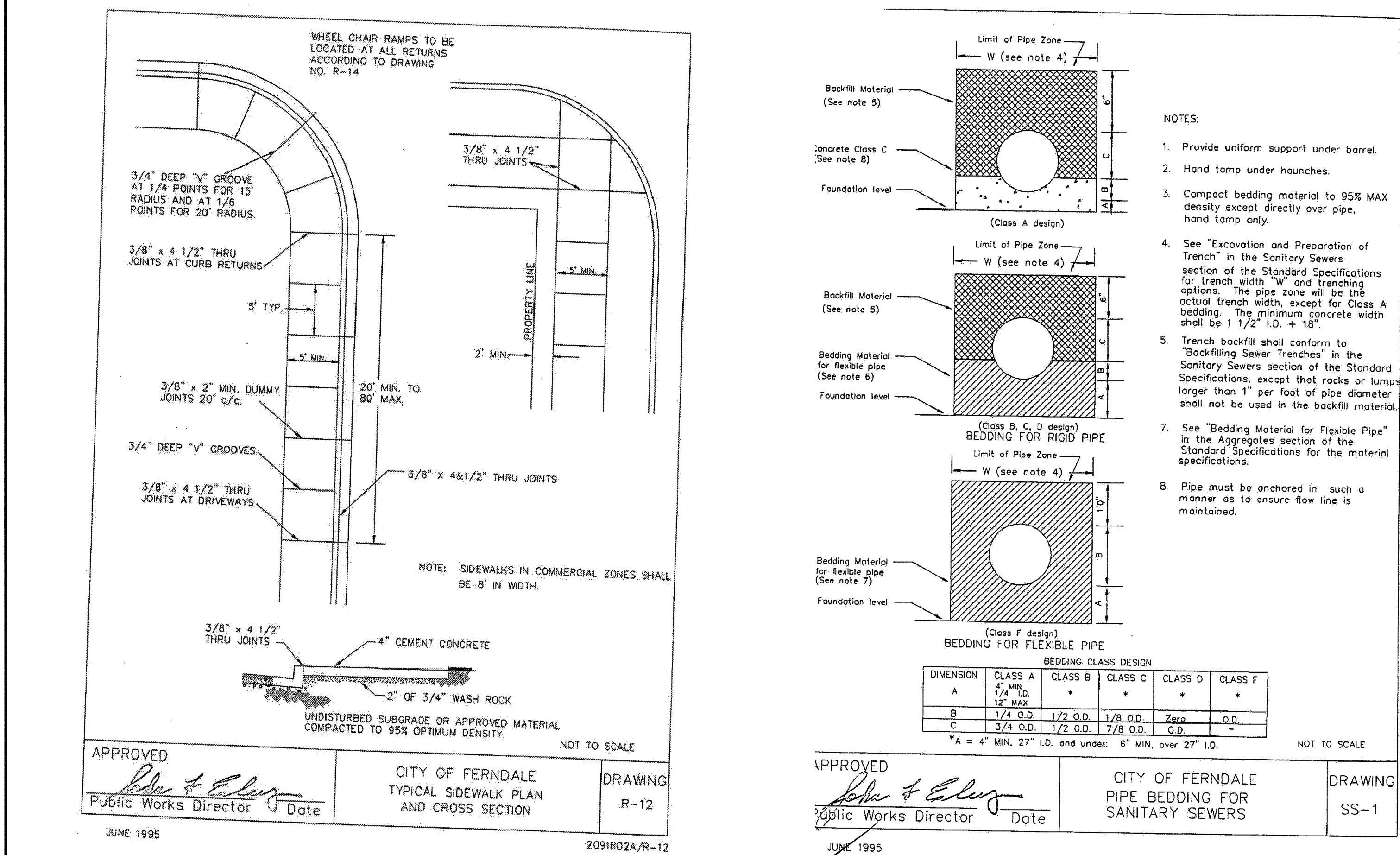
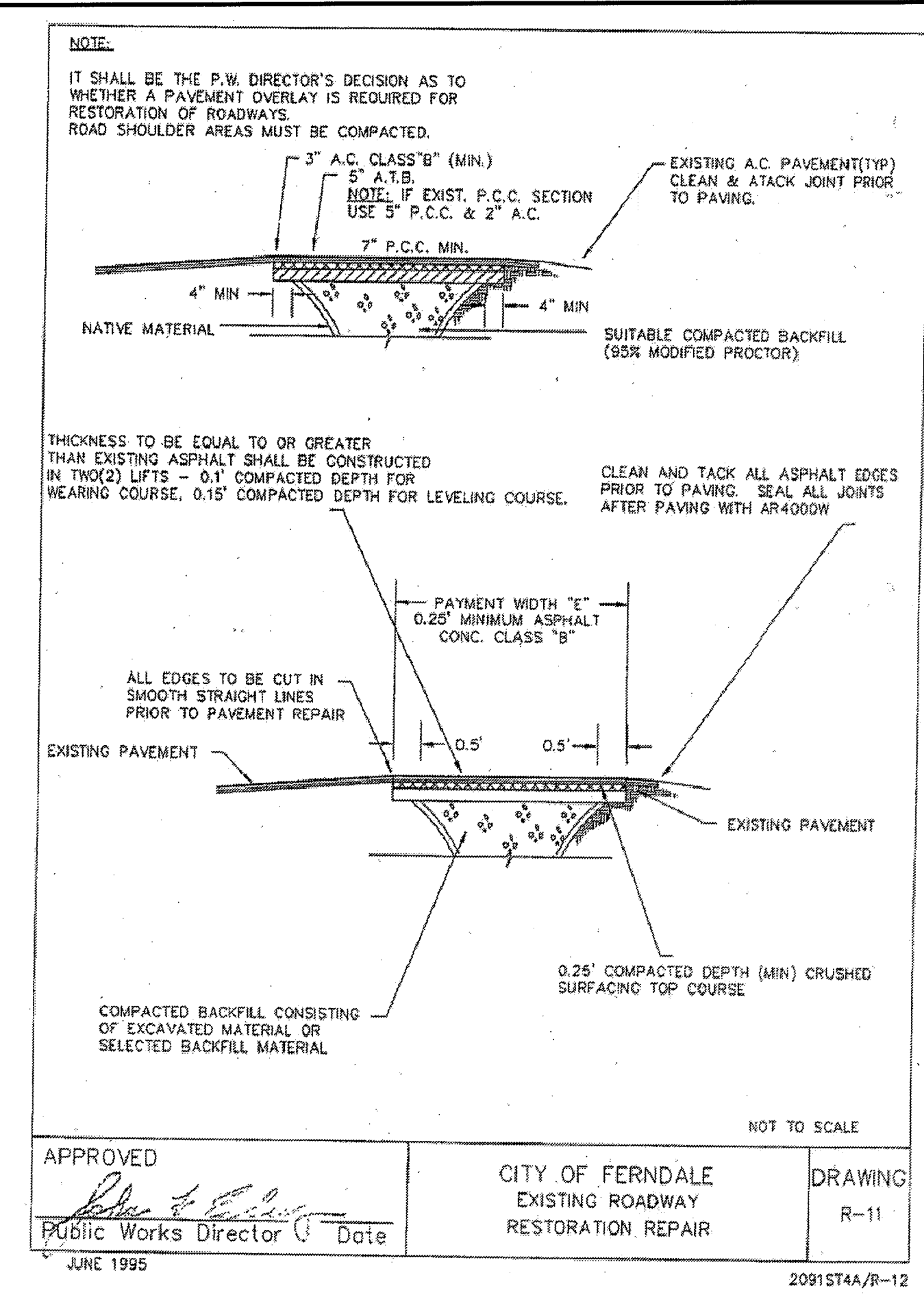
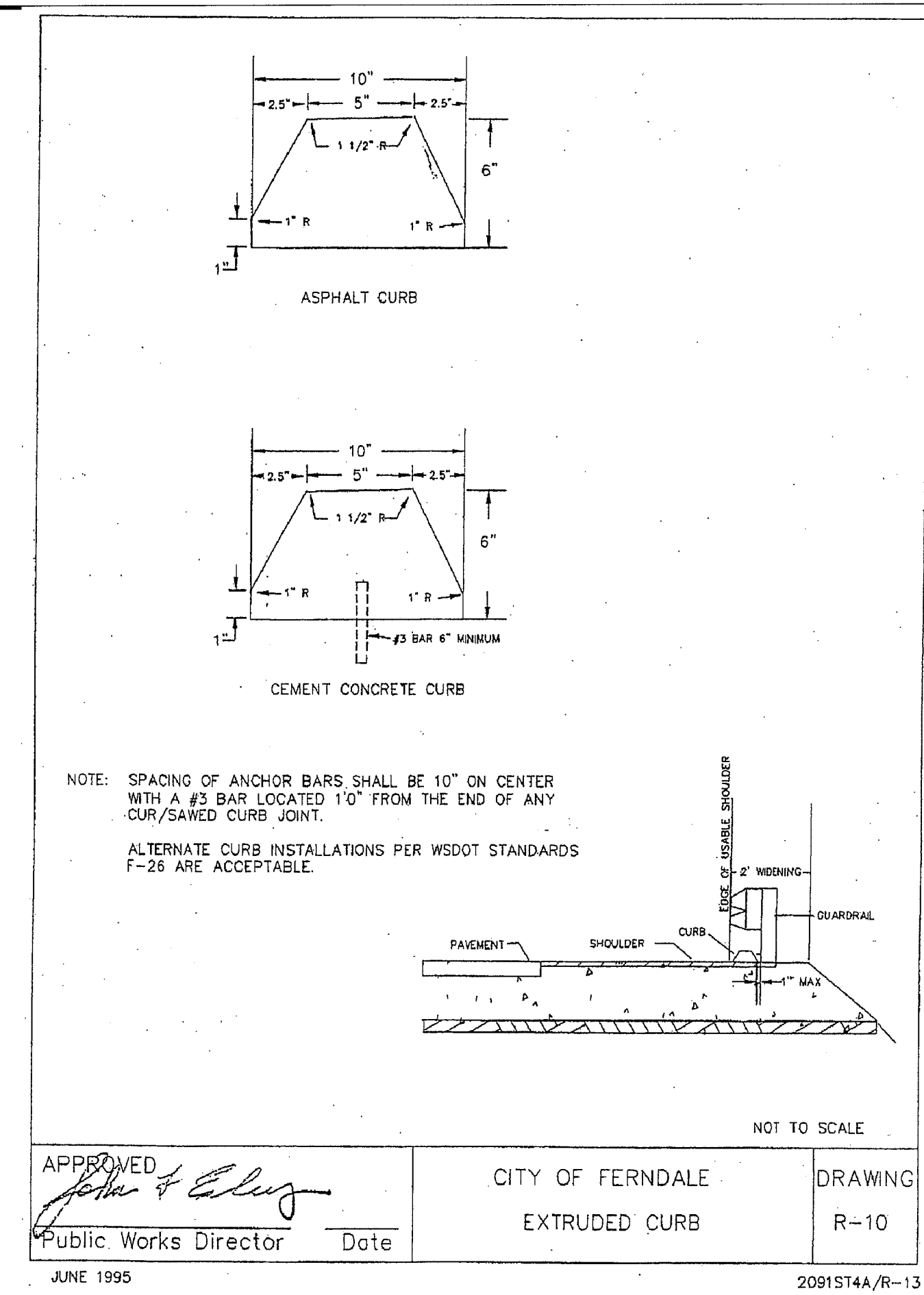
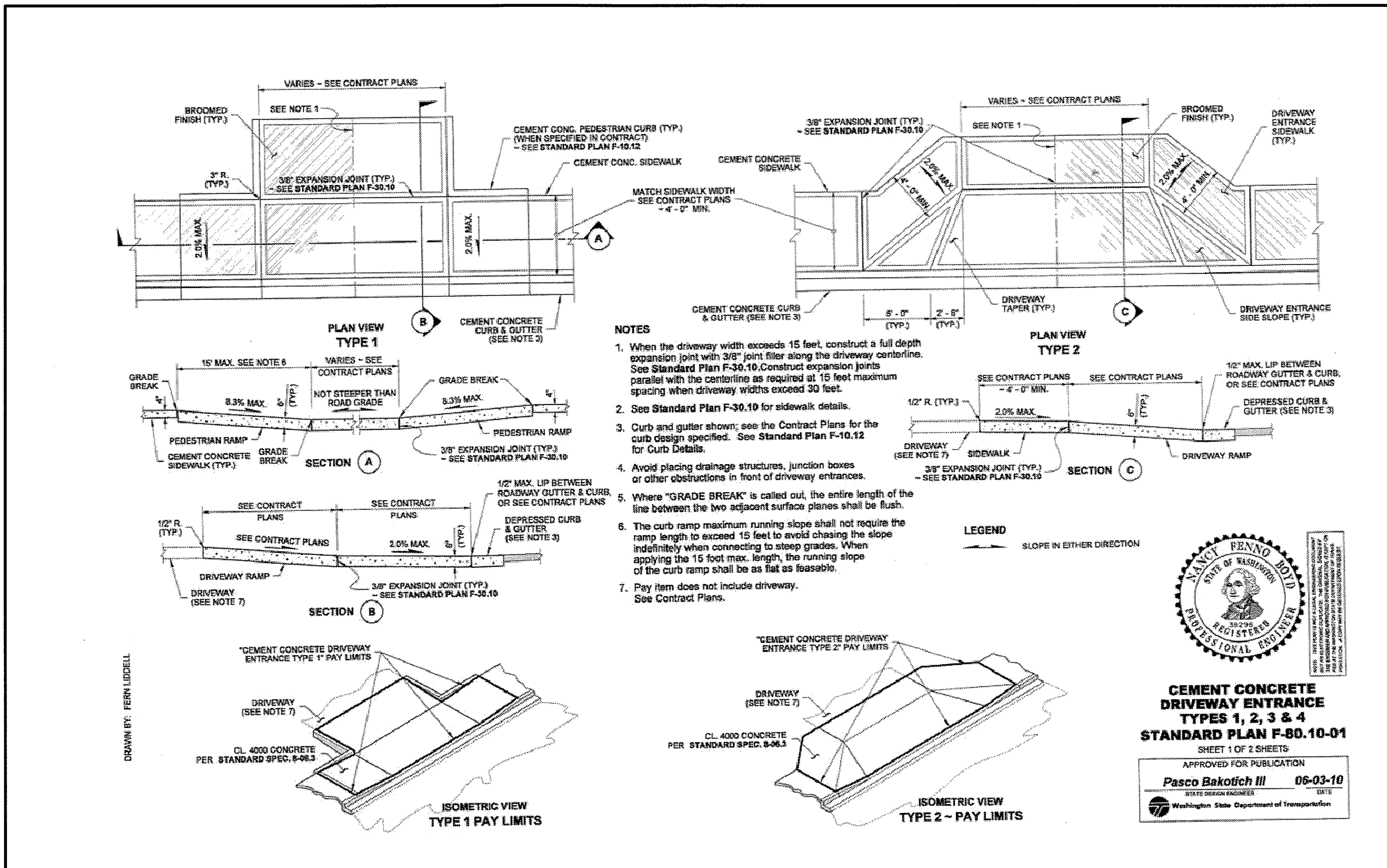
1. PIPE FOR WATER MAIN –  
ALL PIPE SHALL BE OF A.W.W.A. STANDARDS H3-71, C151-71 AND CEMENT LINING C104-71, AND SHALL BE DUCTILE CAST-IRON, STANDARD THICKNESS CLASS 50 PUSH-ON JOINTS. M.J. JOINTS, THE PIPE SHALL BE OF 150 PSI WORKING PRESSURE, PLUS 100 PSI SURGE PRESSURE. NO PVC OR AC PIPE WILL BE ALLOWED. PIPE LAYING SHALL MEET THE REQUIREMENTS OF SECTION 7-08 OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. ALL PIPE SHALL HAVE A MINIMUM COVERING OF 42 INCHES.
2. FITTINGS –  
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 A.W.W.A. SPECIFICATIONS C-110-71 AND C-104-71.
3. CONCRETE THURSTING BLOCKS –  
CONCRETE THURSTING BLOCKS AS SPECIFIED IN CITY STANDARD DETAILS, OR AS DIRECTED BY 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.
4. CONNECTION TO EXISTING WATER MAINS –  
THE CONTRACTOR MUST NOTIFY THE CITY PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE.
5. TESTING AND DISINFECTION –  
ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTIONS 7-09.3(23) AND 7-09.3(24) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION – CURRENT EDITION, HYDROSTATIC TESTING INSPECTED BY CITY.
6. WATER SERVICE TRANSFERS –  
TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY DEVELOPMENT STANDARDS.
7. GATE VALVES –  
GATE VALVES SHALL BE USED FOR LINES 2 INCHES THROUGH 8 INCHES, AND SHALL BE INSTALLED IN CAST-IRON VALVE BOXES, SHORT-BODY VALVES SUITABLE FOR 2 NONSHOCK SHUT-OFF PRESSURE OF 130 PSI RESILIENT SEAT VALVES AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED.  
GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO A.W.W.A. C508 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.
8. METER LOCATIONS –  
MARK ALL SERVICE LOCATIONS WITH METER BOX PER CITY OF FERNDALE STANDARD PLAN W-5C. WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF CITY OF FERNDALE STANDARD PLAN W-5C.
9. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF FERNDALE STANDARD SPECIFICATIONS AND DETAILS, A.P.W.A. STANDARD SPECIFICATIONS, AND WSDOT STANDARD SPECIFICATION, LATEST EDITION, AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.
10. HOUR NOTICE MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERNDALE. 24 HOUR WORK MUST BE GIVEN PRIOR TO STARTING WORK.
3. SEWER MAIN AND SERVICES SHALL BE A MINIMUM 8 INCHES DIAMETER PVC CONFORMING TO WSDOT SPECIFICATION 9-05.12(1) AND INSTALLED TO CITY SPECIFICATIONS.
4. TESTING OF THE SEWER SYSTEM SHALL BE DONE IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDALE REPRESENTATIVE. TESTING SHALL COMPLY WITH WSDOT 7-13.2(2) SANITARY SEWERS SHALL BE TESTED AT 5 PSI FOR 15 MINUTES.
5. 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, IN ACCORDANCE WITH CITY OF FERNDALE DETAIL SS-15 AND WSDOT 7-08.
6. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE SS-2, SS-3, SS-4, AND SHALL BE PRE-CHANNELED.
7. SIDE SEWERS SHALL BE INSTALLED PER CITY OF FERNDALE STANDARDS SS-6, SS-8 AND SS-13. SEWER STUBS SHALL BE CAPPED AND MARKED W/ 2" PVC PAINTED AND STENCILED "SEWER". CONNECT PVC CAPPER TO STUB W/ #12 COPPER WIRE.
8. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.
9. BEDDING SHALL BE PEA GRAVEL PER SS-1.
10. ALL CLEANOUTS SHALL BE INSTALLED PER CITY OF FERNDALE SS-5.





BY J. M. J. P. E.  
CITY OF PERNDAL

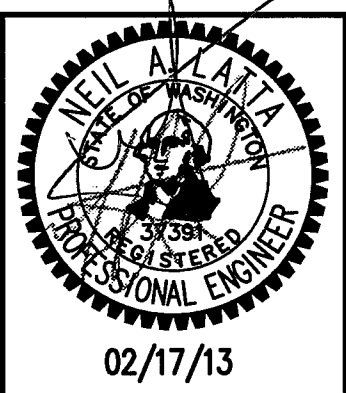
DRAWING:  
**C - 6**

SHEET:  
**6 OF 8**





	SUBMITTAL FOR CITY REVIEW	NL	04/16/12	<b>RECORD DRAWING NOTE:</b> THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREIN ARE BASED ON THE ORIGINAL DESIGN PLANS, "AS-BUILT" SURVEY BY OTHERS, AND SITE FIELD OBSERVATIONS. CONSTRUCTION RECORD "AS-BUILT" SURVEY DATA PROVIDED BY "CHRISTIE & CHRISTIE LAND SURVEYING" DATED JAN. 20, 2013, THE "NOTATION "AS-BUILT" WITHIN THE RECORD DRAWING SET REPRESENTS THE ACTUAL "AS-BUILT" UTILITY LOCATIONS FROM THE REFERENCED "AS-BUILT" SURVEY. "AS-BUILT" LOCATIONS OF UTILITY INFORMATION SHOWN ON THE RECORD DRAWING ARE LABELED "AS-BUILT" REPRESENT THE APPROXIMATE LOCATION OF UTILITIES ONLY BASED ON THE ORIGINAL CIVIL DESIGN. THE EXACT LOCATION OF ALL UTILITIES MUST BE INDEPENDENTLY VERIFIED BEFORE COMMENCING ANY ADDITIONAL UNDERGROUND WORK. <b>CALL 48 HOURS BEFORE YOU DIG</b> <b>1-800-424-5555</b>
	ISSUED FOR CITY APPROVAL	NL	05/09/12	
	RECORD DRAWING SUBMITTAL	NL	02/17/13	
				
NO.	REVISION	BY	DATE	



**WEB ENGINEERING LTD**  
consulting civil engineers

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Fax: (360) 671-7081

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JOB NO.:	09169
DWG. NAME:	COVER
DESIGNED BY:	NL
DRAWN BY:	BJS
CHECKED BY:	NL

DJ + DJ CONTRACTING INC  
7231 SECLUDED LANE  
FERNDALE, WA 98248

<h1 style="text-align: center;">STANDARD DETAILS</h1> <h2 style="text-align: center;">4 UNIT TOWNHOUSE SITE DEVELOPMENT</h2> <p style="text-align: center;">1980 SOMERSET STREET, FERNDALE, WA A PORTION OF SECTION 20, TOWNSHIP 39N, RANGE 2E, W.M.</p>		
DATE:	SCALE:	
APRIL 2012	H: 1"=10'	V: NA

DRAWING:  
**C - 7**

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SHEET:  
**7** OF **8**



