

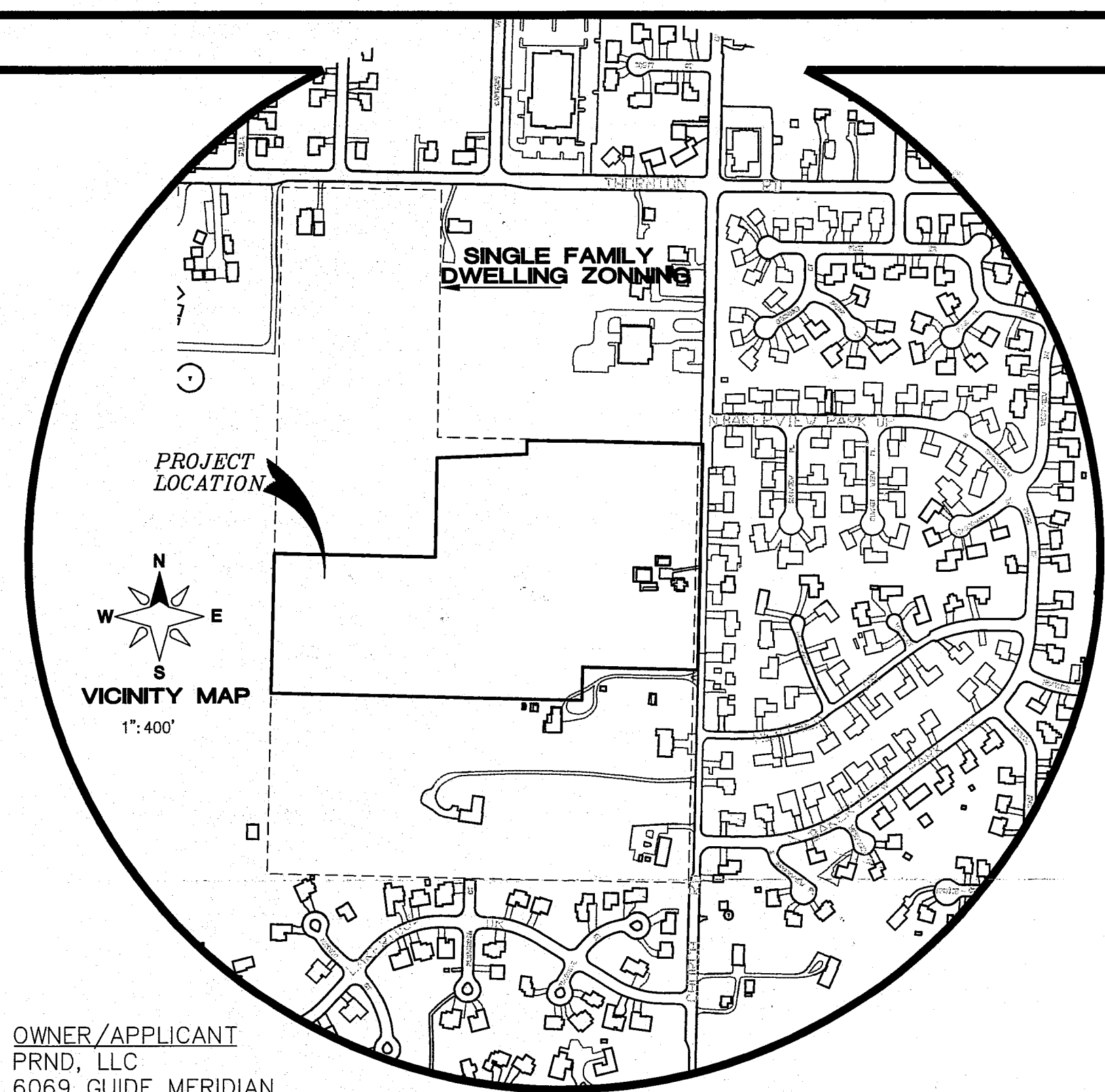
A PORTION OF THE NE 1/4 OF SECTION 24
TOWNSHIP 39 N., RANGE 1 E. OF THE W.M.
CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON

LARSEN'S CHURCH HILL ESTATES - PHASE 2

(A PLANNED UNIT DEVELOPMENT)

RECORD DRAWINGS

00575.001 11/14/14 SH



Sht No.	Sheet Title
01	COVER SHEET
02	EXISTING CONDITIONS
03	SUBDIVISION PLAN
04	EROSION CONTROL PLAN
05	CLEARING AND GRUBBING & GRADING PLAN
06	STREET & STORM DRAINAGE PLAN & PROFILE- SIEVERS WAY
07	STORM DRAINAGE PLAN & PROFILE- SOUTH BOUNDARY LINE
08	STREET & STORM DRAINAGE PLAN & PROFILE- PACIFIC HEIGHTS DR
09	ROOF AND YARD DRAIN PLAN
10	INTERSECTION CURB WARPING
11	STREET & STORM DRAINAGE DETAILS
12	SANITARY SEWER PLAN & PROFILE- SIEVERS WAY
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15	WATER DISTRIBUTION PLAN & PROFILE- SIEVERS WAY
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17	WATER DISTRIBUTION DETAILS
18	COMMON UTILITY, LANDSCAPE, STREET SIGNAGE & LIGHTING PLAN
19	COMMON UTILITY DETAILS
20	COMPOSITE PLAN
21	CITY OF FERNDAL GENERAL NOTES

LEGEND:

- FOUND YPC PLS#24225
- FOUND REBAR NO CAP
- FOUND MONUMENT
- FOUND YPC PLS#24218
- FOUND MIC
- RECORD DATA PER DEED
- RECORD DATA PER PLAT
- EXIST SD CATCH BASIN (TYPE I)
- STORM DRAIN R-Y
- ROOF AND YARD INLET
- STORM DRAIN CATCH BASIN
- CONTROL STRUCTURE
- EXIST SANITARY SEWER MANHOLE
- EXIST SANITARY SEWER CLEANOUT
- EXIST SANITARY SEWER SERVICE
- SANITARY SEWER SERVICE
- SEWER CLEANOUT
- SEWER MANHOLE
- EXISTING WATER BLOW-OFF VALVE
- EXISTING WATER METER BOX
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXIST WATER VALVE BOXES
- WATER METER BOX
- WATER VALVE
- WATER BLOW OFF
- REDUCER
- FIRE HYDRANT
- THRUST BLOCK
- EXIST POWER/AND OR UTILITY POLE
- EXIST GUY POLE
- EXIST GUY WIRE
- EXIST LIGHT POLE
- EXIST UTILITY POLE
- STREET LIGHT
- EXIST TV BOX
- EXIST TELEPHONE PEDESTAL
- EXIST TELEPHONE MANHOLE
- EXIST MAIL BOX
- EXIST SIGN
- STREET SIGN
- EXIST LANDSCAPING
- EXIST GAS METER
- EXIST FIBER OPTIC LINE
- EXIST OVERHEAD POWER
- EXIST UNDERGROUND POWER
- EXIST OVERHEAD PHONE
- EXIST UNDERGROUND PHONE
- EXIST UNDERGROUND TV CABLE
- EXIST GAS MAIN
- EXIST WATER LINE
- EXIST SANITARY SEWER LINE
- EXIST STORM DRAIN LINE
- EXIST CHAIN LINK FENCE
- EXIST BARBED WIRE FENCE
- EXIST WOOD POST FENCE
- EXIST CONC. FENCE OR RET. WALL
- EXIST CONTOUR (INDEX)
- EXIST CONTOUR (NORMAL)
- STORM DRAIN LINE
- SAN. SEWER LINE
- PROPOSED WATER LINE
- ROOF DRAIN (4"/6" PVC)
- UTILITY TRENCH
- ROAD ASPHALT
- 6" THICK SIDEWALK (DRIVEWAY SECTION)
- 4" THICK SIDEWALK

OWNER/APPLICANT
PRND, LLC
6069 GUIDE MERIDIAN
BELLINGHAM, WA 98226
CONTACT: SHAHGIR GILL
(360) 296-2251

ENGINEER
LDES, INC.
5160 INDUSTRIAL PL #106
FERNDAL, WA 98248
CONTACT: RAMON LLANOS, PE.
(360) 383-0620

SURVEYOR
LDES, INC.
5160 INDUSTRIAL PL #106
FERNDAL, WA 98248
CONTACT: KYLE HAGGITH, PLS.
(360) 383-0620

ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THE IMPROVEMENTS IN LARSEN'S CHURCH HILL ESTATES PHASE 2 HAVE BEEN INSPECTED BY LDES, INC. AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDAL DEVELOPMENT STANDARDS, THE CITY OF FERNDAL MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE

10/27/14

SURVEYOR'S CERTIFICATION
I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS, AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING FIELD CONDITIONS AS DETERMINED BY ME OR UNDER MY DIRECT SUPERVISION ON THIS DATE: 10/27/2014

KYLE HAGGITH, PLS.

LARSEN'S CHURCH HILL ESTATES

JOB # 06010

FOR: PRND, LLC

APPROVED

NOV 03 2014

BY [Signature]

CITY OF FERNDAL

RAMON LLANOS, P.E.

10/17/14

LDES, INC.

5160 INDUSTRIAL PL #108

FERNDAL, WA 98248

PHONE 360-383-0620

FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES - II

COVER SHEET

RECORD DRAWINGS

REVISIONS - INITIALS/DATE/CMS

SR	10/17/14	SUBMITTAL 1

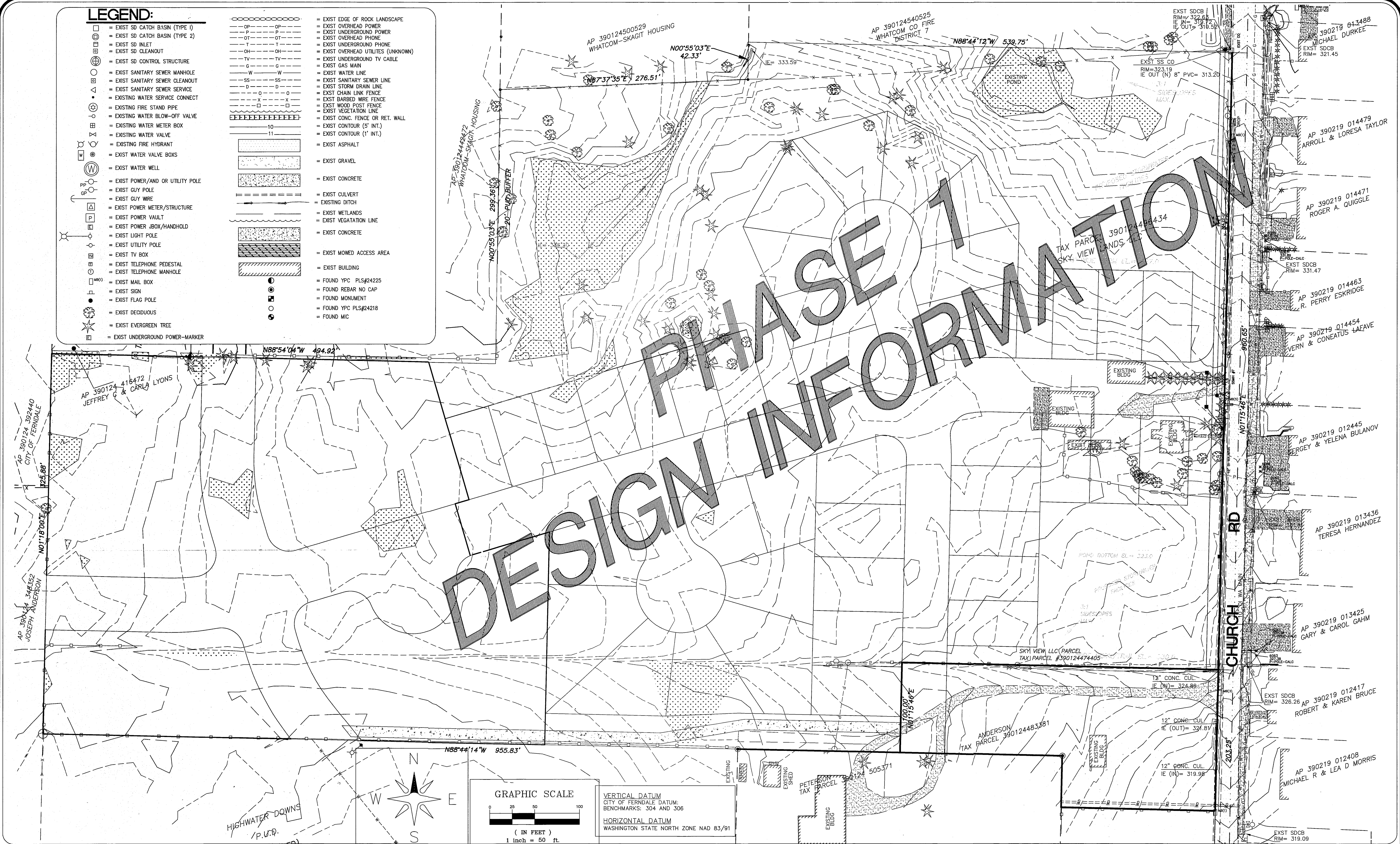
SHEET

01

OF 21

LEGEND:

	= EXIST SD CATCH BASIN (TYPE 1)		= EXIST EDGE OF ROCK LANDSCAPE
	= EXIST SD CATCH BASIN (TYPE 2)		= EXIST OVERHEAD POWER
	= EXIST SD INLET		= EXIST UNDERGROUND POWER
	= EXIST SD CLEANOUT		= EXIST OVERHEAD PHONE
	= EXIST SD CONTROL STRUCTURE		= EXIST UNDERGROUND UTILITIES (UNKNOWN)
	= EXIST SANITARY SEWER MANHOLE		= EXIST GAS MAIN
	= EXIST SANITARY SEWER CLEANOUT		= EXIST WATER LINE
	= EXIST SANITARY SEWER SERVICE		= EXIST SANITARY SEWER LINE
	= EXISTING WATER SERVICE CONNECT		= EXIST STORM DRAIN LINE
	= EXISTING FIRE STAND PIPE		= EXIST CHAIN LINK FENCE
	= EXISTING WATER BLOW-OFF VALVE		= EXIST BARBED WIRE FENCE
	= EXISTING WATER METER BOX		= EXIST WOOD POST FENCE
	= EXISTING WATER VALVE		= EXIST VEGETATION LINE
	= EXISTING FIRE HYDRANT		= EXIST CONC. FENCE OR RET. WALL
	= EXIST WATER VALVE BOXES		= EXIST CONTOUR (5' INT.)
	= EXIST WATER WELL		= EXIST CONTOUR (1' INT.)
	= EXIST POWER/AND OR UTILITY POLE		= EXIST ASPHALT
	= EXIST GUY POLE		= EXIST GRAVEL
	= EXIST GUY WIRE		= EXIST CONCRETE
	= EXIST POWER METER/STRUCTURE		= EXIST CULVERT
	= EXIST POWER VAULT		= EXISTING DITCH
	= EXIST POWER J-BX/HANDHOLD		= EXIST WETLANDS
	= EXIST LIGHT POLE		= EXIST VEGETATION LINE
	= EXIST UTILITY POLE		= EXIST CONCRETE
	= EXIST TV BOX		= EXIST MOWED ACCESS AREA
	= EXIST TELEPHONE PEDestal		= EXIST BUILDING
	= EXIST TELEPHONE MANHOLE		= FOUND YPC PLS#24225
	= EXIST MAIL BOX		= FOUND REBAR NO CAP
	= EXIST SIGN		= FOUND MONUMENT
	= EXIST FLAG POLE		= FOUND YPC PLS#24218
	= EXIST DECIDUOUS		= FOUND MIC
	= EXIST EVERGREEN TREE		
	= EXIST UNDERGROUND POWER-MARKER		



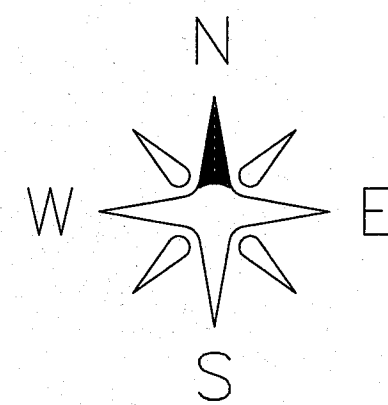
JOB # 06010	FOR: PRND, LLC	APPROVED NOV 03 2014 BY [Signature] CITY OF FERDALE			LDES, INC. 5160 INDUSTRIAL PL #108 FERDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	LARSENS CHURCH HILL ESTATES EXISTING CONDITIONS RECORD DRAWINGS	REVISIONS - INITIALS/DATE/CMS	SHEET 02 OF 21
							SR 10/17/14	

00575.002 11/14/14 SH

GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.



CURVE	LENGTH	RADIUS	DELTA
C25	21.03'	25.00'	48°11'23"
C26	39.71'	50.00'	45°30'21"
C28	38.00'	50.00'	43°32'41"
C29	38.00'	50.00'	43°32'41"
C30	38.00'	50.00'	43°32'41"
C31	45.52'	50.00'	52°09'23"
C34	17.57'	50.00'	20°08'04"
C36	21.03'	25.00'	48°11'23"
C37	31.7'	275.00'	0°39'39"
C38	52.83'	225.00'	13°27'08"
C41	4.90'	225.00'	1°14'48"
C43	14.32'	280.00'	2°55'46"
C44	42.41'	280.00'	8°40'42"
C45	24.37'	50.00'	27°55'49"
C46	35.40'	50.00'	40°33'37"
C47	40.60'	50.00'	46°31'22"
C48	37.67'	50.00'	43°10'13"
C49	6.99'	50.00'	10°18'17"
C50	21.03'	25.00'	48°11'23"
C51	26.68'	50.00'	30°34'34"
C52	38.27'	50.00'	43°51'04"
C53	35.39'	50.00'	40°33'21"
C54	35.39'	50.00'	40°33'14"
C55	35.39'	50.00'	40°33'14"
C58	38.27'	50.00'	43°51'15"
C59	31.79'	50.00'	36°26'03"
C60	21.03'	25.00'	48°11'23"
C61	30.63'	275.00'	6°22'57"
C62	26.31'	220.00'	6°51'06"
C63	24.39'	50.00'	27°56'54"
C64	39.27'	25.00'	89°59'59"
C65	39.27'	25.00'	90°00'00"

N87°37'35"E 276.51'

N00°55'03"E
42.33'

N88°44'12"W 539.75'

PACIFIC HEIGHT DR

20' PLD BUFFER

N00°55'03"E 299.36'

SEEVERS COURT

SEEVERS WAY

PHASE 1

LOUIS COURT

HONEYCUTT COURT

CHURCH RD

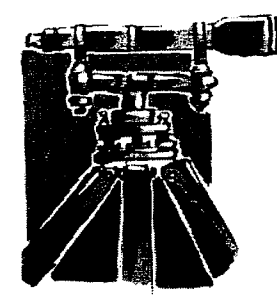
HEATHER

LARSEN'S CHURCH HILL ESTATES

APPROVED

NOV 03 2014

BY *[Signature]*
CITY OF FERNDALE



LDES, INC.
5160 INDUSTRIAL PL #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES
SUBDIVISION PLAN
RECORD DRAWINGS

REVISIONS - INITIALS/DATE/CMS

SR 10/17/14 SUBMITTAL 1

SHEET

03

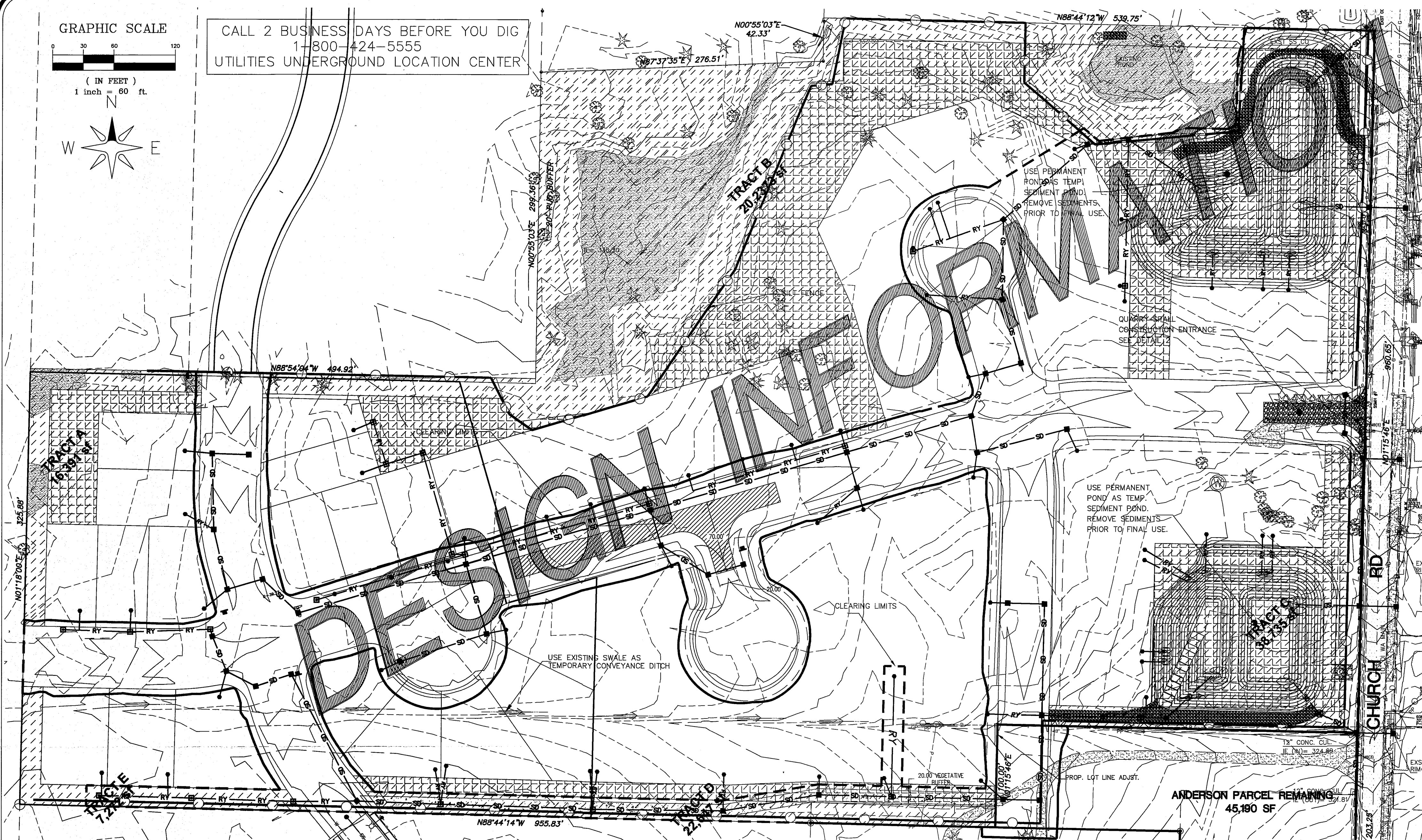
OF 21

JOB # 06010

FOR: PRND, LLC

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00575.004 11/14/14 JH

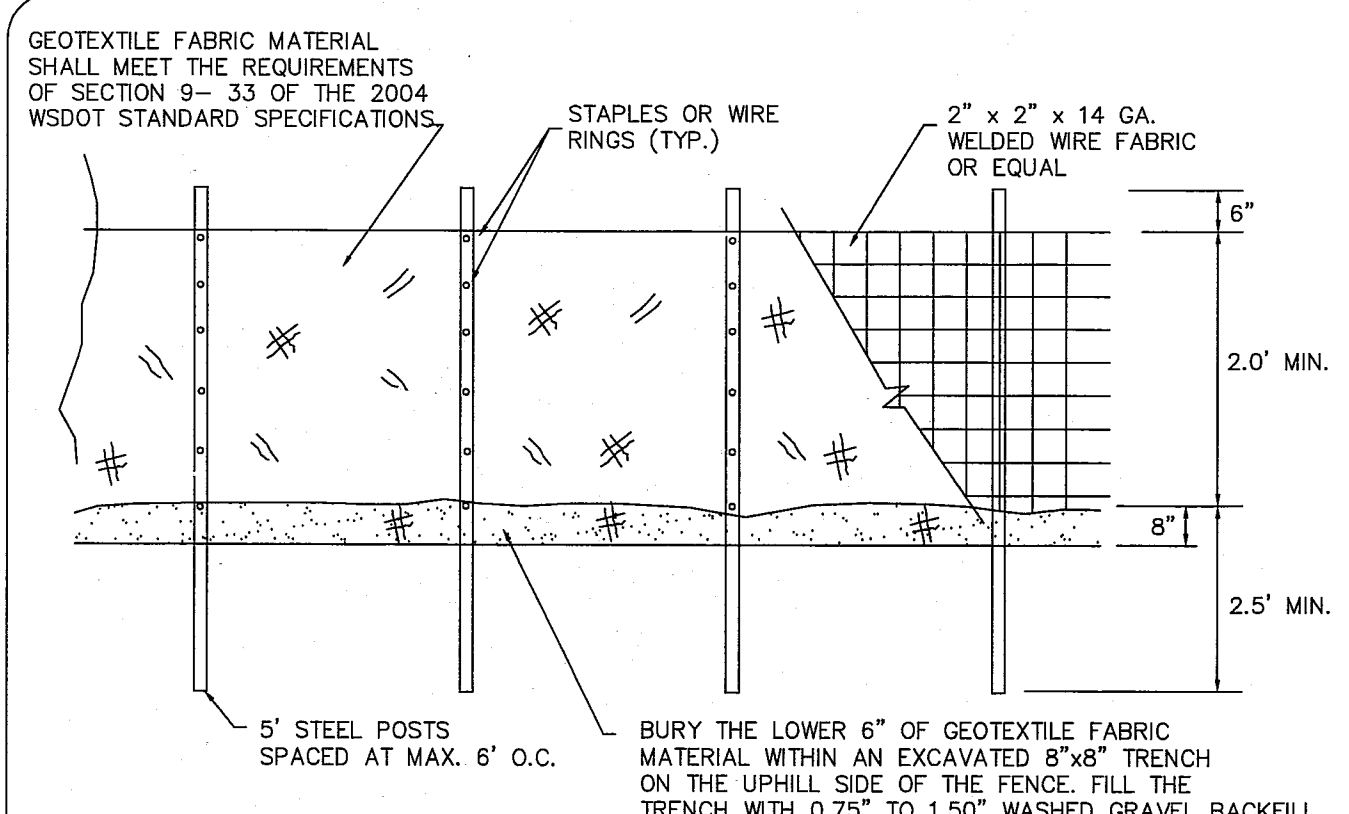


CITY OF FERNDAL TESC NOTES:

1. STABILIZATION & SEDIMENT TRAPPING. ALL EXPOSED SOILS SHALL BE STABILIZED BY SUITABLE APPLICATION OF BMP'S. FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN UNEXPOSED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN UNEXPOSED FOR MORE THAN 7 DAYS. PRIOR TO LEAVING THE SITE, STORMWATER RUNOFF SHALL PASS THROUGH A SEDIMENT POND, TRAP OR OTHER APPROPRIATE BMP.
2. DELINEATE CLEARING & EASEMENT LIMITS. IN THE FIELD, STAKE AND FLAG CLEARING LIMITS AND/OR ANY EASEMENTS, SETBACKS, SENSITIVE CRITICAL AREAS AND THEIR BUFFERS, TREES AND DRAINAGE COURSES.
3. PROTECTION OF ADJACENT PROPERTIES. PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION.
4. TIMING & STABILIZATION OF SEDIMENT TRAPPING MEASURES. SEDIMENT PONDS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER BMP'S INTENDED TO TRAP SEDIMENT ON-SITE SHALL BE CONSTRUCTED AS A FIRST STEP IN GRADING. THESE BMP'S SHALL BE FUNCTIONAL BEFORE LAND DISTURBING ACTIVITIES TAKE PLACE. EARTH STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS SHALL BE SEEDED AND MULCHED ACCORDING TO THE TIMING INDICATED IN NO. 1 ABOVE.
5. CUT & FILL SLOPES. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. IN ADDITION, SLOPES SHALL BE STABILIZED IN ACCORDANCE WITH NO. 1 ABOVE.
6. CONTROLLING OFF-SITE EROSION. PROPERTIES AND WATERWAYS DOWNSTREAM FROM THE DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE.
7. STABILIZATION OF TEMPORARY CONVEYANCE CHANNELS & OUTLETS. ALL TEMPORARY ON-SITE CONVEYANCE CHANNELS SHALL BE DESIGNED, CONSTRUCTED AND STABILIZED TO PREVENT EROSION FROM THE EXPECTED VELOCITY OF FLOW FROM A 2-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. STABILIZATION ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAMBANKS, SLOPES AND DOWNSTREAM REACHES SHALL BE PROVIDED AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.
8. STORM DRAIN INLET PROTECTION. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

9. UNDERGROUND UTILITY CONSTRUCTION. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA; WHERE FEASIBLE, NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME; WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES; AND TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
10. CONSTRUCTION ACCESS ROUTES. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED ROADS, PROVISIONS MUST BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) ONTO THE PAVED ROAD. IF SEDIMENT IS TRANSPORTED ONTO A ROAD SURFACE, THE ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
11. REMOVAL OF TEMPORARY BMP'S. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMP'S ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
12. DEWATERING CONSTRUCTION SITES. DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
13. CONTROL OF POLLUTANTS OTHER THAN SEDIMENT ON CONSTRUCTION SITES. ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.
14. MAINTENANCE. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
15. FINANCIAL LIABILITY. PERFORMANCE BONDING, OR OTHER APPROPRIATE FINANCIAL INSTRUMENTS, SHALL BE REQUIRED FOR ALL PROJECTS TO ENSURE COMPLIANCE WITH THE APPROVED TESC PLAN.

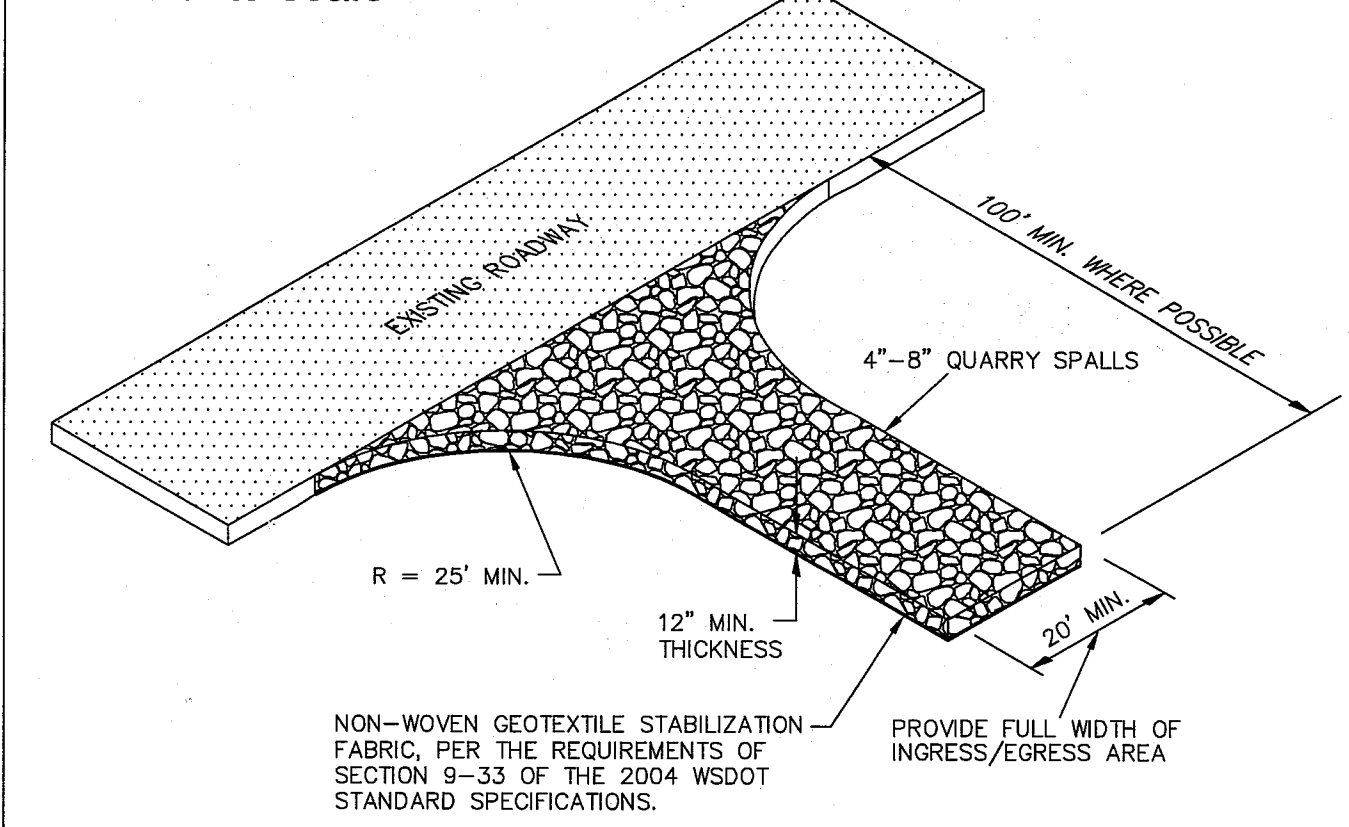
- LEGEND**
- STRAWBALE CHECK DAM
 - OUTFALL RIPRAP
 - CONTROL STRUCTURE
 - CATCH BASIN
 - CORRUGATED PLASTIC DRAIN PIPE (CPDP)
 - SILT FENCE
 - CLEARING LIMITS
 - TEMPORARY CONVEYANCE DITCH
- NOTE:**
RIP RAP SEE DTL ST-9 PAGE 17



GENERAL NOTES:

1. ANY DAMAGE TO FENCING SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEN THE WATER MUST BE INTERCEPTED AND CONVEYED TO A FULLY-FUNCTIONING SEDIMENT TRAP, POND, OR CONVEYANCE SYSTEM.
3. IT IS IMPORTANT TO PERIODICALLY CHECK THE UPHILL SIDE OF FENCING FOR SIGNS OF CLOGGING. IF CLOGGING OCCURS, THE FENCE WILL ACT AS A BARRIER TO FLOW AND WILL CAUSE CHANNELIZATION PARALLEL TO THE FENCE. TO REMEDY THIS, THE CONTRACTOR SHALL REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
4. SILT FENCING SHALL BE CONSTRUCTED DIRECTLY AFTER CLEARING AND GRUBBING IS COMPLETE. THE FENCE SHALL ONLY BE REMOVED WHEN CONSTRUCTION OF UTILITIES DEEMS IT ABSOLUTELY NECESSARY. IMMEDIATELY AFTER UTILITIES ARE IN-PLACE, THE SILT FENCING SHALL BE RECONSTRUCTED.

① SILT FENCE DETAIL (BASED ON FERNDAL ST-10) not to scale



GENERAL NOTES:

1. IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO SURROUNDING FACILITIES, THEN ALTERNATIVE MEASURES TO KEEP THE FACILITIES FREE OF SEDIMENT SHALL TO USED. THIS MAY INCLUDE STREET SWEEPING OR UPSIZING THE DIMENSIONS OF THE ENTRANCE.
2. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH PAVEMENT, A SMALL SUMP OR POND SHALL BE CONSTRUCTED AND THE SEDIMENT SHALL BE CONVEYED INTO THE SUMP OR POND.

② QUARRY SPALL CONSTRUCTION ENTRANCE DETAIL not to scale

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

1. EROSION CONTROL METHODS AND MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 8-01 OF THE 2008 WSDOT/APWA STANDARD SPECIFICATIONS, THE REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, CURRENT EDITION, THE CITY OF FERNDAL DEVELOPMENT STANDARDS, THE PROJECT SMPPP AND THIS PLAN, WITH THE MOST EFFECTIVE REQUIREMENTS TAKING PRECEDENCE. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS FOR ALL MATERIALS AND EQUIPMENT USED.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT SILTY STORMWATER FROM EXITING THE SITE. IF SILT LADEN STORMWATER EXITS THE SITE, THE ENGINEER SHALL STOP WORK ON THE JOB. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WORK WITH THE PROJECT ENGINEER OR LOCAL JURISDICTION TO COORDINATE FURTHER EROSION CONTROL MEASURES, NOT SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN, THAT MAY BE NECESSARY TO CONTROL SITE RUNOFF.
3. THE EXISTING AND PROPOSED STORM SYSTEMS SHALL BE CLEANED AND MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL ALL ON-SITE SOILS HAVE BEEN STABILIZED.
4. AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL FLUSH OUT ALL DEBRIS FROM THE STORM SYSTEM INSTALLED ON-SITE. MATERIAL FLUSHED FROM THE STORM SYSTEM SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED DISPOSAL SITE. FLUSHING OPERATION SHALL BE PERFORMED USING A VACTOR TRUCK.

LARSEN'S CHURCH HILL ESTATES

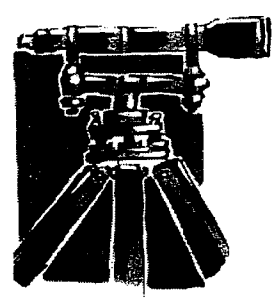
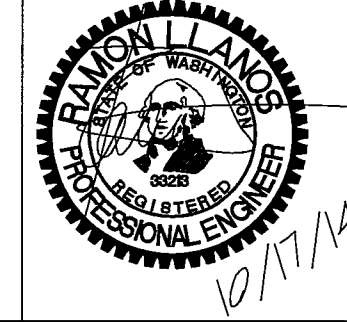
JOB # 06010

FOR: PRND, LLC

APPROVED

NOV 03 2014

CITY OF FERNDAL



LDES, INC.
5160 INDUSTRIAL PL #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES
EROSION CONTROL PLAN
DESIGN INFORMATION

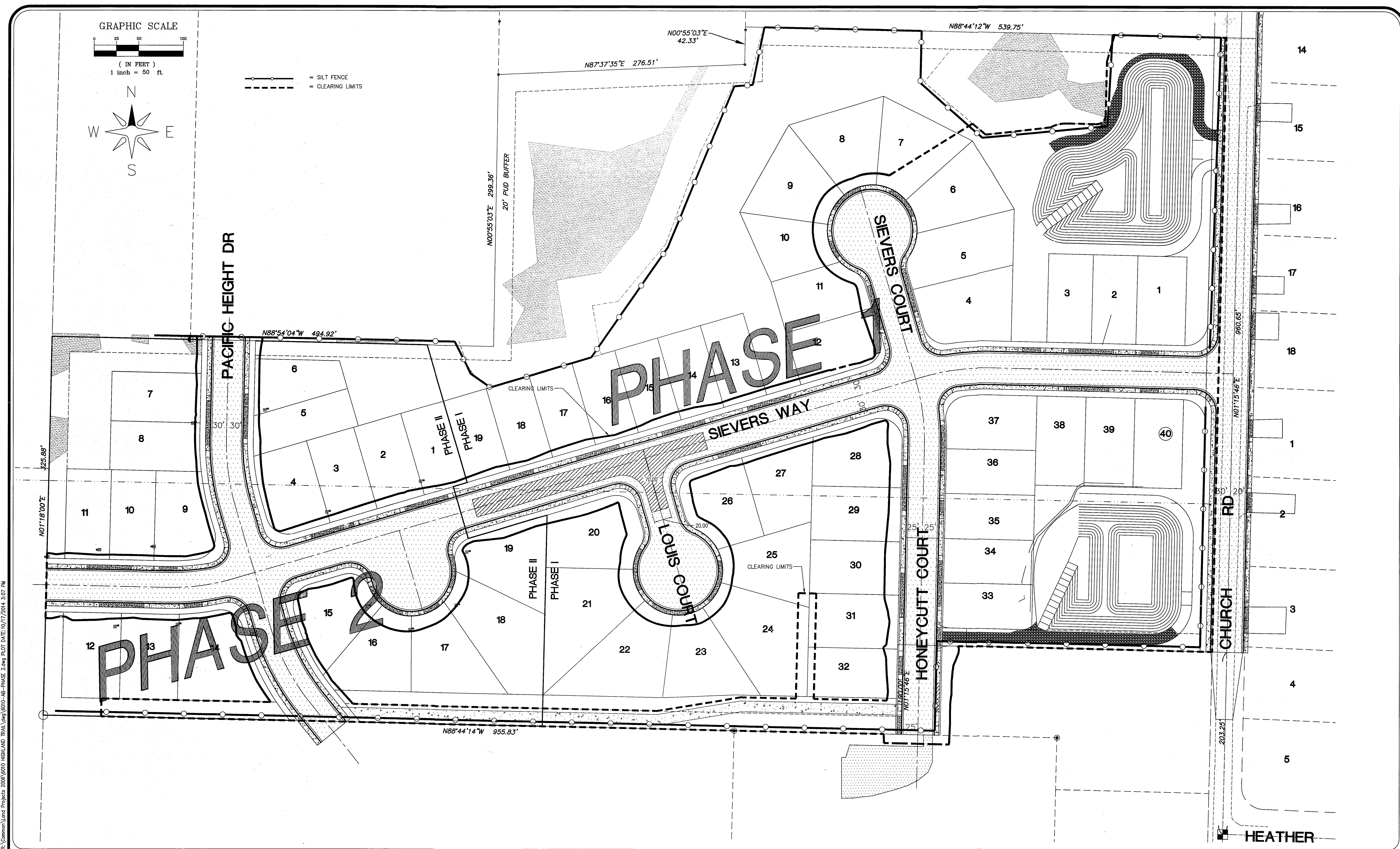
REVISIONS - INITIALS/DATE/CMS

SR	DATE	INITIALS	CMS
SR 10/17/14			SUBMITTAL 1

SHEET

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OF 21

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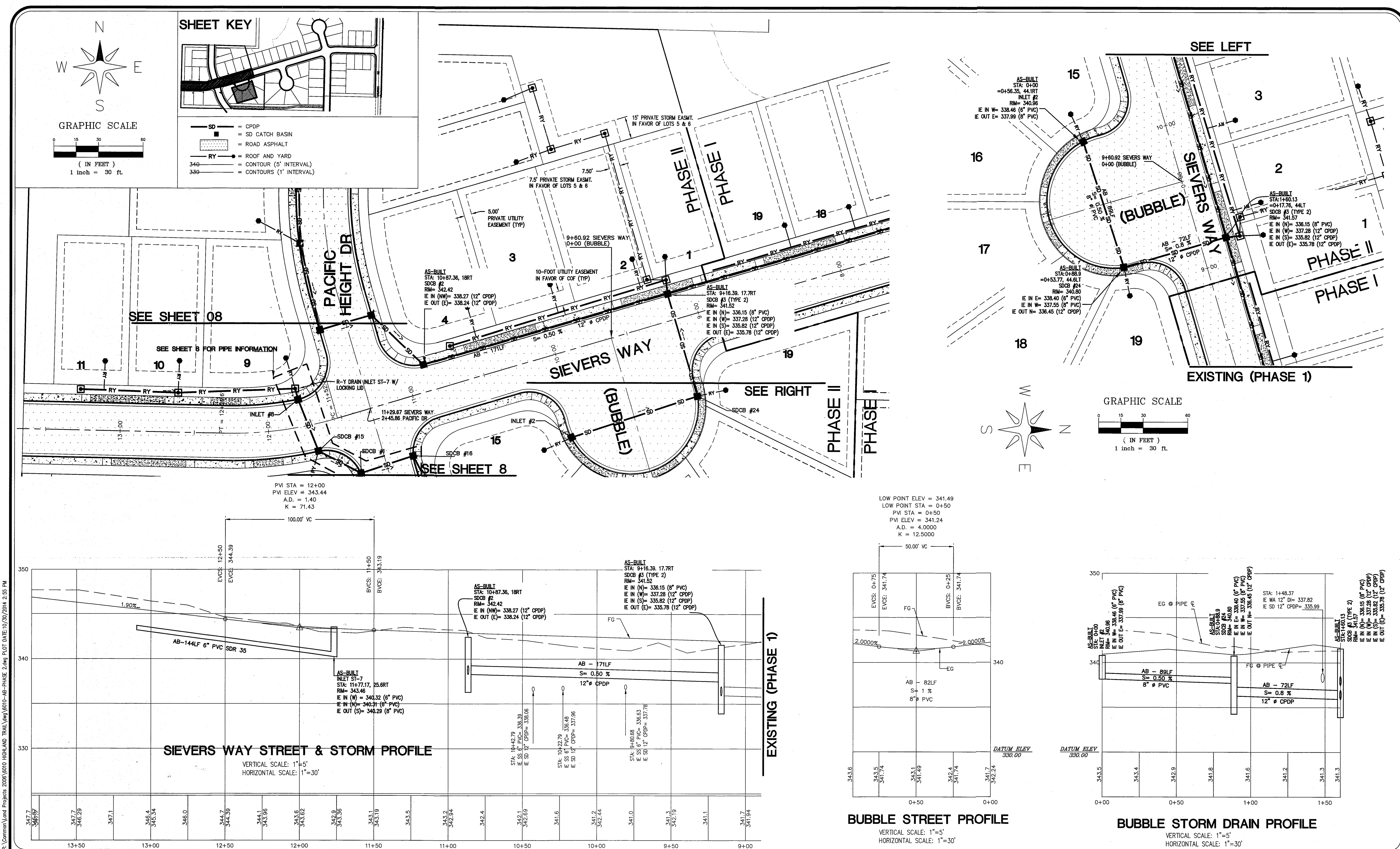


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LARSEN'S CHURCH HILL ESTATES		APPROVED NOV 03 2014 BY <i>Carol Ballou</i> CITY OF FERNDALE			LDES, INC. 5160 INDUSTRIAL PL #108 FERNDAL, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	LARSEN'S CHURCH HILL ESTATES CLEARING AND GRUBBING & GRADING PLAN DESIGN INFORMATION	<table border="1"><thead><tr><th colspan="2">REVISIONS - INITIALS/DATE/CMS</th></tr></thead><tbody><tr><td>SR 10/17/14</td><td>SUBMITTAL 1</td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></tbody></table>	REVISIONS - INITIALS/DATE/CMS		SR 10/17/14	SUBMITTAL 1							SHEET 05 OF 21
REVISIONS - INITIALS/DATE/CMS																		
SR 10/17/14	SUBMITTAL 1																	
JOB # 06010	FOR: PRND, LLC																	

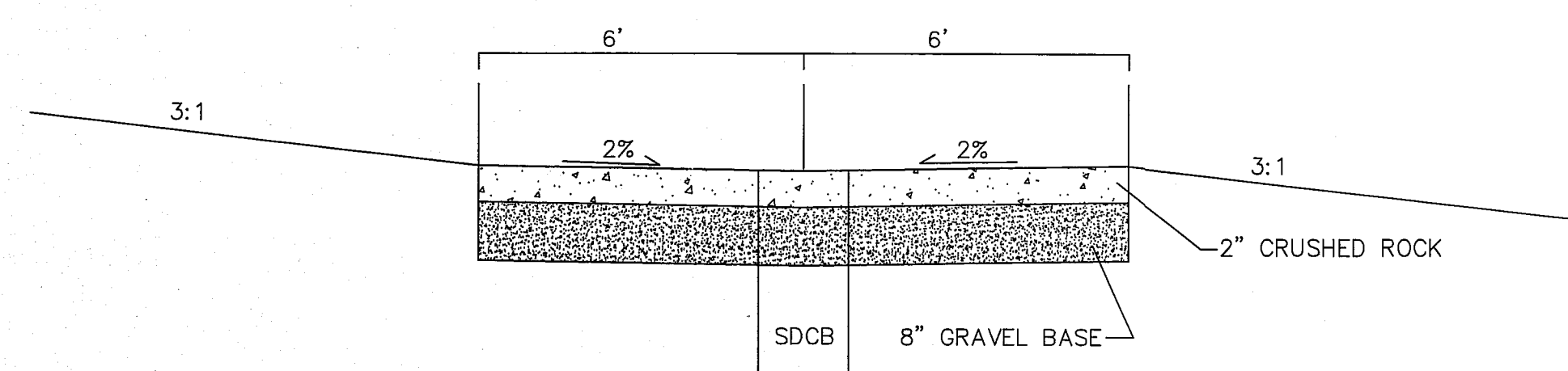
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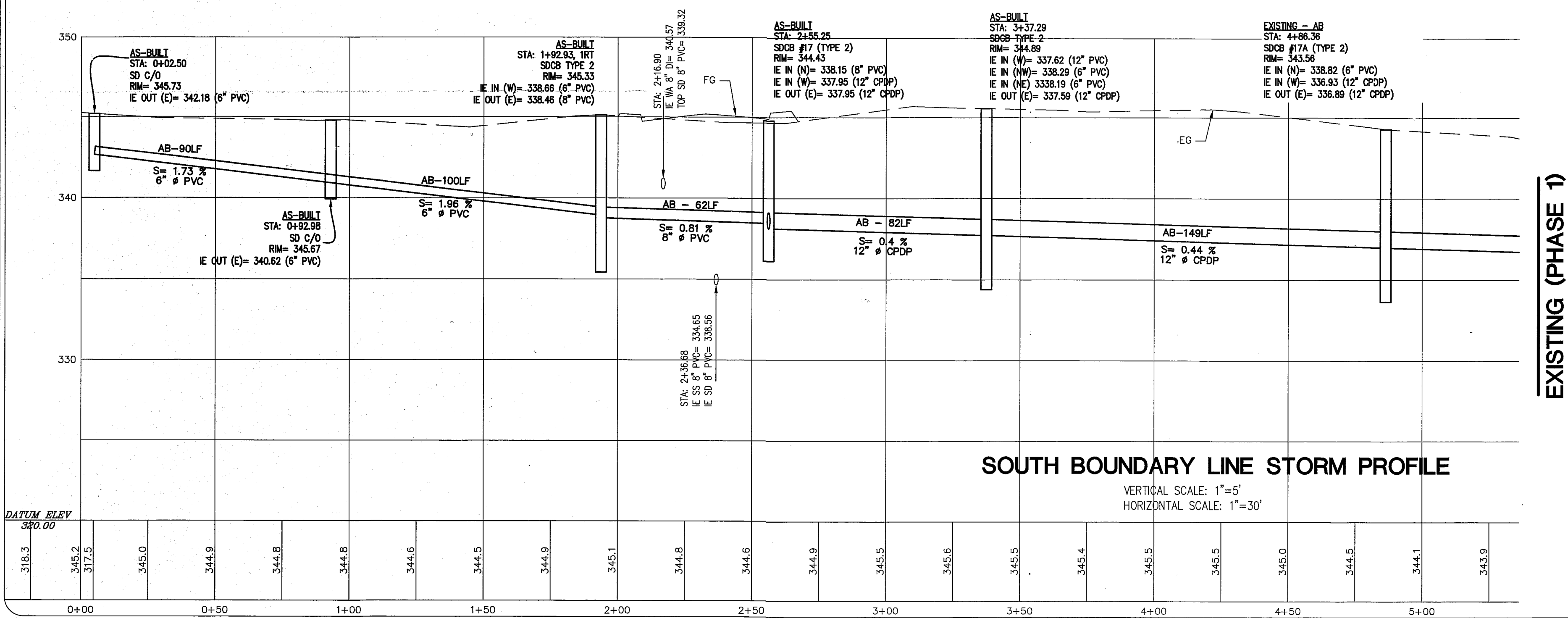
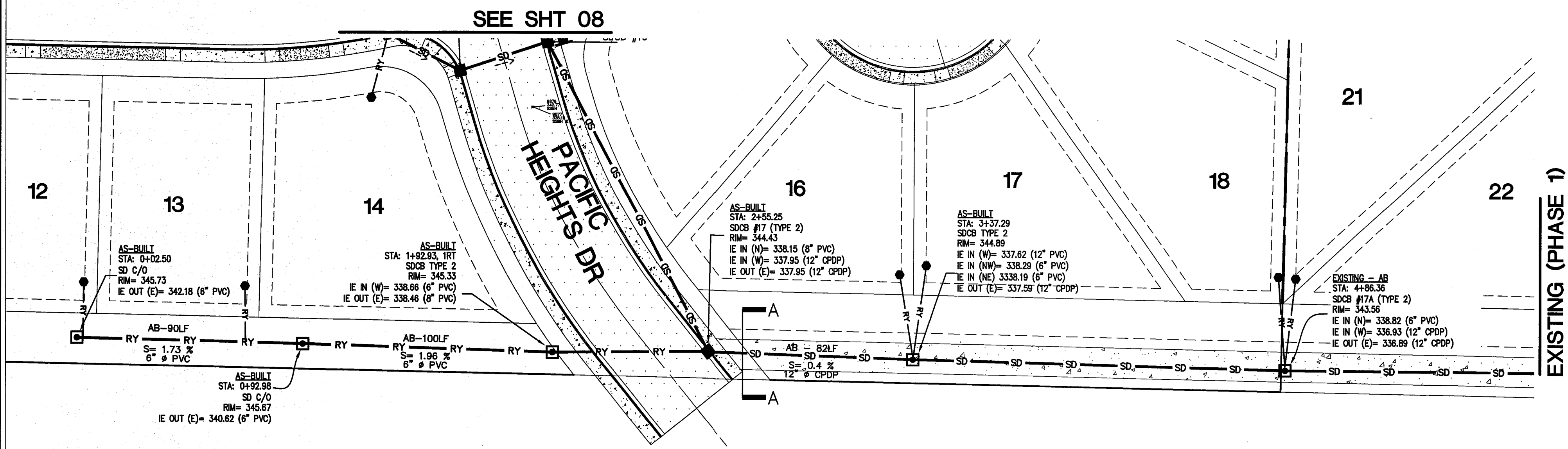
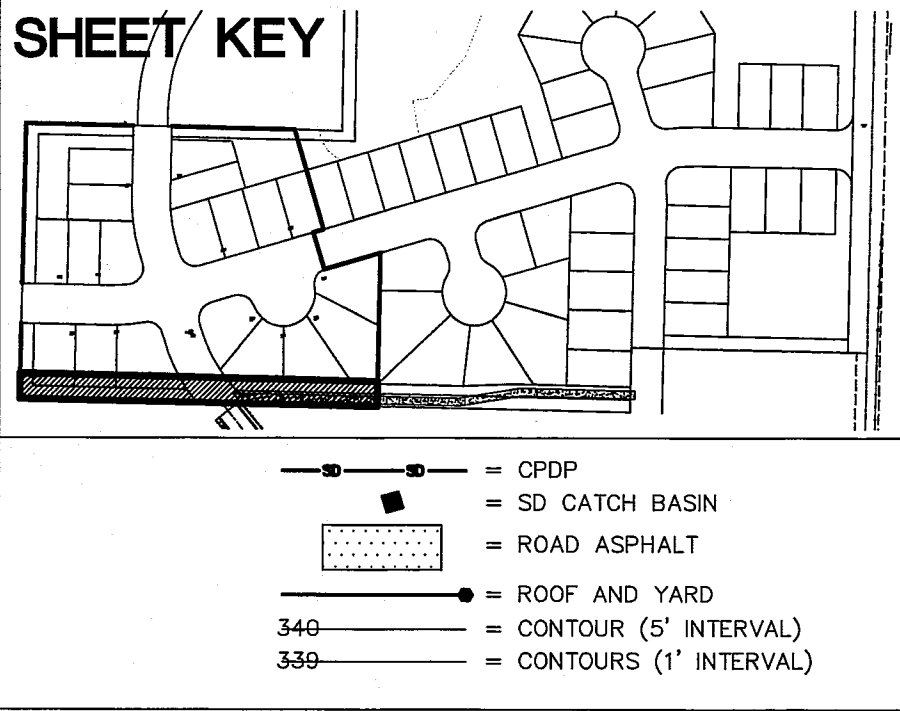
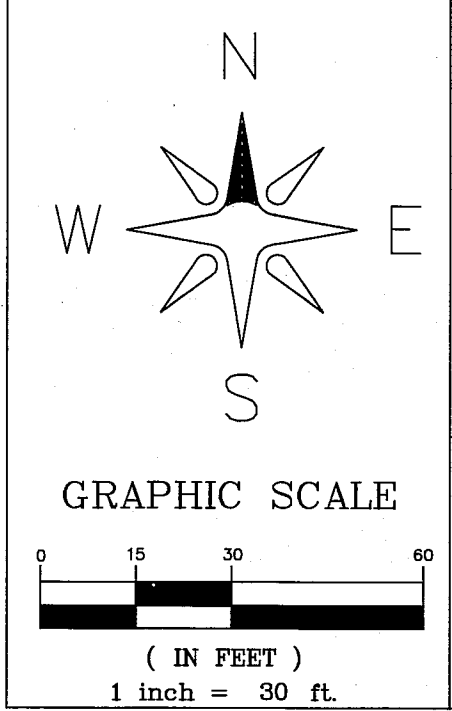
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LARSEN'S CHURCH HILL ESTATES		APPROVED NOV 03 2014 BY <i>Charles Ballinger</i> CITY OF FERNDALE			LD&S, INC. 5160 INDUSTRIAL PL #108 FERNDAL, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	LARSEN'S CHURCH HILL ESTATES STREET & STORM DRAINAGE PLAN AND PROFILE SIEVERS WAY RECORD DRAWINGS		REVISIONS - INITIALS/DATE/CMS	06 OF 21
JOB # 06010	FOR: PRND, LLC					SR 10/17/14 SUBMITTAL 1	SR 10/30/14 SUBMITTAL 2		

00575.007 11/14/14 SH



SECTION AA



SOUTH BOUNDARY LINE STORM PROFILE

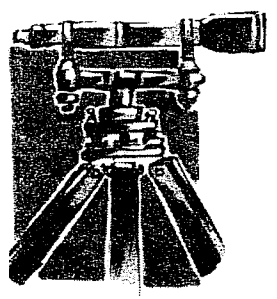
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HORIZONTAL SCALE: 1"=30'

LARSEN'S CHURCH HILL ESTATES

APPROVED

NOV 03 2014

BY *[Signature]*
CITY OF FERNDALE



LDES, INC.
5160 INDUSTRIAL PL #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES
STORM DRAINAGE - SOUTH BOUNDARY LINE
PLAN AND PROFILE
RECORD DRAWINGS

REVISIONS - INITIALS/DATE/CMS

SR	10/17/14	SUBMITTAL 1

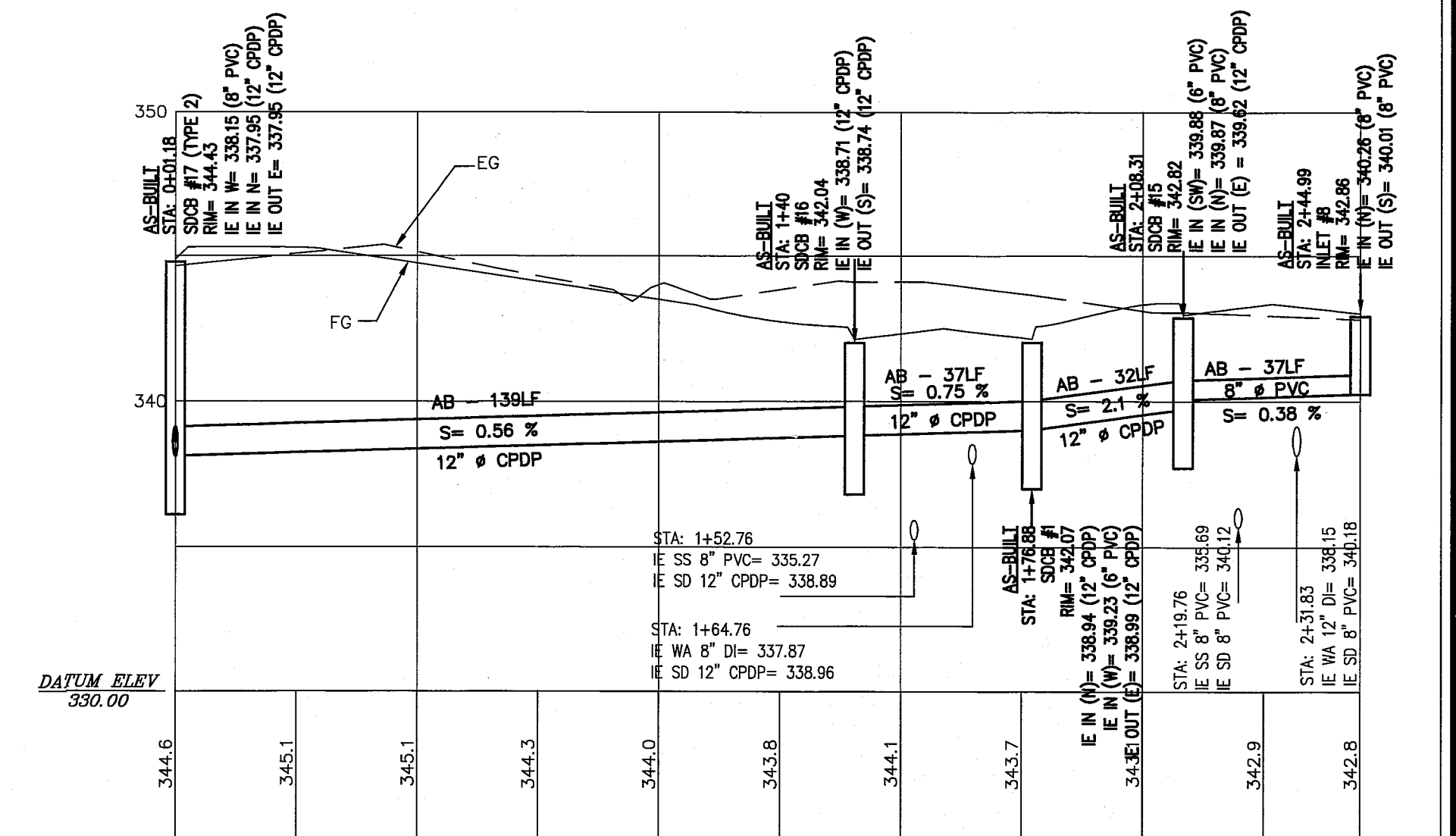
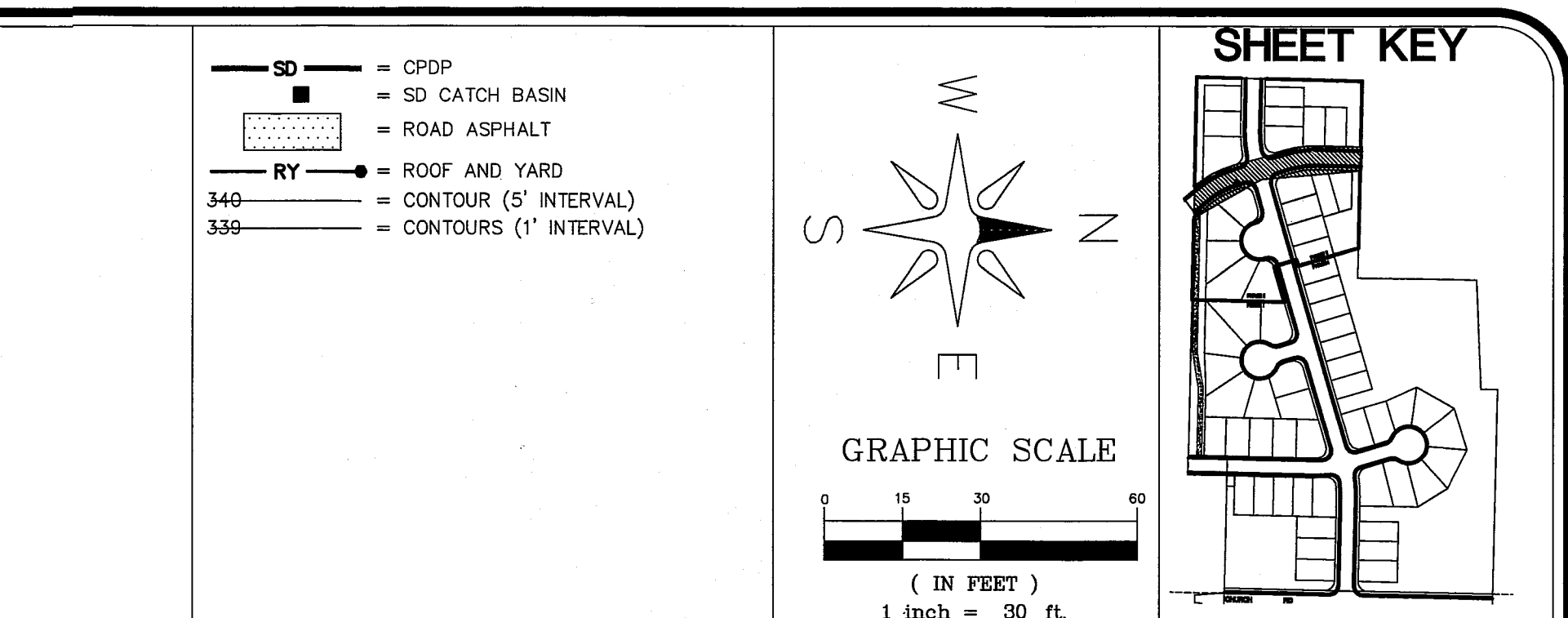
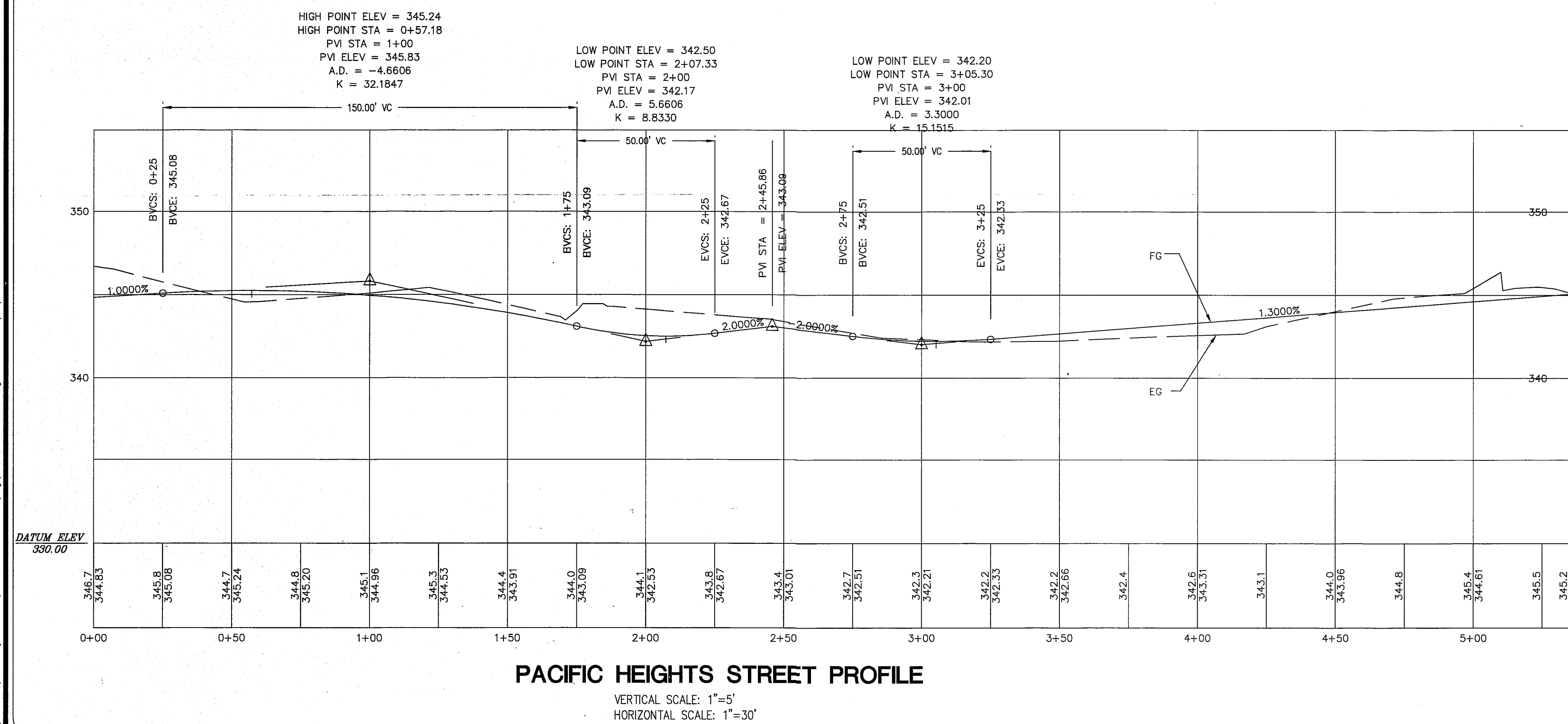
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07

OF 21

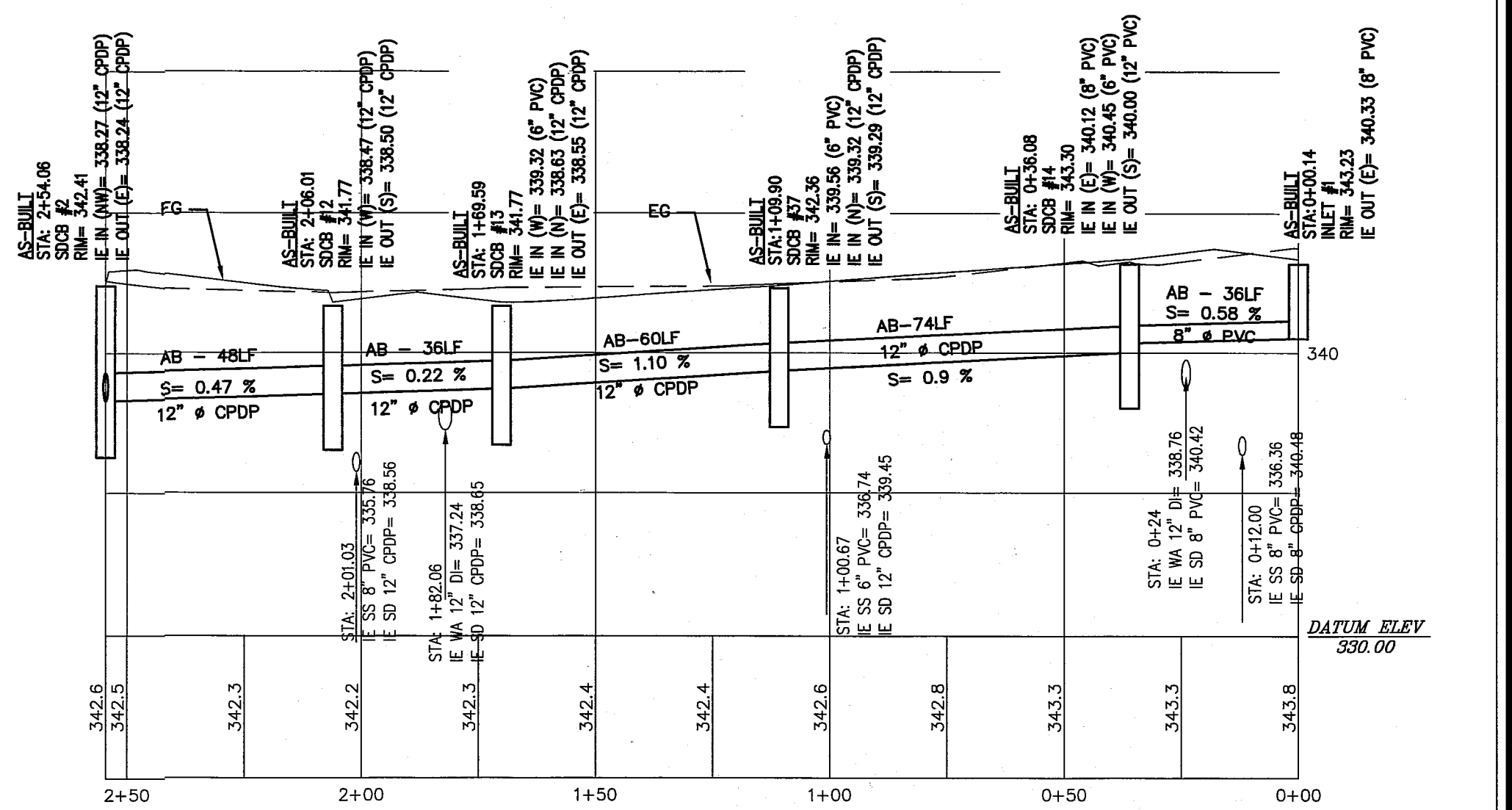
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NOTE: ALL SDCB TO BE TYPE 1, U.N.O.



S. PACIFIC HEIGHTS STORM DRAIN

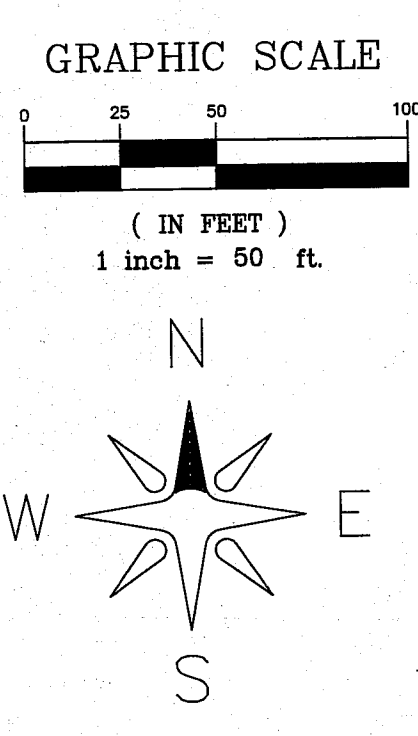
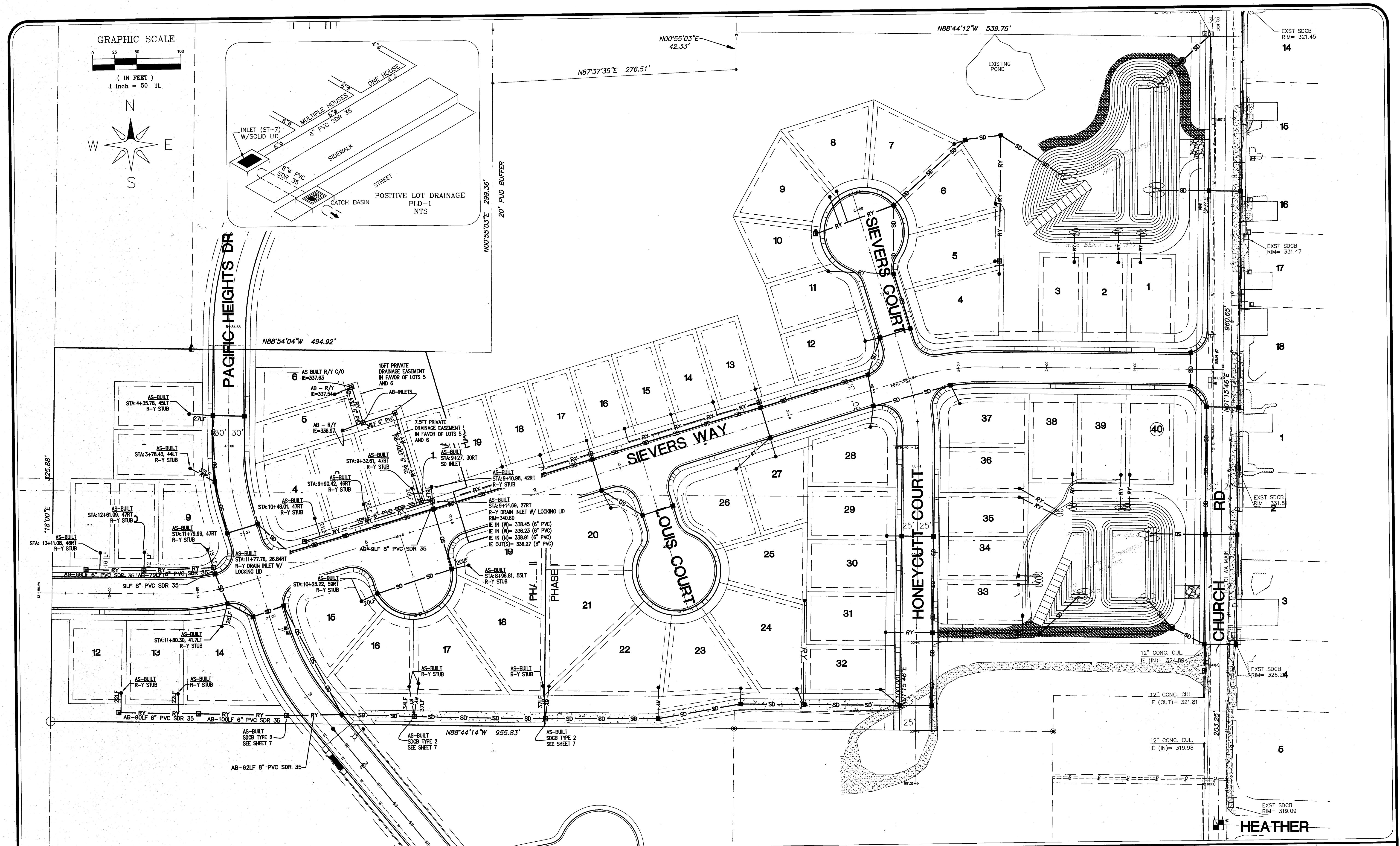
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HORIZONTAL SCALE: 1"=30'



N. PACIFIC HEIGHTS STORM DRAIN

VERTICAL SCALE: 1"=5'
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AS 11/14/14 00575.009 11/14/14 SH



LARSEN'S CHURCH HILL ESTATES

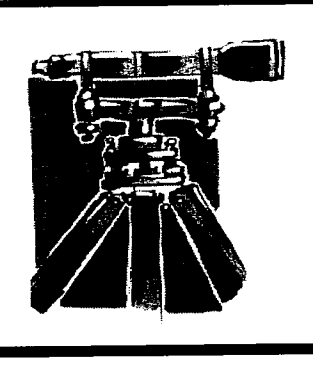
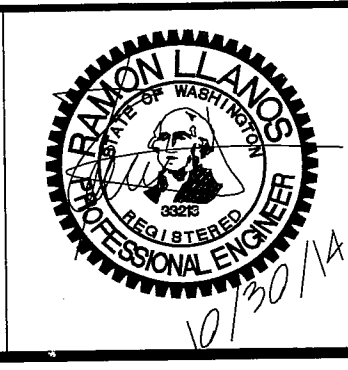
JOB # 06010

FOR: PRND, LLC

APPROVED

NOV 03 2014

BY *[Signature]*
CITY OF FERNDALE



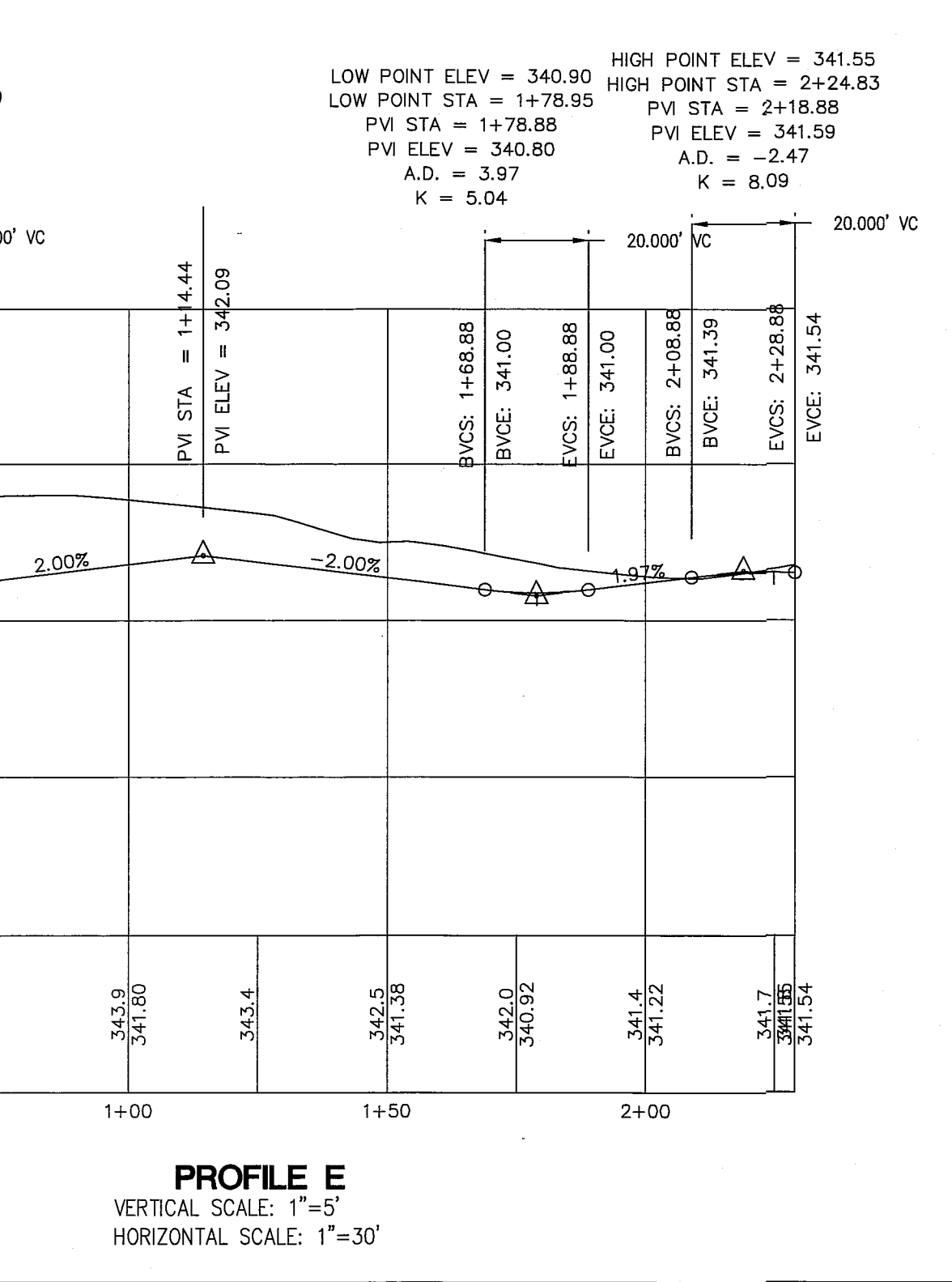
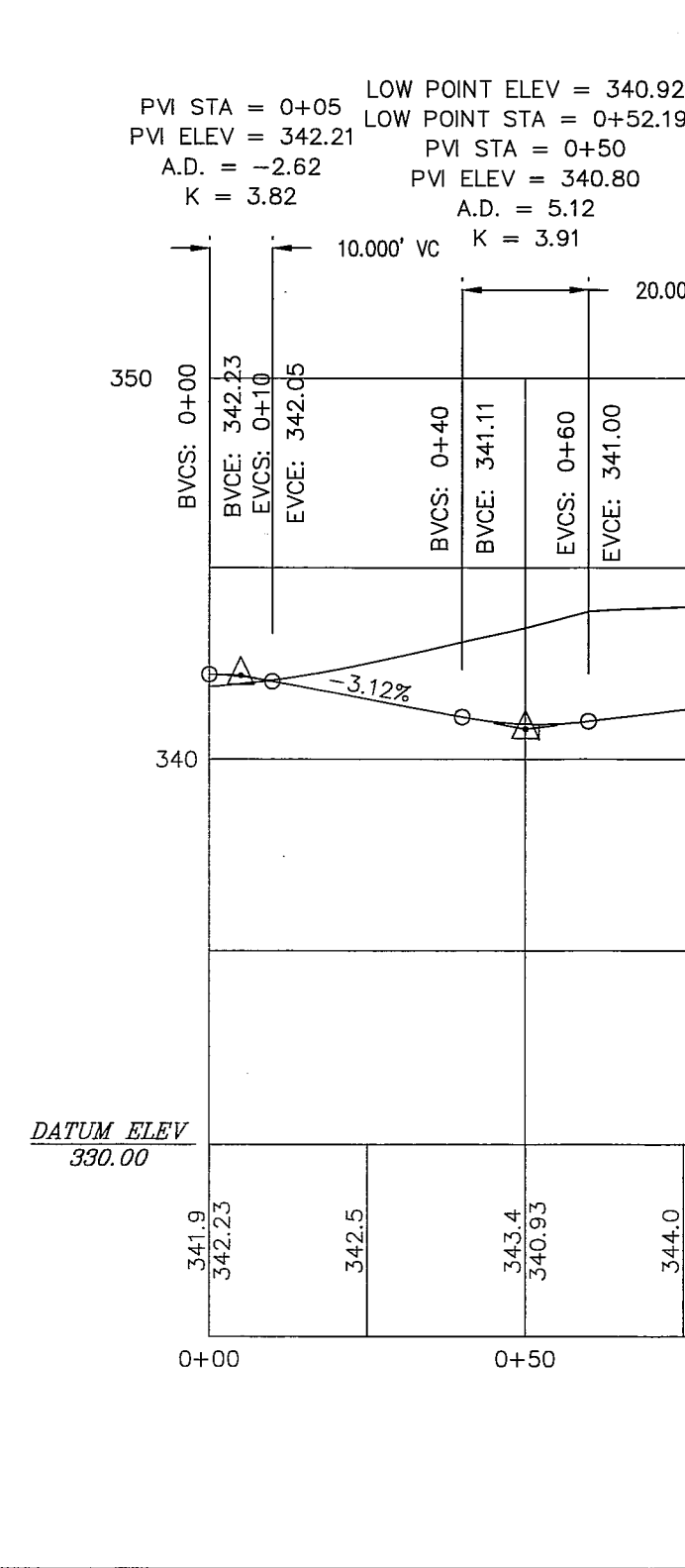
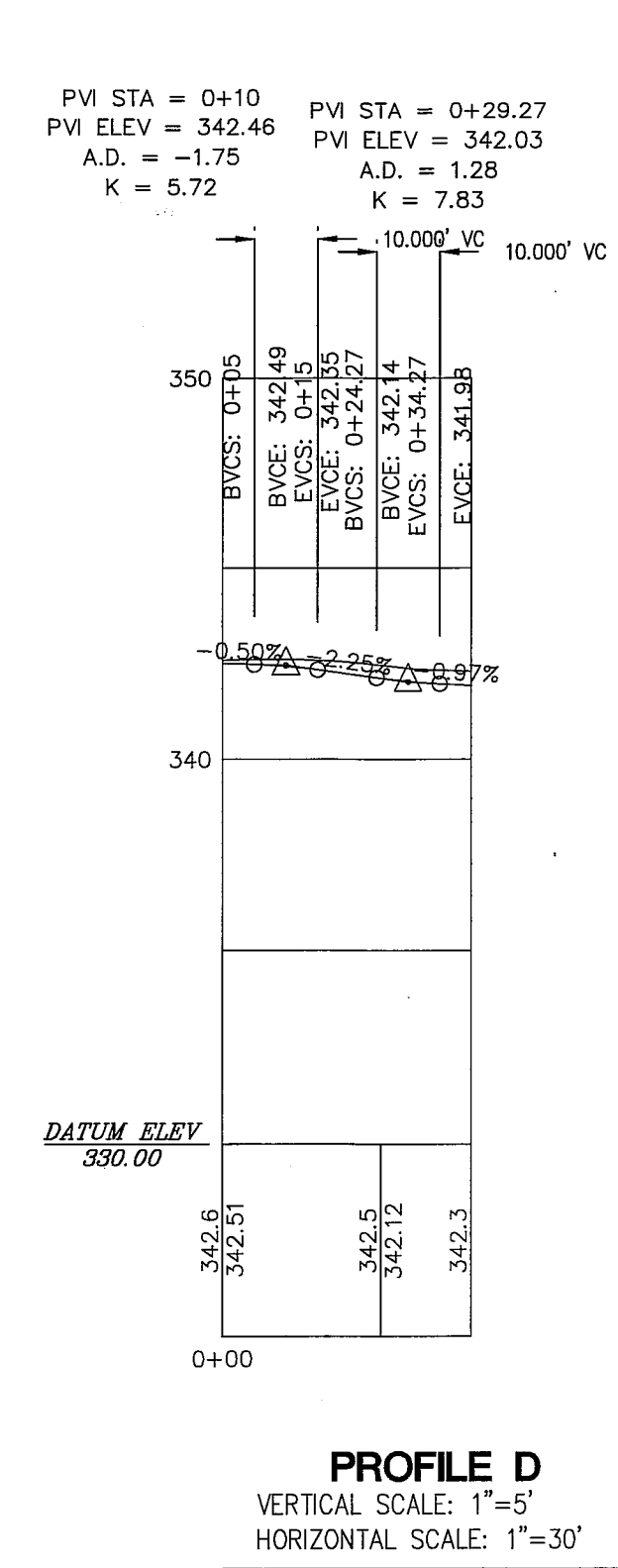
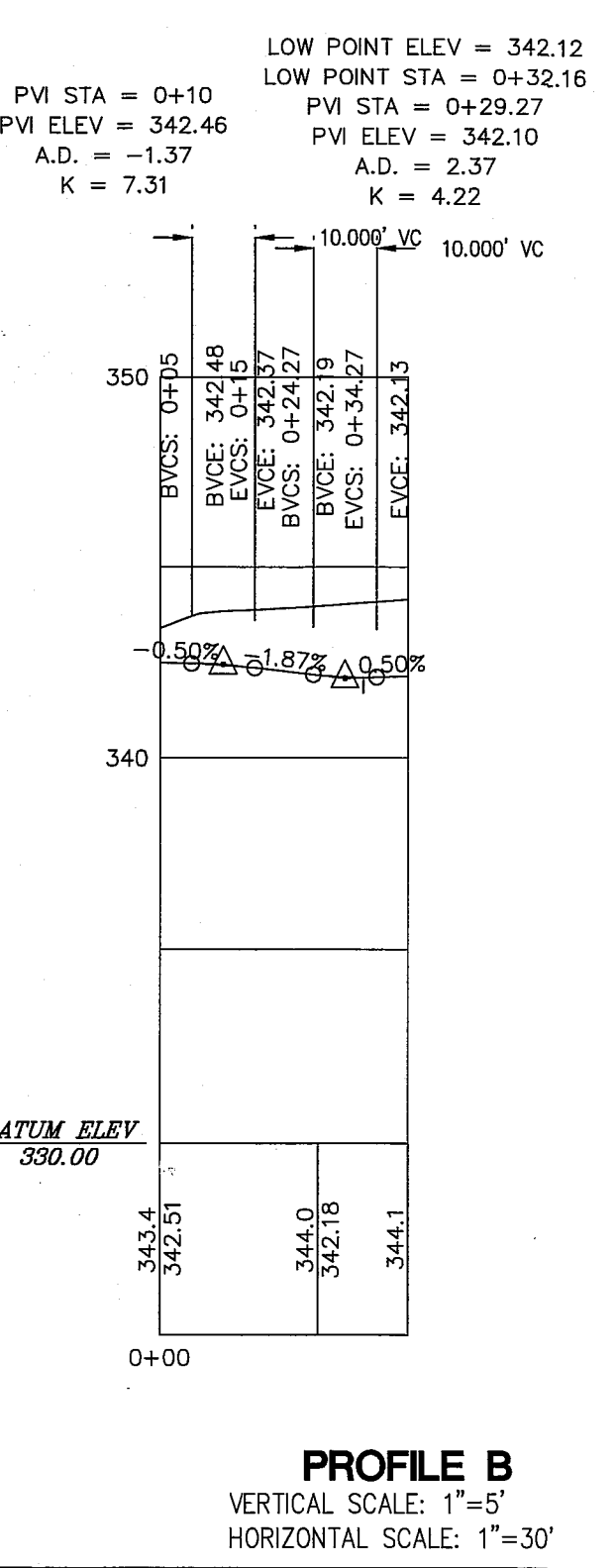
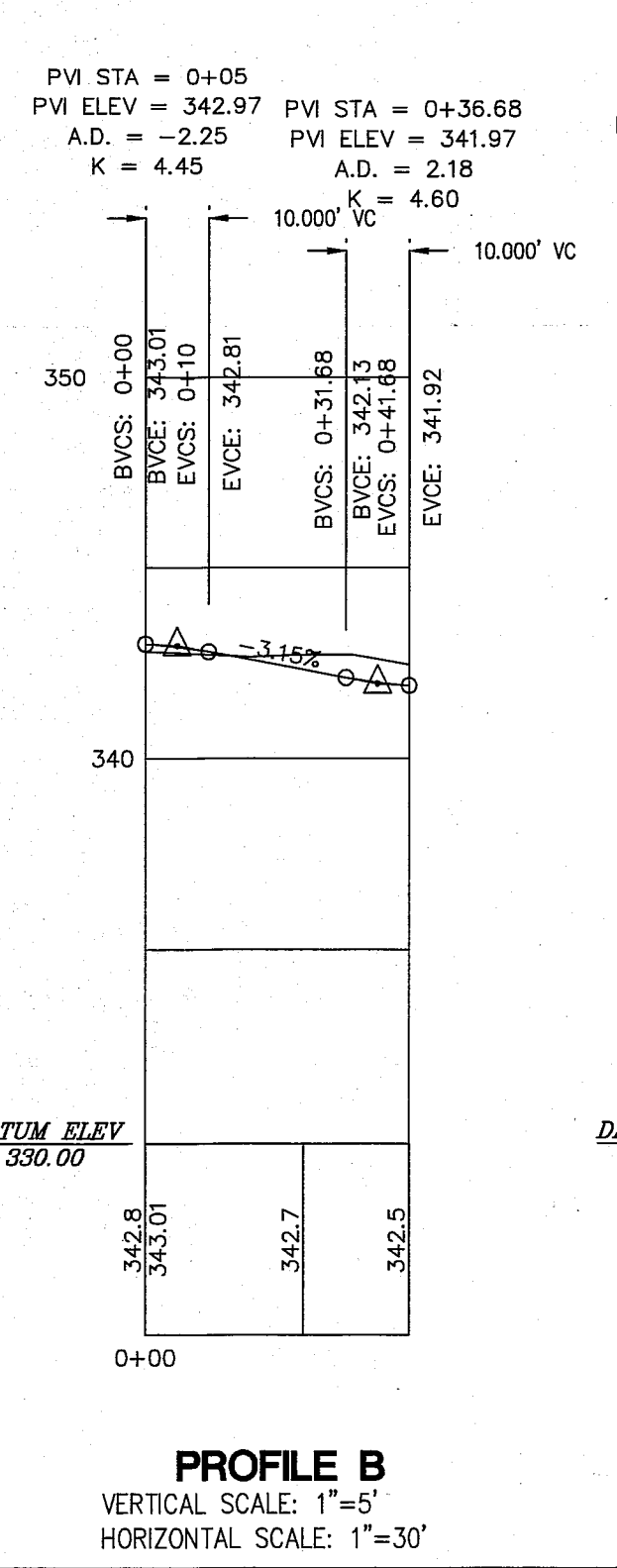
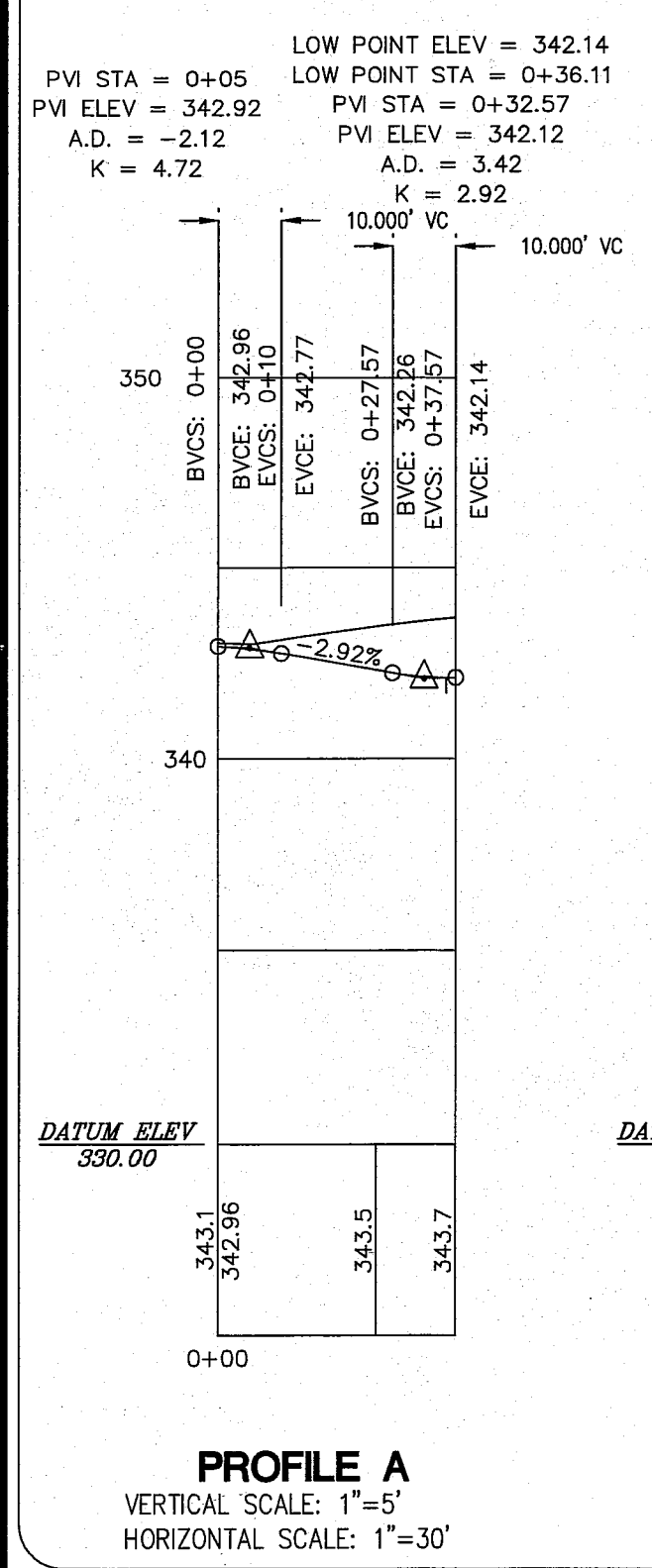
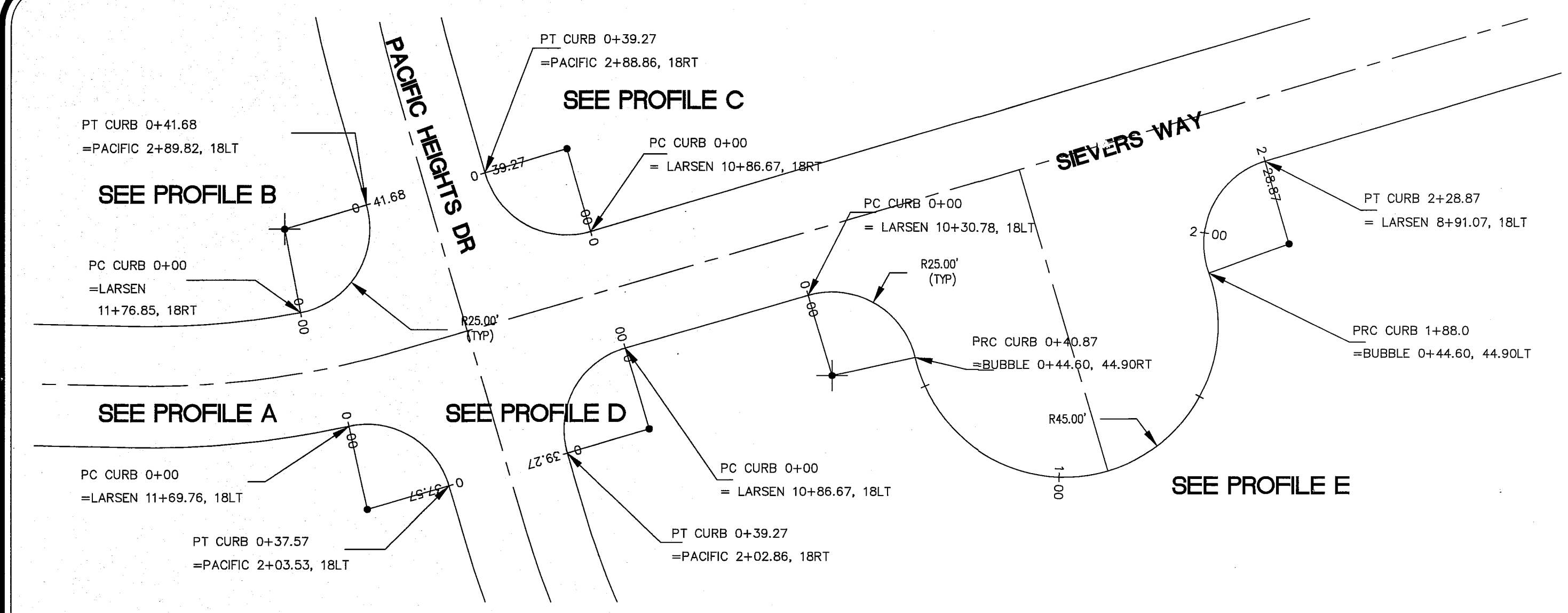
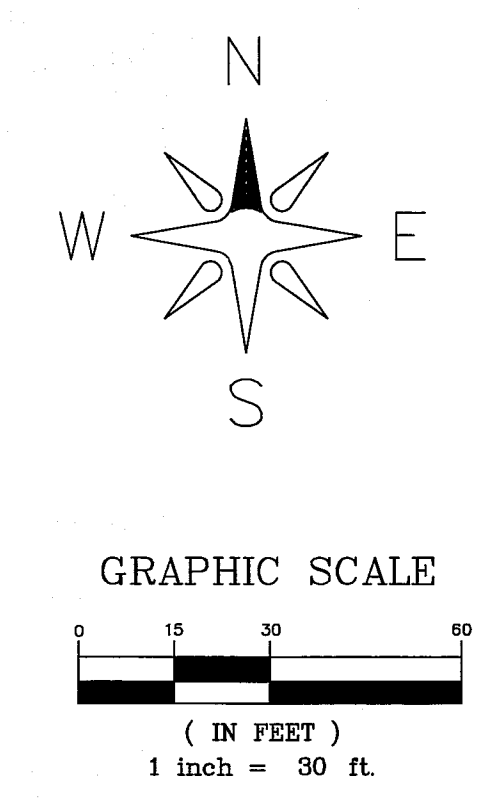
LDES, INC.
5160 INDUSTRIAL PL #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES
ROOF AND YARD PLAN
RECORD DRAWINGS

REVISIONS - INITIALS/DATE/CMS

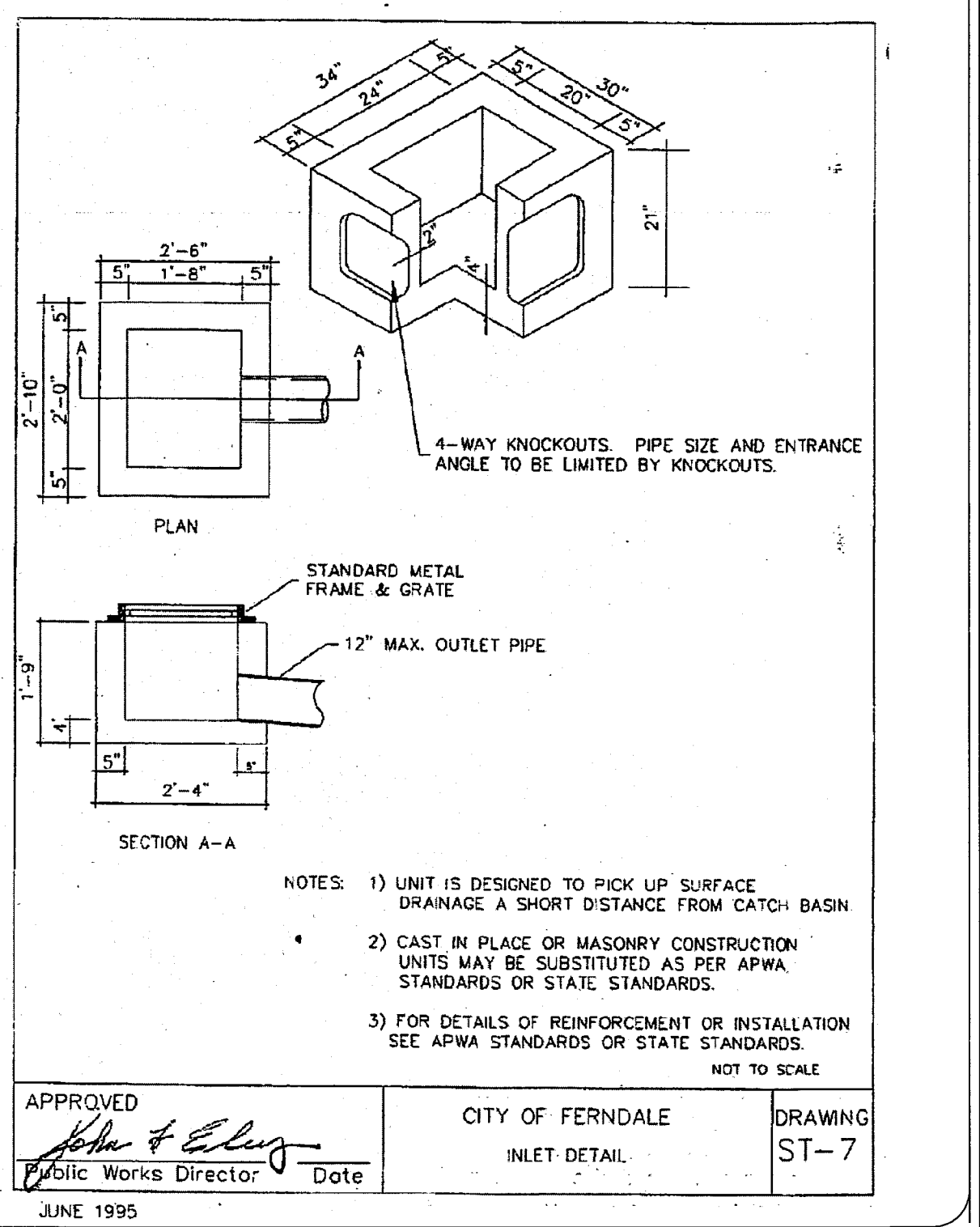
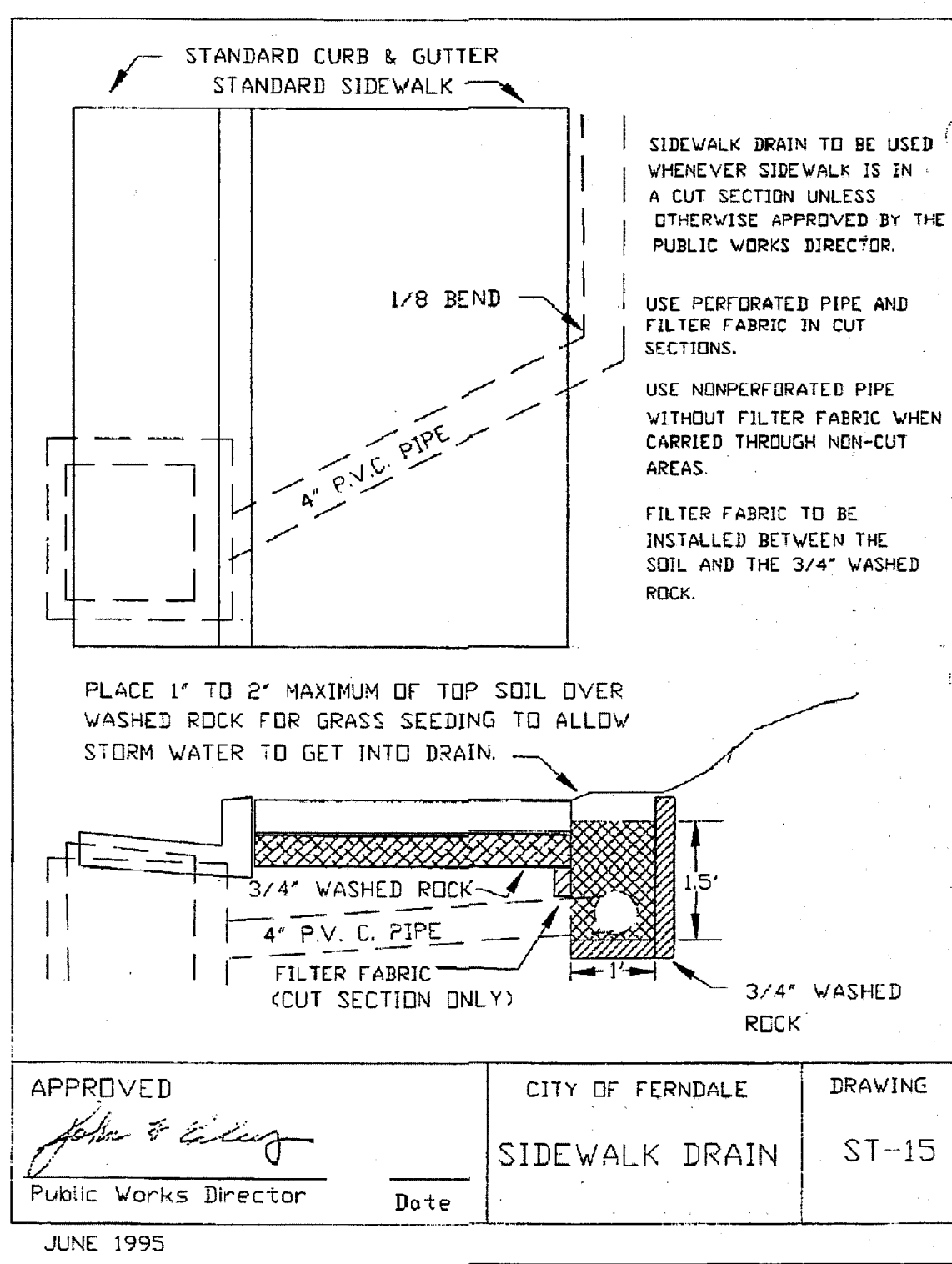
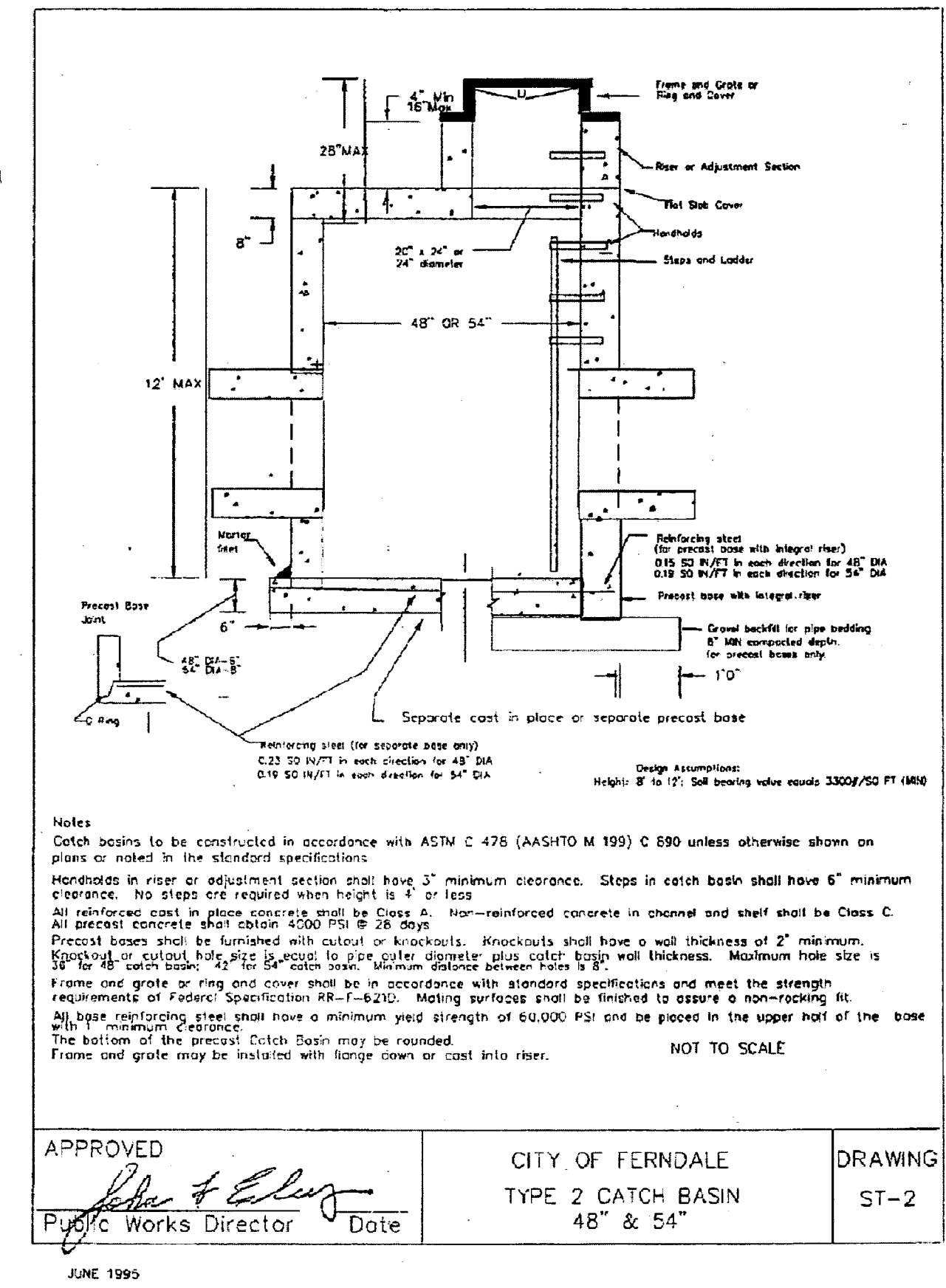
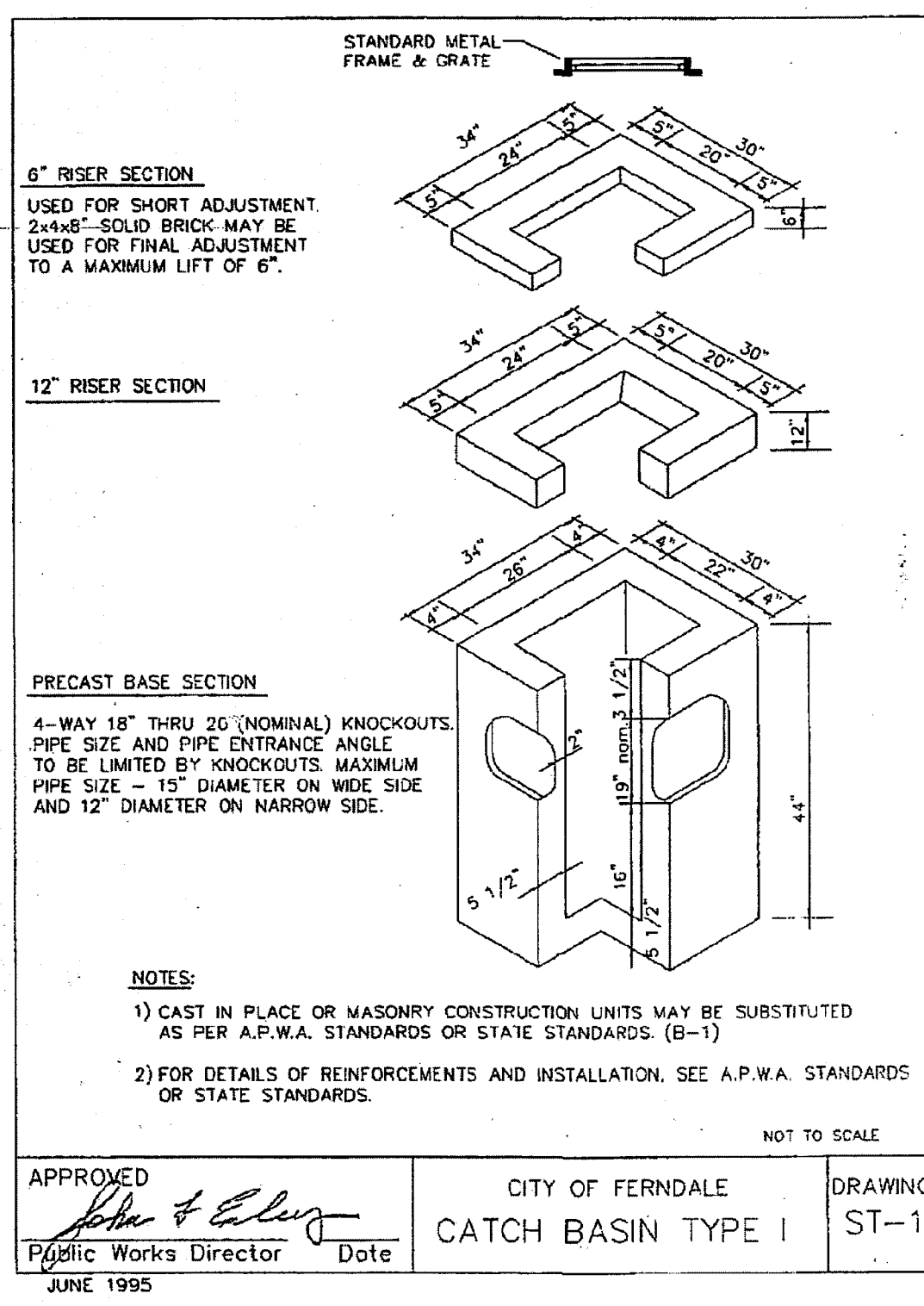
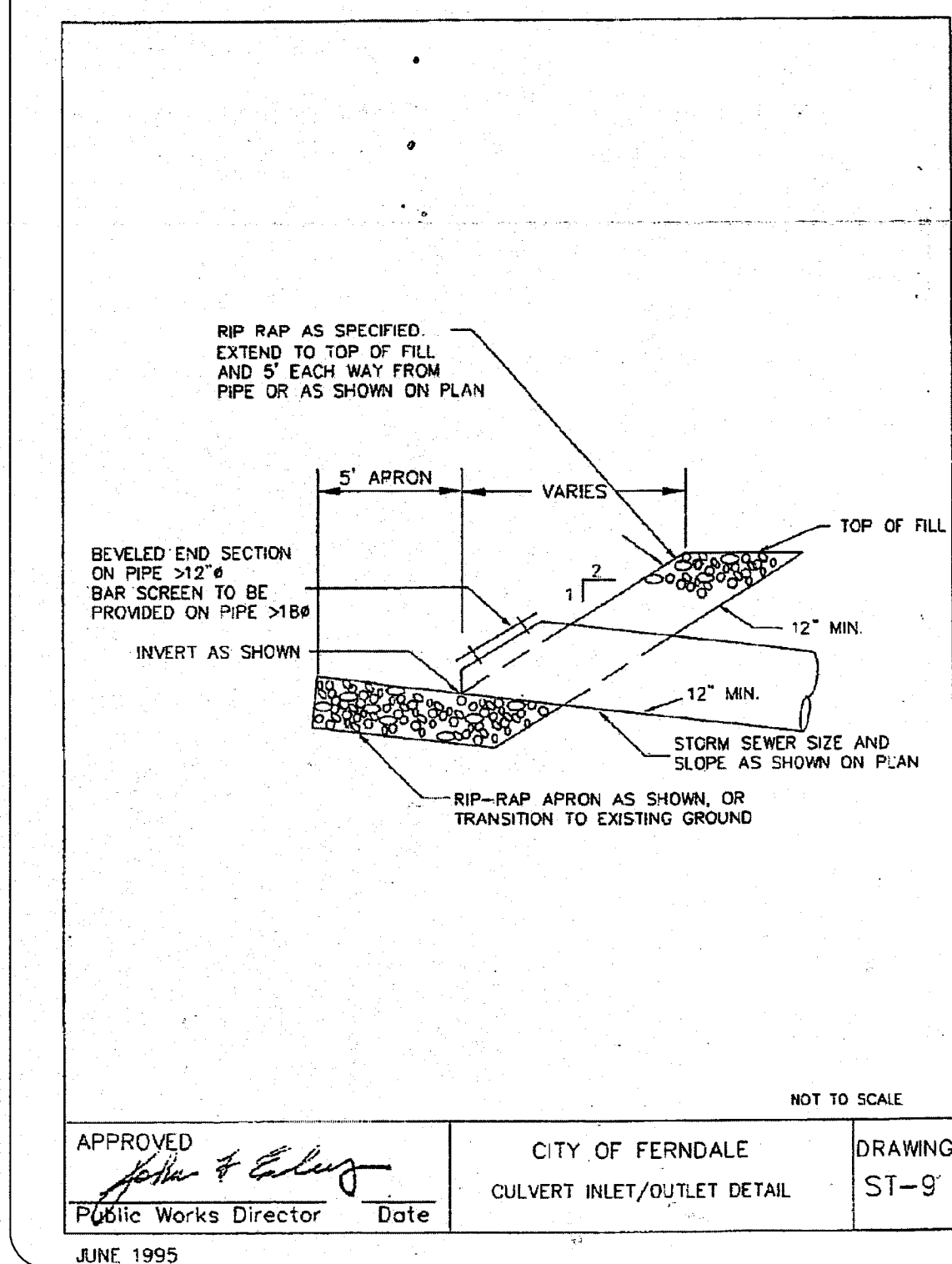
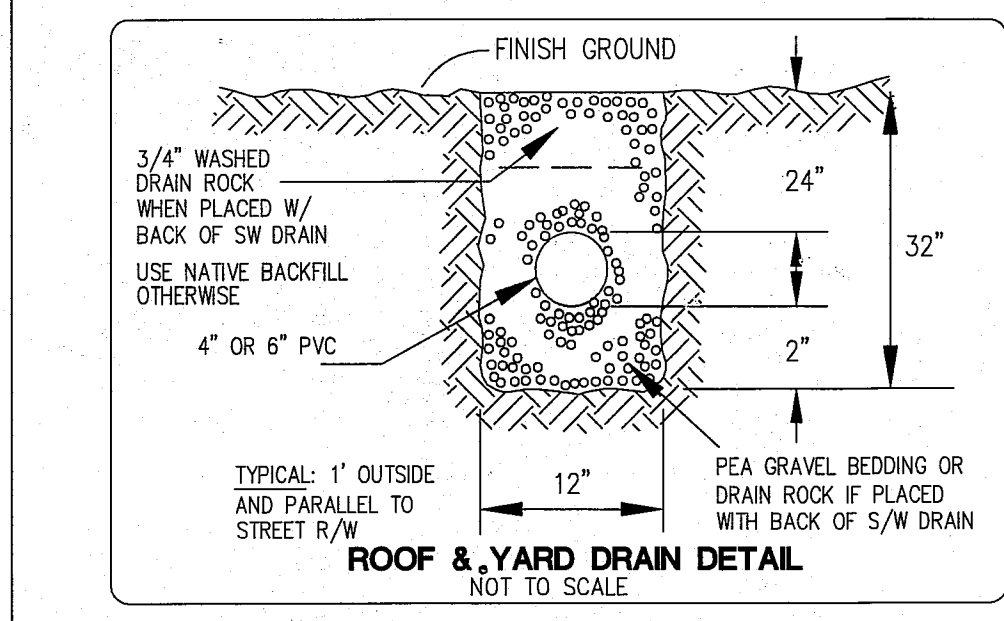
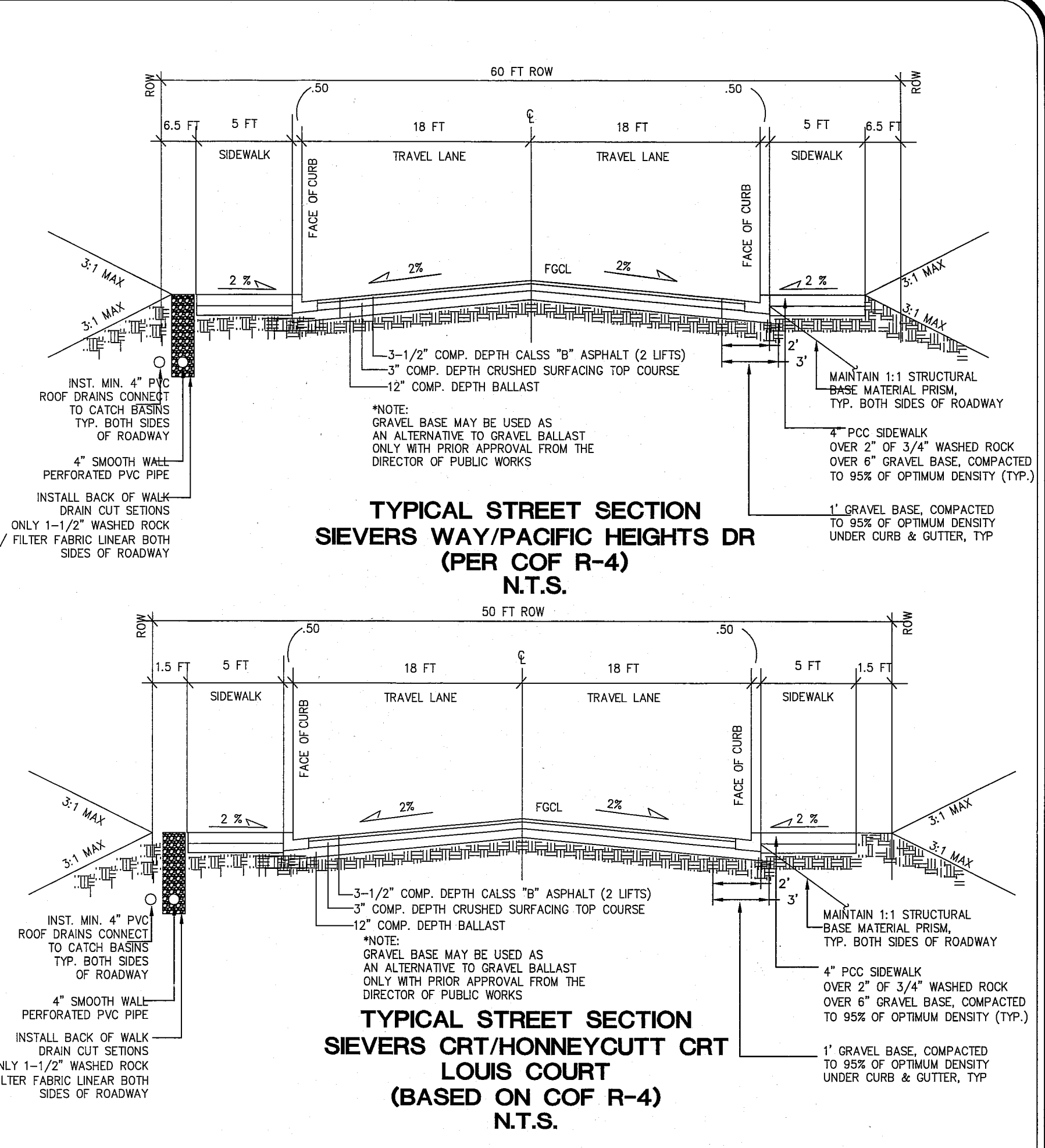
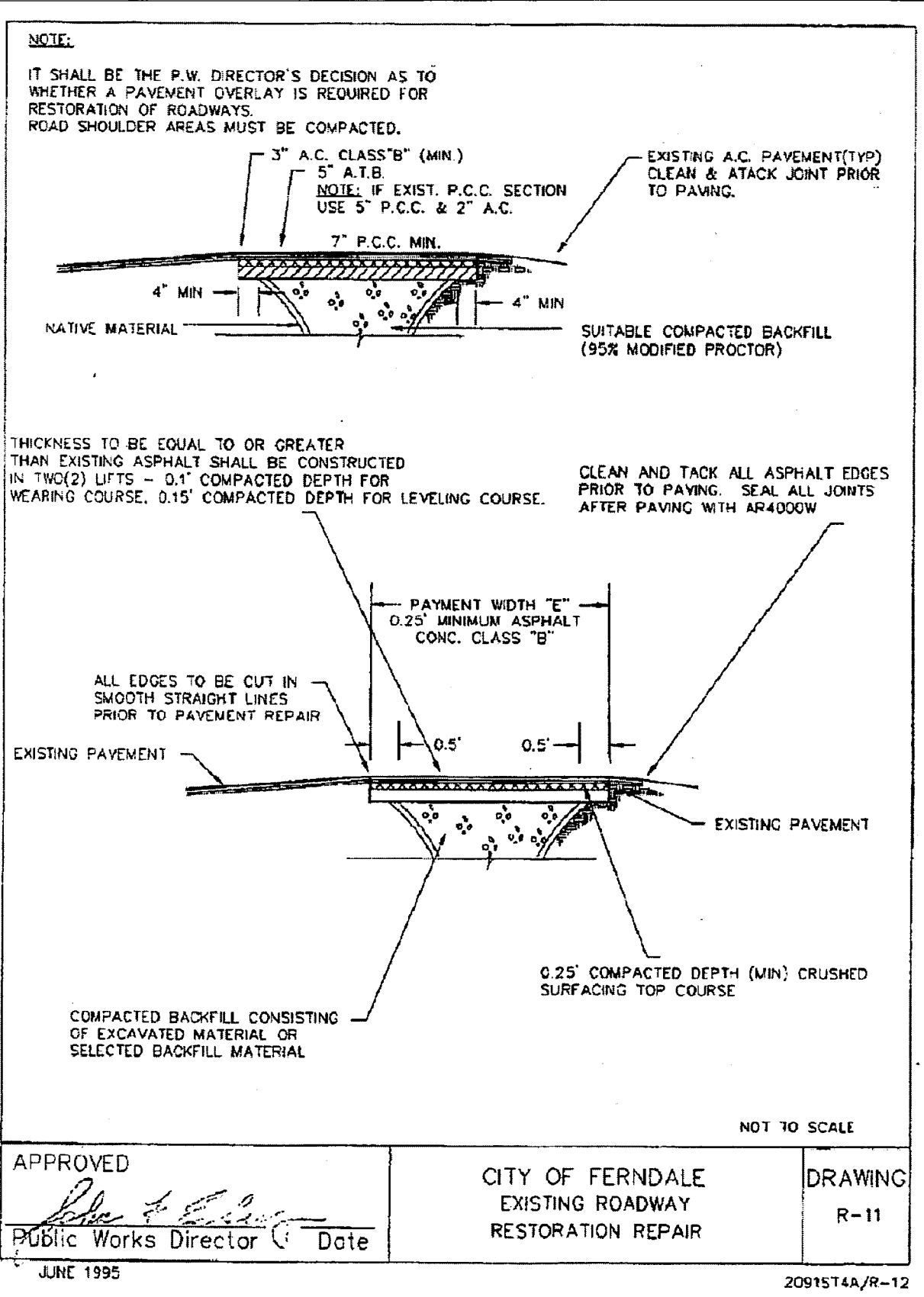
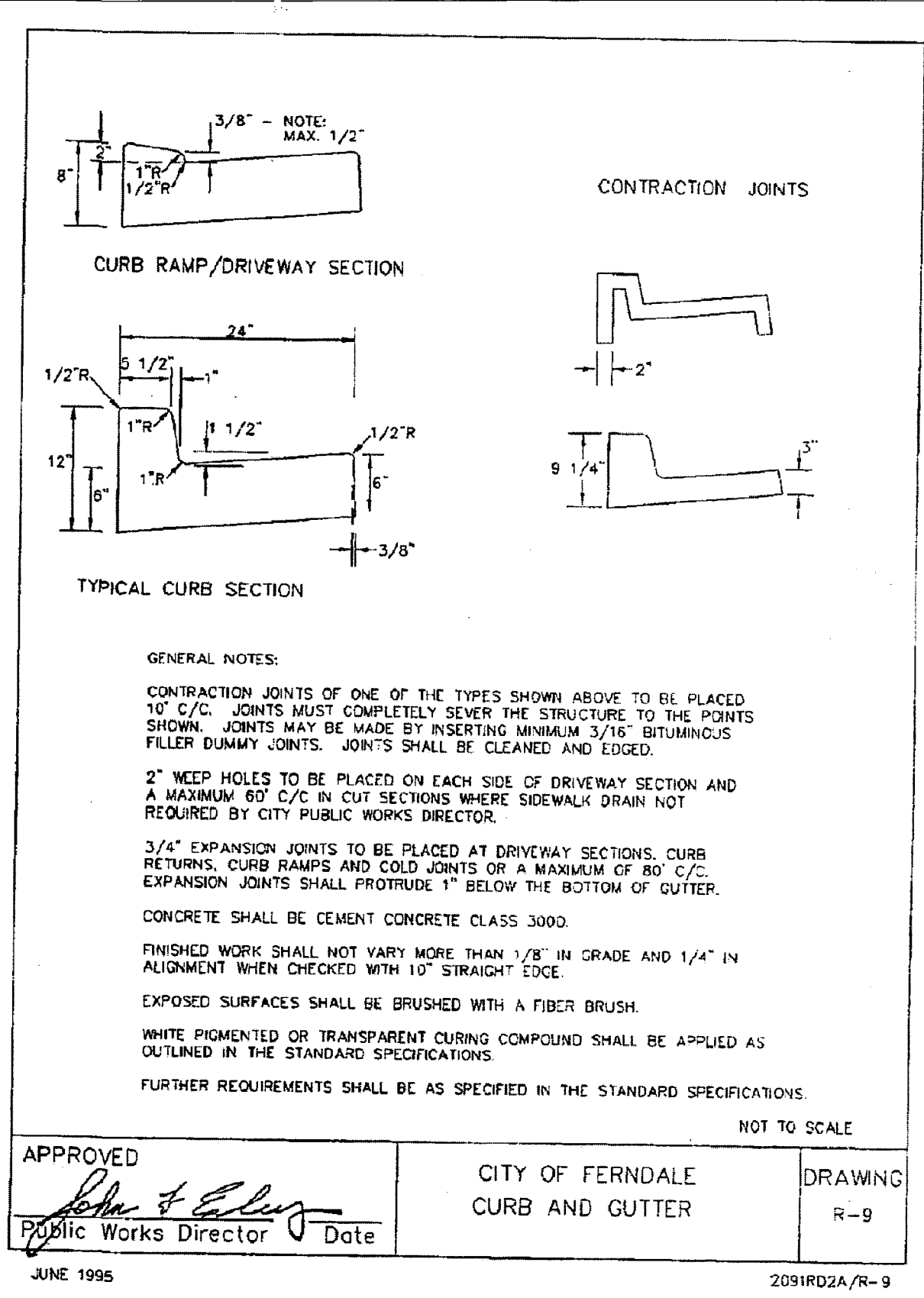
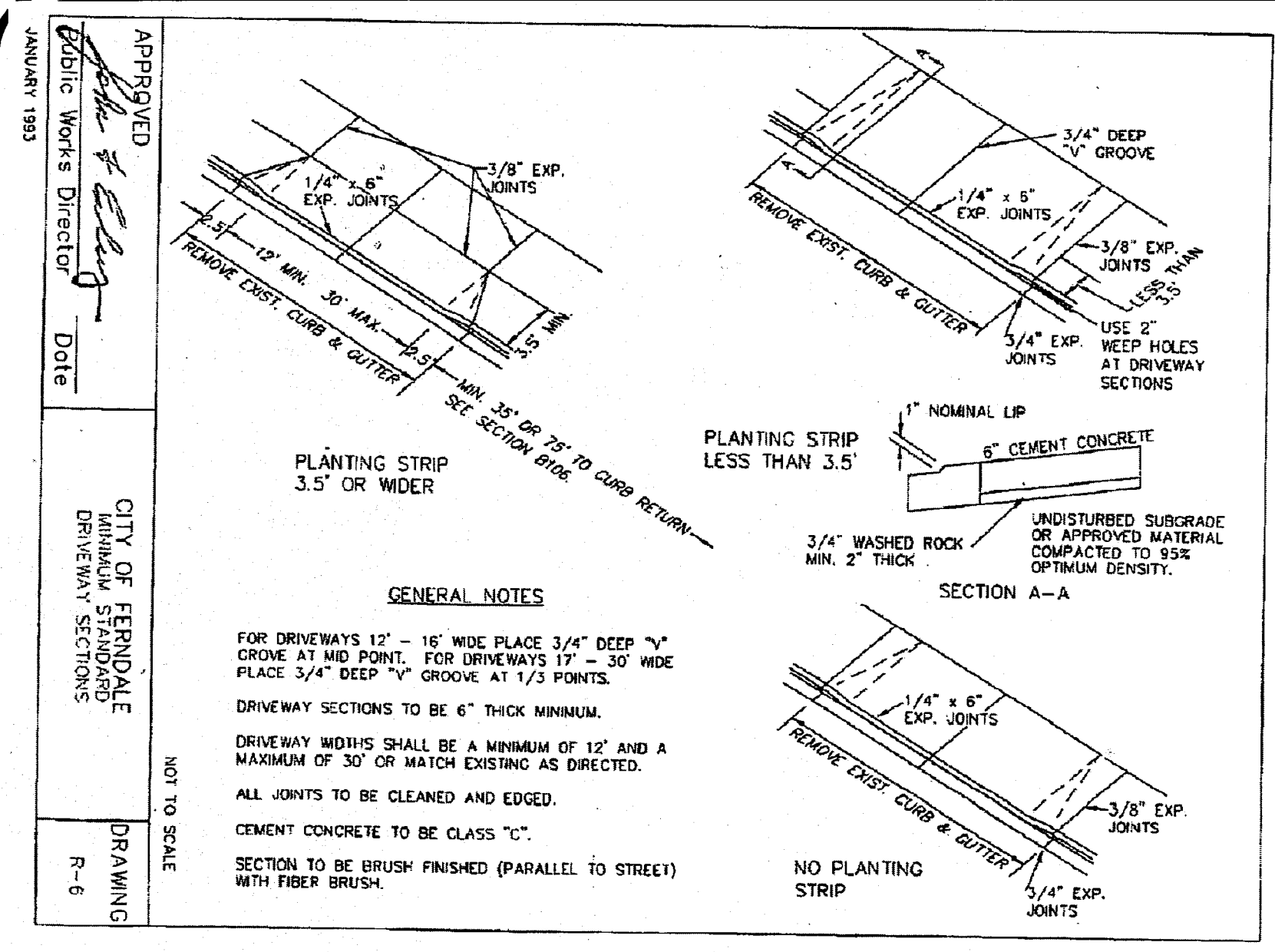
REVISIONS - INITIALS/DATE/CMS	SHEET
SR 10/17/14 SUBMITTAL 1	09
SR 10/30/14 SUBMITTAL 2	
	OF 21

00575.010 11/14/14 SA



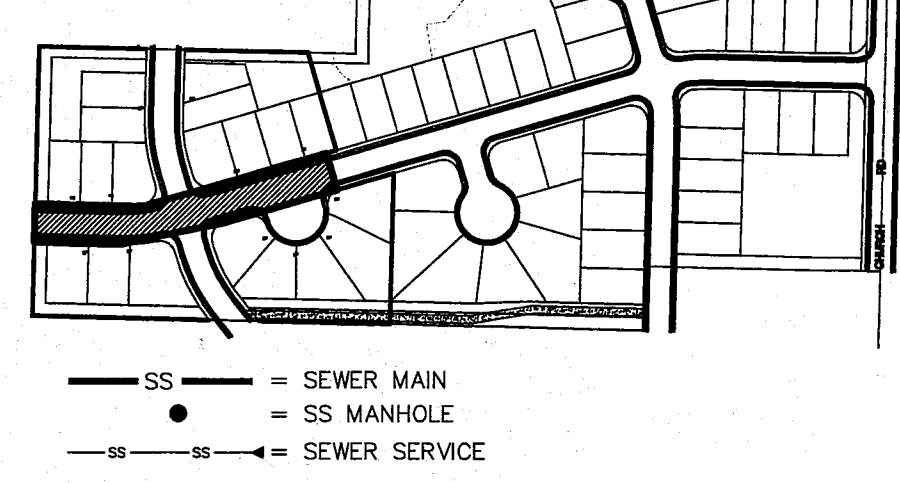
LARSEN'S CHURCH HILL ESTATES		APPROVED NOV 03 2014 BY: [Signature] CITY OF FERNDALE				LDES, INC. 5160 INDUSTRIAL PL #108 FERNDAL, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	LARSEN'S CHURCH HILL ESTATES INTERSECTION CURB WARPING DESIGN INFORMATION		REVISIONS - INITIALS/DATE/CMS		SHEET 10 OF 21
JOB # 06010	FOR: PRND, LLC						SR 10/17/14 SUBMITTAL 1				

11/11/14 11:55:50



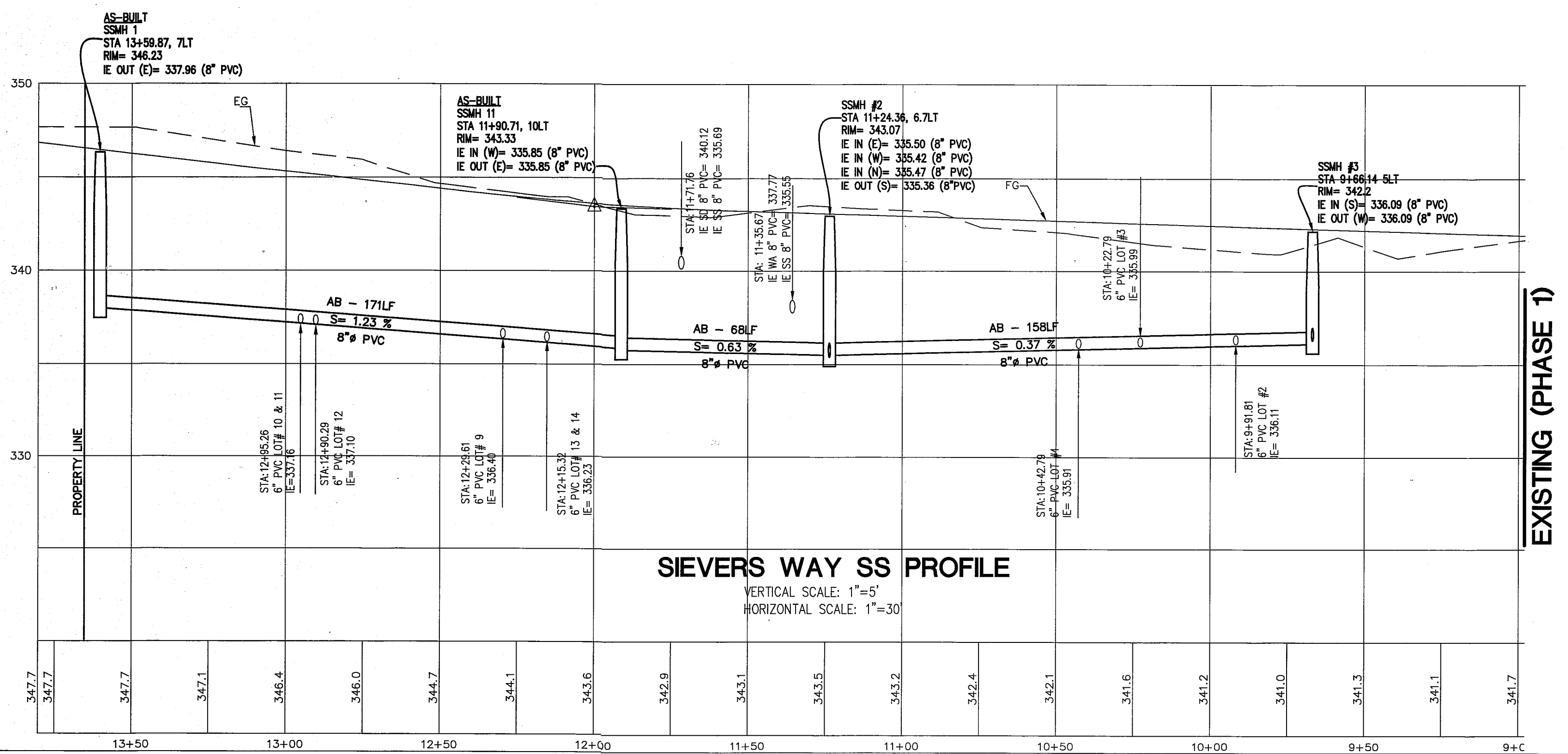
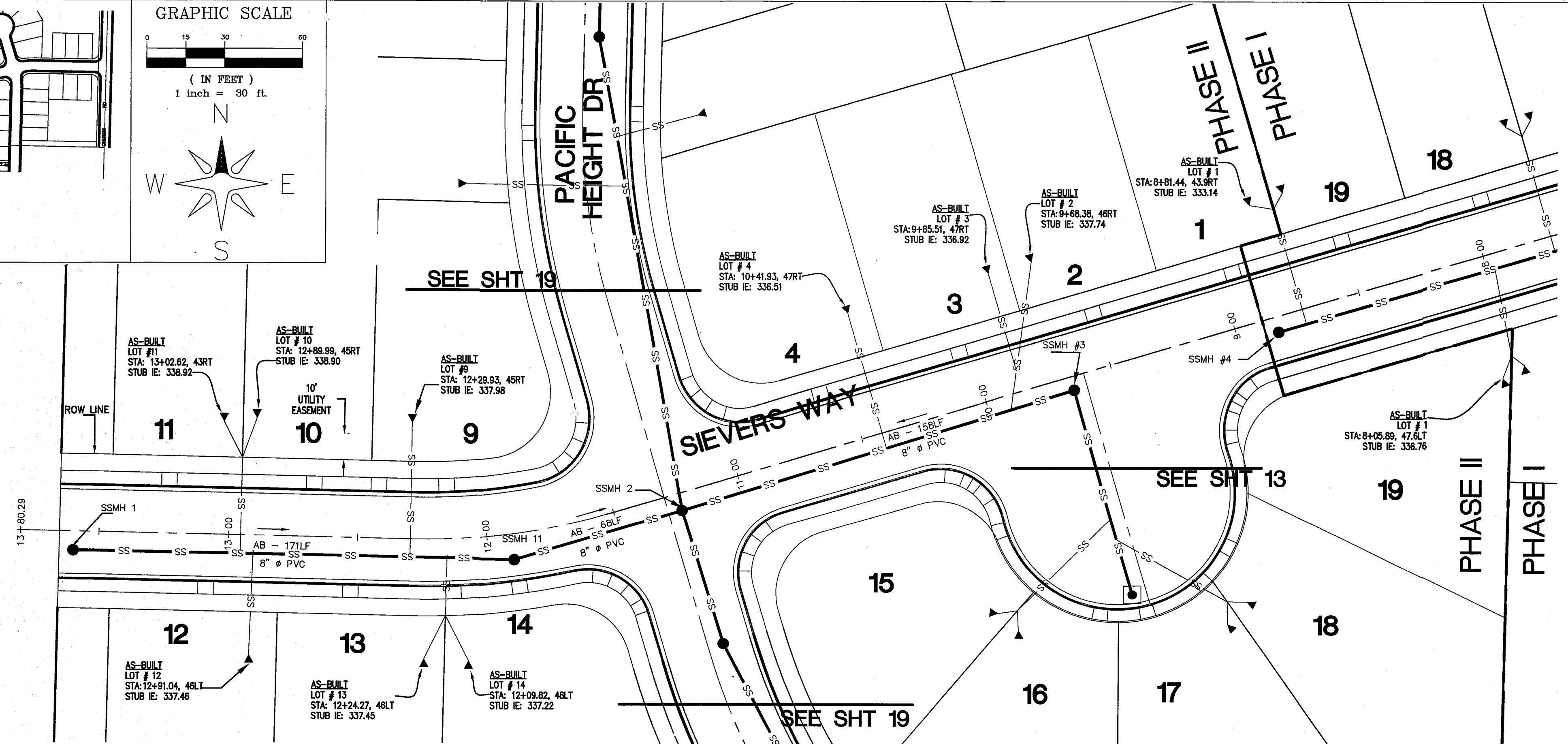
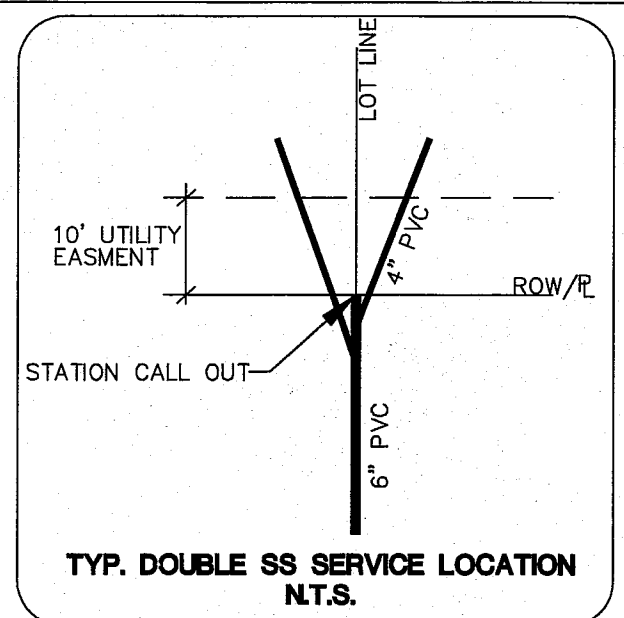
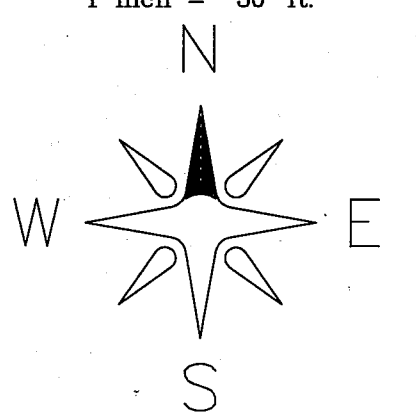
00575.012 11/14/14 SH

SHEET KEY



GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.



LARSEN'S CHURCH HILL ESTATES

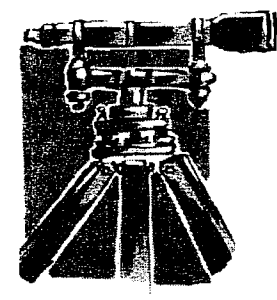
JOB # 06010

FOR: PRND, LLC

APPROVED

NOV 03 2014

BY [Signature]
CITY OF FERDALE



LDES, INC.
5160 INDUSTRIAL PL #108
FERDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES
SANITARY SEWER - SIEVERS WAY
PLAN AND PROFILE
RECORD DRAWINGS

REVISIONS - INITIALS/DATE/CMS

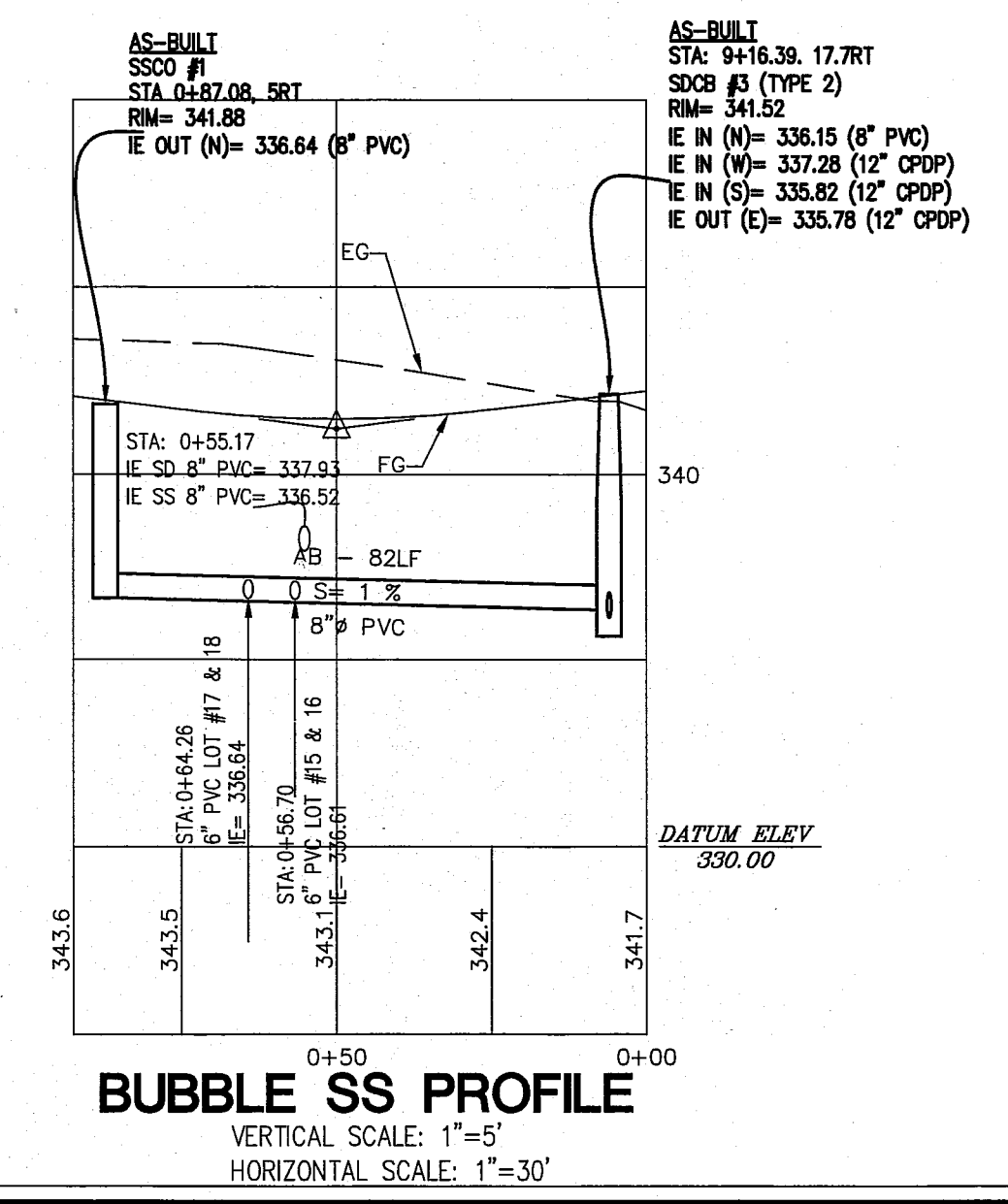
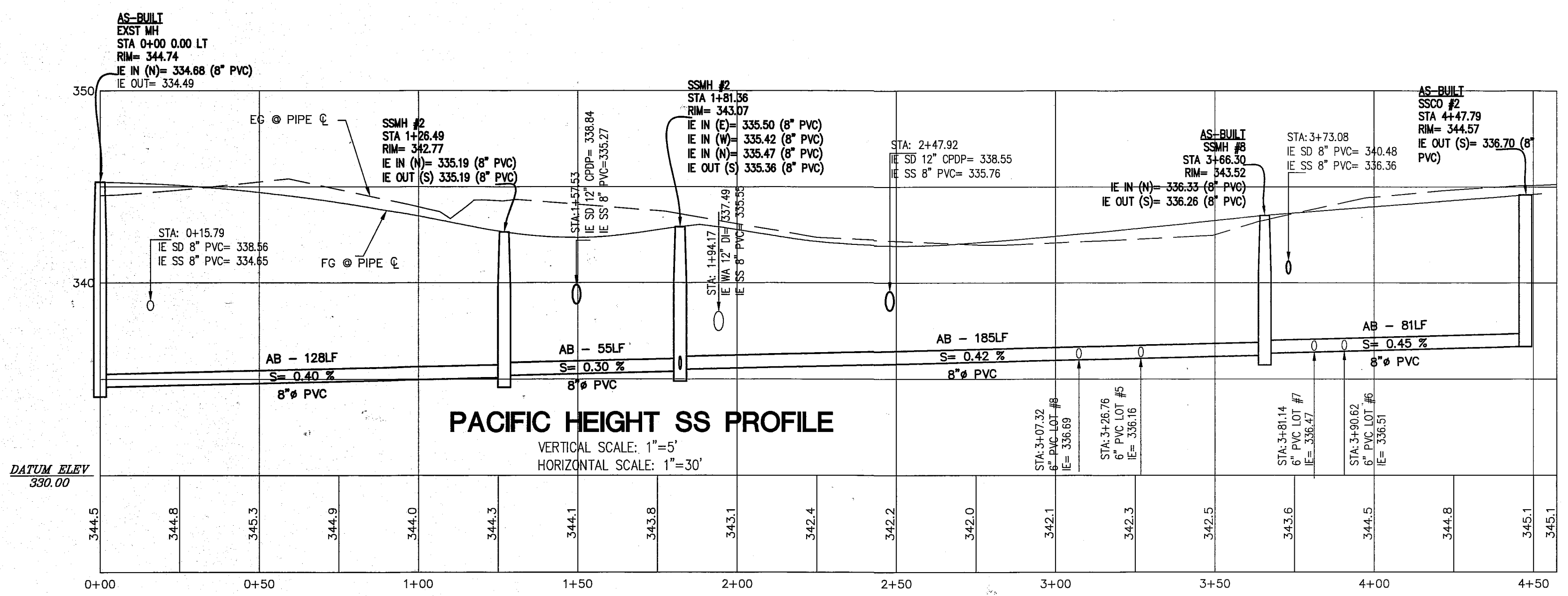
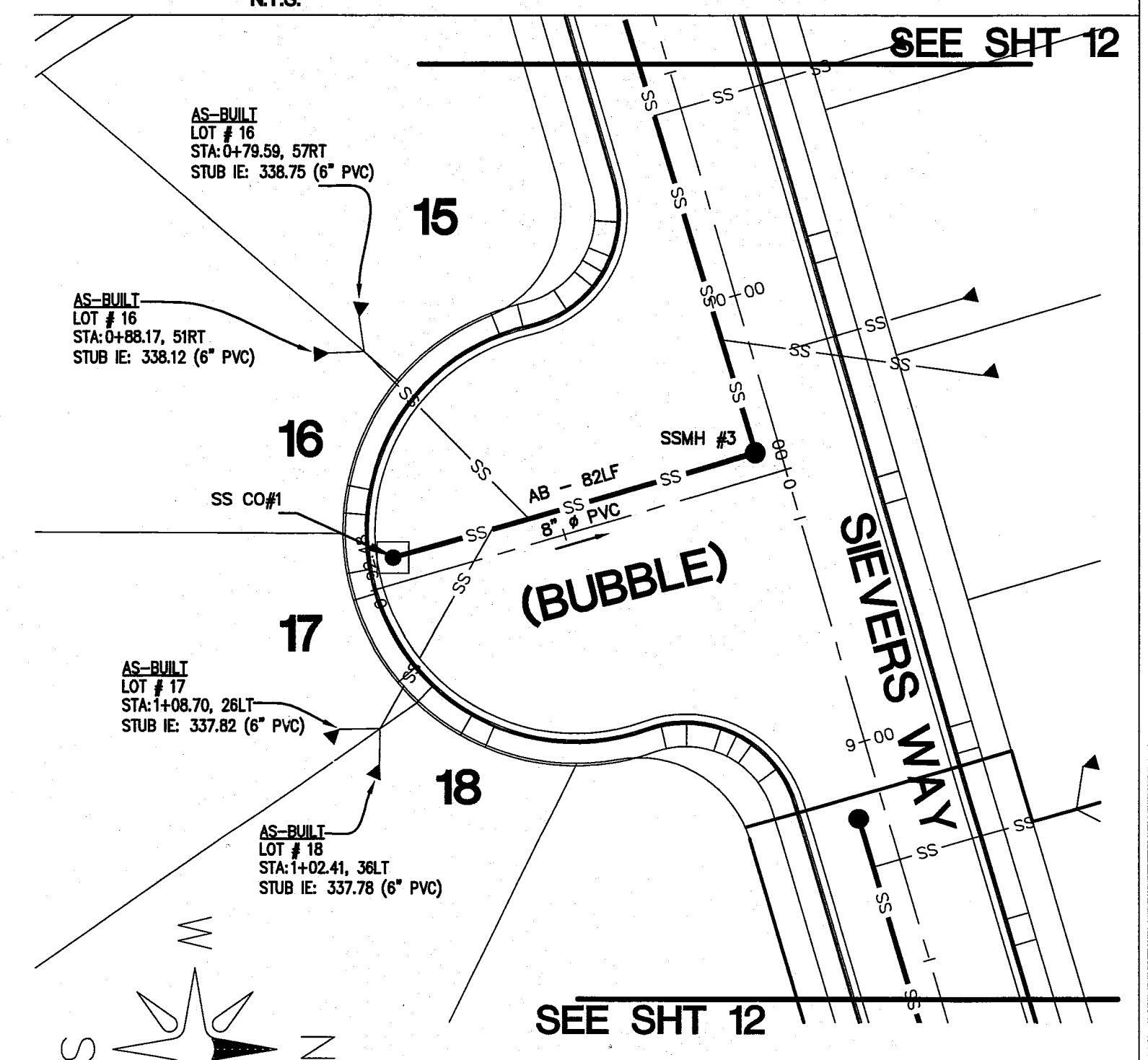
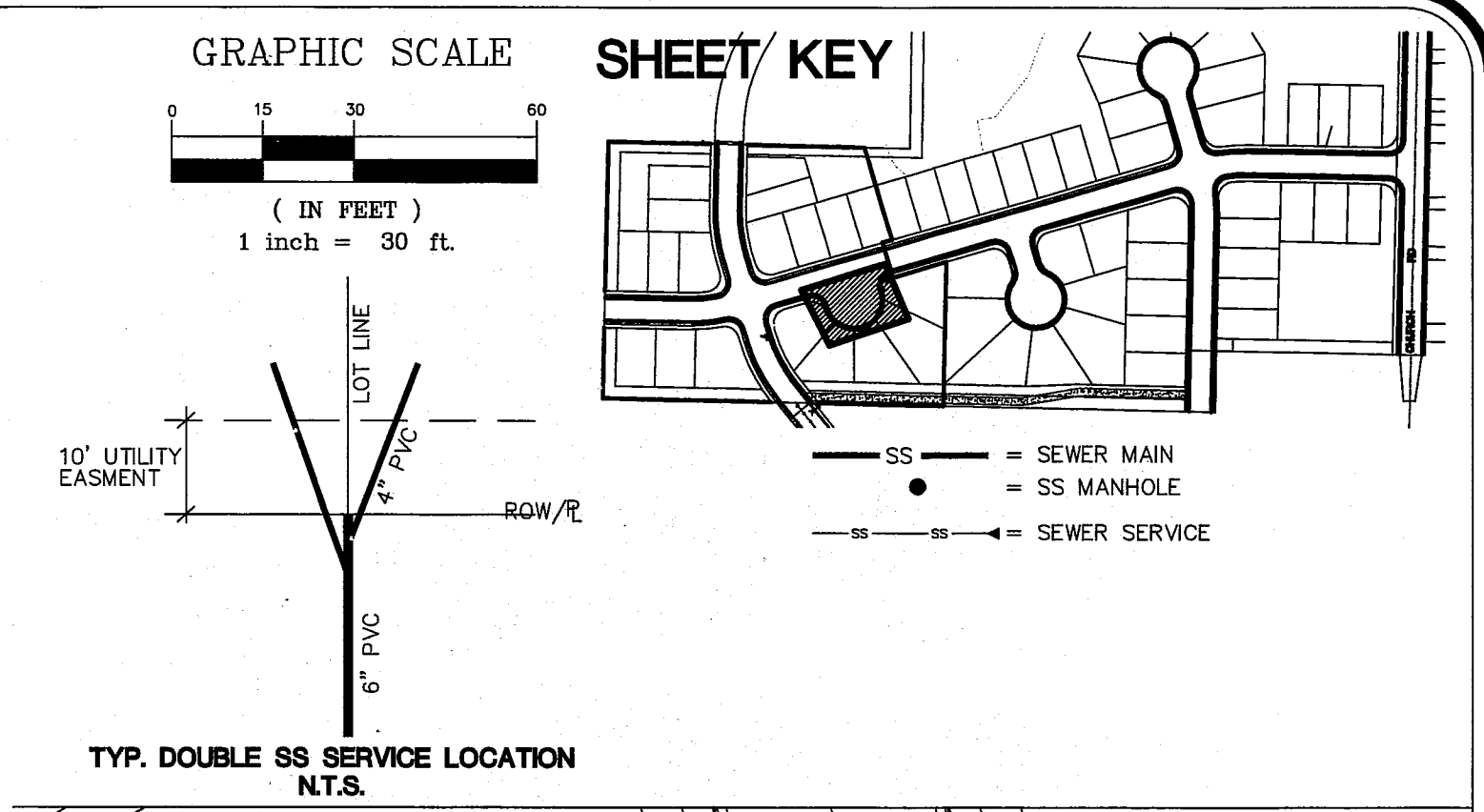
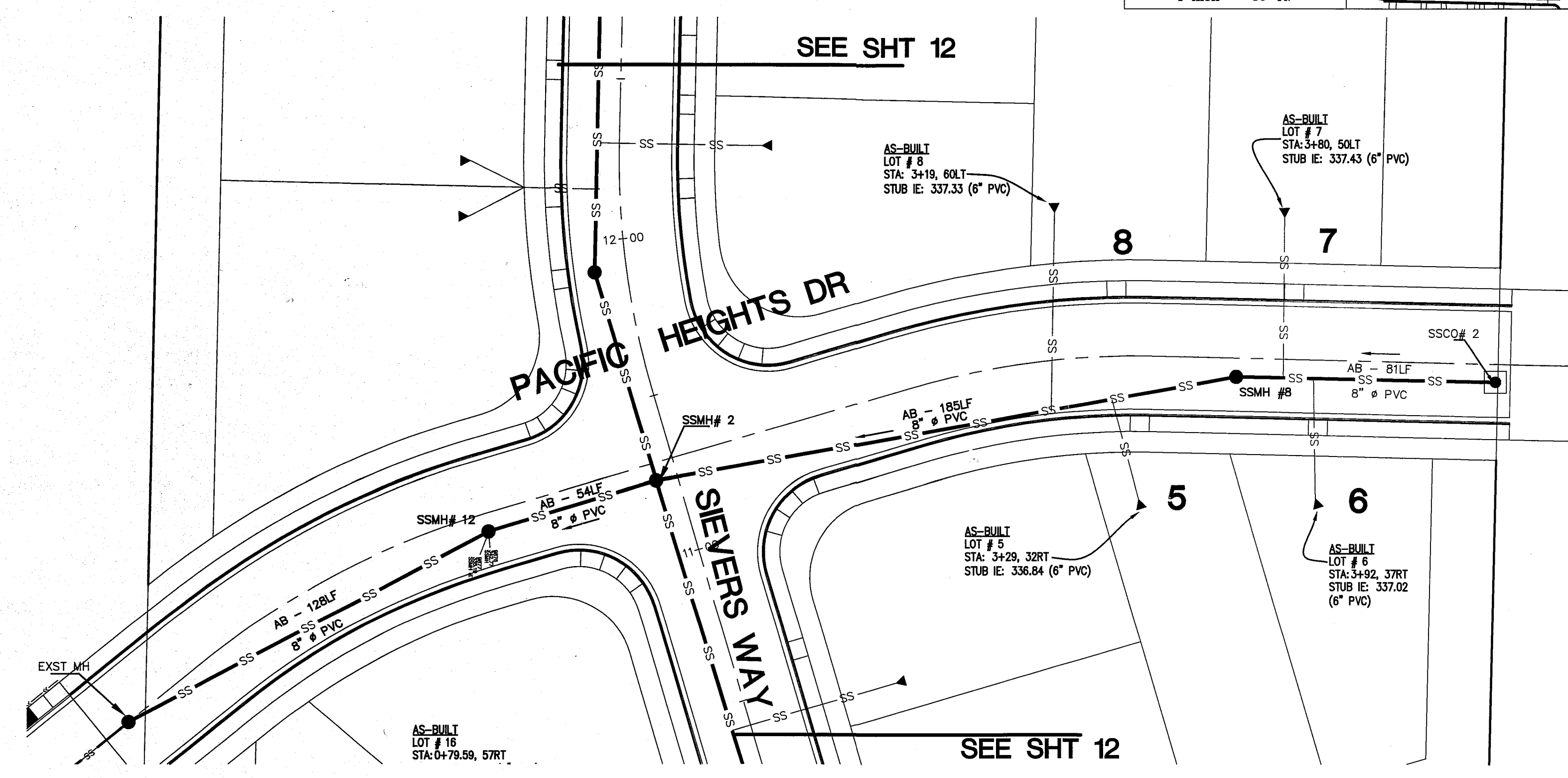
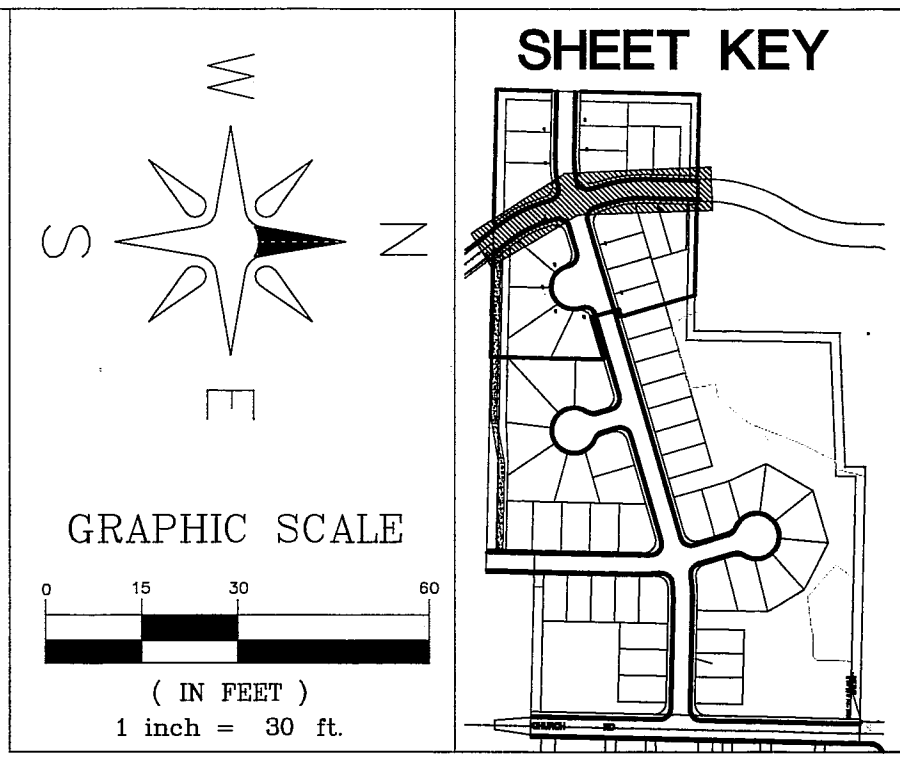
SR	DATE	INITIALS	CMS
10/17/14			SUBMITTAL 1

SHEET

12

OF 21

00575.0B 11/14/14 SH



R: Common Land Projects 2006/010 HIGHLAND TRAIL GOLF COURSE AB-PHASE 2.dwg PLOT DATE: 10/21/2014 2:06 PM

LARSEN'S CHURCH HILL ESTATES		APPROVED NOV 03 2014 BY <i>[Signature]</i> CITY OF FERDALE				LDES, INC. 5160 INDUSTRIAL PL #108 FERDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639		LARSEN'S CHURCH HILL ESTATES SANITARY SEWER - SIEVERS WAY PLAN AND PROFILE RECORD DRAWINGS		REVISIONS - INITIALS/DATE/CMS SR 10/17/14 SUBMITTAL 1		SHEET 13 OF 21	
JOB # 06010		FOR: PRND, LLC											

11/11/11 H105500

Limit of Pipe Zone
W (see note 4)

Backfill Material (See note 5)

Concrete Class C (See note 8)

Foundation level

(Class A design)

Limit of Pipe Zone
W (see note 4)

Backfill Material (See note 5)

Bedding Material for flexible pipe (See note 6)

Foundation level

(Class B, C, D design)

Limit of Pipe Zone
W (see note 4)

Backfill Material (See note 5)

Bedding Material for flexible pipe (See note 6)

Foundation level

(Class F design)

Limit of Pipe Zone
W (see note 4)

Backfill Material (See note 5)

Bedding Material for flexible pipe (See note 6)

Foundation level

NOTES:

1. Provide uniform support under barrel.
2. Hand tamp under haunches.
3. Compact bedding material to 95% MAX density except directly over pipe, hand tamp only.
4. See "Excavation and Preparation of Trench" in the Sanitary Sewers section of the Standard Specifications for trench width "W" and trenching options. The pipe zone will be the actual trench width, except for Class A bedding. The minimum concrete width shall be 1 1/2' I.D. + 16".
5. Trench backfill shall conform to "Backfilling Sewer Trenches" in the Sanitary Sewers section of the Standard Specifications, except that rocks or lumps larger than 1" per foot of pipe diameter shall not be used in the backfill material.
6. See "Bedding Material for Flexible Pipe" in the Aggregates section of the Standard Specifications for the material specifications.
7. Pipe must be anchored in such a manner as to ensure flow line is maintained.

BEDDING CLASS DESIGN

DIMENSION	CLASS A	CLASS B	CLASS C	CLASS D	CLASS F
A	4" MIN. 12" MAX.	4" MIN. 12" MAX.	4" MIN. 12" MAX.	4" MIN. 12" MAX.	4" MIN. 12" MAX.
B	1/4 O.D.	1/2 O.D.	1/2 O.D.	Zero	0.0
C	3/4 O.D.	1/2 O.D.	1/2 O.D.	0.0	0.0

*A = 4" MIN, 27" I.D. and under; 6" MIN, over 27" I.D.

NOT TO SCALE

APPROVED *John & Elly* CITY OF FERNDAL DATE Public Works Director

CITY OF FERNDAL
PIPE BEDDING FOR
SANITARY SEWERS

DRAWING
SS-1

JUNE 1995

ADJUSTMENT SECTION

MODIFIED STEP-SEE STANDARD PLAN

PRECAST FLAT TOP

PRECAST SECTION

RUBBER GASKETED JOINTS REQUIRED

STEPS-SEE STANDARD PLAN

LADDER-SEE STANDARD PLAN

MAXIMUM PIPE SIZE 21" MAXIMUM PIPE SIZE MAY BE LIMITED BY PIPE CONFIGURATION

FIELD CONSTRUCT CHANNEL & SHELF (PRECAST CHANNEL UNACCEPTABLE)

PRECAST BASE SECTION

CAST IN PLACE BASE

TYPE I - 48" MANHOLE

NTS

NOT TO SCALE

APPROVED *John & Elly* CITY OF FERNDAL DATE Public Works Director

CITY OF FERNDAL
TYPE I 48" MANHOLE

DRAWING
SS-2

JANUARY 1993

ADJUSTMENT SECTION

MODIFIED STEP-SEE STANDARD PLAN

PRECAST FLAT TOP

PRECAST SECTION

RUBBER GASKETED JOINTS REQUIRED

STEPS-SEE STANDARD PLAN

LADDER-SEE STANDARD PLAN

MAXIMUM PIPE SIZE 21" MAXIMUM PIPE SIZE MAY BE LIMITED BY PIPE CONFIGURATION

FIELD CONSTRUCT CHANNEL & SHELF (PRECAST CHANNEL UNACCEPTABLE)

PRECAST BASE SECTION

CAST IN PLACE BASE

TYPE II - 48" MANHOLE

MANHOLE

NOT TO SCALE

APPROVED *John & Elly* CITY OF FERNDAL DATE Public Works Director

CITY OF FERNDAL
TYPE II 48" MANHOLE

DRAWING
SS-3

JANUARY 1993

2" SQUARE CONCRETE BLOCK TO ENCASE CLEAN-OUT. IN AREAS WHERE CLEAN-OUT OCCURS IN ASPHALT, THIS BLOCK IS TO BE LEFT APPROX. 1 1/2" LOW TO ALLOW FOR AN ASPHALT TOPPING OF LIKE MIXTURE AS THE SURROUNDING AREA. IF CLEAN-OUT OCCURS IN CONCRETE OR IN SOME TYPE OF SOIL, THE BLOCK IS TO BE MADE THE FULL 1" DEPTH AND FLUSH WITH THE SURROUNDING SURFACE.

CLEAN-OUT LIDS WHICH INCORPORATE A "GRAB BAR" FOR EASY LID REMOVAL ARE NO LONGER ALLOWED. LIDS SIMILAR TO THE VIEW AT LEFT OR THEIR EQUIVALENT ARE TO BE USED.

NOT NECESSARY TO BOND COVER PIPE TO RING AT THIS POINT, BUT TO RING AND ENCASE IN CONCRETE BLOCK.

CAST IRON RING AND COVER

MONUMENT RING AND COVER NOT ACCEPTABLE.

PIPE MATERIAL AS SPECIFIED

PLACE PIPE ON UNDISTURBED SOIL IN AREA BETWEEN BENDS

Plug To Be Sealed In Same Manner As Main Sewer Joints.

DO NOT SCALE

SSCD 04/30/92 1617

NOT TO SCALE

APPROVED *John & Elly* CITY OF FERNDAL DATE Public Works Director

CITY OF FERNDAL
8" CLEAN OUT

DRAWING
SS-5

JANUARY 1993

EDGE OF PAVEMENT

WATER MAIN

OTHER UTILITY (INCLUDING STORM DRAIN)

PLUG WITH WATER-TIGHT PLUG

FINISH GRADE

2" x 4" x 10" LOCATION STAKE WITH TOP 18" PAINTED WHITE AND STEEL SOWER

15" MIN.

18" MIN.

2" x 4" x 10" BLOCKING

IT AS DIRECTED BY THE ENGINEER

SIDE SEWER BEDDING PER WSDOT STANDARD PLAN BHSIC

6" SIDE SEWER LAID ON UNIFORM SLOPE MIN. SLOPE=2%

NORMAL INSTALLATION SIDE SEWER 15" AND SMALLER

NOT TO SCALE

APPROVED *John & Elly* CITY OF FERNDAL DATE Public Works Director

CITY OF FERNDAL
NORMAL INSTALLATION
15" AND SMALLER SEWER MAINS

DRAWING
SS-6

JUNE 1995

CAP END

5' MIN.

5' MIN.

CAP END

6" x 4" WYES

6" PVC

4" EXTENDED TO THE PROPERTY LINE MARKED WITH P.T. 2" x 4" PAINTED GREEN WITH DEPTH INDICATED.

SINGLE SERVICE EXTEND 6" 5' OFF PROPERTY LINE. INSTALL 6" x 4" REDUCER.

SEWER SERVICE DETAIL

NOT TO SCALE

APPROVED *John & Elly* CITY OF FERNDAL DATE Public Works Director

CITY OF FERNDAL
DOUBLE SANITARY SEWER SERVICE

DRAWING
SS-13

JUNE 1995

APPROVED *John & Elly* CITY OF FERNDAL DATE Public Works Director

NOT TO SCALE

ASPHALT/CONCRETE PAVEMENT TRENCH

GRAVEL SHOULDER TRENCH

DITCH AND NON-DEVELOPED AREA TRENCH

NOTES:

1. NATIVE BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
2. SELECT BACKFILL/CRUSHED SURFACE COURSE SHALL BE COMPACTED TO 95% COMPACTION.
3. PAVEMENT SHALL BE SAW CUT, TACKED, AND COMPACTED TO 92% OF ABSOLUTE DENSITY.
4. P.C.C. REPLACEMENT SHALL BE 2" GREATER THAN EXISTING COURSE, 7" MINIMUM, 6.5 P.C.C. (HES - AIR ENTRAINED).
5. ALL TRENCH RESTORATION SHALL MEET CITY STANDARDS.

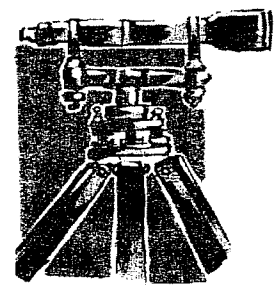
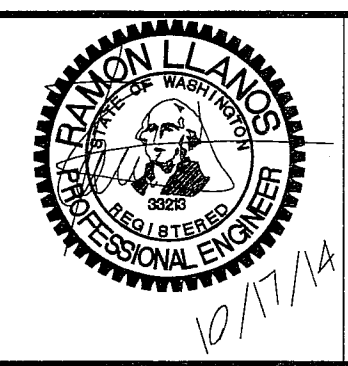
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SS-15

LARSEN'S CHURCH HILL ESTATES

JOB # 06010

FOR: PRND, LLC

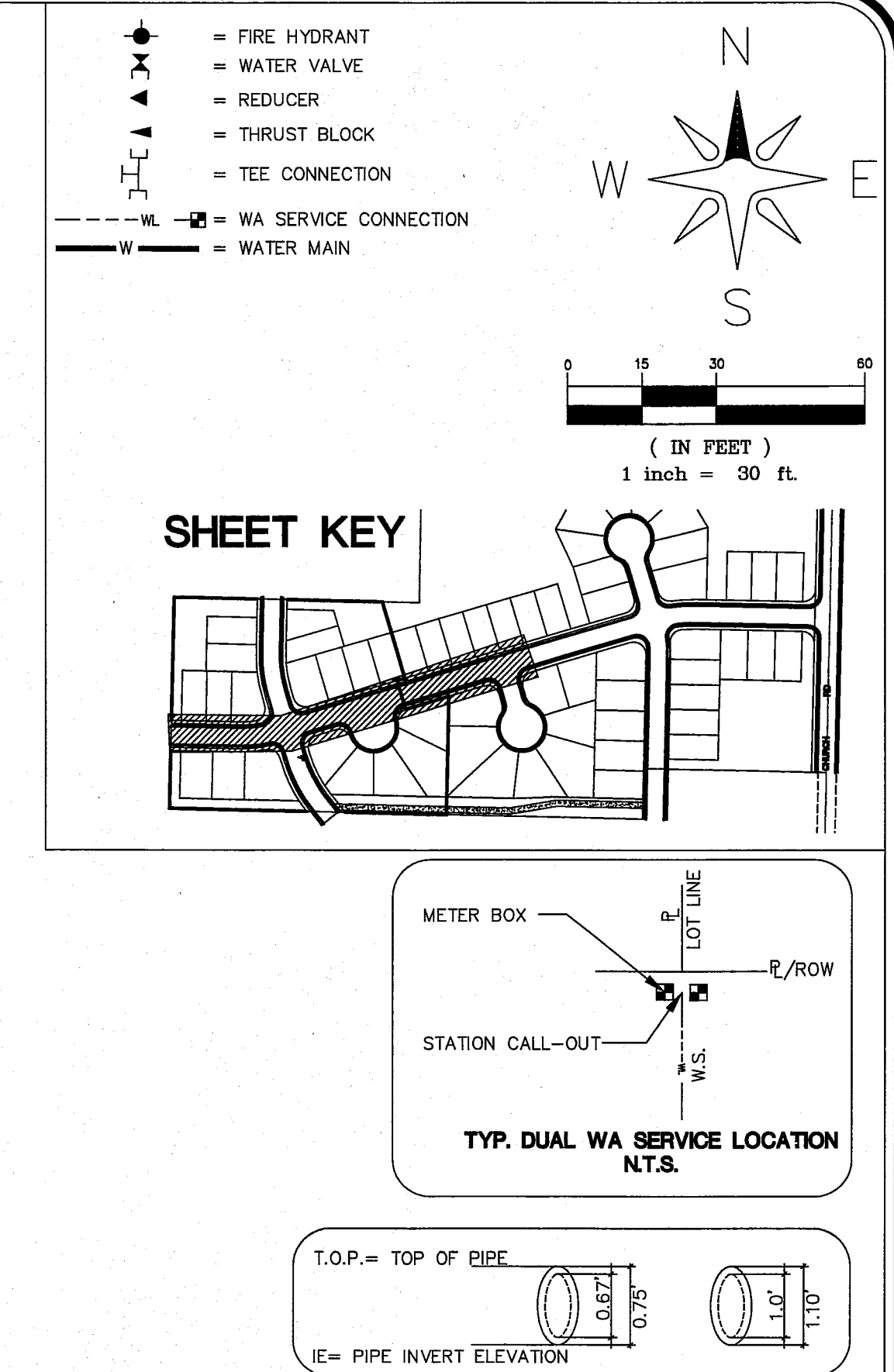
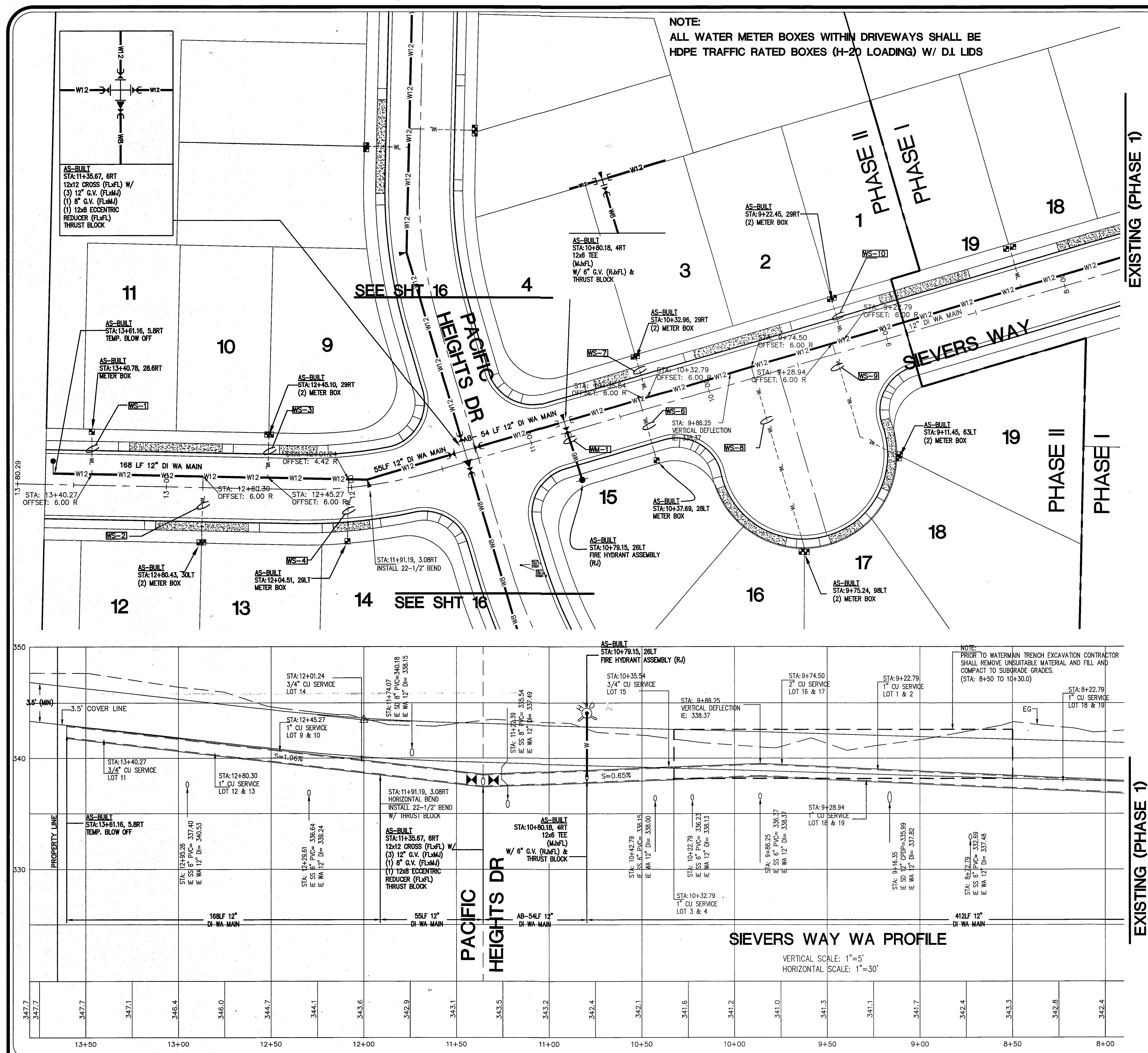
APPROVED
NOV 03 2014
BY *David Bell*
CITY OF FERNDAL



LDES, INC.
5160 INDUSTRIAL PL #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES
SANITARY SEWER DETAILS
DESIGN INFORMATION

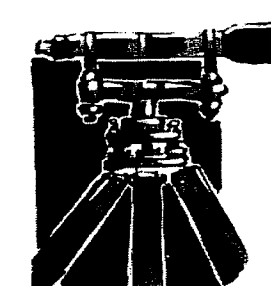
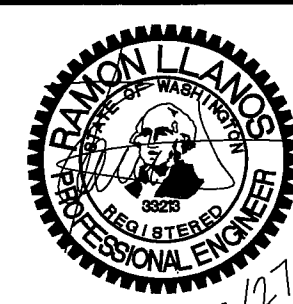
SHEET
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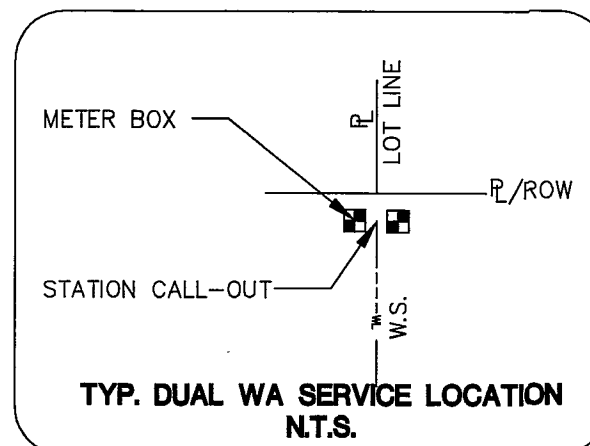
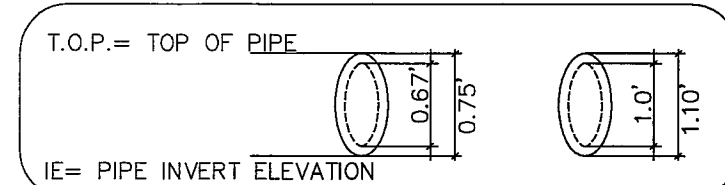
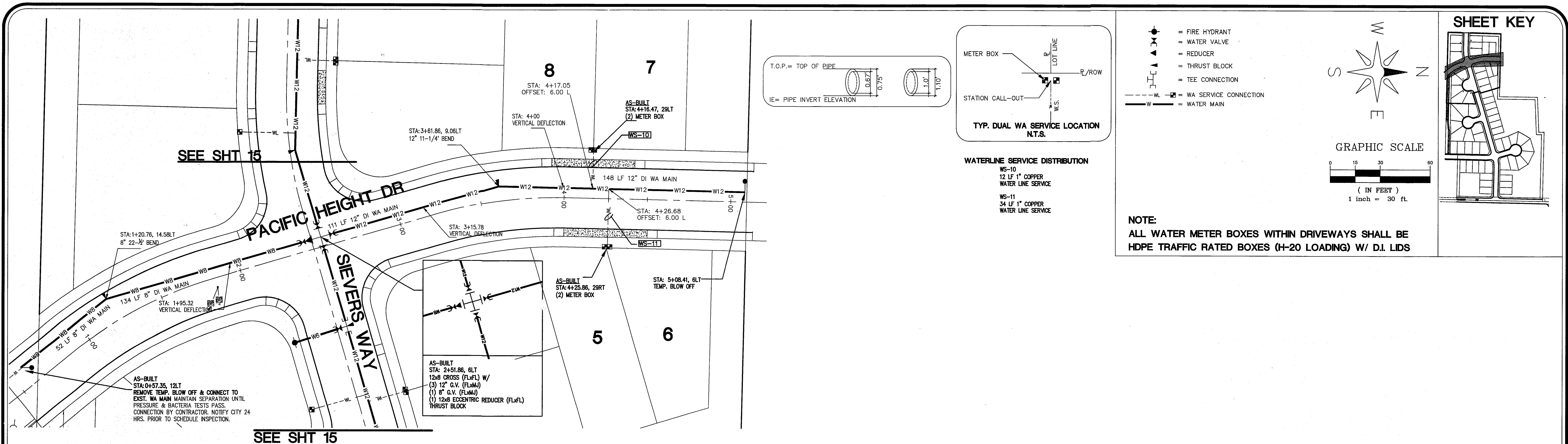
WATER MAIN DISTRIBUTION		WATER LINE SERVICE DISTRIBUTION	
AS-BUILD		WS-1	
WM-1		22 LF 1" COPPER	
31 LF 6"		WATER LINE SERVICE	
WATER MAIN		WS-2	
		34 LF 1" COPPER	
		WATER LINE SERVICE	
		WS-3	
		22 LF 1" COPPER	
		WATER LINE SERVICE	
		WS-4	
		33 LF 1" COPPER	
		WATER LINE SERVICE	
		WS-6	
		34 LF 1" COPPER	
		WATER LINE SERVICE	
		WS-7	
		22 LF 1" COPPER	
		WATER LINE SERVICE	
		WS-8	
		100 LF 2" COPPER	
		WATER LINE SERVICE	
		WS-9	
		73 LF 1" COPPER	
		WATER LINE SERVICE	
		WS-10	
		22 LF 1" COPPER	
		WATER LINE SERVICE	

LINE SERVICE DISTRIBUTION

WS-1	22 LF 1" COPPER
	WATER LINE SERVICE
WS-2	34 LF 1" COPPER
	WATER LINE SERVICE
WS-3	22 LF 1" COPPER
	WATER LINE SERVICE
WS-4	33 LF 1" COPPER
	WATER LINE SERVICE
WS-6	34 LF 1" COPPER
	WATER LINE SERVICE
WS-7	22 LF 1" COPPER
	WATER LINE SERVICE
WS-8	100 LF 2" COPPER
	WATER LINE SERVICE
WS-9	73 LF 1" COPPER
	WATER LINE SERVICE
WS-10	22 LF 1" COPPER
	WATER LINE SERVICE

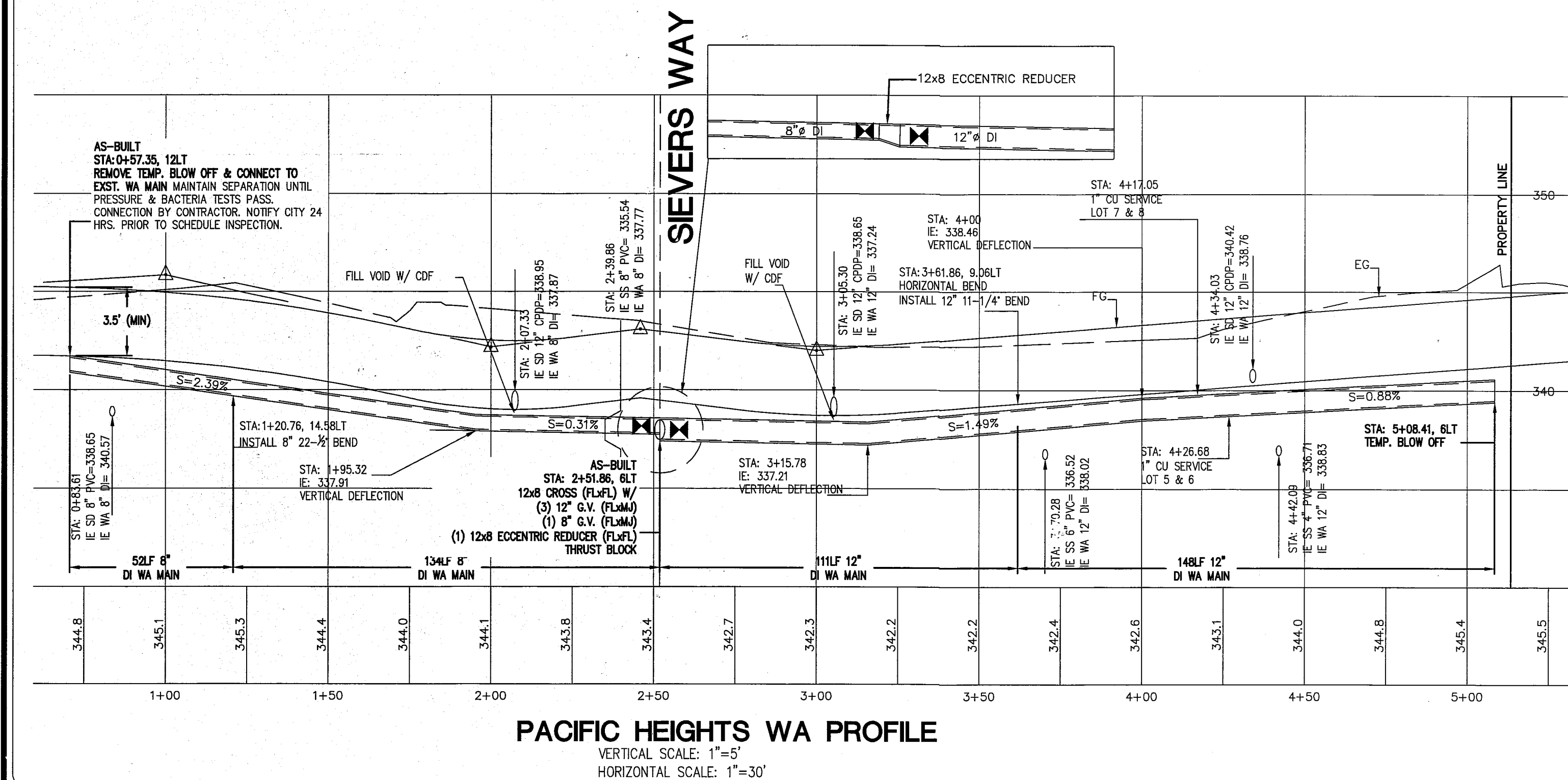
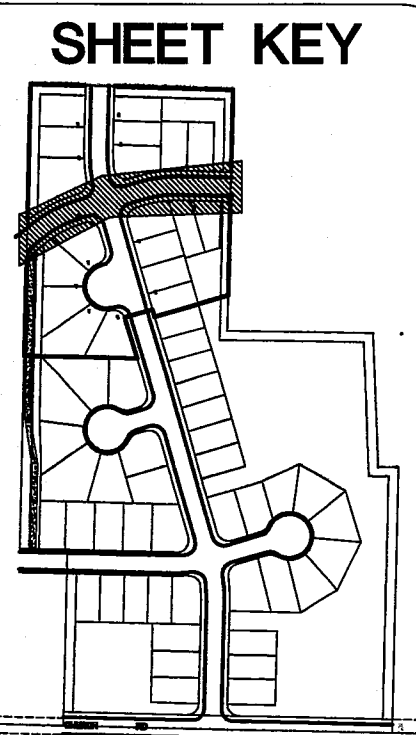
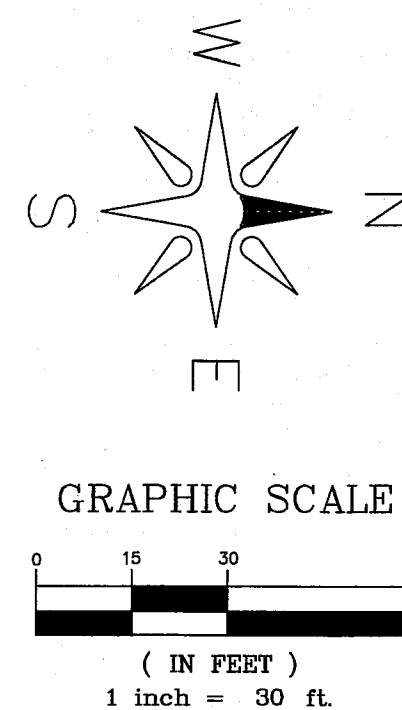
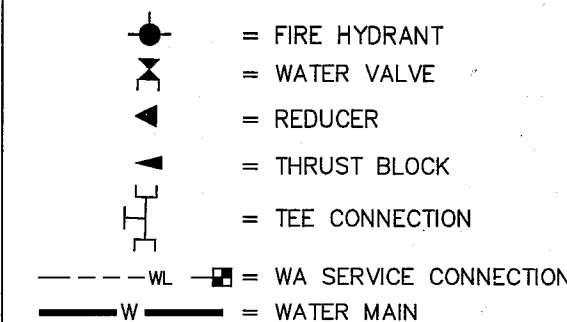


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WATERLINE SERVICE DISTRIBUTION
WS-10
12 LF 1" COPPER
WATER LINE SERVICE
WS-11
34 LF 1" COPPER
WATER LINE SERVICE

NOTE:
ALL WATER METER BOXES WITHIN DRIVEWAYS SHALL BE HDPE TRAFFIC RATED BOXES (H-20 LOADING) W/ D.I. LIDS

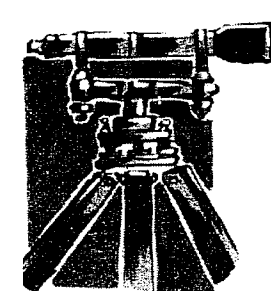
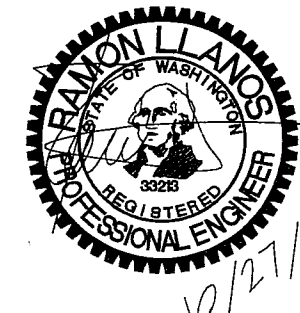


LARSEN'S CHURCH HILL ESTATES

JOB # 06010

FOR: PRND, LLC

APPROVED
NOV 03 2014
CITY OF FERNDALE



LDES, INC.
5160 INDUSTRIAL PL #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

LARSEN'S CHURCH HILL ESTATES
WATER DISTRIBUTION - PACIFIC HEIGHTS DR
PLAN AND PROFILE
RECORD DRAWINGS

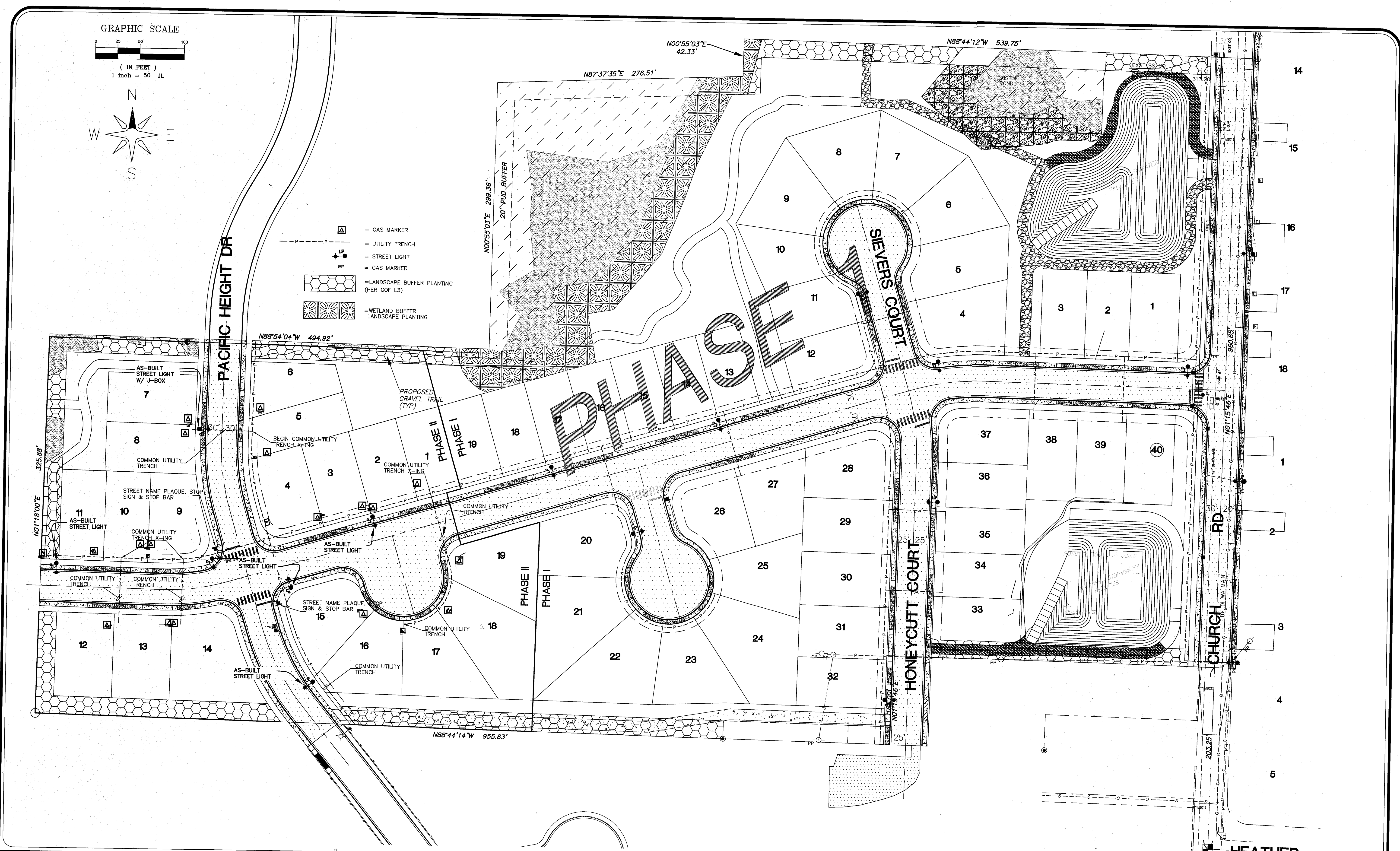
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16
OF 21

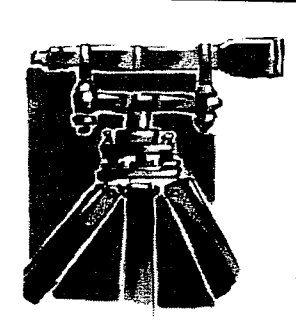
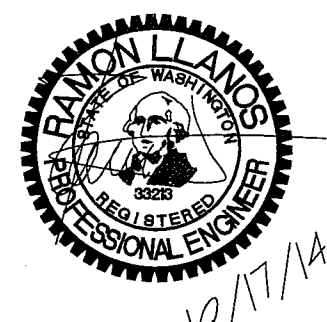
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LARSEN'S CHURCH HILL ESTATES

JOB # 06010 FOR: PRND, LLC

APPROVED
NOV 03 2014
BY [Signature]
CITY OF FERNDALE

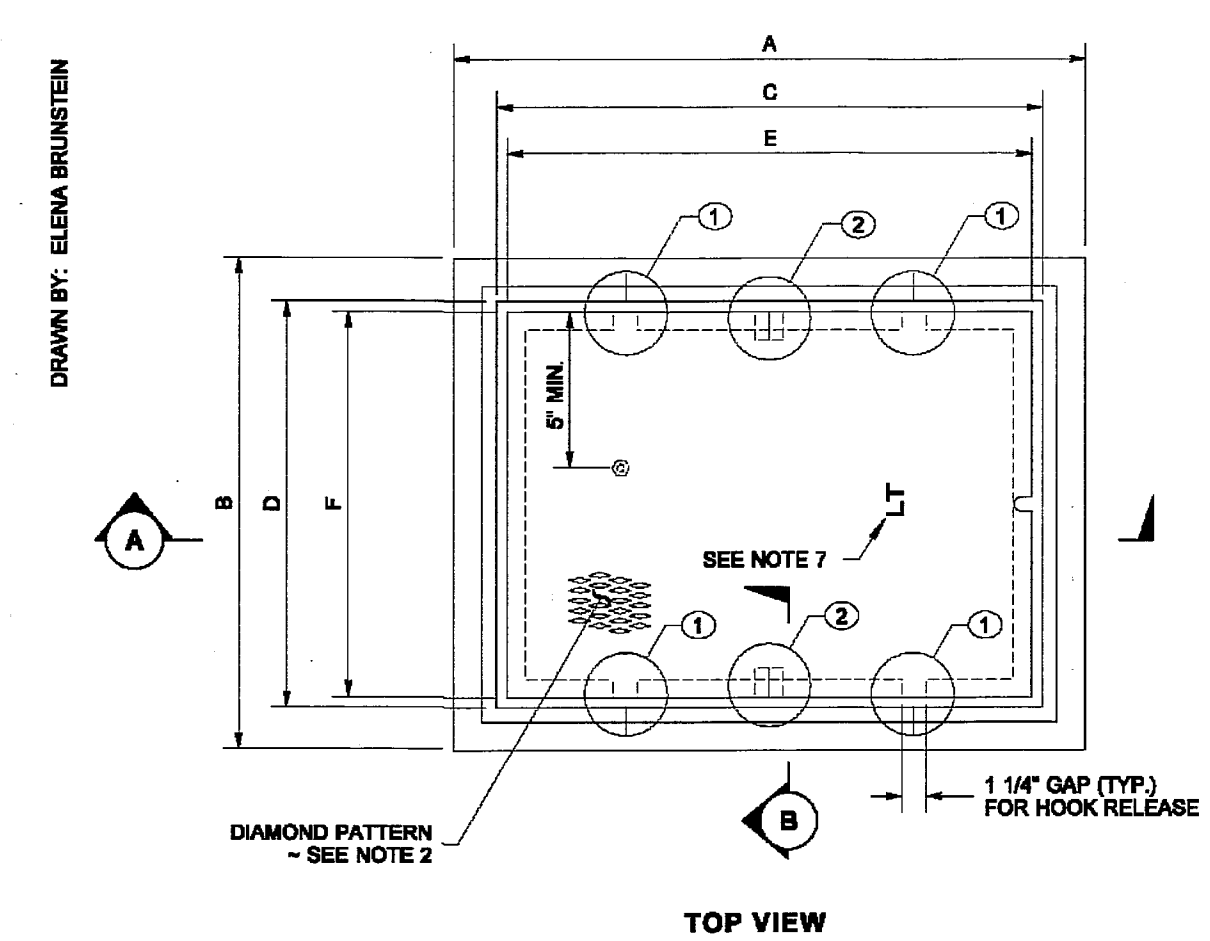
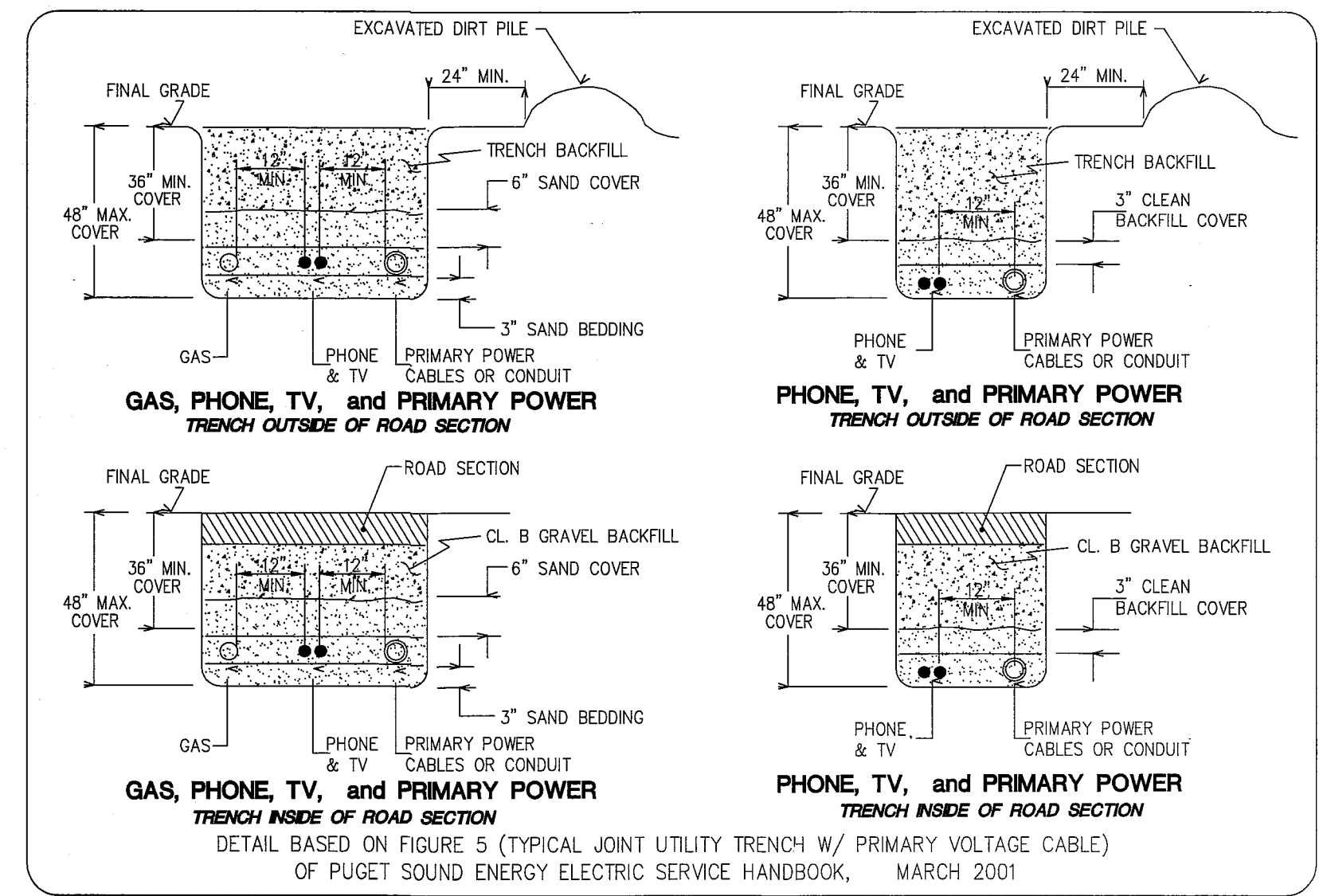
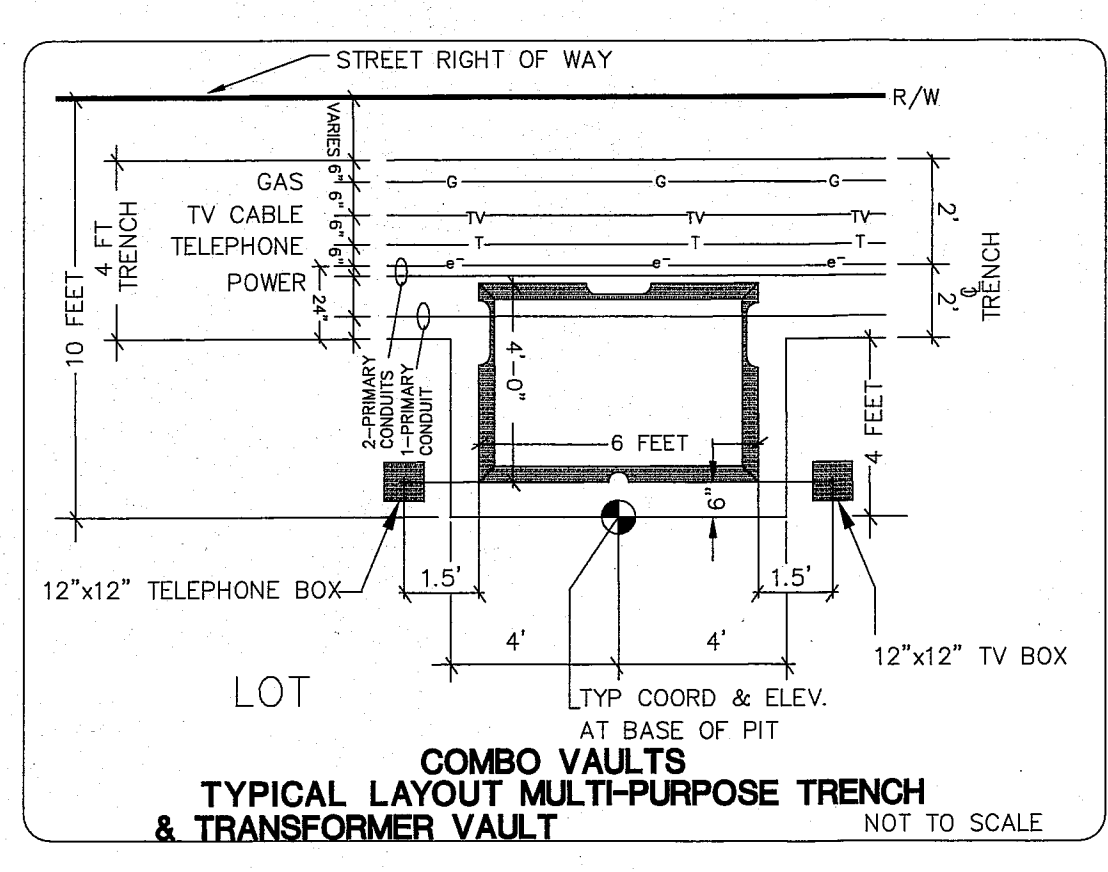
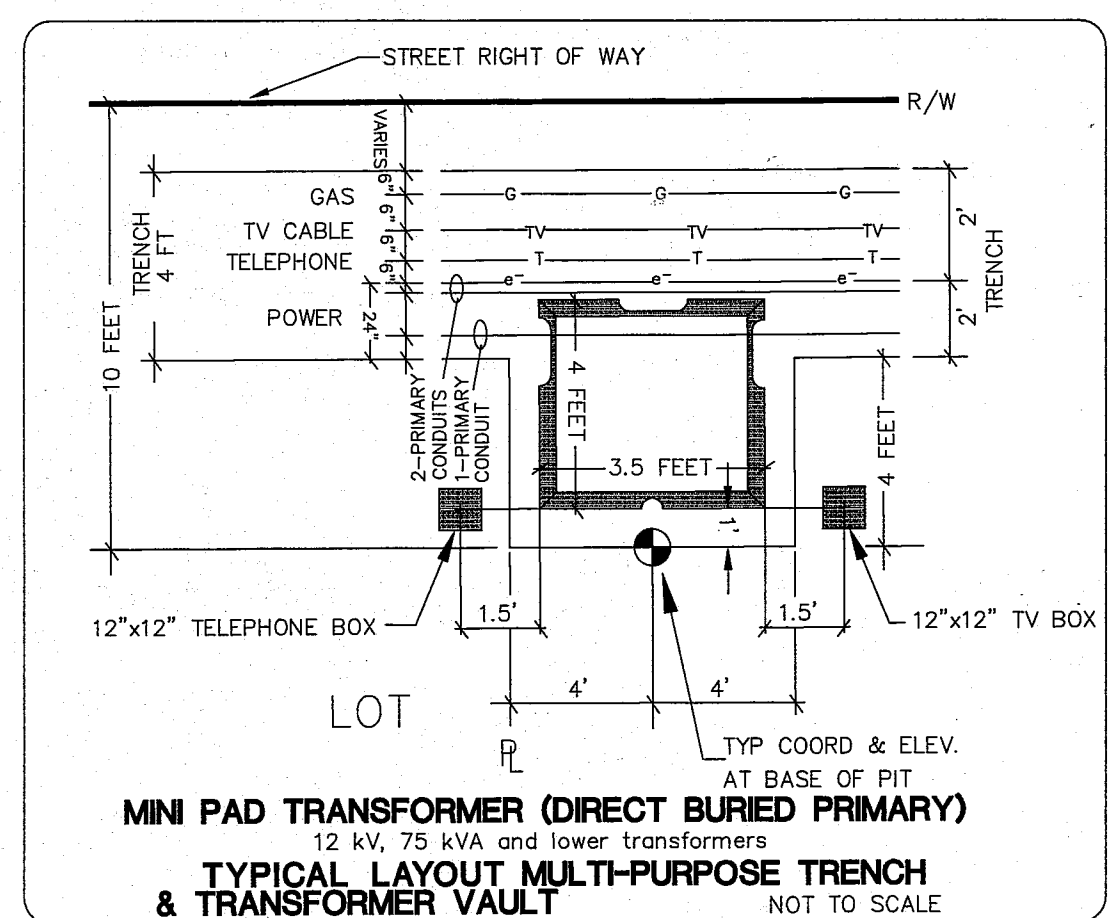
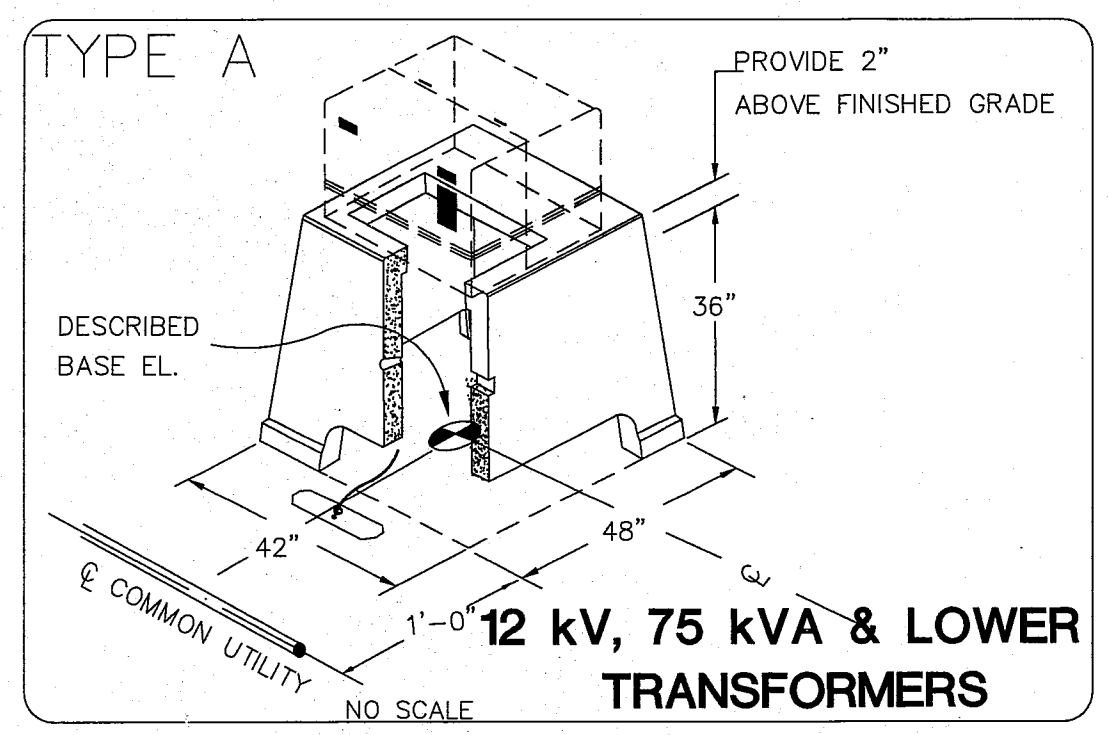
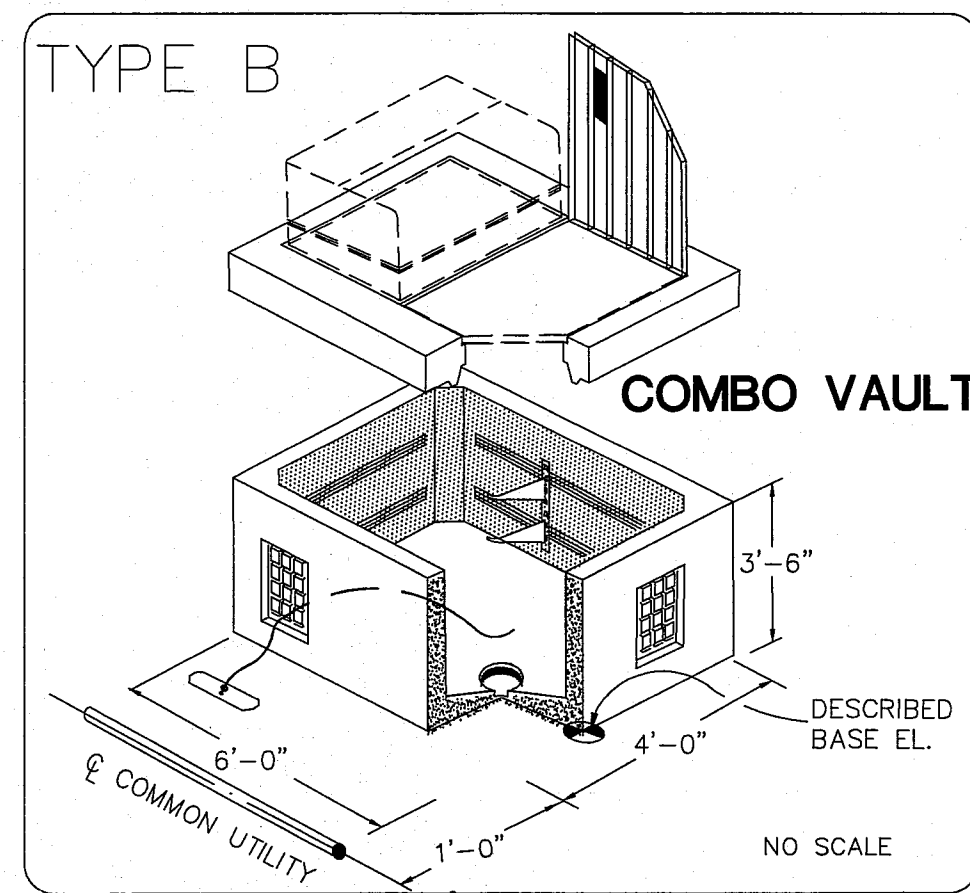


LDES, INC.
5160 INDUSTRIAL PL #108
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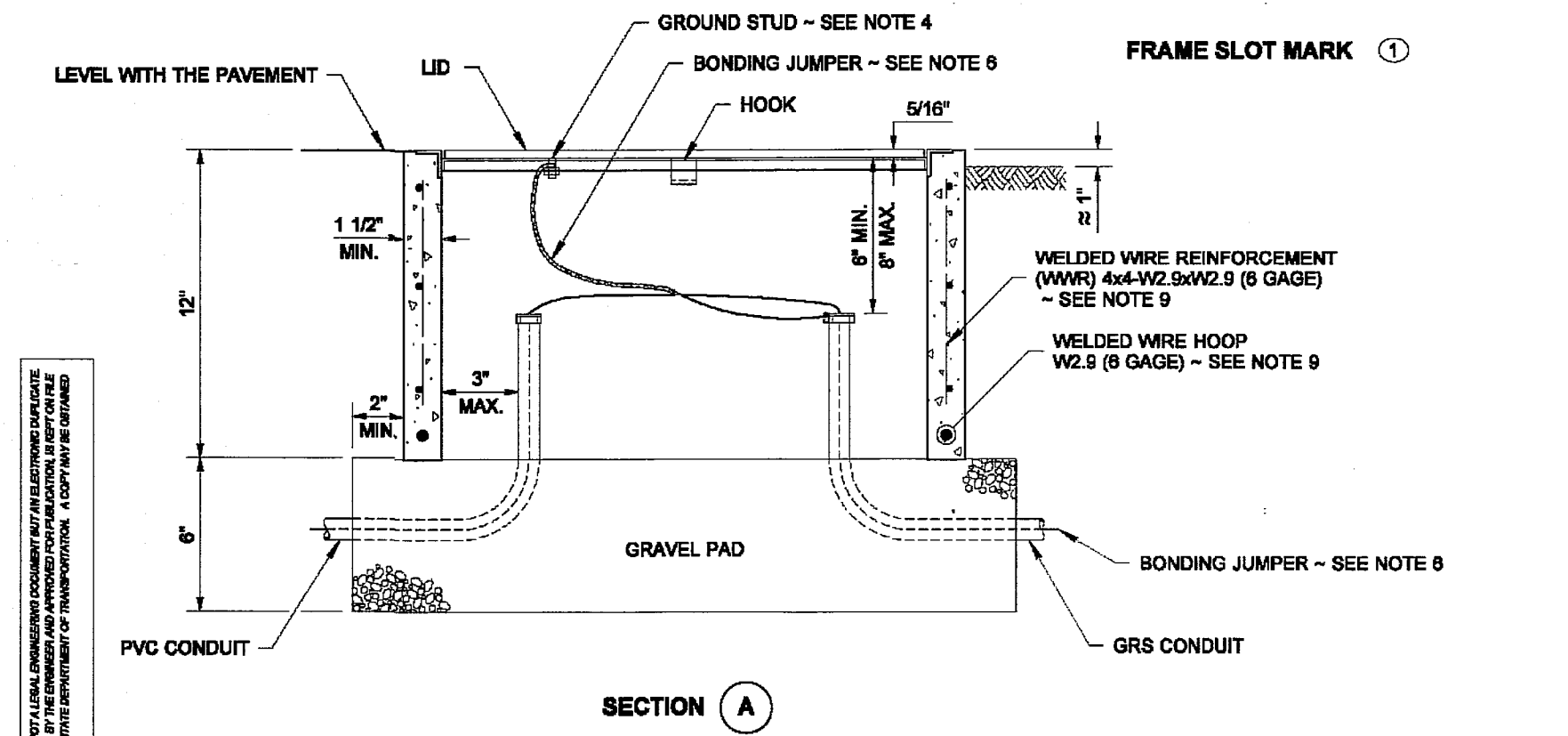
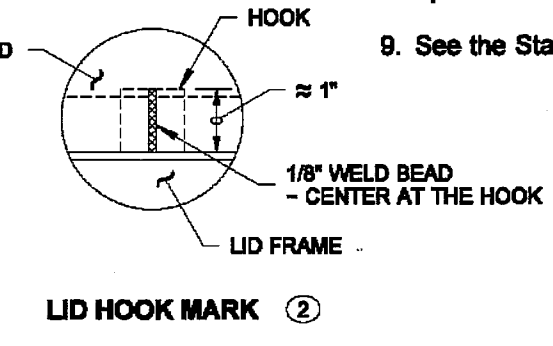
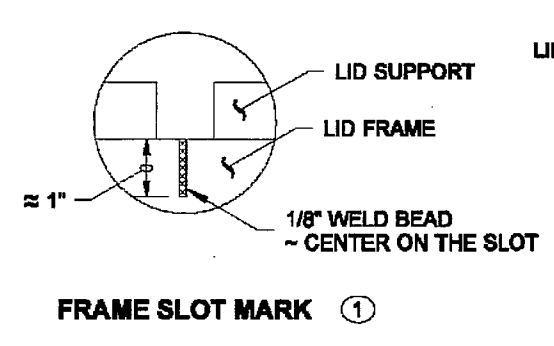
LARSEN'S CHURCH HILL ESTATES
COMMON UTILITY, LIGHTING PLAN
LANDSCAPE, STREET SIGNAGE
RECORD DRAWINGS

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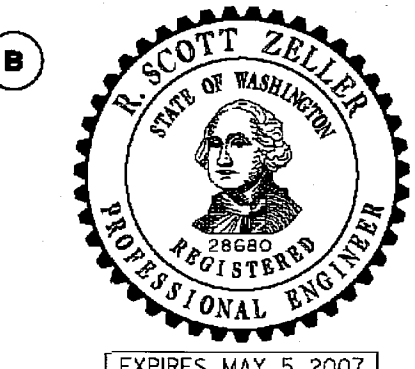
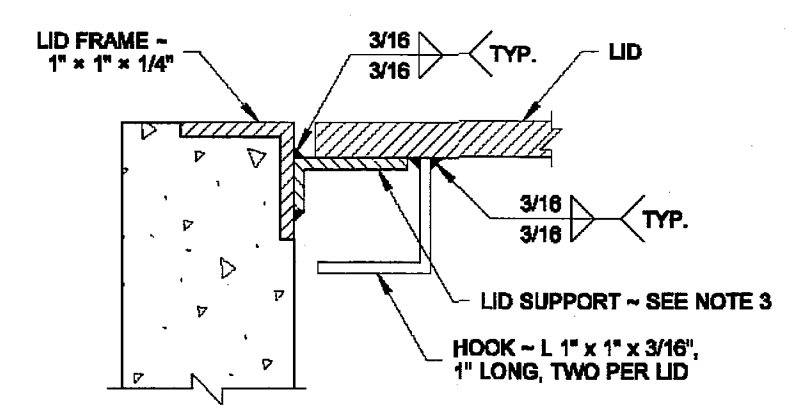
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JUNCTION BOX DIMENSION TABLE		
MARK	ITEM	BOX TYPE
		TYPE 1
A	OUTSIDE LENGTH OF JUNCTION BOX	22"
B	OUTSIDE WIDTH OF JUNCTION BOX	17"
C	INSIDE LENGTH OF JUNCTION BOX	18" - 19"
D	INSIDE WIDTH OF JUNCTION BOX	13" - 14"
E	LID LENGTH	17 5/8"
F	LID WIDTH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



SYSTEM IDENTIFICATION DETAIL	
ITS	INTELLIGENT TRANSPORTATION SYSTEM
COMM	COMMUNICATION SYSTEM
LT	LIGHTING SYSTEM
TS	TRAFFIC SIGNAL SYSTEM
TEL	TELEPHONE SYSTEM



STANDARD JUNCTION BOX
TYPES 1 & 2
STANDARD PLAN J-11a
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
Harold J. Peterfeso 09-02-05
DATE
Washington State Department of Transportation

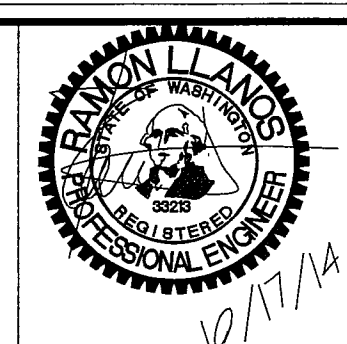
- NOTES
- All box dimensions are approximate. Exact configurations vary among manufacturers.
 - The lid thicknesses are minimum. The diamond pattern shall be 28% minimum of overall thickness.
 - Lid support members shall be 3/16" minimum thick steel C, L, or T shape, welded to the frame.
 - A 1/4-20NC x 3/4" S.S. ground stud shall be welded to the bottom of the lid; include S.S. nut and flat washer.
 - Boils and nuts shall be liberally coated with anti-seize compound.
 - Connect a bonding jumper to steel conduit bushing for GRS conduit; connect to equipment grounding conductor for PVC conduit. Bonding Jumper shall be #8 min. x 4' of tinned braided copper.
 - The System Identification letters shall be 1/8" line thickness formed by engraving, stamping, or with a S.S. weld bead. Grind off diamond pattern before forming letters. See System Identification Detail.
 - The Junction Box Type 2 shall be provided with a 12" deep extension when specified in the Contract.
 - See the Standard Specifications for alternative reinforcement and class of concrete.

LARSEN'S CHURCH HILL ESTATES

JOB # 06010

FOR: PRND, LLC

APPROVED
NOV 03 2014
BY
CITY OF FERNDAL

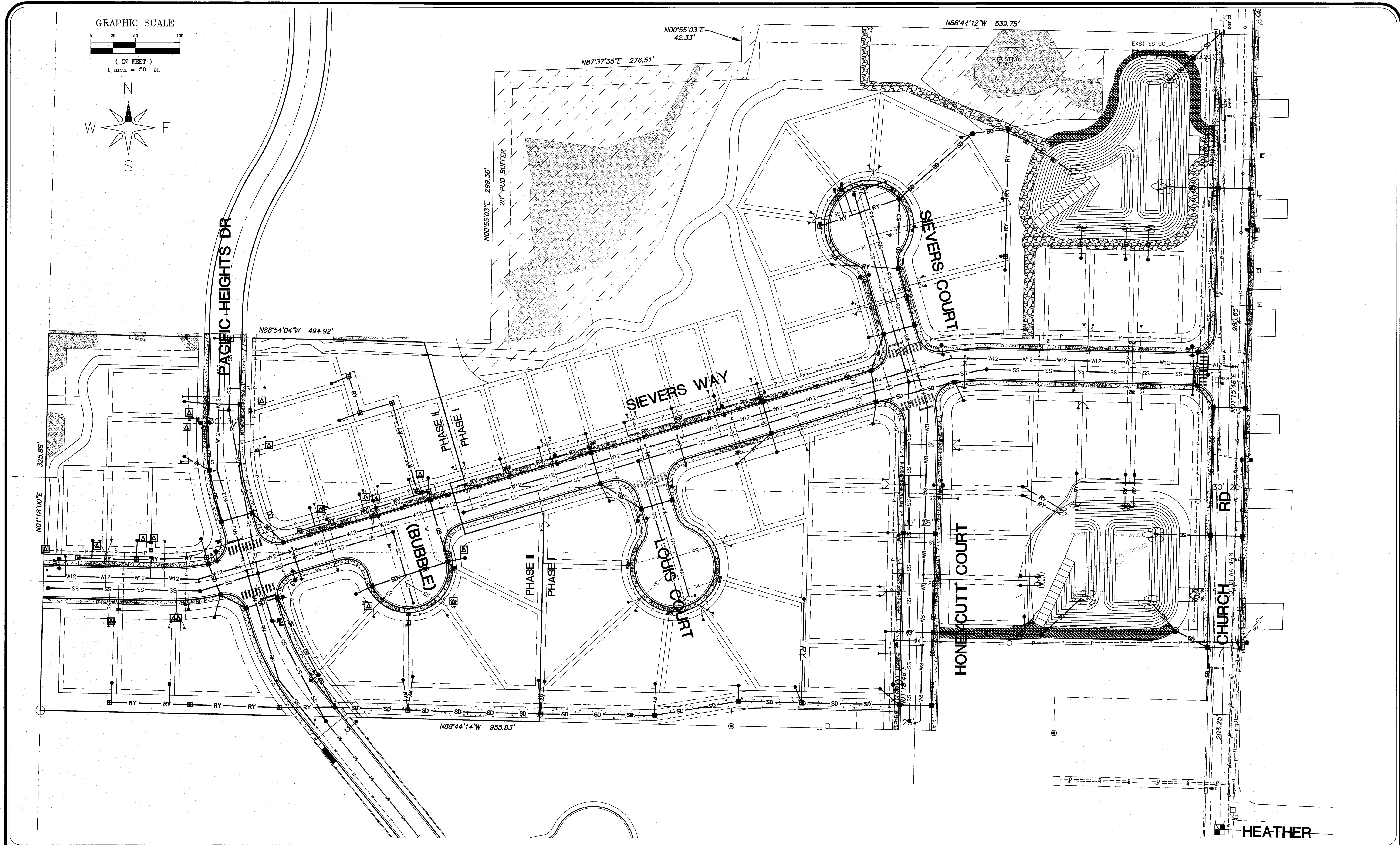


LDES, INC.
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FERNDAL, WA 98248
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LARSEN'S CHURCH HILL ESTATES
COMMON UTILITY DETAILS
DESIGN INFORMATION

SHEET
19
OF
21

00575.020 11/14/14 64



JOB # 06010	FOR: PRND, LLC	APPROVED NOV 03 2014 BY: [Signature] CITY OF FERDALE			LDES, INC. 5160 INDUSTRIAL PL #108 FERDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	LARSEN'S CHURCH HILL ESTATES COMPOSITE PLAN RECORD DRAWINGS	REVISIONS - INITIALS/DATE/CMS	SHEET 20 OF 21
							SR 10/17/14	

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GENERAL REQUIREMENTS

- ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. WORK AND MATERIALS SHALL ALSO CONFORM TO THE CITY OF FERDALE DEVELOPMENT STANDARDS. IN CASE OF A CONFLICT BETWEEN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
- 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.
- THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERDALE AND WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN PUBLIC RIGHTS-OF-WAY.
- THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERDALE PUBLIC WORKS DEPARTMENT AND THE PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERDALE. REPRESENTATIVES FROM THE CITY OF FERDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOWS:
 - PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.
 - 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 FERDALE.
 - 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 FERDALE.
 - 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.
 - OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.
 - END OF MAINTENANCE PERIOD.
- 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.
- 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 APPLY.
- A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERDALE 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 FERDALE PUBLIC WORKS DEPARTMENT.
- 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.
- 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.
- 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.
- THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.
- 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 GRADING.
- 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 FERDALE PUBLIC WORKS DIRECTOR. CONTRACTOR SHOULD DETERMINE THESE REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION.
- ALL PORTLAND CEMENT CONCRETE SHALL BE APWA CLASS 3000, PER APWA STANDARD SPECIFICATIONS, SECTION 6-02.3(2)B.
- UNDERGROUND UTILITIES CONSTRUCTION
 - 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 LINES), 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.
 - THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:
 - NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.
 - WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF DITCHES.
 - TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT PONDS.
 - WHERE PRACTICAL, INSTALL GRAVITY PIPE UTILITIES PRIOR TO INSTALLATION OF OTHER UTILITIES.
 - UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FERDALE DEVELOPMENT STANDARDS.
 - TESTING OF NEW WATER LINES, SANITARY SEWER LINES, AND STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.

ROAD

- 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 MONUMENTS	TYPICAL SECTION ON SHEET 12, 17 OF THESE PLANS CITY OF FERDALE STANDARD DETAIL (COFSD) R-9 COFSD R-12 WSDOT STD. DETAIL F-3 COFSD ST-15 COFSD S-2
--	--
- ALTERNATE PAVEMENT SECTIONS, WHEN DESIGNED BY A LICENSED GEOTECHNICAL ENGINEER, MAY BE SUBMITTED TO THE CITY OF FERDALE PUBLIC WORKS DIRECTOR FOR CONSIDERATION AND, IF APPROVED, USED IN PLACE OF THE PAVEMENT SECTION SHOWN ON THESE PLANS.
- EARTHWORK
 - THE CONTRACTOR SHALL CLEAR, GRUB AND CLEAN UP THOSE AREAS SHOWN ON THE PLANS.
 - 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.
 - THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UNCOMPACTED OR POORLY COMPACTED FILL SOILS WITHIN THE ROAD PRISM AT THE DIRECTION OF THE ENGINEER.
 - THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.
 - MAXIMUM DENSITY AND OPTIMUM MOISTURE FOR GRANULAR MATERIALS WILL BE DETERMINED USING ASTM D-1557 TEST METHOD.
 - UNSATISFACTORY MATERIAL NOT FIT FOR USE AS A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL.
 - THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING.
- BASE COURSES
 - GRAVEL BASES AND BALLAST SHALL NOT HAVE THE PERCENT PASSING THE U.S. NO. 200 SIEVE EXCEED 5%.
 - BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
 - OWNER SHALL BE RESPONSIBLE FOR ALL COMPACTION TESTING. ALL TESTING SHALL BE THROUGH ENG. REV. ACCOUNT AND PAID FOR BY OWNER.
- PAVEMENTS
 - SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.
 - A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.
 - ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. AR-4000W SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT.
 - 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 BONDING.
 - ALL PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD.
- STREET LIGHTING
 - CONTRACTOR SHALL PROVIDE STREET ILLUMINATION IN ACCORDANCE WITH THE PROVISIONS OF SECTION 707 OF THE CITY OF FERDALE 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.
 - FINAL LOCATIONS OF STREET LIGHTS IS TO BE COORDINATED WITH PUGET SOUND ENERGY.
 - CONTRACTOR IS TO COMPLY WITH THE SPECIFICATIONS SHOWN ON WSDOT STANDARD DETAIL J-11A, STANDARD JUNCTION BOX, UNLESS OTHERWISE DIRECTED BY THE CITY OF FERDALE PUBLIC WORKS DIRECTOR.
 - CONTRACTOR MUST INFORM THE CITY OF FERDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR (4) WORKING DAYS IN ADVANCE.
- MAILBOXES
 - MAILBOXES SHALL BE TYPE I, II, AND/OR III - CBU (CENTRAL BOX UNIT), USPS APPROVED. FINAL LOCATION AS DETERMINED BY USPS.
- STORM DRAINAGE
 - THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:

"MAIN LINE" CATCH BASINS "RESIDENTIAL SERVICE LINE" CATCH BASINS THRU-CURB INLET FRAME AND GRATE SIDEWALK DRAINS	TYPE 1, 1L OR 2, WSDOT STD. DETAILS B-1, B-1A OR B-1E CITY OF FERDALE STANDARD DETAIL (COFSD) ST-7 CITY OF FERDALE STANDARD DETAIL (COFSD) ST-8 COFSD ST-15
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 - ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 7-08.3(4). 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.
 - 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 9-03.12.
 - ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".
 - UNLESS OTHERWISE SPECIFIED, CAST IRON PRODUCTS SHALL CONFORM TO ASTM DESIGNATION "A 48 CLASS 30" AND DUCTILE IRO. PRODUCTS TO ASTM DESIGNATION "A 536 GRADE 80-55-06".
 - ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS.
 - ALL 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.
 - MULTIPLE RESIDENTIAL STORM DRAIN SERVICES SHALL BE 6" 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.
 - ALL STORM STUB INVERT ELEVATIONS SHALL BE CONSTRUCTED TO FACILITATE POSITIVE FLOW TO CATCH BASIN.
 - EACH DRAINAGE SERVICE STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIAMETER WHITE PVC PIPE (MIN. SHED. 40) WITH THE TOP 18" STENCILED WITH THE WORD "STORM" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

SANITARY SEWER

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

PIPE BEDDING TRENCH BACKFILL SS MANHOLE, TYPE 1-48" SSMH RING & COVER, TYPE 2 SS CLEANOUTS SIDE SEWERS	CITY OF FERDALE STANDARD DETAIL (COFSD) SS-1 COFSD SS-15 & SS-1 & WSDOT STD. SPEC. SEC. 9-03.12 COFSD SS-2 COFSD SS-9 (BOLT DOWN/WATERTIGHT) COFSD SS-5 COFSD SS-6, SS-8 & SS-13
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 - ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH A.P.W.A. STANDARD SPECIFICATIONS, 1996 EDITION, AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERDALE.
 - ALL WORK MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERDALE. 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 FERDALE REPRESENTATIVE.
 - 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.
 - 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.
 - ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERDALE SS-2, SS-3 OR SS-4, AND SHALL BE PRE-CHANNELED. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.
 - ALL SIDE SEWERS SHALL BE INSTALLED PER CITY OF FERDALE STANDARD DETAILS SS-6, SS-8 OR SS-13, EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".
 - CONTRACTOR SHALL EXTEND SEWER STUBS BEYOND THE STREET RIGHT-OF-WAY LINE.
 - 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.
- WATER
- THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:

TRENCH BACKFILL AIR/VACUUM RELEASE VALVE BLOW-OFF ASSEMBLY FIRE HYDRANT ASSEMBLY THRUST BLOCKING WATER SERVICE	COFSD W-11 & WSDOT STD. SPEC. SEC. 9-03.12 WSDOT STD. DETAIL B21-a COFSD W-9 & W-10 COFSD W-1 COFSD W-2, W-3 & W-4 COFSD W-5
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 - 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 FERDALE 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.
 - CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERDALE 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.
 - CONNECTIONS TO EXISTING WATER MAINS - PER WSDOT STD SPEC. 7-09.3(19), THE CONTRACTOR MUST NOTIFY THE CITY OF FERDALE 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.
 - ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTIONS 7-09.3(23) AND 7-09.3(24) AND OF THE WSDOT STD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION - CURRENT EDITION. HYDROSTATIC TEST PRESSURE SHALL BE 225 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERDALE REQUIREMENTS. ALL DISINFECTION AND BACTERIOLOGICAL TESTS SHALL BE CONDUCTED BY THE CITY OF FERDALE LABORATORY. THE PIPE WILL NOT PASS TESTING UNLESS A ZERO BACTERIAL COUNT IS MEASURED ON TWO CONSECUTIVE TESTS, CONDUCTED 24 HOURS APART.
 - 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.
 - ALL PIPE SHALL HAVE A MINIMUM COVER OF 42".
 - 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 WASHOOK SHUT-OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVE 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.
 - WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF FERDALE DEVELOPMENT STANDARDS. ALL WATER SERVICES SHALL BE MARKED FOR LOCATION WITH A METER BOX PER COFSD W-5.
 - FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COF STANDARD DETAIL W-1 (WSDOT B-19) AND THE FOLLOWING STANDARDS:
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.

CITY OF FERDALE CONSTRUCTION NOTES

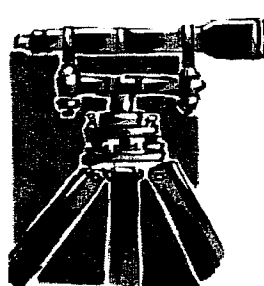
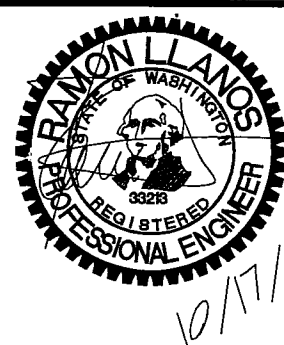
LARSEN'S CHURCH HILL ESTATES

APPROVED

NOV 03 2014

BY

CITY OF FERDALE



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FERDALE, WA 98248
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LARSEN'S CHURCH HILL ESTATES
CITY OF FERDALE GENERAL NOTES
DESIGN INFORMATION

SHEET

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OF 21

JOB # 06010

FOR:

PRND, LLC