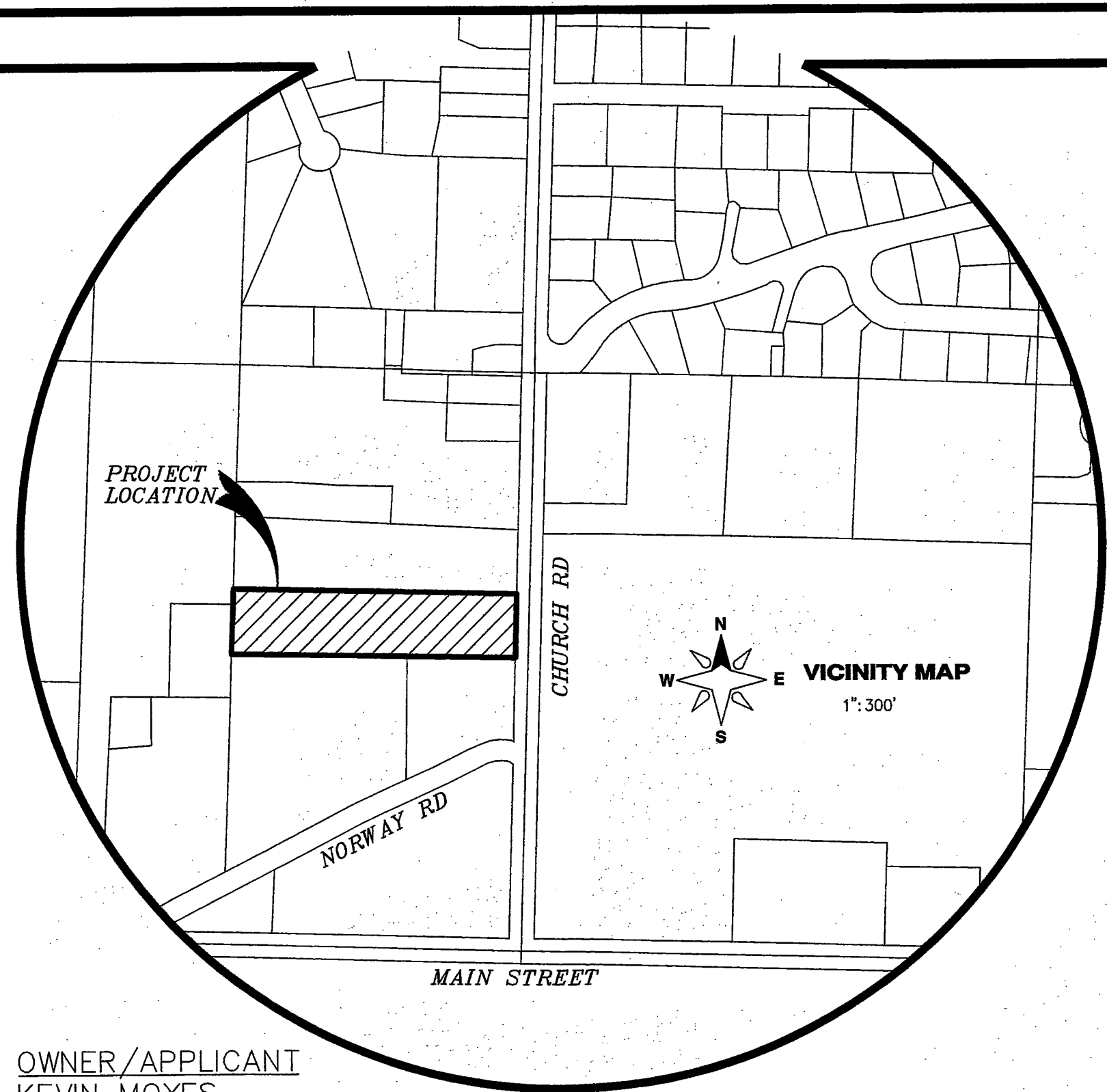


A PORTION OF THE SE 1/4 OF SECTION 24
TOWNSHIP 39 N., RANGE 1 E. OF THE W.M.
CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON

MOYES VIEWPOINT ESTATES

RECORD DRAWINGS

00585.001 11/10/15 stt



OWNER/APPLICANT
KEVIN MOYES
P.O. BOX 1973
FERNDAL, WA 98248
(360)-384-3170

ENGINEER
LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
CONTACT: RAMON LLANOS, P.E.
(360) 383-0620

SURVEYOR
LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
CONTACT: KYLE HAGGITH, PLS.
(360) 383-0620

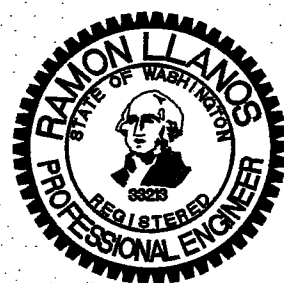
LEGAL DESCRIPTION

LOT 2, AS DELINEATED ON "BUCKLAND/MOYES LOT LINE ADJUSTMENT", CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON, AS PER THE MAP THEREOF, RECORDED UNDER WHATCOM COUNTY AUDITOR'S FILE NO. 2140100692

SURVEY NOTE:

1. DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTOR
2. EQUIPMENT USED:
NIKON DT500: 00°01.5" ± 2 PPM, ± 2 MM
3. HORIZONTAL DATUM:
WASHINGTON STATE NORTH ZONE NAD 83/91
4. VERTICAL DATUM:
CITY OF FERNDAL DATUM:
BENCHMARKS: 333 AND 334
5. BASIS OF BEARING: COF BENCHMARKS: 333 AND 334

1. COVER SHEET
2. EXISTING CONDITIONS
3. PRELIMINARY PLAT - PUBLIC EASEMENTS
- 3B. PRELIMINARY PLAT - PRIVATE EASEMENTS
4. TESC PLAN & DETAILS
5. COMPOSITE UTILITY PLAN
6. ROAD & STORM PLAN 1
7. STORM PLAN 2
8. ROAD & STORM DETAILS
9. WATER PLAN
10. SEWER PLAN
11. WATER & SEWER DETAILS
12. COMMON UTILITY
13. COMMON UTILITY DETAILS
14. GENERAL NOTES - COF



ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "MOYES VIEWPOINT ESTATES" HAVE BEEN INSPECTED BY LDES 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.

Ramon Llanos
RAMON LLANOS, P.E.

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

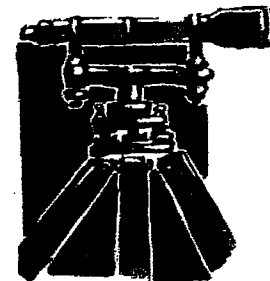
DATE: AUG 25, 2015
Kyle Haggith
KYLE HAGGITH, PLS.



LEGEND:

- = FOUND YPC (ON OR ABOUT 2006)
- = FOUND IRON PIPE (ON OR ABOUT 2006)
- = BOUNDARY MONUMENT
- = FOUND IRON PIPE (#18897) (ON OR ABOUT 2006)
- = FOUND MIC (ON OR ABOUT 2006)
- = SET YPC (PLS 24218, TO BE SET)
- = REBAR/CAP PER BUCKLAND/MOYES LLA AF # 2140100692
- = EXIST SD CATCH BASIN (TYPE 1)
- = EXIST SD CATCH BASIN (TYPE 2)
- = STORM DRAIN SERVICE
- = STORM DRAIN CLEANOUT
- = STORM DRAIN CATCH BASIN
- = EXIST SANITARY SEWER MANHOLE
- = EXIST SANITARY SEWER CLEANOUT
- = EXIST SANITARY SEWER SERVICE
- ▲ = SANITARY SEWER SERVICE
- = SEWER CLEANOUT
- = SEWER MANHOLE
- = EXISTING WATER SERVICE CONNECT
- = EXISTING WATER BLOW-OFF VALVE
- = EXISTING WATER METER BOX
- = EXISTING WATER VALVE
- = EXISTING FIRE HYDRANT
- = EXIST WATER VALVE BOX
- = EXIST POWER/AND OR UTILITY POLE
- = EXIST GUY POLE
- = EXIST GUY WIRE
- = EXIST LIGHT POLE
- = EXIST UTILITY POLE
- = EXIST TV BOX
- = EXIST TELEPHONE PEDESTAL
- = EXIST TELEPHONE MANHOLE
- = EXIST MAIL BOX
- = EXIST SIGN
- = EXIST LANDSCAPING
- = GAS METER
- 10--- = EXIST CONTOUR (INDEX)
- 11--- = EXIST CONTOUR (NORMAL)
- P--- = EXIST FIBER OPTIC LINE
- P--- = EXIST OVERHEAD POWER
- P--- = EXIST UNDERGROUND POWER
- P--- = EXIST OVERHEAD PHONE
- P--- = EXIST UNDERGROUND PHONE
- P--- = EXIST UNDERGROUND TV CABLE
- P--- = EXIST GAS MAIN
- P--- = EXIST WATER LINE
- P--- = EXIST SANITARY SEWER LINE
- P--- = EXIST STORM DRAIN LINE
- P--- = EXIST CHAIN LINK FENCE
- P--- = EXIST BARBED WIRE FENCE
- P--- = EXIST WOOD POST FENCE
- P--- = EXIST CONC. FENCE OR RET. WALL
- P--- = STORM DRAIN LINE
- P--- = SAN. SEWER LINE
- P--- = WATER LINE
- P--- = ROOF DRAIN (4"/6" PVC)
- P--- = UTILITY TRENCH
- P--- = ROAD ASPHALT
- P--- = WATER BLOW-OFF
- P--- = WATER VALVE
- P--- = FIRE HYDRANT
- P--- = BOLLARD
- P--- = WATER METER
- P--- = REDUCER
- P--- = THRUST BLOCK
- P--- = 11.25° BEND (MJ)
- P--- = 45° BEND (MJ)
- P--- = TEE CONNECTION
- P--- = 90° BEND (FL)
- TS 17.20 = SPOT ELEV @ TOP OF SIDEWALK
- TP 17.20 = SPOT ELEV @ TOP OF PAVEMENT
- TC 17.20 = SPOT ELEV @ TOP OF CURB
- FG 17.20 = SPOT ELEV @ TOP OF FINISHED GRADE
- = STORM STRUCTURE BY OTHERS
- = SEWER STRUCTURE BY OTHERS
- = POWER VAULT (BY PSE. SEE PSE PLANS FOR DETAILS)
- [235.25] = DESIGN INFO

△	SUBMITTAL 1	SR	08-14-15
△	SUBMITTAL 2	SR	08-24-15
△			
△			
△			
△			
NO.	REVISION	BY	DATE



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

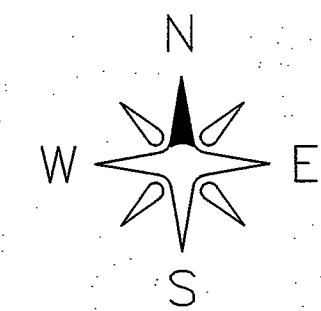
JOB NO.: 6070
DWG. NAME: 6070-AS BUILTS.dwg
DESIGNED BY: RL
DRAWN BY: SR/EH
CHECKED BY: RL

KEVIN MOYES
PO BOX 1973
FERNDAL WA

APPROVED
AUG 25 2015
BY: *[Signature]*
CITY OF FERNDAL

COVER SHEET
RECORD DRAWINGS
MOYES VIEWPOINT ESTATES
CHURCH RD, FERNDAL, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.

SHEET
01
OF
14



GRAPHIC SCALE

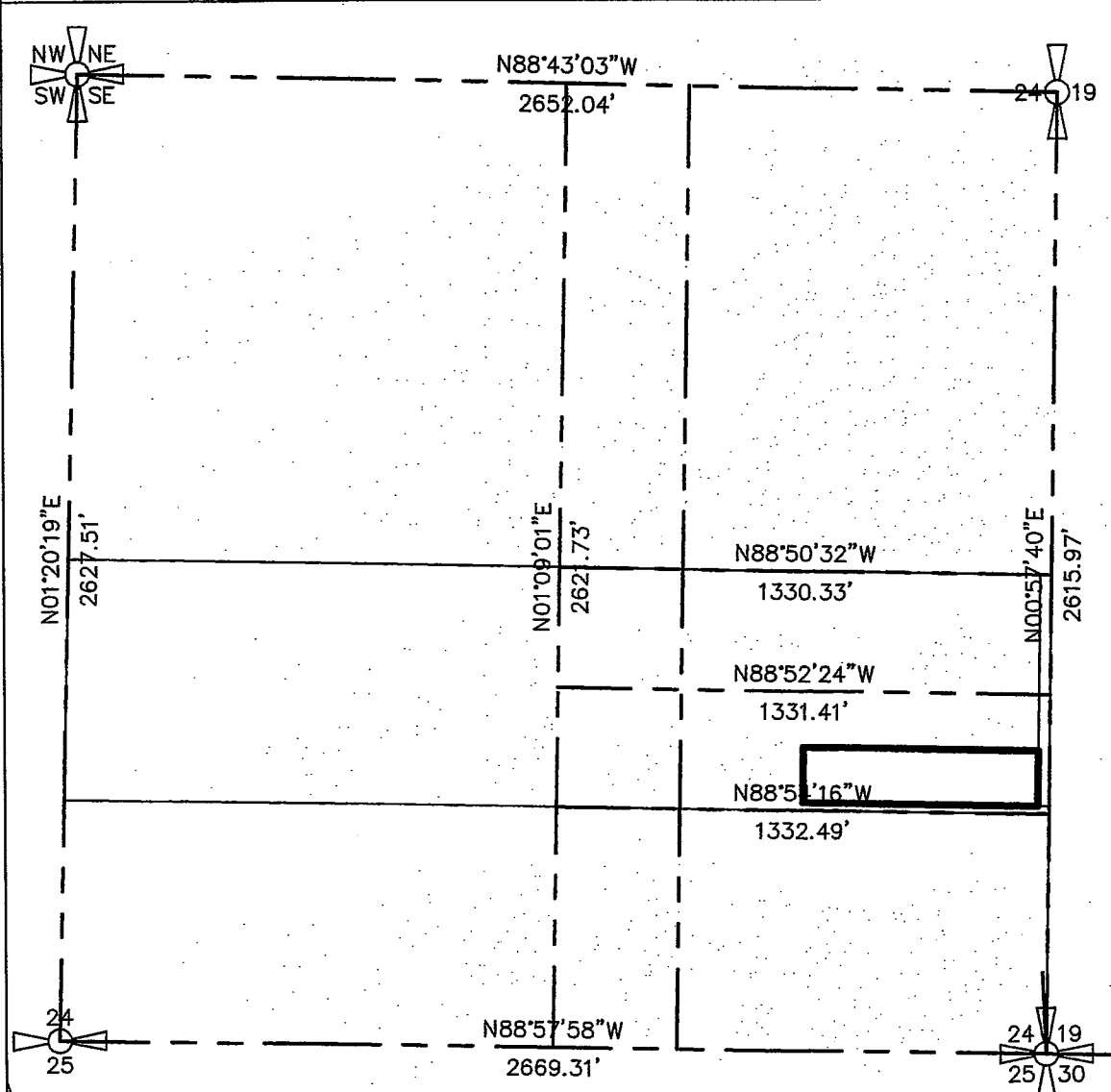


(IN FEET)
1 inch = 30 ft.

LEGEND:

- = FOUND YPC (ON OR ABOUT 2006)
- = FOUND IRON PIPE (ON OR ABOUT 2006)
- = FOUND MONUMENT (ON OR ABOUT 2006)
- = FOUND IRON PIPE (#18897) (ON OR ABOUT 2006)
- = FOUND MIC (ON OR ABOUT 2006)
- = SET YPC (PLS 24218, TO BE SET)
- = REBAR/CAP PER BUCKLAND/MOYES LLA
- = EXIST SD CATCH BASIN (TYPE 1)
- = EXIST SD CATCH BASIN (TYPE 2)

**BREAKDOWN
SE 1/4, SECTION 24,
TOWNSHIP 39 NORTH,
RANGE 1 EAST, W.M.
SCALE 1"=500'**



SURVEY NOTE:

1. DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTOR
2. EQUIPMENT USED: NIKON DT500: 00'01.5" ± 2 PPM, ± 2 MM
3. HORIZONTAL DATUM: WASHINGTON STATE NORTH ZONE NAD 83/91
4. VERTICAL DATUM: CITY OF FERNDALE DATUM; BENCHMARKS: 333 AND 334
5. BASIS OF BEARING: COF BENCHMARKS: 333 AND 334

VERTICAL DATUM

CITY OF FERNDALE DATUM;

BENCHMARKS: 333 AND 334

HORIZONTAL DATUM

WASHINGTON STATE NORTH ZONE NAD 83/91

LEGAL DESCRIPTION

LOT 2, AS DELINEATED ON "BUCKLAND/MOYES LOT LINE ADJUSTMENT", CITY OF FERNDALE, WHATCOMB COUNTY, WASHINGTON, AS PER THE MAP THEREOF, RECORDED UNDER WHATCOMB COUNTY AUDITOR'S FILE NO. 2140100692

NOTE:

CONTOURS SHOWN WITHIN CHURCH ROAD RIGHT-OF-WAY ARE APPROXIMATE, BASED ON REICHHARDT AND EBE DESIGN.

COF 333

MAIN STREET 24 19

COF 334

EXISTING CONDITIONS

RECORD DRAWINGS
MOYES VIEWPOINT ESTATES
CHURCH RD, FERNDAL, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.

SHEET

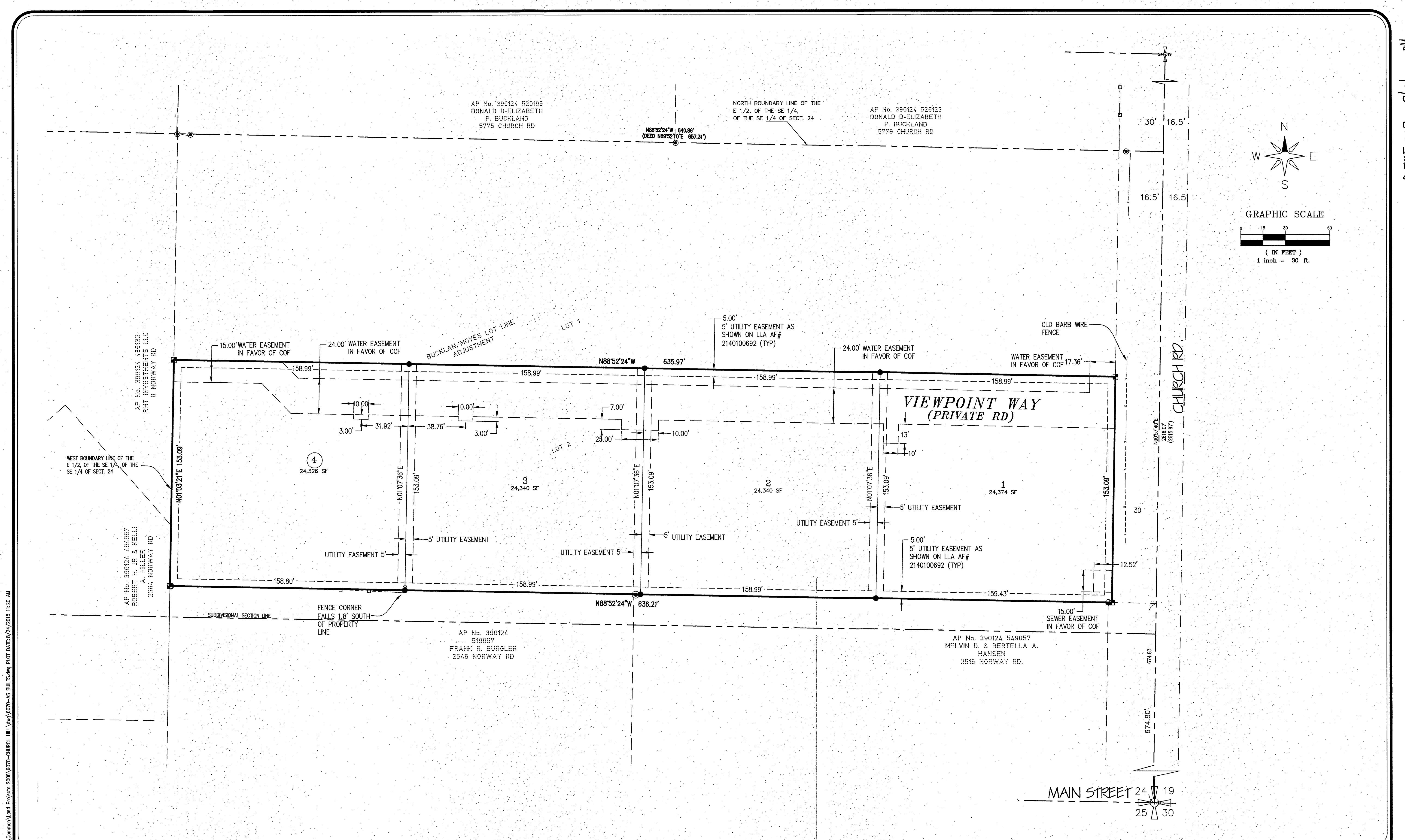
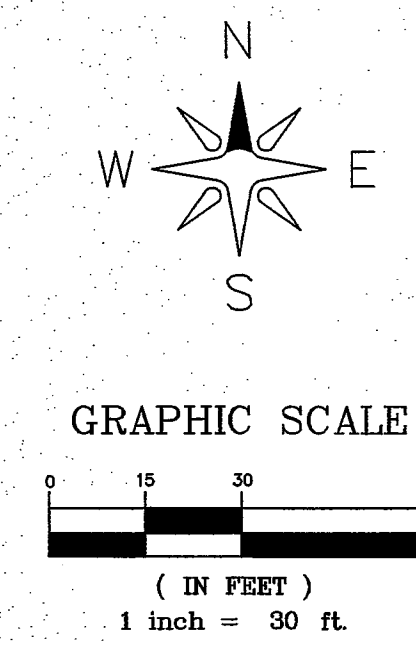
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OF

14

00585.002 9/10/15 st

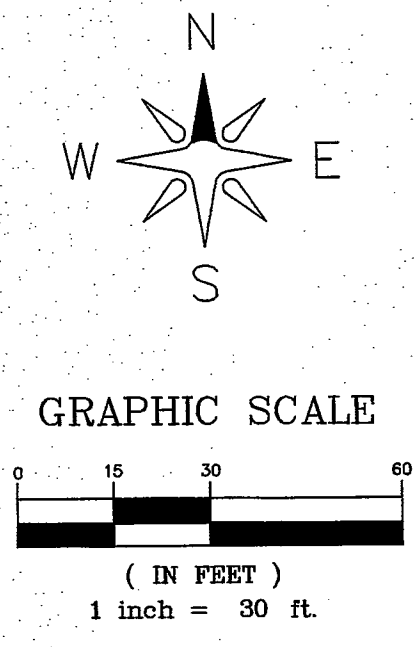
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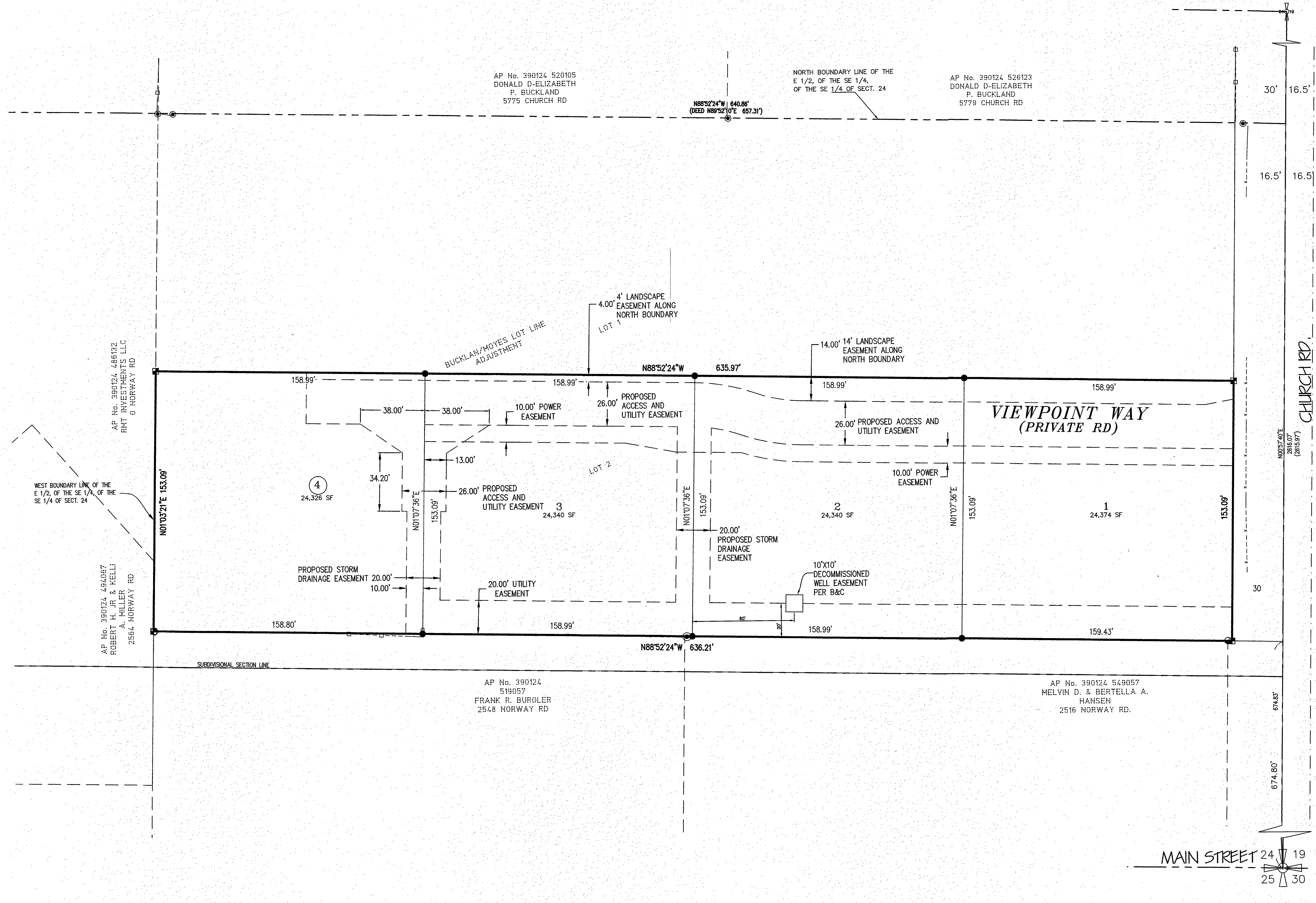
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SUBMITTAL 1 SR 08-14-15		SUBMITTAL 2 SR 08-24-15													
NO.		REVISION		BY		DATE									

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5/10/15
100585.00

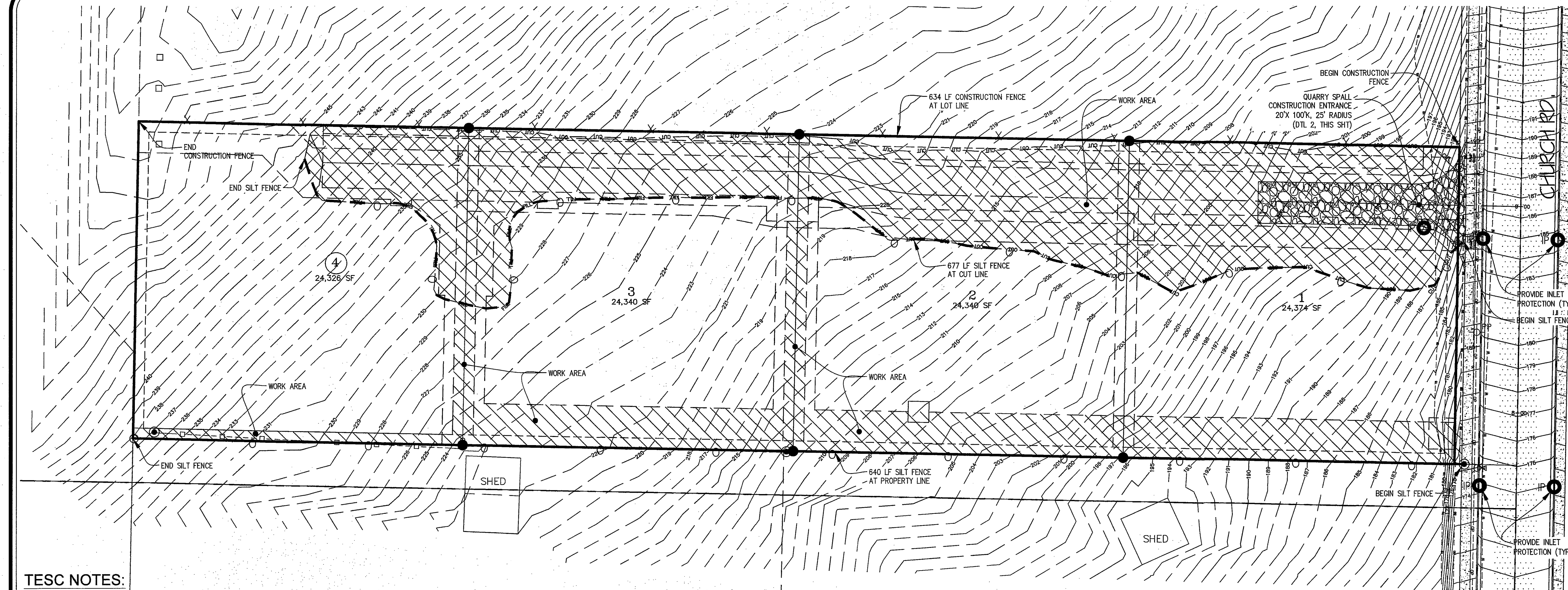


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				LDES, INC. 5160 INDUSTRIAL PL. #108 FERNDAL, WA 98248 PHONE 360-383-0620 FAX 360-383-0639		JOB NO.: 6070 DWG. NAME: 6070-AS-BUILT.dwg DESIGNED BY: RL DRAWN BY: SR CHECKED BY: RL		KEVIN MOYES PO BOX 1973 FERNDAL WA		APPROVED AUG 24/2015 BY:		SUBDIVISION PLAN B PRIVATE EASEMENTS MOYES VIEWPOINT ESTATES CHURCH RD, FERNDAL, WA A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.		SHEET 03B OF 14	
SUBMITTAL 1		SR		08-14-15											
SUBMITTAL 2		SR		08-24-15											
NO.		REVISION		BY		DATE									

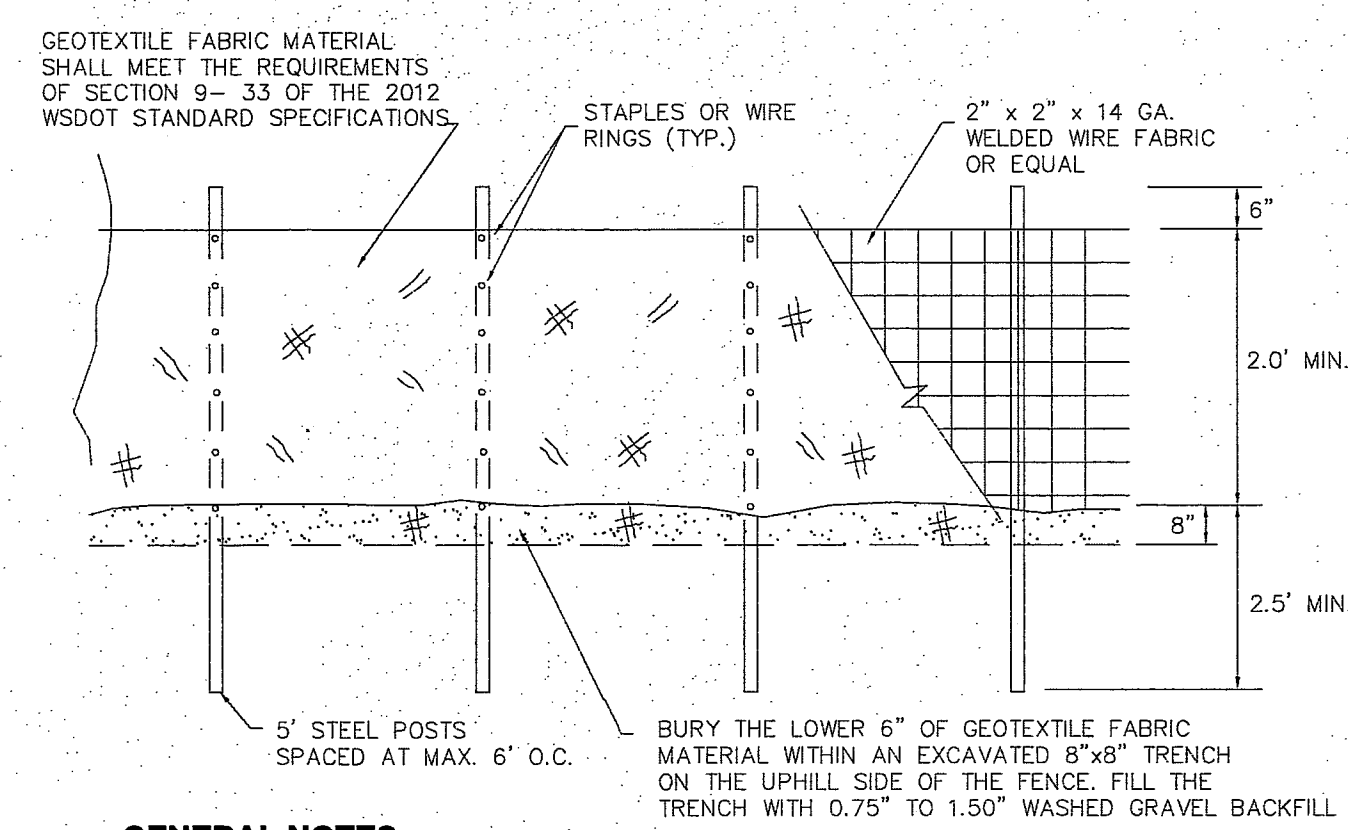


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TESC NOTES:

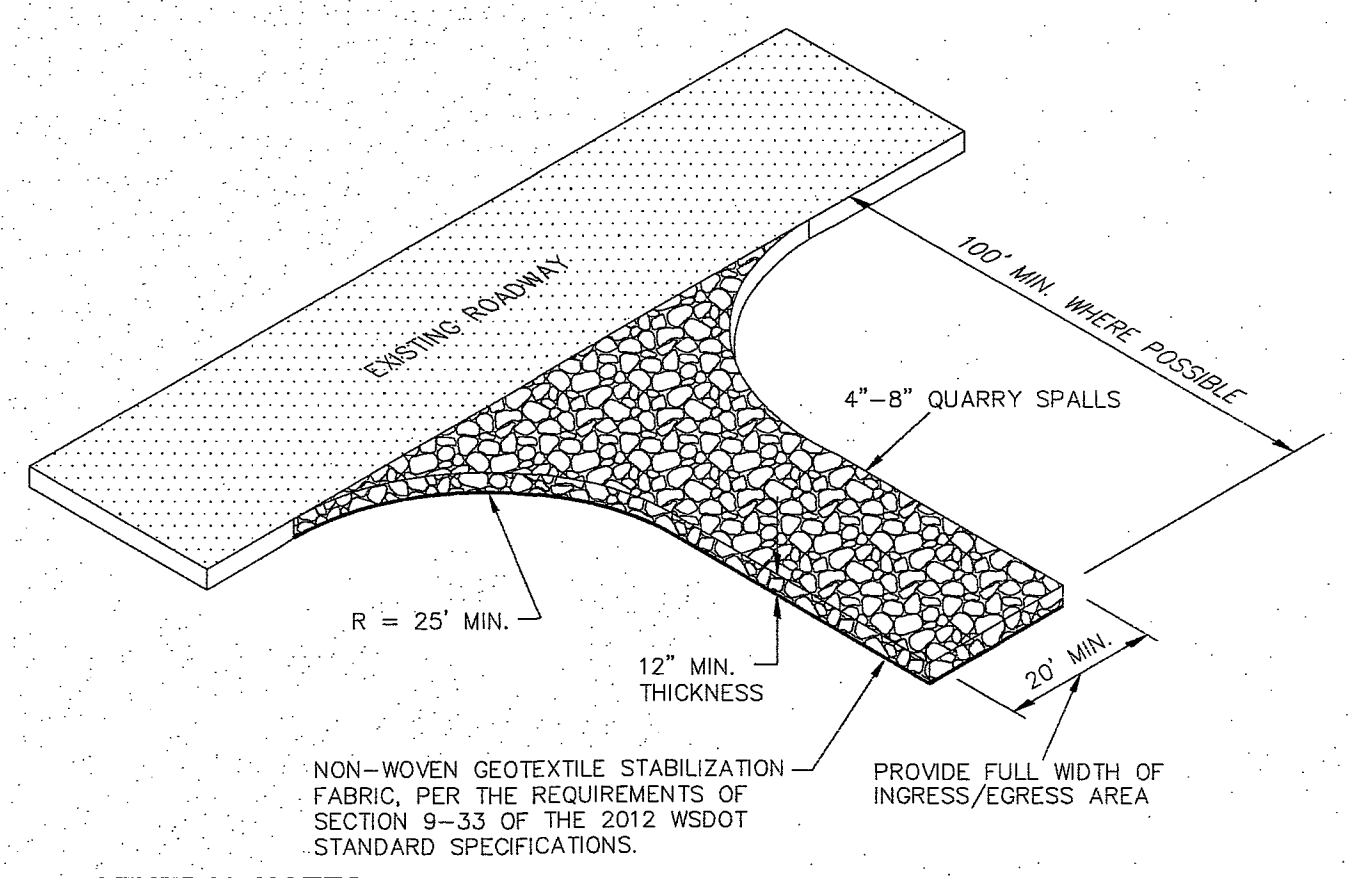
1. STABILIZATION & SEDIMENT TRAPPING. ALL EXPOSED SOILS SHALL BE STABILIZED BY SUITABLE APPLICATION OF BMP'S. FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN UNEXPOSED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED FOR MORE THAN 7 DAYS. PRIOR TO LEAVING THE SITE, STORMWATER 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.
16. FINAL STABILIZATION (SAME AS FULLY STABILIZED OR FULL STABILIZATION) MEANS THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER, OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS RIPRAP, GABIONS OR GEOTEXTILES) WHICH PREVENTS EROSION.



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.

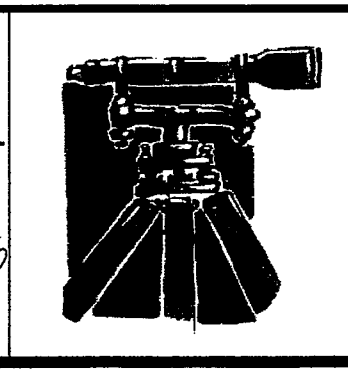
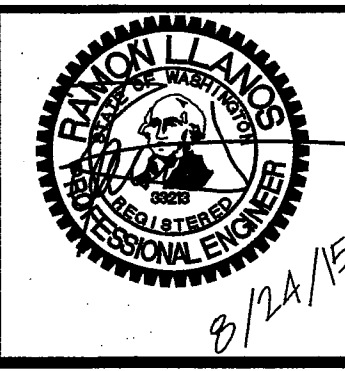
② QUARRY SPALL CONSTRUCTION ENTRANCE DETAIL
not to scale

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

1. EROSION CONTROL METHODS AND MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 8-01 OF THE 2012 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 SWPPP AND THIS PLAN, WITH THE MOST EFFECTIVE REQUIREMENTS TAKING PRECEDENCE.
2. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS FOR ALL MATERIALS AND AND EQUIPMENT USED.
3. 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.
4. THE EXISTING AND PROPOSED STORM SYSTEMS SHALL BE CLEANED AND MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL ALL ON-SITE SOILS HAVE BEEN STABILIZED.
5. 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.
6. FINAL STABILIZATION (SAME AS FULLY STABILIZED OR FULL STABILIZATION) MEANS THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER, OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS RIPRAP, GABIONS OR GEOTEXTILES) WHICH PREVENTS EROSION.

CALL 2 BUSINESS DAYS BEFORE YOU DIG
1-800-424-5555
UTILITIES UNDERGROUND LOCATION CENTER

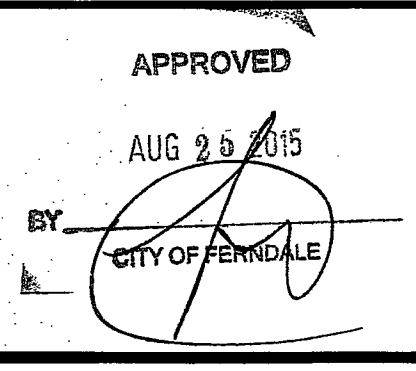
NO.	REVISION	BY	DATE
1	SUBMITTAL 1	SR	08-14-15
2	SUBMITTAL 2	SR	08-24-15
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LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

JOB NO.:	6070
DWG. NAME:	6070-AS BUILTS.dwg
DESIGNED BY:	RL
DRAWN BY:	SR
CHECKED BY:	RL

KEVIN MOYES
PO BOX 1973
FERNDAL WA

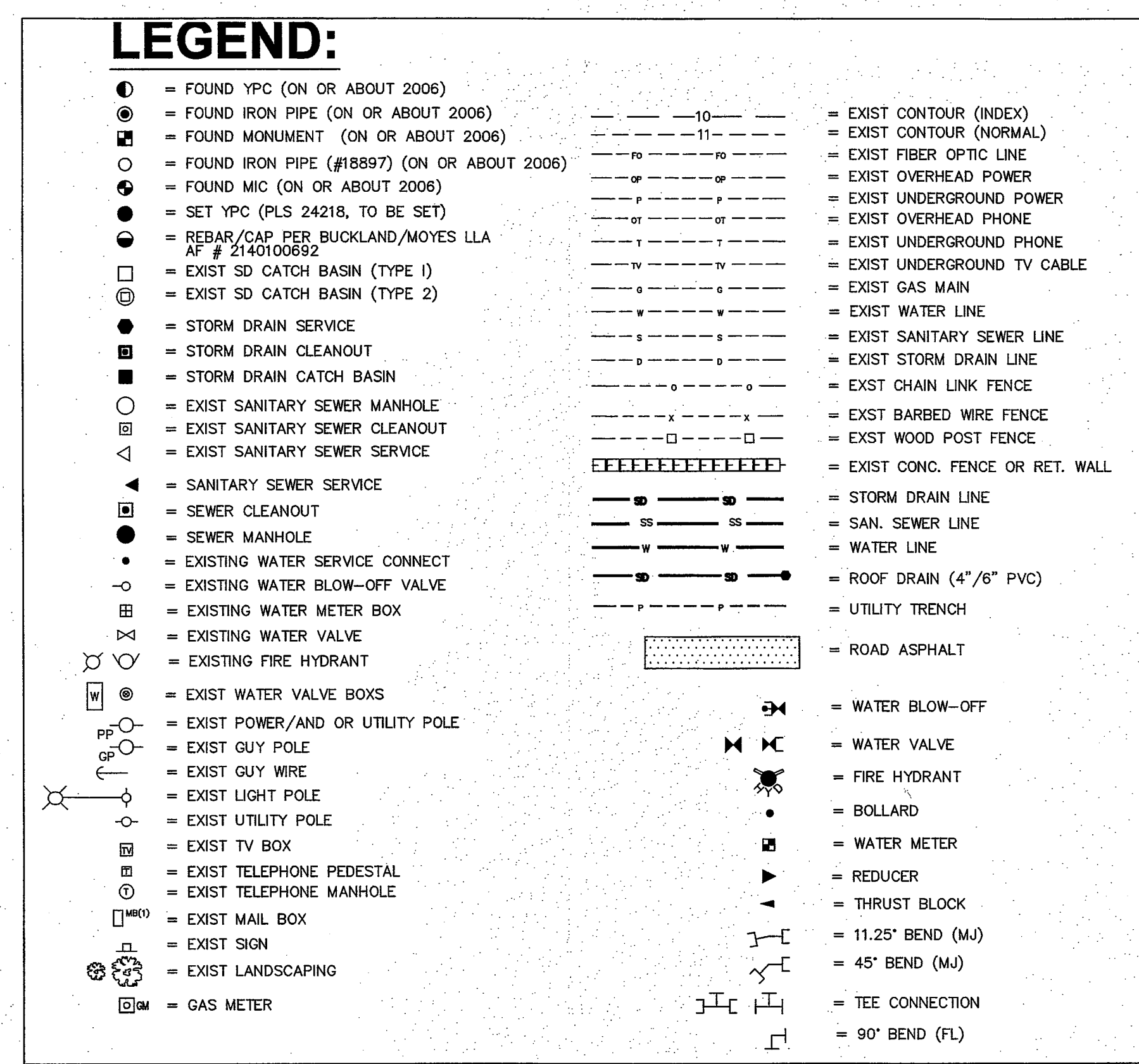
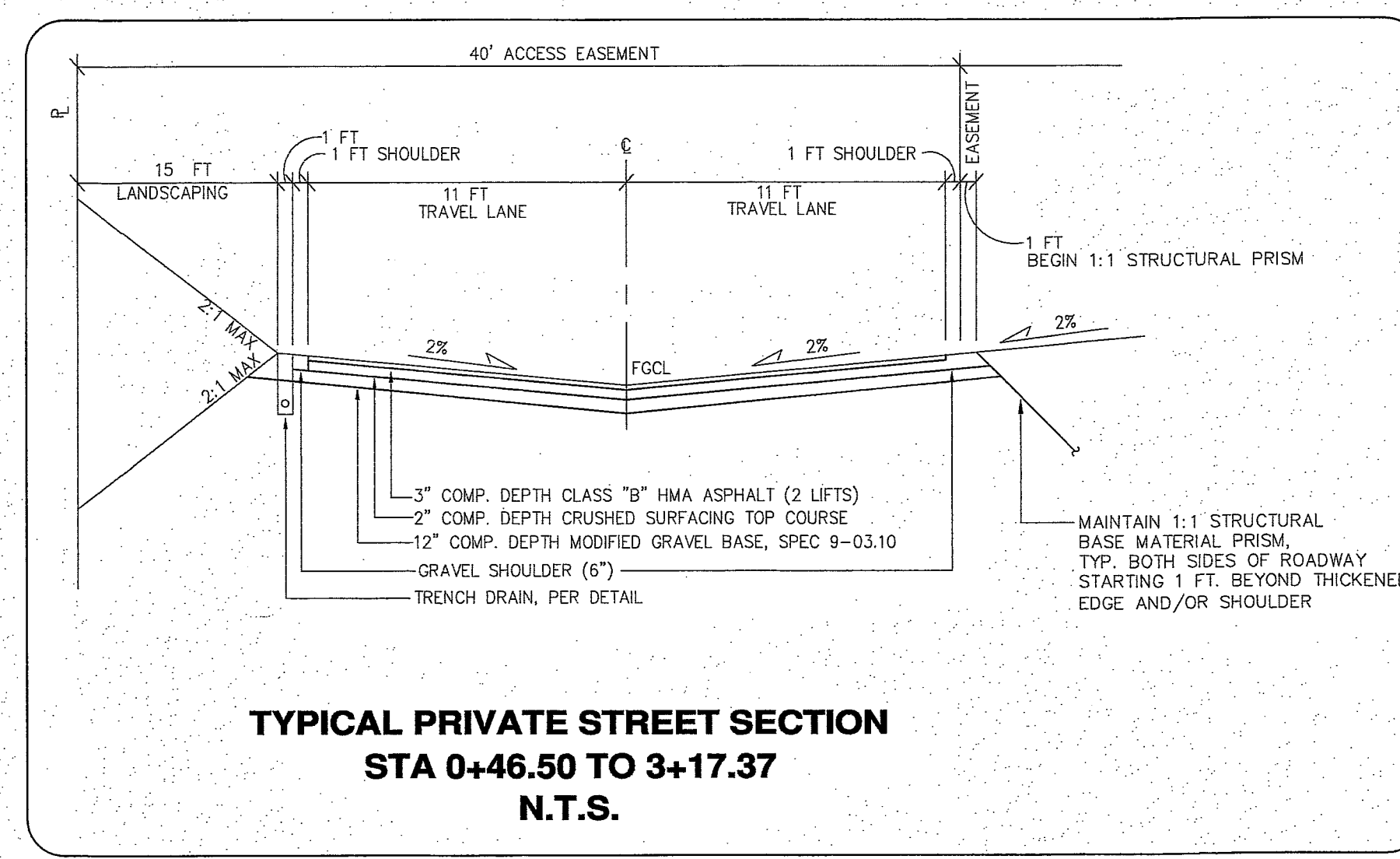
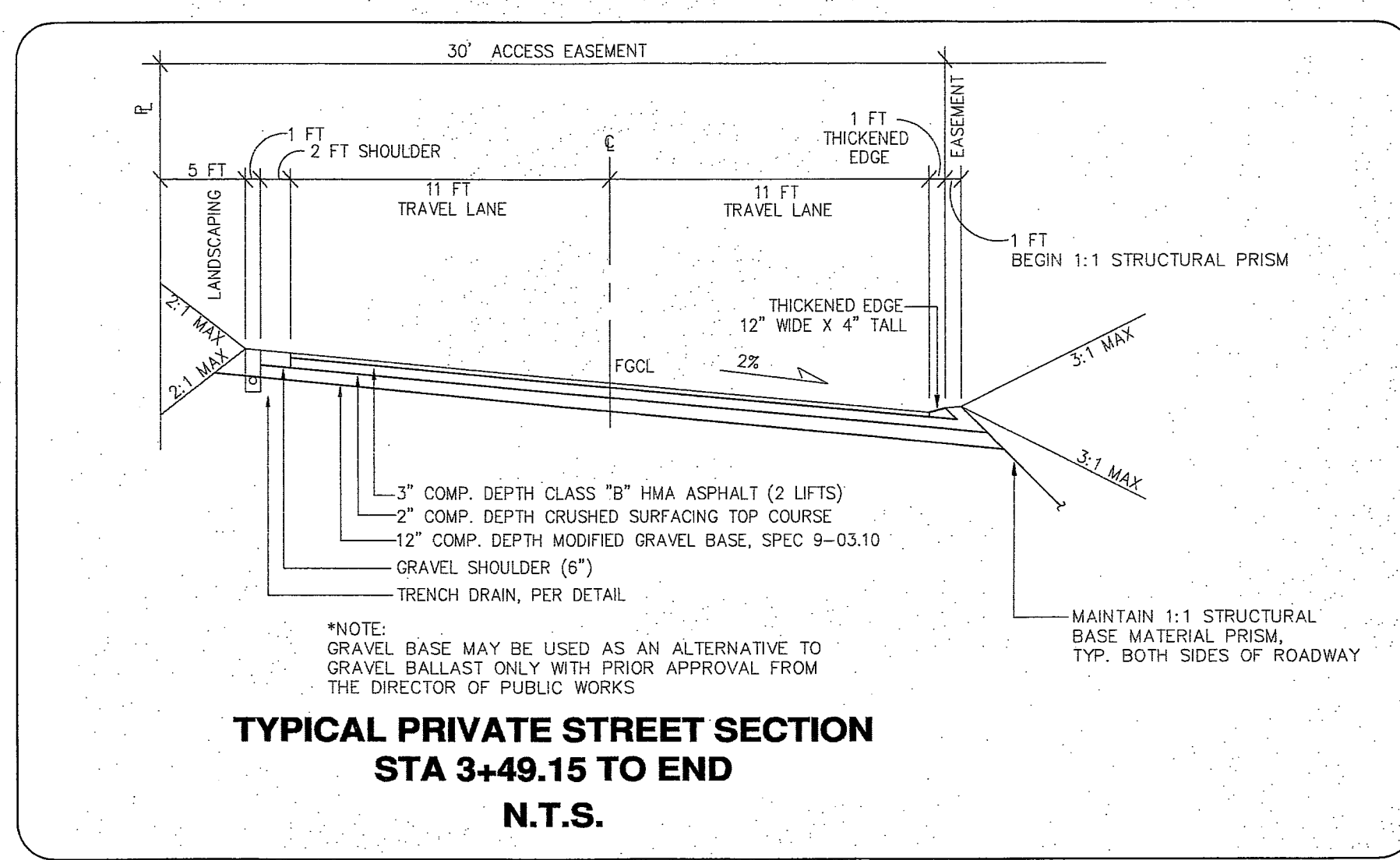
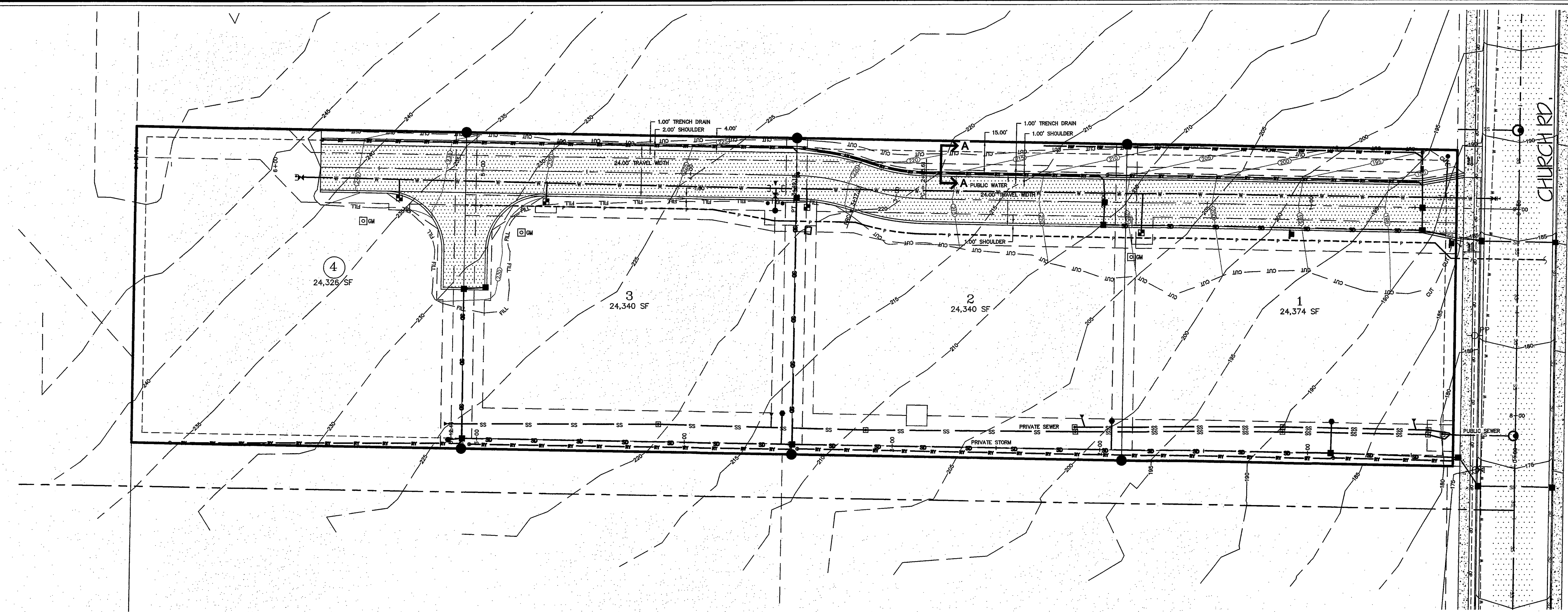
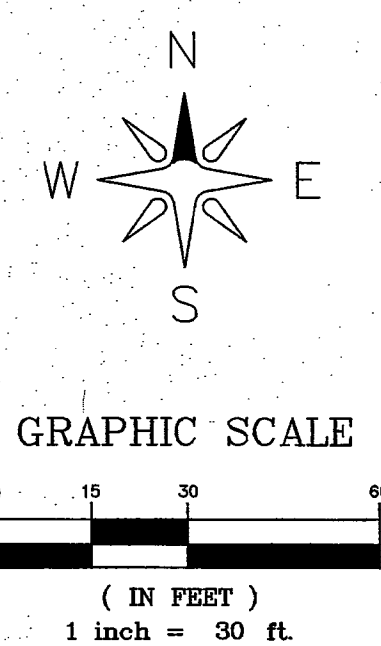


EROSION CONTROL PLAN

MOYES VIEWPOINT ESTATES
CHURCH RD, FERNDAL, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, WM.

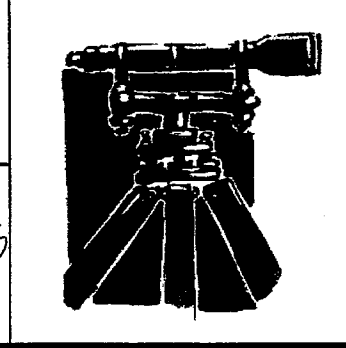
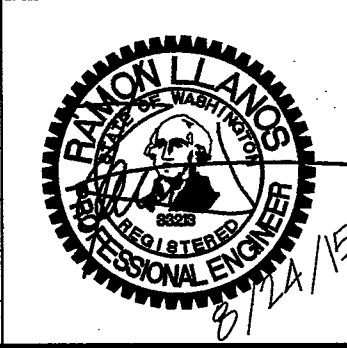
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LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

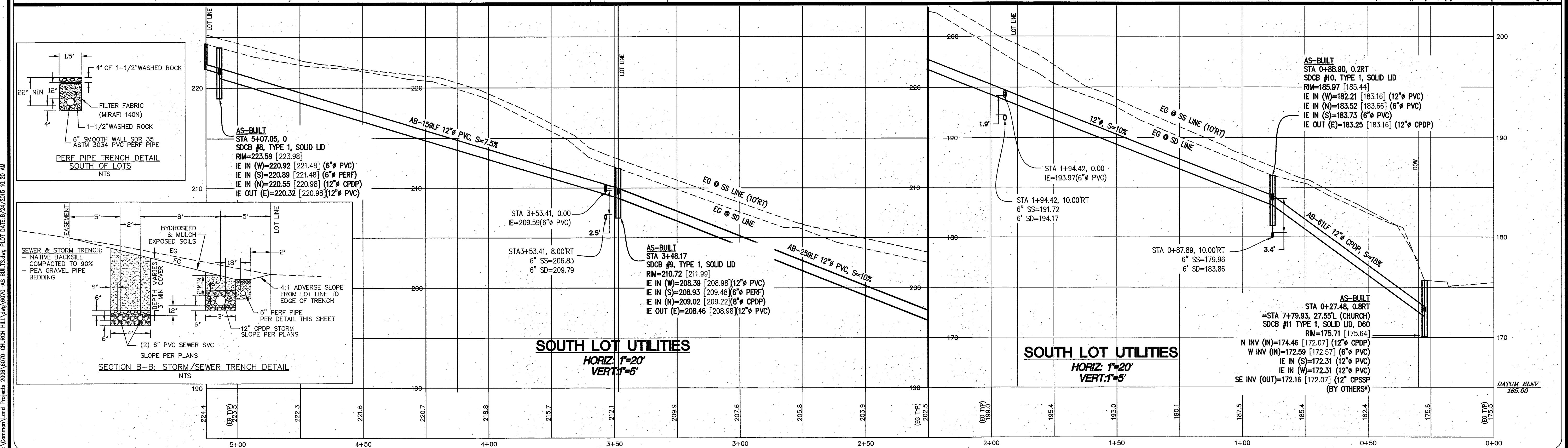
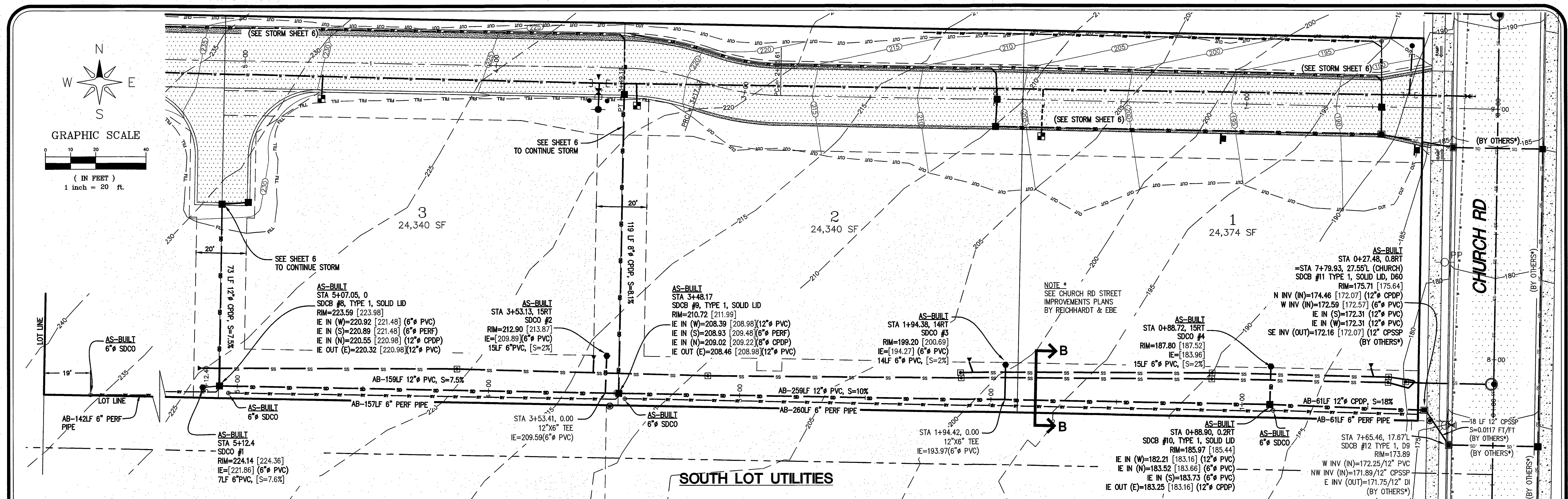
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DWG. NAME: 6070-AS BUILTS.dwg
DESIGNED BY: RL
DRAWN BY: SR
CHECKED BY: RL




KEVIN MOYES
PO BOX 1973
FERNDAL WA

APPROVED
AUG 26 2015
BY: [Signature]
CITY OF FERNDAL

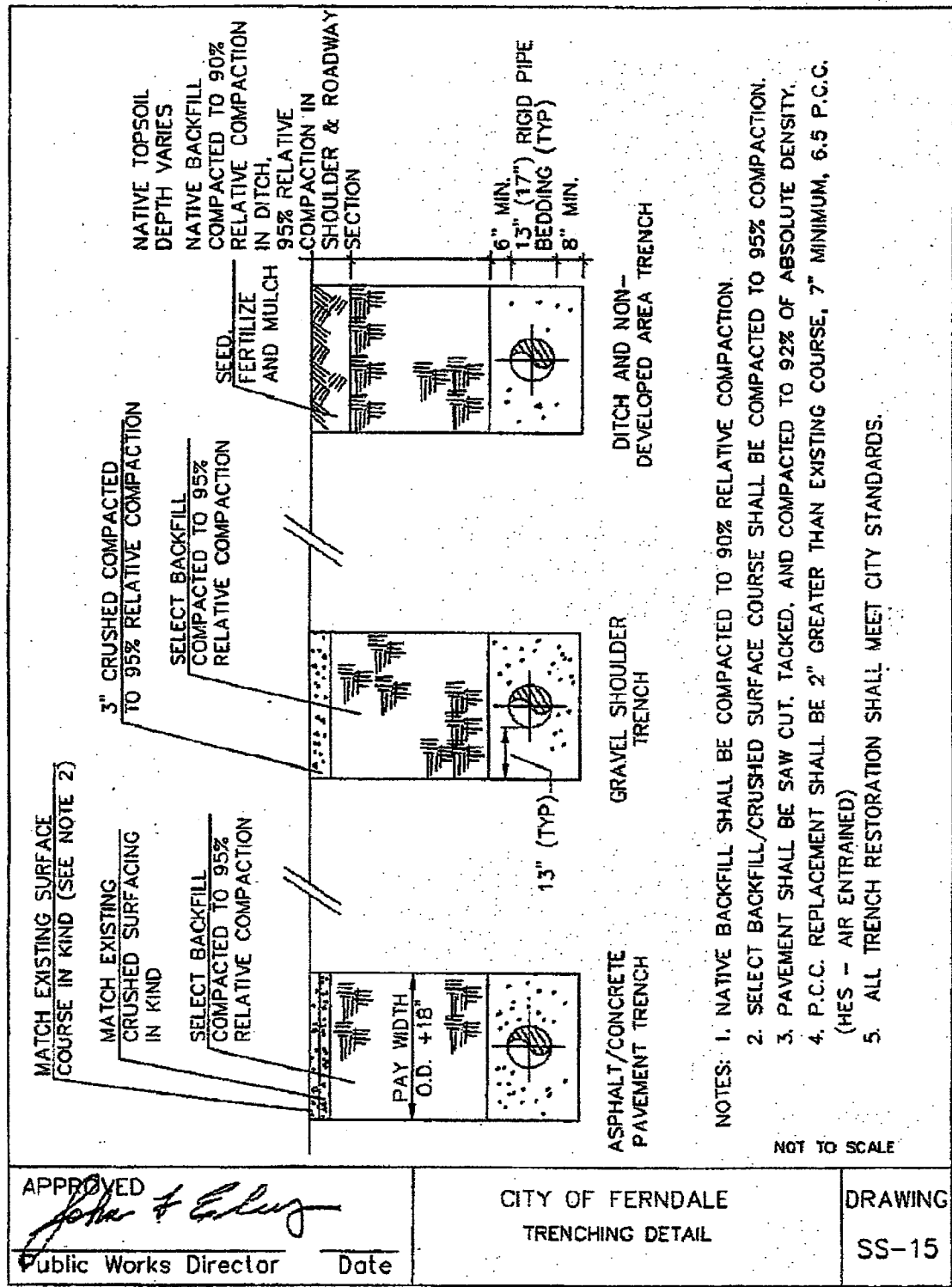
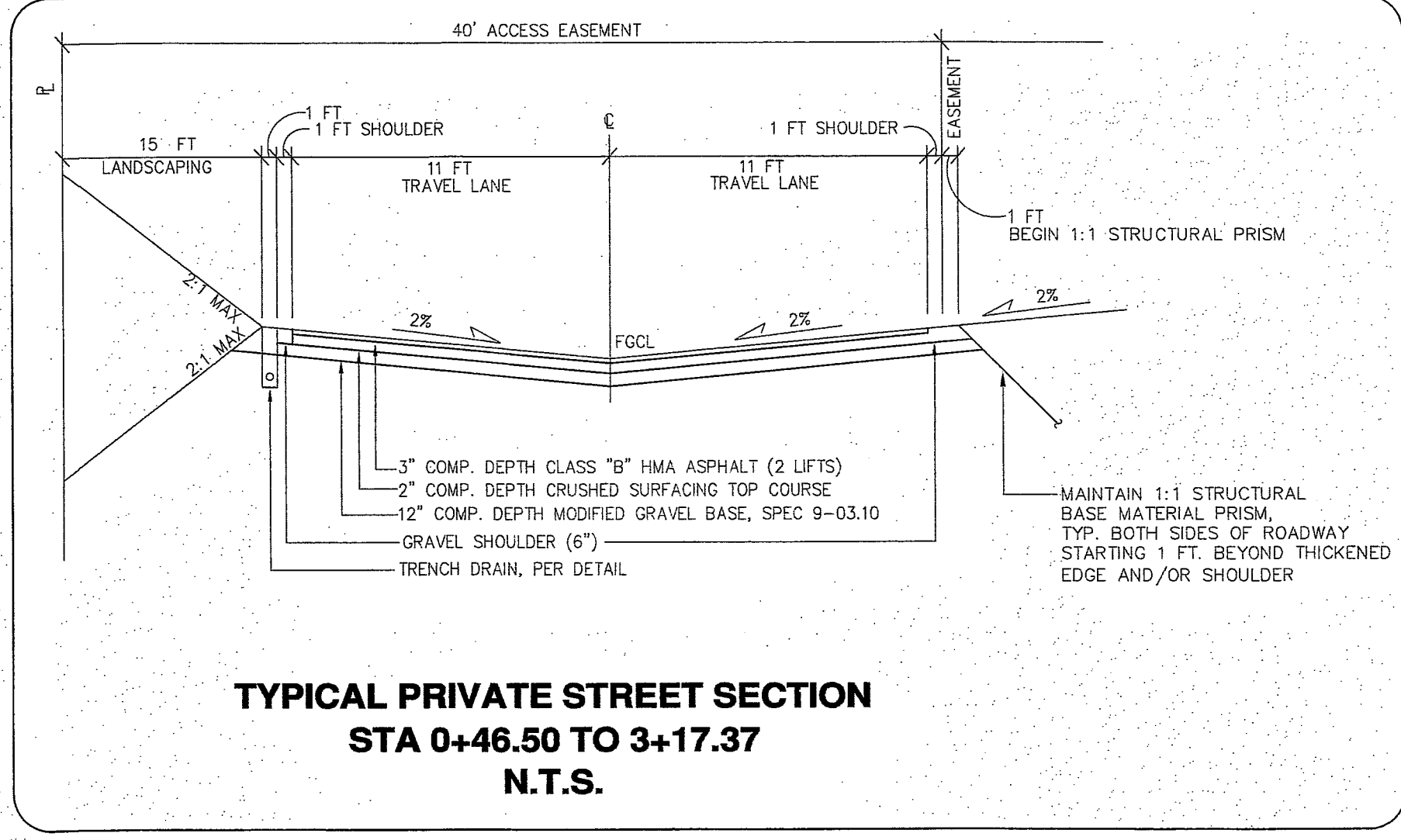
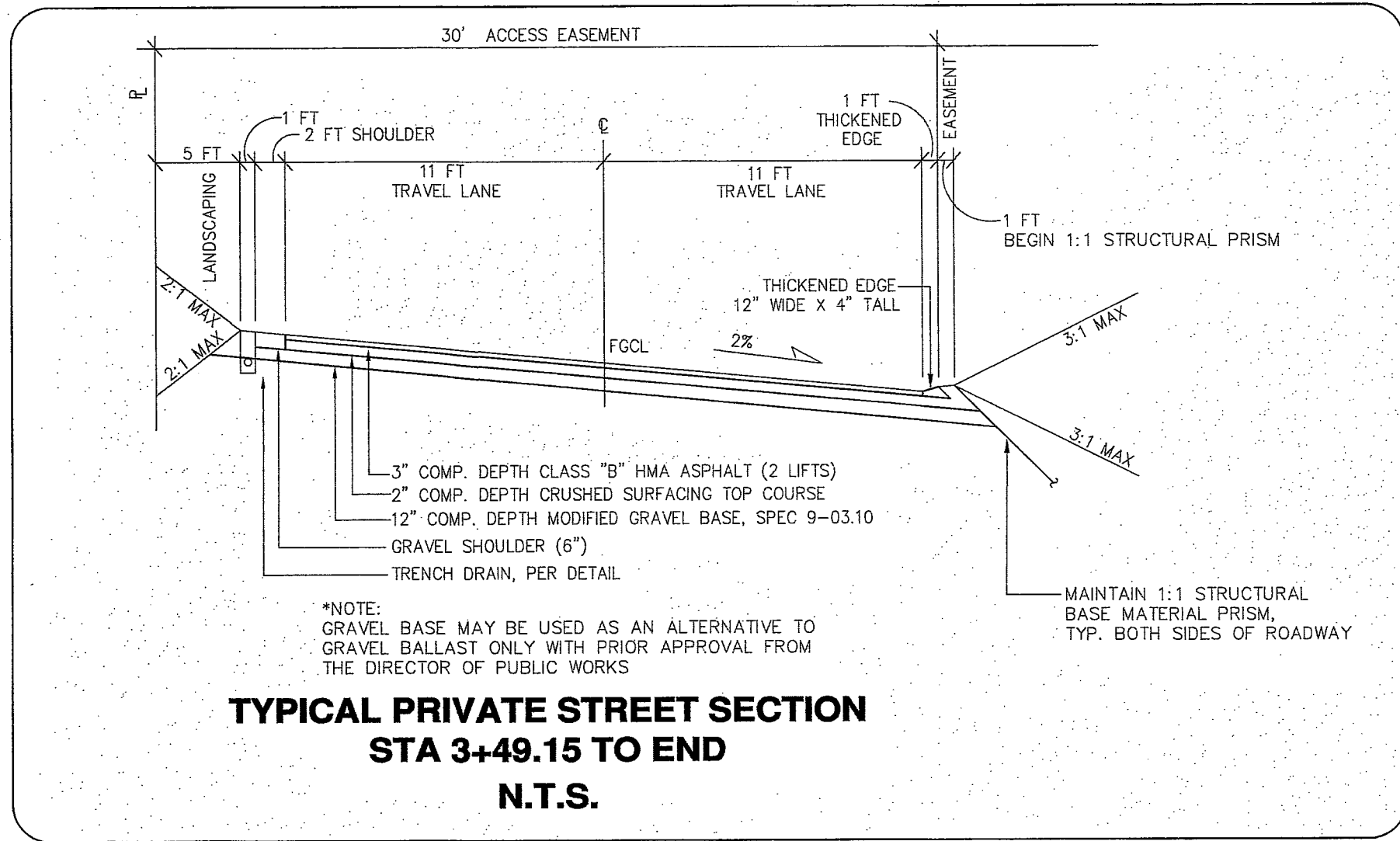
COMPOSITE UTILITY PLAN
RECORD DRAWINGS
MOYES VIEWPOINT ESTATES
CHURCH RD, FERNDAL, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.

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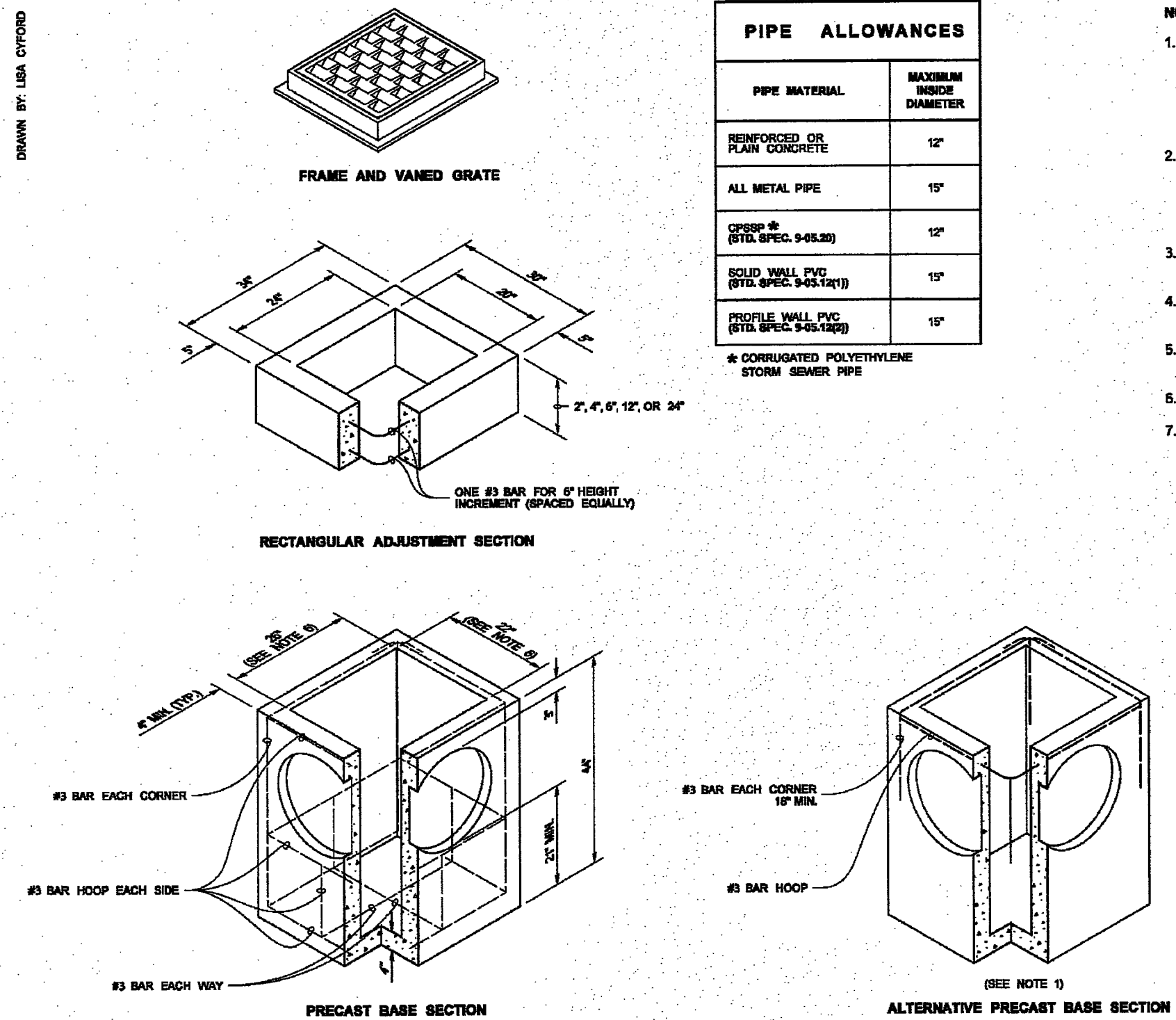


SUBMITTAL 1		SR	08-14-15			LDES, INC. 5160 INDUSTRIAL PL. #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	JOB NO.: 6070 DWG. NAME: 6070-AS BUILTS.dwg DESIGNED BY: RL DRAWN BY: SR CHECKED BY: RL	KEVIN MOYES PO BOX 1973 FERNDALE WA	 APPROVED AUG 23 2015 CITY OF FERNDALE	STORM PLAN 2 SOUTH LOT UTILITIES MOYES VIEWPOINT ESTATES CHURCH RD, FERNDALE, WA A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, WM.	SHEET 07 OF 14
SUBMITTAL 2		SR	08-24-15								
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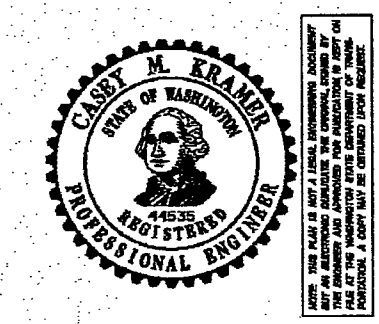
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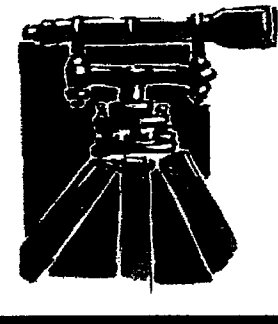
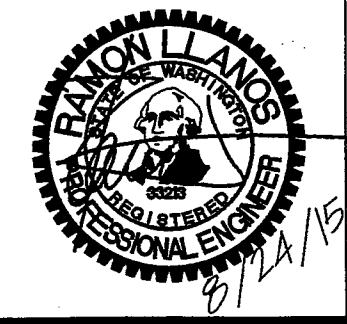


- PIPE ALLOWANCES**
- | PIPE MATERIAL | MAXIMUM INSIDE DIAMETER |
|-------------------------------------|-------------------------|
| REINFORCED OR PLAIN CONCRETE | 12" |
| ALL METAL PIPE | 15" |
| CHURN & RITE (SPECS 9-03.30) | 12" |
| SOLID WALL PVC (SPECS 9-03.14/15) | 15" |
| PROFILE WALL PVC (SPECS 9-03.14/15) | 15" |
- * CORRUGATED POLYETHYLENE STORM SEWER PIPE
- NOTES**
1. As acceptable alternatives to the rebar shown in the PRECAST BASE SECTION, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.
 2. The knockout diameter shall not be greater than 20". Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification 9-04.3.
 3. The maximum depth from the finished grade to the lowest pipe invert shall be 5'.
 4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
 5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1:24 or steeper.
 6. The opening shall be measured at the top of the Precast Base Section.
 7. All pickup holes shall be grouted full after the basin has been placed.



CATCH BASIN TYPE 1
STANDARD PLAN S-5.20-01
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
Pasco Bakerich III 06-16-11
Washington State Department of Transportation

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LDES, INC.
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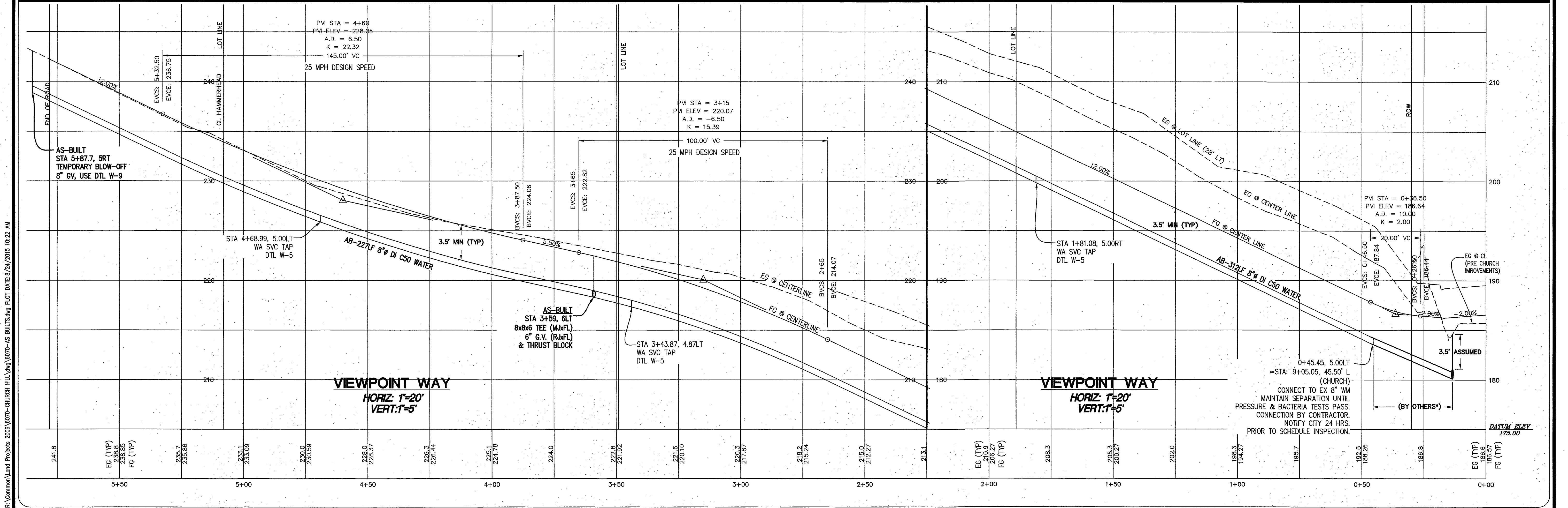
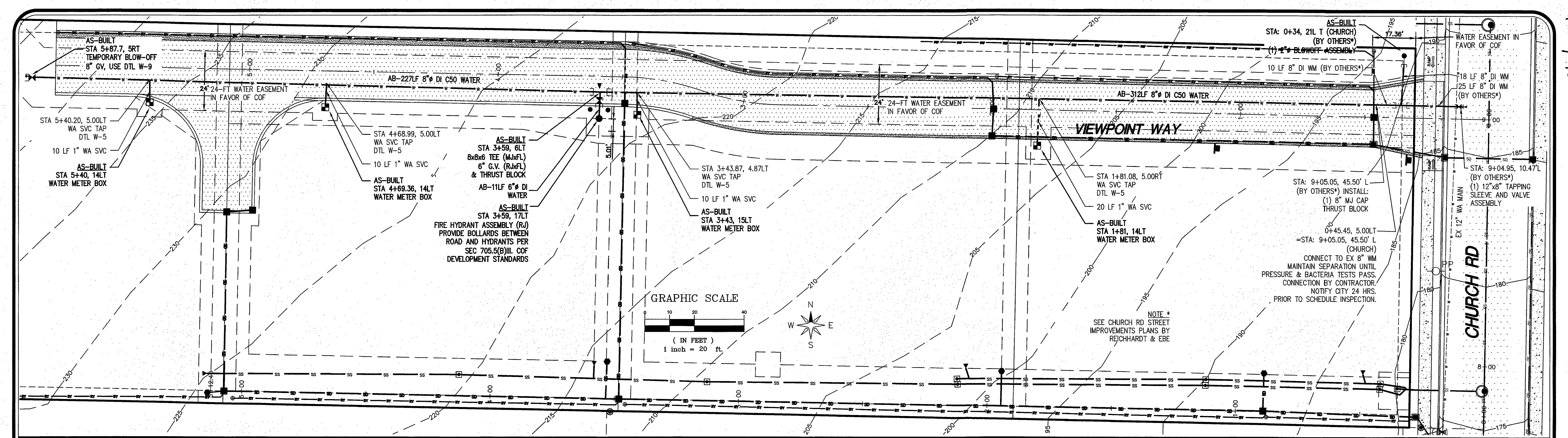
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DWG. NAME:	6070-AS BUILTS.dwg
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DRAWN BY:	SR
CHECKED BY:	RL

KEVIN MOYES
PO BOX 1973
FERNDAL, WA

APPROVED
AUG 25 2015
BY
CITY OF FERNDAL

ROAD & DRAINAGE
TYPICAL DETAILS
MOYES VIEWPOINT ESTATES
CHURCH RD, FERNDAL, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.

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LDES, INC.
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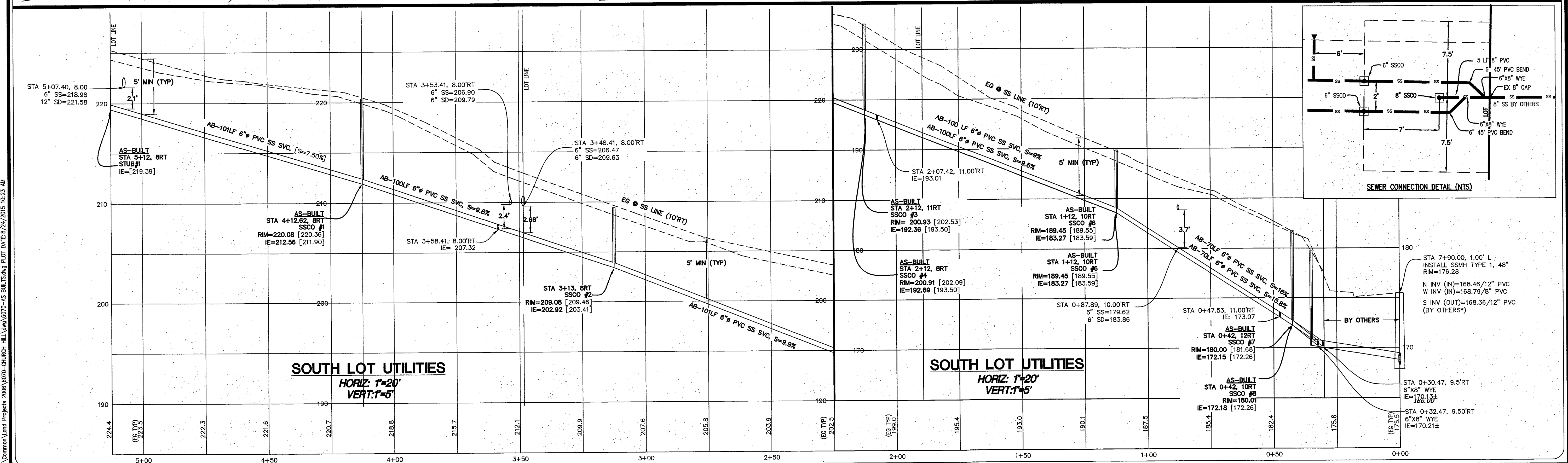
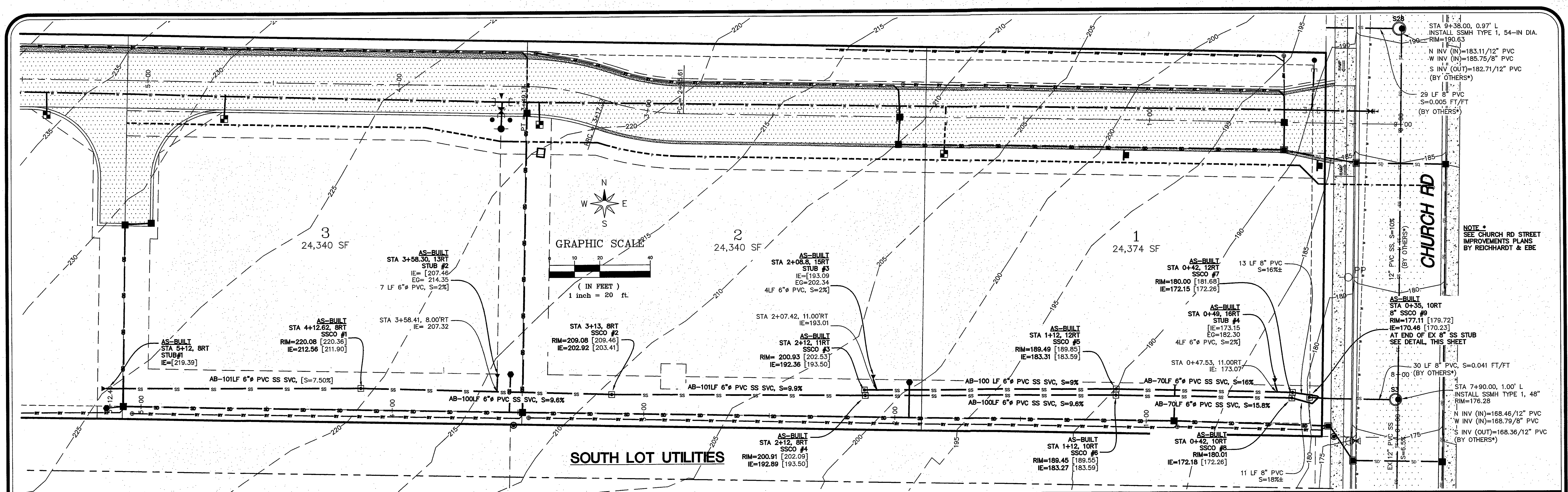
KEVIN MOYES
PO BOX 1973
FERNDALE WA

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AUG 25/2015
BY: CITY OF FERNDALE

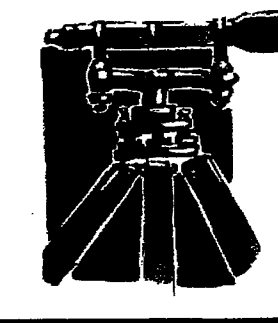
WATER PLAN
VIEWPOINT WAY
MOYES VIEWPOINT ESTATES
CHURCH RD, FERNDALE, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.

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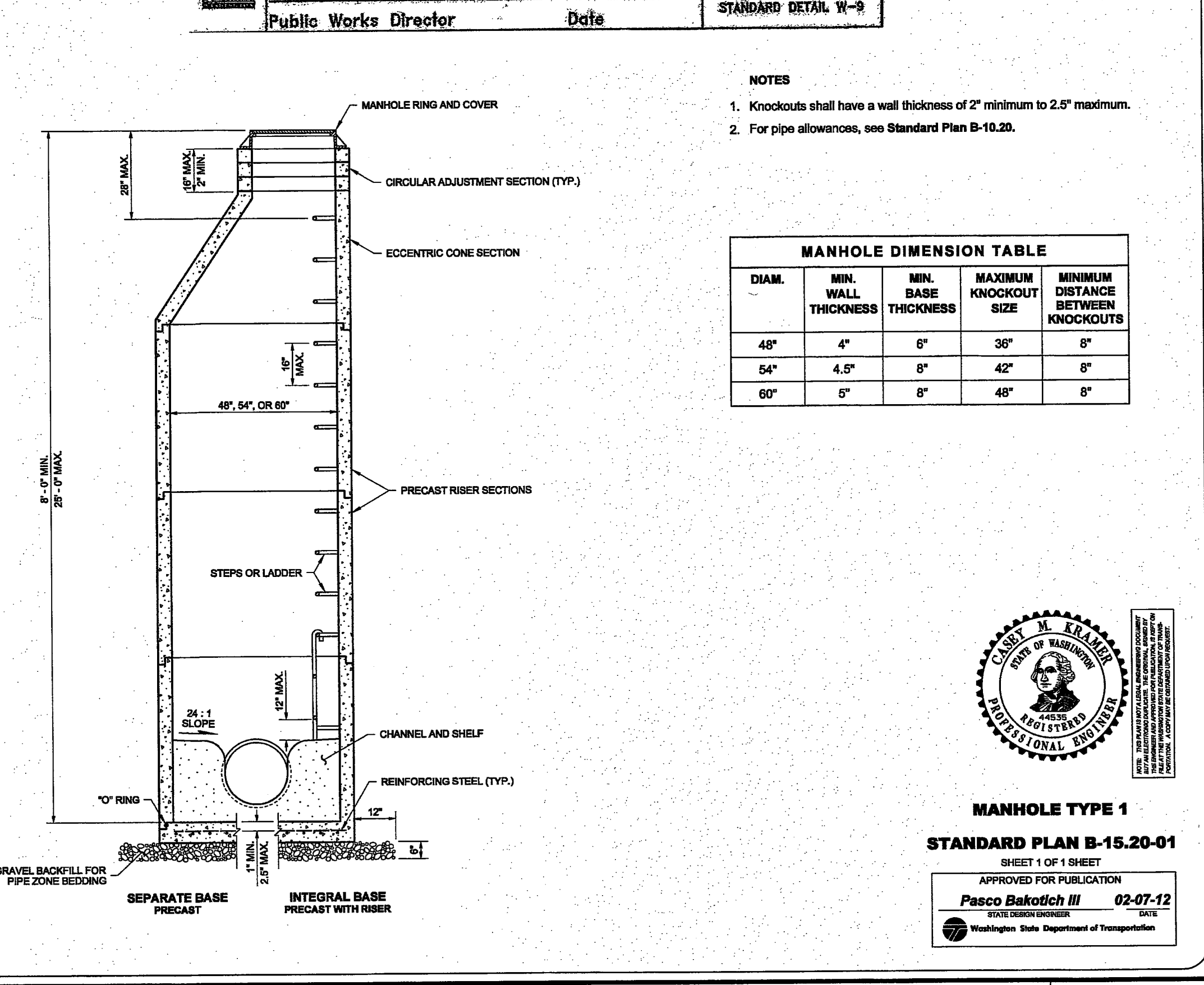
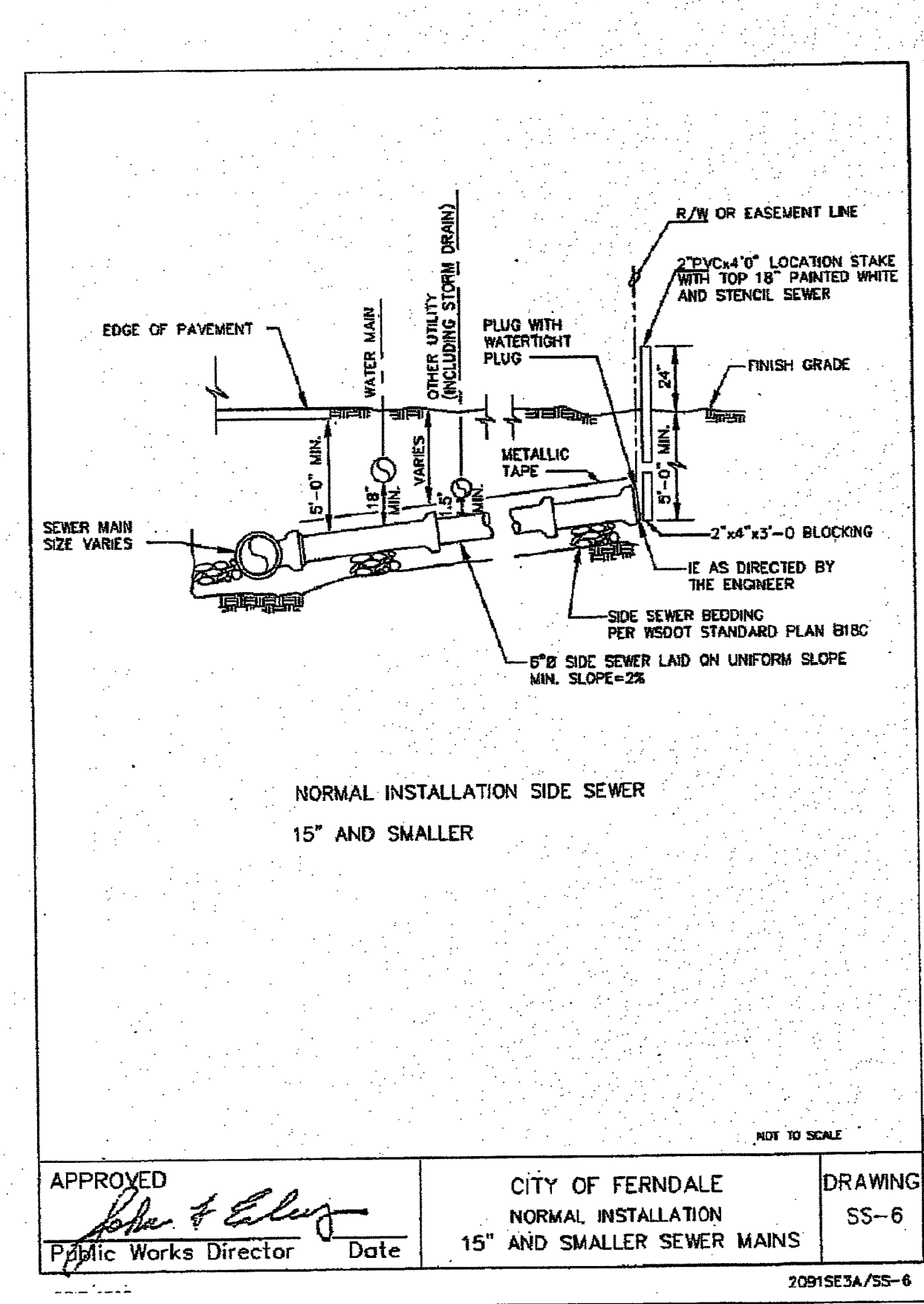
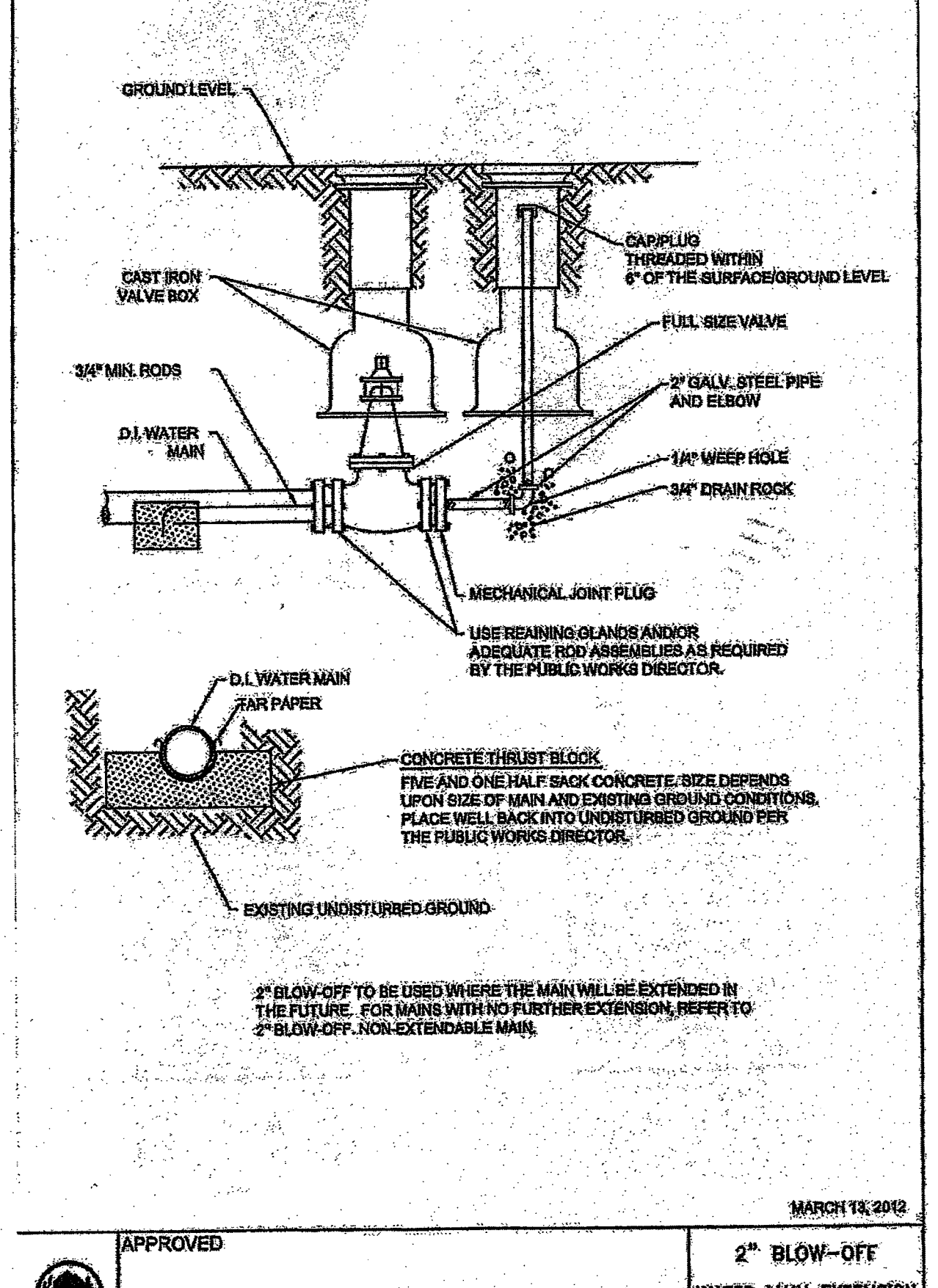
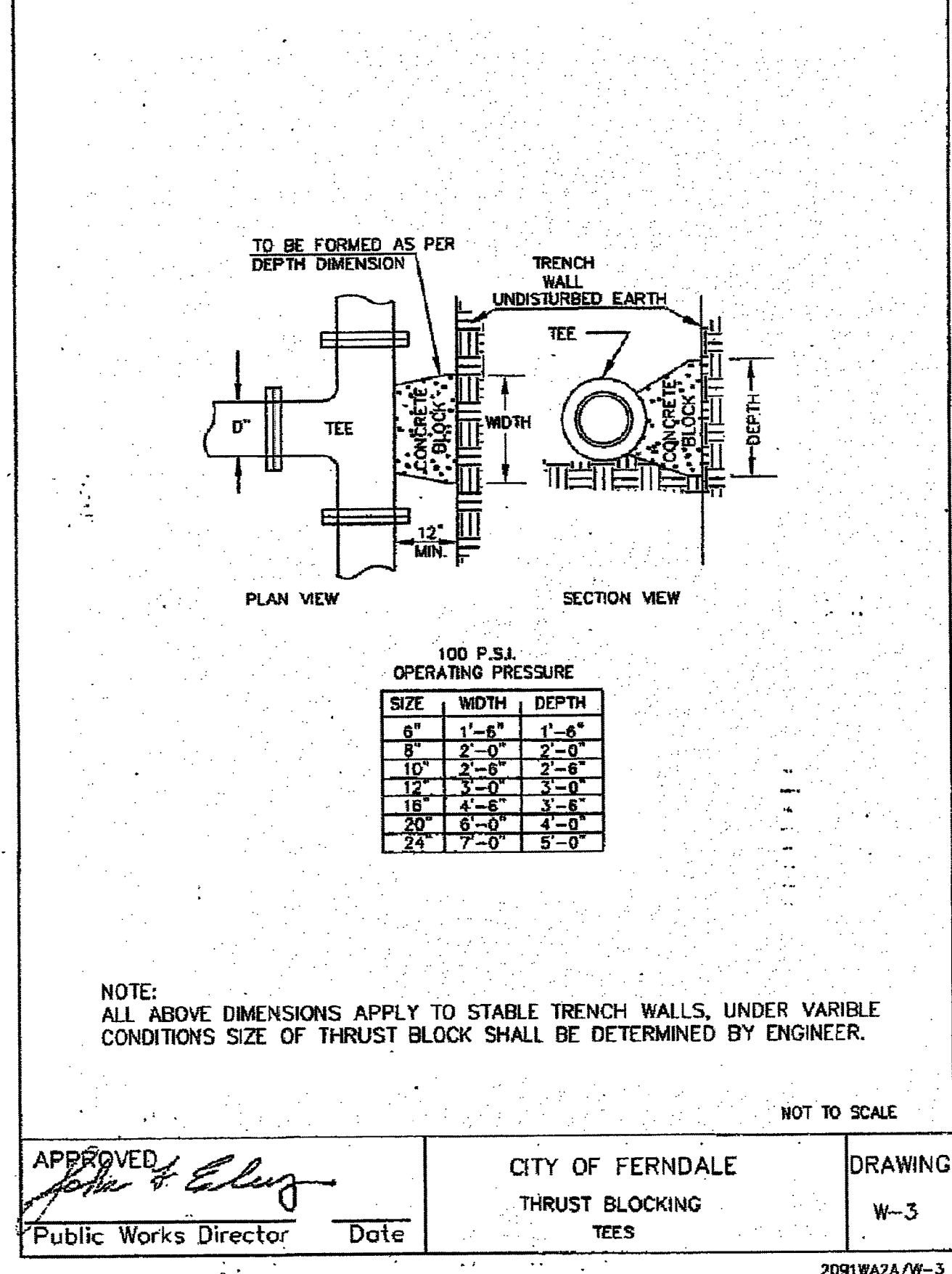
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AUG 25 2015
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CITY OF BERNADE


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DIAM.	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"

NOTES

1. Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum.
2. For pipe allowances, see **Standard Plan B-10.20**.



44536

CASSEY M. KRAMER
STATE OF WASHINGTON
PROFESSIONAL ENGINEER


MANHOLE TYPE 1
STANDARD PLAN B-15.20-0

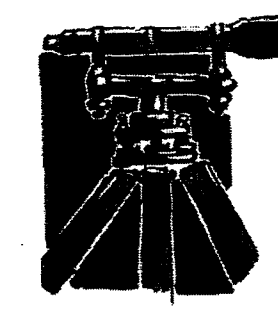
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III 02-07-1

STATE DESIGN ENGINEER DATE

 Washington State Department of Transportation

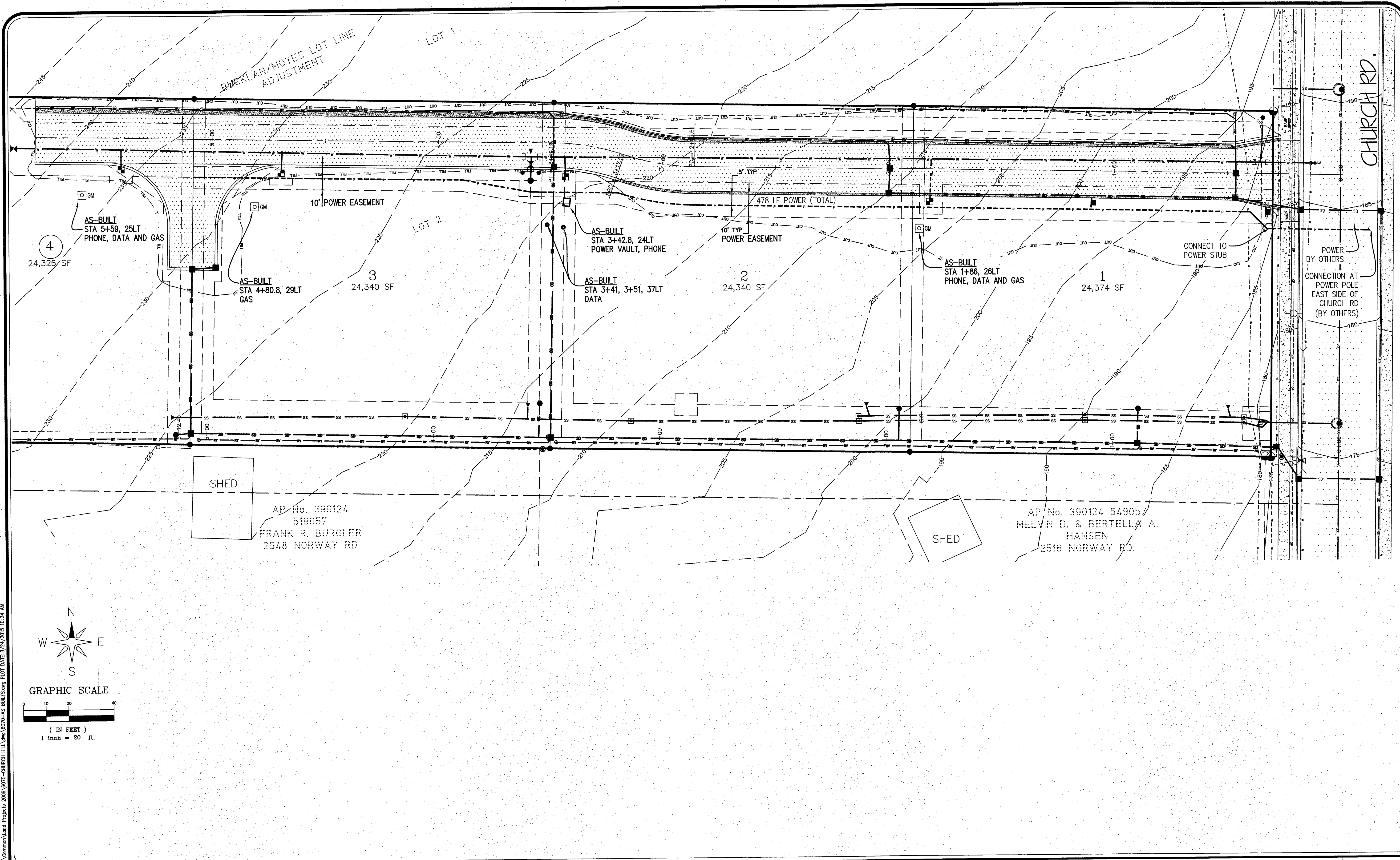


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BY _____
CITY OF FERDALE

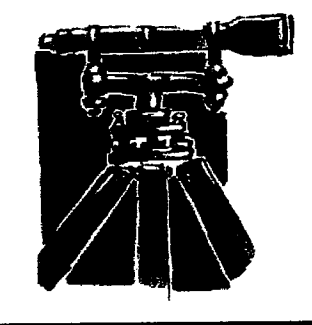
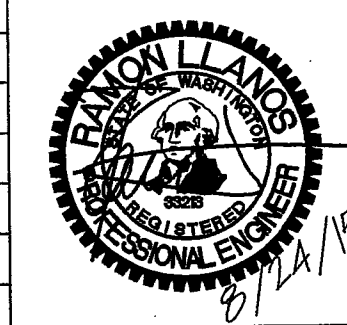
**WATER & SEWER
TYPICAL DETAILS**
MOYES VIEWPOINT ESTATES
CHURCH RD. FERNDALE, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.

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

JOB NO.: 6070
DWG. NAME: 6070-AS BUILTS.dwg
DESIGNED BY: RL
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KEVIN MOYES
PO BOX 1973
FERNDAL, WA

APPROVED
AUG 24 2015
BY [Signature]
CITY OF FERNDAL

COMMON UTILITY PLAN

MOYES VIEWPOINT ESTATES
CHURCH RD, FERNDAL, WA
A PORTION OF SECTION 24, TOWNSHIP 39N, RANGE 1E, W.M.

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GENERAL REQUIREMENTS:

- ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE "STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (WSDOT STANDARDS), THE CITY OF FERDALE DEVELOPMENT STANDARDS (COFSD) AND THE 2008 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DCE MANUAL). 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. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.
- THE CONTRACTOR MUST HAVE A FULL SET OF CITY CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- CONSTRUCTION NOISE SHALL BE LIMITED TO BETWEEN 7 a.m. TO 8 p.m., MONDAY THROUGH SATURDAY.
- THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-424-5555. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES. 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 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.
- 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 IN CONFORMANCE WITH THE EROSION & SEDIMENTATION CONTROL PLAN AND THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.
- SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT.
- THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERDALE AND/OR WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL ATTEND 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. THE CITY WILL SCHEDULE THE MEETING.
- ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERDALE PUBLIC WORKS DEPARTMENT, REPRESENTATIVES FROM THE CITY OF FERDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK IDENTIFIED ON THE PLANS, BOTH PUBLIC AND PRIVATE. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOW:
 - PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.
 - CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES.
 - PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS OF WAY OR IN WATERLINE EASEMENT TO BE DEDICATED TO THE CITY OF FERDALE.
 - PLACING OR BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS-OF-WAY, IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERDALE, OR OTHER PUBLICLY SHARED FACILITIES.
 - GRADING OF PUBLIC OR PRIVATE ROADWAY AT:
 - COMPLETION OF EXCAVATION TO SUBGRADE.
 - COMPLETION OF BALLAST COURSE PLACEMENT.
 - COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT.
 - GRADING 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.
- 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. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO PERFORMING THE WORK. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-01.23 - TRAFFIC CONTROL, SHALL APPLY.
- THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATION FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERDALE PUBLIC WORKS DEPARTMENT.
- AS-BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERDALE DATUM - VERTICAL (NAVD-88) AND HORIZONTAL (NAD 27). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.

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, WATER SERVICE TAPS, BLOW-OFF LOCATIONS AND INVERTS OF SERVICE CONNECTIONS (BOTH AT PIPE AND AT PROPERTY LINE), VERTICAL AND HORIZONTAL BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS. CALL THE PROJECT ENGINEER AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY.
- 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.
 - ALL UTILITY TRENCHES IN THE RIGHT OF WAY SHALL BE BACKFILLED WITH 7-INCH MINUS OR 5/8-INCH MINUS WELL GRADED CRUSHED ROCK.
 - TESTING OF NEW WATER LINES, STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.
 - ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 90% DENSITY IN LIFTS NOT TO EXCEED 24 INCHES WITH A "ROE PACK" OR 8 INCHES WITH HAND-OPERATED COMPACTION."
 - OPEN CUTTING OF EXISTING ROADWAYS IS ONLY ALLOWED AS APPROVED AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE FERDALE STANDARD TRENCH DETAIL(S). ALL UTILITY TRENCHES UNDERNEATH AN EXISTING ROADWAY SHALL BE BACKFILLED WITH 150 PSI CONTROLLED DENSITY FILL.
 - NO PART OF THE DRAINAGE SYSTEM MAY BE COVERED, CONCEALED, OR PUT INTO USE UNTIL IT HAS BEEN INSPECTED, TESTED, AND ACCEPTED BY THE CITY INSPECTOR.

EARTHWORK

- THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UN-COMPACTED 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.
- UNSUITABLE MATERIAL FOUND AND 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 & CRUSHED SURFACING

- GRAVEL BASES AND BALLAST MATERIAL GRADATION SHALL MEET WSDOT STANDARD SPECIFICATIONS.
- BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
- THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN 1/8 INCH OF FINISHED GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL AND COMPACTION TESTING. PRIOR TO IMPORTING OF MATERIAL FOR BASE AND CRUSHED SURFACING TOP COURSE THE CONTRACTOR SHALL PROVIDE EVIDENCE OF SATISFACTORY PASSING GRADING AND DEGRADATION TEST RESULTS TO THE ENGINEER.

STORM DRAINAGE

- THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:
CATCH BASINS TYPE 1, 1L OR 2 WSDOT STD. DETAILS B-5.20, B-5.40 OR B-10.20
"RESIDENTIAL SERVICE LINE" COFSD ST-7 (CITY OF FERDALE STD DETAIL)
CATCH BASINS:
 - STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE CORRUGATED POLYETHYLENE PIPE (CPEP); ALL OTHER STORM SEWER PIPE SHALL BE PVC.
 - ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".
 - CONTROL DENSITY FILL SHALL BE USED IN AREAS WHERE LESS THAN 18" OF COVER IS MAINTAINED OVER THE PROPOSED STORM PIPES (PIPE IS IN ROAD BASE SECTION), AS SHOWN IN THE PLANS. DUCTILE IRON PIPE MAY BE USED FOR STORM PIPES WITH LESS THAN 18" OF COVER IF APPROVED BY THE CITY.
 - COVER OVER PIPES SHALL BE MAINTAINED DURING CONSTRUCTION. DEPTH OF COVER REQUIRED SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS AND WILL VARY WITH THE VEHICLE LOADS TRAVELING OVER THE PIPE. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR DAMAGE TO PIPE DURING CONSTRUCTION ACTIVITIES.
 - AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM CATCH BASINS AND STORMWATER CONVEYANCES. DEBRIS SHALL NOT BE ALLOWED TO ENTER STREAMS OR OFF-SITE STORMWATER SYSTEMS.
 - STORM DRAIN SERVICES TO EACH LOT SHALL BE 6" WHITE SDR 35 ASTM D 3034 PVC PIPE.
 - EACH STORM DRAIN SERVICE STUB SHALL BE CAPPED WITH WATER-TIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. WHITE PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" STENCILED WITH THE WORD "DRAIN" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB WITH A #12 COPPER WIRE.

WATER

- THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:
PIPE BEDDING COFSD W-11
TRENCH BACKFILL COFSD W-11
FIRE HYDRANT ASSEMBLY COFSD W-1
THRUST BLOCKING COFSD W-2, W-3 & W-4
WATER SERVICE COFSD W-5
- ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705 AND THE MOST RECENT VERSION OF WSDOT STANDARD SPECIFICATIONS.
- ALL WATER MAIN PIPE SHALL BE DUCTILE IRON, MINIMUM THICKNESS CLASS 50, PER AWWA STANDARDS H3-71 AND C151-71, WITH CEMENT LINING PER AWWA STANDARD C104-71.
- 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(2) 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 - THE CONTRACTOR MUST NOTIFY THE CITY OF FERDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE.
- ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTION 7-09.3(2)(3) AND SECTION 7-09.3(24) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. CURRENT EDITION. HYDROSTATIC TEST PRESSURE FOR WATER MAIN ACCEPTANCE SHALL BE 250 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERDALE REQUIREMENTS. THE CITY OF FERDALE LABORATORY SHALL CONDUCT ALL DISINFECTION TESTS AND BACTERIOLOGICAL TESTS. 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 PIPES SHALL HAVE A MINIMUM COVER OF 36".
- 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 10 INCHES IN DIAMETER. SHORT-BODY VALVES SUITABLE FOR A NON-SHOCK SHUT-OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED. ALL VALVES SHALL HAVE NON-RISING 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 COFSD W-5.
- FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COFSD- SD 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 AIRCRAFT CABLE SHALL BE SUPPLIED. HYDRANTS SHALL BE EITHER LOWA OR M.J. 200T 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.
 - 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 250 PSI. 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.

ROAD

- THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF THE STANDARD STREET SECTION:
TYPICAL STREET SECTION PER THESE PLANS
PCC CURB AND GUTTER COFSD R-9
PCC SIDEWALKS COFSD R-12 (SEE CONSTRUCTION DOCUMENTS TYPICAL SECTION)
PCC CURB RAMPS WSDOT STD. DETAIL F-40.
- ROADWAY EXCAVATION WITHIN THE ROADWAY PRISM SHALL BE CUT TO A UNIFORM GRADE. THE COMPLETED SUBGRADE SURFACE SHALL NOT VARY MORE THAN 0.10-FOOT FROM THE LOWER EDGE OF A 15-FOOT STRAIGHTEDGE PLACED ON THE SUBGRADE PARALLEL TO THE CENTERLINE UNLESS APPROVED BY THE ENGINEER.
- THE OWNER SHALL PROVIDE TO THE ENGINEER A REPORT FROM A QUALIFIED GEOTECHNICAL FIRM CERTIFYING THE COMPACTION OF THE GRAVEL BASE UNDER ALL PAVING AREAS.
- ASPHALT CONCRETE PAVEMENT SHALL BE CLASS "B" MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 5-04, EXCEPT AS MODIFIED HEREIN. CONNECTION TO EXISTING PAVEMENT SHALL BE TO A STRAIGHT NEATLY-TRIMMED LINE.
- CRUSHED ROCK SURFACING FOR PAVEMENT SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 9-03.9(3); BALLAST PER SECTION 9-03.9(1).
- CEMENT CONCRETE SHALL BE CLASS 3000 (WITH AIR ENTRAINMENT) IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 6-02.3(2)(8).
- CEMENT CONCRETE SIDEWALK SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. R-12.
- CEMENT CONCRETE DRIVEWAYS SHALL BE 8 INCHES THICK AND CONSTRUCTED WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH THE CITY STANDARDS, DRAWING NO. R-15. A 2- INCH LATER OF 3/4 INCH DRAIN ROCK SHALL BE USED FOR DRIVEWAY BEDDING.
- CEMENT CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER, IN ACCORDANCE WITH WSDOT STANDARDS SPECIFICATIONS, SECTION 8-04 AND CITY OF FERDALE STANDARDS, DRAWING R-8 AND R-9. HANDICAP RAMPS SHALL BE CONSTRUCTED PER WSDOT STANDARD PLANS F-40. WHERE NEW CEMENT CONCRETE CURB AND GUTTER IS CONNECT TO EXISTING CURB AND GUTTER, ASSURE THAT NO ABRUPT OFFSETS IN LINE OR GRADE SHALL BE CONSTRUCTED WHICH WILL BE UNSIGHTLY OR IMPEDE FLOW IN THE CURB LINE.
- PAVEMENT:
 - 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 PROVIDE A SMOOTH TRANSITION FROM EXISTING TO PROPOSED PAVING. CONTRACTOR SHALL GILD PLANE PER DIMENSIONS SPECIFIED ON THE PLANS, AND INSTALL A MINIMUM 2-FOOT WIDE PETRODAG PAVING FABRIC, OR EQUIVALENT, OVER JOINT BETWEEN PAVING LIFTS.
- THRU-CURB BASINS AND THRU-CURB INLETS CONFORMING TO THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-05 SHALL BE CONSTRUCTED AT THE LOW POINT OF THE CURB FLOW LINES AND TO THE LOCATIONS, DIMENSIONS, AND DETAILS AS SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER AND CITY STANDARDS, DRAWING NO. R-8.
- TRENCH EXCAVATIONS, BEDDING AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-08.
- STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 7-04. MATERIAL SHALL BE HANCOX SURE-LOK F477 PIPE OR CITY APPROVED EQUAL. LOTS' STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER WSDOT STANDARD SPECIFICATION, SECTION 9-05.1(5).
- PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSDOT STANDARD SPECIFICATION 7-01.3(2).

SANITARY SEWER SYSTEMS

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF FERDALE STANDARD SPECIFICATIONS AND DETAILS, A.P.W.A. STANDARD SPECIFICATIONS, AND WSDOT STANDARD SPECIFICATIONS, MOST RECENT EDITIONS. SANITARY SEWER SYSTEM INSTALLATION, BOTH PUBLIC AND PRIVATE, IS SUBJECT TO CITY REVIEW AND APPROVAL.
- 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 PERFORMED 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 PE4 GRAVEL PER COFSD SS-1. ALL TRENCHES SHALL BE BACKFILLED WITH CLASS B BANK RUN GRAVEL WITHIN CITY RIGHT OF WAY AND TRAVELED WAYS OUTSIDE OF RIGHT OF WAY (ACCESS EASEMENTS) AND SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% MODIFIED PROCTOR. USE OF SUITABLE NATIVE BACKFILL OUTSIDE OF TRAVELED WAY SHALL BE SUBJECT TO APPROVAL BY THE CITY.
- ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERDALE STANDARD DETAILS 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 STUDS 5 FT BEYOND UTILITY CORRIDOR OR 15 FEET BEYOND RIGHT-OF-WAY LINE.
- EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATER-TIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" PAINTED GREEN AND STENCILED WITH THE WORD "SEWER" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

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	SUBMITTAL 2	SR	08-24-15							14
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