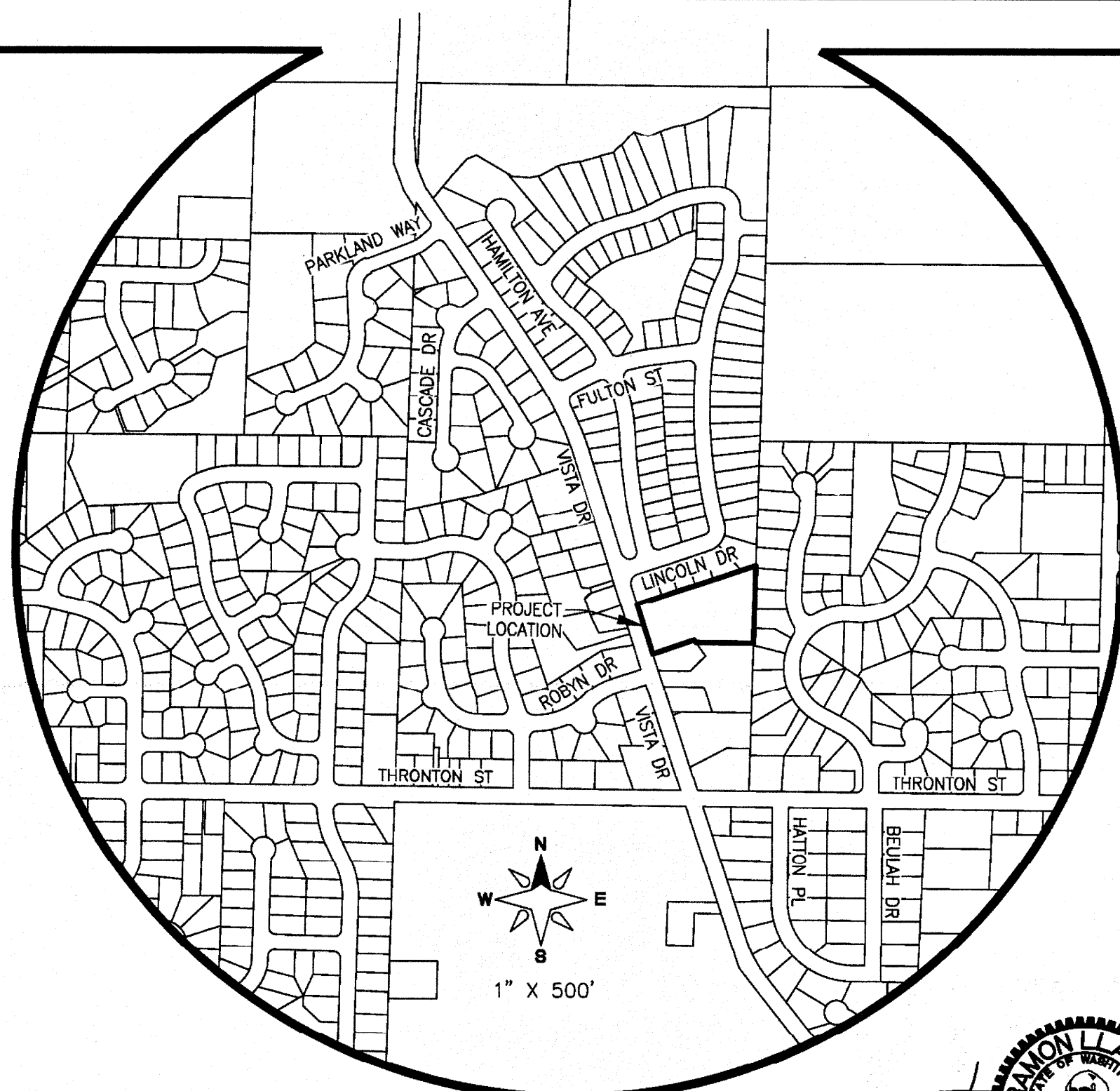


A PORTION OF THE SE 1/4 OF THE NW 1/4 OF SECTION 19, T.39N., R.2E., W.M.
CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON

VISTA SPRINGS LONG PLAT RECORD DRAWINGS



PROJECT SUMMARY	
OWNER	BRIAN TINES 3869 CLIFFSIDE DRIVE BELLINGHAM, WA 98225 (360) 739-3114
SITE ADDRESS	6148 VISTA DR
ASSESSOR'S PARCEL #	390218 412070 0000
CITY ZONING	RS MEDIUM-SINGLE FAMILY DWELLING
# OF PARKING	21 18 PARKING ON DRIVEWAYS 3 PARKING ON PLAT ROAD
PROJECT DESCRIPTION	-9 LOT SUBDIVISION -PROVIDE STORM, SEWER, WATER & DRY UTILITIES -PAVED ACCESS ROAD W/ CONCRETE SIDEWALK -PAVED PARKING AREA -STORMWATER VAULT

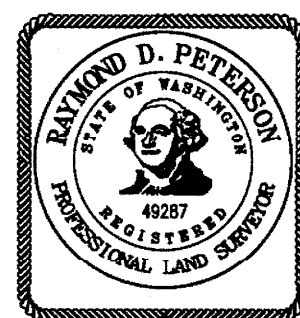
ENGINEER
LDES, INC.
5160 INDUSTRIAL PL., SUITE 108
FERNDAL, WA 98248
CONTACT: RAMON LLANOS, P.E.
PHONE: (360) 383-0620

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

ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "VISTA SPRINGS LONG PLAT" HAVE BEEN INSPECTED BY LDES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDAL MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.

RAMON LLANOS, P.E. 2/1/23

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: 2/1/23
RAYMOND D. PETERSON, P.L.S.



CONTROL NOTES:
CITY OF FERNDAL COMPREHENSIVE MAPPING PROGRAM.
BASIS OF BEARING: NAD83/91
VERTICAL CONTROL: NGVD29
FERN 05: BASIS OF COORDINATE & REFERENCE BENCHMARK
FOUND A BRASS DISK AT EXIT DRIVEWAY FOR VISTA SCHOOL
NORTHING: 683'701.32'
EASTING: 1'214'911.44'
ELEVATION: 220.76'
FERN-04: BASIS OF BEARING
FOUND SURFACE MONUMENT NORTH OF CONCRETE CURB EAST SIDE EAST ENTRANCE EAGLE RIDGE SCHOOL
NORTHING: 684'485.00'
EASTING: 1'209'546.55'

SURVEYOR'S NOTES:

- DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTION ON FEBRUARY AND AUGUST OF 2017.
- EQUIPMENT USED: LEICA M560: 001" ± 1 PPM, ±1.5 MM & LEICA GS14 RTK/WSRN.
PRECISION EXCEEDS LINEAR CLOSURES OF 1:10,000 PER WAC 332-130-090
- HORIZONTAL DATUM: CITY OF FERNDAL MONUMENT NETWORK WASHINGTON STATE NORTH ZONE NAD 83/91
VERTICAL DATUM: NGVD29 (COF MON 5, ELEV=220.76')
- PURPOSE OF SURVEY: BOUNDARY AND TOPOGRAPHIC SURVEY.
- IN ACCORDANCE WITH THE REVISED CODE OF WASHINGTON: 58.09 AND WAC CHAPTER 332-130, THIS RECORD OF SURVEY DEPICTS OCCUPATIONAL INDICATORS, SUCH AS FENCES, THESE INDICATORS REPRESENT A POTENTIAL FOR CLAIMS OF UNWRITTEN TITLE. THIS SURVEY DOES NOT RESOLVE ANY OF THE LEGAL OWNERSHIP ISSUES THAT MAY ARISE FROM THESE UNWRITTEN TITLE CLAIMS.
- CONTOUR INTERVALS ARE 1 FOOT AND ARE COMPUTER GENERATED FROM GROUND FIELD TOPOGRAPHY GATHERED FOR THIS SURVEY UTILIZING ELECTRONIC DATA COLLECTION.
- UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON FIELD LOCATION OF THE SURFACE EVIDENCE OF EXISTING STRUCTURES. UNDERGROUND UTILITY LOCATION SERVICES WERE NOT PROVIDED FOR THIS TOPOGRAPHIC SURVEY AND THE UNDERGROUND ROUTING OF REPORTED BURIED UTILITIES HAS NOT BEEN VERIFIED OR CONFIRMED WITH THE UTILITY SURVEYOR. ADDITIONAL UTILITY LOCATIONS AND UNDERGROUND UTILITY LOCATION PAINT MAPPING WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

LEGAL DESCRIPTION

TRACT A OF VISTA RIDGE, DIVISION #1 AS FILED UNDER AUDITOR'S FILE NUMBER 197080011, RECORDS OF WHATCOM COUNTY, WASHINGTON, LYING IN THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 18, TOWNSHIP 39 NORTH, RANGE 2 EAST, W.M.

SITUATE IN WHATCOM COUNTY, WASHINGTON

SHEET INDEX

- COVER SHEET
- CITY OF FERNDAL GENERAL NOTES
- STORMWATER POLLUTION PREVENTION PLAN & TESC NOTES & DETAILS
- EXISTING CONDITIONS PLAN
- TEMPORARY EROSION CONTROL - PLAN & DETAILS
- PLAT
- COMPOSITE UTILITY PLAN
- ROAD & STORMWATER PLAN & PROFILE - ON-SITE
- ROAD & STORMWATER PLAN & PROFILE - ON-SITE STORM BYPASS FOR TRAIL PERF PIPE
- STORMWATER PLAN & PROFILE - EAST LOT LINE TO THORNTON
- STORMWATER PLAN & PROFILE - EAST LOT LINE TO THORNTON
- ROAD & GRADING PLAN
- VAULT ACCESS - PLAN & PROFILE
- TRAIL - PLAN & PROFILE
- ROAD & STORM TYPICAL DETAILS
- ROAD & STORM TYPICAL DETAILS
- ROAD & STORM TYPICAL DETAILS
- STORMWATER VAULT DETAILS
- WATER & SEWER PLAN & PROFILE - ON-SITE
- WATER TYPICAL DETAILS
- SEWER TYPICAL DETAILS

ABBREVIATIONS

BMP	= BEST MANAGEMENT PRACTICE	PVC	= POLYVINYL CHLORIDE PIPE
BNDRY	= BOUNDARY	PSE	= PUGET SOUND ENERGY
CL	= CENTERLINE	PWR	= POWER
CL	= CLASS	N	= NOTHING
CONC	= CONCRETE	R	= RADIUS
CPDP	= CORRUGATED POLYETHYLENE DRAIN PIPE	RET	= RETAINING WALL
CSTC	= CRUSHED SURFACING TOP COURSE	ROW	= RIGHT OF WAY
CSSC	= CRUSHED SURFACING BASE COURSE	RT	= RIGHT
CTRL	= CONTROL	RY	= ROOF AND YARD
DI	= DUCTILE IRON	SD	= SLOPE
DOE	= DEPARTMENT OF ECOLOGY	SDCB	= STORM DRAIN CATCH BASIN
DTL	= DETAIL	SQ. IN.	= SQUARE INCHES
E	= EASTING	SS	= SANITARY SEWER
EG	= EXISTING GROUND	SSCO	= SANITARY SEWER CLEAN OUT
ELEV/EL	= ELEVATION	SF	= SQUARE FEET
EOP	= EDGE OF PAVEMENT	SSMH	= SANITARY SEWER MANHOLE
EXIST/EX	= EXISTING	STA	= STRUCTURE
FG	= FINISH FLOOR	STRC	= SIDEWALK
FL	= FLOW LINE	SWALK	= STORM WATER MANAGEMENT FILTER
FND	= FOUND	SWMM	= STORM WATER MANAGEMENT MANUAL
GV	= GATE VALVE	SWPP	= STORMWATER POLLUTION PREVENTION PLAN
HYD	= FIRE HYDRANT	TEL	= TELEPHONE
IE	= INVERT ELEVATION	TEMP	= TEMPORARY
JBOX	= JUNCTION BOX	TESC	= TEMPORARY EROSION AND EDDIMENT CONTROL
LBS	= POUNDS	TW	= TOP OF WALL
LF	= LINEAR FEET	TP	= TYPICAL
LI	= LEFT	WA	= WATER
O.D.	= OUTSIDE DIAMETER	WM	= WATER MAIN
O/S	= OFFSET	X-ING	= CROSSING
PERF	= PERFORATED PIPE		= DIAMETER
PERM.	= PERMANENT		
PRP	= PROPOSED		

EXISTING LEGEND

●	FOUND REBAR
○	FOUND MONUMENT AS NOTED
□	CALCULATED POINT
⊕	WATER METER
⊗	WATER VALVE
⊙	FIRE HYDRANT
○	WELL
⊕	POWER HAND HOLD
○	UTILITY POLE
⊕	UTILITY POLE ANCHOR
⊕	TELE/COMM RISER
⊕	GAS METER
⊕	STREET SIGN
⊕	SAN. SEWER MANHOLE
⊕	STORM DRAIN CB TYPE 1
⊕	STREET LIGHT
⊕	TREE
⊕	SHRUB
⊕	TELEPHONE/COMM (BURIED)
⊕	POWER (AERIAL)
⊕	POWER (BURIED)
⊕	GAS LINE
⊕	SANITARY SEWER
⊕	STORM DRAINAGE

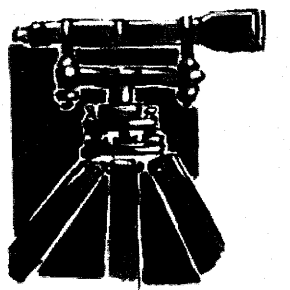
PROPOSED LEGEND

■	= PROPOSED STORM CATCHBASIN - TYPE 1	SD	= PROPOSED STORM WATER LINE
●	= PROPOSED STORM CATCHBASIN - TYPE 2	SS	= PROPOSED SEWER LINE (GRAVITY)
□	= PROPOSED STORM CLEANOUT	FM	= PROPOSED SEWER LINE (PRESSURE)
●	= PROPOSED STORM SERVICE	W	= PROPOSED WATER LINE
●	= PROPOSED SEWER MANHOLE	RET	= PROPOSED RETAINING WALL
▲	= PROPOSED SANITARY SEWER SERVICE	PWR	= PROPOSED POWER LINE
□	= PROPOSED SANITARY SEWER CLEANOUT	250	= PROPOSED CONTOUR (INDEX)
⊕	= PROPOSED WATER METER	249	= PROPOSED CONTOUR (NORMAL)
⊗	= PROPOSED FIRE HYDRANT	CUT	= PROPOSED CUT
⊗	= PROPOSED VALVE	FILL	= PROPOSED FILL
⊗	= PROPOSED BLOW-OFF		
▲	= PROPOSED THRUST BLOCK		
⊕	= PROPOSED STREET TREE		
⊕	= PROPOSED STREET LIGHT		
⊕	= PROPOSED PROPOSED MAILBOX		
⊕	= PROPOSED SIGN		
●	= PROPOSED BOLLARD		
⊕	= PROPOSED RIP RAP		

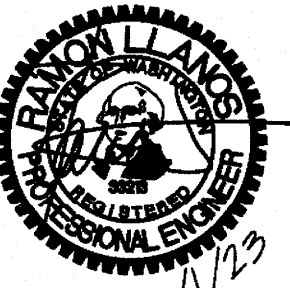
BURIED UTILITIES NOTE:

ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE LOCATIONS ONLY AND THERE IS NO GUARANTEE THAT ALL UTILITIES ON THIS SITE ARE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT THE WASHINGTON STATE UTILITY LOCATED CENTER AT LEAST 48 HOURS BEFORE CONSTRUCTION

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



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



JOB NO.: 1751

DWG. NAME:

DESIGNED BY: RL

DRAWN BY: EH

CHECKED BY: RL

OWNER:

BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

8148 VISTA DRIVE, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
COVER SHEET
INDEX & LEGEND

APPROVED
FEB 1 2023
Raymond D. Peterson
Professional Engineer

NO.	REVISION	BY	DATE
1			

01
16

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 SPECS.), THE CITY OF FERNDALE DEVELOPMENT STANDARDS (CODS) AND THE 2005 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 FERNDALE 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 FERNDALE 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 FERNDALE PUBLIC WORKS DEPARTMENT. REPRESENTATIVES FROM THE CITY OF FERNDALE 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 FOLLOWS:
 - 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 FERNDALE.
 - 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 FERNDALE, 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
 - 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
- 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 PRIVATE & PUBLIC PROPERTY IN CONNECTION WITH THE PERFORMANCE AND WORK 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 1-07.23- TRAFFIC CONTROL, SHALL APPLY.
- THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATION FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT.
- AS-BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERNDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERNDALE DATUM - VERTICAL (NAD 83) AND HORIZONTAL (NAD 83/91). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.
- ROUTING ALL EXISTING UTILITIES IS REQUIRED PRIOR TO CONSTRUCTION TO VERIFY DESIGN FEASIBILITY. THE CITY DOES NOT GUARANTEE AS-BUILT INFORMATION IN THE CITY DATABASE IS ACCURATE AND WILL NOT BE HELD RESPONSIBLE IF FIELD MODIFICATIONS ARE REQUIRED BECAUSE POT-HOLING WAS NOT DONE PRIOR TO DESIGN. ALL STRUCTURES AND WATERMAIN CONVEYANCE WILL BE STAKED AND LOCATED BY A LICENSED LAND SURVEYOR PROVIDING OFFSET LOCATION AND ELEVATIONS PRIOR TO CONSTRUCTION AND INSPECTION. FAILURE TO DO SO WILL RESULT IN POTENTIAL RE-INSPECTION AND OR PROJECT DELAYS.

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 LINES), 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 UPRILL 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 FERNDALE DEVELOPMENT STANDARDS.
- ALL UTILITY TRENCHES IN THE RIGHT OF WAY SHALL BE BACKFILLED IN CONFORMANCE WITH CITY STANDARDS.
- 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 95% DENSITY IN LIFTS NOT TO EXCEED 24 INCHES WITH A "HOLE 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 FERNDALE STANDARD TRENCH DETAILS(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, CONGEALED, OR PUT INTO USE UNTIL IT HAS BEEN INSPECTED, TESTED, AND ACCEPTED BY THE CITY INSPECTOR.
- A MINIMUM OF 5-FOOT SEPARATION IS REQUIRED BETWEEN THE WET UTILITIES (WATER, SEWER, STORM) SHOWN ON THE PLANS AND THE DRY UTILITIES (GAS, POWER, CABLE AND POWER) THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.

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 8-5.20, 9-5.40 OR 9-10.20
 - "RESIDENTIAL SERVICE LINE" COFSD ST-7 (CITY OF FERNDALE STD DETAIL)
 - CATCH BASINS COFSD ST-16 (CITY OF FERNDALE STD DETAIL)
- STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 18" SHALL BE CORRUGATED POLYETHYLENE PIPE (CEPP); 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.
- POSITIVE LOT DRAINS PER STANDARD DETAIL ST-16.
- CONVEYANCE USE LEVEL DESIGNATION (CULD) INSTALLATION TECHNOLOGY: THE FOLLOWING MUST BE SUBMITTED AND APPROVED BY THE CITY OF FERNDALE PRIOR TO INSTALLATION OF THE CULD TREATMENT TECHNOLOGY:
 - CONFIRMATION LETTER FROM THE TREATMENT TECHNOLOGY MANUFACTURER IDENTIFYING THAT THE PROJECT QUALIFIES AS ONE OF THE ALLOWED NUMBER OF INSTALLS.
 - CONVEYANCE MEMO FROM APPLICANT STATING:
 - UNTIL GENERAL USE LEVEL DESIGNATION (CULD) STATUS IS OBTAINED, OWNER SHALL SUBMIT ANNUAL SAMPLING RESULTS TO THE CITY (DUE BY DECEMBER 31 BEGINNING YEAR OF INSTALLATION) THAT PROVE THAT THE TECHNOLOGY IS MEETING ECOLOGY WATER QUALITY STANDARDS.
 - IF THE QUALITY STANDARDS ARE NOT BEING MET, OR IF THE TREATMENT TECHNOLOGY REPLACEMENT PARTS, FILTERS, ETC. ARE NO LONGER AVAILABLE, THE OWNER SHALL INSTALL AN EQUIVALENT TREATMENT TECHNOLOGY AT THEIR EXPENSE.
 - IF AT ANY TIME, THE TREATMENT TECHNOLOGY IS NOT MEETING WATER QUALITY STANDARDS, THE CITY HAS THE RIGHT TO IMPLEMENT A NOTICE OF VIOLATION, AS THE OPERATION AND MAINTENANCE OF THE TREATMENT TECHNOLOGY IS THE RESPONSIBILITY OF THE OWNER.
 - THIS MEMO SHALL ALSO BE INCLUDED IN THE STORMWATER MAINTENANCE MANUAL TO BE SUBMITTED AT THE COMPLETION OF THE PROJECT.

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 FERNDALE 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 FERNDALE STANDARD DETAILS W-2, W-3 AND W-4, OR AS DIRECTED BY THE PROJECT ENGINEER. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-09.3(21) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRE-CAST BLOCKS ARE ALLOWED.
- CONNECTIONS TO EXISTING WATER MAINS - THE CONTRACTOR MUST NOTIFY THE CITY OF FERNDALE 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(23) 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 225 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. THE CITY OF FERNDALE 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 GATE VALVES AND SHALL BE INSTALLED WITH SUP 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 CODS W-5.
- FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO CODS- SD W-1 (WSDOT 8-19) 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 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.
 - IF THE PUBLIC WORKS DIRECTOR DETERMINES THAT FIRE HYDRANTS ARE VULNERABLE TO VEHICULAR DAMAGE, APPROPRIATE POSTS SHALL BE PROVIDED. NO OBSTRUCTIONS SHALL EXIST WITHIN A 3-FOOT WORKING AREA OF EACH REQUIRED ACCESS. CRASH POSTS SHALL BE 6" CEMENT-FILLED PIPE A MIN. OF 3' IN HEIGHT WITH A MIN. OF 2' OF PIPE BELOW GRADE. HYDRANT SHUT-OFF 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. 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.

SANITARY SEWER SYSTEMS:

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF FERNDALE STANDARD SPECIFICATIONS AND DETAILS, A.P.W.A. STANDARD SPECIFICATIONS, AND WSDOT STANDARD SPECIFICATIONS. MOST IMPORTANTLY, ALL 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 FERNDALE. YOUR 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 FERNDALE REPRESENTATIVE.
- SANITARY SEWER MAINS SHALL BE 18" OR 24" IN DIAMETER PVC PIPE (SD-105) CONFORMING TO THE PROVISIONS OF ASTM D 3034 AND INSTALLED TO CITY SPECIFICATIONS.
- SANITARY SEWER PIPE BEDDING SHALL BE PEA GRAVEL PER WSDOT SS-1. TRENCHES SHALL BE BACKFILLED WITH CLASS B BANK RUN GRAVEL WITHIN CITY RIGHT OF WAY AND TRAVELED PORTIONS. THE RIGHT OF WAY (ACCESS EASEMENTS) AND SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% MOISTURE. UNIMPROVED AREAS SHALL BE BACKFILLED WITH NATIVE BACKFILL OUTSIDE OF TRAVELED WAY SHALL BE SUBJECT TO APPROVAL BY THE CITY.
- ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS AND SHALL BE PRE-CHANNELED. MANHOLE CONES ARE 30 DEGREES. THAT LADDER CONES ARE PARALLEL TO THE FLOW.
- ALL FIRE SEWERS SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS SS-6, SS-8 OR SS-13, EXCEPT THAT SINGLE SIDE SEWER SHALL HAVE A MINIMUM DIAMETER OF 18".
- CONVEYOR SHALL BE 18" IN DIAMETER. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. 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.

ROAD:

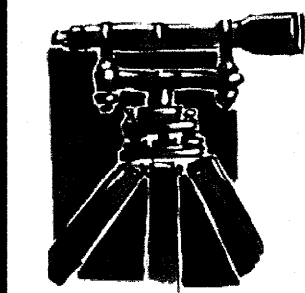
- THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF THE STANDARD STREET SECTION:
 - TYPICAL STREET SECTION PER THESE PLANS
 - PCC CURB AND GUTTER COFSD R-9
 - PCC SIDEWALKS COFSD R-12 (SEE CONSTRUCTION DOCUMENTS TYPICAL SECTION)
 - PCC CURB RAMPS WSDOT STD. DETAIL F-40.
- ROADWAY EXCAVATION 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(29).
- 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 6 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 STANDARD SPECIFICATIONS, SECTION 8-04 AND CITY OF FERNDALE STANDARDS, DRAWING R-8 AND R-9. HANDICAPPED RAMP 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 GUTTER LINE.
- PAVEMENT:
 - SOIL RESIDUAL SUBGRADE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.
 - A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.
 - ALL PAVEMENT REPAIRS 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. CONTOUR SHALL COLD PLUG PER DIMENSIONS SPECIFIED ON THE PLANS, AND INSTALL A MINIMUM 2-FOOT WIDE PETROTRAC PAVING FABRIC, OR EQUIVALENT, OVER JOINT BETWEEN PAVING LIFTS.
- ALL CATCH BASINS AND THRU-CURB TRAPS CONFORMING TO THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-05 SHALL BE CONNECTED AT THE LOW POINT OF THE CURB FLOW LINES AND TO THE LOCATIONS, DIMENSIONS, AND DETAILS AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER AND CITY STANDARDS, DRAWING NO. R-8.
- THROUGH ELEVATIONS OF CURB AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-08.
- ALL NEW CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 7-01.3(2). 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 9-03.1(5).
- PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSDOT STANDARD SPECIFICATION 7-01.3(2).

EARTHWORK:

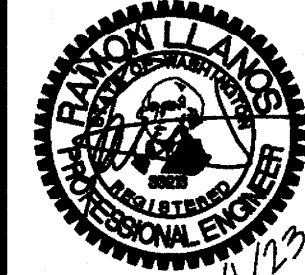
- THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UN-COMPACTED OR POORLY COMPACTED FILL SOILS WITHIN THE ROAD PRISM AT THE DIRECTION OF THE ENGINEER.
- THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.
- UNSUITABLE 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 AND 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 PAVING GRADING AND DEGRADATION TEST RESULTS TO THE ENGINEER.



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JOB NO.: 1751

DWG. NAME:

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DRAWN BY: EH

CHECKED BY: RL

OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

6140 VISTA DRIVE, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
CITY OF FERNDALE GENERAL NOTES

APPROVED
February 7, 2023
[Signature]
PUBLIC WORKS DEPARTMENT

NO.	REVISION	BY	DATE
1		EH	03/19/18
2		EH	11/20/18
3		EH	10/25/18
4		EH	04/17/19
5		EH	07/22/20
6		EH	08/09/20

02

OF 16

RECORD DRAWING

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ELEMENTS:

ELEMENT 1: MARK CLEARING LIMITS

CLEARING LIMITS AREA WILL BE CLEARLY MARKED PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES, WHICH INCLUDES CLEARING AND GRADING. THESE AREAS WILL BE CLEARLY MARKED BOTH IN THE FIELD AND ON-SITE PLANS, TO PREVENT DAMAGE AND OFFSITE IMPACTS.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP'S CONSIDERED FOR ELEMENT #1 INCLUDE:
BMP C103: HIGH VISIBILITY PLASTIC OR METAL FENCE

ELEMENT 2: ESTABLISH CONSTRUCTION ACCESS

ONE CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED USING QUARRY SPALLS TO MINIMIZE THE TRACKING OF SEDIMENT ONTO PUBLIC ROADS. ROADS WILL BE CLEANED THROUGH THE DAY AND AT THE END OF EACH DAY. SEDIMENT TRANSPORTED TO ROADS FROM THE SITE WILL BE SWEEPED AND DISPOSED OF AT A CONTROLLED SEDIMENT DISPOSAL AREA ON SITE. IF STREET WASHING IS NEEDED, IT WILL ONLY OCCUR AFTER SEDIMENT HAS BEEN REMOVED AS DESCRIBED. THE RESULTING WASH WASTEWATER WOULD THEN BE DISPOSED OF AT AN APPROVED SITE.

ALL CONSTRUCTION ACCESS POINTS WILL BE RESTORED TO PRE-CONSTRUCTION CONDITION.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP'S CONSIDERED FOR ELEMENT #2 INCLUDE:
BMP C105: STABILIZED CONSTRUCTION ENTRANCE
BMP C107: CONSTRUCTION ROAD/PARKING AREA STABILIZATION

ELEMENT 3: CONTROL FLOW RATES

STORMWATER BMP'S WILL BE INSTALLED AS A FIRST STEP IN CONSTRUCTION AND WILL BE FUNCTIONAL PRIOR TO CONSTRUCTION OF SITE IMPROVEMENTS (E.G. IMPERVIOUS SURFACES). THIS PROJECT IS REQUIRED TO COMPLY WITH MINIMUM REQUIREMENT #7 – FLOW CONTROL. AS SUCH, THE WETVAULT SHALL BE CONSTRUCTED PRIOR TO OR IN CONNECTION WITH INITIAL SITE GRADING TO PROVIDE FLOW CONTROL. SEDIMENTATION SHOULD NOT BE ALLOWED TO ENTER THE VAULT DURING CONSTRUCTION.

ELEMENT 4: INSTALL SEDIMENT CONTROLS

SILT FENCING WILL BE INSTALLED AROUND THE DOWN GRADIENT OF THE PROJECT PERIMETER PRIOR TO LAND DISTURBANCE. IF IT IS FOUND THAT MORE CONTROL MEASURES ARE NEEDED, AND WATER NEEDS TO BE IMPOUNDED, TEMPORARY ON-SITE INTERCEPT DRAINAGE SWALES SHALL BE CONSTRUCTED AND STABILIZED.

OTHER SEDIMENT CONTROL MEASURES THAT MAY BE IMPLEMENTED ON SITE INCLUDE:

- CONSTRUCTION OF GRAVEL FILTER BERMS (BMP C232) TO RETAIN SEDIMENT FROM RIGHTS-OF-WAYS OR CONSTRUCTION TRAFFIC AREAS, IF APPLICABLE.
- SILT FENCES WILL BE USED TO CONTROL TRANSPORT OF COARSE SEDIMENT FROM THE SITE. INSTALLATION OF SILT FENCES WILL BE DONE AS OUTLINED IN BMP C233 AND WILL BE USED IN COMBINATION WITH OTHER EROSION CONTROL METHODS IF NEEDED.
- VEGETATED STRIPS WILL BE USED WHERE APPROPRIATE. IF VEGETATED STRIPS ARE USED AS AN EROSION CONTROL MEASURE, THEY WILL BE IMPLEMENTED AS OUTLINED IN BMP C234.
- STRAW WATTLES MAY ALSO BE CONSIDERED AS PART OF THE EROSION CONTROL MEASURES FOR THIS SITE. IF STRAW WATTLES ARE INSTALLED, THEY WILL BE DONE AS OUTLINED IN BMP C235.

A COMBINATION OF THESE BMP'S MAY NEED TO BE IN PLACE TO EFFECTIVELY MANAGE THE SITE FOR EROSION CONTROL. EVALUATION OF BMP EFFECTIVENESS AND MAINTENANCE OF THE INSTALLED BMP'S WILL CONTINUE THROUGHOUT CONSTRUCTION. MODIFICATIONS TO THE COMBINATIONS OF BMP'S MAY OCCUR AS A RESULT OF ONGOING SITE EVALUATION.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP'S CONSIDERED FOR ELEMENT #4 INCLUDE:
BMP C232: GRAVEL FILTER BERM
BMP C233: SILT FENCE
BMP C234: VEGETATED STRIP
BMP C235: STRAW WATTLES

ELEMENT 5: STABILIZE SOILS

IF CONSTRUCTION OCCURS IN THE WET SEASON (10/1 THROUGH 4/30) SOILS WILL NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN 2 DAYS. IF IT OCCURS IN THE DRY SEASON (5/1 THROUGH 9/30) SOILS WILL NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. WHEN ACTIVE GRADING IS IN PROGRESS, THE DEADLINE FOR SOIL STABILIZATION MAY BE EXTENDED UPON DETERMINING THAT THE LIKELIHOOD OF EROSION IMPACTS IS LOW BASED ON THE TYPE AND AMOUNT OF SOIL EXPOSED, SITE TOPOGRAPHY, TO POTENTIAL FOR DISCHARGE TO CRITICAL AREAS AND LAKES, AND OTHER FACTORS. IN ADDITION, WEATHER CONDITIONS WILL CONTINUALLY BE MONITORED INCLUDING BEFORE HOLIDAYS AND WEEKENDS FOR PURPOSES OF PREPARING THE SITE FOR PREDICTED WEATHER CONDITIONS. IMMEDIATELY FOLLOWING GRADATING ACTIVITIES, THE SITE SOILS SHALL BE STABILIZED BY SEEDING AND STRAW MULCHING TO PROTECT SOIL FROM EROSION FORCES OF RAINFALL, RUNOFF, AND WIND. PLASTIC COVERING SHALL COVER ALL SOIL STOCKPILES.

BMP'S THAT ARE EFFECTIVE IN STABILIZING SOILS AND PROTECTING THEM FROM EXPOSURE TO RAIN AND WIND OR OTHER CLIMATIC CONDITIONS WILL BE IMPLEMENTED THROUGHOUT THE PROJECT. EVALUATION AND MONITORING OF BMP EFFECTIVENESS WILL OCCUR ON A DAILY BASIS BY THE CONTRACTOR AND AS DESCRIBED IN SECTION 6.2.12 BY THE CESL. IN ADDITION, IN THE EVENT OF FORECASTED PRECIPITATION EVENTS, ADDITIONAL MEASURES TO STABILIZE SOILS WILL BE TAKEN.

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

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP'S CONSIDERED FOR ELEMENT #5 INCLUDE:

- BMP C120: TEMPORARY AND PERMANENT SEEDING
- BMP C121: MULCHING
- BMP C122: NETS AND BLANKETS
- BMP C123: PLASTIC COVERING
- BMP C124: SODDING
- BMP C125: TOP SOILING
- BMP C130: SURFACE ROUGHENING
- BMP C131: GRADIENT TERRACES
- BMP C140: DUST CONTROL

ELEMENT 6: PROTECT SLOPES

DISBURBED OR FILLED SLOPES ON SITE WILL BE MULCHED OR HYDRO-SEEDED IMMEDIATELY FOLLOWING CONSTRUCTION. SLOPES SHALL ALSO BE ROUGHENED (TRACK WALKING) BEFORE HYDRO-SEEDED OR MULCHING.

ELEMENT 7: PROTECT DRAIN INLETS

NEW DRAIN INLETS WILL BE CONSTRUCTED AS PART OF THIS PROJECT. NEW DRAIN INLETS WILL RECEIVE BMP 220. EXISTING DRAIN INLETS IMMEDIATELY DOWNGRADE OF THE PROJECT SITE WILL ALSO RECEIVE BMP 220. PLEASE REFER THE TESC PLAN IN APPENDIX II FOR INLET PROTECTION LOCATIONS.

APPLICABLE BMP'S:

- BMP C220 – STORM DRAIN INLET PROTECTION

ELEMENT 8: STABILIZE CHANNELS AND OUTLETS

WHILE NOT ENVISIONED FOR THE PROJECT, IF TEMPORARY ON-SITE CONVEYANCE CHANNELS ARE NECESSARY, THEY WILL BE DESIGNED, CONSTRUCTED, AND STABILIZED TO PREVENT EROSION AND MAINTAIN EXPECTED FLOW RATE FROM A TYPE1A, 10 YEAR, 24-HOUR FREQUENCY TOWNSHIP. BMP 220 CHANNEL LINING WILL BE USED TO DETERMINE THE MOST EFFECTIVE CHANNEL PROTECTION (E.G. RIPRAP, NETS VERSUS RIPRAP). THE DESIGN, CONSTRUCTION AND STABILIZATION OF THE CONVEYANCE CHANNELS WILL BE CONSISTENT WITH THE METHODS OUTLINED IN BMP C202.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP'S CONSIDERED FOR ELEMENT #8 INCLUDE:
BMP C202: CHANNEL LINING
BMP C209: OUTLET PROTECTION

ELEMENT 9: CONTROL POLLUTANTS

WASTE MATERIALS GENERATED ON SITE WILL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER, INCLUDING COVERING DUMPSTERS AND STOCKPILES. ROUTINE INSPECTIONS OF THE WASTE MATERIAL STORAGE AREAS WILL BE CONDUCTED TO MAKE SURE THAT LEAKS OR SPILLS DO NOT OCCUR. ANY LEAKAGE OR SPILLS WILL BE CLEANED UP IMMEDIATELY. A SPILL RESPONSE KIT THAT INCLUDES ABSORBENT MATERIAL WILL BE AVAILABLE ON SITE. USED ABSORBENT MATERIAL WILL BE DISPOSED OF PROPERLY.

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

DISCHARGES, SPILLS, OR LEAKS WILL BE CLEANED IMMEDIATELY. THE NOTIFICATION PROCEDURE OUTLINED IN THE PERMANENT SITE SWPPP IS AS FOLLOWS:

- NOTIFY KEY PERSONNEL DURING CONSTRUCTION, THE PROJECT ENGINEER WILL BE PROVIDING PROJECT OVERSIGHT AND WILL BE CONTACTED IN THE EVENT OF A SPILL. THE PROJECT ENGINEER WILL CONTACT THE SITE OWNER AND THE DEPARTMENT OF ECOLOGY. ANY SPILLS WITH POTENTIAL TO DISCHARGE TO STORM DRAINS, SANITARY SEWER SYSTEM, OR SURFACE WATERS WILL BE REPORTED TO CITY OF FERNDALE PUBLIC WORKS.
- ALL SPILLS WILL BE REPORTED TO THE DEPARTMENT OF ECOLOGY, SPILL RESPONSE PROGRAM (425) 649-7000.

WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP'S CONSIDERED FOR ELEMENT #9 INCLUDE:
- SPILL CLEANUP AND RESPONSE PRACTICES

ELEMENT 10: CONTROL DE-WATERING

SITE DE-WATERING IS NOT ANTICIPATED FOR THIS PROJECT. IF DE-WATERING IS FOUND TO BE NEEDED, DE-WATERING WATER SHALL BE DISCHARGED TO THE WETVAULT.

OTHER DISPOSAL OPTIONS, DEPENDING ON SITE CONSTRAINTS, MAY INCLUDE:

- TRANSPORT OFF-SITE IN VEHICLE, SUCH AS A VACUUM FLUMP TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE STATE WATERS,
- SANITARY SEWER DISCHARGE WITH LOCAL SEWER DISTRICT APPROVAL, OR
- USING SEDIMENTATION WITH OUTFALL TO THE WETVAULT FOR SMALL VOLUMES OF LOCALIZED DE-WATERING.

ELEMENT 11: MAINTAIN BMP'S

TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMP'S WILL BE MAINTAINED, AND REPAIRED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. MAINTENANCE AND REPAIR SHALL BE CONDUCTED IN ACCORDANCE WITH THE RELEVANT BMP IDENTIFIED IN ELEMENTS #1 THROUGH #10.

TEMPORARY EROSION AND SEDIMENT CONTROLS IDENTIFIED ABOVE WILL BE INSPECTED DAILY DURING THE WET SEASON BY THE CONTRACTOR. NEEDED REPAIRS AND MAINTENANCE WILL OCCUR AS SOON AS PRACTICABLE OR, IN THE EVENT OF A FORECAST OF INCLEMENT WEATHER, REPAIRS AND MAINTENANCE WILL OCCUR PRIOR TO THE ANTICIPATED WEATHER EVENT.

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

ELEMENT 12: MANAGE THE PROJECT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
THIS PROJECT WILL DISTURB MORE THAN ONE ACRE OF LAND AND DISCHARGE TO A SURFACE WATER WHEN THE STORM SYSTEM IS INSTALLED. AS SUCH AN NPDES PERMIT WILL BE REQUIRED. AN NPDES PERMIT WILL BE OBTAINED BEFORE ANY CONSTRUCTION ACTIVITIES BEGIN. A COPY OF THE NPDES PERMIT WILL BE PROVIDED TO THE CITY OF FERNDALE.

CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL):

A CESCL WILL BE IDENTIFIED FOR THIS PROJECT BEFORE CONSTRUCTION ACTIVITIES BEGIN. THE CESCL WILL INSPECT ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES, ALL BMP'S, AND ALL STORMWATER DISCHARGE POINTS AT LEAST ONCE EVERY CALENDAR WEEK AND WITHIN 24-HOURS OF ANY DISCHARGE FROM THE SITE. FOR PURPOSES OF THIS CESCL CONDITION, INDIVIDUAL DISCHARGE EVENTS THAT LAST MORE THAN ONE DAY DO NOT REQUIRE DAILY INSPECTIONS. THE CESCL MAY REDUCE THE INSPECTION FREQUENCY FOR TEMPORARY STABILIZED INACTIVE SITES TO ONCE EVERY CALENDAR MONTH.

PHASING OF CONSTRUCTION

TO THE EXTENT PRACTICABLE, THE DISTURBANCE AND CONSTRUCTION WILL BE PHASED WHERE FEASIBLE. REVEGETATION OF EXPOSED AREAS AND MAINTENANCE OF THAT VEGETATION WILL OCCUR AS PART OF THE CLEANUP ACTIVITIES.

CLEARING AND GRADING ACTIVITIES WILL OCCUR AFTER THE APPLICABLE PERMITS HAVE BEEN OBTAINED. WHEN ESTABLISHING CLEARING AND GRADING AREAS, CONSIDERATION WILL BE GIVEN TO THE REMOVAL OF EXISTING TREES AND MINIMIZING DISTURBANCE AND COMPACTION OF NATIVE SOILS EXCEPT AS NEEDED FOR WILDLIFE PURPOSES. ELEMENT #1 OUTLINES BMP'S THAT WILL EFFICIENTLY MINIMIZE REMOVAL AND DAMAGE TO NATIVE VEGETATION AND PROTECT THESE AREAS BY BEING CLEARLY DELINEATED AND MARKED.

SEASONAL CONSIDERATIONS

FROM OCTOBER 1 THROUGH APRIL 30, SOIL WILL NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. FROM MAY 1 THROUGH SEPTEMBER 30 SOILS WILL NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. IN ADDITION, WEATHER CONDITIONS WILL CONTINUALLY BE MONITORED INCLUDING BEFORE HOLIDAYS AND WEEKENDS FOR PURPOSES OF PREPARING THE SITE FOR PREDICTED WEATHER CONDITIONS. AS DISCUSSED IN ELEMENT #5, BMP'S THAT ARE EFFECTIVE IN STABILIZING SOILS AND PROTECTING THEM FROM EXPOSURE TO RAIN AND WIND OR OTHER CLIMATIC CONDITIONS WILL BE IMPLEMENTED THROUGHOUT THE PROJECT. INSPECTION AND EVALUATION OF THE EFFECTIVENESS OF THE BMP'S WILL OCCUR ON A DAILY BASIS BY THE CONTRACTOR. IN ADDITION, IN THE EVENT OF FORECASTED PRECIPITATION EVENTS, ADDITIONAL MEASURES TO STABILIZE SOILS WILL BE TAKEN.

COORDINATION WITH UTILITIES AND OTHER CONTRACTORS

THE STORMWATER MANAGEMENT REQUIREMENTS FOR ALL ASPECTS OF THE CONSTRUCTION PROJECT, INCLUDING UTILITIES, WERE CONSIDERED IN PREPARING THE CONSTRUCTION SWPPP.

INSPECTION AND MONITORING

AS PREVIOUSLY MENTIONED, ALL BMP'S WILL BE INSPECTED, MAINTAINED, AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.

IN THE EVENT THAT INSPECTION AND/OR MONITORING REVEALS THAT THE BMP'S IDENTIFIED IN THIS CONSTRUCTION SWPPP ARE INADEQUATE, DUE TO THE ACTUAL DISCHARGE OF OR POTENTIAL TO DISCHARGE A SIGNIFICANT AMOUNT OF ANY POLLUTANT, THIS SWPPP SHALL BE MODIFIED, AS APPROPRIATE, IN A TIMELY MANNER.

MAINTENANCE OF THE CONSTRUCTION SWPPP

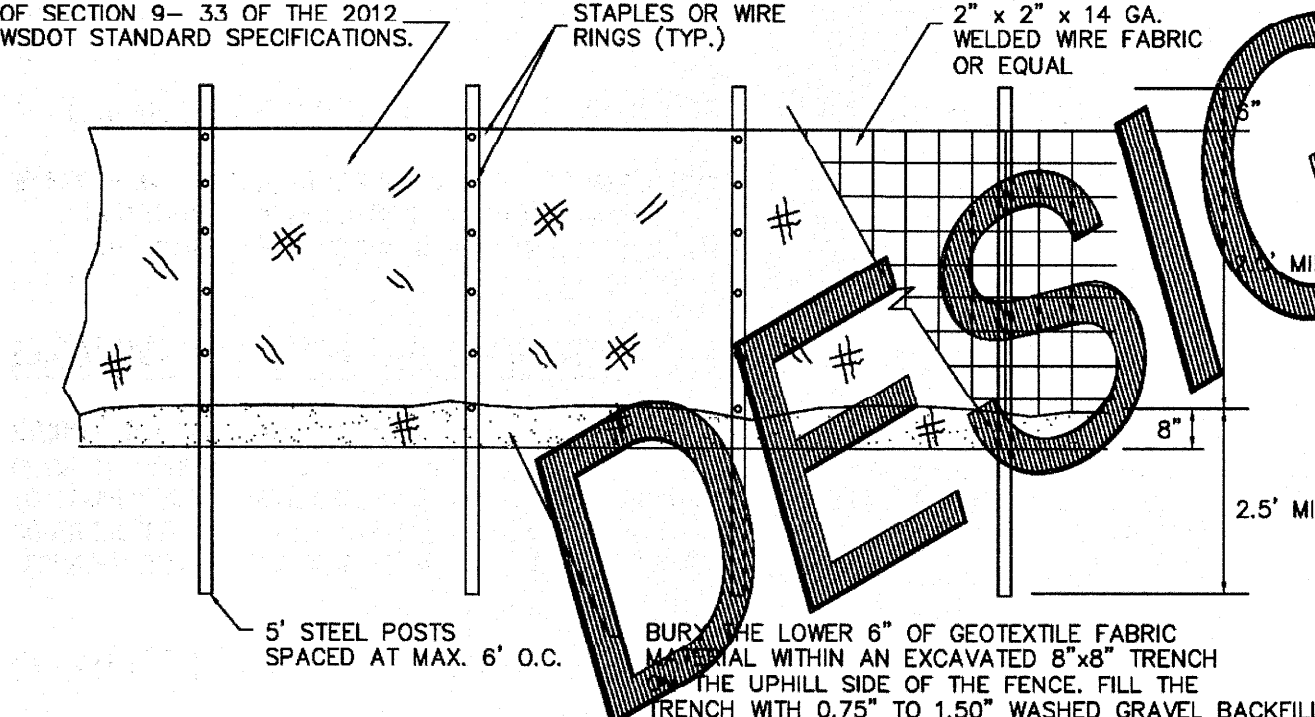
THE CONSTRUCTION SWPPP WILL BE RETAINED ON-SITE AND WILL BE UPDATED ON A REGULAR BASIS BY EITHER THE OWNER OR A DESIGNATED REPRESENTATIVE. A LOG WILL BE ATTACHED TO THE CONSTRUCTION SWPPP TO FACILITATE REGULAR UPDATES. MODIFICATIONS TO THE CONSTRUCTION SWPPP WILL BE MADE WHENEVER THERE IS A SIGNIFICANT CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF ANY BMP.

ELEMENT 13: PROTECT LOW IMPACT DEVELOPMENT BMP'S

NO LID FACILITIES ARE PROPOSED FOR THIS PROJECT AT THIS TIME. IF LID PROJECTS ARE FOUND TO BE FEASIBLE THEY WILL COMPLY WITH THE 2014 SWMM.

TESC NOTES & DETAILS:

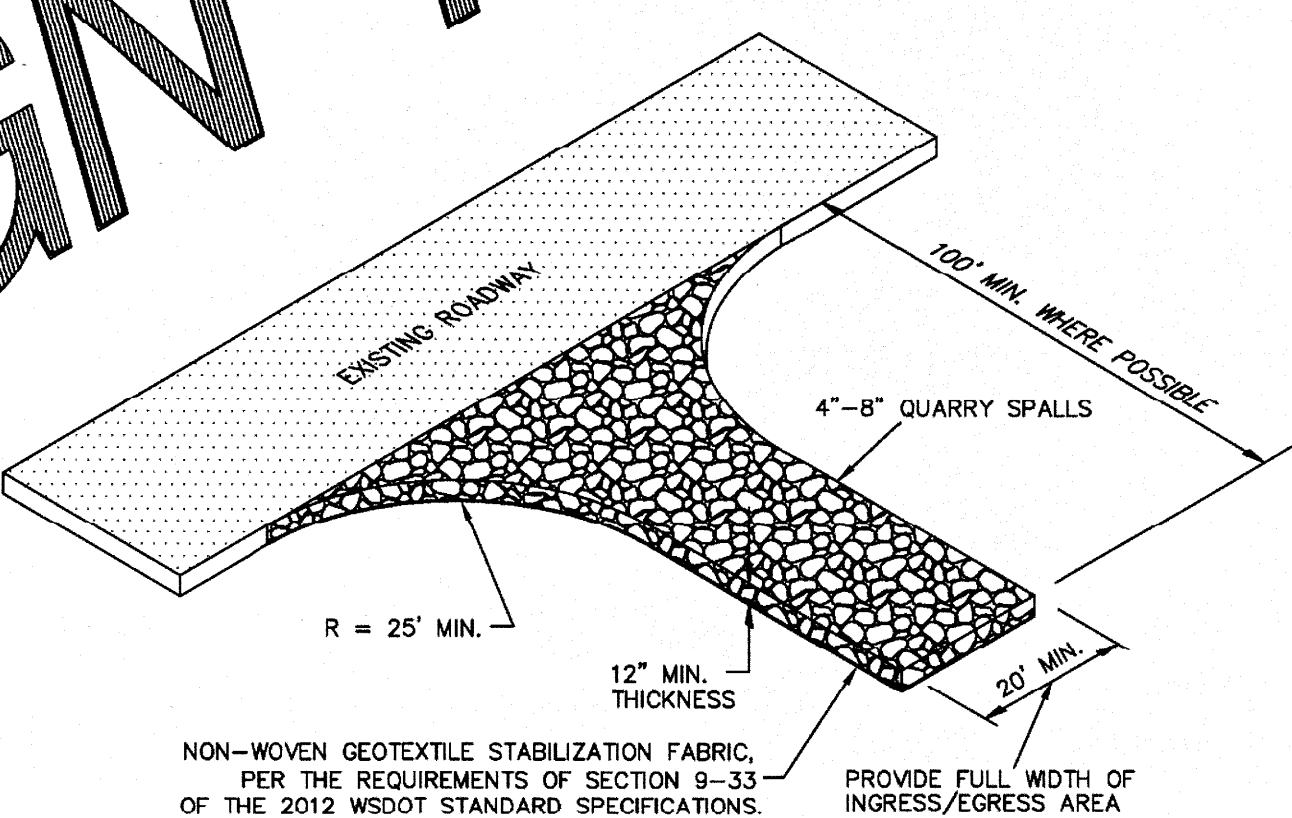
GEOTEXTILE FABRIC MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 9-33 OF THE 2012 WSDOT STANDARD SPECIFICATIONS.



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 DEMANDS IT ABSOLUTELY NECESSARY. IMMEDIATELY AFTER UTILITIES ARE IN-PLACE, THE SILT FENCING SHALL BE RECONSTRUCTED.

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



NON-WOVEN GEOTEXTILE STABILIZATION FABRIC, PER THE REQUIREMENTS OF SECTION 9-33 OF THE 2012 WSDOT STANDARD SPECIFICATIONS.

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.

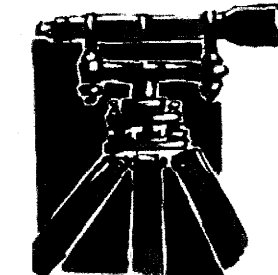
2 QUARRY SPALL CONSTRUCTION ENTRANCE DETAIL not to scale

CITY OF FERNDALE TESC NOTES:

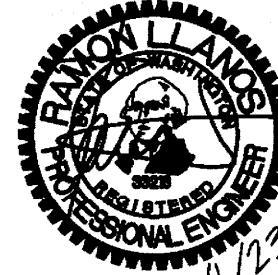
1. STABILIZATION & SEDIMENT TRAPPING. ALL EXPOSED SOILS SHALL BE STABILIZED BY SUITABLE APPLICATION OF BMP'S. FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN UNEXPOSED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED FOR MORE THAN 7 DAYS. PRIOR TO LEAVING THE SITE, STORMWATER 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. TRAPPING & 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 TUNING 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. ALL SITE GRADING SHALL BE COMPLETED IN ACCORDANCE WITH APPENDIX J OF THE 2012, INTERNATIONAL BUILDING CODE.
17. SITE GRADING SHALL BE MONITORED BY GEOTECH SERVICES TO ENSURE THE FILLS WERE PERFORMED AND RECORDED PER APPENDIX J NOTED IN THE ABOVE COMMENT.
18. WORK PERFORMED OUTSIDE CITY RIGHT-OF-WAY ON PRIVATE PROPERTY REQUIRES PROJECT CERTIFICATION BY THE ENGINEER OF RECORD. THE ENGINEER OF RECORD SHALL DETERMINE AN INSPECTION SCHEDULE TO BE CARRIED OUT BY HIMSELF OR HERSELF AND/OR QUALIFIED DESIGNEE INCLUDING GEOTECHNICAL INSPECTIONS AND DOCUMENTATION SUPPORT.
19. FOR PROJECT ACCEPTANCE THE ENGINEER OF RECORD IS REQUIRED TO SUBMIT A FINAL AS-BUILT GRADING PLAN FOR CITY REVIEW AND APPROVAL THAT INCLUDES THE FOLLOWING STATEMENT: AS THE ENGINEER OF RECORD, I HEREBY CERTIFY THAT THE IMPROVEMENTS COMPLETED AT 5445 PORTAL WAY FOR FLAT 4-LIFE AND 8407 PORTAL WAY FOR ALPINE INVESTMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE PLANS APPROVED BY THE PUBLIC WORKS DIRECTOR AND IN ACCORDANCE WITH THE SPECIFICATIONS ADOPTED BY THE CITY OF FERNDALE.
20. A STORMWATER MAINTENANCE PLAN MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL AT PROJECT COMPLETION INCLUDING AN 11X17 AS-BUILT DRAWING OF THE STORMWATER FACILITIES IN CONFORMANCE WITH THE ATTACHED STORMWATER MAINTENANCE MANUAL CHECKLIST FOR THE CONVEYANCE SYSTEM LOCATED OUTSIDE CITY R/W THAT MUST BE PRIVATELY MAINTAINED.

EROSION AND SEDIMENT

1. EROSION CONTROL METHODS AND MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 9-01 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 FERNDALE DEVELOPMENT STANDARDS, THE PROJECT SWPPP 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 LEAVING THE SITE. IF SILTY 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.



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



JOB NO.: 1751

DWG. NAME:

DESIGNED BY: RL

DRAWN BY: EH

CHECKED BY: RL

OWNER:

BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

8148 VISTA DRIVE, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
STORMWATER POLLUTION PREVENTION PLAN
& TESC NOTES AND DETAILS

APPROVED

DATE: 01/11/2023

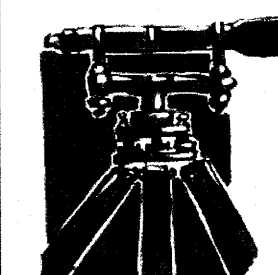
Signature of Brian Tines

NO.	REVISION	BY	DATE
1	PRELIMINARY	EH	09/19/18
2	SUBMITAL	EH	11/29/18
3	SUBMITAL	EH	02/25/19
4	SUBMITAL	EH	04/17/19
5	SUBMITAL-REVISE LUSTY VAULT	EH	01/22/20
6	QTY COMMENTS	EH	06/08/20

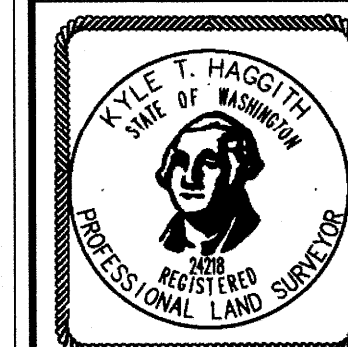
02A

OF 16

RECORD DRAWING



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



JOB NO.: 1751
DWG. NAME: 1751-SV-BASE.dwg
DESIGNED BY: RL
DRAWN BY: SL/NC
CHECKED BY: RL
OWNER: BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

648 VISTA DRIVE CITY OF FERDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
EXISTING CONDITIONS

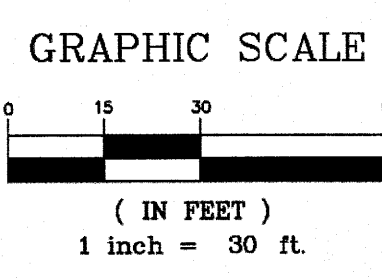
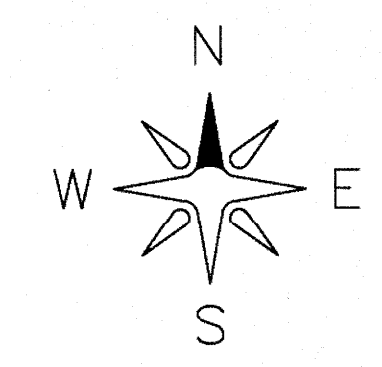
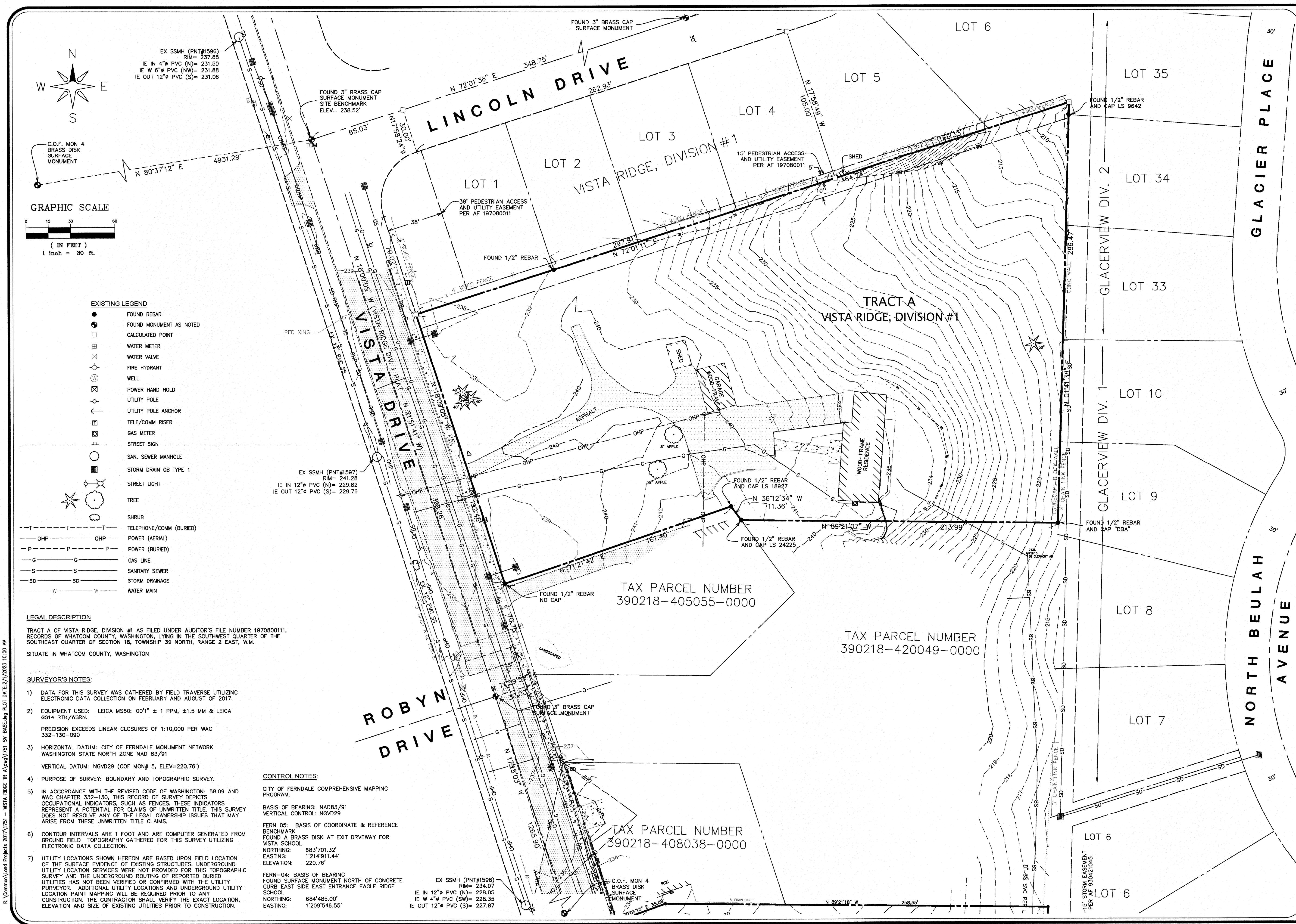
APPROVED
FEB 1 2023
[Signature]
JULIA WORKS DEPARTMENT

REVISION	NO.	REVISION	BY	DATE
PRELIMINARY	1			09/19/18
SUBMITTAL	2			11/20/18
SUBMITTAL	3			10/25/19
SUBMITTAL	4			04/17/19
SUBMITTAL	5			
SUBMITTAL	6			
SUBMITTAL	7			
SUBMITTAL	8			
SUBMITTAL	9			
SUBMITTAL	10			

03

RECORD DRAWING

00731.004 2/1/23 RH



EXISTING LEGEND

- FOUND REBAR
- FOUND MONUMENT AS NOTED
- CALCULATED POINT
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WELL
- POWER HAND HOLD
- UTILITY POLE
- UTILITY POLE ANCHOR
- TELE/COMM RISER
- GAS METER
- STREET SIGN
- SAN. SEWER MANHOLE
- STORM DRAIN CB TYPE 1
- STREET LIGHT
- TREE
- SHRUB
- TELEPHONE/COMM (BURIED)
- POWER (AERIAL)
- POWER (BURIED)
- GAS LINE
- SANITARY SEWER
- STORM DRAINAGE
- WATER MAIN

LEGAL DESCRIPTION

TRACT A OF VISTA RIDGE, DIVISION #1 AS FILED UNDER AUDITOR'S FILE NUMBER 197080011, RECORDS OF WHATCOM COUNTY, WASHINGTON, LYING IN THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 18, TOWNSHIP 39 NORTH, RANGE 2 EAST, W.M.

SURVEYOR'S NOTES:

- DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTION ON FEBRUARY AND AUGUST OF 2017.
- EQUIPMENT USED: LEICA MS60: 001" ± 1 PPM, ±1.5 MM & LEICA GS14 RTK/WSRN.
PRECISION EXCEEDS LINEAR CLOSURES OF 1:10,000 PER WAC 332-130-090
- HORIZONTAL DATUM: CITY OF FERDALE MONUMENT NETWORK WASHINGTON STATE NORTH ZONE NAD 83/91
VERTICAL DATUM: NAVD83 (COF MON # 5, ELEV=220.76')
- PURPOSE OF SURVEY: BOUNDARY AND TOPOGRAPHIC SURVEY.
- IN ACCORDANCE WITH THE REVISED CODE OF WASHINGTON: 58.09 AND WAC CHAPTER 332-130, THIS RECORD OF SURVEY DEPICTS OCCUPATIONAL INDICATORS, SUCH AS FENCES, THESE INDICATORS REPRESENT A POTENTIAL FOR CLAIMS OF UNWRITTEN TITLE. THIS SURVEY DOES NOT RESOLVE ANY OF THE LEGAL OWNERSHIP ISSUES THAT MAY ARISE FROM THESE UNWRITTEN TITLE CLAIMS.
- CONTOUR INTERVALS ARE 1 FOOT AND ARE COMPUTER GENERATED FROM GROUND FIELD TOPOGRAPHY GATHERED FOR THIS SURVEY UTILIZING ELECTRONIC DATA COLLECTION.
- UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON FIELD LOCATION OF THE SURFACE EVIDENCE OF EXISTING STRUCTURES. UNDERGROUND UTILITY LOCATION SERVICES WERE NOT PROVIDED FOR THIS TOPOGRAPHIC SURVEY AND THE UNDERGROUND ROUTING OF REPORTED BURIED UTILITIES HAS NOT BEEN VERIFIED OR CONFIRMED WITH THE UTILITY PURVEYOR. ADDITIONAL UTILITY LOCATIONS AND UNDERGROUND UTILITY LOCATION PAINT MAPPING WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

CONTROL NOTES:

CITY OF FERDALE COMPREHENSIVE MAPPING PROGRAM.
BASIS OF BEARING: NAD83/91
VERTICAL CONTROL: NAVD83
FERN 05: BASIS OF COORDINATE & REFERENCE BENCHMARK
FOUND A BRASS DISK AT EXIT DRIVEWAY FOR VISTA SCHOOL
NORTHING: 683'701.32'
EASTING: 1'214'911.44'
ELEVATION: 220.76'
FERN-04: BASIS OF BEARING
FOUND SURFACE MONUMENT NORTH OF CONCRETE CURB EAST SIDE EAST ENTRANCE EAGLE RIDGE SCHOOL
NORTHING: 684'485.00'
EASTING: 1'209'546.55'

EX SSMH (PNT#1598)
RIM= 234.07
IE IN 12" PVC (N)= 228.05
IE W 4" PVC (SW)= 228.35
IE OUT 12" PVC (S)= 227.87

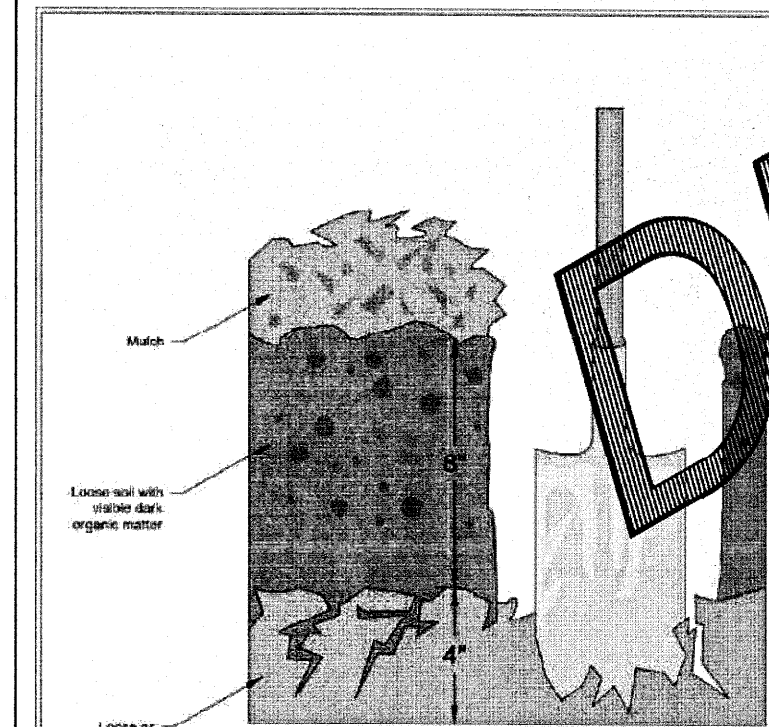
TAX PARCEL NUMBER
390218-408038-0000

TAX PARCEL NUMBER
390218-420049-0000

TAX PARCEL NUMBER
390218-405055-0000

R:\Common\Lead Projects\2017\1751 - VISTA SPRINGS\1751-VISTA-AS-BUILD.dwg PLOT DATE: 2/1/2023 9:55 AM

BMP T5.13 - POST CONSTRUCTION SOIL QUALITY AND DEPTH



Reprinted from Guidelines and Recommendations for Implementing Soil Quality and Depth BMP T5.13 at WCLC Stormwater Management Manual for Streets, Washington, 2016, Washington Organic Recycling Council.

ECOLGY
State of Washington

Figure V-5.3.3
Planting Bed Cross-Section

ALL AREAS SUBJECT TO CLEARING AND GRADING SHALL BE COVERED BY IMPERVIOUS SURFACING OR COVERED IN TURF, FACILITY OR ENGINEERED ARTIFICIAL FILL OR PROTECT SHALL AT COMPLETION. SHALL DEMONSTRATE THE FOLLOWING:

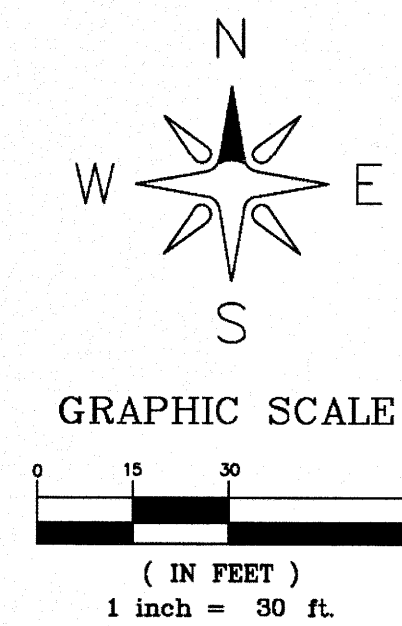
SOIL QUALITY:
A TOPSOIL LAYER SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT INCORPORATING 2.5% ORGANIC MATTER CONTENT IN TURF AREAS. AREA PH FROM 6.0 AND 8.0 OR MATCHING. BY OF THE UNDISTURBED SOIL. USE COMPOST AND OTHER MATERIALS TO MEET THE COMPOST GUIDELINES.

SOIL DEPTH:
THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT UNDER TREE ROOTS. THE DEPTH OF INCORPORATION OF AMENDMENTS SHOULD BE 4 INCHES. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS WHERE FEASIBLE. PLANTING BEDS SHOULD HAVE 2 INCHES OF ORGANIC MATERIAL AS WELL.

IMPLEMENTATION OPTIONS:

- 1) LEAVE AS MUCH NATIVE VEGETATION AND SOIL AS POSSIBLE AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
- 2) AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT RATES OR AT A CUSTOM CALCULATED RATE BASED ON TESTS OF THE SOIL AND AMENDMENT.
- 3) IN AREAS REQUIRING CLEARING AND GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA. NOT ADJECT TO PUBLIC RESOURCES AND CRITICAL AREAS. REPLACE IT PRIOR TO PLANTING AND AMEND IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS.
- 4) IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

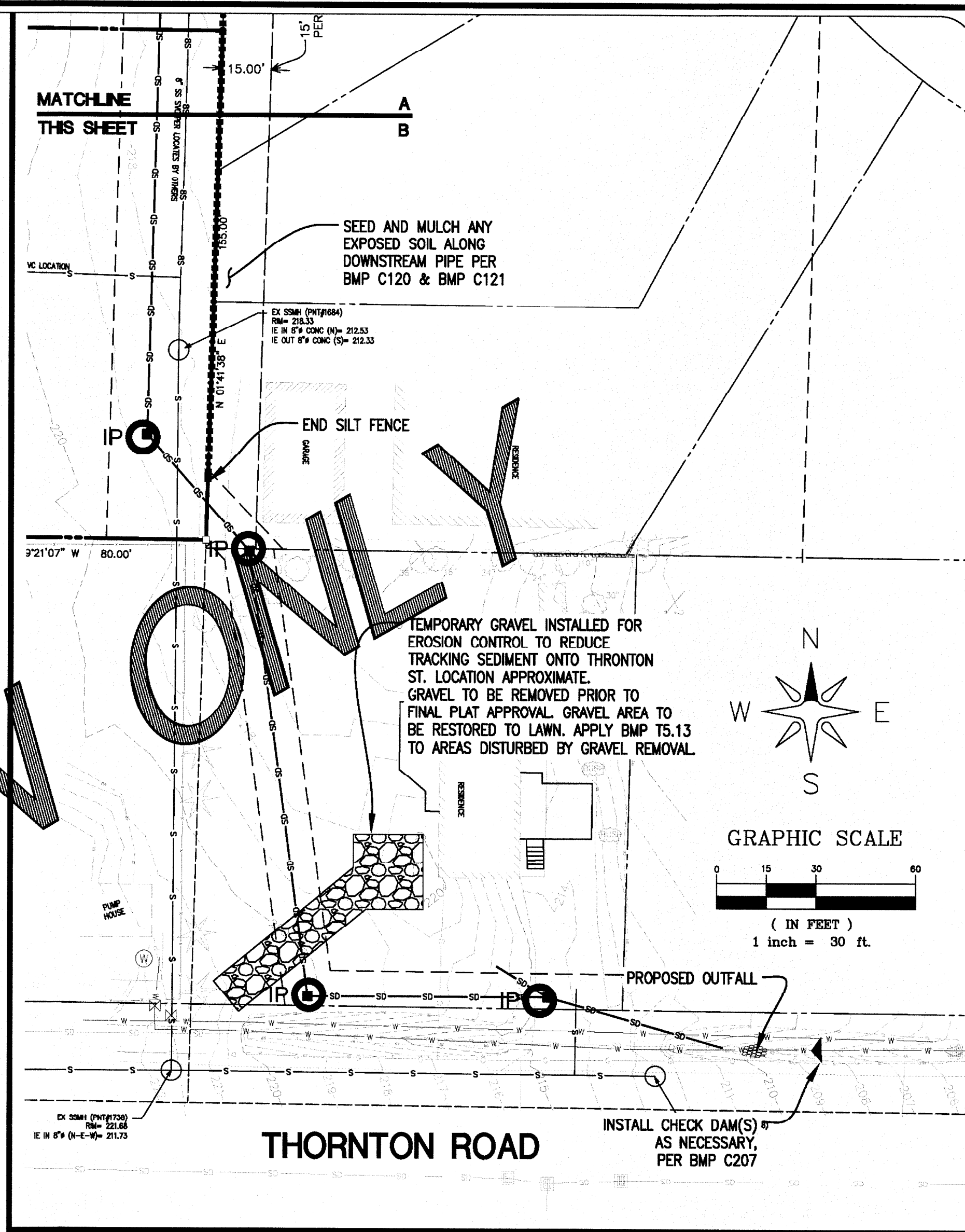
MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE.



GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

MATCHLINE
THIS SHEET

A
B

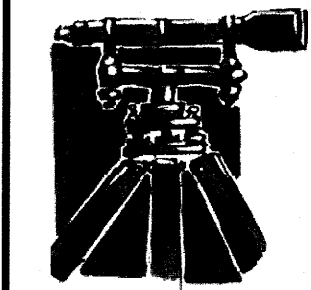


APPROVED

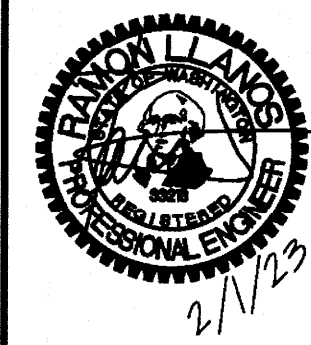
Feb 01, 2023
By: [Signature]
Public Works Department

TESC LEGEND:			
IP	=	INLET PROTECTION PROTECT NEW STRUCTURES AS THEY ARE INSTALLED	
[Pattern]	=	CONSTRUCTION ENTRANCE (DETAIL 2, SEE SHEET 02A)	
[Pattern]	=	SEDIMENT FENCE (DETAIL 1, SEE SHEET 02A)	
[Symbol]	=	CHECK DAM PER BMP C207	

- TESC NOTES:
1. SEE SHEET 2A FOR TESC NOTES AND DETAILS, AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ELEMENTS.
 2. ALL EROSION CONTROL MEASURES INCLUDING CONSTRUCTION ENTRANCE MUST BE INSTALLED PER PLAN AND INSPECTED BY CITY OF FERNDALE STORMWATER TECHNICIAN PAUL KNIPPEL (360)383-8189 PRIOR TO CONSTRUCTION. ALLOW A MINIMUM 24 HOURS NOTICE FOR INSPECTION.



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



JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

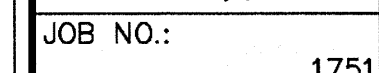
8148 VISTA DRIVE, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
TEMPORARY EROSION & SEDIMENTATION CONTROL PLANS & DETAILS

NO.	REVISION	DATE	BY	DATE
1	PRELIMINARY	02/01/23	RL	02/01/23
2	SUBMITTAL	02/01/23	RL	02/01/23
3	SUBMITTAL	02/01/23	RL	02/01/23
4	SUBMITTAL - REVISED	02/01/23	RL	02/01/23
5	CITY COMMENTS	02/01/23	RL	02/01/23
6	REVISION	02/01/23	RL	02/01/23

SHEET
04
OF 16

RECORD DRAWING

00731.005 2/1/23 RH



DWG NAME:

DWG. NAME:

DESIGNED BY:

DRAWN BY: _____

EH

CHECKED BY: RL

BRIAN TINES

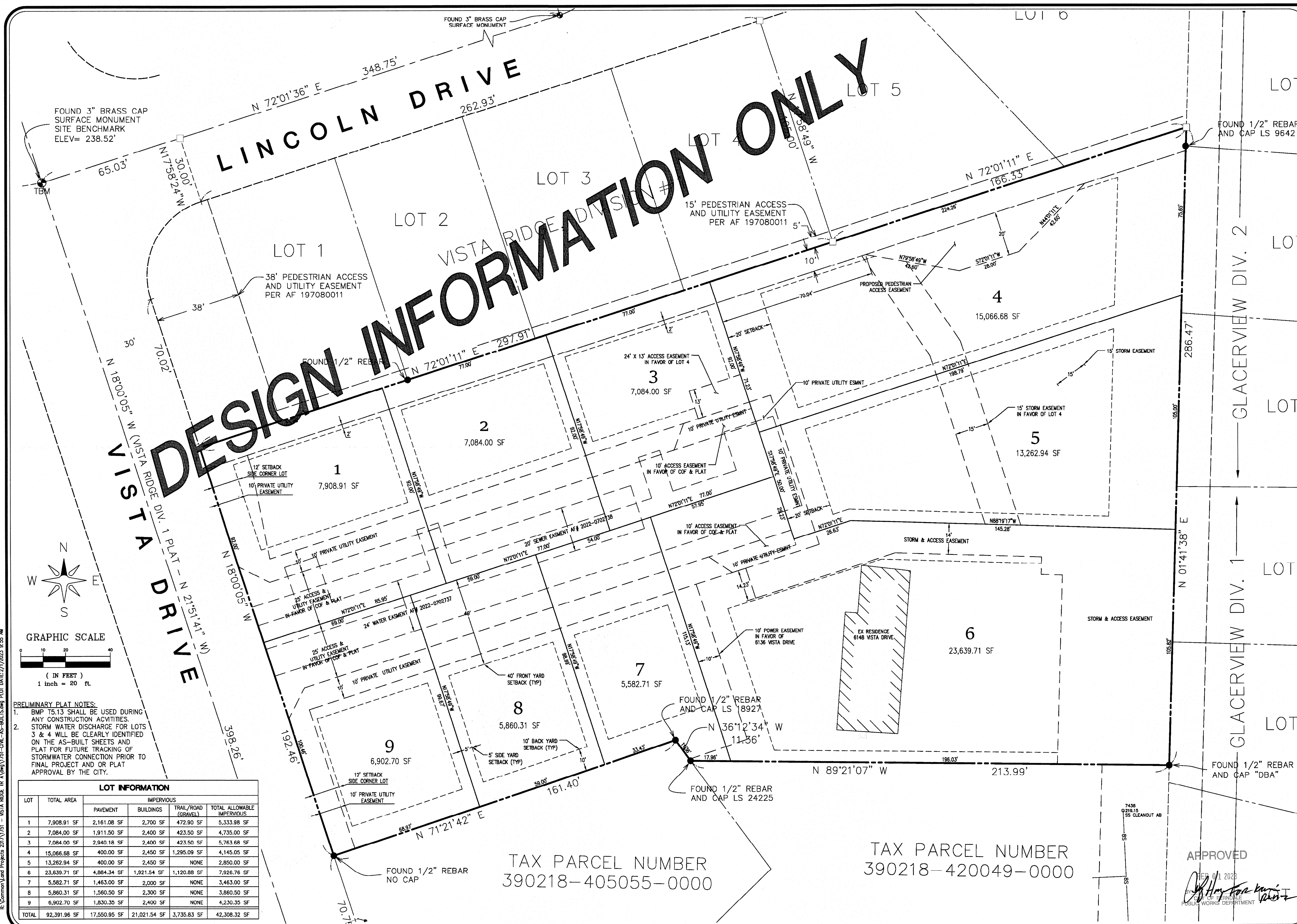
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

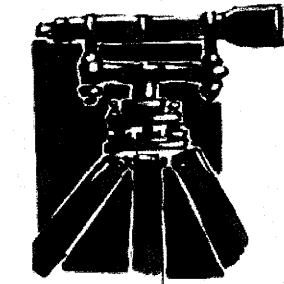
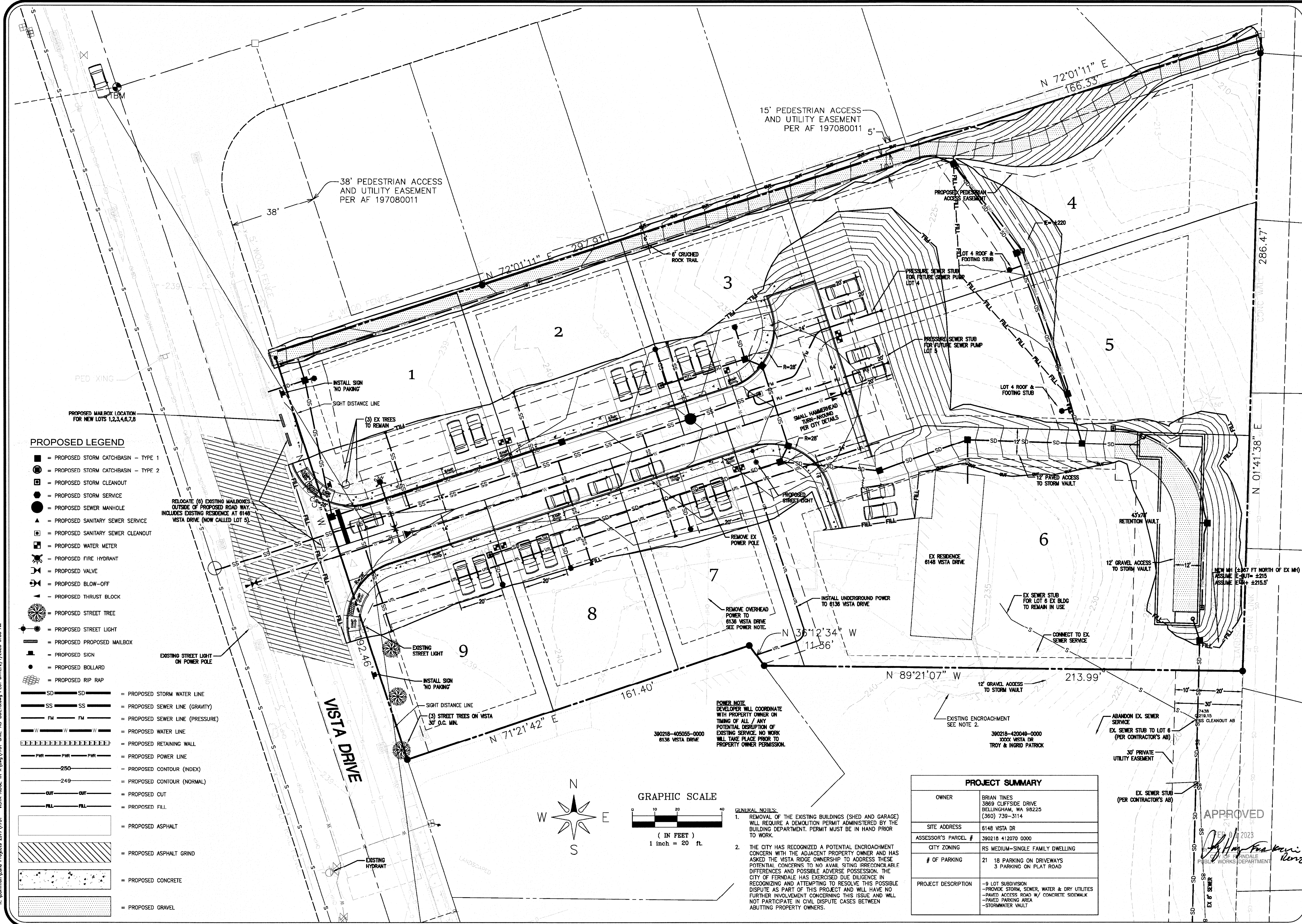
18448 VISTA DRIVE, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
PROPOSED PLAT

NO.	REVISION	BY	DATE	REVISION	DATE
1	PRELIMINARY	EH	06/19/18	STORMWATER REVISION	RS 02/24/22
2	SUBMITAL	EH	11/30/18	STORMWATER REVISION	RS 03/04/22
3	SUBMITAL	EH	02/25/19		
4	SUBMITAL	EH	04/17/19		
5	SUBMITAL-REVISE LOTS / WALL	EH	07/22/20		
6	DIT COMMENTS				

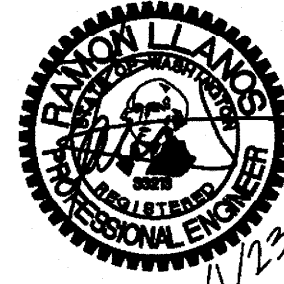
05
OF 16

RECORD DRAWING





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



JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

6148 VISTA DRIVE, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
COMPOSITE SITE PLAN

NO.	REVISION	BY	DATE
1	PRELIMINARY	EH	09/19/18
2	SUBMITTAL	EH	11/20/18
3	SUBMITTAL	EH	02/25/19
4	SUBMITTAL	EH	04/17/19
5	SUBMITTAL-REVISE LOTS / VAULT	EH	07/22/20
6	CITY COMMENTS	EH	08/09/20
7	NO.	REVISION	BY DATE

06
16

RECORD DRAWING

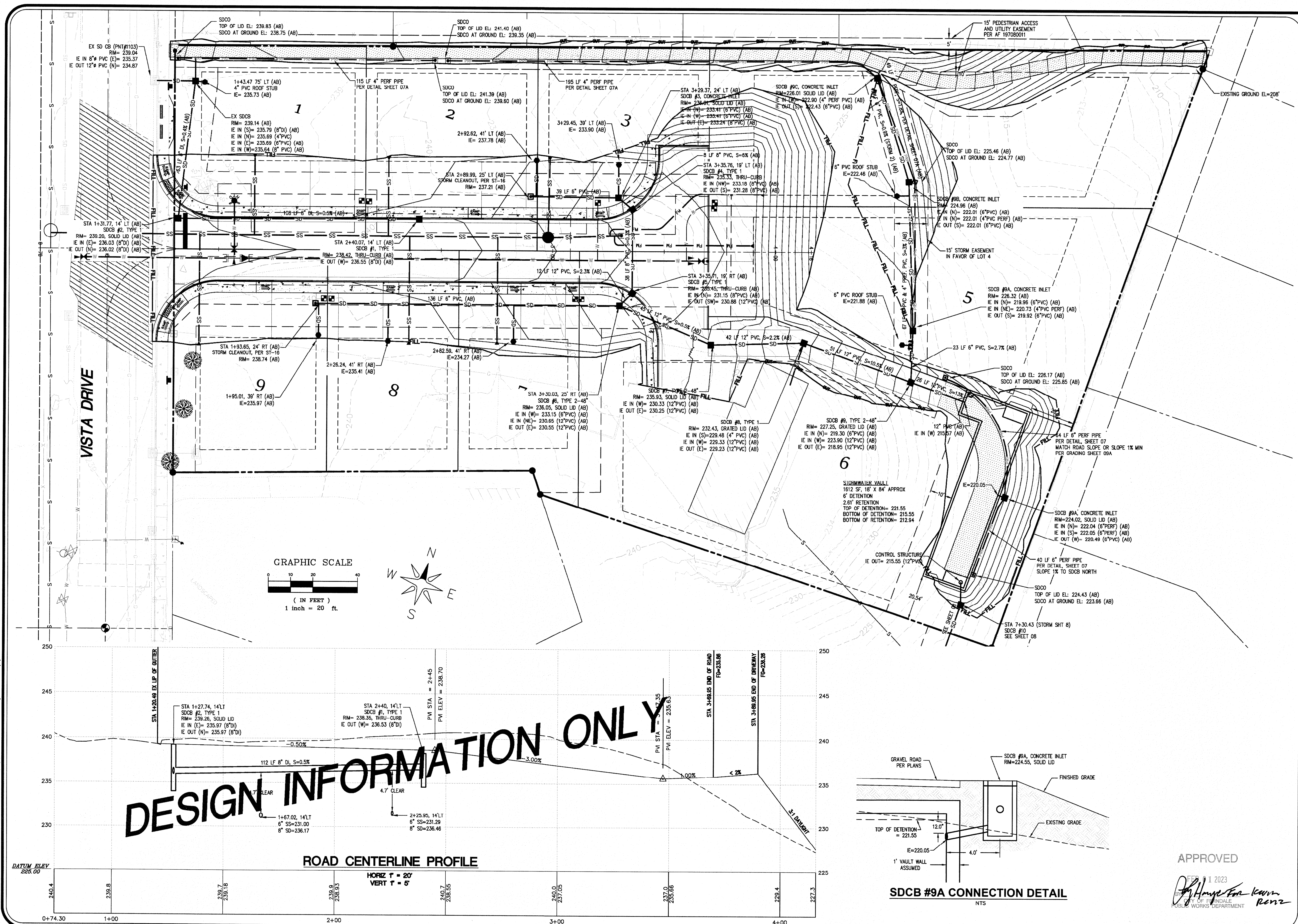
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

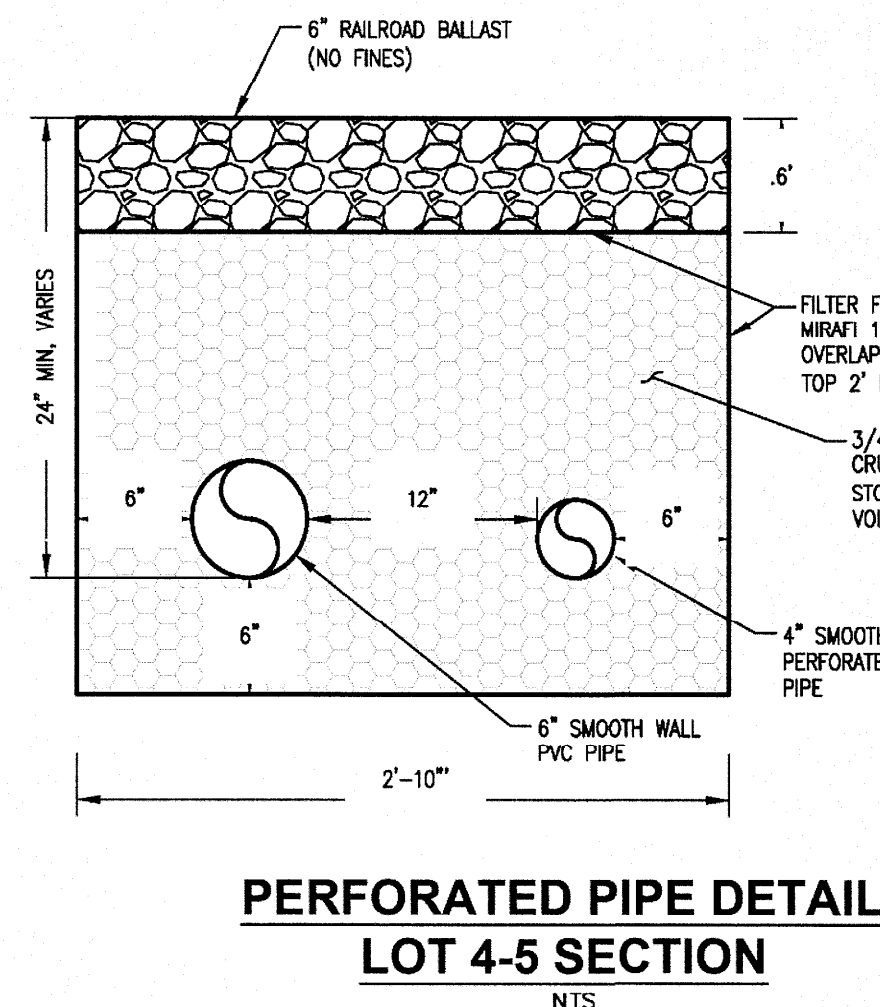
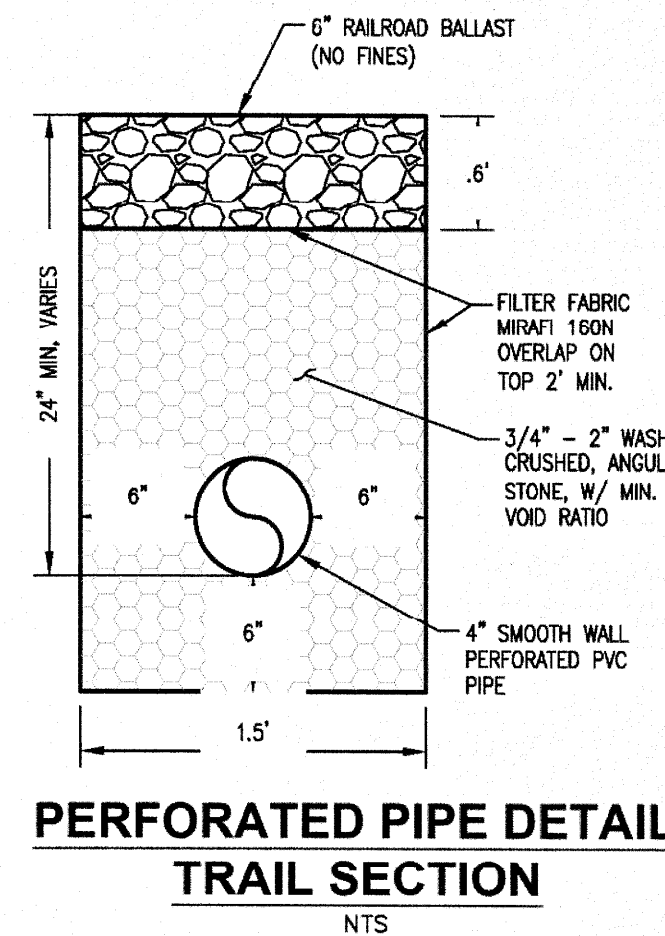
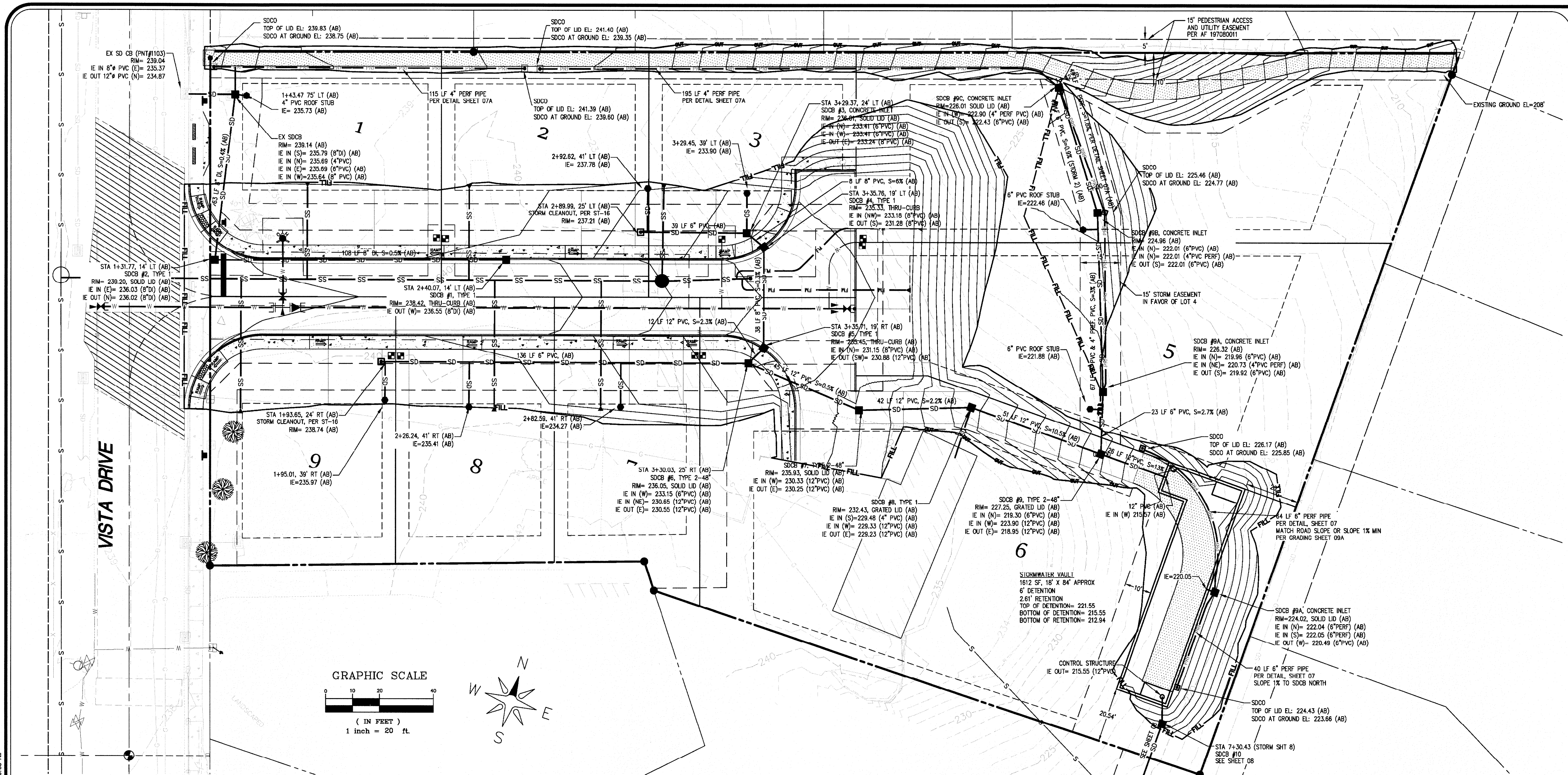
NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE
1	PRELIMINARY	EH	09/19/18	2	REV. 505 @ ENTER EX. TREES	EH	09/10/21
3	SUBMITTAL	EH	11/30/18	4	REV. VAULT & GRAVEL ACCESS	EH	08/23/21
5	SUBMITTAL	EH	02/25/19	6	FEED PIPE AT TRAIL	EH	
7	SUBMITTAL	EH	04/17/19	8	FEED PIPE AT TRAIL & LOT 4 & 5	RL	02/1/22
9	SUBMITTAL-REVISE LOTS / VAULT	EH	07/22/20	10	FEED PIPE AT TRAIL & LOT 4 & 5	RL	03/04/22
11	CITY COMMENTS	EH	06/08/20				

RECORD DRAWING

07

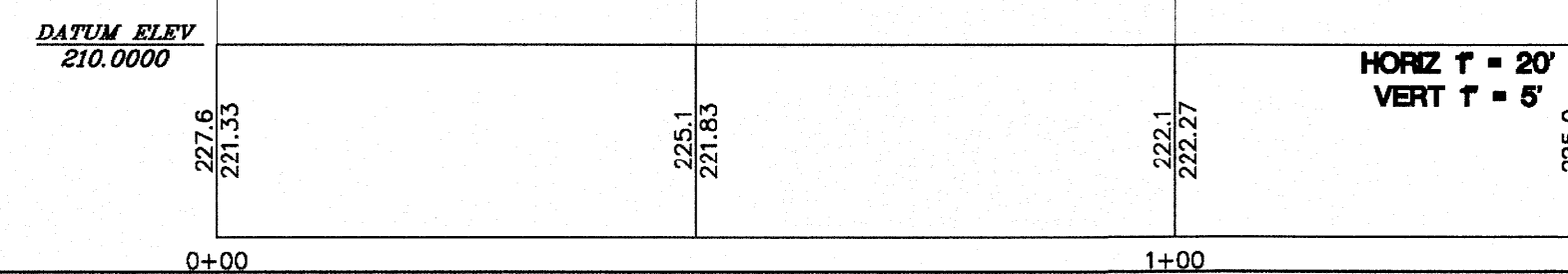
OF 16





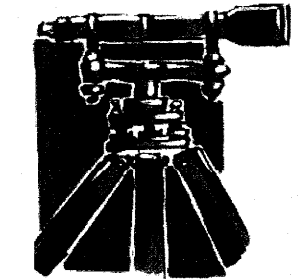
DESIGN INFORMATION ONLY

STORM 2 - TOP OF PIPE
ON-SITE - STORM BYPASS FOR TRAIL PERF PIPE



APPROVED

2/7/2023
City of Ferndale
Public Works Department



LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
PHONE 360-363-0620
FAX 360-363-0639



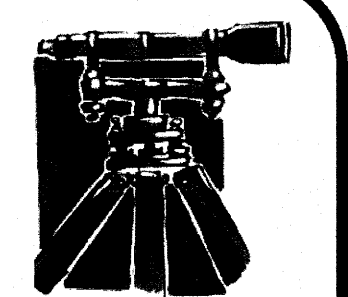
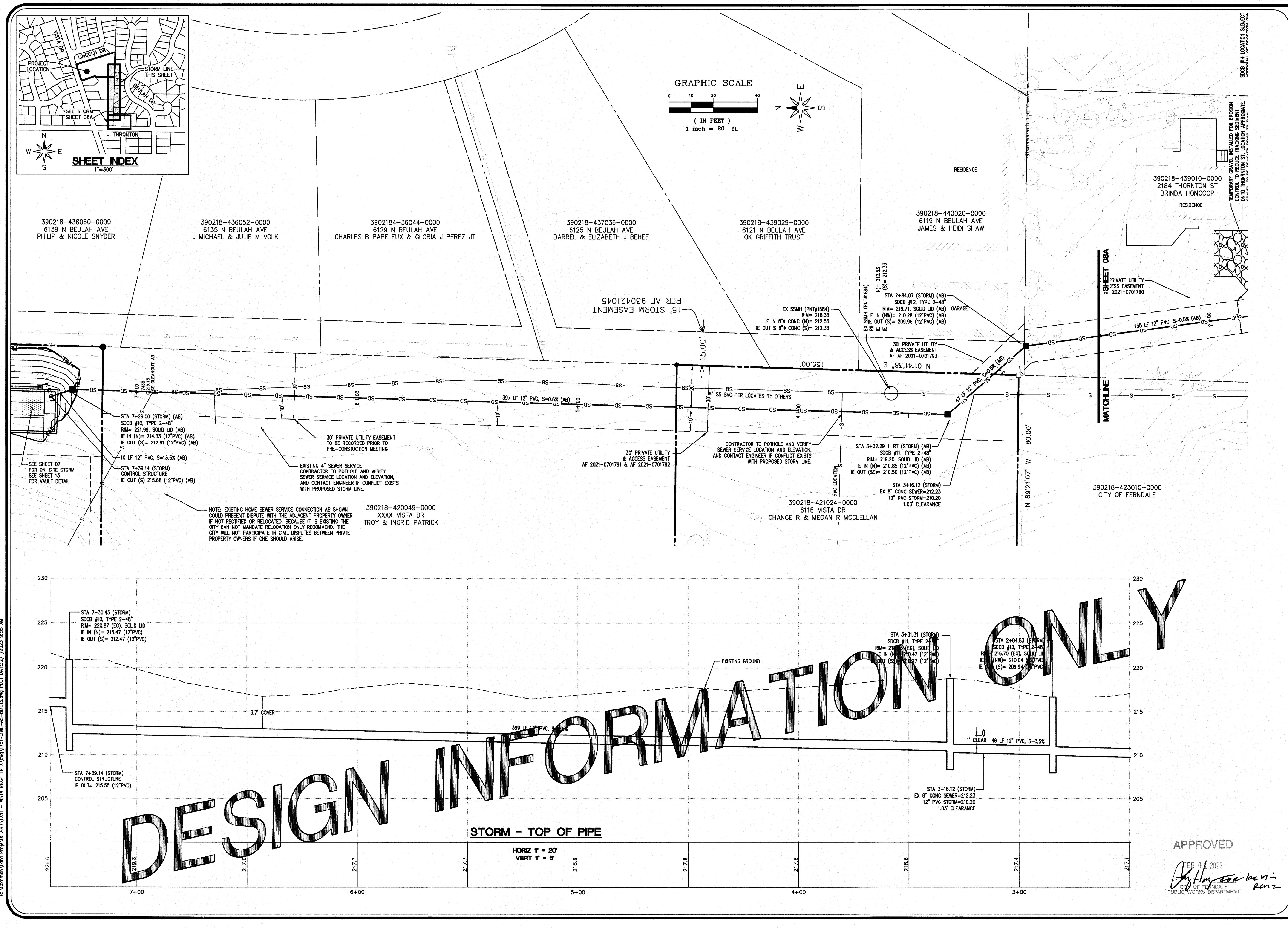
JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

8148 VISTA DRIVE, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
STORMWATER PLAN & PROFILE
ON-SITE - STORM BYPASS FOR TRAIL PERF PIPE

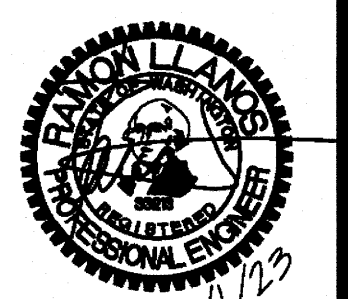
NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE
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3		RL	02/07/23	3		RL	02/07/23
4		RL	02/07/23	4		RL	02/07/23
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20		RL	02/07/23	20		RL	02/07/23

SHEET
07A
OF 16

RECORD DRAWING



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



JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

6148 VISTA DRIVE, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
STORMWATER PLAN & PROFILE
EAST LOT LINE TO THORNTON

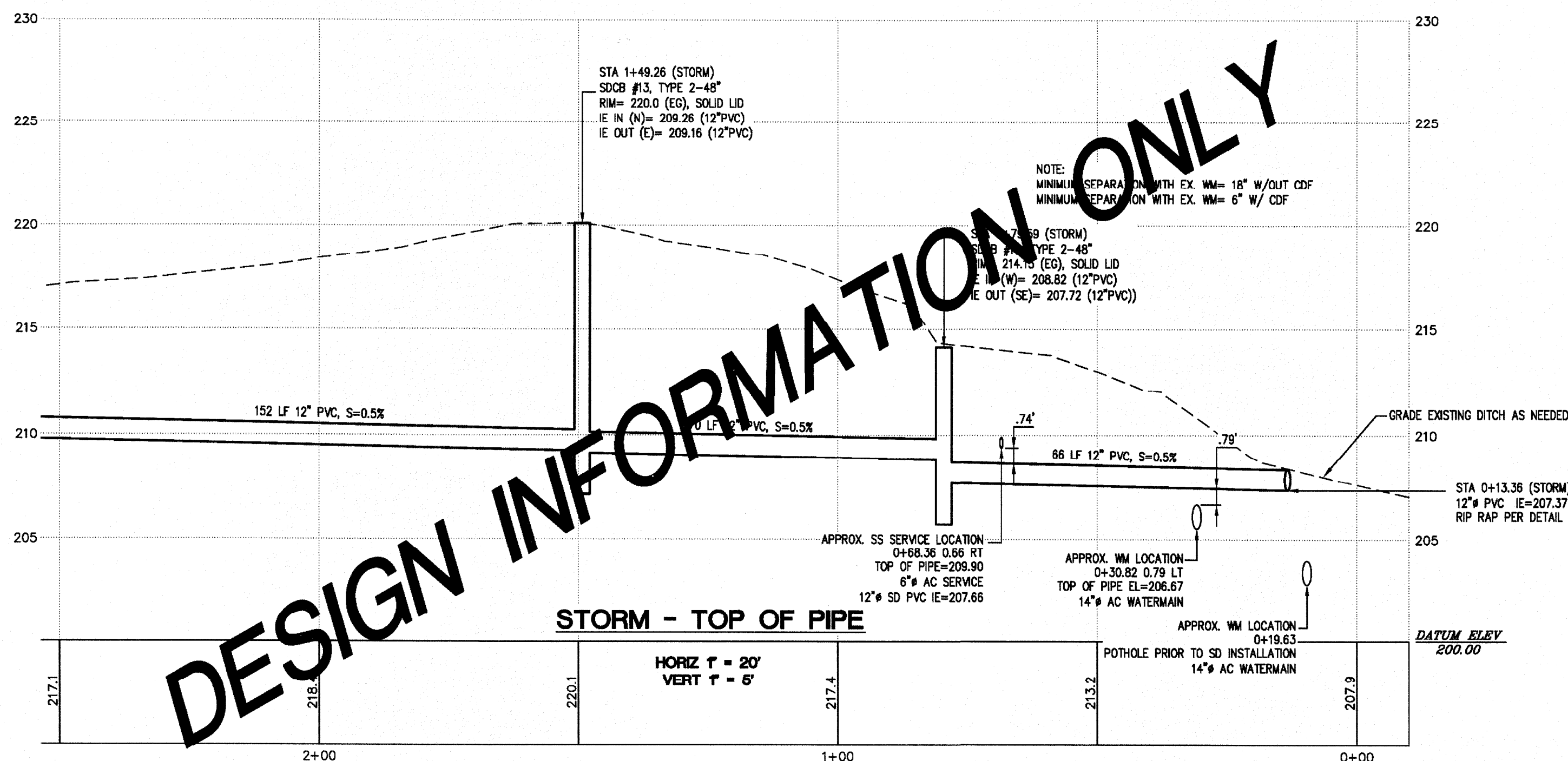
NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE
1	PRELIMINARY	EH	08/19/21	2	REV. VAILT & GRAVEL ACCESS	EH	08/23/21
3	SUBMITTAL	EH	11/29/21	4	SUBMITTAL	EH	04/17/22
5	SUBMITTAL-REVISE LOTS / VAILT	EH	01/22/22	6	CITY COMMENTS	EH	06/09/22
7	REVISION	BY	DATE	8	REVISION	BY	DATE

APPROVED
FEB 01 2023
[Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

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OF 16

RECORD DRAWING

00731.010 21/23 RH



STA 1+49.26 (STORM)
 SDOB #13, TYPE 2-46"
 RIM= 220.0 (EQ), SOLID LID
 IE IN (N)= 209.26 (12"PVC)
 IE OUT (E)= 209.16 (12"PVC)

NOTE:
 MINIMUM SEPARATION WITH EX. WM= 18" W/O/L
 MINIMUM SEPARATION WITH EX. WM= 6" W/ CD

SS SERVICE LOCATION
 0+88.36 0.66 RT
 TOP OF PIPE=208.90
 6" AC SERVICE
 12" SD PVC IE=207.66

APPROX. WM LOCATION
 0+30.82 0.79 LT
 TOP OF PIPE EL=206.67
 14" AC WATERMAIN

POTHOLE PRIOR TO SD INSTALLATION
 14" AC WATERMAIN

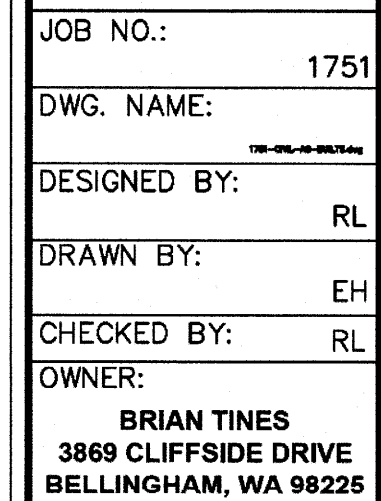
DESIGN INFORMATION ONLY

STORM - TOP OF PIPE

HORIZ T = 20'
 VERT T = 5'

218.2
 220.1
 217.4
 213.2

FEB 01 2023
BY *[Signature]* *Teri Kouri*
CITY OF FERDALE
PUBLIC WORKS DEPARTMENT
12012

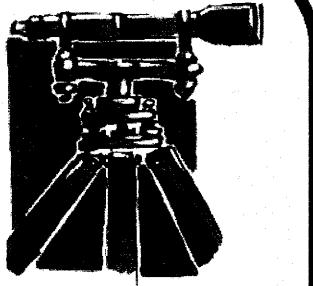
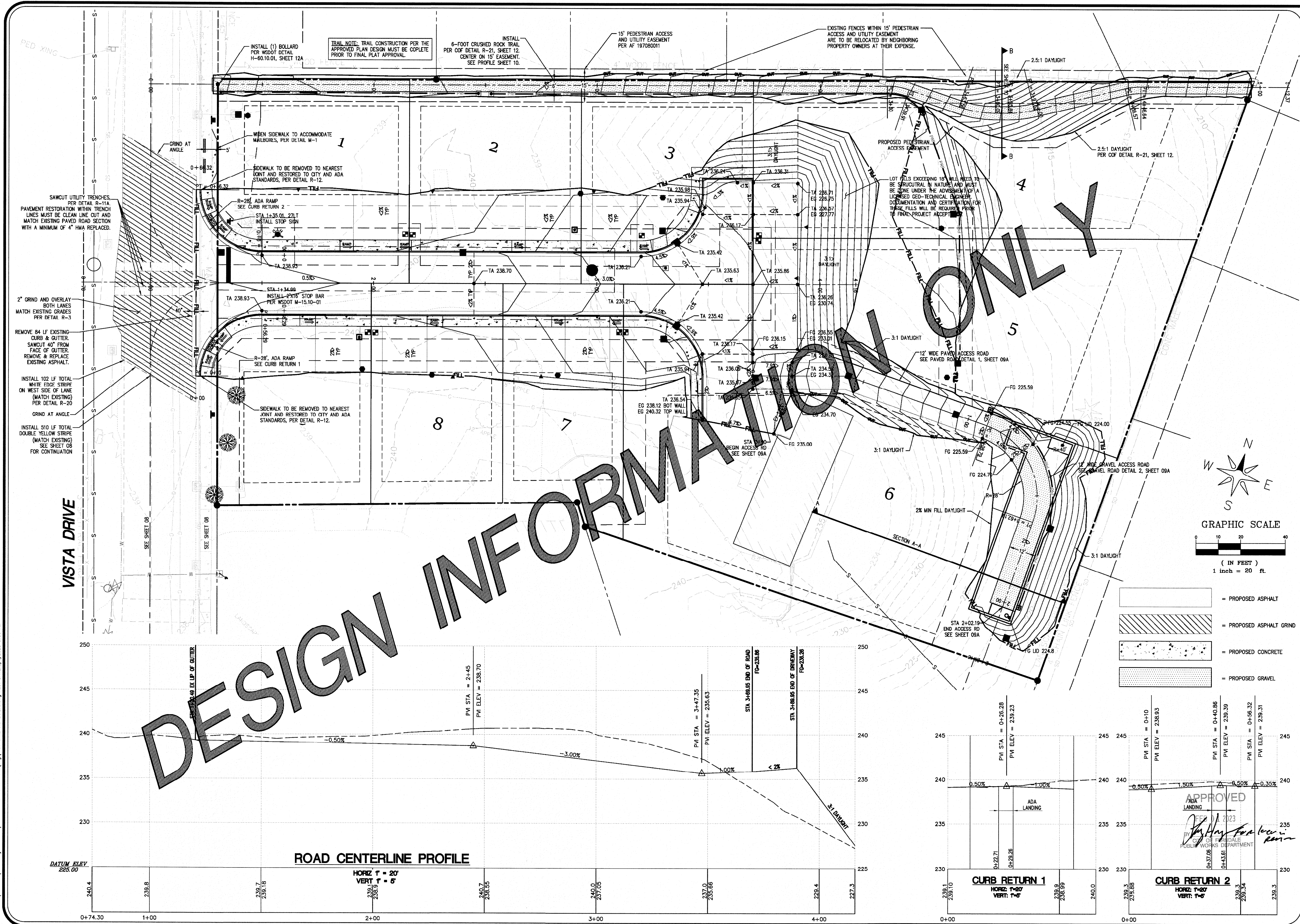


6848 VISTA DRIVE, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
 STORMWATER PLAN & PROFILE
 EAST LOT LINE TO THORNTON

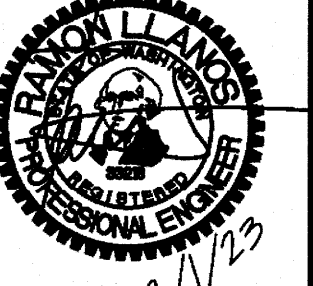
REV	BY	DATE	REVISION	BY	DATE
1	THORNTON	08/23/21	REV 50 OUTFALL @	THORNTON	08/23/21
2			GRAVEL REMOVAL		
3					
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OF 16

RECORD DRAWING



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



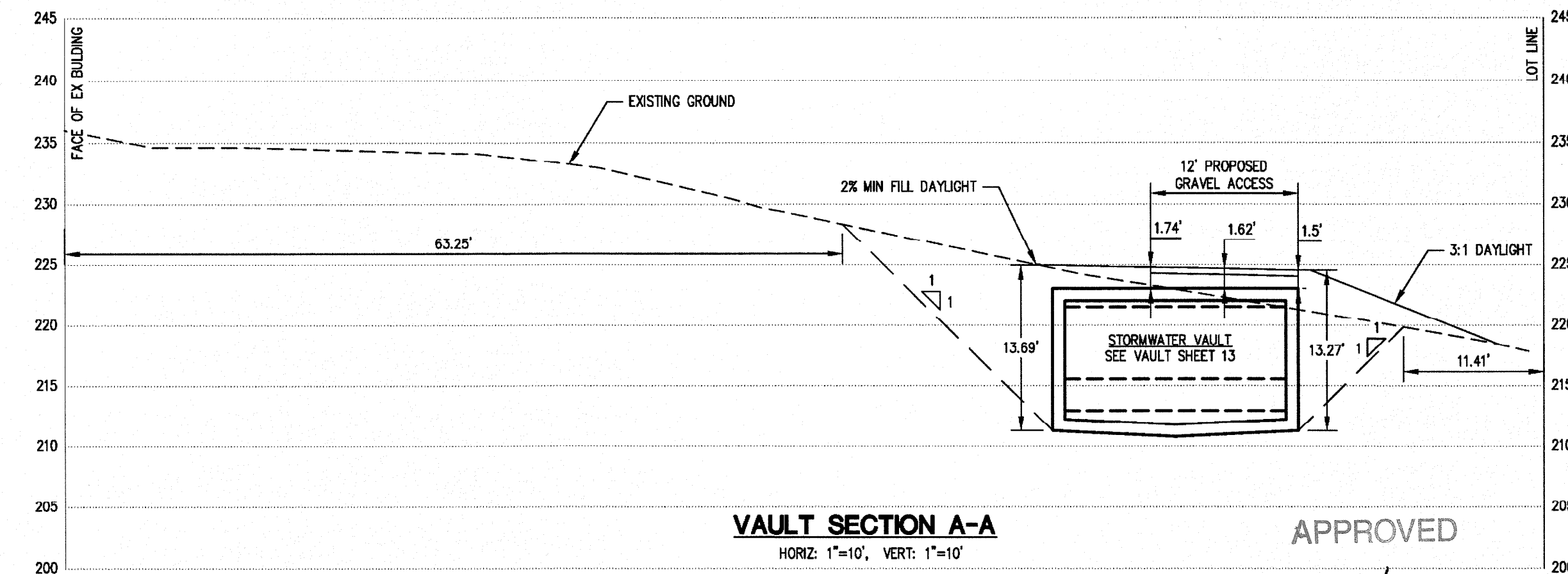
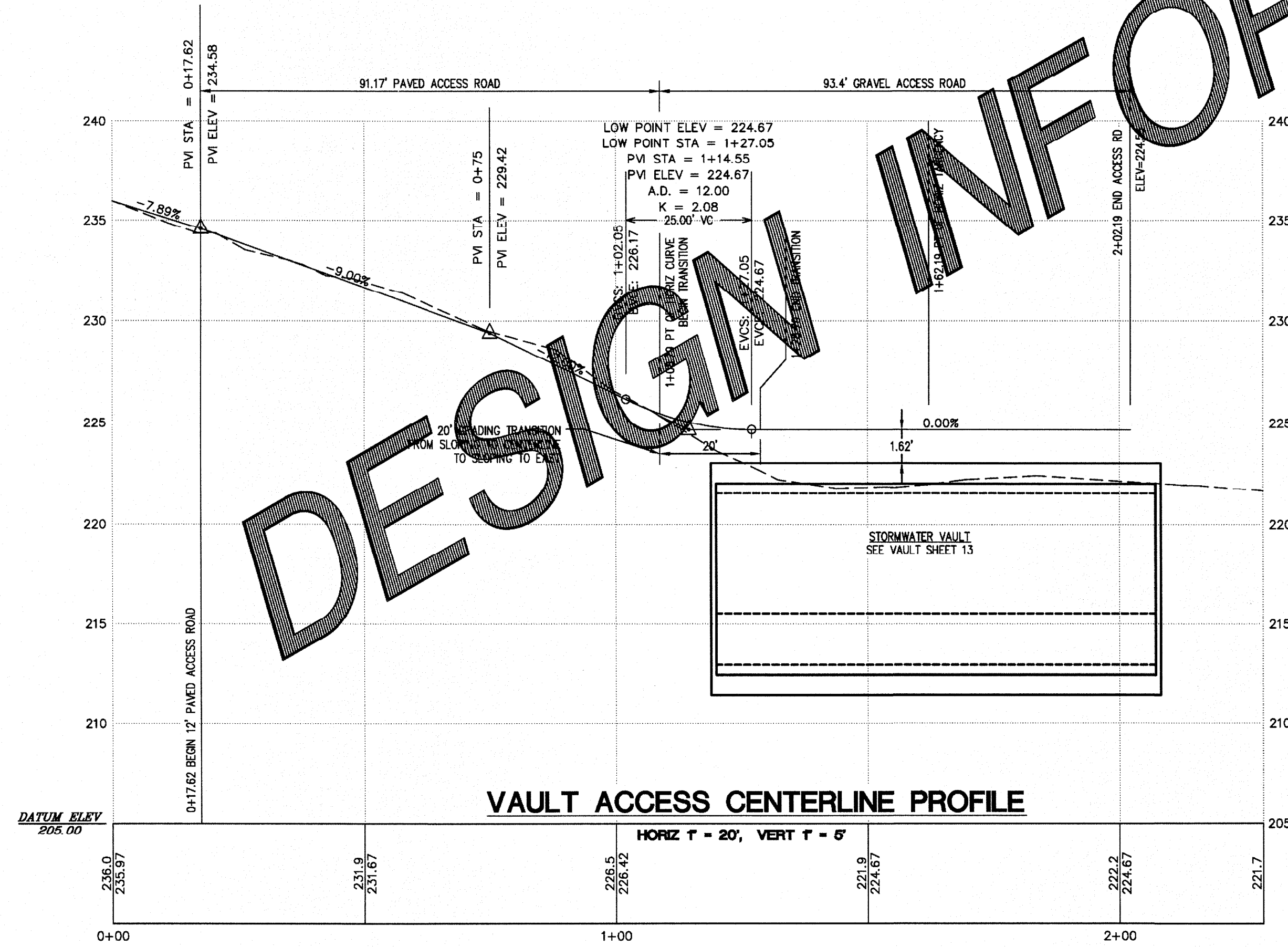
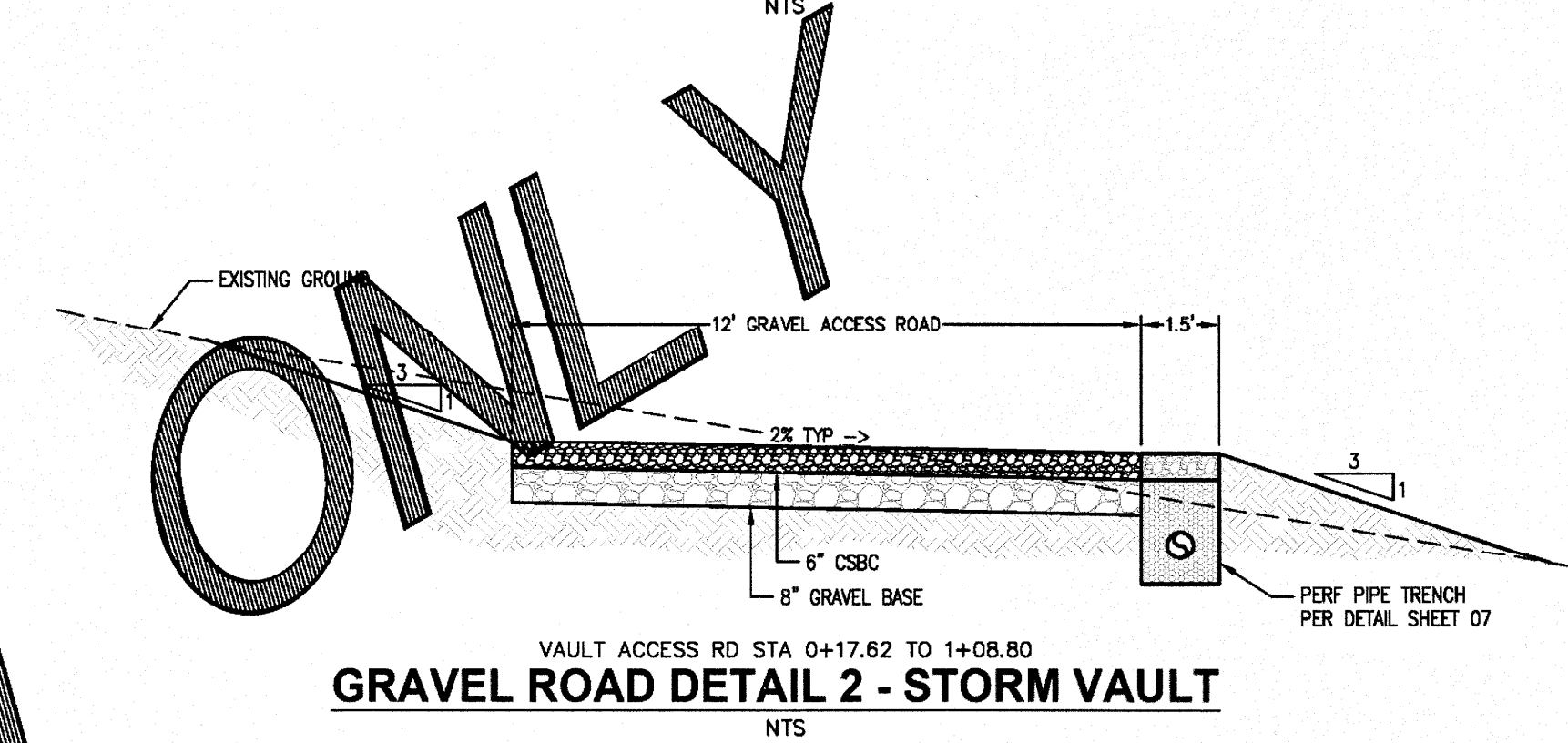
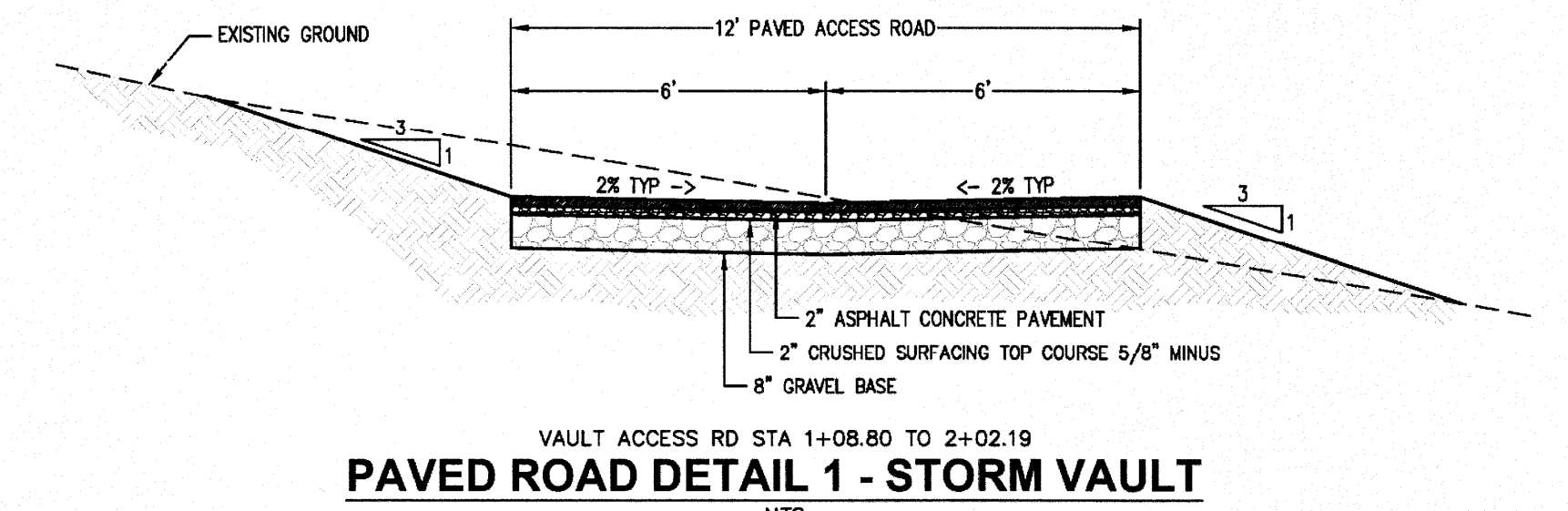
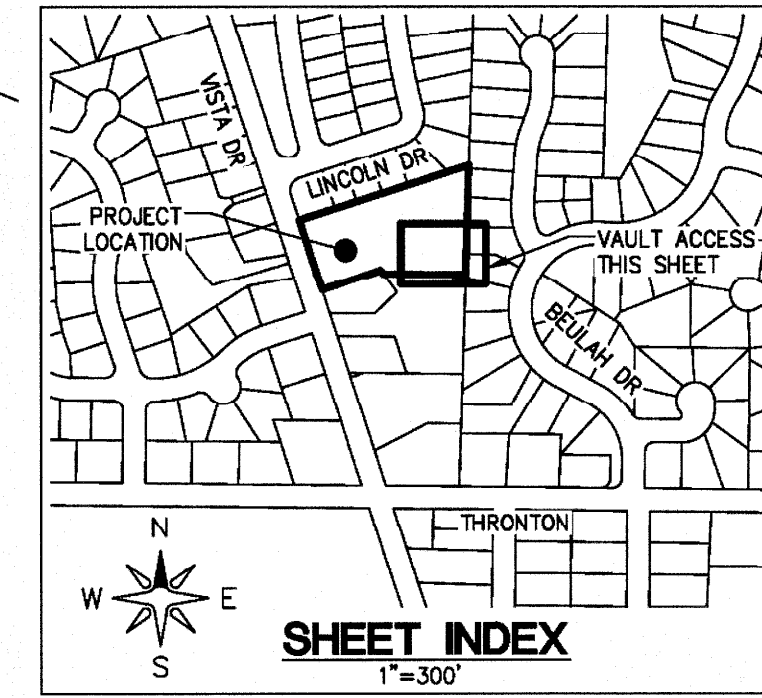
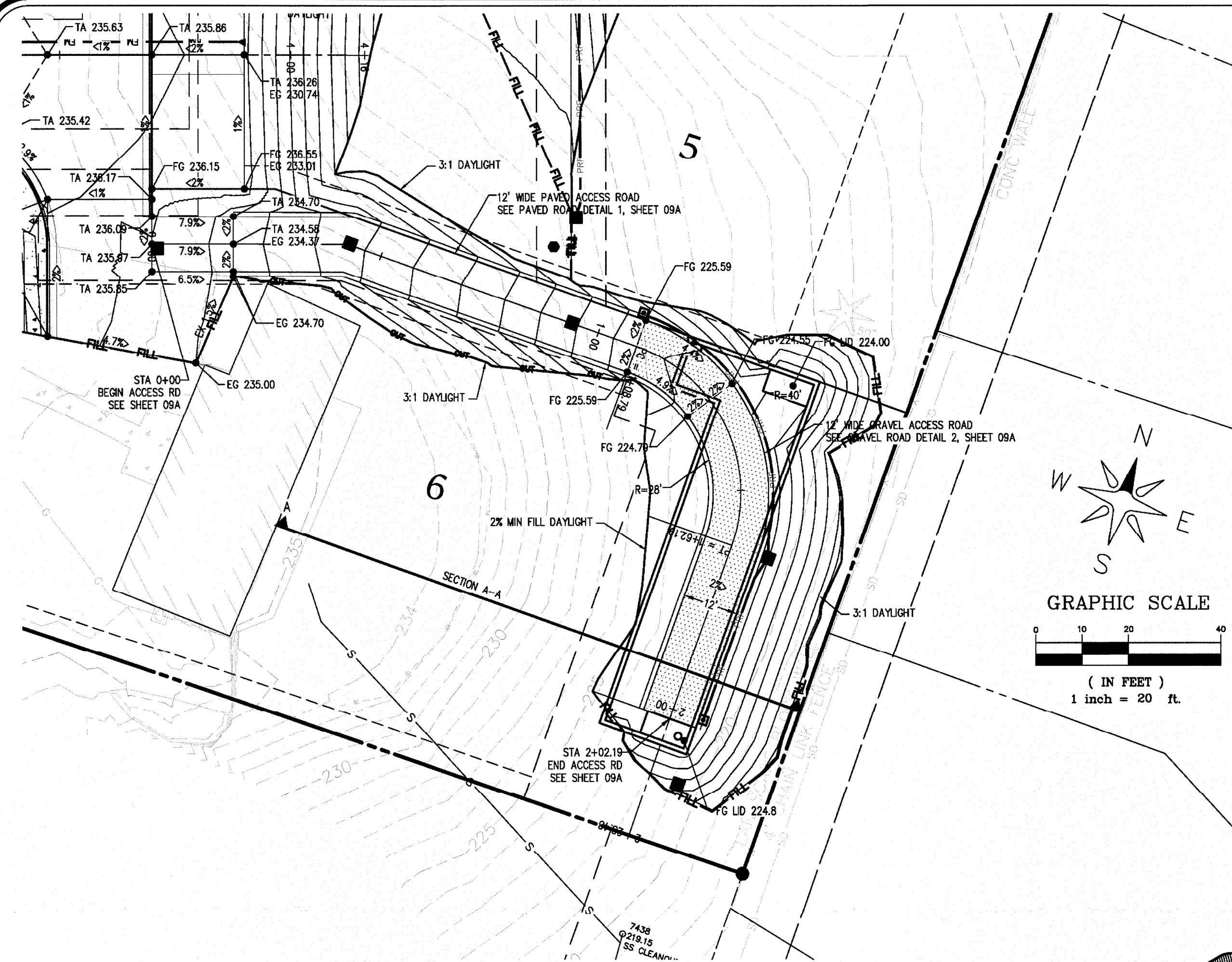
JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

0448 VISTA DRIVE, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
ROAD & GRADING PLAN

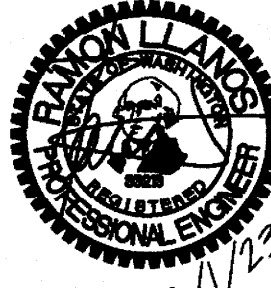
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2	REVISION	08/10/21	EH	08/10/21
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4	REVISION	08/10/21	EH	08/10/21
5	REVISION	08/10/21	EH	08/10/21
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7	REVISION	08/10/21	EH	08/10/21
8	REVISION	08/10/21	EH	08/10/21
9	REVISION	08/10/21	EH	08/10/21
10	REVISION	08/10/21	EH	08/10/21

SHEET
09
OF 16

RECORD DRAWING



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



JOB NO.: 1751

DWG. NAME:

DESIGNED BY:

DRAWN BY:

CHECKED BY:	RL
-------------	----

OWNER:
BRIAN TINES

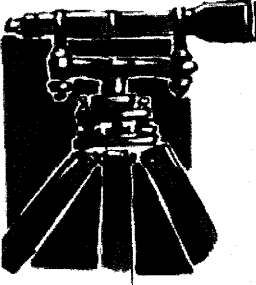
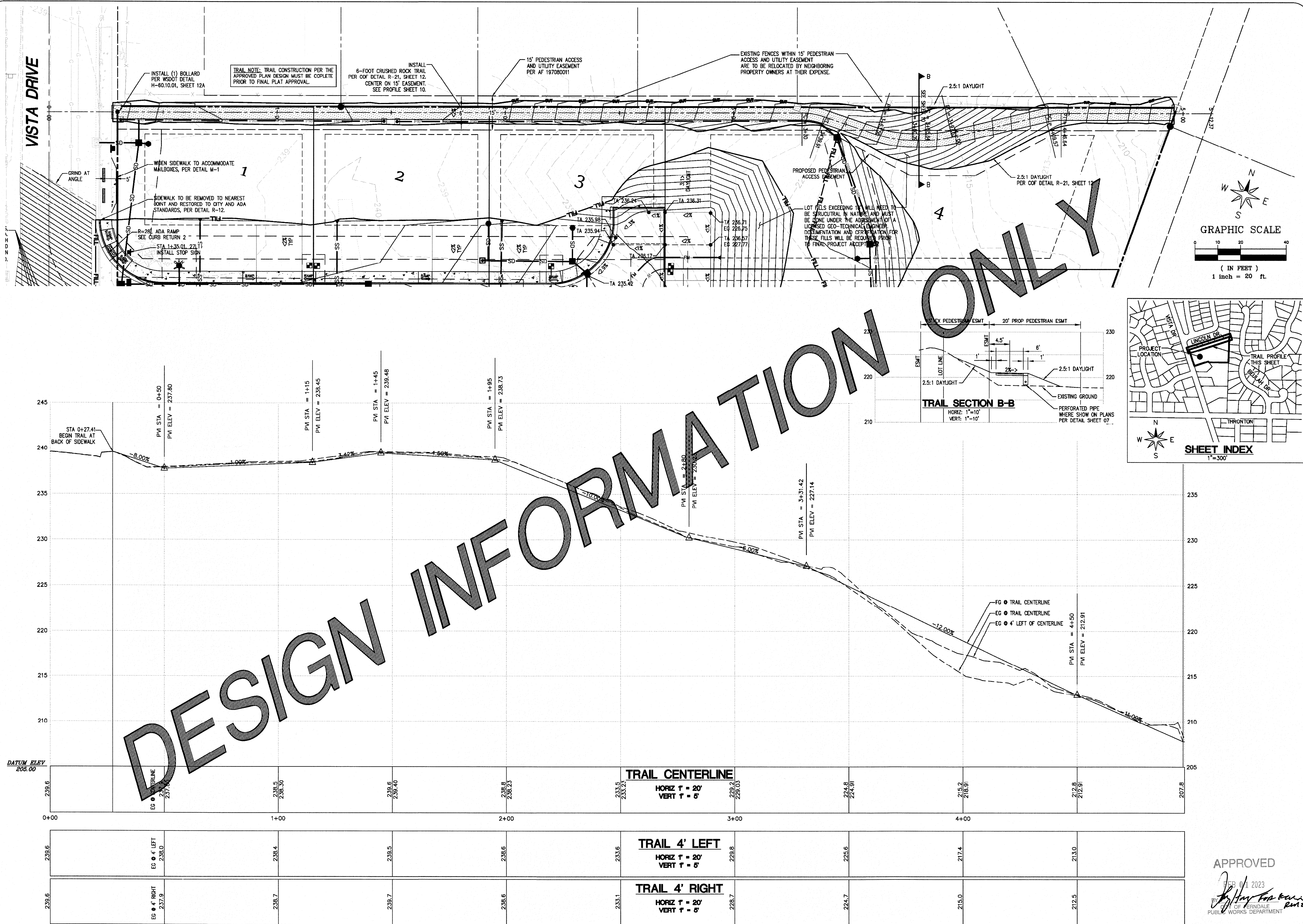
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

6148 VISTA DRIVE, CITY OF FERRIDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
Vault Access - Plan & Profile

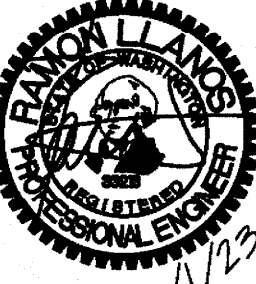
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<u>A</u>	<u>A</u>			<u>A</u>			
<u>A</u>	<u>A</u>			<u>A</u>			
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<u>A</u>	<u>A</u>			<u>A</u>			
<u>A</u>	<u>A</u>			<u>A</u>	SUBMITTAL-REUSE LOTS / MALT	BH	01/22/20
<u>A</u>	<u>A</u>			<u>A</u>	QTY COMMENTS	BH	06/09/20
NO.	NO.	REVISION	BY	DATE	NO.	REVISION	BY DATE

SHEET
09A
OF 16

RECORD DRAWING



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



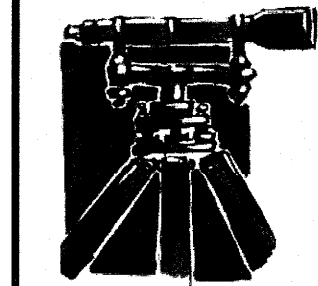
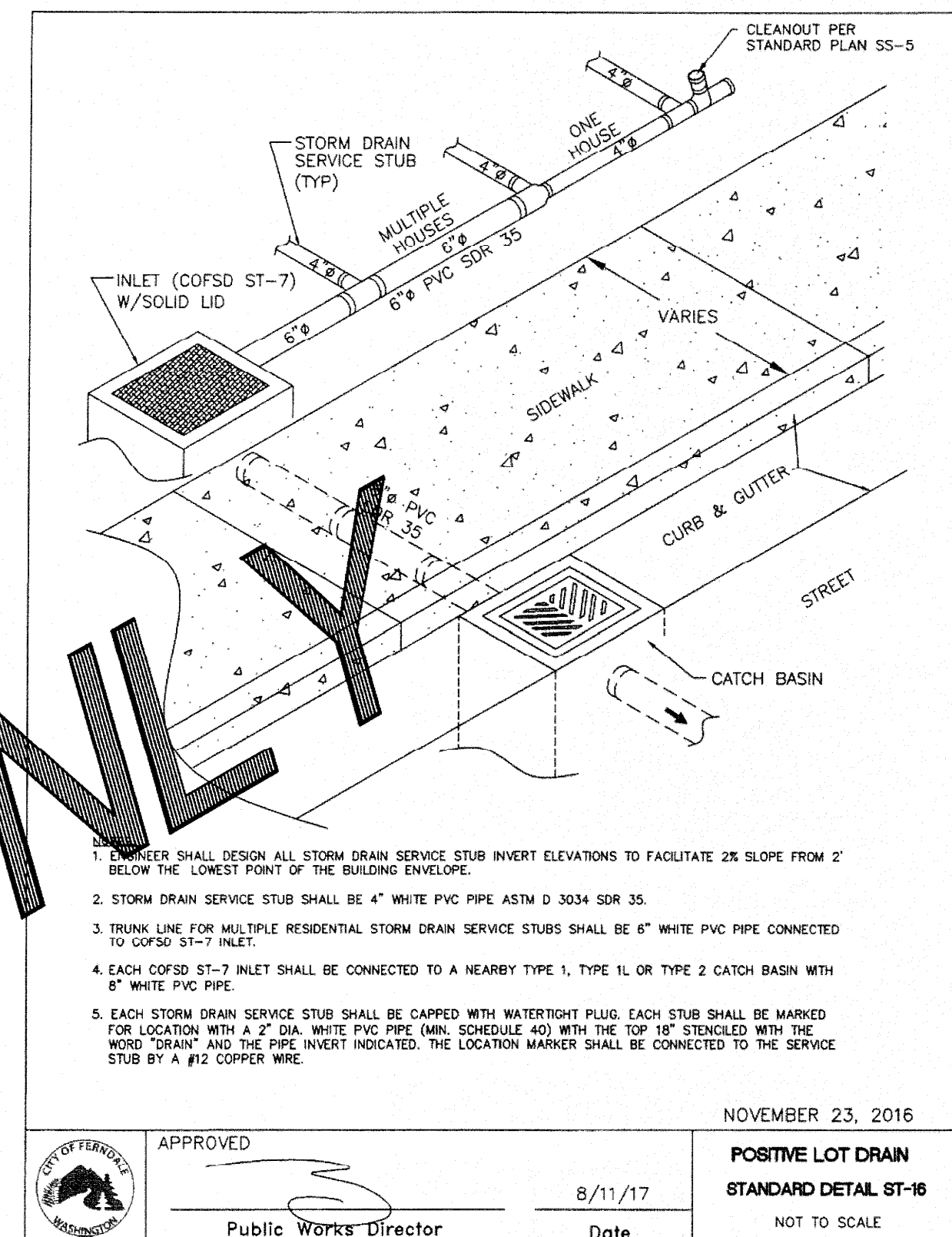
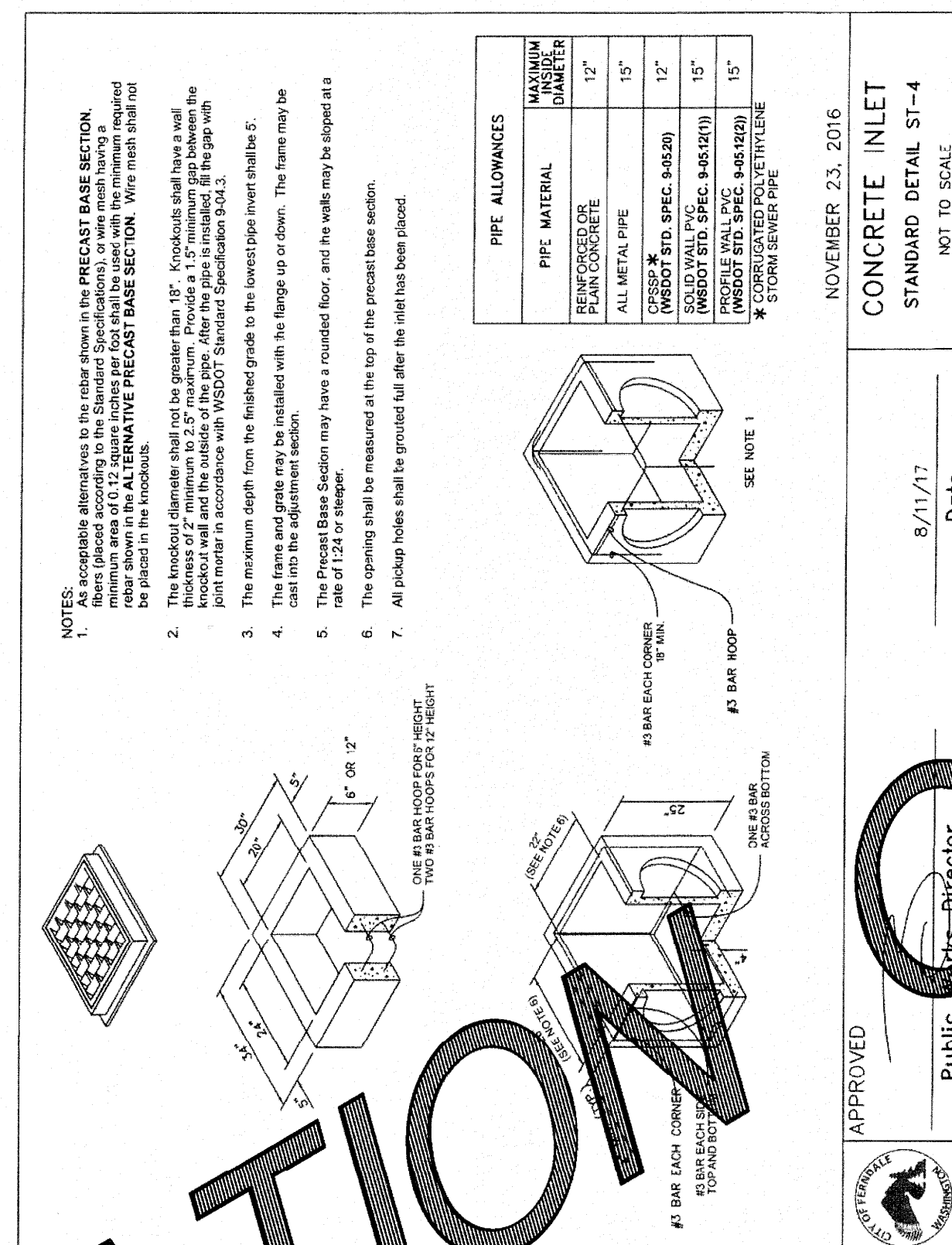
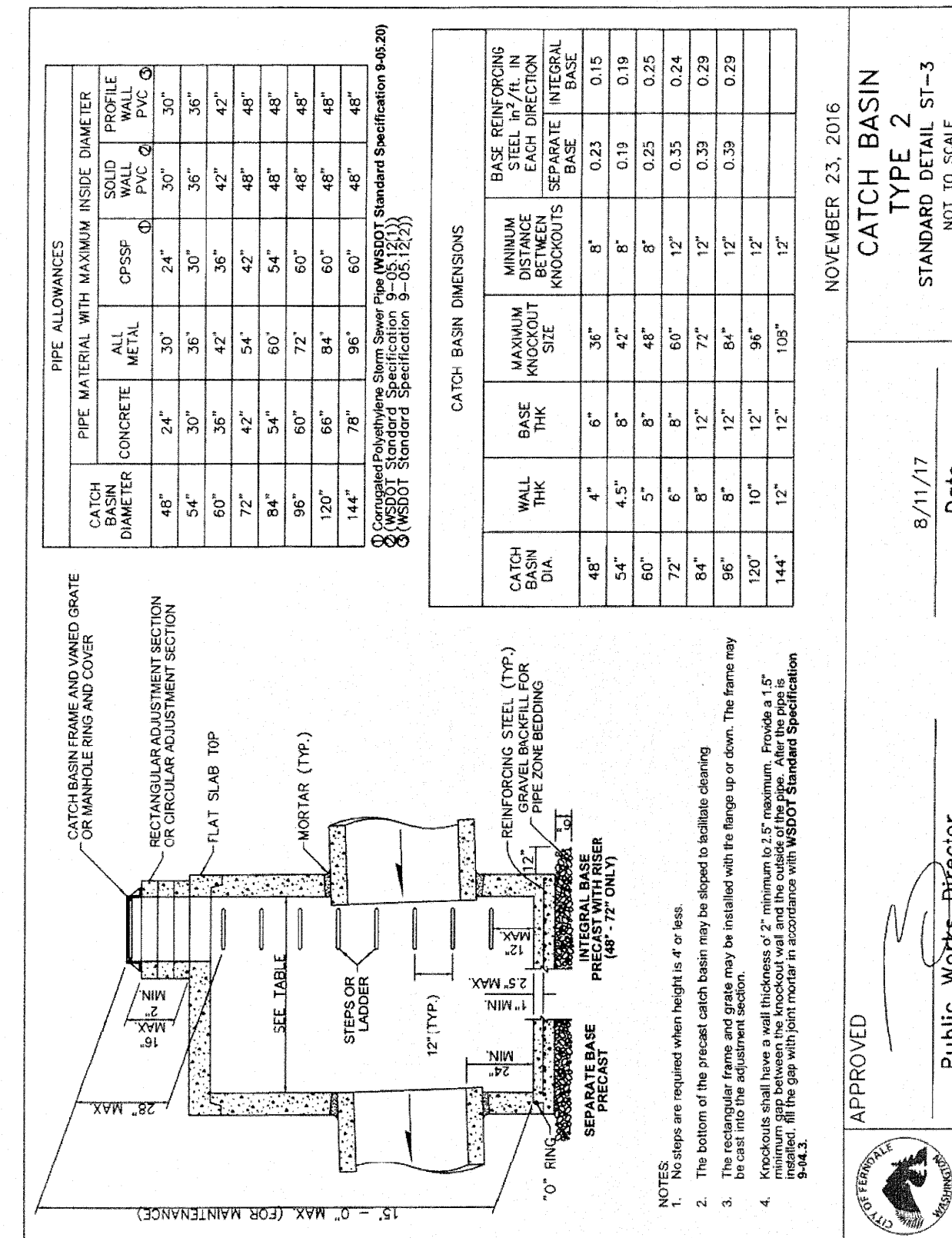
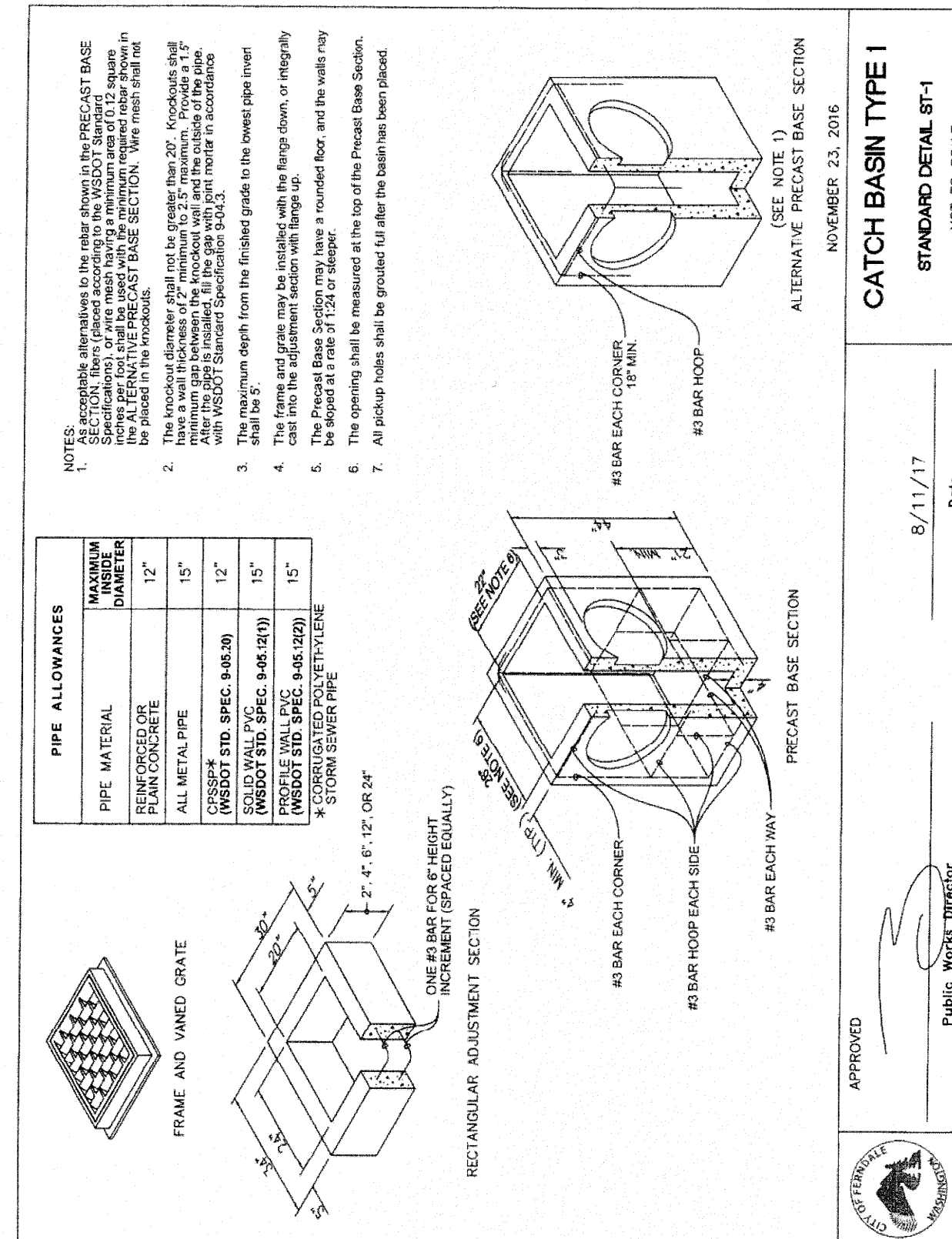
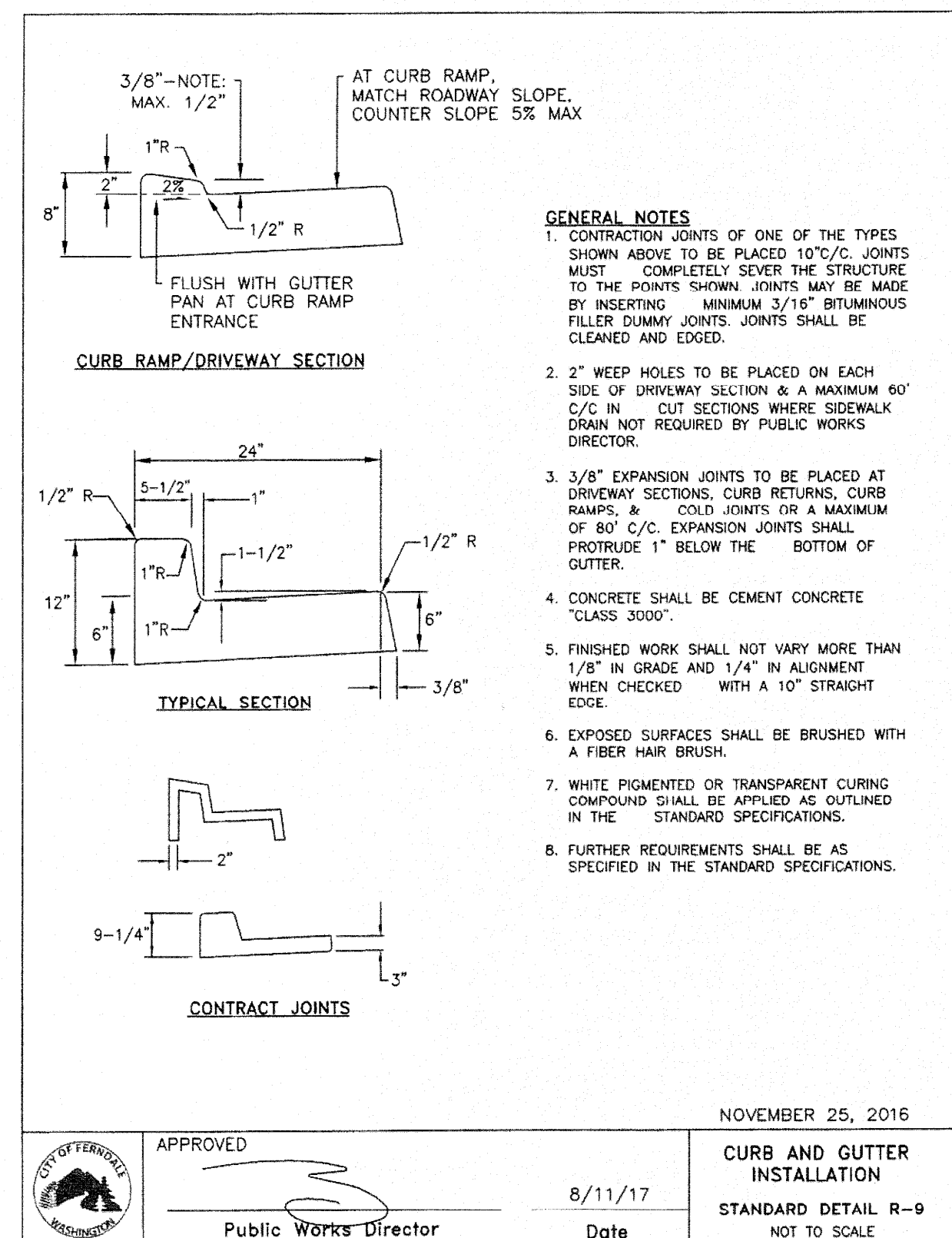
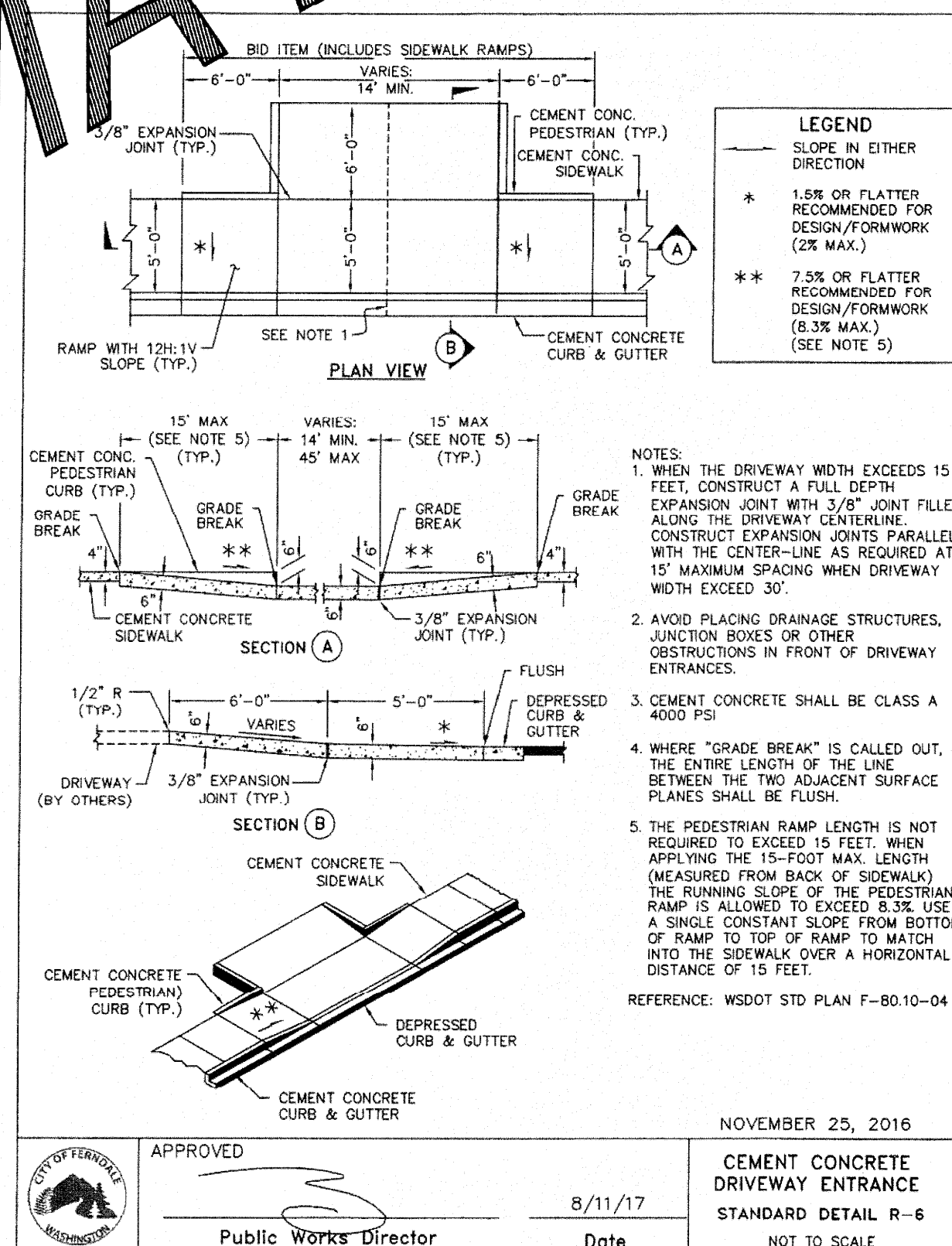
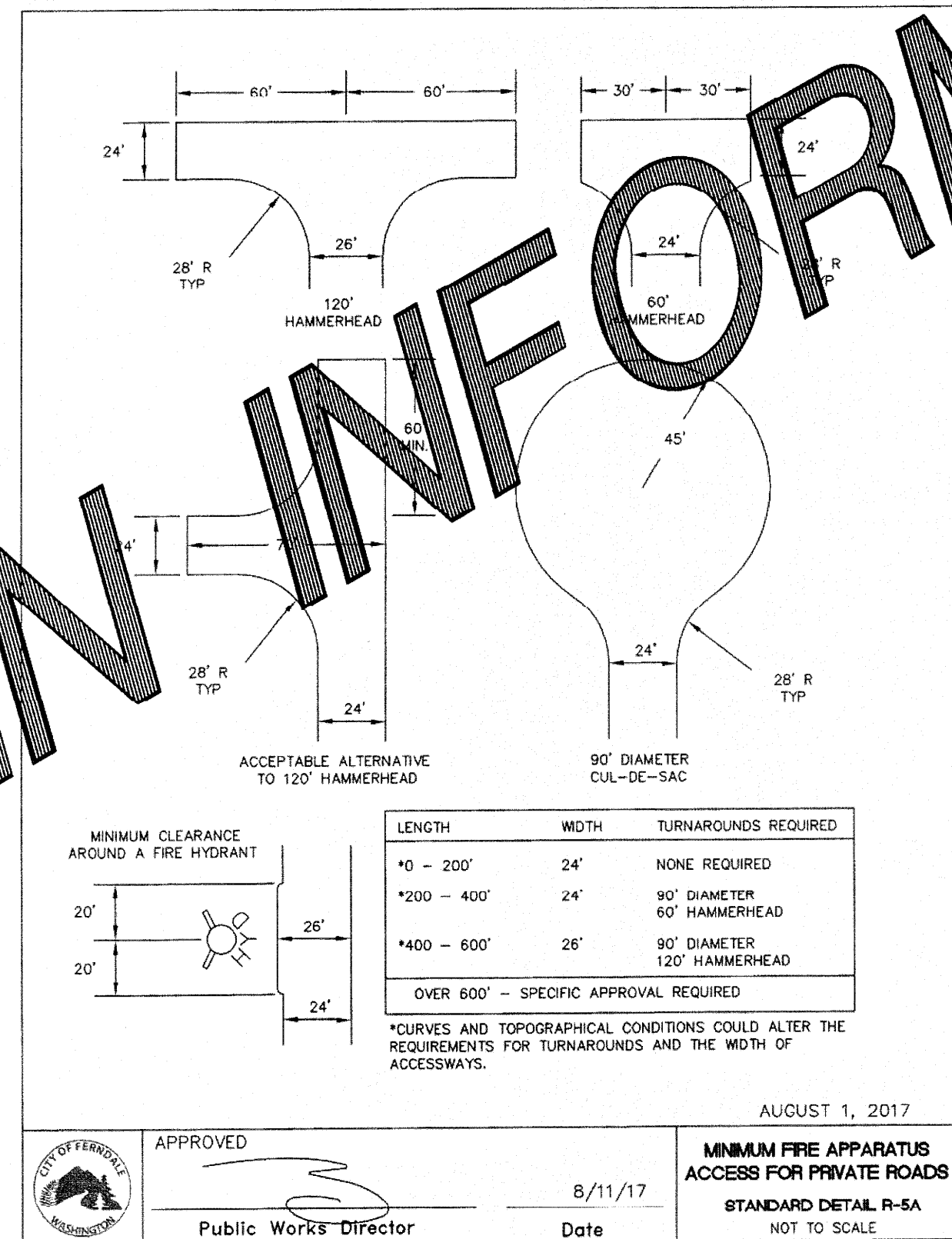
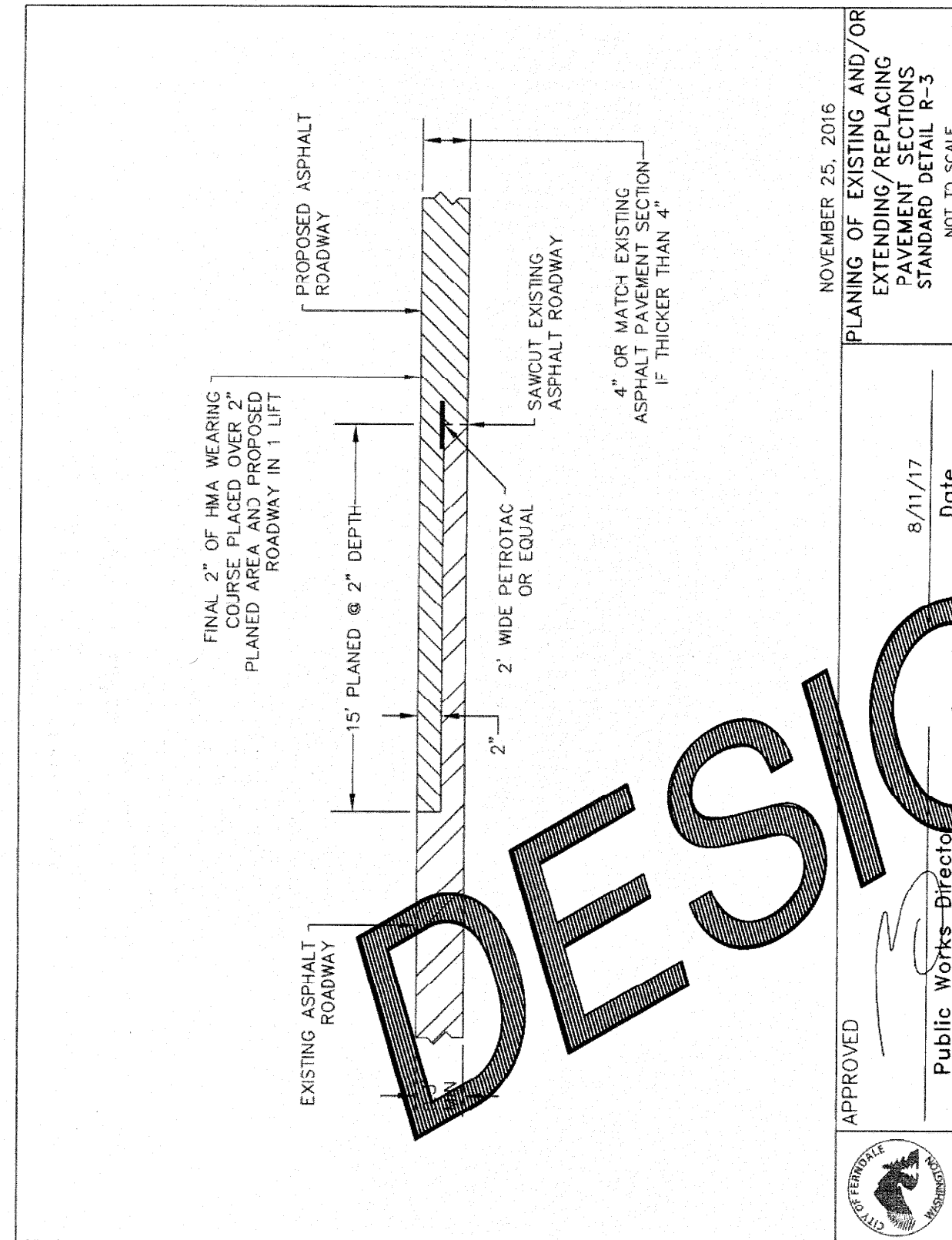
JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

6148 VISTA DRIVE CITY OF FERNDALE WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
TRAIL PLAN & PROFILE

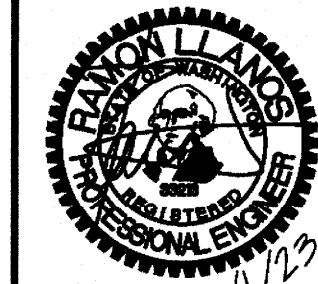
PRELIMINARY	09/19/18	EH
SUBMITTAL	11/20/18	EH
SUBMITTAL	04/17/19	EH
SUBMITTAL-REVIEW LOTS/VAULT	01/22/20	EH
CITY COMMENTS	05/08/20	EH
NO. REVISION	BY DATE	

OF
10
16

RECORD DRAWING



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



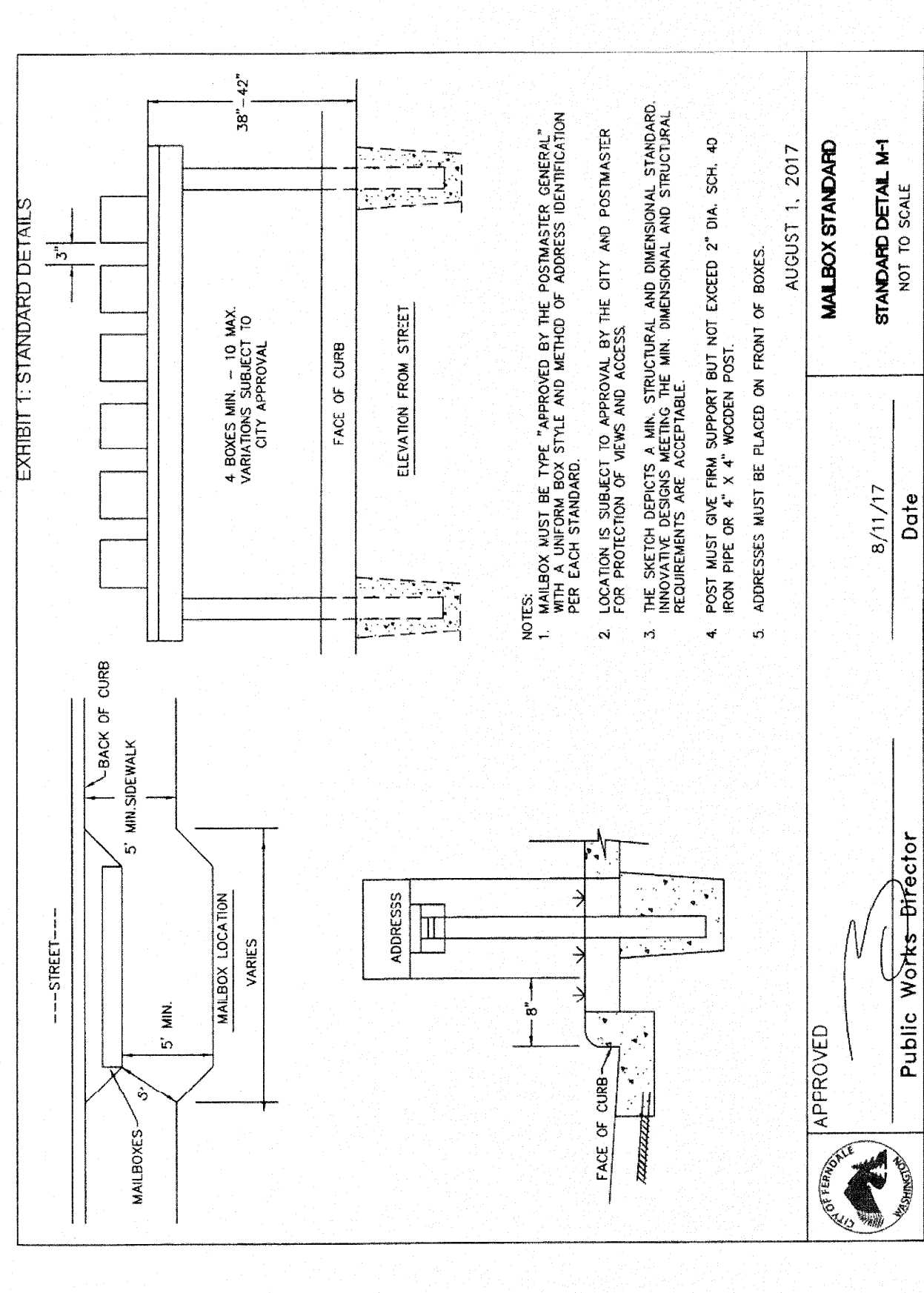
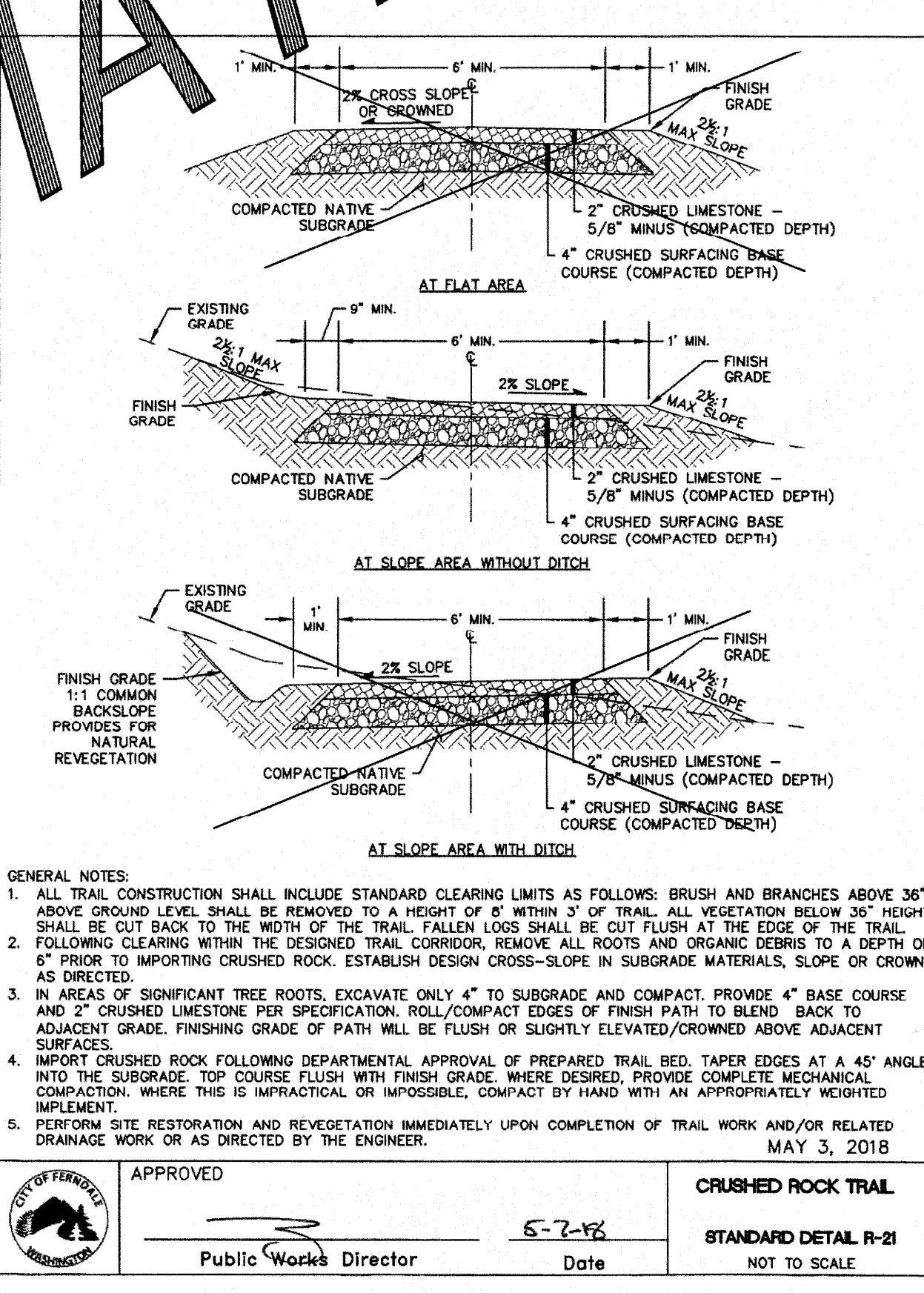
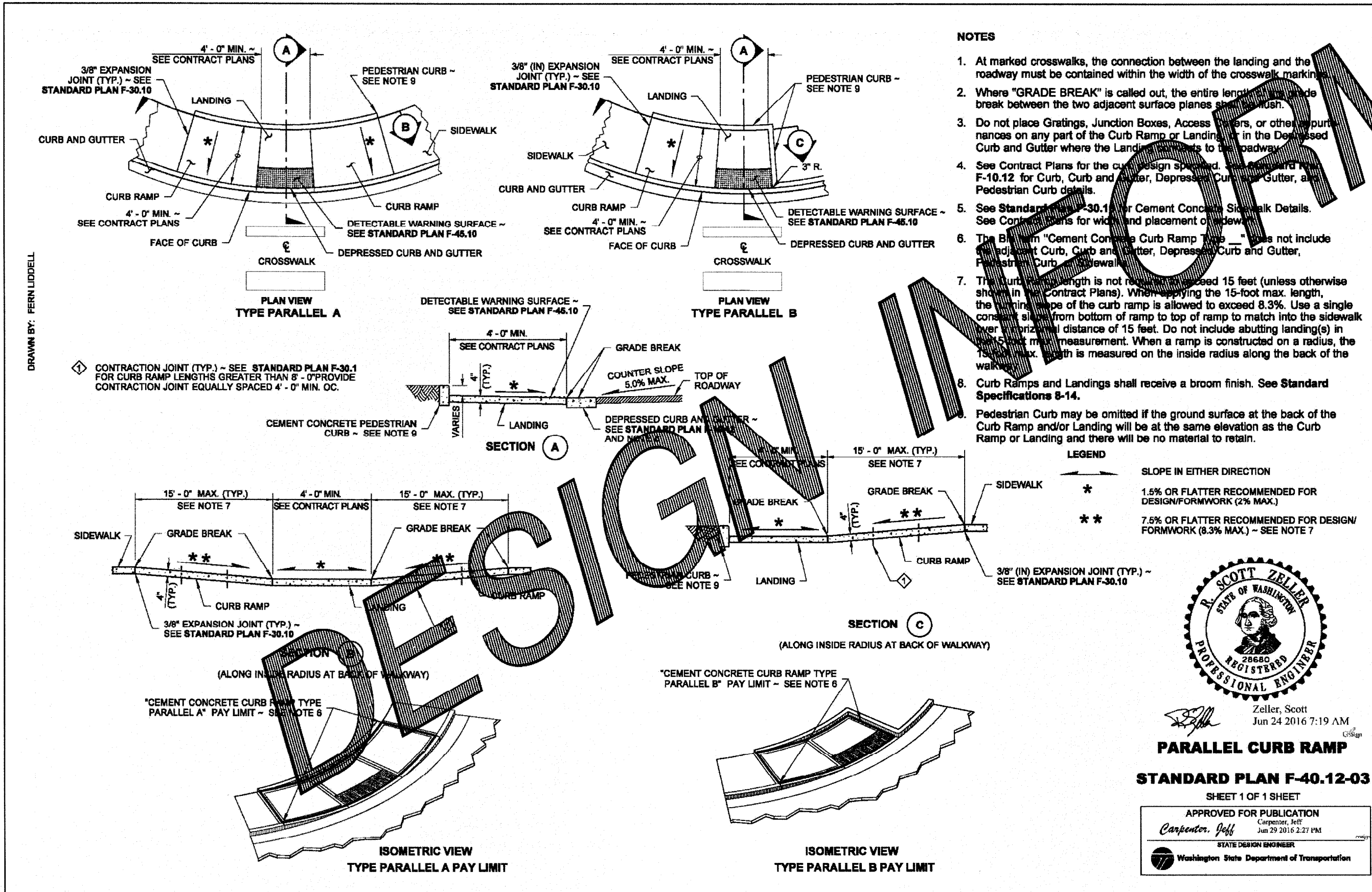
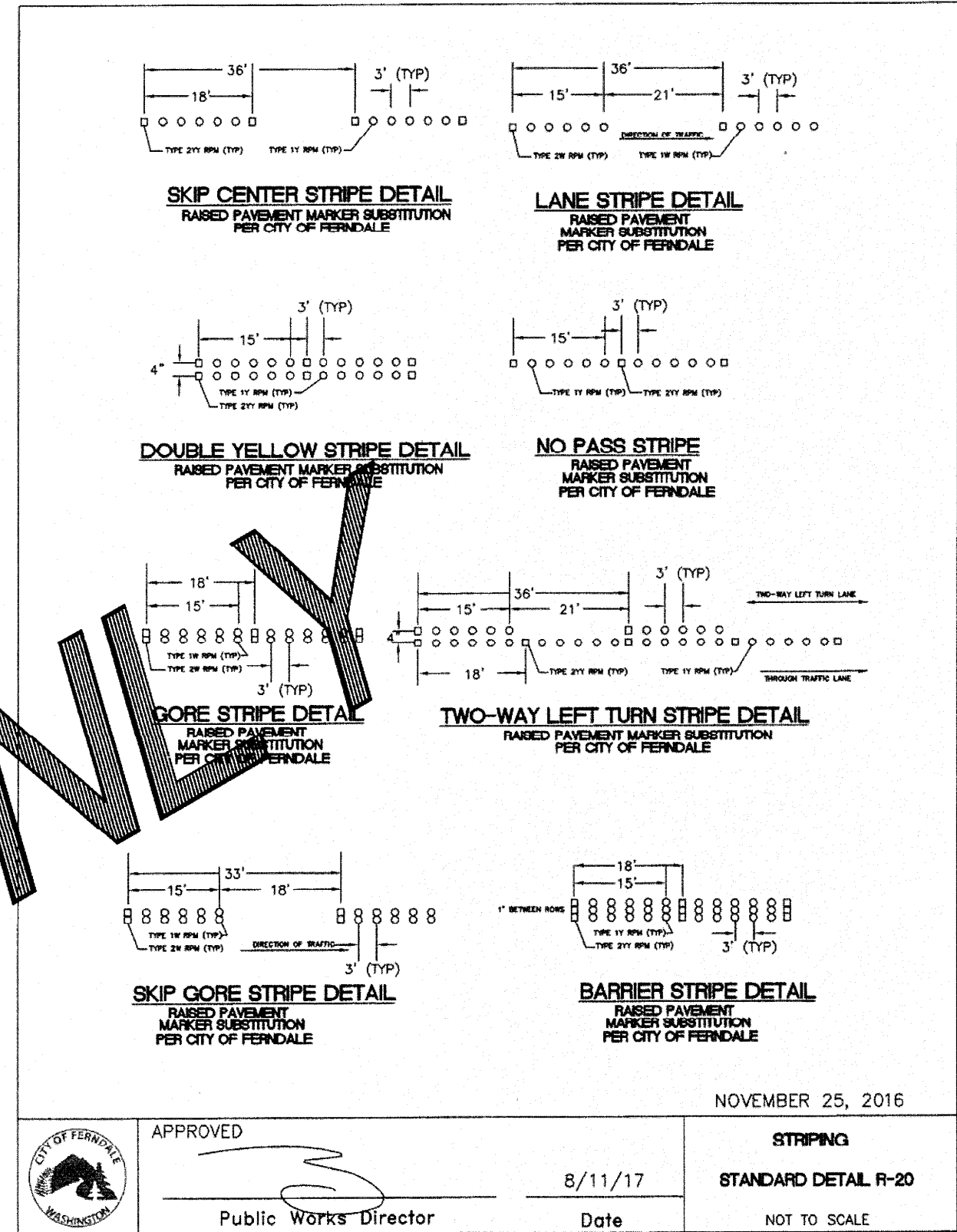
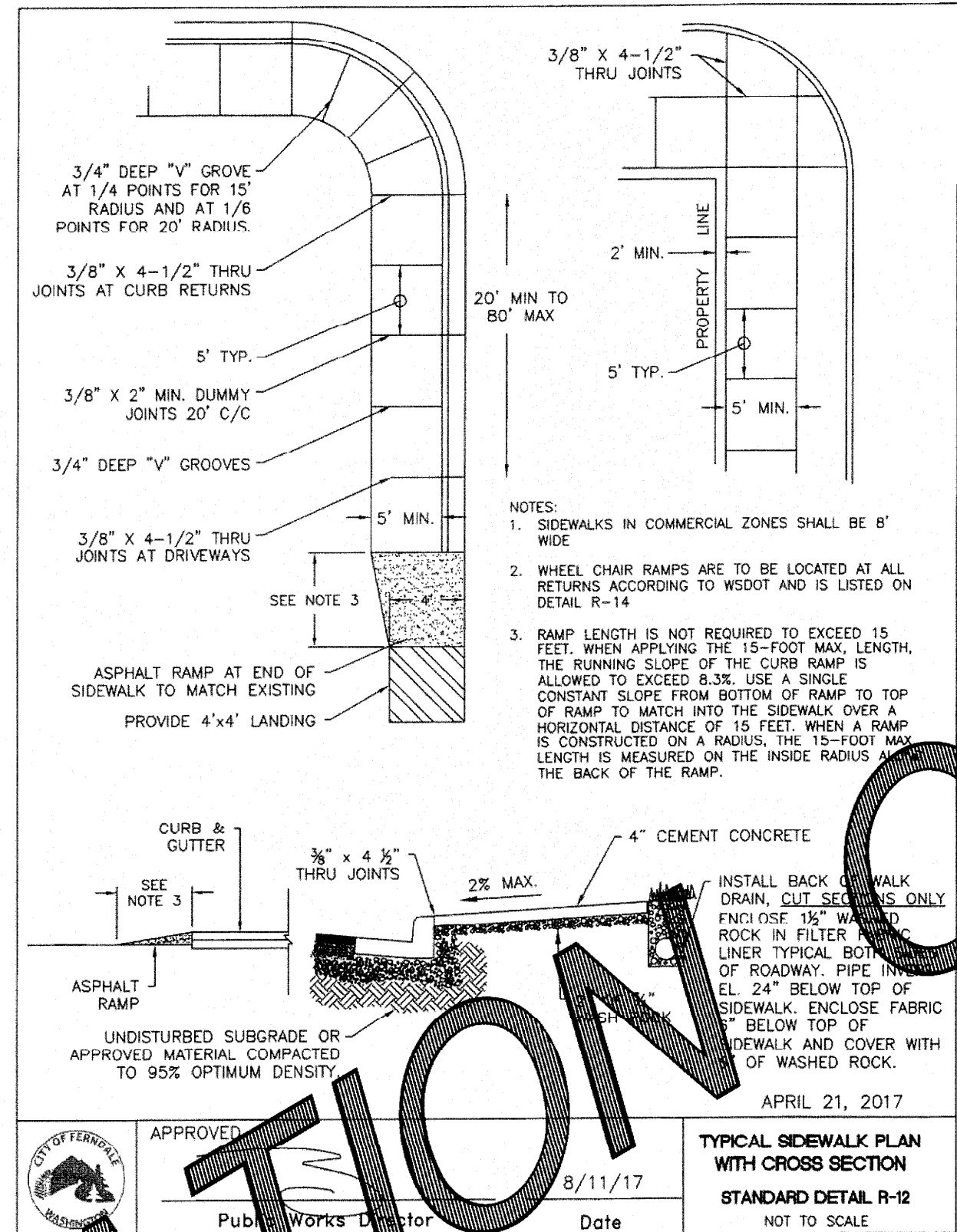
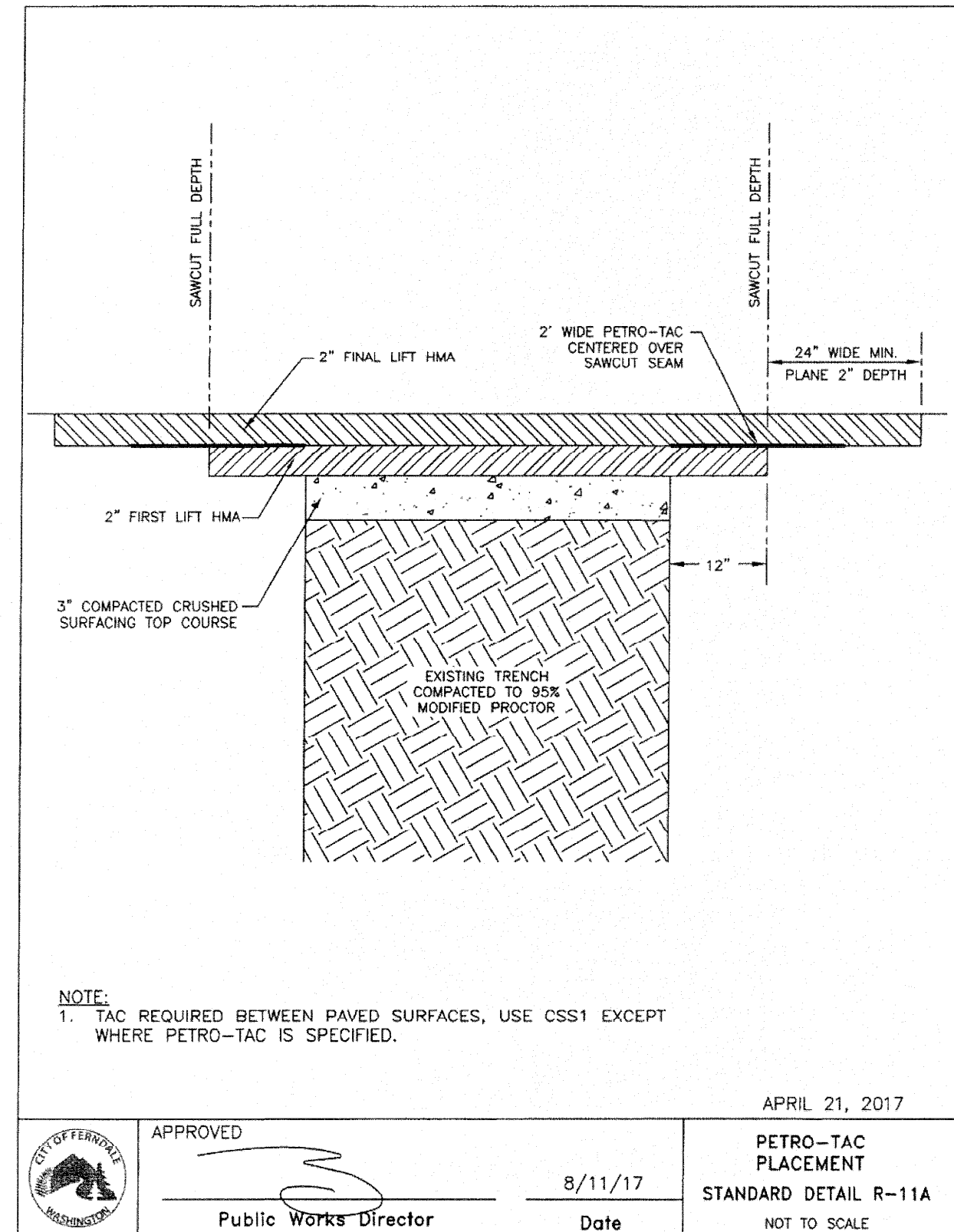
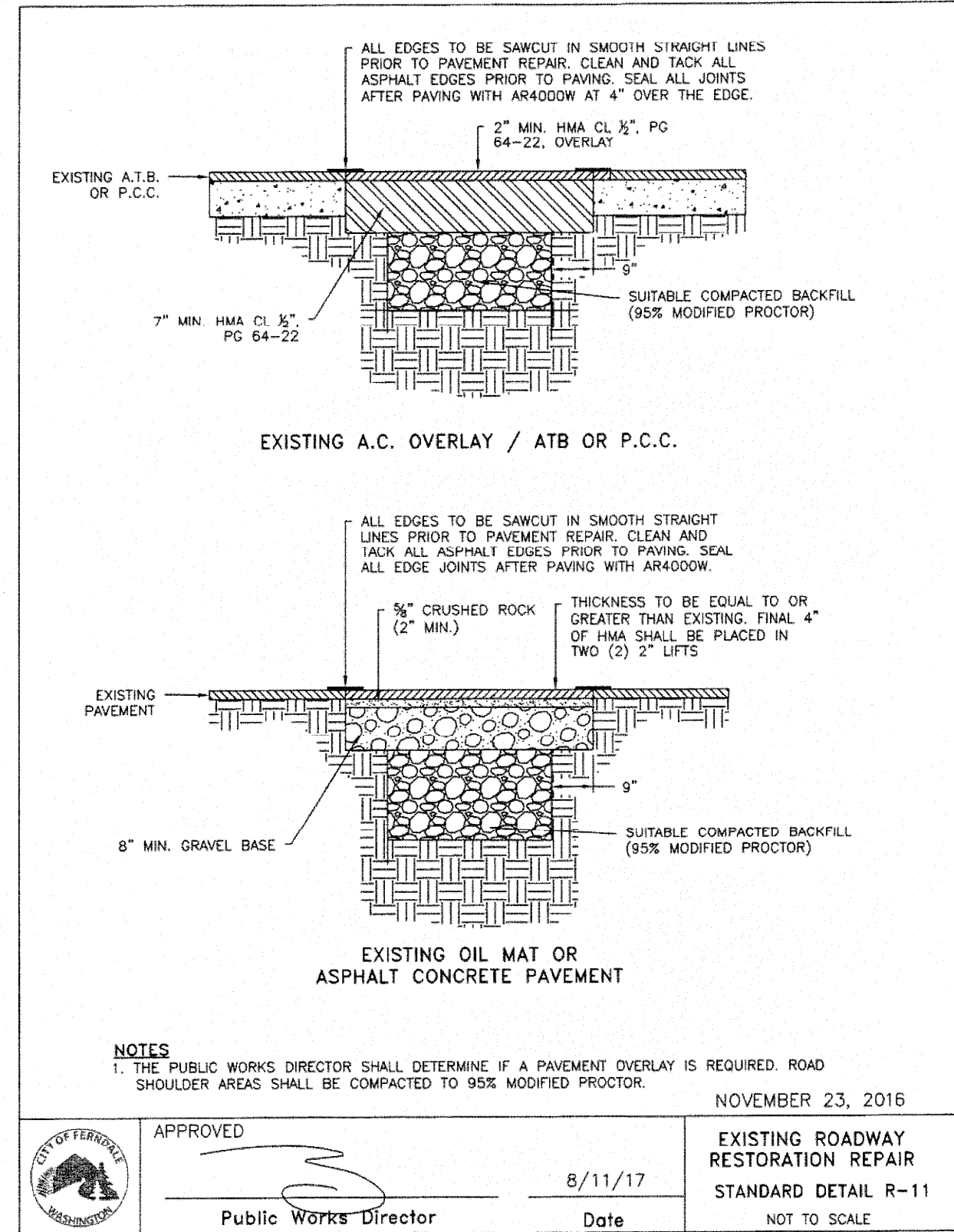
JOB NO.: 1751
DWG. NAME: VISTA SPRINGS LONG PLAT
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER: BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

6148 VISTA DRIVE, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
ROAD & STORM
TYPICAL DETAILS

RECORD DRAWING

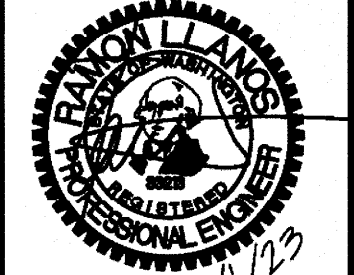
NO.	REVISION	BY	DATE
1	PRELIMINARY	EH	09/19/16
2	SUBMITTAL	EH	11/09/16
3	SUBMITTAL	EH	04/17/16
4	SUBMITTAL-REVISED LOTS 1 & 2	EH	01/22/20
5	CITY COMMENTS	EH	06/09/20

SHEET 11 OF 16



NO.	REVISION	BY	DATE
1	PRELIMINARY	EH	08/19/18
2	SUBMITTAL	EH	1/20/19
3	SUBMITTAL	EH	04/17/19
4	SUBMITTAL-REVISED LOT/VALU	EH	01/22/20
5	QTY COMMENTS	EH	08/08/20

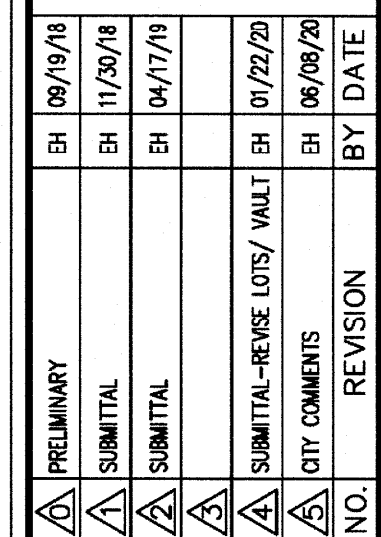
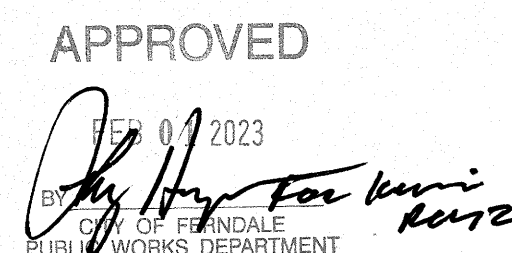
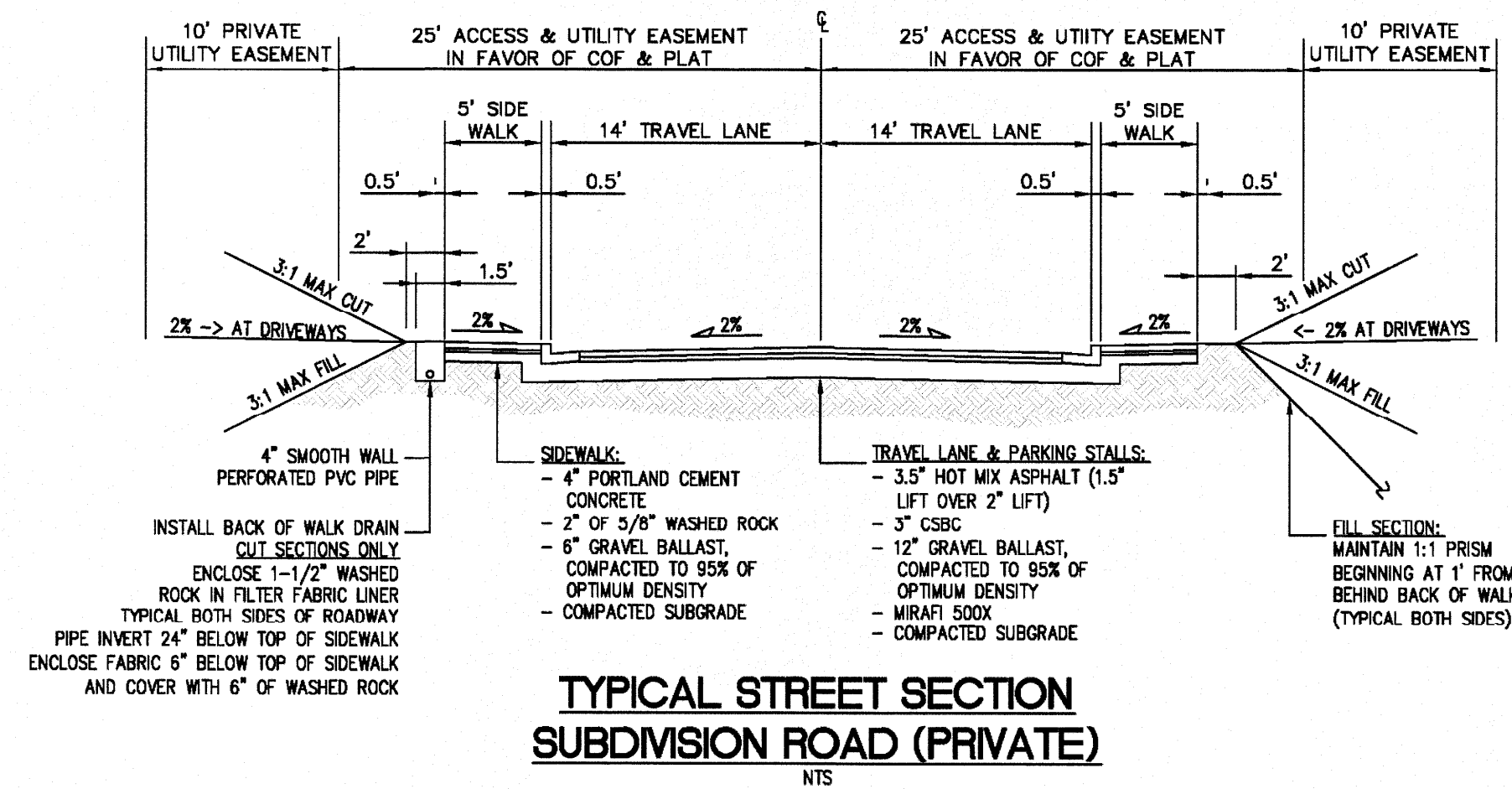
LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639



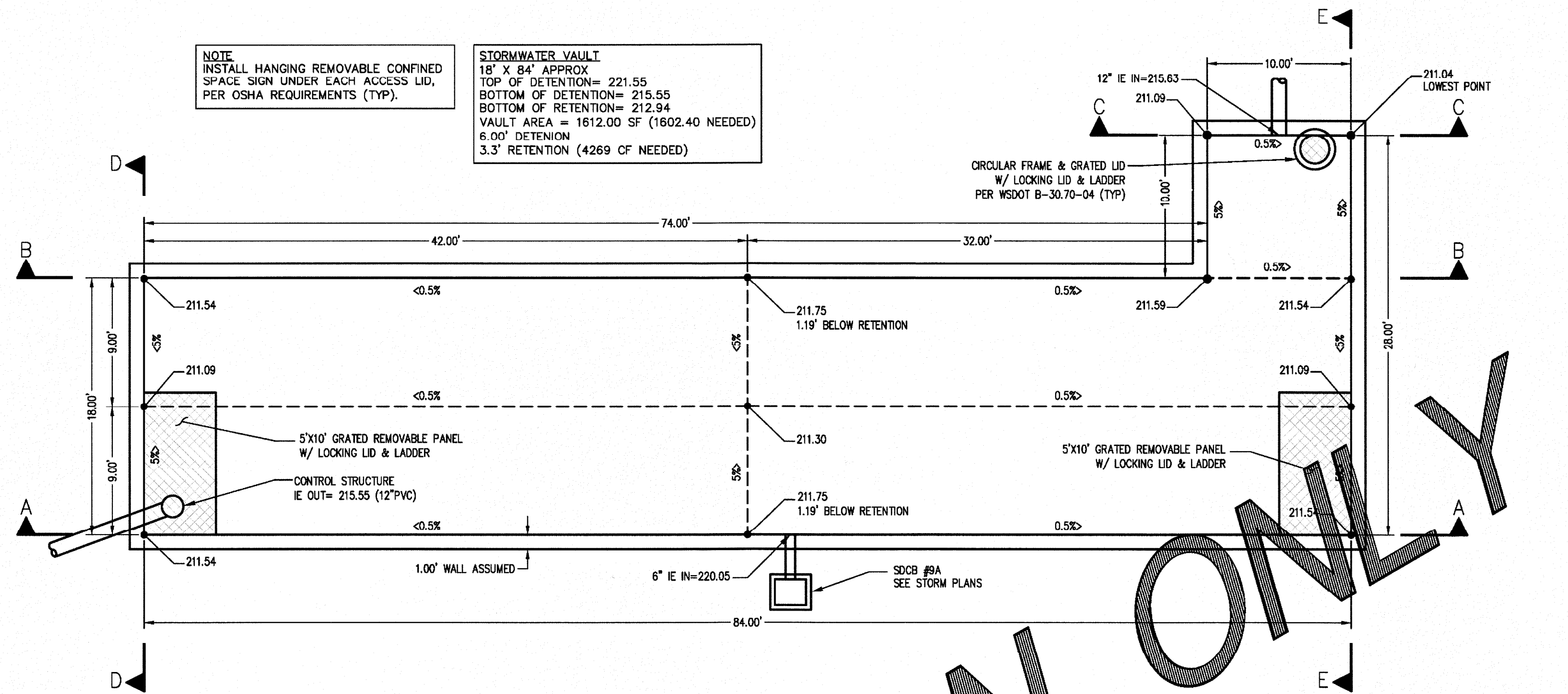
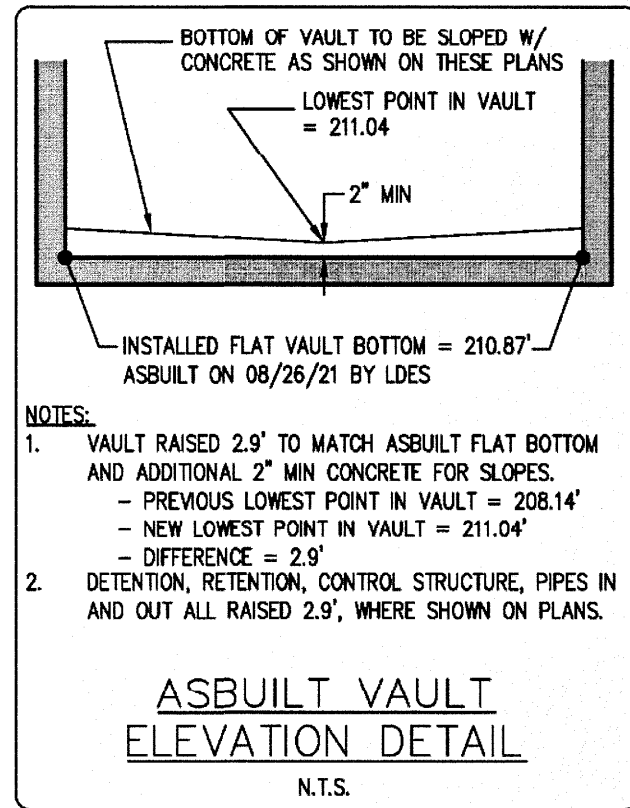
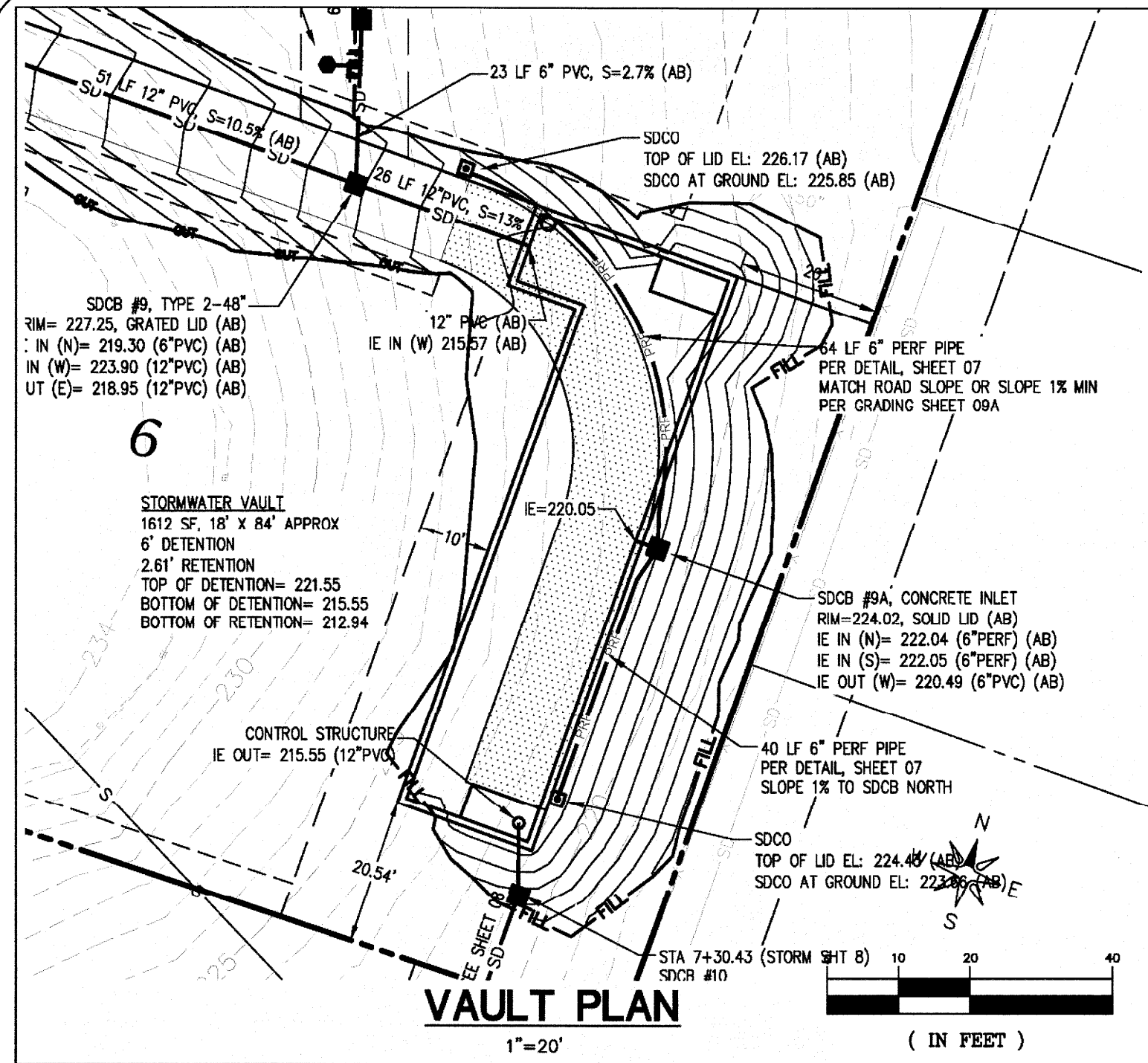
JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

8448 VISTA DRIVE, CITY OF FENDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
ROAD & STORM
TYPICAL DETAILS

RECORD DRAWING



RECORD DRAWING



GENERAL NOTES:

1. ELBOW DIAMETERS SHALL BE LARGER THAN ORIFICE DIAMETERS, TYPICAL.
2. ALL PARTS SHALL BE STAINLESS STEEL, ALUMINUM, OR ALUMINIZED STEEL.
3. OFFSET FRAME AND LADDER OR STEPS SO CLEANOUT GATE IS VISIBLE FROM TOP AND SO CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
4. LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MINIMUM CLEARANCE AS SHOWN.
5. THE PIPE SUPPORTS AND THE RESTRICTOR/SEPARATOR SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND BE ANCHORED AT A MAXIMUM SPACING OF 36 INCHES. ATTACHED THE PIPE SUPPORTS TO THE MANHOLE WITH 5/8 INCH STAINLESS STEEL EXPANSION BOLTS OR EMBED THE SUPPORTS INTO THE VAULT WALL 2 INCHES.

CONTROL STRUCTURE

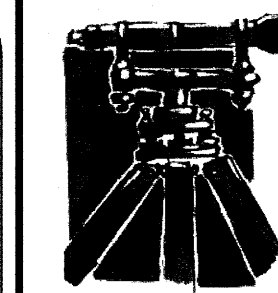
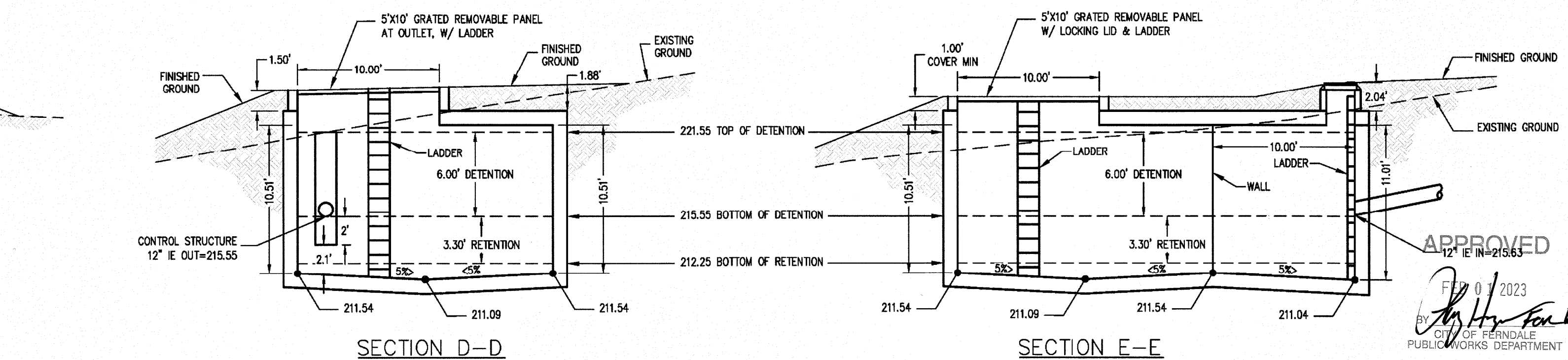
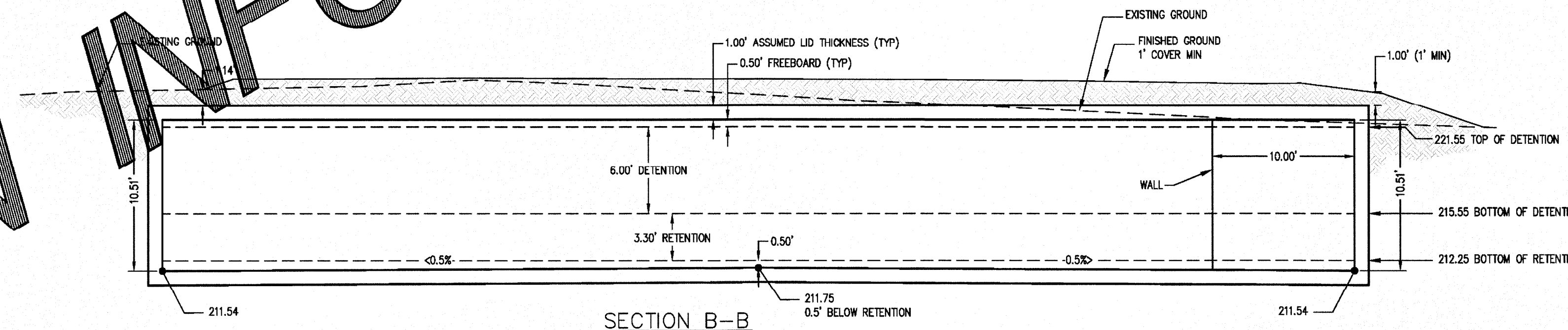
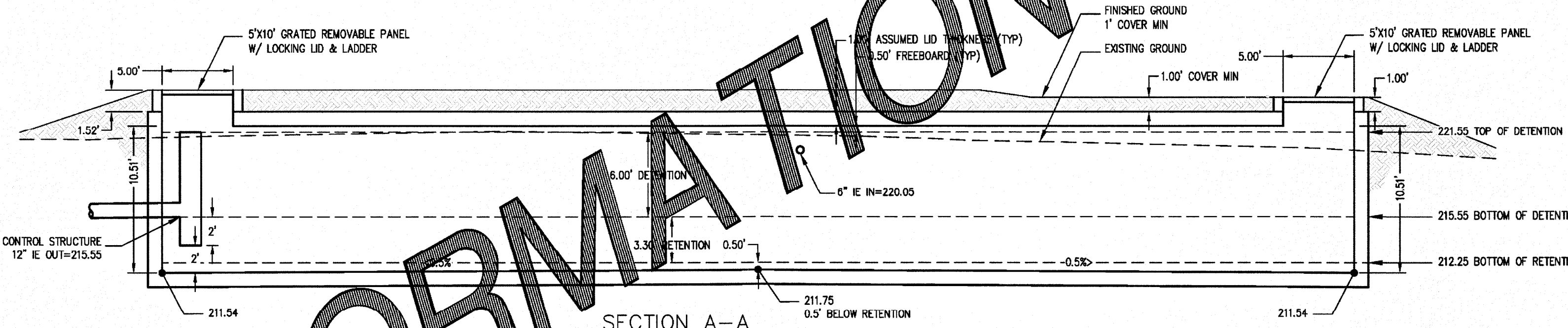
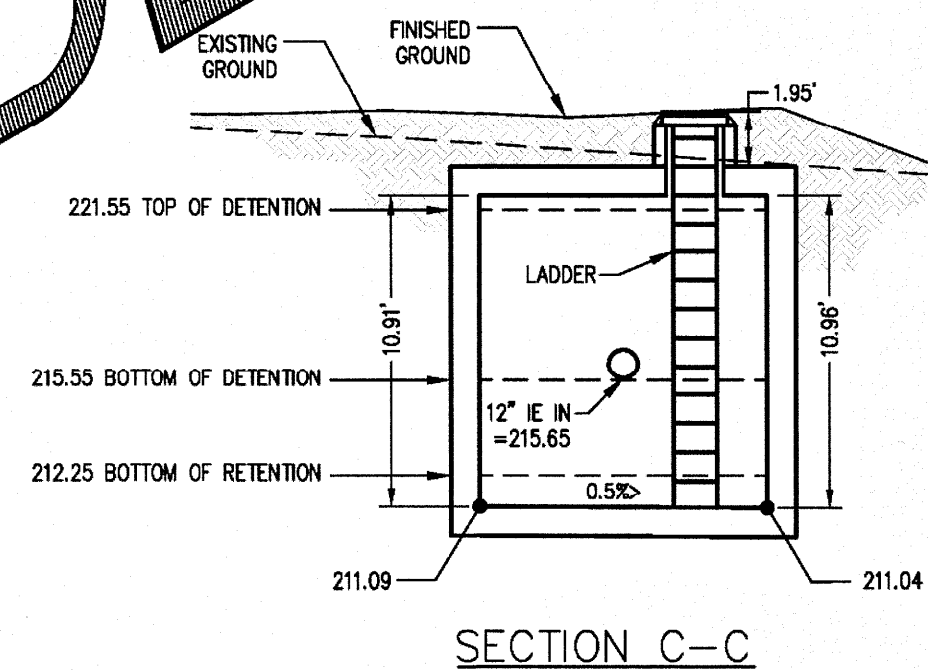
NTS

VAULT GENERAL NOTES:

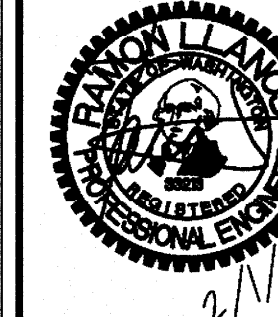
1. A COF BUILDING PERMIT IS REQUIRED FOR CONSTRUCTING THE VAULT.
2. THE ENGINEER OF RECORD IS REQUIRED TO CERTIFY THE STORMWATER FACILITY IS CONSTRUCTED IN CONFORMANCE WITH THE STRUCTURAL DESIGN AND THE 2014 STORMWATER MANAGEMENT MANUAL.

VAULT STRUCTURAL NOTES:

- A. THE DETENTION FACILITY MUST BE DESIGNED BY A STRUCTURAL ENGINEER. SINCE THE LOCATION OF THE PROPOSED VAULT IS LESS THAN 20-FT FROM PROPERTY LINES THE STRUCTURAL ENGINEER WOULD NEED TO PROVIDE DESIGN CALCULATIONS EQUAL TO THE 20-FT PROPERTY LINE SETBACK PER VOLUME III, PAGE 3-26 OF THE 2005 STORMWATER MAINTENANCE MANUAL (SWM).
- B. STRUCTURAL CALCULATIONS SHALL ADDRESS CONCRETE VAULT BUOYANCY, SPECIFICALLY BUOYANCY WHEN THE VAULT IS EMPTY. FOR BUOYANCY CALCULATIONS ASSUME THAT THE HIGH GROUND WATER ELEVATION (HGW) IS AT ELEVATION 79-FT, EXISTING GROUND. IN ORDER TO ACCURATELY ESTABLISH THE HGW, TESTING SHALL BE PERFORMED DURING FEBRUARY, WHICH TYPICALLY HAS THE HIGHEST GROUND WATER ELEVATION.
- C. VAULT MUST BE CONSTRUCTED WITHOUT TEMPORARY IMPACTS TO THE ADJACENT PROPERTY.
- D. MINIMUM 3000 PSI STRUCTURAL REINFORCED CONCRETE MUST BE USED PER VOLUME III, PAGES 3-46 OF THE SWM.
- E. WATER STOPS MUST BE PROVIDED AT ALL CONSTRUCTION JOINTS IN THE VAULT PER VOLUME III, PAGE 3-46 OF THE SWM.
- F. VAULT MUST MEET STRUCTURAL REQUIREMENTS FOR OVERBURDEN SUPPORT AND H-20 TRAFFIC LOADING PER VOLUME III, PAGE 3-46 OF THE SWM.



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



JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER: BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

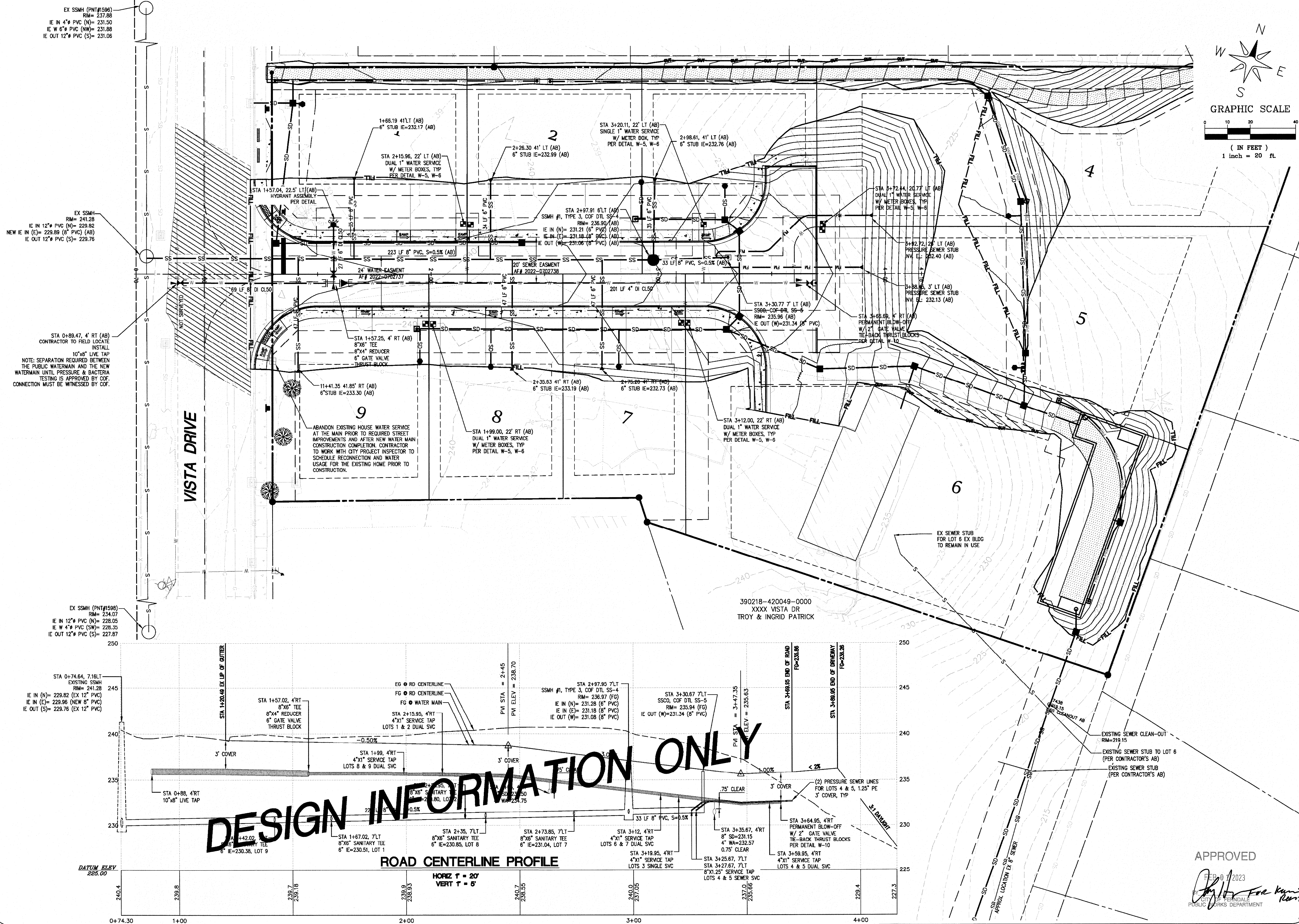
6848 VISTA DRIVE, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
STORMWATER VAULT
DETAILS

NO.	REVISION	DATE	BY	DATE
1	PRELIMINARY	06/17/21	RS	06/17/21
2	SUBMITTAL	08/25/21	EH	08/25/21
3	SUBMITTAL	04/17/22	RS	04/17/22
4	SUBMITTAL	03/04/22	RL	03/04/22
5	SUBMITTAL - REVIEW LOTS	01/22/23	EH	01/22/23
6	CITY COMMENTS	06/06/23	EH	06/06/23

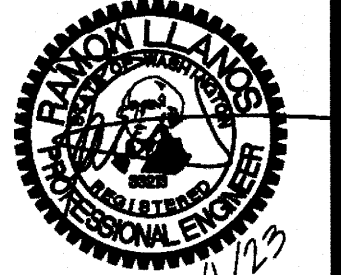
13
OF 16

RECORD DRAWING

R:\Common\Land Projects\2017\1751 - VISTA RIDGE TRAIL\DWG\1751-DWG-AB-BUILDING.dwg PLOT DATE: 2/7/2023 9:37 AM



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



JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER:
BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98226

8149 VISTA DRIVE, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG FLAT
WATER & SEWER
PLAN & PROFILE

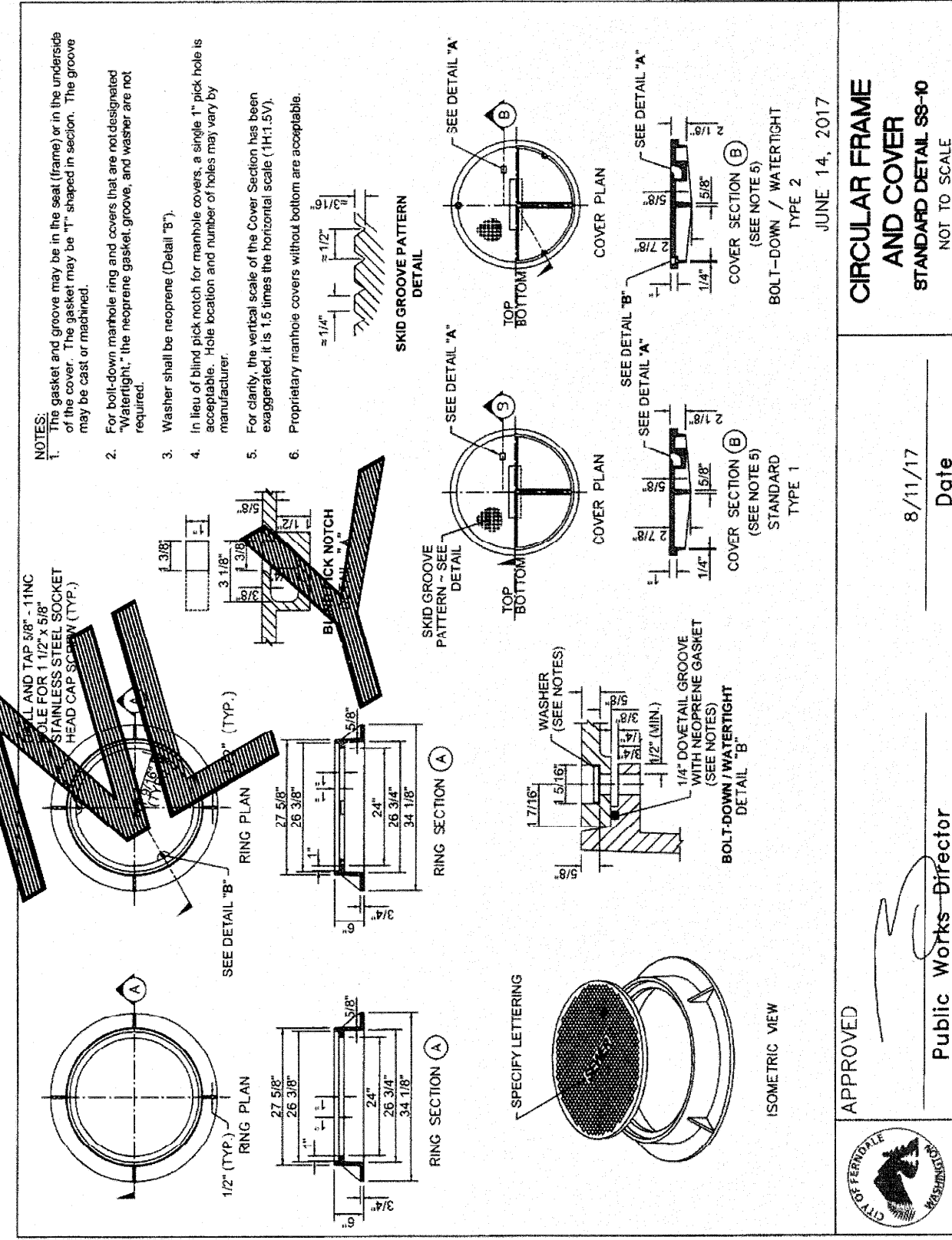
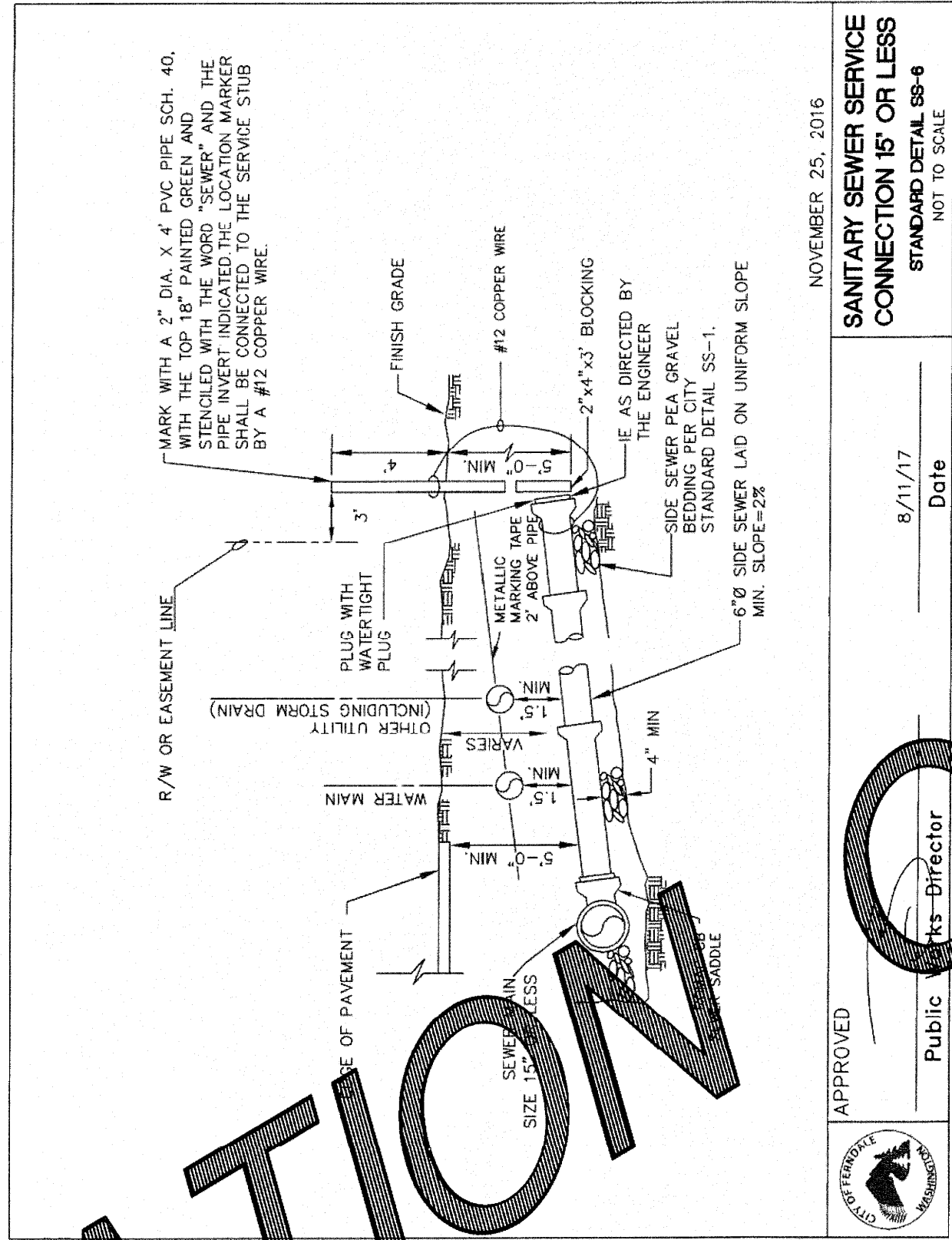
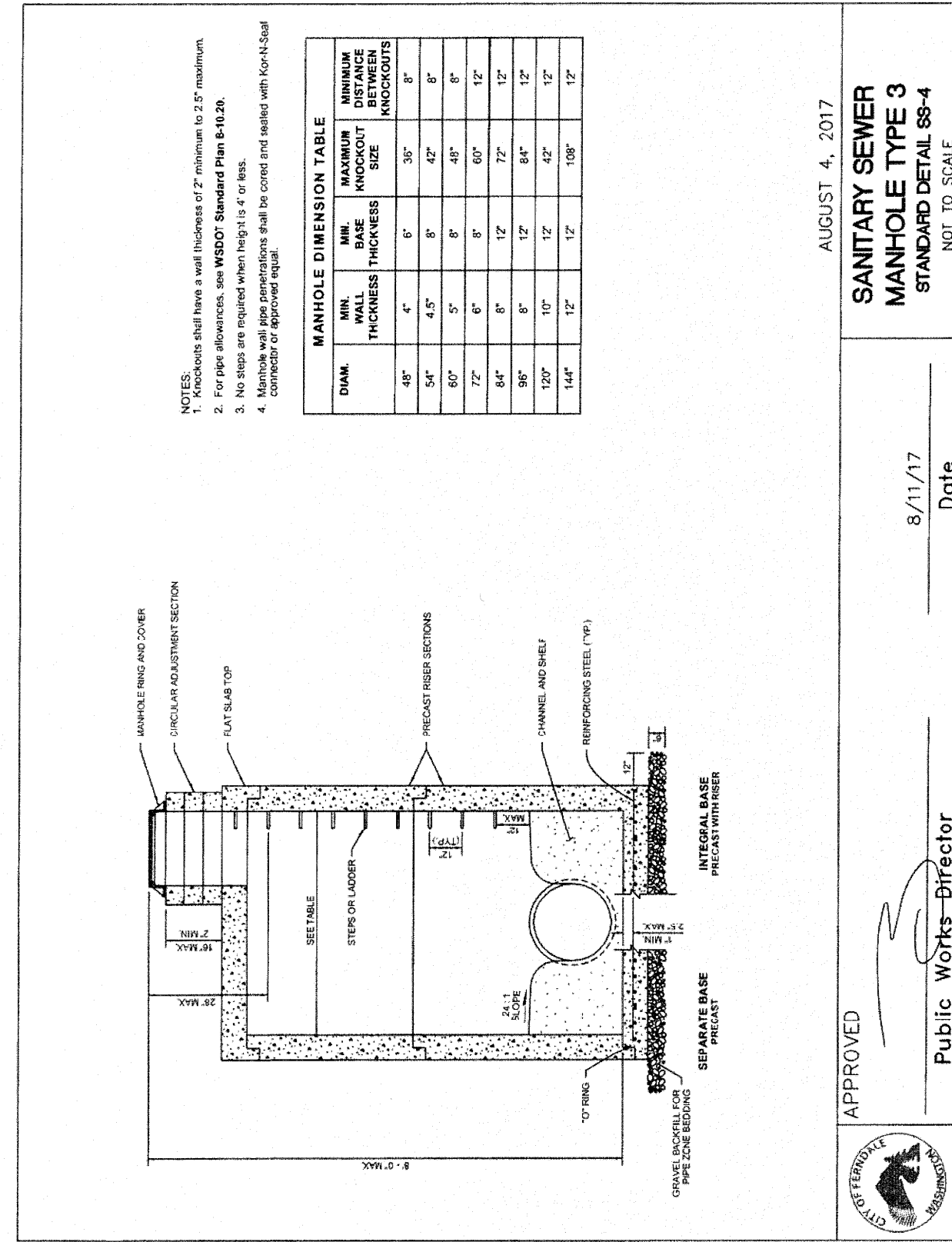
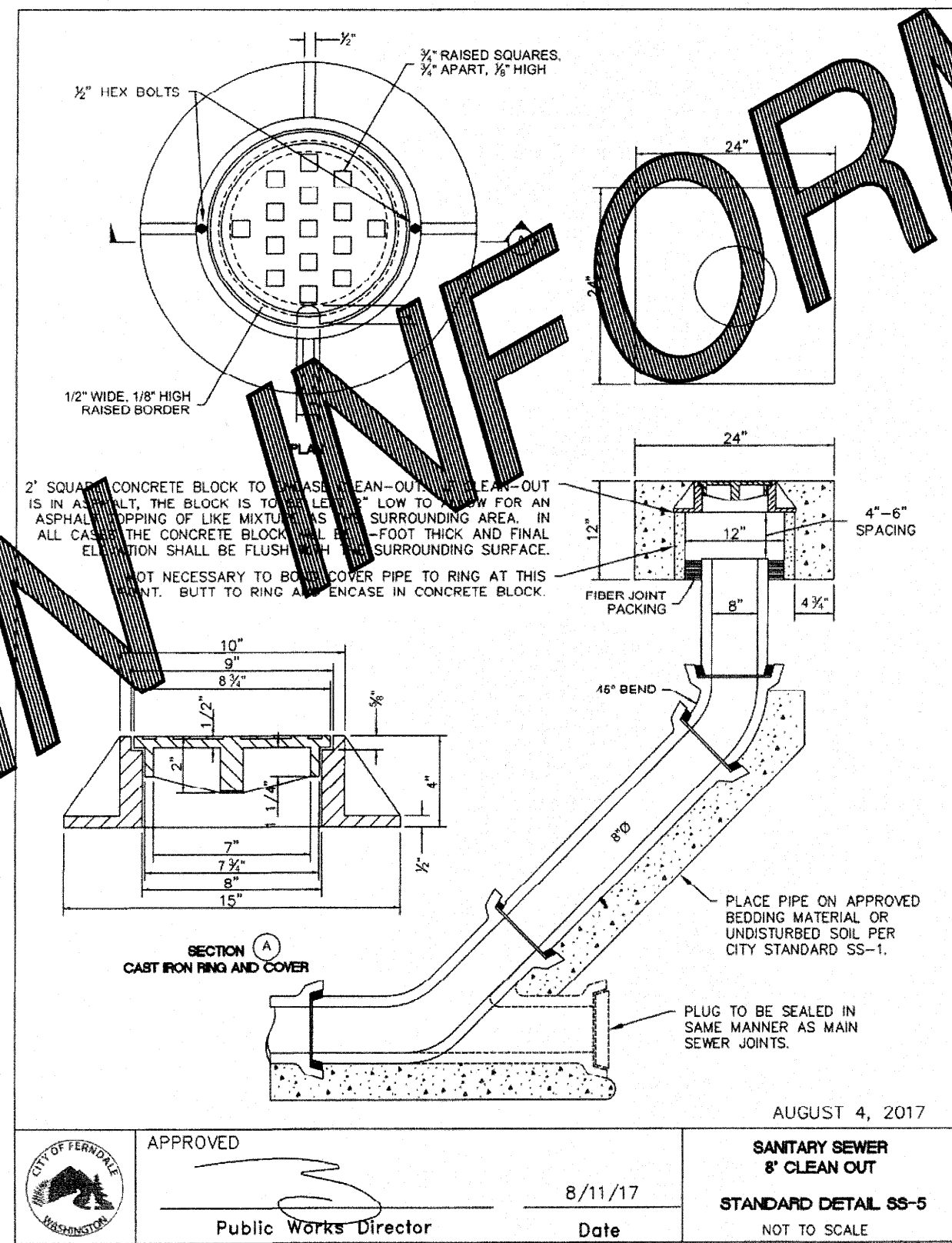
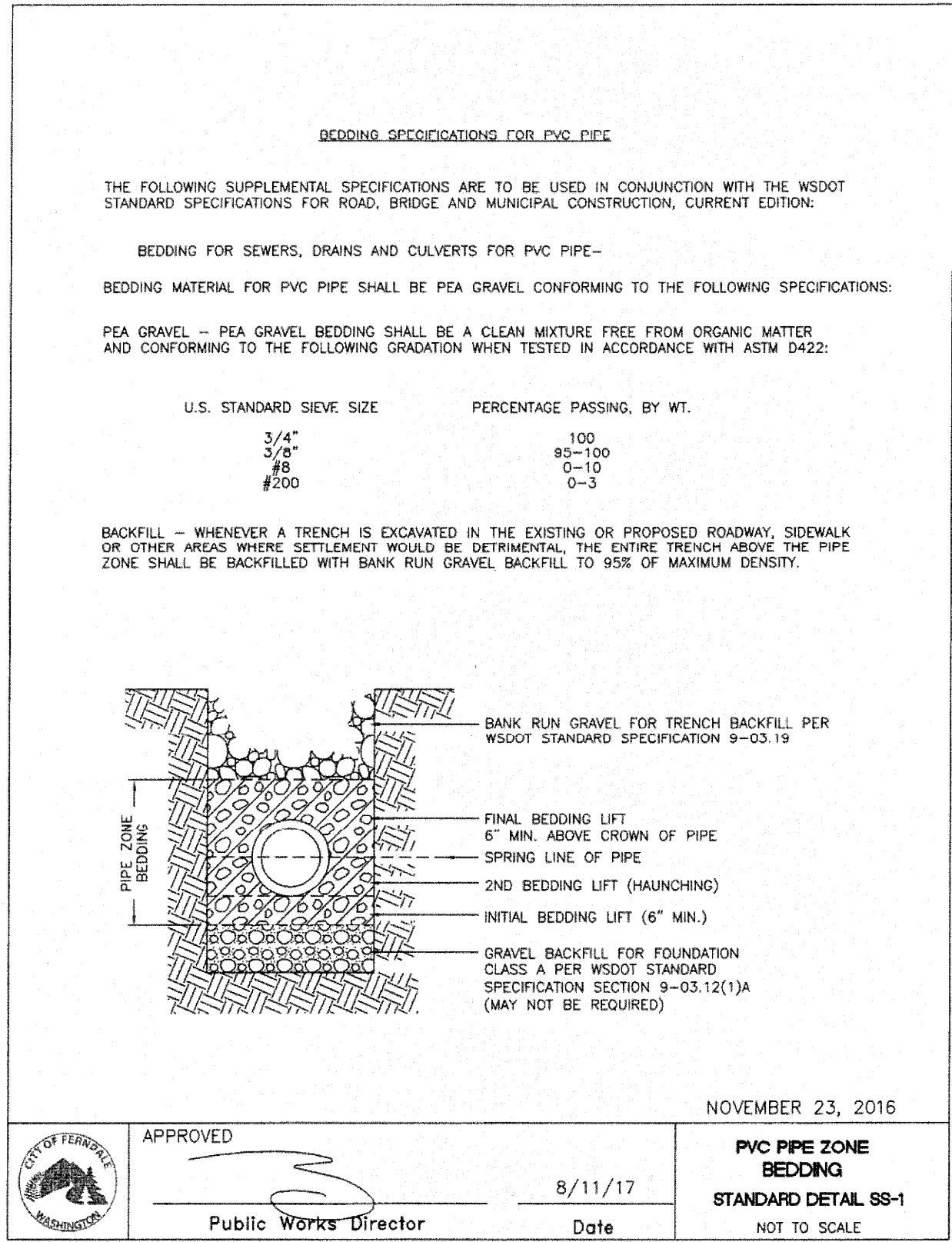
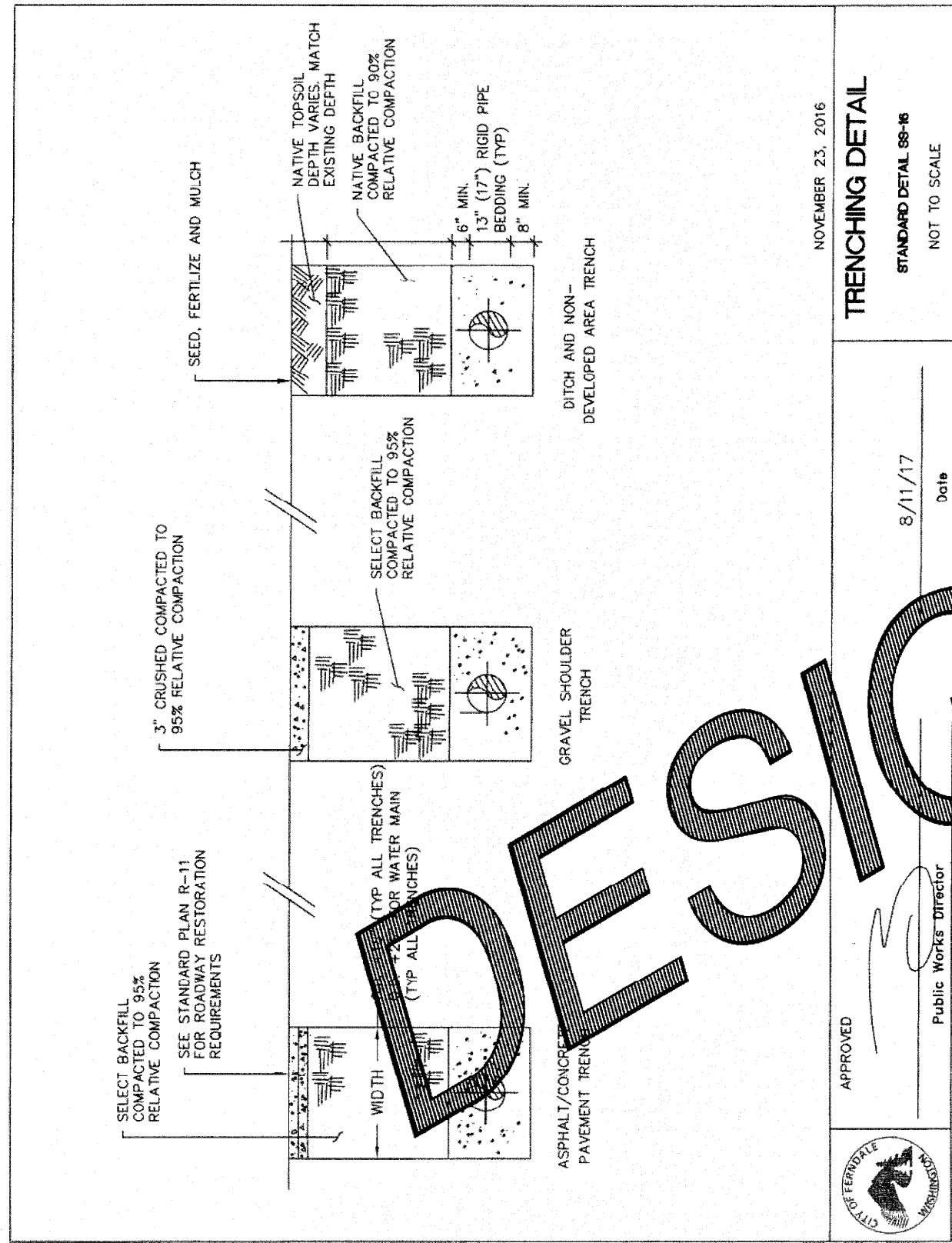
NO.	REVISION	DATE	BY	DATE
1	PRELIMINARY	02/19/18	EH	02/19/21
2	SUBMITTAL	11/20/18	EH	
3	SUBMITTAL	04/17/19	EH	
4	SUBMITTAL-REVISE LOTS 1 & 2	01/22/20	EH	
5	CITY COMMENTS	05/08/20	EH	
6	REVISION			
7	REVISION			
8	REVISION			
9	REVISION			
10	REVISION			

APPROVED
FEB 07 2023
[Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

14
OF 16

RECORD DRAWING

00731.019 2/1/23 RH



APPROVED
FEB 01 2023
BY: [Signature]
PUBLIC WORKS DEPARTMENT

PRELIMINARY	EH	09/19/18
SUBMITTAL	EH	1/10/19
SUBMITTAL	EH	04/17/19
SUBMITTAL-REVISE LOTS/ VALU	EH	01/22/20
QTY COMMENTS	EH	06/08/20
NO.	REVISION	BY DATE

OF 16

8648 VISTA DRIVE, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON
VISTA SPRINGS LONG PLAT
SEWER
TYPICAL DETAILS

JOB NO.: 1751
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL
OWNER: BRIAN TINES
3869 CLIFFSIDE DRIVE
BELLINGHAM, WA 98225

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FERNDAL, WA 98248
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RECORD DRAWING