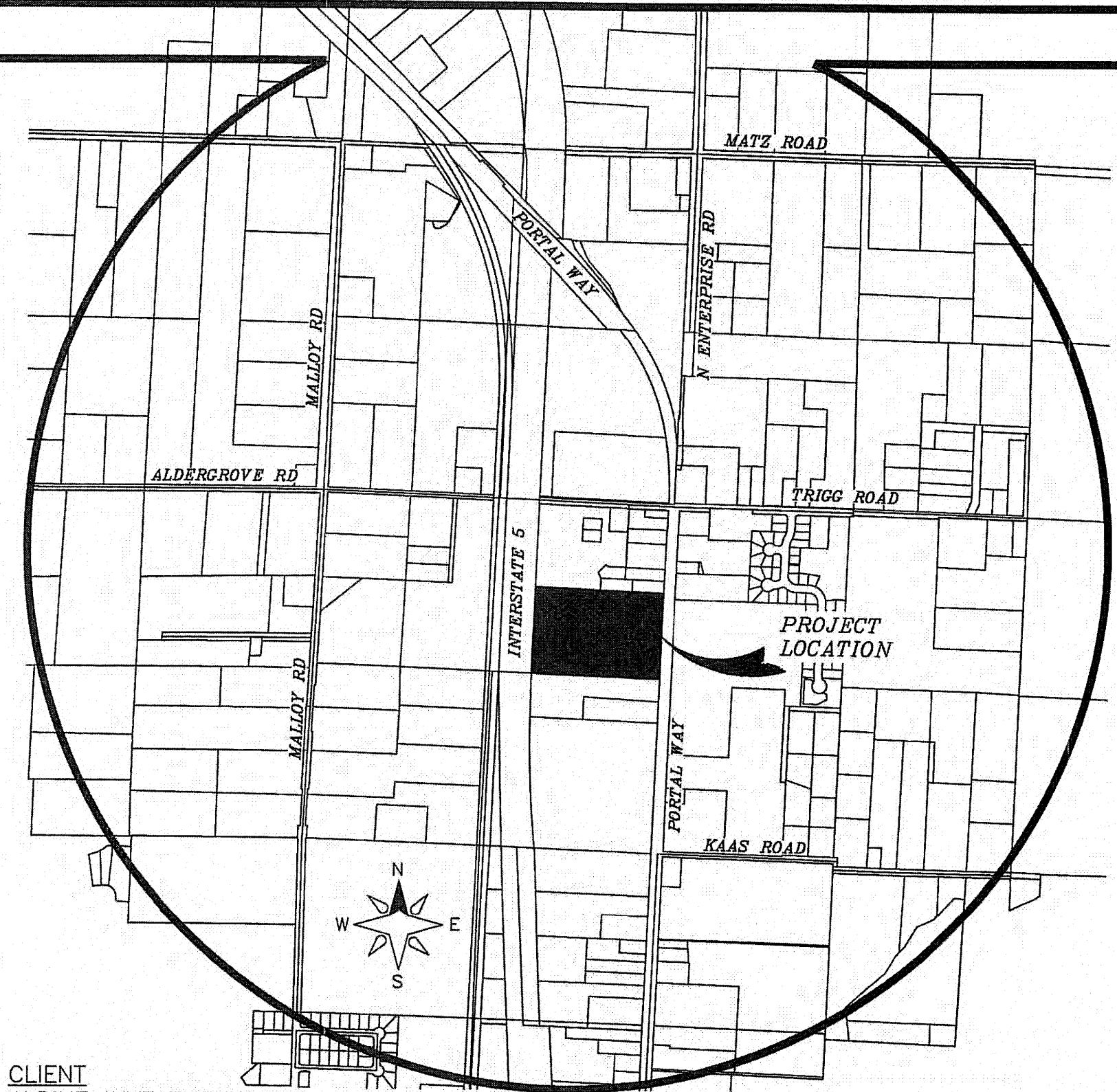


A PORTION OF THE NE 1/4 OF THE NW 1/4
SECTION 17, TOWNSHIP 39 N., RANGE 2 E. OF THE W.M.
CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON

ALPINE INVESTMENT & FLAX4LIFE SITE

RECORD DRAWINGS



CLIENT
ALPINE INVESTMENTS
4040 MT BAKER HWY
EVERSON, WA 98247
CONTACT: JERRY & LURLINE HAMMER
(360) 815-1935

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

SURVEYOR
NORTHWEST SURVEYING & GPS INS.
407TH 5TH ST.
LYNDEN, WA 98246
CONTACT: JEROME DEMEYER
(360) 354-1950

SURVEYOR'S NOTES:

- "O" DENOTES 5/8 INCH REBAR WITH 1 INCH PLASTIC CAP MARKED "NWS & GPS 49276 & 50982" SET BY THIS SURVEY.
- "A" DENOTES HUB AND LATH SET FOR POINTS ON LINE BY THIS SURVEY.
- "@" DENOTES CAPPED REBAR MARKED "S. 18074" FOUND BY THIS SURVEY.
- "*" DENOTES CALCULATED POINT ONLY.
- THIS SURVEY WAS PERFORMED BY STANDARD FIELD TRAVERSE USING A LEICA TCIP 1203+ TOTAL STATION WITH A CARLSON SURVEYOR PLUS COLLECTOR/FIELD COMPUTER IN OCTOBER OF 2015.
- THIS SURVEY TIED INTO CONTROL POINTS FROM OUR PREVIOUS SURVEYS WITHIN THE AREA AND LOT CORNERS AS SHOWN AND RELIED UPON THE CITY OF FERNDAL SURVEY MONUMENT NETWORK FOR BASIS OF BEARINGS.
- THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND DOES NOT PURPORT TO SHOW ANY OR ALL EASEMENTS THAT A CURRENT TITLE REPORT MIGHT REVEAL.
- VERTICAL DATUM IS PER THE CITY OF FERNDAL SURVEY MONUMENT NETWORK (NGVD29). TBM'S = LOT CORNERS AS SHOWN.
- CONTOUR INTERVALS ARE 1 FOOT. CONTOURS ARE COMPUTER GENERATED FROM GROUND FIELD TOPOGRAPHY GATHERED FOR THIS SURVEY.
- NORTHWEST SURVEYING & GPS INC. ASSUMES NO LIABILITY FOR ANY SUBSURFACE CONDITIONS OR UTILITIES NOT SHOWN HEREON. UNDERGROUND UTILITIES ARE KNOWN TO EXIST WITHIN THE AREA OF CONSTRUCTION. THE LOCATION OF EXISTING UTILITIES SHOWN ARE BASED UPON FIELD SURVEY AND VISUAL IDENTIFICATION. ALL EXISTING UTILITIES MAY NOT BE INDICATED WITHIN THE CONSTRUCTION DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ANY AND ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND TO ALERT THE ENGINEER AND OWNER PROMPTLY IN CASE OF CONFLICT.

SHEET INDEX

- COVER SHEET
- CITY OF FERNDAL GENERAL NOTES
- EXISTING CONDITIONS PLAN
- EROSION & STORMWATER PLAN: POST-MASS GRADING CONDITIONS
- COMPOSITE UTILITY PLAN
- ROAD & STORMWATER - PORTAL WAY PLAN & PROFILE: STA 1+00 - 7+00
- ROAD & STORMWATER - ON-SITE PLAN & PROFILE: STA 0+00 - 5+25
- ROAD & STORMWATER - ON-SITE PLAN & PROFILE: STA 5+25 - END
- ROAD & STORMWATER - WEST LOT STORM PIPE
- CROSS SECTIONS 1: PORTAL WAY
- CROSS SECTIONS 2: ONSITE
- STORMWATER AND ROAD TYPICAL DETAILS 1 & GRADING DETAIL
- STORMWATER AND ROAD TYPICAL DETAILS 2
- WATER - PLAN & PROFILE: STA 0+00 - 5+50
- WATER - PLAN & PROFILE: STA 5+50 - END
- WATER - PLAN & PROFILE: WEST EDGE OF LOT 1
- WATER TYPICAL DETAILS
- SEWER - PLAN & PROFILE: STA 0+00 - 5+00
- SEWER - PLAN & PROFILE: STA 5+00 - END
- SEWER TYPICAL DETAILS

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "ALPINE INVESTMENT & FLAX4LIFE SITE" 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, P.E.

SURVEYOR'S CERTIFICATION

I HEREBY 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: 06-15-17

JEROME DEMEYER, P.L.S.

EXISTING LEGEND:

- OVERHEAD POWER LINE
- SANITARY SEWER LINE
- NATURAL GAS LINE
- WATER LINE
- COMMUNICATIONS LINE
- FENCE
- EDGE OF PAVEMENT
- GRAVEL
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- SIGN
- PHONE/CABLE PEDESTAL
- POWER POLE

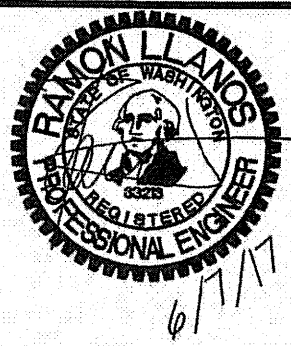
PROPOSED LEGEND:

- PROPOSED STORMDRAIN CATCHBASIN
- PROPOSED STORMDRAIN FILTER
- PROPOSED STORMDRAIN BIRD CAGE
- PROPOSED STORM DRAIN CLEANOUT
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED WATER METER
- PROPOSED FIRE HYDRANT
- PROPOSED POST INDICATOR VALVE (PIV)
- PROPOSED FIRE DEPARTMENT CONNECTION (FDC)
- PROPOSED VALVE
- PROPOSED BLOW-OFF
- PROPOSED REDUCER
- PROPOSED ADAPTER (FLX4J)
- PROPOSED CAP
- PROPOSED TEE
- PROPOSED 45° BEND
- PROPOSED 22.5° BEND
- THRUST BLOCK
- PROPOSED STORMWATER PIPE, 8"
- PROPOSED STORMWATER PIPE, 8"
- PROPOSED STORMWATER PIPE, 18"
- PROPOSED CULVERT
- PROPOSED DITCH
- PROPOSED SEWER LINE, 8"
- PROPOSED SEWER LINE, 6"
- PROPOSED WATER LINE, 8"
- PROPOSED WATER LINE, 6"
- PROPOSED WATER LINE, 4"
- PROPOSED CUT LINE
- PROPOSED FILL LINE
- PROPOSED TOP OF BANK
- PROPOSED BOTTOM OF BANK
- PROPOSED UNDERGROUND POWER
- PROPOSED UNDERGROUND PHONE
- PROPOSED UNDERGROUND GAS
- PROPOSED CONTOUR (INDEX)
- PROPOSED CONTOUR (NORMAL)
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED ROCK ROAD (TEMPORARY) CLEAR CRUSHED ROCK 4" OVER 12" OF AGGREGATE BASE
- PROPOSED PAVEMENT GRIND & OVERLAY

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.

ASBUILT SUBMITTAL 1	EH	01/09/17
ASBUILT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.:	1568
DWG. NAME:	ALPINE-DRIP SITE PLAN-PH-ASBUILT.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

ALPINE INVESTMENT
&
FLAX4LIFE

APPROVED

JUN 20 2017

BY
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

COVER

ALPINE INVESTMENT & FLAX4LIFE SITE
6407 & 6445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

SHEET

01

OF

19

RECORD DRAWING

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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 SPECS.), THE CITY OF FERNDALE DEVELOPMENT STANDARDS (COFDS) AND THE 2005 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DOE 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:
 - 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 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 1-07.23- 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 (NGVD 29) AND HORIZONTAL (NAD 83/91). 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 FERNDALE 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 95% DENSITY IN LIFTS NOT TO EXCEED 24 INCHES WITH A "HOE 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 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.
 - 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.

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.
- UNUSABLE 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 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
 - "RESIDENTIAL SERVICE LINE"
 - COFSD ST-7 (CITY OF FERNDALE 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.
- POSITIVE LOT DRAINS PER STANDARD DETAIL ST-16.
- CONDITIONAL USE LEVEL DESIGNATION (CULD) TREATMENT 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.
 - CONTINGENCY 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
 - TRENCH BACKFILL
 - FIRE HYDRANT ASSEMBLY
 - THRUST BLOCKING
 - WATER SERVICE
- 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 250 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 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 C500 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 COFDS W-5.
- FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COFDS - 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 M.H. 928T
 - 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:

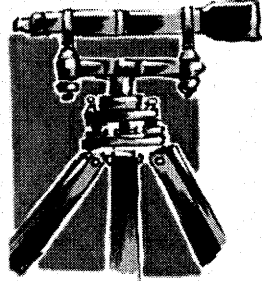
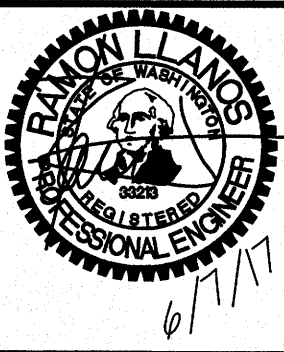
- THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF THE STANDARD STREET SECTION:

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 HEATLY-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 8-02.3(2).
- 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 DESIGNED BY THE ENGINEER, IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS, SECTION 8-04 AND CITY OF FERNDALE 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 GUTTER 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 COLD PLANE PER DIMENSIONS SPECIFIED ON THE PLANS, AND INSTALL A MINIMUM 2-FOOT WIDE PETROTAC 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 HANCOCK 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 FERNDALE 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 FERNDALE. 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 FERNDALE 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 PE#A 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 FERNDALE 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 FERNDALE STANDARD DETAILS SS-6, SS-8 OR SS-13, EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".
- CONTRACTOR SHALL EXTEND SEWER STUBS 5 FT BEYOND UTILITY CORRIDOR OR 15 FEET BEYOND RIGHT-OF-WAY LINE.
- EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT 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.

ASBUILT SUBMITTAL 1	EH	01/09/17
ASBUILT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.:	1568
DWG. NAME:	ALPNE-ISP SITE PLAN-PH1-ASBUIL.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

CLIENT:	ALPINE INVESTMENT & FLAX4LIFE
APPROVED	JUN 20 2017
BY:	 ALAN J. LYLES CITY OF FERNDALE PUBLIC WORKS DEPARTMENT

CITY OF FERNDALE GENERAL NOTES

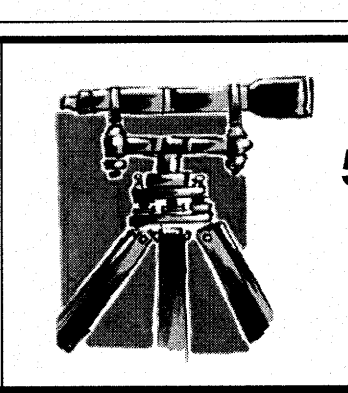
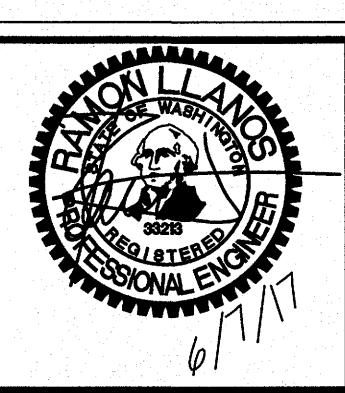
ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDALE, WA
A PORTION OF SECTION 17, TOWNSHIP 30N, RANGE 2E, W.M.

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ASBUILT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.: 1568
DWG. NAME:
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL

CLIENT:
**ALPINE INVESTMENT
&
FLAX4LIFE**

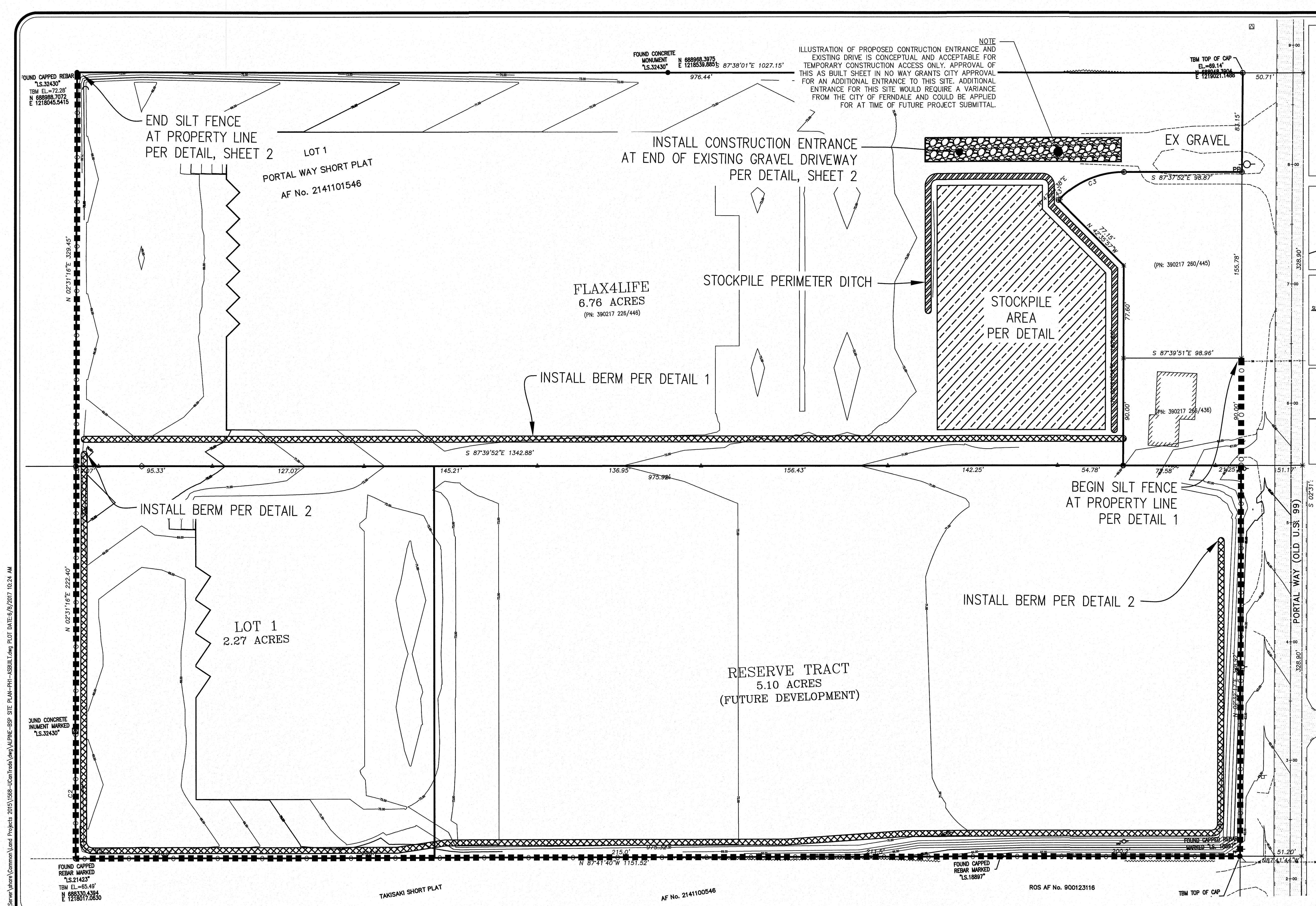
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JUN 20 2017
BY: [Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

ROS AF No. 900123116

**EROSION & STORMWATER PLAN
POST-MASS GRADING CONDITIONS**

ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WAY, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

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TESC LEGEND:

- SEDIMENT FENCE TO BE INSTALLED AS DIRECTED BY THE ENGINEER
- CONSTRUCTION ENTRANCE
- BERM, PER DETAIL
- STOCKPILE AREA
- PERIMETER DITCH PER DETAIL

BERM DETAIL 1
NTS

PROVIDE 2' BERM WHERE WATER DRAINS OFF PROPERTY

BERM DETAIL 2
NTS

MULCH PER BMP C121 ADD TOPSOIL IF NECESSARY (6" MIN)

SILT FENCE AT PROPERTY LINE

2'-WIDE BERM AT TOP OF BANK 12" TALL MIN

2'-WIDE DITCH AT BOTTOM OF BANK 6"-DEEP

STOCKPILE PERIMETER DITCH
NTS

GEOTECHNICAL ENGINEER TO VERIFY REMOVAL OF TOPSOIL

5' MULCH BMP C121

EG/ TOP OF DITCH 1' MIN

BOTTOM OF DITCH

NOTE

- PERMANENT BERM IS REQUIRED UNTIL A SUBSEQUENT PERMIT APPLICATION, STORMWATER REPORT, AND SITE PLANS IS APPROVED.
- IN THE VERY UNLIKELY EVENT THAT EROSION OF SAND OCCURS DUE TO WIND, OWNER SHALL WATER AND LIGHTLY COMPACT THE SAND SIMILAR TO BMP C140: DUST CONTROL.
- BERM REQUIRED PER APPROVED STORMWATER SITE PLAN.
- REMOVAL OF A PORTION OF THE TOPOIL STOCKPILE SHALL BE PART OF THE PROJECT. SAID REMOVAL DOES NOT NEED AMENDMENT OF THE TESC PLAN OR DRAINAGE REPORT.
- OWNERS/DEVELOPERS AGREE TO ADHERE ADDITIONAL PERMANENT SITE STABILIZATION MEASURES IF DEEMED NECESSARY BY THE CITY OF FERNDAL STORM WATER DEPARTMENT.

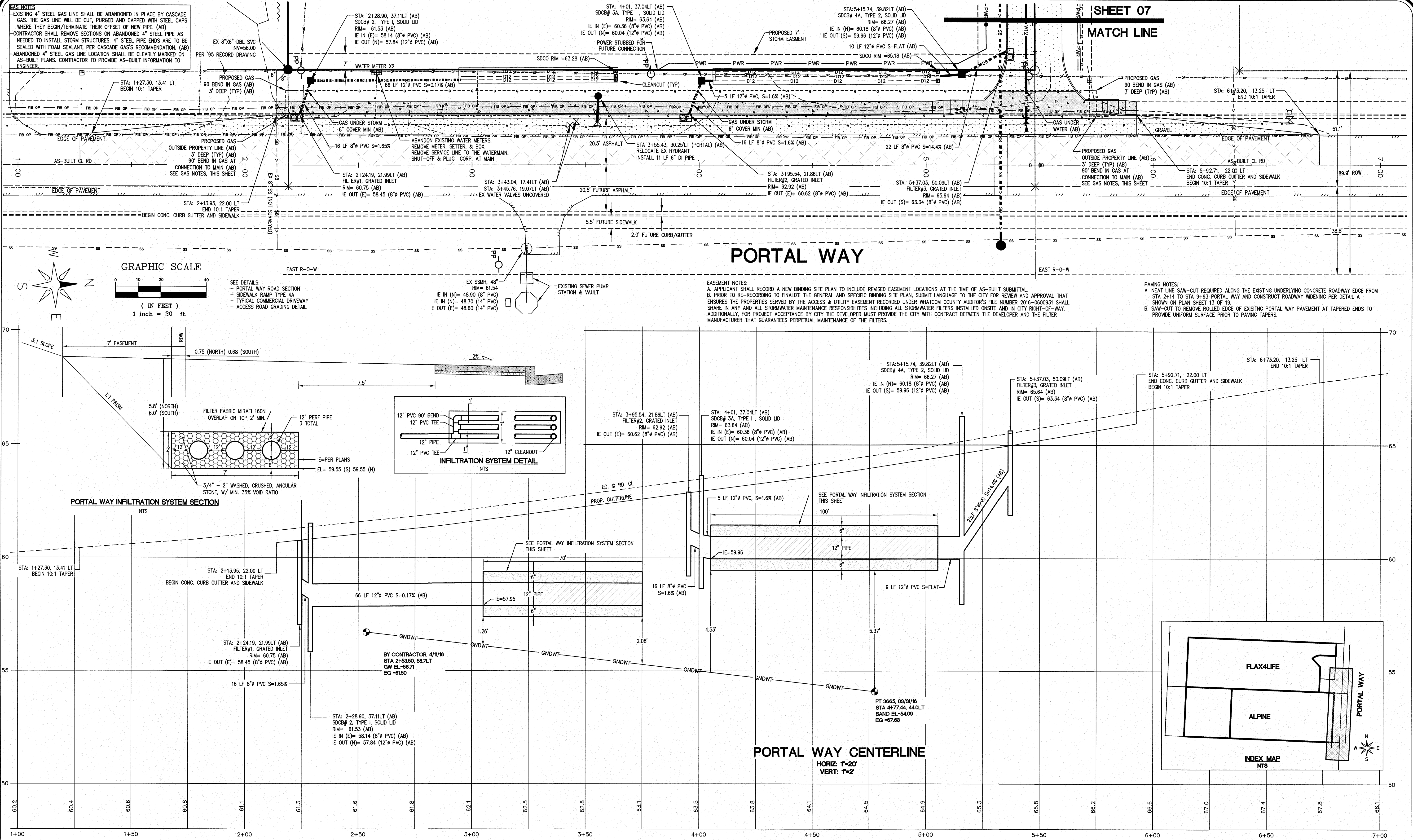
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(IN FEET)
1 inch = 40 ft.

NOTE

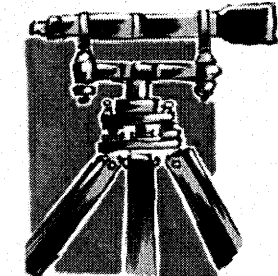
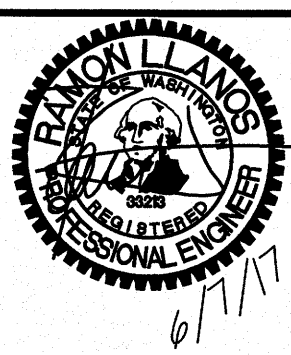
ILLUSTRATION OF PROPOSED CONSTRUCTION ENTRANCE AND EXISTING DRIVE IS CONCEPTUAL AND ACCEPTABLE FOR TEMPORARY CONSTRUCTION ACCESS ONLY. APPROVAL OF THIS AS BUILT SHEET IN NO WAY GRANTS CITY APPROVAL FOR AN ADDITIONAL ENTRANCE TO THIS SITE. ADDITIONAL ENTRANCE FOR THIS SITE WOULD REQUIRE A VARIANCE FROM THE CITY OF FERNDAL AND COULD BE APPLIED FOR AT TIME OF FUTURE PROJECT SUBMITTAL.

RECORD DRAWING

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ASBUILT SUBMITTAL 1	EH	01/09/17
ASBUILT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.:	1568
CLIENT:	ALPINE INVESTMENT & FLAX4LIFE
DWG. NAME:	ALPINE-BSP SITE PLAN-PH-AS-BUILT.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

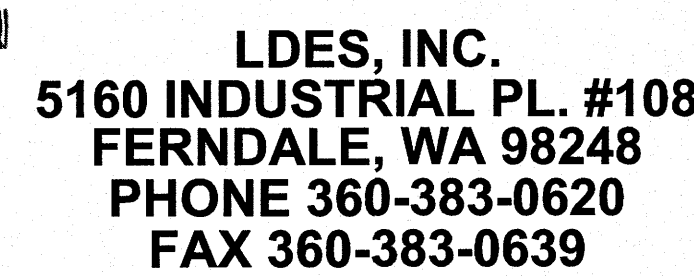
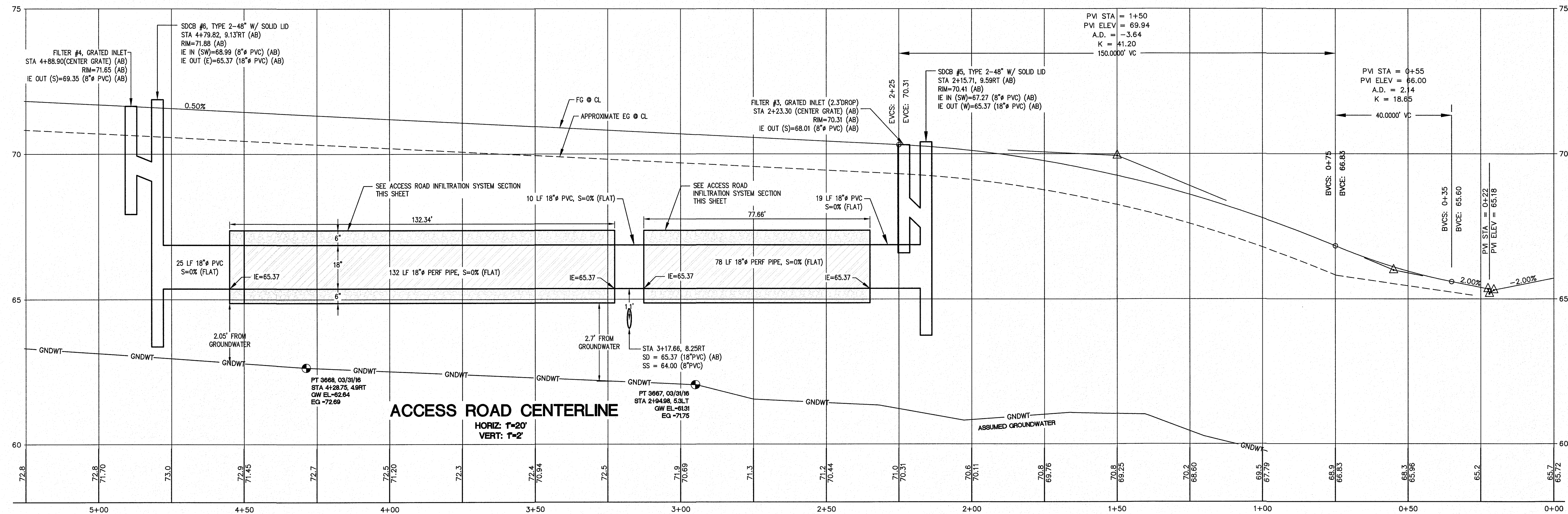
APPROVED
JUN 20 2017
BY: CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

ROAD & STORM PLAN & PROFILE
PORTAL WAY STA 1+00 TO 7+00

ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

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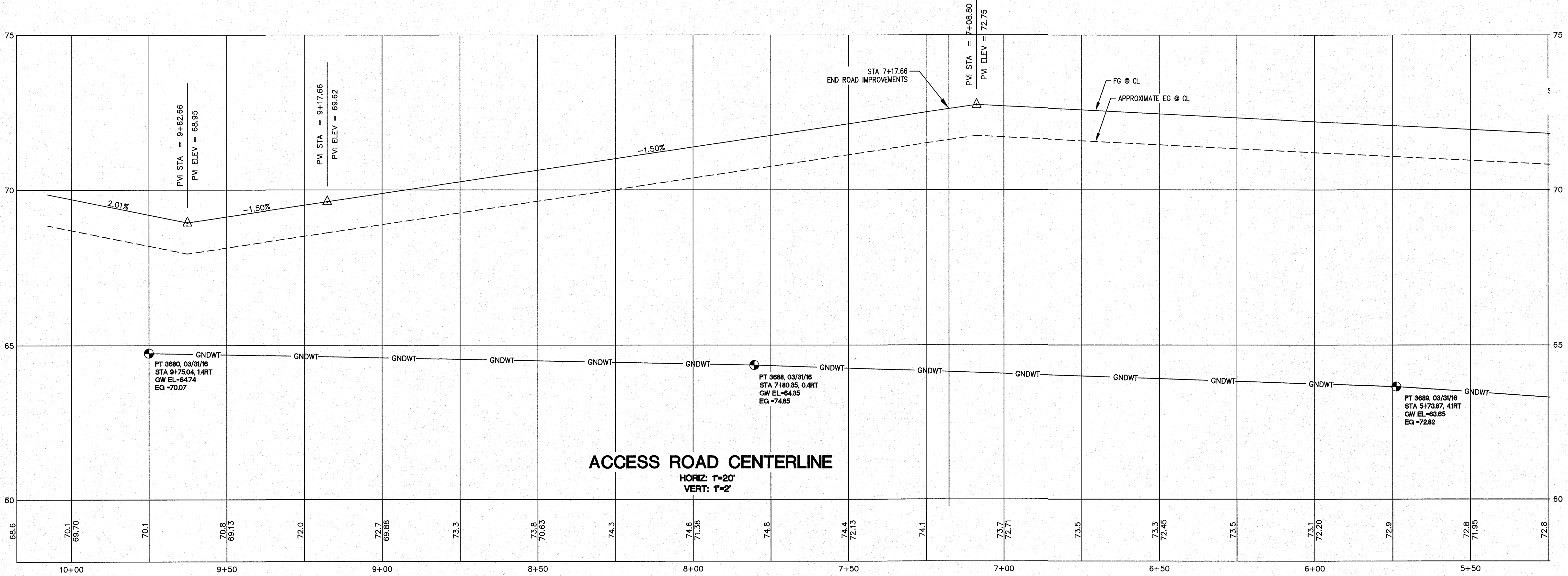
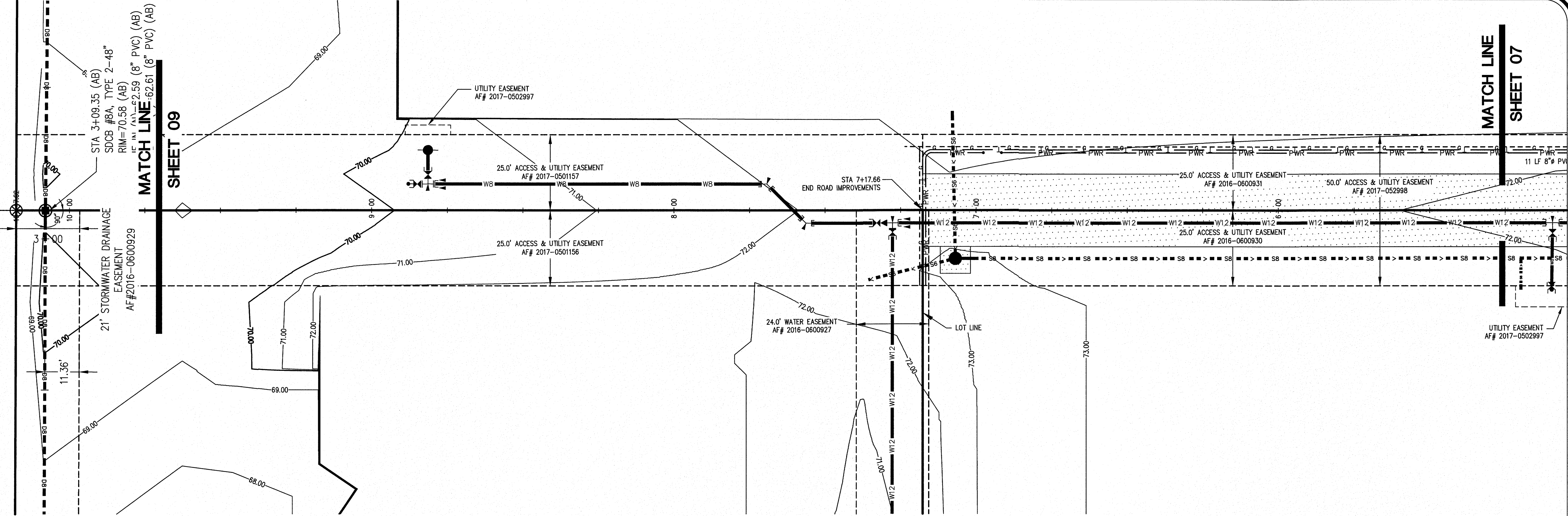
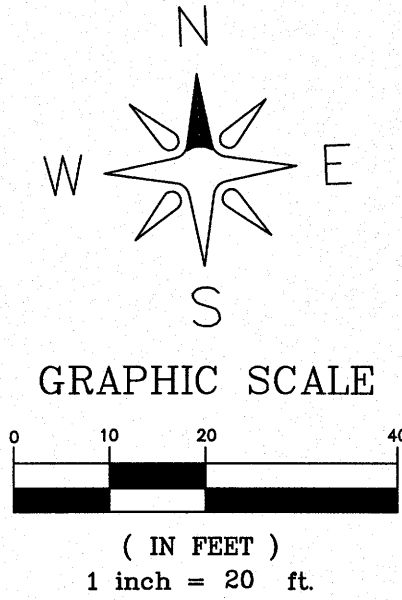
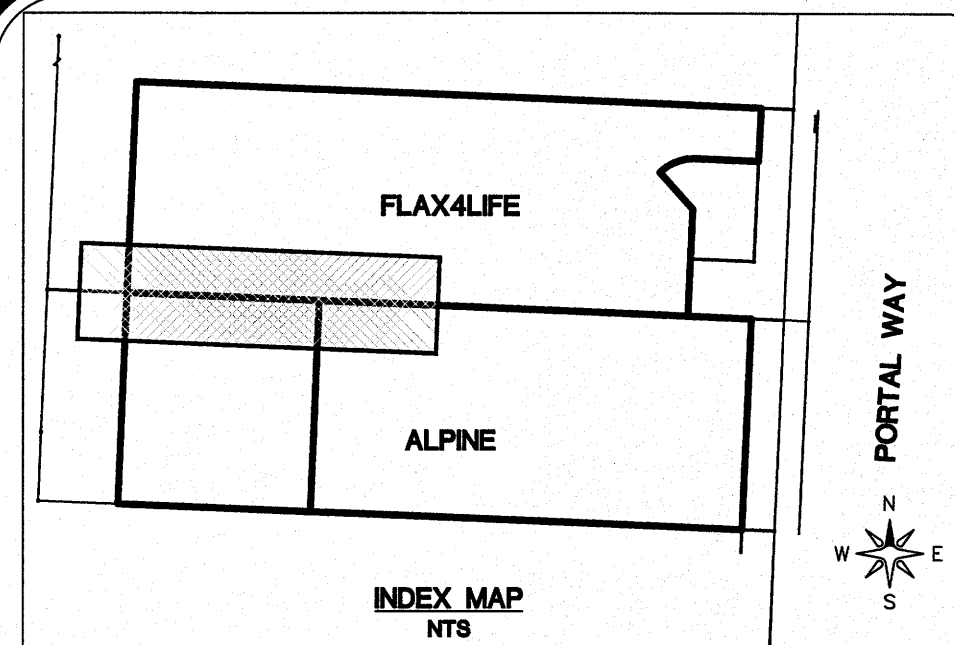
CLIENT:

***ALPINE INVESTMENT
&
FLAX4LIFE***

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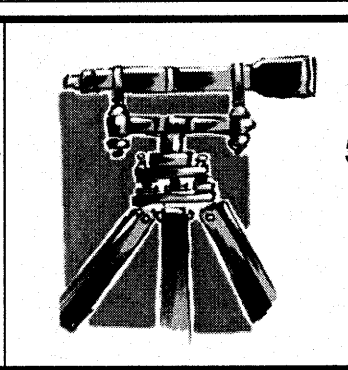
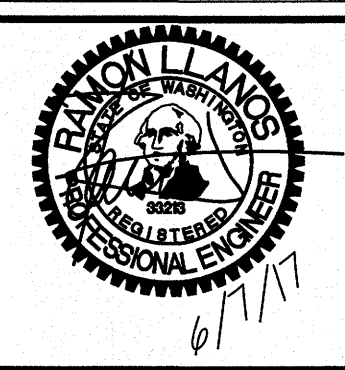
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2	ASBUILT SUBMITTAL 2	EH	06/07/17
3			
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LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

JOB NO.: 1568
DWG. NAME: ALPINE-ESP SITE PLAN-PHI-ASBUILT.dwg
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL

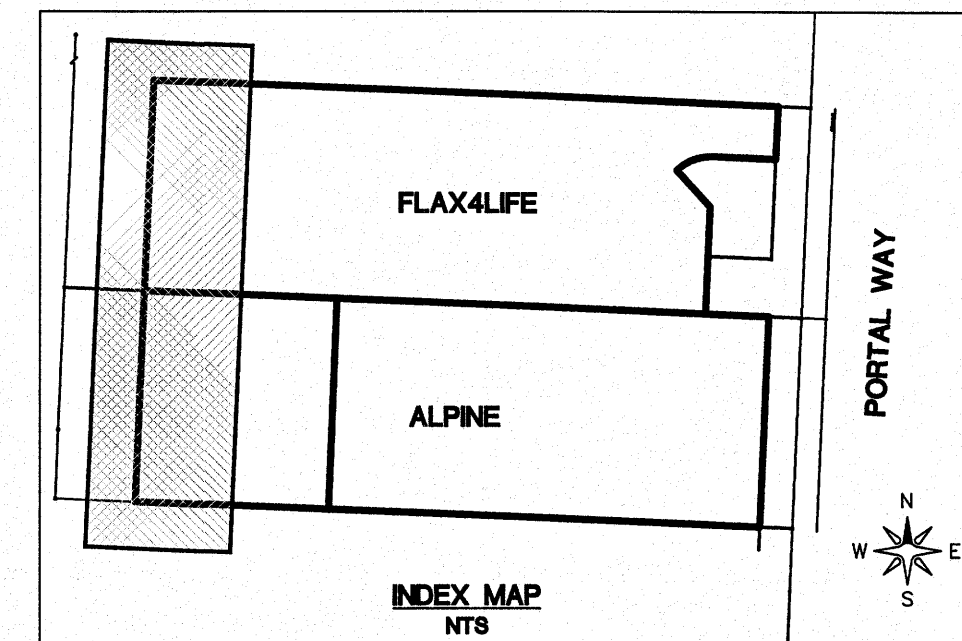
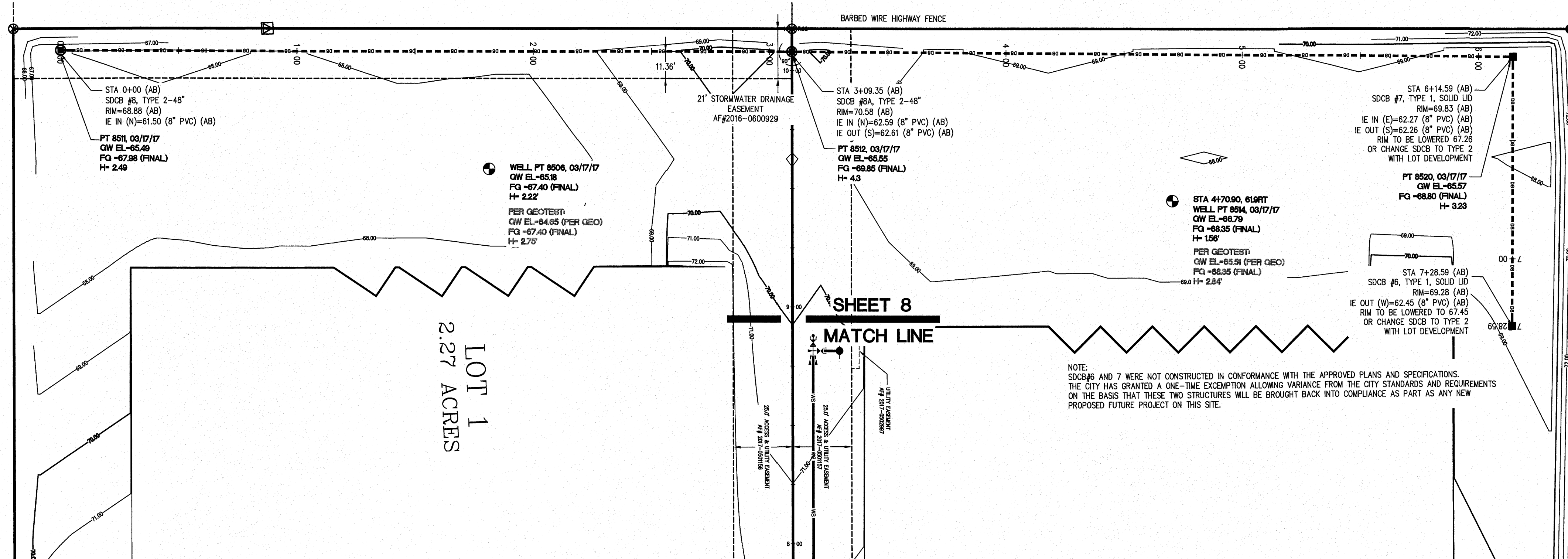
CLIENT:
ALPINE INVESTMENT & FLAX4LIFE

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JUN 20 2017
BY: [Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

**ROAD & STORM PLAN & PROFILE
ONSITE STA 5+25 TO END**
ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

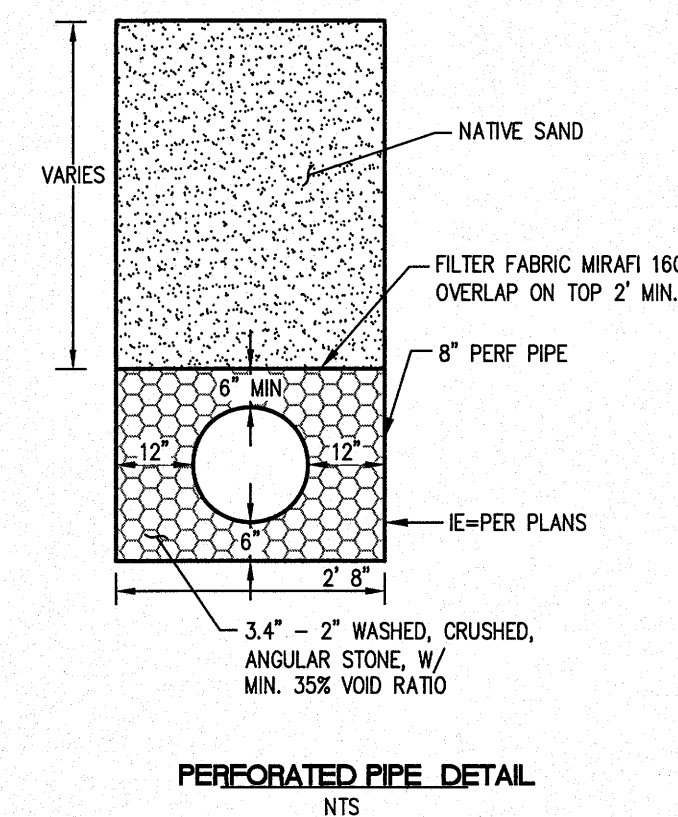
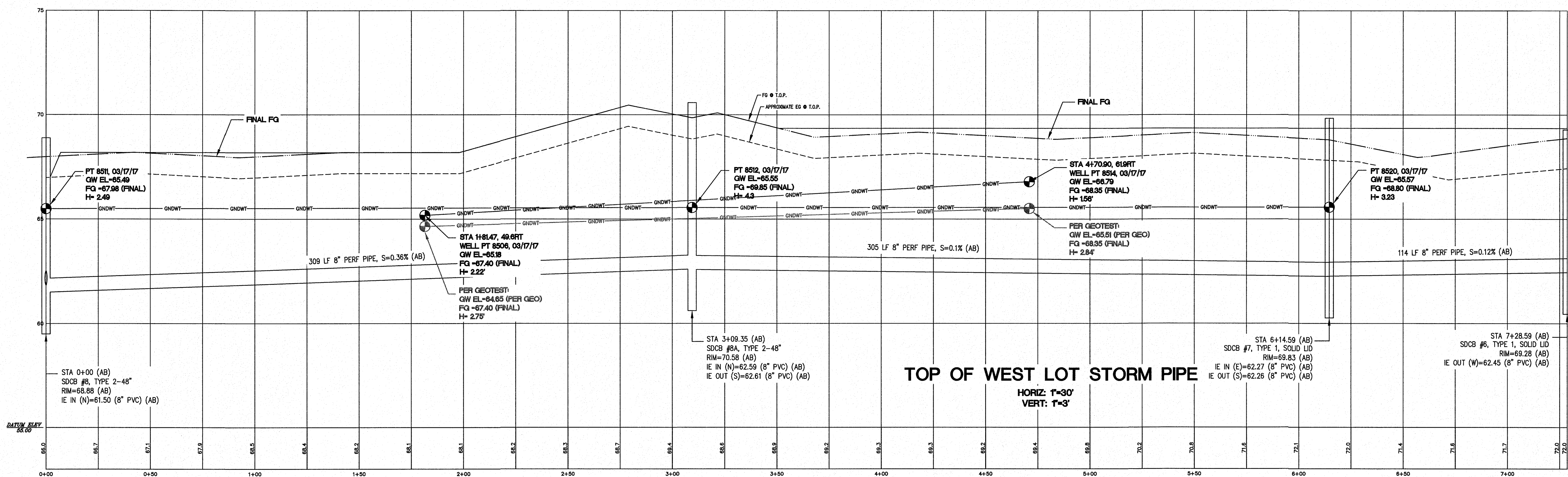
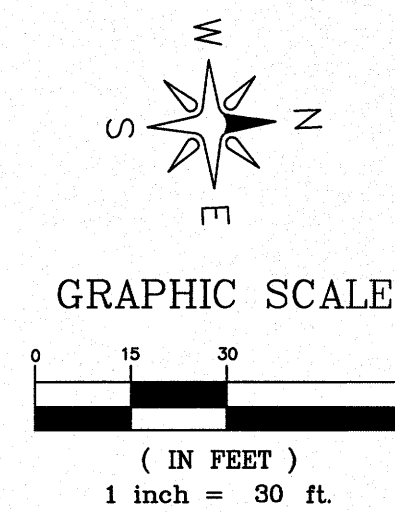
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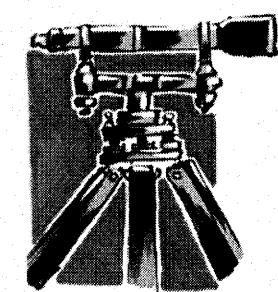
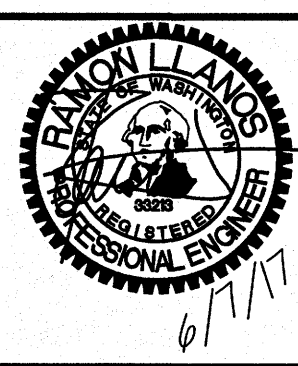


NORTH TEST PIT			
	NWS	GEO	
FG	68.35		
EG	68.59		
MD TO GW	1.80	3.08	
GW	66.79	65.51	
FG-GW	1.56	2.84	

SOUTH TEST PIT			
	NWS	GEO	
FG	67.40		
EG	66.98		
MD TO GW	1.80	2.33	
GW	65.18	64.65	
FG-GW	2.22	2.75	



NO.	REVISION	BY	DATE
1	ASBUILT SUBMITTAL 1	EH	01/09/17
2	ASBUILT SUBMITTAL 2	EH	01/23/17
3	EXHIBIT	EH	3/22/17
4	ASBUILT SUBMITTAL 2	EH	06/07/17



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

JOB NO.:	1568
DWG. NAME:	ALPINE-ISP SITE PLAN-PRI-ASBUILT.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

CLIENT:

ALPINE INVESTMENT
&
FLAX4LIFE

APPROVED

JUN 20 2017

BY
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

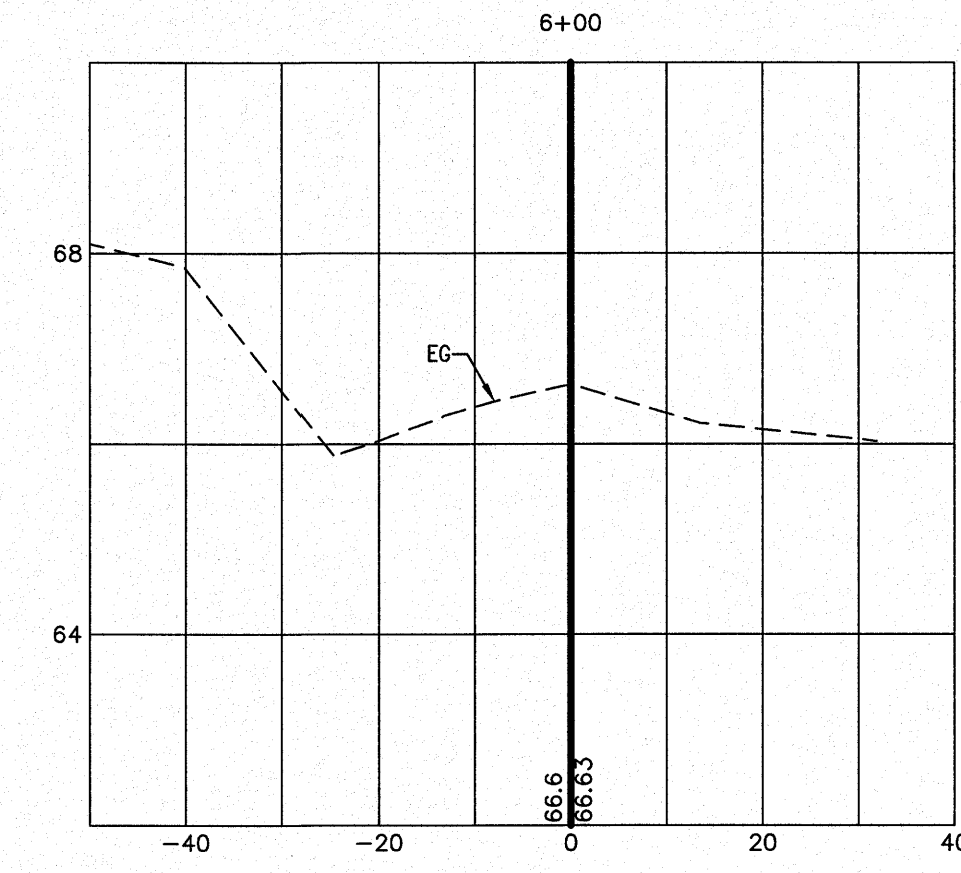
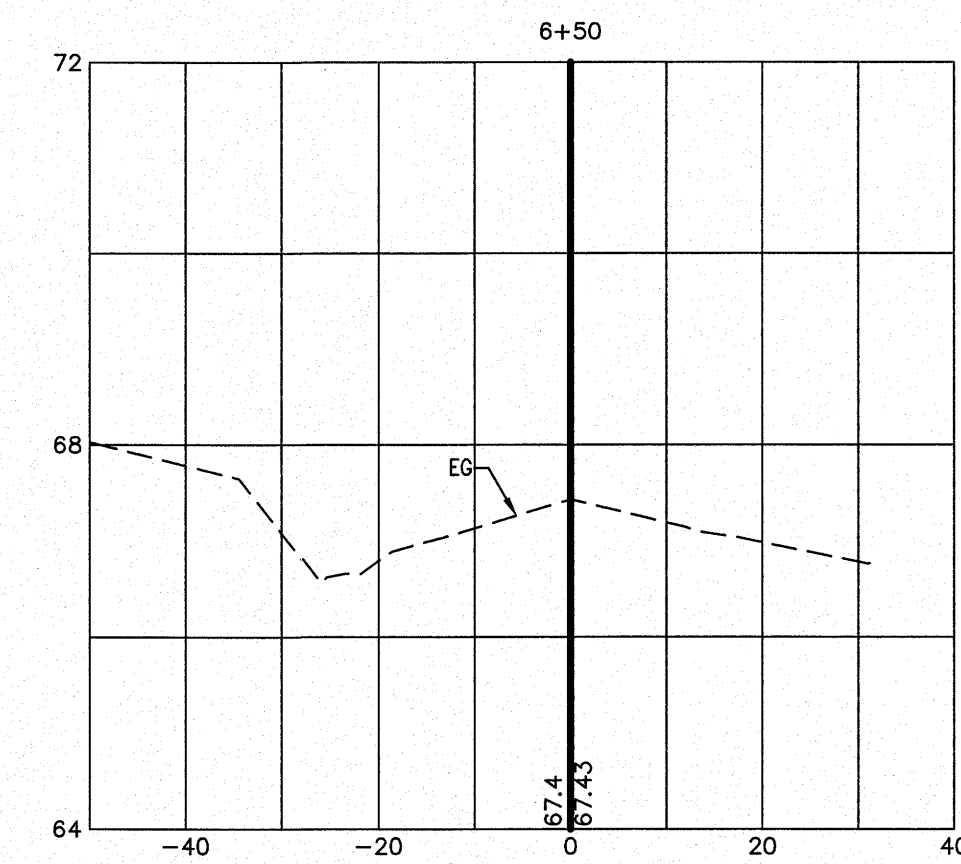
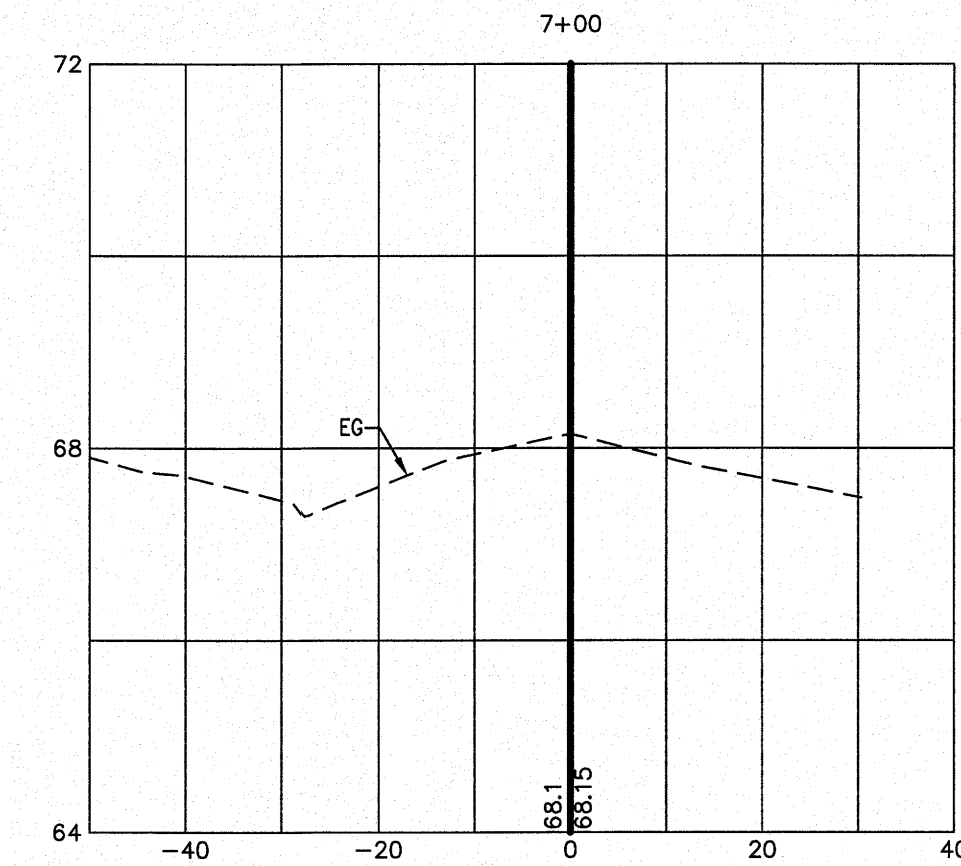
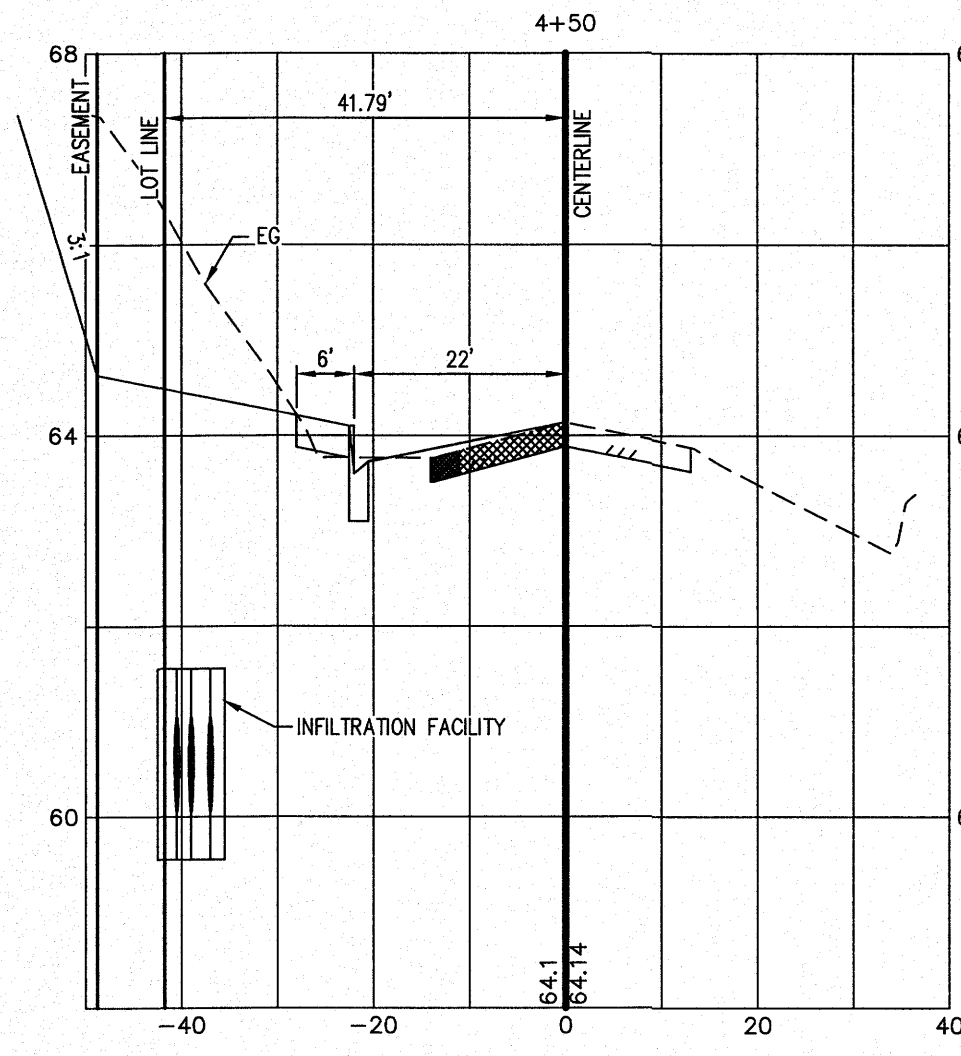
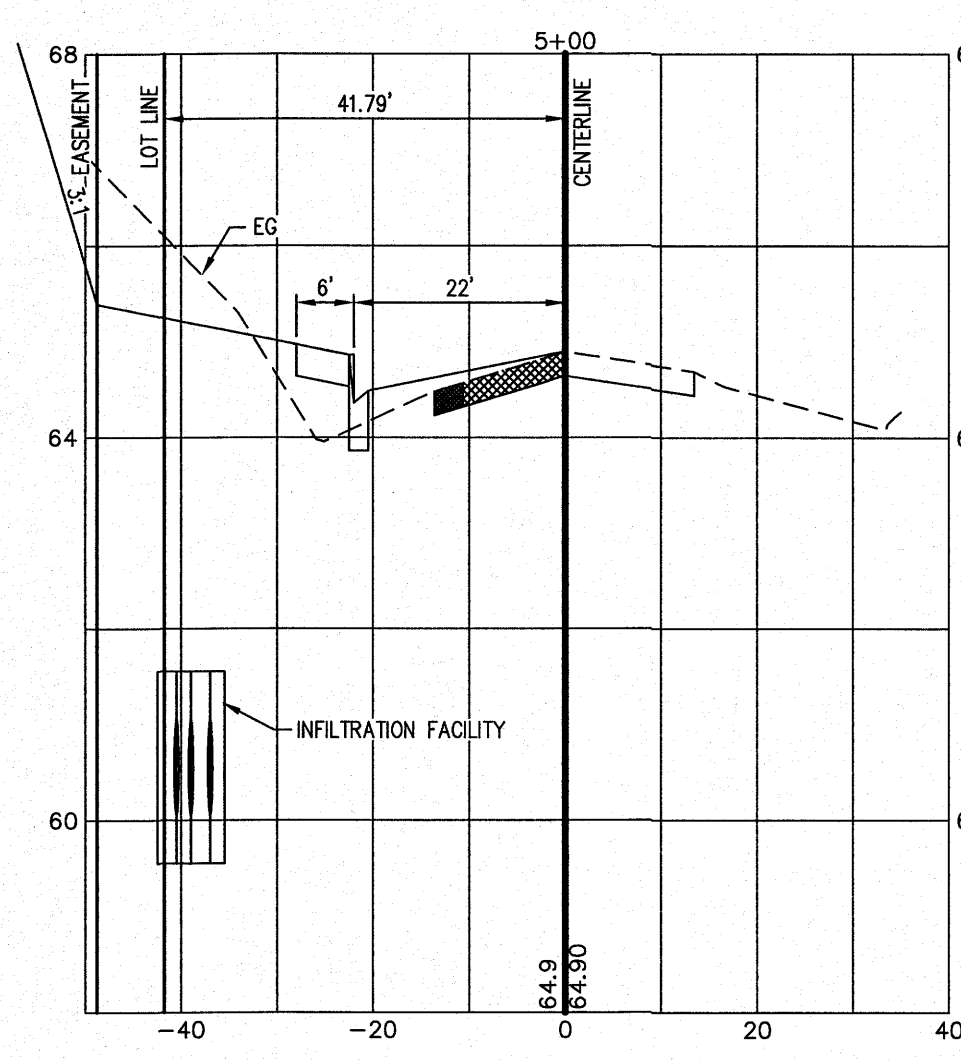
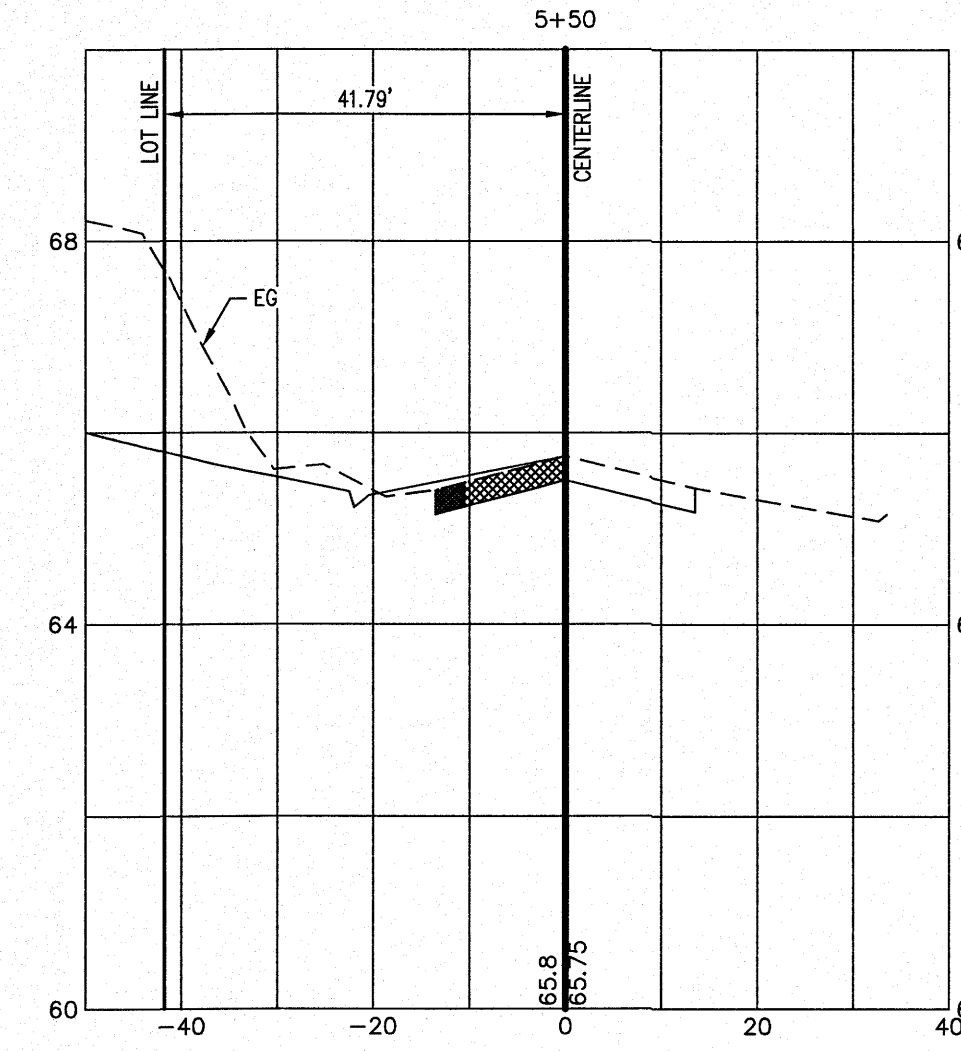
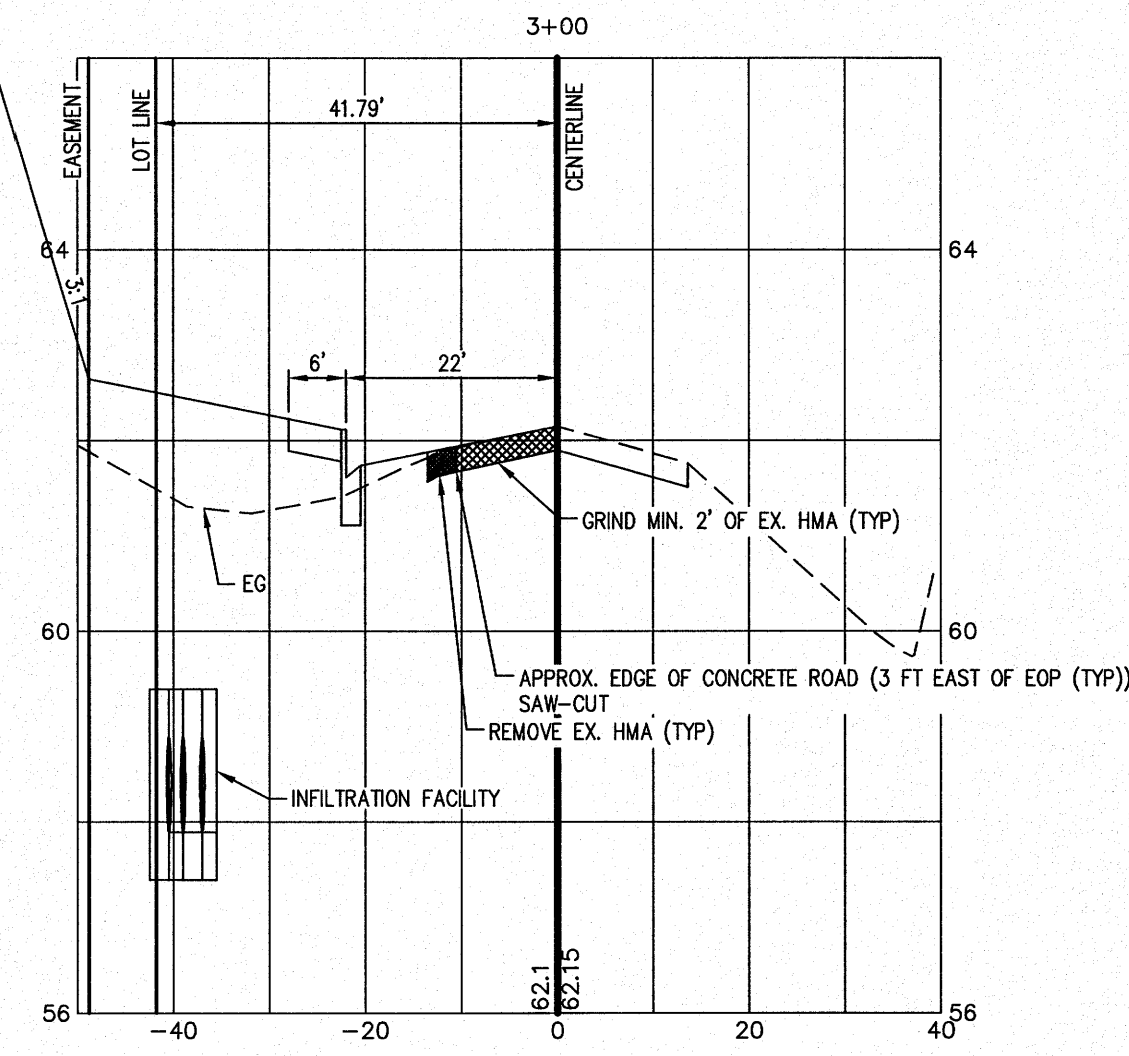
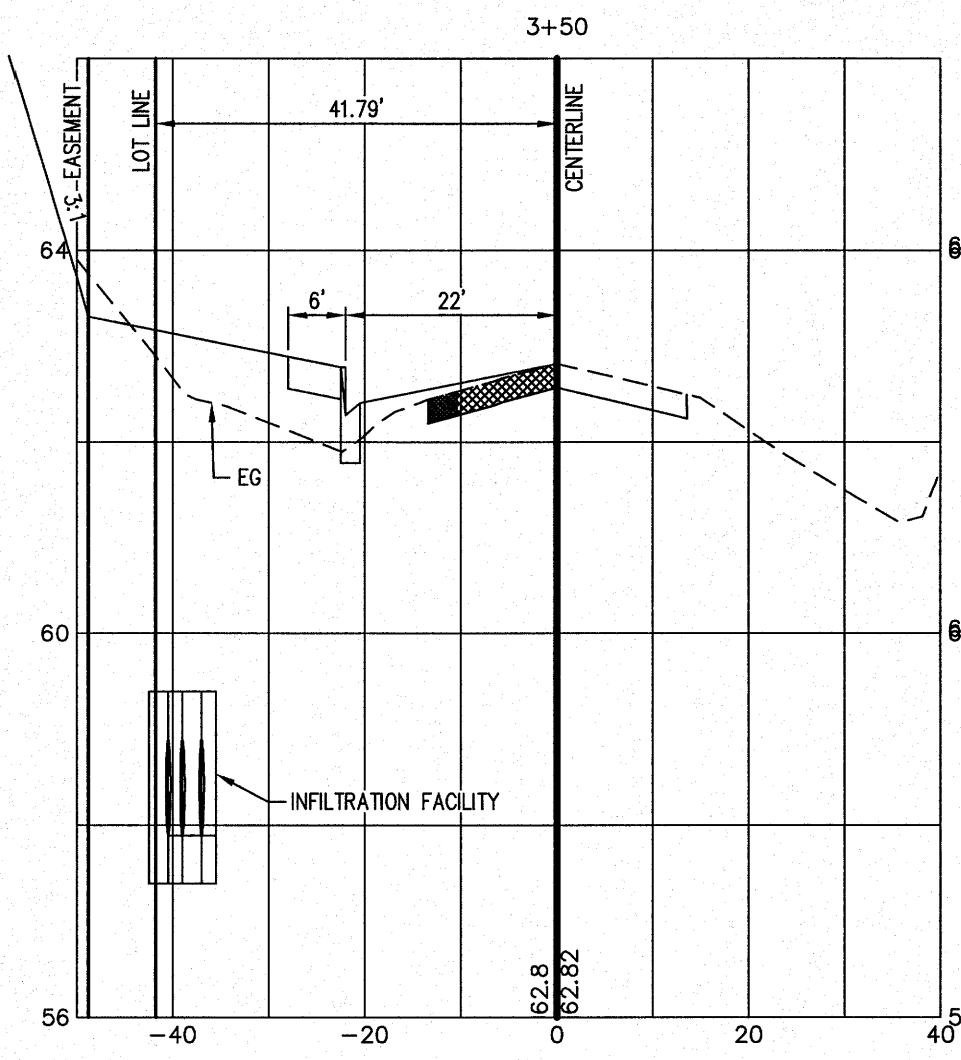
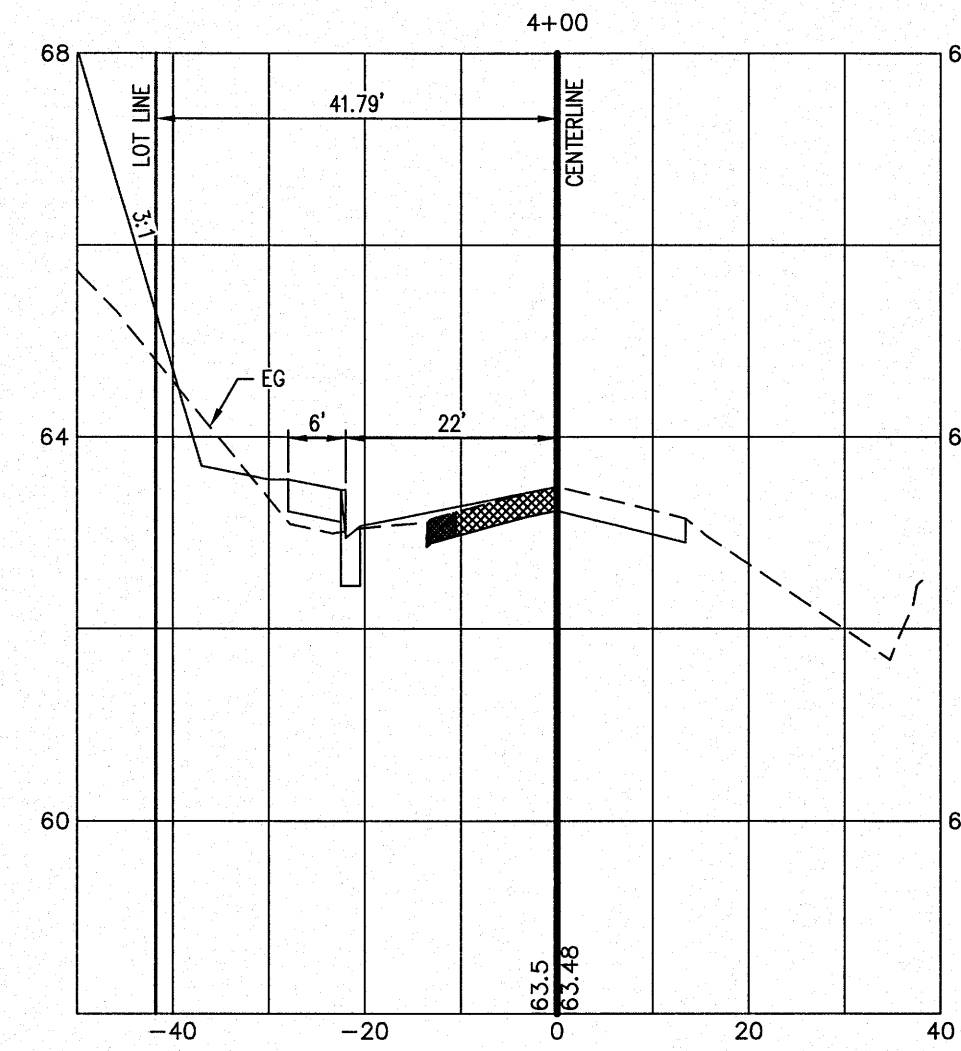
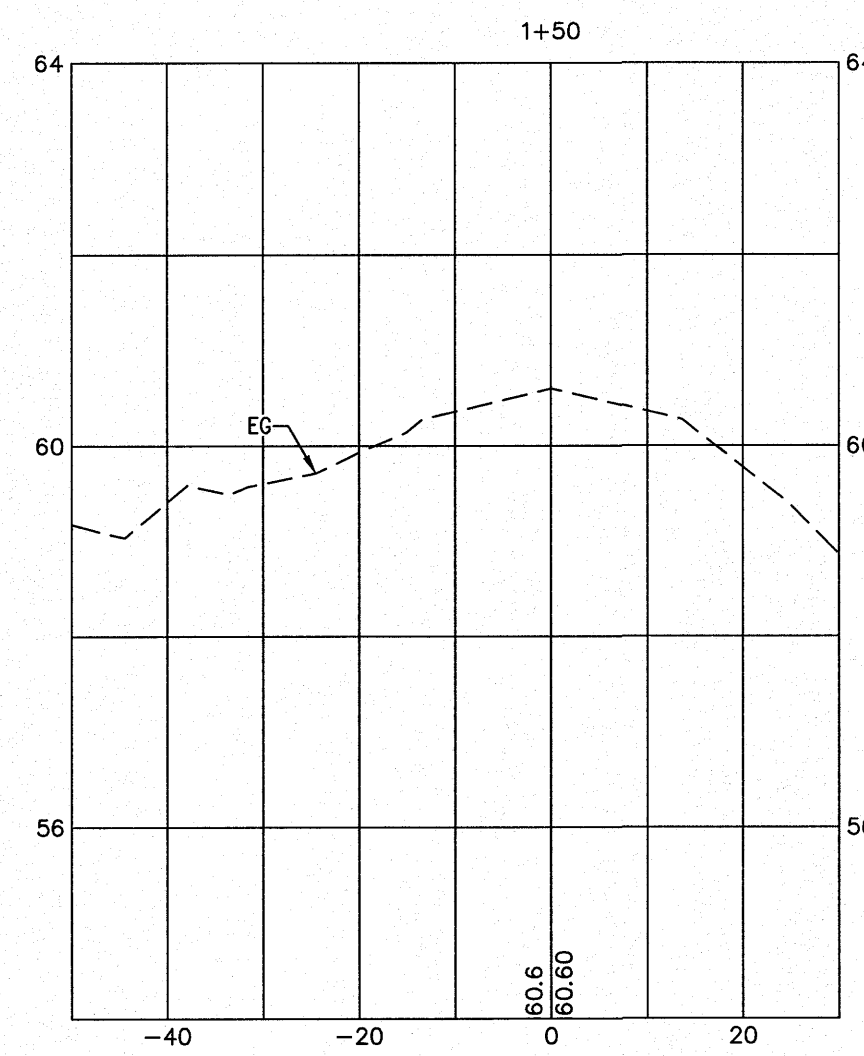
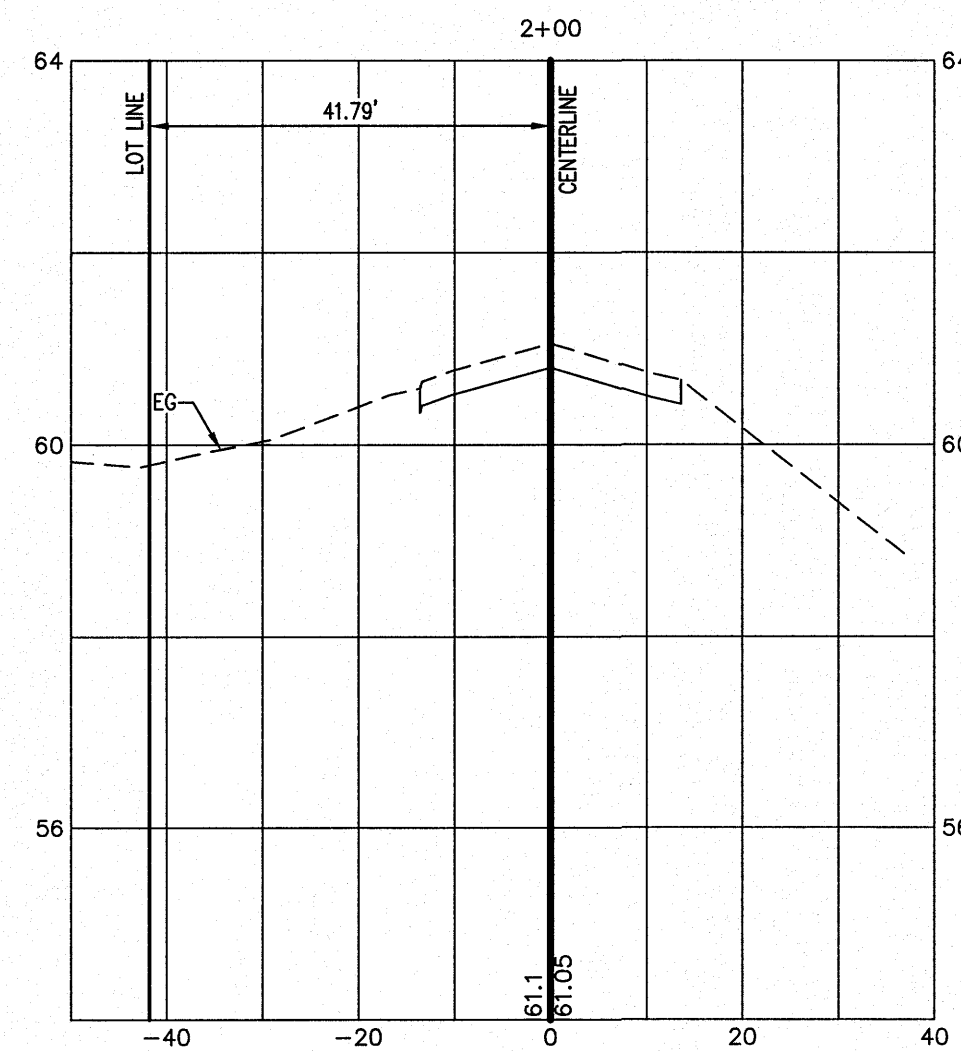
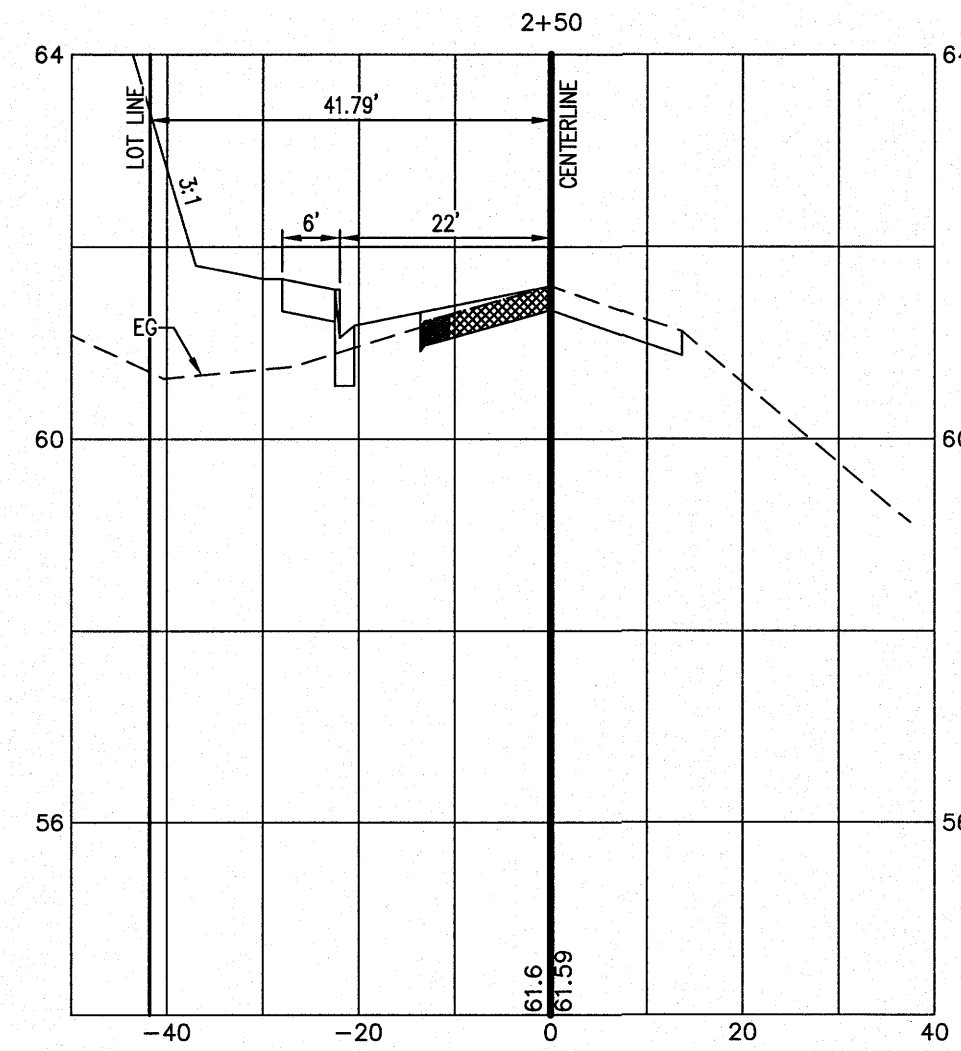
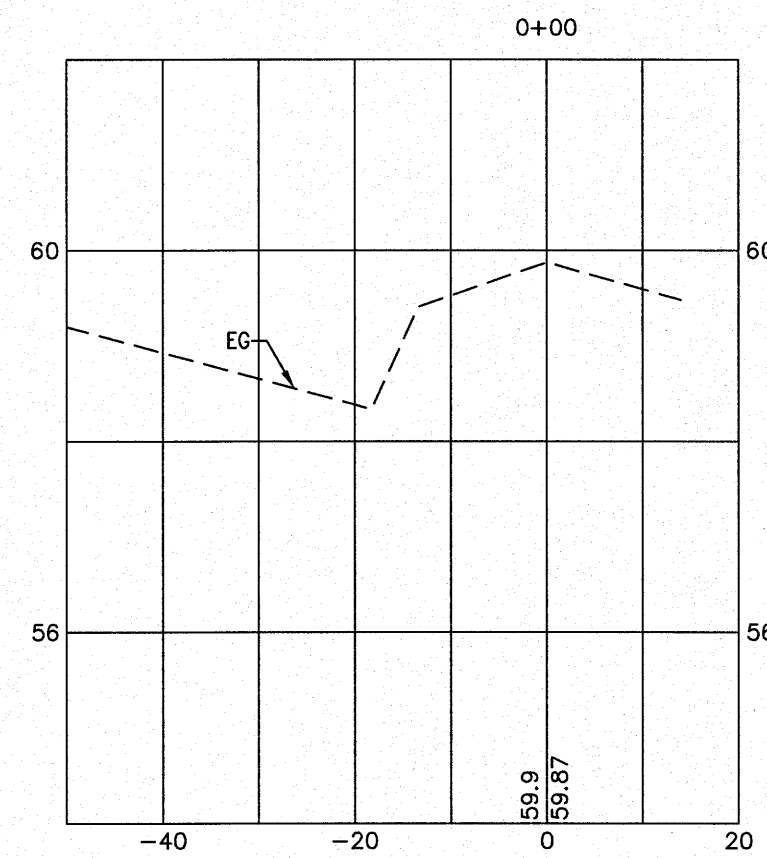
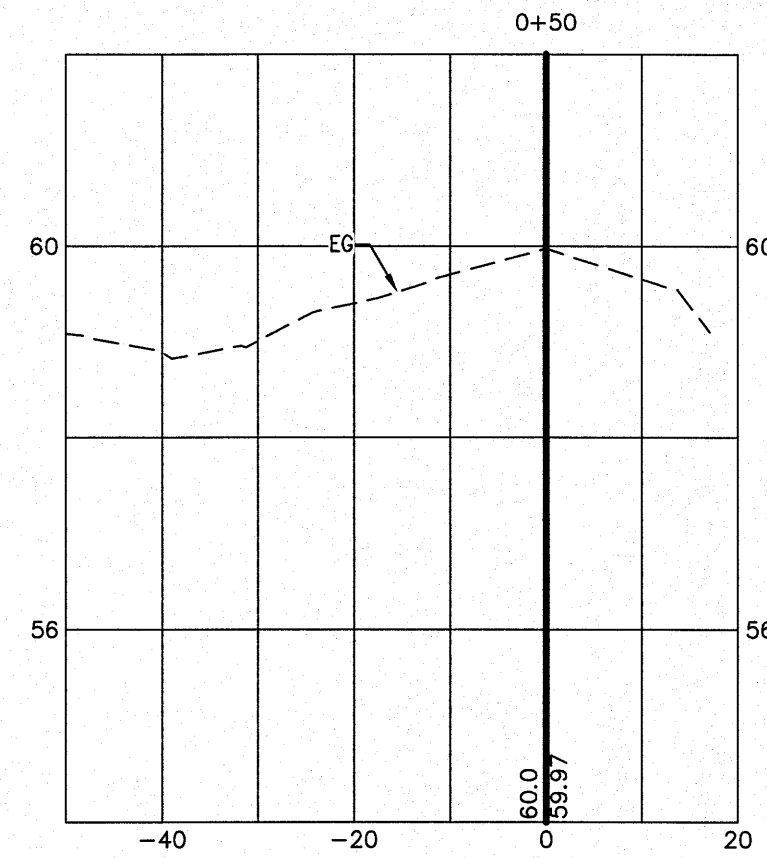
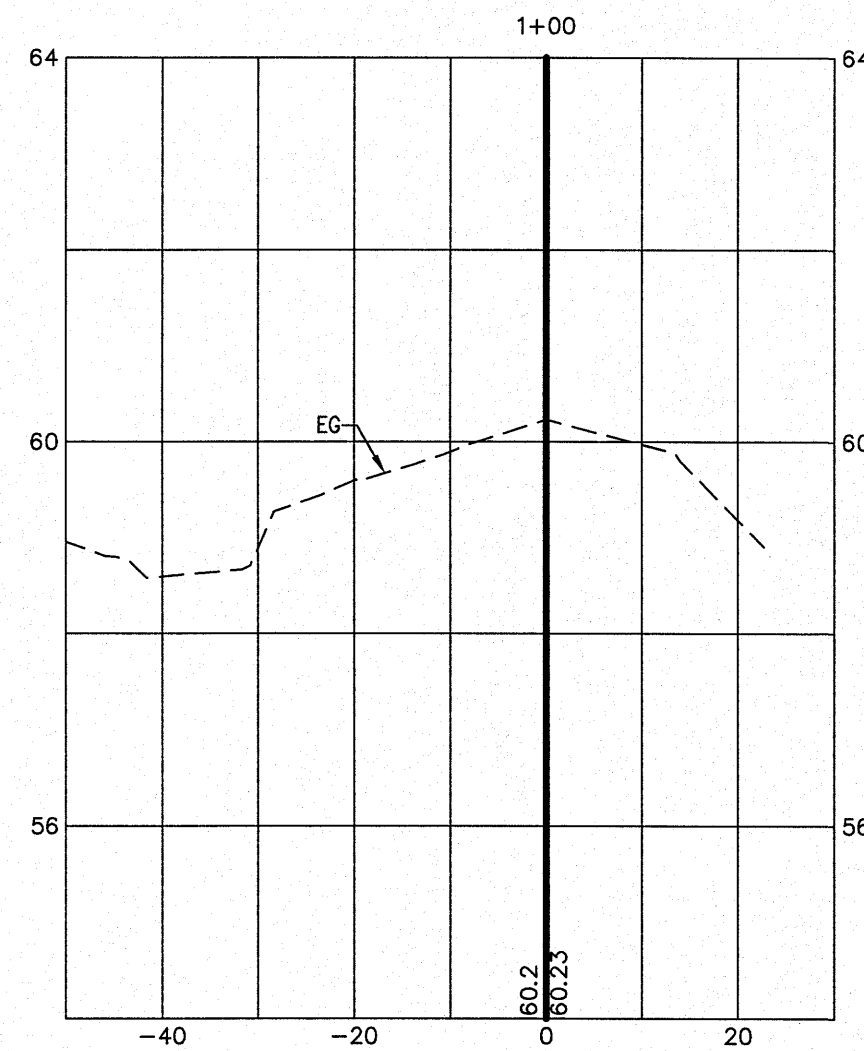
ROAD & STORM PLAN & PROFILE WEST LOT STORM PIPE

ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, WM.

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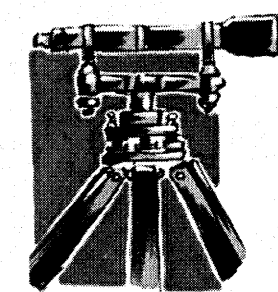
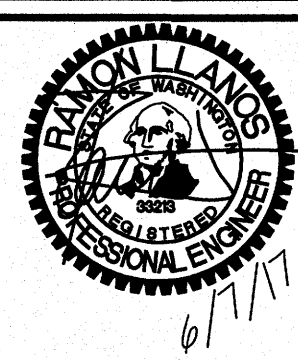
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GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

ASBULT SUBMITTAL 1	EH	01/09/17
ASBULT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.: 1568
DWG. NAME:
DESIGNED BY: RL/EH
DRAWN BY: EH
CHECKED BY: RL

CLIENT:
**ALPINE INVESTMENT
&
FLAX4LIFE**

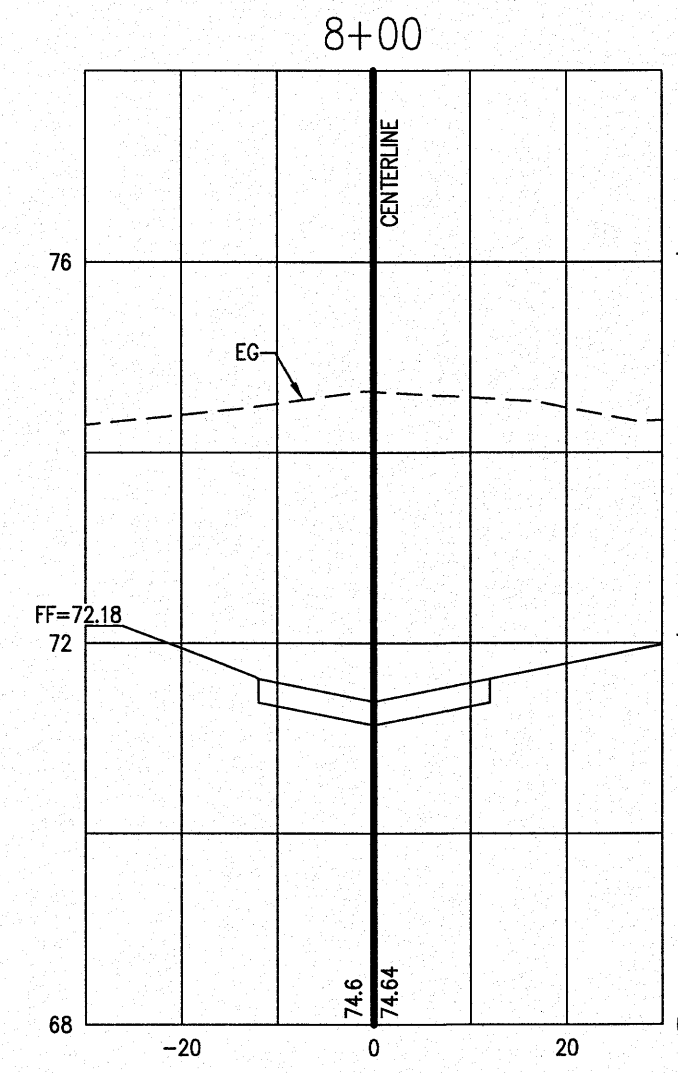
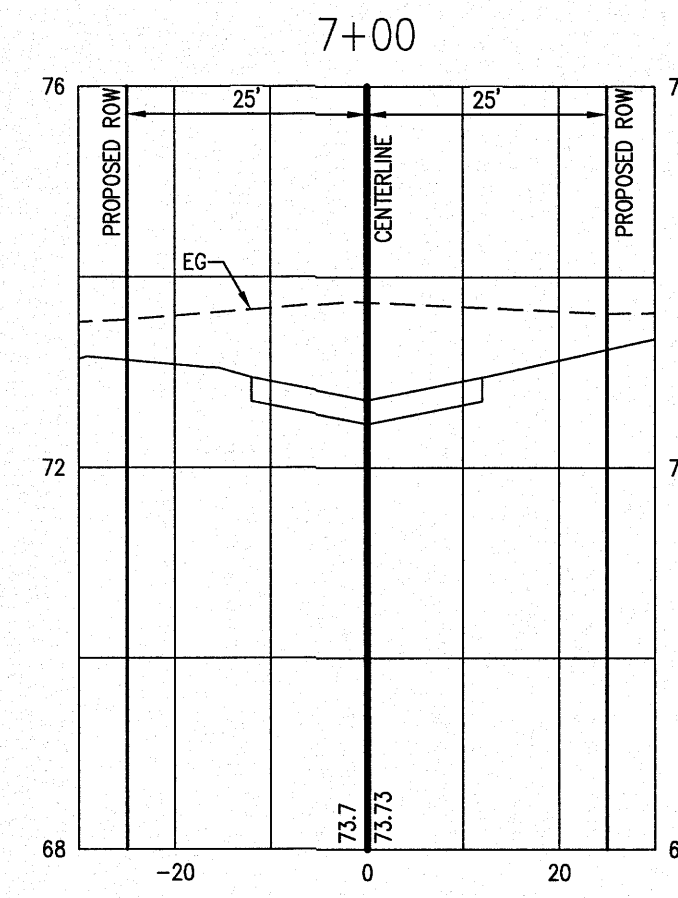
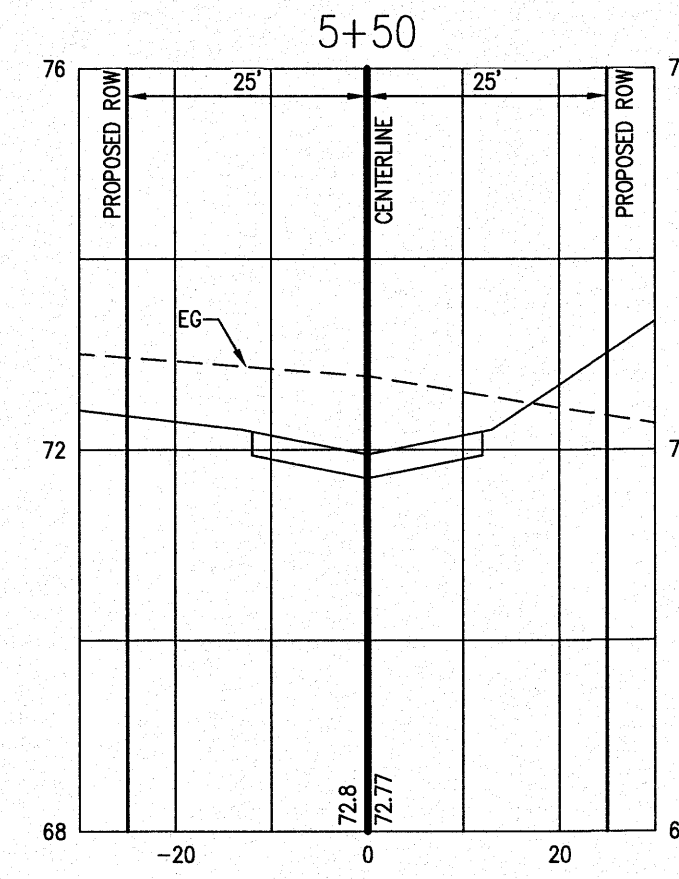
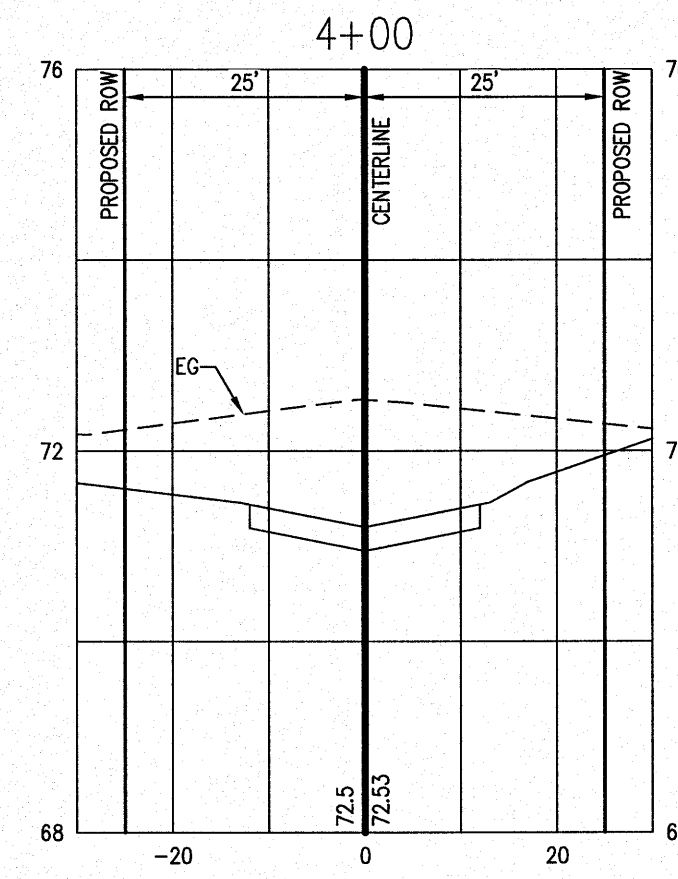
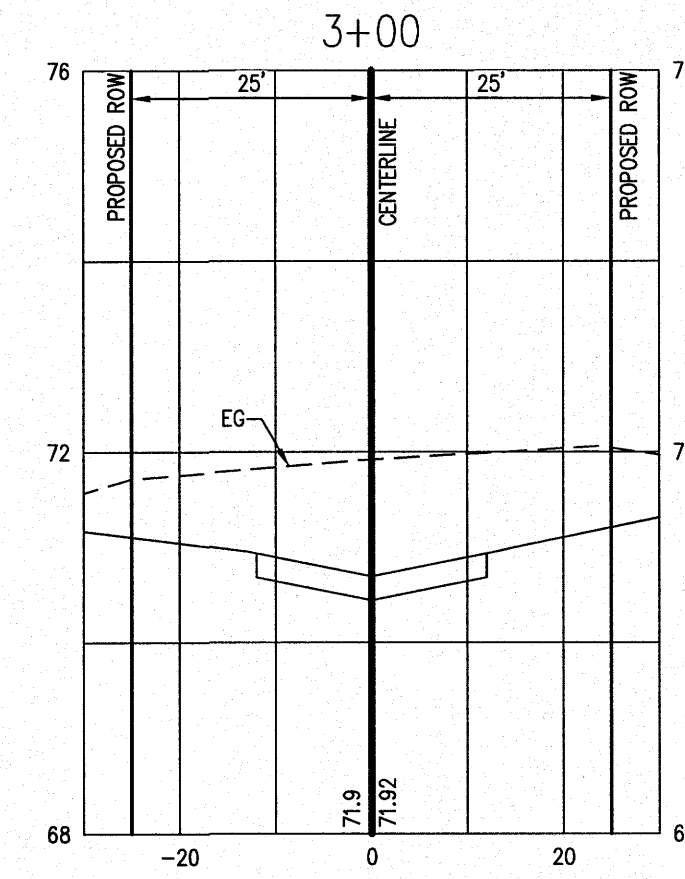
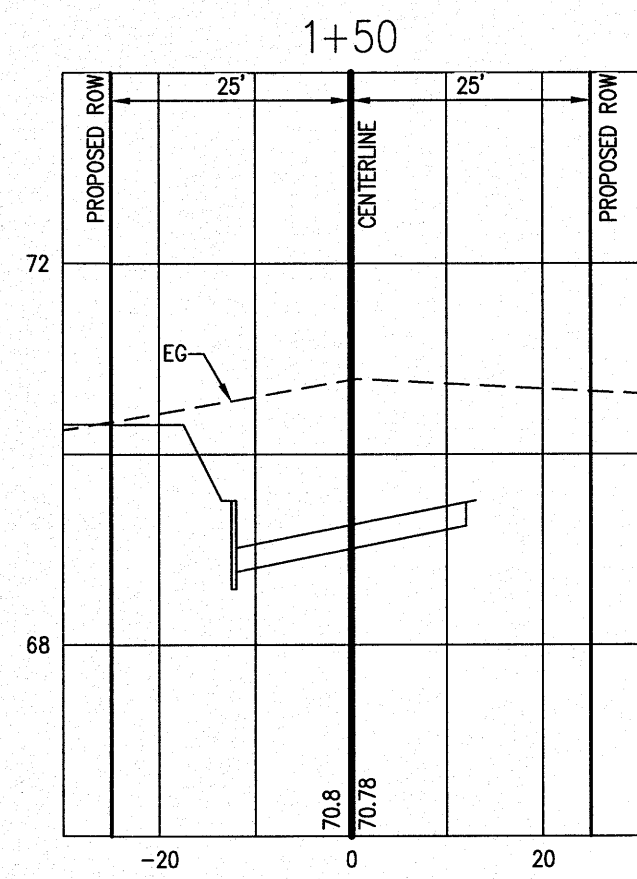
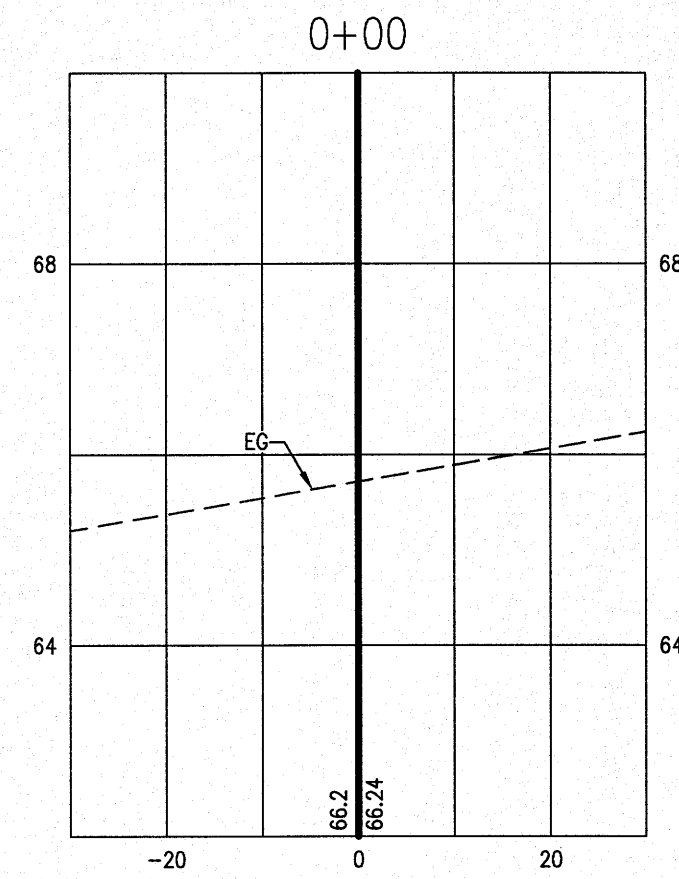
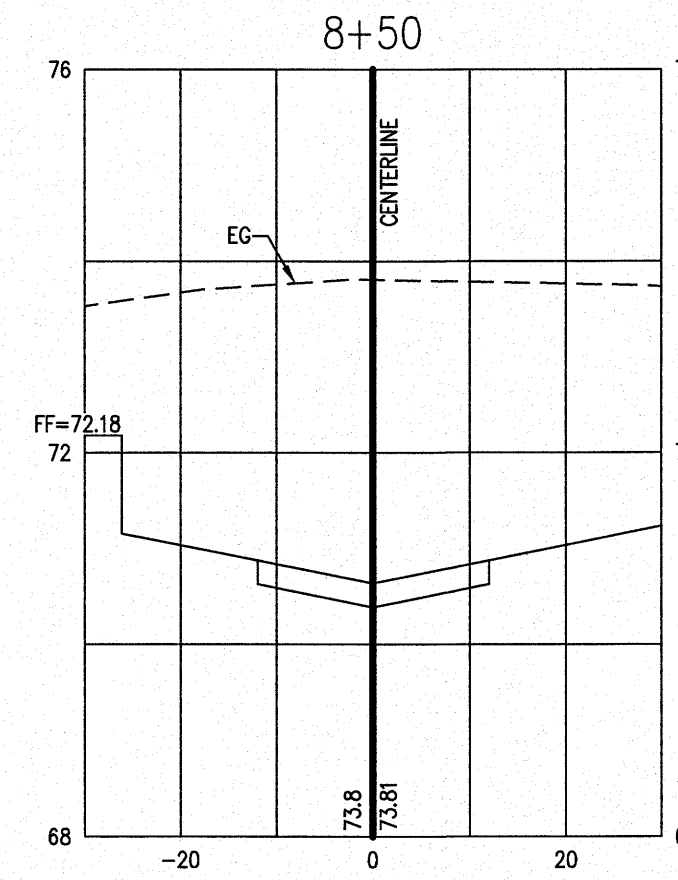
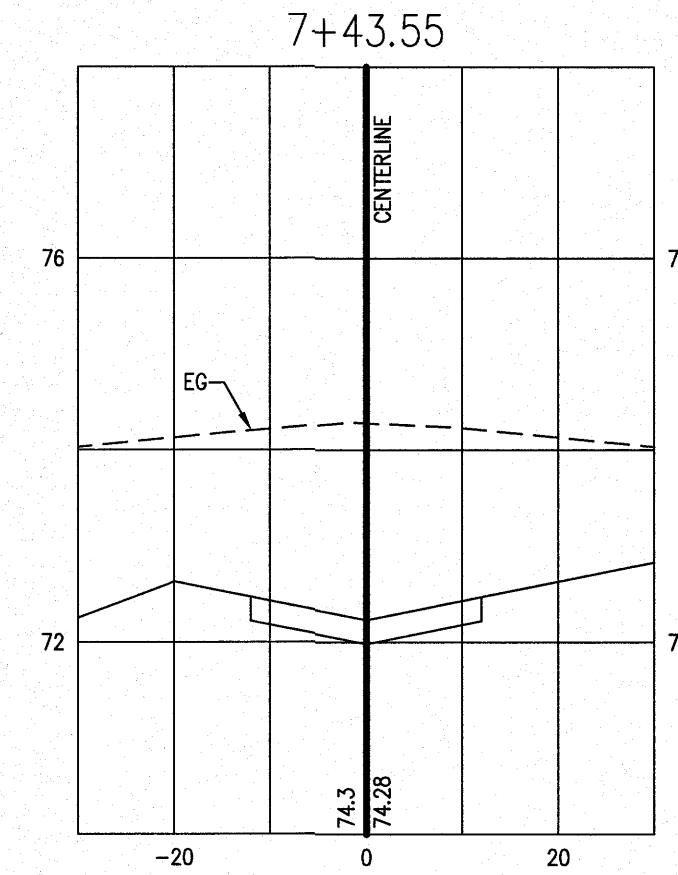
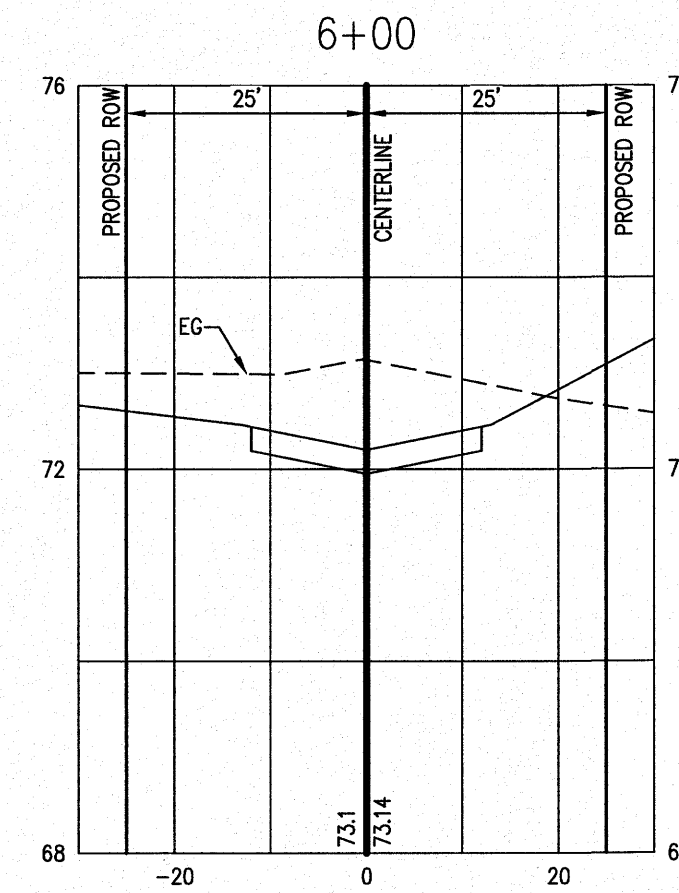
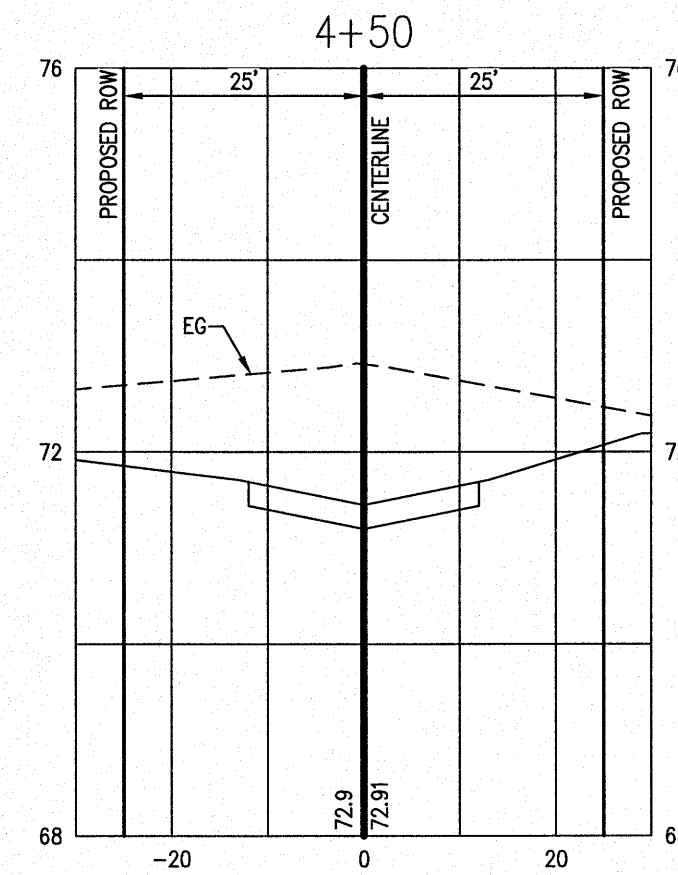
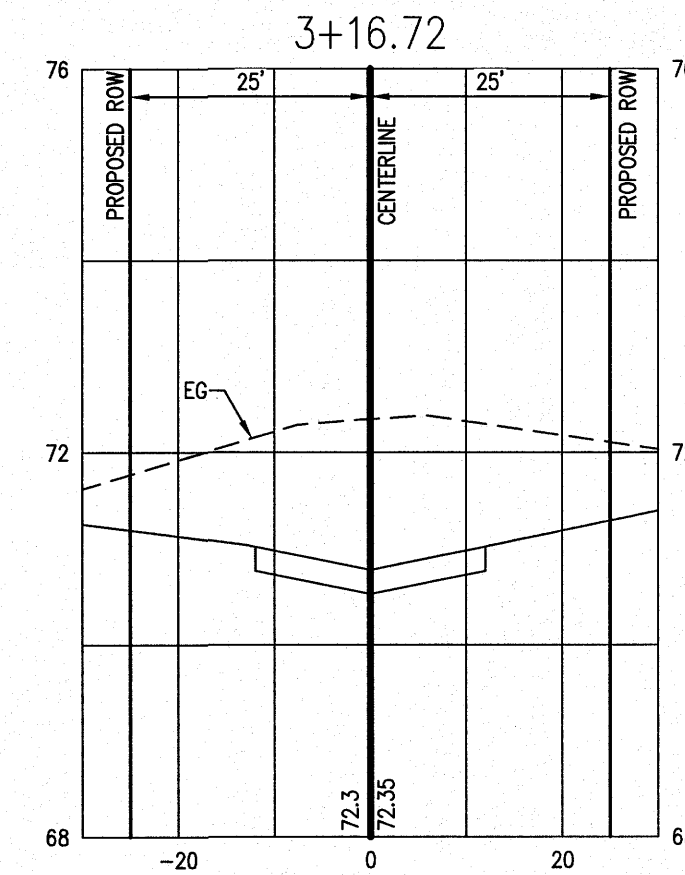
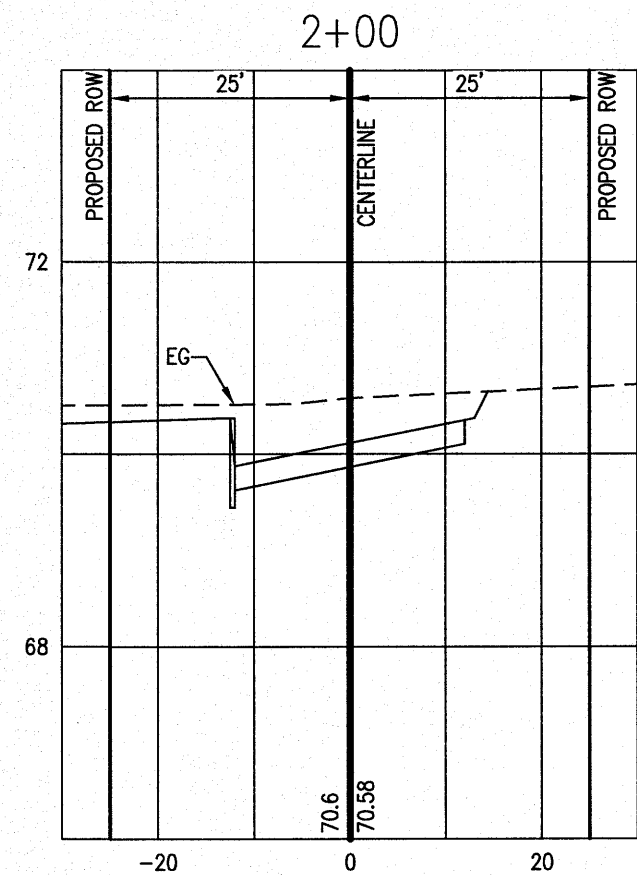
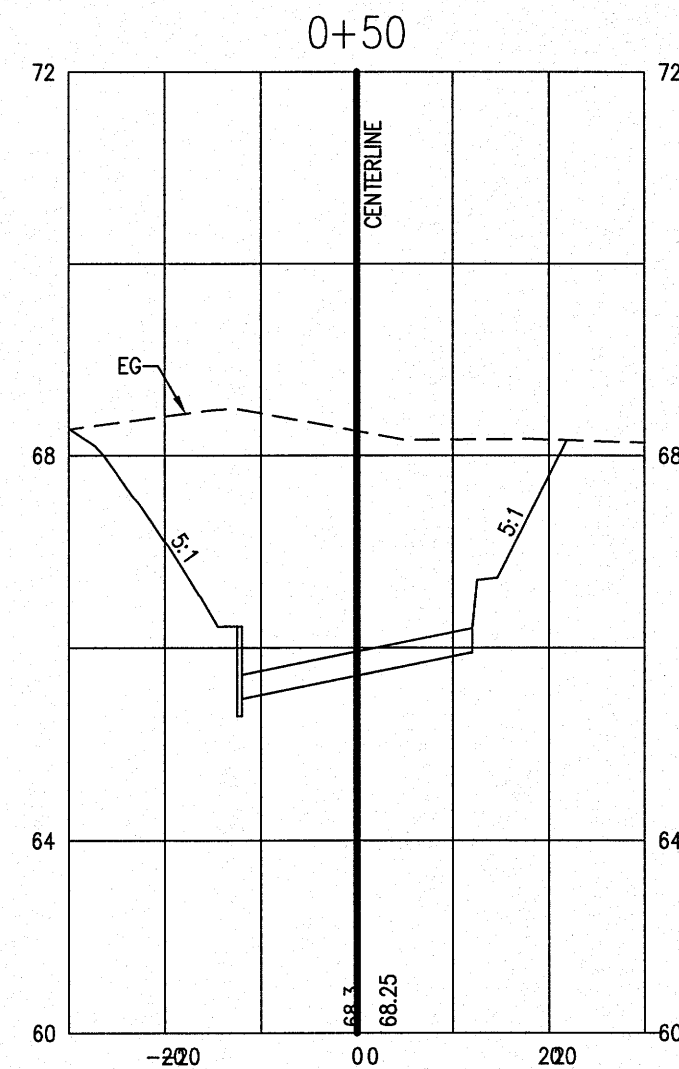
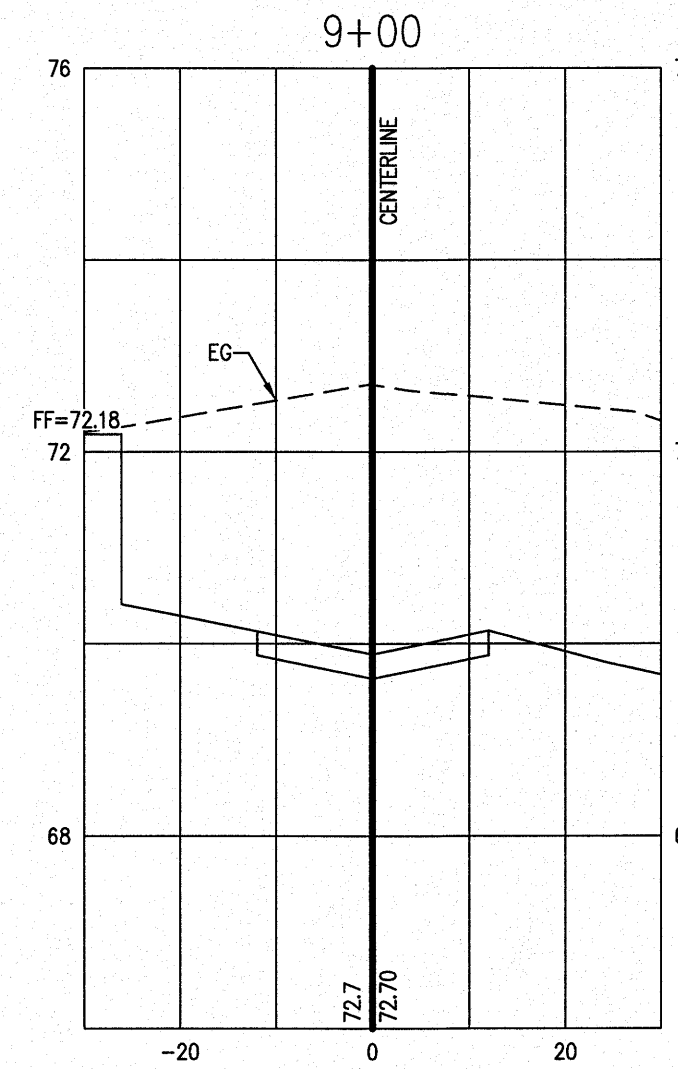
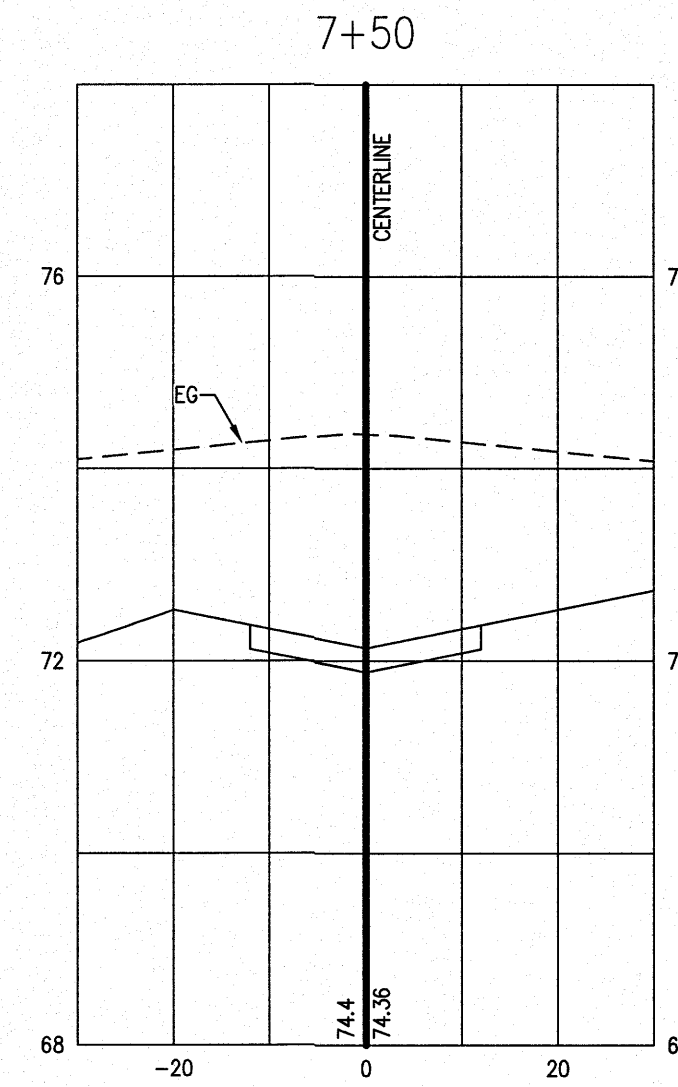
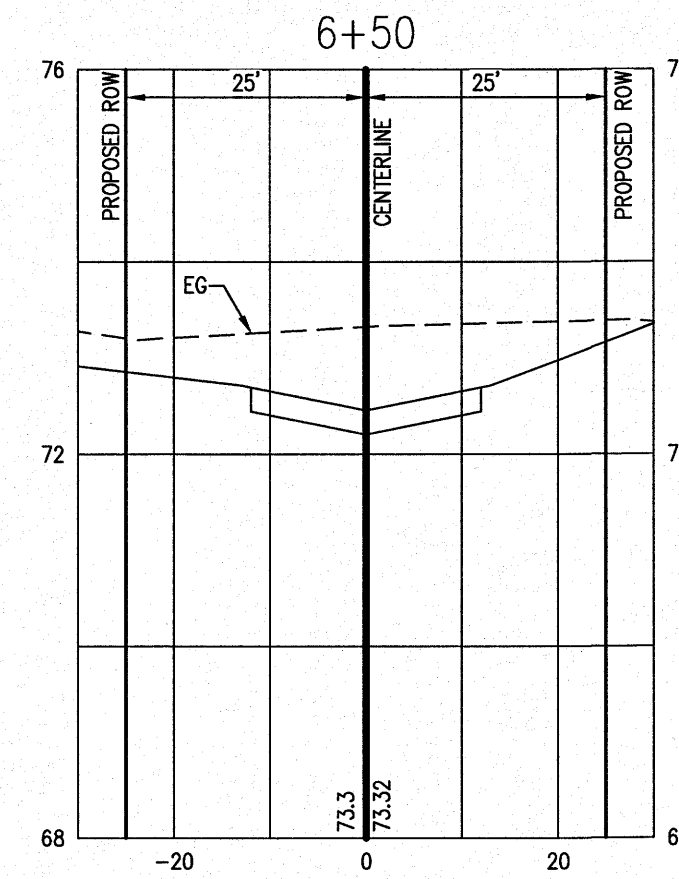
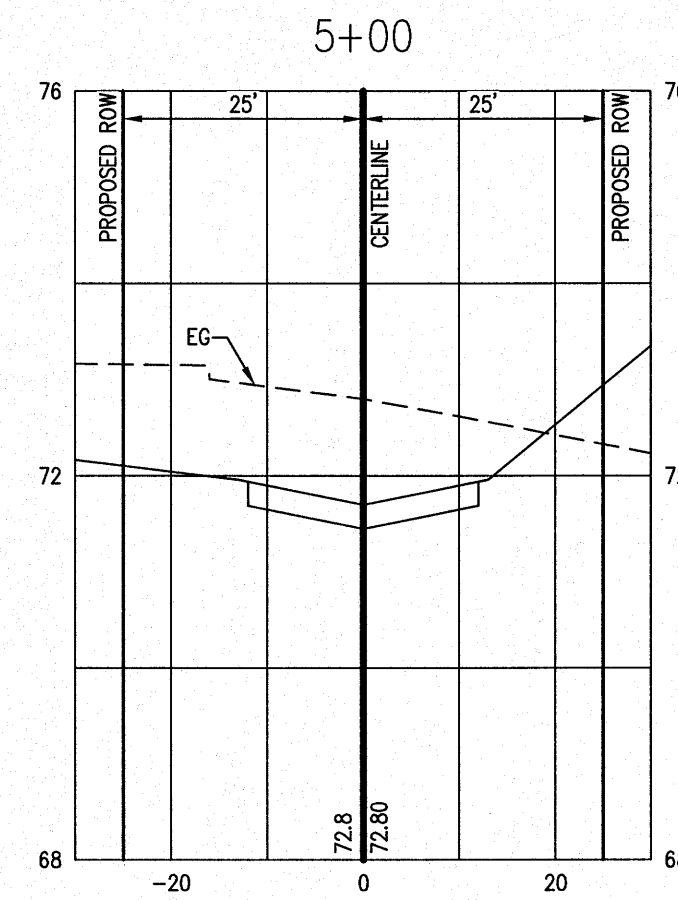
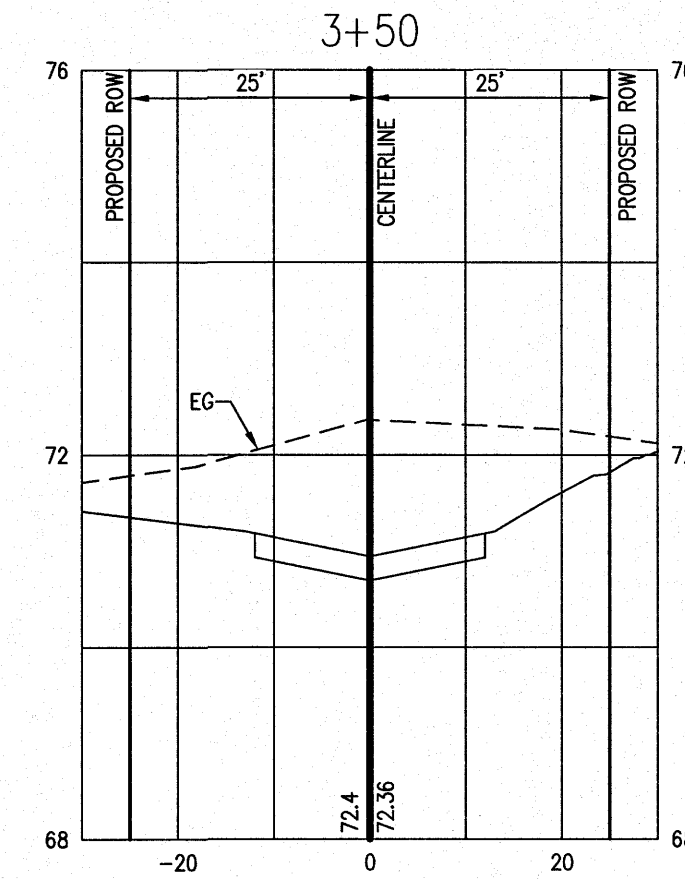
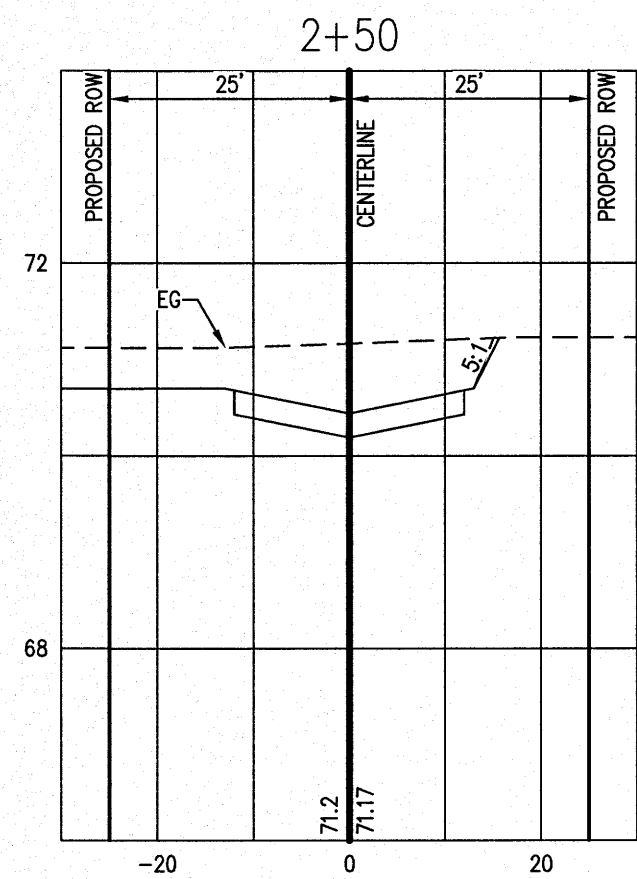
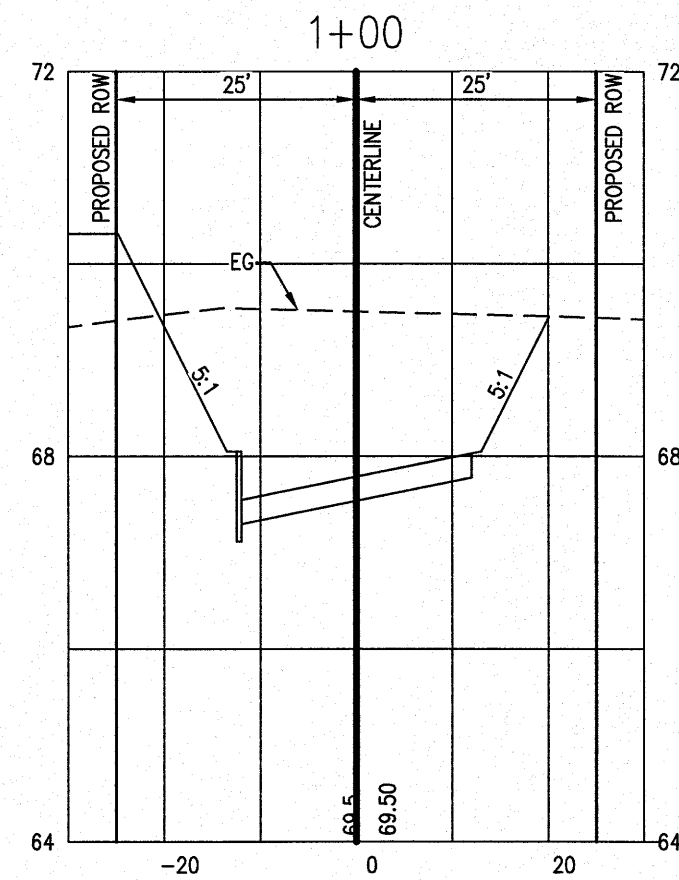
APPROVED
JUN 20 2017
BY [Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

**CROSS-SECTIONS 1
PORTAL WAY STA 0+00 - 7+00**
ALPINE INVESTMENT & FLAX4LIFE SITE
6407 & 6445 PORTAL WAY, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

SHEET
10
OF
19

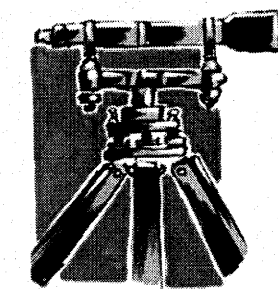
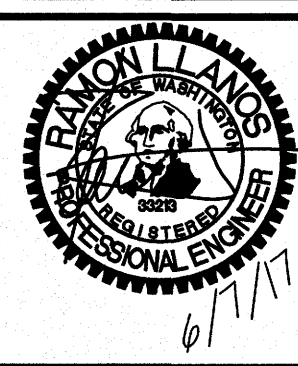
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\\SERVER\Share\Common\Land Projects 2013\166-UConnTrade\w\ALPINE-BSF SITE PLAN-PH-ASBULT.dwg PLOT DATE:6/7/2017 12:42 PM



GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

ASBUILT SUBMITTAL 1	RL	01/09/17
ASBUILT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.: 1568
DWG. NAME:
DESIGNED BY: RL/EH
DRAWN BY: EH
CHECKED BY: RL

CLIENT:
**ALPINE INVESTMENT
&
FLAX4LIFE**

APPROVED

JUN 20 2017

BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

**CROSS-SECTIONS 2
ONSITE STA 0+00 - 9+00**

ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDALE, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

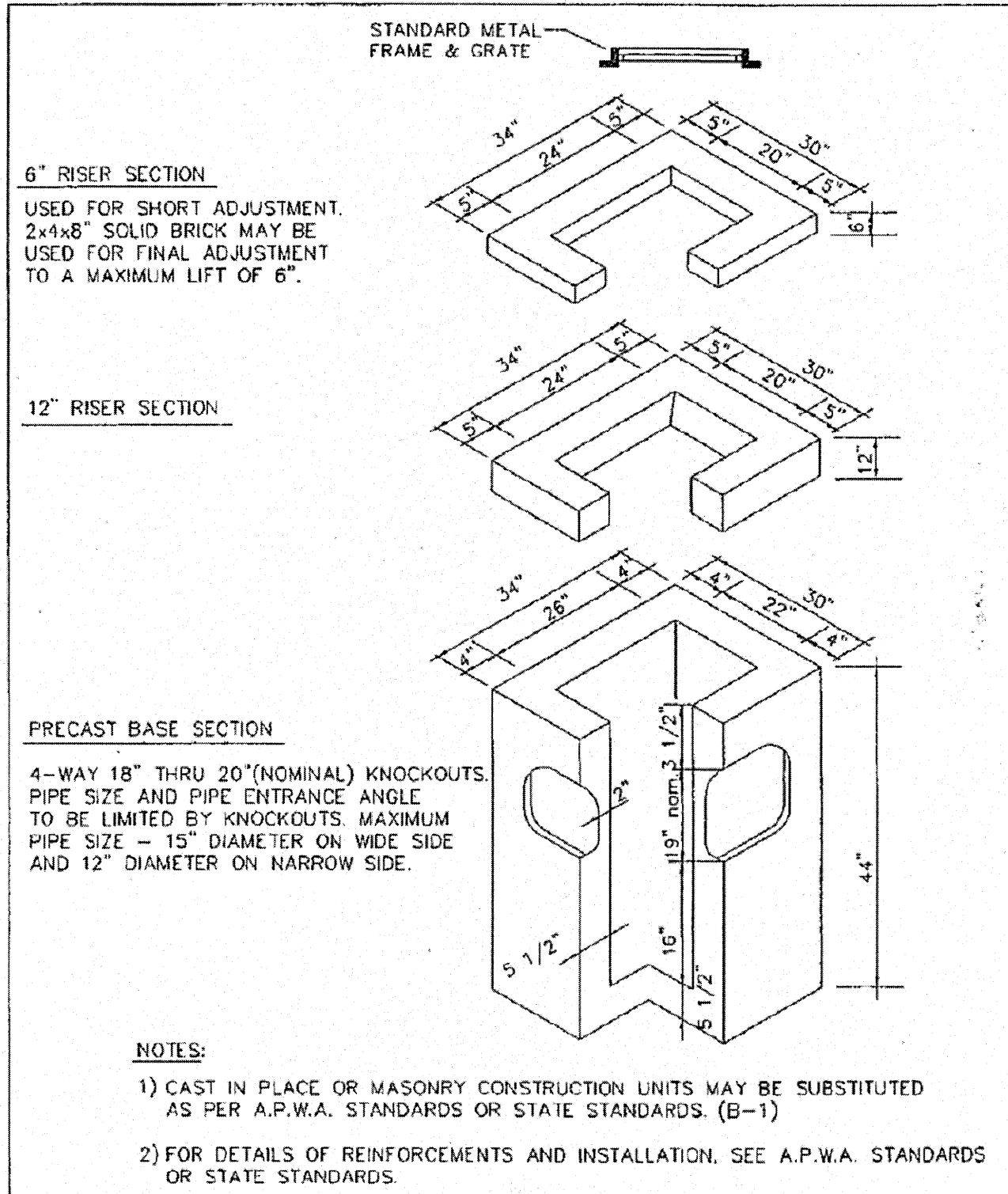
SHEET

11

OF

19

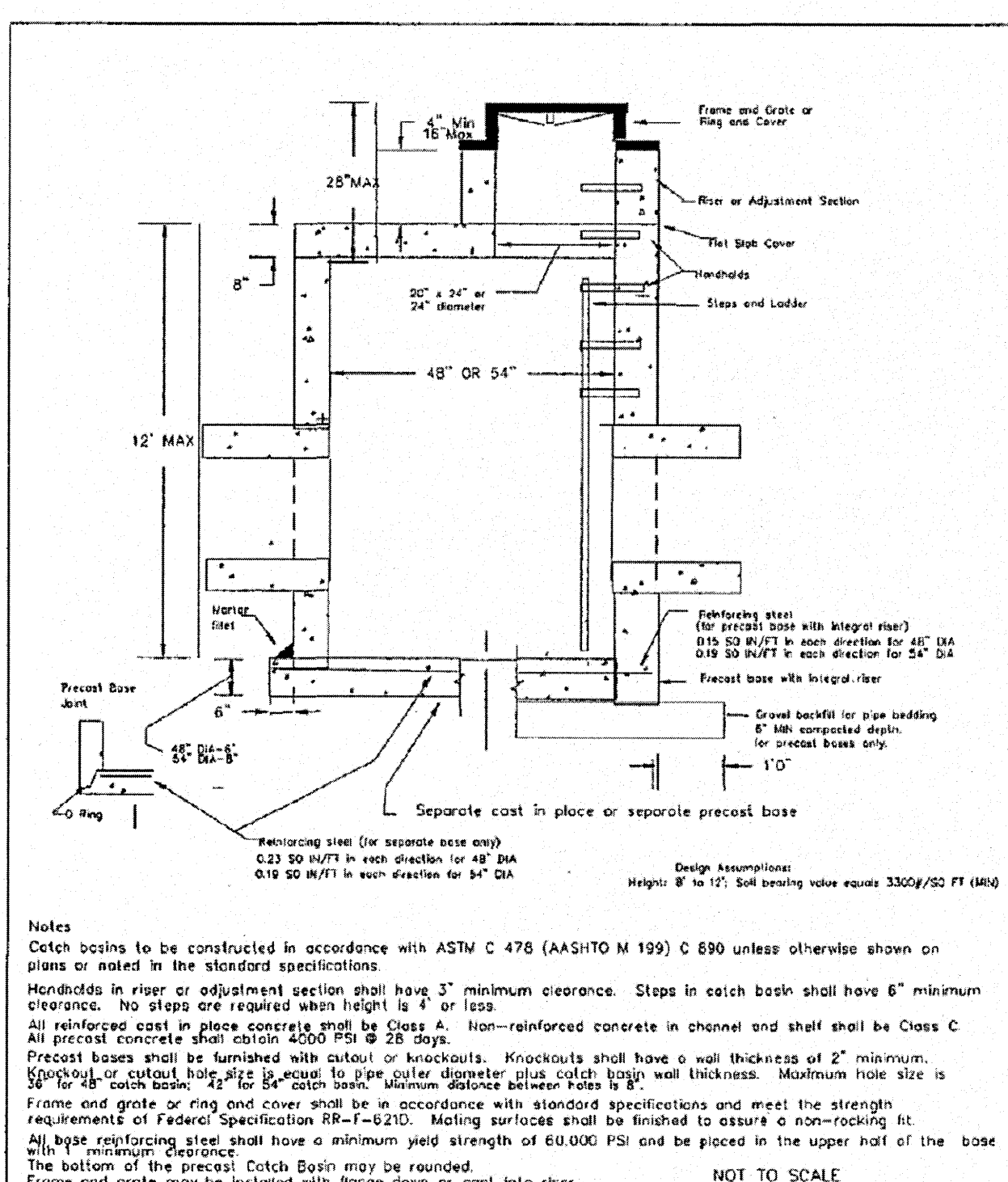
RECORD DRAWING



APPROVED
John & Elly
Public Works Director Date
JUNE 1995

CITY OF FERNDAL
CATCH BASIN TYPE 1

DRAWING
ST-1



APPROVED
John & Elly
Public Works Director Date
JUNE 1995

CITY OF FERNDAL
TYPE 2 CATCH BASIN
48" & 54"

DRAWING
ST-2

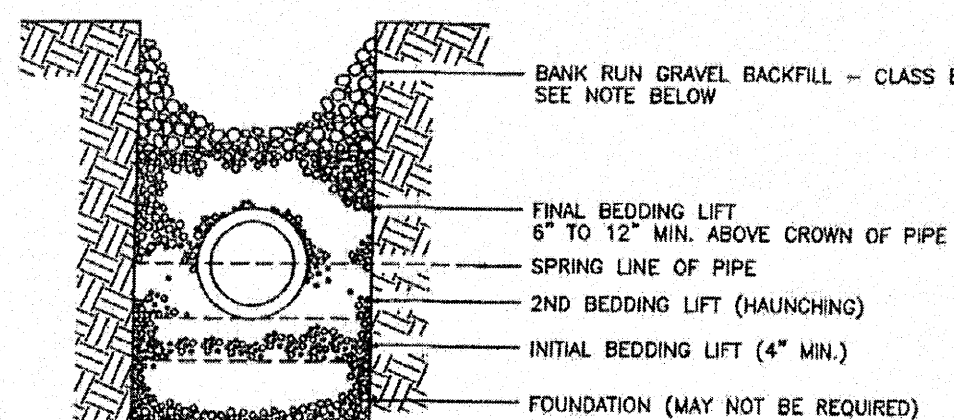
THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS ARE TO BE USED IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, CURRENT EDITION:

BEDDING FOR SEWERS, DRAINS AND CULVERTS FOR PVC PIPE-
BEDDING MATERIAL FOR PVC PIPE SHALL BE PEA GRAVEL CONFORMING THE FOLLOWING SPECIFICATIONS:

PEA GRAVEL - PEA GRAVEL BEDDING SHALL BE A CLEAN MIXTURE FREE FROM ORGANIC MATTER AND CONFORMING TO THE FOLLOWING GRADATION WHEN TESTED IN ACCORDANCE WITH ASTM D422:

U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING, BY WT.
3/4"	100
3/8"	95-100
#8	0-10
#200	0-3

BACKFILL - WHENEVER A TRENCH IS EXCAVATED IN THE EXISTING OR PROPOSED ROADWAY, SIDEWALK OR OTHER AREAS WHERE SETTLEMENT WOULD BE DETRIMENTAL, THE ENTIRE TRENCH SHALL BE BACKFILLED WITH IMPORTED GRAVEL AND COMPACTED TO 95% OF MAXIMUM DENSITY.



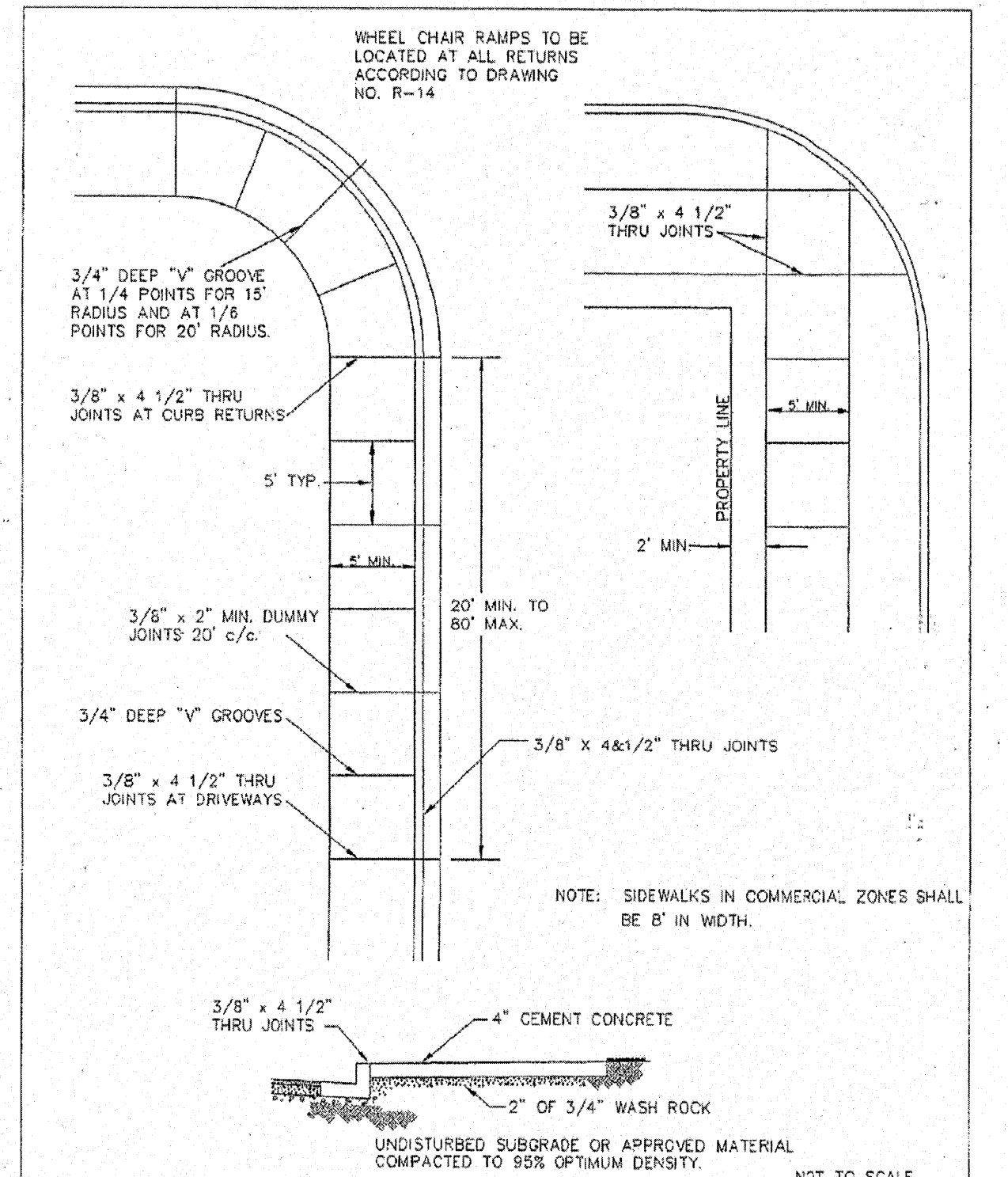
APPROVED
John & Elly
Public Works Director Date
JUNE 1995

CITY OF FERNDAL
TYPE 2 CATCH BASIN
48" & 54"

DRAWING
ST-2

March 13, 2012

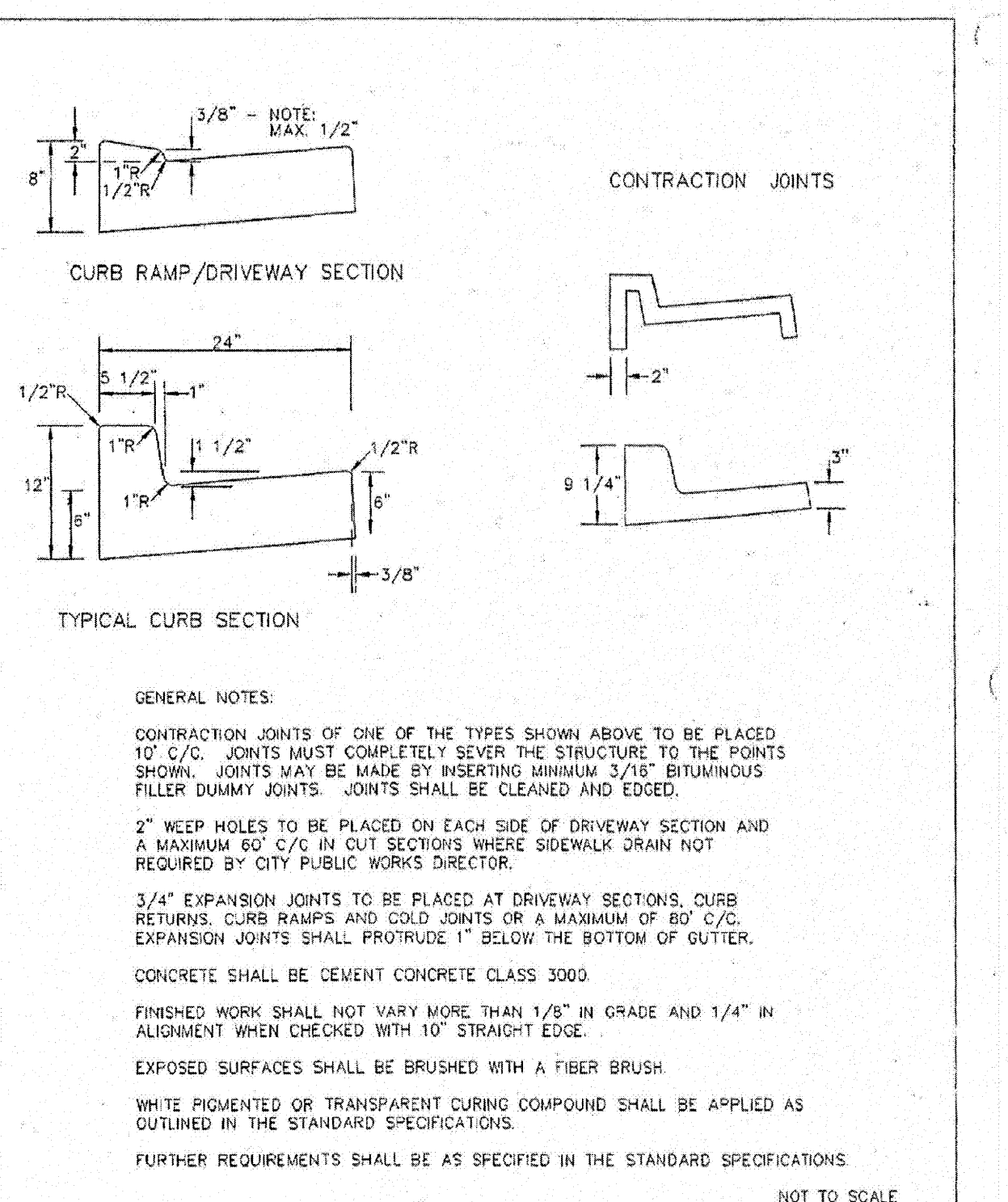
BEDDING SPECIFICATIONS
FOR PVC PIPE
STANDARD DETAIL ST-17



APPROVED
John & Elly
Public Works Director Date
JUNE 1995

CITY OF FERNDAL
TYPICAL SIDEWALK PLAN
AND CROSS SECTION

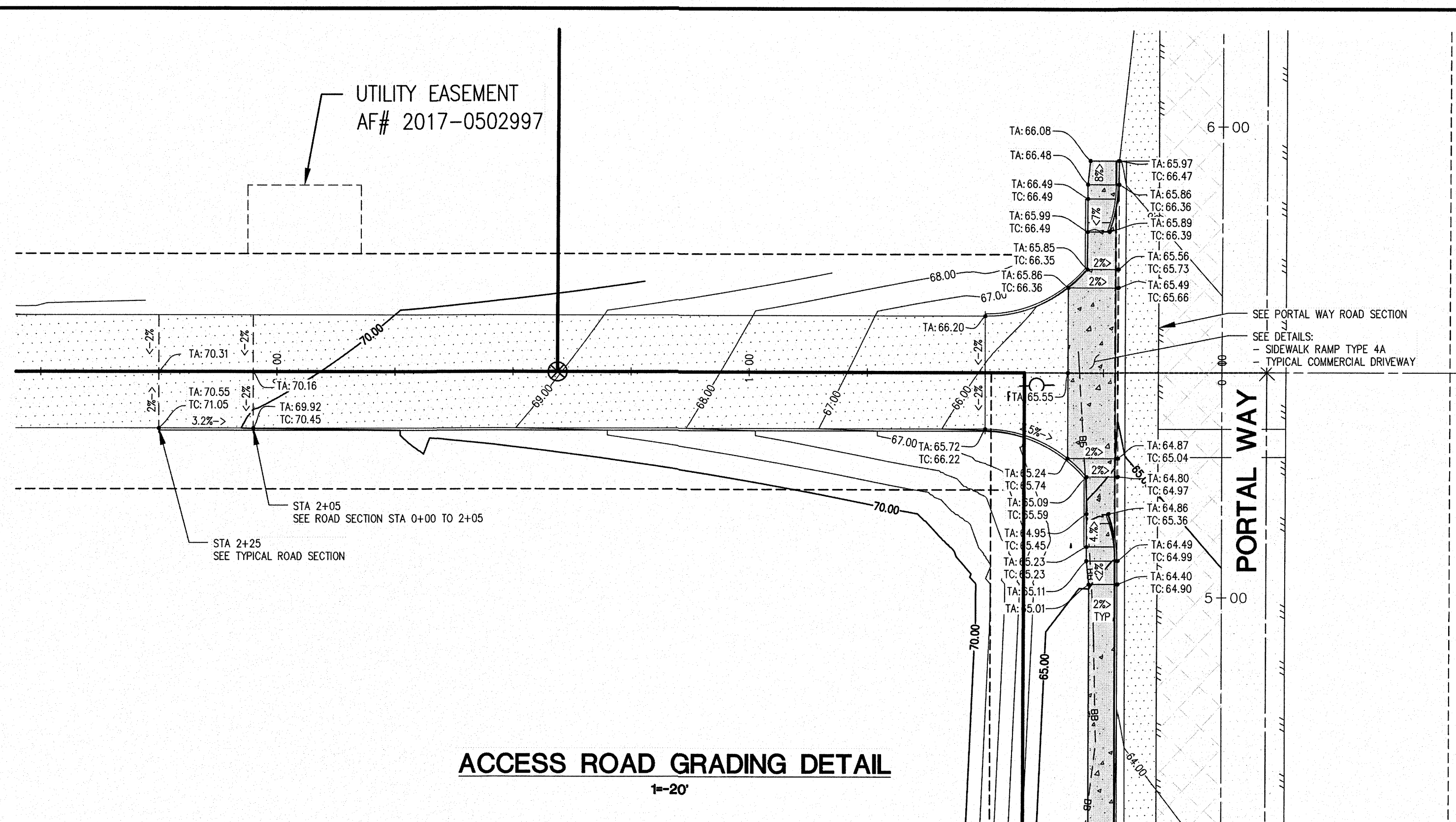
DRAWING
R-12



APPROVED
John & Elly
Public Works Director Date
JUNE 1995

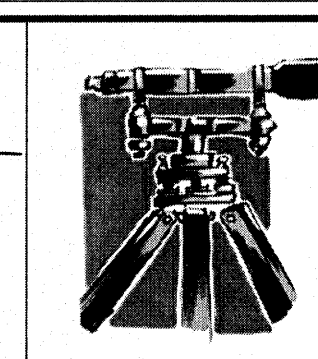
CITY OF FERNDAL
CURB AND GUTTER

DRAWING
R-9



\\SERVER\Share\Common\Lead Projects\2015\1568-UconTrade\Draw\ALPNE-1568-SITE PLAN-PH-ASBUILT.dwg PLOT DATE: 6/7/2017 12:43 PM

ASBUILT SUBMITTAL 1	EH	01/09/17
ASBUILT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.: 1568
DWG. NAME: ALPNE-SIP SITE PLAN-PH-ASBUILT.dwg
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL

CLIENT: ALPINE INVESTMENT & FLAX4LIFE

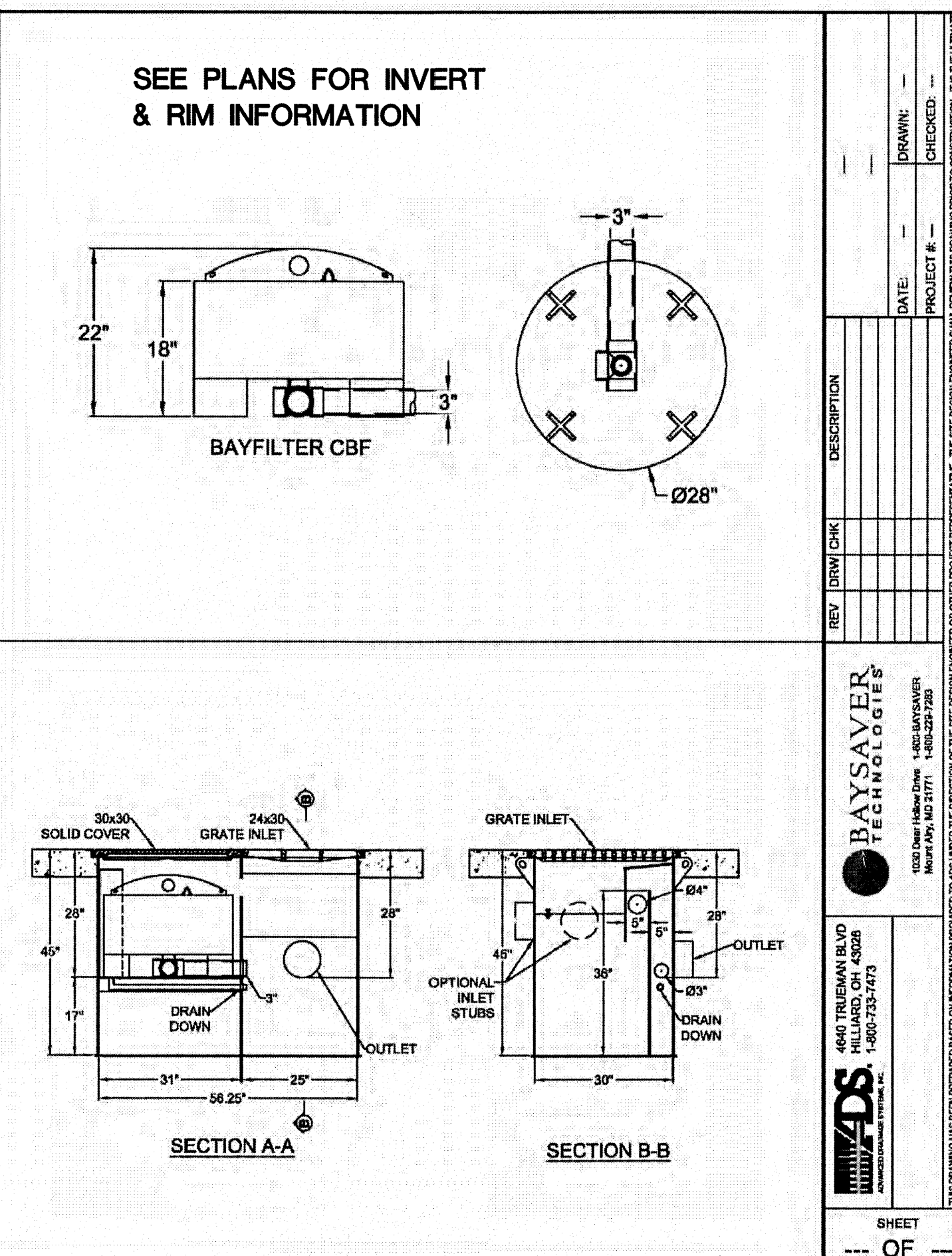
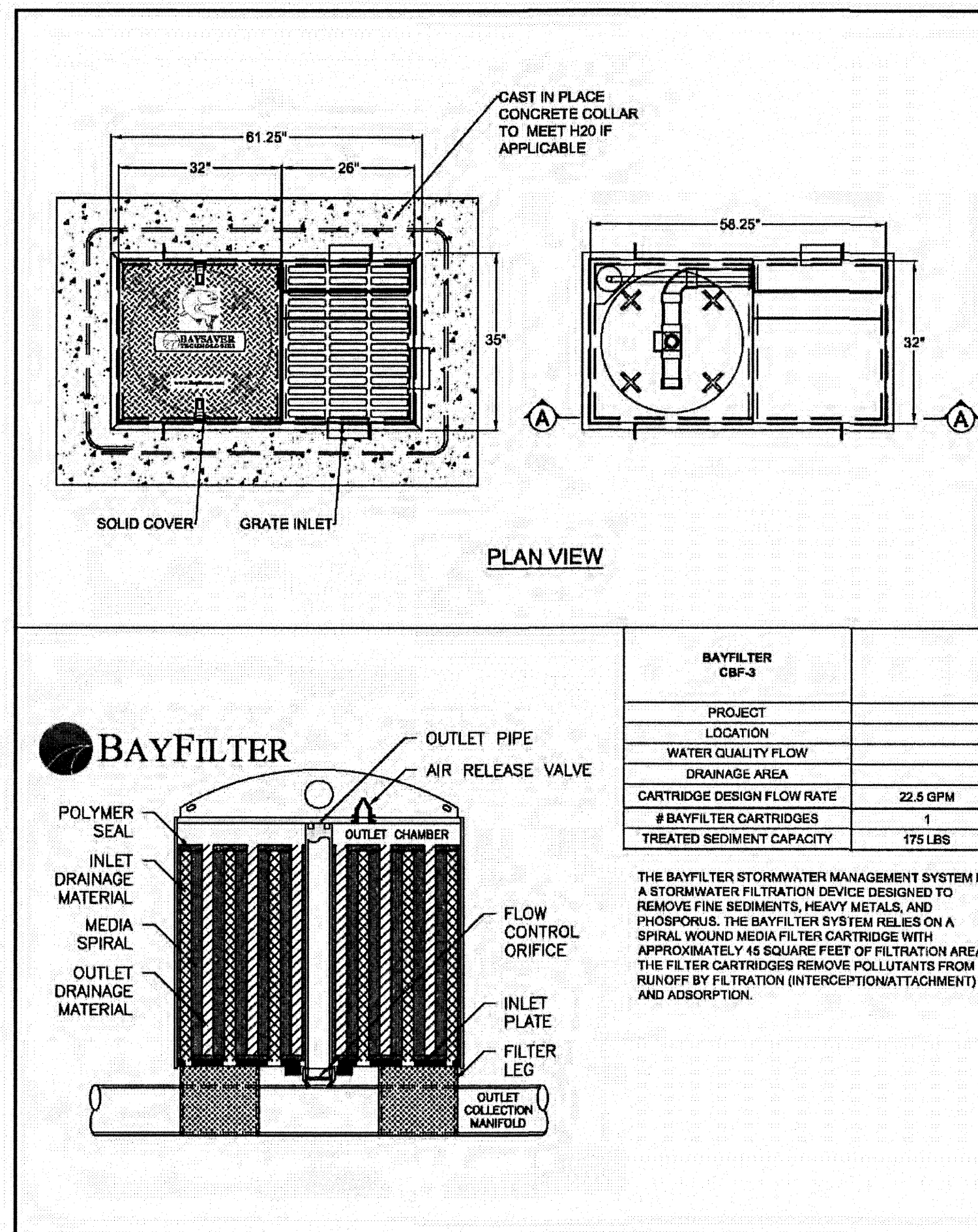
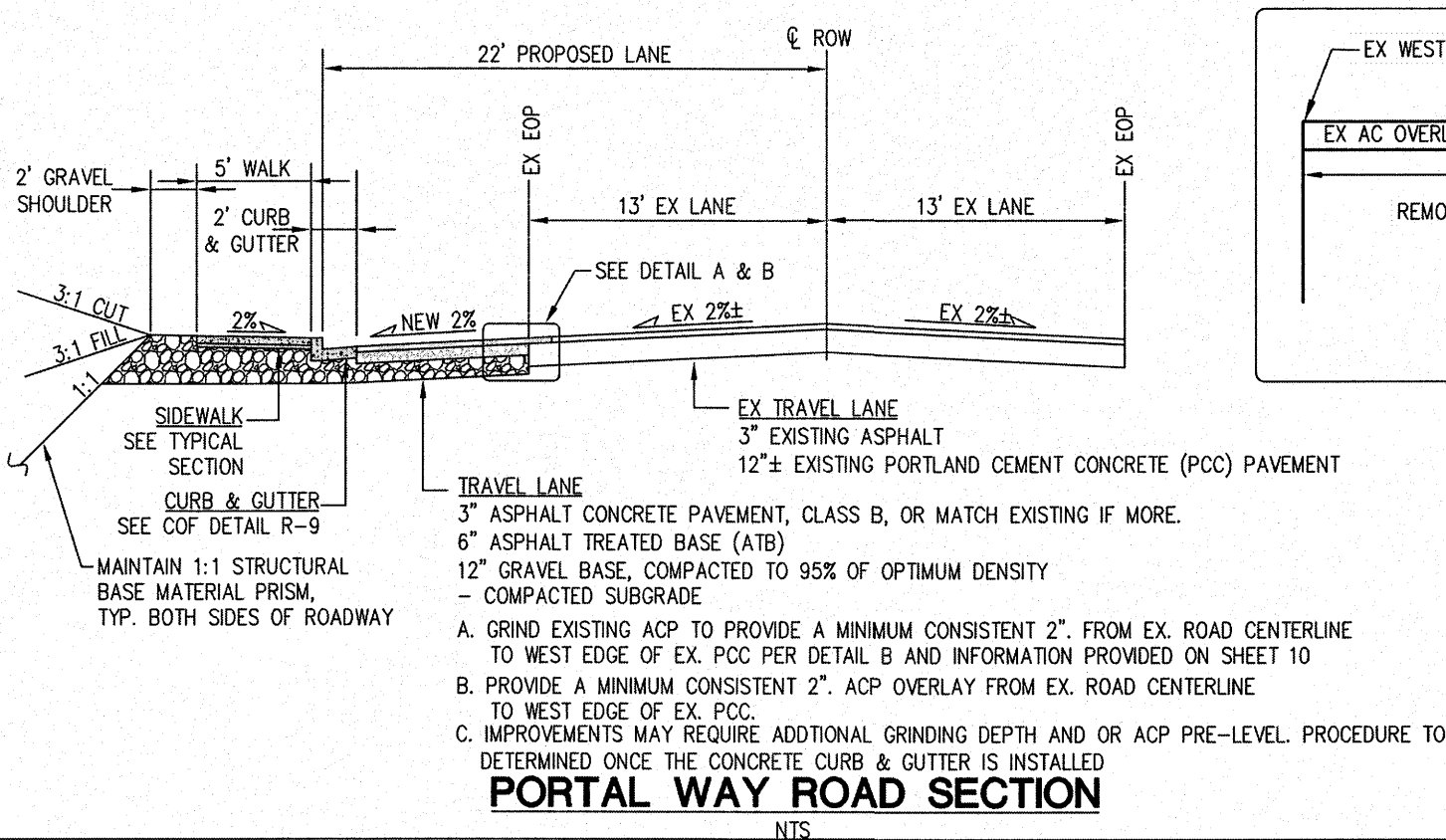
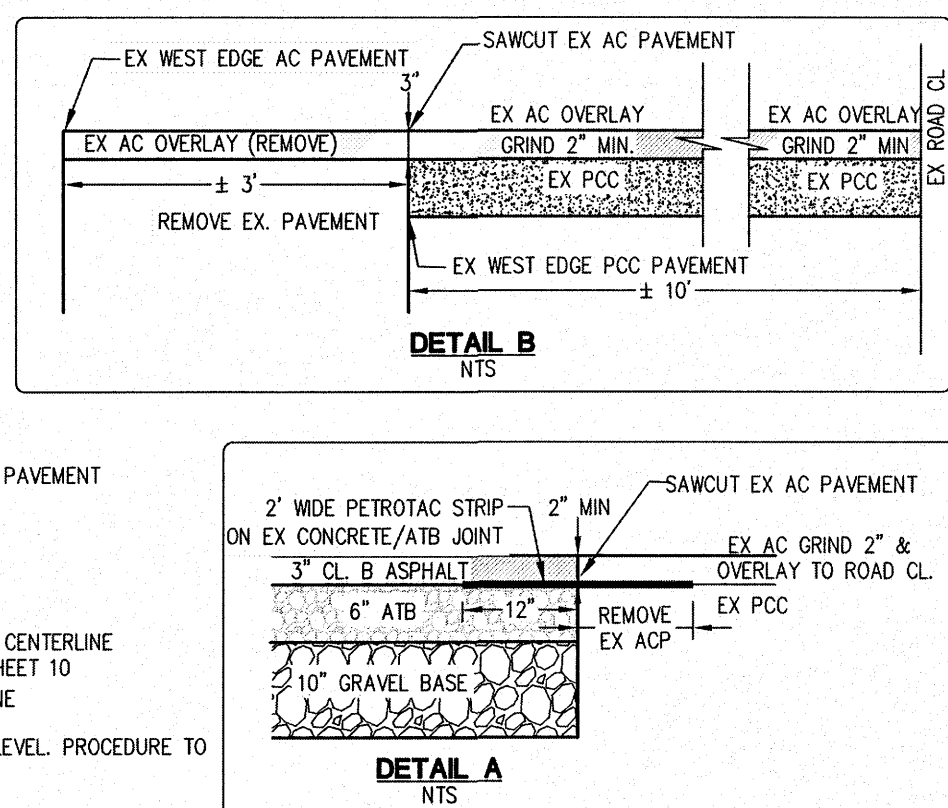
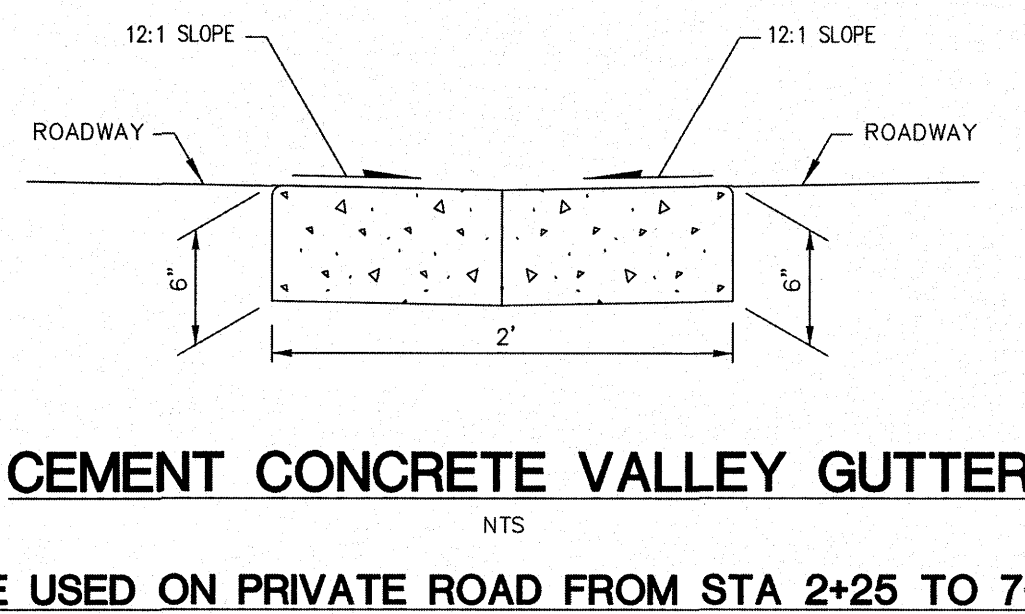
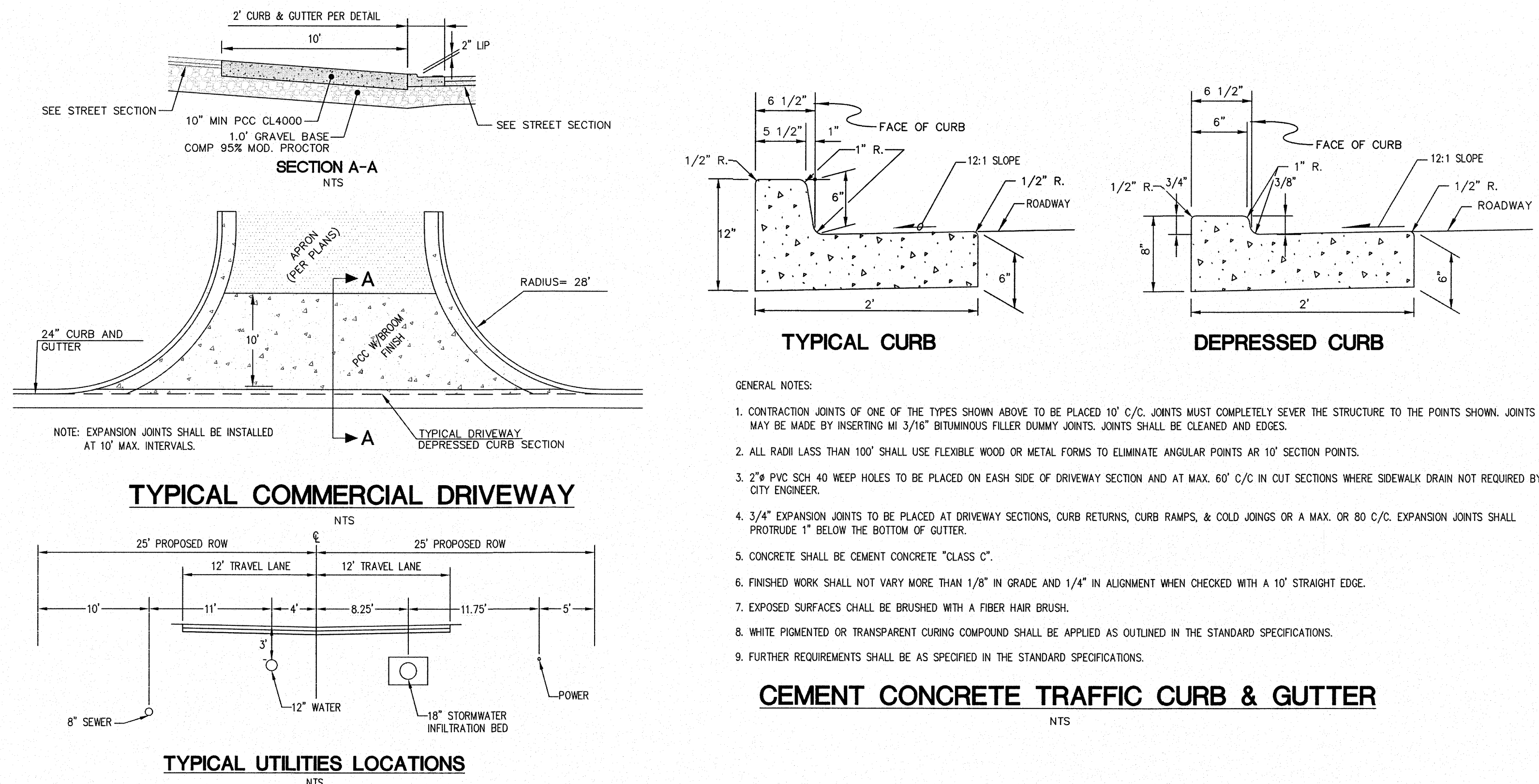
APPROVED
JUN 20 2017
BY: CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

ROAD AND STORM
TYPICAL DETAILS 1 & GRADING DETAIL

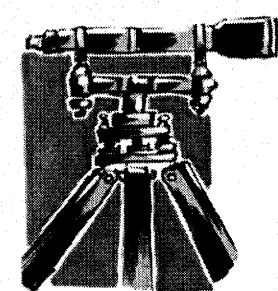
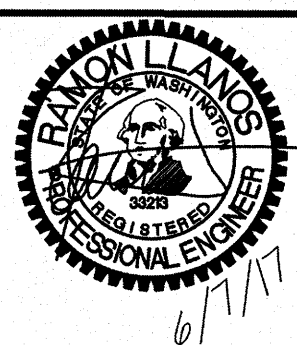
ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

SHEET
12
OF
19

RECORD DRAWING



①	ASBUILT SUBMITTAL 1	EH	01/09/17
①	ASBUILT SUBMITTAL 2	EH	06/07/17
②			
③			
④			
⑤			
NO.	REVISION	BY	DATE



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

JOB NO.:	1568
DWG. NAME:	ALPINE-BSP SITE PLAN-PH1-ASBULT.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

CLIENT:

***ALPINE INVESTMENT
&
FLAX4LIFE***

APPROVED

JUN 20 2017

BY 3
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

ROAD AND STORM TYPICAL DETAILS 2

ALPINE INVESTMENT & FLAX4LIFE SITE
6407 & 6445 PORTAL WA, FERNDALE, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, WM.

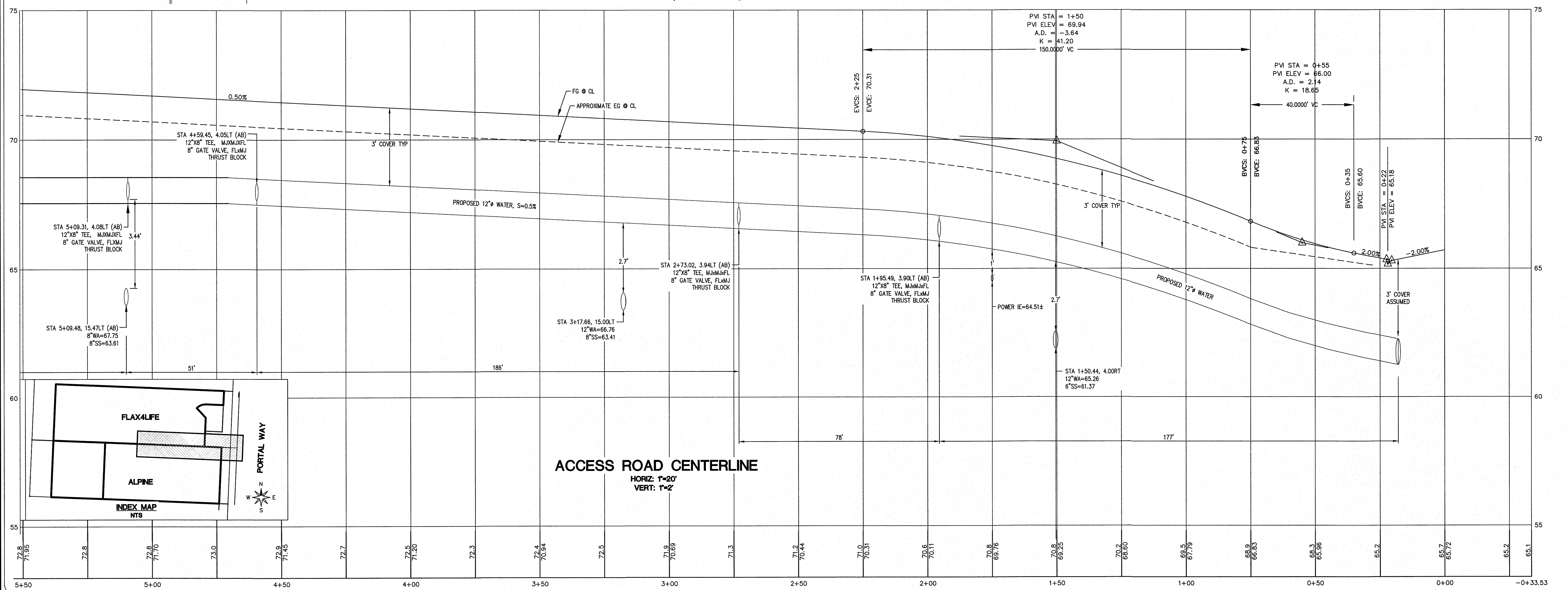
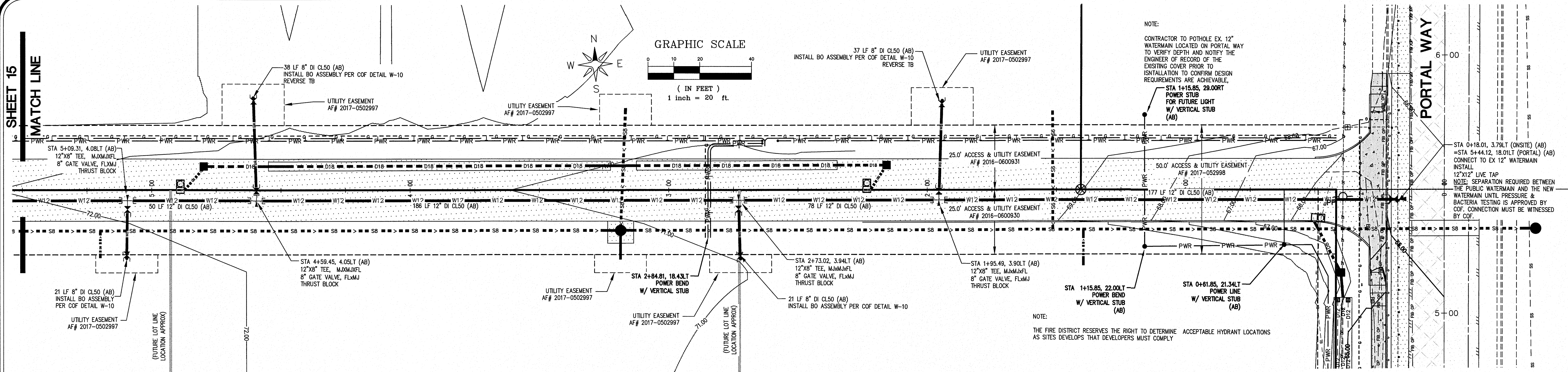
SHEET

13

OF 19

RECORD DRAWING

SHEET 15
MATCH LINE



NO.	REVISION	BY	DATE
1	SUBMITTAL 1	RL	04/25/16
2	SUBMITTAL 2	RL	07/07/16
3	WA/SS REVISIONS	RL	08/29/16
4	ASBUILT SUBMITTAL 2	EH	06/07/17

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

JOB NO.: 1568
DWG. NAME: ALPINE-SSP SITE PLAN-PH-ASBUILT.dwg
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY: RL

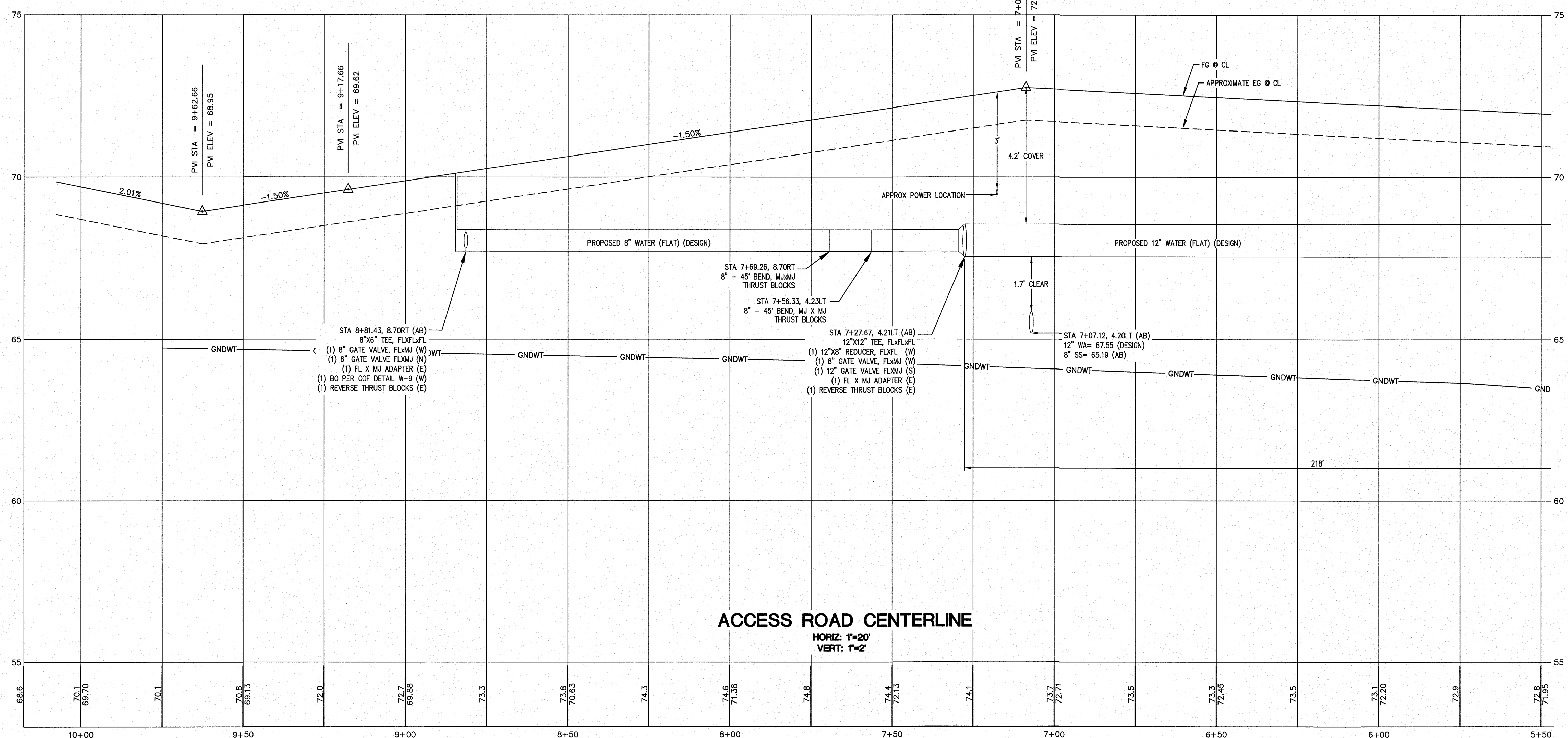
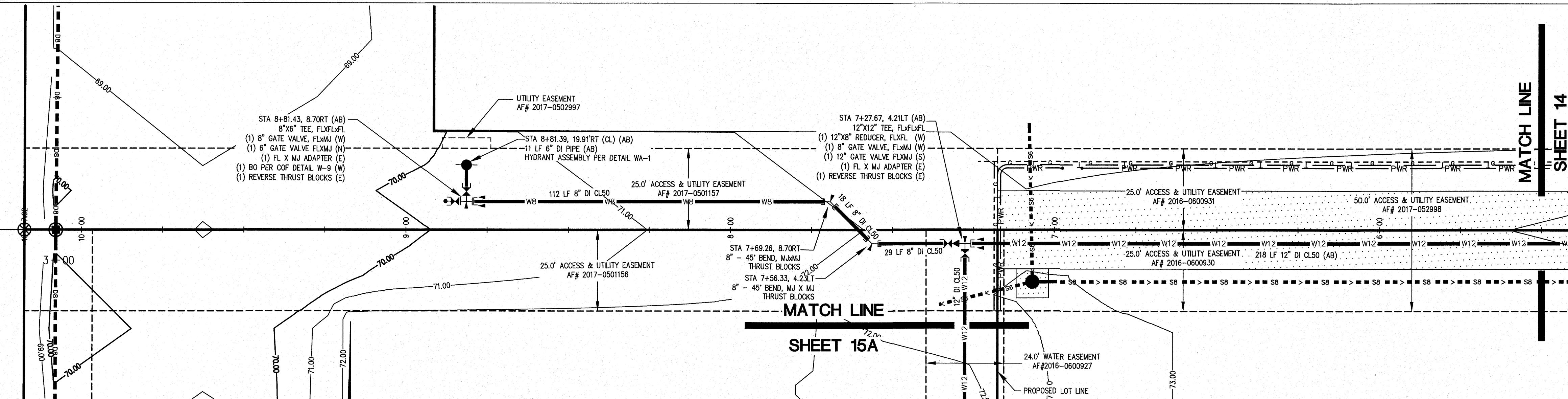
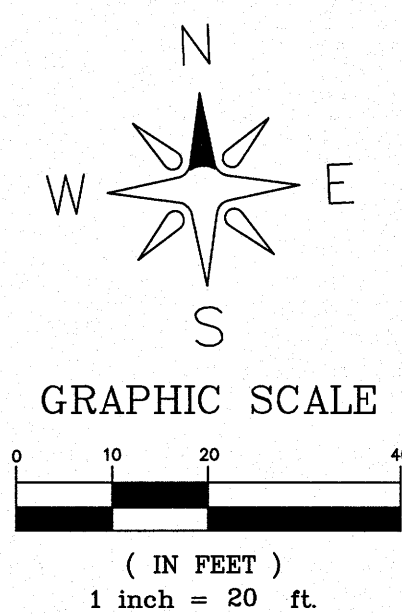
CLIENT: **ALPINE INVESTMENT & FLAX4LIFE**

APPROVED
JUN 20 2017
BY: [Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

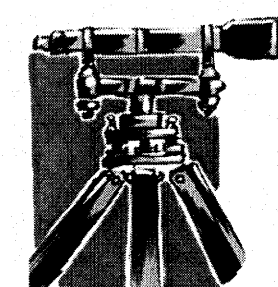
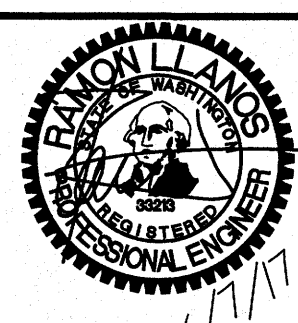
**WATER PLAN & PROFILE
STA 0+00 TO 5+50**

ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, WM.

SHEET
14
OF
19



1	ASBUILT SUBMITTAL 1	EH	01/09/17
1	ASBUILT SUBMITTAL 2	EH	06/07/17
2			
3			
4			
5			
NO.	REVISION	BY	DATE



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

JOB NO.:	1568
DWG. NAME:	ALPINE-BSP SITE PLAN-PH1-ASBULT.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

CLIENT:

**ALPINE INVESTMENT
&
FLAX4LIFE**

APPROVED

JUN 20 2017

BY 3
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

WATER PLAN & PROFILE
STA 5+50 TO END

ALPINE INVESTMENT & FLAX4LIFE SITE
6407 & 6445 PORTAL WA, FERNDALE, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

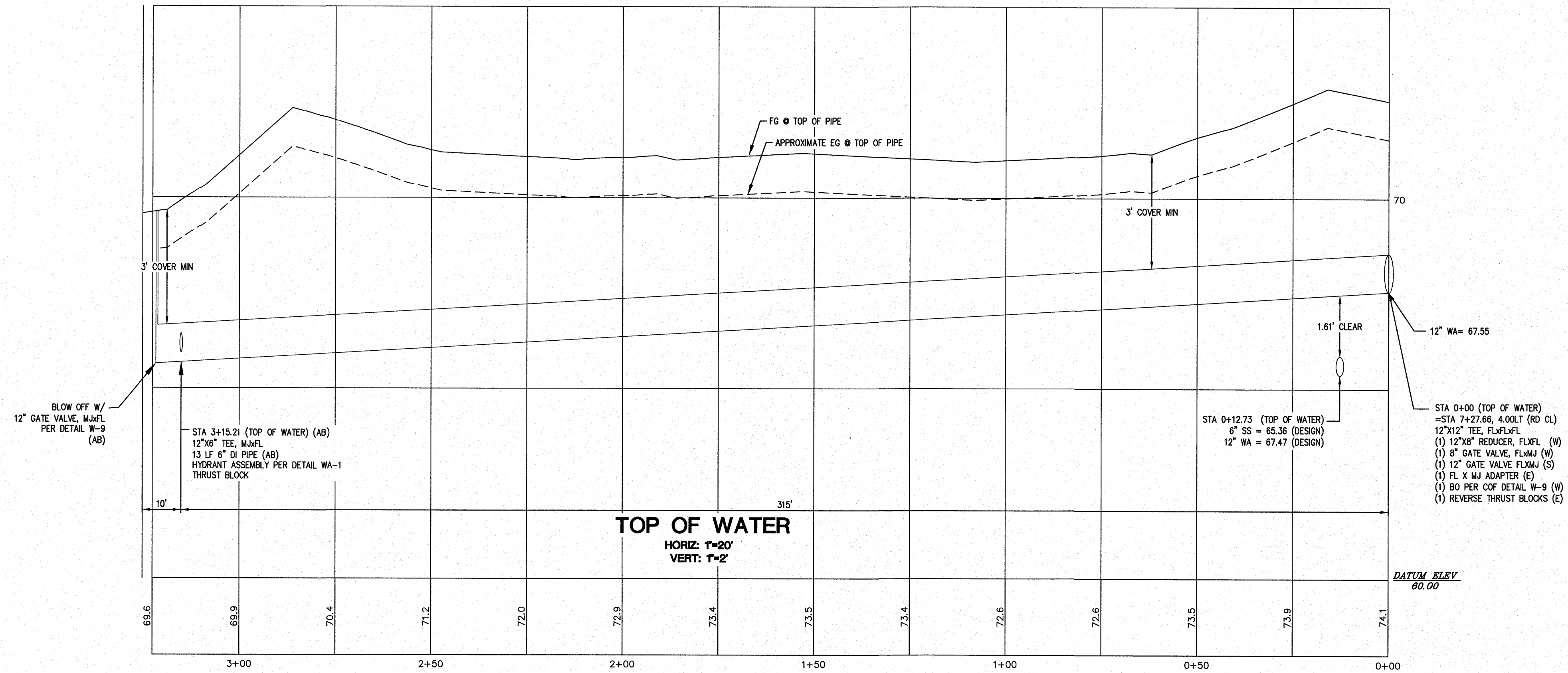
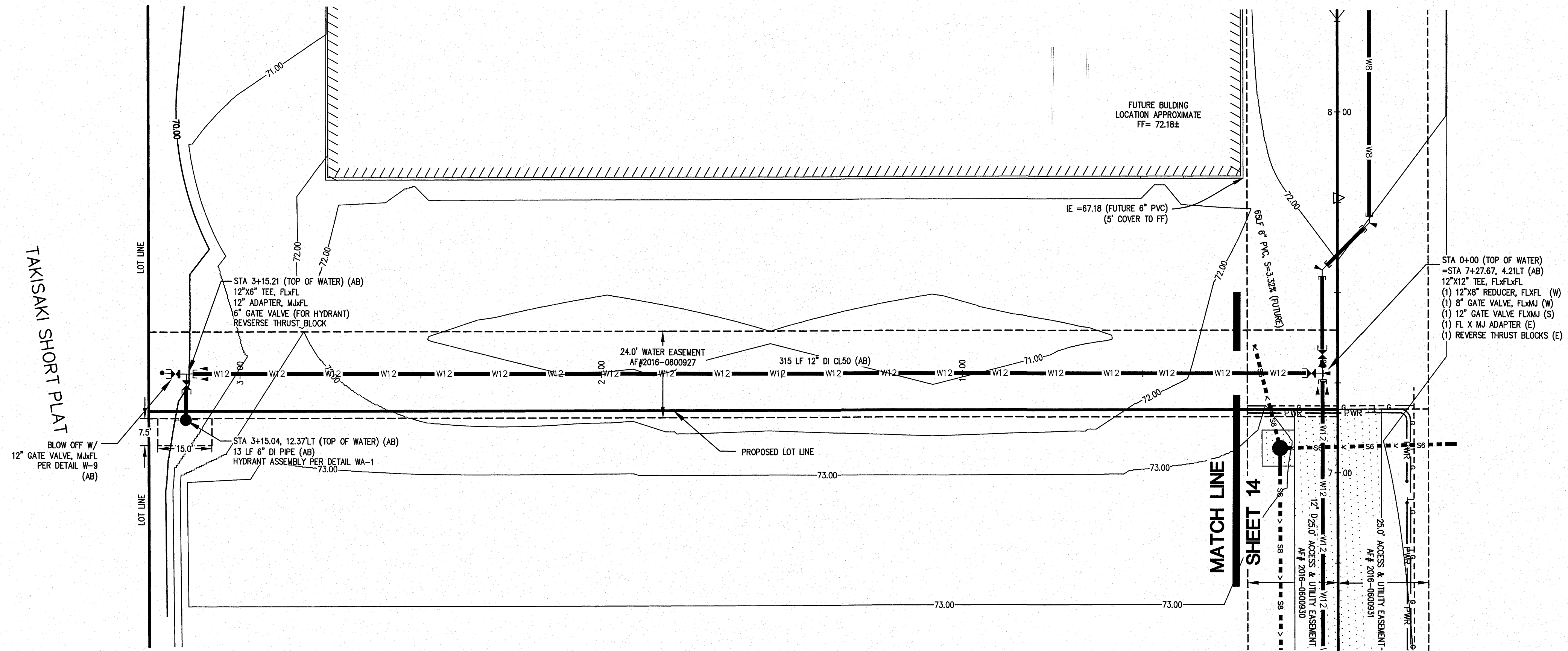
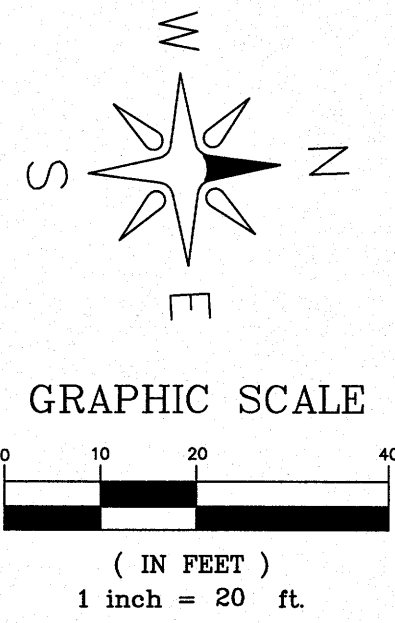
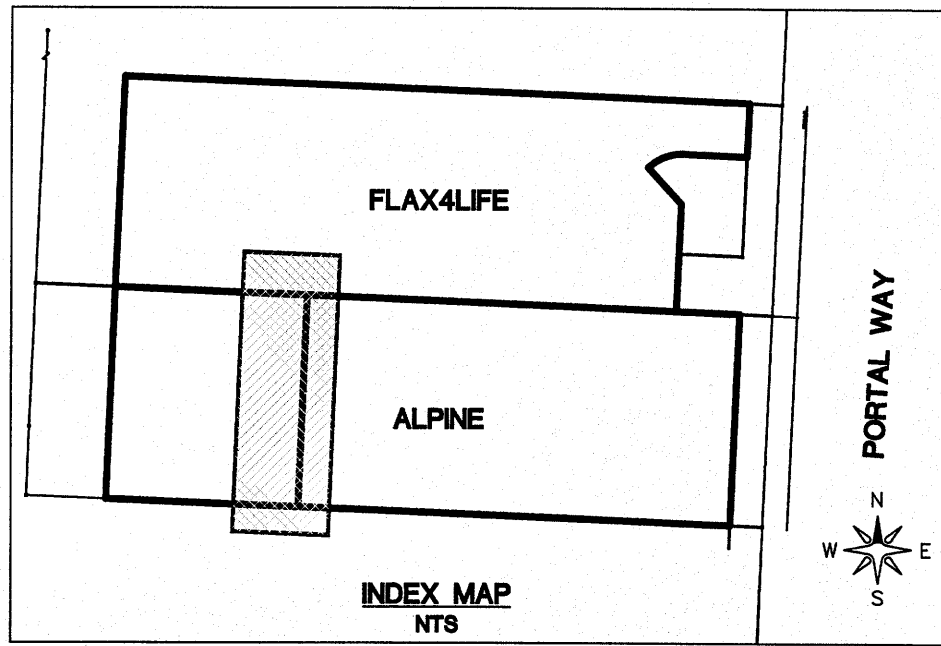
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15

OF **19**

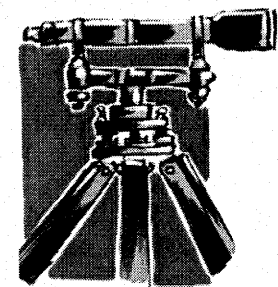
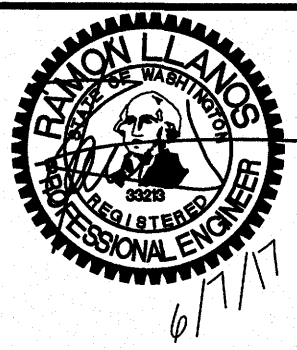
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RECORD DRAWING

ASBULT SUBMITTAL 1	EH	01/09/17
ASBULT SUBMITTAL 2	EH	06/07/17
NO.	REVISION	BY DATE



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

JOB NO.:	1568
DWG. NAME:	ALPINE-BSP SITE PLAN-PRI-ASBUILT.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

CLIENT:
**ALPINE INVESTMENT
&
FLAX4LIFE**

APPROVED

JUN 20 2017

BY
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

WATER PLAN & PROFILE WEST EDGE OF LOT 1

ALPINE INVESTMENT & FLAX4LIFE SITE
8407 & 8445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 38N, RANGE 2E, WM.

SHEET

15A

OF 19



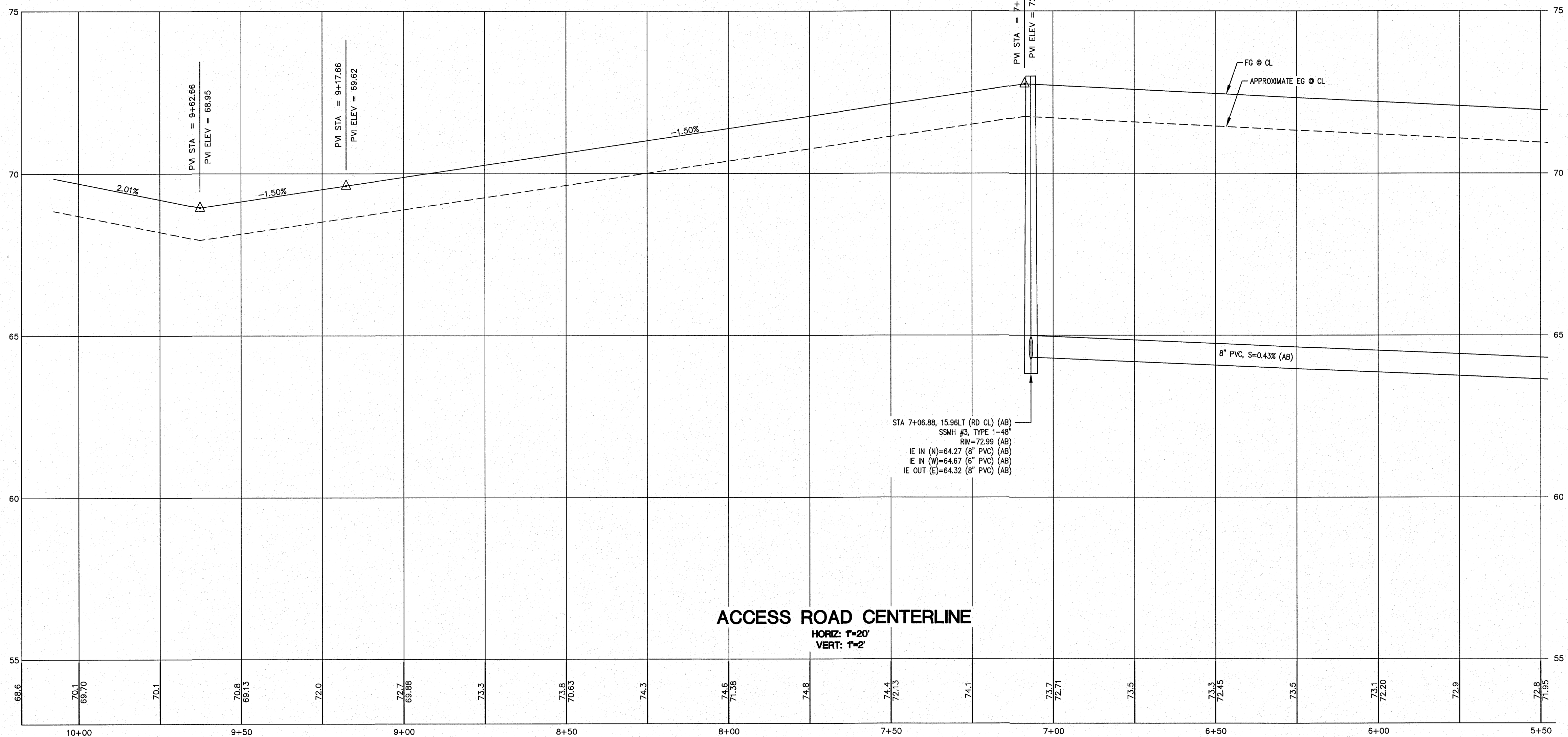
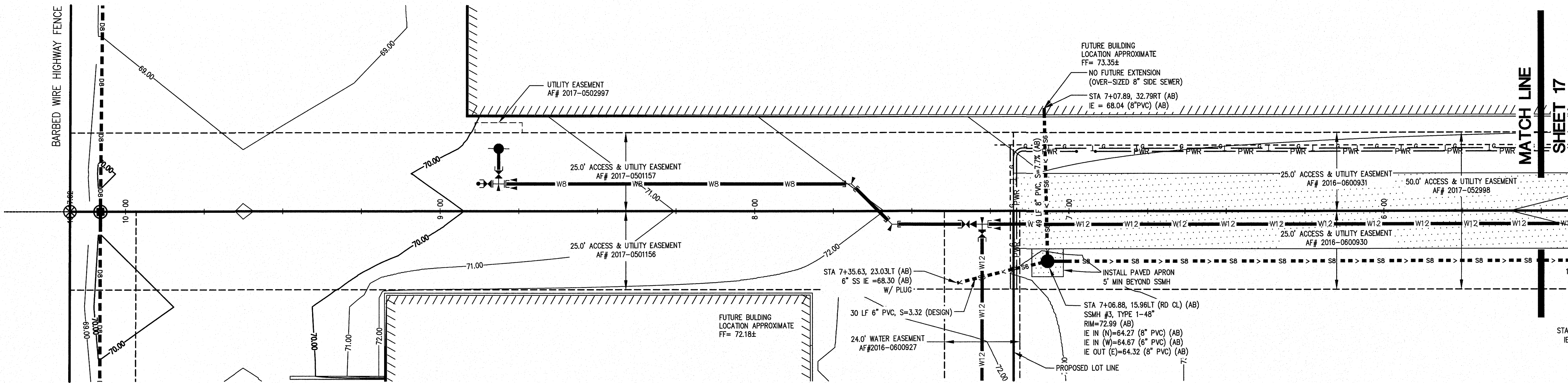
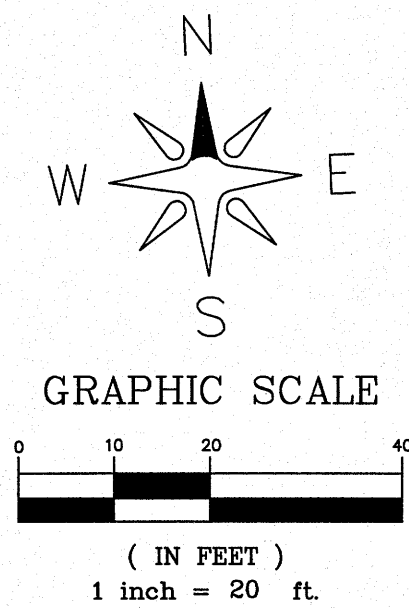
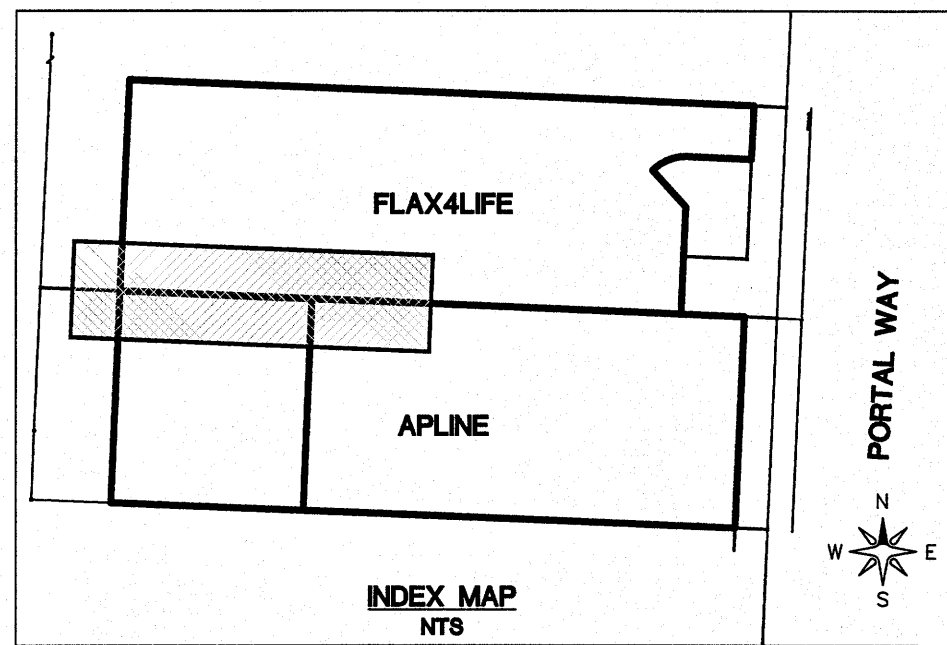
CLIENT: ***ALPINE INVESTMENT
&
FLAX4LIFE***

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SHEET

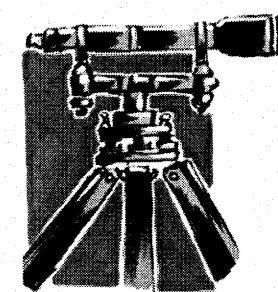
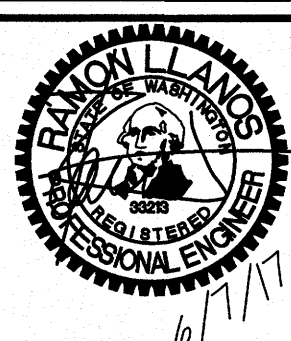
17

OF 19



\\SERVER\Share\Common\Land Projects\2015\1586-1\ContDraw\ALPNE-BSP SITE PLAN-PRI-ASBULT.dwg PLOT DATE: 6/7/2017 12:45 PM

NO.	REVISION	BY	DATE
1	ASBULT SUBMITTAL 1	EH	01/09/17
2	ASBULT SUBMITTAL 2	EH	06/07/17
3			
4			
5			



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

JOB NO.:	1568
DWG. NAME:	ALPNE-BSP SITE PLAN-PRI-ASBULT.dwg
DESIGNED BY:	RL
DRAWN BY:	EH
CHECKED BY:	RL

CLIENT:
**ALPINE INVESTMENT
&
FLAX4LIFE**

APPROVED
JUN 20 2017
BY: [Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

**SEWER PLAN & PROFILE
STA 5+50 TO END**
ALPINE INVESTMENT & FLAX4LIFE SITE
6407 & 6445 PORTAL WA, FERNDAL, WA
A PORTION OF SECTION 17, TOWNSHIP 38N, RANGE 2E, WM.

SHEET
18
OF
19

RECORD DRAWING

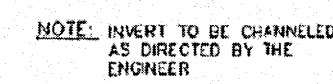


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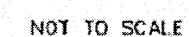
Diagram illustrating the bedding and backfill requirements for a pipe installation. The diagram shows a cross-section of a pipe surrounded by bedding layers and backfill. The layers are labeled as follows:

- BANK RUN GRAVEL BACKFILL - CLASS B SEE NOTE BELOW
- FINAL BEDDING LIFT
6" TO 12" MIN. ABOVE CROWN OF PIPE
- SPRING LINE OF PIPE
- 2ND BEDDING LIFT (HAUNCHING)
- INITIAL BEDDING LIFT (4" MIN.)
- FOUNDATION (MAY NOT BE REQUIRED)

		MARCH 13, 2012	
	APPROVED	BEDDING SPECIFICATIONS	
	Public Works Director	Date	FOR PVC PIPE STANDARD DETAIL SS-1



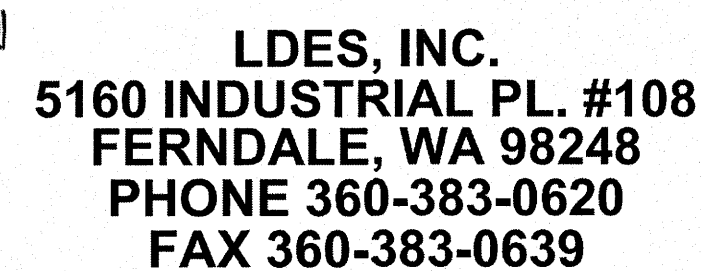
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JUNE 1995



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"



CLIENT:

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ALPINE INVESTMENT

&

FLAX4LIFE

BY 3
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

ALPINE INVESTMENT & FLAX4LIFE SITE
6407 & 6445 PORTAL WA, FERNDALE, WA
A PORTION OF SECTION 17, TOWNSHIP 39N, RANGE 2E, W.M.

SHEET

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OF

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