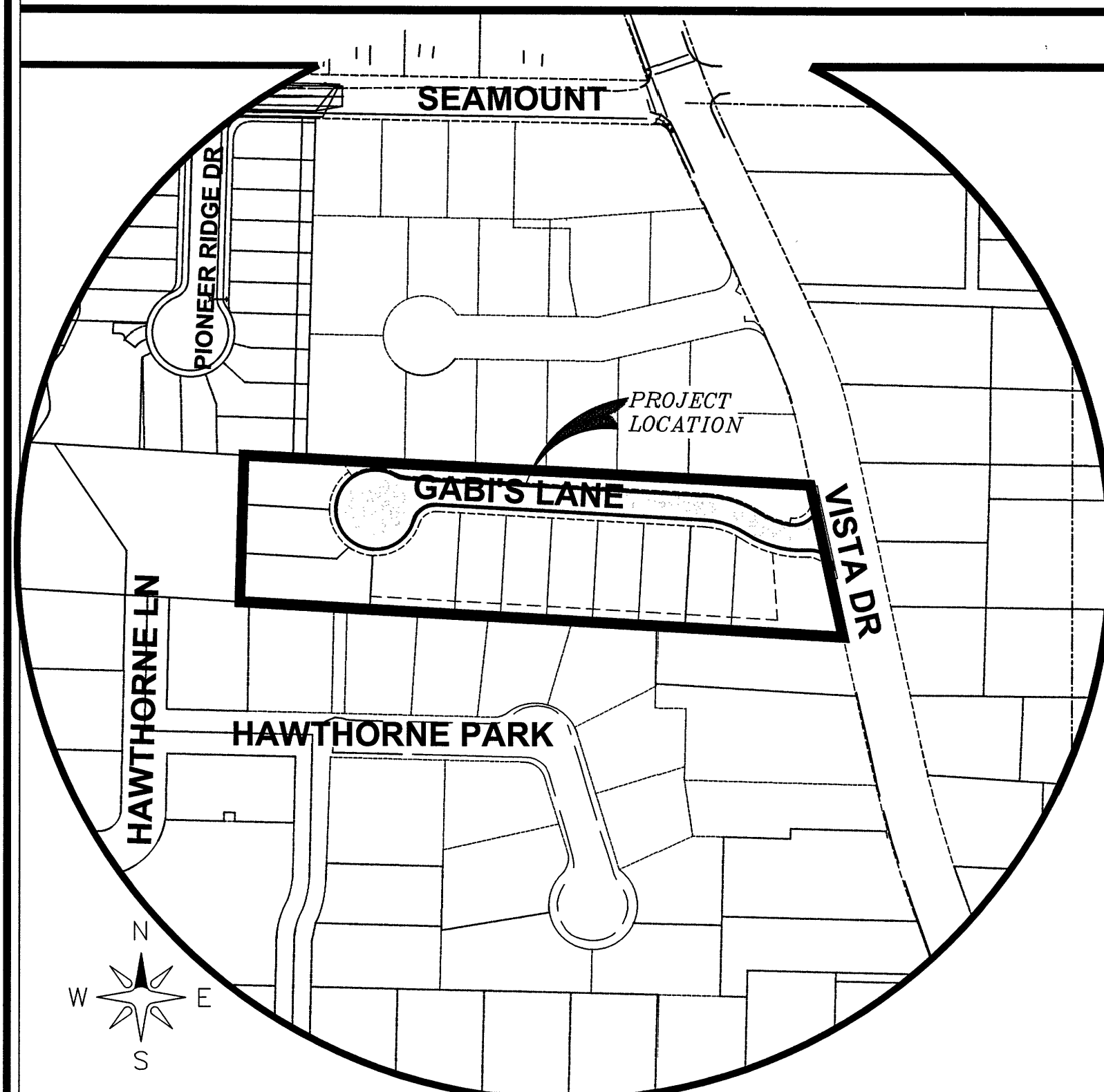


A PORTION OF THE SE 1/4 OF SECTION 19
TOWNSHIP 39 N., RANGE 2 E. OF THE W.M.
CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON

GABRIELAS LONG PLAT

RECORD DRAWINGS



VICINITY MAP 1"=150'

OWNER/APPLICANT
RAMON LLANOS
XX
FERNDAL, WA 98248
CONTACT: RAMON LLANOS
(360) 815-4663

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

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

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.



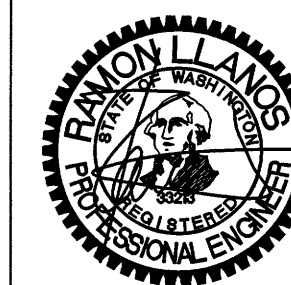
- COVER SHEET
- EXISTING CONDITIONS
- EROSION CONTROL PLAN
- SUBDIVISION PLAN
- STREET & STORM DRAINAGE PLAN & PROFILE: GABRIELAS WAY
- STORM DRAINAGE PLAN & PROFILE: SOUTH
- VAULT AND CONTROL STRUCTURE DETAILS
- ROAD CROSS SECTION & CURB RETURNS
- STREET & STORM DRAINAGE DETAILS
- SANITARY SEWER PLAN AND PROFILE
- SANITARY SEWER DETAILS
- WATER DISTRIBUTION PLAN AND PROFILE
- WATER DISTRIBUTION DETAILS
- COMPOSITE UTILITY PLAN
- CITY OF FERNDAL GENERAL NOTES
- PRE AND POST DEVELOPMENT BASINS
- WALL EXHIBIT
- CURB RAMP DETAIL

ABBREVIATIONS:

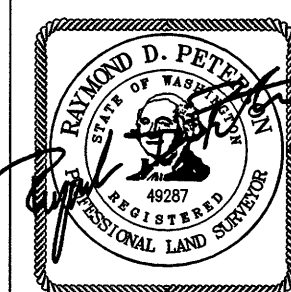
AB	=	AS-BUILT	HYD	=	FIRE HYDRANT	SD	=	STORM DRAIN
BMP	=	BEST MANAGEMENT PRACTICE	IE	=	INVERT ELEVATION	SDCB	=	STORM DRAIN CATCH BASIN
BNDRY	=	BOUNDARY	JBOX	=	JUNCTION BOX	SO, IN.	=	SQUARE INCHES
CL	=	CENTERLINE	LB	=	POUNDS	SS	=	SANITARY SEWER
CMP	=	CORRUGATED METAL PIPE	LF	=	LINEAR FEET	SSCO	=	SANITARY SEWER CLEAN OUT
CONC	=	CONCRETE	LT	=	LEFT	SF	=	SQUARE FEET
CPOP	=	CORRUGATED POLYETHYLENE DRAIN PIPE	MON	=	MONUMENT	SSMH	=	SANITARY SEWER MANHOLE
CSTC	=	CRUSHED SURFACING TOP COURSE	O.D.	=	OUTSIDE DIAMETER	STA	=	STATION
CSBC	=	CRUSHED SURFACING BASE COURSE	OHWM	=	ORDINARY HIGH WATER MARK	STR	=	STRUCTURE
CTRL	=	CONTROL	O/S	=	OFFSET	SWALK	=	SIDEWALK
DI	=	DUCTILE IRON	PERF	=	PERFORATED PIPE	SWMF	=	STORM WATER MANAGEMENT FILTER
DOE	=	DEPARTMENT OF ECOLOGY	PERM	=	PERMANENT	SWMM	=	STORM WATER MANAGEMENT MANUAL
DRWY	=	DRIVE WAY	PK NAIL	=	PARKER-KALON NAIL	SWPPP	=	STORM WATER POLLUTION PREVENTION PLAN
DTL	=	DETAIL	PP	=	PROPOSED	TEL	=	TELEPHONE
E	=	EASTING	PVC	=	POLYVINYL CHLORIDE PIPE	TEMP	=	TEMPORARY
EG	=	EXISTING GROUND	PSE	=	PUGET SOUND ENERGY	TESC	=	TEMPORARY EROSION AND SEDIMENT CONTROL
ELEV/EL	=	ELEVATION	PWR	=	POWER	TW	=	TOP OF WALL
EOP	=	EDGE OF PAVEMENT	N	=	NORTHING	TYP	=	TYPICAL
EXIST/EX	=	EXISTING	R	=	RADIUS	WA	=	WATER
FF	=	FINISH FLOOR	RET	=	RETAINING WALL	WL	=	WATER LEVEL
FG	=	FINISH GROUND	ROW	=	RIGHT OF WAY	WM	=	WATER MAIN
FL	=	FLOW LINE	RT	=	RIGHT	WSEL	=	WATER SURFACE ELEVATION
FM	=	FORCE MAIN	RY	=	ROOF AND YARD	X-ING	=	CROSSING
FND	=	FOUND	S	=	SLOPE	YPC	=	YELLOW PLASTIC CAP
G.V.	=	GATE VALVE				Ø	=	DIAMETER

LEGEND:

□	=	EXIST SD CATCH BASIN (TYPE 1)	OP	=	EXIST OVERHEAD POWER
□	=	EXIST SD CATCH BASIN (TYPE 2)	P	=	EXIST UNDERGROUND POWER (PAINT MARK)
□	=	PROPOSED STORM DRAIN CLEANOUT	OT	=	EXIST OVERHEAD PHONE
□	=	PROPOSED STORM DRAIN CATCH BASIN	T	=	EXIST UNDERGROUND PHONE (PAINT MARK)
●	=	PROPOSED STORM DRAIN MANHOLE (TYPE 2)	OH	=	EXIST OVERHEAD UTILITIES (UNKNOWN)
●	=	PROPOSED ROOF DRAIN CLEANOUT	TV	=	EXIST UNDERGROUND TV CABLE (PAINT MARK)
○	=	EXIST SANITARY SEWER MANHOLE	W	=	EXIST WATER LINE
○	=	EXIST SANITARY SEWER CLEANOUT	S	=	EXIST SANITARY SEWER LINE
○	=	EXIST SANITARY SEWER SERVICE	D	=	EXIST STORM DRAIN LINE
▲	=	PROPOSED SANITARY SEWER SERVICE	TD	=	EXIST TOP OF BANK
▲	=	PROPOSED SEWER CLEANOUT	TD	=	EXIST TOE OF BANK
▲	=	PROPOSED SEWER MANHOLE	BD	=	EXIST TREE LINE (BRUSH)
▲	=	EXISTING WATER METER BOX	BD	=	EXISTING ROAD CENTERLINE
▲	=	EXISTING WATER VALVE	TD	=	EXIST BOTTOM OF DITCH
▲	=	EXISTING FIRE HYDRANT	TD	=	EXIST TOP OF DITCH
▲	=	EXIST POWER/AND OR UTILITY POLE	TD	=	EXIST CHAIN LINK FENCE
▲	=	EXIST GUY POLE	TD	=	EXIST BARBED WIRE FENCE
▲	=	EXIST GUY WIRE	TD	=	EXIST WOOD POST FENCE
▲	=	EXIST POWER METER/STRUCTURE	TD	=	EXIST RETAINING WALL
▲	=	EXIST POWER VAULT	TD	=	EXIST CONTOUR (INDEX)
▲	=	EXIST LIGHT POLE	TD	=	EXIST CONTOUR (NORMAL)
▲	=	EXIST TELEPHONE POLE	TD	=	PROPOSED SILT FENCE
▲	=	EXIST TV BOX	TD	=	PROPOSED STORM DRAIN LINE
▲	=	EXIST TELEPHONE BOOTH	TD	=	PROPOSED SAN. SEWER LINE
▲	=	EXIST TELEPHONE MANHOLE	TD	=	PROPOSED WATER LINE
▲	=	EXIST MAIL BOX	TD	=	PROPOSED ROOF DRAIN
▲	=	EXIST SIGN	TD	=	PROPOSED UTILITY TRENCH
▲	=	EXIST LANDSCAPING	TD	=	PROPOSED 6" PERFORATED PVC PIPE
▲	=	EXIST GAS METER	TD	=	PROPOSED WATER VALVE

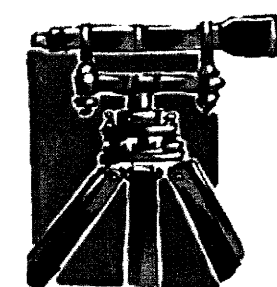
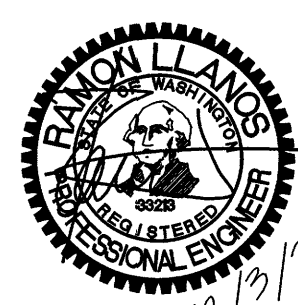


ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "WOODBRIDGE LONG PLAT" HAVE BEEN INSPECTED BY ME AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDAL DEVELOPMENT STANDARDS, THE CITY OF FERNDAL MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.
DATE: 12/3/20
RAMON LLANOS, P.E.



SURVEYOR'S CERTIFICATION
I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS, AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING FIELD CONDITIONS AS DETERMINED BY ME OR UNDER MY DIRECT SUPERVISION ON THIS
DATE: 12/3/20
RAMON D. PETERSON, P.L.S.

NO.	REVISION	BY	DATE
1	AS-BUILTS	RL	12/3/20



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

JOB NO.:	1469
DWG. NAME:	1469-CIVIL - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	SR
CHECKED BY:	RL

APPROVED

JAN 11 2021
BY: [Signature]
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

COVER SHEET
GABRIELAS LONG PLAT

SHEET
1
OF
18

RECORD DRAWING

GABRIELA'S LONG PLAT

LAND DEVELOPMENT ENGINEERING AND SURVEYING
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
CONTACT: RAMON LLANOS 360-815-4663

PROJECT ADDRESS:
5863 VISTA DR
FERNDAL, WA 98248

LEGAL DESCRIPTION:
(PARCEL No. 390219 492216)

A TRACT OF LAND SITUATED IN THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 19, TOWNSHIP 39 NORTH, RANGE 2, EAST OF W.M., IN WHATCOM COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: COMMENCING AT A POINT 435 FEET SOUTH OF THE QUARTER SECTION CORNER BETWEEN SECTIONS 19 AND 20, TOWNSHIP 39 NORTH, RANGE 2, EAST, W.M., AND WEST TO THE CENTER OF THE FERNDAL-BLAINE ROAD WILL BE PLACE OF BEGINNING; THENCE CONTINUE ON WEST TO THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 19; THENCE SOUTH 165 FEET, THENCE EAST TO THE CENTER OF SAID FERNDAL-BLAINE ROAD; THENCE NORTHERLY ALONG THE CENTER OF SAID ROAD TO THE PLACE OF BEGINNING; EXCEPT VISTA DRIVE;

AND EXCEPT THE FOLLOWING DESCRIBED TRACT

BEGINNING AT THE NORTHEAST CORNER OF LOT 1 OF THE PLAT OF "HAWTHORNE HEIGHTS," ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 8 OF PLATS, PAGE 30, IN THE AUDITOR'S OFFICE OF WHATCOM COUNTY, WASHINGTON, THENCE SOUTH 87°47'36" EAST, 129.97 FEET; THENCE NORTH 0°37'25" EAST, 164.86 FEET; THENCE NORTH 87°44'10" WEST 280.00 FEET TO ITS INTERSECTION WITH THE EASTERLY LINE OF BLOCK 5 IN THE PLAT OF SEAMOUNT ADDITION; THENCE SOUTH 0°37'25" WEST ALONG SAID LOT 1; THENCE SOUTH 87°47'36" EAST ALONG SAID NORTHERLY LINE, 150.02 FEET TO THE POINT OF BEGINNING.

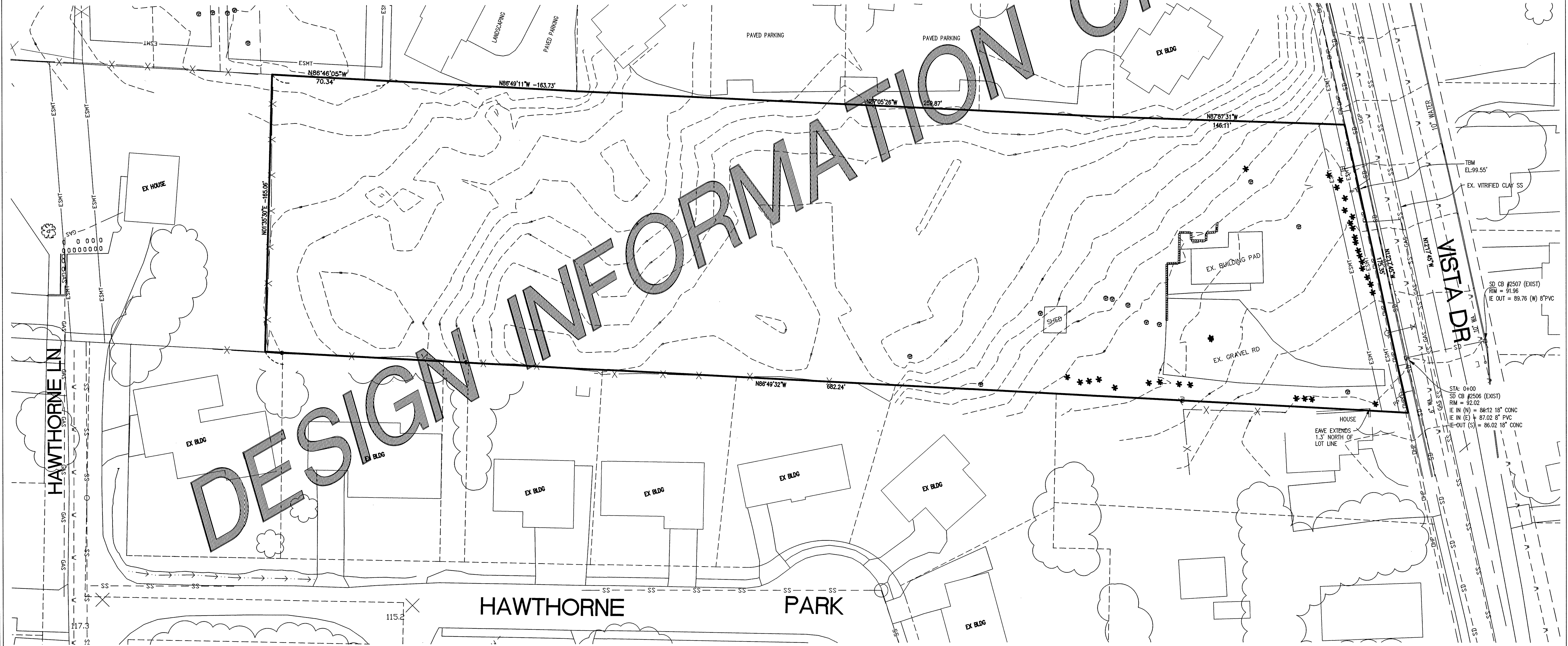
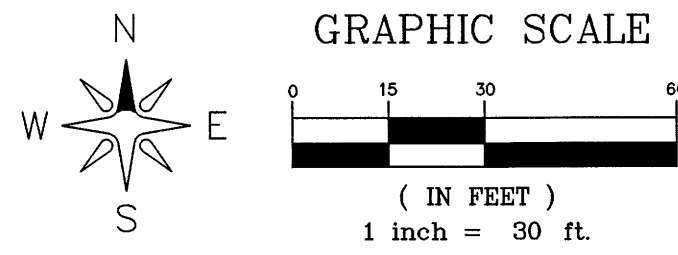
SITUATE IN WHATCOM COUNTY, WASHINGTON

SURVEYOR'S NOTE

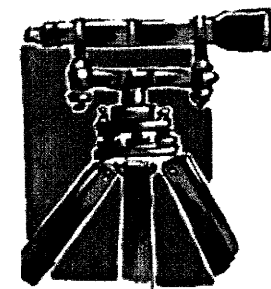
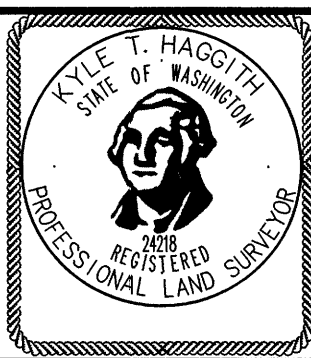
- TOPOGRAPHIC AND BOUNDARY SURVEY CONDUCTED DECEMBER 2005 BY LAND DEVELOPMENT ENGINEERING AND SURVEYING, INC. RECORD OF SURVEY FILED DECEMBER 2005. ADDITIONAL SURVEY ON OCTOBER 20, 2014.
- DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTION. EQUIPMENT USED: NIKON DT500: 00'03" EDM ± 2 PPM, ± 2 MM
- BASIS OF BEARING: CITY OF FERNDAL CONTROL POINTS 367 TO 368: N 11°04'24" E, 1170.95 FT CONTROL POINT 367 AT CORNER OF HAWTHORNE AND BIRCH, N=680899.75, 1214519.18. CONTROL POINT 368 AT CORNER OF WATER GARDEN AND GARDNER, N=682049.90, 1214744.08
- BENCHMARK: CITY OF FERNDAL CONTROL POINT # 368, ELEVATION: 135.95
PROJECT BENCHMARK: SET BENCHMARK SPIKE EAST FCE UP#48812/167556, ELEVATION 99.55'
DATUM: NAD83 - CITY OF FERNDAL SURVEY MONUMENT NETWORK JUNE, 2001
- WETLANDS DELINEATED BY ED MILLER ENVIRONMENTAL AND FIELD SURVEYED BY LDES INC ON OCTOBER 20, 2014

LEGEND:

- A, B, C. = EXIST WETLANDS TO BE FILLED PER AF# 2150902265 LUMMI NATION WETLAND MITIGATION BANK TRANSACTION
- SS = EXIST VITRIFIED CLAY SANITARY SEWER LINE
W = EXIST WATER LINE
SD = EXIST STORM DRAIN LINE



NO.	REVISION	BY	DATE
1	AS-BUILTS	RL	12/3/20
2			
3			
4			
5			



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

JOB NO.:	1469
DWG. NAME:	1469-CIVIL - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	SR
CHECKED BY:	RL

APPROVED

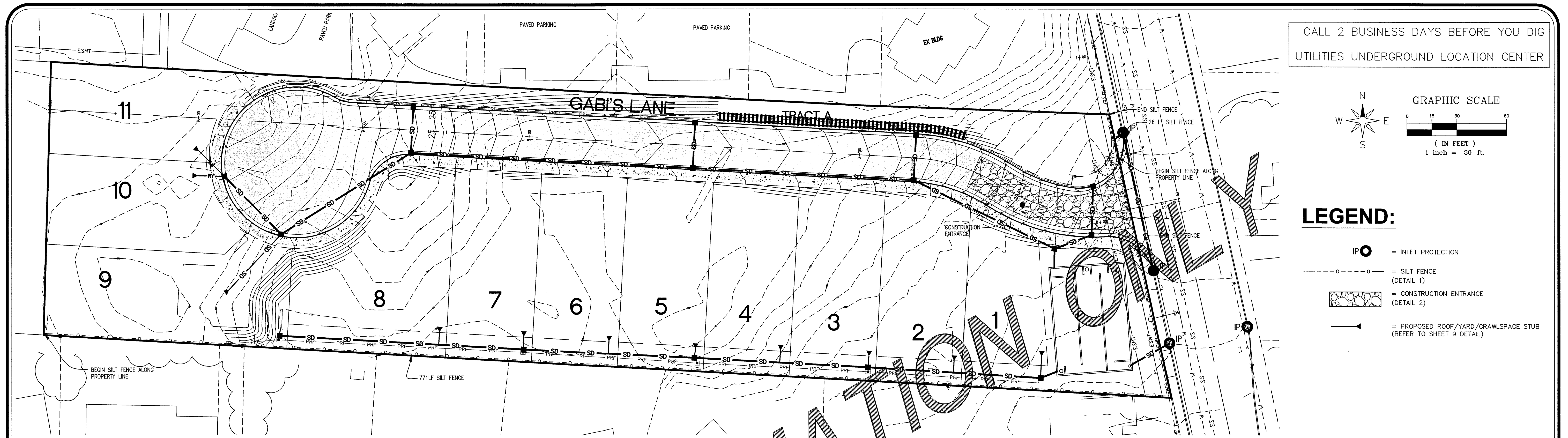
JAN 11 2021
BY *Ramon Llanos*
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

EXISTING CONDITIONS
GABRIELAS LONG PLAT

SHEET
2
OF
18

RECORD DRAWING

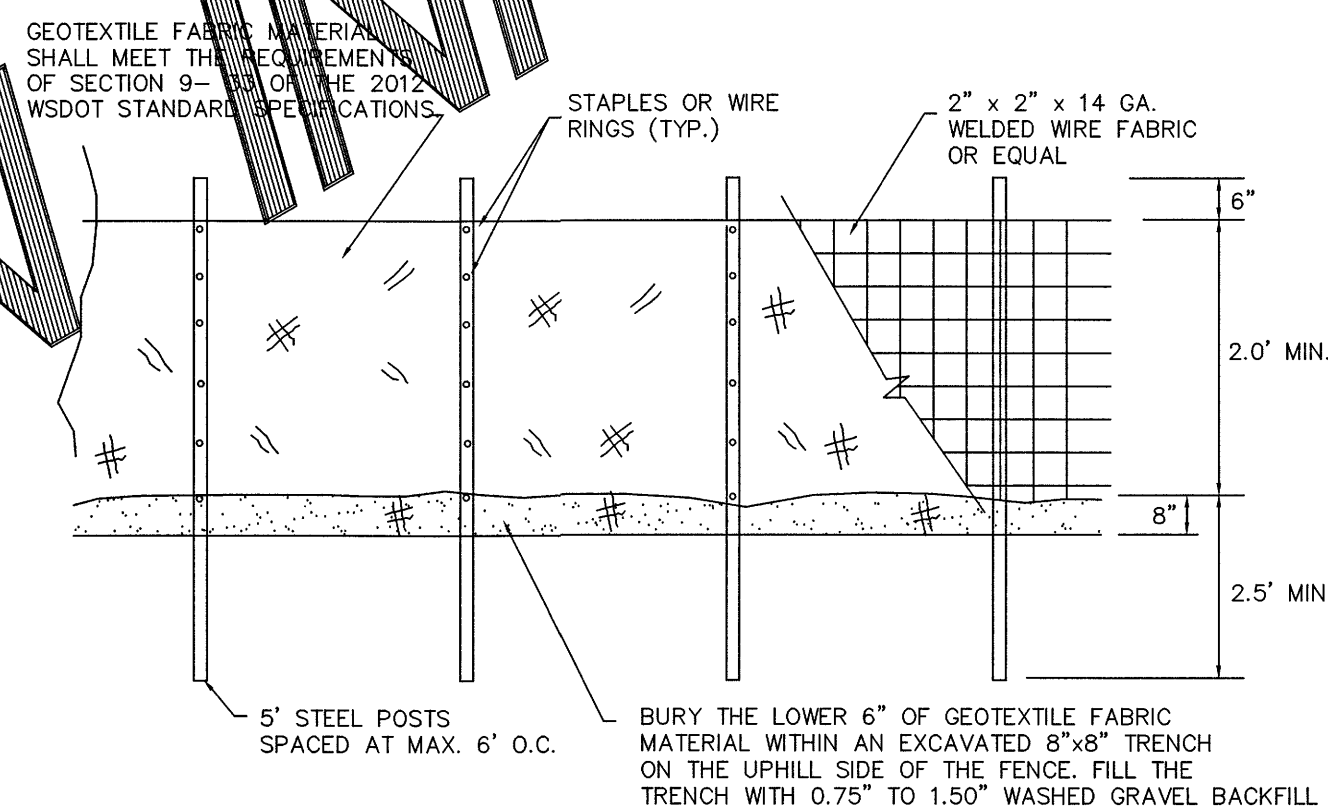
00708.002 1/12/2021 TO



CITY OF FERNDAL TESC NOTES:

- 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.
- 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.
- PROTECTION OF ADJACENT PROPERTIES. PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION.
- TIMING & STABILIZATION OF SEDIMENT TRAPPING MEASURES. SEDIMENT PONDS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER BMP'S INTENDED TO TRAP SEDIMENT ON-SITE SHALL BE CONSTRUCTED AS A FIRST STEP IN GRADING. THESE BMP'S SHALL BE FUNCTIONAL BEFORE LAND DISTURBING ACTIVITIES TAKE PLACE. EARTH STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS SHALL BE SEEDED AND MULCHED ACCORDING TO THE TIMING INDICATED IN NO. 1 ABOVE.
- 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.
- 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.
- 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.
- 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, WHICH FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- UNDERGROUND UTILITY CONSTRUCTION. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE DONE TO THE FOLLOWING CRITERIA: WHERE FEASIBLE, NO MORE THAN 600 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.
- CONSTRUCTION ACCESS ROUTES. WHEREVER CONSTRUCTION TRAILER 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 TRAVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
- REMOVAL OF TEMPORARY BMP'S. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS COMPLETED 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.
- DEWATERING CONSTRUCTION SITES. DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
- 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.
- 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.
- FINANCIAL LIABILITY. PERFORMANCE BONDING, OR OTHER APPROPRIATE FINANCIAL INSTRUMENTS, SHALL BE REQUIRED FOR ALL PROJECTS TO ENSURE COMPLIANCE WITH THE APPROVED TESC PLAN.

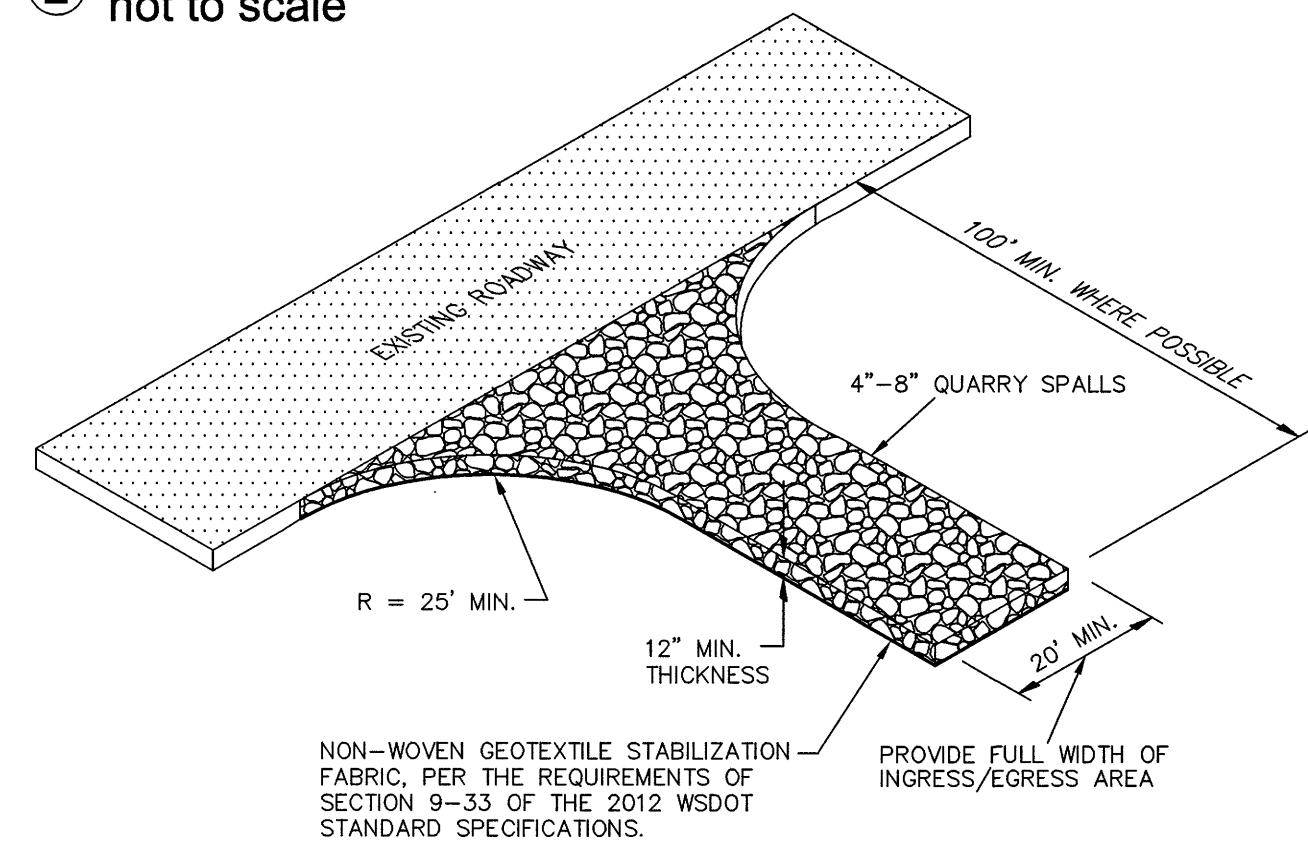
① SILT FENCE DETAIL (BASED ON FERNDAL ST-10) not to scale



GENERAL NOTES:

- ANY DAMAGE TO FENCING SHALL BE REPAIRED IMMEDIATELY.
- 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.
- 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.
- SILT FENCING SHALL BE CONSTRUCTED DIRECTLY AFTER CLEARING AND GRUBBING IS COMPLETE. THE FENCE SHALL ONLY BE REMOVED WHEN CONSTRUCTION OF UTILITIES DEEMS IT ABSOLUTELY NECESSARY. IMMEDIATELY AFTER UTILITIES ARE IN-PLACE, THE SILT FENCING SHALL BE RECONSTRUCTED.

② QUARRY SPALL CONSTRUCTION ENTRANCE DETAIL not to scale



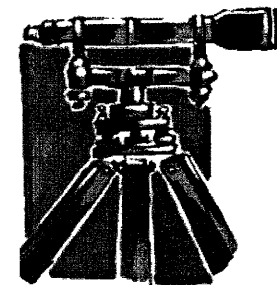
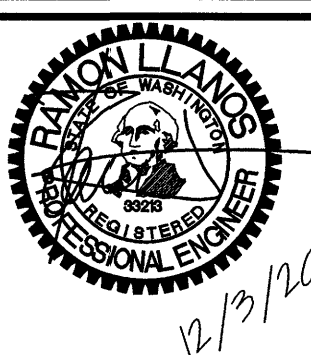
GENERAL NOTES:

- 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.
- 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.

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

- EROSION CONTROL METHODS AND MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 8-01 OF THE 2012 WSDOT/APWA STANDARD SPECIFICATIONS, THE REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, CURRENT EDITION, THE CITY OF LYNDEN 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.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT SILTY STORMWATER FROM EXITING THE SITE. IF SILT LADEN STORMWATER EXITS THE SITE, THE ENGINEER SHALL STOP WORK ON THE JOB. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WORK WITH THE PROJECT ENGINEER OR LOCAL JURISDICTION TO COORDINATE FURTHER EROSION CONTROL MEASURES, NOT SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN, THAT MAY BE NECESSARY TO CONTROL SITE RUNOFF.
- THE EXISTING AND PROPOSED STORM SYSTEMS SHALL BE CLEANED AND MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL ALL ON-SITE SOILS HAVE BEEN STABILIZED.
- 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.

AS-BUILTS	RL	12/3/20
NO.	REVISION	BY DATE



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

JOB NO.:	1469
DWG. NAME:	1469-CIVL - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	SR
CHECKED BY:	RL

APPROVED

JAN 11 2021

By *[Signature]*
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

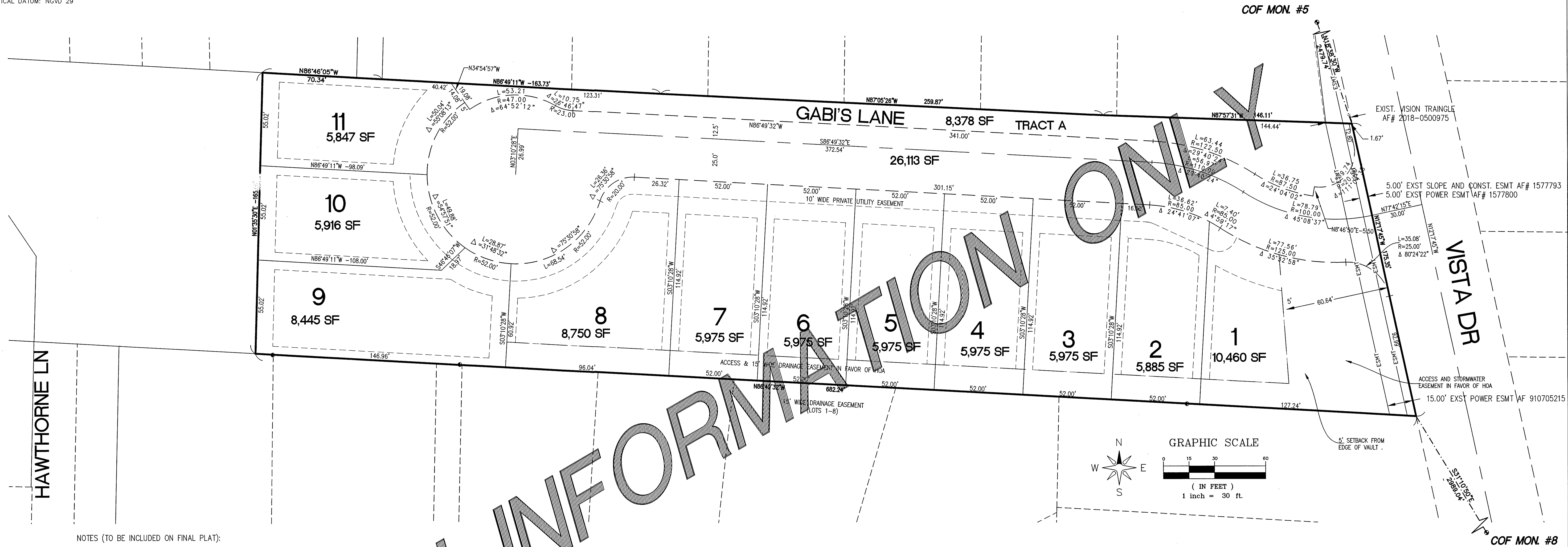
EROSION CONTROL PLAN
GABRIELAS LONG PLAT

SHEET
3
OF
18

RECORD DRAWING

SURVEY NOTES:

HORIZONTAL DATUM: WASHINGTON STATE NORTH ZONE NAD 83/91
VERTICAL DATUM: NGVD 29



NOTES (TO BE INCLUDED ON FINAL PLAT):

SANITARY SEWER NOTE:
LOTS 1 THROUGH 8 MIGHT REQUIRE AN INDIVIDUAL PUMP TO CONVEY SEWAGE TO THE SANITARY SEWER
STUB/MAIN IN THE EVENT THAT BASEMENTS ARE CONSTRUCTED.

STORM SEWER NOTES:

- LOT 1 THROUGH 9 SHALL ENSURE THAT NO STORMWATER IS DISCHARGED TOWARDS THE SOUTH PROPERTIES AND IT IS CONVEYED TO THE PROPOSED STORMWATER VAULT
- LOTS 1 THROUGH 8 SHOULD MAKE PROVISIONS SO ACCESS TO THE STORMWATER EASEMENT CAN OCCUR. ANY FENCES SHALL HAVE 10FT GATES TO ALLOW ACCESS WITHOUT TAKING DOWN SAID FENCES.

BUILDING PERMIT NOTES:

- A LETTER FROM THE ENGINEER OF RECORD OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON SHALL BE INCLUDED WITH ANY BUILDING PERMIT APPLICATION FOR LOTS 1 THROUGH 11 THAT INCLUDES A SITE PLAN AND CONFIRMS THAT ALL PROPOSED IMPERVIOUS SURFACES WILL BE CONVEYED TO THE STORMWATER VAULT ON LOT 1. THE LETTER SHALL CONFIRM THAT THE LOT COVERAGE DOES NOT EXCEED THE ALLOWABLE IMPERVIOUS SURFACES ALLOCATED WHEN SIZING THE VAULT. FURTHERMORE, THE ENGINEER OF RECORD OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON SHALL CONFIRM THAT THE PROPOSED IMPROVEMENTS OF SAID LOTS DO NOT CONVEY STORMWATER TO OR JEOPARDIZE THE INTEGRITY OF THE EXISTING PROPERTIES SOUTH OF LOTS 1 THROUGH 9. IF AN IMPERVIOUS SURFACE TRANSFER BETWEEN LOTS HAS OCCURRED THE ENGINEER OF RECORD OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON SHALL INCLUDE THE RECORDED COVENANT THAT PERMITTED THE TRANSFER AS WELL AS AN UPDATED CHART OF ALL THE IMPERVIOUS SURFACES CONSTRUCTED TO DATE AS WELL AS THE REVISED IMPERVIOUS SURFACE ALLOCATION FOR EACH LOT.
- EXISTING UTILITIES WITHIN THE STORMWATER EASEMENT MAY REQUIRE RELOCATION PRIOR TO VAULT PLACEMENT. CONSTRUCTOR MUST COORDINATE WITH LOCAL UTILITY PROVIDERS PRIOR TO VAULT CONSTRUCTION.

LOT RECEIVING FILL REQUIRE: (NOTE TO BE INCLUDED ON FINAL PLAT)

A STRUCTURAL FILL CERTIFICATE NOTING COMPACTION RECORDS AND THE DEPTH OF FILL FROM THE GEOTECHNICAL AGENCY CERTIFYING THE LOT IS APPROVED FOR HOME CONSTRUCTION. THE BUILDING ENVELOPE SHALL BE DEFINED ON THE FINAL PLAT MAP PRIOR TO RECORDING.

LOT	IMPERVIOUS	LANDSCAPE	TOTAL
1	3,000	7,459.54	10,459.54
2	3,000	2,885.14	5,885.14
3	3,000	2,975.31	5,975.31
4	3,000	2,975.31	5,975.31
5	3,000	2,975.31	5,975.31
6	3,000	2,975.31	5,975.31
7	3,000	2,975.31	5,975.31
8	3,000	5,750.48	8,750.48
9	4,319.71	4,125.53	8,445.24
10	3,000	2,915.51	5,915.51
11	3,000	2,847.08	5,847.08
TOTAL	34,319.71	40,859.83	75,179.54
TRACT A	0	8,377.60	8,377.60
ROW	24,357.34	1,756.00	26,113.34
TOTAL	58,677.05	50,993.43	109,670.48

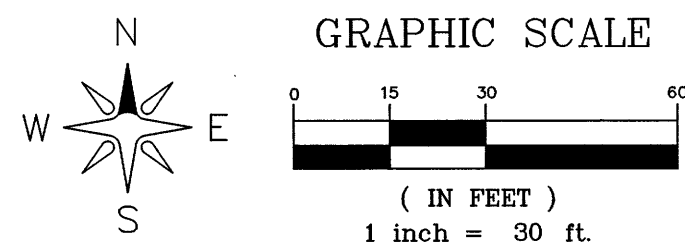
TABLE TO BE INCLUDED ON FINAL PLAT

ALLOWABLE IMPERVIOUS SURFACE TRANSFER NOTES:

- THE ALLOWABLE IMPERVIOUS AREA CAN BE TRANSFERRED BETWEEN LOTS AS LONG AS THE OVERALL IMPERVIOUS SURFACE DOES NOT EXCEED THE ALLOWABLE IMPERVIOUS SURFACE AREA CONVEYED TO THE DETENTION VAULT (58,677.05 SF).
- THE TRANSFERS SHALL BE RECORDED AS A COVENANT ON THE LOTS BEING AFFECTED AND SHALL NOT REQUIRE A PLAT AMENDMENT.
- REFER TO BUILDING PERMIT NOTES FOR ADDITIONAL REQUIREMENTS.
- THE MINIMUM ALLOWABLE IMPERVIOUS SURFACES FOR LOTS 1 THROUGH 11 SHALL BE 3,000 SF EACH.

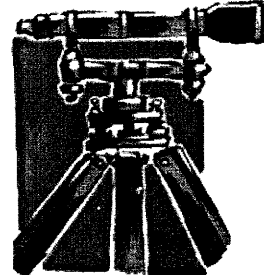
LOTS RECEIVING FILL REQUIRE:

A STRUCTURAL FILL CERTIFICATE NOTING COMPACTION RECORDS AND THE DEPTH OF FILL FROM THE GEOTECHNICAL AGENCY CERTIFYING THE LOT IS APPROVED FOR HOME CONSTRUCTION.



\\SERVER\Share\Common\Land Projects\2014\1469-GABRIELAS PLAT.dwg\1469-CIVIL - AB.dwg

NO.	REVISION	BY	DATE
AS-BUILTS		RL	12/3/20



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

JOB NO.:	1469
DWG. NAME:	1469-CIVIL - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	SR
CHECKED BY:	RL

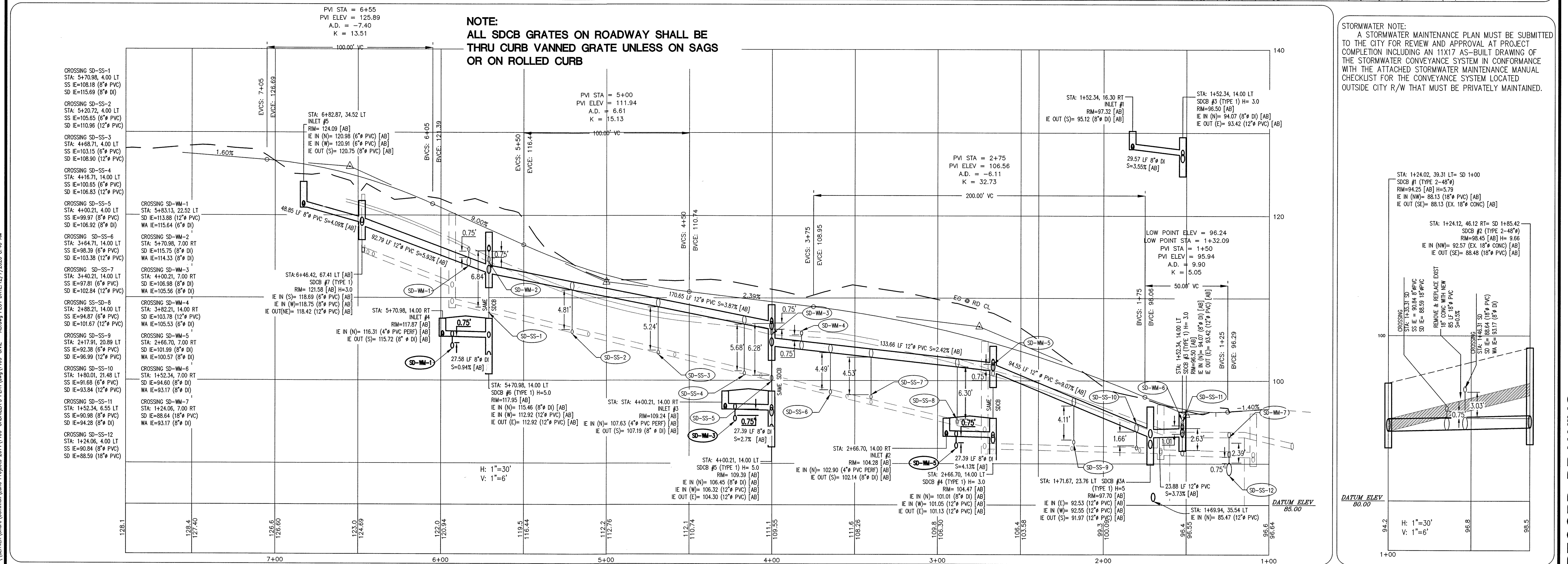
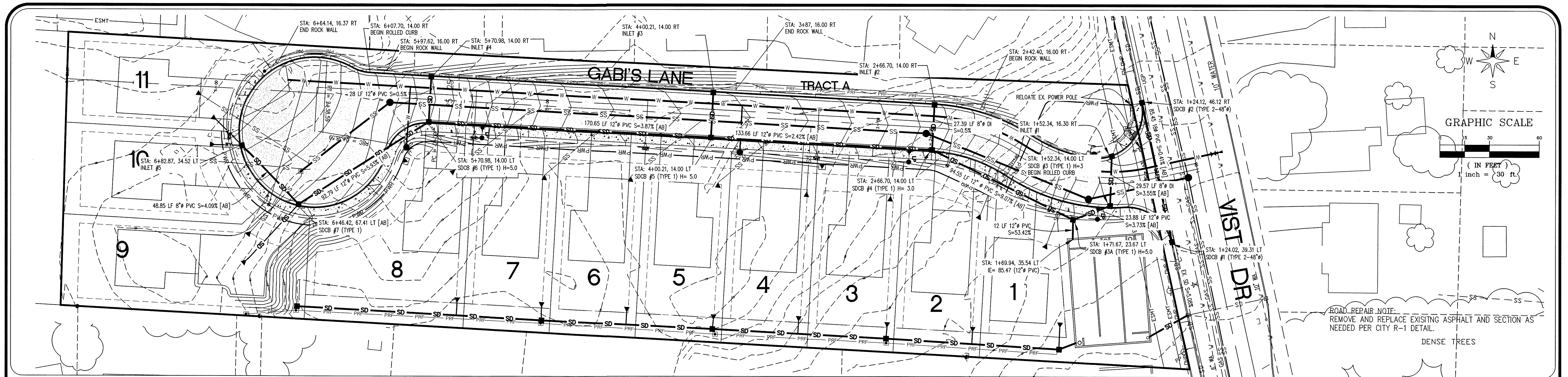
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JAN 11 2021
By *[Signature]*
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

SUBDIVISION PLAN
GABRIELAS LONG PLAT

SHEET
4
OF 18

RECORD DRAWING



AS-BUILTS	RL	12/3/20
NO.	REVISION	BY DATE

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

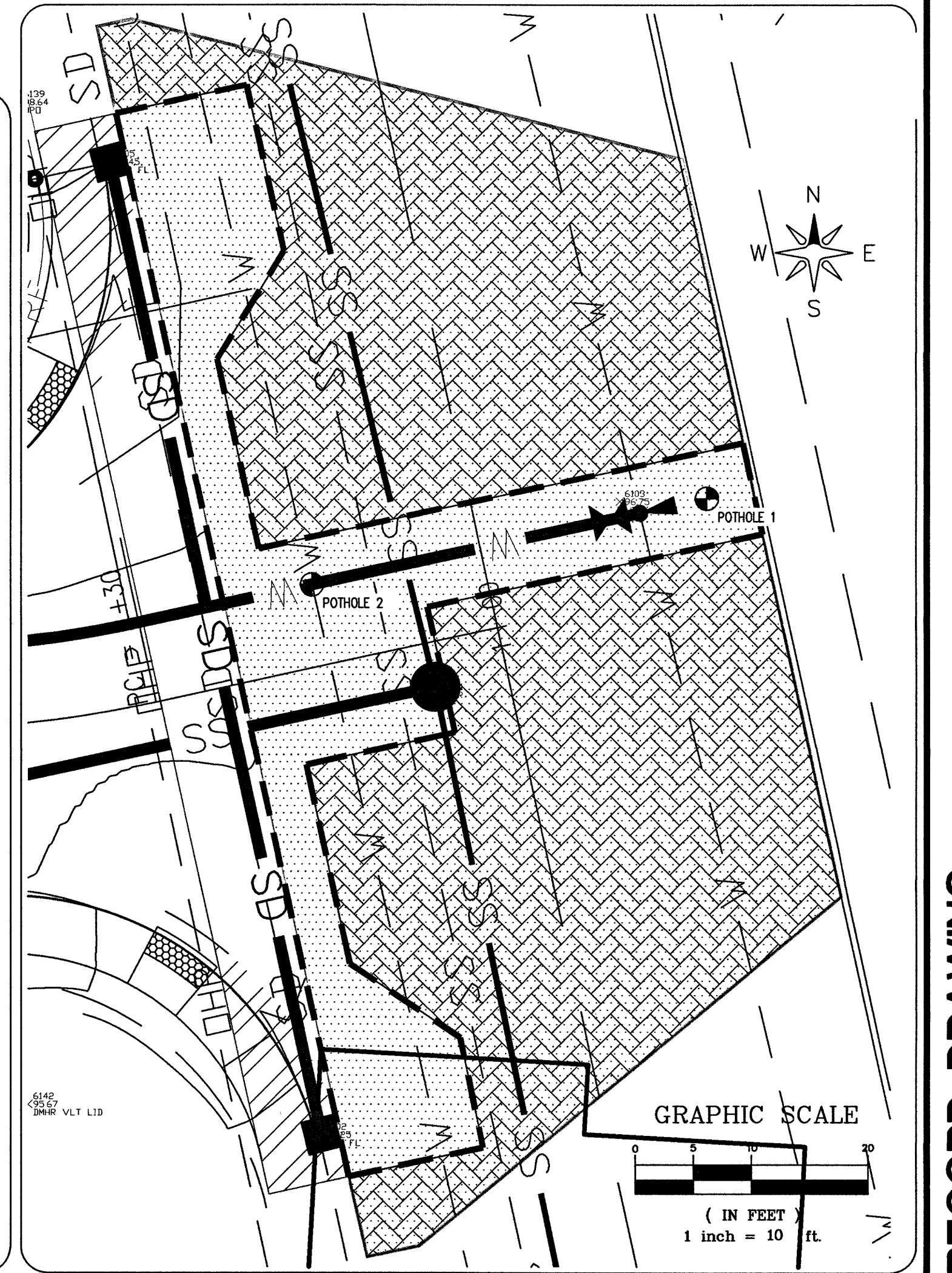
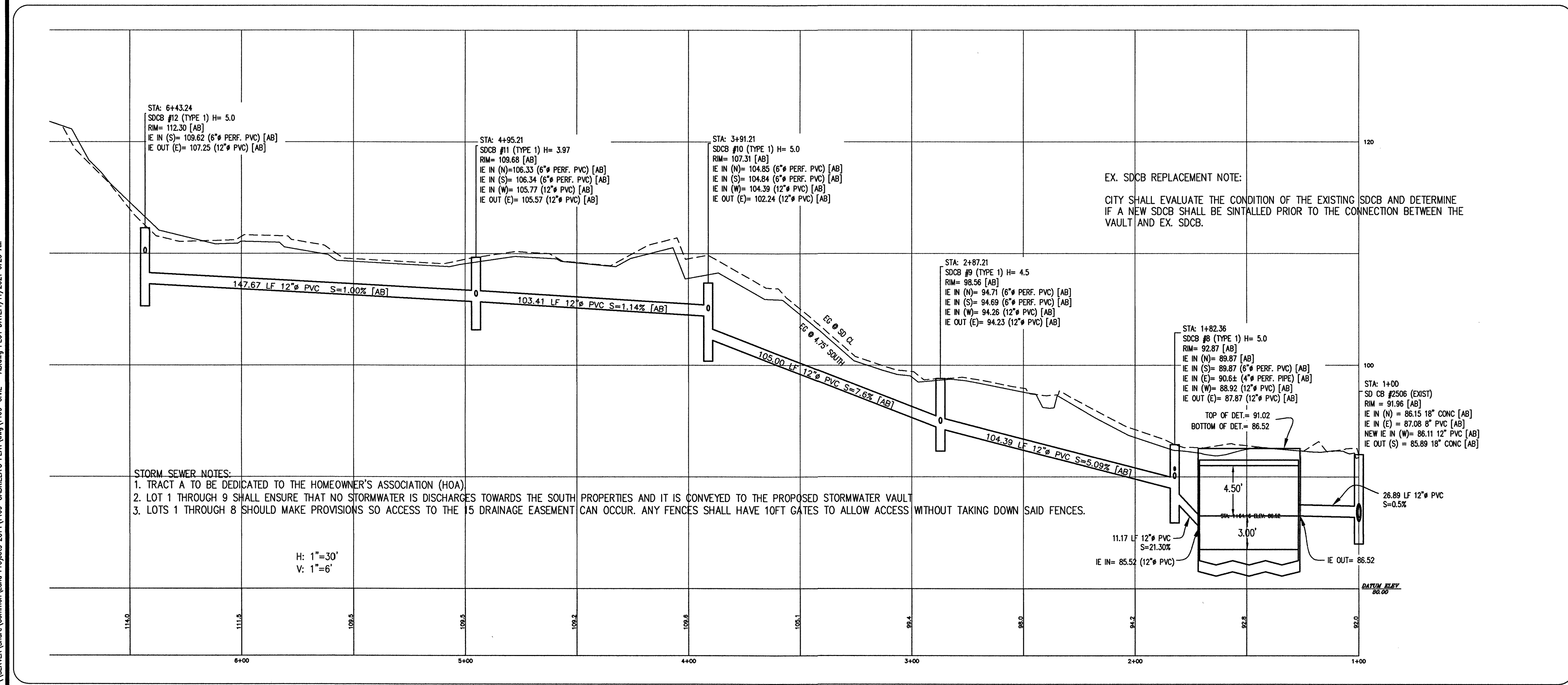
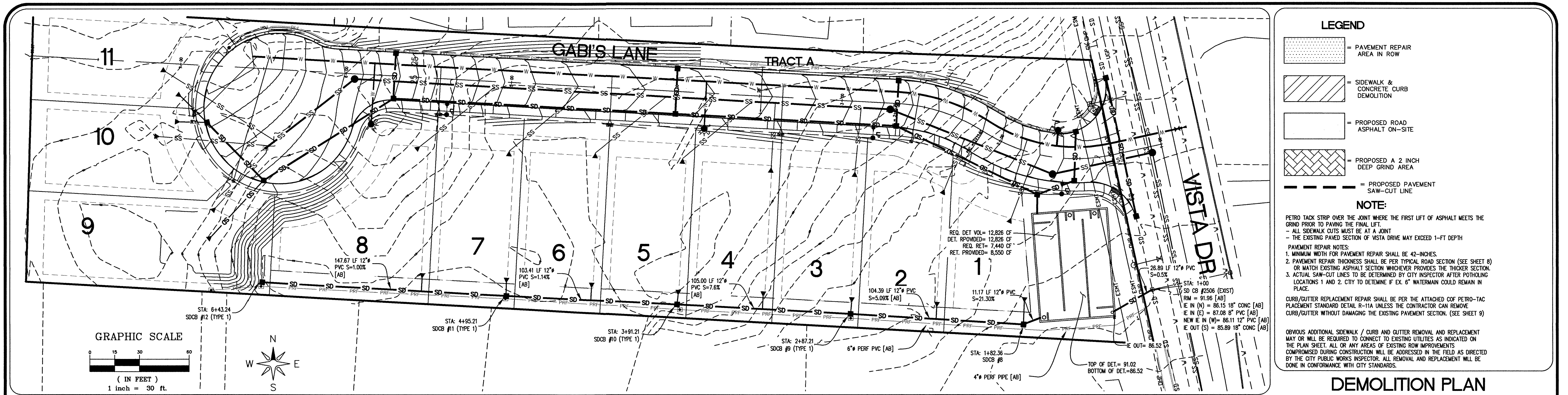
JOB NO.: 1469
DWG. NAME: 1469-CIVIL - AB.dwg
DESIGNED BY: RL
DRAWN BY: YC
CHECKED BY: RL

APPROVED
JAN 11 2021
By *[Signature]*
PUBLIC WORKS DEPARTMENT

**STREET & STORM DRAINAGE
PLAN&PROFILE: GABRIELAS WAY
GABRIELAS LONG PLAT**

SHEET
5
OF
18

RECORD DRAWING



AS-BUILTS	RL	12/3/20
NO.	REVISION	BY DATE

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

JOB NO.: 1469

DWG. NAME: 1469-CIVIL - AB.dwg

DESIGNED BY: RL

DRAWN BY: YC

CHECKED BY: RL

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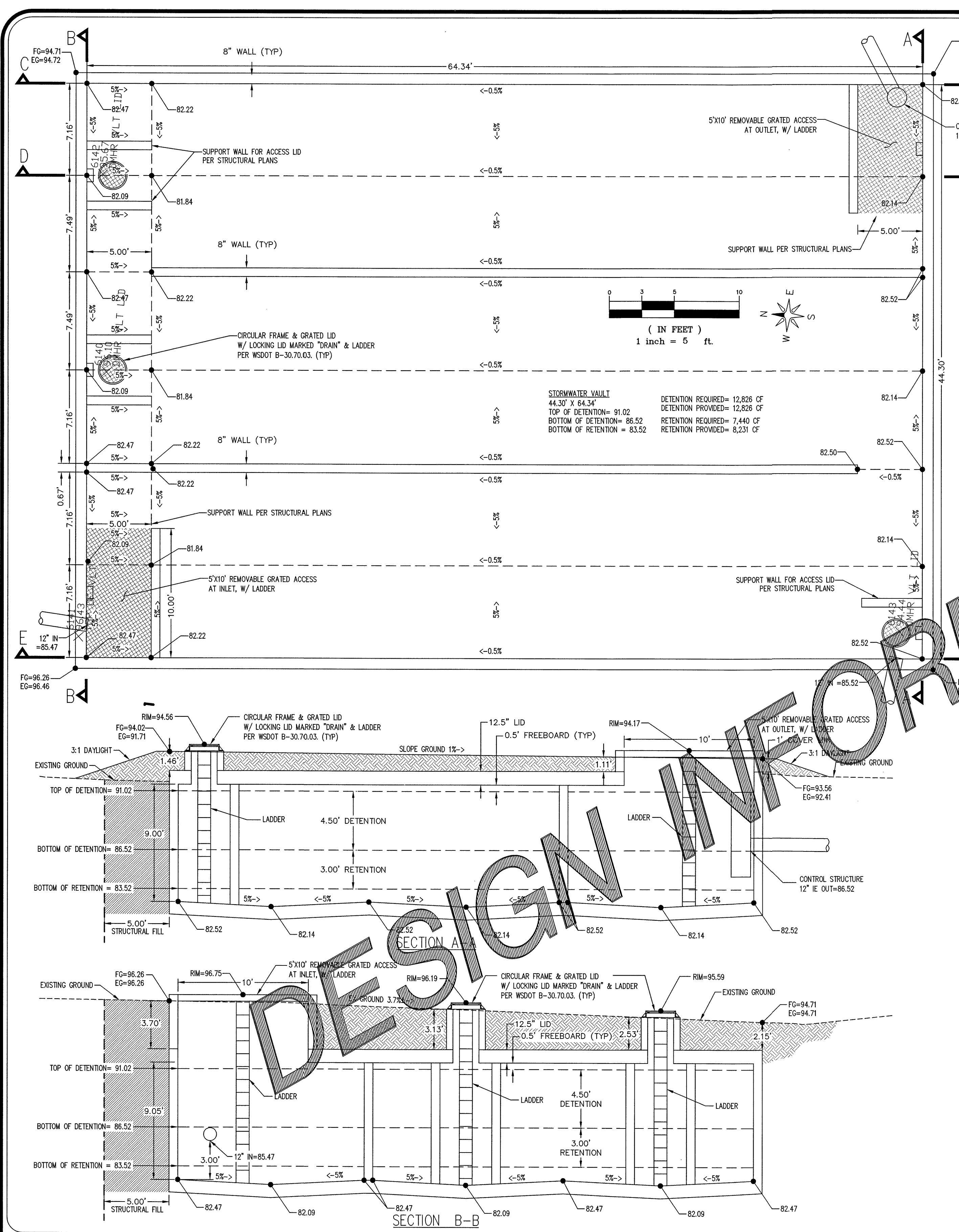
JAN 11 2021

By *[Signature]*
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

STREET & STORM DRAINAGE
PLAN&PROFILE: SOUTH
GABRIELAS LONG PLAT

SHEET
6
OF
18

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CONCRETE VAULT NOTES:

1. CONSTRUCTION OF THE CONCRETE DETENTION VAULT REQUIRES A COF BUILDING PERMIT.
2. THE CONCRETE DETENTION VAULT MUST BE DESIGNED BY A STRUCTURAL ENGINEER OR CIVIL ENGINEER WITH STRUCTURAL EXPERTISE AND MUST PROVIDE STRUTURAL CALCULATIONS THAT DEMONSTRATE THAT THE VAULT WILL SUPPORT THE LOADING OF A MINIMUM 70,000 LB MAINTENANCE VEHICLE.
3. THE CONCRETE DETENTION VAULT MUST BE DESIGNED BY A STRUCTURAL ENGINEER OR CIVIL ENGINEER WITH STRUCTURAL EXPERTISE IN CONFORMANCE WITH THE VOLUME III PAGE 3-48 OF THE 2005 STORMWATER MANAGEMENT VOLUME.
4. THE STRUCTURAL PLANS SHALL CALL-OUT THE CONCRETE SPECIFICATION FOR THE VAULT.
5. THE STRUCTURAL DESIGN AND CALCULATIONS FOR THE DETENTION VAULT MUST BE APPROVED BY THE COF BUILDING DEPARTMENT AND THE LAND DISTURBANCE PERMIT ISSUED BY PUBLIC WORKS FOR THE VAULT CONSTRUCTION TO BEGIN.
6. THE ENGINEER OF RECORD MUST CERTIFY THAT THE STORMWATER VAULT IS CONSTRUCTED IN CONFORMANCE WITH THE 2005 STORMWATER MANAGEMENT MANUAL, THE APPROVED STRUCTURAL DESIGN AND THE APPROVED CIVIL PLANS.
7. THE STRUCTURAL PLANS SHALL INCLUDE SHEETS 5 & 7 OF THE APPROVED CIVIL PLANS.
8. VAULT MUST BE PLACED ON STABLE WELL-CONSOLIDATED NATIVE MATERIAL WITH SUITABLE BEDDING PER VOL. III, PAGE 3-42 OF THE SWMM.
9. ALL CONSTRUCTION JOINTS MUST BE PROVIDED WITH WATER STOPS PER VOLUME III, PAGE 3-46 OF THE SWMM.
10. VAULT SHALL HAVE SUFFICIENT ACCESS FOR MAINTENANCE TO ALL ACCESS PANELS CONTROL STRUCTURE IN CONFORMANCE WITH VOLUME III, PAGE 3-48 OF THE SWMM.

NOTES:

1. OSHA CONFINED SPACE REQUIREMENT: PROVIDE REMOVABLE HANGING SIGN IN ALL ACCESS RISERS LISTING THE ACCESS AS AN ENTRANCE TO A CONFINED SPACE.

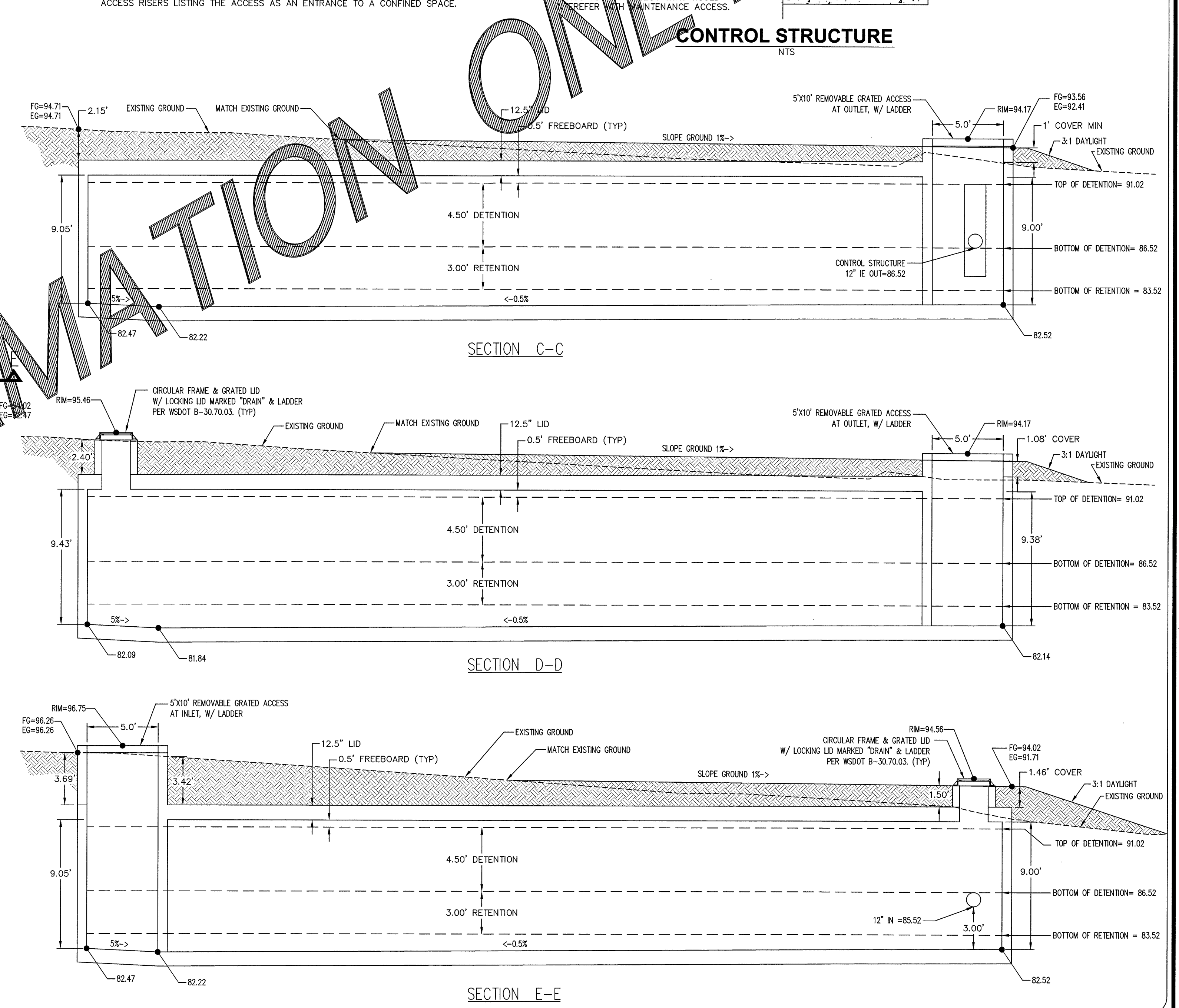
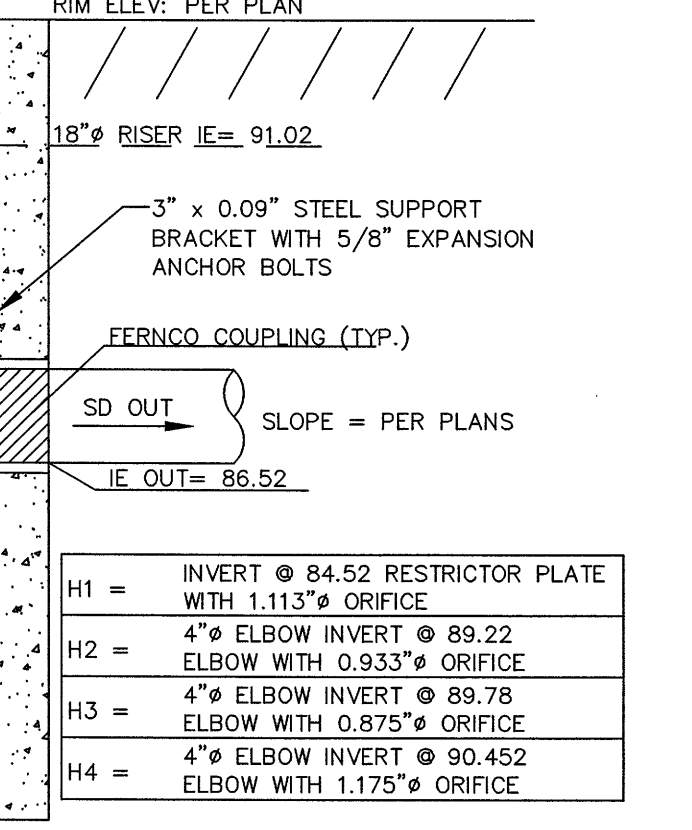
PROVIDE HOOK HOLDING SHEER GATE HANDLE OPEN DURING EMERGENCY EVENT.

GENERAL NOTES:

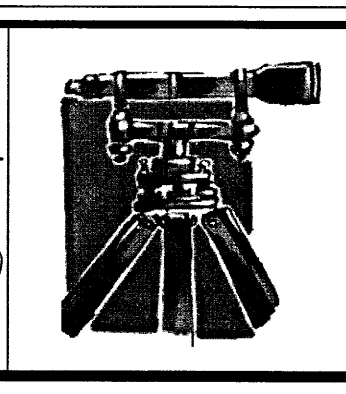
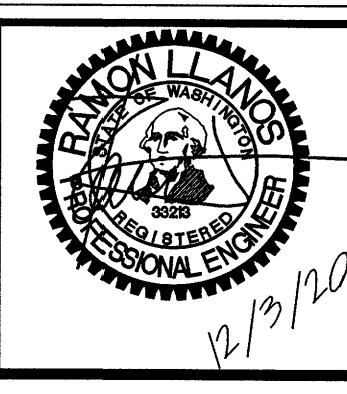
1. ELBOW DIAMETERS SHALL BE LARGER THAN ORIFICE DIAMETERS, TYPICAL.
2. ALL PARTS SHALL BE STAINLESS STEEL, ALUMINUM, OR ALUMINIZED STEEL.
3. OFFSET FRAME AND LADDER OR STEPS SO CLEANOUT GATE IS VISIBLE FROM TOP AND SO CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
4. LOCATE ELBOW RESTRICTOR(S)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

*** CONTRACTOR SHALL ENSURE A MINIMUM 24" OF CLEAR SPACE FROM EDGE OF LADDER RISERS TO ANY OBJECT THAT WOULD INTERFERE WITH MAINTENANCE ACCESS.

CONTROL STRUCTURE



NO.	REVISION	BY	DATE
1	AS-BUILTS	RL	12/3/20



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

JOB NO.:	1469
DWG. NAME:	1469-CIVIL - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

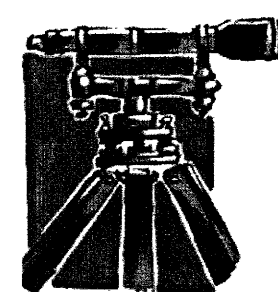

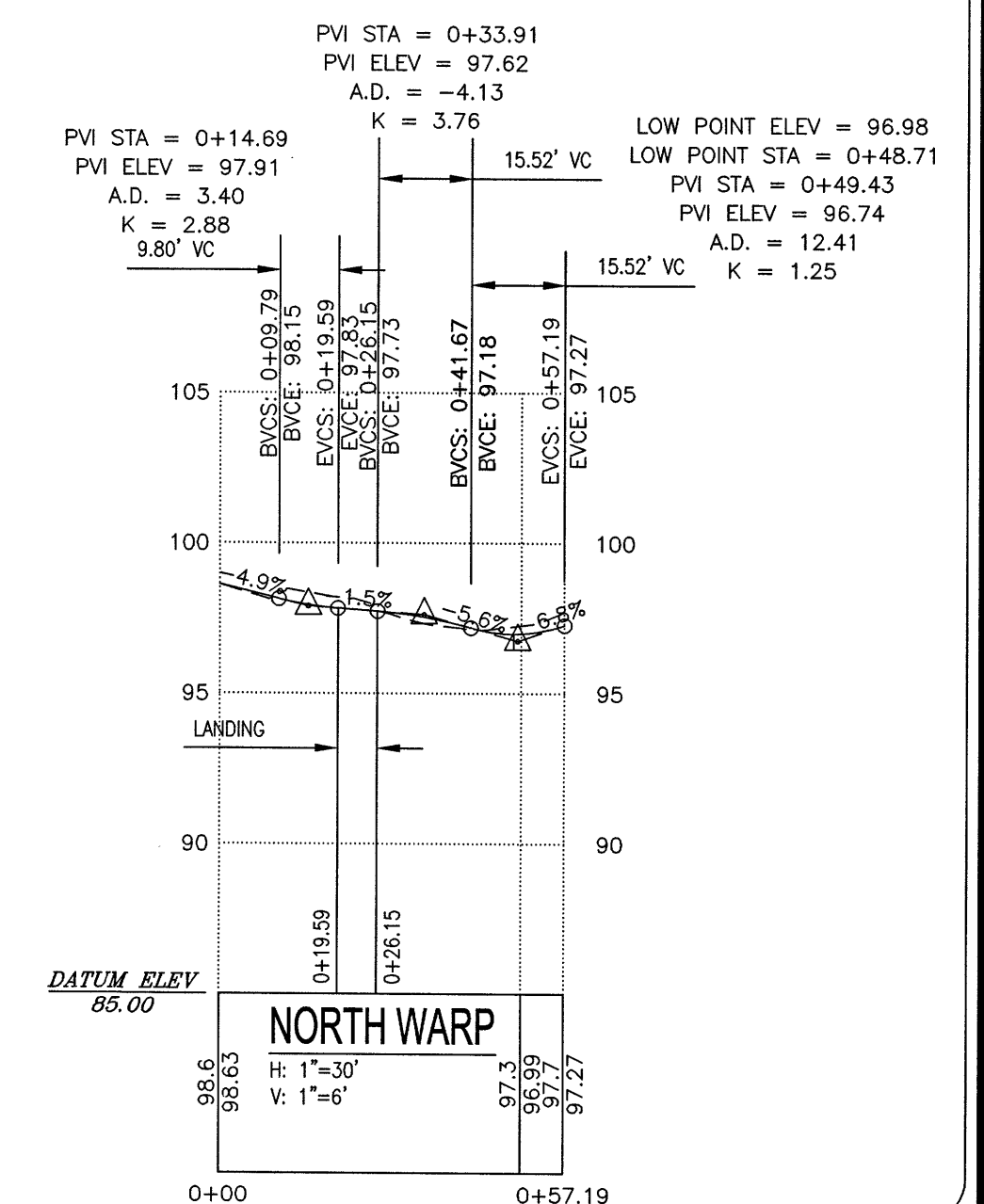
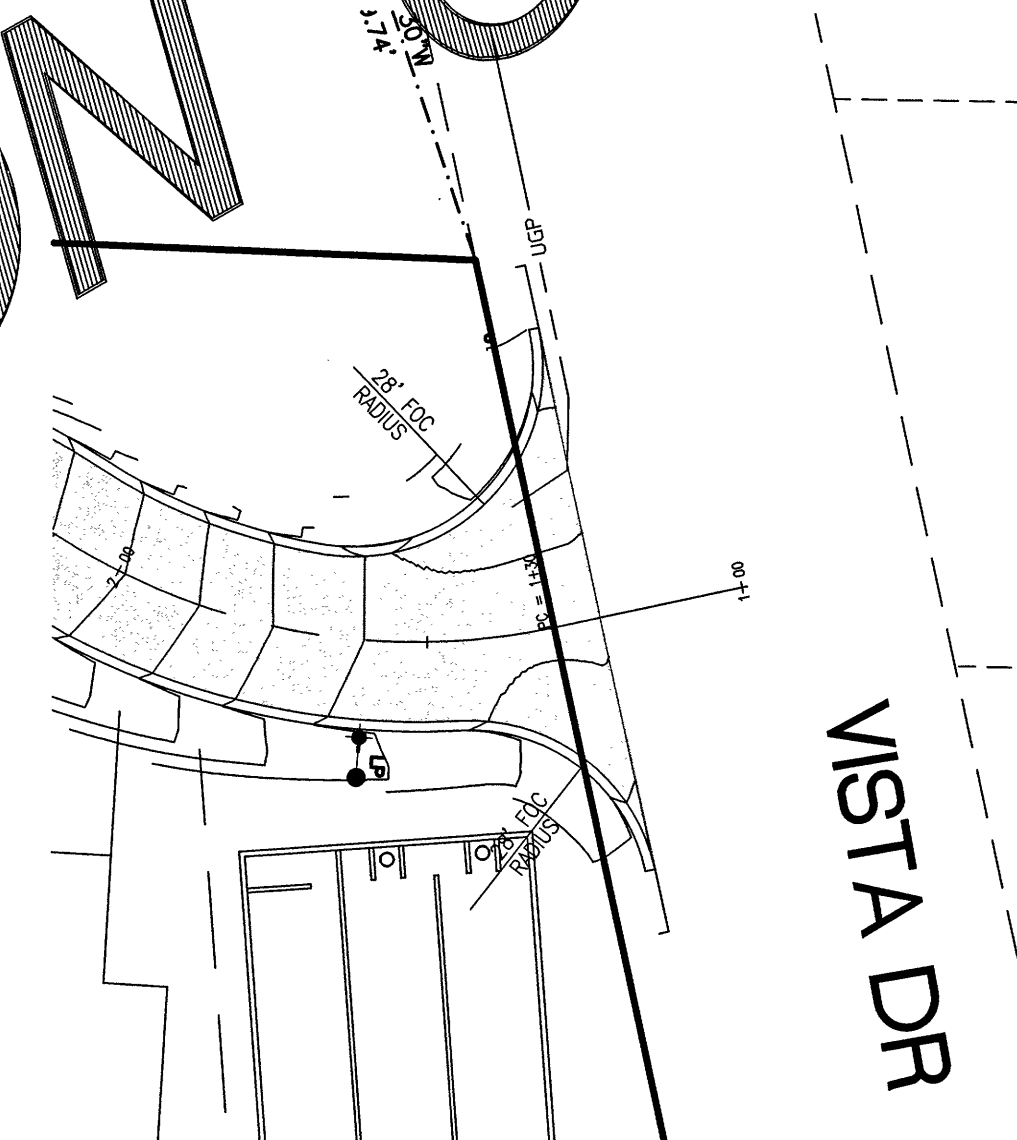
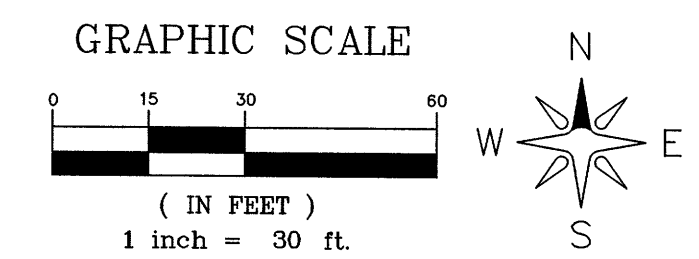
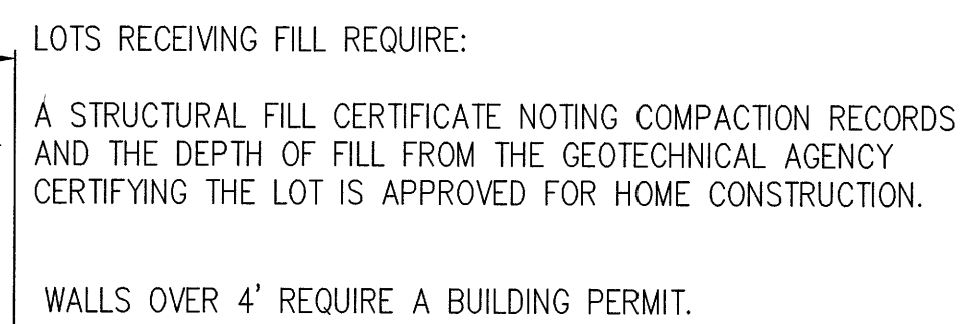
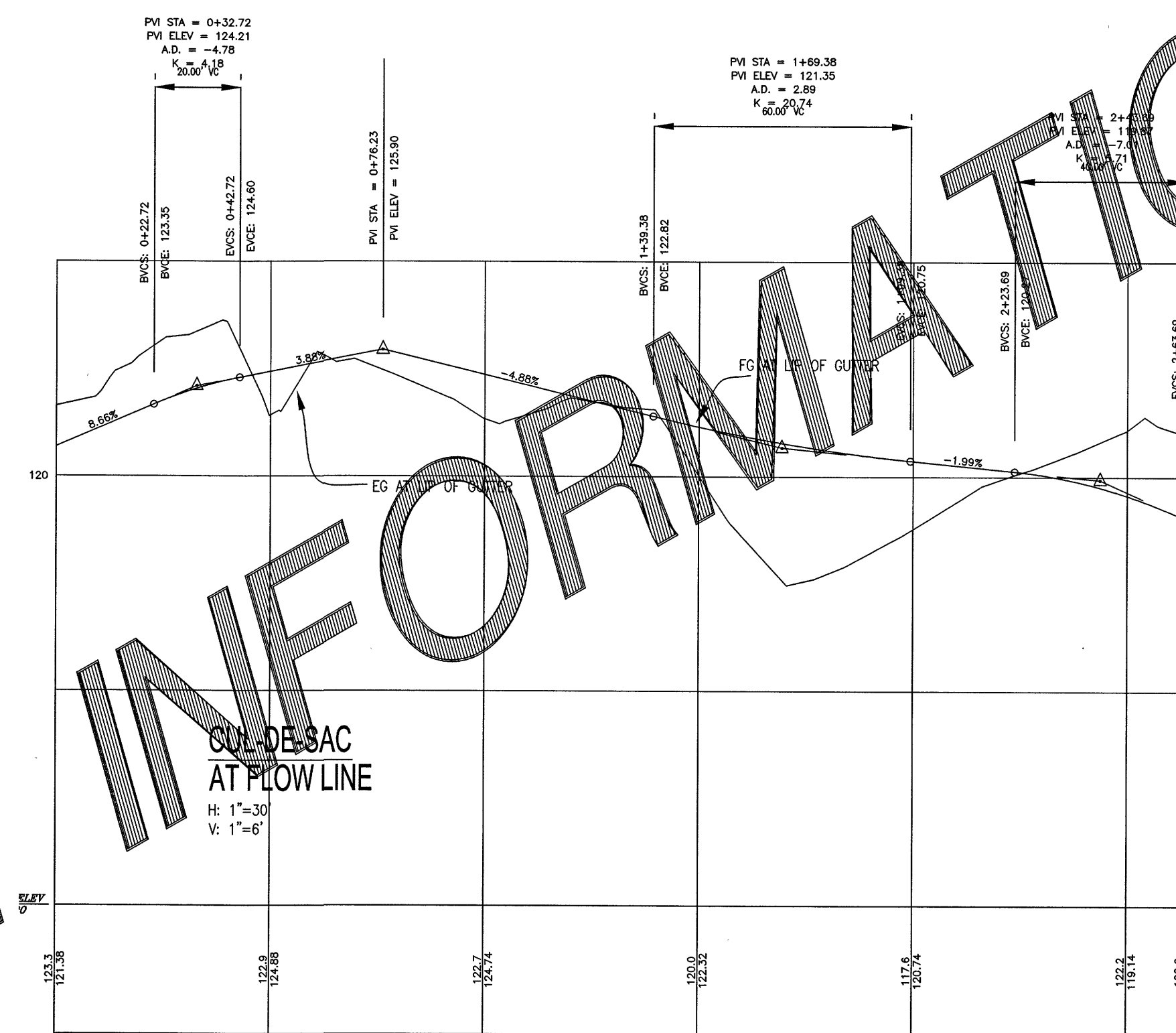
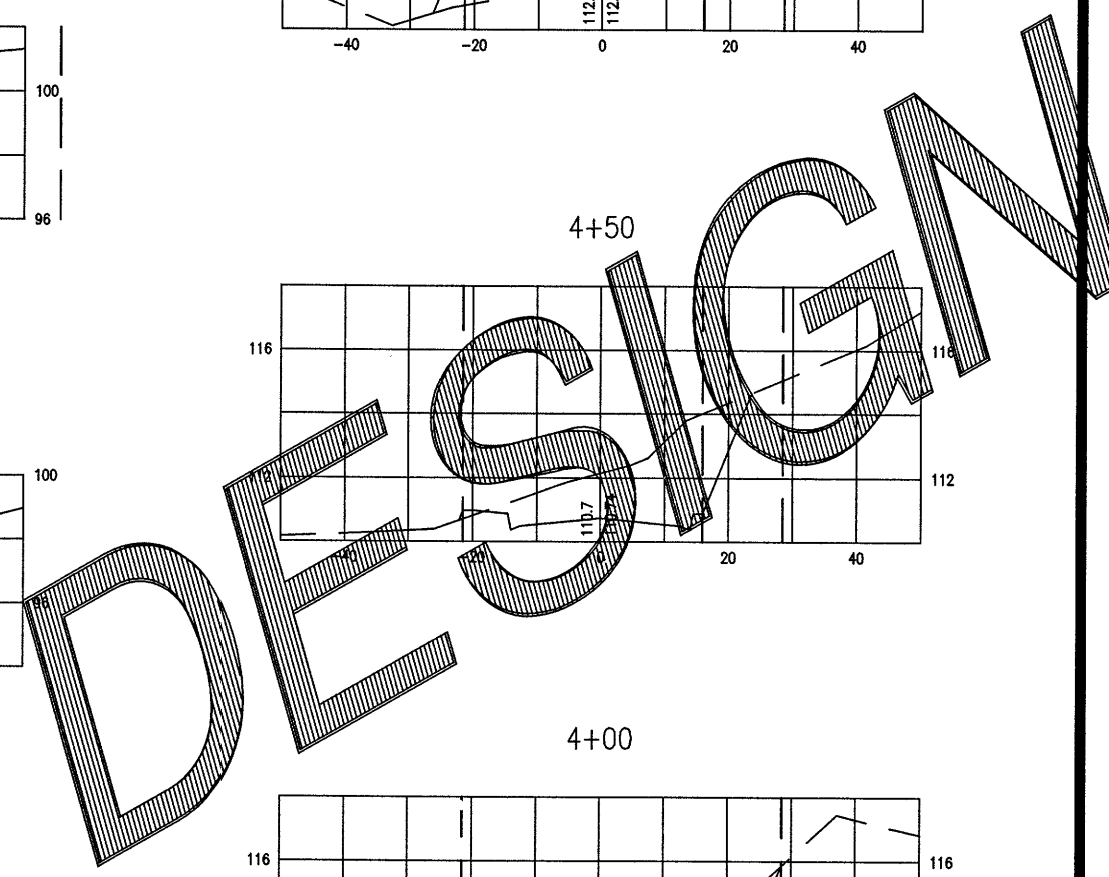
SCALE 1"=5'

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JAN 11 2021
BY: *[Signature]*
PUBLIC WORKS DEPARTMENT

VAULT PLAN VIEW
VAULT & CONTROL STRCT DTLS
GABRIELAS LONG PLAT

RECORD DRAWING



JOB NO.:	1469
DWG. NAME:	1469-CIVIL - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	YC
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JAN 11 2021
BY Thy Nguyen For KCWA
CITY OF FEANDALE
PUBLIC WORKS DEPARTMENT

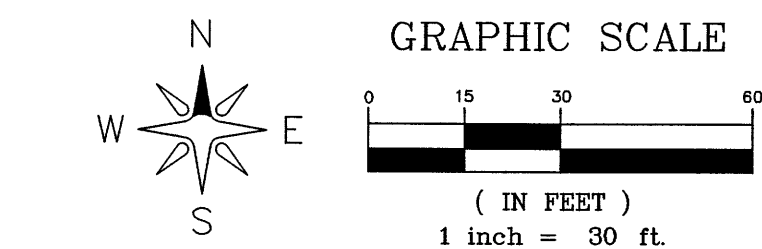
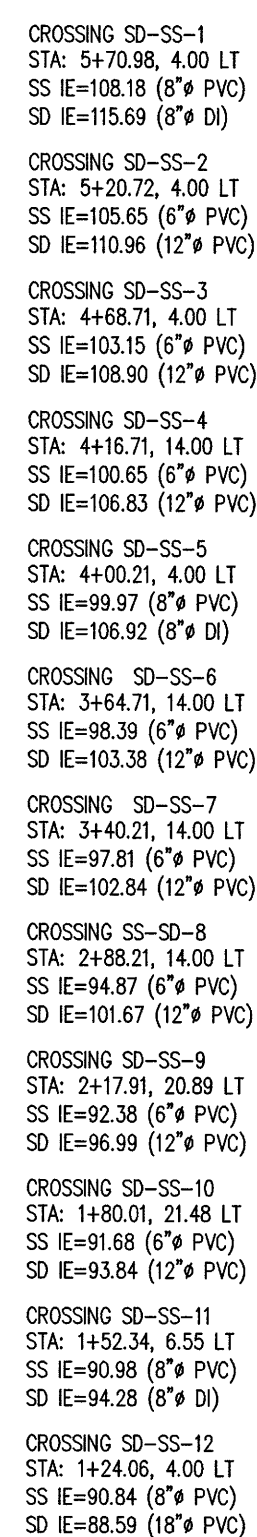
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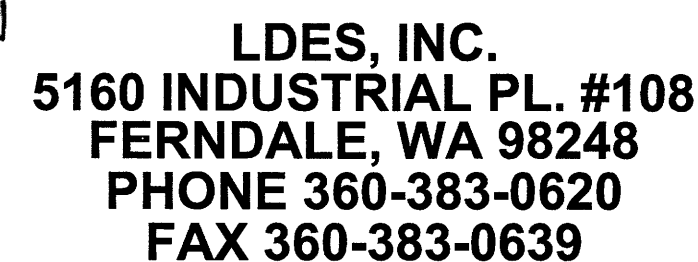
OF 18

RECORD DRAWING

00708.008 1/12/2021 TO



- 1) ALL SSMH TO BE A MIN. 48" DIAMETER.
- 2) SSMH IF TO BE A CUT IN MANHOLE.
STUDIED STRUCTURE TO BE A PRE-EXISTING STRUCTURE.
CUT-IN TO THE EXISTING 8" VC SANITARY SEWER
MANLINE WITH DOUBLE BELT COUPLER CONNECTIONS.
WAX ADAPTERS ARE ALLOWED WHEN EXISTING PIPE
MATERIAL IS MORE THAN PVC.
- 3) LOTS 1 THROUGH 8 MIGHT REQUIRE AN INDIVIDUAL
PUMP TO CONVEY SEWAGE TO THE SANITARY SEWER SUB/MAN IN
THE EVENT THAT BASEMENTS ARE CONSTRUCTED.
- 4) SEWER BYPASS PLAN SHALL BE SUBMITTED TO THE CITY FOR REVIEW
AND APPROVAL PRIOR TO SCHEDULING IN STREET SEWER WORK AND
CONNECTION.
- 5) PLAN FOR SEWER CONNECTION TO THE EXISTING VC SEWER MAIN SHALL BE
SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO SCHEDULING IN
STREET SEWER WORK AND CONNECTION.



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JAN 11 2021

BY Ray Hough FOR Kevin
CITY OF FERNALE
PUBLIC WORKS DEPARTMENT Reza

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OF 18

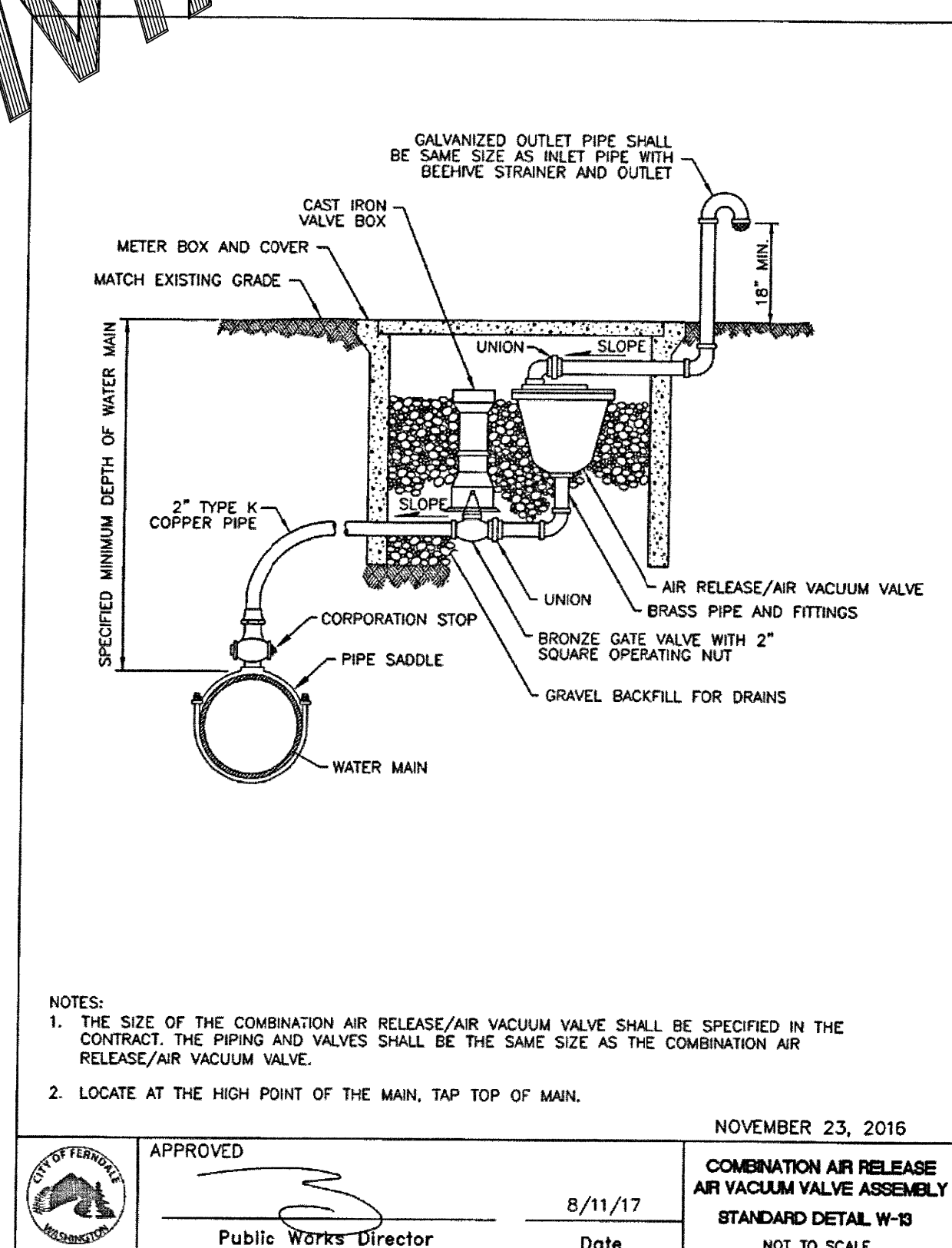
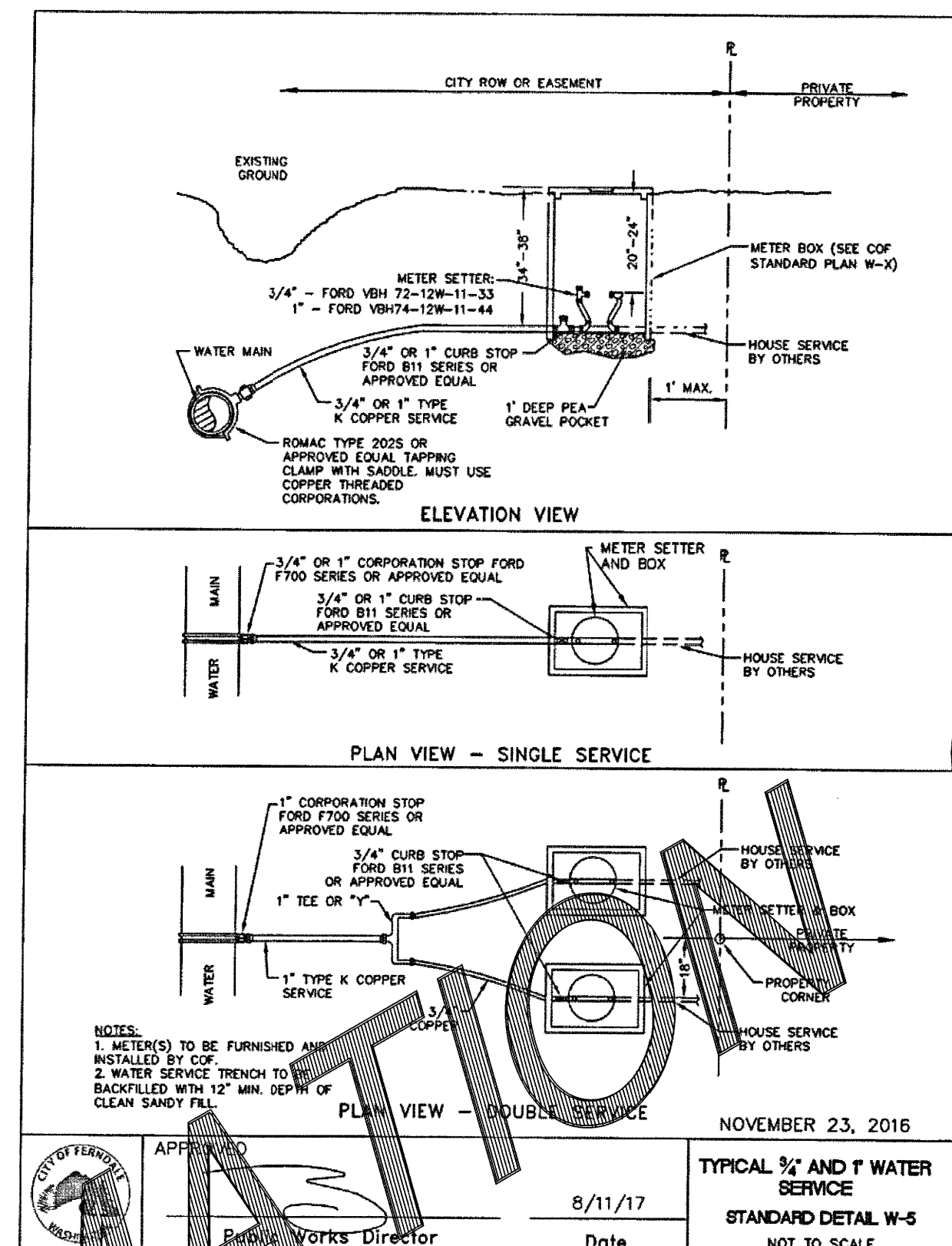


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BY *[Signature]* Kevin
CITY OF FERRDALE
PUBLIC WORKS DEPARTMENT 12012

SHEET
12
OF **18**

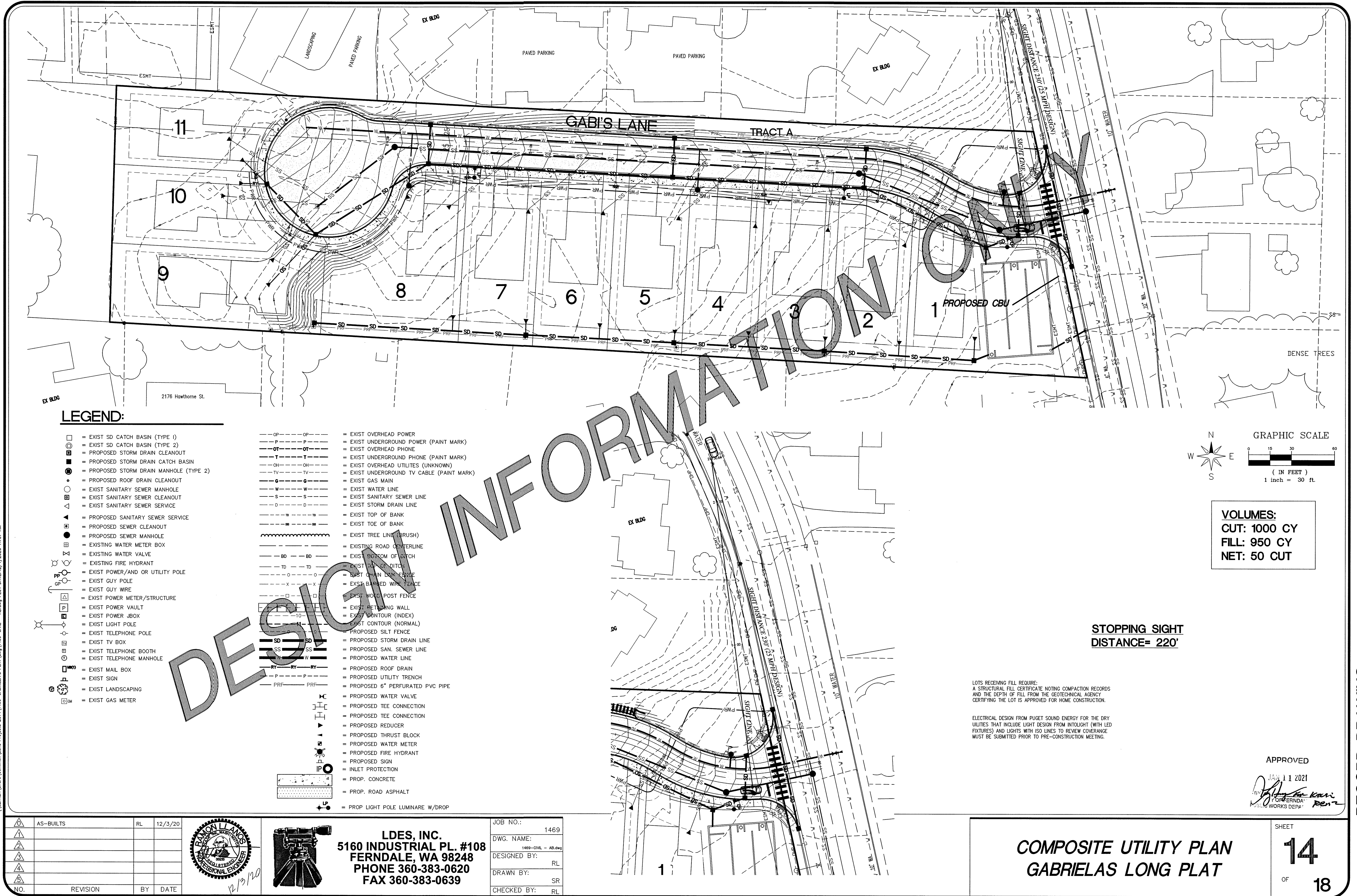


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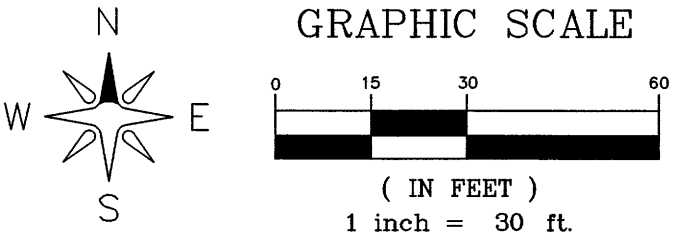
OF 18

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LEGEND:

- EXIST SD CATCH BASIN (TYPE 1)
- EXIST SD CATCH BASIN (TYPE 2)
- PROPOSED STORM DRAIN CLEANOUT
- PROPOSED STORM DRAIN CATCH BASIN
- PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- PROPOSED ROOF DRAIN CLEANOUT
- EXIST SANITARY SEWER MANHOLE
- EXIST SANITARY SEWER CLEANOUT
- EXIST SANITARY SEWER SERVICE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED SEWER CLEANOUT
- PROPOSED SEWER MANHOLE
- EXISTING WATER METER BOX
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXIST POWER/AND OR UTILITY POLE
- EXIST GUY POLE
- EXIST GUY WIRE
- EXIST POWER METER/STRUCTURE
- EXIST POWER VAULT
- EXIST POWER JBOX
- EXIST LIGHT POLE
- EXIST TELEPHONE POLE
- EXIST TV BOX
- EXIST TELEPHONE BOOTH
- EXIST TELEPHONE MANHOLE
- EXIST MAIL BOX
- EXIST SIGN
- EXIST LANDSCAPING
- EXIST GAS METER
- EXIST OVERHEAD POWER
- EXIST UNDERGROUND POWER (PAINT MARK)
- EXIST OVERHEAD PHONE
- EXIST UNDERGROUND UTILITIES (UNKNOWN)
- EXIST UNDERGROUND TV CABLE (PAINT MARK)
- EXIST GAS MAIN
- EXIST WATER LINE
- EXIST SANITARY SEWER LINE
- EXIST STORM DRAIN LINE
- EXIST TOP OF BANK
- EXIST TOE OF BANK
- EXIST TREE LINE (BRUSH)
- EXISTING ROAD CENTERLINE
- EXIST BOTTOM OF DITCH
- EXIST DRAIN DITCH
- EXIST GUY WIRE
- EXIST BARRIERS
- EXIST WOOD POST FENCE
- EXIST RETAINING WALL
- EXIST BOUNDARY (INDEX)
- EXIST CONTOUR (NORMAL)
- PROPOSED SILT FENCE
- PROPOSED STORM DRAIN LINE
- PROPOSED SAN. SEWER LINE
- PROPOSED WATER LINE
- PROPOSED ROOF DRAIN
- PROPOSED UTILITY TRENCH
- PROPOSED 6" PERFORATED PVC PIPE
- PROPOSED WATER VALVE
- PROPOSED TEE CONNECTION
- PROPOSED REDUCER
- PROPOSED THRUST BLOCK
- PROPOSED WATER METER
- PROPOSED FIRE HYDRANT
- PROPOSED SIGN
- INLET PROTECTION
- PROP. CONCRETE
- PROP. ROAD ASPHALT
- PROP LIGHT POLE LUMINAIRE W/DROP



VOLUMES:
CUT: 1000 CY
FILL: 950 CY
NET: 50 CUT

STOPPING SIGHT
DISTANCE= 220'

LOTS RECEIVING FILL REQUIRE:
A STRUCTURAL FILL CERTIFICATE NOTING COMPACTION RECORDS
AND THE DEPTH OF FILL FROM THE GEOTECHNICAL AGENCY
CERTIFYING THE LOT IS APPROVED FOR HOME CONSTRUCTION.

ELECTRICAL DESIGN FROM PUOET SOUND ENERGY FOR THE DRY
UTILITIES THAT INCLUDE LIGHT DESIGN FROM INTOUGHT (WITH LED
FIXTURES) AND LIGHTS WITH ISO LINES TO REVIEW COVERAGE
MUST BE SUBMITTED PRIOR TO PRE-CONSTRUCTION MEETING.

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JAN 11 2021

PROFESSIONAL ENGINEER
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14

OF

18

COMPOSITE UTILITY PLAN
GABRIELAS LONG PLAT

RECORD DRAWING

00708.014 1/12/2021 TO

\\SERVER\Share\Common\Land Projects 2014\469-GABRIELAS PLAT.dwg\1469-CIVIL - AB.dwg PLOT DATE:12/4/2020 11:57 AM

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 (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 FABRIC 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 FOLLOW:
 - PLACE 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.
12. 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 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 1-107.23 - TRAFFIC CONTROL SHALL APPLY.
13. 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.
14. 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 POND.
 - 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 "ROE PACK" OR 8 INCHES WITH HAND-OPERATED COMPACTION."
- OPEN CUTTING OF EXISTING ROADWAYS IS ONLY ALLOWED AS APPROVED AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE 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.

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.
- UNSATURABLE MATERIAL FOUND AND NOT FIT FOR USE AS A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL.
- THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING.

BASE COURSES & CRUSHED SURFACING

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

STORM DRAINAGE

- THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:

CATCH BASINS TYPE 1, 1L OR 2	WSDOT STD. DETAILS B-5-20-02, B-5-40-02 OR B-10-20-01
"RESIDENTIAL SERVICE LINE"	COFSD ST-16 (CITY OF FERNDALE STD DETAIL)
"CATCH BASINS"	COFSD ST-11, ST-2, ST-3 (CITY OF FERNDALE STD DETAIL)
- STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE POLYVINYL CHLORIDE PIPE (PVC) UNLESS APPROVED BY THE CITY OF FERNDALE; 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 IN IS 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 SHALL VARY WITH THE TRUCK 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 STREAM OR OFF-SITE.
- STORMWATER SYSTEM
- POSITIVE LOT DRAINS PER STANDARD DETAIL ST-16.

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
WATER SERVICE	COFSD W-5
- ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTION 7-09.3(2) AND THE MOST RECENT VERSION OF WSDOT STANDARD SPECIFICATIONS.
- ALL WATER MAIN PIPE SHALL BE DUCTILE IRON, MINIMUM THICKNESS CLASS 50, PER AWWA STANDARD C104-71, 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(2) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRE-CAST BLOCKS ARE ALLOWED.
- CONNECTIONS TO EXISTING WATER MAINS - THE CONTRACTOR SHALL 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(2) 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 HYDROSTATIC TESTING 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 AND 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 TO 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 FLANGED OR M.J. JOINTS. VALVE MARKERS SHALL BE LOCATED OUTSIDE OF PAVEMENT SECTIONS.
- WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE COFSD W-5.
- FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO 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 EITHER IOWA OR M.H. 929T HYDRANTS.
 - FIRE HYDRANTS SHALL HAVE THE STORZ PORT FACING THE REQUIRED ACCESS AND THE BASE FLANGE OF THE HYDRANT MUST NOT VARY MORE THAN 1 FOOT IN ELEVATION FROM THE GRADE LEVEL OF THE REQUIRED ACCESS. THE LOWEST STEM SHALL BE A MINIMUM OF 14" ABOVE THE GROUND.
 - 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 & R-9A
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(2B).
- 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 SPECIFICATION, SECTION 6-04 AND CITY OF FERNDALE STANDARDS, DRAWING R-9 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 UNLITELY OF 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. AIR-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 SLOD PLANE PER DIMENSIONS SHOWN ON THE PLANS, AND INSTALL A MINIMUM 2-FOOT WIDE PETROPAK 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 DOWN POINT OF THE CURB FLOW LINE AND TO THE LOCATIONS, DIMENSIONS, AND DETAILS AS SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER AND CITY STANDARDS, DRAWING NO. R-12.
- TRENCH EXCAVATIONS, BEDDING AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-05.
- STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 9-03.9(3). MATERIAL SHALL BE MANHOLE SURE-TIGHT 477 PIPE OR CITY APPROVED EQUAL. LOT'S STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER WSDOT STANDARD SPECIFICATION, SECTION 9-03.9(5).
- PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSDOT STANDARD SPECIFICATION 7-01.3(2).

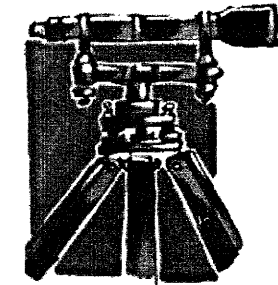
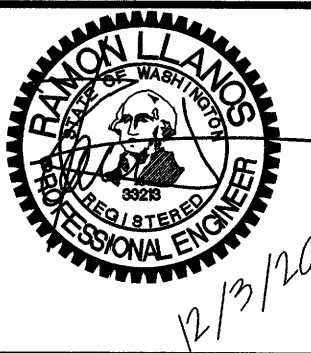
SANITARY SEWER SYSTEMS

- 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 (SS-35) CONFORMING TO THE PROVISIONS OF ASTM 2466 AND INSTALLED TO CITY SPECIFICATIONS.
- SANITARY SEWER PIPE BEDDING SHALL BE FEA GRAVEL PER COFSD SS-1. TRENCHES SHALL BE BACKFILLED WITH FEA GRAVEL 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 DETAIL 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 DETAIL SS-6, SS-7, SS-13, EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".
- CONTRACTOR SHALL EXTEND SEWER STUBS 5 FEET BEYOND UTILITY CORRIDOR OR 10 FEET BEYOND RIGHT-OF-WAY LINE.
- EACH SIDE SEWER STUB SHALL BE CAPSED WITH WATER-TIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" PAINTED GREEN AND STENCILED WITH THE WORK NUMBER AND THE PIPE IDENT LOCATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

POT HOULING NOTE:

POTHOULING UTILITIES IS REQUIRED PRIOR TO CONSTRUCTION OF ANY ROADWAY THAT CITY UTILITY SEPARATION REQUIREMENTS CAN BE MET. AS-BUILT INFORMATION ON CITY'S DATA BASE IS NOT ALWAYS ACCURATE. THE CITY WILL NOT BE HELD RESPONSIBLE FOR CONTRACTOR'S NEGLIGENCE IN THIS REGARD THAT MIGHT RESULT IN HIGHER CONSTRUCTION COST OR LIMITED OPTION FOR MODIFICATION.

AS-BUILTS	RL	12/3/20
NO.	REVISION	BY DATE



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

JOB NO.:	1469
DWG. NAME:	1469-CIVIL - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	SR
CHECKED BY:	RL

APPROVED

JAN 11 2021

[Signature]
GABRIELAS LONG
PUBLIC WORKS DEPARTMENT

COF GENERAL NOTES
GABRIELAS LONG PLAT

SHEET

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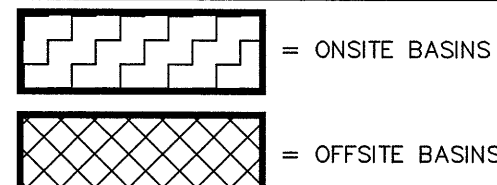
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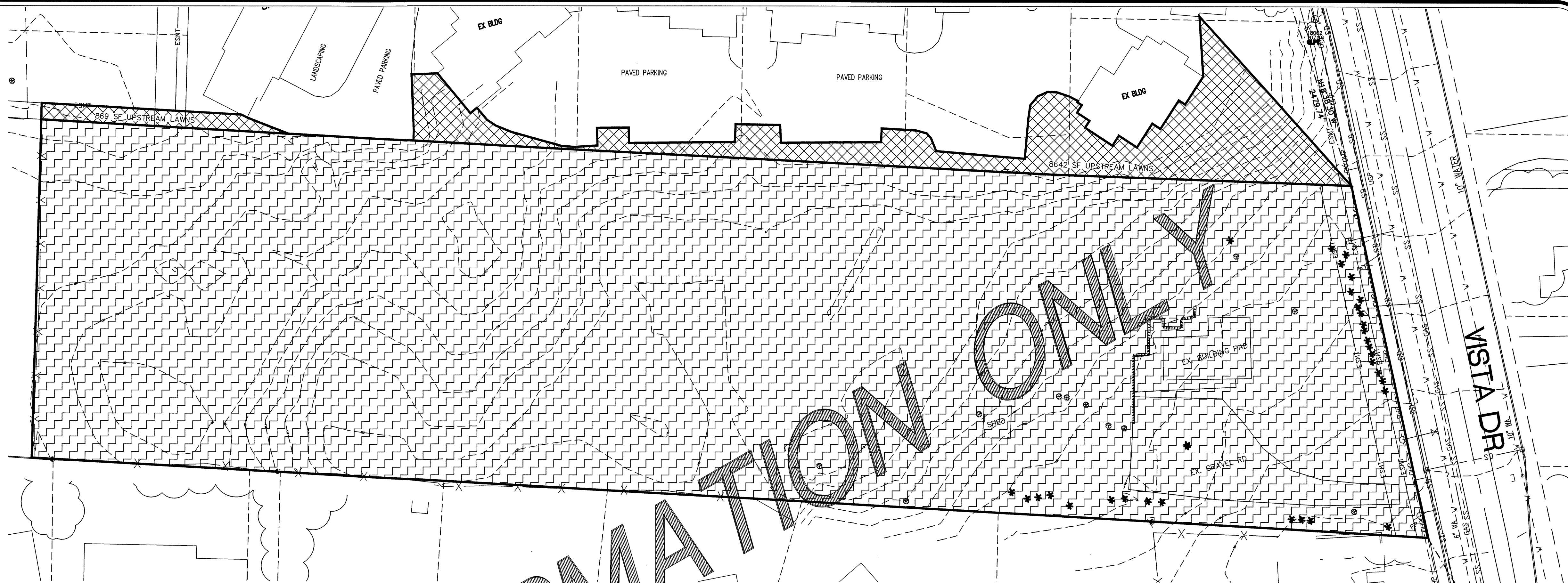
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PRE DEVELOPMENT BASINS

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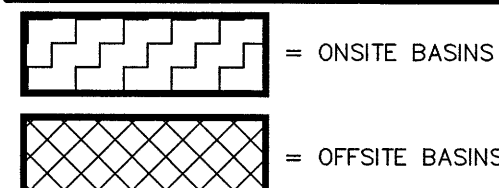


9,511.09 SF UPSTREAM LAWNS (PERVIOUS)
109,670.48 SF ON-SITE
5,540.62 SF ON-SITE EX. IMPERVIOUS
104,129.86 SF ON-SITE UNDISTURBED (FORESTED)
119,181.57 SF TOTAL BASIN
5,540.62 SF ON-SITE EX. IMPERVIOUS
104,129.86 SF ON-SITE UNDISTURBED (FORESTED)
9,511.09 SF UPSTREAM LAWNS (PERVIOUS)



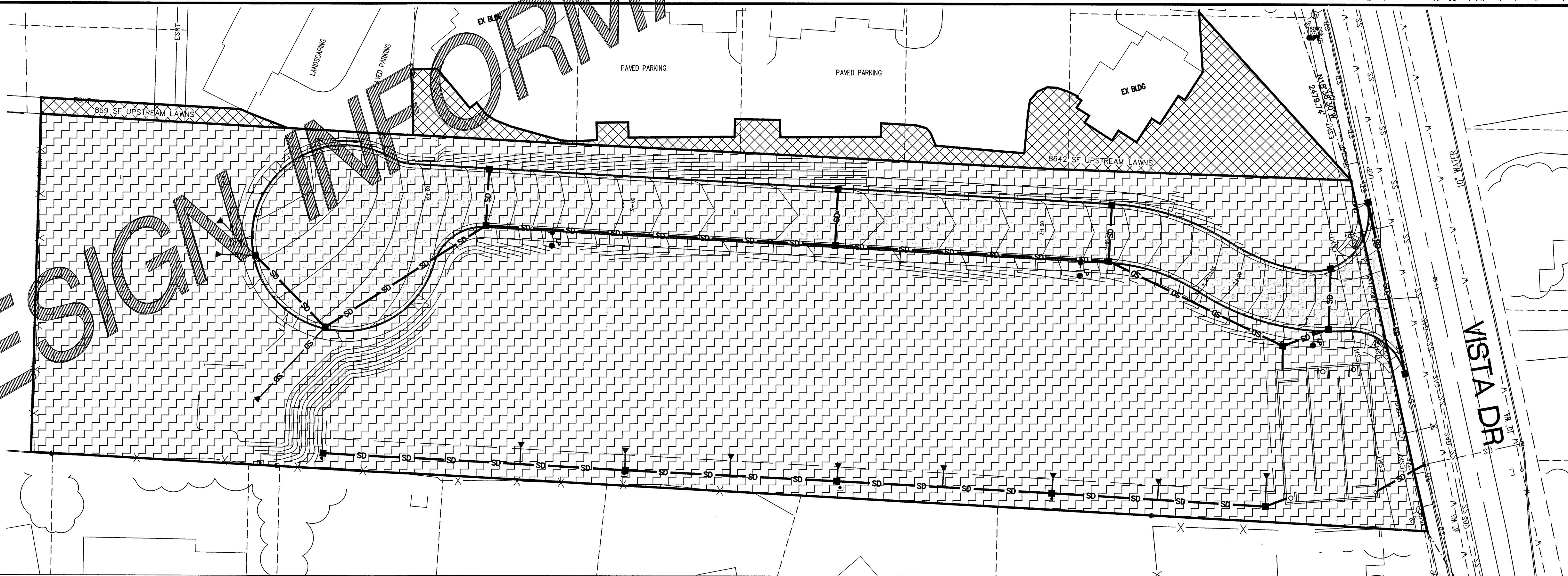
POST DEVELOPMENT BASINS

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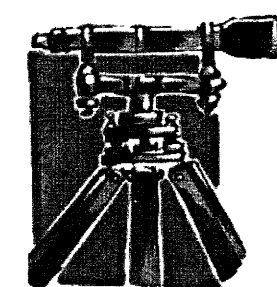


9,511.09 SF UPSTREAM LAWNS (PERVIOUS)
109,670.48 SF ON-SITE
24,357.34 SF ON-SITE IMPERVIOUS - ROW INCL. DRIVEWAYS (528 SF FOR CIV)
1,756.00 SF ON-SITE LAWNS ROW
8,377.60 SF ON-SITE LAWNS TRACT A
34,319.71 SF ON-SITE IMPERVIOUS LOTS 1-11
40,859.83 SF ON-SITE LAWNS LOTS 1-11

119,181.57 SF TOTAL BASIN (ON-SITE & OFF-SITE)
58,677.05 SF TOTAL ON-SITE AND OFF-SITE IMPERVIOUS
60,504.52 SF TOTAL ON-SITE AND OFF-SITE PERVIOUS



NO.	REVISION	BY	DATE
1	AS-BUILTS	RL	12/3/20
2			
3			
4			



LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
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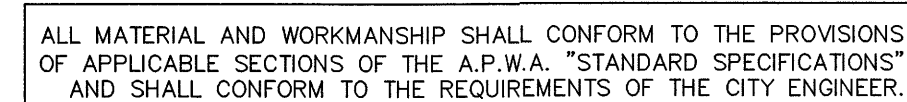
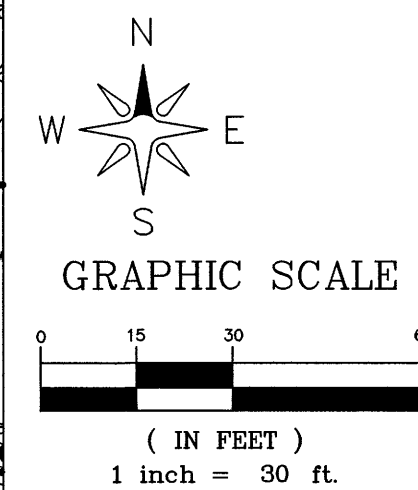
JAN 11 2021
BY: *[Signature]*
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT

**PRE AND POST
DEVELOPMENT BASINS**
GABRIELAS LONG PLAT

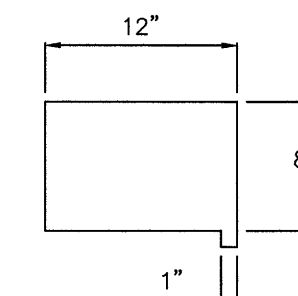
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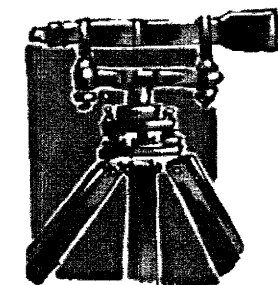
00708.016 1/12/2021 TO



**TYPICAL ROAD X-SECTION
NTS**



BLOCK DETAIL



JOB NO.:	1469
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	RL
CHECKED BY:	RL


RI

JAN 11 2021
BY *[Signature]*
CITY OF VERNDALE
PUBLIC WORKS DEPARTMENT

GABRIELAS LONG PLAT

17

OF 18



ANCHOR
BUILD SOMETHING BEAUTIFUL

Diamond Pro®
RETAINING WALL SYSTEMS

INSTALLATION INSTRUCTIONS

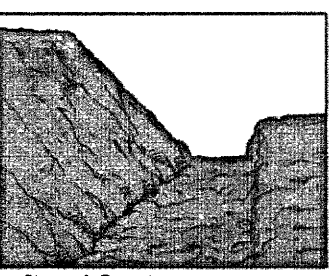


Diagram 1 - Excavation

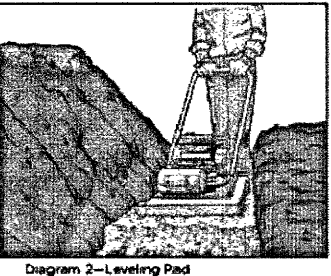


Diagram 2 - Leveling Pad

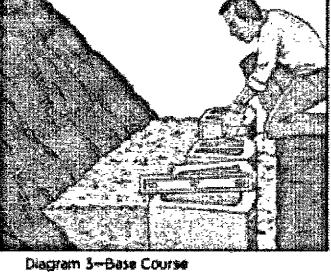


Diagram 3 - Base Course

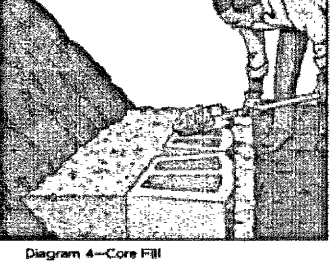


Diagram 4 - Core Fill

- 1 STAKE OUT THE WALL**

 - Have a surveyor stake out the wall's placement. Verify the locations with the project supervisor.
- 2 EXCAVATION**

 - Excavate for the leveling pad to the lines and grades shown on the approved plans, and excavate enough soil from behind the wall for the geosynthetic reinforcement material.
 - The trench for the leveling pad should be at least 2 feet wide and a minimum of 1 foot 2 inches deep, enough to bury the first course below grade, plus 6 inches for the leveling pad. Ensure that a minimum of 8 inches or 10 percent of the total wall height (whichever is greater) is below grade. See [Diagram 1](#).
- 3 LEVELING PAD**

 - An aggregate leveling pad is made of compactable base material of 1/4-inch minus with fines.
 - If the planned grade along the wall front will change elevation, the leveling pad may be stepped up by the height of the block (typically 8-inch increments) to match the grade changes. Always start at the lowest level and work upward.
 - Compact the aggregate, making sure it's level front to back and side to side. Mist lightly with water before compaction, if needed. See [Diagram 2](#).
- 4 BASE COURSE**

 - This is the most important step in the installation process.
 - Begin laying block at the lowest elevation of the wall, whenever possible. Remove the rear lip of the blocks by tining with a tammer and chisel from the back so that the block will fit on the leveling pad.
 - Place first block and level, front to back and side to side; lay subsequent blocks in same manner.
 - Place the blocks side by side, flush against each other, and make sure the blocks are in full contact with the leveling pad. Level front to back and side to side.
 - Place soil in front of the base course and compact. Base course should be buried. Continue to fill and compact after each course is laid.

INSTALLATION INSTRUCTIONS

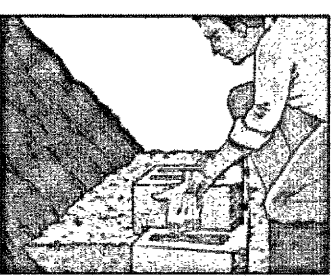


Diagram 5 - Next Course Construction

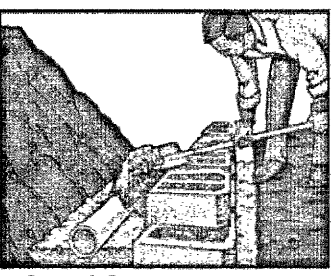


Diagram 6 - Drainage

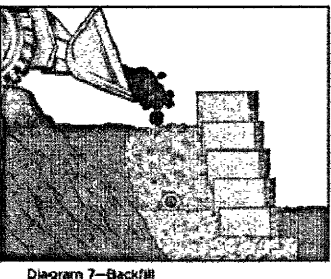


Diagram 7 - Backfill

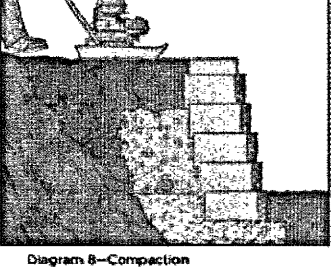


Diagram 8 - Compaction

- 7 COMPACTION**

 - Shovel the backfill soil behind the drainage aggregate and compact the backfill with a hand-operated compactor. Make sure the aggregate is level with or slightly below the top of the base course.
 - Continue to fill and compact after each course is laid. See [Diagram 8](#).
- 8 REINFORCEMENT (IF REQUIRED)**


 - Geosynthetic reinforcement is recommended for walls taller than 4 feet or walls situated in poor soils, supporting a driveway, etc.
 - Consult an engineer for design assistance.
 - Check the wall construction plan to determine which courses will need reinforcement. Clean any debris off the top layer of blocks. Measure and cut the reinforcement to the design length in the plans. The reinforcement has a design strength direction, which must be laid perpendicular to the wall.
 - Place the front edge of the material on the top course, 1 inch from the face of the block.
 - Apply the next course of blocks to secure it in place. To keep it from wrinkling, pull the reinforcement taut and pin the back edge in place with stakes or staples.
 - Add drainage aggregate behind the blocks; then add the backfill soil and compact it.
 - Correct placement ensures that you maximize the connection strength and keep the latter consistent. A minimum of 6 inches of backfill is required prior to operating vehicles on the reinforcement.
- 9 CAPPING A WALL**

 - Always start capping from the lowest elevation. If the wall elevation changes, caps can be stacked where the wall steps up.
 - Lay caps at the elevation change and work back toward the previous step up. Cut caps with a diamond-blade saw to fit, as needed.

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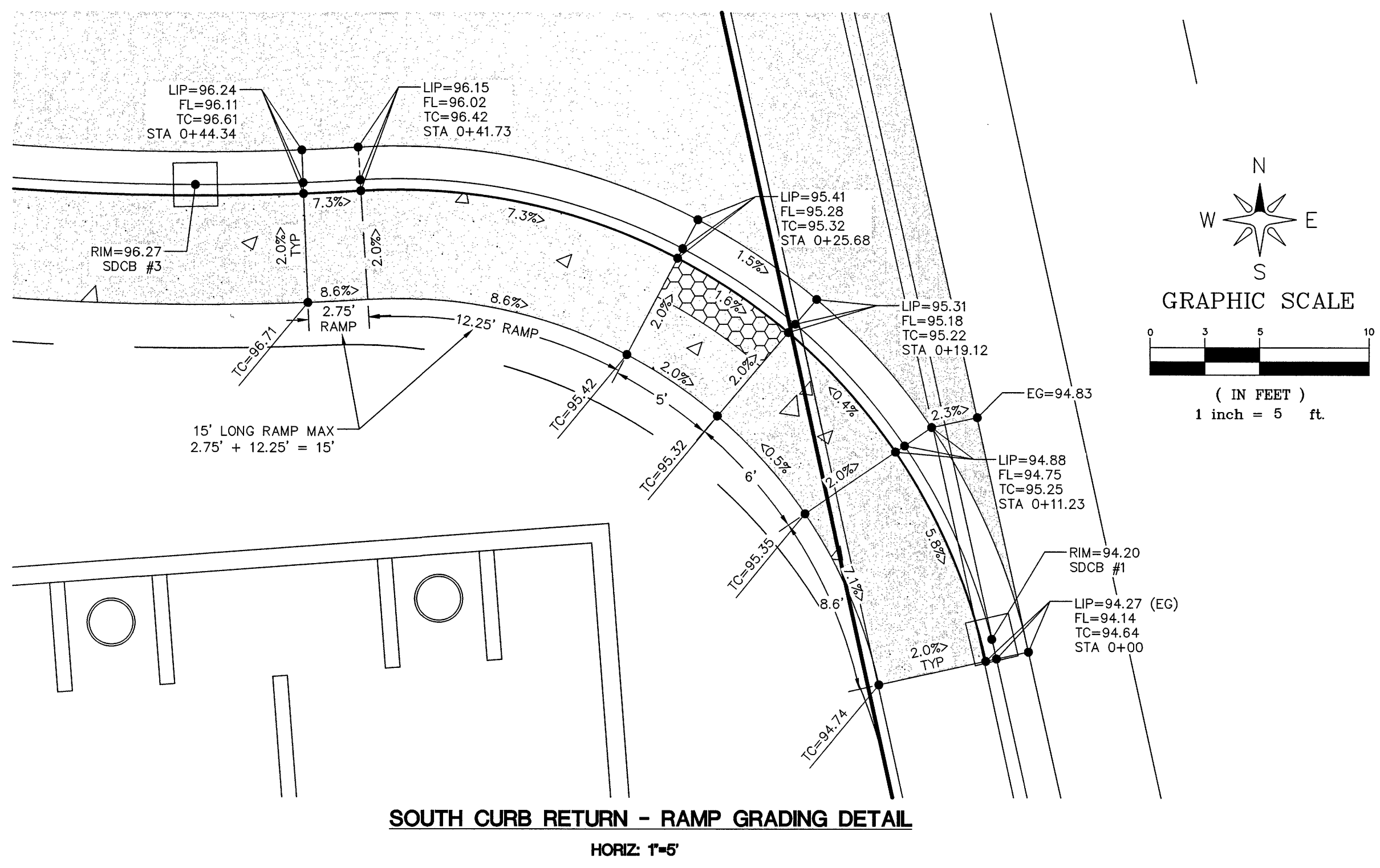
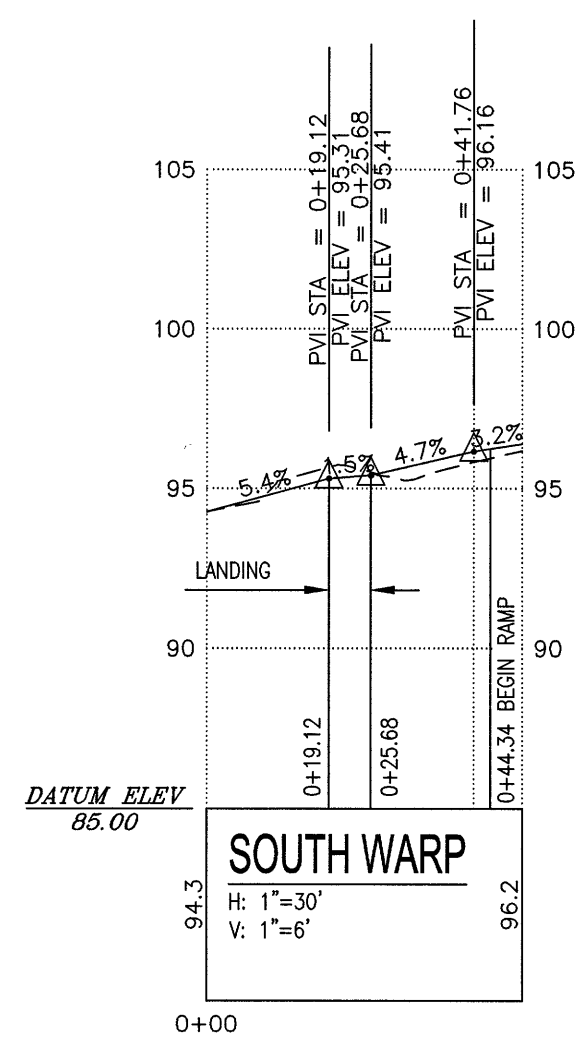
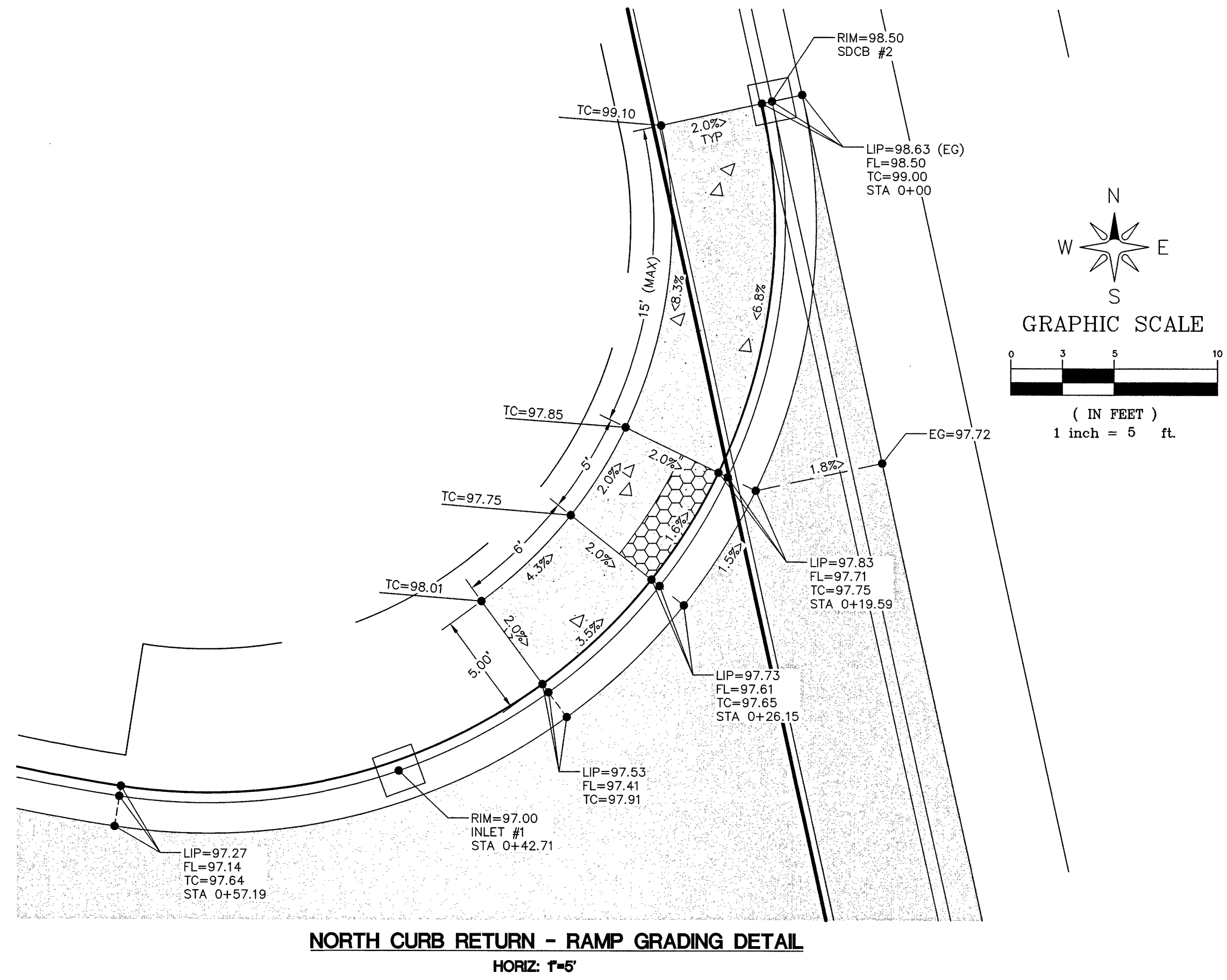
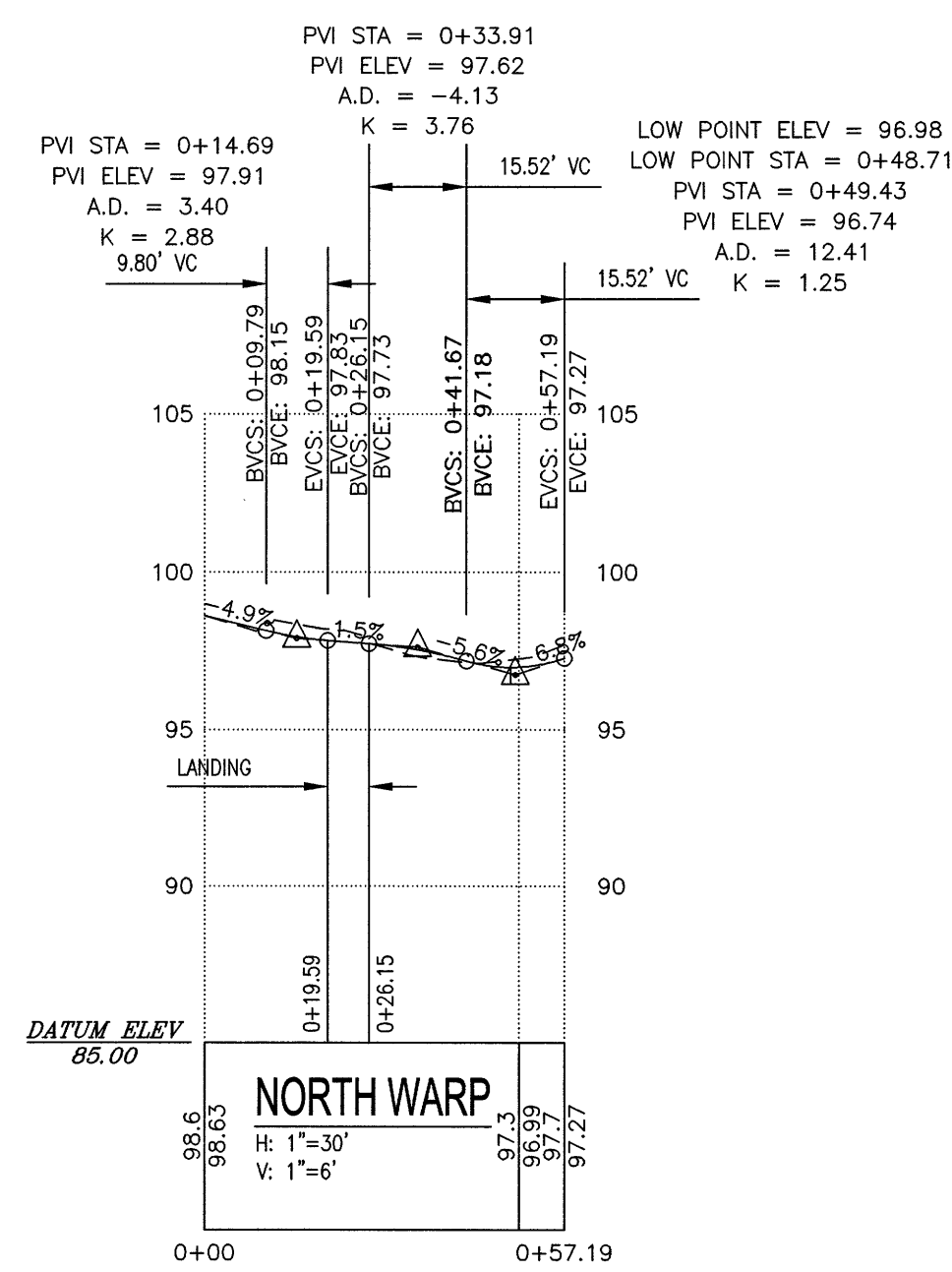
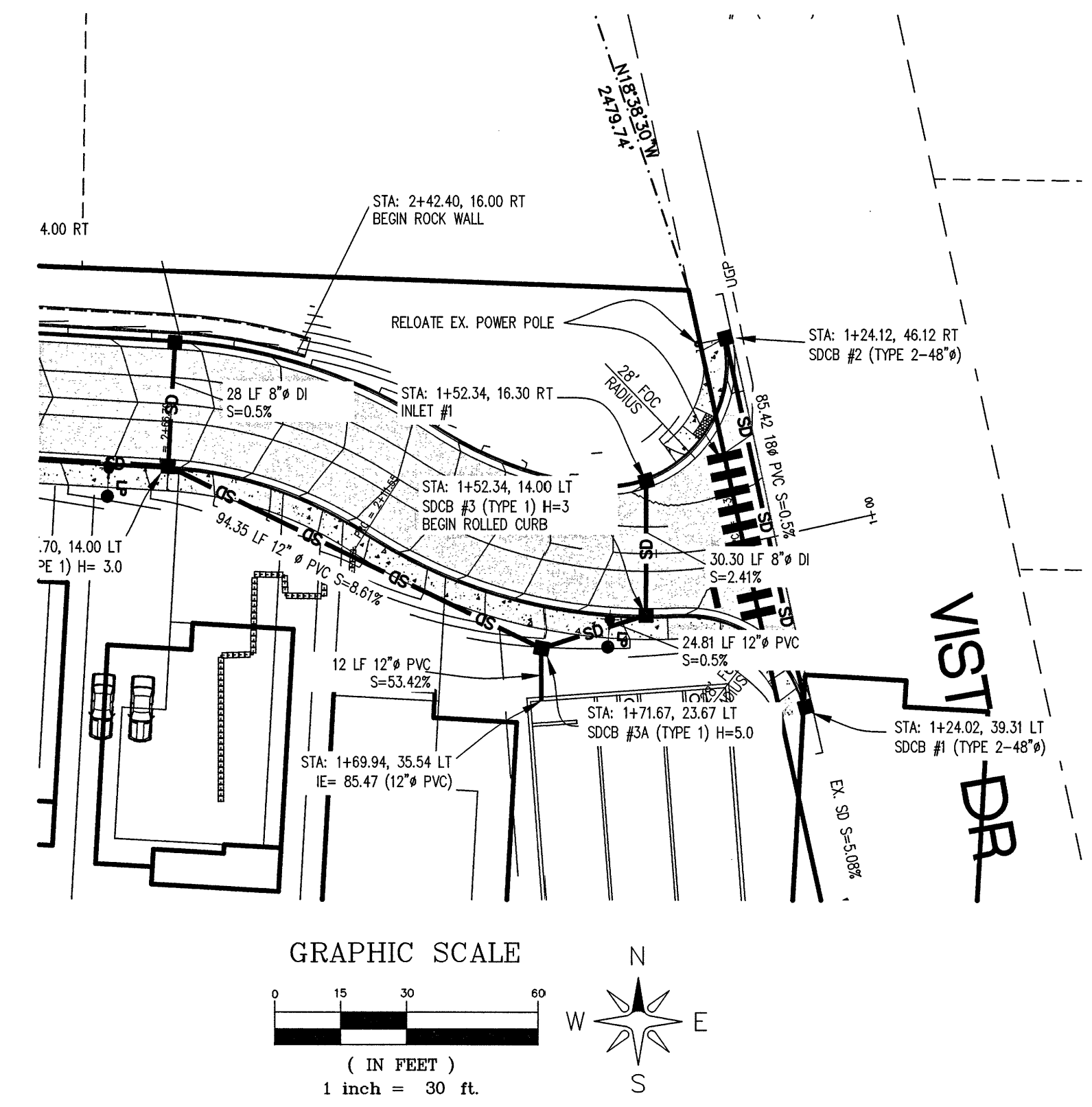
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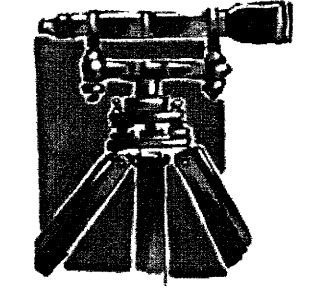
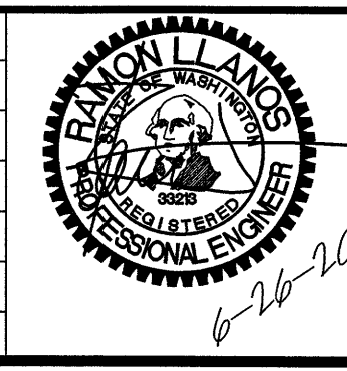


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JOB NO.:	1469
DWG. NAME:	1469-CIVIL-10 ft psc-vault.dwg
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DRAWN BY:	YC
CHECKED BY:	RL

APPROVED
JAN 11 2021
BY: *[Signature]*
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