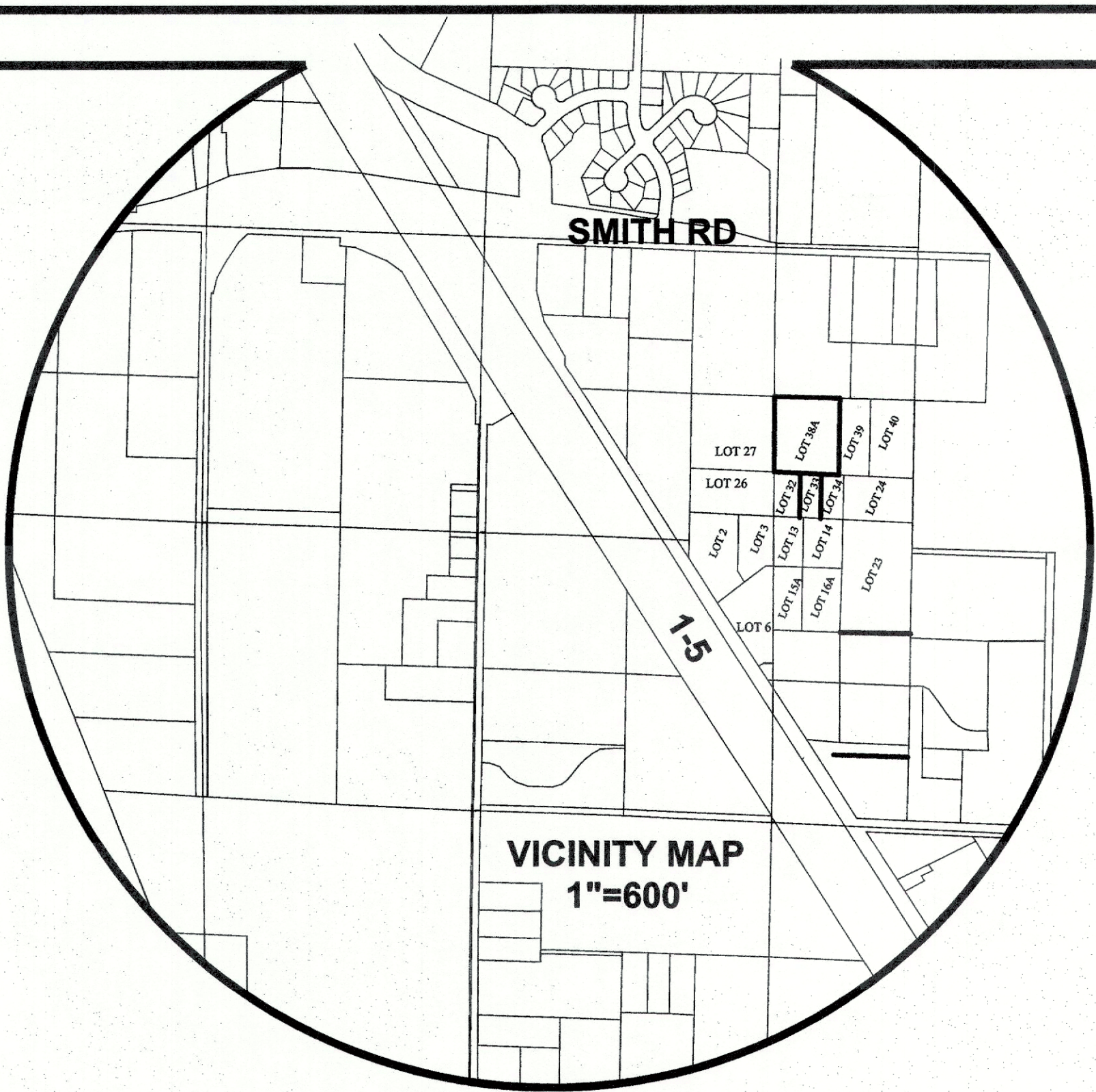


A PORTION OF THE NORTHEAST QUARTER OF SECTION 33, T39N, R2E, W.M.

PACIFIC INDUSTRIAL PARK

LOT 38A

RECORD DRAWINGS



INDEX TABLE

1. COVER SHEET
2. EXISTING CONDITIONS
3. EROSION CONTROL TESC NOTES & DETAILS
4. COMPOSITE UTILITY PLAN
5. SITE GRADING PLAN & ROAD SECTION
6. STORM DRAINAGE PLAN
- 6A. STORM DRAINAGE PLAN AND PROFILE
- 6B. STORM DRAINAGE PLAN AND PROFILE
7. SANITARY SEWER PLAN & PROFILE
- 7A. WATER DISTRIBUTION PLAN
8. SANITARY SEWER AND WATER DETAILS
9. CITY OF FERNDAL GENERAL REQUIREMENT NOTES & STORM DRAINAGE DETAILS

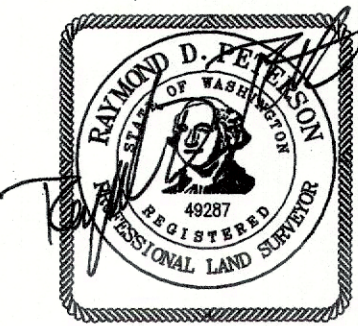
OWNER/APPLICANT
SYB HOLDINGS
CONTACT: SAM BOULOS
P.O. BOX 189
FERNDAL, WA 98248
(360) 312-8080

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

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



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: 11/23/20
RAMON LLANOS, P.E.



SURVEYOR'S CERTIFICATION
I CERTIFY THAT THE LOCATIONS, ELEVATIONS,
DEPTHS, AND AS-BUILT COMMENTS REFLECTING
MATERIALS ACTUALLY USED DURING CONSTRUCTION
AS DETERMINED BY ME OR UNDER MY DIRECT
SUPERVISION ON THIS
DATE: 11/23/20
RAYMOND D. PETERSON, P.L.S.

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

LEGEND:

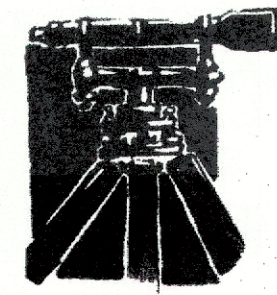
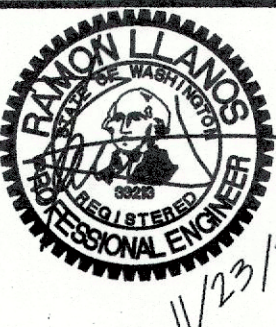
- PROPERTY CORNER
- EXIST SD CATCH BASIN (TYPE 1)
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- PROPOSED WATER METER
- PROPOSED FIRE HYDRANT
- PROPOSED PARKING AREA ASPHALT
- EXIST ASPHALT
- PROPOSED LANDSCAPE
- PROPOSED FENCE
- PROPOSED GATE

[AB] = AS-BUILT INFORMATION

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 LOCATE CENTER AT
LEAST 48 HOURS BEFORE CONSTRUCTION

ABBREVIATIONS:	
AB	AS-BUILT
BOW	BACK OF WALK
BOW CO	BACK OF WALK CLEAN OUT
BW	BOTTOM OF WALL
COF	CITY OF FERNDAL
C	CENTERLINE
CONC	CONCRETE
CPDP	CORRUGATED PLASTIC DRAIN PIPE
CSTC	CRUSHED SURFACING TOP COURSE
DI	DUCTILE IRON
DOE	DEPARTMENT OF ECOLOGY
DTL	DETAIL
EG	EXISTING GROUND
EL	ELEVATION
EXST	EXISTING
FF	FINISH FLOOR
FG	FINISH GROUND
FM	FORCE MAIN
FND	FOUND
G.V.	GATE VALVE
HYD	FIRE HYDRANT
IE	INVERT ELEVATION
LF	LINEAR FEET
LT	LEFT
MIN.	MINIMUM
ONHM	ORDINARY HIGH WATER MARK
PERF	PERFORATED PIPE
PERM.	PERMANENT
PIP	PROPOSED
PVC	POLYVINYL CHLORIDE PIPE
RD	ROAD
RT	RIGHT
RY	ROOF AND YARD
SD	STORM DRAIN
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEAN OUT
SF	SQUARE FEET
SSMH	SANITARY SEWER MANHOLE
STA	STATION
TA	TOP OF ASPHALT
TC	TOP OF CONCRETE
TEMP.	TEMPORARY
TW	TOP OF WALL
WA	WATER

NO.	REVISION	BY	DATE
1	AS-BUILT	RL	11/23/20



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

JOB NO.:	9019
DWG. NAME:	9019-LOT 27 37 38 - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	SR/EH
CHECKED BY:	

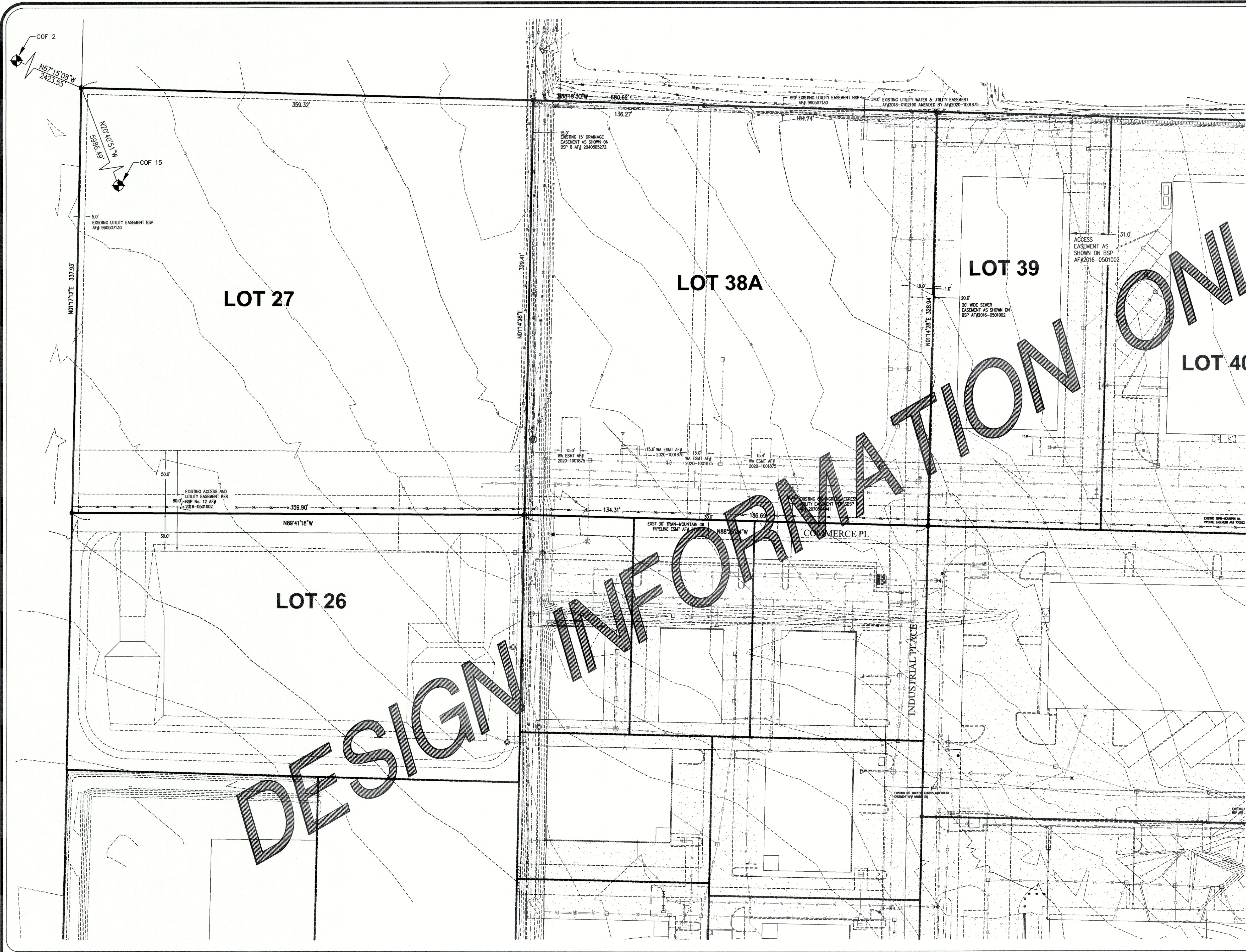
APPROVED
NOV 30 2020
BY: [Signature]
OF FERNDAL
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
COVER SHEET

SHEET
1
OF
9

RECORD DRAWING

\\SERVER\Share\Common\Land Projects 2009\9019-LOT 14-15.dwg\9019-LOT 27 37 38 - AB.dwg



EXISTING CONDITIONS

JOB NO. 9019

SECTION BREAKDOWN

SECTION 33, TOWNSHIP 39 NORTH, RANGE 2 EAST., W.M.

SCALE 1" = 500'

BEARINGS SHOWN FOR CITY OF FERNDAL

MONUMENT TIES REFERENCE THE CITY OF FERNDAL CO-ORDINATE

SYSTEM AND DO NOT CORRELATE WITH THE SECTION

BREAKDOWN OR ANY OTHER BEARINGS SHOWN ON THESE PLANS

GRAPHIC SCALE

(IN FEET)

1 inch = 20 ft.

LEGAL DESCRIPTION:

LOT 27 AS DELINEATED ON PACIFIC INDUSTRIAL PARK SPECIFIC BINDING SITE PLAN No. 9, ACCORDING TO THE PLAT THEREOF, RECORDED UNDER AF No. 2070504041 AND LOTS 37 AND 38 AS DELINEATED ON PACIFIC INDUSTRIAL PARK SPECIFIC BINDING SITE PLAN No. 12, ACCORDING TO THE PLAT THEREOF, UNDER AUDITOR'S FILE No. 2016-0501002, RECORDS OF WHATCOM COUNTY, WASHINGTON.

SURVEY NOTES:

1) DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTION.

2) EQUIPMENT USED: NIKON DT500: 00'01.5" ± 2 PPM, ± 2 MM

3) BASIS OF BEARINGS: PER SPECIFIC BINDING SITE PLAN No. 8 AF # 2040505272

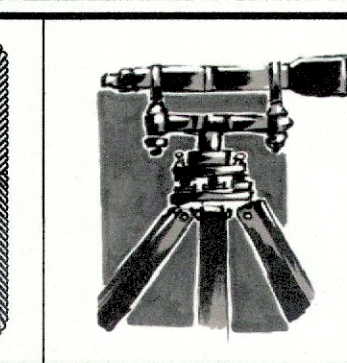
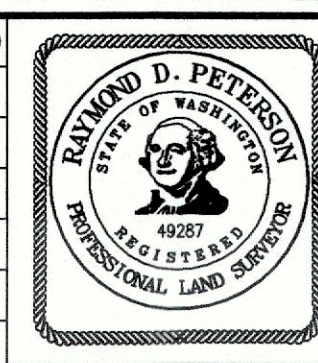
4) SURVEY WAS DONE ON OR ABOUT FEBRUARY 2012- FEBRUARY 2017.

5) HORIZONTAL DATUM:
BASED ON CITY OF FERNDAL CONTROL POINT NUMBERS 13 AND 14, THE STATE PLANE COORDINATE AT THE SOUTHWEST CORNER OF LOT 22 PER SPECIFIC BINDING SITE PLAN NO. 9 AF # 2070504041 IS:
NORTHING = 671496.57
EASTING = 1225433.46
THE BEARING ALONG THE WEST LINE OF LOT 23 HEREON IS N 01-14-38 E
SHOWN HEREON ARE PLAT BEARINGS FOR THE SAID LINE: N 01-14-28 E
VERTICAL DATUM:
BENCHMARK DERIVED FROM DAVID EVANS AND ASSOCIATES ORIGINAL BASE MAP CITY OF FERNDAL
EL= 66.15 (LDES POINT #2002)

6) CONTOUR INTERVALS ARE 1 FOOT AND ARE COMPUTER GENERATED FROM GROUND FIELD TOPOGRAPHY GATHERED FOR THIS SURVEY UTILIZING ELECTRONIC DATA COLLECTION.

7) UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON FIELD LOCATION OF THE SURFACE EVIDENCE OF EXISTING STRUCTURES. UNDERGROUND UTILITY LOCATION SERVICES WERE NOT PROVIDED FOR THIS TOPOGRAPHIC SURVEY AND THE UNDERGROUND ROUTING OF REPORTED BURIED UTILITIES HAS NOT BEEN VERIFIED OR CONFIRMED WITH THE UTILITY PURVEYOR. ADDITIONAL UTILITY LOCATIONS AND UNDERGROUND UTILITY LOCATION PAINT MAPPING WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

AS-BUILTS	RL	11/23/20
NO.	REVISION	BY DATE



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

JOB NO.: 9019
DWG. NAME: 9019-LOT 27 37 38 - AB.dwg
DESIGNED BY: RL
DRAWN BY: SR
CHECKED BY:

APPROVED

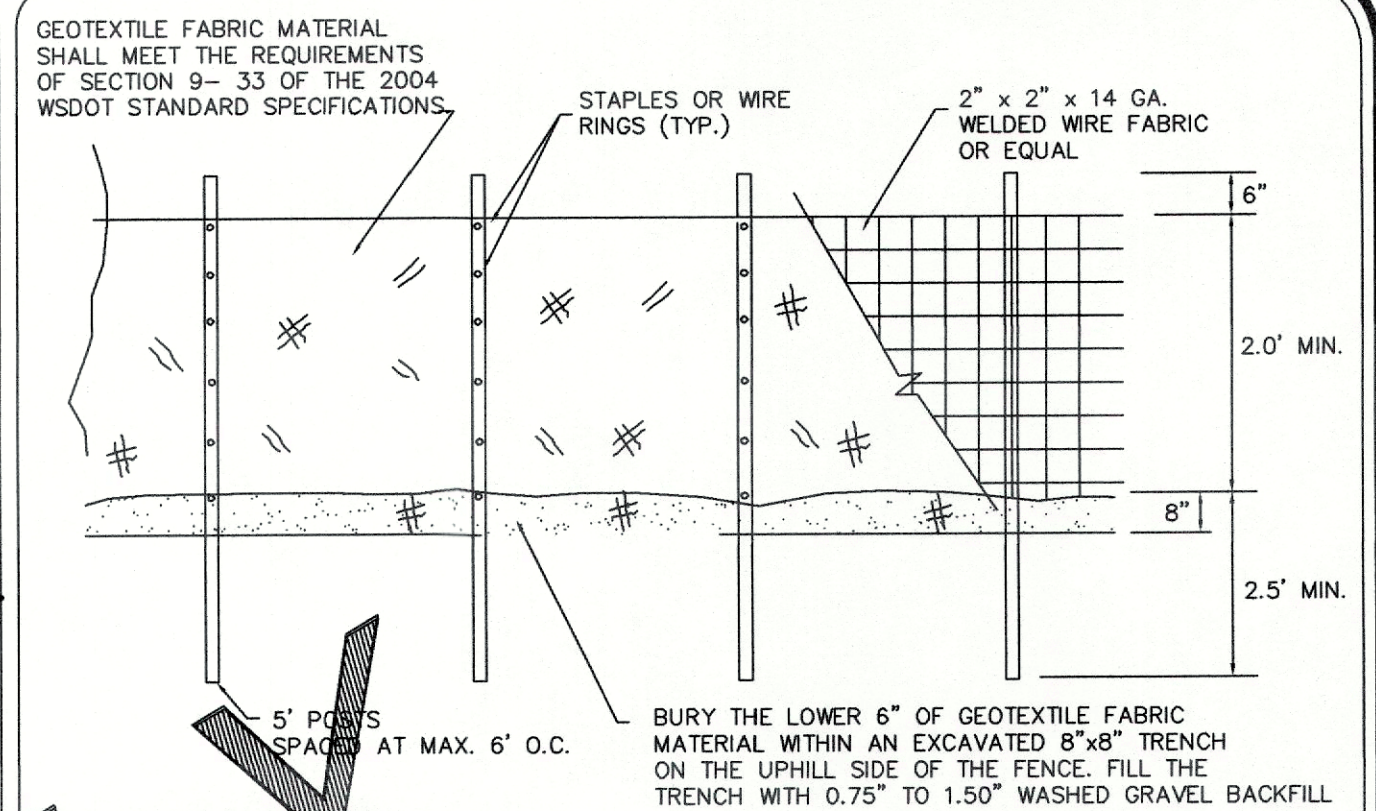
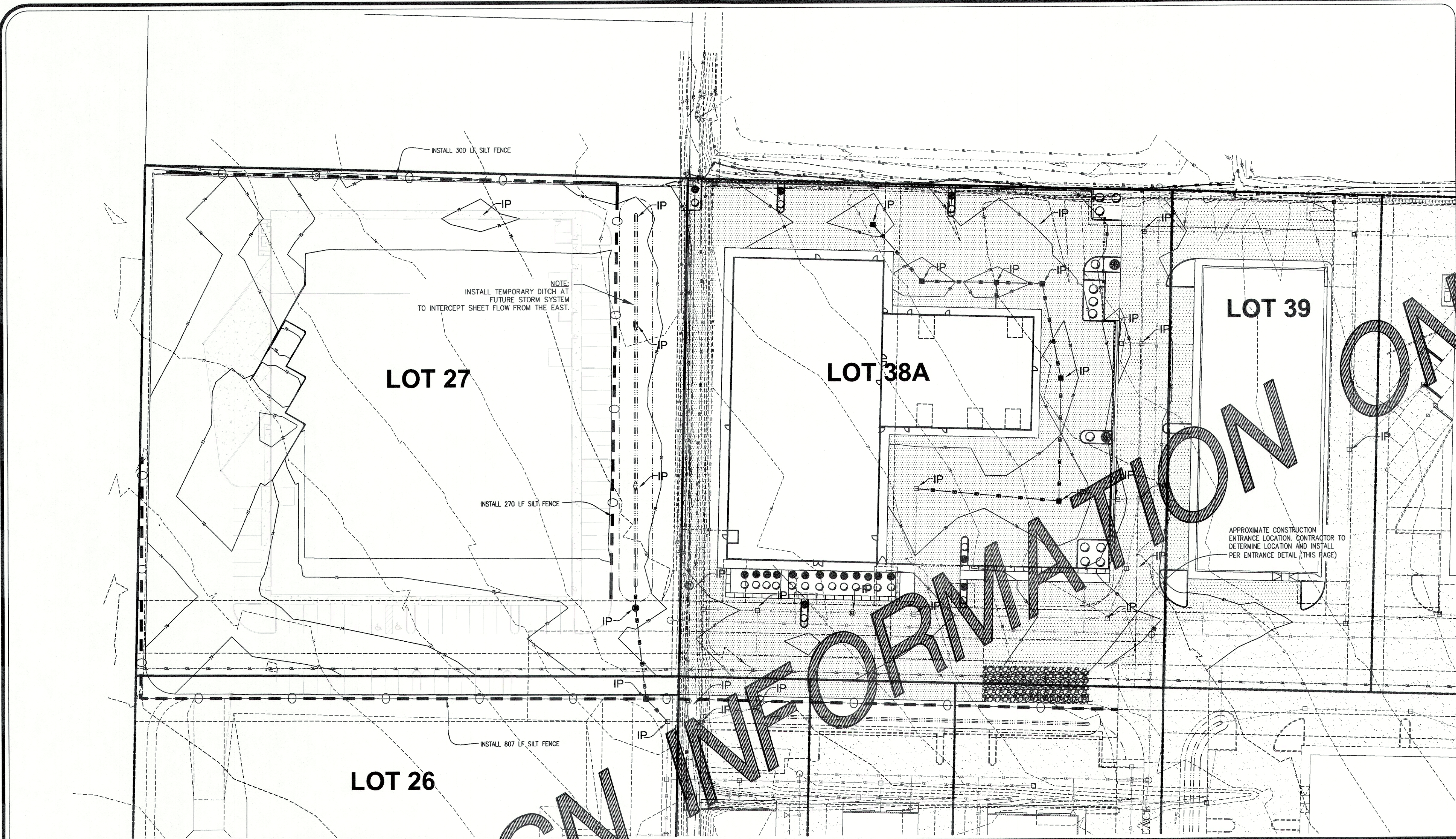
NOV 30 2020
BY *Raymond D. Peterson*
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
EXISTING CONDITIONS

SHEET
2
OF
9

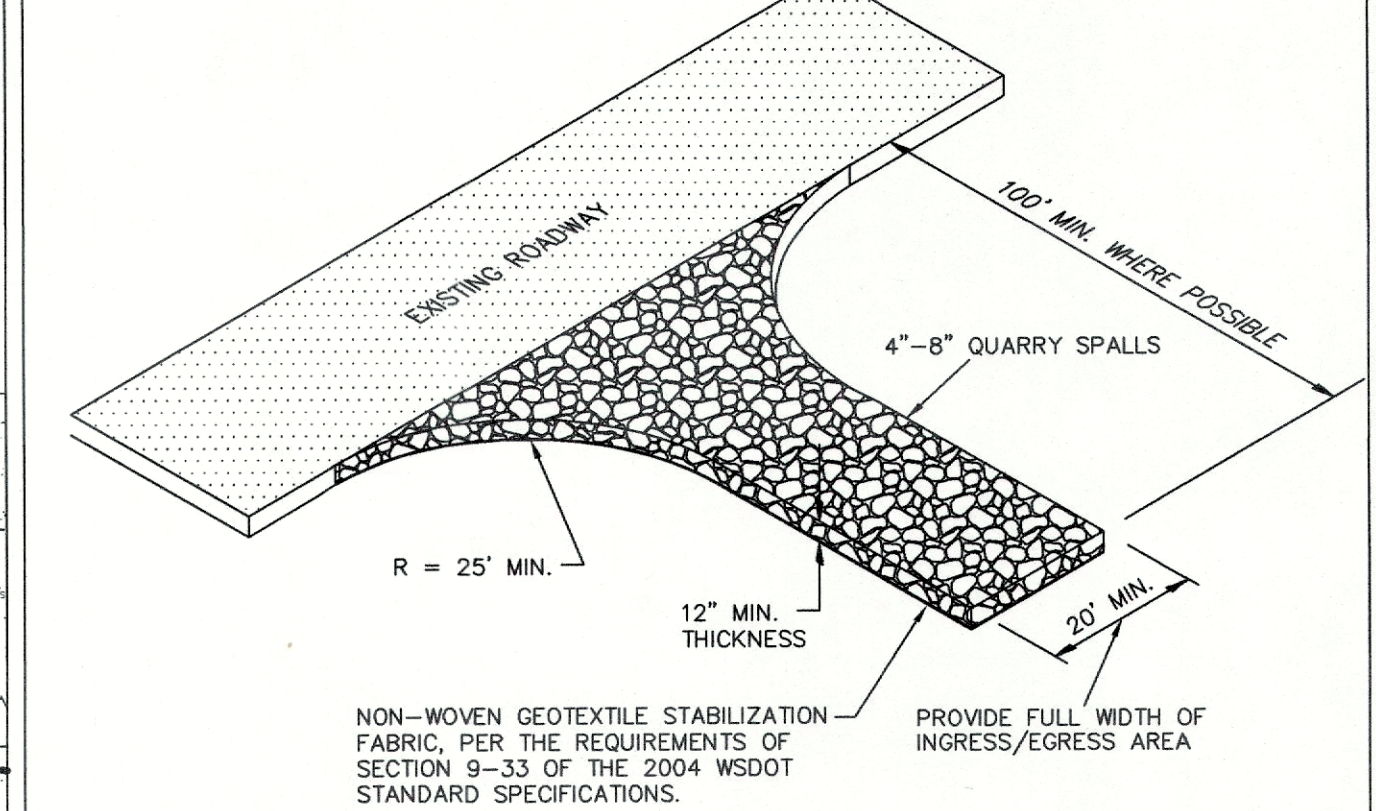
RECORD DRAWING

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

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



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

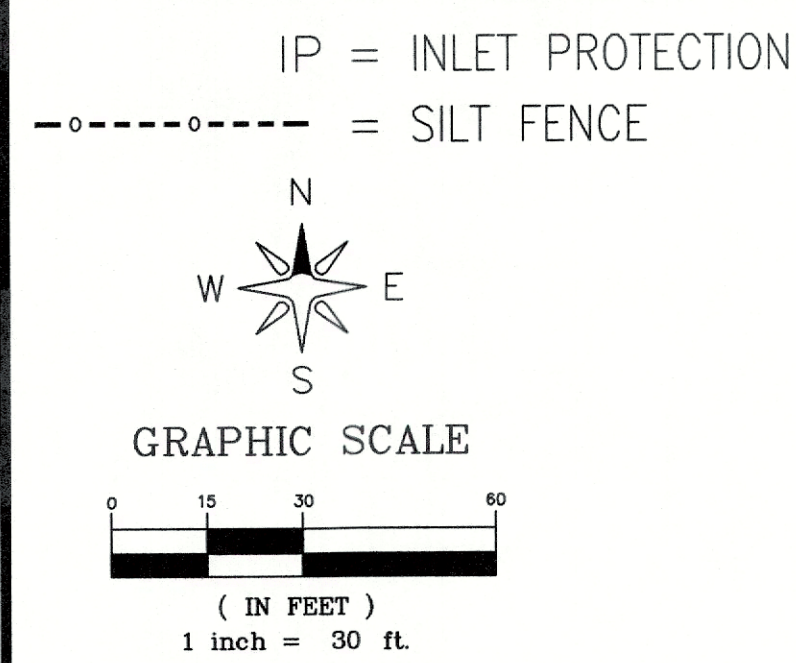
② QUARRY SPALL CONSTRUCTION ENTRANCE DETAIL not to scale

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

1. EROSION CONTROL METHODS AND MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 8-01 OF THE 2017 WSDOT/APWA STANDARD SPECIFICATIONS, THE REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, CURRENT EDITION, THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE PROJECT SWPPP AND THIS PLAN, WITH THE MOST EFFECTIVE REQUIREMENTS TAKING PRECEDENCE. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS FOR ALL MATERIALS AND EQUIPMENT USED.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT SILTY STORMWATER FROM EXITING THE SITE. IF SILT LADEN STORMWATER EXITS THE SITE, THE ENGINEER SHALL STOP WORK ON THE JOB. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WORK WITH THE PROJECT ENGINEER OR LOCAL JURISDICTION TO COORDINATE FURTHER EROSION CONTROL MEASURES, NOT SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN, THAT MAY BE NECESSARY TO CONTROL SITE RUNOFF.
3. THE EXISTING AND PROPOSED STORM SYSTEMS SHALL BE CLEANED AND MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL ALL ON-SITE SOILS HAVE BEEN STABILIZED.
4. AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL FLUSH OUT ALL DEBRIS FROM THE STORM SYSTEM INSTALLED ON-SITE. MATERIAL FLUSHED FROM THE STORM SYSTEM SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED DISPOSAL SITE. FLUSHING OPERATION SHALL BE PERFORMED USING A VACTOR TRUCK.

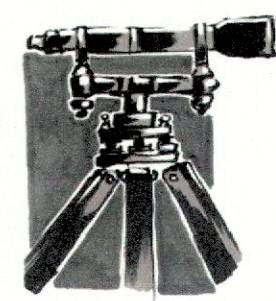
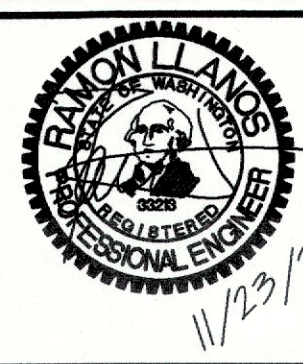
CITY OF FERNDALE TESC NOTES:

1. STABILIZATION & SEDIMENT TRAPPING. ALL EXPOSED SOILS SHALL BE STABILIZED BY SUITABLE EXCAVATION OF BMP'S. FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN UNEXPOSED FOR MORE THAN 7 DAYS. PRIOR TO LEAVING THE SITE, STORMWATER RUNOFF SHALL PASS THROUGH A SEDIMENT POND, TRAP, OR OTHER APPROPRIATE BMP.
2. DELINEATE CLEARING & EASEMENT LIMITS. IN THE FIELD, STAKE AND FLAG THE LIMITS OF THE PROJECT, EASEMENTS, SETBACKS, SENSITIVE CRITICAL AREAS AND THEIR BUFFERS, LINES AND DRAINAGE COURSES.
3. PROTECTION OF ADJACENT PROPERTIES. PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION.
4. TIMING & STABILIZATION OF SEDIMENT TRAPPING MEASURES. SEDIMENT PONDS AND TRAPS, PERIMETER DIKS, 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, DIKS AND DIVERSIONS SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE TIMING INDICATED IN NO. 1 ABOVE.
5. CUT & FILL SLOPES. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. IN ADDITION, SLOPES SHALL BE STABILIZED IN ACCORDANCE WITH NO. 1 ABOVE.
6. CONTROLLING OFF-SITE EROSION. PROPERTIES AND WATERWAYS DOWNSTREAM FROM THE DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE.
7. STABILIZATION OF TEMPORARY CONVEYANCE CHANNELS & OUTLETS. ALL TEMPORARY ON-SITE CONVEYANCE CHANNELS SHALL BE DESIGNED, CONSTRUCTED AND STABILIZED TO PREVENT EROSION FROM THE EXPECTED VELOCITY OF FLOW FROM A 2-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. STABILIZATION ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAM BANKS, SLOPES AND DOWNSTREAM REACHES SHALL BE PROVIDED AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.
8. STORM DRAIN INLET PROTECTION. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
9. UNDERGROUND UTILITY CONSTRUCTION. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA: WHERE FEASIBLE, NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME, WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES; AND TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
10. CONSTRUCTION ACCESS ROUTES. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED ROADS, PROVISIONS MUST BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) ONTO THE PAVED ROAD. IF SEDIMENT IS TRANSPORTED ONTO A ROAD SURFACE, THE ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
11. REMOVAL OF TEMPORARY BMP'S. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMP'S ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
12. DEWATERING CONSTRUCTION SITES. DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
13. CONTROL OF POLLUTANTS OTHER THAN SEDIMENT ON CONSTRUCTION SITES. ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.
14. MAINTENANCE. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
15. FINANCIAL LIABILITY. PERFORMANCE BONDING, OR OTHER APPROPRIATE FINANCIAL INSTRUMENTS, SHALL BE REQUIRED FOR ALL PROJECTS TO ENSURE COMPLIANCE WITH THE APPROVED TESC PLAN.



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

AS-BUILTS	RL	11/23/20
NO.	REVISION	BY DATE



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

JOB NO.:	9019
DWG. NAME:	9019-Lot 27 38 - AB.dwg
DESIGNED BY:	RL
DRAWN BY:	SR/EH
CHECKED BY:	

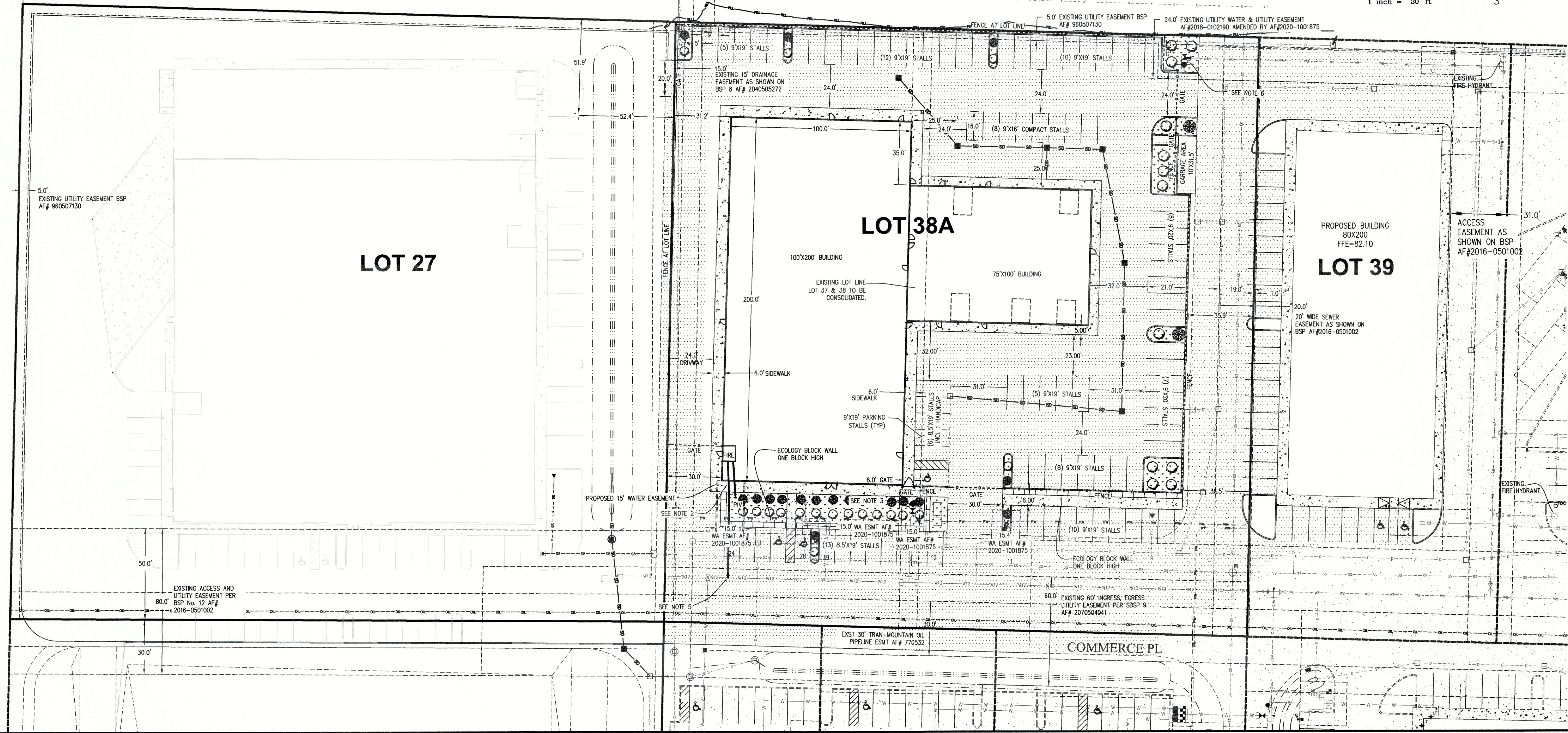
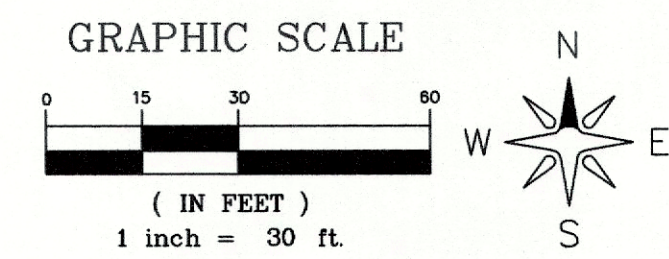
APPROVED
NOV 30 2020
BY *[Signature]*
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
EROSION CONTROL
TESC NOTES & DETAILS

SHEET
3
OF
9

RECORD DRAWING

\\SERVER\Share\Common\Land Projects\2009\9019-LOT-14-15\dwg\9019-LOT 27 37 38 - AB.dwg



LEGEND:

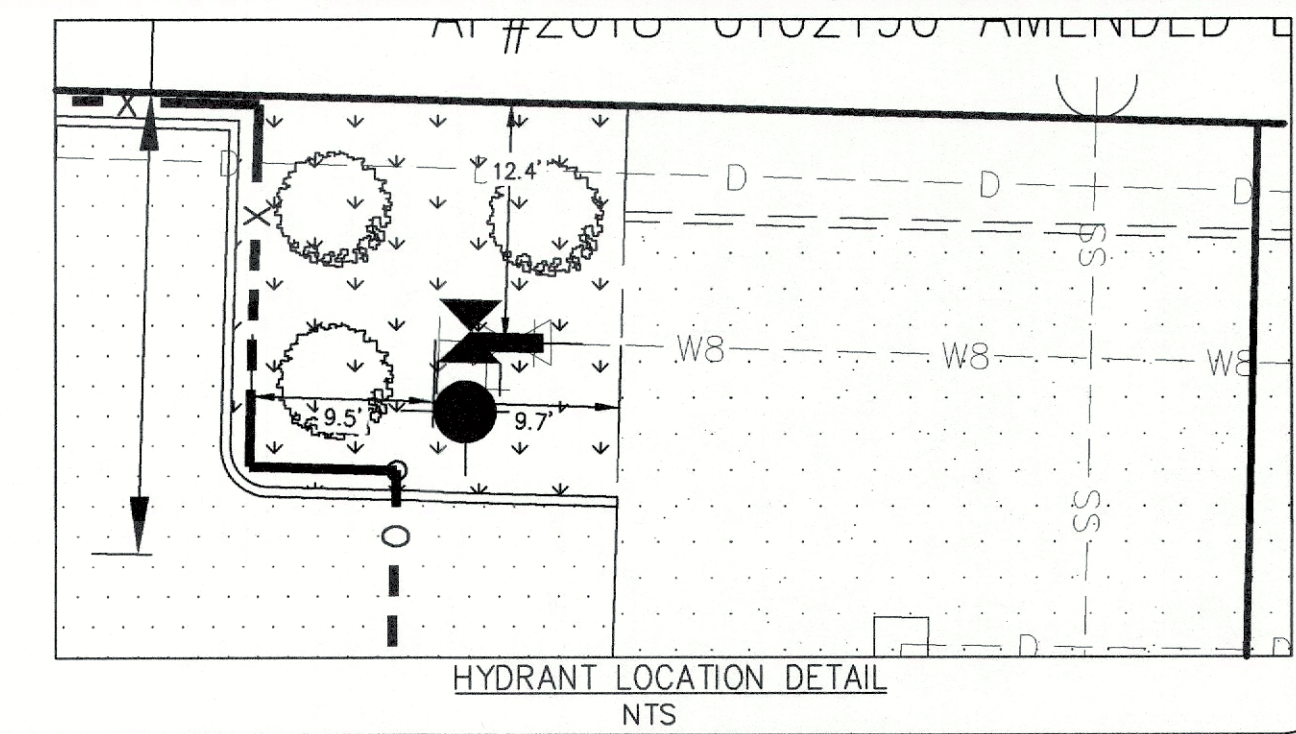
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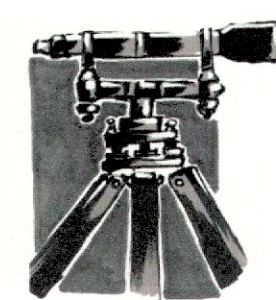
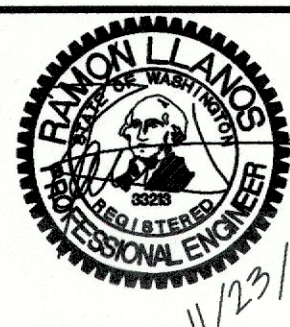
- = PROPOSED FENCE
- = PROPOSED GATE
- = PROPOSED PARKING AREA ASPHALT
- = EXIST ASPHALT
- = PROPOSED LANDSCAPE

NOTES:

- BEFORE UTILITY CONNECTIONS FOR THIS PROJECT CAN TAKE PLACE THE CURRENT ONGOING PROJECT IMPROVEMENTS ON LOT 39 MUST BE DEEMED SUBSTANTIALLY COMPLETE BY THE CITY OF FERNDALE'S PUBLIC WORKS DEPARTMENT. BONDING FOR WORK ASSOCIATED WITH FINAL GRADING AND PAVING MAY BE ACCEPTABLE IF NEEDED.
- HOLD HARMLESS UNDER THE BUILDING OR RETAINING WALLS WILL BE REQUIRED.
- REMOVE EX. HYDRANT, TEE AND BLOW OFF. INSTALL 8" BY 6" REDUCER AND RELOCATE HYDRANT, RECONNECT TO EX. REVERSE THRUST BLOCK OR INSTALL NEW THRUST BLOCK IF NEEDED.
- ACCESS AND MAINTENANCE AGREEMENT FOR DRAINAGE WITHIN THE SECURED AREA WILL BE REQUIRED.
- HOT TAP VALVE AND THRUST BLOCK.
- REMOVE EX. HYDRANT, INSTALL 8" BY 6" REDUCER AND RELOCATE HYDRANT. INSTALL REVERSE THRUST BLOCK.



NO.	REVISION	BY	DATE
1	AS-BUILTS	RL	11/23/20
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LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

JOB NO.: 9019
DWG. NAME: 9019-LOT 27 37 38 - AB.dwg
DESIGNED BY: RL
DRAWN BY: SR/EH
CHECKED BY:

APPROVED

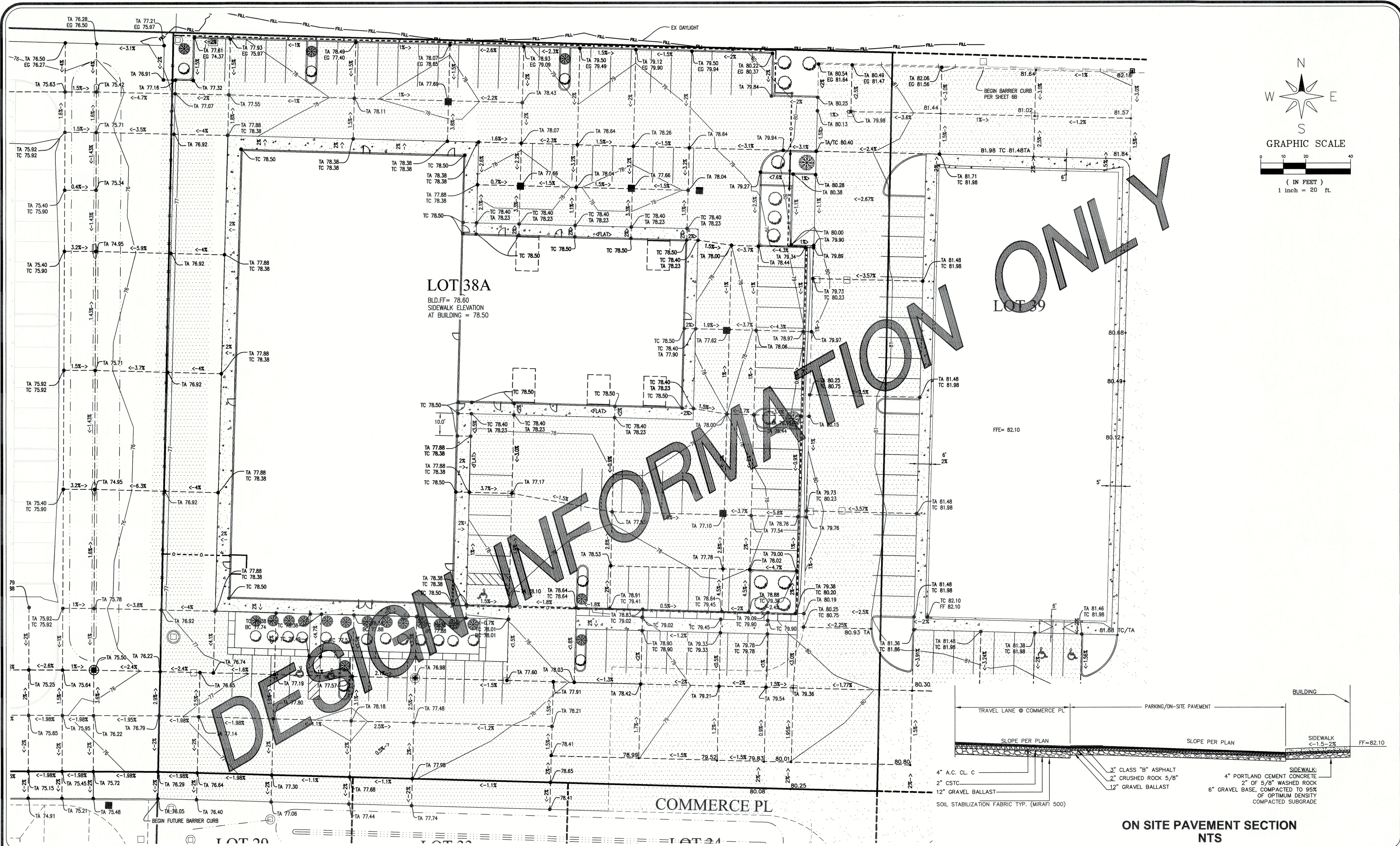
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BY: [Signature]
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
COMPOSITE UTILITY PLAN

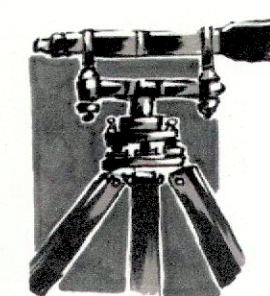
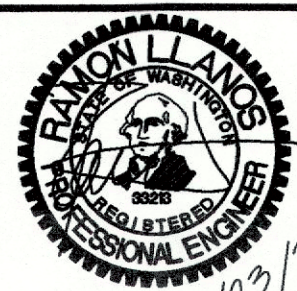
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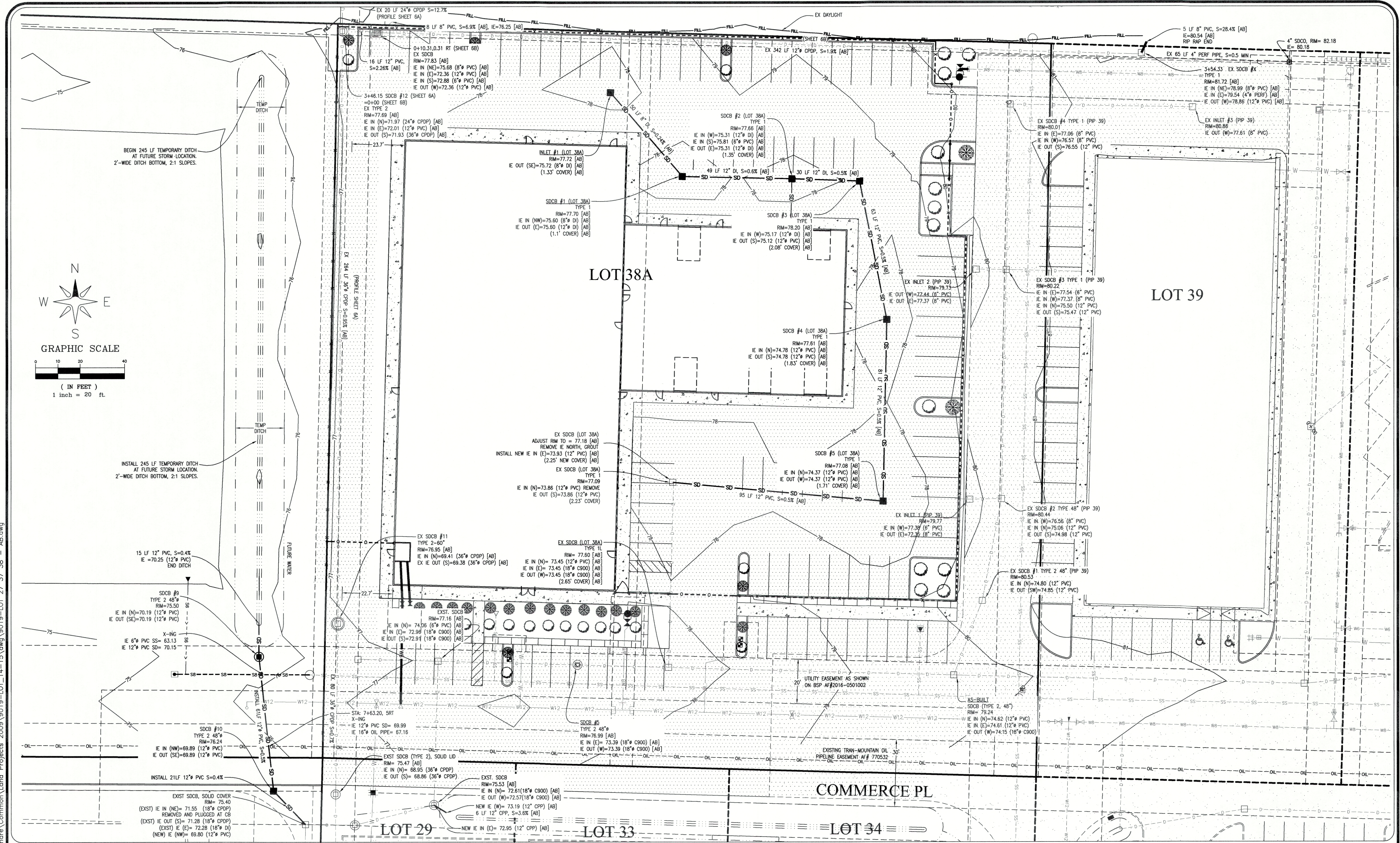
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PIP LOT 38A
SITE GRADING PLAN & ROAD SECTION

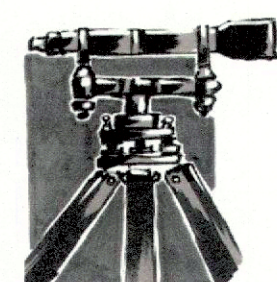
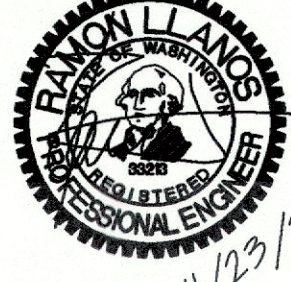
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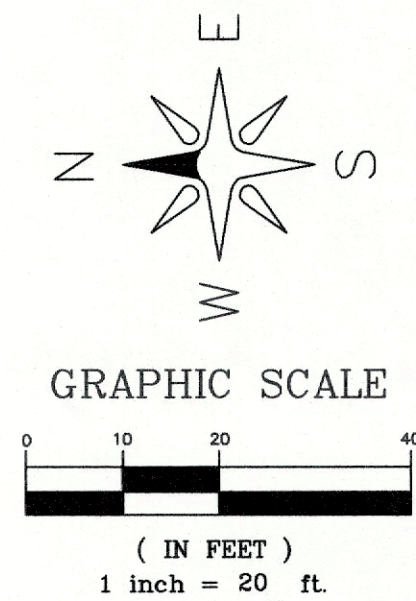
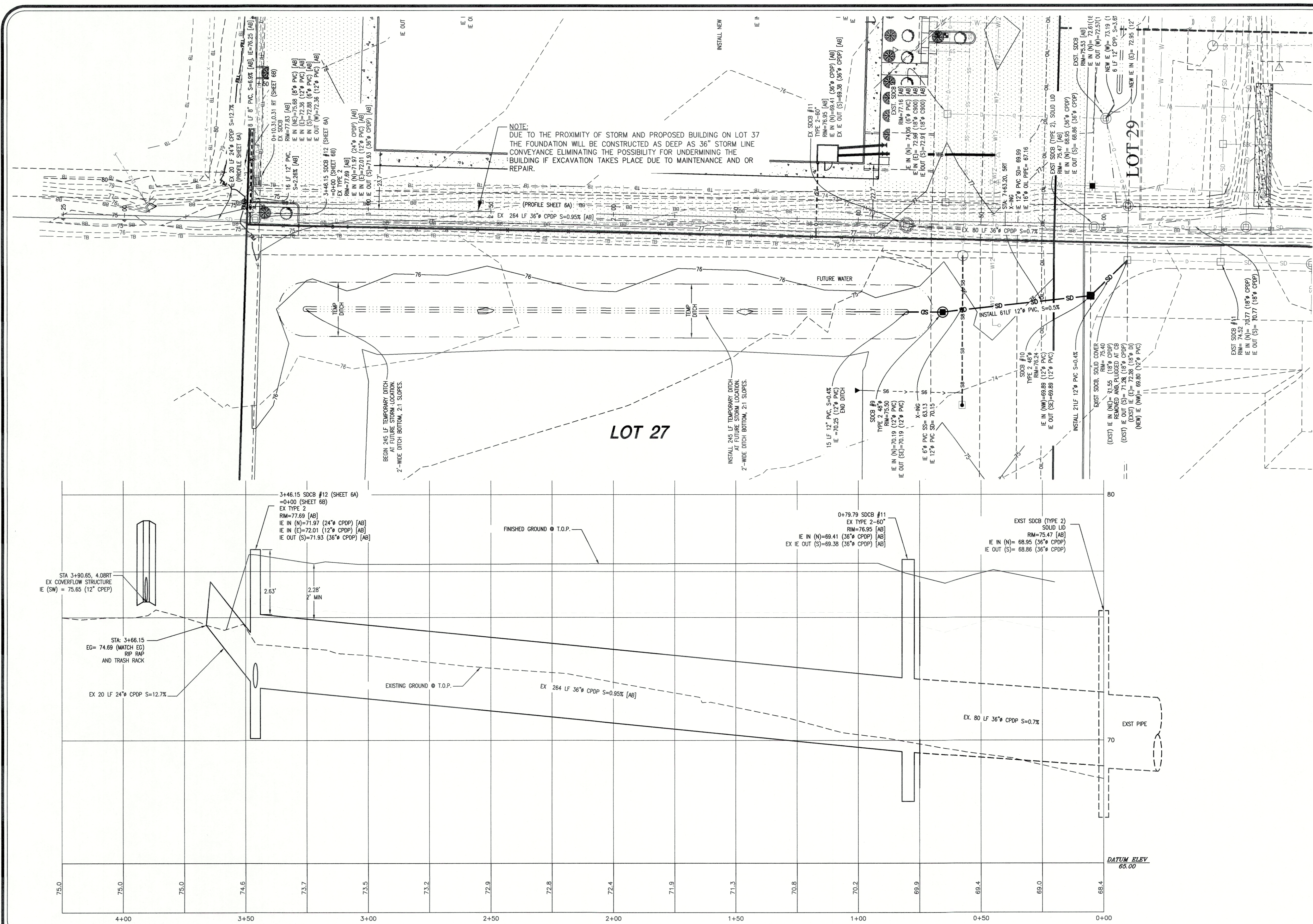
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BY *[Signature]*
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
STORM DRAINAGE PLAN

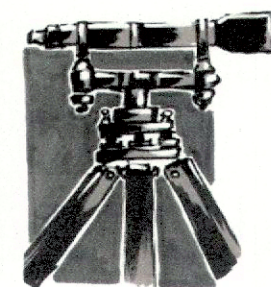
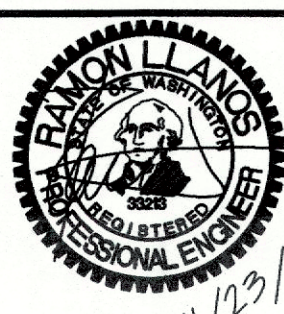
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LDES, INC.
5160 INDUSTRIAL PL. #108
FERNDAL, WA 98248
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JOB NO.:	9019
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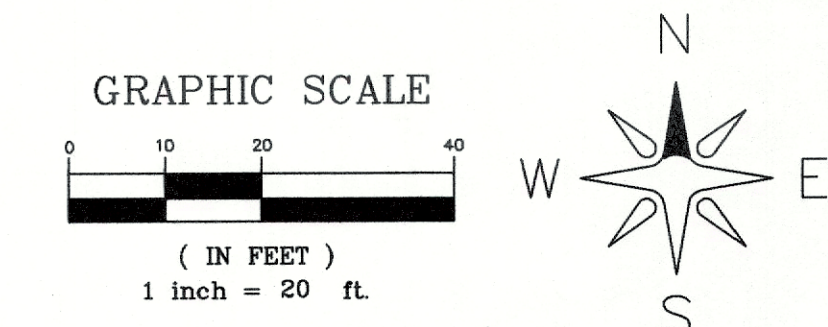
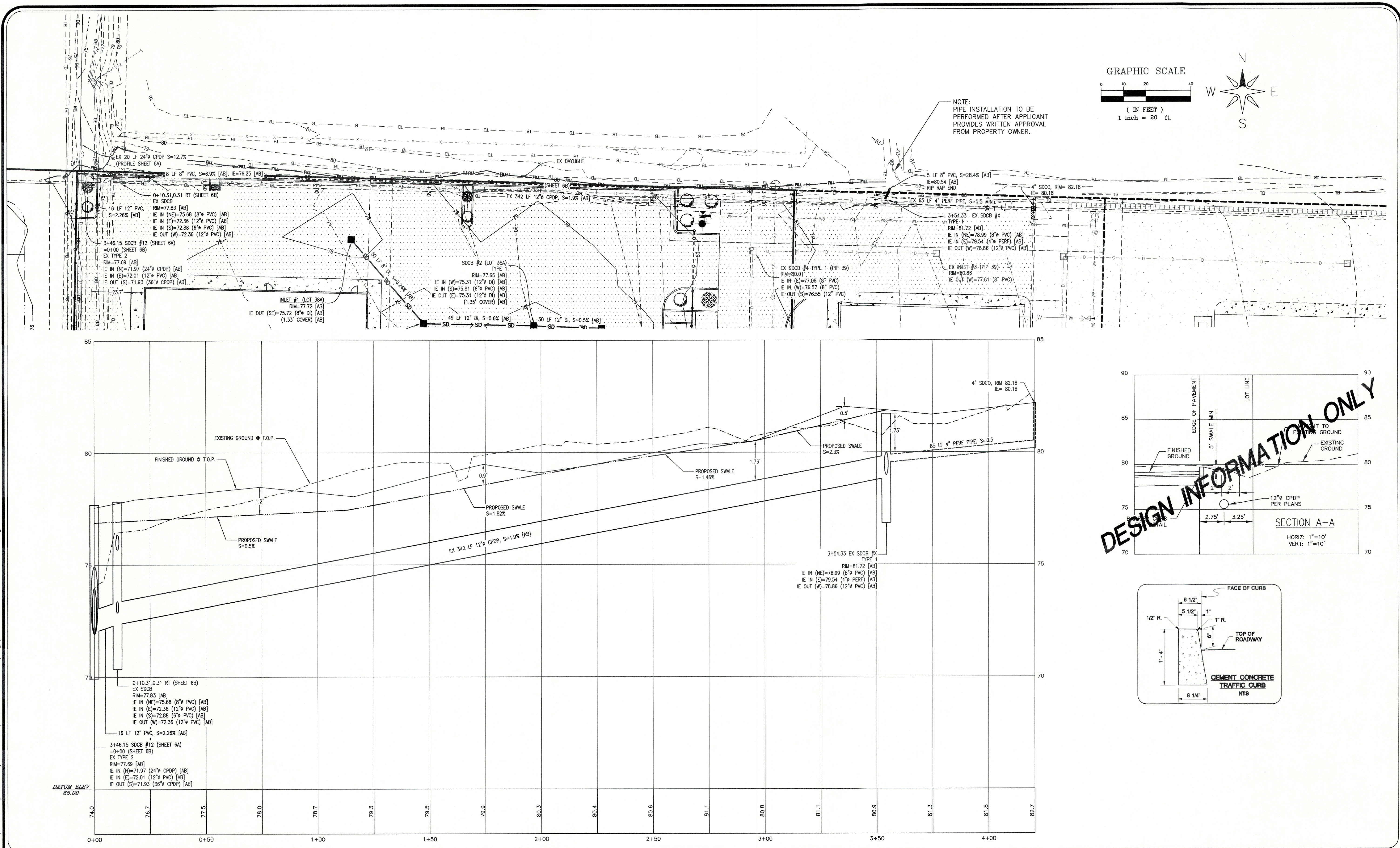
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BY: *[Signature]*
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
STORM DRAINAGE PLAN & PROFILE

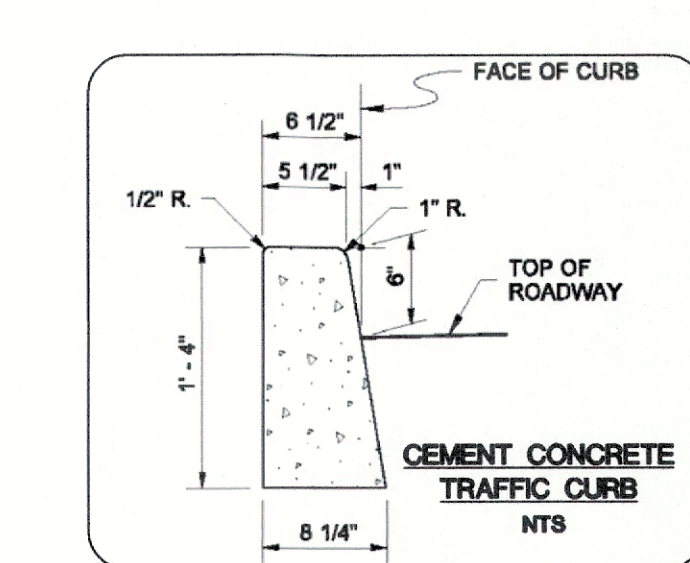
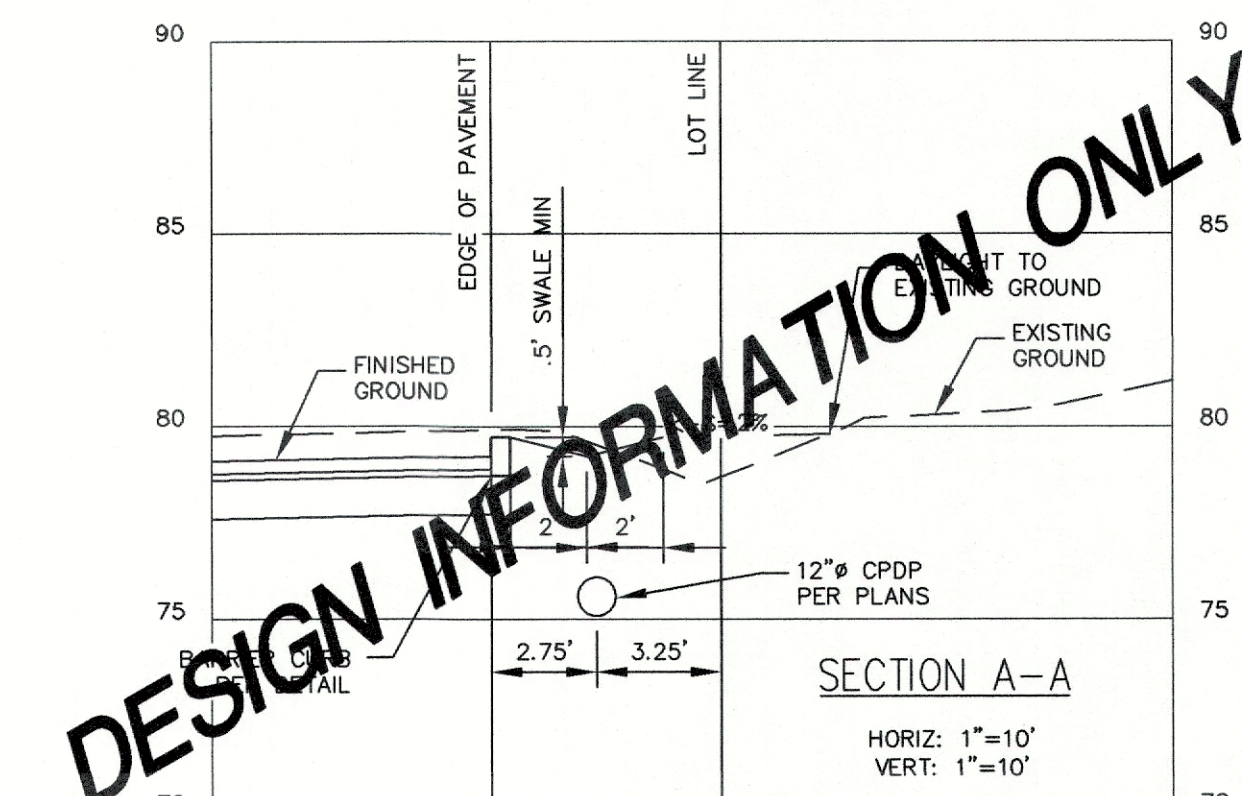
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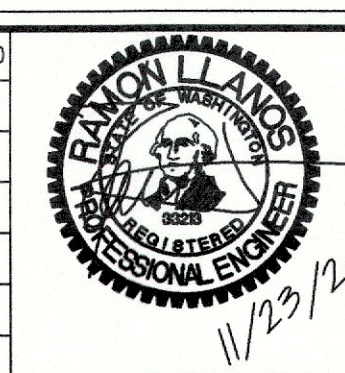
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NOTE:
PIPE INSTALLATION TO BE
PERFORMED AFTER APPLICANT
PROVIDES WRITTEN APPROVAL
FROM PROPERTY OWNER.



NO.	AS-BUILTS	RL	11/23/20
NO.	REVISION	BY	DATE



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

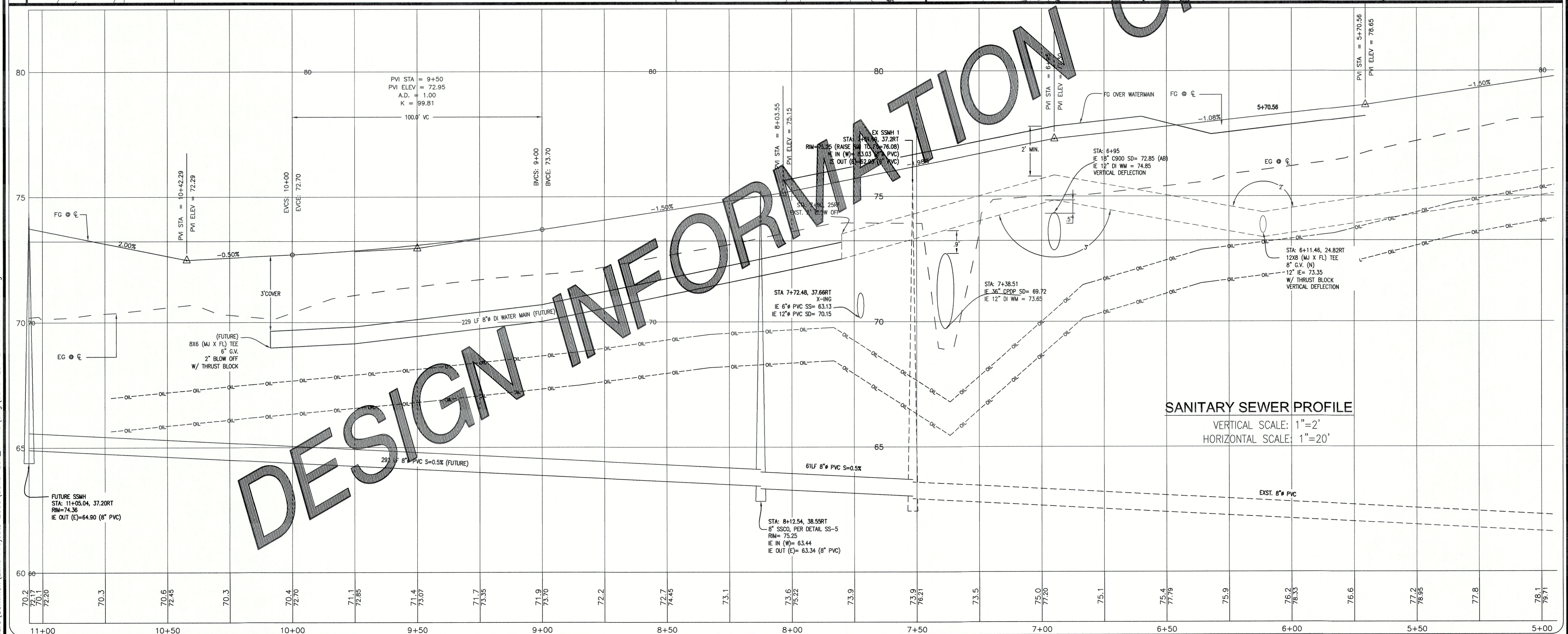
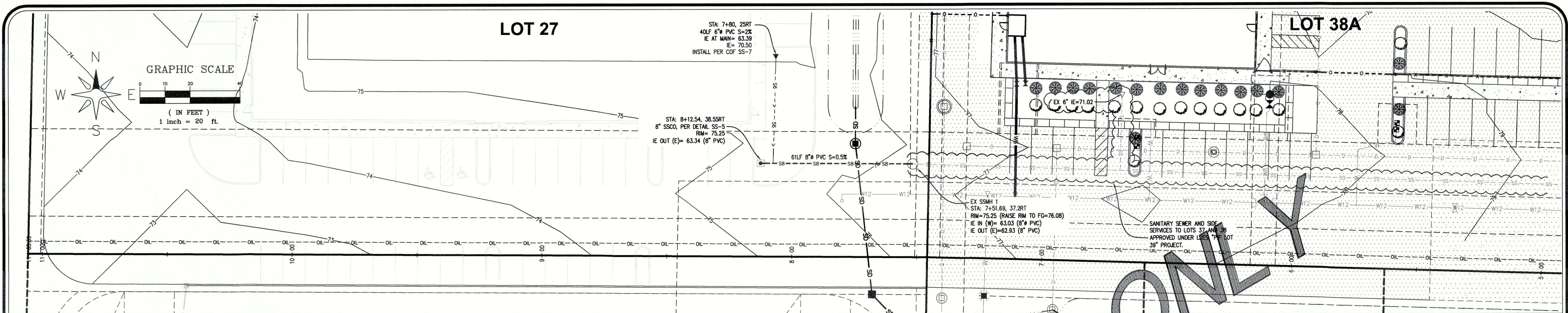
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DWG. NAME: 9019-LOT 27 37 38 - AB.dwg
DESIGNED BY: RL
DRAWN BY: EH
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APPROVED
NOV 30 2020
BY *[Signature]*
PUBLIC WORKS DEPARTMENT

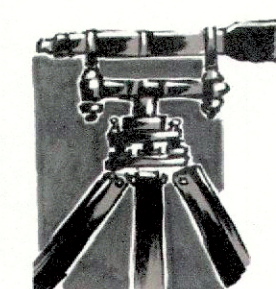
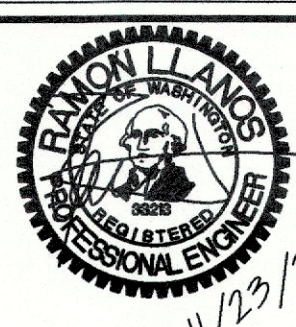
PIP LOT 38A
STORM DRAINAGE PLAN
STORM DRAINAGE DETAILS

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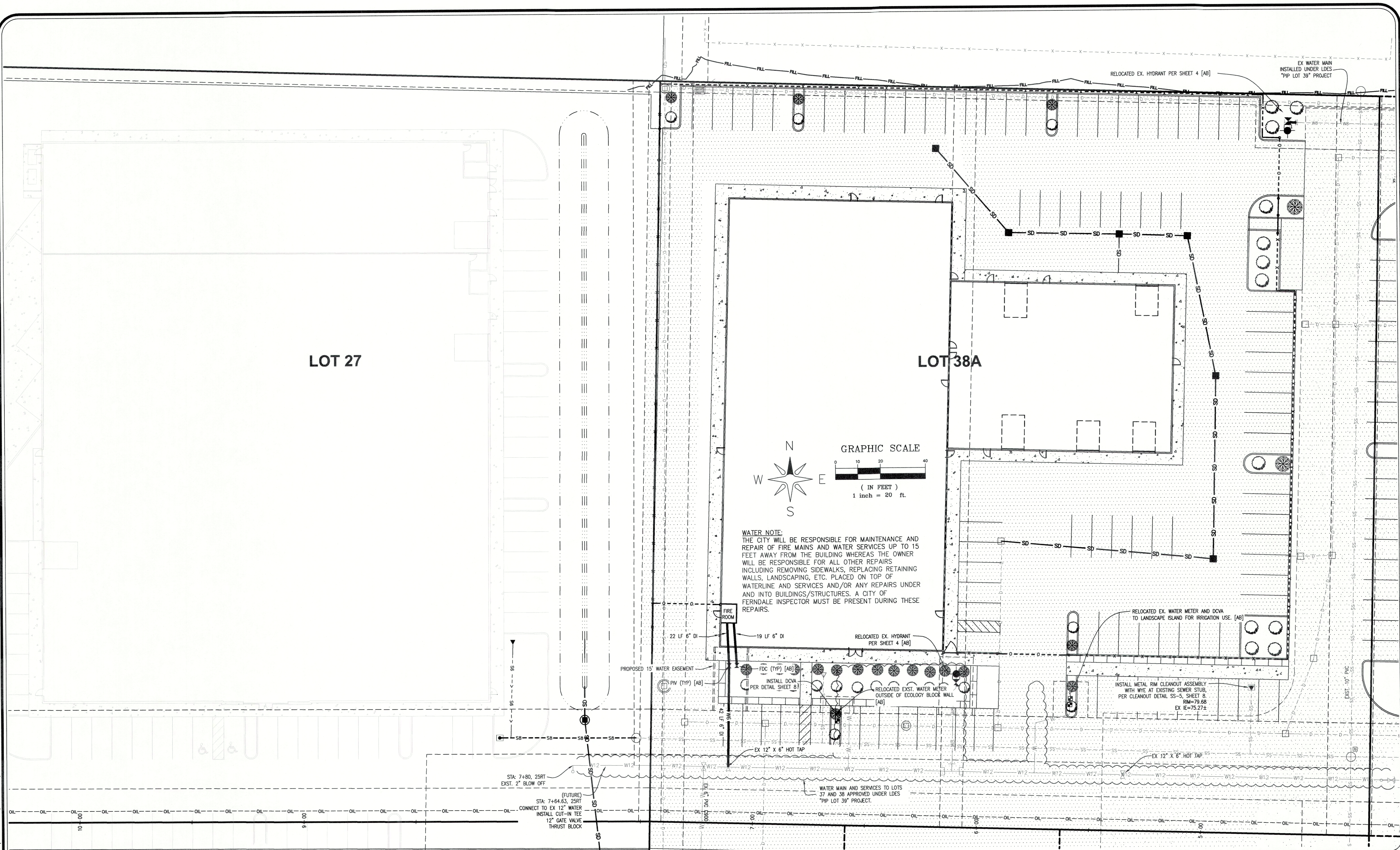
PIP LOT 38A

SANITARY SEWER PLAN & PROFILE

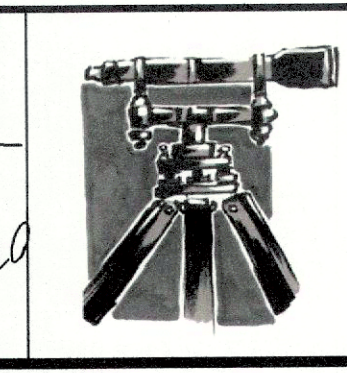
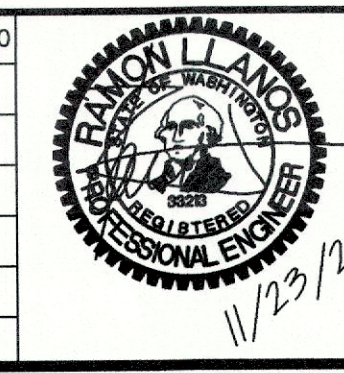
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AS-BUILTS	RL	11/23/20
NO.	REVISION	BY DATE



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

JOB NO.: 9019
DWG. NAME: 9019-Lot 27 37 38 - AB.dwg
DESIGNED BY: RL
DRAWN BY: EH
CHECKED BY:

APPROVED
NOV 30 2020
By *Kevin Ranz*
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
WATER DISTRIBUTION PLAN

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OF 9

RECORD DRAWING

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- GENERAL REQUIREMENTS:
1. 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" (WSOT SPECS.), THE CITY OF FERNDALE DEVELOPMENT STANDARDS (CDFS) AND THE 2005 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DOW MANUAL). IN CASE OF A CONFLICT BETWEEN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
 2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGAIN 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.
 3. THE CONTRACTOR MUST HAVE A FULL SET OF CITY CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
 4. CONSTRUCTION NOISE SHALL BE LIMITED TO BETWEEN 7 a.m. TO 8 p.m., MONDAY THROUGH SATURDAY.
 5. 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.
 6. 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.
 7. 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.
 8. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT.
 9. THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND/OR WHATCOMB COUNTY PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
 10. 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.
 11. 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:
 - A. PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.
 - B. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES.
 - C. 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.
 - D. 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.
 - E. GRADING OF PUBLIC OR PRIVATE ROADWAY AT:
 1. COMPLETION OF EXCAVATION TO SUBGRADE.
 2. COMPLETION OF BALLAST COURSE PLACEMENT.
 3. COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT.
 - F. POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC ROADWAY.
 - G. ASPHALT PAVING IN PROGRESS IN PUBLIC ROADWAY.
 - H. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.
 - I. 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 CONTRACT. 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 WSOT STANDARD SPECIFICATIONS (1-12.2) - 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 (NAVD-88) AND HORIZONTAL (NAD 27). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.

- UNDERGROUND UTILITIES CONSTRUCTION
- A. 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.
 - B. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:
 - i. NO MORE THAN 50 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.
 - ii. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF DITCHES.
 - iii. TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT POND.
 - iv. WHERE PRACTICAL, INSTALL GRAVITY PIPE UTILITIES PRIOR TO INSTALLATION OF OTHER UTILITIES.
 - C. UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS.
 - D. ALL UTILITY TRENCHES IN THE RIGHT OF WAY SHALL BE BACKFILLED WITH 2-INCH MINUS OR 5/8-INCH MINUS WELL GRADED CRUSHED ROCK.
 - E. TESTING OF NEW WATER LINES, STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.
 - F. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95% DENSITY IN LIFTS NOT TO EXCEED 24 INCHES WITH A "HOC" PACK, OR 8 INCHES WITH HAND-OPERATED COMPACTION.
 - G. OPEN CUTTING OF EXISTING ROADWAYS IS ONLY ALLOWED AS APPROVED AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE FERNDALE STANDARD TRENCH DETAILS(S). ALL UTILITY TRENCHES UNDERNEATH AN EXISTING ROADWAY SHALL BE BACKFILLED WITH 150 PSI CONTROLLED DENSITY FILL.
 - H. 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
- A. 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.
 - B. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.
 - C. UNSUITABLE MATERIAL FOUND AND NOT FIT FOR USE AS A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL.
 - D. THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING.

- BASE COURSES & CRUSHED SURFACING
- A. GRAVEL BASES AND BALLAST MATERIAL GRADATION SHALL MEET WSOT STANDARD SPECIFICATIONS.
 - B. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
 - C. THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN 1/8 INCH OF FINISHED GRADE.
 - D. 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.

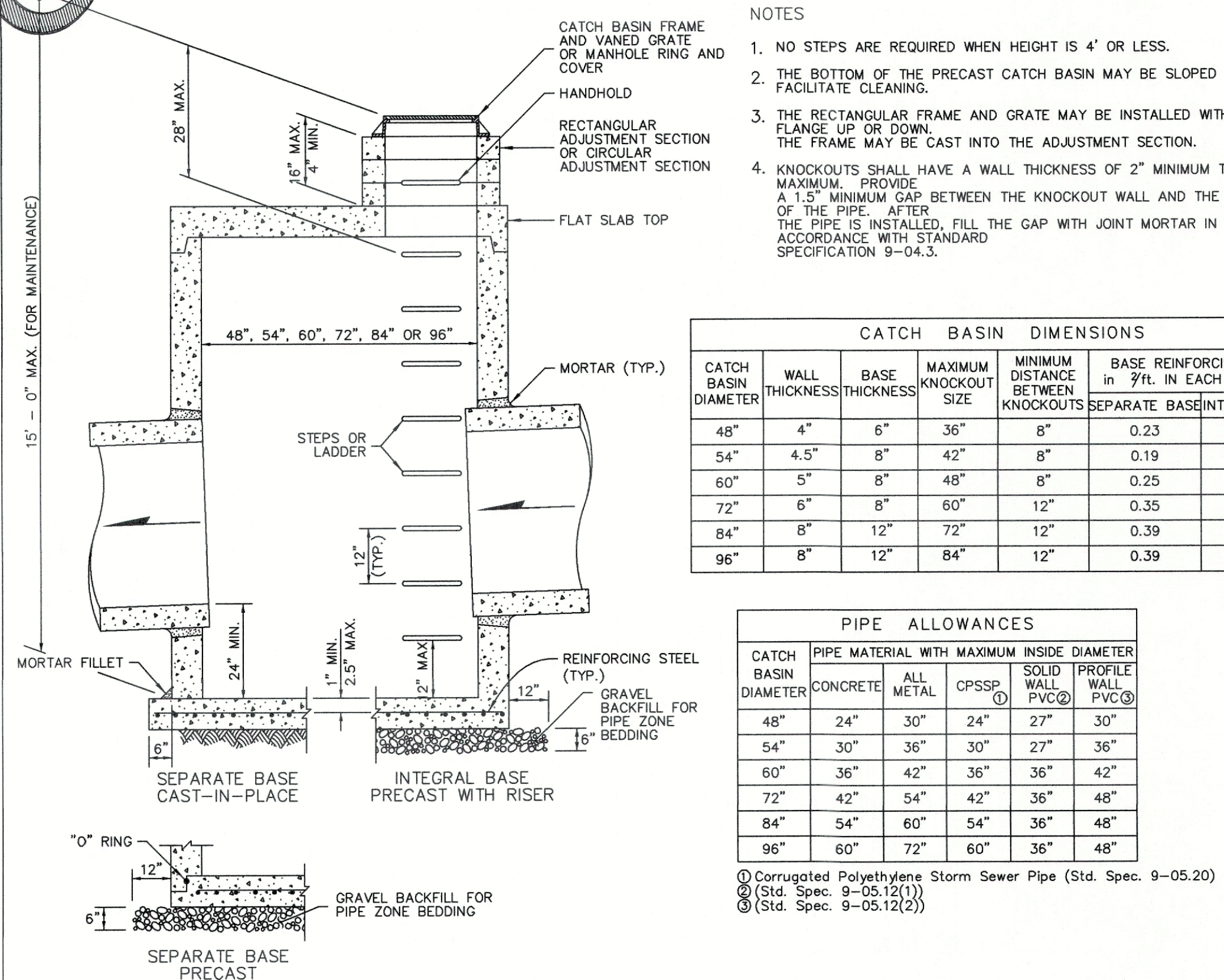
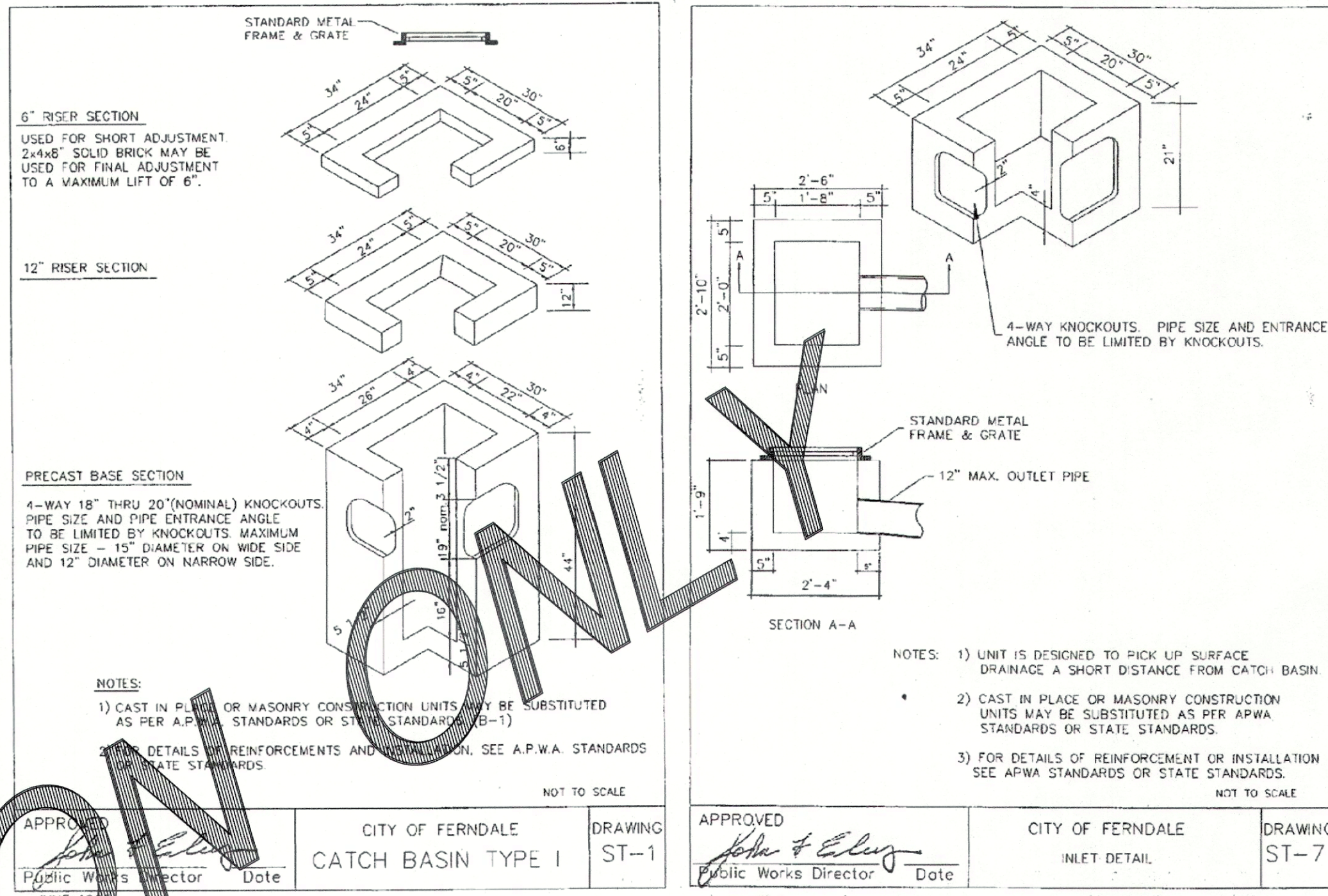
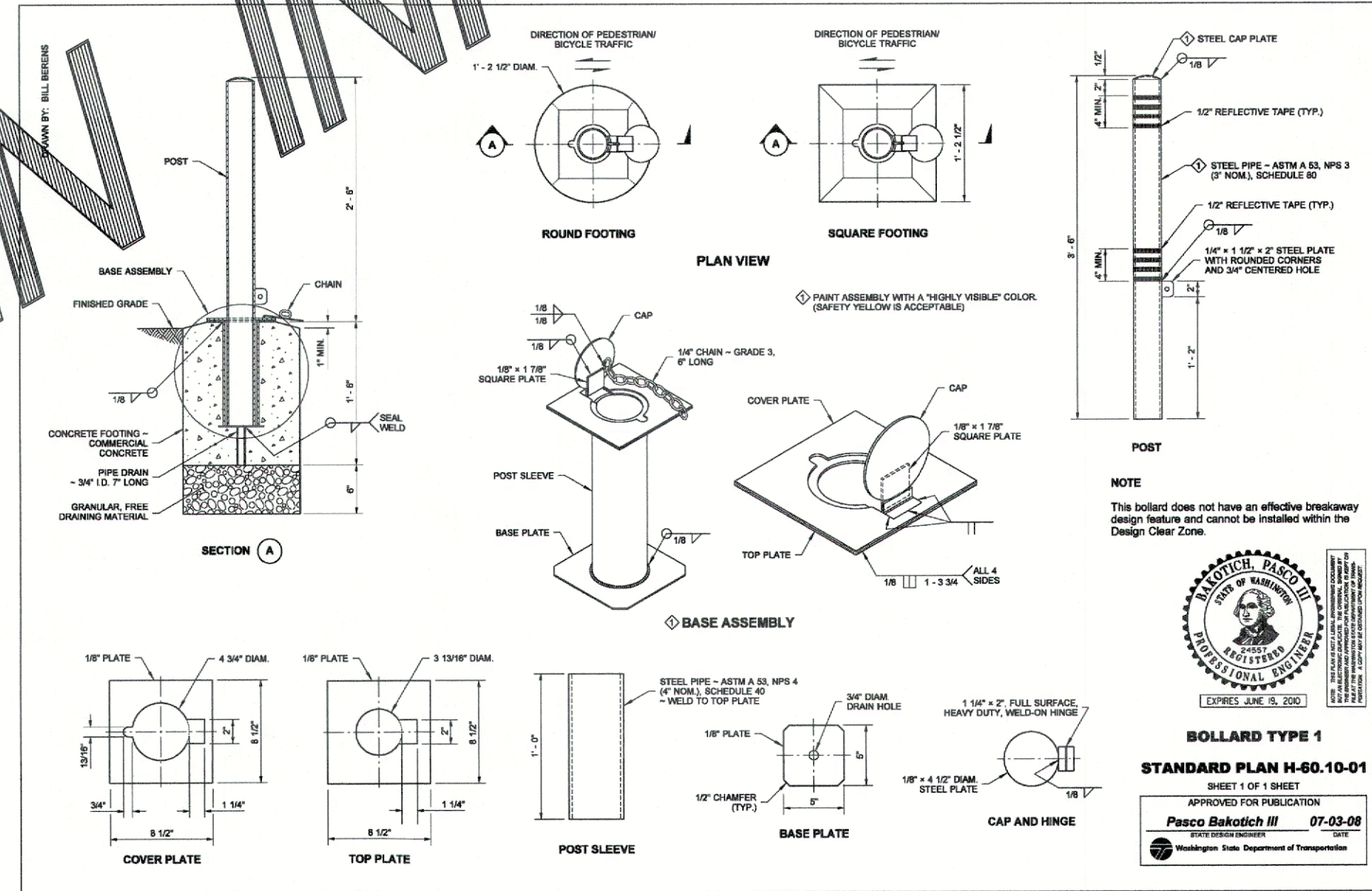
- STORM DRAINAGE
1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:
 - A. CATCH BASINS TYPE 1, 1L OR 2 WSOT STD. DETAILS 8-10.20, 8-5.40 OR 8-10.20.
 - B. "RESIDENTIAL SERVICE LINE" CFSO ST-7 (CITY OF FERNDALE STD. DETAIL).
 2. STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE CORRUGATED POLYETHYLENE PIPE (CPPE); ALL OTHER STORM SEWER PIPE SHALL BE DUCTILE IRON PIPE.
 3. ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".
 4. 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.
 5. COVER OVER PIPES SHALL BE MAINTAINED DURING CONSTRUCTION. DEPTH OF COVER REQUIRED SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS AND WILL VARY WITH THE VEHICLE LOADS TRAVELING OVER THE PIPE. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR DAMAGE TO DURING CONSTRUCTION ACTIVITIES.
 6. AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM CATCH BASINS AND STORMWATER DRAINAGE DEVICES. DEBRIS SHALL NOT BE ALLOWED TO ENTER STREAMS OR OFF-SITE STORMWATER SYSTEMS.

- WATER
1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:
 - A. PIPE BEDDING TRENCH BACKFILL CFSO W-11
 - B. FIRE HYDRANT ASSEMBLY CFSO W-1
 - C. THRUST BLOCKING CFSO W-2, W-3 & W-4
 - D. WATER SERVICE CFSO W-5
 2. 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 WSOT STANDARD SPECIFICATIONS.
 3. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON, MINIMUM THICKNESS CLASS 50, PER AWWA STANDARDS H30.10-11, WITH CEMENT LINING PER AWWA STANDARD C104-71.
 4. 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.
 5. 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.
 6. 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.
 7. 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.
 8. 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.
 9. ALL PIPES SHALL HAVE A MINIMUM COVER OF 36".

10. 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.
 11. WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CFSO W-5.
 12. FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO CFSO-50 W-1 (WSOT 8-10) AND THE FOLLOWING STANDARDS:
 - A. 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. 920T HYDRANTS.
 - B. 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.
 - C. 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.
 - D. 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.
 - E. 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
1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF THE STANDARD STREET SECTION:
 - A. TYPICAL STREET SECTION (PER PROJECT) CFSO R-9
 - B. PCC CURB AND GUTTER CFSO R-9
 - C. PCC SIDEWALKS CFSO R-12 (SEE CONSTRUCTION DOCUMENTS TYPICAL SECTION)
 - D. PCC CURB RAMP WSOT STD. DETAIL F-40.

2. 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.
3. 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.
4. 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.
5. CRUSHED ROCK SURFACING FOR PAVEMENT SHALL BE IN ACCORDANCE WITH WSOT STANDARD SPECIFICATION, SECTION 9-03.9(3); BALLAST PER SECTION 9-03.9(1).
6. CEMENT CONCRETE SHALL BE CLASS 3000 (WITH AIR ENTRAINMENT) IN ACCORDANCE WITH WSOT STANDARD SPECIFICATION, SECTION 6-02.3(28).
7. 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.
8. 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.
9. CEMENT CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DESIGNED BY THE ENGINEER, IN ACCORDANCE WITH WSOT STANDARDS SPECIFICATIONS, SECTION 8-04 AND CITY OF FERNDALE STANDARDS, DRAWING R-8 AND R-9. HANDICAP RAMPS SHALL BE CONSTRUCTED PER WSOT 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.
10. PAVEMENT:
 - A. SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.
 - B. A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.
 - C. ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. 48-48X60 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 PETROGRAV PAVING FABRIC, OR EQUIVALENT, OVER JOINT BETWEEN PAVING LIFTS.
 - D. THRU-CURB BASINS AND THRU-CURB TRENCHES CONFORMING TO THE WSOT 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.
11. TRENCH EXCAVATIONS, BEDDING AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSOT STANDARD SPECIFICATIONS, SECTION 7-08.
12. STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSOT STANDARD SPECIFICATION, SECTION 7-04. MATERIAL SHALL BE HANCOCK SURE-LOK 1477 PIPE OR CITY APPROVED EQUAL. LOTS STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER WSOT STANDARD SPECIFICATION, SECTION 9-05.1(5).
13. PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSOT STANDARD SPECIFICATION 7-01.3(2).

- SANITARY SEWER SYSTEMS
1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF FERNDALE STANDARD SPECIFICATIONS AND DETAILS, A.P.W.A. STANDARD SPECIFICATION, AND WSOT STANDARD SPECIFICATIONS, MOST RECENT EDITIONS. SANITARY SEWER SYSTEM INSTALLATION, BOTH PUBLIC AND PRIVATE, IS SUBJECT TO CITY REVIEW AND APPROVAL.
 2. 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.
 3. SANITARY SEWER MAINS SHALL BE A MINIMUM 8 INCH DIAMETER PVC PIPE (SDR-35) CONFORMING TO THE PROVISIONS OF ASTM D 3034 AND ACCEPTED TO CITY SPECIFICATIONS.
 4. SANITARY SEWER PIPE BEDDING SHALL BE PEA GRAVEL PER CFSO SS-1. ALL TRENCHES SHALL BE BACKFILLED WITH CLASS B GRAVEL RUN OVER THE ENTIRE RIGHT OF WAY AND TRAVELED WAYS OUTSIDE OF RIGHT OF WAY (ACCESS EASEMENTS) AND SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% MOISTURE PROCTOR. USE OF SUITABLE MATERIAL BACKFILL OUTSIDE OF TRAVELED WAY SHALL BE SUBJECT TO APPROVAL BY THE CITY.
 5. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS AND SHALL BE PRE-CHANNELLED MANHOLE COVERS ARE TO BE OFFSET FROM THAT LADDER RUNS ARE PARALLEL TO THE FLOW.
 6. ALL SIDE SEWERS SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS SS-6, SS-8 OR SS-12 EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".
 7. CONTRACTOR SHALL EXTEND SEWER STUBS 5 FT BEYOND UTILITY CORRIDOR OR 15 FEET FROM RIGHT-OF-WAY LINE. EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATER TIGHT, 18" DIA. CAST IRON MANHOLE COVER WITH 18" 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 OF THE STUB SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.



CATCH BASIN DIMENSIONS					
CATCH BASIN DIAMETER	WALL THICKNESS	BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS	BASE REINFORCING STEEL in 7ft. IN EACH DIRECTION
48"	4"	6"	36"	8"	0.23 0.15
54"	4.5"	8"	42"	8"	0.19 0.19
60"	5"	8"	48"	8"	0.25 0.25
72"	6"	8"	60"	12"	0.35 0.24
84"	8"	12"	72"	12"	0.39 0.29
96"	8"	12"	84"	12"	0.39 0.29

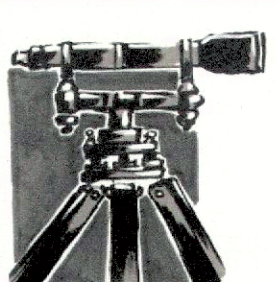
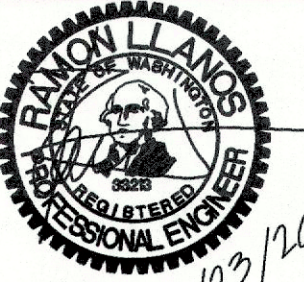
PIPE ALLOWANCES					
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER	ALL METAL	CPSSP ①	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	27"	30"
54"	30"	36"	30"	27"	36"
60"	36"	42"	36"	36"	42"
72"	42"	54"	42"	36"	48"
84"	54"	60"	54"	36"	48"
96"	60"	72"	60"	36"	48"

① Corrugated Polyethylene Storm Sewer Pipe (Std. Spec. 9-05.20)
② (Std. Spec. 9-05.12(1))
③ (Std. Spec. 9-05.12(2))

CATCH BASIN TYPE 2

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UTILITIES UNDERGROUND LOCATION CENTER

NO.	REVISION	BY	DATE
1	AS-BUILTS	RL	11/23/20



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

JOB NO.: 9019
DWG. NAME: 9019-Lot 27 37 38 - AB.dwg
DESIGNED BY: RL
DRAWN BY: YC
CHECKED BY:

APPROVED
NOV 30 2020
BY: *Kevin Ranz*
PUBLIC WORKS DEPARTMENT

PIP LOT 38A
CITY OF FERNDAL
GENERAL REQUIREMENT NOTES
& STORM DRAINAGE DETAILS

SHEET
9
OF
9

RECORD DRAWING