

WELL SITE 2, WATER SYSTEM IMPROVEMENTS

CITY OF ROY, WASHINGTON
SEC. 03 , T. 17N, R. 2, W.M.
SEPTEMBER 2026

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THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALL THE UNDERGROUND LOCATE LINE AT PHONE NUMBER : 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR MAINTAINING ALL LOCATED MARKS ONCE THE UTILITIES HAVE BEEN LOCATED.

VICINITY MAP
NOT TO SCALE



5016 Lacey Boulevard SE, Lacey, Washington 98503
(360) 491-3399 Fax (360) 491-3857

60 PERCENT

ENGINEER:

SKILLINGS INC.
5016 LACEY BLVD. SE
LACEY, WA 98503
(360)491-3399

ROBIN NELSON, P.E.

CLIENT:

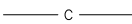
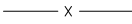
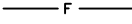
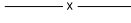
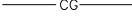
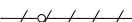
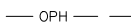
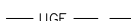
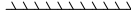
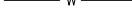
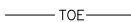
CITY OF ROY
216 MCNAUGHT RD S.
ROY, WA 98580

ROYCITYHALL@CITYOFROYWA.US

RYAN MULLER
MAYOR

ABBREVIATIONS	
AVE.....	AVENUE
BLDG.....	BUILDING
CL.....	CENTERLINE
DEG(°).....	DEGREE
DI.....	DUCTILE IRON
DIAM.(ø).....	DIAMETER
DWG.....	DRAWING
EA.....	EACH
EL (ELEV)...	ELEVATION
ETC.....	ETCETERA
FF.....	FINISHED FLOOR
FL.....	FLANGED JOINT
FT(°).....	FOOT
GAL.....	GALLON
HMA.....	HOT MIX ASPHALT
HP.....	HORSE POWER
IE.....	INVERT ELEVATION
IN(°).....	INCH
LB(S).(°)...	POUND(S)
LF.....	LINEAR FOOT
MAX.....	MAXIMUM
MFR.....	MANUFACTURER
MIN.....	MINIMUM
MJ.....	MECHANICAL JOINT
MM.....	MILLIMETER
No.....	NUMBER
NTS.....	NOT TO SCALE
OC.....	ON CENTER
PE.....	CORRUGATED POLYETHYLENE
PSF.....	POUNDS PER SQUARE FOOT
R.....	RADIUS
REF.....	REFERENCE
RJ.....	IRON FLEX JOINT
SF (SQ FT)	SQUARE FEET
ST.....	STREET
STD.....	STANDARD
T&B.....	TOP AND BOTTOM
THK.....	THICK
T.O.	TOP OF
TYP.....	TYPICAL
U.N.O.	UNLESS OTHERWISE NOTED
W/.....	WITH

SURVEY CONTROL SYMBOLS	
EXISTING	PROPOSED
	5/8" REBAR W/ CAP
	BRASS DISK
	HUB & TACK
	MAGNAIL W/ FLASHER
SYMBOLS	
EXISTING	PROPOSED
	AIR RELEASE VALVE
	CATCH BASIN (TYPE 1)
	CONIFER TREE
	DECIDUOUS TREE
	POLE ANCHOR
	POST INDICATOR VALVE
	POWER POLE
	POWER POLE W/ DROP
	REMOVE TREE
	TELEPHONE PEDESTAL
	WATER METER
	WATER VALVE
	THRUST BLOCK

LINE TYPES	
EXISTING	PROPOSED
	CUT
	FENCE
	FILL
	BARBWIRE FENCE
	CHAIN LINK FENCE
	CLEARING AND GRUBBING LIMIT
	DEMO EXISTING FENCE
	PLASTIC FENCE
	PHONE (OVERHEAD)
	POWER (UNDERGROUND)
	RIGHT OF WAY
	BUILDING
	GRAVEL EDGE
	LOT LINE
	WATER LINE – RESERVE TANK OVERFLOW
	WATER LINE – RESERVE TANK OUTLET
	WATER LINE LOCATES
	POTABLE WATER LINE
	MAJOR CONTOURS
	MINOR CONTOURS
	SILT FENCE
	TOP OF BASIN
	TOP OF SLOPE
	TOE OF BASIN
	TOE OF SLOPE
	PAVEMENT EDGE

HATCHES		
EXISTING	PROPOSED	
		CONCRETE
		CONSTRUCTION ENTRANCE
		GRAVEL
		HOT MIX ASPHALT
		MAINTENANCE VEHICLE ACCESS

		DATE		REVISIONS		 SKILLINGS 5016 Lacey Boulevard SE, Lacey, Washington 98503 (360) 491-3399 Fax (360) 491-3857	 CITY OF ROY WA	WELL SITE 2, WATER SYSTEM IMPROVEMENTS		JOB NUMBER
DESIGNED BY: P. MAYE		8/31/26	NO.	DATE	DESCRIPTION					23097-06
ENTERED BY: D. MAERTENS		8/31/26								60%
CHECKED BY: J. HNATISHIN		8/31/26								SHEET
PROJ. ENGR.: R. NELSON		8/31/26							G2	
Plotted By: Dylan Maertens on 8/31/26 4:24 PM									OF	
Saved By: DylanMaertens on 8/31/26 2:11 PM									20	
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GENERAL NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL PUBLIC WORKS CONSTRUCTION PREPARED BY WASHINGTON STATE CHAPTER, AMERICAN PUBLIC WORKS ASSOCIATION (APWA), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION 2016, PIERCE COUNTY STANDARD PLANS AND PLAN NOTES, SPECIFICATIONS, AND ANY CONDITIONS OF APPROVAL.
- ALL CONSTRUCTION IS SUBJECT TO INSPECTION BY THE OWNER. THE CONTRACTOR SHALL NOTIFY THE OWNER OF THEIR SCHEDULE IN SUFFICIENT TIME TO PERMIT INSPECTION PRIOR TO AND DURING WORK. 24 HOURS NOTIFICATION IS REQUIRED FOR ALL INSPECTIONS.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR MEETING THE CONDITIONS OF PROJECT PERMITS, AND LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
- BEFORE ISSUANCE OF PERMITS, CONSTRUCTION OR ANY DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING IS REQUIRED BETWEEN THE OWNER'S INSPECTOR, CONTRACTOR, AND ENGINEER.
- THE CONTRACTOR SHALL LIMIT THE AREA OF CLEARING TO ONLY THAT WHICH IS NECESSARY TO COMPLETE THE REQUIRED WORK. ALL DISTURBED AREAS SHALL BE GRADED TO MATCH THE EXISTING GROUND AND RESTORED WITH HYDROSEEDING.
- ROADWAY EMBANKMENT SLOPES SHALL BE 2:1 MAX. SLOPES SHALL BE COMPACTED AS STRUCTURAL FILL TO A MINIMUM 95% OF MAXIMUM DRY DENSITY.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES PER PIERCE COUNTY STORM WATER STANDARDS.
- THE LOCATION OF UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. UTILITIES SHOWN HERE ARE FOR THE PURPOSE OF ASSISTING THE CONTRACTOR IN LOCATING SAID UTILITIES. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITIES LOCATION CENTER (811) 48 HOURS MINIMUM PRIOR TO THE BEGINNING OF CONSTRUCTION AND OBTAIN ON-SITE UTILITY LOCATIONS. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO PROCEEDING WITH CONSTRUCTION.
- CONSTRUCTION NOISE SHALL BE LIMITED AS PER PIERCE COUNTY CODE FROM 7:00AM TO 8:00PM ON WEEKDAYS, 8:00AM TO 8:00PM ON WEEKENDS AND FEDERAL, STATE, OR COUNTY OBSERVED HOLIDAYS UNLESS PERMITTED AND APPROVED BY THE PIERCE COUNTY BUILDING OFFICIAL OR PUBLIC WORKS DIRECTOR.
- IN ALL CLEARING AND GRUBBING AREAS, CONTRACTOR SHALL STRIP NATIVE MATERIAL TO A DEPTH OF 1 FOOT OF MATERIAL AND MIX FOR LATER USE OR HAUL.
- PRIOR TO ANY DEMOLITION WORK, CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES.
- THE EXISTING FENCE ENCLOSES A SECURE FACILITY. THE EXISTING FENCE SHALL ONLY BE REMOVED WHEN THE PROPOSED FENCE IS COMPLETE.

TEMPORARY EROSION AND SEDIMENT CONTROL NOTES

- IN ADDITION TO THE DETAILS AND NOTES SHOWN ON THESE PLANS, THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH THE PERMIT AND OTHER APPLICABLE CITY OF CHEHALIS REQUIREMENTS. THE CONTRACTOR SHALL USE ADAPTIVE MANAGEMENT TO MEET ALL WATER QUALITY STANDARDS. THE CONTRACTOR SHALL ENSURE THAT CONSTRUCTION STORMWATER DISCHARGES FROM THE SITE DO NOT EXCEED 25 NTU (NEPHELOMETRIC TURBIDITY UNIT).
- THE EROSION AND SEDIMENT CONTROL (ESC) BEST MANAGEMENT PRACTICES (BMP) SHOWN ON THESE PLANS MUST BE INSTALLED IN CONJUNCTION WITH ALL CONSTRUCTION ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN RUNOFF WILL NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
- THE BMPs SHOWN ON THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT, SEDIMENT-LADEN RUNOFF, AND OTHER CONSTRUCTION MATERIAL OR DEBRIS DO NOT LEAVE THE SITE.
- THE BMPs SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AND REVISED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- THE CONTRACTOR SHALL PREVENT THE GENERATION OF DUST BY APPLYING WATER WITHOUT GENERATING ANY RUNOFF.
- THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL UPON PROJECT COMPLETION AND WHEN THE ENTIRE SITE IS PERMANENTLY STABILIZED.

CITY OF ROY STANDARD STORMWATER NOTES:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (WSDOT/APWA).
- TEMPORARY EROSION/WATER POLLUTION PREVENTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH THE DEPT. OF ECOLOGY'S CONSTRUCTION STORMWATER GENERAL PERMIT.

SHOULD THE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THIS DRAWING NOT PROVE ADEQUATE TO CONTROL EROSION AND SEDIMENTATION, THE APPLICANT/CONTRACTOR SHALL INSTALL ADDITIONAL FACILITIES AS NECESSARY TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
- CALL THE UNDERGROUND LOCATE LINE 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATIONS.
- THE STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED ACCORDING TO APPROVED PLANS ON FILE WITH THE CITY. ANY SIGNIFICANT DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL FROM THE CITY.
- A COPY OF THE APPROVED CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN AND STORMWATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- ALL EROSION CONTROL AND STORMWATER FACILITIES SHALL BE REGULARLY INSPECTED AND MAINTAINED BY THE DESIGNATED CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCLE) DURING CONSTRUCTION.
- IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN STREET USE AND OTHER RELATED OR REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY IN THE MUNICIPALITY'S RIGHT-OF-WAY. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL ABIDE BY ALL REQUIREMENTS FOR TRAFFIC CONTROL & SAFETY WHEN WORKING IN THE ROAD RIGHT-OF-WAY.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN THE EVENT OR DISCOVERY OF POOR SOILS, STANDING GROUNDWATER, OR SEVERE DISCREPANCIES FROM SOIL LOG DESCRIPTIONS AS NOTED ON THE PLANS.
- FOR PUBLIC SYSTEMS, THE CONTRACTOR SHALL CALL FOR INSPECTION 48 HOURS PRIOR TO COVERING ANY DRAINAGE STRUCTURE.
- ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS.

CITY OF ROY STANDARD NOTES FOR CONSTRUCTION STORMWATER POLLUTION PREVENTION:

- APPROVAL OF THIS CONSTRUCTION SWPPP DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION/DETENTION/INFILTRATION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THIS CONSTRUCTION SWPPP AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE CONSTRUCTION SWPPP FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE CONSTRUCTION SWPPP FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
- THE CONSTRUCTION SWPPP FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE CONSTRUCTION SWPPP FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- THE CONSTRUCTION SWPPP FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- THE CONSTRUCTION SWPPP FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
- AT NO TIME SHALL MORE THAN 1-FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

GENERAL NOTES (WATER MAIN INSTALLATION)

- ALL WORKMANSHIP AND MATERIAL WILL BE IN ACCORDANCE WITH THE CITY OF ROY ENGINEERING DESIGN AND DEVELOPMENT STANDARDS AND THE MOST CURRENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION; WASHINGTON STATE DEPARTMENT OF HEALTH (DOH) REGULATIONS; AND AMERICAN WATER WORKS ASSOCIATION STANDARDS.
- A PRECONSTRUCTION MEETING WILL BE HELD WITH THE CITY PRIOR TO THE START OF CONSTRUCTION.
- ALL LINES WILL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE ABOVE-REFERENCED SPECIFICATION (NOTE 1).
- THE CONTRACTOR WILL PROVIDE TRAFFIC CONTROL PLAN(S) AS REQUIRED IN ACCORDANCE WITH THE CURRENT WSDOT SPECIFICATIONS AND MUTCD.
- ALL WATER MAINS WILL BE STAKED FOR GRADES AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK. STAKING WILL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- ALL WATER SYSTEM CONNECTIONS TO SERVE BUILDINGS OR PROPERTIES WITH DOMESTIC POTABLE WATER, FIRE SPRINKLER SYSTEMS, OR IRRIGATION SYSTEMS WILL COMPLY WITH THE MINIMUM BACKFLOW PREVENTION REQUIREMENTS AS ESTABLISHED BY THE WASHINGTON STATE DEPARTMENT OF HEALTH AND THE CITY OF ROY IN ITS CROSS CONNECTION PROGRAM.
- CALL UNDERGROUND LOCATE AT 1-800-424-5555 A MINIMUM OF 2 BUSINESS DAYS BEFORE COMMENCING ANY EXCAVATION. UNDERGROUND UTILITY LOCATES WILL BE PREFORMED ONCE. IT IS THE RESPONSIBILITY OF THE REQUESTOR TO MAINTAIN THE MARKINGS AFTER THE INITIAL LOCATE IN ACCORDANCE WITH RCW 19.122.
- THE CITY REQUIRES 10 WORKING DAYS WRITTEN NOTICE FOLLOWING APPLICATION AT THE COMMUNITY PLANNING AND DEVELOPMENT DEPARTMENT TO SCHEDULE SHUTDOWNS. THE WRITTEN NOTICE WILL BE COORDINATED WITH THE CITY INSPECTOR. THE CITY OF ROY DRINKING WATER OPERATIONS OR CITY INSPECTOR WILL PERFORM THE SHUTDOWN.
- AT ANY CONNECTION TO AN EXISTING LINE WHERE A NEW VALVE IS NOT INSTALLED, THE EXISTING VALVE MUST BE PRESSURE TESTED TO CITY STANDARDS BY THE CONTRACTOR PRIOR TO CONNECTION. IF AN EXISTING VALVE FAILS TO PASS THE TEST, THE CONTRACTOR WILL MAKE THE NECESSARY PROVISIONS TO TEST THE NEW LINE PRIOR TO CONNECTION TO THE EXISTING SYSTEM OR INSTALL A NEW VALVE.
- AT ANY WATER MAIN TAP TO EXISTING CITY MAINS WHERE THE CONTRACTOR ENCOUNTERS A COUPLING OR EXISTING ASSEMBLIES, THE CONTRACTOR WILL PROVIDE A MINIMUM OF 18 INCHES OF CLEARANCE FROM COUPLING OR ASSEMBLIES TO EDGE OF TAPPING SLEEVE.
- ANY WATER MAIN TAP OR CONNECTION WILL BE BLOCKED ACCORDING TO THE CITY OF ROY STANDARD PLANS.
- ANY EXCAVATION THAT EXPOSES AN ASBESTOS CEMENT WATER MAIN OR THE CITY 36 INCH WATER TRANSMISSION MAIN SHALL BE BEDDED WITH CONTROLLED DENSITY FILL (CDF) PURSUANT TO THE WSDOT SPECIFICATIONS FOR CDF. AS AN OPTION THE CONTRACTOR MAY CHOOSE TO REPLACE THE ASBESTOS PIPE AT ANY CROSSING WITH DUCTILE IRON PIPE BENCHED INTO BOTH TRENCH WALLS. THE CONTRACTOR WILL COORDINATE WITH THE CITY INSPECTOR TO HAVE A CITY OF ROY DRINKING WATER OPERATIONS STAFF MEMBER ON SITE BEFORE CONSTRUCTION BEGINS.
- BEFORE CUTTING OR REMOVING ANY EXISTING ASBESTOS PIPE THE CONTRACTOR WILL SUPPLY THE CITY OF ROY INSPECTOR A COPY OF THE WORKMAN'S CERTIFICATIONS TO WORK WITH ASBESTOS PIPE. THE CONTRACTOR WILL CONFORM TO ALL REGULATIONS AND GUIDANCE RELATED TO ASBESTOS WORK PROVIDED BY THE OLYMPIC REGION CLEAN AIR AGENCY.

	DATE	REVISIONS			 SKILLINGS 5016 Lacey Boulevard SE, Lacey, Washington 98503 (360) 491-3399 Fax (360) 491-3857	 City of Roy WASHINGTON CITY OF ROY WA	WELL SITE 2, WATER SYSTEM IMPROVEMENTS	JOB NUMBER	
DESIGNED BY: P. MAYE	8/31/26	NO.	DATE	DESCRIPTION				23097-06	
ENTERED BY: D. MAERTENS	8/31/26							60%	
CHECKED BY: J. HNATISHIN	8/31/26							SHEET	
PROJ. ENGR.: R. NELSON	8/31/26							G3	
Plotted By: Dylan Maertens on 8/31/26 4:24 PM					GENERAL NOTES			OF	
Saved By: DylanMaertens on 6/25/26 8:13 AM								20	
c:\bms\skillings-pw-01\dylon_maertens\dms17896\23097-06_GN_01.dwg								SHEETS	

TOPOGRAPHIC SURVEY
FOR; CITY OF ROY
ROY RESERVOIR 2
SECTION 03, T17N, R2 W.M., PIERCE COUNTY, WA

CHICAGO TITLE INSURANCE COMPANY
COMMITMENT NUMBER: 0292299-16
EFFECTIVE DATE: MAY 8TH, 2025 AT 8:00 AM

TRAVERSE TABLE (SKILLINGS)

- 1 SET MAGNAIL WITH WASHER
SKILLINGS 114
N: 611721.14'
E: 1129671.36'
ELEV: 325.44'
- 2 SET MAGNAIL WITH WASHER
SKILLINGS 1 - TIED TO SKILLINGS 114
N: 611998.84'
E: 1129732.57'
ELEV: 325.51'
- 3 SET HUB WITH TACK WITHIN GATE
SKILLINGS 3
N: 611833.35'
E: 1129822.96'
ELEV: 324.95'
- 4 LOCATED ON REBAR WITH CAP
SKILLINGS 2 - TIED TO SKILLINGS 108
N: 611694.17'
E: 1129946.39'
ELEV: 328.94'
- 5 SET HUB WITH TACK
SKILLINGS 4
N: 611867.01'
E: 1129893.58'
ELEV: 325.35'

CONTROL TABLE (SKILLINGS)

- ① FOUND 3" BRASS DISK IN CONCRETE ON TOP OF WEST BANK OF HIGHWAY 507 - WSDOT DESIGNATION: GP27507-88 - MONUMENT ID: 4218
- ② FOUND 3" BRASS DISK IN CONCRETE SOUTHWEST NEAR ROY CITY HALL - WSDOT DESIGNATION: ROY - MONUMENT ID: 4220
- ③ FOUND 5/8" REBAR WITH CAP: LS 12620 - SKILLINGS 103 S 9°27'14" E 0.24'
- ④ FOUND 1/2" REBAR WITH CAP: LS 30425 - SKILLINGS 104
- ⑤ FOUND 1/2" REBAR WITH CAP LS 37551 - SKILLINGS 116
- ⑥ FOUND 1/2" REBAR WITH CAP: LS 37551 - SKILLINGS 105 N 89°35'34" E # 2.87'
- ⑦ FOUND 5/8" REBAR WITH CAP: LS 12620 - SKILLINGS 106 S 3°53'35" E 0.29'
- ⑧ FOUND 5/8" REBAR WITH CAP: LS 12620 - SKILLINGS 107 S 15°13'50" E 0.25'
- ⑨ FOUND 5/8" REBAR WITH CAP AND TACK LS 12620 - SKILLINGS 108 S 28°4'54" E 0.21'
- ⑩ FOUND 5/8" REBAR WITH CAP: LS 40097 - SKILLINGS 109 S 3°25'16" E 0.26'
- ⑪ FOUND 5/8" REBAR WITH CAP: LS 40097 - SKILLINGS 110 S 34°17'13" E 0.34'

EXHIBIT A
LEGAL DESCRIPTION

FOR APN/PARCEL ID(S): 021703-2-049
LOT NO. 1 AS SET FORTH IN A DECLARATION OF BOUNDARY LINE REVISION RECORDED UNDER
AUDITOR'S SEE NO. 8410170040, RECORDS OF PIERCE COUNTY, WASHINGTON LOCATED IN THE
FRANCIS GRAVILLE DONATION LAND CLAIM NO. 38, TOWNSHIPS 17 NORTH AND 18 NORTH, RANGE
2 EAST, W.M., PIERCE COUNTY, WASHINGTON;
EXCEPT THAT PORTION OF SAID LOT NO. 1 DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWESTERLY CORNER OF SAID LOT NO. 1;
THENCE NORTH 11°13'36" EAST ALONG THE WESTERLY LINE OF SAID LOT NO. 1, SAID LINE ALSO
BEING THE EASTERLY LINE OF THE OLD SECONDARY STATE HIGHWAY NO. 5-H, SOMETIMES
KNOWN AS THE ROY-MCKENNA COUNTY ROAD AND FORMERLY KNOWN AS THE WOOD-GOODWIN
COUNTY ROAD, A DISTANCE OF 188.39 FEET;
THENCE SOUTH 65°50'19" EAST, PARALLEL WITH THE SOUTHERLY LINE OF SAID LOT NO. 1, A
DISTANCE OF 125.30 FEET TO THE INTERSECTION
WITH THE RIGHT-OF-WAY LINE DRAWN PARALLEL WITH AND 140 FEET WESTERLY, WHEN
MEASURED AT RIGHT ANGLES, OF THE SURVEY LINE OF STATE HIGHWAY ROUTE NO. 507 AS
SHOWN ON SHEET 6 OF 7 OF THAT DEPARTMENT OF HIGHWAYS MAP TITLED SR-507, YELM TO ROY
AND APPROVED OCTOBER 13, 1954;
THENCE SOUTH 77°05'16" EAST A DISTANCE OF 107.5 FEET TO A POINT ON THE EASTERLY LINE OF
SAID LOT NO. 1 WHICH POINT IS 208.21
FEET NORTHEASTERLY OF THE SOUTHEASTERLY CORNER OF SAID LOT NO. 1;
THENCE SOUTH 13°26'47" WEST ALONG THE EASTERLY LINE OF SAID LOT NO. 1, SAID LINE ALSO
BEING PARALLEL WITH AND 32.5 FEET WESTERLY, WHEN MEASURED AT RIGHT ANGLES, OF THE
ABOVE SAID SURVEY LINE OF STATE HIGHWAY ROUTE NO. 507, A DISTANCE OF
208.21 FEET TO THE SOUTHEASTERLY CORNER OF SAID LOT NO. 1;
THENCE NORTH 65°50'19" WEST ALONG THE SOUTHERLY LINE OF SAID LOT NO. 1 A DISTANCE OF
227.28 FEET TO THE SOUTHWESTERLY CORNER OF SAID LOT NO. 1 AND THE POINT OF BEGINNING.

SITUATE IN THE COUNTY OF PIERCE, STATE OF WASHINGTON.

SCHEDULE B - SPECIAL EXCEPTIONS
LEGAL DESCRIPTION

- | | |
|---|--|
| 1 | RELINQUISHMENT OF ACCESS TO STATE HIGHWAY NUMBER 5-H AND OF LIGHT, VIEW AND AIR BY DEED: GRANTEE: STATE OF WASHINGTON
RECORDING DATE: (NOT-PLOTTED)
RECORDING NO.: (NOT-PLOTTED)
RECORDING NO.: (NOT-PLOTTED) |
| 2 | RECORDING NO: (NOT-PLOTTED) |
| 3 | RECORDING DATE: (NOT-PLOTTED)
RECORDING NO.: (NOT-PLOTTED) |
| 4 | AGREEMENT AND THE TERMS AND CONDITIONS THEREOF:
(100' WELL RADIUS - PER PIERCE COUNTY BOARD OF HEALTH RESOLUTION #2018-4560 - CHAPTER 2 PAGE 35 - PLOTTED) |
| 5 | (NOT-PLOTTED) |
| 6 | SPECIAL TAXES AND CHARGES): (NOT PLOTTED) |
| 7 | RECORDING DATE: (NOT-PLOTTED)
RECORDING NO.: (NOT-PLOTTED) |
| 8 | RECORDING DATE: (NOT-PLOTTED)
RECORDING NO.: (NOT-PLOTTED) |
| 9 | (NOT-PLOTTED) |

		DATE		REVISIONS						JOB NUMBER	
DESIGNED BY: P. MAYE	5/20/26	NO.	DATE	DESCRIPTION						23097-06	
ENTERED BY: B. BAON	5/20/26									60%	
CHECKED BY: J. HNATISHIN	5/20/26									SHEET	
PROJ. ENCR.: P. MAYE	5/20/26									C1	
Plotted By: Matthias Gallagher on 5/20/26 10:00 AM										OF	
Saved By: MatthiasGallagher on 5/11/26 8:48 AM										63	
C:\bms\skillings-pw-01\matthias_gallagher\dms06161\23097_06_EX_BP_TOPO.dwg										SHEETS	



SKILLINGS

5016 Lacey Boulevard SE, Lacey, Washington 98503
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CITY OF ROY WA

**NEW RESERVOIR, BOOSTER PUMP STATION,
AND TREATMENT PLANT**

TOPOGRAPHIC SURVEY

BASIS OF BEARING
THE FOUND 3" BRASS DISK STAMPED
IDENTIFIED AS WSDOT 4218 (GP27507-88) TO
THE FOUND 3" BRASS DISK IDENTIFIED AS
WSDOT 4220 (ROY); SAID LINE BEARS
N 13° 36' 34" E A MEASURED DISTANCE OF
6,117.25 FEET (MEASURED BEARING AS
SHOWN ON MAP.)

BENCHMARK
WSDOT "ROY" DESIGNATION
MON ID 4220
N: 615,454.96'
E: 1,130,656.57'
ELEV: 316.85'

EQUIPMENT & PROCEDURES
TRIMBLE R121 RECEIVER WITH TRIMBLE TSC5
DATA COLLECTOR AND TOPCON GT1003 TOTAL
STATION USING FIELD TRAVERSE METHODS.
THE RESULTS OF THE FIELD SURVEY MEET OR
EXCEED THE REQUIRED STANDARDS LISTED IN
WAC 332-130-090.

METHOD OF SURVEY
SURVEY PERFORMED BY CONVENTIONAL
FIELD TRAVERSE USING A LINEAR AND
ANGULAR CLOSURE OF THE TRAVERSE
MEET THE STANDARDS OF WAC 332-130-090.

UNITS OF MEASURE ARE US SURVEY FEET
GRID COORDINATES SHOWN ARE NAD-83
WSRN WASHINGTON SOUTH ZONE,
ELEVATIONS SHOWN IN NAVD-88

BOUNDARY
THE BOUNDARY WAS COMPILED
USING PHYSICAL FEATURES TIED IN
THE FIELD AND DOCUMENTS OF
RECORD AS SHOWN BELOW.

SURVEYS REFERENCED
AF# 202401105006, PIERCE COUNTY,
WASHINGTON

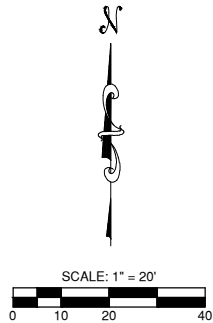
SURVEYOR'S NOTES
1. THE SCOPE OF WORK FOR
THIS TOPOGRAPHIC SURVEY
CONSISTED OF MAPPING
PARCEL NUMBER 021703204960.

2. CONTOURS DERIVED FROM
DIRECT FIELD OBSERVATION
COMPLETED MAY, 2025.

3. ELEVATIONS AND CONTOUR
ACCURACY PER "NATIONAL
MAPPING STANDARDS" TO
SUPPORT 1 FOOT CONTOUR
INTERVALS.

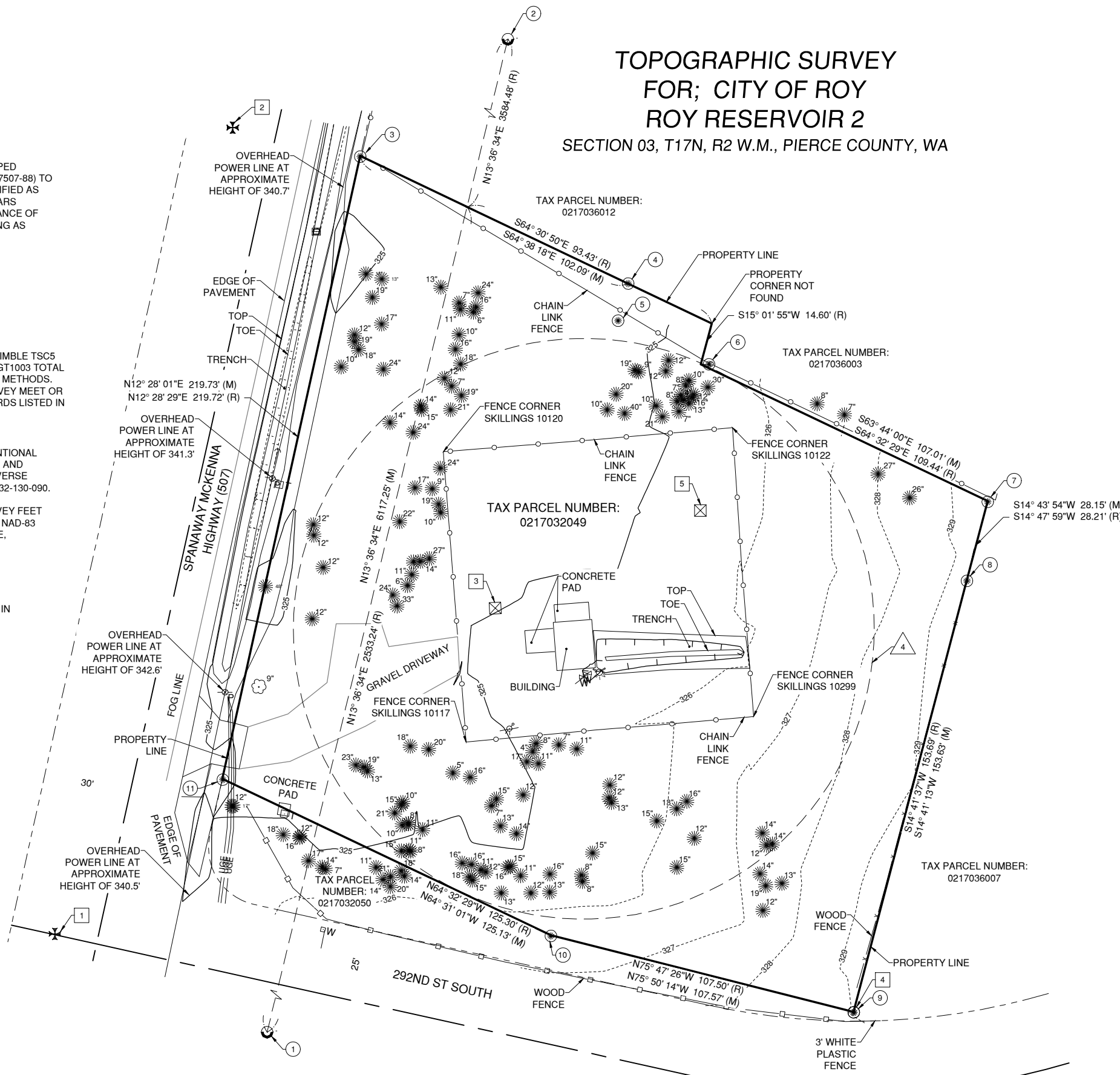
4. THIS SURVEY HAS BEEN
PREPARED FOR THE EXCLUSIVE
USE OF THE PARTIES WHOSE
NAMES APPEAR HEREON ONLY,
AND DOES NOT EXTEND TO ANY
UNNAMED THIRD PARTIES
WITHOUT THE EXPRESS
RE-CERTIFICATION BY THE LAND
SURVEYOR.

TOPOGRAPHIC SURVEY FOR; CITY OF ROY ROY RESERVOIR 2 SECTION 03, T17N, R2 W.M., PIERCE COUNTY, WA

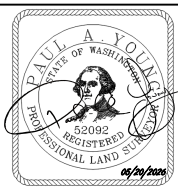


LEGEND

- ⊙ CONTROL POINT
- # TRAVERSE POINT
- △ LEGAL DESCRIPTION: SCHEDULE B
SPECIAL EXCEPTIONS
- (M) MEASURED BEARING AND DISTANCE
- (R) REFERENCED BEARING AND DISTANCE
- (C) CALCULATED BEARING AND DISTANCE
- ⊙ BRASS DISK
- ⊠ HUB & TACK
- ⊙ #5 REBAR W/ CAP
- ⊠ STORM CATCH BASIN TYPE 1
- ⊠ WATER VALVE
- ⊠ POST INDICATOR VALVE
- ⊠ W WATER METER
- ⊠ AIR RELEASE VALVE
- ⊠ POWER POLE
- ⊠ POWER POLE ANCHOR
- ⊠ POWER POLE W/ DROP
- ⊠ T PHONE PEDESTAL
- ⊠ CONIFER TREE
- ⊠ DECIDUOUS TREE
- x — x — FENCE
- x — x — BARBWIRE FENCE
- o — o — CHAIN LINK FENCE
- □ — □ — WOOD FENCE
- UGE — UNDERGROUND POWER LINE
- W - - - W - - - WATER LINE
- OPH — OVERHEAD PHONE LINE



DESIGNED BY: P. MAYE	DATE	NO.	DATE	REVISIONS
ENTERED BY: B. BAON	5/20/26			DESCRIPTION
CHECKED BY: J. HNATISHIN	5/20/26			
PROJ. ENGR.: P. MAYE	5/20/26			
Plotted By: Matthias Gallagher on 5/20/26 10:04 AM				
Saved By: MatthiasGallagher on 5/11/26 8:48 AM				
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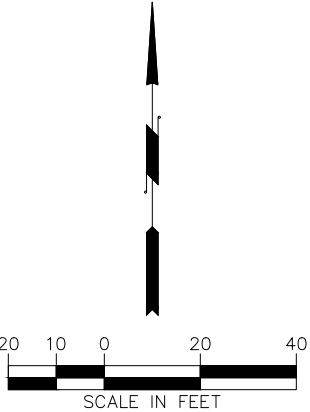
NEW RESERVOIR, BOOSTER PUMP STATION,
AND TREATMENT PLANT

TOPOGRAPHIC SURVEY

JOB NUMBER	23097-06
	60%
SHEET	C2
OF	63
SHEETS	

SEC. 03 , T. 17N, R. 2, W.M.

SILT FENCE			
POINT #	ELEVATION	NORTHING	EASTING
101	324.94	611824.36	1129810.97
102	324.52	611886.31	1129806.17
103	325.46	611894.42	1129903.72
104	326.60	611796.94	1129910.71
105	324.79	611788.34	1129813.86
106	324.96	611810.20	1129812.22



2 SILT FENCE
SEE DETAIL ON C4.

OVERHEAD POWER

EXISTING CHAIN LINK FENCE

DEMOLITION NOTES:

1. USE EXISTING GRAVEL DRIVEWAY FOOTPRINT (815 SF) FOR CONSTRUCTION ENTRANCE. SEE DETAIL ON SHEET C4 FOR STANDARD CONSTRUCTION ENTRANCE DETAIL.
2. PROVIDE SILT FENCING (569 LF) . SEE DETAIL ON SHEET C4.
3. PROTECT IN PLACE EXISTING SPLIT RAIL FENCE.
4. CLEARING AND GRUBBING LIMITS (0.33 ACRES)

DESIGNED BY: P. MAYE	8/31/26	NO.	DATE	REVISIONS
ENTERED BY: D. MAERTENS	8/31/26			DESCRIPTION
CHECKED BY: J. HNATISHIN	8/31/26			
PROJ. ENGR.: R. NELSON	8/31/26			
Plotted By: Dylan Maertens on 8/31/26 4:24 PM				
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CITY OF ROY

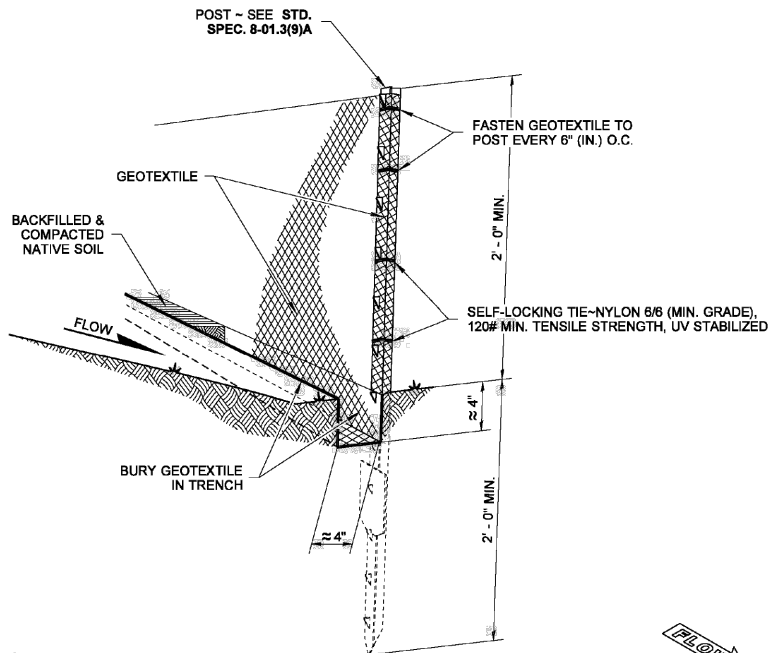
WA

WELL SITE 2, WATER SYSTEM
IMPROVEMENTS

DEMO AND TESC

JOB NUMBER
23097-06
60%
SHEET
C3
OF
20
SHEETS

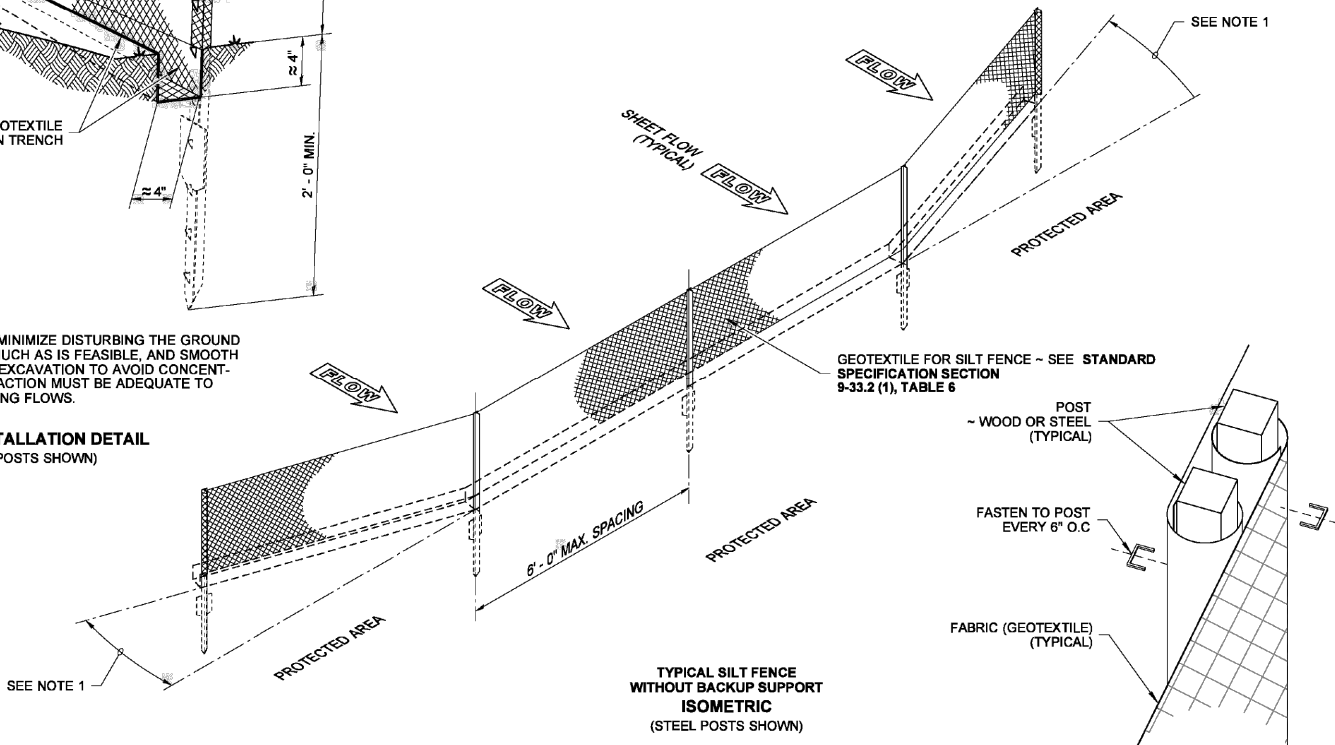
DRAWN BY: BILL BERENS



NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

TYPICAL INSTALLATION DETAIL
(STEEL POSTS SHOWN)



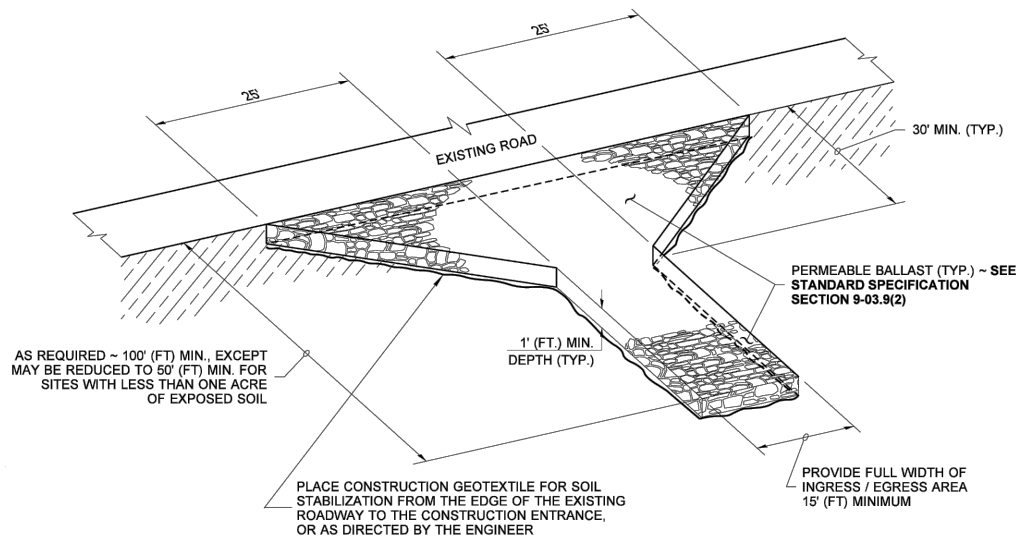
TYPICAL SILT FENCE
WITHOUT BACKUP SUPPORT
ISOMETRIC
(STEEL POSTS SHOWN)

SPliced FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

SPLICE DETAIL
(WOOD POSTS SHOWN)

NOTES

1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with **Standard Specifications 8-01.3(9)A and 8-01.3(15)**.
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.



ISOMETRIC VIEW
STABILIZED CONSTRUCTION ENTRANCE

STABILIZED CONSTRUCTION ENTRANCE SHALL MEET THE REQUIREMENTS OF **STANDARD SPECIFICATION SECTION 8-01.3(7)**.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

SILT FENCE

NOT TO SCALE



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
SANDRA L. SALISBURY
CERTIFICATE NO. 000860

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

SILT FENCE

STANDARD PLAN I-30.15-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III 3/22/13
STATE DESIGN ENGINEER DATE
Washington State Department of Transportation

DESIGNED BY:	DATE	NO.	DATE	REVISIONS
ENTERED BY: D. MAERTENS	8/31/26			DESCRIPTION
CHECKED BY: J. HNATISHIN	8/31/26			
PROJ. ENGR.: R. NELSON	8/31/26			
Plotted By: Dylan Maertens on 8/31/26 4:25 PM				
Saved By: Dylan Maertens on 8/13/26 2:41 PM				
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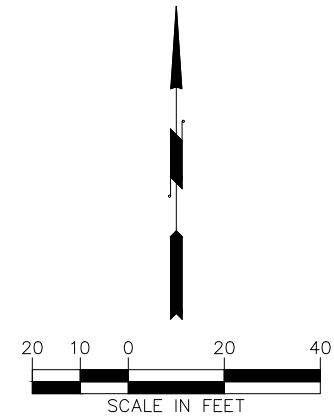
CITY OF ROY

WA

WELL SITE 2, WATER SYSTEM IMPROVEMENTS

DEMO AND TESC DETAIL

JOB NUMBER	23097-06
60%	
SHEET	C4
OF	20
SHEETS	



- (X) CONSTRUCTION NOTES:
1. EXISTING WELL AND STRUCTURES TO BE PROTECTED IN PLACE.
 2. NEW MECHANICAL BUILDING. SEE SHEET M3.
 3. NEW OVERFLOW POND. SEE SHEET C6.
 4. NEW SOLIDS WASTE PAVEMENT POND. C6.

	DATE	REVISIONS		
DESIGNED BY: P. MAYE	8/31/26	NO.	DATE	DESCRIPTION
ENTERED BY: D. MAERTENS	8/31/26			
CHECKED BY: J. HNATISHIN	8/31/26			
PROJ. ENGR.: R. NELSON	8/31/26			
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Saved By: DylanMaertens on 8/28/26 6:41 AM				
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**SKILLINGS**

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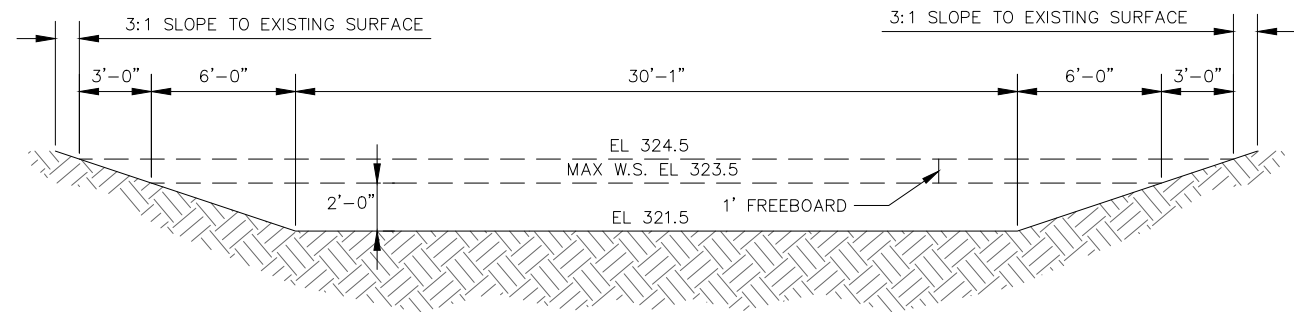
**City of Roy**
WASHINGTON

CITY OF ROYWA

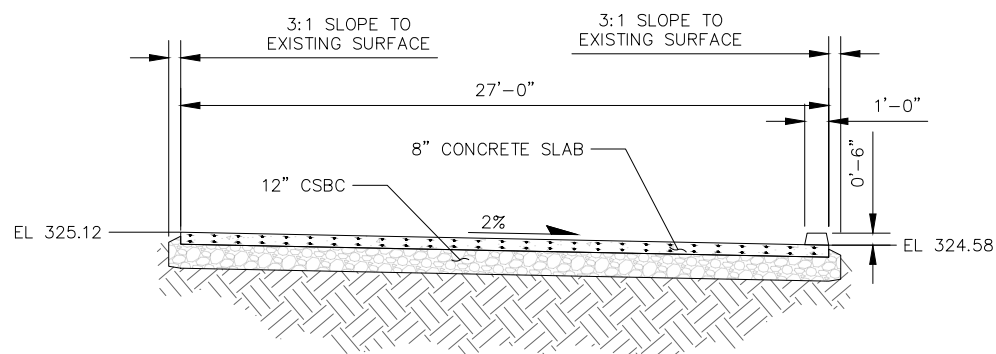
**NEW RESERVOIR, BOOSTER
PUMP STATION, AND TREATMENT
PLANT TO BE BUILT IN ROY**

SITE PLAN

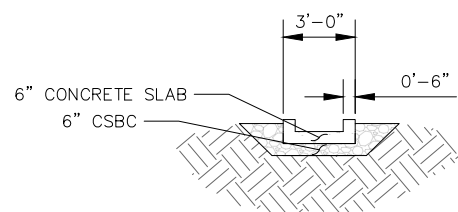
JOB NUMBER
23097-06
60%
SHEET
C5
OF
20
SHEETS



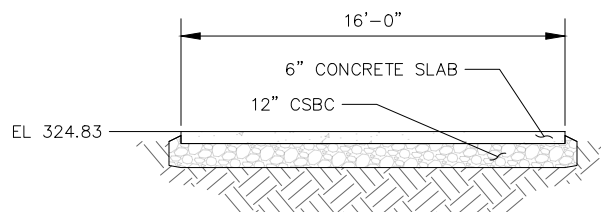
A-A POND SECTION (1)
NOT TO SCALE (C6)



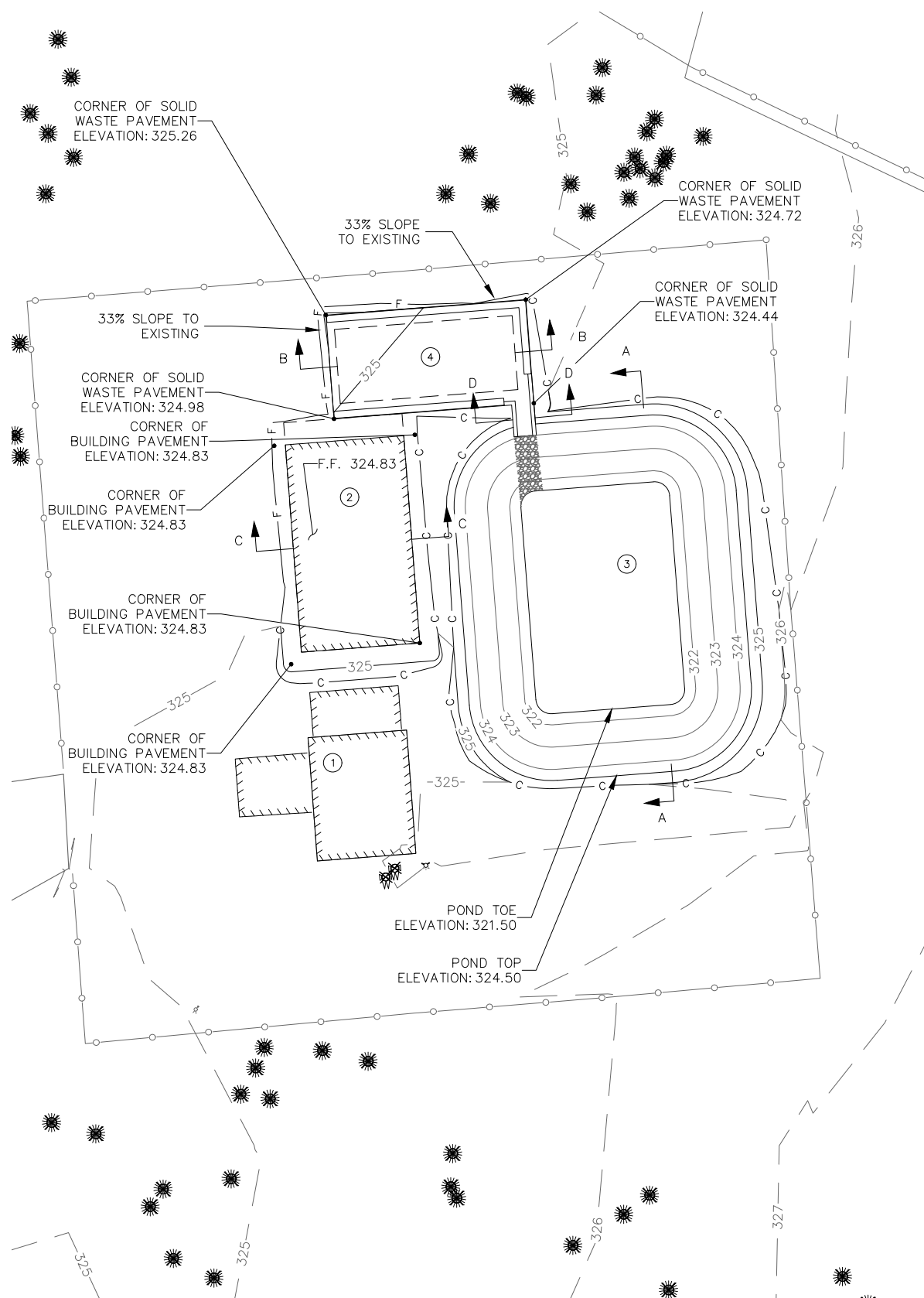
B-B SOLIDS WASTE PAVEMENT SECTION (2)
NOT TO SCALE (C6)



D-D SOLIDS WASTE TO POND (1)
NOT TO SCALE (C6)



C-C BUILDING CONCRETE SLAB SECTION (1)
NOT TO SCALE (C6)



(X) CONSTRUCTION NOTES:

1. EXISTING WELL AND STRUCTURES TO BE PROTECTED IN PLACE.
2. NEW MECHANICAL BUILDING. SEE SHEET M3.
3. NEW OVERFLOW POND. SEE SHEET C6.
4. NEW SOLIDS WASTE PAVEMENT POND. C6.

DESIGNED BY:	DATE	NO.	DATE	REVISIONS
ENTERED BY: D. MAERTENS	8/31/26			DESCRIPTION
CHECKED BY: J. HNATISHIN	8/31/26			
PROJ. ENGR.: R. NELSON	8/31/26			
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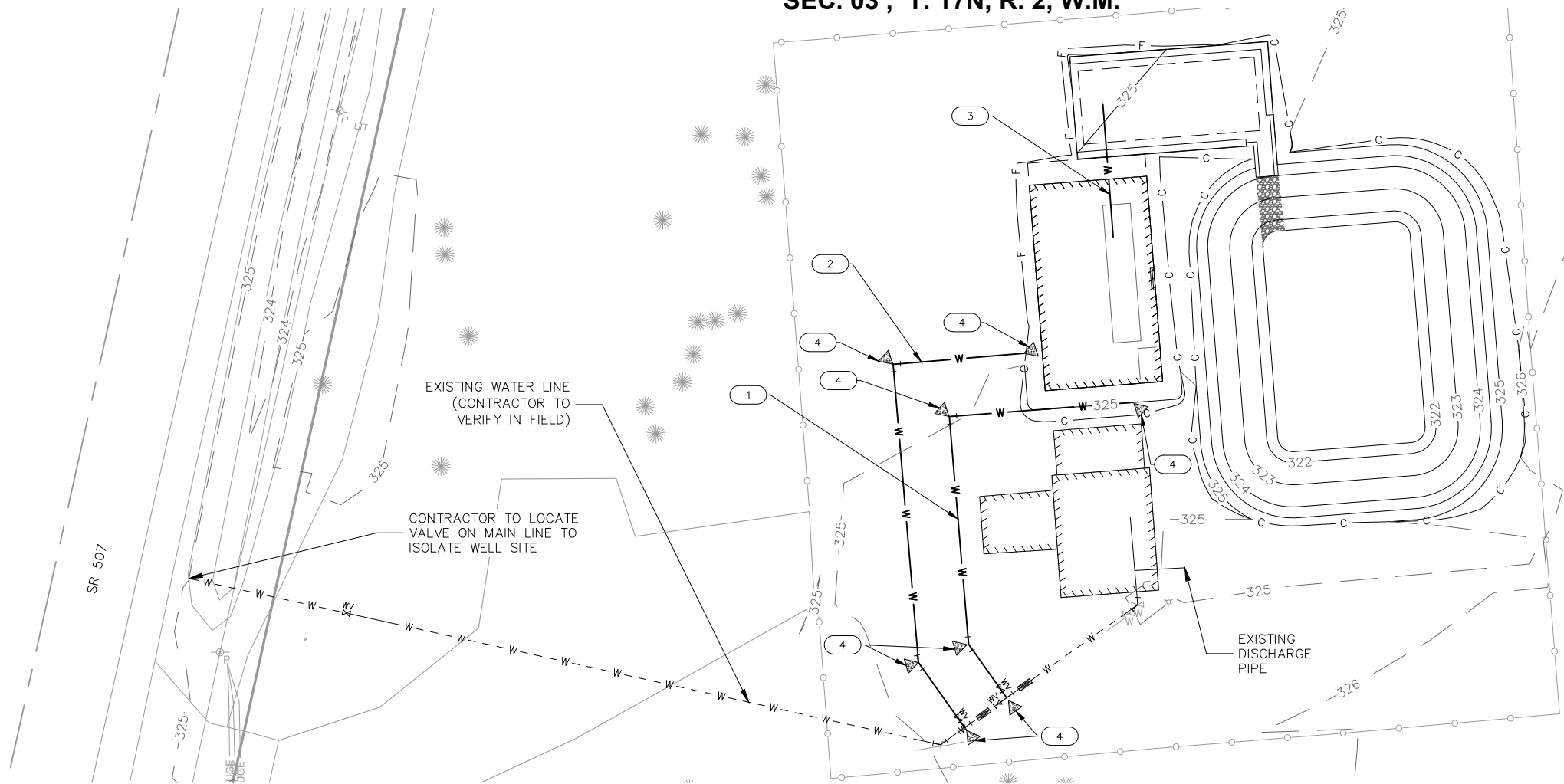


WELL SITE 2, WATER SYSTEM IMPROVEMENTS

SITE GRADING PLAN

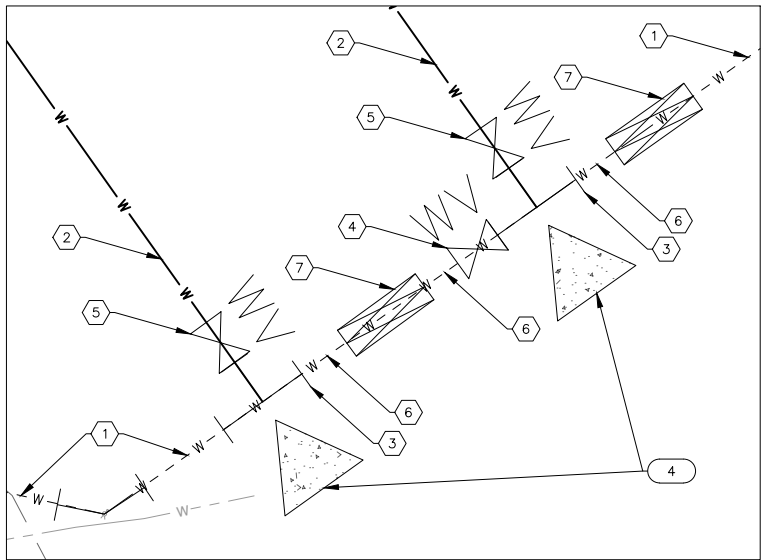
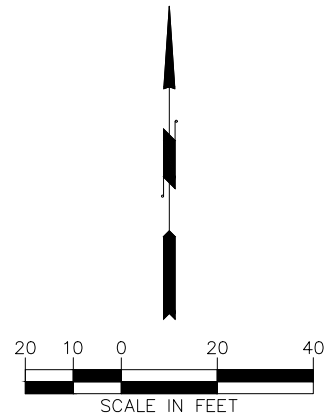
JOB NUMBER
23097-06
60%
SHEET
C6
OF
20
SHEETS

SEC. 03 , T. 17N, R. 2, W.M.



KEY NOTES:

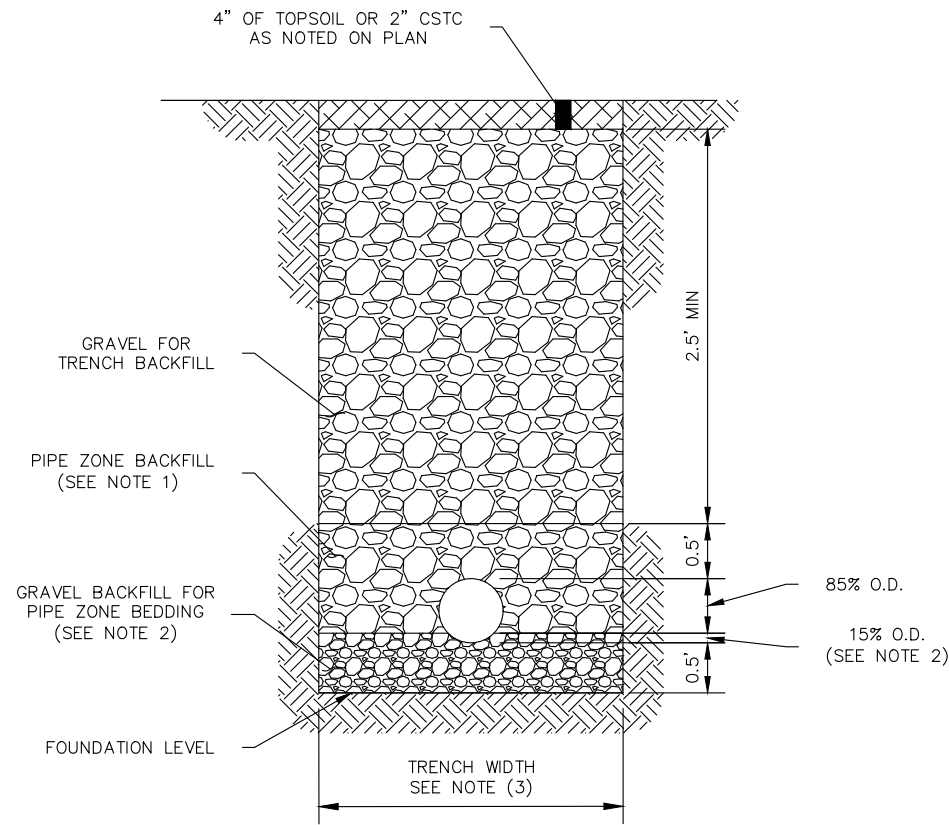
1. RAW WATER.
2. SUPPLY DISTRIBUTION.
3. TREATMENT BACKWASH.
4. THRUST BLOCK. SEE SHEET C8.



RAW WATER CONNECTION DETAIL (2)
NOT TO SCALE (C7)

NOTES:

1. EXISTING 10" DIAMETER WATER MAIN.
2. 6" DIAMETER DI CL S2 PROPOSED WATER MAIN.
3. 10" x 6" DIAMETER DI TEE BEND (FL X MJ X FL).
4. 10" DIAMETER DI GATE VALVE (FL X MJ).
5. 6" DIAMETER DI GATE VALVE (FL X MJ).
6. 10" DIAMETER SPOOL (PE.).
7. 10" SOLID SLEEVE.



NOTES:

1. SEE STANDARD SPECIFICATIONS SECTION 7-08.3(3)
FOR PIPE ZONE BACKFILL.
2. SEE STANDARD SPECIFICATIONS SECTION 9-03.12(3)
FOR GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
3. SEE STANDARD SPECIFICATIONS SECTION 2-09.4
FOR MEASUREMENT OF TRENCH WIDTH.

DUCTILE IRON TRENCH DETAIL (1)
NOT TO SCALE (C7)

DESIGNED BY:	DATE	NO.	DATE	REVISIONS DESCRIPTION
P. MAYE	8/31/26			
ENTERED BY: D. MAERTENS	8/31/26			
CHECKED BY: J. HNATISHIN	8/31/26			
PROJ. ENGR.: R. NELSON	8/31/26			
Plotted By: Dylan Maertens on 8/31/26 4:25 PM				
Saved By: Dylan Maertens on 8/31/26 4:21 PM				
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SKILLINGS

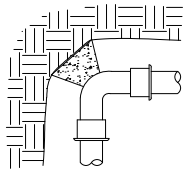
5016 Lacey Boulevard SE, Lacey, Washington 98503
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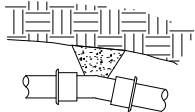
WELL SITE 2, WATER SYSTEM
IMPROVEMENTS

SITE YARD PIPING PLAN

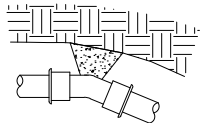
JOB NUMBER 23097-06 60%
SHEET C7 OF 20 SHEETS



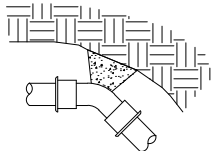
90° BEND



11 1/4° BEND

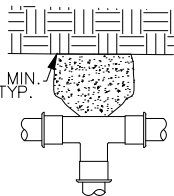


22 1/2° BEND



45° BEND

SEE 6001 PAGE 2 FOR MIN. THRUST BLOCK AREA, TYP. ALL BENDS.



TEE

SOIL TYPE	APPROX. BEARING CAPACITY (LBS/SQ FT)
MUCK, PEAT, ETC.	0
SOFT CLAY	500
SAND, SILT	1000
SAND AND GRAVEL, SANDY SILT	1500
SAND AND GRAVEL WITH CLAY	2000
SAND AND GRAVEL CEMENTED WITH CLAY	4000
SANDY CLAY	6000
HARD CLAY, HARD SHALE	9000

THRUST DEVELOPED BY FITTINGS IN PRESSURE PIPE

NOMONAL PIPE SIZE (IN)	TEST PRESSURE (PSI)	DEAD END, TEE, VALVE	BENDS			
			90	45	22.5	11.25
3	100	1,845	2,625	1,410	720	360
4	100	2,715	3,840	2,085	1,065	540
6	100	5,610	7,935	4,290	2,190	1,095
8	100	9,645	13,650	7,380	3,765	1,890
10	100	14,520	20,535	11,115	5,670	2,850
12	100	20,535	29,025	15,720	8,010	4,020
14	100	27,585	39,000	21,105	10,770	5,400
16	100	35,670	50,445	27,300	13,920	6,990
18	100	44,835	63,360	34,290	17,475	8,790
20	100	54,960	77,730	42,075	21,450	10,770
24	100	78,420	110,895	60,015	30,600	15,375

NOTES:

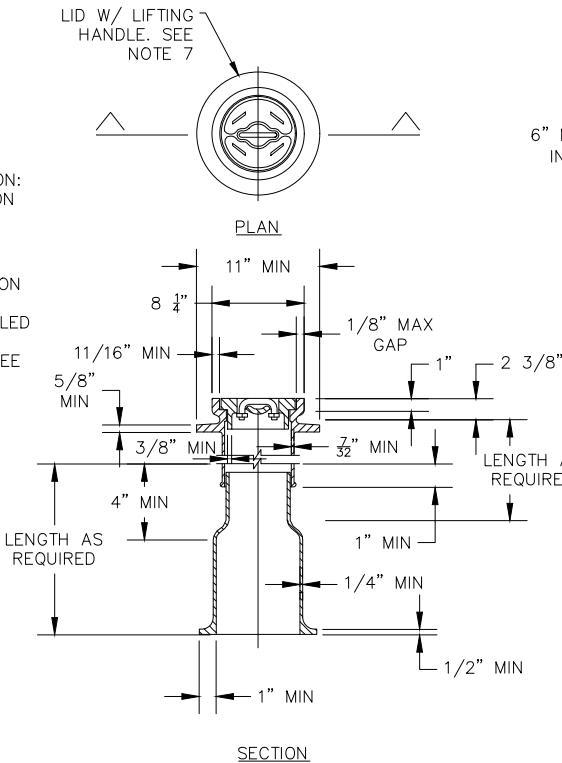
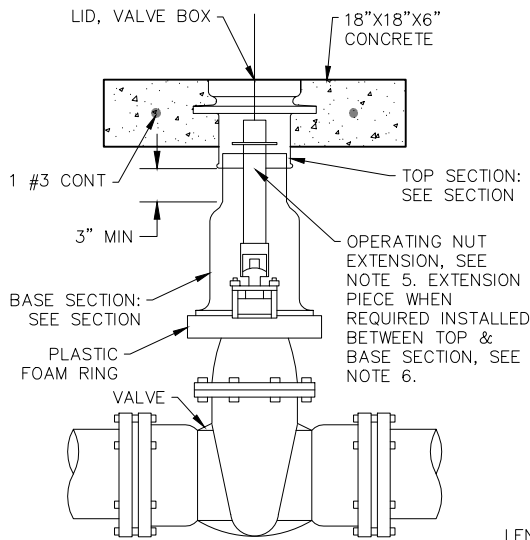
- 1) THRUST BLOCKS ARE REQUIRED ON ALL BENDS FOR PRESSURE PIPE WITH PUSH-ON OR MECHANICAL TYPE JOINTS.
- 2) ALL CONCRETE BLOCKING SHALL BE POURED AGAINST DRY, UNDISTURBED SOIL
- 3) THRUST BLOCK SHALL BE SIZED USING THE TEST PRESSURE OF THE PIPE.
- 4) THRUST BLOCKING SHALL BE POURED IN THE PRESENCE OF THE INSPECTOR.
- 5) ALL VERTICAL BENDS AND VALVES SHALL UTILIZE GRAVITY THRUST BLOCKS.
- 6) THE CONCRETE SHALL BE COMMERCIAL CLASS.
- 7) THE CONTRACTOR MAY MAKE A SUBMITTAL FOR ENGINEERS APPROVAL TO USE RESTRAINED JOINTS IN LIEU OF THRUST BLOCKS. SUBMITTAL SHALL INCLUDE CALCULATIONS OF RESTRAINED LENGTHS
- 8) THRUST BLOCK SIZING CALCULATIONS SHALL BE SUBMITTED BY THE RECORD ENGINEER FOR APPROVAL.

CONCRETE THRUST BLOCKING DETAIL

NOT TO SCALE

1
C8

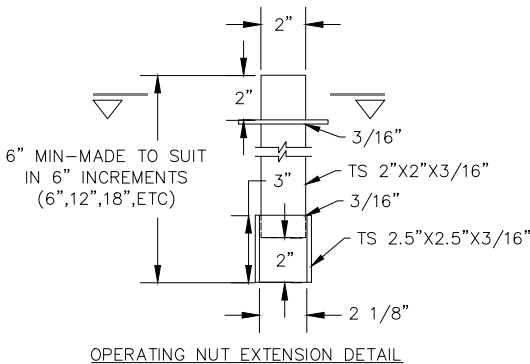
- SOIL BEARING CAPACITIES SHOWN ARE APPROXIMATE ACTUAL SOIL AN BEARING CAPACITY ADJACENT TO THRUST BLOCK MUST BE DETERMINED BY A LICENSED ENGINEER OR OTHER SOILS PROFESSIONAL
- TO DETERMINE MINIMUM THRUST BLOCK AREA REQUIRED, DIVIDE THE THRUST BY THE SOIL BEARING CAPCITY
- FOR TEST PRESSURES OTHER THAN 100 PSI, MULTIPLY THE THRUST BY THE RATIO OF ACTUAL PRESSURE TO 100 PSI
- EXAMPLE: 4" 45° BEND WITH TEST PRESSURE OF 250 PSI, AND SOIL BEARING CAPACITY OF 2000 LBS/SQ. FT
FROM CHART, THRUST = 2085 LBS x (250/100) = 5213 LBS
MIN THRUST BLOCK AREA = 5213 LBS/(2000 LBS/SQ FT) = 2.6 SQ FT



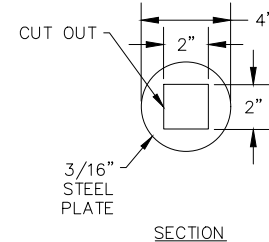
VALVE AND VALVE BOX DETAIL

NOT TO SCALE

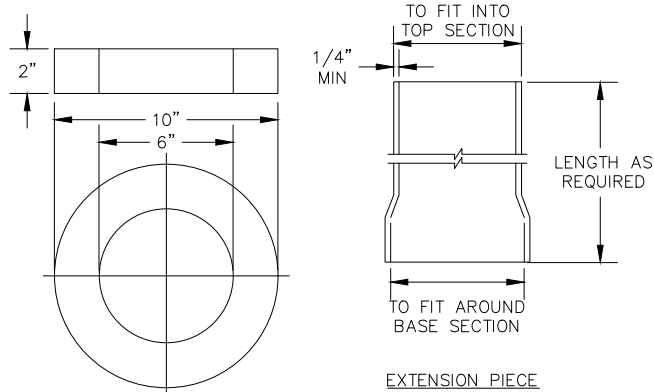
2
C8



OPERATING NUT EXTENSION DETAIL



SECTION



PLASTIC FOAM RING DETAIL

EXTENSION PIECE

NOTES:

1. FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS FOR DELIVERY.
2. CASTINGS AND EXTENSIONS SHALL BE HOT-DIPPED IN ASPHALTIC VARNISH ROYSTON ROSKOTE #612XM OR 2 COATS OF MASTIC ROYSTON INSIDE AND OUT.
3. VALVE BOXES SHALL BE RICH #045: TOP SECTION, LID AND BASE; OR OLYMPIC FOUNDRY: LID #1908-33, TOP SECTION #1106-33, BASE SECTION #1301-33 OR APPROVED EQUAL.
4. ALL CASTINGS SHALL BE DUCTILE IRON OR GREY CAST IRON.
5. AN OPERATING NUT EXTENSION SHALL BE INSTALLED WHEN THE GROUND SURFACE IS MORE THAN 2'6" ABOVE THE VALVE OPERATING NUT. THE OPERATING NUT EXTENSION SHALL EXTEND INTO THE TOP SECTION OF THE STANDARD VALVE BOX AND SHALL CLEAR THE BOTTOM OF THE LID BY 6" MINIMUM.
6. EXTENSION PIECES (WHEN USED) SHALL CONFORM TO MINIMUM THICKNESS REQUIREMENTS AND SHALL FIT INTO THE TOP SECTION AND OVER THE BOTTOM SECTION.
7. LID SHALL BE STAMPED "WATER".

	DATE	REVISIONS		
		NO.	DATE	DESCRIPTION
DESIGNED BY: P. MAYE	8/31/26			
ENTERED BY: D. MAERTENS	8/31/26			
CHECKED BY: J. HNATISHIN	8/31/26			
PROJ. ENGR.: R. NELSON	8/31/26			
Plotted By: Dylan Maertens on 8/31/26 4:25 PM				
Saved By: CharlesSnyder on 8/31/26 2:56 PM				
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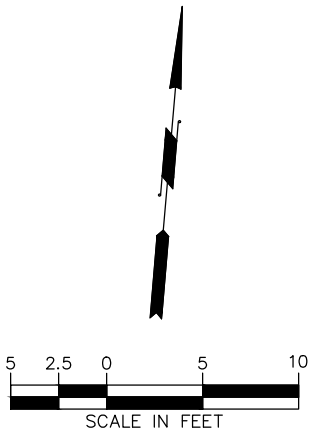
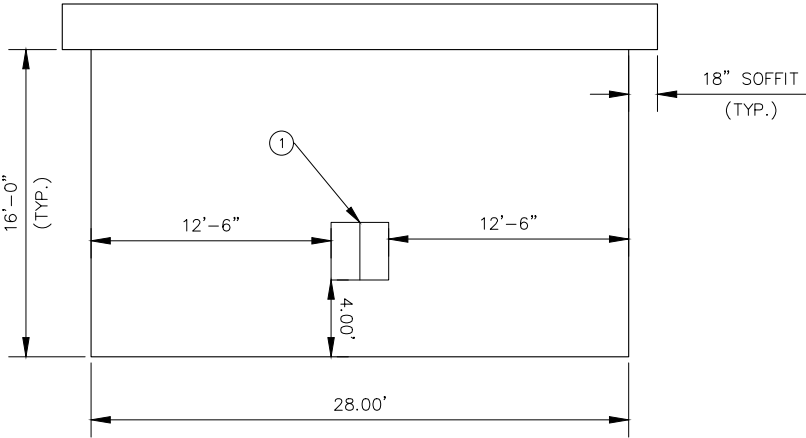
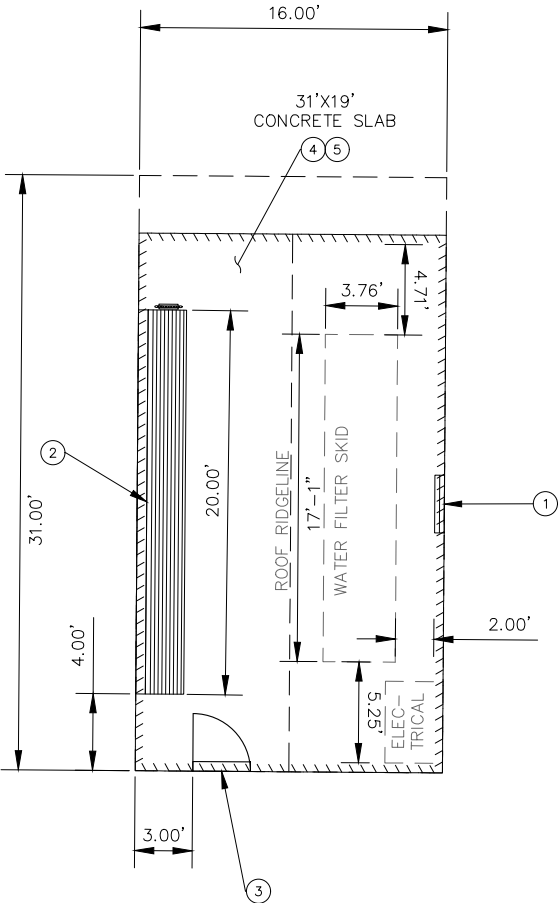
CITY OF ROY

WA

WELL SITE 2, WATER SYSTEM IMPROVEMENTS

WATER DETAILS

JOB NUMBER	23097-06
	60%
SHEET	C8
OF	20
SHEETS	

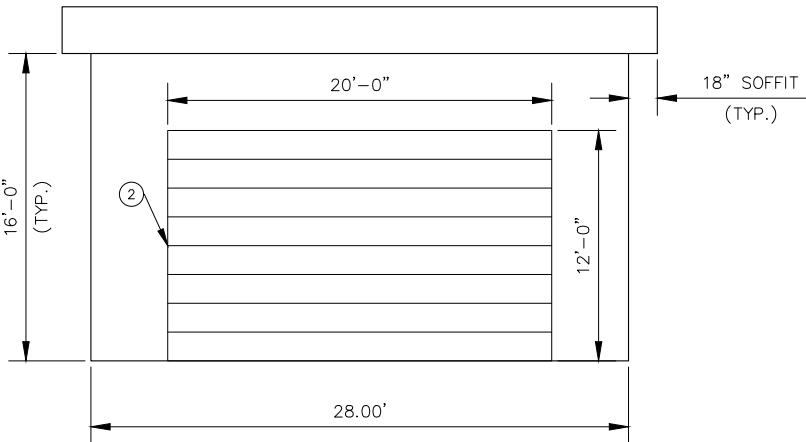
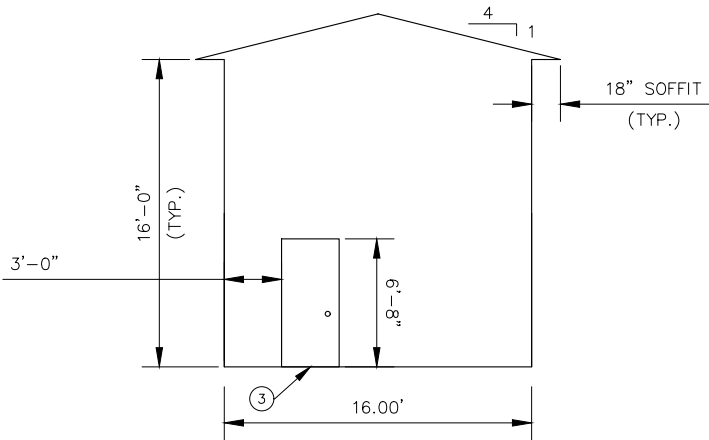
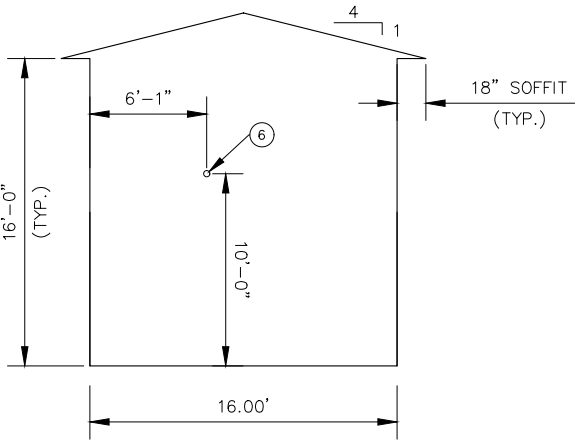


GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE COMPLETE ENGINEERED 16'X28' POST FRAME BUILDING PLANS, INCLUDING FRAMING, METAL SIDING, ROOFING, INSULATION, DOORS, WINDOWS AND ACCESSORIES AND FOUNDATION.
2. CONTRACTOR SHALL PROVIDE 8" CONCRETE FLOOR SLAB 19'X31'
3. METAL BUILDING SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS SECTION 13 34 19 OF THE CONTRACT DOCUMENTS
4. CONTRACTOR SHALL PROVIDE STRUCTURAL CALCULATIONS PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN WASHINGTON STATE.
5. CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS TO CONSTRUCT THE METAL BUILDING ON THE PROJECT SITE.

CONSTRUCTION NOTES

1. 36" X 36" VINYL SLIDING WINDOWS.
2. 20' X 12' ROLLING STEEL DOOR W/ CHAIN LIFT. SEE SPECIFICATIONS.
3. 3'-0" X 6'-8" LH, INSWING SOLID CORE, PAINT GRADE STEEL PRE-HUNG DOOR.
4. 6" CONCRETE FLOOR SLAB W/ SMOOTH TROWEL FINISH.
5. PROVIDE EPOXY SEAL TO SURFACE OF CONCRETE SLAB.
6. 4" BACKWASH PIPE.



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Saved By: Dylan Maertens on 8/27/26 8:23 AM				
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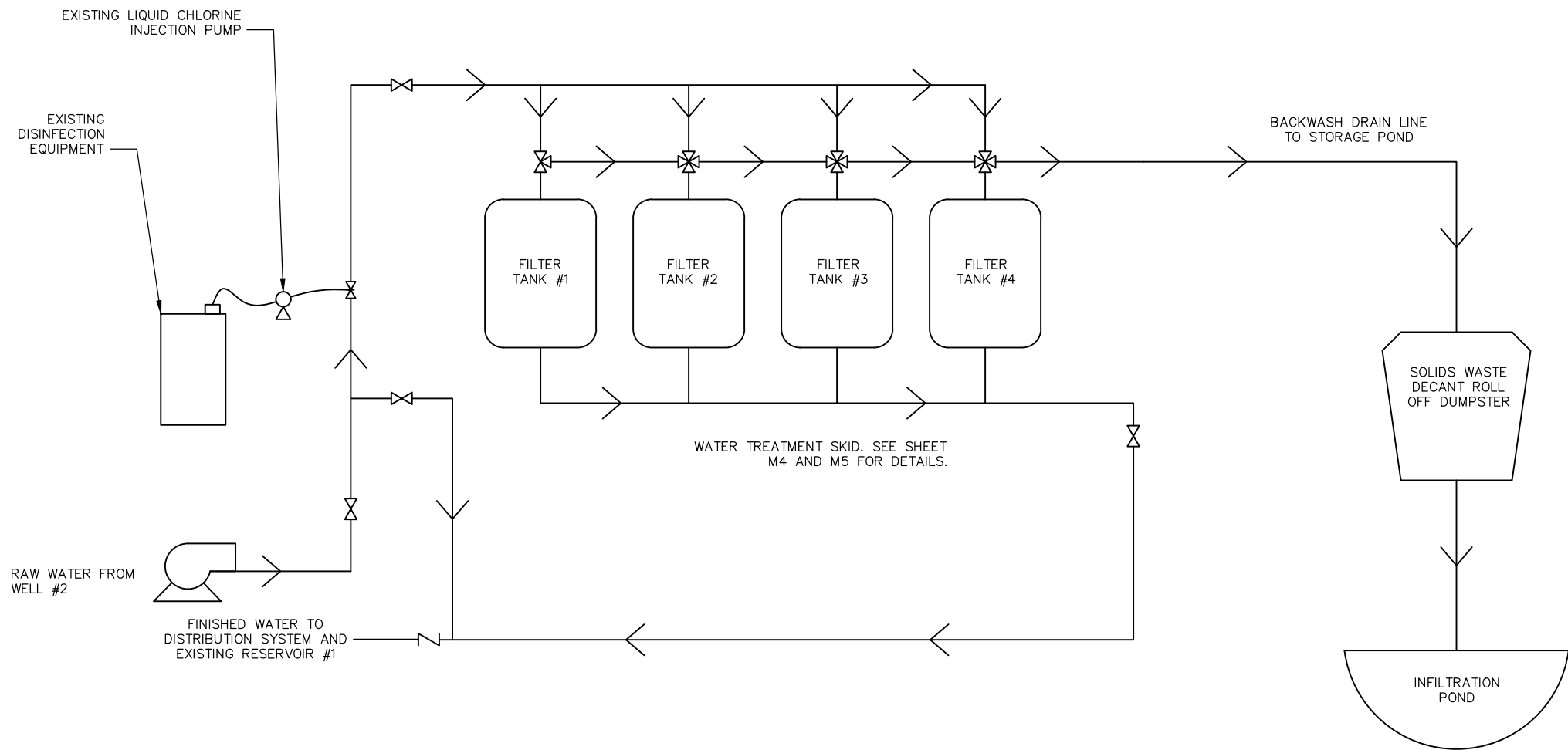
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WELL SITE 2, WATER SYSTEM
IMPROVEMENTS

MECHANICAL BUILDING
LAYOUT

JOB NUMBER
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M1
OF
20
SHEETS



LEGEND:

SYMBOL	DESCRIPTION
	DISTRIBUTION PUMP
	SMALL PUMP
	4-WAY BACKWASH VALVE
	3-WAY BACKWASH VALVE
	INJECTION VALVE
	SWING CHECK VALVE
	GATE VALVE
	CHEMICAL INJECTION LINE
	FINISHED WATER LINE
	RAW WATER LINE

NOTES:

1. THIS PROCESS AND INSTRUMENTATION DIAGRAM ONLY SHOWS THE SYSTEM UNDER PRODUCTION MODE.
2. REFER TO ATEC'S OPERATIONS AND MAINTENANCE MANUAL FOR FURTHER GUIDANCE ON FILTER TANKS AND BACKWASH SYSTEM.
3. DURING BACKWASH MODE THE FINISHED WATER LINE WILL BE A DUAL-USE LINE. IT WILL PROVIDE WATER TO THE STORAGE TANK AT A LOWER FLOWRATE AND SEND WATER TO THE ONE TANK IN BACKWASH MODE.

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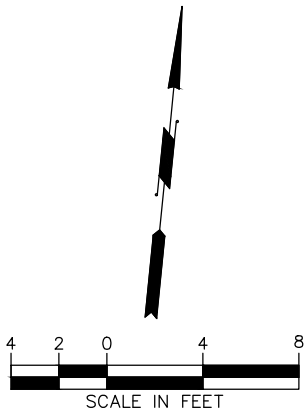
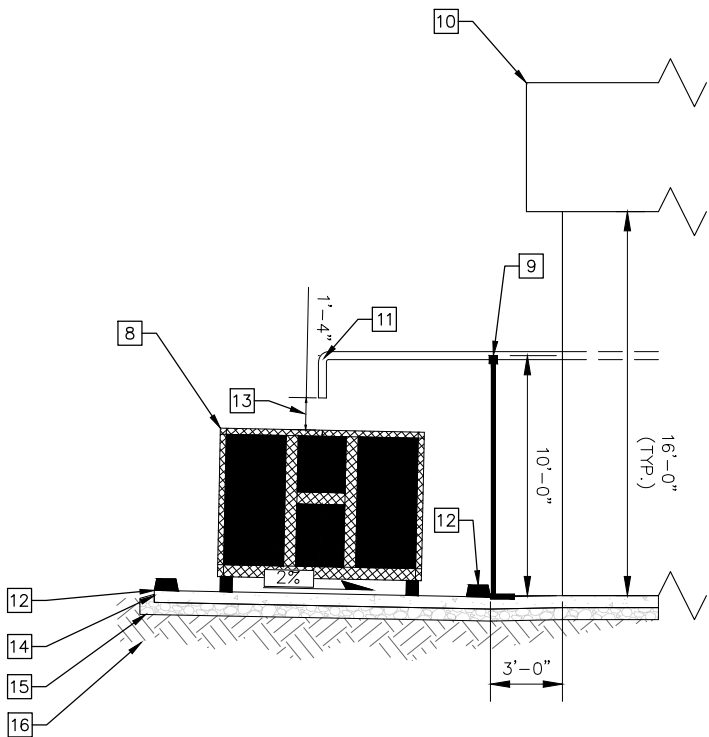
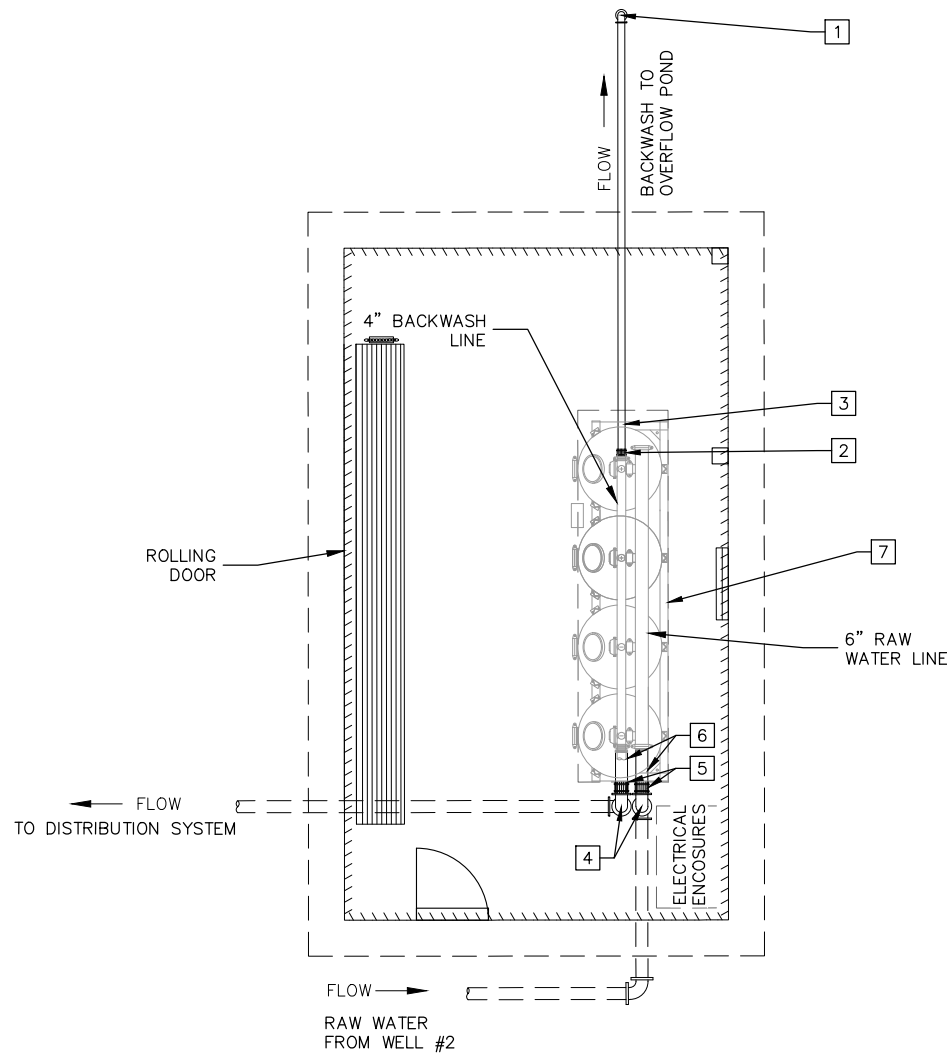


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WELL SITE 2, WATER SYSTEM IMPROVEMENTS	JOB NUMBER
	23097-06
	60%
	SHEET
	M2
	OF
	20
	SHEETS

MECHANICAL BUILDING PROCESS & BLOCK DIAGRAM



- x PIPING NOTES:
- 4" DI 90° VERT. BEND (FL)
 - 4" FLANGE COUPLING ADAPTER
 - 4" DI SPOOL (PE)
 - 6" DI 90° VERT BEND (FL)
 - 6" FLANGE COUPLING ADAPTER
 - 6" DI SPOOL (PE)
 - RAW WATER FILTRATION SKID (SEE SHEET M4 AND M5)
 - ROLL OFF DUMPSTER
 - BACKWASH PIPE SUPPORT
 - EXISTING BUILDING
 - BACKWASH PIPE
 - EXTRUDED CURB
 - AIR GAP
 - 6" CONCRETE SLAB
 - 12" CSBC
 - EXISTING GROUND

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SKILLINGS
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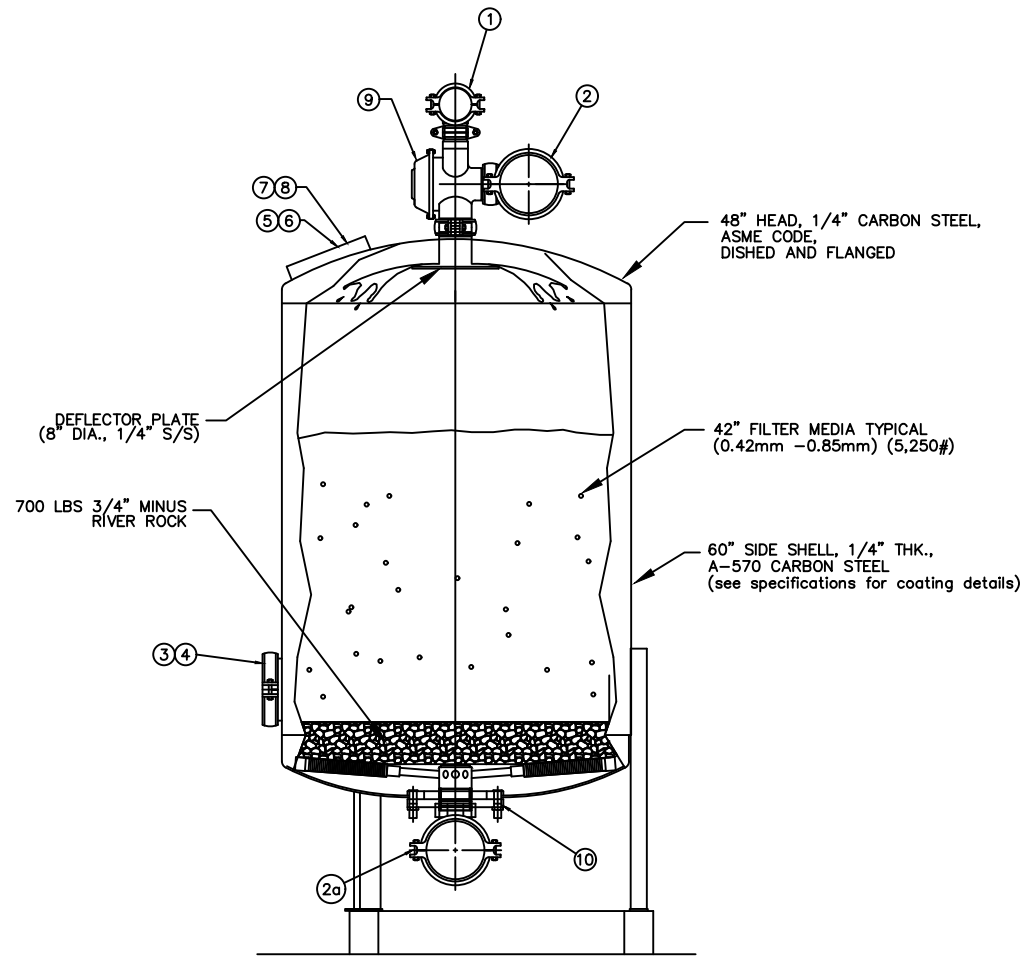


WELL SITE 2, WATER SYSTEM IMPROVEMENTS
MECHANICAL BUILDING INTERIOR PLAN

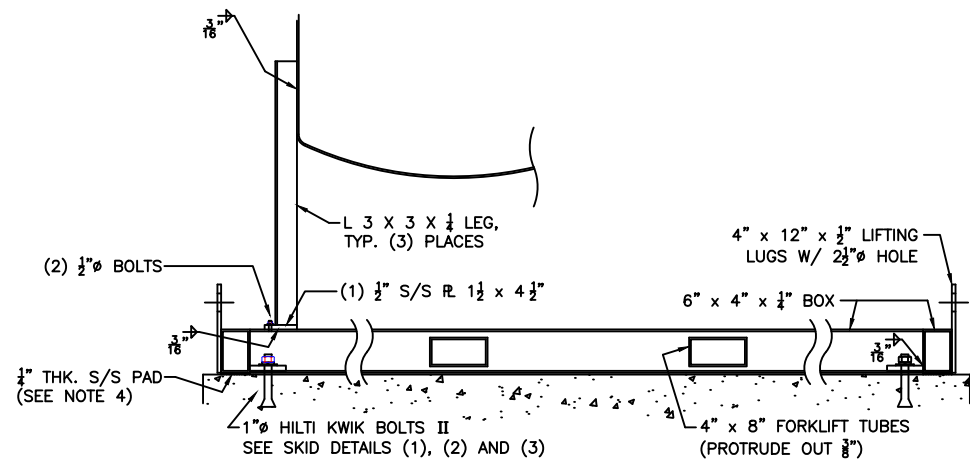
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60%
SHEET
M3
OF
20
SHEETS



JOB NUMBER 23097-06 60%	SHEET M4 OF 20 SHEETS
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TANK SECTION



SECTION A-A (TYPICAL)

BILL OF MATERIAL			
ITEM	QTY	PART NO.	DESCRIPTION
1	1	PFS-CPL03	4" GROOVED COUPLING, CAST IRON W/ BOLTS & GASKET
2	3	PFS-CPL04	6" GROOVED COUPLING, CAST IRON W/ BOLTS & GASKET
3	1	PFS-CAPO8	8" GROOVED END CAP
4	1	PFS-CPL08	8" GROOVED COUPLING, CAST IRON W/ BOLTS & NUTS
5	1	PFS=HHP11	11"x15" HAND HOLE PLATE
6	1	PFS=HHG11	11"x15" HAND HOLE GASKET
7	1	PFS=HHGS11	11"x15" HAND HOLE BOLT SET
8	1	PFS=HHCR11	11"x15" HAND HOLE HOLD DOWN CRAB
9	1	V-BF4	4"x4"x3" SERIES 350 BERMAD BACKWASH VALVE
10	1	UA SS48	UNDER-DRAIN ASSEMBLY 316L SS W/ SCH 80 PVC CAP COMPLETE

NOTE: QUANTITIES FOR ONE (1) TANK



ATEC WATER SYSTEMS, 1690 LANA WAY, BLDG A,
HOLLISTER CA, 95203, PHONE (831) 637-9264,
WWW.ATECWATER.COM

DESIGN BY:

DRAWN BY:

CHECKED BY:

APRD BY:

NO.

DATE

BY

APVD

42 - INCH DIA VESSELS
ATEC TREATMENT SYSTEM

FILTER PLAN AND PROFILES

SHEET NO. 2 of 2

DWG. NO.

DATE: 1-4-2013

FILE:
Standard 5 - Filter 42

DESIGNED BY:	DATE	NO.	DATE	REVISIONS
ENTERED BY: D. MAERTENS	8/31/26			DESCRIPTION
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WELL SITE 2, WATER SYSTEM IMPROVEMENTS

ATEC FILTERS DRAWING 2

JOB NUMBER

23097-06

60%

SHEET

M5

OF

20

SHEETS