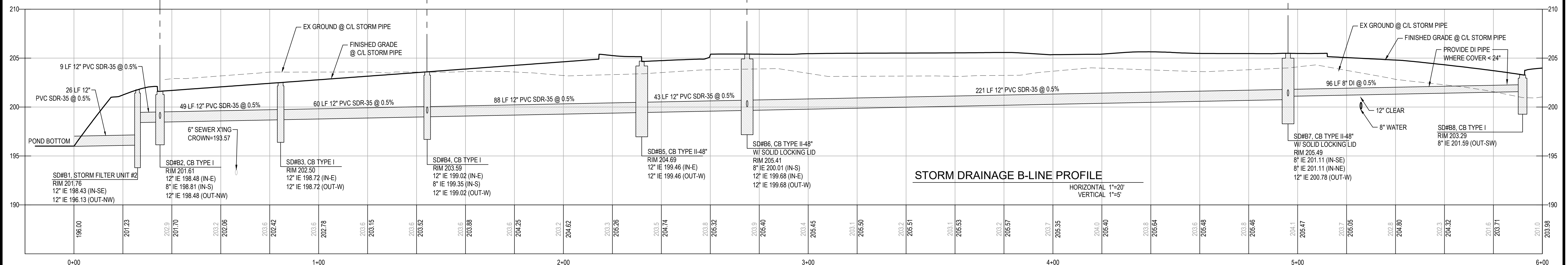
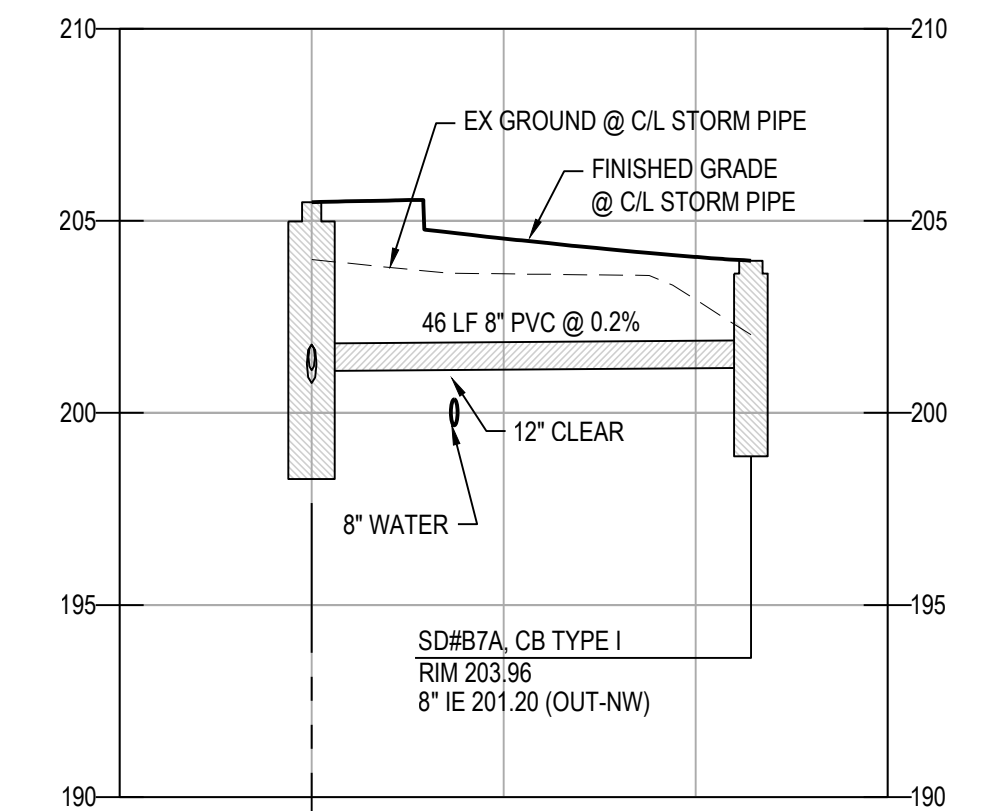
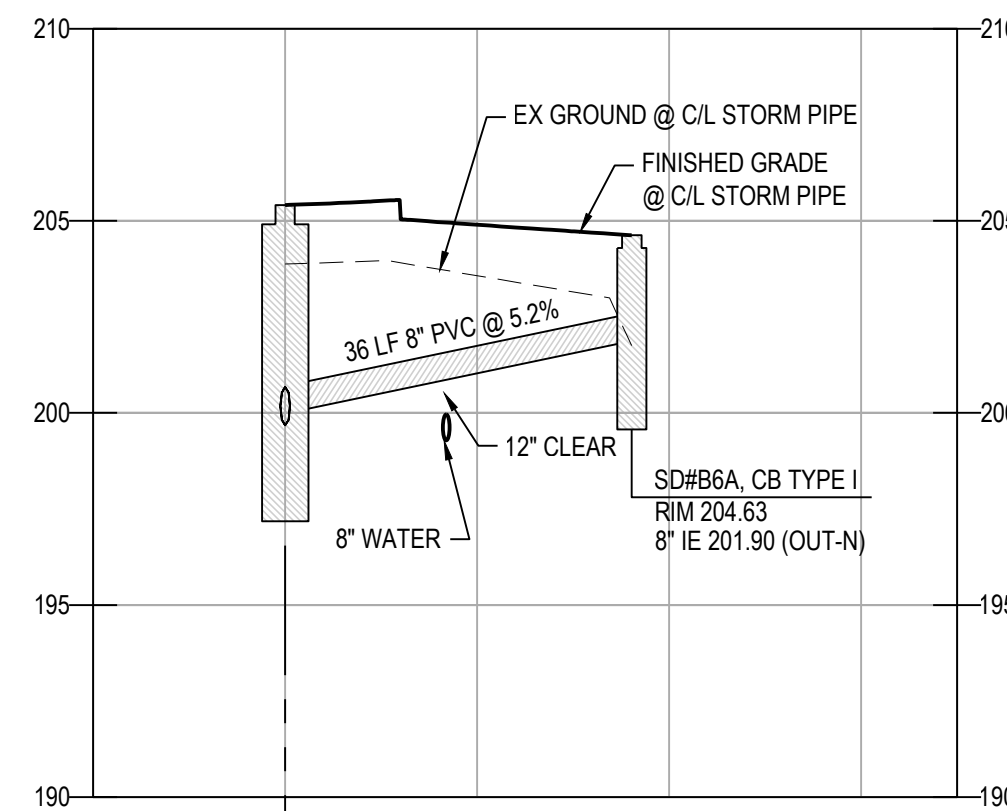
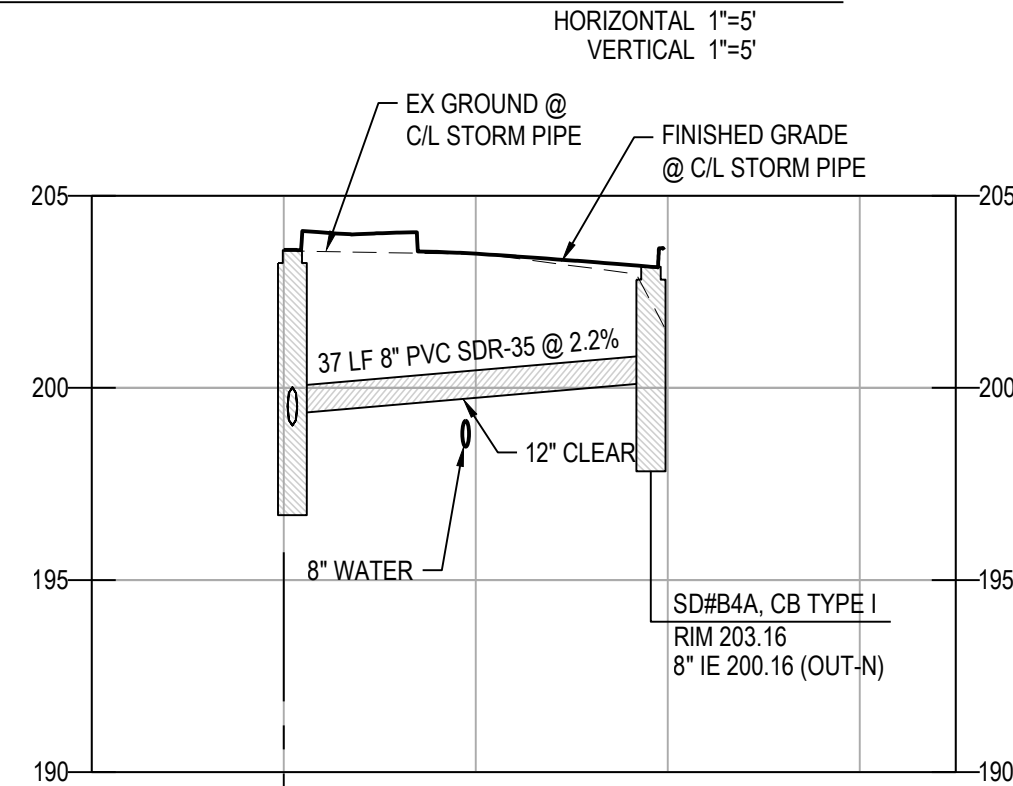
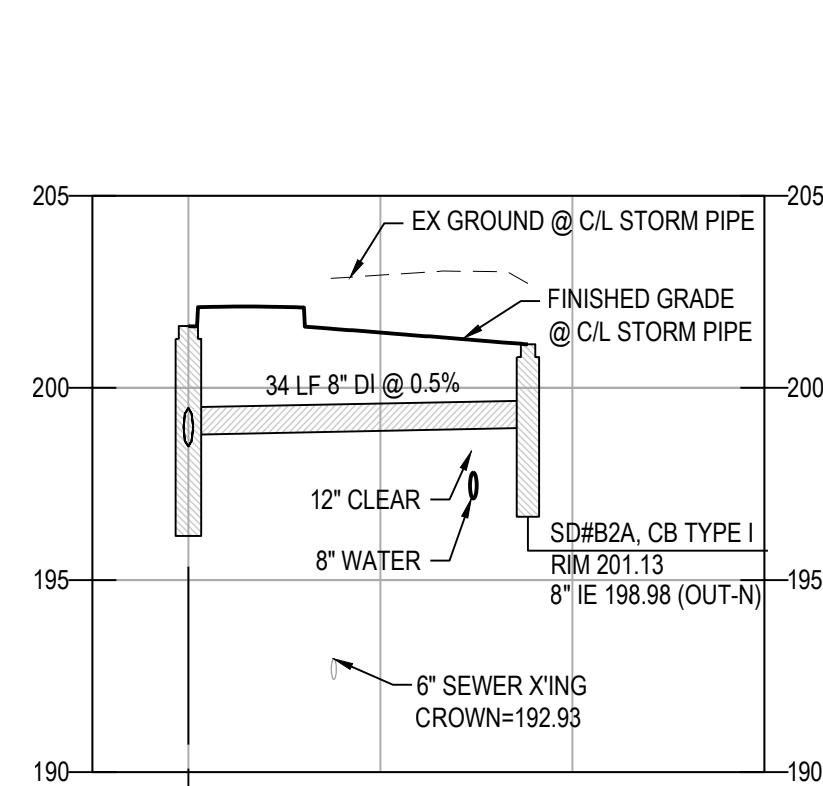
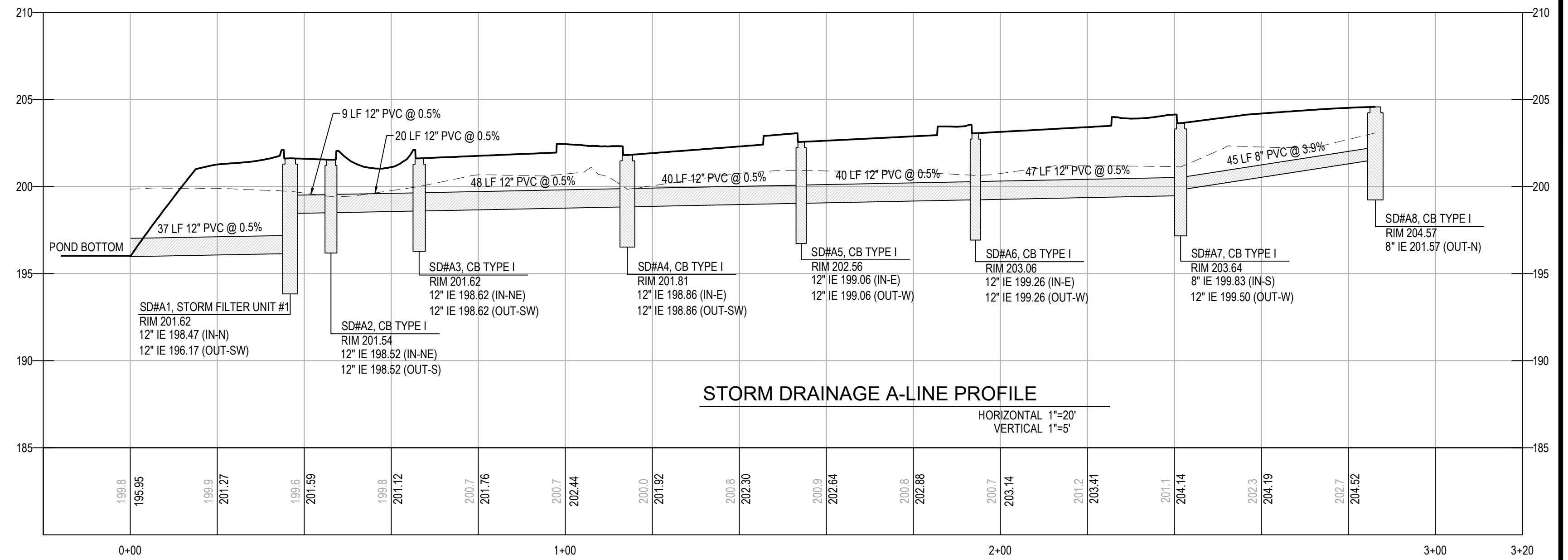
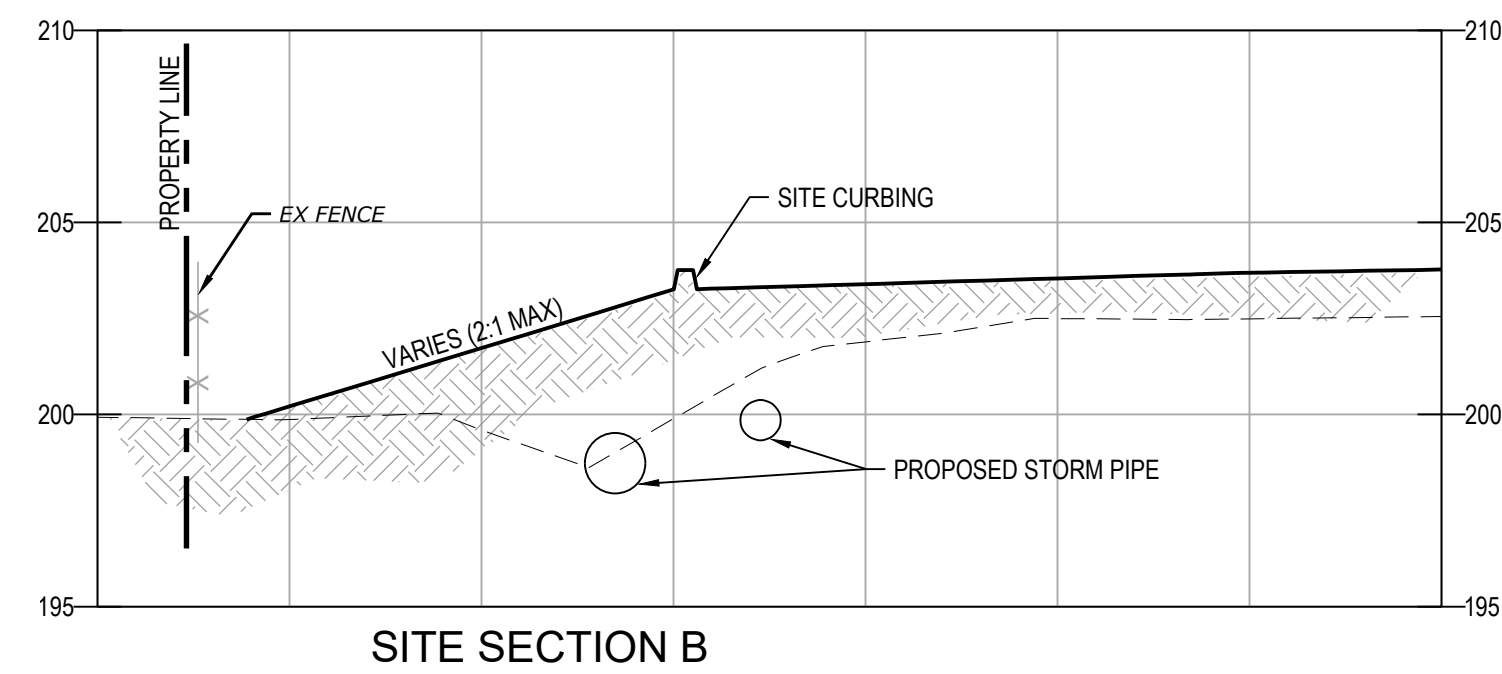
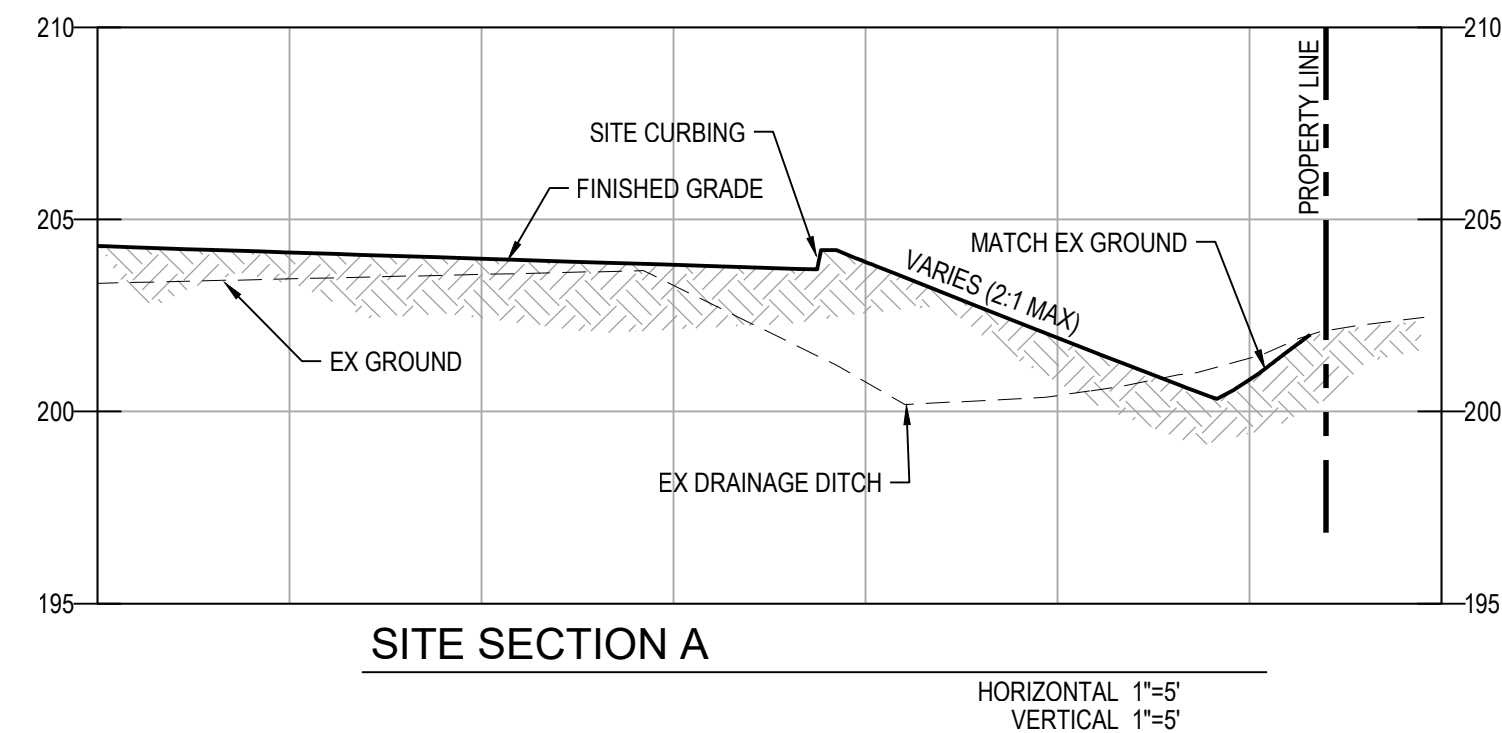




Know what's below.  
Call before you dig.

NE 1/4 OF THE SE 1/4, SECTION 31, TOWNSHIP 19 N, RANGE 05 E, W.M.



CAD FILE: L:\Projects\13-0001\13.215\Abundant Life Church\SD\Engineering\Drawings\Pond Site Design\13.215 Grading Storm.dwg PLOT DATE/TIME: 12/20/2022 9:19 AM

**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

12/10/2022

NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

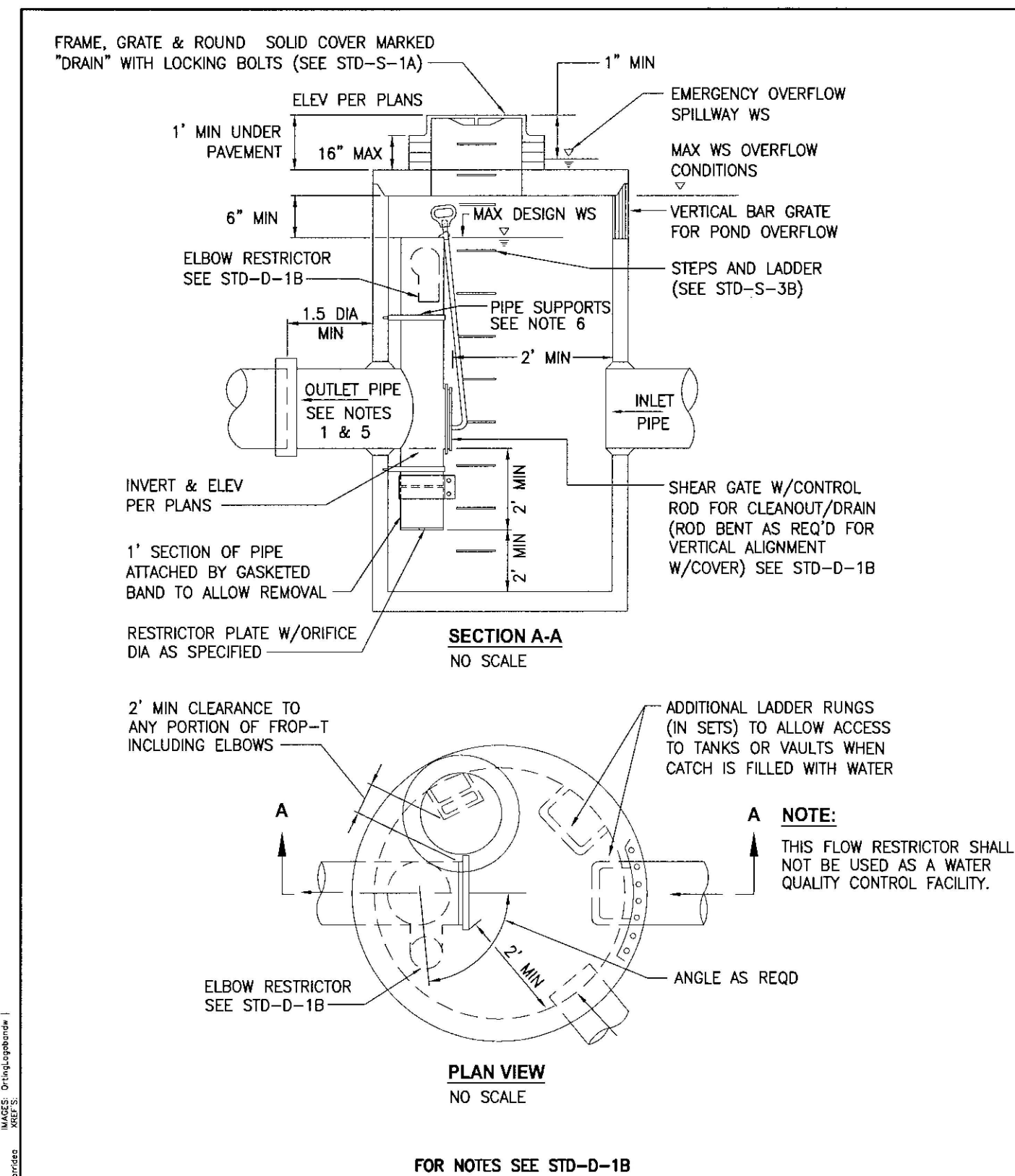
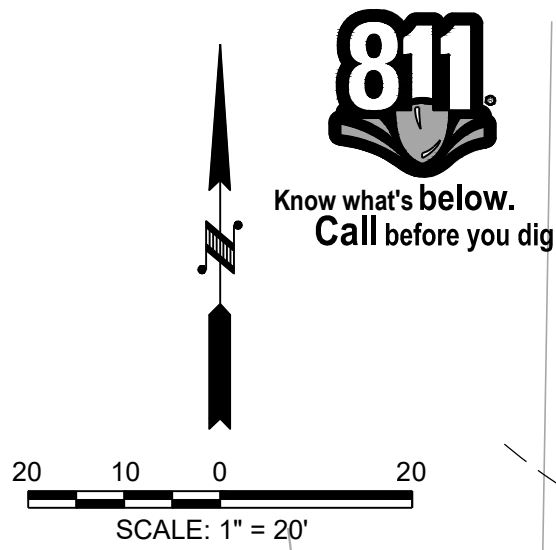
**STORM DRAINAGE PROFILES**  
**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

CITY OF ORTING WASHINGTON

DESIGNED BY: LPLVC  
DRAWN BY: LPL  
CHECKED BY: JDC  
SCALE: HORZ: 1"=20' VERT: 1"=5'  
DATE: 12/20/2022

JOB NUMBER  
**13.215**

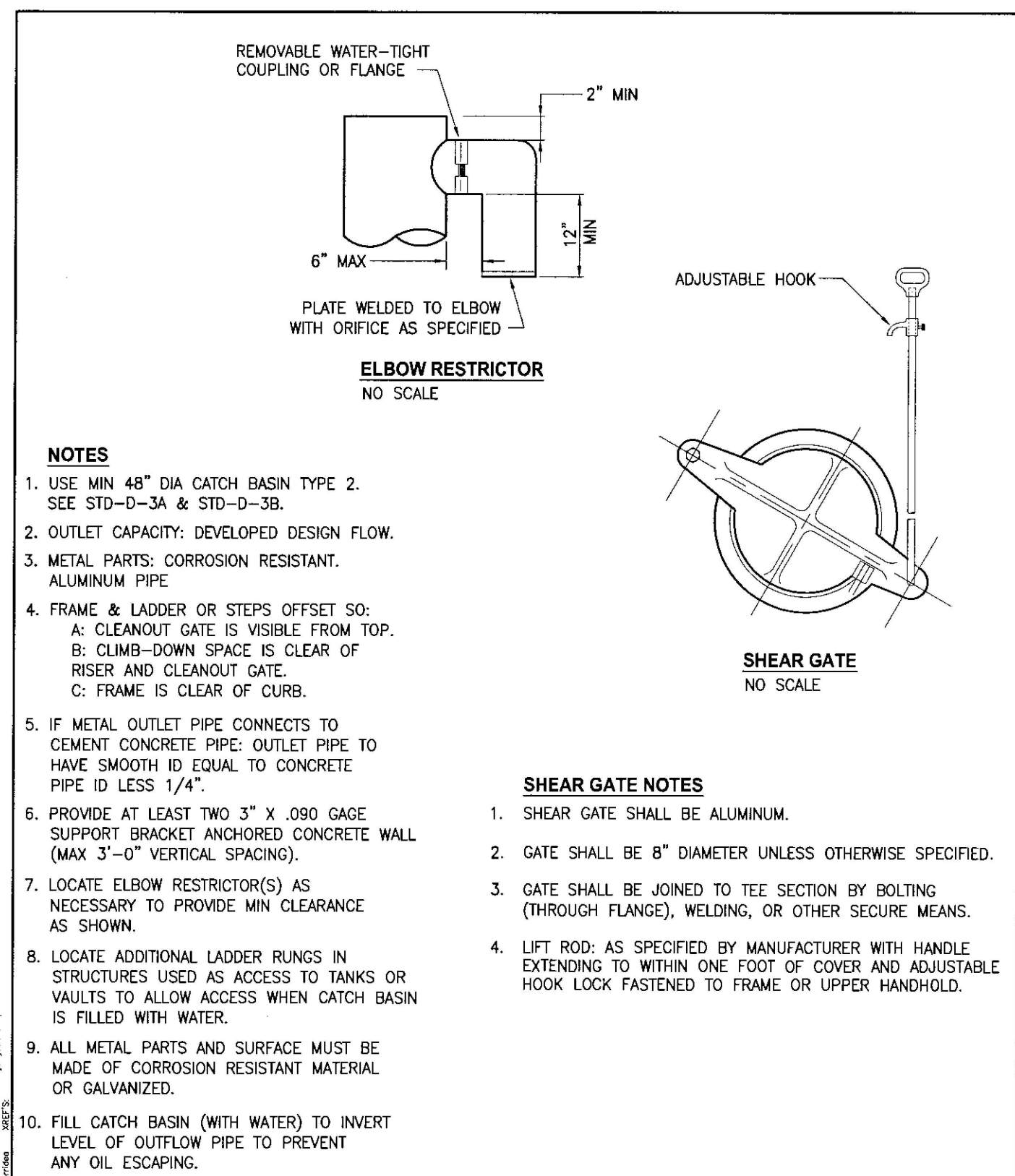
SHEET  
**C3.2**



**CITY OF ORTING**

**CONTROL STRUCTURE**

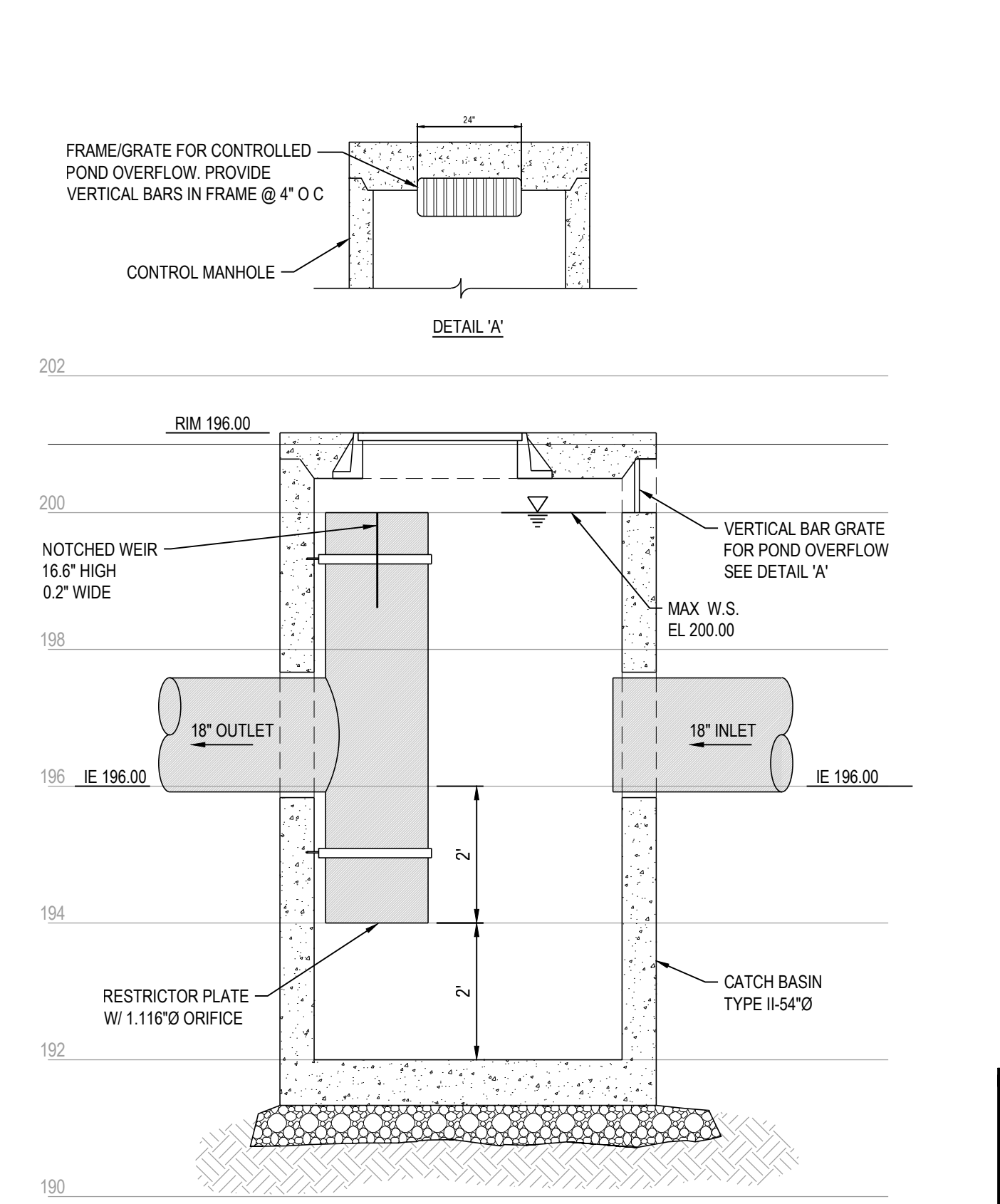
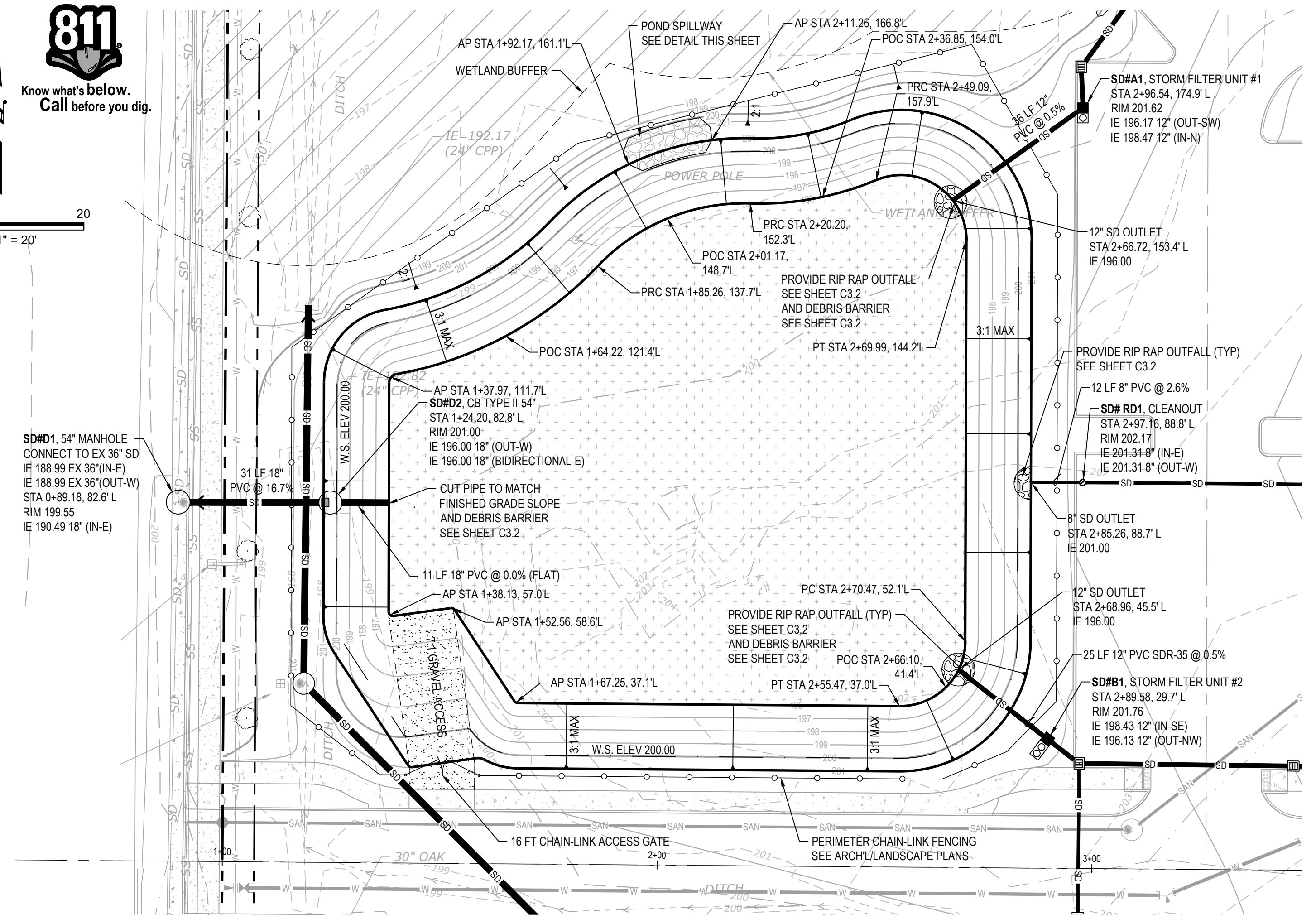
SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. D-1A
FILE NAME: STD-D-1A		



**CITY OF ORTING**

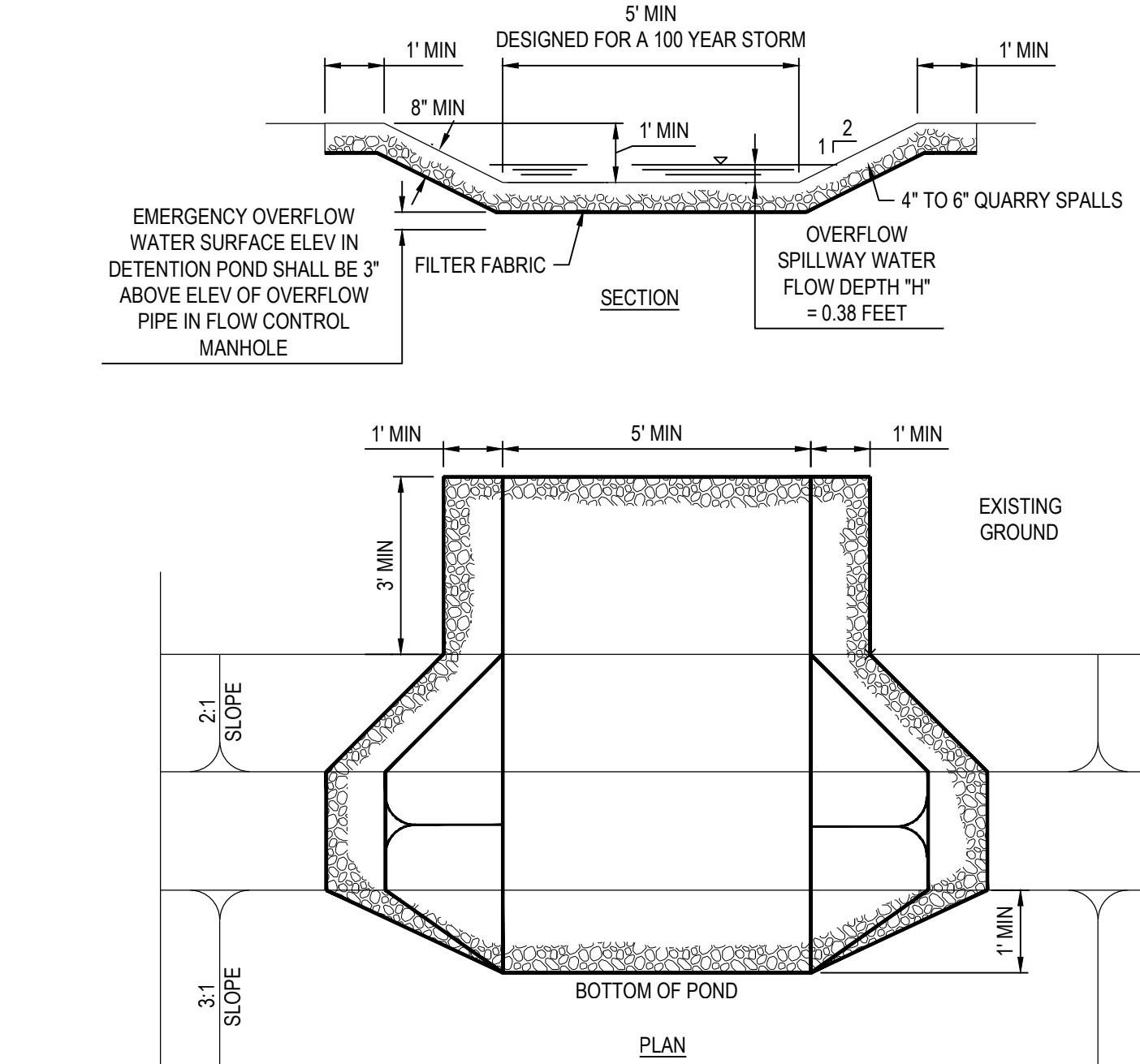
**FLOW RESTRICTOR (FROP-T) (TEE) DETAILS**

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. D-1B
FILE NAME: STD-D-1B		



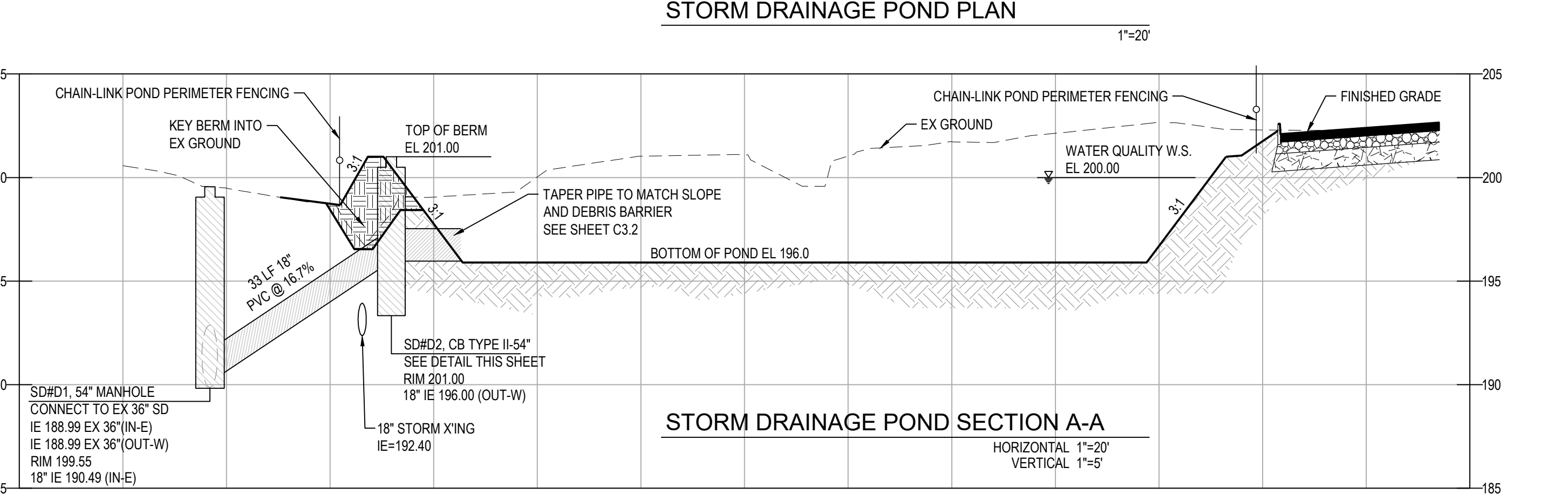
**1** STORM CONTROL STRUCTURE

1"=2'



**2** STORM POND SPILLWAY

NTS



**LEGEND**

EX PROPERTY BOUNDARY	SD	STORM DRAINAGE PIPE	SDCO	STORM CLEANOUT
EX MAJOR CONTOURS	W	WATER MAIN	AD	AREA DRAIN / CATCH BASIN TYPE 1
EX MINOR CONTOURS	SAN	SANITARY SEWER PIPE	CB	CATCH BASIN TYPE 2 / MANHOLE
GRAVEL			EX YD/CO/CB/CB 2/MIH	EX YD/CO/CB/CB 2/MIH
CONCRETE				RIP RAP PAD

**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

**PROFESSIONAL ENGINEER**  
12/10/2022

NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**STORM DRAINAGE POND PLAN AND DETAILS**

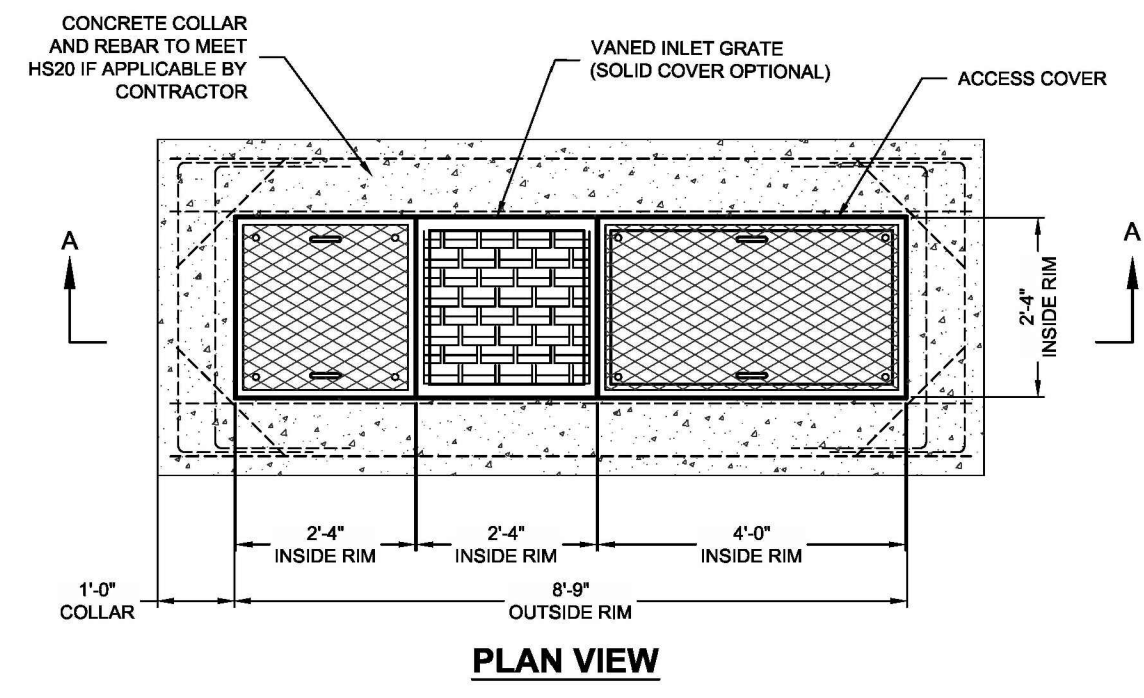
**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

**CITY OF ORTING** WASHINGTON

DESIGNED BY: LPLVC	DRAWN BY: LPL	CHECKED BY: JDC	SCALE: HORZ: 1"=20' VERT: 1"=5'	DATE: 12/20/2022
--------------------	---------------	-----------------	---------------------------------	------------------

JOB NUMBER: 13.215  
SHEET: C3.3

CAD FILE: L:\Projects\13-00013215-Abundant Life Church\SiteDevelopment\Drawings\Pond Site Design\13.215 Storm Pond.dwg PLOT DATE/TIME: 12/20/2022 9:02 AM



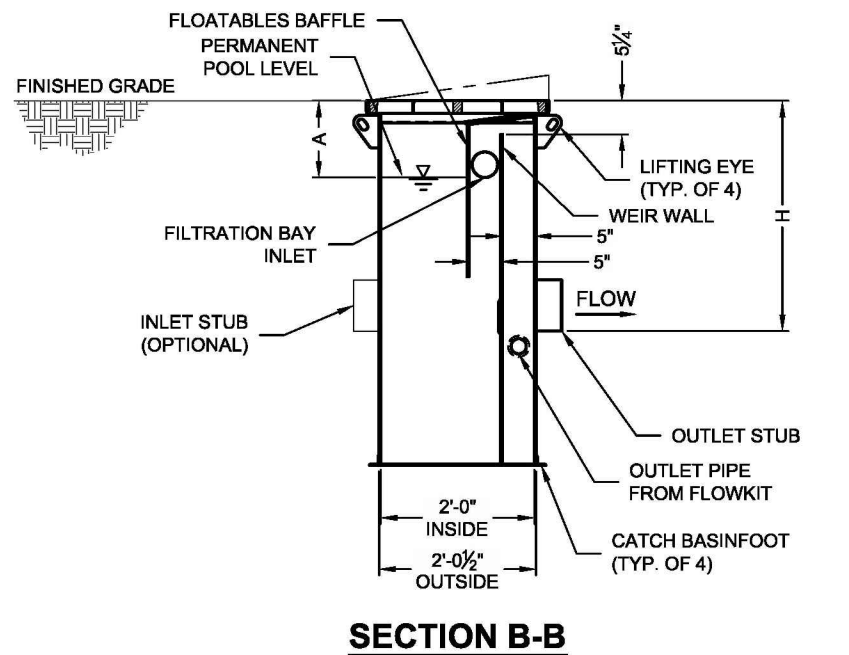
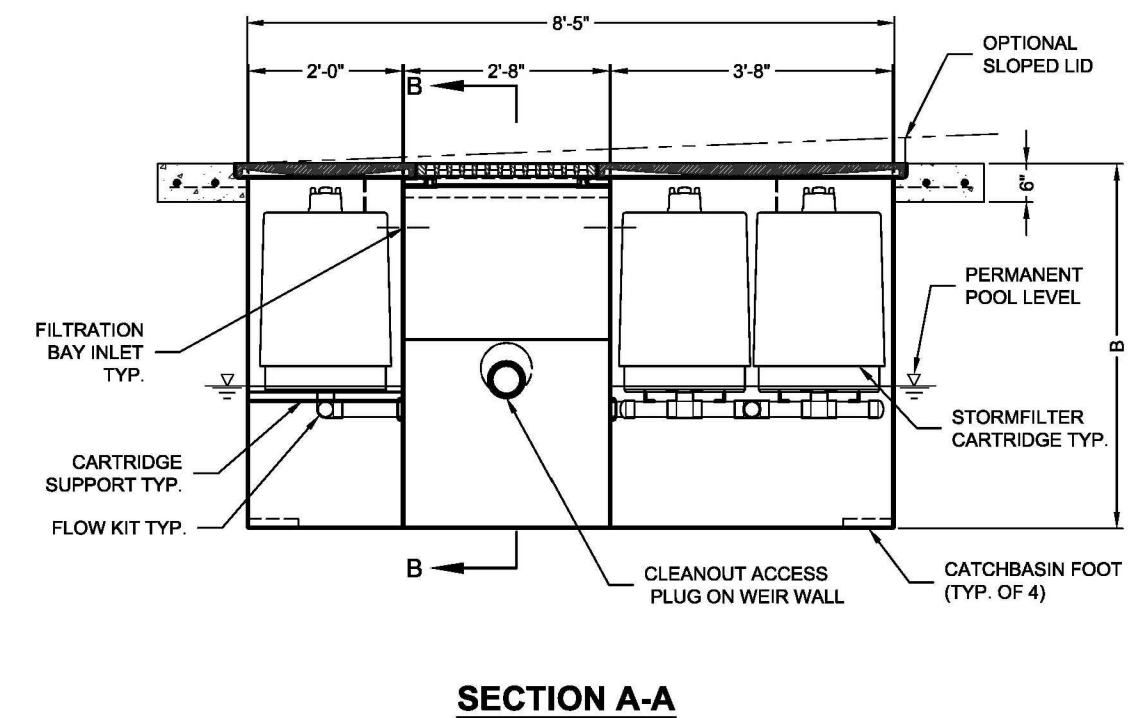
**STORMFILTER STEEL CATCHBASIN DESIGN NOTES**

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 3 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF THREE CARTRIDGES. SYSTEM IS SHOWN WITH A 27\"/>

CARTRIDGE SELECTION	27"	18"	18" DEEP
CARTRIDGE HEIGHT	27"	18"	18" DEEP
RECOMMENDED HYDRAULIC DROP (H)	3.05'	2.3'	3.3'
SPECIFIC FLOW RATE (gpm/ft)	2 gpm/ft	1.67* gpm/ft	1 gpm/ft
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.25
PEAK HYDRAULIC CAPACITY	1.0	1.0	1.8
INLET PERMANENT POOL LEVEL (A)	1'-0"	1'-0"	2'-0"
OVERALL STRUCTURE HEIGHT (B)	4'-0"	3'-0"	4'-0"

\* 1.67 gpm/ft SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. WWW.CONTECHES.COM
  - STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
  - INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
  - MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SFCB.
  - STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
  - STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M306 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
  - FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
  - SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).
- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
  - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.



**3-CARTRIDGE CATCHBASIN STORMFILTER DATA**

STRUCTURE ID	SD#B1
WATER QUALITY FLOW RATE (cfs)	0.0921
PEAK FLOW RATE (<1 cfs)	0.0921
RETURN PERIOD OF PEAK FLOW (yrs)	100
CARTRIDGE FLOW RATE (gpm)	15
MEDIA TYPE (PERLITE, ZPG, PSORB)	ZPG
RIM ELEVATION	201.76
PIPE DATA	I.E. DIAMETER
INLET STUB	198.43 12"
OUTLET STUB	196.13 12"
CONFIGURATION	OUTLET INLET
SLOPED LID	YES/NO
SOLID COVER	YES/NO
NOTES/SPECIAL REQUIREMENTS:	

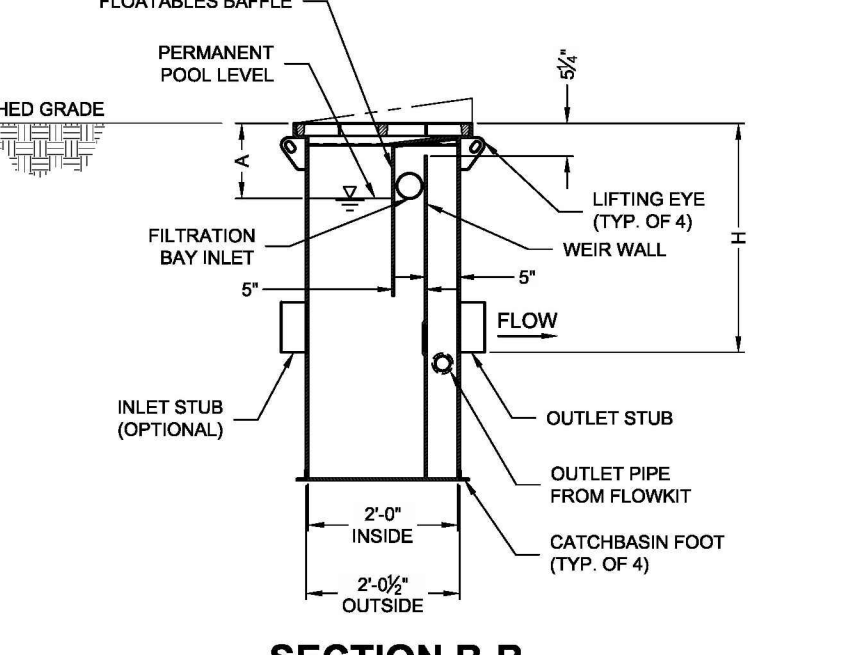
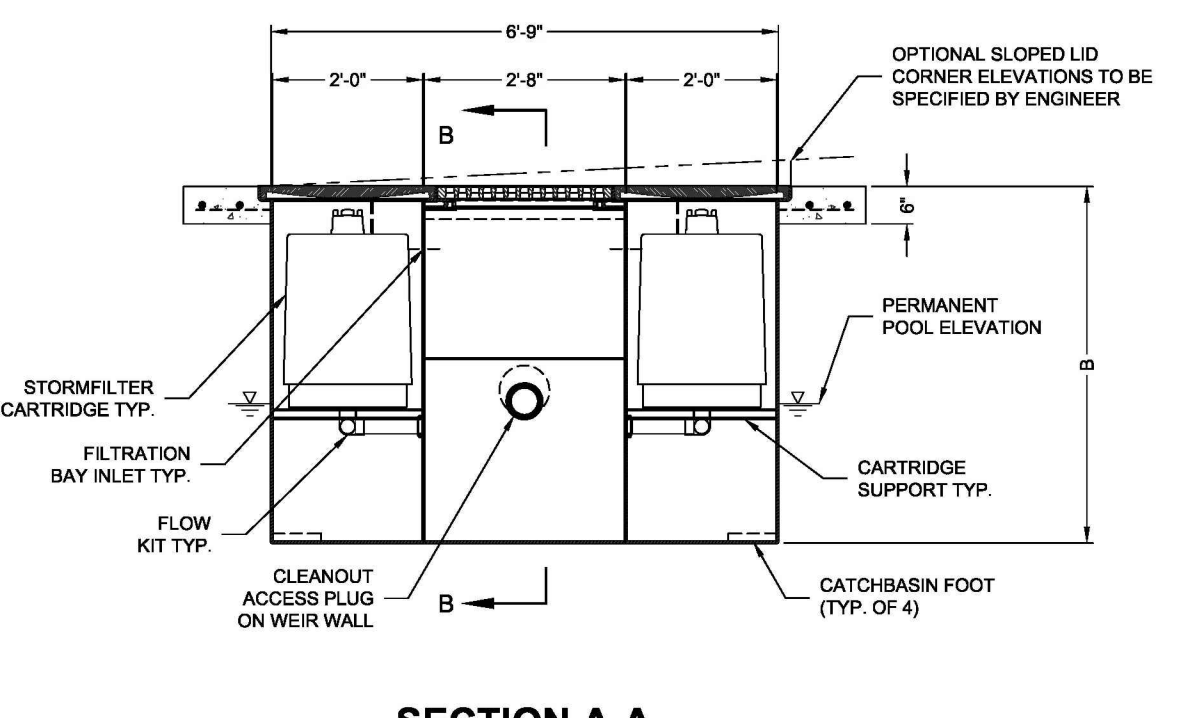
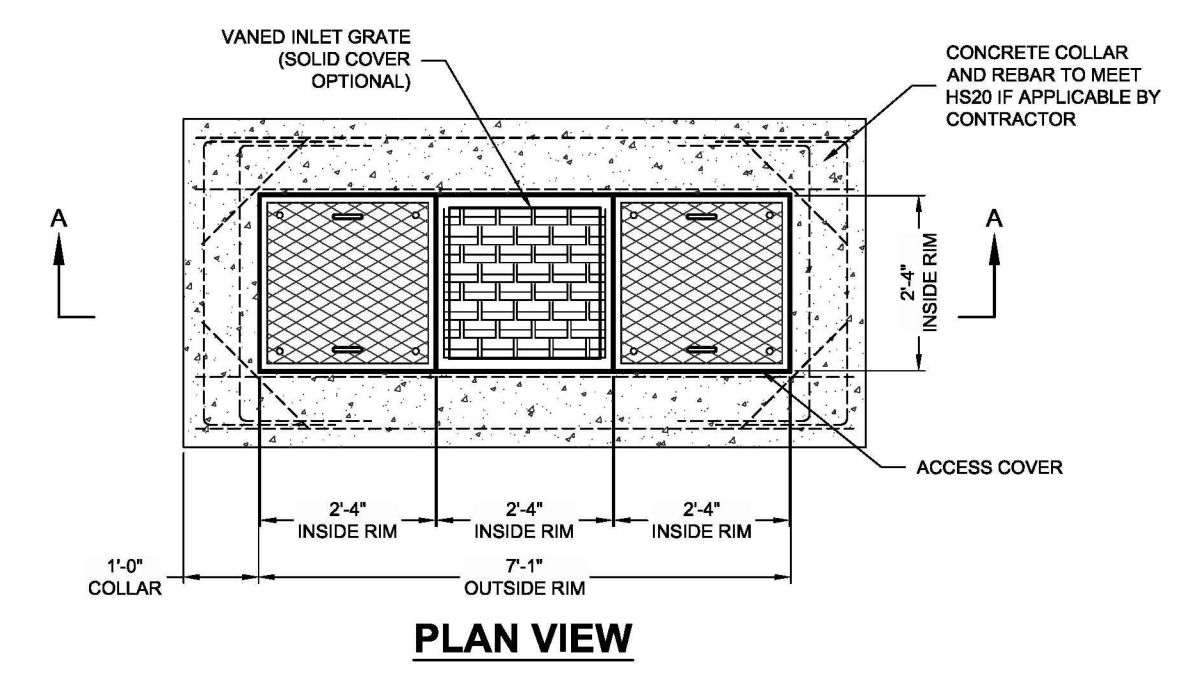
**CONTECH**  
ENGINEERED SOLUTIONS LLC

www.contechES.com

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
800-528-3999 513-645-7000 513-645-7993 FAX

**3 CARTRIDGE CATCHBASIN STORMFILTER STANDARD DETAIL**

1 3 CARTRIDGE CATCH BASIN STORMFILTER DETAIL NTS



**2-CARTRIDGE DEEP CATCHBASIN STORMFILTER DATA**

STRUCTURE ID	SD#A1
WATER QUALITY FLOW RATE (cfs)	0.0469
PEAK FLOW RATE (<1.8 cfs)	0.481
RETURN PERIOD OF PEAK FLOW (yrs)	100
CARTRIDGE FLOW RATE (gpm)	15
MEDIA TYPE (PERLITE, ZPG, PSORB)	ZPG
RIM ELEVATION	201.62
PIPE DATA	I.E. DIAMETER
INLET STUB	198.47 12"
OUTLET STUB	196.17 12"
CONFIGURATIONS	OUTLET INLET
SLOPED LID	YES/NO
SOLID COVER	YES/NO
NOTES/SPECIAL REQUIREMENTS:	

**CONTECH**  
ENGINEERED SOLUTIONS LLC

www.contechES.com

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
800-528-3999 513-645-7000 513-645-7893 FAX

**2 CARTRIDGE CATCHBASIN STORMFILTER STANDARD DETAIL**

2 2 CARTRIDGE CATCH BASIN STORMFILTER DETAIL NTS

**BEYLER CONSULTING**  
Plan. Design. Manage

CIVIL & STRUCTURAL ENGINEERING | LAND SURVEYING  
PROJECT MANAGEMENT | PLANNING & FEASIBILITY  
PERMITTING SERVICES | CONSTRUCTION MANAGEMENT

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com



NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**STORM DRAINAGE STORMFILTER DETAILS**

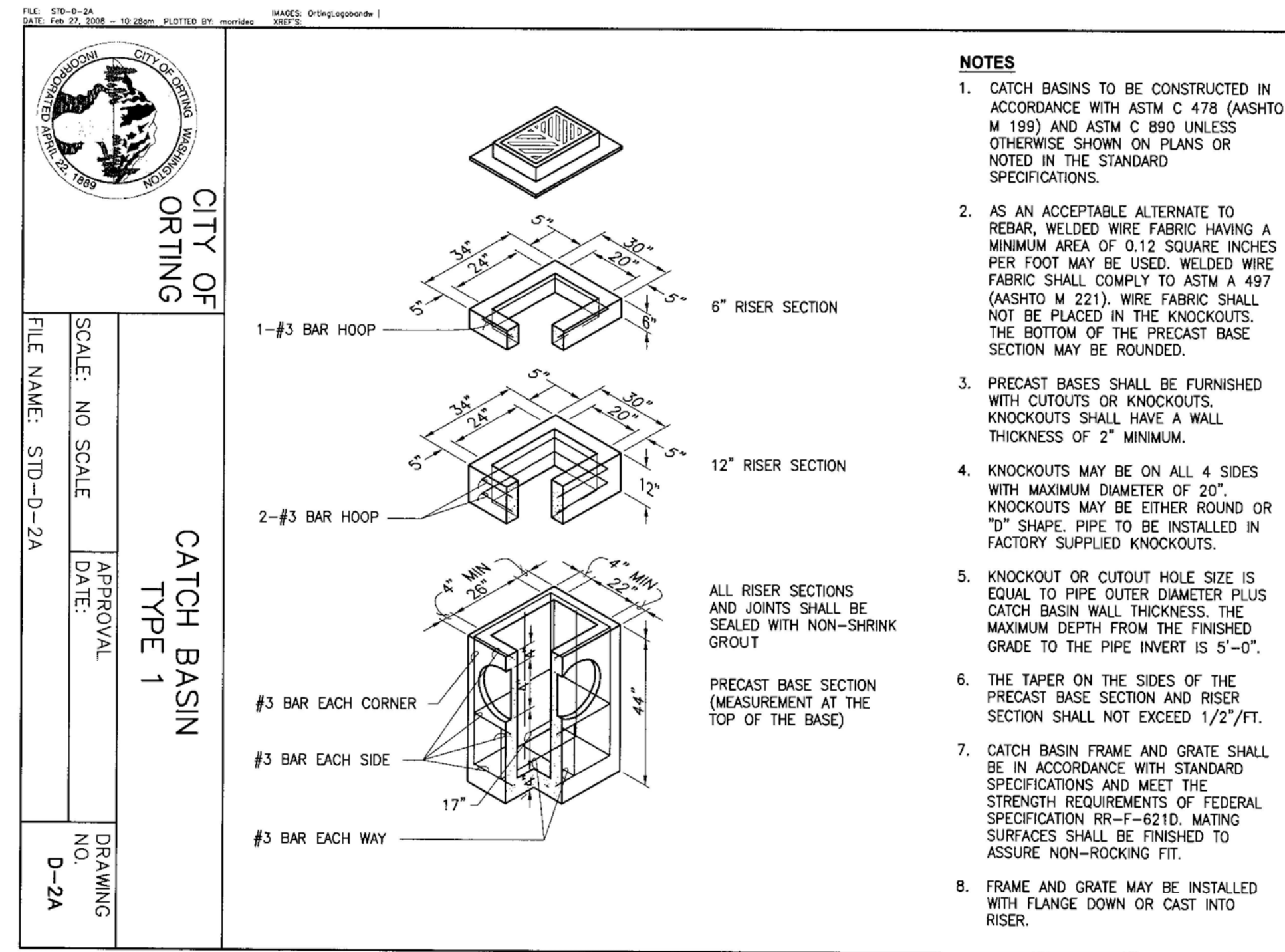
**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

CITY OF ORTING WASHINGTON

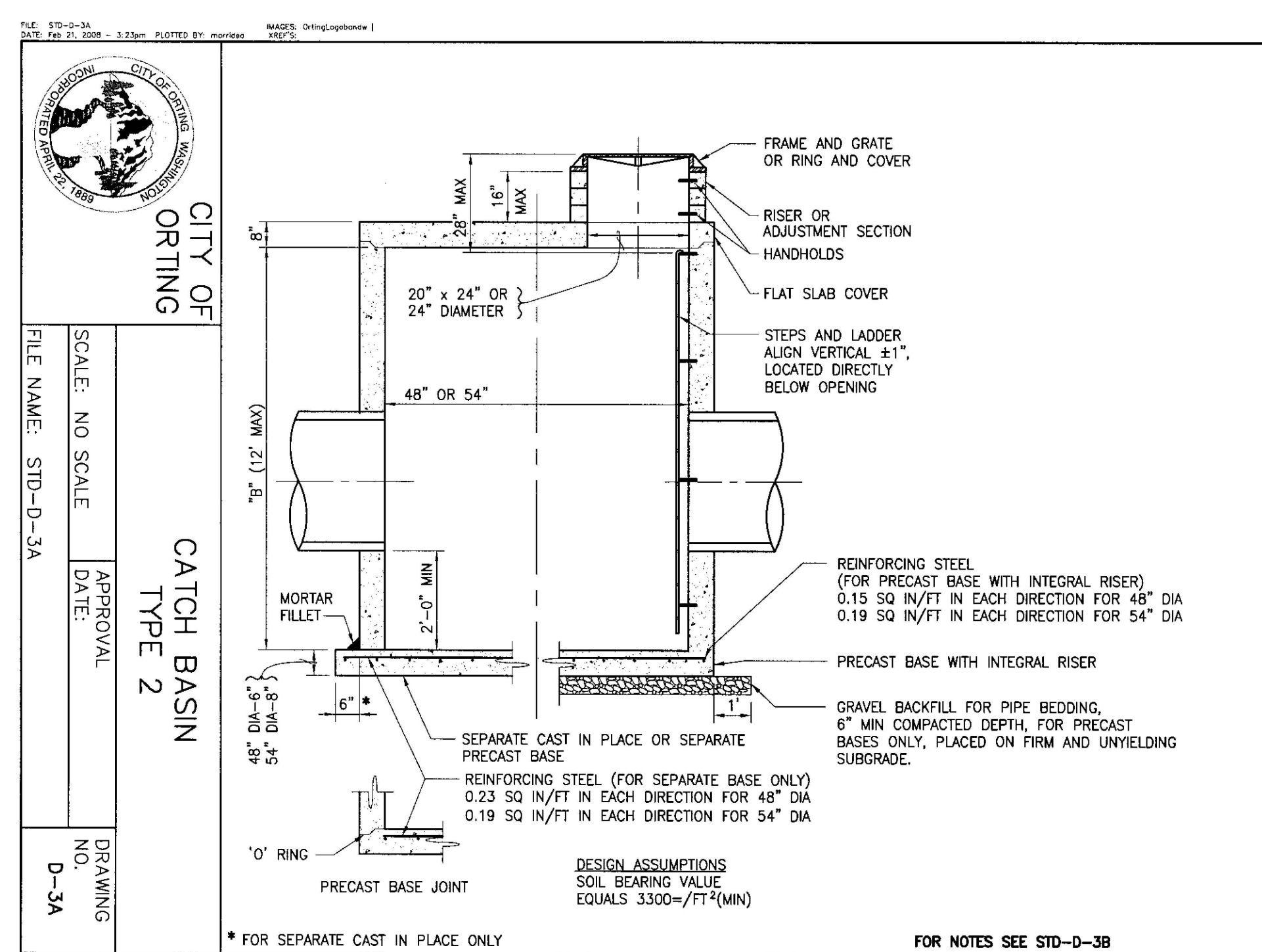
DESIGNED BY: LPLVC	DRAWN BY: LPL	CHECKED BY: JDC	SCALE: HORZ: VERT:	DATE: 12/20/2022
-----------------------	------------------	--------------------	-----------------------	---------------------

JOB NUMBER  
**13.215**

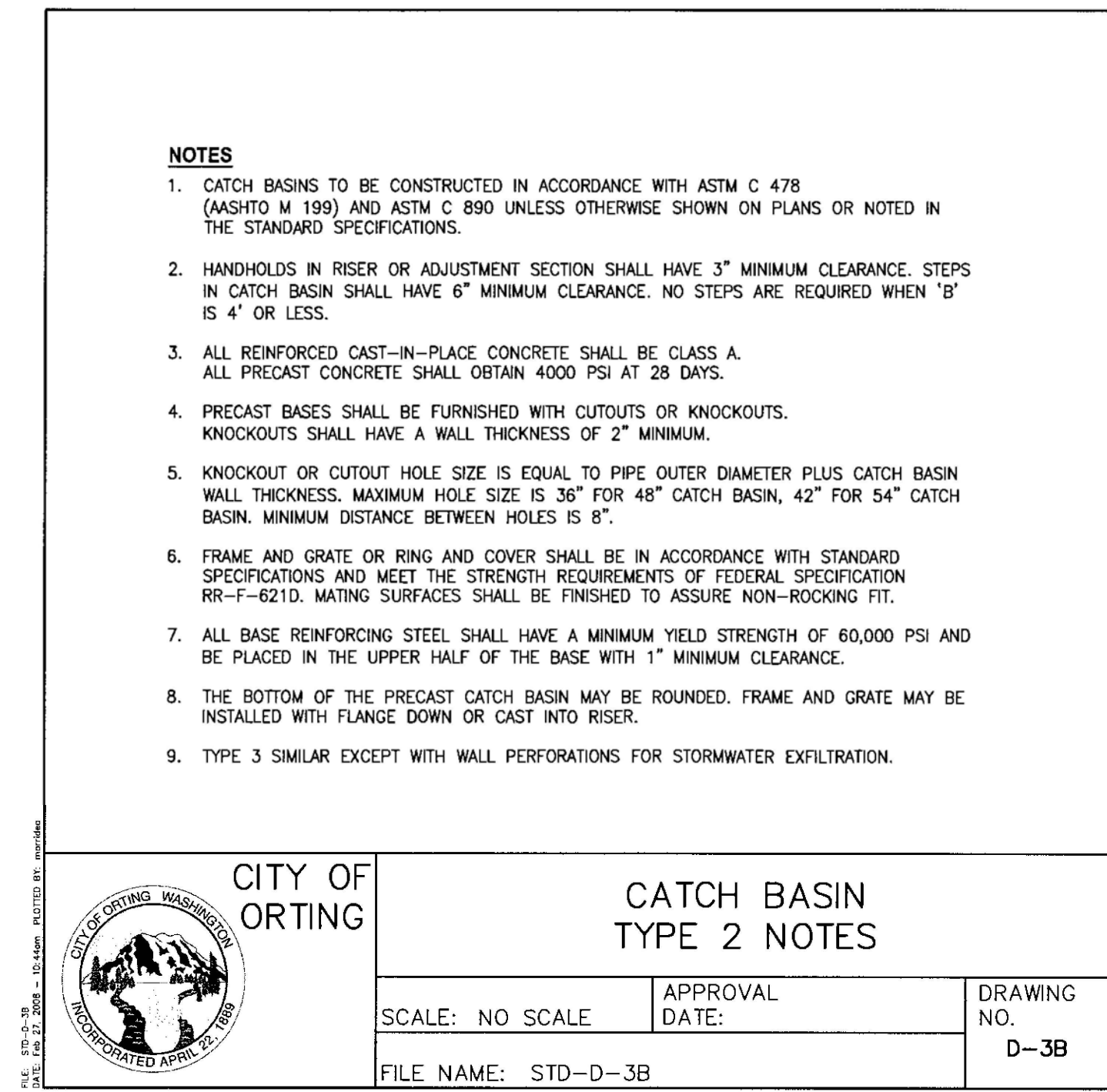
SHEET  
**C3.4**



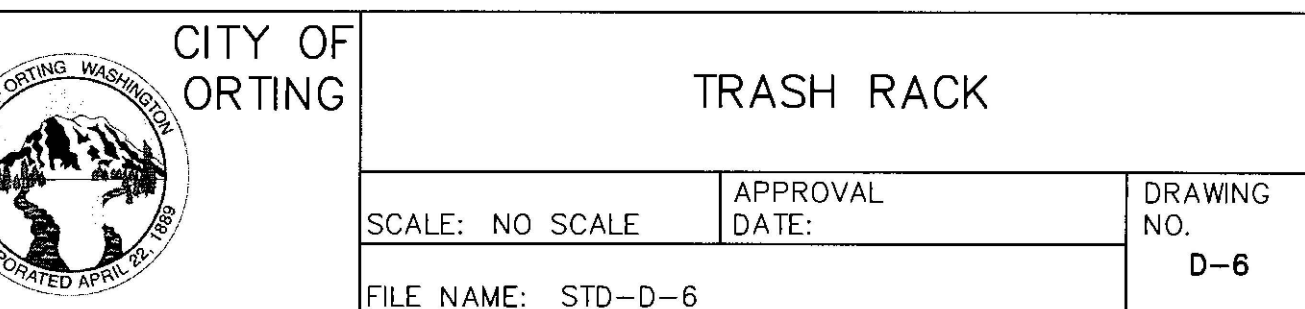
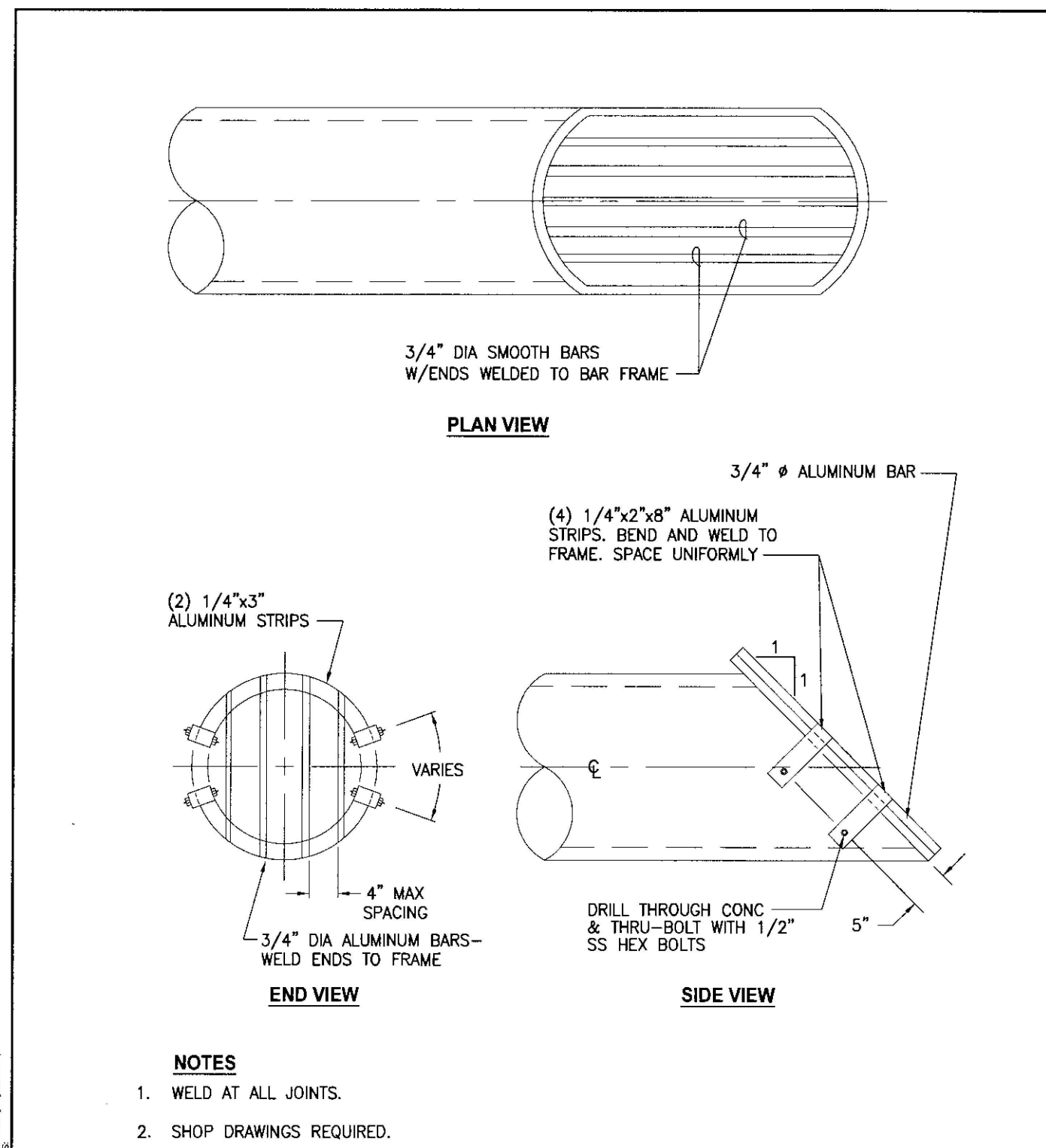
1 CATCH BASIN TYPE 1  
CITY OF ORTING STD DWG No. D-2A



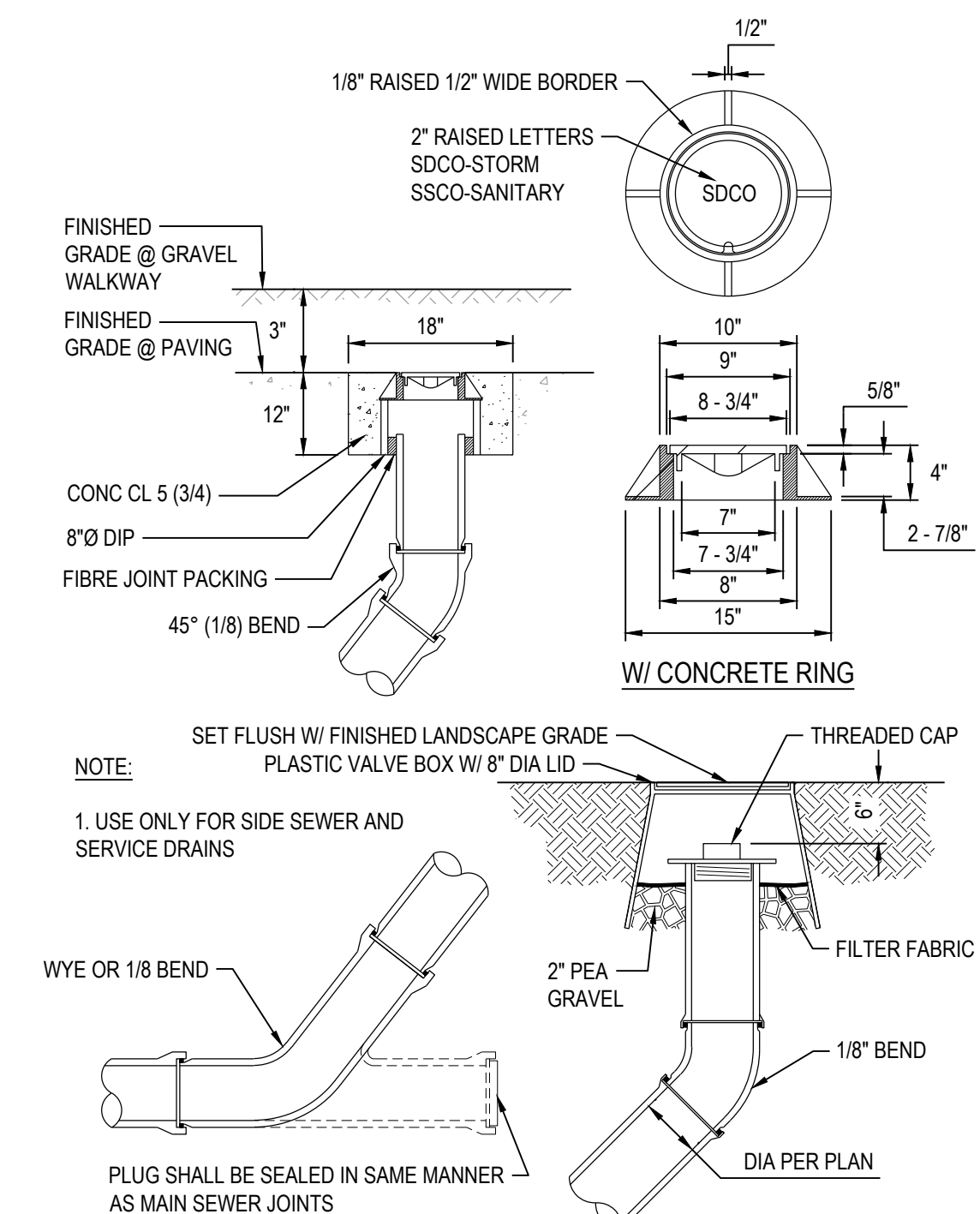
2 CATCH BASIN TYPE 2  
CITY OF ORTING STD DWG No. D-3A & D3B



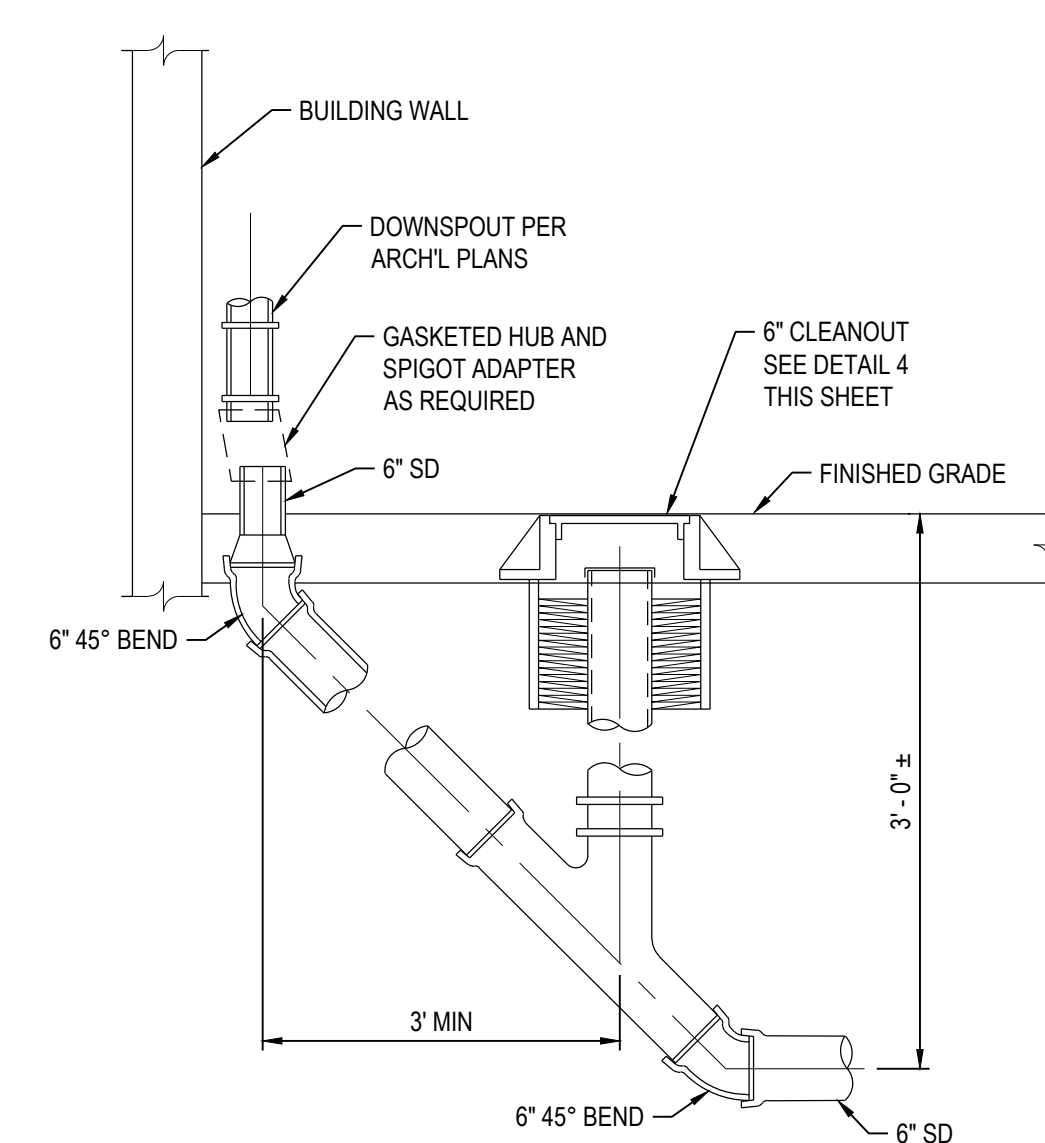
NTS



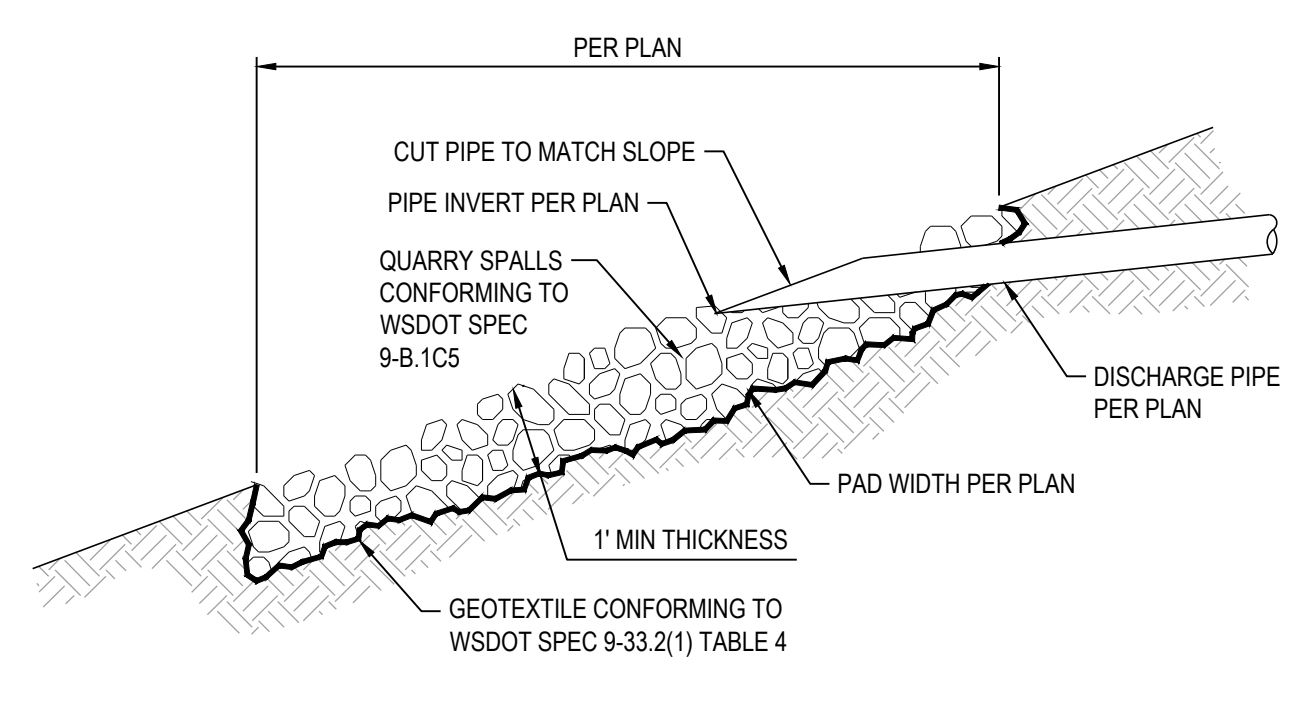
3 TRASH RACK  
CITY OF ORTING STD DWG No. D-6



4 STORM DRAINAGE CLEANOUT



5 DOWNSPOUT CONNECTION



6 RIP RAP OUTFALL PAD

CAD FILE: L:\Projects\13-00013215\13.215 Storm Details.dwg PLOT DATE/TIME: 12/20/2022 9:02 AM

**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

12/10/2022

NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**STORM DRAINAGE DETAILS**

**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

CITY OF ORTING WASHINGTON

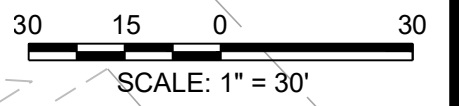
DESIGNED BY: LPLVC  
DRAWN BY: LPL  
CHECKED BY: JDC  
SCALE: HORZ: VERT:  
DATE: 12/20/2022

JOB NUMBER  
**13.215**

SHEET  
**C3.5**



Know what's below.  
Call before you dig.



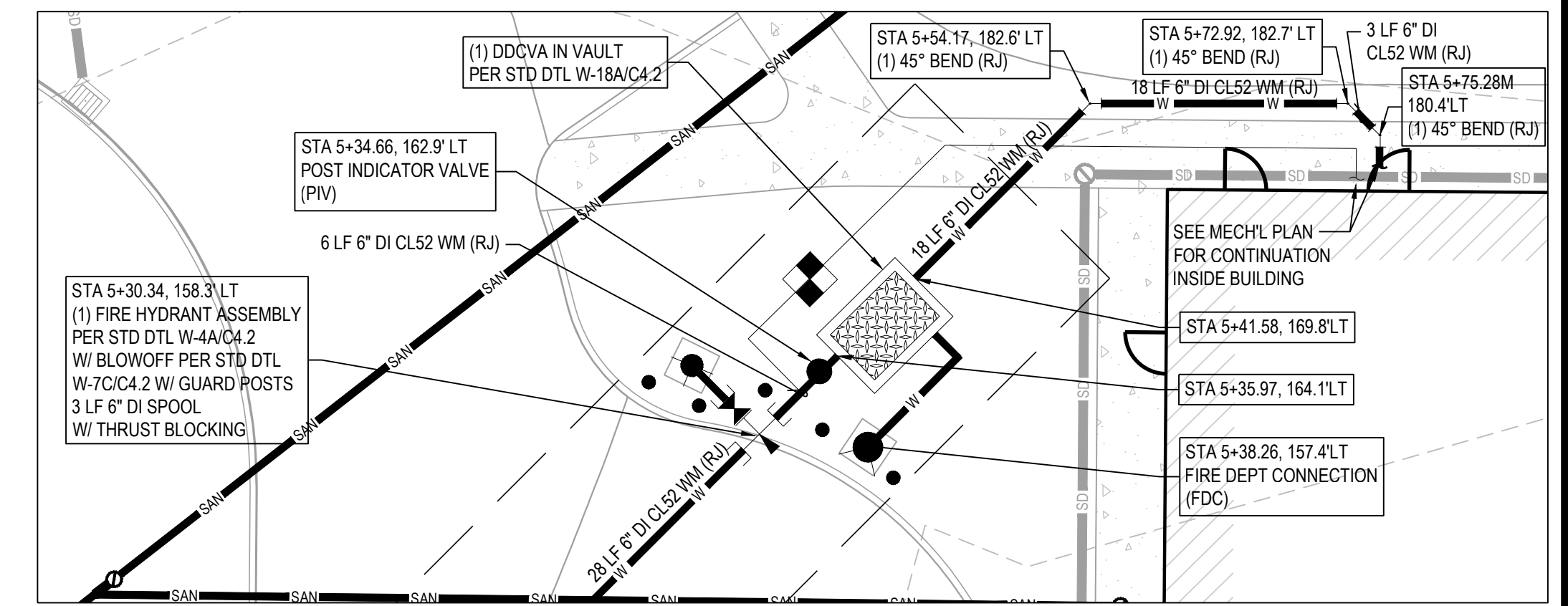
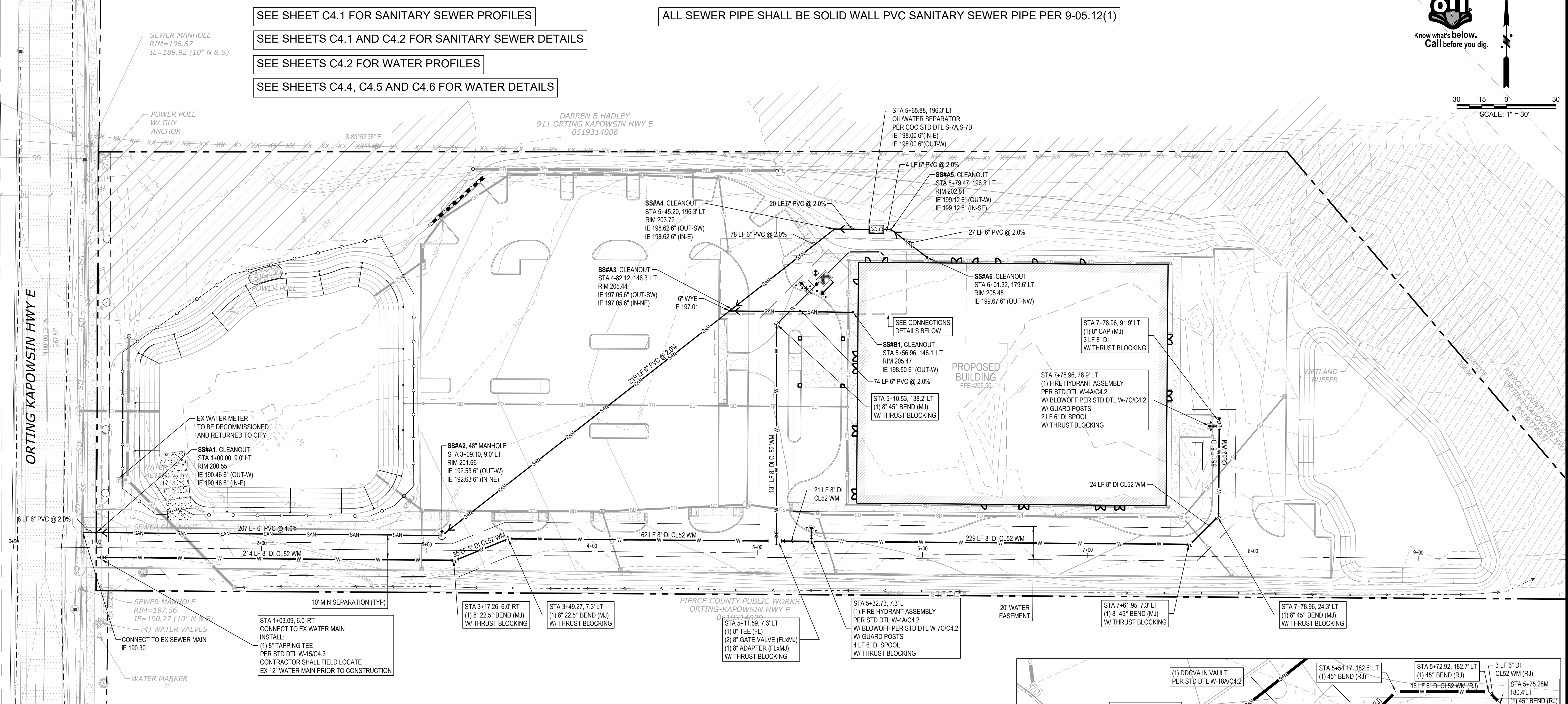
SEE SHEET C4.1 FOR SANITARY SEWER PROFILES

SEE SHEETS C4.1 AND C4.2 FOR SANITARY SEWER DETAILS

SEE SHEETS C4.2 FOR WATER PROFILES

SEE SHEETS C4.4, C4.5 AND C4.6 FOR WATER DETAILS

ALL SEWER PIPE SHALL BE SOLID WALL PVC SANITARY SEWER PIPE PER 9-05.12(1)



UTILITIES LEGEND	
	PROPERTY BOUNDARY
	BUILDING
	SANITARY SEWER
	SANITARY MH/CO
	WATER MAIN
	FH/FDC/PIV/VALVE
	WATER VAULT/METER
	SITE LIGHTING
	ELECTRICAL JBOX/VAULT/TRANSFORMER
	UNDERGROUND POWER

**BEYLER CONSULTING**  
Plan. Design. Manage

CIVIL & STRUCTURAL ENGINEERING | LAND SURVEYING  
PROJECT MANAGEMENT | PLANNING & FEASIBILITY  
PERMITTING SERVICES | CONSTRUCTION MANAGEMENT

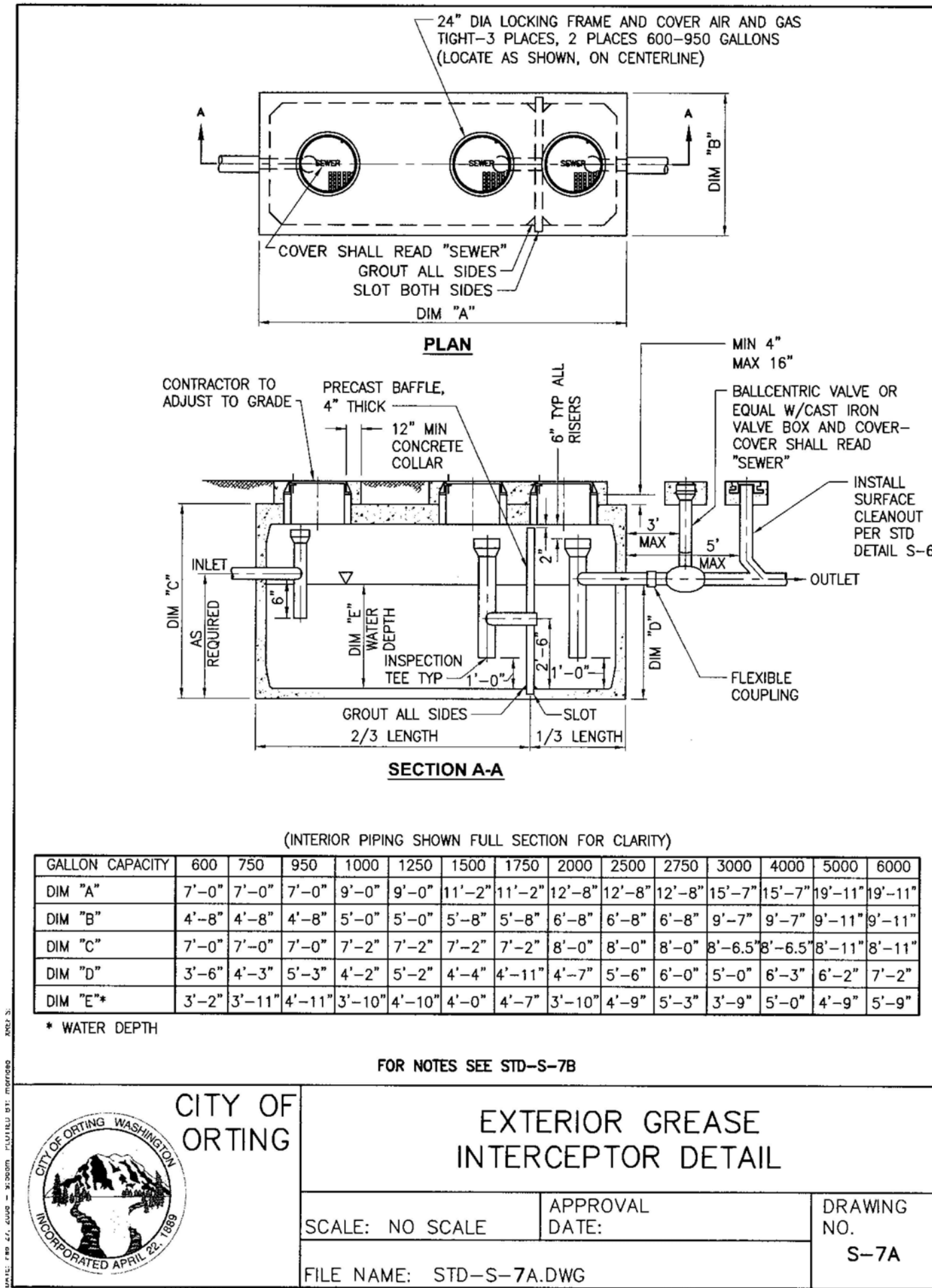
CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com



NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

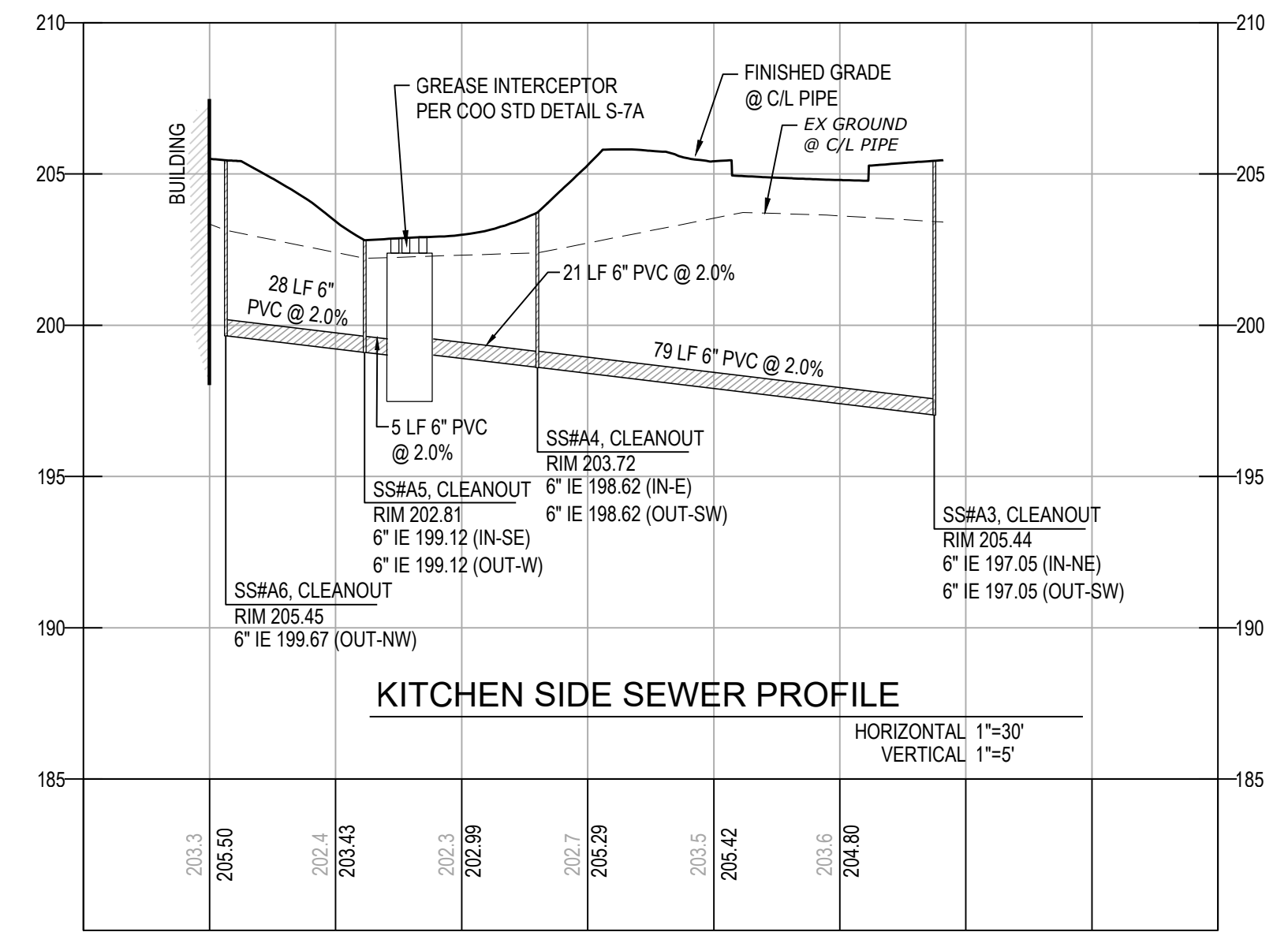
UTILITY PLAN				JOB NUMBER	
<b>ABUNDANT LIFE CHURCH</b> SITE DEVELOPMENT				13.215	
				SHEET	
CITY OF ORTING				WASHINGTON	
DESIGNED BY: LPLVC	DRAWN BY: LPL	CHECKED BY: JDC	SCALE: HORZ: 1"=30' VERT:	DATE: 12/20/2022	C4.0

CAD FILE: L:\Projects\13-00013215-Abundant Life Church\Site Development\Drawings\Site Design\13.215 Utility.dwg PLOT DATE/TIME: 12/20/2022 9:00 AM



**NOTES**

- LOCATE STRUCTURE ADJACENT TO DRIVE FOR ACCESS BY MAINTENANCE VEHICLE.
- FILL WITH CLEAN WATER PRIOR TO START UP OF SYSTEM.
- INTERCEPTOR AND APPURTENANCES TO CLEANOUT SHALL BE MAINTAINED BY PRIVATE OWNER AND ANNUAL MAINTENANCE REPORT SHALL BE SUBMITTED TO THE CITY OF ORTING.
- CONNECTIONS TO CONCRETE WALLS WITH PVC PIPE SHALL BE MADE USING KOR-N-SEAL BOOT OR EQUAL SEAL. ALL PIPE CONNECTIONS WITH NON-SHRINK GROUT.
- 6" PVC SHALL BE USED THROUGHOUT. TYPE OF PIPE PER CITY OF ORTING STANDARDS. TOP OF "TEES" TO BE KEPT OPEN.
- A BALLCENTRIC VALVE SHALL BE LOCATED IN THE DISCHARGE PIPING, A MAXIMUM OF 3 FEET FROM THE GREASE INTERCEPTOR UPSTREAM OF THE CLEANOUT. THIS VALVE SHALL BE CLOSED WHEN CLEANING OR SERVICING THE DEVICE.
- GRAY WATER ONLY. BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER.
- A CLEANOUT SHALL BE INSTALLED DOWNSTREAM OF BALLCENTRIC VALVE PER ORTING STANDARD STD-S-5.
- THE PLANS SHALL ILLUSTRATE PROPERTY BOUNDARIES, PIPING/DRAINAGE DETAILS AND CONNECTIONS TO THE SANITARY SEWER. DETAIL AND ELEVATION DRAWINGS OF THE GREASE INTERCEPTOR SHALL INCLUDE UPC APPENDIX "H" DESIGN CALCULATIONS TO SHOW CAPACITY, DETENTION TIME AND REMOVAL EFFICIENCIES.
- NO. OF MEALS/PEAK HOUR X WASTE FLOW RATE X RETENTION TIME X STORAGE FACTOR = CAPACITY IN GALLONS. EFFLUENT FROM GREASE INTERCEPTORS SHALL NOT EXCEED 100 mg/l FAT, OIL, AND GREASE DISCHARGED TO THE SANITARY SEWER.
- GREASE INTERCEPTORS INSTALLED IN PAVED AREAS SHALL COMPLY WITH H-20 LOADING.
- PLUMBING/PIPING SHALL BE CONSTRUCTED TO ESTABLISH "PARALLEL FLOW" (90 DEGREES TO THE TANK BAFFLE) THROUGH THE GREASE INTERCEPTOR. NO RADIUS, BEND OR ELBOW SHALL BE ALLOWED IN THE INLET PIPE, FOR A MINIMUM OF 10 FEET OR 20 PIPE DIAMETERS, WHICHEVER IS GREATER, UPSTREAM OF THE INTERCEPTOR.
- OPTIONAL VENTING OF THE INTERCEPTOR SHALL BE IN ACCORDANCE WITH CHAPTER 9 OF THE UNIFORM PLUMBING CODE-2006.
- FINAL INSPECTION IS REQUIRED BY THE CITY ENGINEER OR HIS REPRESENTATIVE PRIOR TO CONNECTION TO THE SANITARY SEWER.
- CONCRETE: 28 DAY COMPRESSIVE STRENGTH  $f_c = 4500$  psi
- REBAR: ASTM A-615 GRADE 60
- MESH: ASTM A-185 GRADE 65
- DESIGN: ACI-318-83 BUILDING CODE ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"



**CITY OF ORTING**

**EXTERIOR GREASE INTERCEPTOR DETAIL**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. S-7A

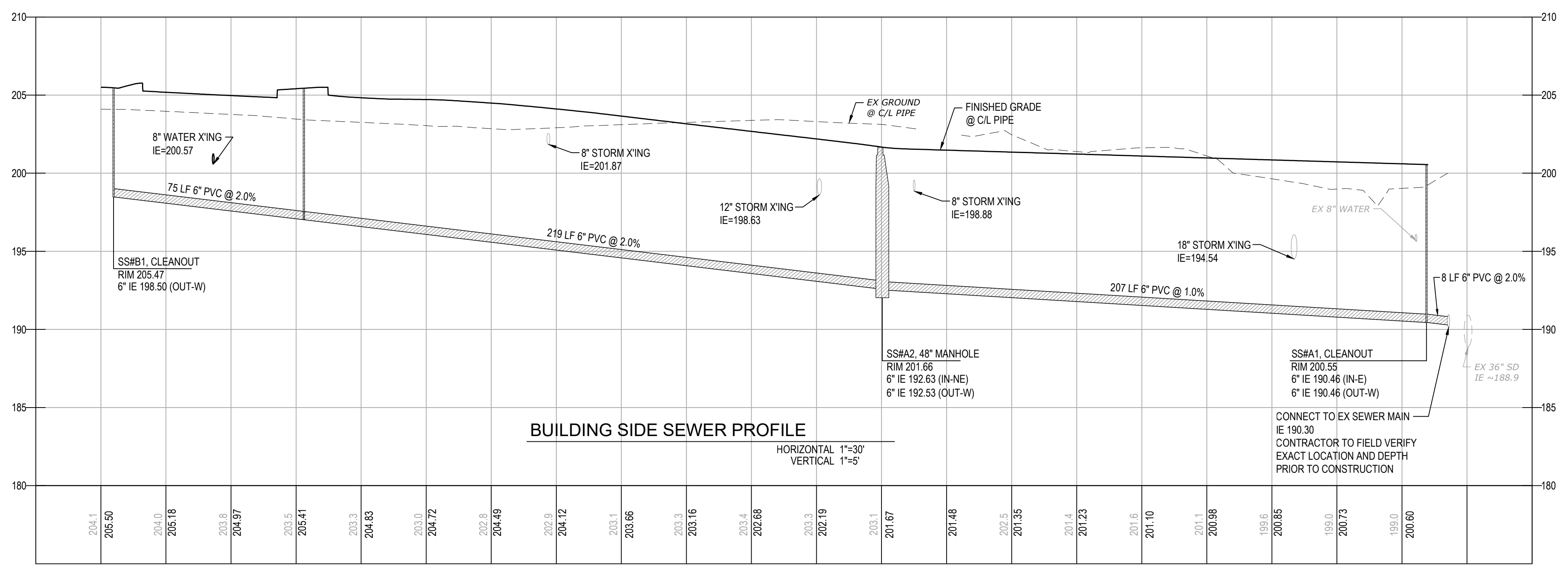
FILE NAME: STD-S-7A.DWG

**CITY OF ORTING**

**EXTERIOR GREASE INTERCEPTOR NOTES**

SCALE: NO SCALE    APPROVAL DATE:    DRAWING NO. S-7B

FILE NAME: STD-S-7B.DWG



**SANITARY SEWER PROFILES AND DETAILS**

**ABUNDANT LIFE CHURCH**

**SITE DEVELOPMENT**

CITY OF ORTING    WASHINGTON

DESIGNED BY: LPLVC    DRAWN BY: LPL    CHECKED BY: JDC    SCALE: HORZ: 1"=30' VERT: 1"=5'    DATE: 12/20/2022

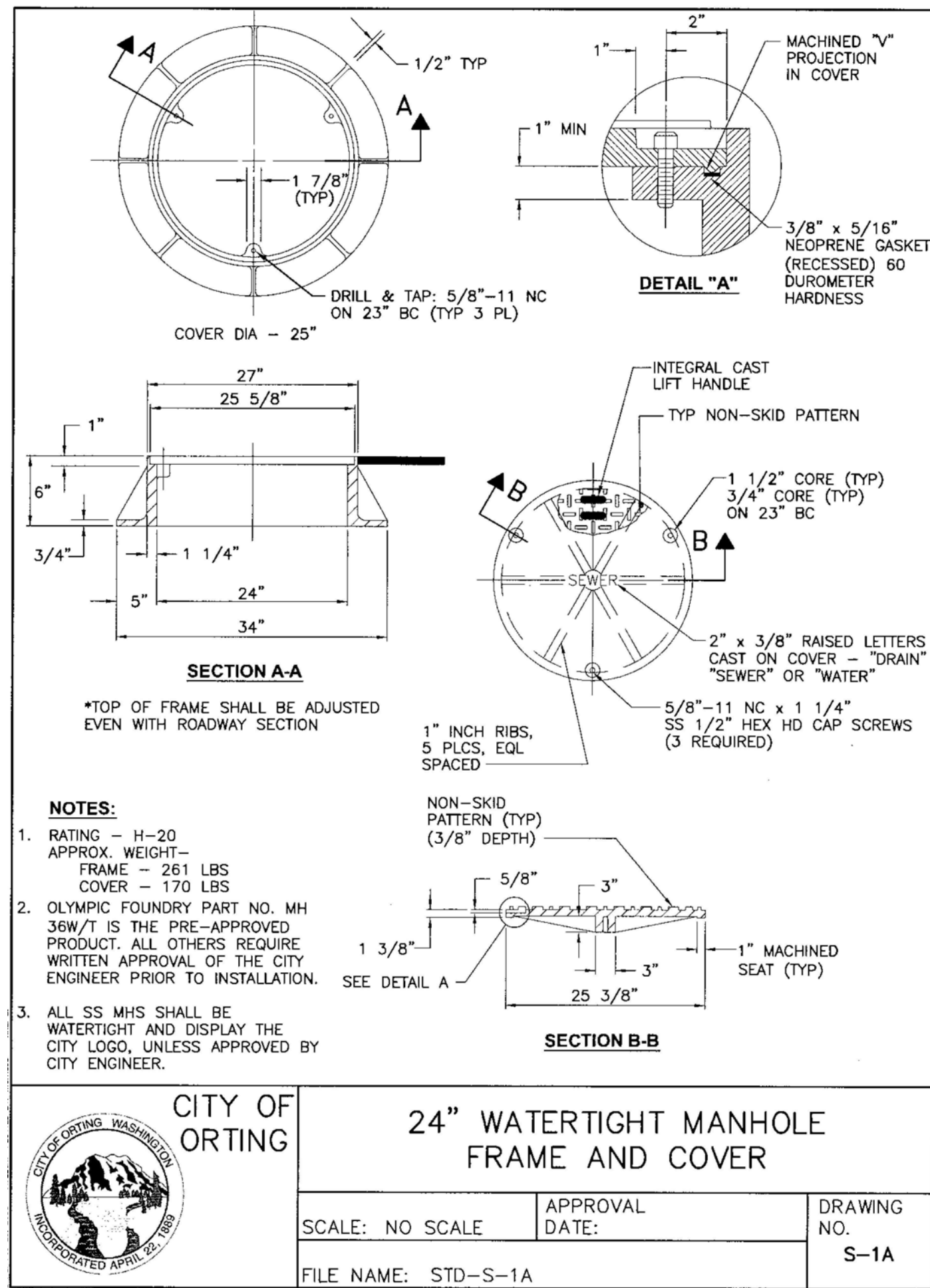
NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

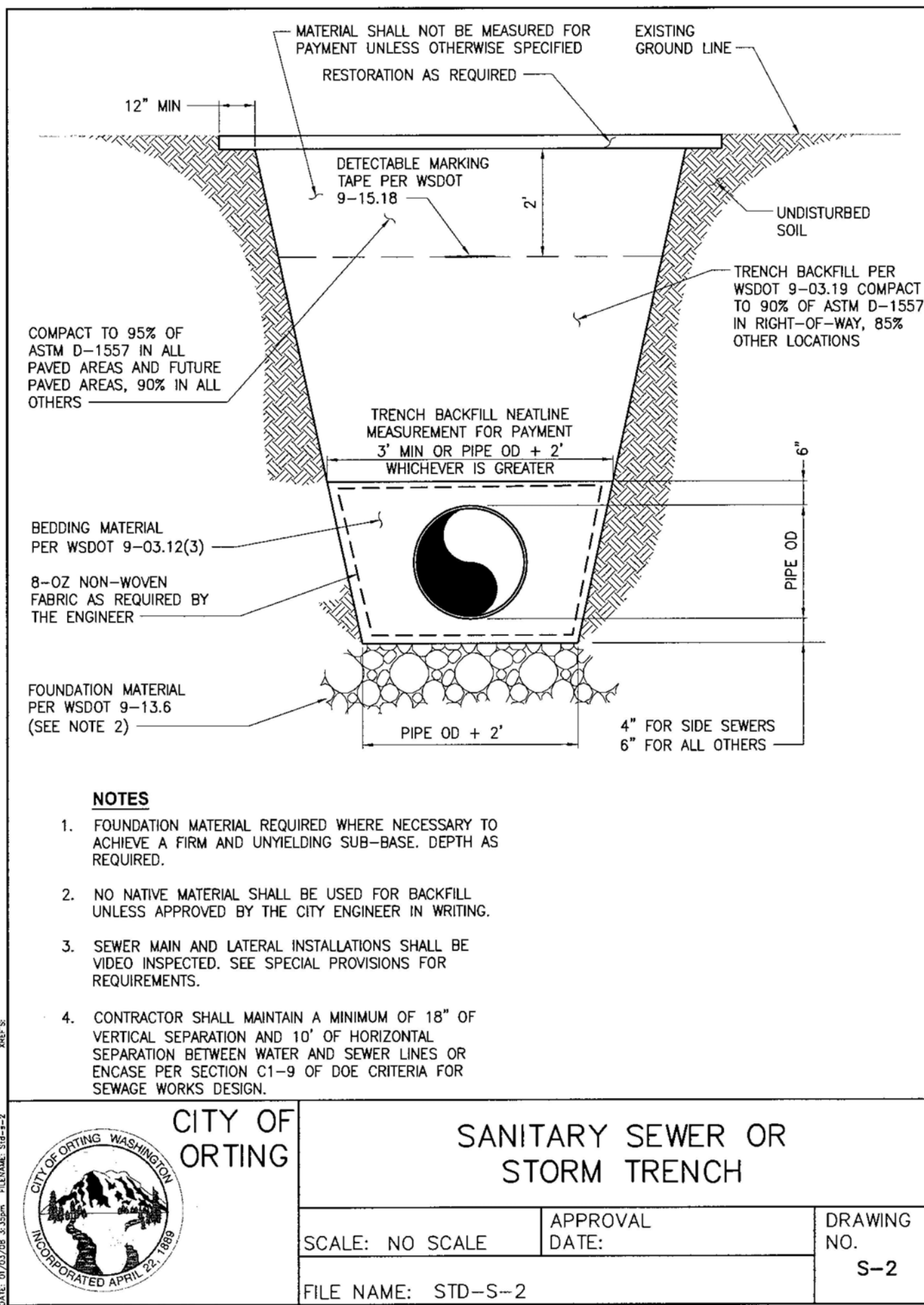
**PROFESSIONAL ENGINEER**  
12/20/2022

JOB NUMBER: 13.215  
SHEET: C4.1



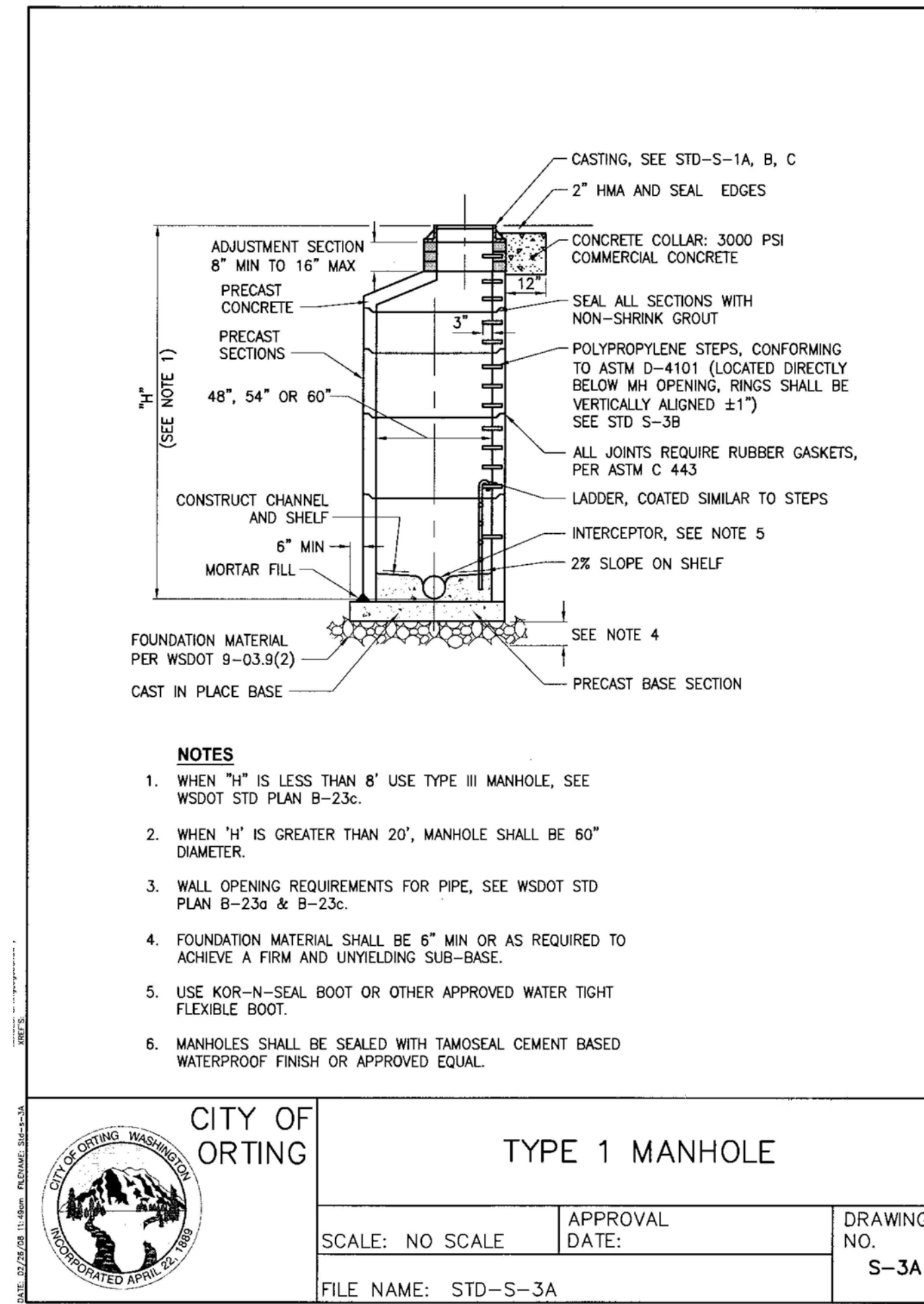
**CITY OF ORTING**  
24" WATERTIGHT MANHOLE FRAME AND COVER

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. S-1A
FILE NAME: STD-S-1A		



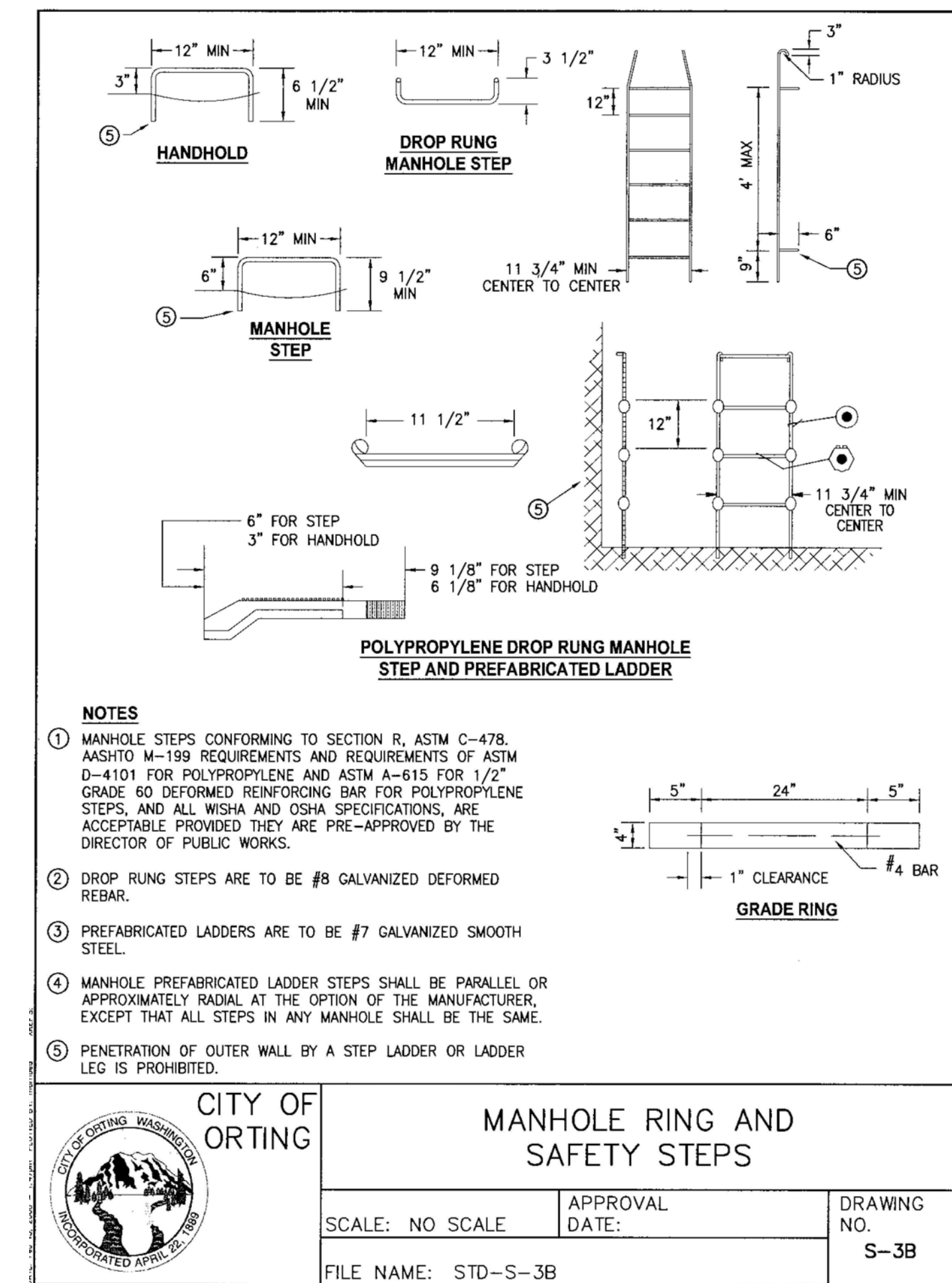
**CITY OF ORTING**  
SANITARY SEWER OR STORM TRENCH

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. S-2
FILE NAME: STD-S-2		



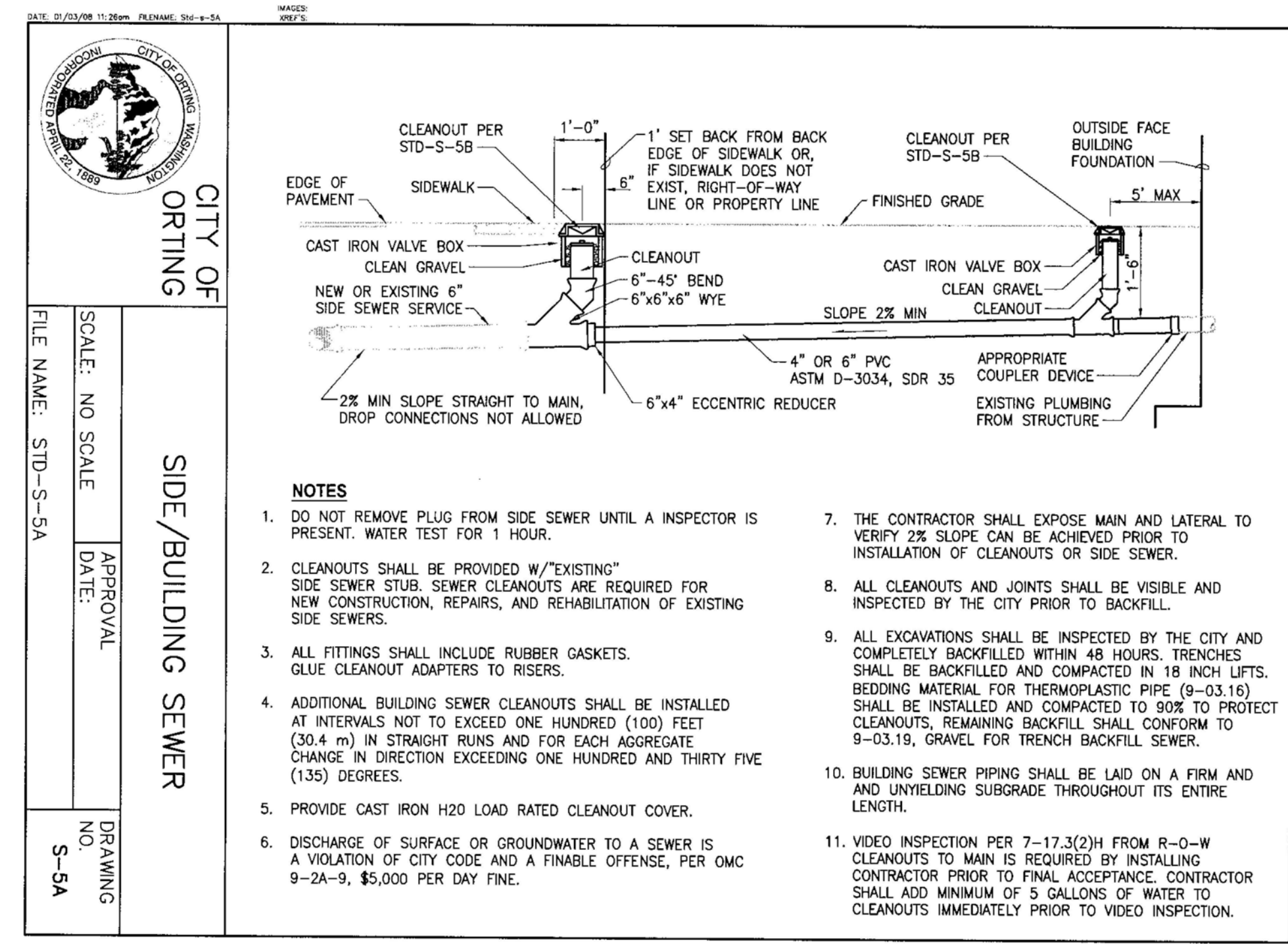
**CITY OF ORTING**  
TYPE 1 MANHOLE

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. S-3A
FILE NAME: STD-S-3A		



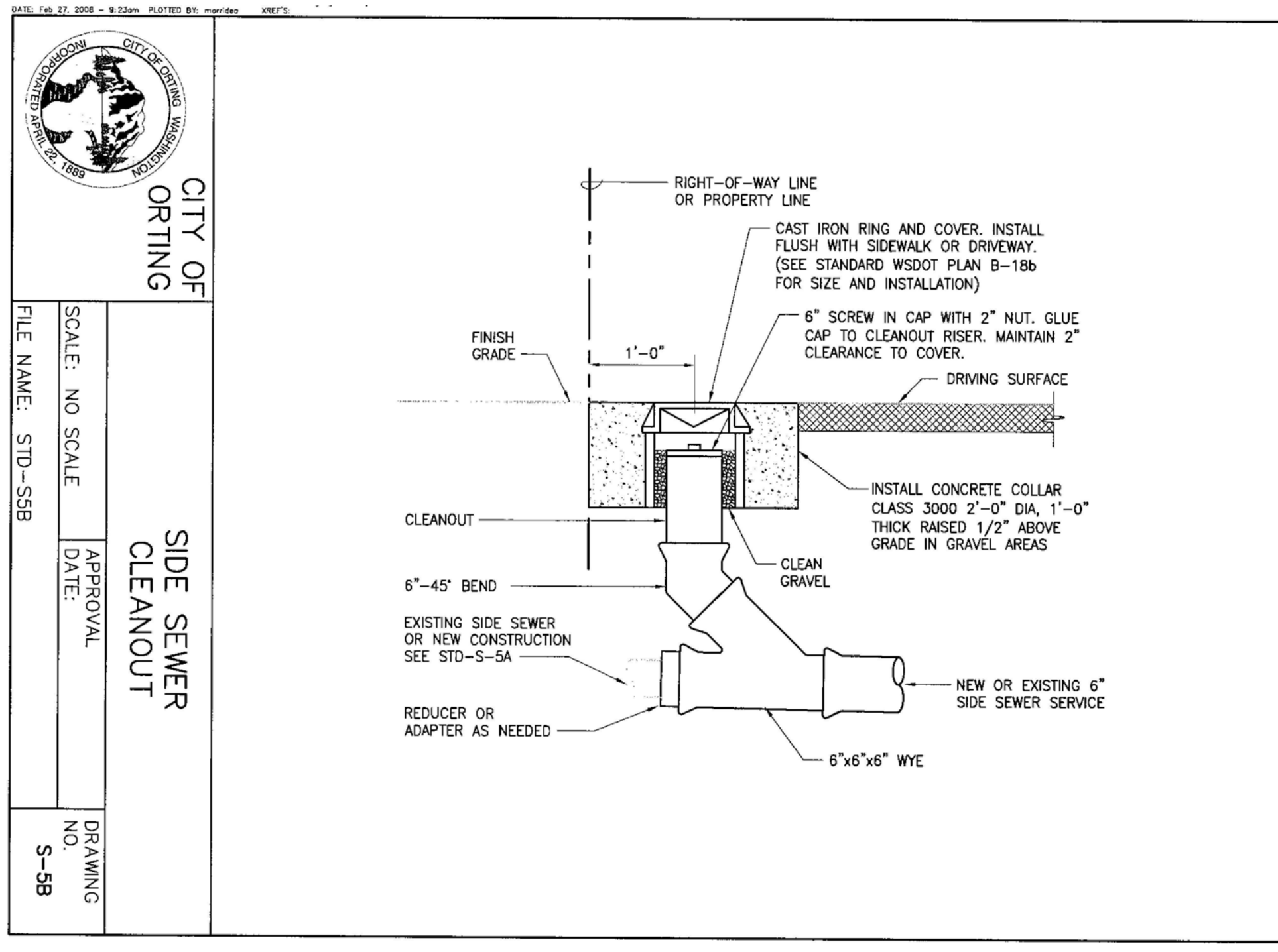
**CITY OF ORTING**  
MANHOLE RING AND SAFETY STEPS

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. S-3B
FILE NAME: STD-S-3B		



**CITY OF ORTING**  
SIDE/BUILDING SEWER CLEANOUT

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. S-5A
FILE NAME: STD-S-5A		



**CITY OF ORTING**  
SIDE SEWER CLEANOUT

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. S-5B
FILE NAME: STD-S-5B		

**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com



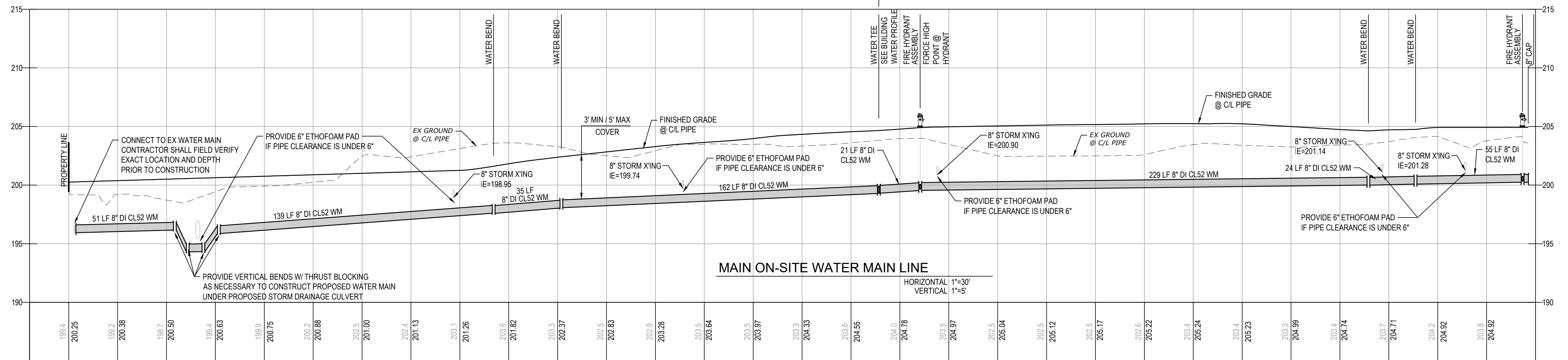
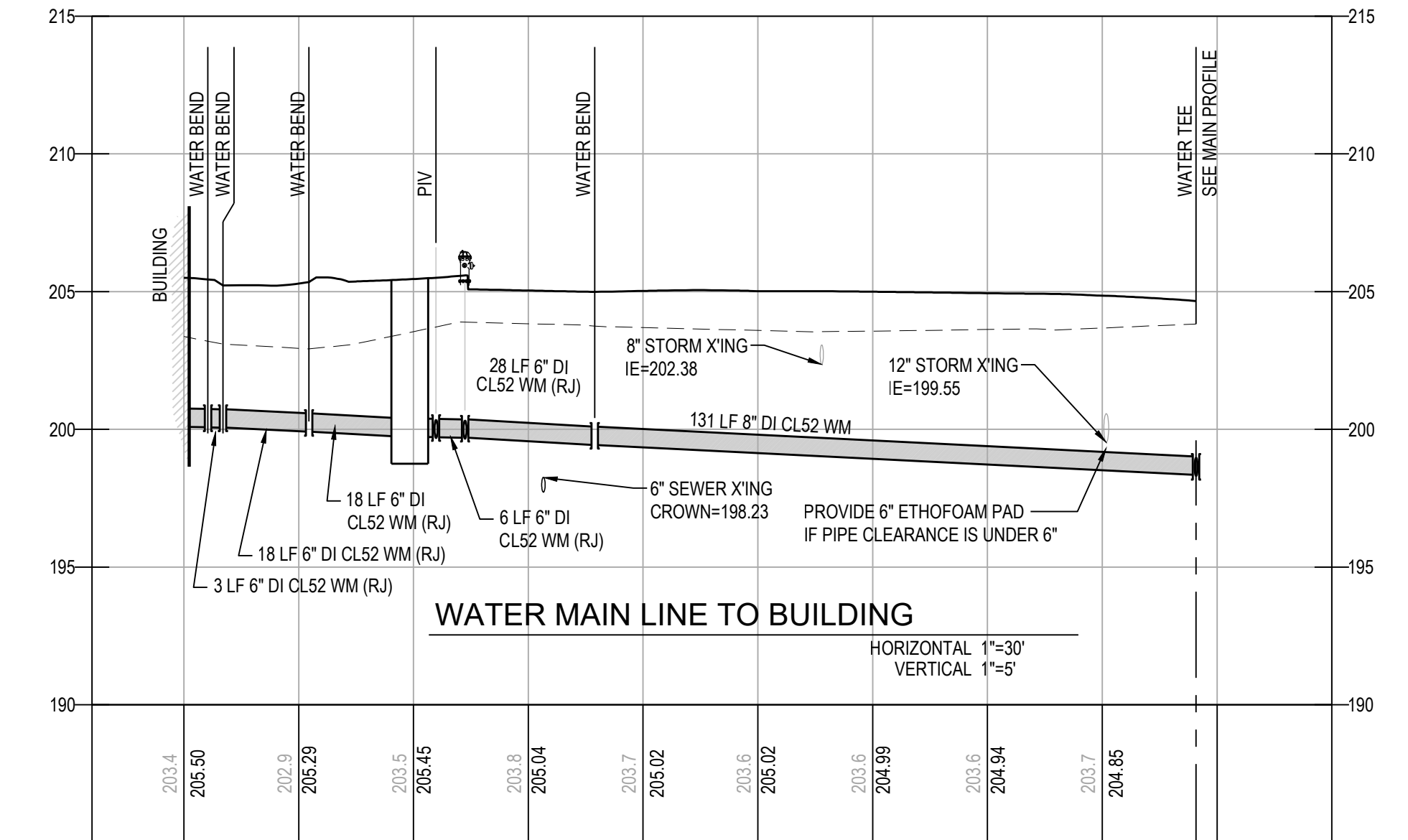
NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**SANITARY SEWER DETAILS**  
**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

CITY OF ORTING WASHINGTON

DESIGNED BY: LPLVC  
DRAWN BY: LPL  
CHECKED BY: JDC  
SCALE: HORZ. VERT.  
DATE: 12/20/2022

JOB NUMBER: 13.215  
SHEET: C4.2



CAD FILE: L:\Projects\13-0001\13.215-Abundant Life Church\Site Development\Drawings\Site Design\13.215 Utility.dwg PLOT DATE/TIME: 12/20/2022 9:00 AM



**BEYLER**  
CONSULTING

Plan. Design. Manage

CIVIL & STRUCTURAL ENGINEERING | LAND SURVEYING  
PROJECT MANAGEMENT | PLANNING & FEASIBILITY  
PERMITTING SERVICES | CONSTRUCTION MANAGEMENT

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900

[beylerconsulting.com](http://beylerconsulting.com)



NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

WATER PROFILES

## ABUNDANT LIFE CHURCH

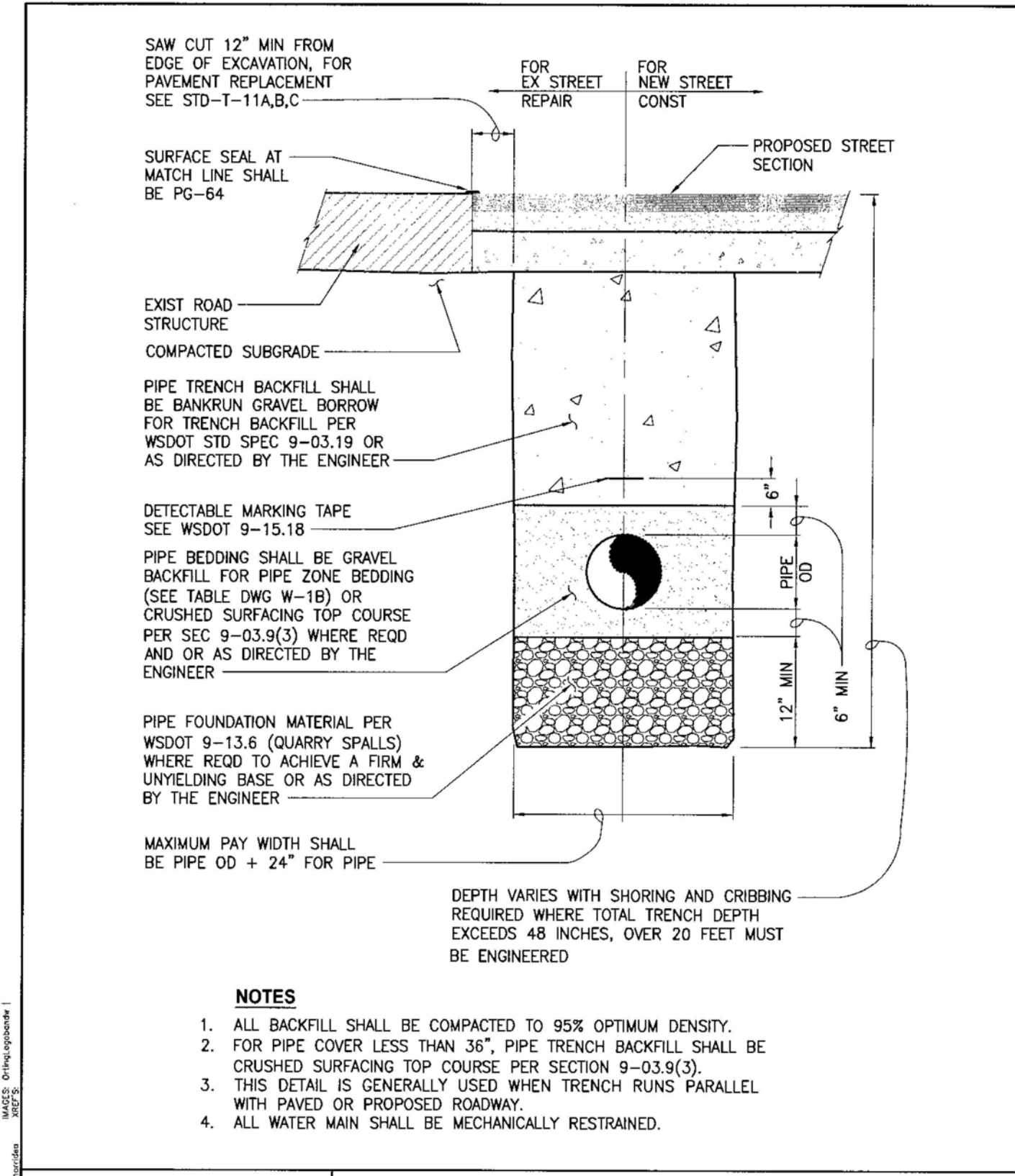
SITE DEVELOPMENT

CITY OF ORTING      WASHINGTON

DESIGNED BY: LPLVC	DRAWN BY: LPL	CHECKED BY: JDC	SCALE: HORZ: 1"=30'    VERT: 1"=5'	DATE: 12/20/2022
-----------------------	------------------	--------------------	---------------------------------------	---------------------

JOB NUMBER <b>13.215</b>
SHEET <b>C4.3</b>



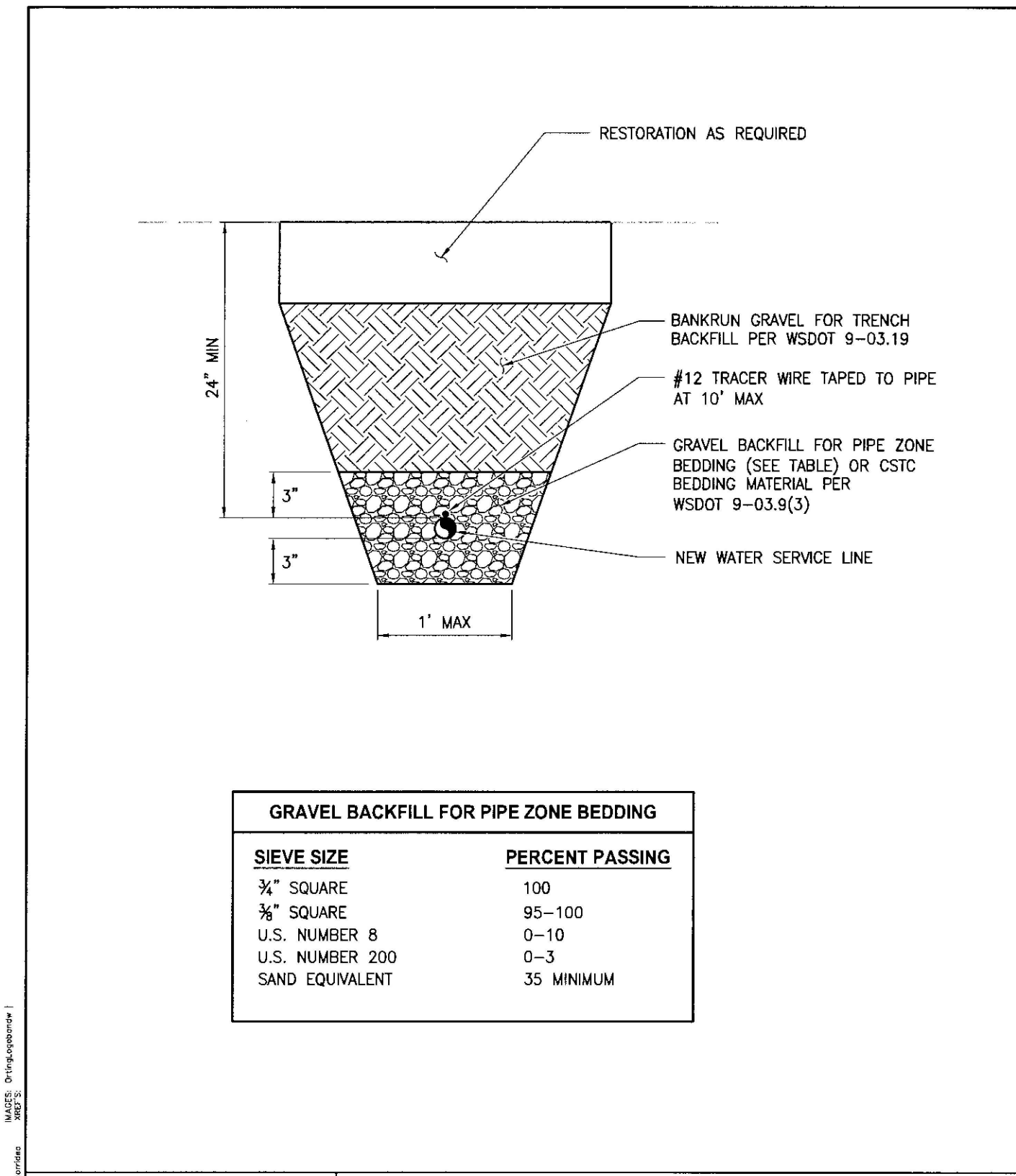


**CITY OF ORTING**

**TYPICAL TRENCH AND BEDDING SECTION FOR DIP WATERMAIN**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-1A**

FILE NAME: STD-W-1A

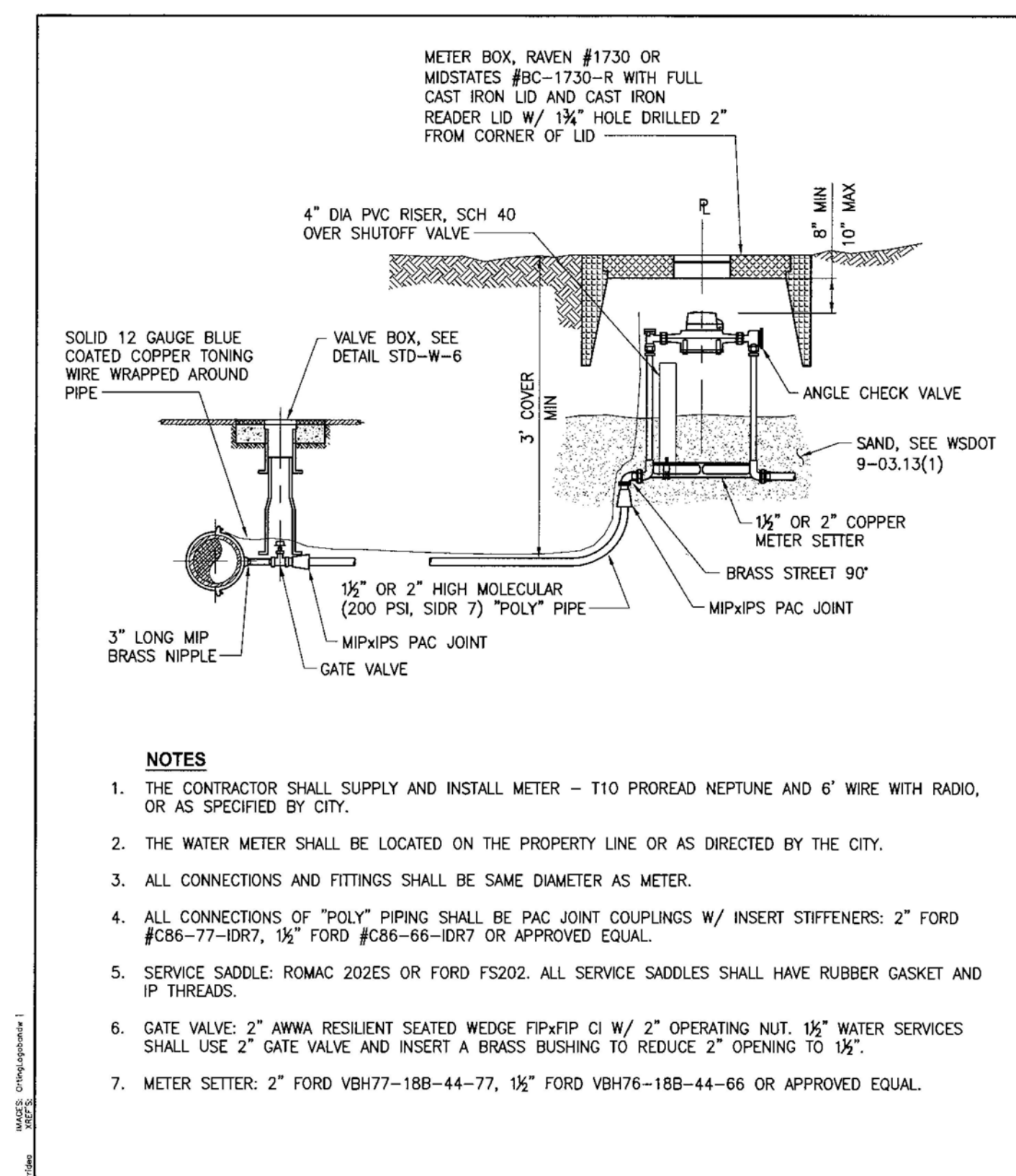


**CITY OF ORTING**

**WATER SERVICE AND BEDDING WITHIN RIGHT-OF-WAY**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-1B**

FILE NAME: STD-W-1B

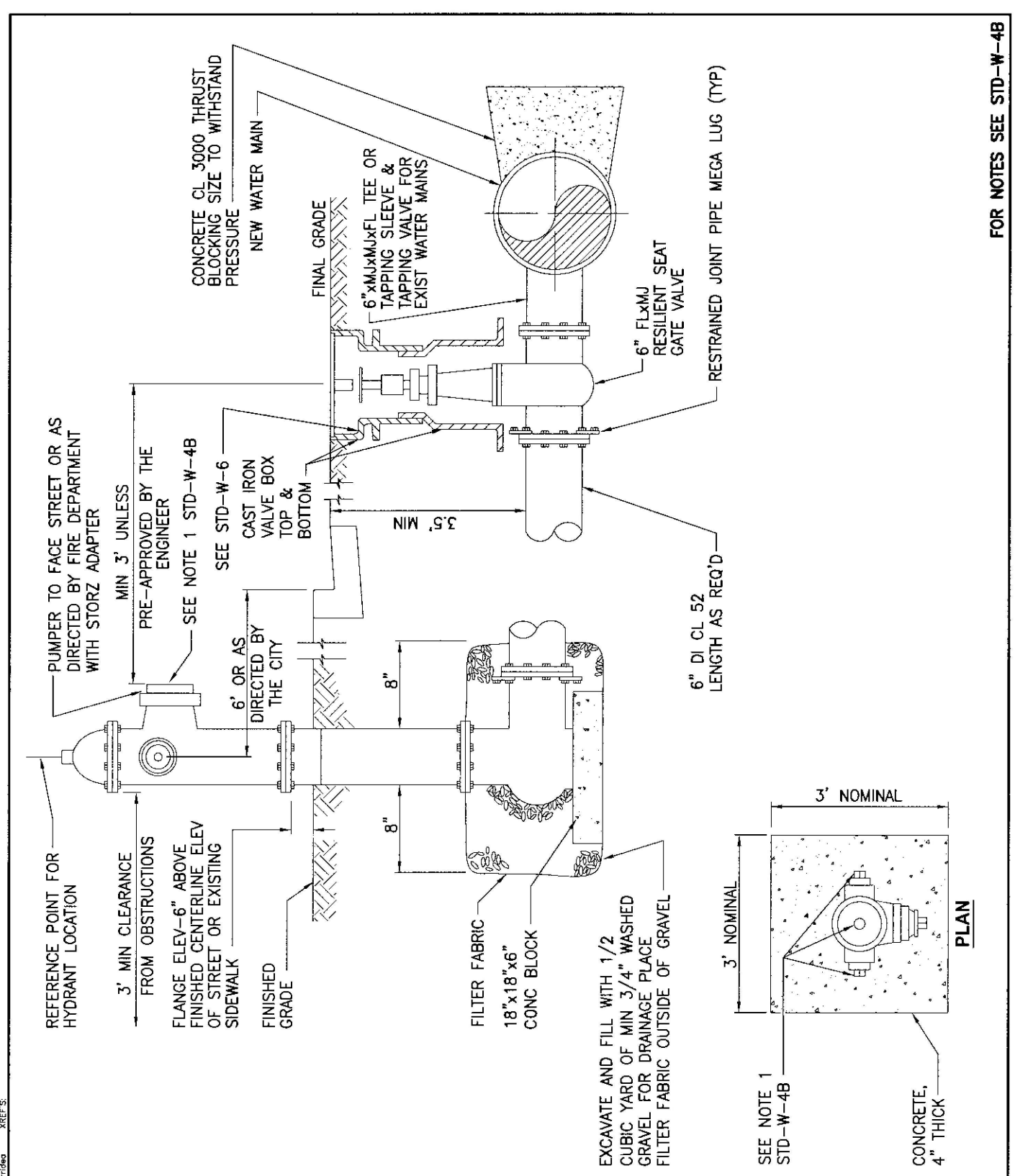


**CITY OF ORTING**

**1 1/2" & 2" METER SERVICE**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-3**

FILE NAME: STD-W-3

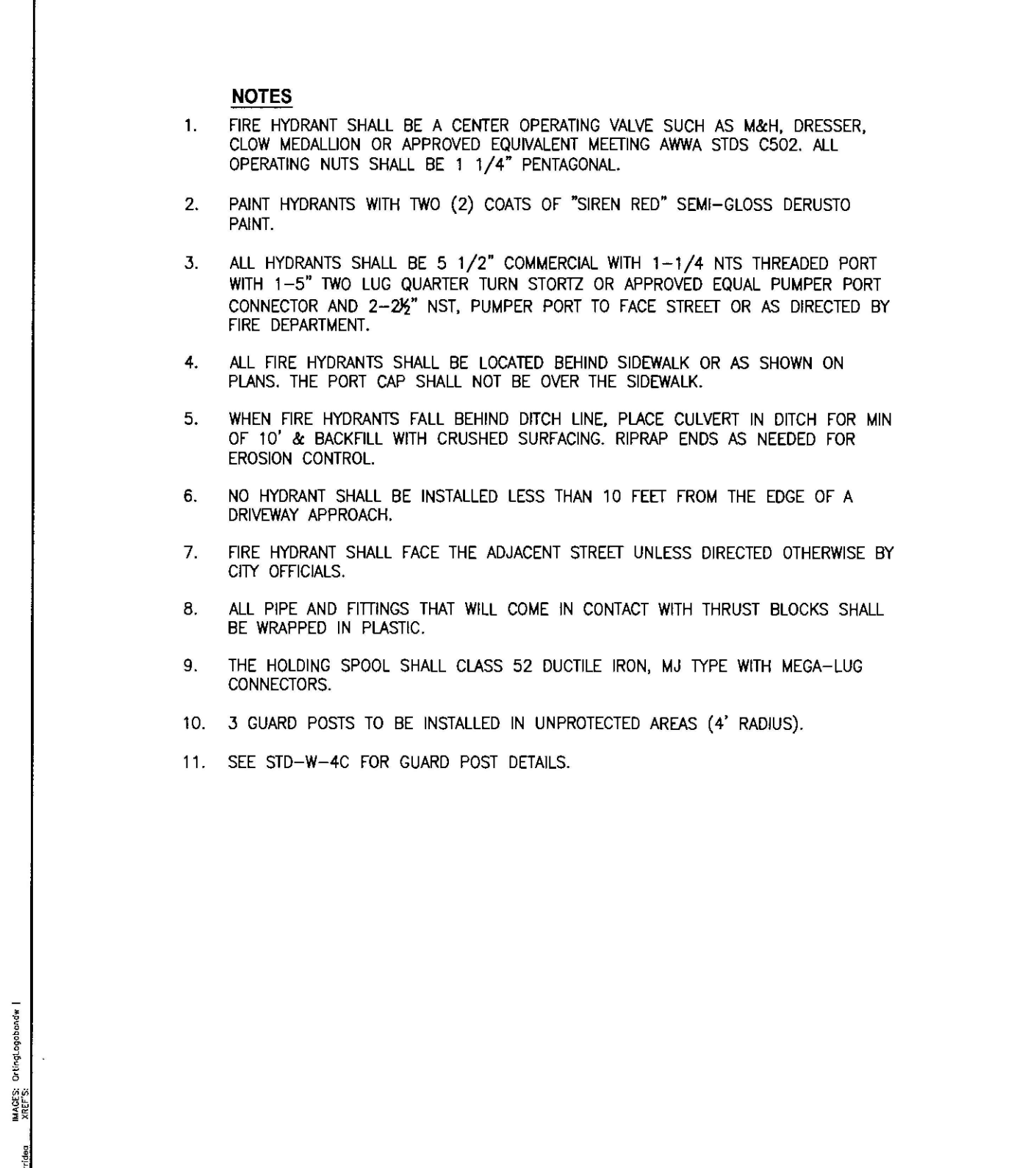


**CITY OF ORTING**

**STANDARD FIRE HYDRANT**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-4A**

FILE NAME: STD-W-4A

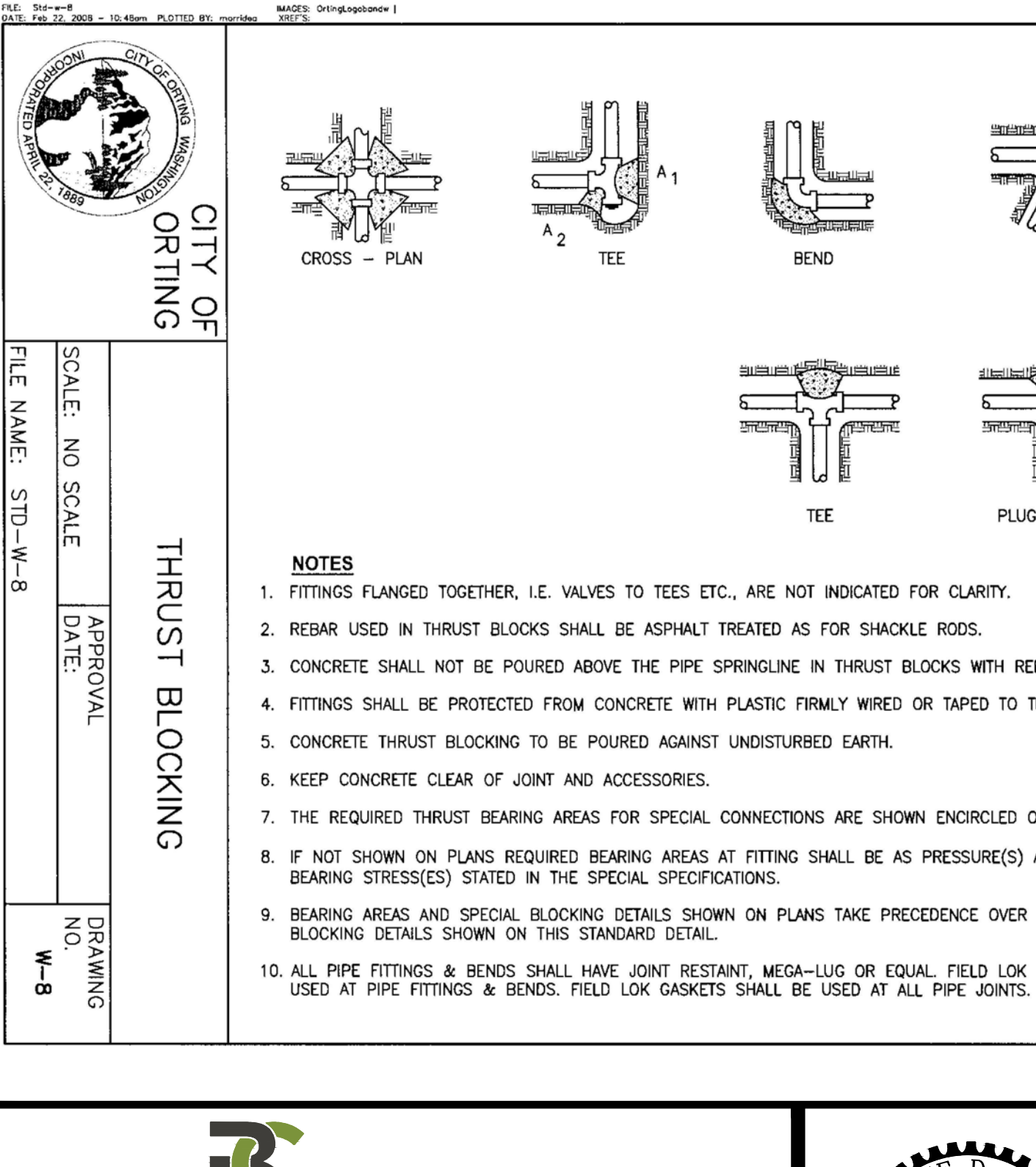


**CITY OF ORTING**

**STANDARD FIRE HYDRANT NOTES**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-4B**

FILE NAME: STD-W-4B

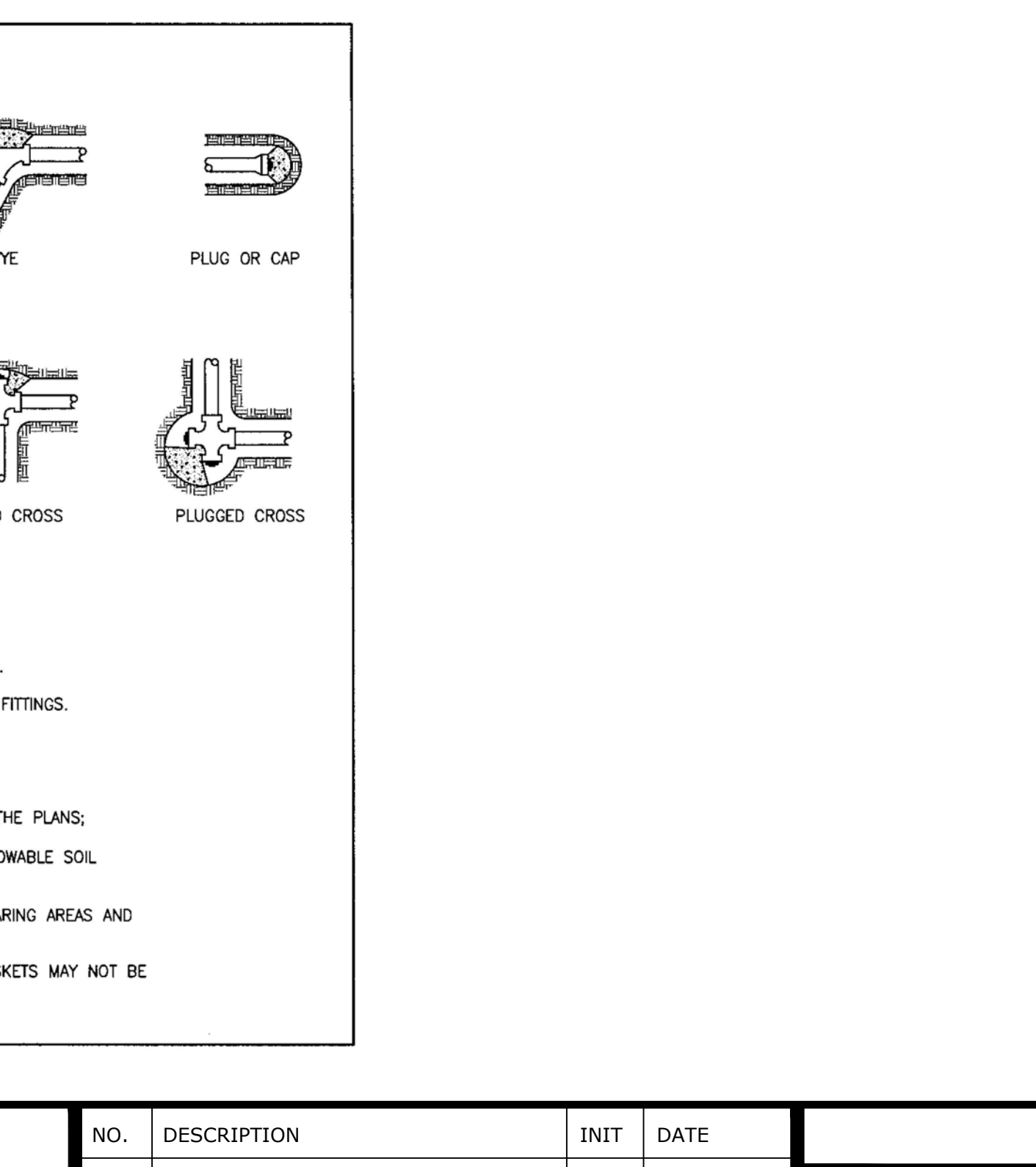


**CITY OF ORTING**

**THRUST BLOCKING**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-8**

FILE NAME: STD-W-8



**CITY OF ORTING**

**WATER DETAILS**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-3**

FILE NAME: STD-W-3



**CITY OF ORTING**

**STANDARD FIRE HYDRANT NOTES**

SCALE: NO SCALE      APPROVAL DATE:      DRAWING NO. **W-4B**

FILE NAME: STD-W-4B

**BEYLER CONSULTING**

Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

12/10/2022

NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**ABUNDANT LIFE CHURCH**

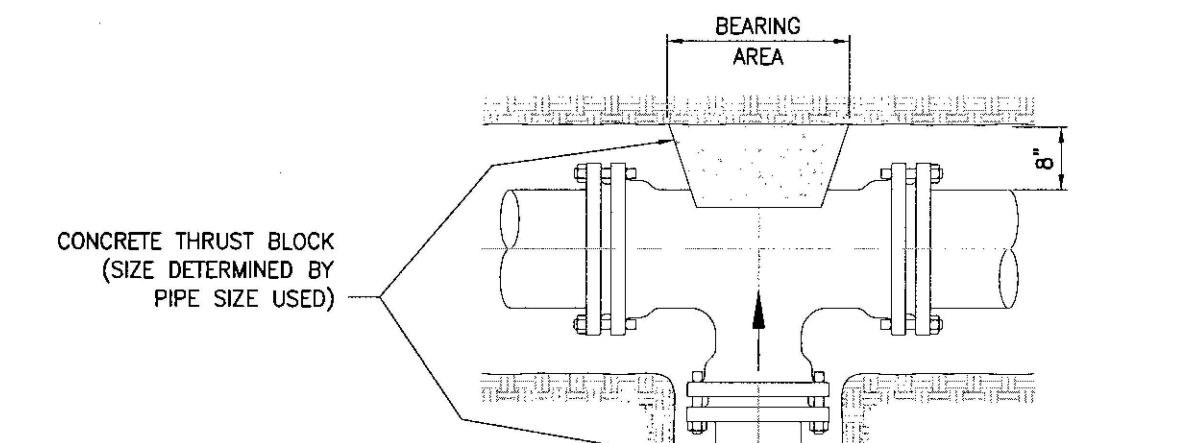
SITE DEVELOPMENT

CITY OF ORTING      WASHINGTON

DESIGNED BY: LPLVC      DRAWN BY: LPL      CHECKED BY: JDC      SCALE: HORZ.      DATE: 12/20/2022

JOB NUMBER **13.215**

SHEET **C4.4**



**CONCRETE THRUST BLOCK**  
(SIZE DETERMINED BY PIPE SIZE USED)

**NOTES**

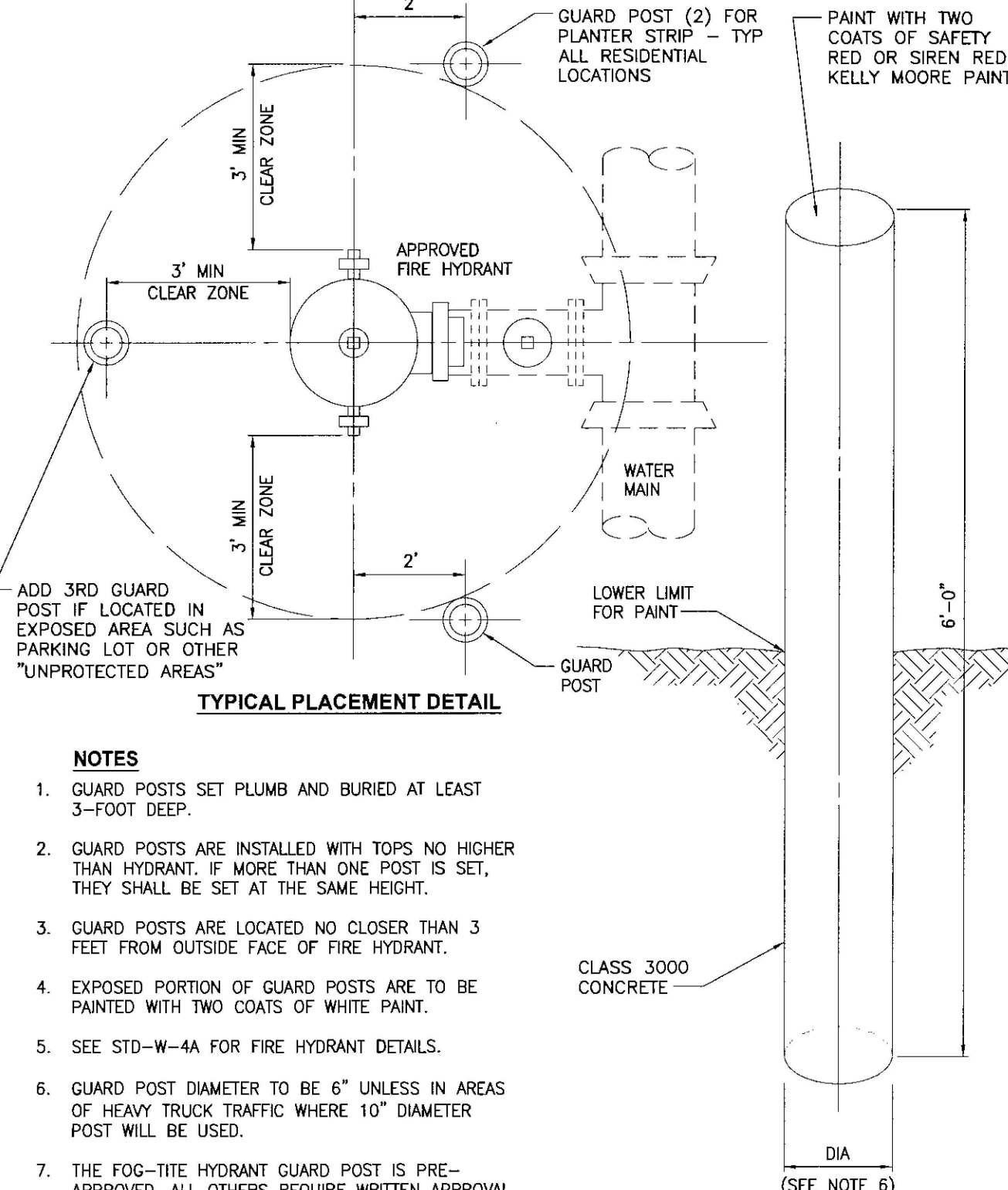
- BLOCK HEIGHT SHALL BE EQUAL OR LESS THAN ONE HALF OF TOTAL DEPTH FROM GROUND SURFACE TO BLOCK BASE.
- BLOCK SIZE BASED ON 225 PSI TEST PRESSURE.
- WRAP FITTINGS WITH POLYETHYLENE PLASTIC BEFORE POURING CONCRETE THRUST BLOCK.
- SEE STD-W-8 FOR PLACING OF THRUST BLOCKS.

FITTING SIZE (INCHES)	BEARING AREA OF BLOCK IN SQUARE FEET			
	TEES & PIPE ENDS	90° BEND	45° BEND	22 1/2° BEND
	1000 PSF SOIL BEARING STRENGTH			
3	1.6	2.3	1.3	1.0
4	2.8	4.0	2.2	1.1
6	6.4	9.0	4.9	2.5
8	11.3	16.0	8.7	4.5
10	17.7	25.0	13.6	6.9
12	25.4*	36.0*	19.5	10.0
14	34.6*	49.0*	26.6*	13.6
16	45.2*	64.0*	34.6*	17.7
	2500 PSF SOIL BEARING STRENGTH			
3	1.0	1.0	1.0	1.0
4	1.1	1.6	1.0	1.0
6	2.6	3.6	2.0	1.0
8	4.5	6.4	3.5	1.8
10	7.1	10.0	5.4	2.8
12	10.1	14.4	7.8	4.0
14	13.8	19.6	10.6	5.4
16	18.1	25.6*	13.8	7.1

\* MAXIMUM BEARING AREA ALLOWED IS 25 SQ FT; BEARING AREA MAY BE REDUCED BY USING RODS, RESTRAINED JOINT PIPE, OR CONDUCTING SOILS TEST TO CONFIRM HIGHER SOIL BEARING.

**CITY OF ORTING**  
WATER MAIN BLOCKING

SCALE: NO SCALE | APPROVAL DATE: | DRAWING NO. W-9  
FILE NAME: STD-W-9



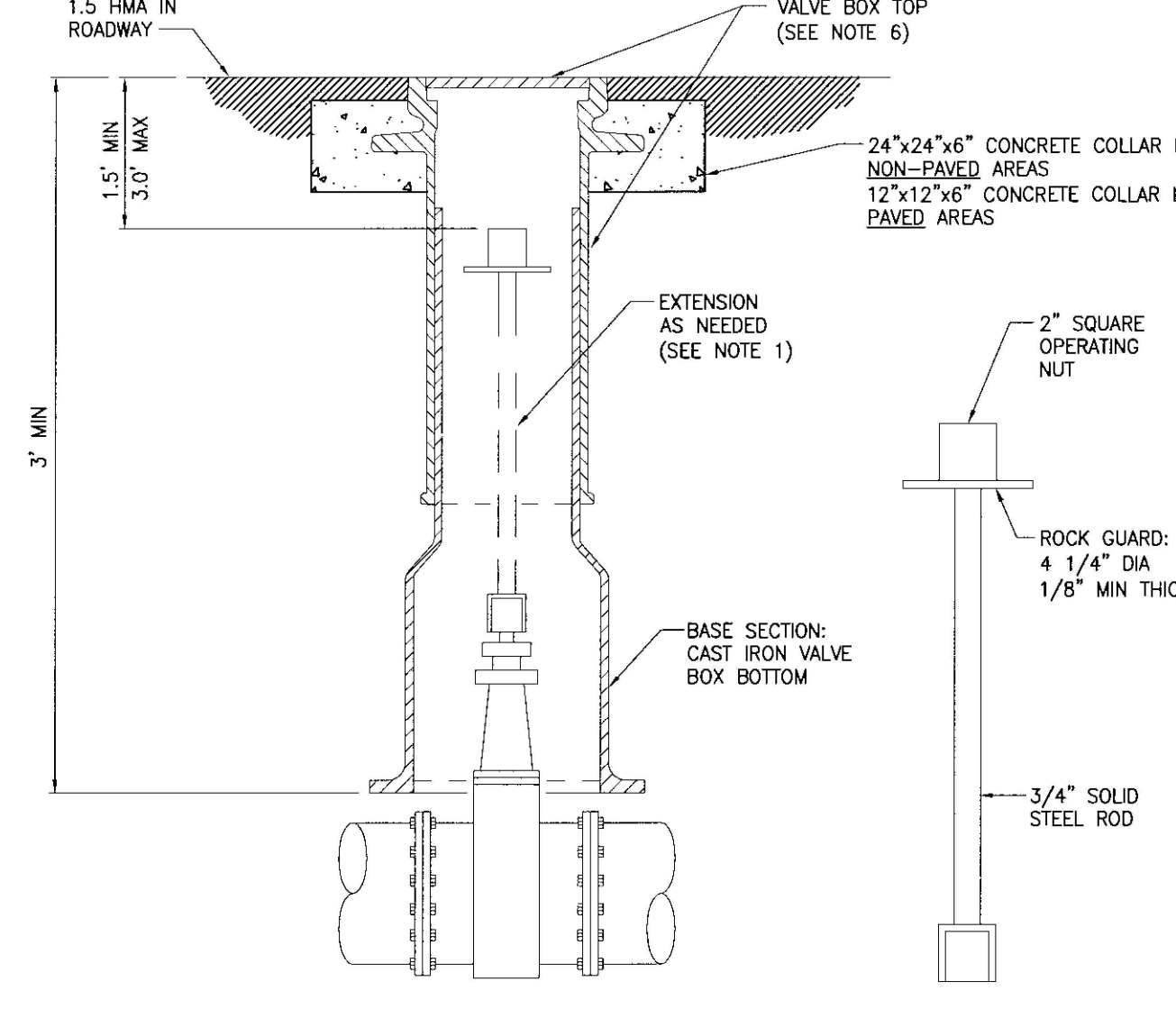
**TYPICAL PLACEMENT DETAIL**

**NOTES**

- GUARD POSTS SET PLUMB AND BURIED AT LEAST 3-FOOT DEEP.
- GUARD POSTS ARE INSTALLED WITH TOPS NO HIGHER THAN HYDRANT. IF MORE THAN ONE POST IS SET, THEY SHALL BE SET AT THE SAME HEIGHT.
- GUARD POSTS ARE LOCATED NO CLOSER THAN 3 FEET FROM OUTSIDE FACE OF FIRE HYDRANT.
- EXPOSED PORTION OF GUARD POSTS ARE TO BE PAINTED WITH TWO COATS OF WHITE PAINT.
- SEE STD-W-4A FOR FIRE HYDRANT DETAILS.
- GUARD POST DIAMETER TO BE 6" UNLESS IN AREAS OF HEAVY TRUCK TRAFFIC WHERE 10" DIAMETER POST WILL BE USED.
- THE FOG-TITE HYDRANT GUARD POST IS PRE-APPROVED. ALL OTHERS REQUIRE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO INSTALLATION.

**CITY OF ORTING**  
FIRE HYDRANT GUARD POST

SCALE: NO SCALE | APPROVAL DATE: | DRAWING NO. W-4C  
FILE NAME: STD-W-4C



**VALVE BOX WITH OPERATING NUT EXTENDER**

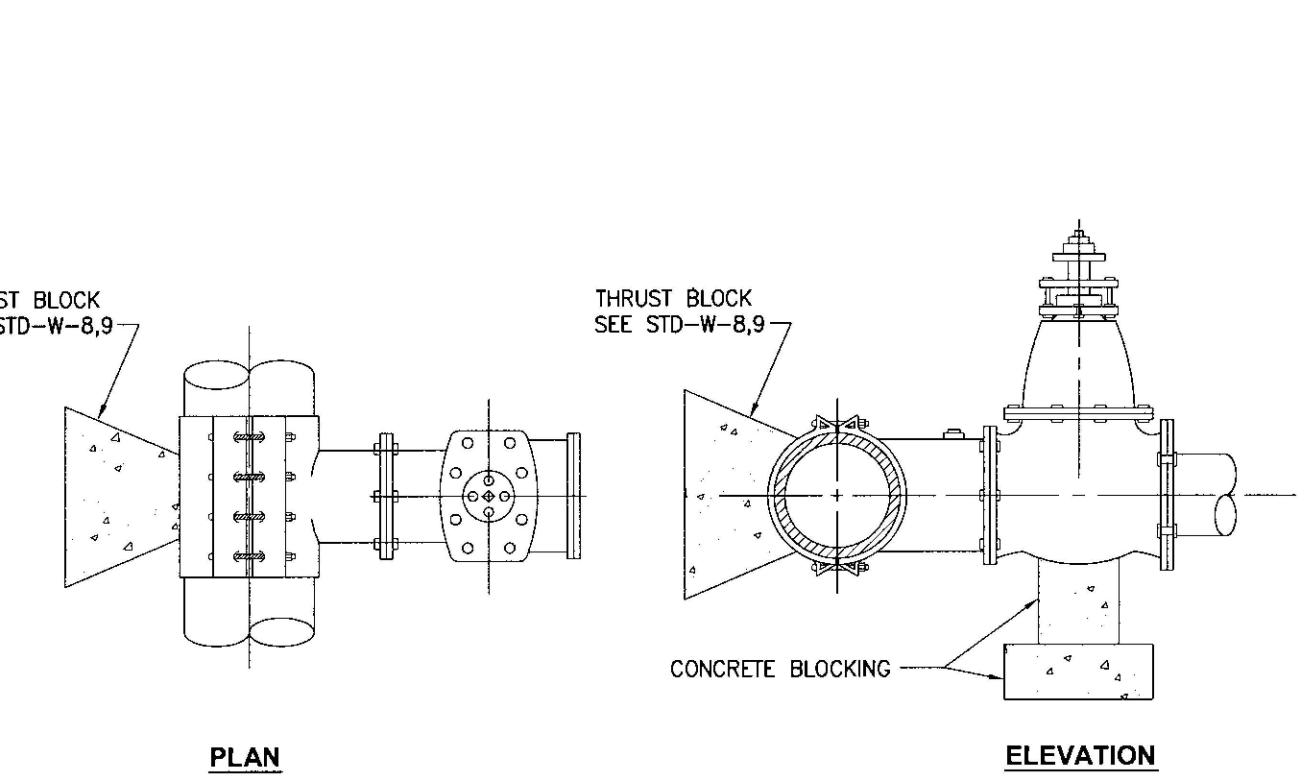
**OPERATING NUT EXTENDER**

**NOTES**

- EXTENSIONS ARE REQUIRED WHEN VALVE NUT IS MORE THAN FOUR FEET BELOW FINISHED GRADE.
- EXTENSIONS SHALL BE A MINIMUM OF ONE FOOT LONG.
- EXTENSIONS SHALL BE SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.
- EXTENSIONS ARE AS AVAILABLE FROM HD FOWLER OR US FILTER WATERWORKS.
- LUGS OR STAINLESS CAP SCREWS ON COVER SHALL BE ALIGNED WITH DIRECTION OF WATER FLOW.
- CAST IRON VALVE BOX TOP WITH COVER MARKED "WATER", 5 7/8" INSIDE DIAMETER W/LID TABS POINTING IN DIRECTION OF PIPING.

**CITY OF ORTING**  
VALVE BOX & OPERATING NUT EXTENDER

SCALE: NO SCALE | APPROVAL DATE: | DRAWING NO. W-6  
FILE NAME: STD-W-6



**STAINLESS STEEL TAPPING TEE**

**NOTES**

- TAPPING SLEEVE & VALVE ASSEMBLY TO BE PRE-APPROVED BY THE CITY ENGINEER. PRESSURE TESTING SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO TAPPING FOLLOW AWWA/WSOT REQUIREMENTS FOR DISINFECTION OF TAPPING SLEEVES AND APPURTENANCES (AWWA STD C651).
- TAPPING SLEEVE SHALL HAVE 18-8 STAINLESS STEEL BODY, STRAPS, FLANGE, NUTS, AND BOLTS. FULL AND OUTLET GASKETS SHALL CONFORM TO ASTM D2000-80M-444807.
- WET TAPS SHALL NOT BE ALLOWED ON SAME SIZE OR SMALLER MAINS.
- WRAP ALL PIPE AND FITTINGS WITH PLASTIC THAT COME IN CONTACT WITH THRUST BLOCKS.

**CITY OF ORTING**  
TAPPING SLEEVE & VALVE ASSEMBLIES

SCALE: NO SCALE | APPROVAL DATE: | DRAWING NO. W-15  
FILE NAME: STD-W-15

CAD FILE: L:\Projects\13-00013215-Abundant Life Church\Engineering\Drawings\Pond Site Design\13.215 Utility Details.dwg | PLOT DATE/TIME: 12/20/2022 3:01 AM



**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

12/20/2022

NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**WATER DETAILS**

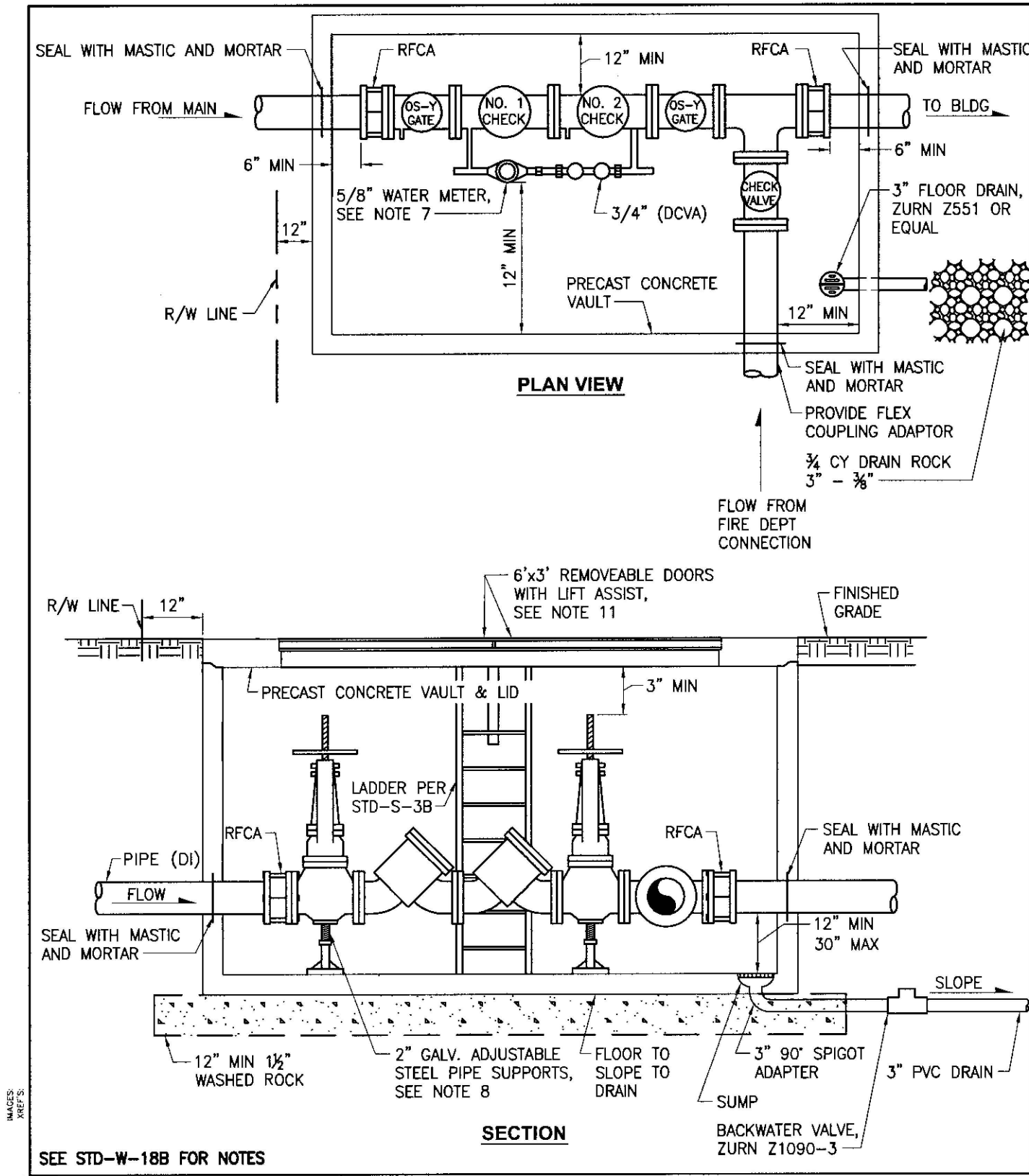
**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

CITY OF ORTING | WASHINGTON

DESIGNED BY: LPLVC | DRAWN BY: LPL | CHECKED BY: JDC | SCALE: HORZ: | VERT: | DATE: 12/20/2022

JOB NUMBER  
**13.215**

SHEET  
**C4.5**



SEE STD-W-188 FOR NOTES

**CITY OF ORTING**

**DOUBLE DETECTOR-CHECK VALVE ASSEMBLY INSTALLATION**

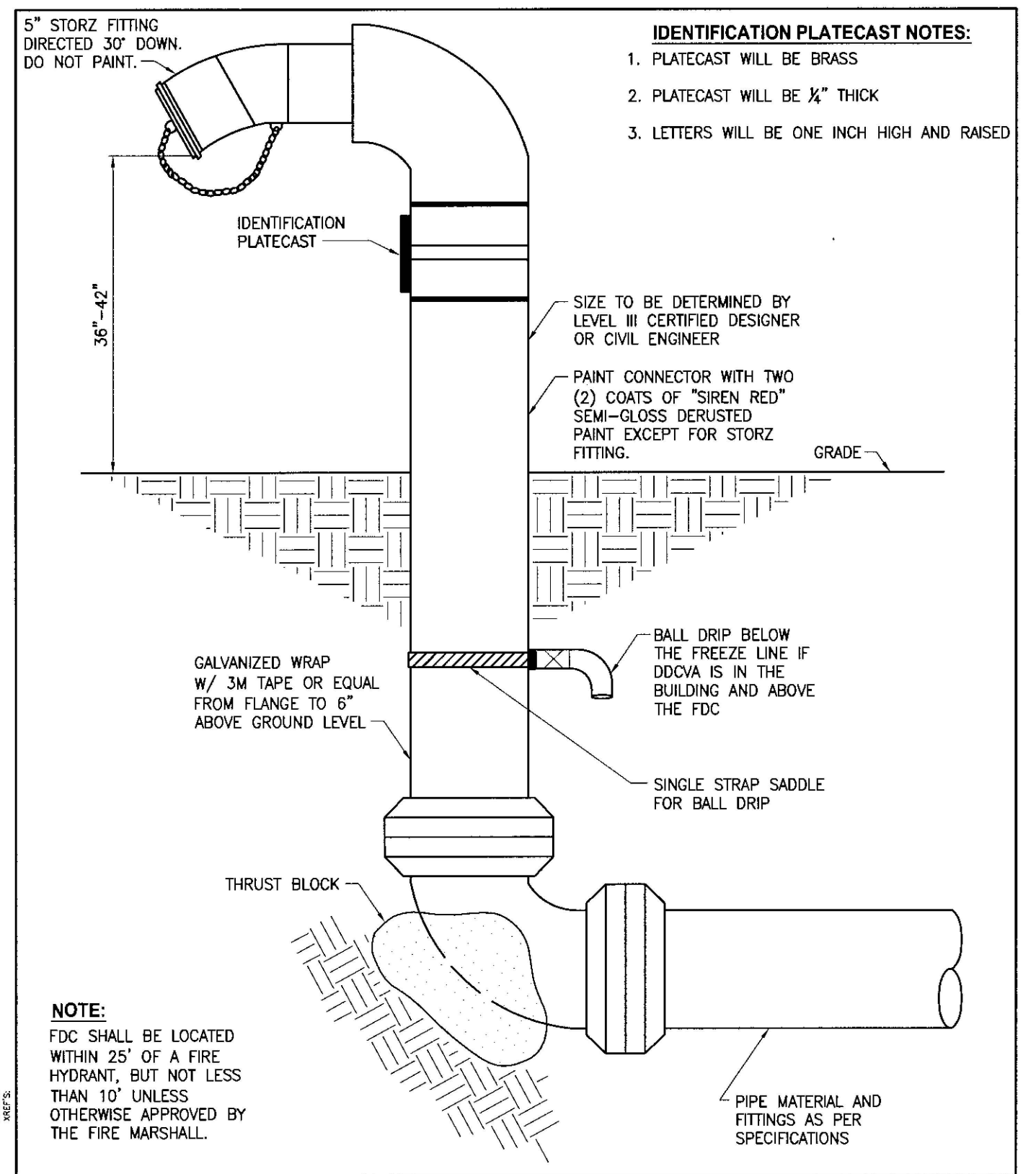
SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. W-18A
FILE NAME: STD-W-18A		

- NOTES**
- INSTALLATION OF THE APPROVED BACKFLOW ASSEMBLY SHALL BE IN ACCORDANCE WITH THE "ACCEPTED PROCEDURE AND PRACTICE IN CROSS-CONNECTION CONTROL" MANUAL OF THE CROSS-CONNECTION CONTROL COMMITTEE, PACIFIC N.W. SECTION OF THE A.W.W.A., MAY 1990, 5TH EDITION MANUAL OR CURRENT ADDITION.
  - BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
  - UPON INSTALLATION OF THE APPROVED BACKFLOW ASSEMBLY, (AND ANNUALLY THEREAFTER), THE ASSEMBLY SHALL BE TESTED BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER, WHO SHALL PROMPTLY FORWARD THE TEST RESULTS TO: THE CITY OF ORTING, 110 TRAIN ST. ORTING, WA 98360, PRIOR TO OCCUPANCY.
  - DOUBLE DETECTOR CHECK VALVE ASSEMBLY OS & Y GATE VALVES SHALL HAVE SUPERVISED TAMPER SWITCHES.
  - DDCVA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO ASSEMBLY ARE ALLOWED.
  - WATER METER SHALL BE A T10 PROREAD NEPTUNE AND 6' OF WIRE WITH RADIO OR AN APPROVED EQUAL.
  - PIPE SUPPORTS SHALL BE RUST-PROTECTED WITH ALUMINUM PAINT.
  - THE FIRE DEPARTMENT CONNECTION SHALL BE LOCATED WITHIN 25 FEET OF A FIRE HYDRANT BUT NOT LESS THAN 10 FEET.
  - WHEN DDCVA IS LOCATED WITHIN A BUILDING, THE BALL DRIP SHALL DRAIN TO THE NEAREST APPROVED CATCH BASIN.
  - DRAIN SHALL DISCHARGE TO STORM SYSTEM OR BY GRAVITY TO CONVEYANCE SWALE. IF FALL IS NOT AVAILABLE, DRAIN SHALL BE FITTED WITH A BACKWATER VALVE AND DISCHARGE TO 3/4 CY OF DRAIN ROCK.
  - REMOVABLE DOORS SHALL BE A MINIMUM OF 6'-0" X 3'-0" DIAMOND PLATE HINGED LOCKING DOORS, WITH HINGES LOCATED AT EACH END OF OPENING. DOORS SHALL HAVE AN H-20 LOAD RATING IN AREAS THAT ARE SUBJECT TO VEHICLE TRAFFIC. DOORS SHALL BE SPRING LOADED WITH OPEN POSITION LOCK.

**CITY OF ORTING**

**DOUBLE DETECTOR-CHECK VALVE ASSEMBLY INSTALLATION NOTES**

SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. W-18B
FILE NAME: STD-W-18B		



**CITY OF ORTING**

**FIRE DEPARTMENT CONNECTION**

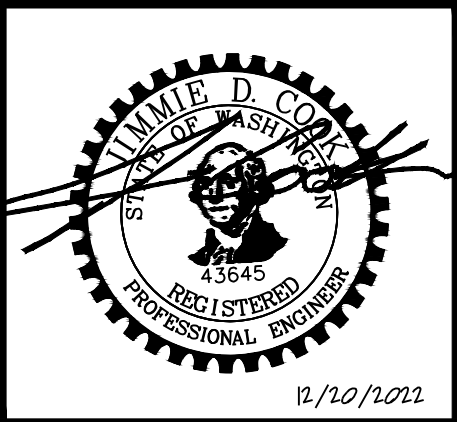
SCALE: NO SCALE	APPROVAL DATE:	DRAWING NO. W-19
FILE NAME: STD-W-19		

CAD FILE: L:\Projects\13-00013215-Abundant Life Church\Engineering\Drawings\Pond Site Design\13.215 Utility Details.dwg PLOT DATE/TIME: 12/20/2022 3:01 AM

**BEYLER CONSULTING**  
Plan. Design. Manage

CIVIL & STRUCTURAL ENGINEERING | LAND SURVEYING  
PROJECT MANAGEMENT | PLANNING & FEASIBILITY  
PERMITTING SERVICES | CONSTRUCTION MANAGEMENT

**CORPORATE OFFICE**  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com



NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

**WATER DETAILS**

**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

CITY OF ORTING WASHINGTON

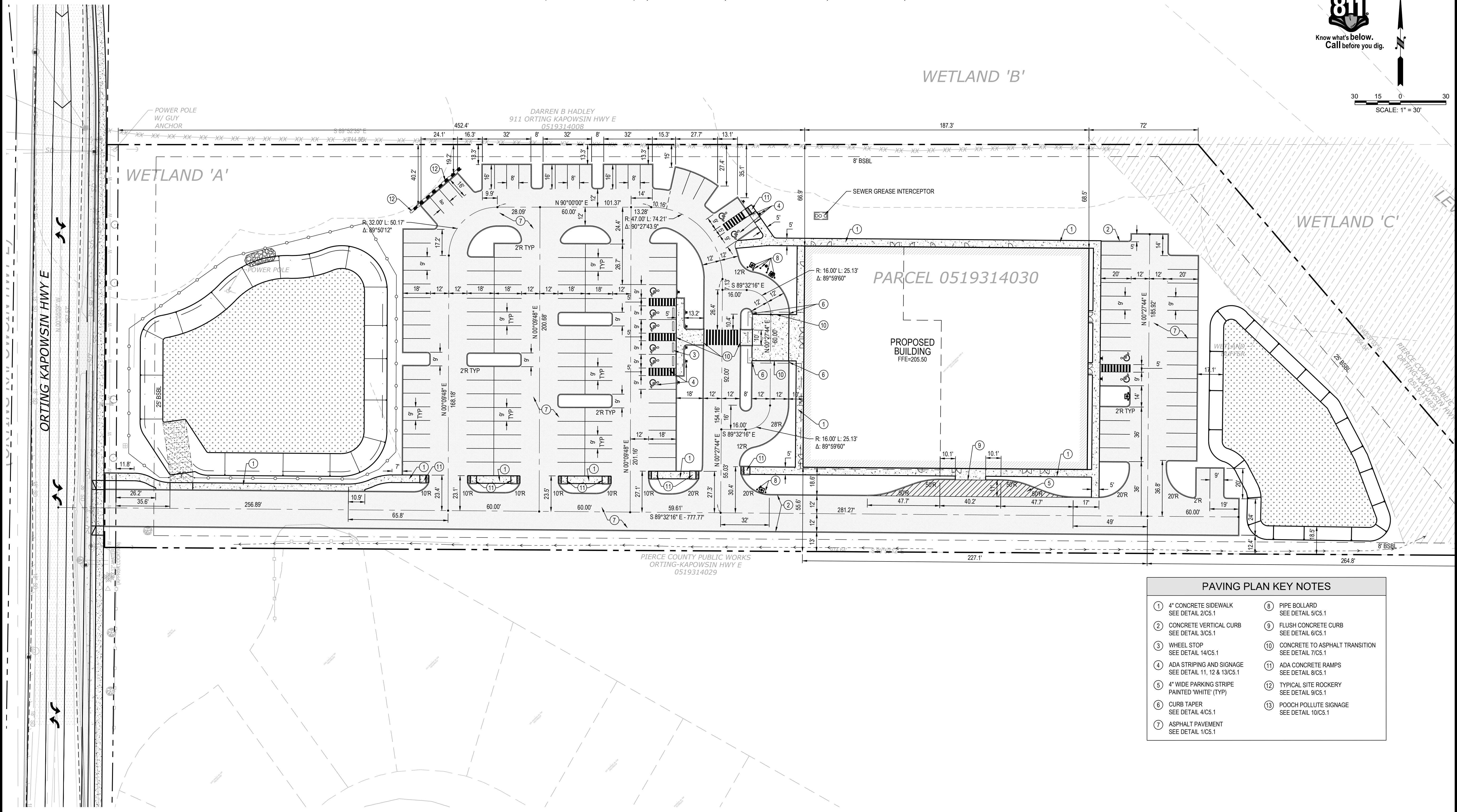
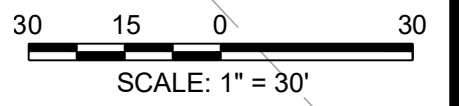
DESIGNED BY: LPLVC	DRAWN BY: LPL	CHECKED BY: JDC	SCALE: HORZ: VERT:	DATE: 12/20/2022
--------------------	---------------	-----------------	--------------------	------------------

JOB NUMBER  
**13.215**

SHEET  
**C4.6**



Know what's below.  
Call before you dig.



PAVING PLAN KEY NOTES	
1	4" CONCRETE SIDEWALK SEE DETAIL 2/C5.1
2	CONCRETE VERTICAL CURB SEE DETAIL 3/C5.1
3	WHEEL STOP SEE DETAIL 14/C5.1
4	ADA STRIPING AND SIGNAGE SEE DETAIL 11, 12 & 13/C5.1
5	4" WIDE PARKING STRIPE PAINTED 'WHITE' (TYP)
6	CURB TAPER SEE DETAIL 4/C5.1
7	ASPHALT PAVEMENT SEE DETAIL 1/C5.1
8	PIPE BOLLARD SEE DETAIL 5/C5.1
9	FLUSH CONCRETE CURB SEE DETAIL 6/C5.1
10	CONCRETE TO ASPHALT TRANSITION SEE DETAIL 7/C5.1
11	ADA CONCRETE RAMPS SEE DETAIL 8/C5.1
12	TYPICAL SITE ROCKERY SEE DETAIL 9/C5.1
13	POOCH POLLUTE SIGNAGE SEE DETAIL 10/C5.1

PAVING LEGEND	
	PROPERTY BOUNDARY
	BUILDING
	ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	CONCRETE CURB

**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

12/10/2022



NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

PAVING AND LAYOUT PLAN

**ABUNDANT LIFE CHURCH**

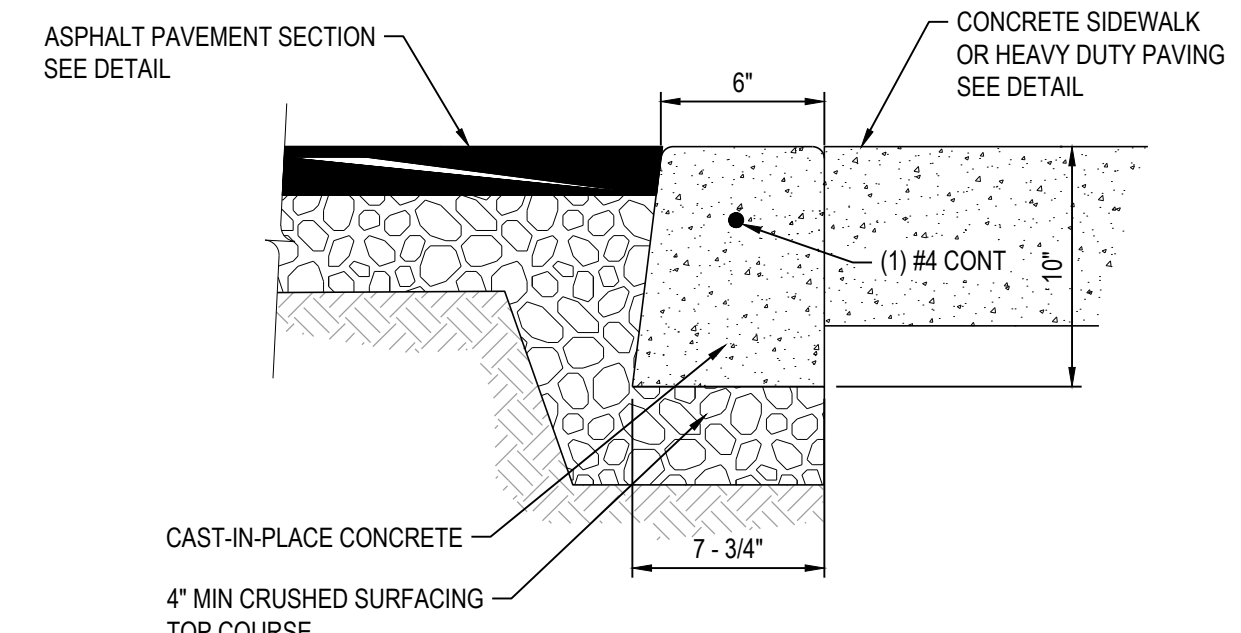
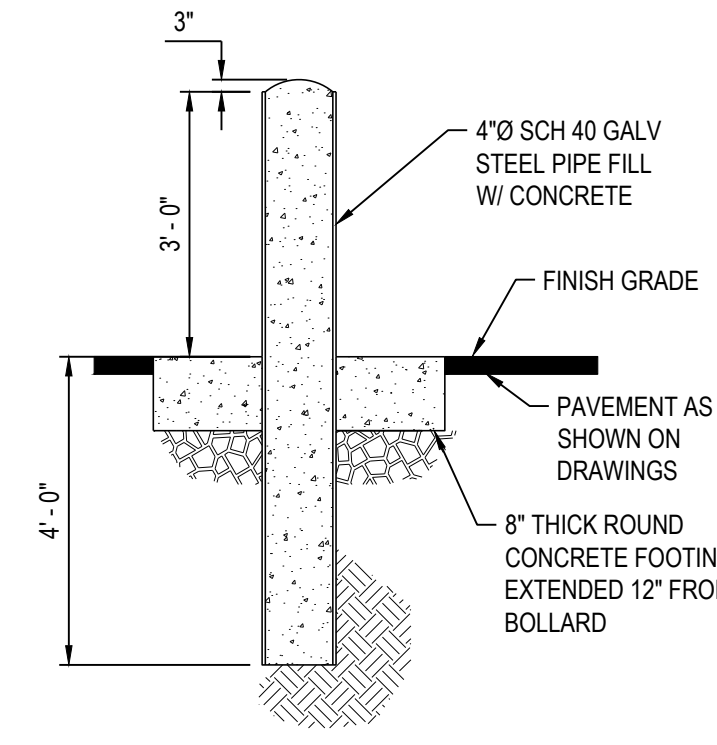
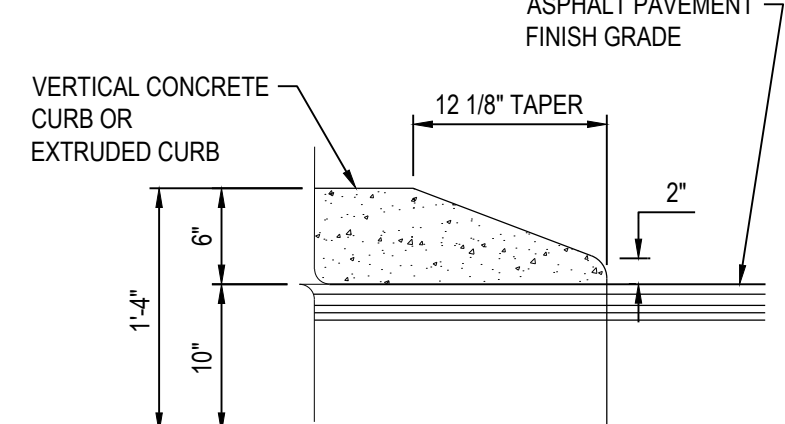
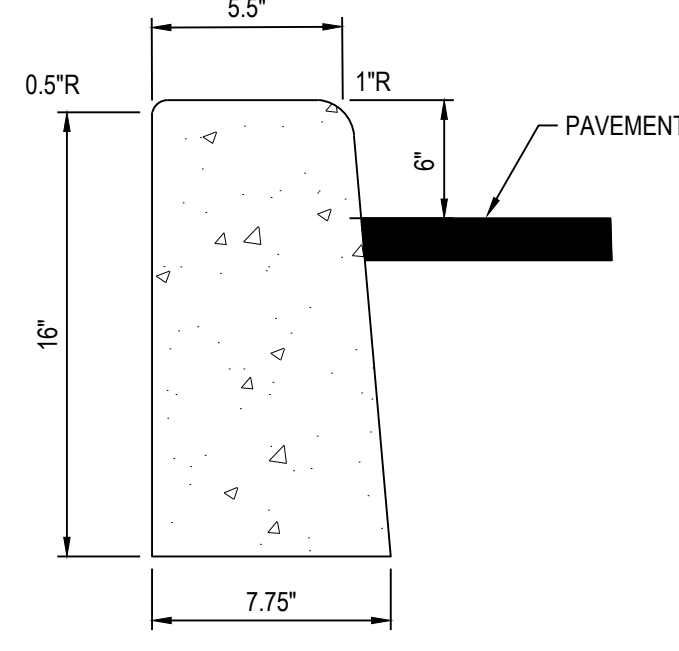
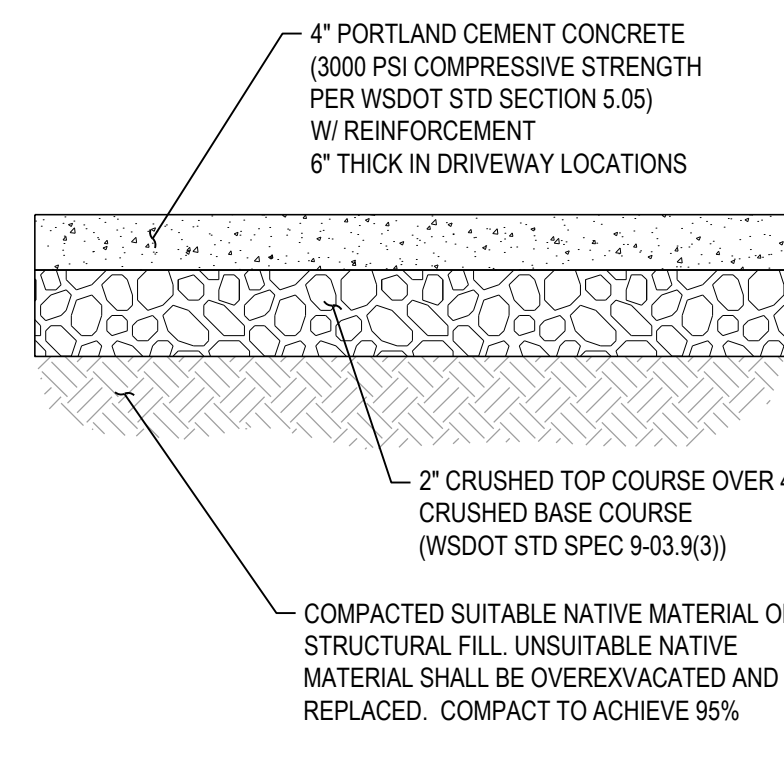
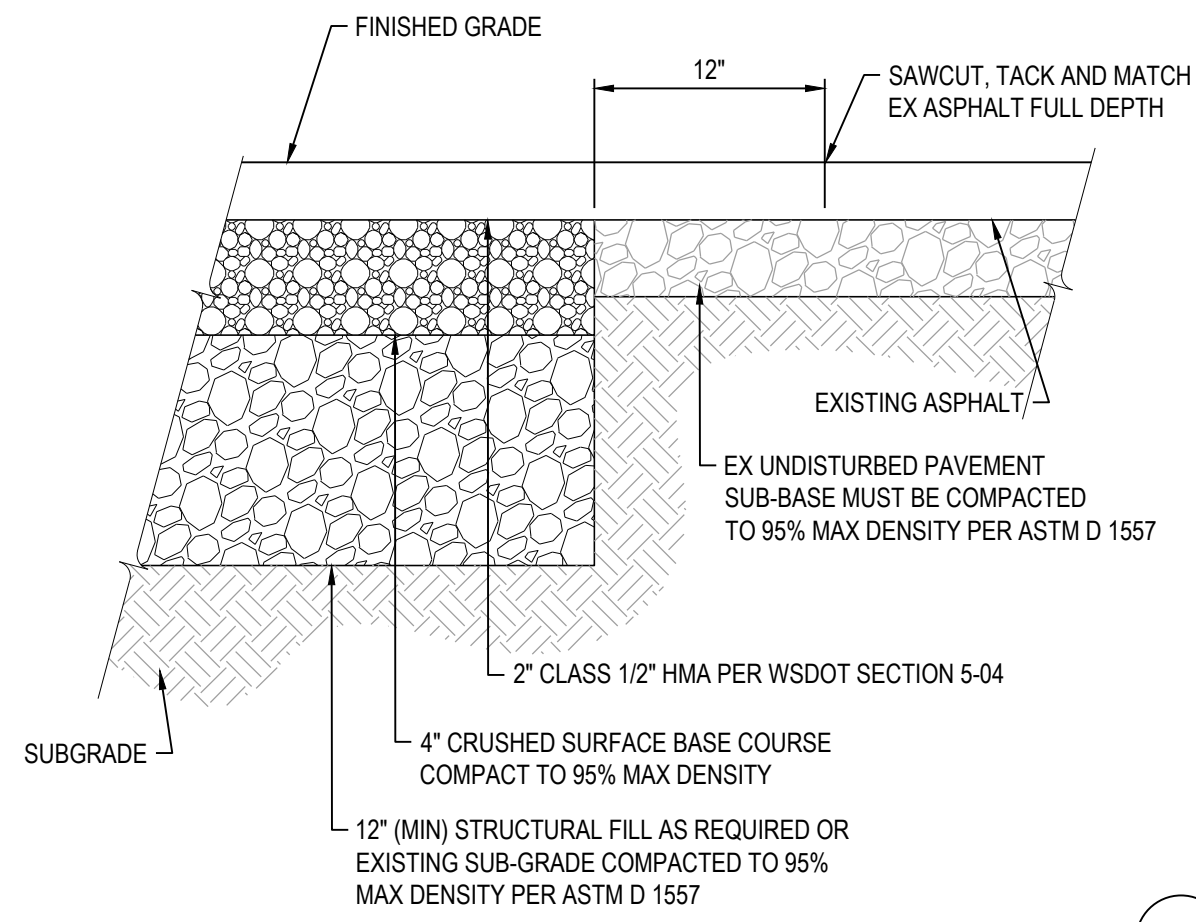
SITE DEVELOPMENT

CITY OF ORTING WASHINGTON

DESIGNED BY: LPLVC    DRAWN BY: LPL    CHECKED BY: JDC    SCALE: HORZ: 1"=30' VERT:    DATE: 12/20/2022

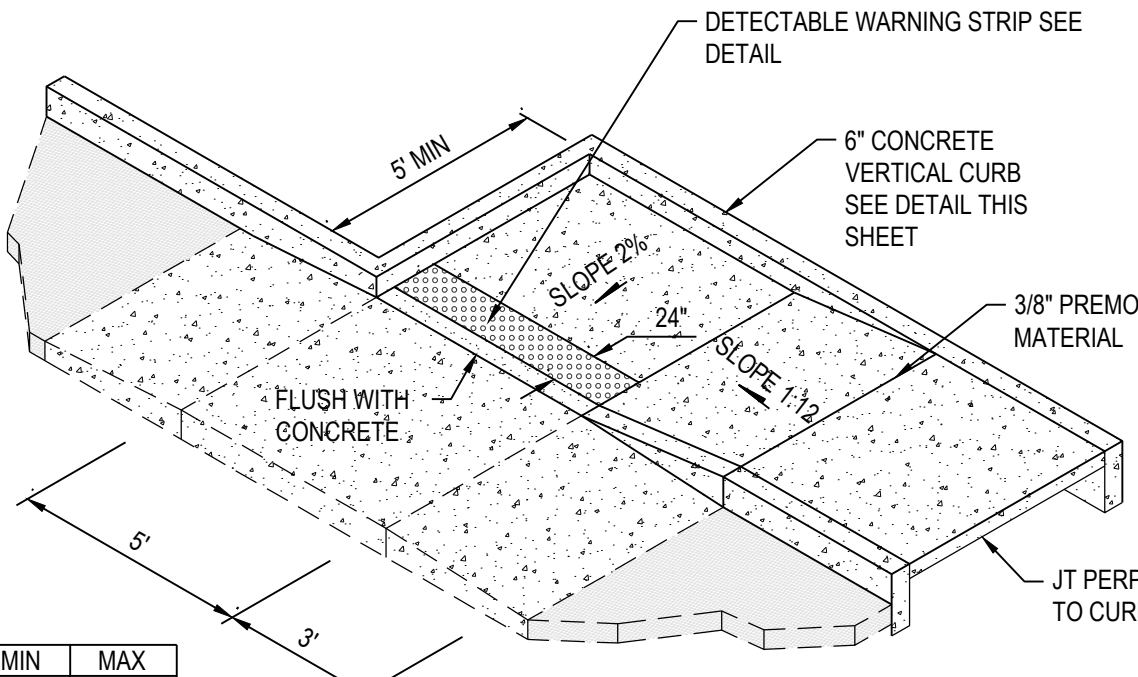
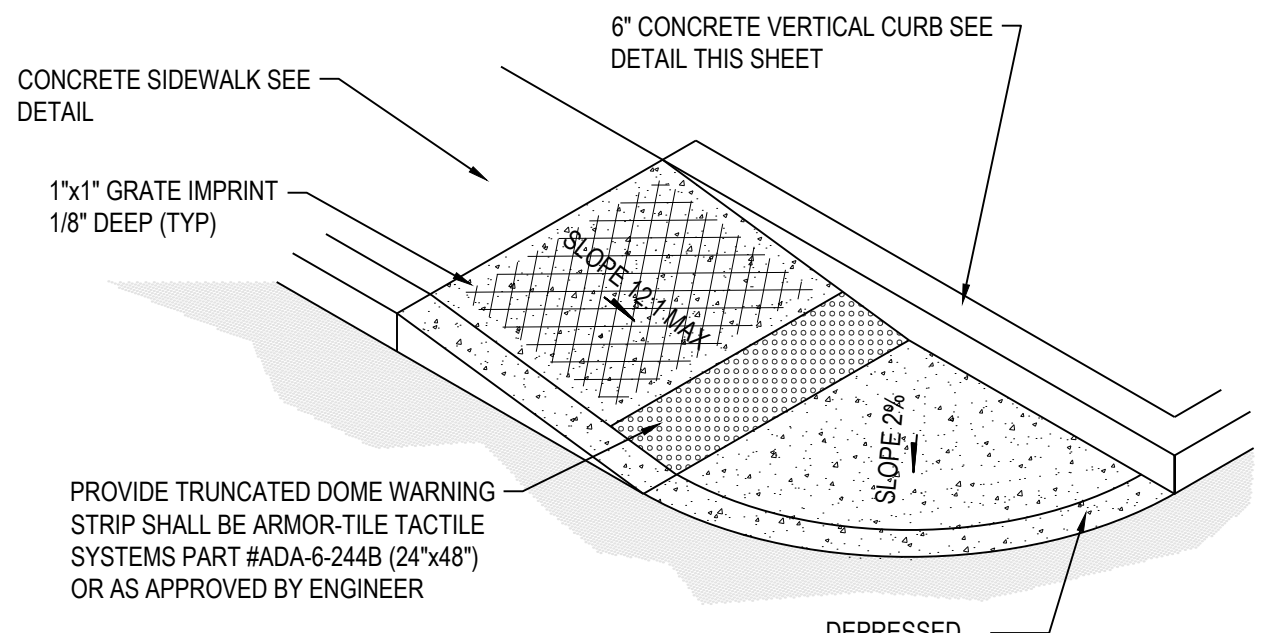
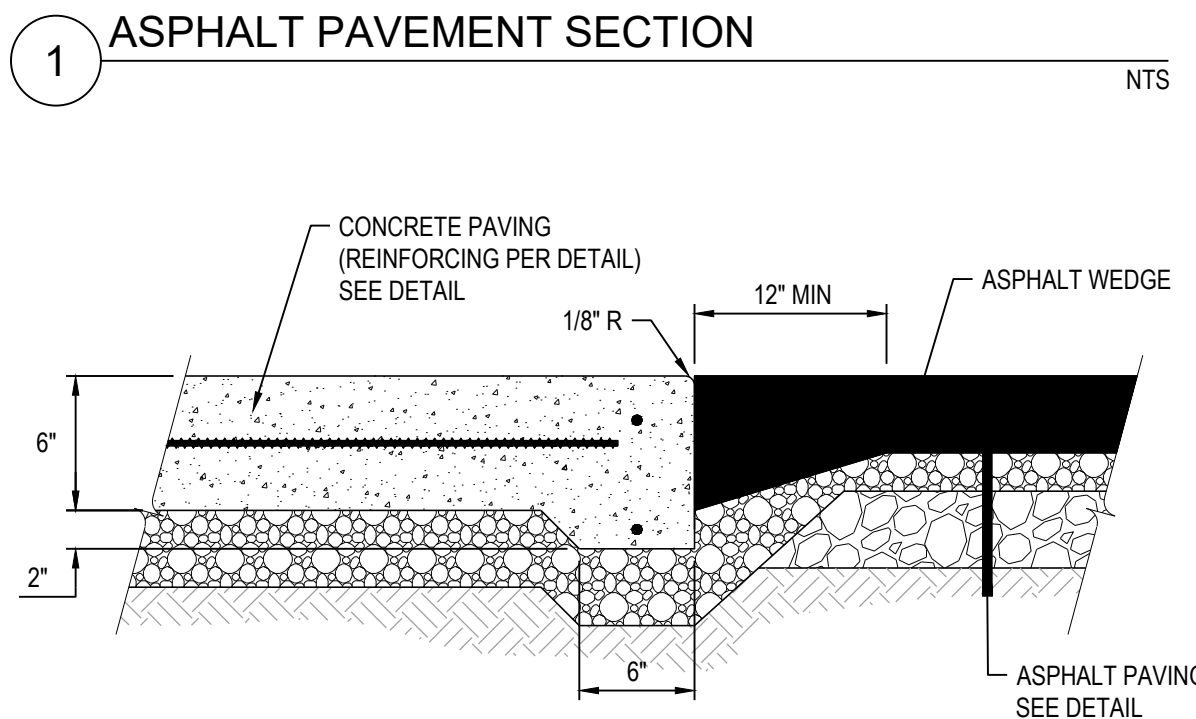
JOB NUMBER	13.215
SHEET	C5.0

CAD FILE: L:\Projects\13-0001\3.215-Abundant Life Church\Site Development\Drawings\Site Design\13.215 Paving.dwg PLOT DATE/TIME: 12/20/2022 9:03 AM



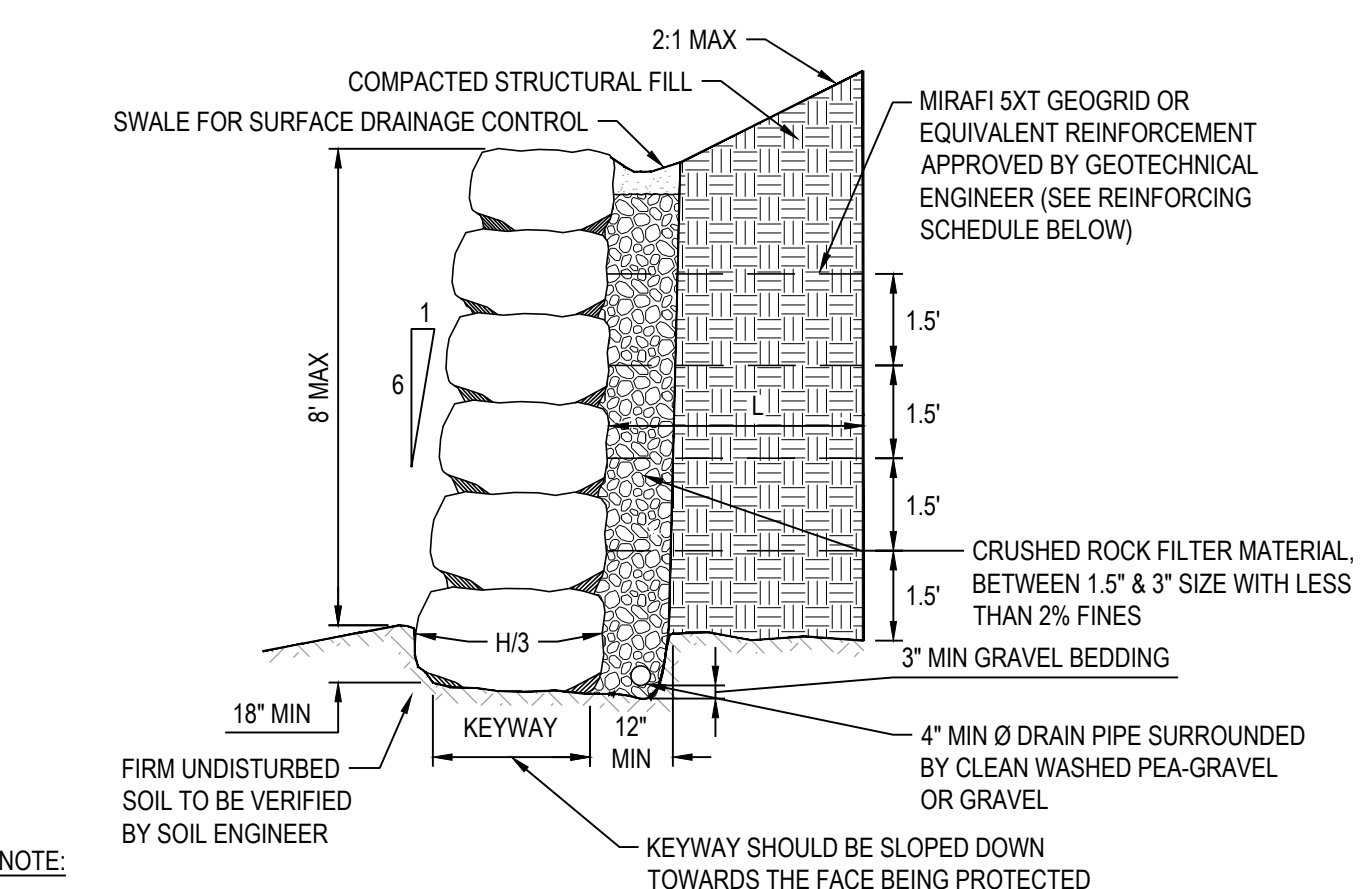
NOTE:  
IN AREAS OF INTERIM ATB FINISH CONDITION, THE CURB TO BE INSTALLED IS TO PROVIDE A 6" CURB FACE FOLLOWING FUTURE ASPHALT PAVING. THE INTERIM DIMENSION IS TO BE 9" ON CURB FACE.

2 TYPICAL CONCRETE SIDEWALK SECTION NTS    3 CONCRETE VERTICAL CURB NTS    4 CONCRETE CURB TAPER NTS    5 TYPICAL PIPE BOLLARD NTS    6 FLUSH CONCRETE CURBING NTS



	MIN	MAX
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/8"	1 7/16"

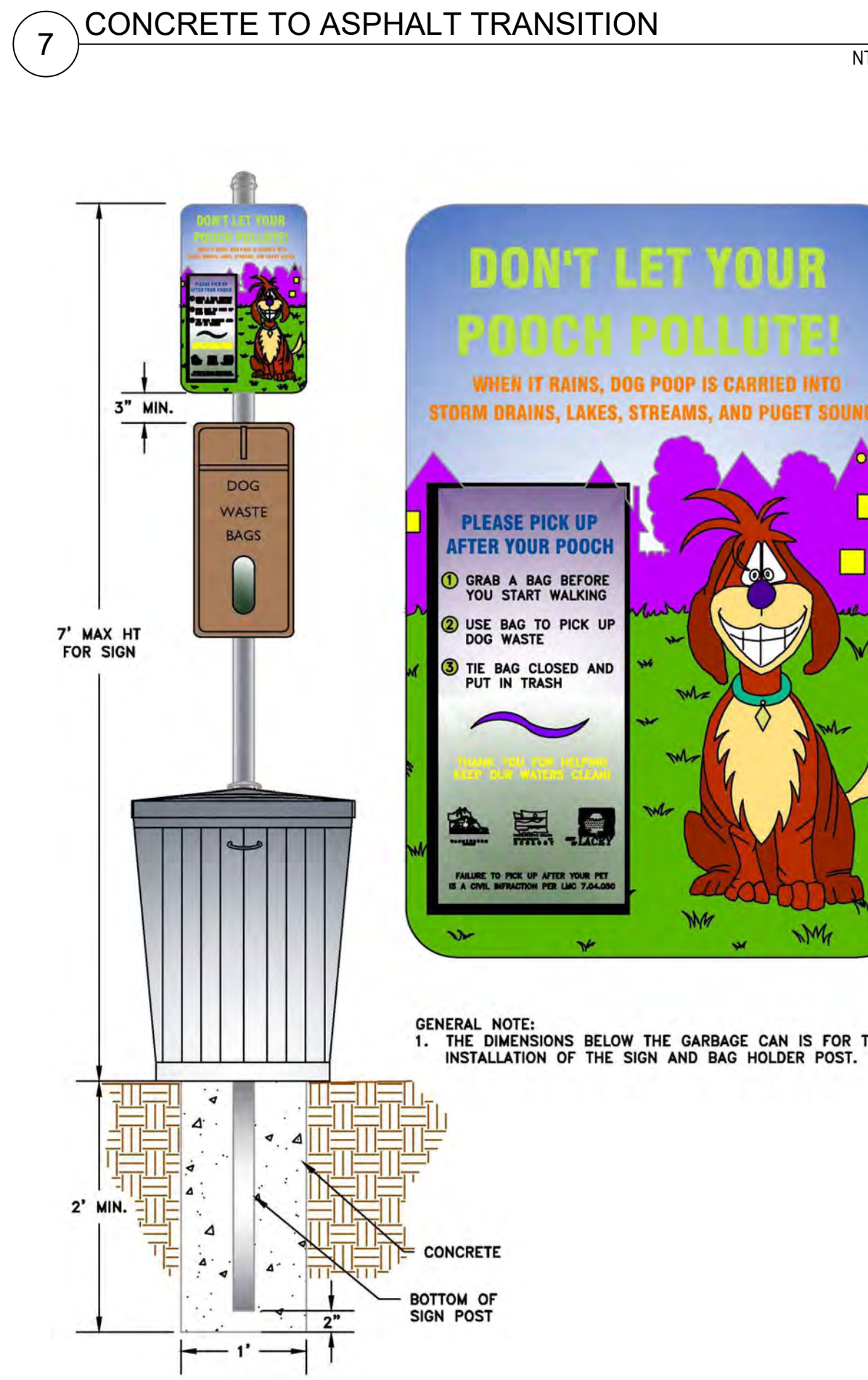
- NOTES:
- RAMP AND APPROACHES SHALL BE KEPT CLEAR OF OBSTACLES INCLUDING HYDRANTS, POLES AND INLETS
  - DETERMINATION OF RAMPING OF SIDEWALKS SHALL BE AS DIRECTED BY THE ENGINEER
  - 24" WIDE WARNING STRIP SHALL BE PROVIDED ADJACENT TO THE EXPANSION JOINT AS SHOWN



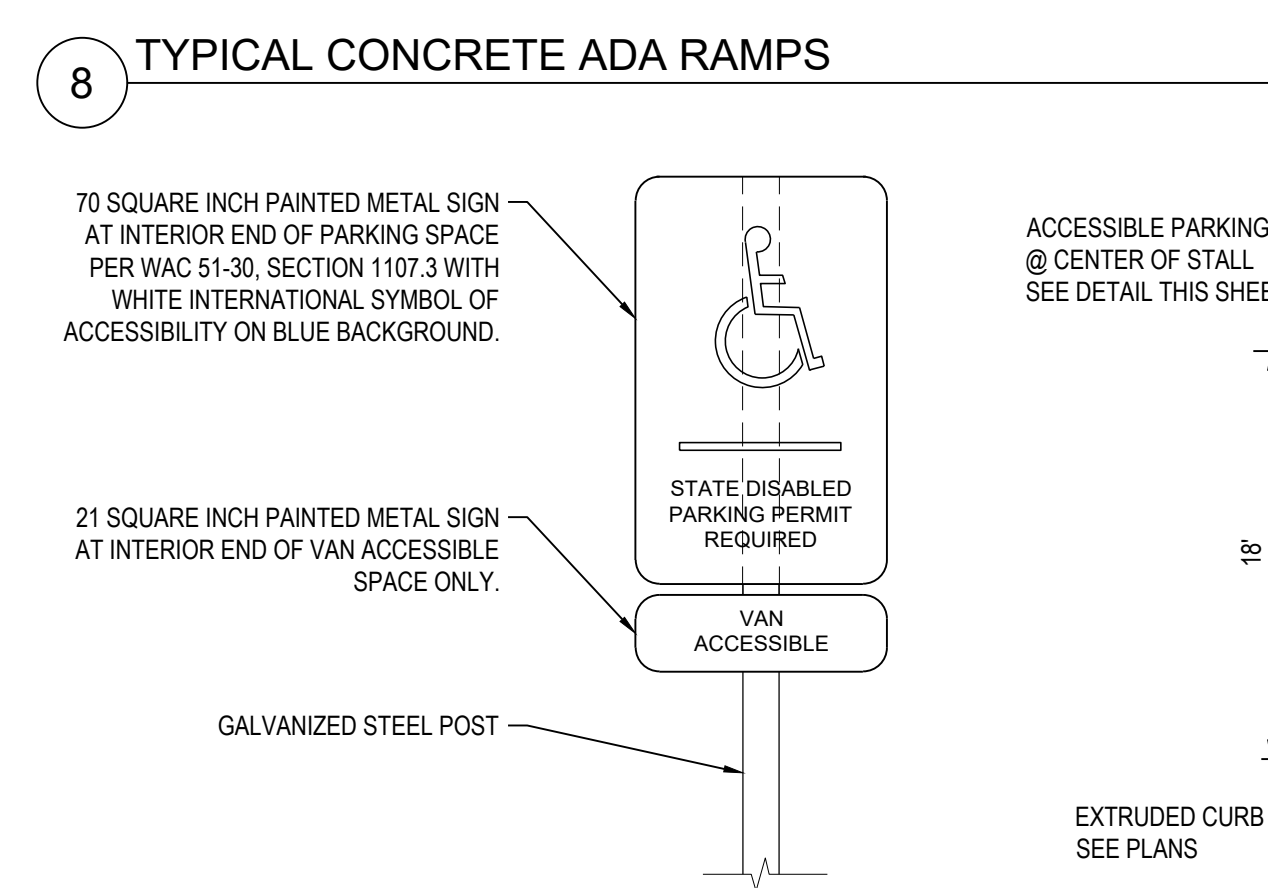
NOTE:  
REINFORCED FILL REQUIRED IN FILL SECTION ONLY

GEOGRID REINFORCING SCHEDULE

ROCKERY HEIGHT	NO. OF GRID LAYERS	GRID LENGTH (L)
4'	2	4'
6'	3	5'
8'	4	6.5'

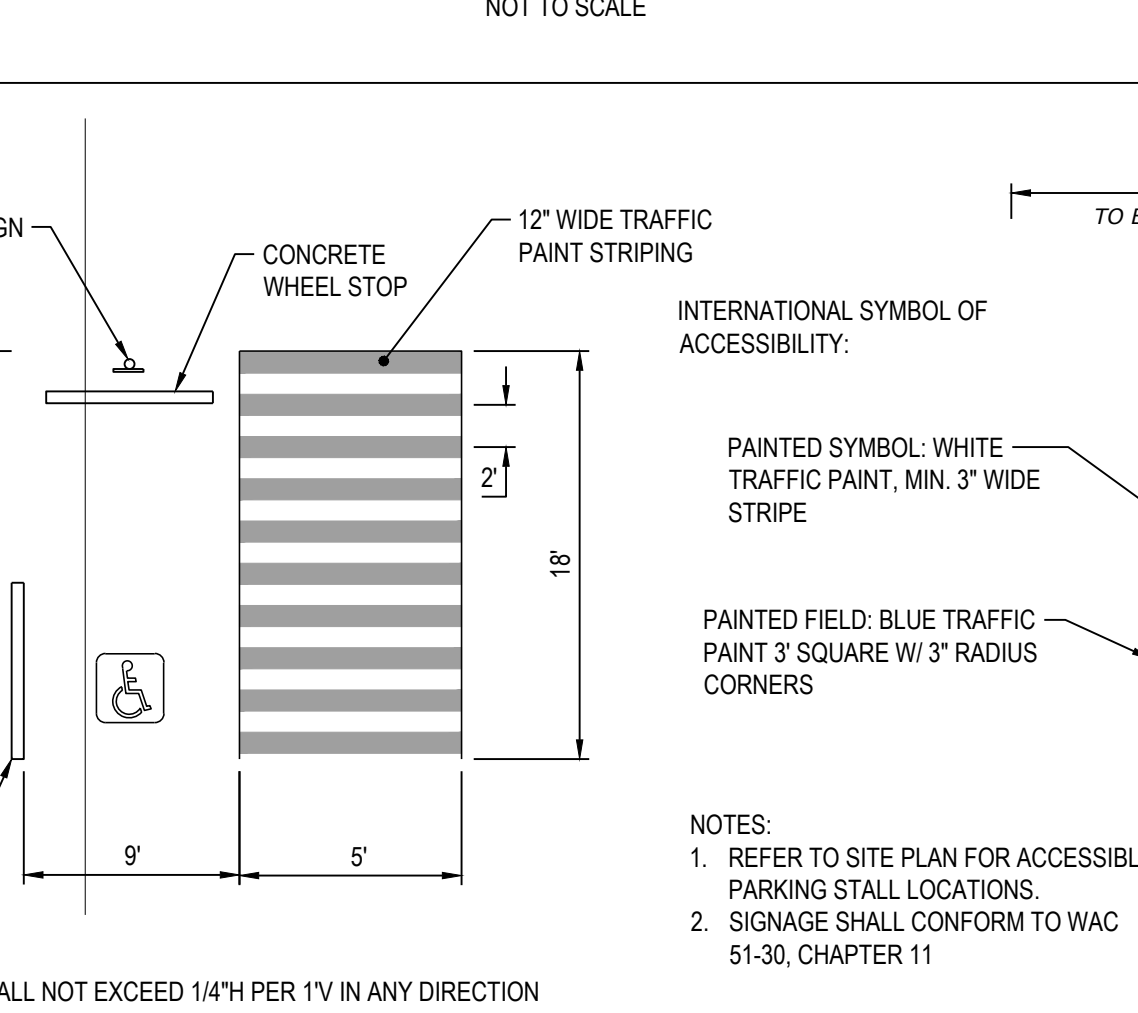


10 POOCH POLLUTE SIGNAGE NTS



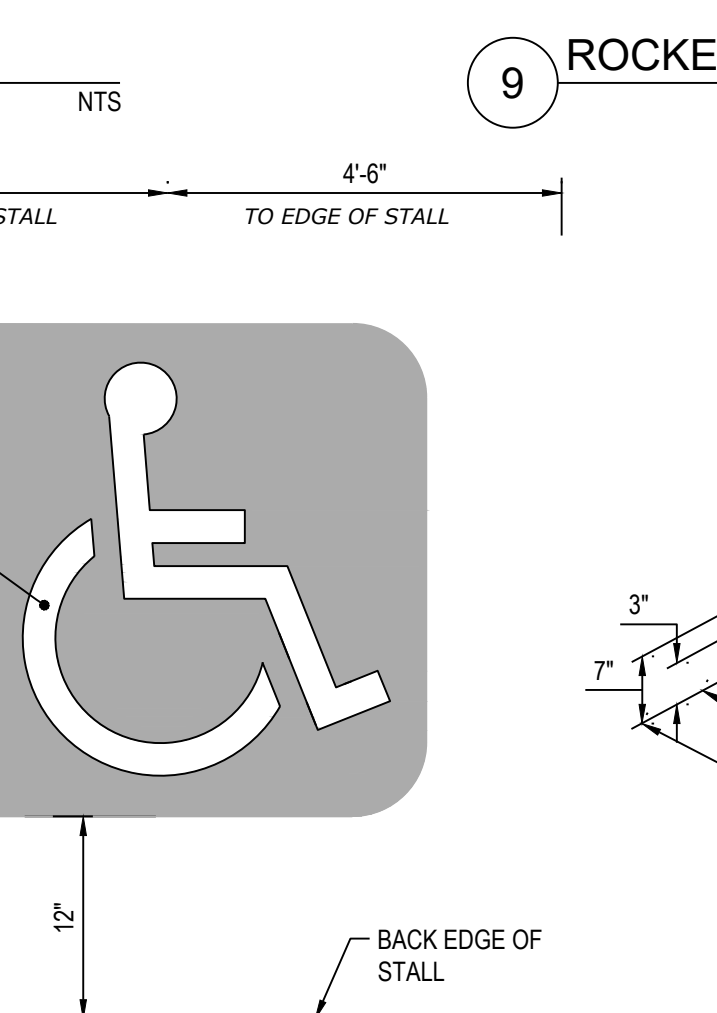
- NOTES:
- SEE SITE PLAN FOR ACCESSIBLE PARKING LOCATIONS
  - LOCATE SIGN AT END OF STALL AT CENTERLINE. IF POST MOUNTED, HEIGHT TO BE 42" ABOVE FINISHED GRADE (AFG) TO BOTTOM OF SIGN. IF WALL MOUNTED OR LOCATED IN PLANTER, HEIGHT TO BE 36" AFG TO BOTTOM OF SIGN.

11 ACCESSIBLE PARKING SIGN NTS

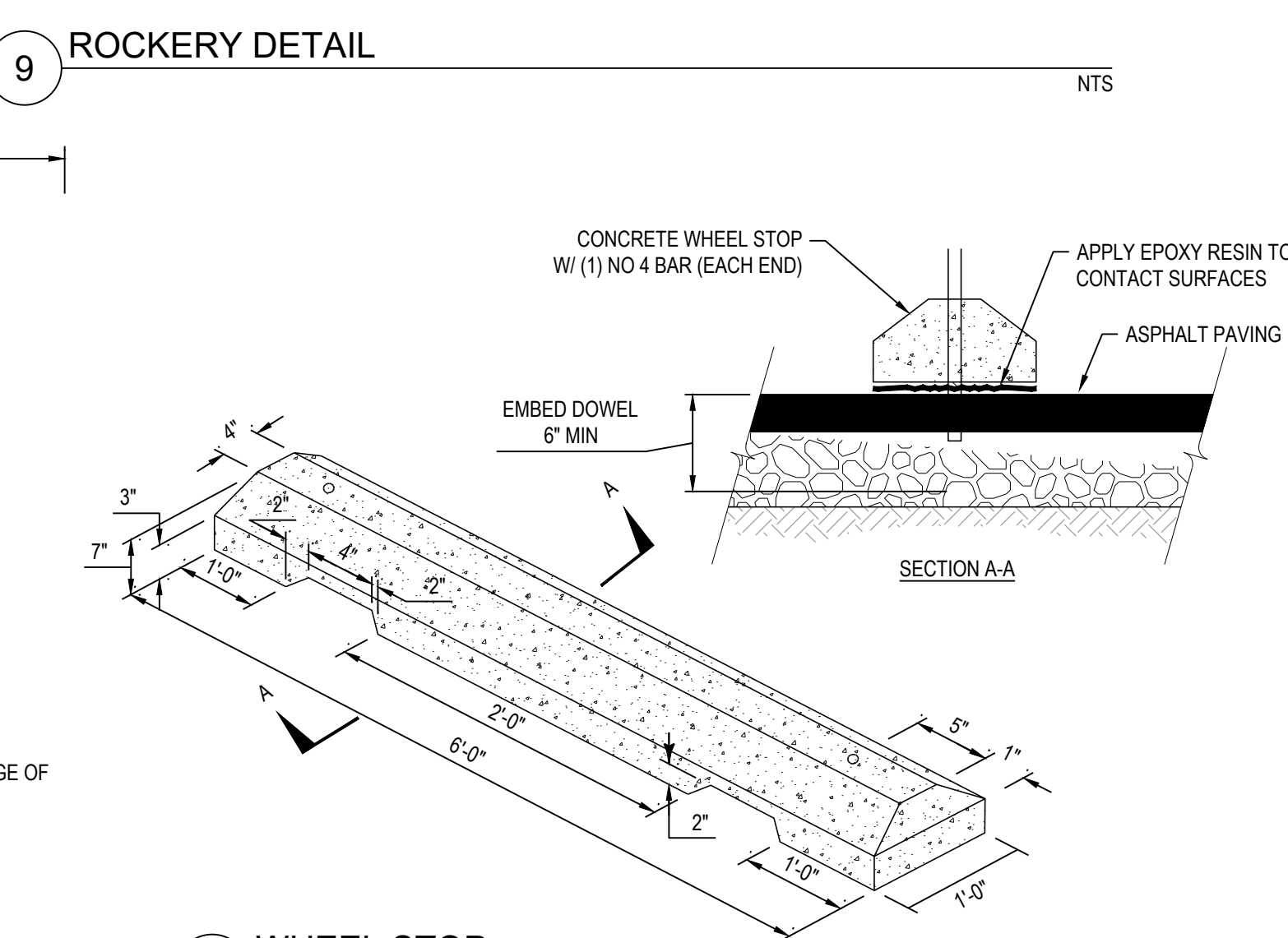


- NOTES:
- SURFACE SLOPES SHALL NOT EXCEED 1/4" PER 1' IN ANY DIRECTION

12 ACCESSIBLE PARKING STRIPING NTS



13 ACCESSIBLE PARKING SYMBOL NTS



14 WHEEL STOP NTS

**BEYLER CONSULTING**  
Plan. Design. Manage

CORPORATE OFFICE  
5920 100th St SW, Ste #25  
Lakewood, WA 98499  
(253) 984-2900  
beylerconsulting.com

12/10/2022

NO.	DESCRIPTION	INIT	DATE
1	CITY REVIEWER COMMENTS	LPL	08/24/2021
2	CITY REVIEWER COMMENTS	LPL	12/15/2022

PAVING DETAILS

**ABUNDANT LIFE CHURCH**  
SITE DEVELOPMENT

CITY OF ORTING WASHINGTON

DESIGNED BY: LPLVC    DRAWN BY: LPL    CHECKED BY: JDC    SCALE:    DATE: 12/20/2022

JOB NUMBER: 13.215  
SHEET: C5.1



253.460.6067  
 1320 Alameda Avenue, Suite B, Everett, WA 98206  
 www.naturebydesigninc.com

**PROJECT**  
 ABUNDANT LIFE CHURCH  
 1005 ORTING KAPOWSIN HWY E  
 ORTING, WA 98360  
 ABUNDANT LIFE COMMUNITY CHURCH  
 1005 ORTING KAPOWSIN HWY E  
 ORTING, WA 98360

**REVISIONS:**  
 B. REVISED PER NEW SITE LAYOUT  
 C. REVISED PER AGENCY COMMENTS

**DRAWING ISSUED FOR:**  
 AGENCY REVIEW  
**DATE:** DECEMBER 14, 2022

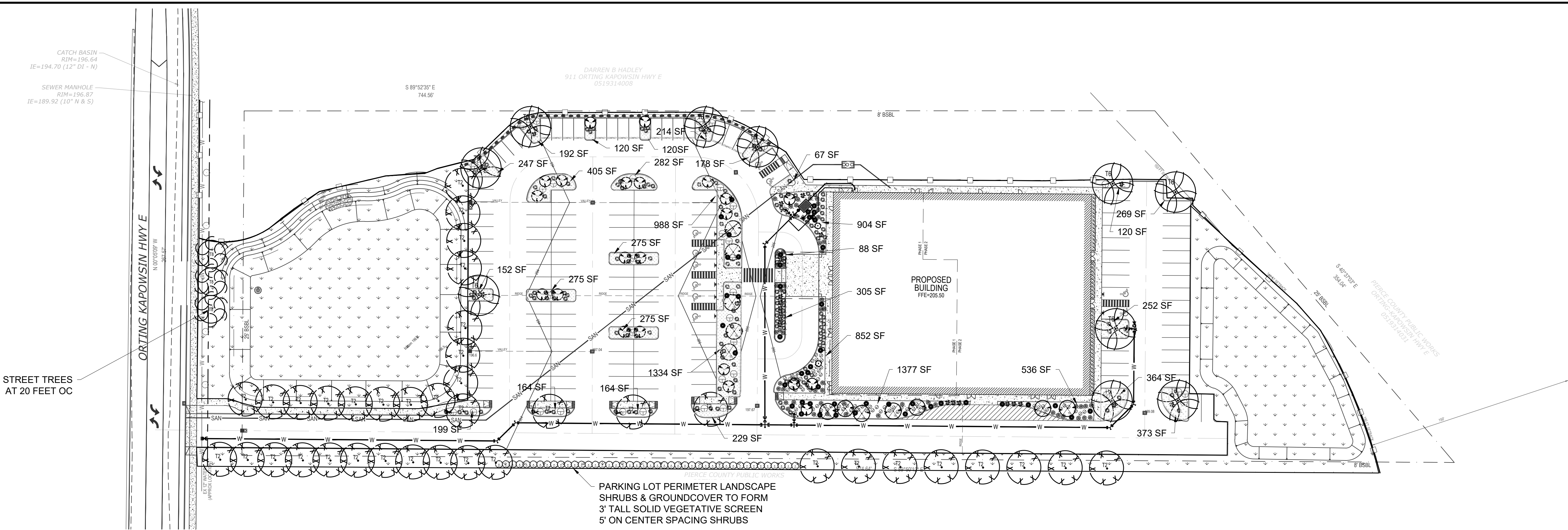


**PROJECT NO.:** 2049  
**FILE NAME:** 2049LSC  
**X-REFS:** CIVIL  
**DRAWN BY:** KLO  
**CHECKED BY:** KLO  
**PLOT SCALE:** 1:1  
**DRAWING SCALES:** 1:40

**DRAWING CONTENTS:**  
 LANDSCAPE PLANTING PLAN

**DRAWING NO.:**

**L1**



**PLANT LEGEND**

TREES			
SYMBOL	QTY	DESCRIPTION	SIZE
	38	Prunus serrulata 'Kwanzan' Kwanzan Flowering Cherry Tree	2" Cal. Min. Well Formed
	10	Zelkova serrata 'Green Vase' Japanese Zelkova	2" Cal. Min. Well Formed
	3	Acer rubrum 'Armstrong' Armstrong Red Maple	2" Cal. Min. Well Formed
	2	Chamaecyparis obtusa 'Gracilis' Slender Hinoki False Cypress	6' Ht. Min. Well Formed
	12	Acer palmatum varieties Japanese Maple	2" Cal. Min. Well Formed
	22	Chamaecyparis nootkatensis 'Pendula' Weeping Alaska Cedar	6' Ht. Min. Well Formed
	87	TOTAL TREES PROVIDED	
SHRUBS			
SYMBOL	QTY	DESCRIPTION	SIZE
	44	Vaccinium ovatum Evergreen Huckleberry	3 Gal. Min.
	22	Nandina domestica 'Gulf Stream' Gulf Stream Nandina	2 Gal. Min.
	158	Euonymus fortunei 'Emerald n Gold' Emerald n Gold Euonymus	1 Gal. Min.
	40	Pinus mugo 'Mops' 'Slowmound' or Sim. Dwarf Mugo Pine	3 Gal. Min.
	117	Prunus l. 'Mt. Vernon' Mt. Vernon Laurel	1 Gal. Min.
	46	Pennisetum alopecuroides 'Hameln' Hameln Dwarf Fountain Grass or Sim.	1 Gal. Min.
	56	Huechera varieties / Rudebecki hirta / Armeria maritima / Heather varieties Small ornamental flowering shrub varieties	1 Gal. Min.
GROUNDCOVER			
		Arctostaphylos uva-ursi Kinnikinnick	1 Gal. @24" O.C. Triangular Spacing

**LANDSCAPE PLANTING PLAN**

**PARKING LOT LANDSCAPE CALCULATIONS:**

PARKING LOT AREA = 79,160 SF (1.82 AC) of asphalt pavement  
 7 SF LS PER 100 SF PARKING LOT AREA = 79,160/100 = 792 x 7 = 5,544 SF REQUIRED LANDSCAPING  
 11,234 SF PROPOSED LANDSCAPING  
 1 TREE PER 64 SF = 5544 SF / 64 = 87 TREES IN PARKING AREAS  
 ADDITIONAL TREES ARE PROVIDED IN BUFFER AREA

**Hydroseeding for Typical Lawn Areas**  
 Diamond Green Turf Mix - Sunmark Seeds www.sunmarkseeds.com

Botanical Name	Common Name	% by Weight
Schendonorus arundinacea var. Crossfire 3	Crossfire III Turf Type Tall Fescue	30%
Schendonorus arundinacea var. Mustang 4	Mustang IV Turf Type Tall Fescue	30%
Lolium perenne var Blazer 4	Blazer IV Perennial Ryegrass	15%
Lolium perenne var Dasher 3	Dasher 3 Perennial Ryegrass	15%
Festuca rubra var Jasper II	Jasper II Creeping Red Fescue	5%
Festuca rubra spp fallax var Windward	Windward Chewings Fescue	5%



**GENERAL LANDSCAPE NOTES**

- Contractor is responsible for obtaining all necessary permits from the appropriate agency prior to commencing work. Contractor shall contact Line Locators (811) a min. of 48 hours prior to any digging or trenching. If there are any discrepancies with existing lines and landscaping, it is the contractor's responsibility to contact the landscape architect and request a site visit to address the conflicts. Contractor shall comply and conform to any and all local and state codes for work, schedules and any other project related requirements.
- Contractor shall coordinate directly with the landscape architect for all landscape related issues, concerns, inspections and approvals. Contractor shall provide the landscape architect with a written request for a site visit to address any related items.
- Scope of work shall include any and all specified and unspecified but related incidental work to achieve the design indicated on the landscape plans. All labor, materials, subcontractors, equipment, and related incidental items shall be supplied and installed to achieve a complete project, unless directed otherwise by the general contractor or landscape architect.
- Contractor to verify all sub grades are set below required amendments to insure the finished grade will match what is intended by civil or drainage design. All sub grades and finished or final grades shall be graded to drain to the designed drainage system with positive drainage away from all structures.
- Grade Preparation:**
  - Slopes used for grass plantings or turf shall be less than 3:1 or 33 percent. Otherwise plantings should not require mechanized mowing equipment.

**Soil Preparation.**

- Where soils are compacted, planting beds should be deep tilled to a depth of at least 12 inches. Soils shall be enhanced through the addition of the following materials: bark and forestry by-products, organic matter such as composted yard waste, organics and other amendments as needed through a soils test. Where Pit Planting, see planting detail for planting ring sizes and depths. Scarify the edges of planting pits to encourage root expansion.
- On project sites where topsoil is limited or nonexistent, a minimum depth of 6 (six) inches of sandy loam topsoil should be tilled into the soil to a depth of 12 inches through all planting areas with compacted soils.
- For all newly planted areas, three cubic yards of composted organic matter per 1,000 square feet of landscape area should be added to a depth of four inches to the top of the soil and Tilled in.
- Seeded areas shall be fine graded and rolled. New Soil depths in lawn areas shall be 4 Inches.

**Mulching of Newly Planted or Replanted Areas.**

- Mulches must be applied to the following depths: a minimum 3 (three) inches over bare soil, and two inches where plant materials will cover.
- Mulches must include organic materials, such as wood chips and shredded bark.
- Nonporous materials, such as plastic sheeting, shall not be used in any area of the landscape because of down-slope erosion and potential soil contamination from herbicide washing.
- Mulch should be applied regularly to and maintained in all planting areas to assist soils in retaining moisture, reducing weed growth, and minimizing erosion.

- Contractor shall field layout all plant material and contact the landscape architect for a site visit to approve the layout. Any field modifications shall be done by the landscape architect prior to planting.
- Contractor shall immediately notify the landscape architect of any poor drainage condition in landscape areas. No standing water shall be permitted in any landscape areas - either on the surface or below the topsoil. The landscape architect shall coordinate the drainage solution with the general contractor and civil engineer. Once the concerns have been remedied planting shall commence.
- All groundcover to be planted in a triangular spacing formation, equal in all directions to the centers of the groundcovers in distances indicated in the legend. Contractor shall verify all quantities of groundcovers by area calculations and spacing requirements.
- Landscaping is to be per plan. Plant substitutions due to availability or otherwise will be allowed only with landscape architect, owner and agency approval. Any substitutions will be with material of similar size, growth characteristics, and quality.
- All trees must be staked as necessary so as to maintain material in a healthy, vigorous growing condition.
- Landscaping shall be installed in a professional workmanlike manner that is consistent and accepted throughout the industry. All landscape and irrigation work shall be performed by experienced persons familiar with scope of project.
- All landscape material and labor is to be guaranteed for a period of one full year from the time of completion.
- When planting 'Balled and Burlapped' product, remove all burtap, string & wire from any B&B plant material, cut and remove jute strings. Gently place in tact Rootball into planting pit. If rootball breaks or is not solid - the plant is unacceptable and shall be replaced.
- Street trees shall have caliper size of at least 1 1/2" measure per American Association of Nurserymen Standards.
- Street trees shall be high branching with canopy that starts at least 6' above finish grade.
- All plant I.D. tags are to remain on the plant material until final inspection has been completed. Once approved all plant I.D. tags shall be removed and discarded appropriately.
- Trees shall be cared for in accordance with the American National Standards Institute (ANSI) standard practices for trees, shrubs and other woody plant maintenance (ANSI 300) in order to allow them to reach their mature height and form.
- Pruning of street trees shall be performed per the ANSI 300 standards so as to maintain the natural form of the tree, encourage vigorous growth to a mature spread and height, and avoid weakening the tree to create a hazard. Street trees shall not be topped, pollarded, or otherwise pruned in a manner contrary to these goals, unless there is no practicable alternative that would preserve essential utility services.
- Plant material selected is drought tolerant or native species. The project proponent shall be responsible for maintaining and watering all plant material throughout the first growing season and in times of drought. Temporary irrigation shall be provided via TREE GATOR BAGS attached to each tree. A temporary method for watering the planting areas shall consist of minimally a hose bib access to the area and drip hoses on a battery operated hose bib timer. For planting warranties from contractor to be ensured, contractor shall be responsible for watering the plant material and keeping the mulch ring weed free for the first growing season as part of the contract.

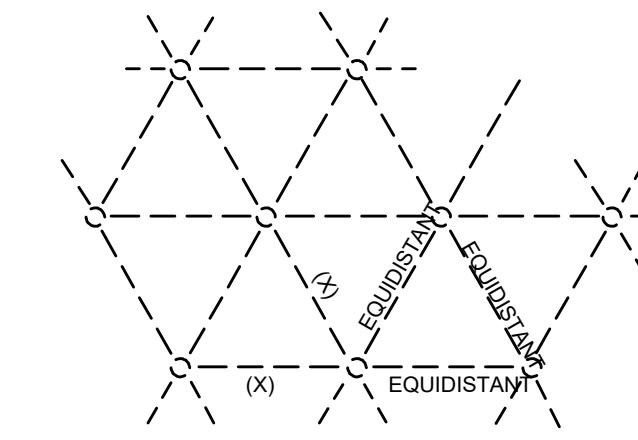
It is recommended to install the landscaping in the Spring (February - April) or Fall (October - December) when dormant but before hard freeze.

**TEMPORARY IRRIGATION**

The project proponent shall ensure that a minimum of **one (1) inch of water is supplied each week** to the restoration area between May 1 and October 15 for at least the first two years following initial planting. The calculated amount of required water shall include both natural rainfall and temporary irrigation.



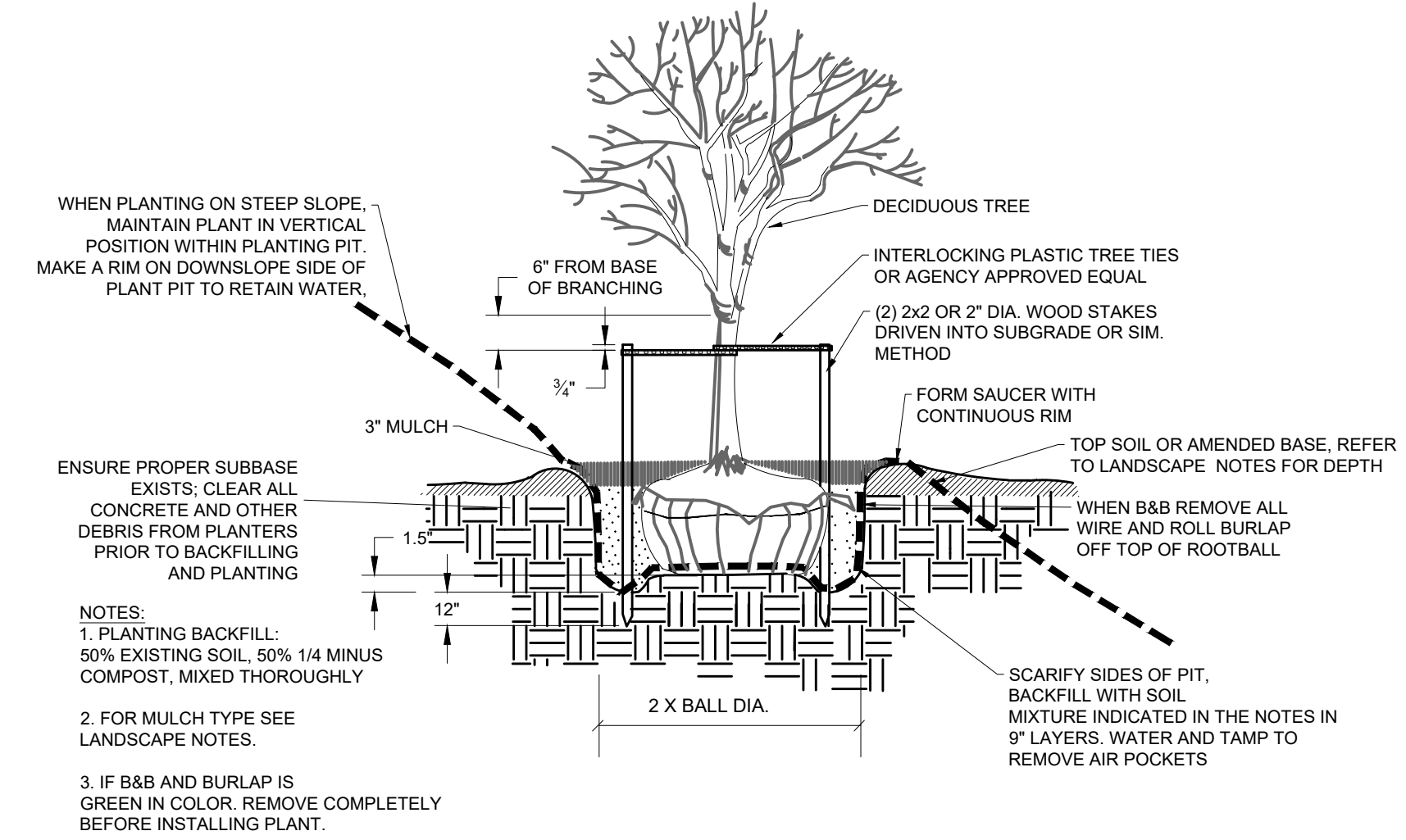
Know what's below.  
Call before you dig.



NOTES:  
ALL GROUNDCOVER SHALL BE PLANTED AT EQUAL TRIANGULAR SPACING AS SPECIFIED IN THE PLANT LEGEND.  
LOCATE GROUNDCOVER ONE-HALF OF SPECIFIED ON-CENTER SPACING FROM ANY CURB, SIDEWALK OR OTHER HARD SURFACE.

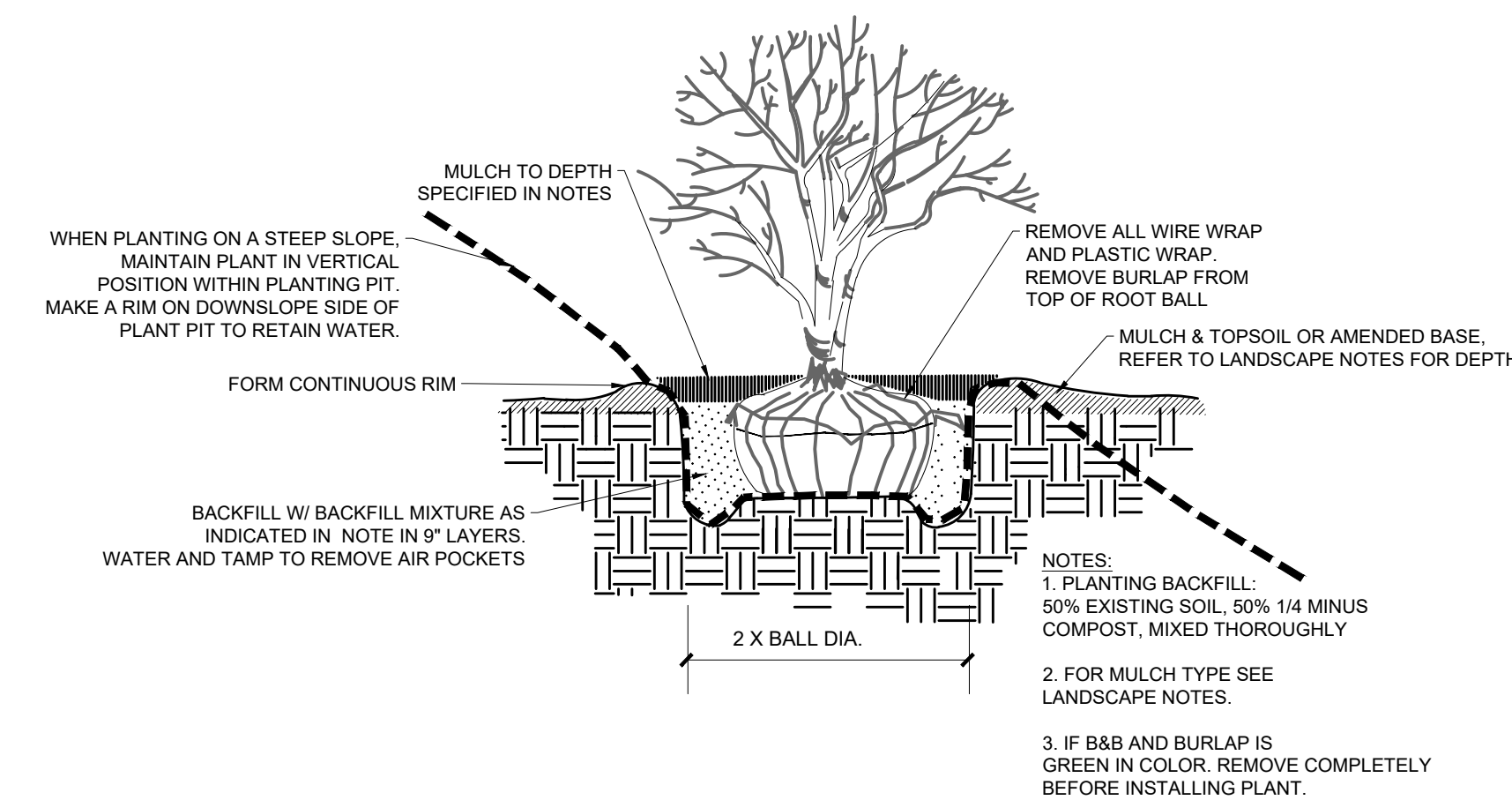
**GROUNDCOVER PLANTING DETAIL**

No Scale



**DECIDUOUS TREE PLANTING & STAKING DETAIL**

No Scale



**SHRUB PLANTING DETAIL**

No Scale



**PROJECT**  
**ABUNDANT LIFE CHURCH**  
**1005 ORTING KAPOWSIN HWY E**  
**ORTING, WA 98360**  
**ABUNDANT LIFE COMMUNITY CHURCH**  
**1005 ORTING KAPOWSIN HWY E**  
**ORTING, WA 98360**

**REVISIONS:**  
B. REVISED PER NEW SITE LAYOUT  
C. REVISED PER AGENCY COMMENTS

**DRAWING ISSUED FOR:**  
**AGENCY REVIEW**  
**DATE: DECEMBER 14, 2022**



**PROJECT NO.:** 2049  
**FILE NAME:** 2049LSC  
**X-REFS:** CIVIL  
**DRAWN BY:** KLO  
**CHECKED BY:** KLO  
**PLOT SCALE:** 1:1  
**DRAWING SCALES:** N.T.S.

**DRAWING CONTENTS:**  
**LANDSCAPE DETAILS & NOTES**

**DRAWING NO.:**  
**L2**  
2 OF 2



Know what's below.  
Call before you dig.

O'MALLEY JOHN P 103 PHOENIX AVE SW ORTING, WA 98360-9434	HIDDEN HARBOR HOMEOWNERS ASSOCIATION 7220 PACIFIC HWY E MILTON, WA 98354	PUGET SOUND ENERGY/ELEC PO BOX 97034 BELLEVUE, WA 98009-9734
MILLS BRYAN D & JESSLYN J 1011 EAGLE AVE SW ORTING, WA 98360-7472	CENTURIAN PROPERTIES II LLC 9712 10TH AVE E TACOMA, WA 98445-3104	INTERNATIONAL CHURCH FOURSQUARE GOSPEL PO BOX 826 ORTING, WA 98360-0826
HIDDEN HARBOR HOMEOWNERS ASSOCIATION 7220 PACIFIC HWY E MILTON, WA 98354	SMITH JUSTIN R & JELENA 109 PHOENIX AVE SW ORTING, WA 98360-9434	PIERCE COUNTY PUBLIC WORKS 2702 S 42ND ST STE 109 TACOMA, WA 98409-7322
AMH ROMAN TWO WA LLC 23975 PARK SORRENTO STE 300 CALABASAS, CA 91302	PIERCE COUNTY PUBLIC WORKS 2702 S 42ND ST STE 109 TACOMA, WA 98409-7322	LOWERY MICHAEL & STEFANIE 115 PHOENIX AVE SW ORTING, WA 98360-9434
HIDDEN HARBOR HOMEOWNERS ASSOCIATION 7220 PACIFIC HWY E MILTON, WA 98354	WILLIAMS MATHEW D & BENITA N 1003 EAGLE AVE SW ORTING, WA 98360-7472	DEVRIES PETE & ELIZABETH PO BOX 2205 ORTING, WA 98360-2205
RITZ JESSE K & TAYLOR 1015 EAGLE AVE SW ORTING, WA 98360-7472	LEWIS RONDA 203 PHOENIX AVE SW ORTING, WA 98360-9464	RITCHIE ANDRAE O & REBECA N 207 CARDINAL ST SW ORTING, WA 98360-8478
EDEBURN JEFFREY L & JEVENA S 105 PHOENIX AVE SW ORTING, WA 98360-9434	PIERCE COUNTY PUBLIC WORKS 2702 S 42ND ST STE 109 TACOMA, WA 98409-7322	PIERCE COUNTY PUBLIC WORKS 2702 S 42ND ST STE 109 TACOMA, WA 98409-7322
PIERCE COUNTY PUBLIC WORKS 2702 S 42ND ST STE 109 TACOMA, WA 98409-7322	2018-2 IH BORROWER LP 1717 MAIN ST STE 2000 DALLAS, TX 75201	SASAKI FAITH L TTEE OF REVOCABLE TRUST AGREEMENT OF FAITH L SASAKI PO BOX 546 ORTING, WA 98360-0546
PIERCE COUNTY PUBLIC WORKS 2702 S 42ND ST STE 109 TACOMA, WA 98409-7322	SFR JAVELIN BORROWER LP 1717 MAIN ST STE 2000 DALLAS, TX 75201-4612	SOTO SOLARES DAVID S & SOTO ADRIANA S 1007 EAGLE AVE SW ORTING, WA 98360-7472



<p>CALDERON DIAZ ALFREDO &amp; DEL CARMEN CALDERON MARIA 117 PHOENIX AVE SW ORTING, WA 98360-9434</p>	<p>HIDDEN HARBOR HOMEOWNERS ASSOCIATION 7220 PACIFIC HWY E MILTON, WA 98354</p>	<p>GANN CHAD R 1013 EAGLE AVE SW ORTING, WA 98360-7472</p>
<p>CORLISS SCOTT TTEE PO BOX 94176 SEATTLE, WA 98124</p>	<p>IH6 PROPERTY WASHINGTON LP 1717 MAIN ST STE 2000 DALLAS, TX 75201</p>	<p>HESSE KRISTOPHER D &amp; MICHELLE M 205 CARDINAL ST SW ORTING, WA 98360-8478</p>
<p>SHELL MITCHELL L &amp; JULIE K 107 PHOENIX AVE SW ORTING, WA 98360-9434</p>	<p>INTERNATIONAL CHURCH FOURSQUARE GOSPEL PO BOX 826 ORTING, WA 98360-0826</p>	<p>PUGET SOUND ENERGY/ELEC PO BOX 97034 BELLEVUE, WA 98009-9734</p>
<p>GLASEN DOROTHY K PO BOX 1865 ORTING, WA 98360-1865</p>	<p>MCALINDON GREGORY M &amp; AMY PO BOX 1404 ORTING, WA 98360</p>	<p>COBAUGH CHASE J 911 ORTING KAPOWSIN HWY E ORTING, WA 98360</p>
<p>PIERCE COUNTY PUBLIC WORKS 2702 S 42ND ST STE 109 TACOMA, WA 98409-7322</p>	<p>CITY OF ORTING PO BOX 489 ORTING, WA 98360-0489</p>	<p>WATERS AMY 201 PHOENIX AVE SW ORTING, WA 98360-9464</p>