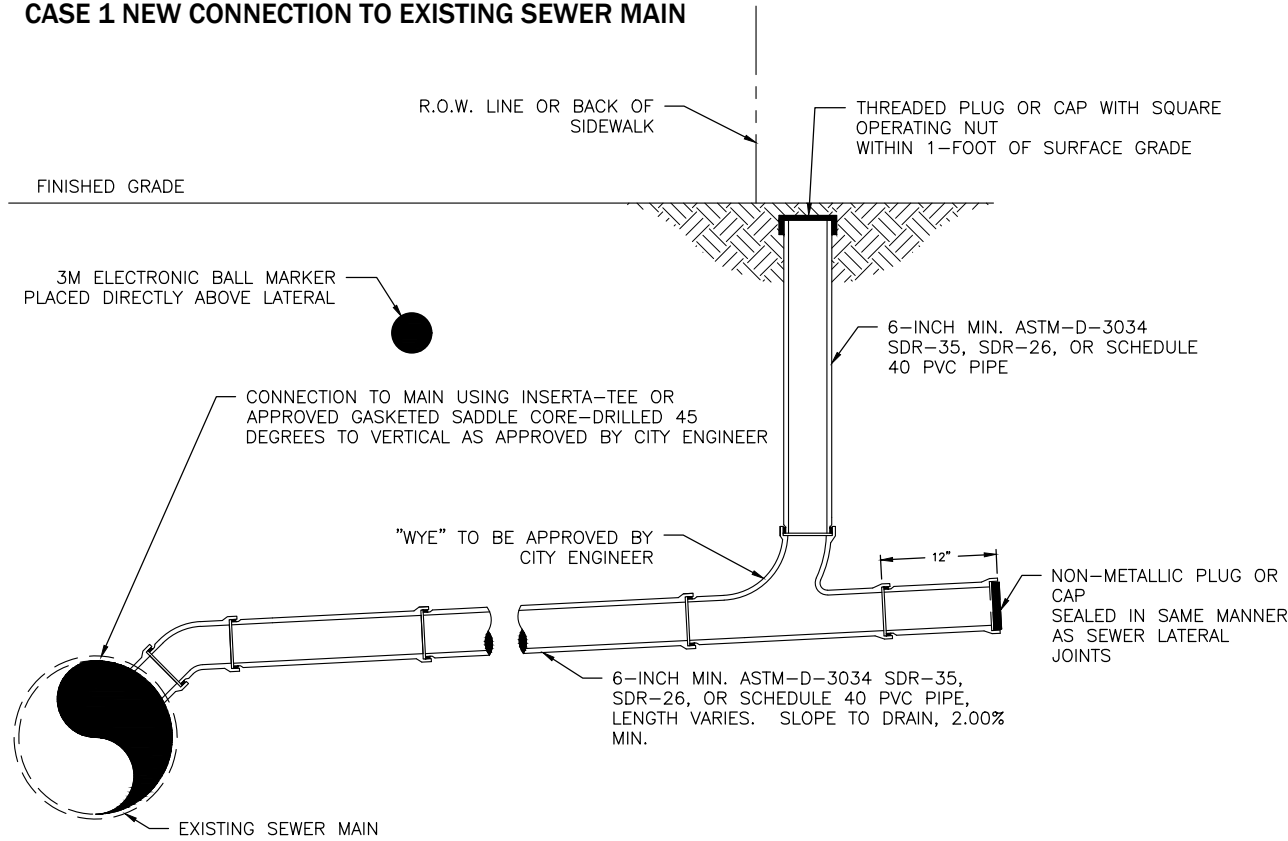
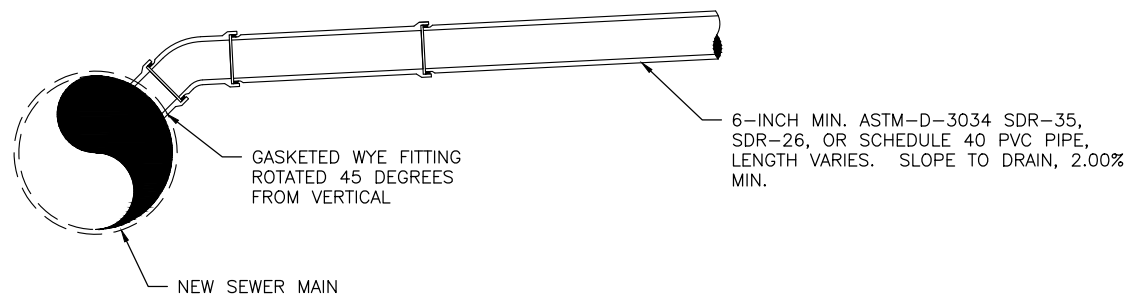


Sewer Standard Plans

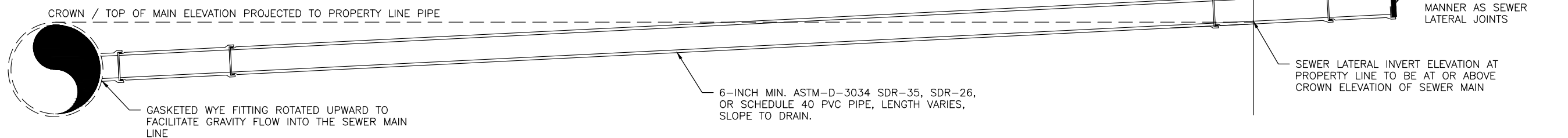
CASE 1 NEW CONNECTION TO EXISTING SEWER MAIN



CASE 2 NEW CONNECTION TO NEW SEWER MAIN



CASE 3 NEW SHALLOW SEWER CONNECTION



GENERAL NOTES:

1. ALL CONNECTIONS MUST BE APPROVED BY THE CITY OF WENATCHEE AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
2. LATERAL CONNECTIONS TO THE MAIN LINE SHALL BE A MINIMUM OF 2- FEET APART.
3. LATERAL CONNECTIONS TO THE PUBLIC MAIN LINE SHALL BE DESIGNED TO FLOW BY GRAVITY THROUGH THE POINT OF CONNECTION. PRESSURE SYSTEMS SHALL DISCHARGE INTO GRAVITY FLOW NO LESS THAN 10 FEET UPSTREAM OF THE POINT OF CONNECTION BETWEEN THE 6 INCH LATERAL AND THE MAIN LINE.
4. THE SANITARY SEWER LATERAL, INCLUDING THE TAP, SADDLE, TEE, PIPE, AND CLEANOUT IS CONSIDERED "PRIVATE" UPSTREAM OF THE MAIN LINE POINT OF CONNECTION.
5. MINIMUM 6-INCH DIAMETER CLEANOUTS SHALL BE CONSTRUCTED ON ALL SEWER LATERALS. THE VERTICAL RISER SHALL BE OF EQUAL SIZE AS THE LATERAL PIPE OR LARGER.
6. CLEANOUTS MAY BE LOCATED IN THE PLANTER STRIP AT THE BACK OF WALK, IF ONE EXISTS, AND SHALL BE VISIBLE AT FINISHED GRADE. CLEANOUTS LOCATED BELOW FINISHED GRADE SHALL HAVE ACCESSIBLE COVER.
7. 3M ELECTRONIC BALL MARKER TO BE PLACED 24 TO 36 INCHES BELOW FINISHED GRADE AND SHALL BE GREEN IN PIGMENT.
8. CASE 1: CONNECTIONS TO EXISTING SEWER MAINS SHALL BE CUT USING A HOLE SAW. CONNECTIONS TO EXISTING MAIN LINES SHALL UTILIZE AN APPROVED TAPPING SADDLE OR TEE-WYE CONNECTION. LATERALS SHALL NOT PROTRUDE INTO THE MAIN LINE.
9. CASE 2: CONNECTIONS TO NEWLY CONSTRUCTED MAIN LINES SHALL UTILIZE A MANUFACTURED, GASKETED TEE-WYE INSTALLED IN-LINE WITH THE NEW SEWER MAIN. CORE-DRILLING OF NEW SEWER MAIN LINES FOR SEWER LATERALS SHALL NOT BE PERMITTED.
10. CASE 3: WHERE INSUFFICIENT GRADE EXISTS TO ALLOW SEWERS TO BE INSTALLED IN ACCORDANCE WITH CASE 1 OR 2, FLATTER SEWERS ARE PERMISSIBLE ON A CASE-BY-CASE BASIS AS DETERMINED BY THE CITY ENGINEER. CONNECTIONS SHALL UTILIZE A MANUFACTURED, GASKETED TEE-WYE FITTING INSERTED INTO THE MAIN LINE. CUTTING OR DRILLING BELOW SPRINGLINE IS PROHIBITED. THE INVERT ELEVATION OF THE PRIVATE SEWER LATERAL AT THE PROPERTY LINE IN SUCH INSTANCES SHALL BE AT OR ABOVE THE ELEVATION OF THE CROWN OF THE PUBLIC SEWER MAIN. PRIOR TO SUCH APPROVAL, A SITE-SPECIFIC CONSTRUCTION PLAN AND DETAIL MUST BE PROVIDED TO AND APPROVED BY THE CITY ENGINEER. ANY COSTS ASSOCIATED WITH BYPASS PUMPING WILL BE AT THE CONTRACTOR'S EXPENSE.

**STANDARD DETAIL
SANITARY SIDE SEWER
12 INCH AND SMALLER MAINS**

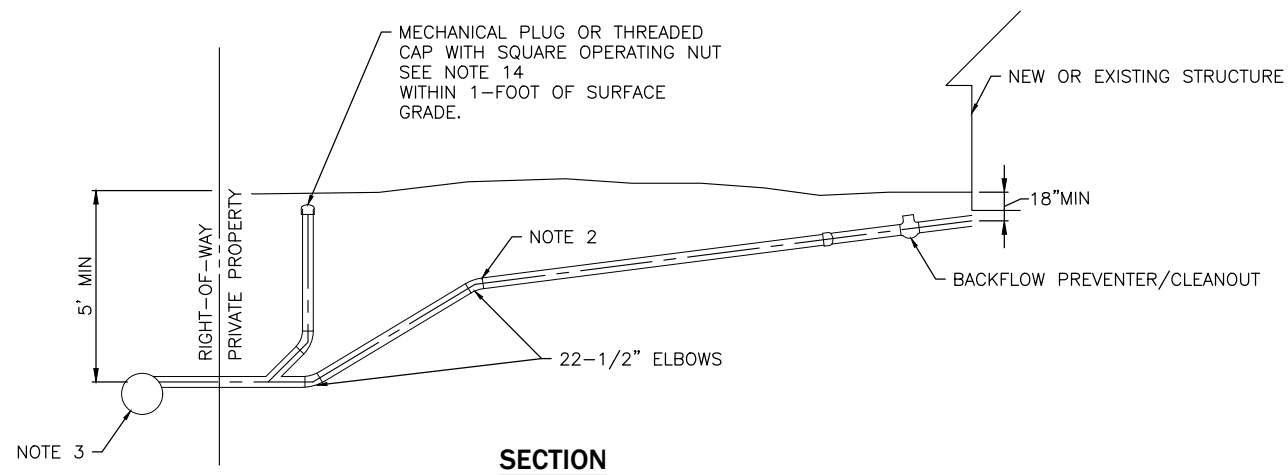
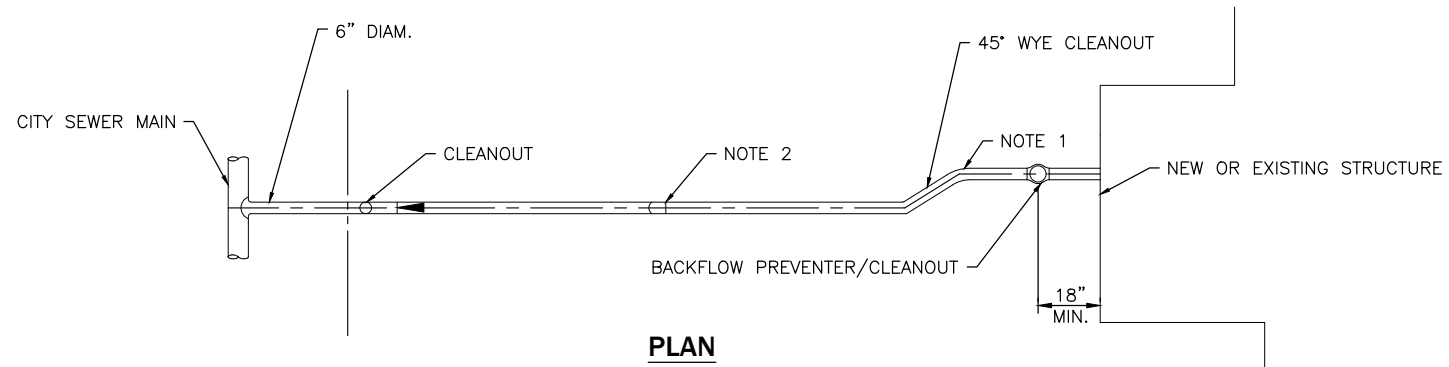


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					2/9/2016	NJH				
					01/01/2022	AJS				
					03/23/2023	JTB				

SCALE: AS SHOWN
DESIGNED: DMN
DRAWN: RDH
CHECKED: DMN
DATE DRAWN: 3/23/2015
DATE APPROVED: 3/23/2015
STANDARD SPECIFICATIONS
WSDOT 7-08 PIPE INSTALL
WSDOT 7-18 SIDE SEWERS
SPECIAL PROVISION 7-18.3(5)

DETAIL NO.
S-100

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NOTES:

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100- FEET AND FOR EACH 135 DEGREES ACCUMULATED ELBOW PER 100- FEET.
3. RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION AND BE IN ACCORDANCE WITH CITY STANDARD DETAIL S-100.
4. FOR PIPE PLACED UNDER PAVED AREAS, THE BACKFILL ABOVE PIPE ZONE BEDDING SHALL BE PLACED IN HORIZONTAL LAYERS NO MORE THAN 6-INCHES THICK AND COMPACTED TO 95% MAXIMUM DRY DENSITY.
5. ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWNSPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
6. 6- FEET MINIMUM COVERAGE AT PROPERTY LINE.
7. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. ALL CHANGES IN GRADE OR LINE SHALL BE MADE WITH FITTINGS 45 DEGREES OR LESS. 90 DEGREES FITTINGS ARE NOT ALLOWED.
8. 6-INCH SEWER PIPE MINIMUM SIZE IN STREET, AND ELSEWHERE AS DIRECTED BY ENGINEER. 2% MINIMUM GRADE (UNLESS DIRECTED BY ENGINEER) 50% MAXIMUM.
9. 4-INCH SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE, 100% (45 DEGREE) MAXIMUM.
10. CONSTRUCTION IN STREET MUST BE DONE BY A LICENSED CONTRACTOR.
11. ALL CONSTRUCTION REQUIRES A PERMIT AND PAYMENT OF FEE, COMPLETE LEGAL DESCRIPTION OF PROPERTY AND DIMENSIONS.
12. BACKFLOW PREVENTER (CHECK VALVE) IS REQUIRED:
 - A. IF CONNECTED TO A COMBINED SIDE SEWER.
 - B. IF CONNECTION ELEVATION AT HOUSE IS LOWER THAN UPSTREAM MANHOLE LID.
13. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER IN RELATION TO THE HOUSE IS REQUIRED AFTER INSTALLATION.
14. CLEANOUTS SHALL BE VISIBLE AT FINISH GRADE. IF INSTALLED BELOW FINISH GRADE, AN ACCESSIBLE COVER IS REQUIRED.

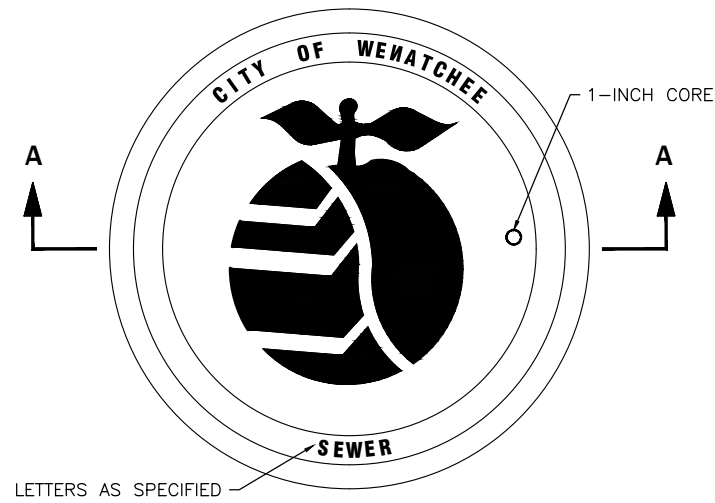
**STANDARD DETAIL
RESIDENTIAL SIDE
SEWER INSTALLATION**



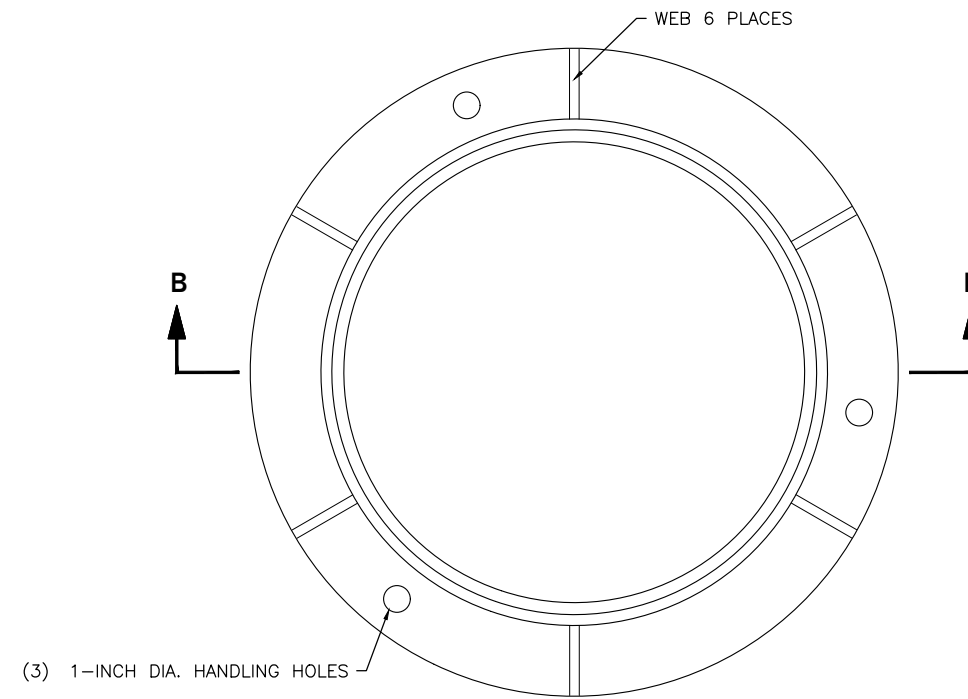
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DRAWN CAW	DATE APPROVED	03/31/2023	JTB
APPROVED BY			
STANDARD SPECIFICATIONS			

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**SANITARY SEWER
NON LOCKING COVER**

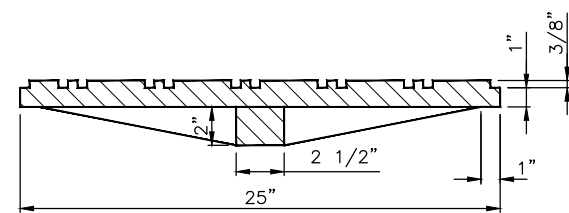


**3715Z STACKING
GRAY OR DUCTILE IRON FRAME**

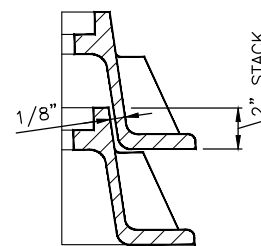
NOTES:

STANDARD SPECIFICATION SECTION 9-05.15(1) AND 9-06.14

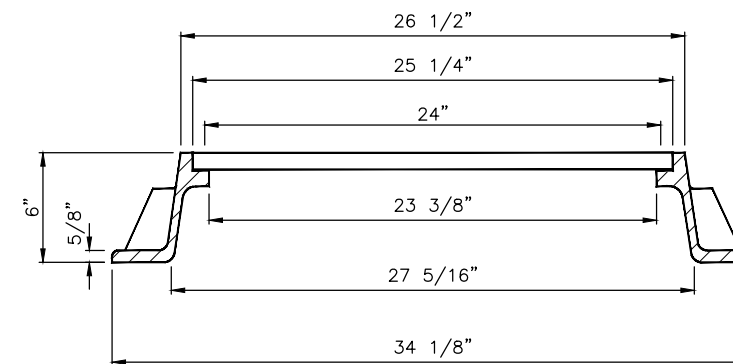
1. COVER SHALL BE AT MINIMUM 100LBS
2. MINIMUM WEIGHT OF FRAME SHALL BE 134 LBS
3. PRODUCT SUPPLIES BY EAST JORDAN IRON WORKS, OR APPROVED EQUAL
4. CITY OF WENATCHEE LOGO REQUIRED
5. FRAME AND COVER SHALL BE H-20 LOADING RATED



**SECTION A-A - DUCTILE IRON
NON LOCKING COVER
MINIMUM WEIGHT 100 LBS.**



STACKING DETAIL



**SECTION B-B
GRAY IRON OR DUCTILE IRON FRAME
MINIMUM WEIGHT 135 LBS.**

**STANDARD DETAIL
CIRCLE FRAME RING
AND COVER DETAIL**

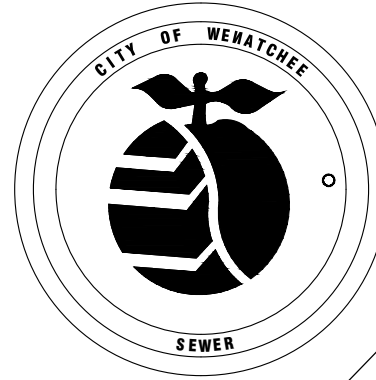


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APPROVED BY					

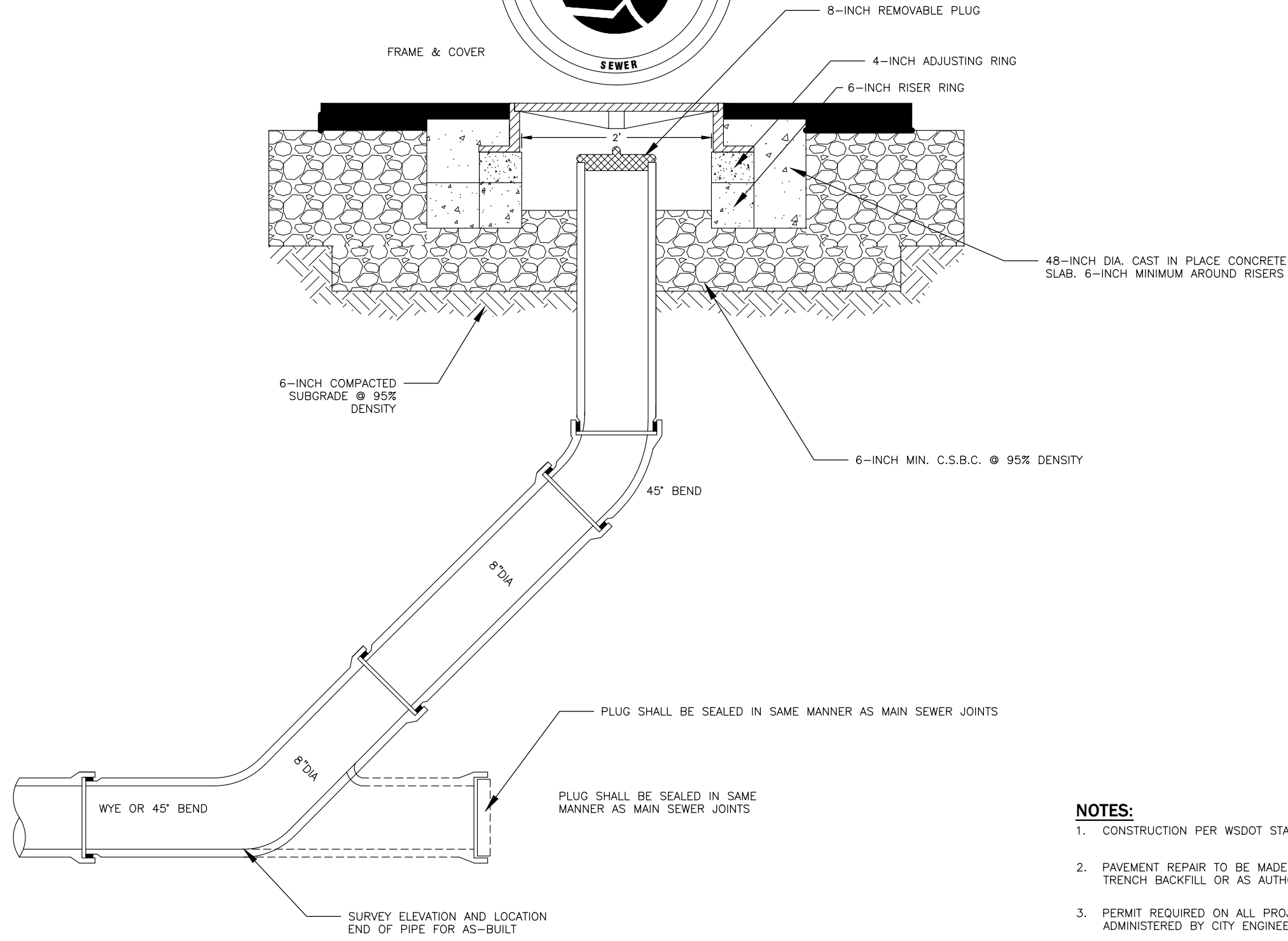
DETAIL NO.
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CONCRETE: AIR ENTRAINED CLASS 3000
 MAXIMUM SEWER PIPE 10"Ø



CITY OF WENATCHEE STANDARD COVER



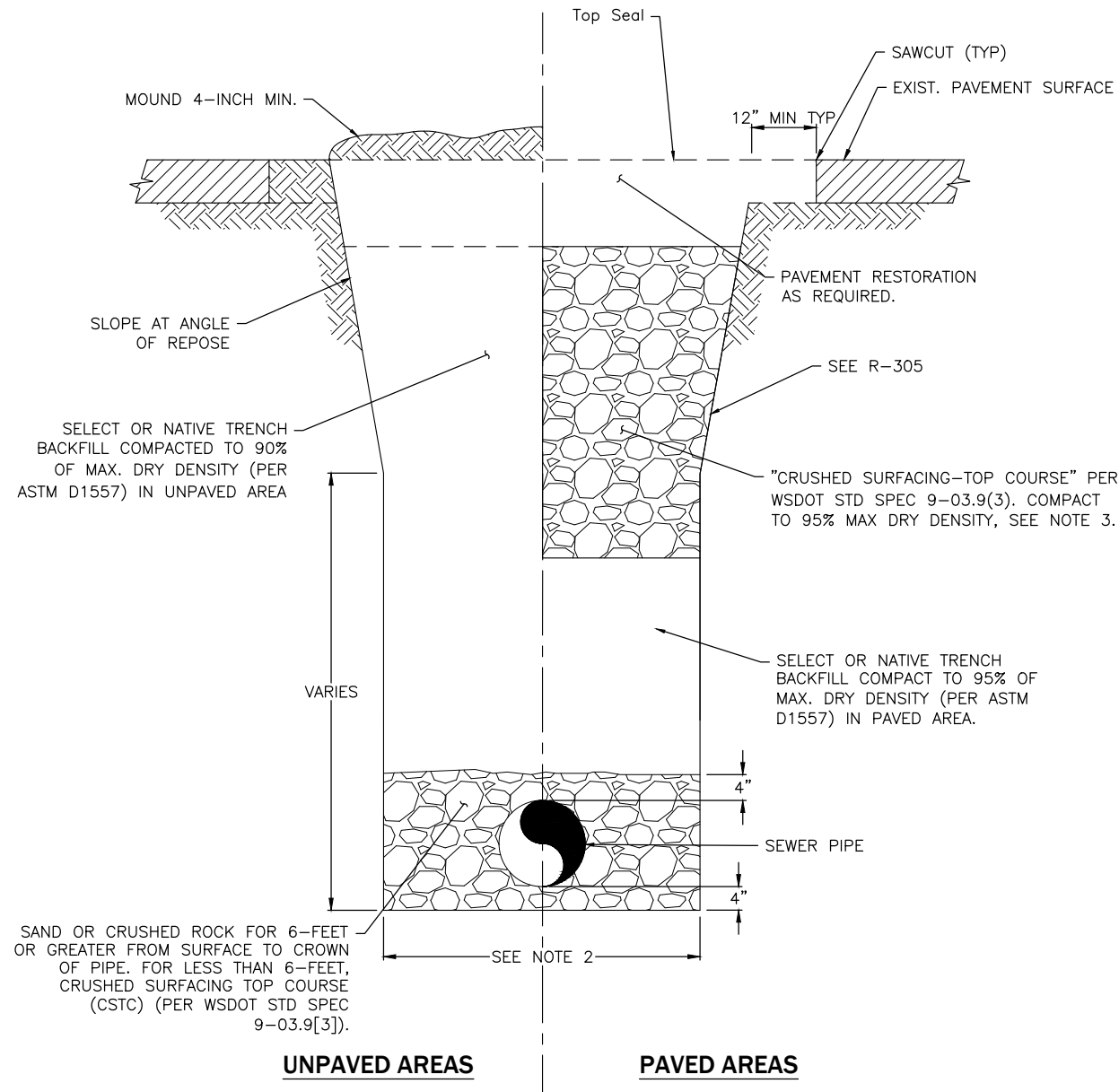
MAIN LINE CLEANOUT
 N.T.S.

- NOTES:**
1. CONSTRUCTION PER WSDOT STANDARD SPECIFICATIONS.
 2. PAVEMENT REPAIR TO BE MADE WITHIN 24 HOURS OF TRENCH BACKFILL OR AS AUTHORIZED BY CITY ENGINEER.
 3. PERMIT REQUIRED ON ALL PROJECTS, NOT CONTRACT ADMINISTERED BY CITY ENGINEERING DEPARTMENT.

STANDARD DETAIL
SANITARY SEWER MAIN
CLEANOUT



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N.A.	3/23/2015	01/01/2022	AJS	
DESIGNED	CHECKED	03/31/2023	JTB	
DMN	DMN			
APPROVED BY	DATE APPROVED			
	3/23/2015			



NOTES:

1. TRENCH BACKFILL BELOW TOP 4 FEET MAY BE NATIVE MATERIALS OR AS REQUIRED BY THE SPECIFICATIONS, OR AS DIRECTED BY THE PUBLIC WORKS INSPECTOR.
2. MINIMUM TRENCH WIDTH SHALL BE PIPE ID +24-INCH. MAX WIDTH NOT TO EXCEED 6- FEET.
3. SEE CITY OF WENATCHEE POLICY R-2, AND STANDARD DETAIL R-310 FOR OVERLAY REQUIREMENTS.

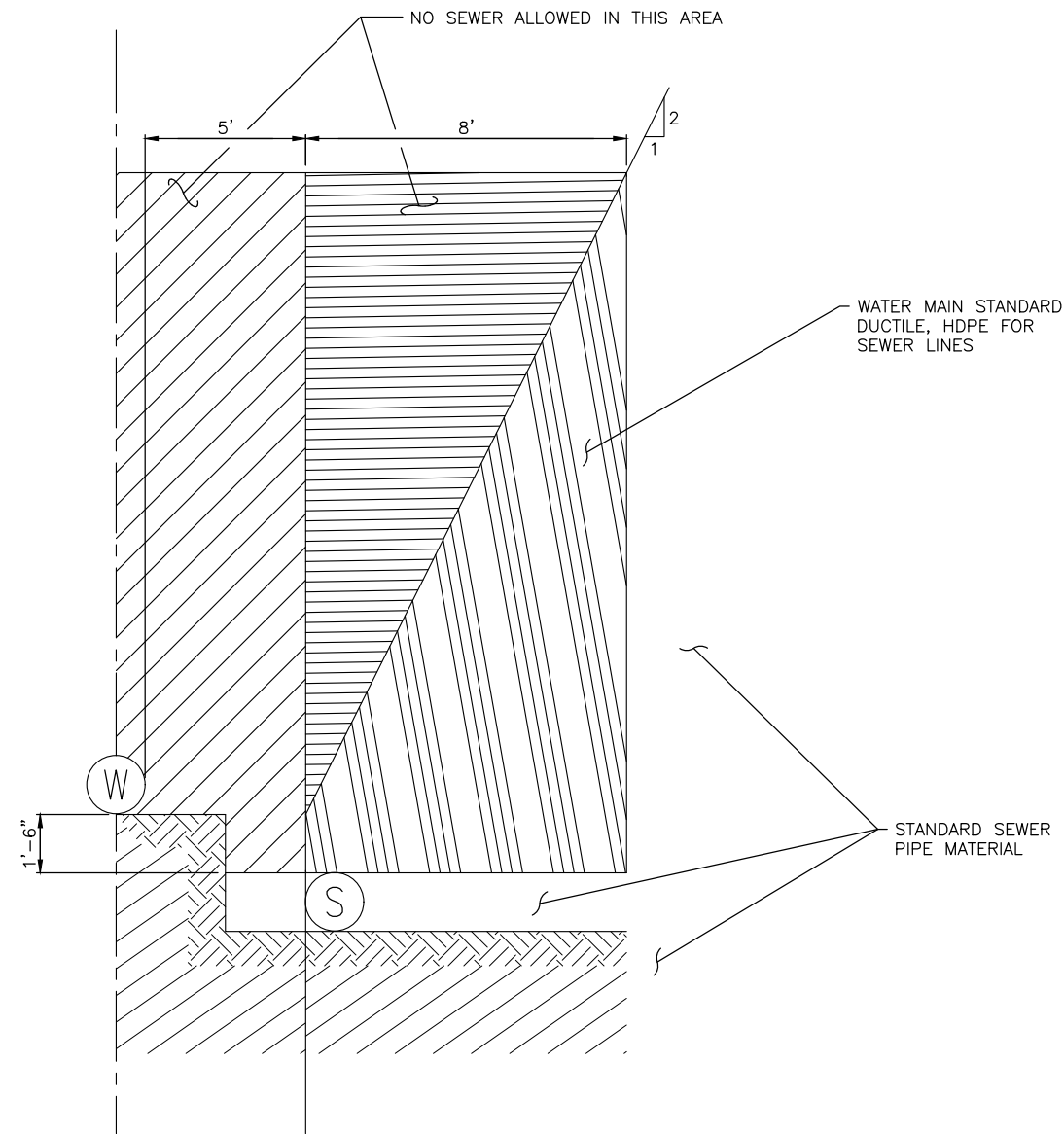
**STANDARD DETAIL
STORM AND SEWER
TRENCH**



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STANDARD SPECIFICATIONS			

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PARALLEL CONSTRUCTION

WATER MAIN STANDARD PIPE MATERIAL

AWWA STANDARD			
TYPE OF PIPE	PIPE	JOINT	FITTINGS
DUCTILE IRON	C 1.52	C 111	C 110
CONCRETE CYLINDER	C 303		

NOTES:

- HORIZONTAL SEPARATION (PARALLEL) – A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET BETWEEN GRAVITY SANITARY SEWERS AND ANY POTABLE WATER LINES SHALL BE MAINTAINED, WHENEVER POSSIBLE. THE DISTANCE SHALL BE MEASURED FROM EDGE TO EDGE.
- UNUSUAL CONDITIONS (PARALLEL) – WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION AS DESCRIBED ABOVE, A GRAVITY SEWER LINE MAY BE LAID CLOSER THAN TEN (10) FEET TO A WATER LINE PROVIDED:
 - A) IT IS LAID IN A SEPARATE TRENCH; OR IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE THAT IS LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH; AND
 - B) IN EITHER CASE, THE ELEVATION OF THE CROWN OF THE GRAVITY SEWER MUST BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER LINE. WHEN THIS VERTICAL SEPARATION CANNOT BE OBTAINED, THE GRAVITY SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
- VERTICAL SEPARATION (PERPENDICULAR) – SEWER LINES CROSSING WATER LINES SHALL BE LAID BELOW THE WATER LINES TO PROVIDE A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE WATER LINE AND THE CROWN OF THE SEWER LINE, WHENEVER POSSIBLE.
- UNUSUAL CONDITIONS (PERPENDICULAR) – WHEN LOCAL CONDITIONS PREVENT A VERTICAL SEPARATION AS DESCRIBED ABOVE, THE FOLLOWING CONSTRUCTION SHALL BE USED:
 - A) GRAVITY SEWERS PASSING OVER OR UNDER WATER LINES SHALL BE:
 - I. CONSTRUCTED OF MATERIAL DESCRIBED ON THIS PAGE. THE ONE SEGMENT OF THE MAXIMUM STANDARD LENGTH OF PIPE (BUT NO LESS THAN 18 FEET LONG) SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION; OR
 - II. CONSTRUCTED OF STANDARD GRAVITY SEWER MATERIAL ENCASED IN CONCRETE OR IN A 1/4" THICK CONTINUOUS STEEL CASING WITH ALL VOIDS PRESSURE-GROUTED WITH SAND-CEMENT GROUT.
 - III. THE LENGTH OF THE SEWER PIPE, IN BOTH I. AND II. ABOVE, SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.
 - B) WATER LINES PASSING UNDER GRAVITY SEWERS, IN ADDITION, SHALL BE PROTECTED BY PROVIDING:
 - I. A VERTICAL SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE;
 - II. ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINES; AND
 - III. THE LENGTH OF THE SEWER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.
 - C) PRESSURE SEWERS SHALL ONLY BE CONSTRUCTED UNDER WATER LINES WITH DUCTILE IRON PIPE OR STANDARD SEWER PIPE IN A STEEL CASING FOR A DISTANCE OF AT LEAST TEN (10) FEET ON EACH SIDE OF THE CROSSING.

**STANDARD DETAIL
WATER AND SEWER
SPACING & CLEARANCE**



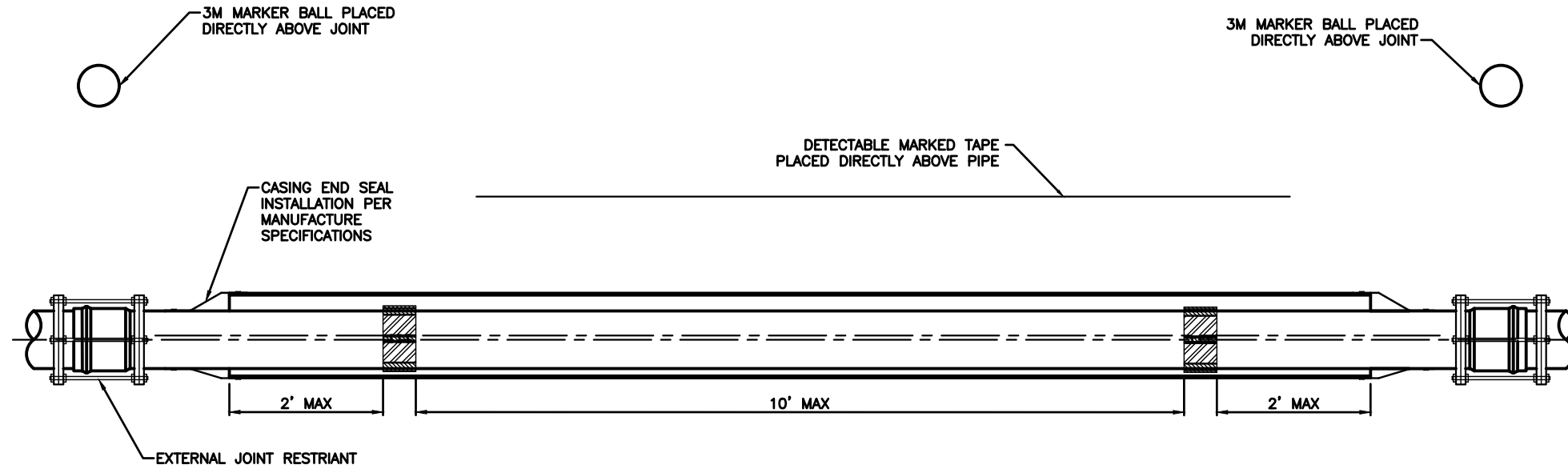
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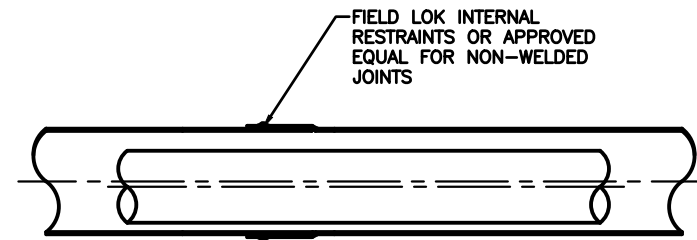
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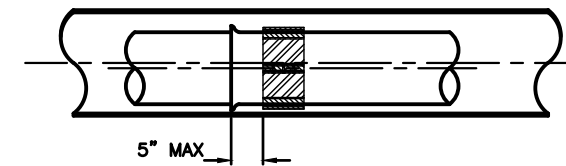


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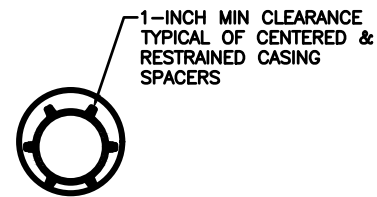
- CARRIER PIPE SHALL BE USED AS REQUIRED WITHIN CITY RIGHT-OF-WAY.
- ALL IRRIGATION PIPE LOCATED WITHIN CITY RIGHT-OF-WAY SHALL BE PVC C900 OR APPROVED EQUAL
- ALL JOINTS THROUGHOUT CASING SHALL BE RESTRAINED WITH FIELD LOC INTERNAL RESTRAINTS OR APPROVED EQUAL.
- RESTRAIN CARRIER PIPE ONE JOINT BEYOND END SEALS.
- MANUFACTURED CASING SPACER INTERVAL PER MANUFACTURER'S SPECIFICATIONS BUT NOT MORE THAN 10- FEET. MINIMUM 3 SPACERS PER PIPE LENGTH.
- CASING SHALL BE WELDED STEEL OR DUCTILE IRON FOR INSTALLATIONS LESS THAN 3- FEET BELOW ROAD GRADE. CPE MAY BE SUBSTITUTED FOR AREAS OUTSIDE OF PAVED ROADWAY.
- CASING PIPE LENGTHS SHALL BE OF THE LONGEST AVAILABLE LENGTH OF PIPE FROM MANUFACTURER
- NON-WELDED STEEL CASING SHALL BE EXTERNALLY RESTRAINED AT ALL JOINTS.
- 3M MARKER BALL TO BE PLACED DIRECTLY ABOVE JOINT RESTRAINT AT END OF PIPE.
- DETECTABLE MARKER TAPE TO BE INSTALLED 12-INCHES TO 14-INCHES ABOVE PIPE CASING. COLOR SHOULD BE ACCORDING TO APWA UNIFORM COLOR CODE FOR MARKING UNDERGROUND UTILITIES. DETECTABLE MARKING TAPE SHALL CONSIST OF INERT POLYETHYLENE PLASTIC THAT IS IMPERVIOUS TO ALL KNOWN ALKALIS, ACIDS, CHEMICAL REAGENTS, AND SOLVENTS LIKELY TO BE ENCOUNTERED IN THE SOIL, WITH A METALLIC FOIL CORE TO PROVIDE FOR THE MOST POSITIVE DETECTION AND PIPELINE LOCATION. DETECTABLE MARKING TAPE SHALL BE NO LESS THAN 2-INCHES WIDE, TYPE OF BURIED UTILITY SHOULD BE CLEARLY MARKED CONTINUOUSLY ALONG THE LENGTH OF THE RIBBON WITH MINIMUM 1-1/2 INCH LETTERS IN THE FOLLOWING FORMAT: "CAUTION BURIED (UTILITY TYPE) LINE"



NON WELDED JOINT DETAIL
N.T.S.



SPACER DISTANCE FROM BELL DETAIL
N.T.S.



CASING SPACERS DETAIL
N.T.S.

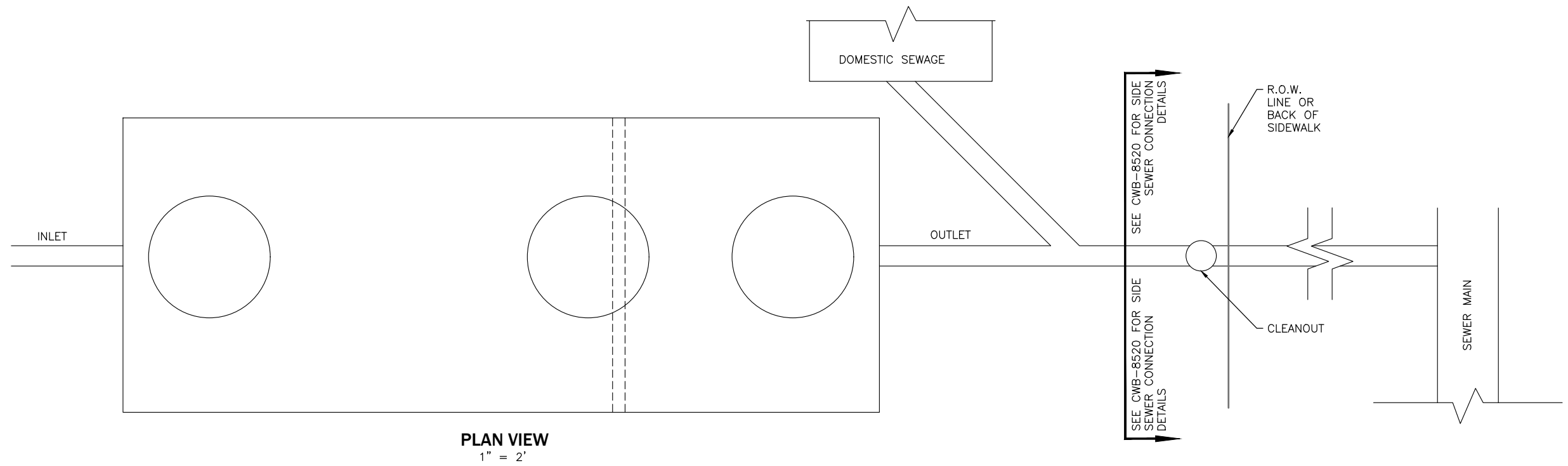
STANDARD DETAIL
CARRIER PIPE



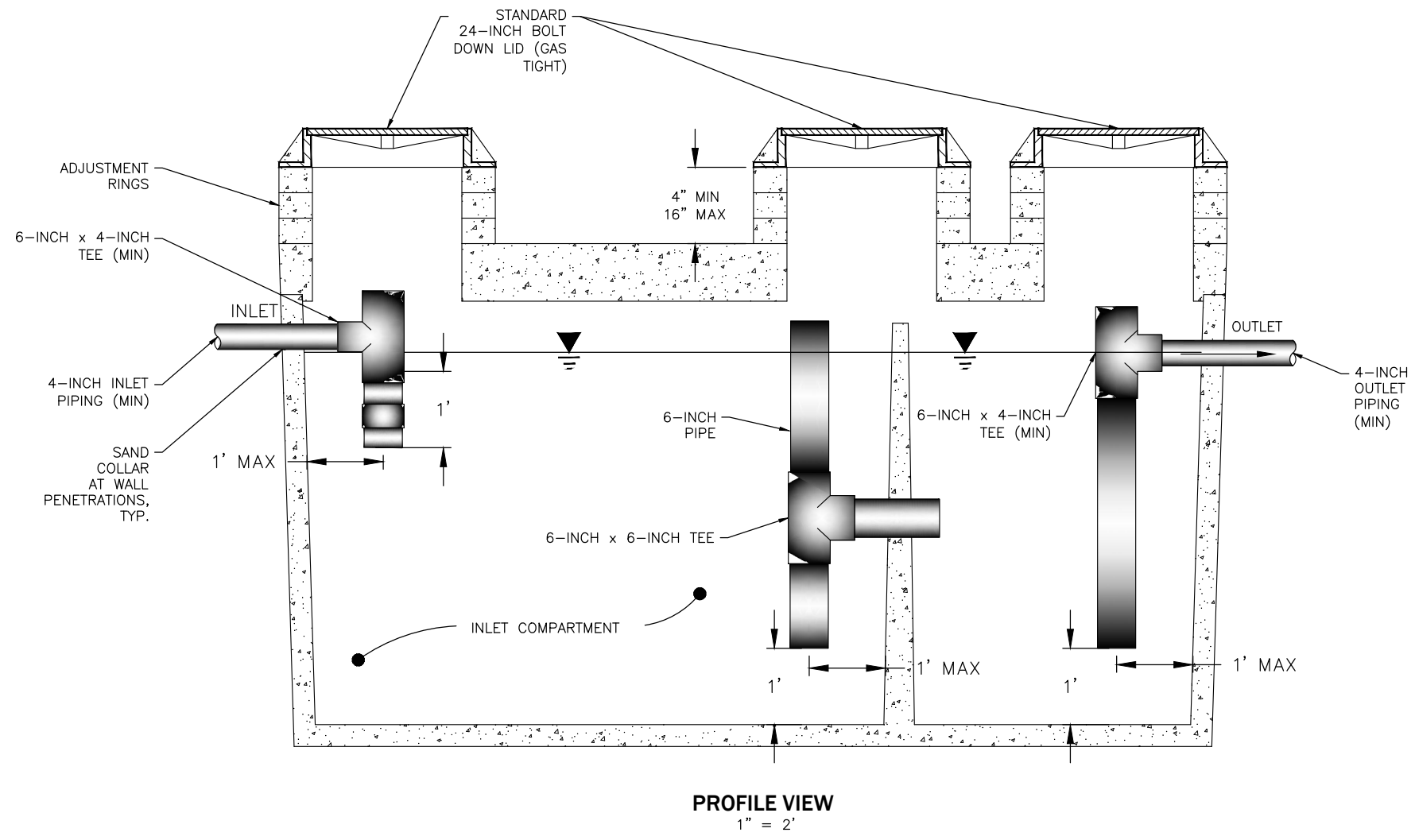
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				01/01/2022	AJS		
				03/23/2023	JTB		

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PLAN VIEW
1" = 2'



PROFILE VIEW
1" = 2'

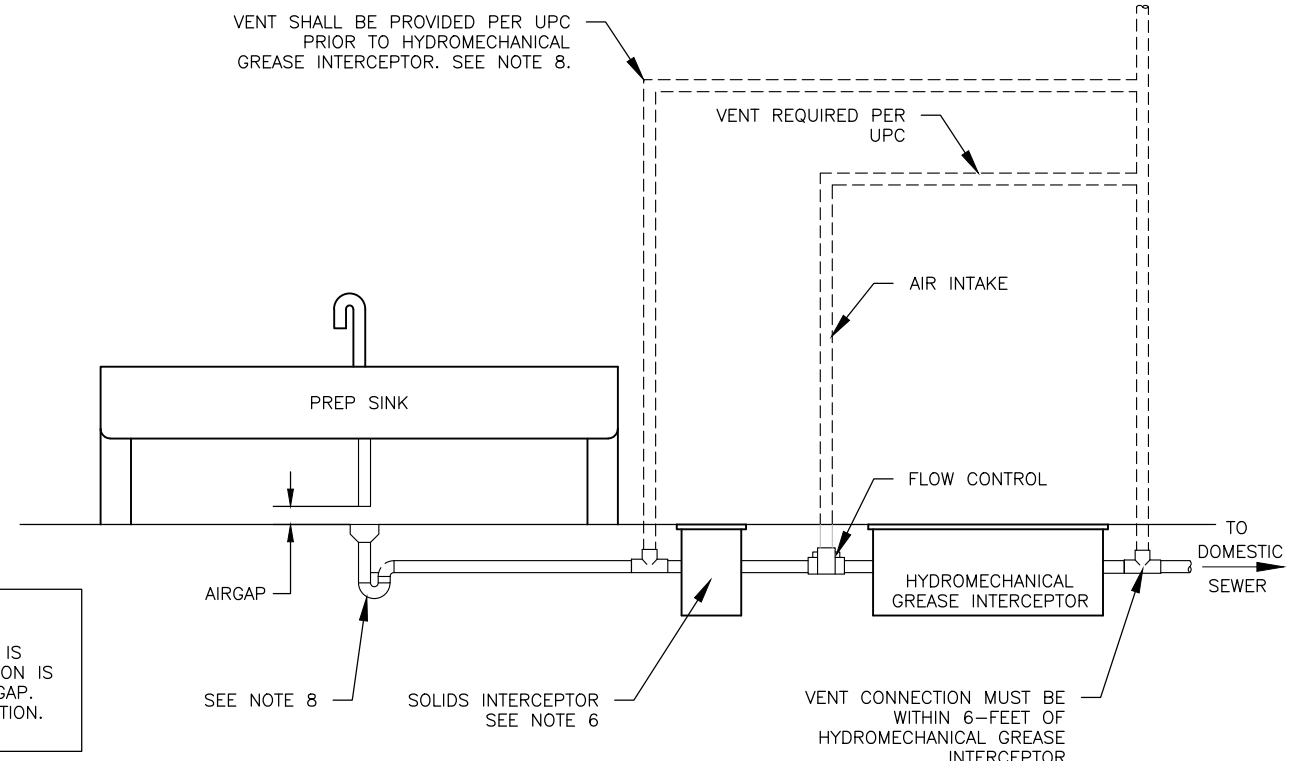
NOTES:

1. ALL INTERCEPTORS SHALL BE SIZED ACCORDING TO THE MOST RECENT VERSION OF THE UNIFORM PLUMBING CODE, 1014.3, OR OTHER ACCEPTABLE SIZING METHOD.
2. COMMERCIAL FOOD WASTE DISPOSALS AND DISHWASHERS MUST BE CONNECTED TO THE INTERCEPTOR, THE SIZING SHALL ACCOUNT FOR THESE FIXTURES.
3. INTERCEPTOR SHALL BE A MINIMUM SIZE OF 500 GALLONS OF LIQUID CAPACITY. THE INLET COMPARTMENT SHALL HAVE 2/3 THE TOTAL CAPACITY OF THE INTERCEPTOR.
4. SANITARY SEWER SHALL BE CONVEYED BY A SEPARATE LINE DOWNSTREAM OF THE INTERCEPTOR. ONLY GREY-WATER SHALL BE ROUTED THROUGH THE INTERCEPTOR.
5. PLACE INTERCEPTOR IN LOCATION THAT ALLOWS FOR PUMP TRUCK MAINTENANCE ACCESS.
6. INTERCEPTOR UNIT SHALL BE RATED FOR H20-44 AASHTO LOADING. (CERTIFIED)
7. A CENTER MANHOLE IS REQUIRED AND SHALL HAVE STANDARD 24-INCH BOLT DOWN LID.
8. POSITION ADJUSTMENT RINGS TO ALLOW ACCESS AND ENTRY.
9. INTERCEPTOR SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
10. CENTER MANHOLE MUST BE CENTERED OVER THE CROSSOVER TEE AND BAFFLE, THE CROSSOVER TEE CAN BE OFFSET FROM CENTER.
11. GROUT INLET, OUTLET AND CROSSOVER TEES.
12. ALTERNATE STYLES OR BRANDS MAY BE ALLOWED WITH DIRECTOR'S WRITTEN APPROVAL.

STANDARD DETAIL
GRAVITY GREASE
INTERCEPTOR

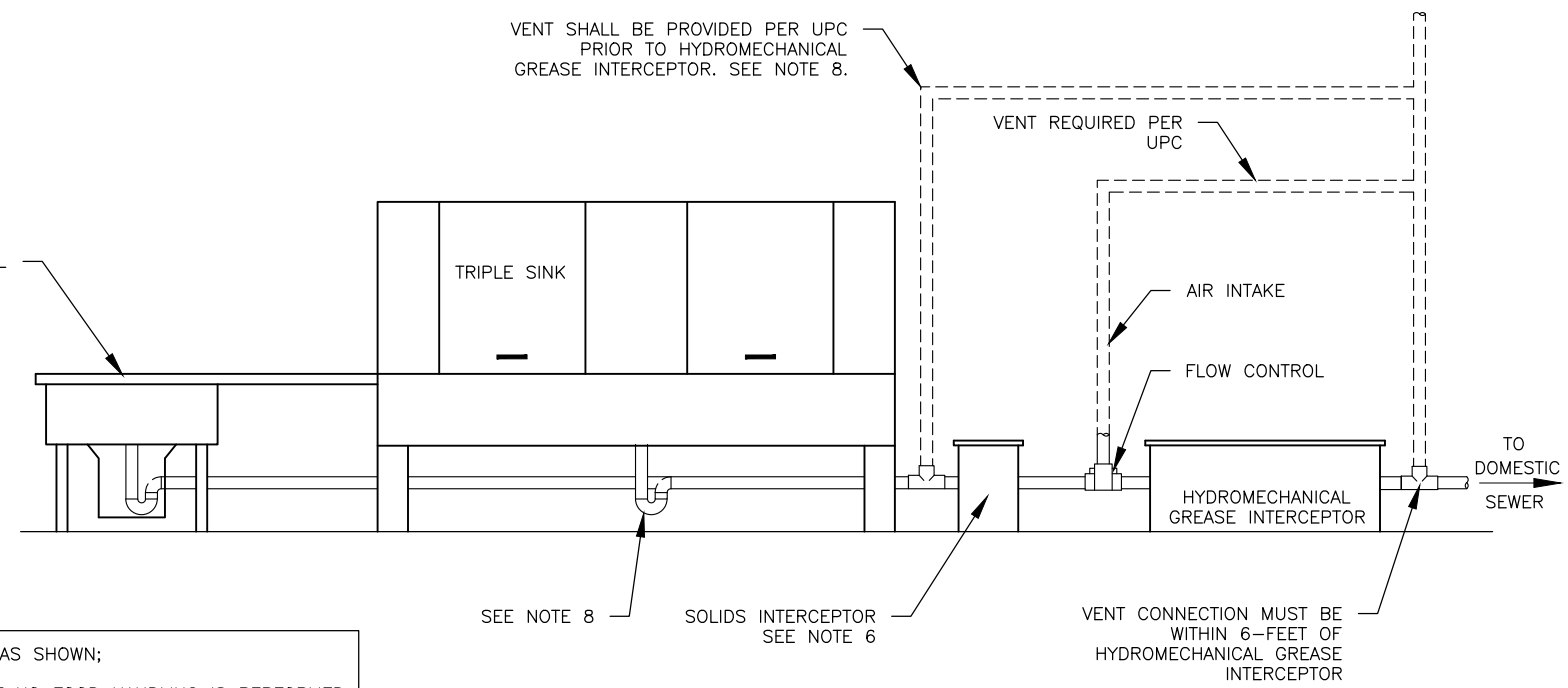


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						03/31/2023	JTB



INDIRECT CONNECTIONS AS SHOWN:
 IF ANY FOOD HANDLING OR BEVERAGE ICE SERVICE IS PROVIDED AT THE FIXTURES, AN INDIRECT CONNECTION IS REQUIRED. INDIRECT CONNECTIONS REQUIRE AN AIRGAP. SEE UPC CHAPTER 8 FOR MORE DETAILED INFORMATION.

INDIRECT CONNECTION



DIRECT CONNECTIONS AS SHOWN;
 SHALL ONLY OCCUR IF NO FOOD HANDLING IS PERFORMED IN THESE AREAS. SEE UPC 801.

DIRECT CONNECTION

NOTES:

1. HYDROMECHANICAL GREASE INTERCEPTORS INSTALLED IN LIEU OF EXTERNAL GRAVITY GREASE INTERCEPTORS ARE ONLY ALLOWED WITH THE WRITTEN PERMISSION OF THE PUBLIC WORKS DIRECTOR.
2. MINIMUM REQUIRED FLOW RATE OF 20 GALLONS PER MINUTE AND GREASE RETENTION CAPACITY OF 40 POUNDS.
3. ALL INTERCEPTORS WILL BE APPROPRIATELY SIZED TO THE UNIFORM PLUMBING CODE OR OTHER ACCEPTABLE SIZING METHOD.
4. INSTALL THE INTERCEPTOR IN AN ACCESSIBLE LOCATION FOR EASE OF BOTH MAINTENANCE AND INSPECTIONS. THE TOP CLEARANCE SHALL PROVIDE TWO TIMES THE PHYSICAL DEPTH.
5. FOOD WASTE DISPOSALS MUST BE CONNECTED TO THE INTERCEPTOR.
6. IF A FOOD WASTE DISPOSAL IS CONNECTED, THEN THE INTERCEPTOR MUST HAVE A SOLIDS INTERCEPTOR INSTALLED PRIOR TO THE FLOW CONTROL DEVICE.
7. IF A SOLIDS INTERCEPTOR IS NOT REQUIRED, THEN A WATER SEAL MUST BE PROVIDED BETWEEN THE FIXTURES AND INTERCEPTOR.
8. EACH PLUMBING FIXTURE CONNECTED TO THE INTERCEPTOR SHALL BE INDIVIDUALLY TRAPPED AND VENTED IN AN APPROVED MANNER. VENTING AND FLOW CONTROL DEVICES ARE TO BE LOCATED IN A READILY ACCESSIBLE AND VISIBLE PLACE.
9. ALL WASTE SHALL ENTER THE INTERCEPTOR THROUGH AN INLET PIPE ONLY.
10. "GRAY WATER ONLY", DOMESTIC (SANITARY) SEWER SHALL BE CONVEYED BY A SEPARATE LINE DOWNSTREAM OF THE INTERCEPTOR.
11. DISHWASHER WASTE MUST NOT PASS THROUGH THE INTERCEPTOR.
12. NOT MORE THAN FOUR (4) SEPARATE FIXTURES SHALL BE CONNECTED TO OR DISCHARGE INTO ANY ONE INTERCEPTOR.

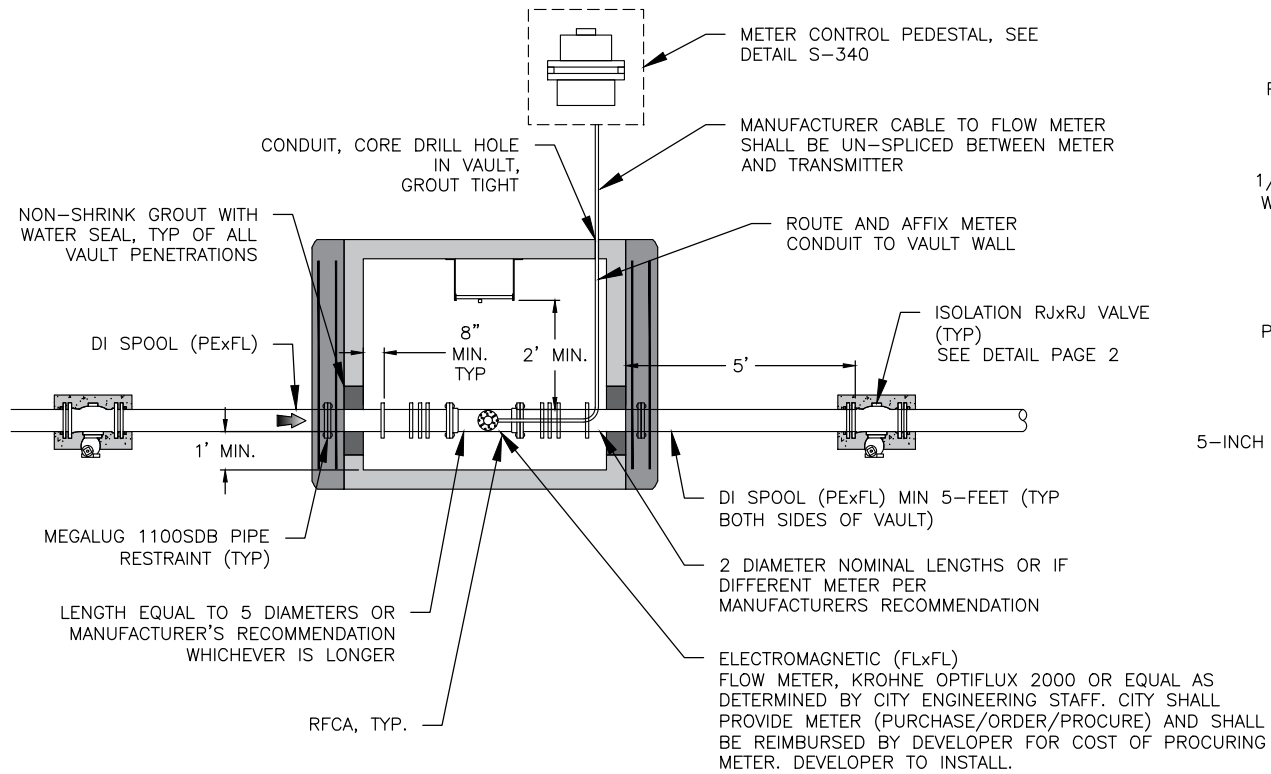
**STANDARD DETAIL
 HYDROMECHANICAL
 GREASE INTERCEPTOR**



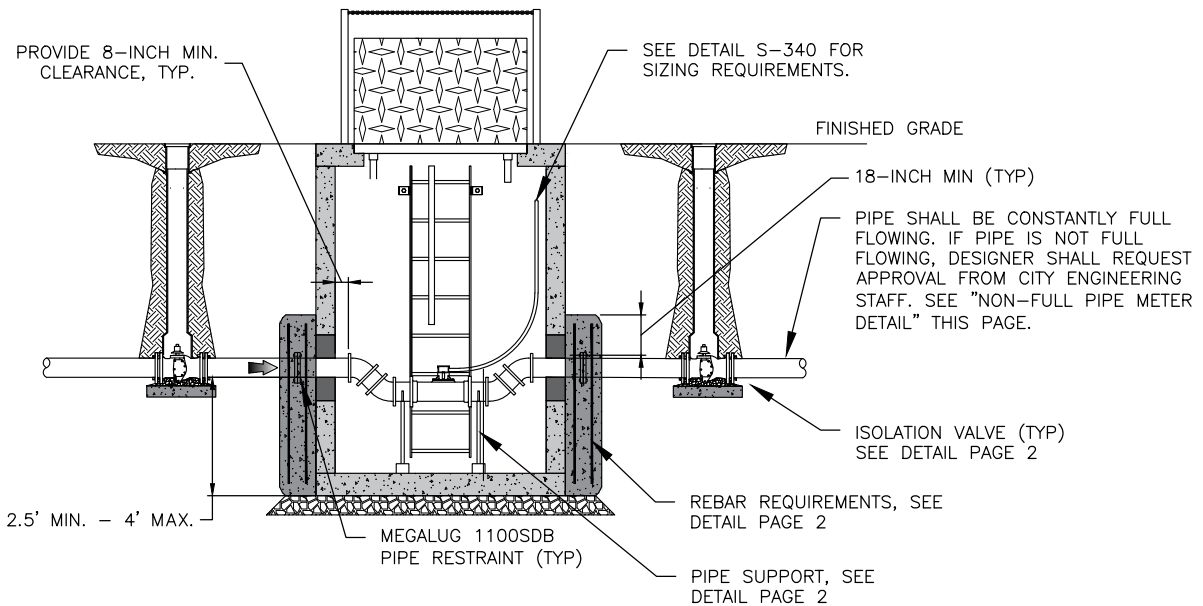
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				DATE	INITIAL	DATE	INITIAL
MA				12/21/2020	CAW	01/01/2022	AJS
						03/31/2023	JTB

ELECTROMAGNETIC METER NOTES	
MATERIAL – PIPELINE	PIPING SHALL BE DUCTILE IRON
COATINGS – PIPELINE	EXTERNAL PIPE COATINGS – PIPE SHALL BE COATED WITH: PRIMER, SERIES 1 OMNITHANE (2.5 TO 3.5 MIL DFT); INTERMEDIATE COAT, SERIES N69 HI-BUILD EPOXOLINE II (6 TO 8 MILS DFT); FINISH COAT, SERIES 73 ENDURA-SHIELD (3 TO 5 MILS DFT). PIPE OUTSIDE VAULT SHALL BE ASPHALTIC COATED FOR BURY. INTERNAL PIPE COATINGS – CEMENT MORTAR LINED FROM ISOLATION VALVE TO ISOLATION VALVE.

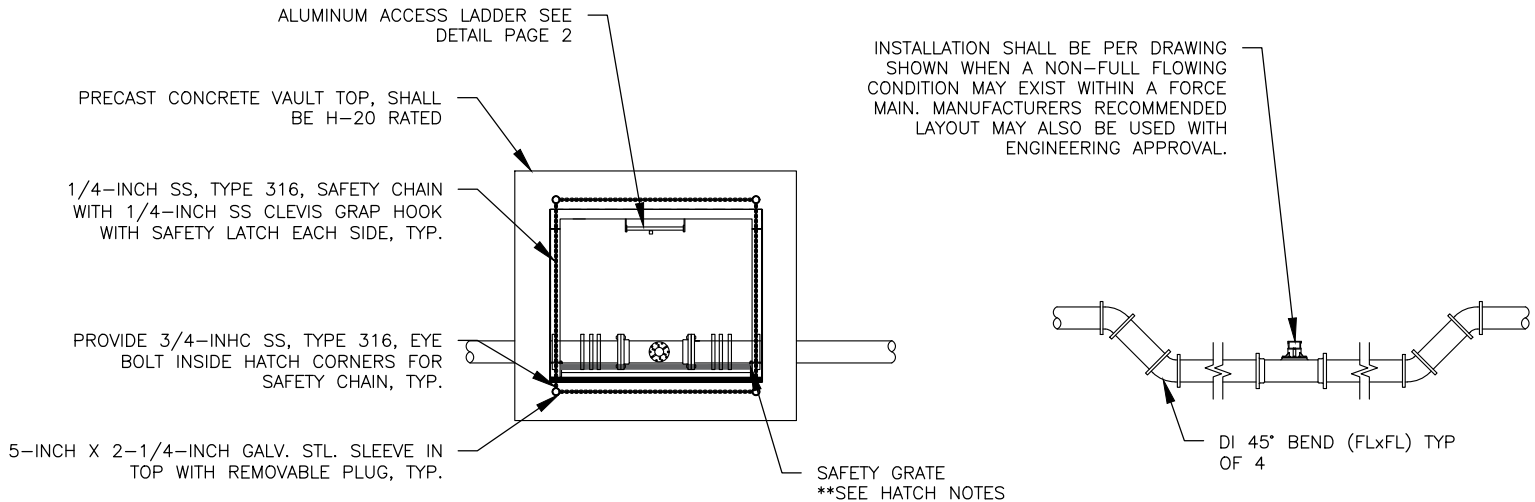
METER VAULT SIZING			
METER SIZE	INTERIOR VAULT (MIN) (WIDTH x LENGTH)	HATCH (MIN)	LEAF
3"	5'-6" x 6'-4"	36"x48"	1
4"	5'-6" x 6'-4"	36"x48"	1
6"	6'-4" x 6'-4"	48"x60"	2
8"	6'-4" x 6'-4"	48"x60"	2



ELECTROMAGNETIC METER PLAN



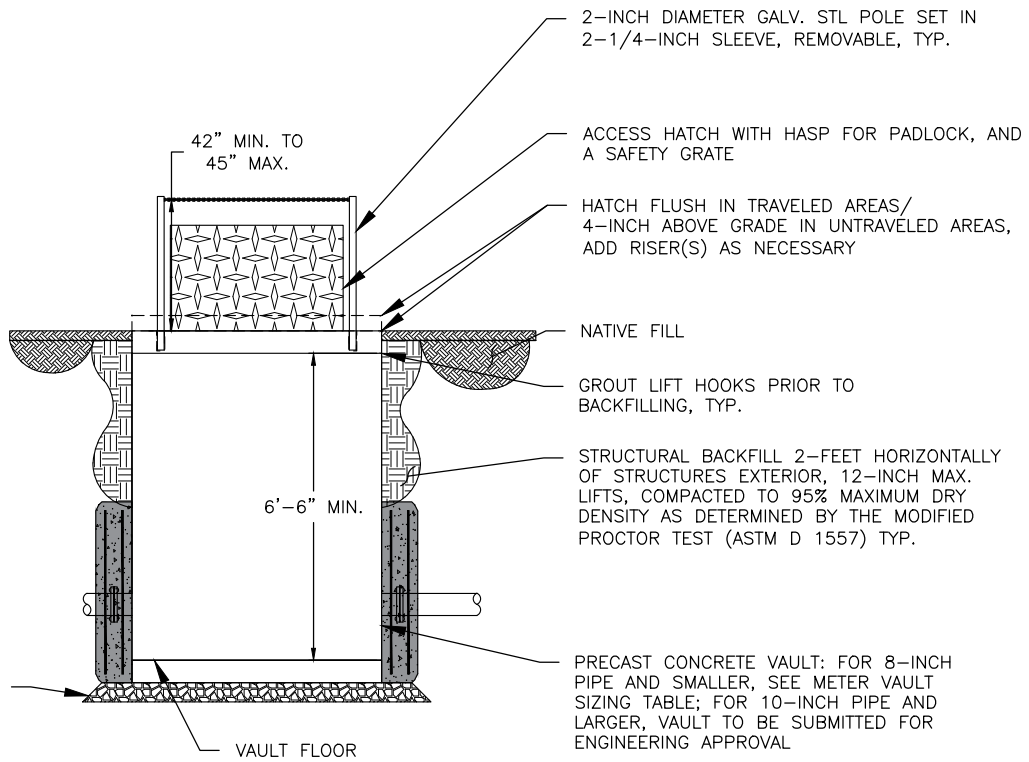
ELECTROMAGNETIC METER ELEVATION



METER VAULT STRUCTURAL PLAN

METER VAULT ACCESS HATCH	
CLEAR OPENING	SEE TABLE
NO. OF LEAVES	SEE TABLE
RATING	H-20
MOUNTING*	ANCHOR
SAFETY GRATING**	YES
SAFETY CHAIN***	YES
GASKET	ODOR TIGHT
DRAIN	NO
SPRING ASSIST	YES

ACCESS HATCH NOTES:
 * ACCESS HATCH OVER METER VAULT SHALL BE MOUNTED USING STAINLESS STEEL BOLTS AS SHOWN ON THIS PLAN.
 **ACCESS HATCH SHALL HAVE REMOVABLE SAFETY GRATING COVER BELOW ACCESS HATCH LID.
 *** SAFETY CHAINS SHALL BE PROVIDED ON ACCESS HATCHES AS DETAILED FOR EACH HATCH ON THIS SHEET.
 ****ACCESS HATCH TO HAVE HASP FOR PADLOCK

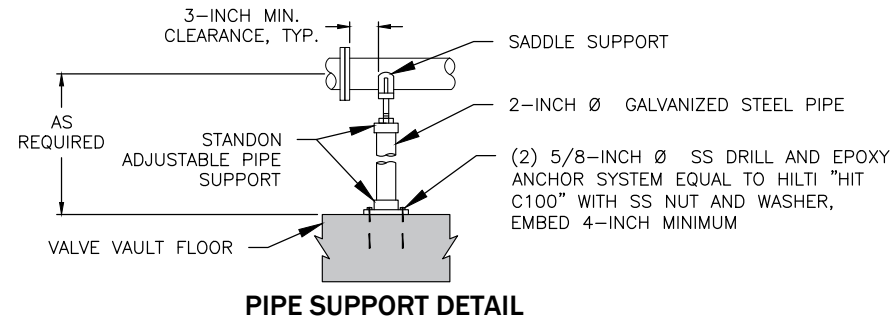


METER VAULT STRUCTURAL ELEVATION

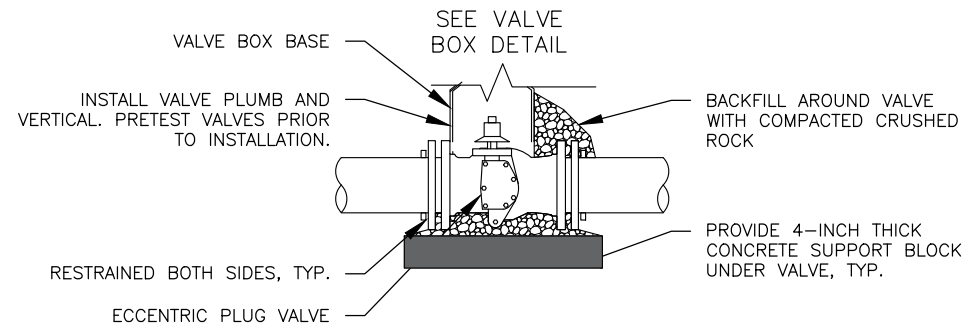
**STANDARD DETAIL
ELECTROMAGNETIC
SEWAGE FLOW METER**



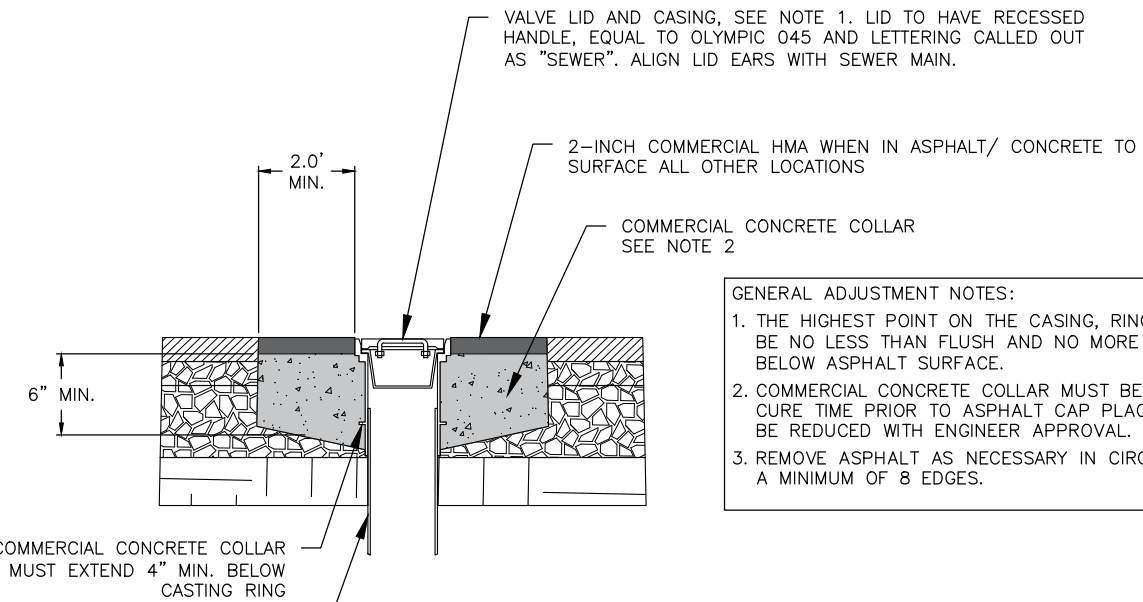
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						DATE	INITIAL	BY	REASON
NA						12/21/2020	CAW		
						01/01/2022	AJS		
						03/31/2023	JTB		



PIPE SUPPORT DETAIL



ISOLATION VALVE



ROADWAY UTILITY ADJUSTMENT

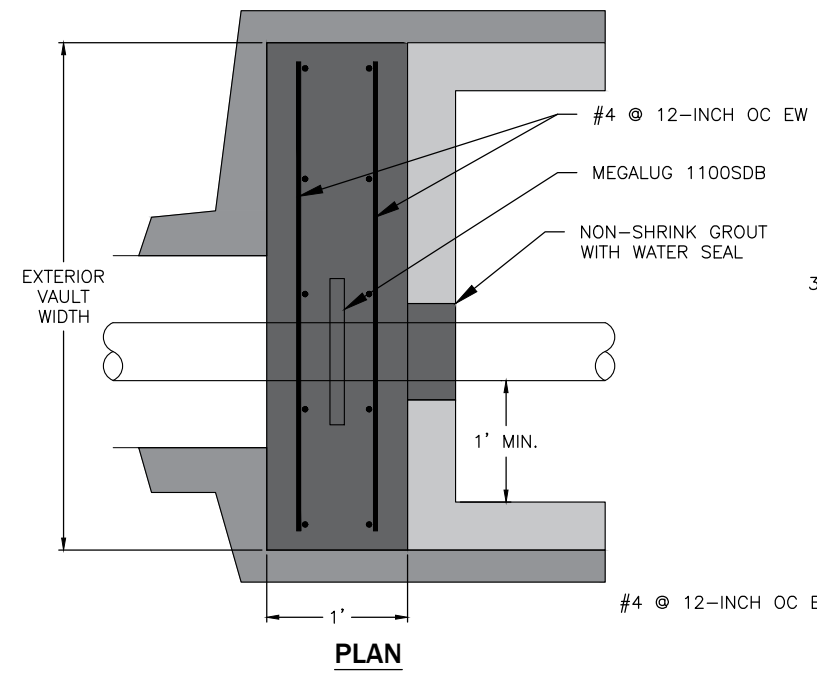
GENERAL ADJUSTMENT NOTES:

1. THE HIGHEST POINT ON THE CASING, RING, OR COVER SHALL BE NO LESS THAN FLUSH AND NO MORE THAN 1/8-INCH BELOW ASPHALT SURFACE.
2. COMMERCIAL CONCRETE COLLAR MUST BE GIVEN 3 DAYS CURE TIME PRIOR TO ASPHALT CAP PLACEMENT. TIME MAY BE REDUCED WITH ENGINEER APPROVAL.
3. REMOVE ASPHALT AS NECESSARY IN CIRCULAR PATTERN WITH A MINIMUM OF 8 EDGES.

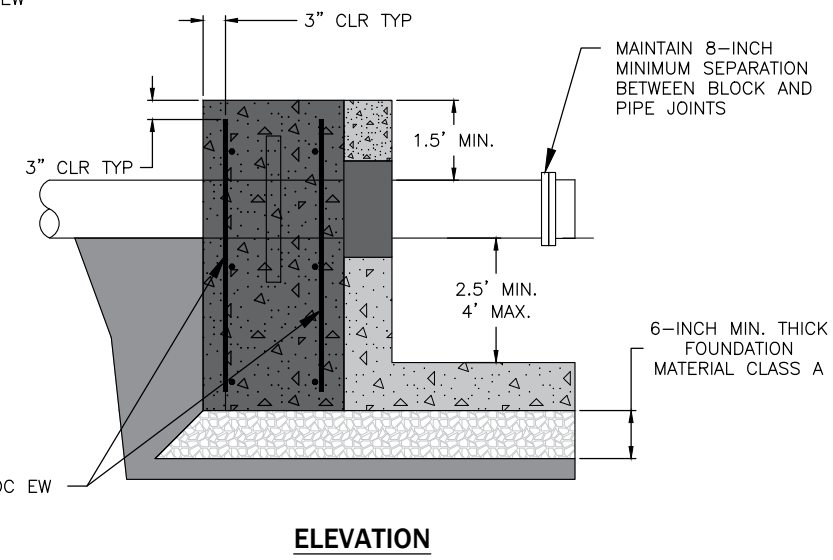
2 PIECE CAST IRON VALVE BOX, EQUAL TO OLYMPIC VB940 SEATTLE STYLE. INSTALL STRAIGHT TO PREVENT BINDING OF OPERATOR.

NOTES:

1. LADDERS SHALL BE ALUMINUM.
2. LADDER MUST MEET CONSTRUCTION REQUIREMENTS OF ANSI A14.3

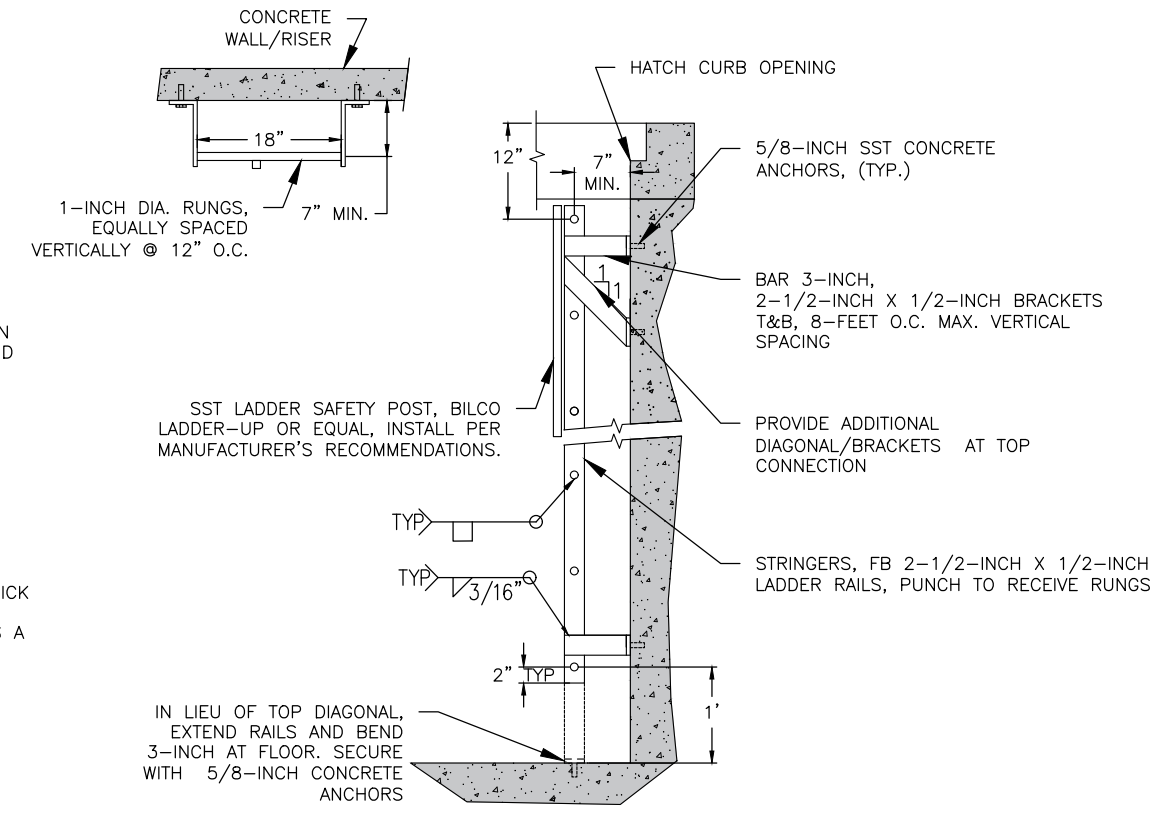


PLAN



ELEVATION

PIPE RESTRAINT



LADDER DETAIL FOR ELECTROMAGNETIC METER

STANDARD DETAIL
ELECTROMAGNETIC SEWAGE
FLOW METER DETAILS



SCALE:	AS SHOWN	DESIGNED	DRAWN	CHECKED	DATE DRAWN	REVISIONS		
						DATE	INITIAL	BY
						12/21/2020	CAW	
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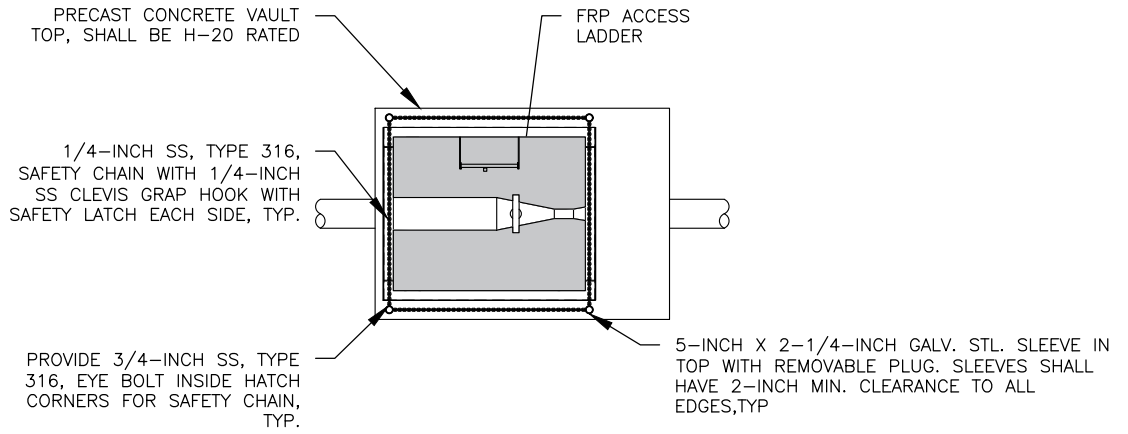
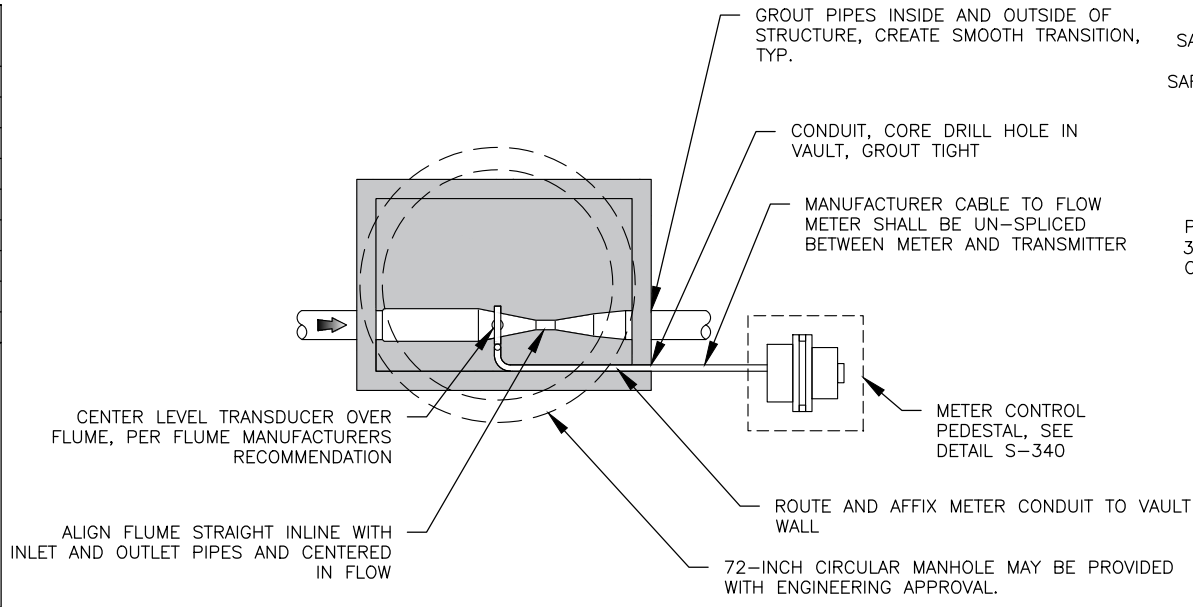
FLUME SIZING				
GPM	PARSHALL FLUME SIZE	VAULT SIZE	HATCH (MIN)	LEAF
3-73	2-INCH - NOT TO BE USED WITH DOMESTIC SEWAGE	H2 PRE-CAST #577 OR EQUAL	48"x60"	2
13-250	3-INCH	H2 PRE-CAST #577 OR EQUAL	48"x60"	2
>250	CONSULT WITH CITY OF WENATCHEE ENGINEERING STAFF	-		

PARSHALL FLUME METER NOTES

1 CONTRACTOR SHALL TEST FLUME TO VERIFY CORRECT FLOW READING TO THE SATISFACTION OF CITY.

METER VAULT ACCESS HATCH	
CLEAR OPENING	SEE TABLE
NO. OF LEAVES	SEE TABLE
RATING	H-20
MOUNTING*	ANCHOR
SAFETY GRATING**	YES
SAFETY CHAIN***	YES
GASKET	ODOR TIGHT
DRAIN	NO
SPRING ASSIST	YES

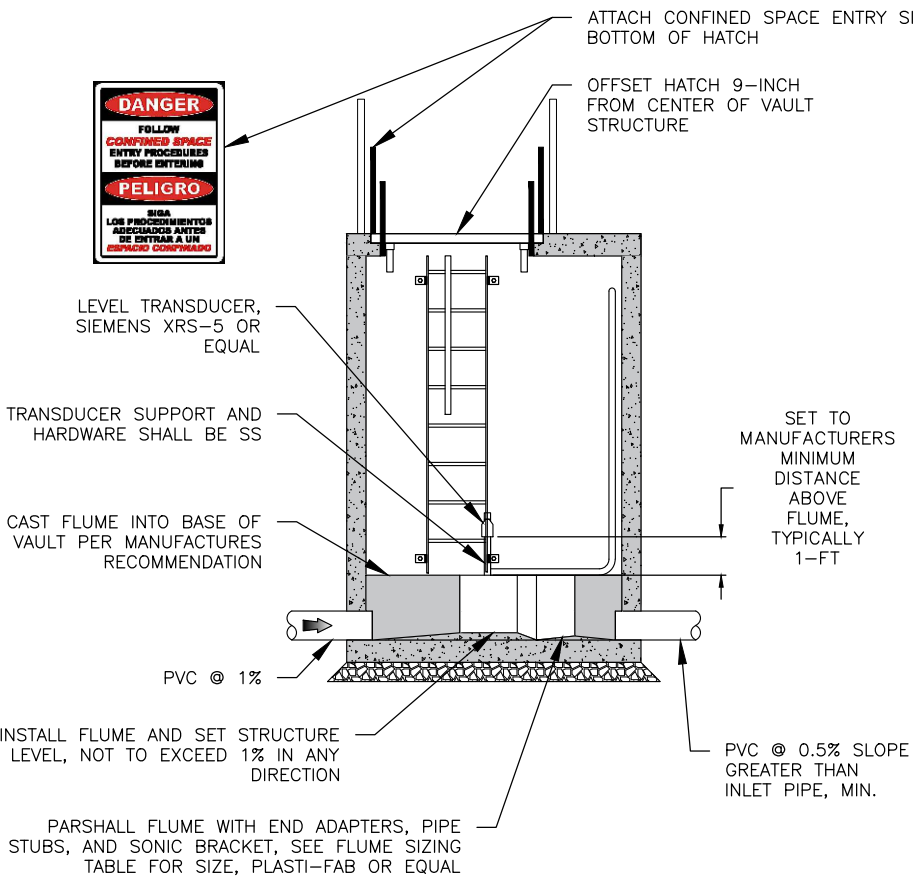
ACCESS HATCH NOTES:
 * ACCESS HATCH OVER METER VAULT SHALL BE MOUNTED USING STAINLESS STEEL BOLTS AS SHOWN ON THIS PLAN.
 **ACCESS HATCH SHALL HAVE REMOVABLE SAFETY GRATING COVER BELOW ACCESS HATCH LID.
 *** SAFETY CHAINS SHALL BE PROVIDED ON ACCESS HATCHES AS DETAILED FOR EACH HATCH ON THIS SHEET.
 ****ACCESS HATCH TO HAVE HASP FOR PADLOCK



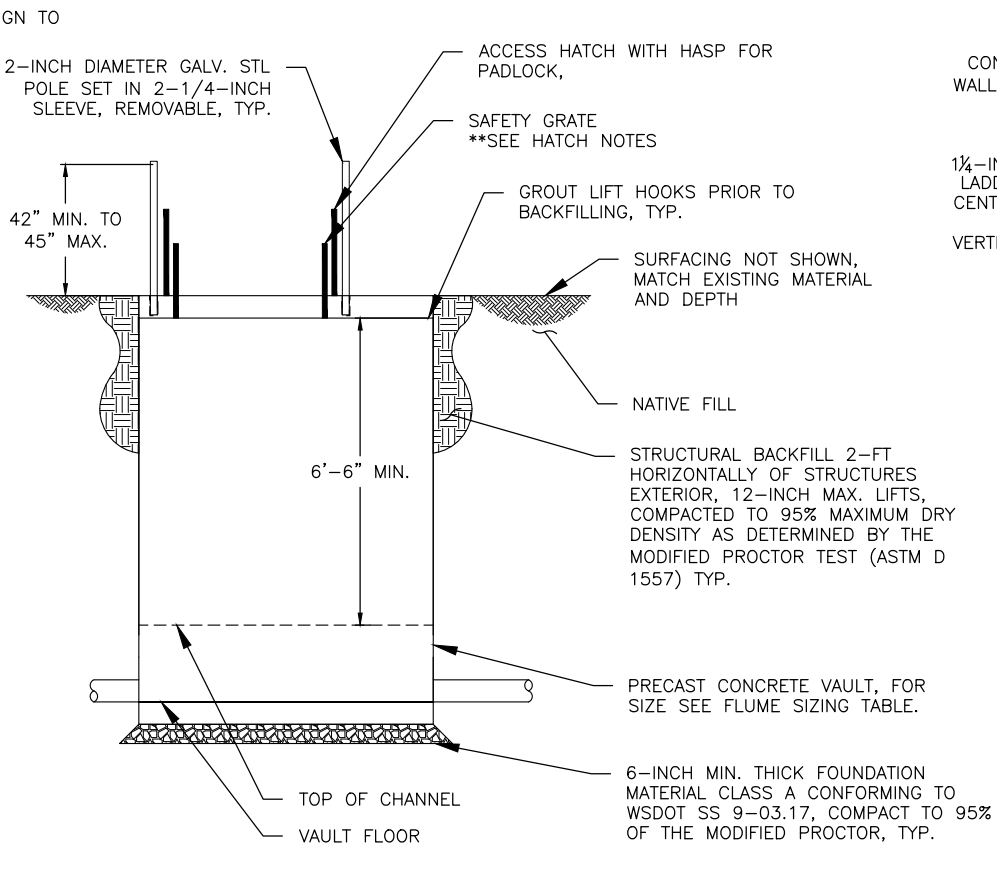
LADDER NOTES:

- LADDERS SHALL BE FIBER REINFORCED PLASTIC (FRP).
- LADDER MUST MEET CONSTRUCTION REQUIREMENTS OF ANSI A14.3
- LADDER BRACKET SHALL BE SERIES 625 VINYL-ESTER.
- ALL BOLT ASSEMBLIES AND GRATING HOLD DOWNS SHALL BE SERIES 316 STAINLESS STEEL.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSION PRIOR TO FABRICATION.

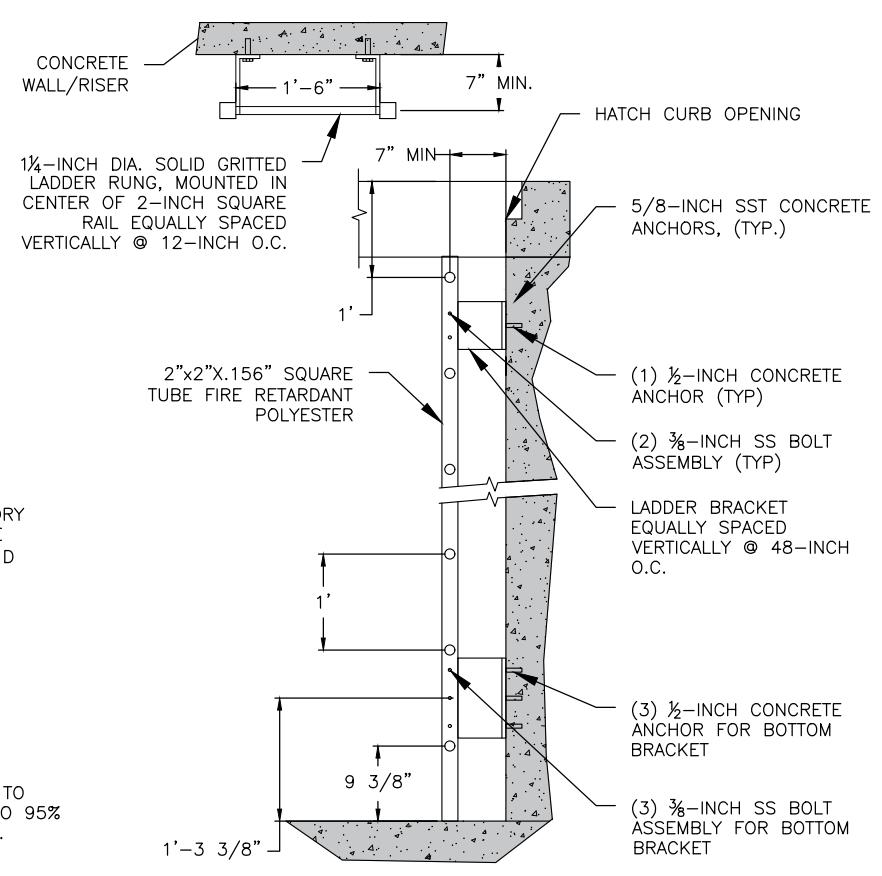
PARSHALL FLUME METER PLAN



PARSHALL FLUME METER ELEVATION



METER VAULT STRUCTURAL ELEVATION

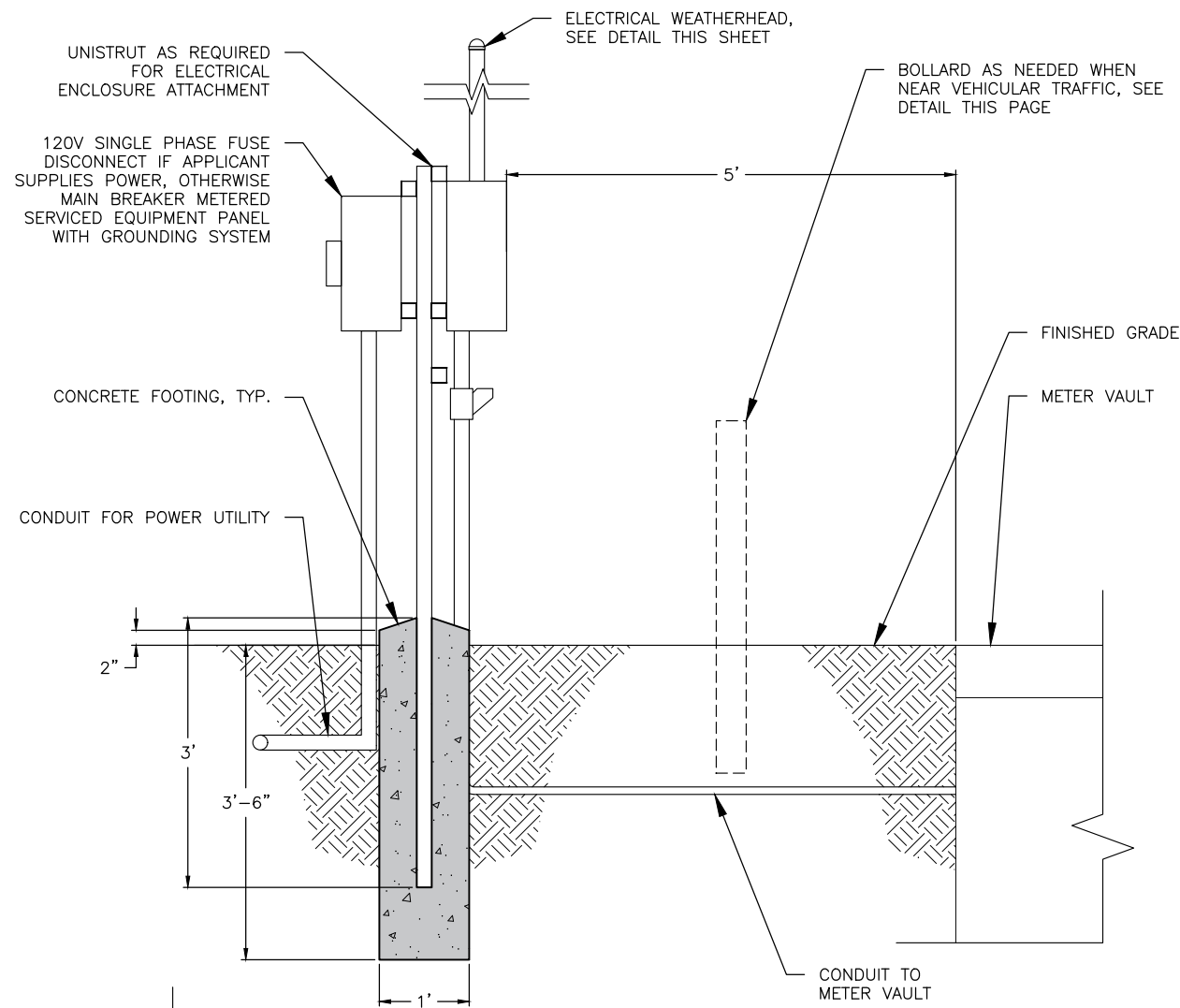


LADDER DETAIL FOR PARSHALL FLUME METER

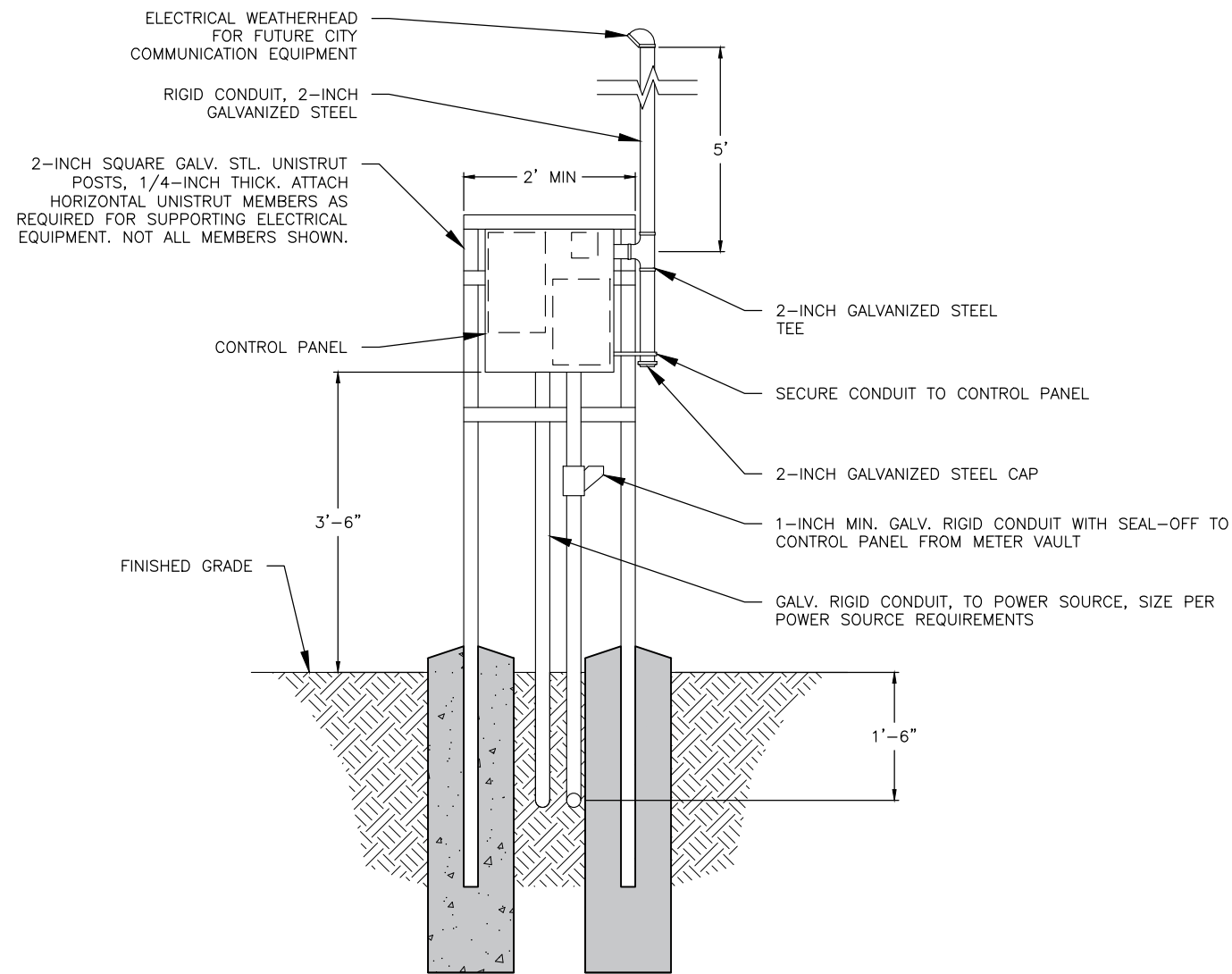
**STANDARD DETAIL
PARSHALL FLUME**



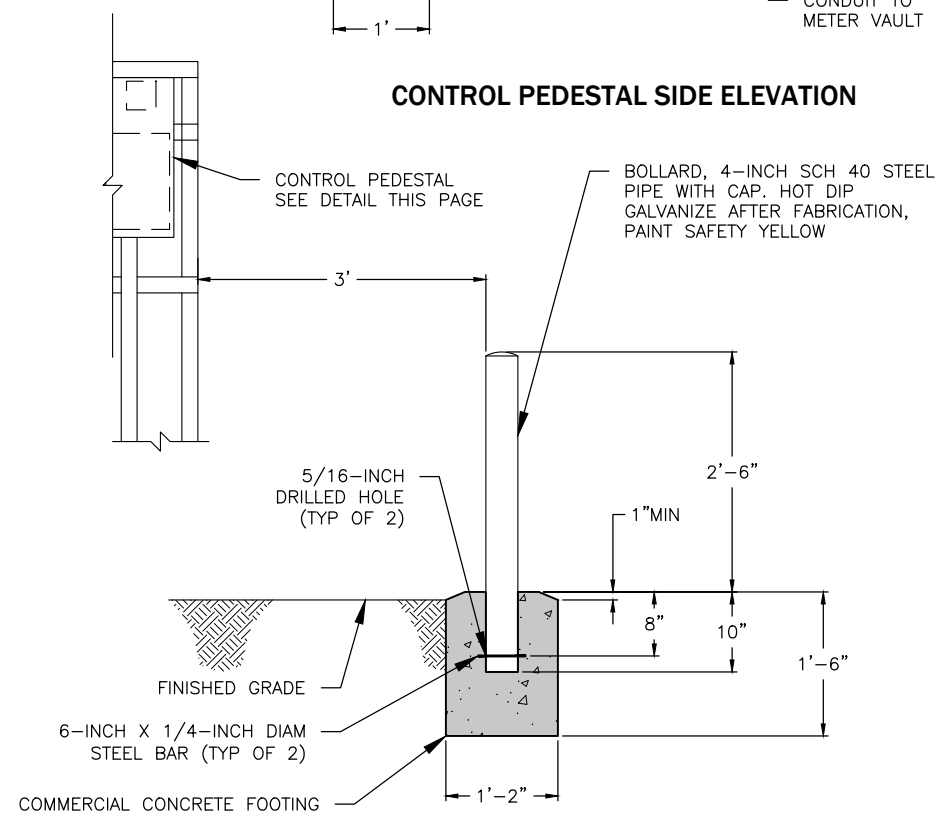
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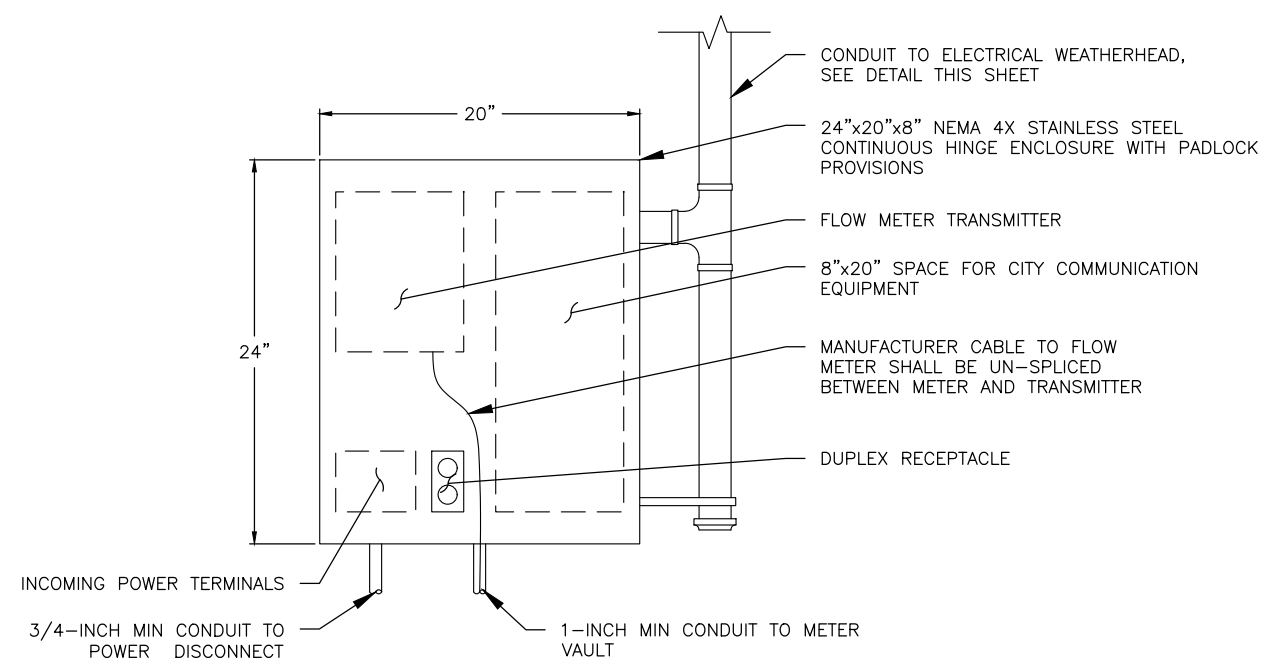
CONTROL PEDESTAL SIDE ELEVATION



CONTROL PEDESTAL FRONT ELEVATION

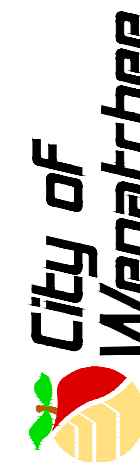


CONTROL PANEL BOLLARD



CONTROL PANEL LAYOUT

**STANDARD DETAIL
SEWER CONTROL PEDESTAL**



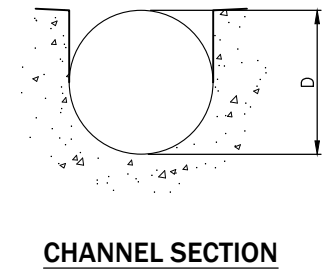
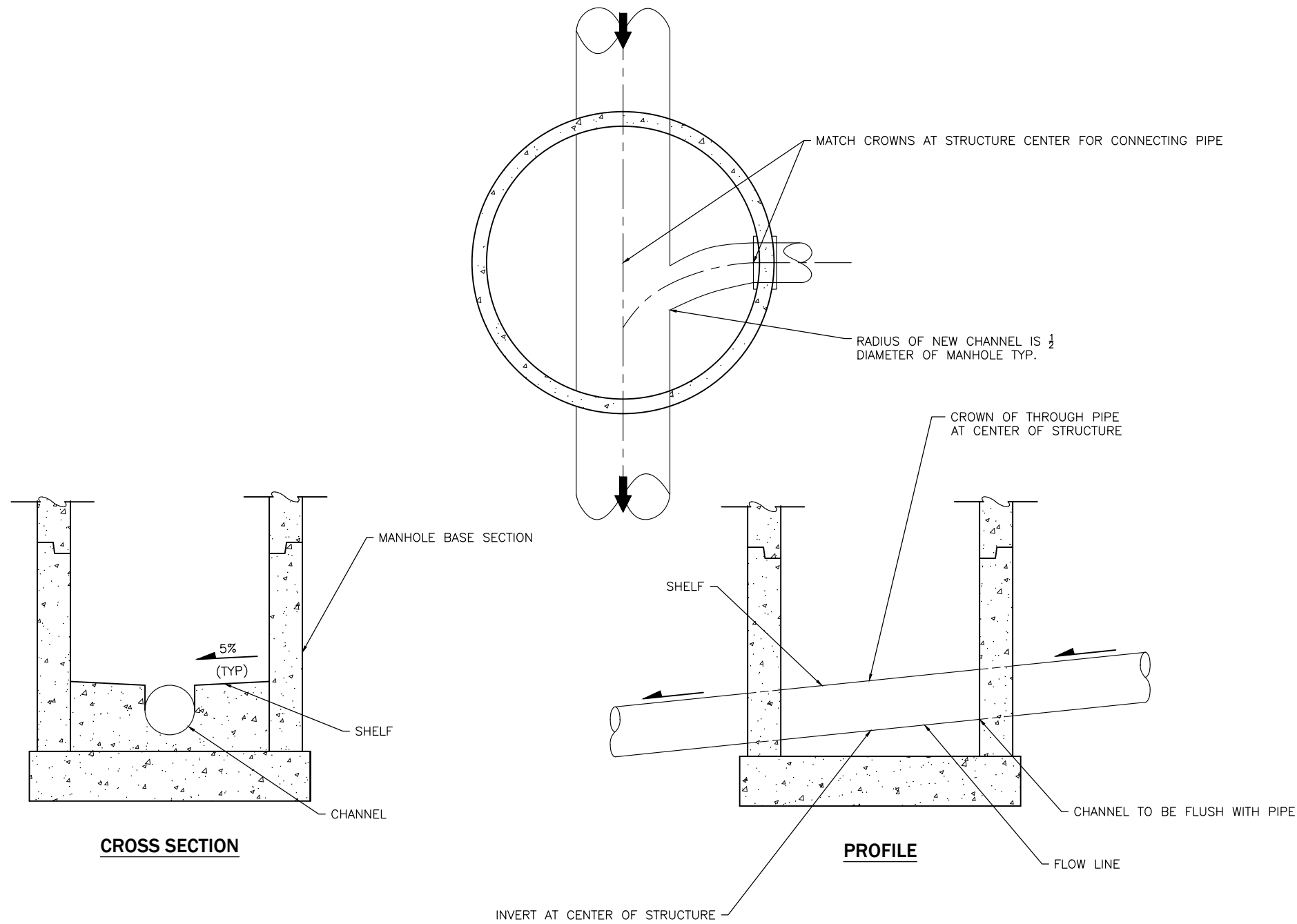
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					03/31/2023	JTB		

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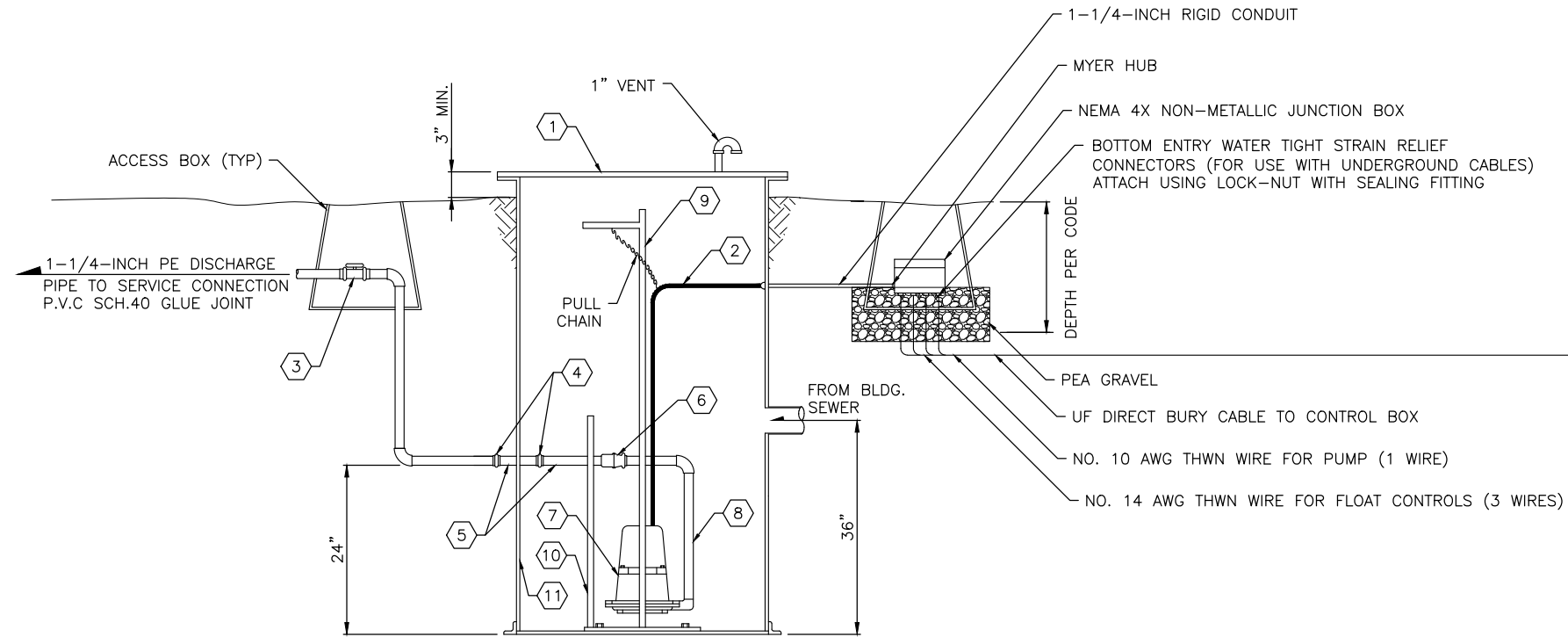


- NOTES:**
1. DEPTH OF CHANNEL MUST BE SAME AS PIPE DIAMETER.
 2. MINIMUM 0.1-FEET DROP ACROSS CHANNEL; MAXIMUM 1.0-FEET DROP ACROSS CHANNEL.
 3. FOR MANHOLE CONNECTIONS OF SEWER MAIN PIPES THAT ARE DIFFERENT DIAMETERS, THE CITY PREFERENCE IS TO MATCH CROWNS FOR INCOMING SEWER PIPES AT THE MANHOLE. AN ALTERNATE ACCORDING TO 'CRITERIA FOR SEWERAGE WORKS DESIGN BOOK, DEPARTMENT OF ECOLOGY', IS TO MATCH 80% LINE OF EACH OF THE DIFFERING SEWER MAIN PIPES AT CENTERLINE OF STRUCTURE, MAY BE ALLOWED BY THE CITY ENGINEER.

**STANDARD DETAIL
SEWER MANHOLE MAIN
CHANNEL & SHELF**



SCALE: AS SHOWN	DESIGNED	DRAWN CAW	APPROVED BY	DATE DRAWN 12/04/2020	CHECKED	DATE APPROVED	REVISIONS		
							DATE	INITIAL	
							01/01/2022	AJS	
							03/31/2023	JTB	



GRINDER LIFT STATION DETAIL
N.T.S.

MATERIALS LIST

- ① 24-INCH DIAMETER GALVANIZED COVER
- ② POWER CONDUIT
- ③ 1-1/4-INCH PVC TRUE UNION VALVE (SS) HAYWARD OR EQUAL
- ④ 1-1/4-INCH PVC, COPPER, OR APPROVED EQUAL UNION
- ⑤ 1-1/4-INCH PVC, COPPER, OR APPROVED EQUAL NIPPLES
- ⑥ CHECK VALVE AND PUMP DISCONNECT HYDROMATIC, GOULD, OR APPROVED EQUAL.
- ⑦ 2 HP GRINDER PUMP – SEE NOTES
- ⑧ 1-1/4-INCH GALVANIZED PIPING, APPROXIMATELY 1.2-FT LONG
- ⑨ HOT DIPPED GALVANIZED STEEL RAIL GUIDE SYSTEM
- ⑩ HOT DIPPED GALVANIZED PUMP TECH SORT RAIL
- ⑪ 24-INCH X 60-INCH FIBERGLASS TANK

NOTES:

1. TOP OF TANK CAN BE SET FLUSH WITH GROUND, IF A CONCRETE PAD IS POURED AROUND THE LIFT STATION AND SLOPED AWAY FROM THE STATION. KEEP ROCKS AND DEBRIS OUT OF STATION.
2. ACCESS BOX:
TRAFFIC AREAS – EQUAL TO CARSON MODEL 1419-14B WITH 1419-2B COVER
TRAFFIC AREAS– H-20 RATED CONCRETE BOX EQUAL TO FOGTITE B9-1/2 METER BOX
LIDS SHALL BE MARKED ELECTRICAL OR SEWER RESPECTIVELY OR HAVE NO MARKINGS AT ALL.
3. CONTROL FLOATS NOT SHOWN FOR CLARITY.

STANDARD DETAIL
SINGLE FAMILY
LIFT STATION



SCALE: AS SHOWN	DATE DRAWN	DESIGNED	DRAWN	APPROVED BY	REVISIONS			
					DATE	INITIAL	DATE	INITIAL
	12/11/2020		CAW					
	CHECKED				01/07/2022	AJS		
					03/31/2023	JTB		

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