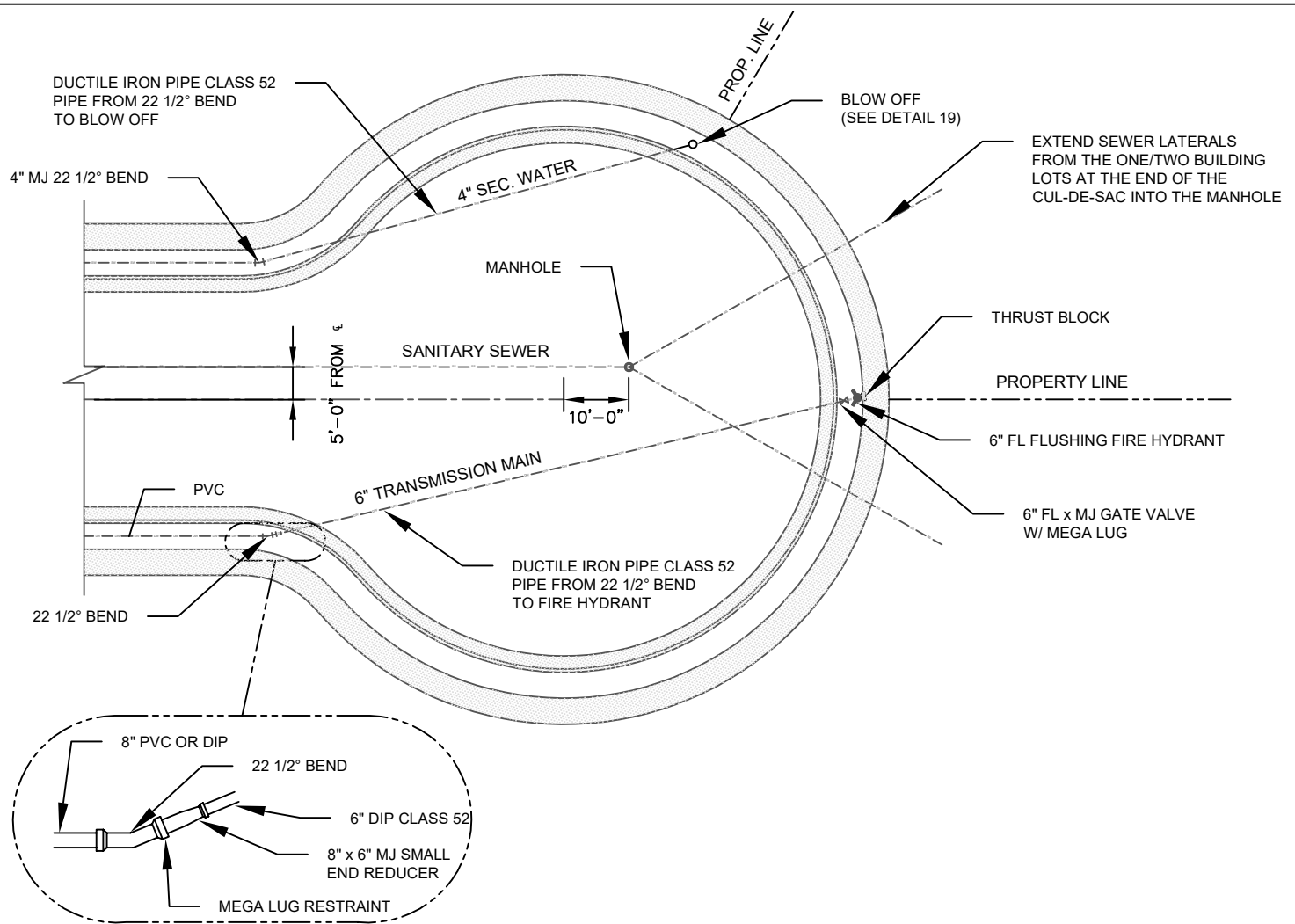
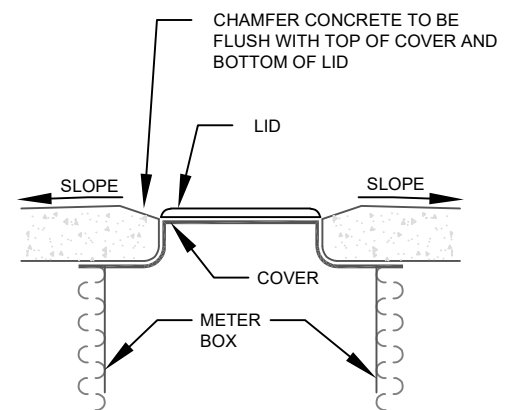
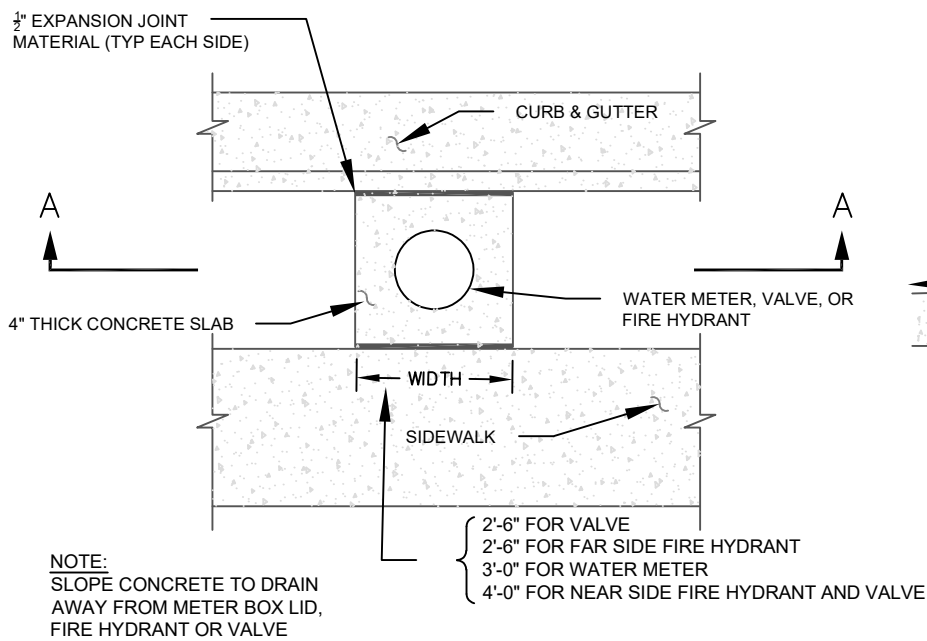


TYPICAL DETAILS INDEX

- 1) Typical Intersection and Cul-de-sac - Pipeline Placement (1A and 1B)
- 2) Standard Manhole
- 3) Sewer Cleanout
- 4) Sewer Service Lateral
- 5) Waterline Thrust Blocking
- 6) Gate Valve
- 7) Fire Hydrant
- 8) 3/4" Water Meter Service With Setter
- 9) 1" Water Meter Service
- 10) 1 1/2" and 2" Meter Vault
- 11) 3" Water Meter Vault
- 12) 4" Water Meter Vault
- 13) 8" and 10" Water Meter Vault
- 14) 6" and 8" Fire Flow Detector
- 15) Sample Vault
- 16) Oil and Grease Separator
- 17) Secondary Water Single Service Connection
- 18) Secondary Water 1 1/2" & 2" Meter Vault
- 19) Secondary Water 3", 4" or 6" Meter Vault
- 20) 4" Blow-off
- 21) 6" Blow-off
- 22) Culinary Water Air Vac Valve
- 23) Secondary Water Air Vac Valve
- 24) PRV Station
- 25) Sewer, Culinary Water, & Secondary Water Pipe Trench Cross Section
- 26) Pipeline Loop



CUL-DE-SAC DETAIL



SECTION A-A



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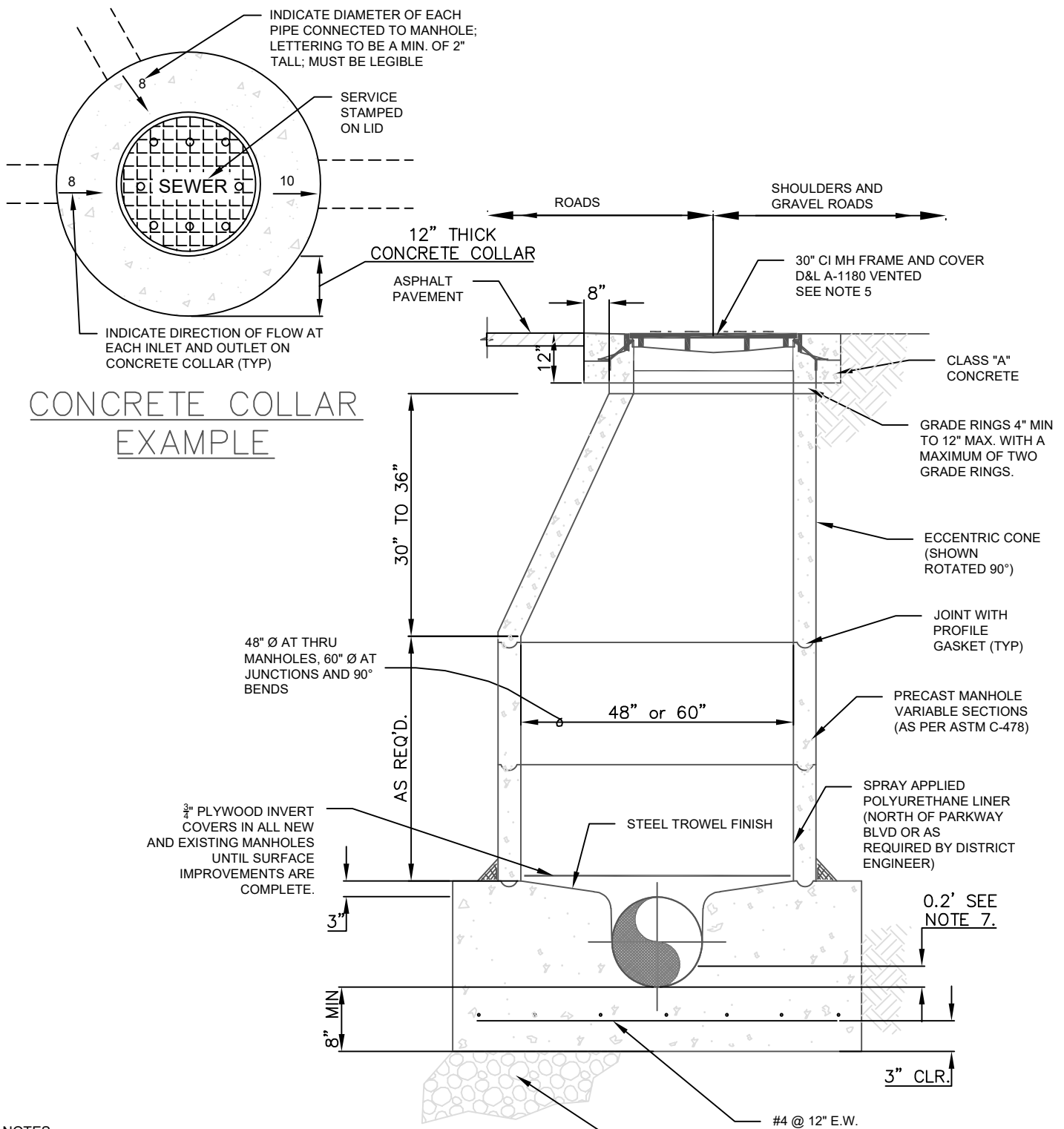
CULINARY, SECONDARY &
SEWER PLACEMENT DETAIL

DEPARTMENT

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1B

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NOTES:

1. LOCATE MANHOLE COVER ON DOWNSTREAM SIDE OF MANHOLE
2. SET MANHOLE FRAME IN GROUT
3. ALL JOINTS TO BE WATER TIGHT. EXTRA GROUTING & SEALING MAY BE REQUIRED BELOW WATER TABLE.
4. MANHOLE BASE AND 1ST SECTION OF MANHOLE TO BE FABRICATED AS AN INTEGRAL UNIT.
5. RING & COVER TO EXTEND 12" ABOVE FINISH GRADE FOR NONTRAVELED AREA. MATCH FINISHED ROADWAY GRADE IN TRAVELED AREAS.
6. FLEXIBLE PIPE JOINTS AT ALL CONNECTIONS TO BE T-LOCK OR RUBBER BOOT.
7. NEW SEWER MAINS OR LATERALS ENTERING A MANHOLE SHALL BE A MINIMUM OF 0.2' ABOVE THE FLOWLINE OF THE EXISTING PIPE AT THE POINT OF CONNECTION FOR LOW FLOW COLLECTION MAINS, THE ELEVATION SHALL MATCH THE HYDRAULIC GRADE LINES DETERMINED BY AN ENGINEER.

PRECAST MANHOLE DETAIL

N.T.S.



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STANDARD MANHOLE DETAIL

DEPARTMENT

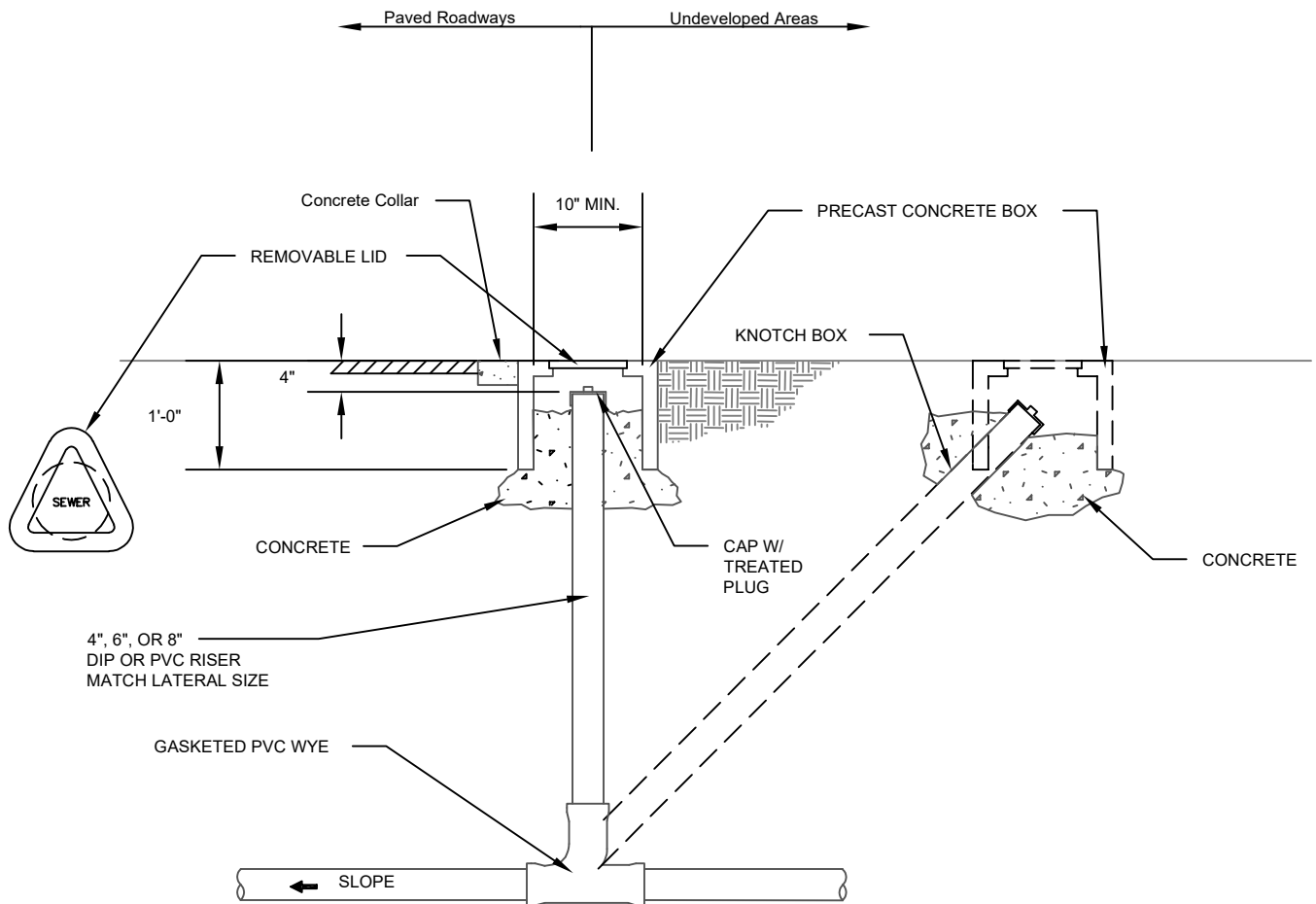
ENGINEERING

STANDARD DETAIL

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A SEWER CLEANOUT
- N.T.S.



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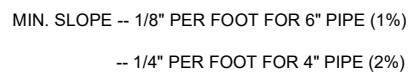
SEWER CLEANOUT

DEPARTMENT	
ENGINEERING	
STANDARD DETAIL	REVISION
3	2025

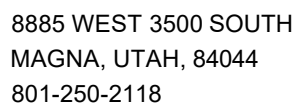
1. CLEANOUTS WILL BE REQUIRED WHERE SERVICE LATERALS EXCEED 50' FROM BUILDING TO PROPERTY LINE AND WHERE DEEMED NECESSARY BY THE INSPECTOR.
2. CONNECTIONS TO EXISTING MAINS SHALL BE SEWER SADDLE TYPE MACHINE CORE DRILLED AND GASKETED.
3. PREFERRED ARRANGEMENT: CENTERLINE OF WYE BRANCH TO BE PLACED IN UPPER THIRD OF MAIN.
4. CONCRETE THRUST BLOCKING ON ALL BENDS REQUIRED.



PLAN



ELEVATION



SEWER SERVICE LATERAL

DEPARTMENT

ENGINEERING

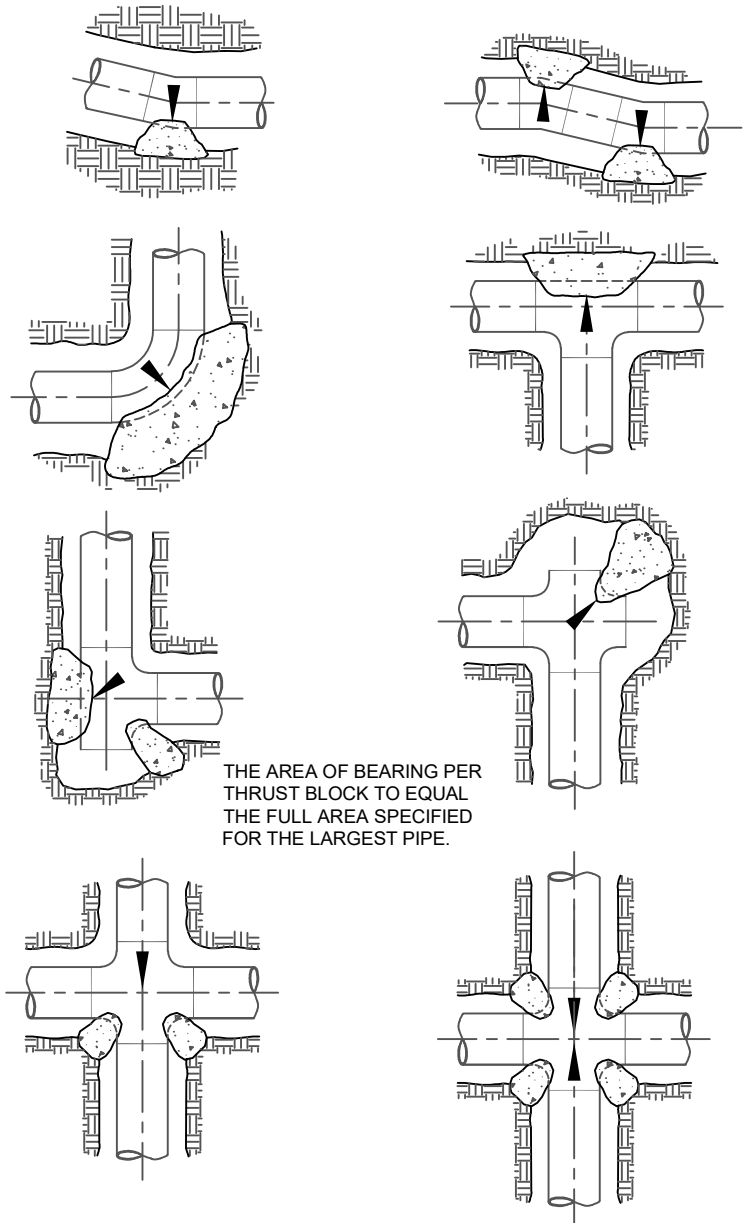
STANDARD DETAIL
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2025

NOTES:

1. ALL WORK MUST BE INSPECTED BY MAGNA WATER DISTRICT PRIOR TO BACKFILL.
2. THRUST BLOCKS MUST BE POURED AGAINST UNDISTURBED SOIL.
3. ALL PIPE JOINTS MUST BE LEFT ACCESSIBLE.
4. CONCRETE MUST BE ALLOWED TO CURE FOR 5 DAYS PRIOR TO PRESSURIZING WATER LINES.
5. CONCRETE MUST HAVE A MINIMUM OF 3000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
6. THRUST BLOCKS MUST BE POURED AS CLOSE AS POSSIBLE TO THE CONFIGURATION SHOWN.
7. BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 200 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS./SQ. FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESS. USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESS./200) X (2000/SOIL BEARING STRESS) X (TABLE VALUE).
8. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
9. BEARING AREAS FOR PIPE SIZES NOT SHOWN REQUIRE A SPECIAL DESIGN.

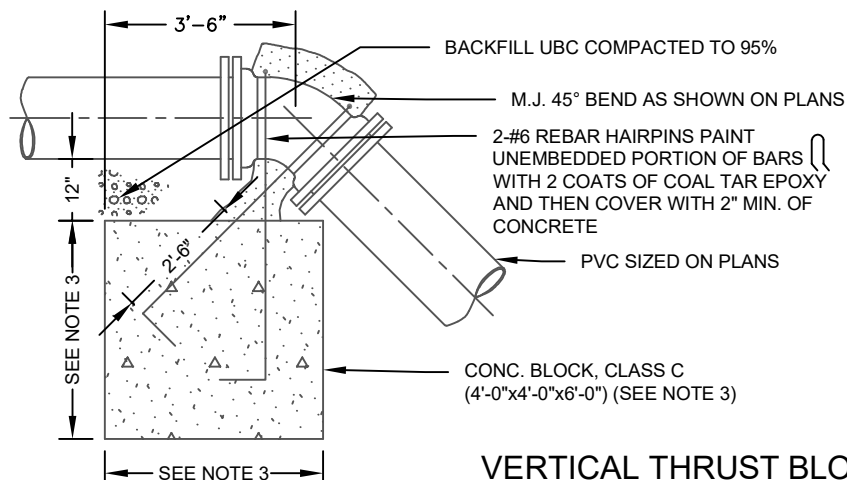
THE AREA OF BEARING PER THRUST BLOCK TO EQUAL 1/2 THE AREA SPECIFIED FOR THE LARGEST PIPE.

MINIMUM BEARING AREA IN SQ. FT.					
PIPE SIZE	TEES, VAL, DEAD ENDS	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	2	2	2	2	2
6"	3	4	3	2	2
8"	5	8	4	2	2
10"	8	12	6	4	3
12"	12	16	9	5	3
14"	19	26	14	7	4
16"	21	29	16	8	4



THE AREA OF BEARING PER THRUST BLOCK TO EQUAL THE FULL AREA SPECIFIED FOR THE LARGEST PIPE.

HORIZONTAL THRUST BLOCKING



VERTICAL THRUST BLOCKING

NOTES:

1. CONTRACTOR TO USE MECHANICAL THRUST RESTRAINT ON ALL VERTICAL BEND FITTINGS IN ADDITION TO THE AMOUNT OF CONCRETE SHOWN ABOVE.
2. CONTRACTOR SHALL USE THRUST RESTRAINT ON TWO HORIZONTAL JOINTS PRIOR TO AND TWO JOINTS FOLLOWING THE VERTICAL BEND.
3. DIMENSIONS OF CONCRETE BLOCK AS REQUIRED TO OBTAIN MINIMUM VOLUME OF 2 CUBIC YARDS



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WATERLINE THRUST BLOCKING

DEPARTMENT

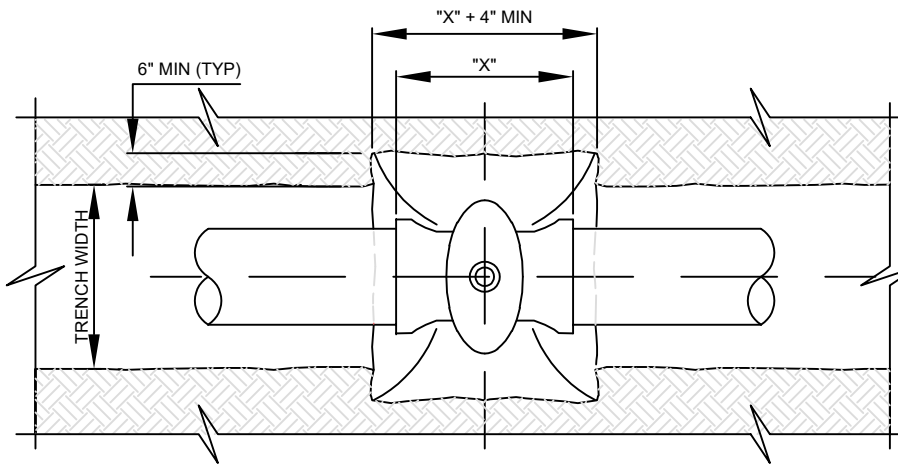
ENGINEERING

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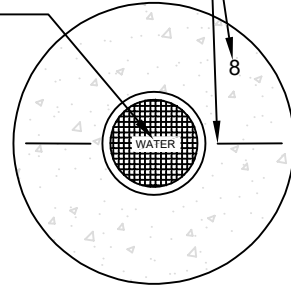
2025



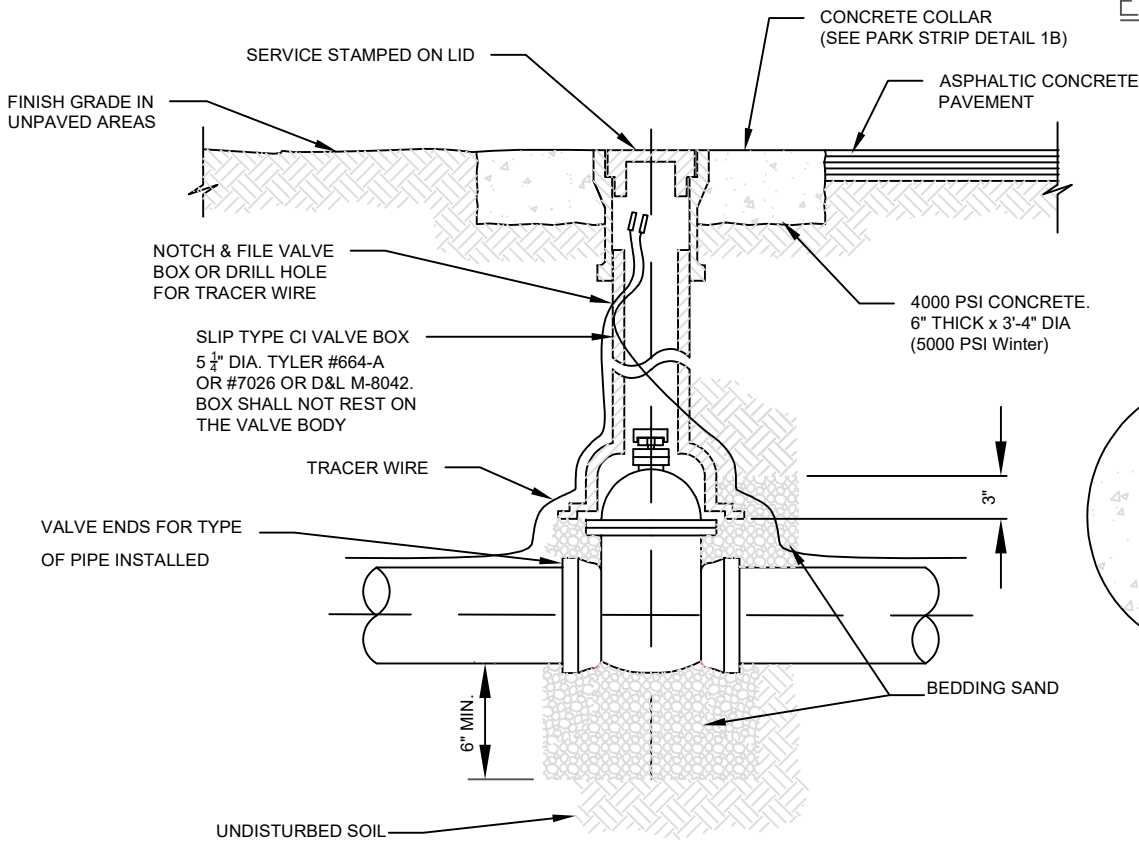
PLAN

INDICATE SIZE AND ORIENTATION OF MAIN ON CONCRETE COLLAR; MIN. OF 2\"/>

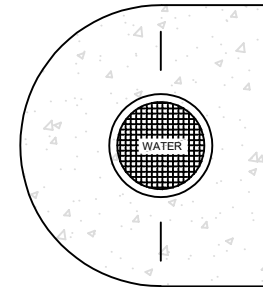
SERVICE STAMPED ON LID;
"WATER"
FOR CULINARY;
"IRRIGATION"
FOR SECONDARY;
"FIRE"
FOR HYDRANTS



CONCRETE COLLAR
EXAMPLE



SECTION



CONCRETE COLLAR
NEAR CURB
EXAMPLE

NOTES:

1. ALL BURIED VALVES SHALL BE PROVIDED W/ 2\"/>



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GATE VALVE

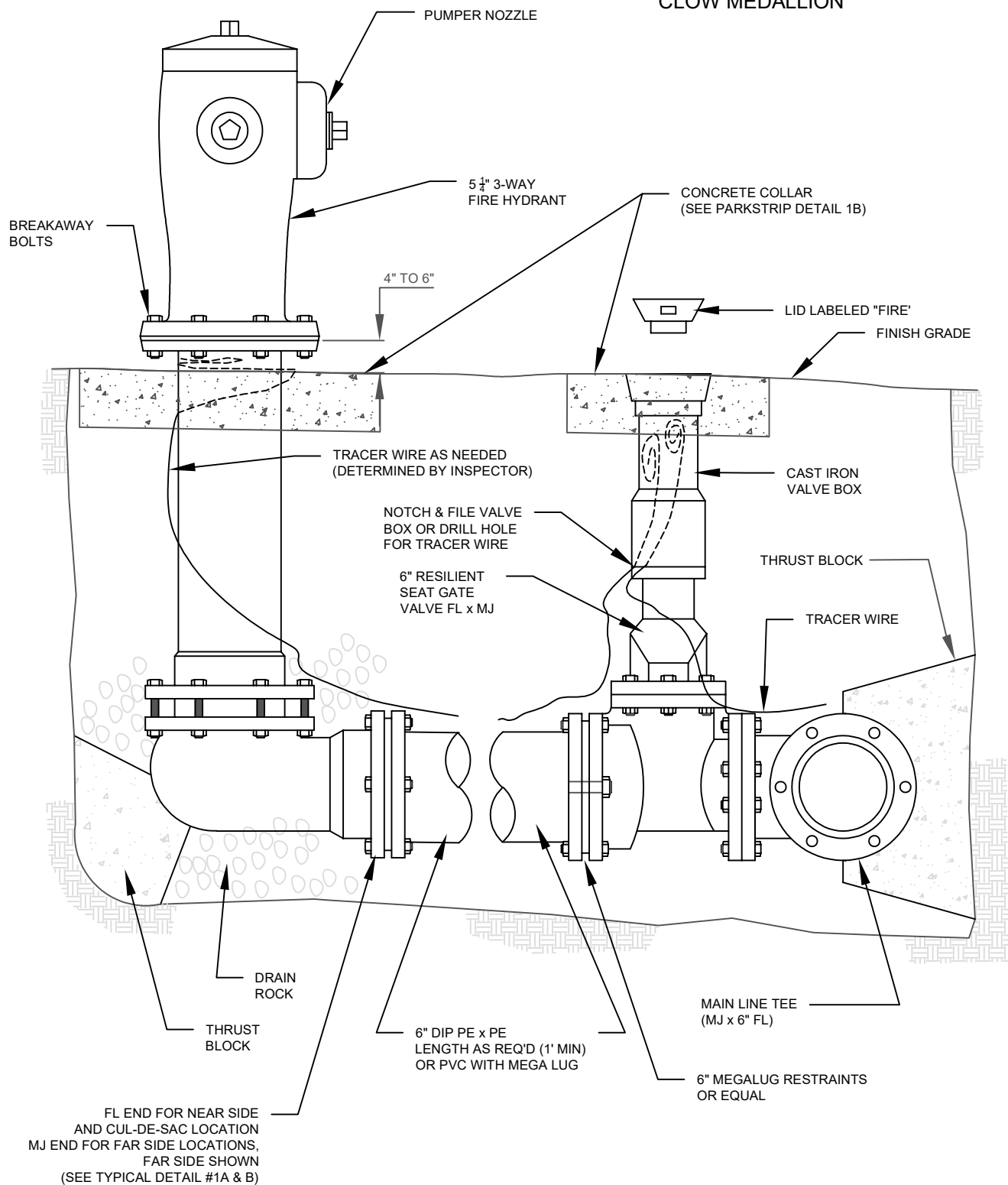
DEPARTMENT

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APPROVED MANUFACTURERS:
MUELLER SUPER CENTURION,
CLOW MEDALLION



NOTE: HYDRANT & FITTINGS
REQUIRE WAX TAPE & POLY WRAP.



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FIRE HYDRANT DETAIL

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RELOCATED METERS

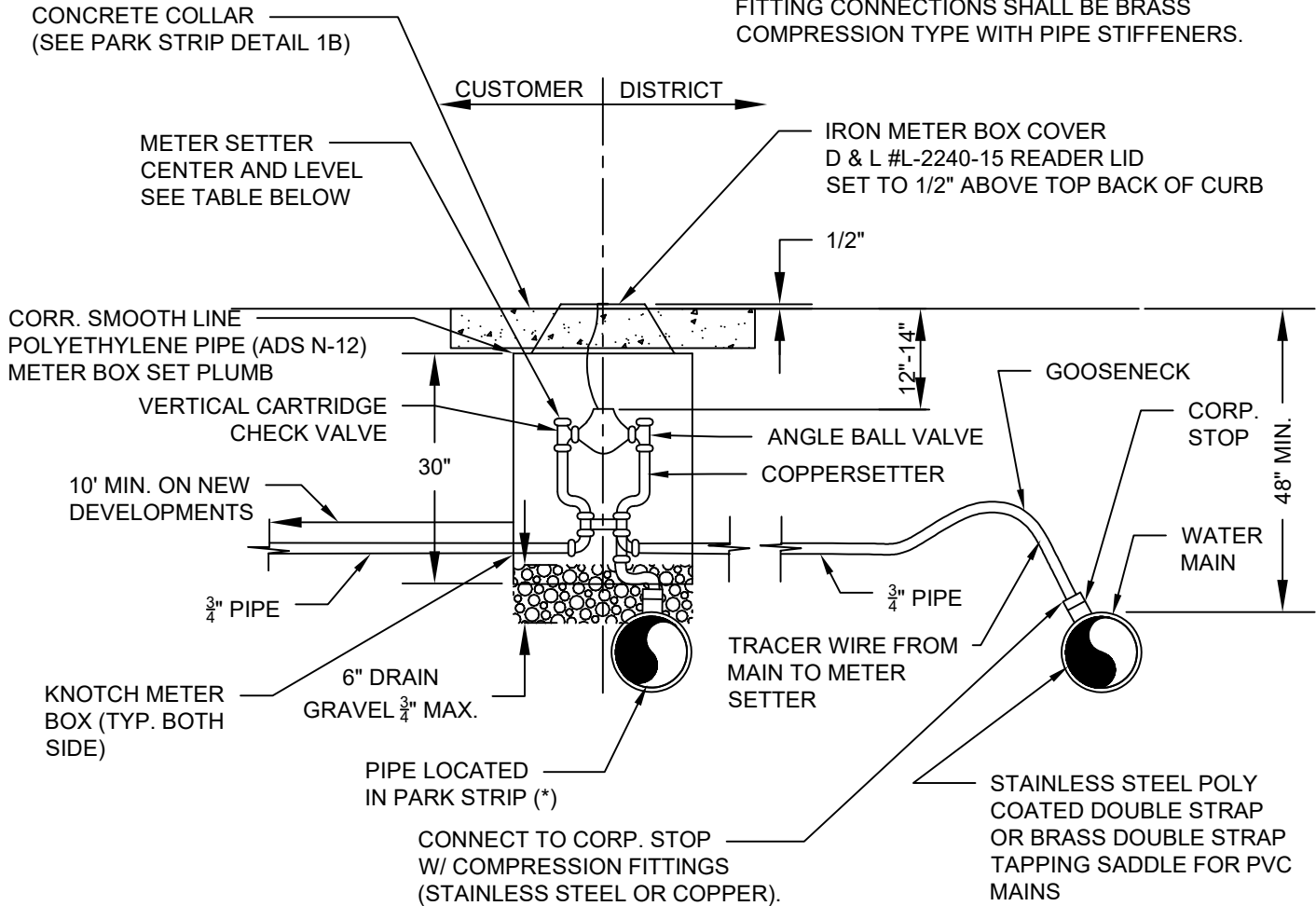
EXIST. LID, BOX, METER, AND SETTER TO BE RELOCATED TO LOCATIONS SHOWN ON PLANS. CONNECTION TO THE SUPPLY MAIN, CORP. STOP, AND SERVICE PIPING FROM THE MAIN TO THE METER, AND FROM THE METER TO THE OWNER'S PIPING TO BE PROVIDED BY THE CONTRACTOR MAKING SERVICE COMPLETE AND OPERATIONAL. AT THE OPTION OF THE DISTRICT NEW COMPONENTS OF THE LID, BOX, METER, OR SETTER MAY BE PROVIDED, IN WHICH THE NEW COMPONENTS SHALL BE USED AS PART OF THE RELOCATION CONNECTION.

NEW METERS

NEW METERS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS. THE LID, BOX, AND SETTER WILL BE PROVIDED BY THE CONTRACTOR. THE METER WILL BE PROVIDED BY THE DISTRICT. CONNECTION TO THE SUPPLY MAIN, CORP. STOP, AND SERVICE AND FROM THE METER TO 10'-0" ON TO THE OWNER'S PROPERTY SHALL BE PROVIDED BY THE CONTRACTOR

GENERAL NOTE

ALL SERVICE LINES 1" OR LESS SHALL USE SMOOTH WALL HDPE BLUE PIPE SDR 9 PE 3408. FITTING CONNECTIONS SHALL BE BRASS COMPRESSION TYPE WITH PIPE STIFFENERS.



WATER METER SETTER			
METER SIZE	RISER HEIGHT	MUELLER MODEL #	METER BOX DIAMETER
5/8" x 3/4"	18"	B-2470-6AN	18"
3/4" x 3/4"	18"	B-2470-6AN	18"



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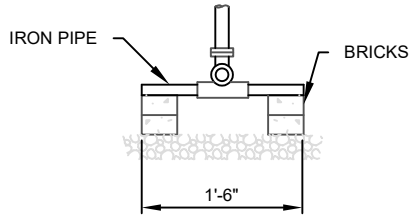
3/4" WATER METER SERVICE

DEPARTMENT

ENGINEERING

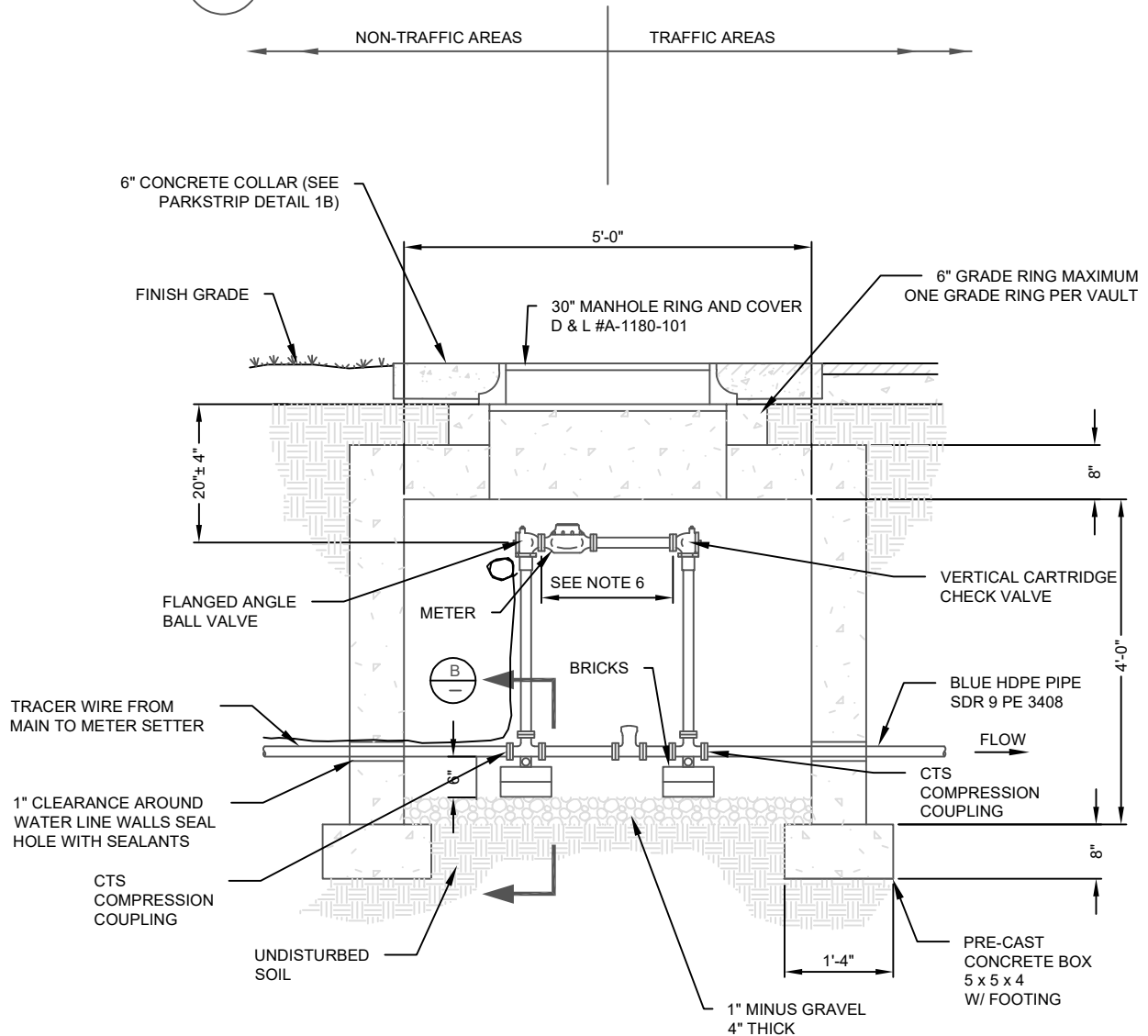
STANDARD DETAIL
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NOTES:

1. ALL WORK MUST BE INSPECTED BY MAGNA WATER DISTRICT PRIOR TO BACKFILL.
2. CENTER MANHOLE OVER THE METER.
3. BYPASS VALVE TO BE LEFT IN THE OFF POSITION & SEALED BY MAGNA WATER DISTRICT.
4. METER SUPPLIED BY MAGNA WATER DISTRICT.
5. METER LAYING LENGTH DETERMINED BY MAGNA WATER DISTRICT.
6. 1 1/2" DISK METER = 13 1/4"
1 1/2" TURBINE METER = 13 1/4"
2" DISK METER = 17 1/4"
2" TURBINE METER = 17 1/4"



WATER METER SETTER		
METER SIZE	FORD MODEL #	MUELLER MODEL #
1 1/2"	VBB76-24B-11-66x13.25	B-2423
2"	VBB77-24B-11-77x17.25	B-2423



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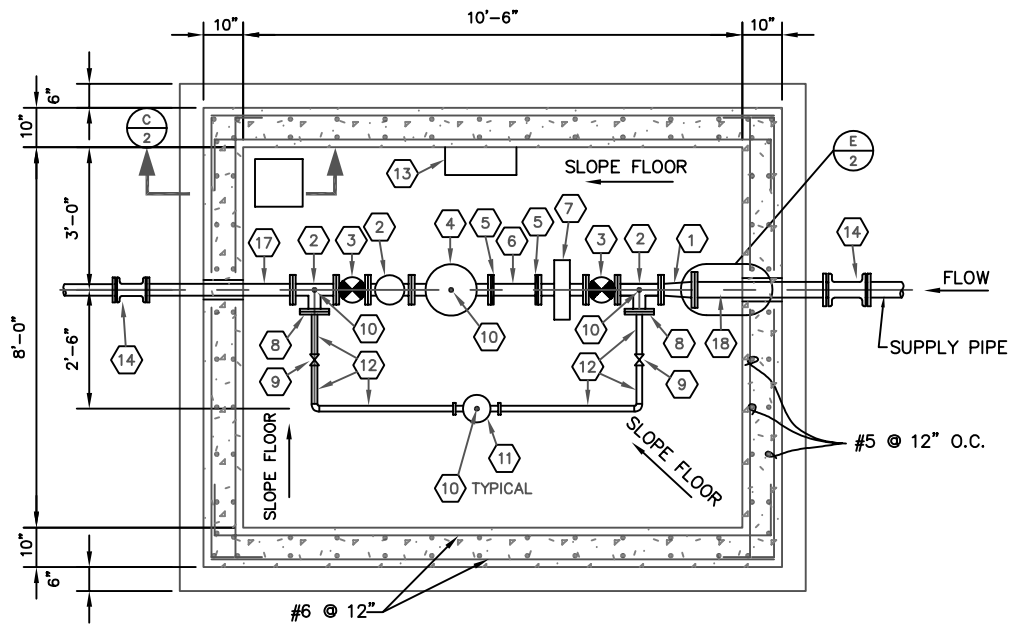
1 1/2" & 2" METER VAULT

DEPARTMENT

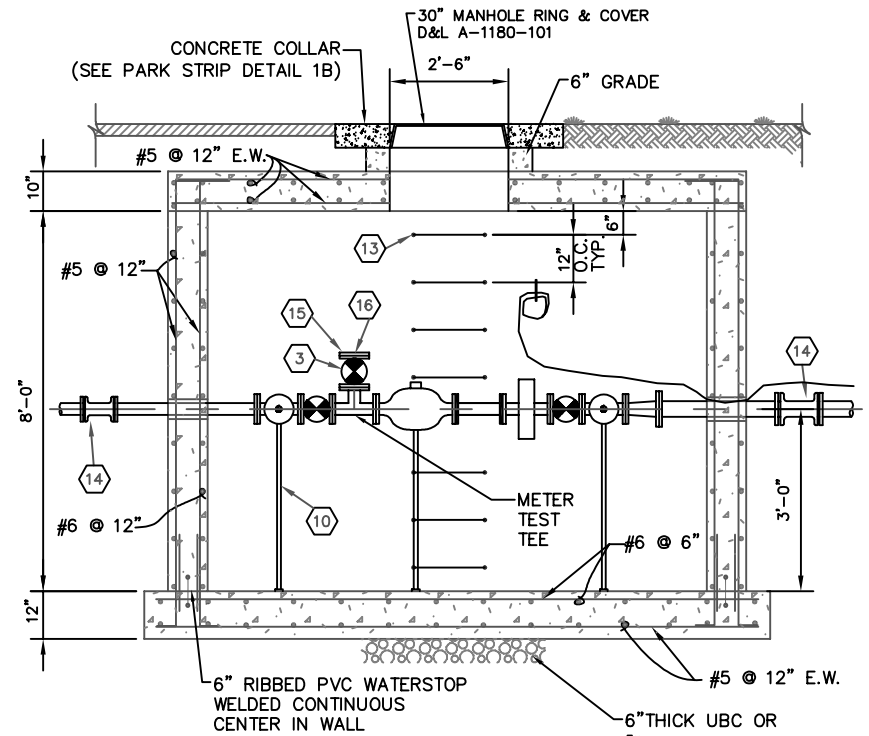
ENGINEERING

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A METER VAULT PLAN VIEW
SCALE: 3/8" = 1'-0"



B PROFILE VIEW
SCALE: 3/8" = 1'-0"

MARK	QUANTITY	DESCRIPTION
1	1	4" x 3" FL REDUCER
2	3	3" FL TEE
3	3	3" FL BALL VALVE
4	1	METER BY MAGNA WATER DISTRICT
5	2	3" VICTAULIC FLANGE ADAPTOR
6	1	3" x 1'-0" LONG GROOVED END DI PIPE (CLASS 55 MIN.)
7	1	3" FL PLATE STRAINER BY MAGNA WATER DISTRICT
8	2	3" FL x 1 1/2" THREADED
9	2	1 1/2" THREADED BALL VALVE

MARK	QUANTITY	DESCRIPTION
10	4	PIPE SUPPORT
11	1	1 1/2" FL BYPASS METER BY MAGNA WATER DISTRICT
12	-	1 1/2" COPPER PIPE
13	-	POLYPROPYLENE MANHOLE STEPS
14	2	MJ SOLID SLEEVES W/ MEGA LUG RESTRAINTS
15	1	3" FL x 3" THREADED
16	1	3" THREADED BRASS PLUG
17	1	3" FL x PE DI PIPE
18	1	4" FL x PE DI PIPE

NOTE:
CAST-IN-PLACE BOX SHOWN. PRECAST BOX
ALTERNATE SUBJECT TO FOLLOWING:

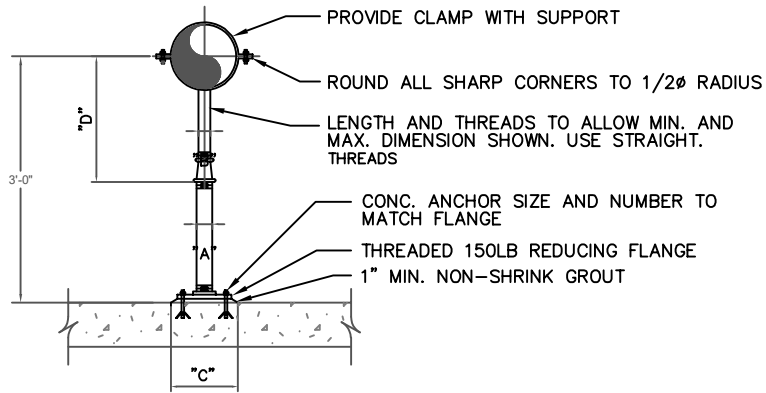
1. H-20 LOADING
2. SUBMERGENCE DEPTH OF 8 FEET.
3. NO HORIZONTAL JOINTS.
THROUGH THE PIPE OPENINGS.
4. WATER STOP @ WALL/FLOOR JOINT.



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3-INCH WATER METER VAULT

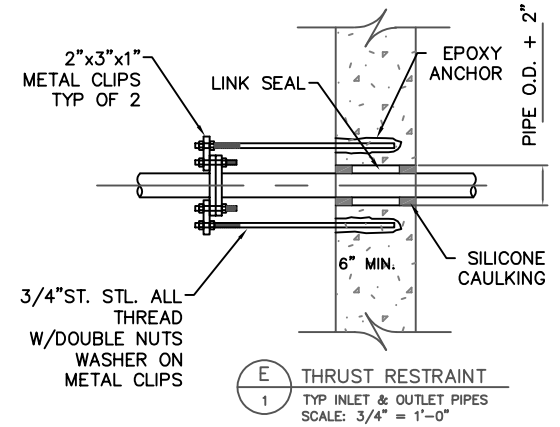
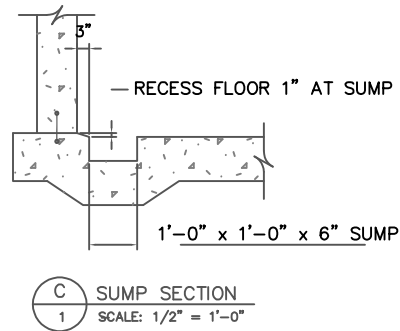
DEPARTMENT		
ENGINEERING		
STANDARD DETAIL 11	REVISION 2025	DRAWING NO. 1 OF 2



NOTES:

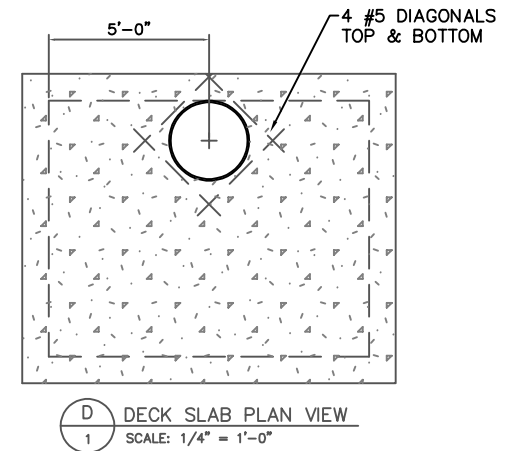
1. HOT DIP GALVANIZE AFTER FABRICATION.
2. PIPE SHALL BE SCHEDULE 40.

(F) 1 ADJUSTABLE PIPE SUPPORT
N.T.S.



ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE					
DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D	
				MINIMUM	MAXIMUM
*2 1/2	2 1/2	1 1/2	9	8	13
3	2 1/2	1 1/2	9	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	9	8 1/2	13 1/2
4	3	2 1/2	9	9 1/2	14
6	3	2 1/2	9	10 1/2	15 1/2
8	3	2 1/2	9	11 1/2	16 1/2
10	3	2 1/2	9	13 1/2	18 1/2
12	3	2 1/2	9	15	19 1/2

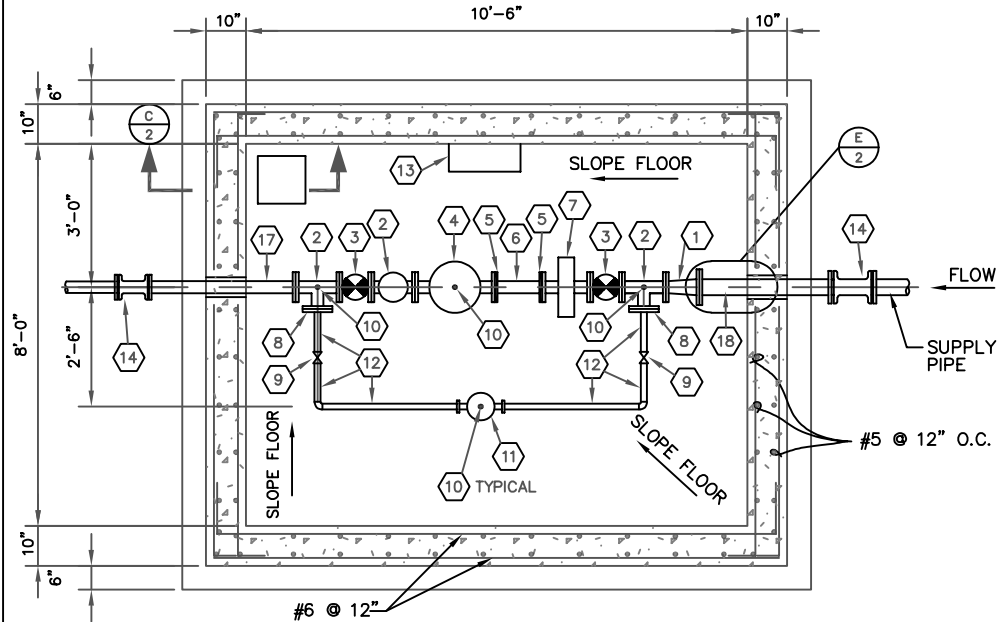
* USE 2 1/2" SUPPORTS FOR PIPE LESS THAN 2 1/2" Ø



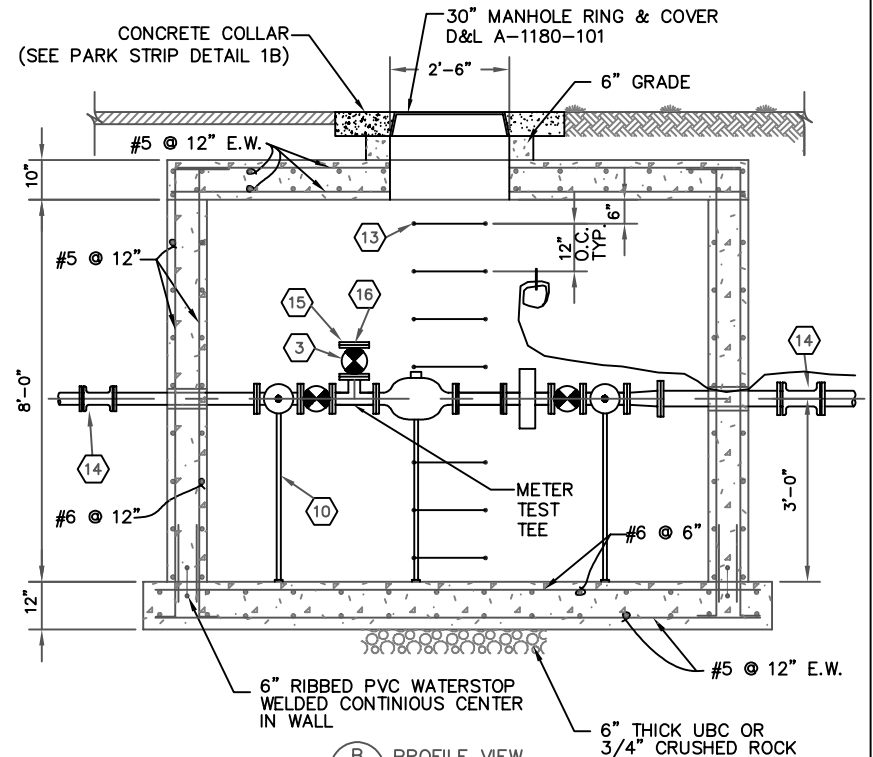
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3-INCH WATER
METER VAULT

DEPARTMENT		
ENGINEERING		
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11	2025	2 OF 2



A METER VAULT PLAN VIEW
SCALE: 3/8" = 1'-0"



B PROFILE VIEW
SCALE: 3/8" = 1'-0"

MARK	QUANTITY	DESCRIPTION
1	1	FL REDUCER IF REQ'D.
2	3	4" FL TEE
3	3	4" FL RESILIANT WEDGE GATE VALVE
4	1	METER BY MAGNA WATER DISTRICT
5	2	4" VICTAULIC FLANGE ADAPTOR
6	1	4" x 1'-0" LONG GROOVED END DI PIPE (CLASS 55 MIN.)
7	1	4" FL PLATE STRAINER BY MAGNA WATER DISTRICT
8	2	4" FL x 1 1/2" THREADED
9	2	1 1/2" THREADED BALL VALVE

MARK	QUANTITY	DESCRIPTION
10	4	PIPE SUPPORT
11	1	1 1/2" FL BYPASS METER BY MAGNA WATER DISTRICT
12	-	1 1/2" COPPER PIPE
13	-	POLYPROPYLENE MANHOLE STEPS
14	2	MJ SOLID SLEEVES W/ MEGA LUG RESTRAINTS
15	1	4" FL x 4" THREADED
16	1	4" THREADED BRASS PLUG
17	1	4" FL x PE DI PIPE
18	1	4" FL x PE DI PIPE

NOTE:

CAST-IN-PLACE BOX SHOWN. PRECAST BOX ALTERNATE SUBJECT TO FOLLOWING:

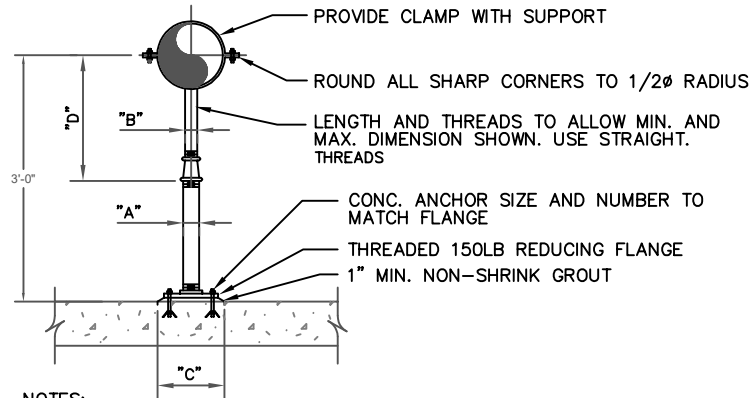
1. H-20 LOADING
2. SUBMERGENCE DEPTH OF 8 FEET.
3. NO HORIZONTAL JOINTS. THROUGH THE PIPE OPENINGS.
4. WATER STOP @ WALL/FLOOR JOINT.



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4-INCH WATER METER VAULT

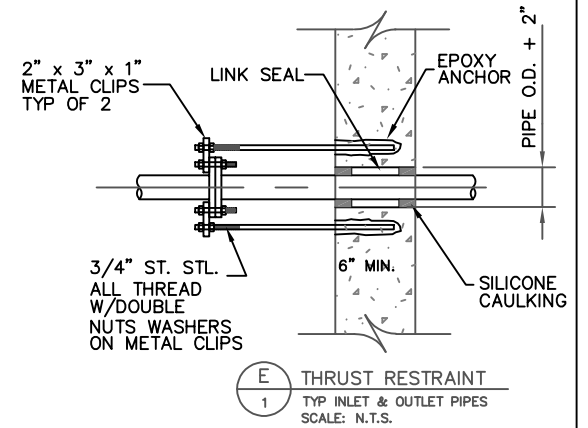
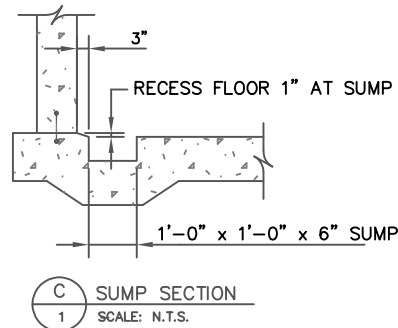
DEPARTMENT		
ENGINEERING		
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NOTES:

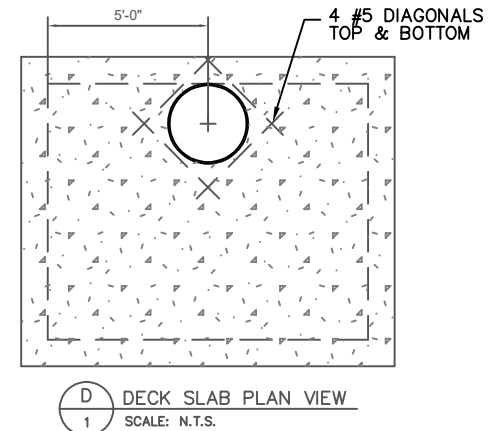
1. HOT DIP GALVANIZE AFTER FABRICATION.
2. PIPE SHALL BE SCHEDULE 40.

F
1 ADJUSTABLE PIPE SUPPORT
N.T.S.



ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE					
DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D	
				MINIMUM	MAXIMUM
*2 1/2	2 1/2	1 1/2	9	8	13
3	2 1/2	1 1/2	9	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	9	8 1/2	13 1/2
4	3	2 1/2	9	9 1/2	14
6	3	2 1/2	9	10 1/2	15 1/2
8	3	2 1/2	9	11 1/2	16 1/2
10	3	2 1/2	9	13 1/2	18 1/2
12	3	2 1/2	9	15	19 1/2

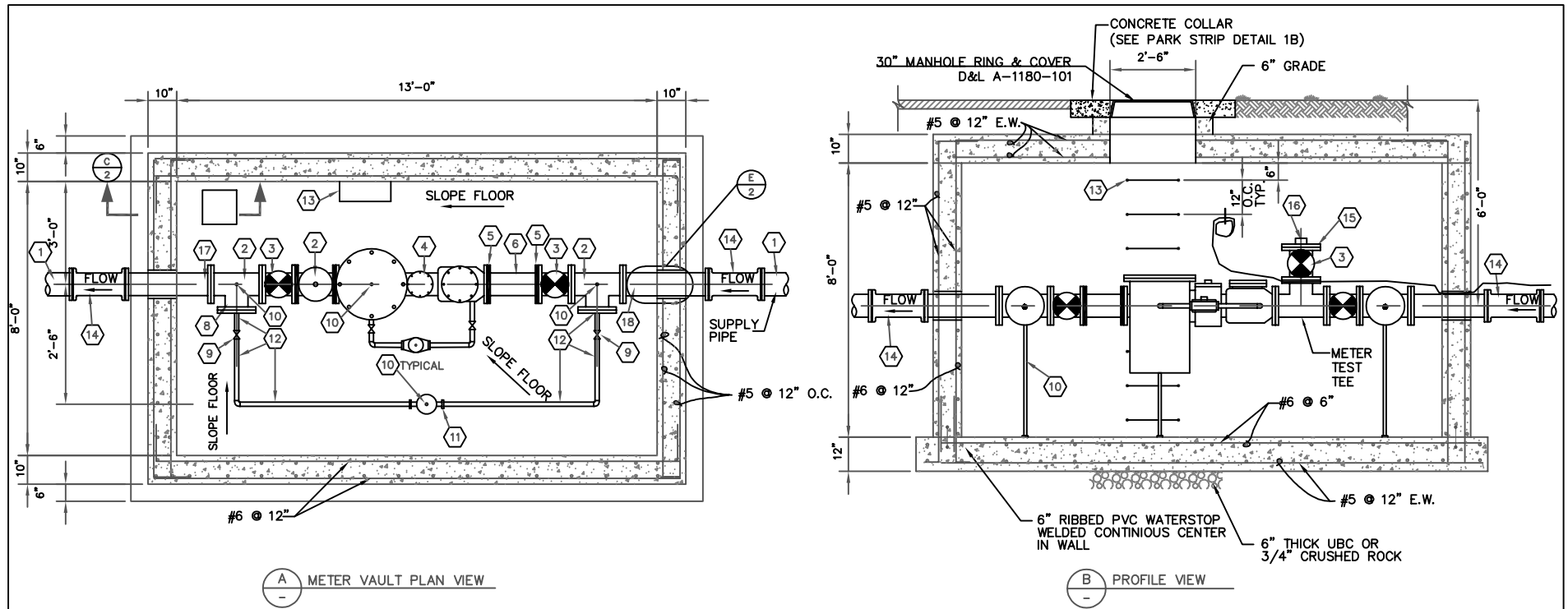
* USE 2 1/2" SUPPORTS FOR PIPE LESS THAN 2 1/2"Ø



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4-INCH WATER
METER VAULT

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ENGINEERING		
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MARK	QUANTITY	DESCRIPTION
1	2	FL REDUCER IF REQ'D.
2	3	8" OR 10" FL TEE
3	3	8" OR 10" FL GATE VALVE
4	1	METER BY MAGNA WATER DISTRICT
5	2	8" OR 10" VICTAULIC FLANGE ADAPTOR
6	1	8" OR 10" x 1'-0" LONG GROOVED END DI PIPE (CLASS 55 MIN.)
7	1	NOT USED
8	2	8" OR 10" FL x 1 1/2" THREADED
9	2	1 1/2" THREADED BALL VALVE

MARK	QUANTITY	DESCRIPTION
10	4	PIPE SUPPORT
11	1	1 1/2" FL BYPASS METER BY MAGNA WATER DISTRICT
12	-	1 1/2" COPPER PIPE
13	-	POLYPROPYLENE MANHOLE STEPS
14	2	MJ SOLID SLEEVES W/ MEGA LUG RESTRAINTS
15	1	8" OR 10" FL x 4" THREADED
16	1	4" THREADED BRASS PLUG
17	1	8" OR 10" FL x PE DI PIPE
18	1	8" OR 10" FL x PE DI PIPE

NOTE:

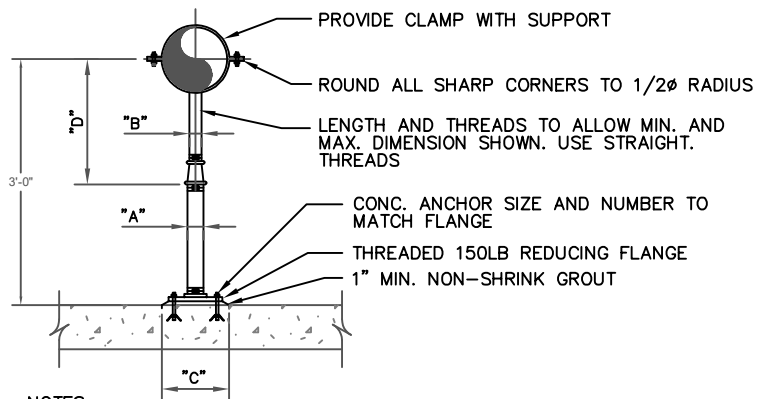
- CAST-IN-PLACE BOX SHOWN. PRECAST BOX ALTERNATE SUBJECT TO FOLLOWING:
1. H-20 LOADING
 2. SUBMERGENCE DEPTH OF 8 FEET.
 3. NO HORIZONTAL JOINTS. THROUGH THE PIPE OPENINGS.
 4. WATER STOP @ WALL/FLOOR JOINT.



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8 & 10-INCH WATER METER VAULT

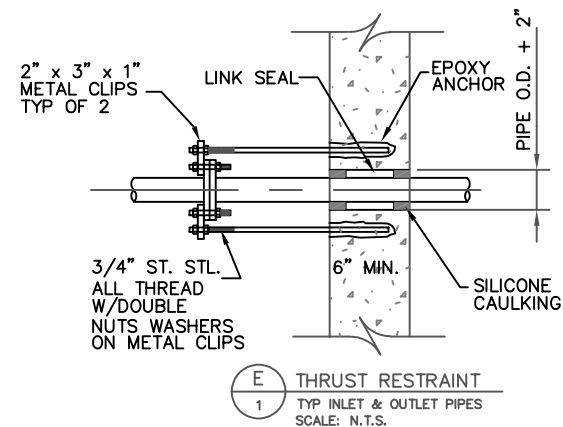
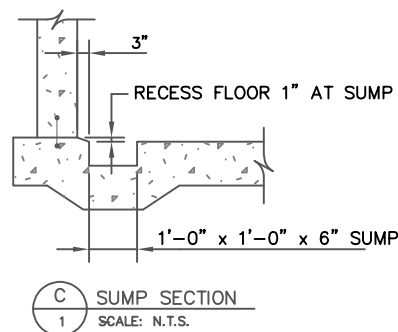
DEPARTMENT		
ENGINEERING		
STANDARD DETAIL	REVISION	DRAWING NO.
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NOTES:

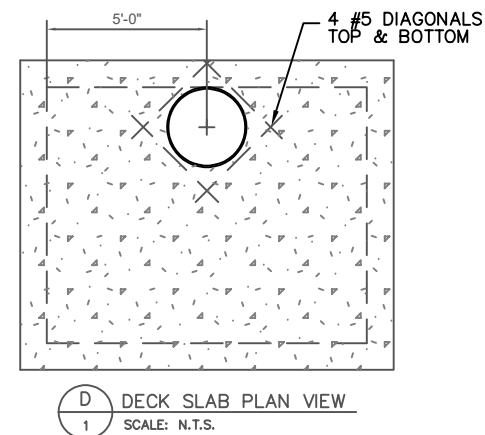
1. HOT DIP GALVANIZE AFTER FABRICATION.
2. PIPE SHALL BE SCHEDULE 40.

F
1 ADJUSTABLE PIPE SUPPORT
N.T.S.



ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE					
DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D	
				MINIMUM	MAXIMUM
*2 1/2	2 1/2	1 1/2	9	8	13
3	2 1/2	1 1/2	9	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	9	8 1/2	13 1/2
4	3	2 1/2	9	9 1/2	14
6	3	2 1/2	9	10 1/2	15 1/2
8	3	2 1/2	9	11 1/2	16 1/2
10	3	2 1/2	9	13 1/2	18 1/2
12	3	2 1/2	9	15	19 1/2

* USE 2 1/2" SUPPORTS FOR PIPE LESS THAN 2 1/2"Ø



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8 & 10-INCH WATER METER VAULT

DEPARTMENT		
ENGINEERING		
STANDARD DETAIL	REVISION	DRAWING NO.
13	2025	2 OF 2

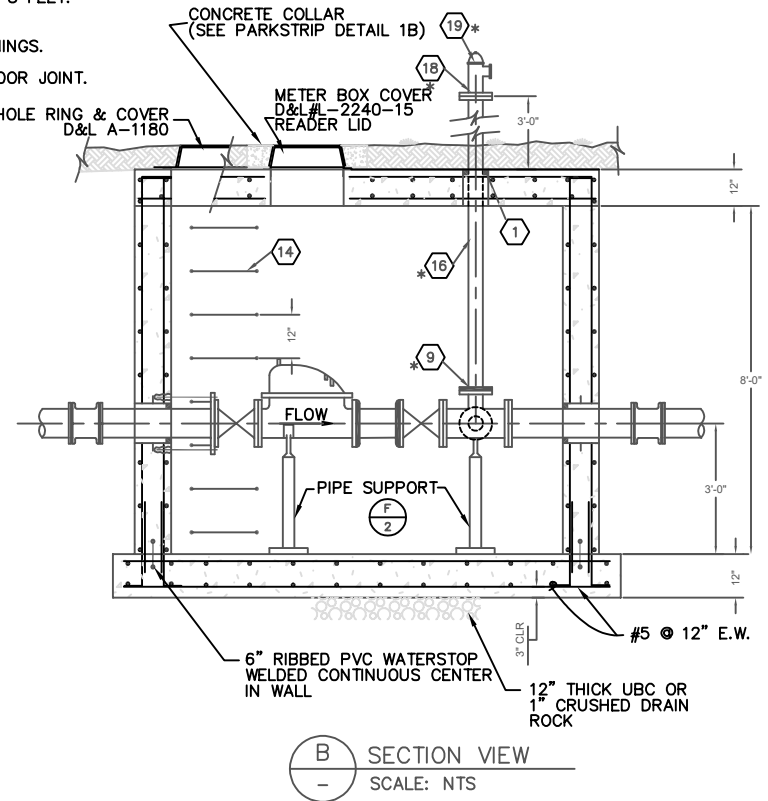
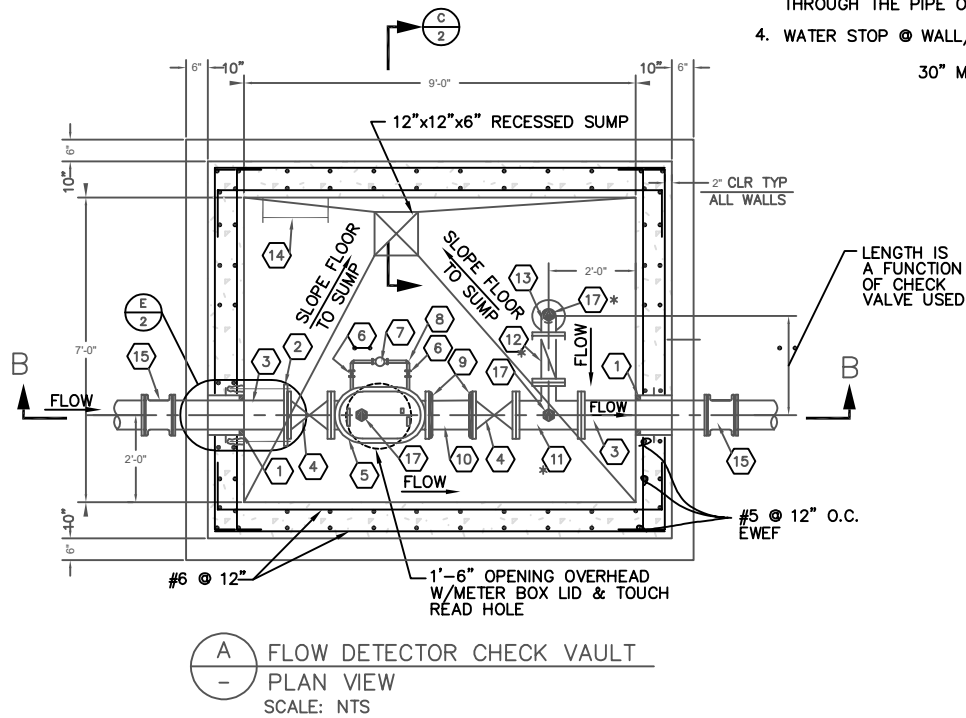
NOTES:

VAULT FITTINGS MAY BE 6" OR 8"
 FITTINGS WITH "*" REQ'D. PER
 FIRE MARSHALS REQUEST
 IF NOT REQ'D. INSTALL BLIND FLANGE
 DESIGN CRITERIA
 -LOADING: H-20
 -WATER LEVEL @ SURFACE

NOTE:

CAST-IN-PLACE BOX SHOWN. PRECAST BOX
 ALTERNATE SUBJECT TO FOLLOWING:

1. H-20 LOADING
2. SUBMERGENCE DEPTH OF 8 FEET.
3. NO HORIZONTAL JOINTS. THROUGH THE PIPE OPENINGS.
4. WATER STOP @ WALL/FLOOR JOINT.



MARK	DESCRIPTION
1	GALV. PIPE SLEEVE WITH 3" SEEP RING AND "LINK SEAL"
2	THRUST RESTRAINTSEE (E)
3	FLxPE PIPE
4	GATE VALVE FLANGED
5	DETECTOR CHECK VALVE FLANGED, BRONZE FITTED W/ BY PASS METER
6	3/4" BALL VALVE SCREWED
7	3/4" SERVICE METER W/TOUCH READ (BY DISTRICT)
8	3/4" BRASS PIPING SCREWED
9	GROOVED FLANGED ADAPTOR, OR BLIND FLANGE

MARK	DESCRIPTION
10	GROOVED END PIPE
11	8"x8"x4" OR 6"x6"x4" FL TEE
12	4" SWING CHECK VALVE FLANGED (BRONZED FITTED)
13	FL BASE 90° BEND
14	POLYPROPYLENE MH STEPS @ 12" O.C.

MARK	DESCRIPTION
15	MJ SOLID SLEEVE W/MEGA LUG RESTRAINTS
16	4" FLxGROOVED END PIPE
17	PIPE SUPPORT
18	4" BLIND FLANGE W/THREADED HOLE & THREADED NIPPLE
19	2 1/2" x 2 1/2" x 4" BRONZE 90° FIRE DEPARTMENT CONNECTION



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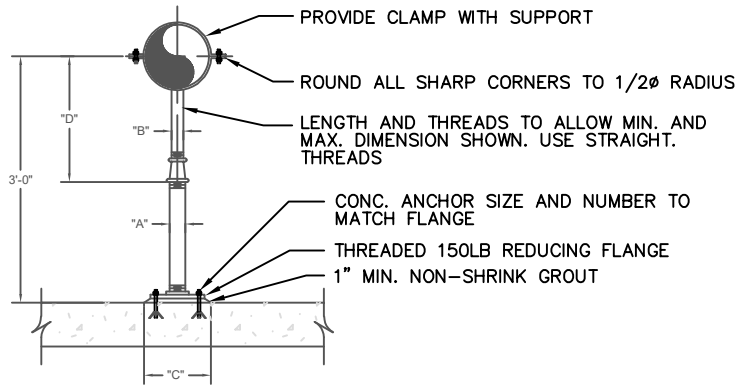
6" & 8" FIRE FLOW DETECTOR

DEPARTMENT
ENGINEERING

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REVISION
2025

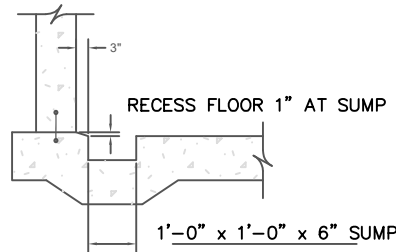
DRAWING NO.
1 OF 2



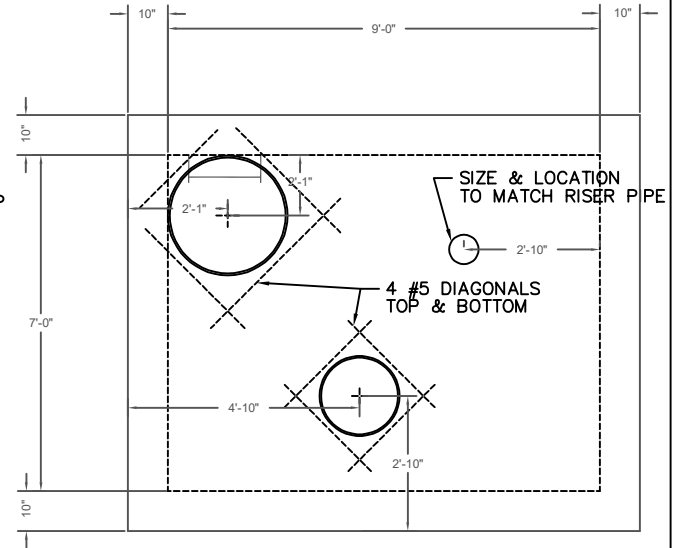
NOTES:

1. HOT DIP GALVANIZE AFTER FABRICATION.
2. PIPE SHALL BE SCHEDULE 40.

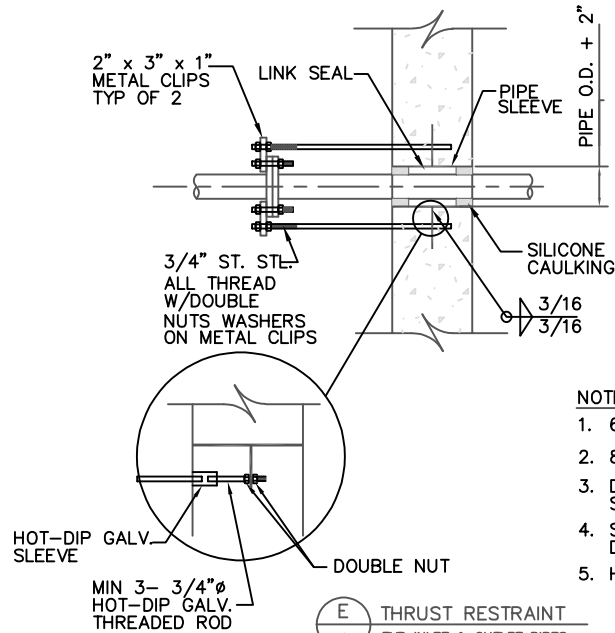
(F) ADJUSTABLE PIPE SUPPORT
1 N.T.S.



(C) SUMP SECTION
1 SCALE: 1/2" = 1'-0"



(D) DECK SLAB PLAN VIEW
1 SCALE: 1/4" = 1'-0"



(E) THRUST RESTRAINT
1 TYP INLET & OUTLET PIPES
SCALE: 3/4" = 1'-0"

NOTES:

1. 6" & SMALLER = SCH 40 STL PIPE
2. 8" & SMALLER = 1/4" THICK STL PIPE
3. DIA. OF SLEEVE AS PER LINK SEAL MANUFACTURE REC.
4. SEEP RING = 1/4" THICK STL PLATE DIA. AS REQ'D.
5. HOT-DIP GALVANIZE SLEEVE AFTER FABRICATION

ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE					
DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D	
				MINIMUM	MAXIMUM
*2 1/2	2 1/2	1 1/2	9	8	13
3	2 1/2	1 1/2	9	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	9	8 1/2	13 1/2
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8	3	2 1/2	9	11 1/2	16 1/2
10	3	2 1/2	9	13 1/2	18 1/2
12	3	2 1/2	9	15	19 1/2

* USE 2 1/2" SUPPORTS FOR PIPE LESS THAN 2 1/2"Ø



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6" & 8" FIRE FLOW DETECTOR

DEPARTMENT

ENGINEERING

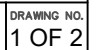
STANDARD DETAIL
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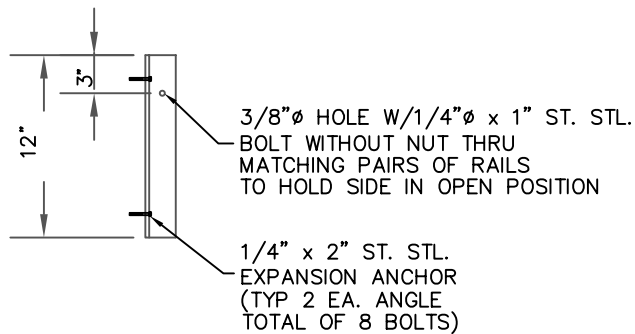
REVISION
2025

DRAWING NO.
2 OF 2

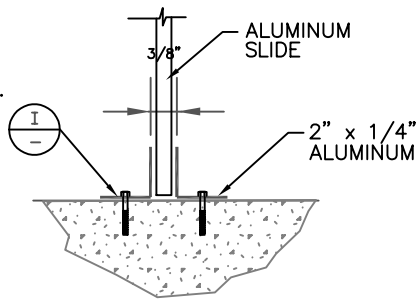


- SECTION
N.T.S.

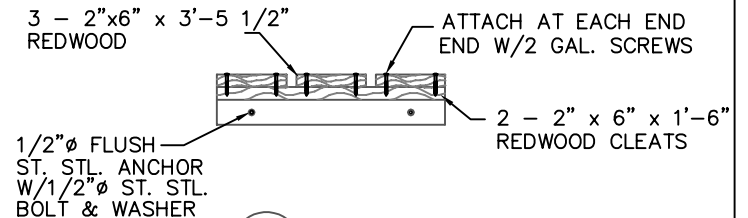




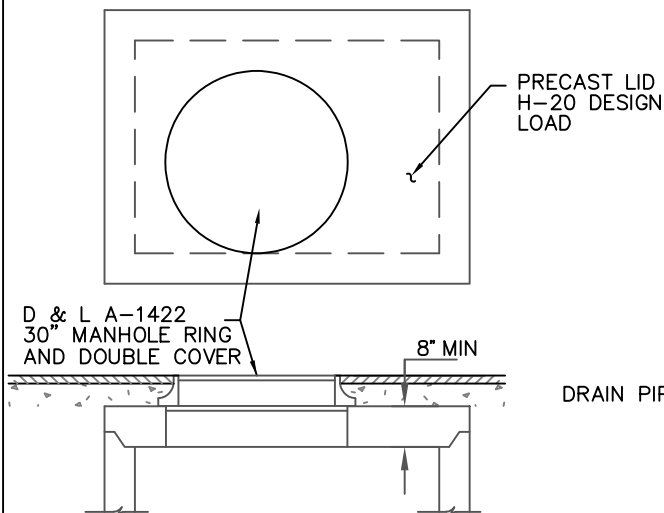
I ALUMINUM SLIDE RAILS
1 N.T.S. (TYP OF 4)



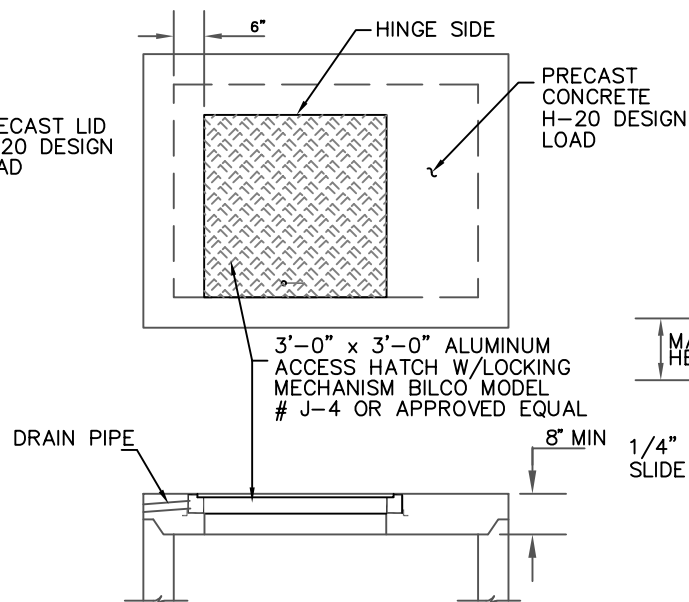
H DETAIL
1 N.T.S.



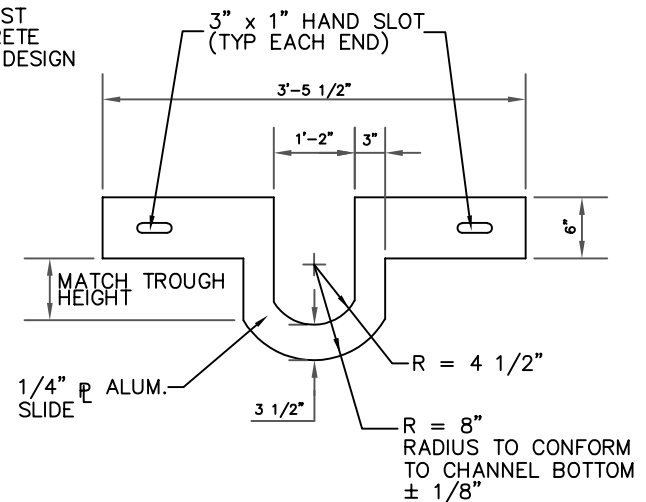
F SECTION
1 N.T.S.



J TRAVELED LID
1 N.T.S.



K NON TRAVELED LID
1 N.T.S.



G ALUMINUM SLIDE
1 N.T.S.



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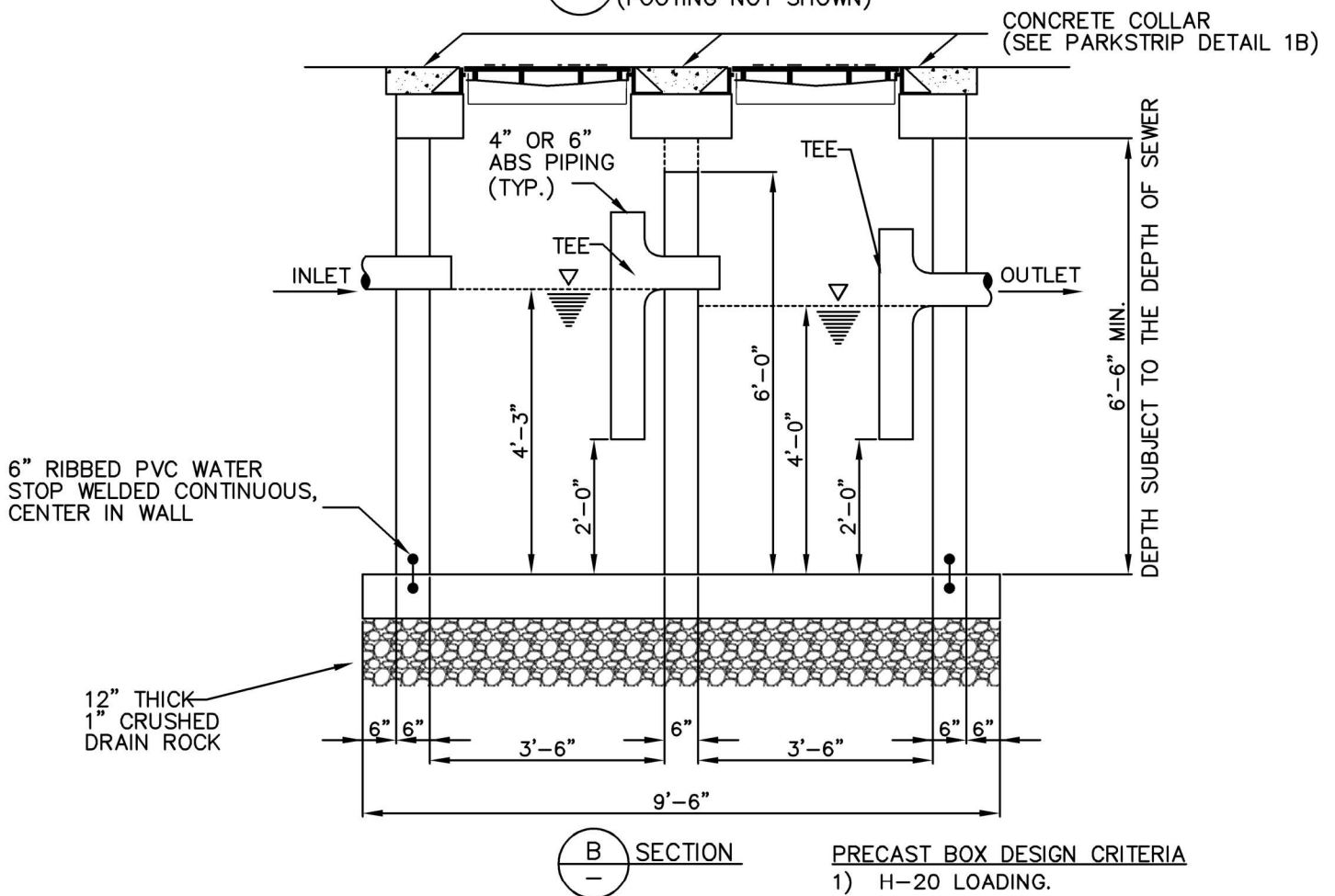
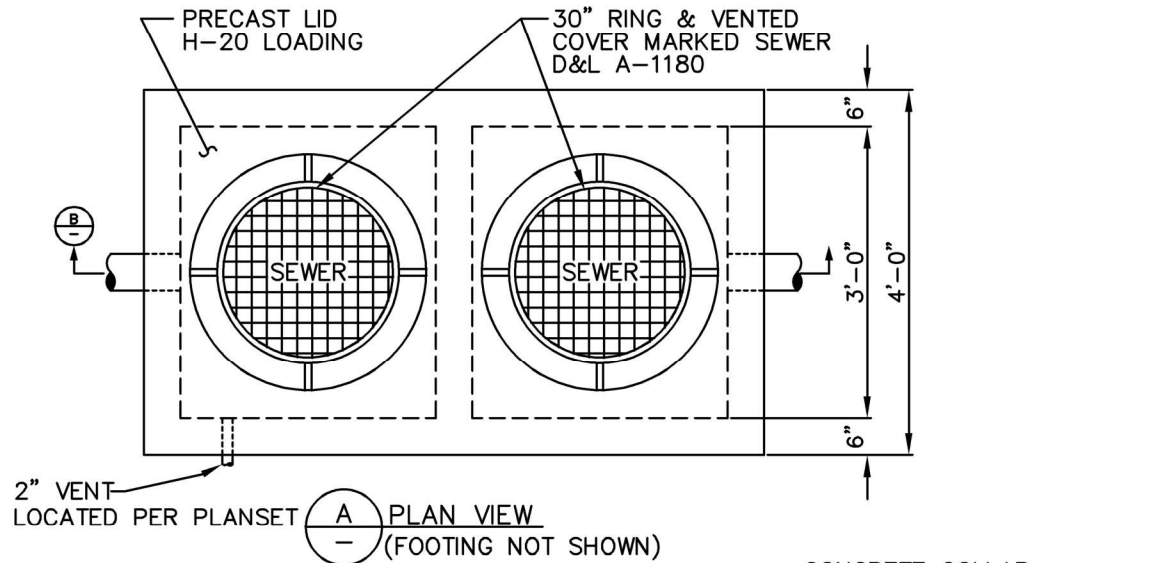
SAMPLE VAULT

DEPARTMENT
ENGINEERING

STANDARD DETAIL
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2025

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PRECAST BOX DESIGN CRITERIA

- 1) H-20 LOADING.
- 2) WALLS SUBJECT TO SUBMERGENCE DEPTH OF 8 FEET.
- 3) NO HORIZONTAL JOINTS THROUGH THE PIPE OPENINGS.
- 4) WATERSTOP AT WALL/FLOOR JOINTS.
- 5) 2" VENT THROUGH SIDE WALL

OIL & GREASE SEPARATOR
800 TO 1000 GALLON CAPACITY



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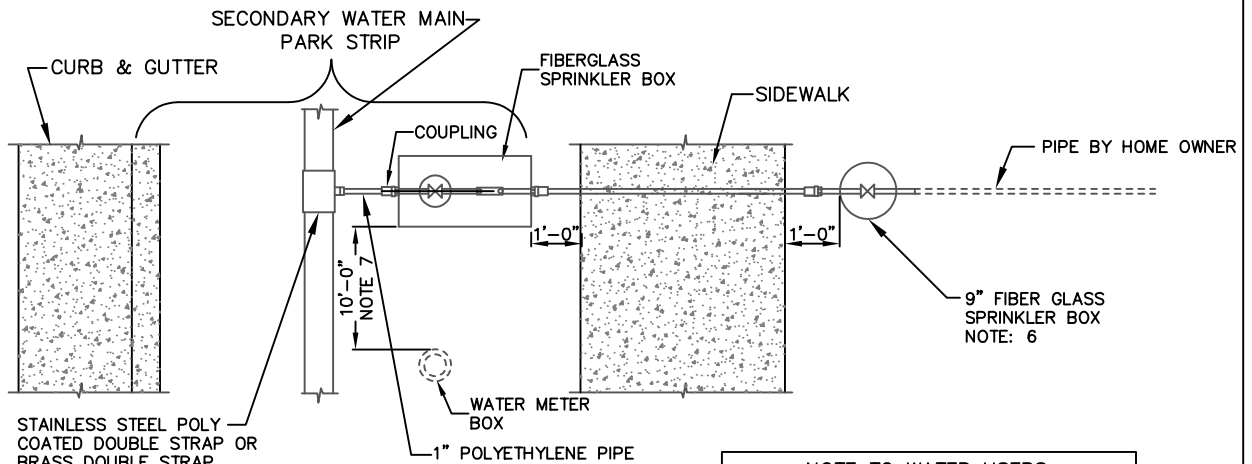
OIL & GREASE SEPARATOR

DEPARTMENT

ENGINEERING

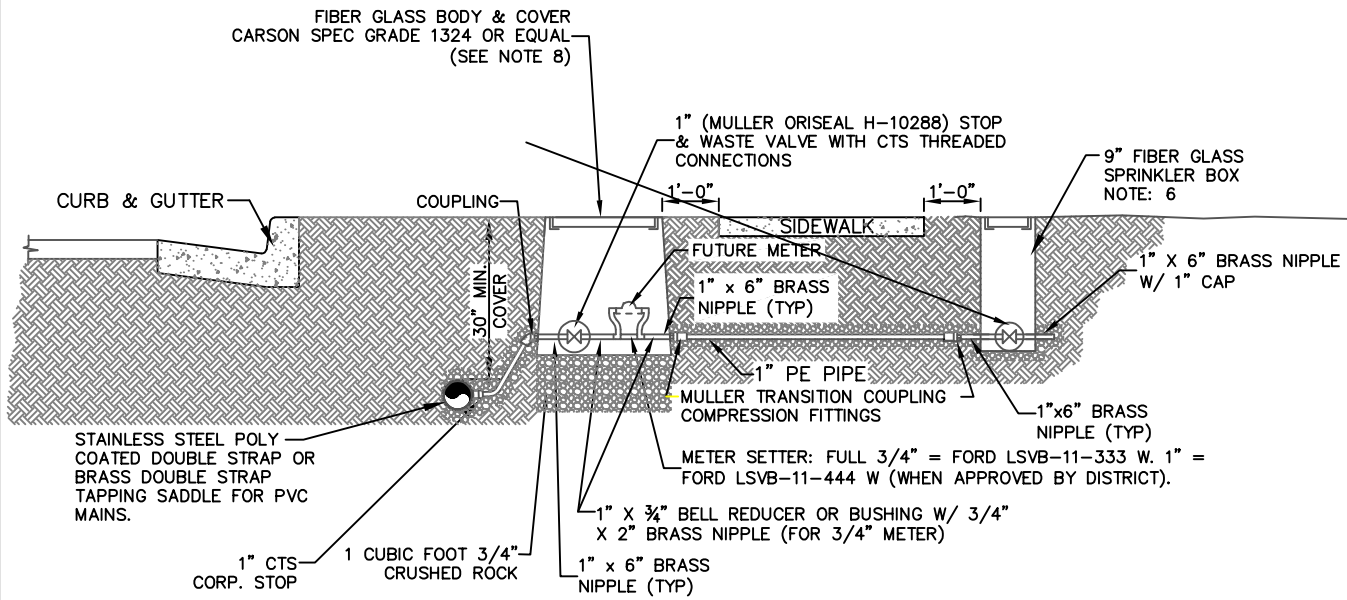
STANDARD DETAIL
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2025



PLAN VIEW

NOTE TO WATER USERS
MAGNA WATER COMPANY RECOMMENDS
PRIVATE WATER USERS INSTALL FILTERS
DUE TO THE NATURE OF SECONDARY WATER



ELEVATION

NOTES:

- 1) SERVICES MAY BE TUNNELED OR JETTED UNDER CURB & GUTTER, DRIVEWAYS, OR SIDEWALKS.
- 2) POLYETHYLENE PIPE SHALL BE SDR-9-PE 3408 MANUFACTURED TO MEET THE REQUIREMENTS OF ASTM D-2737. ALL PIPE SHALL BE COLORED PURPLE.
- 3) ALL PVC MAIN LINE OR PE SERVICE PIPE SHALL BE INSTALLED WITH LOCATOR TAPE OR WIRE.
- 4) MINIMUM DISTANCE BETWEEN SERVICE TAPS SHALL BE 24" OFF CENTER.
- 5) METER SHALL BE SUPPLIED BY MAGNA WATER DISTRICT.
- 6) SHALL BE SPECIFICATION GRADE VALVE BOX 10" TOP 13" BOTTOM X 10 1/4" DEEP OR EQUIVALENT SIZE.
- 7) MAXIMUM DISTANCE BETWEEN METER BOXES SHALL BE 10'-0" UNLESS APPROVED BY MAGNA WATER DISTRICT.
- 8) INSTALL CONCRETE METER BOX IN TRAFFICKED AREAS AS DETERMINED BY THE DISTRICT INSPECTOR

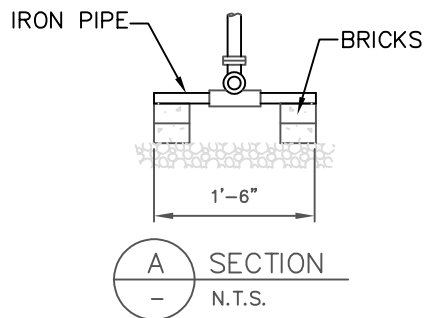
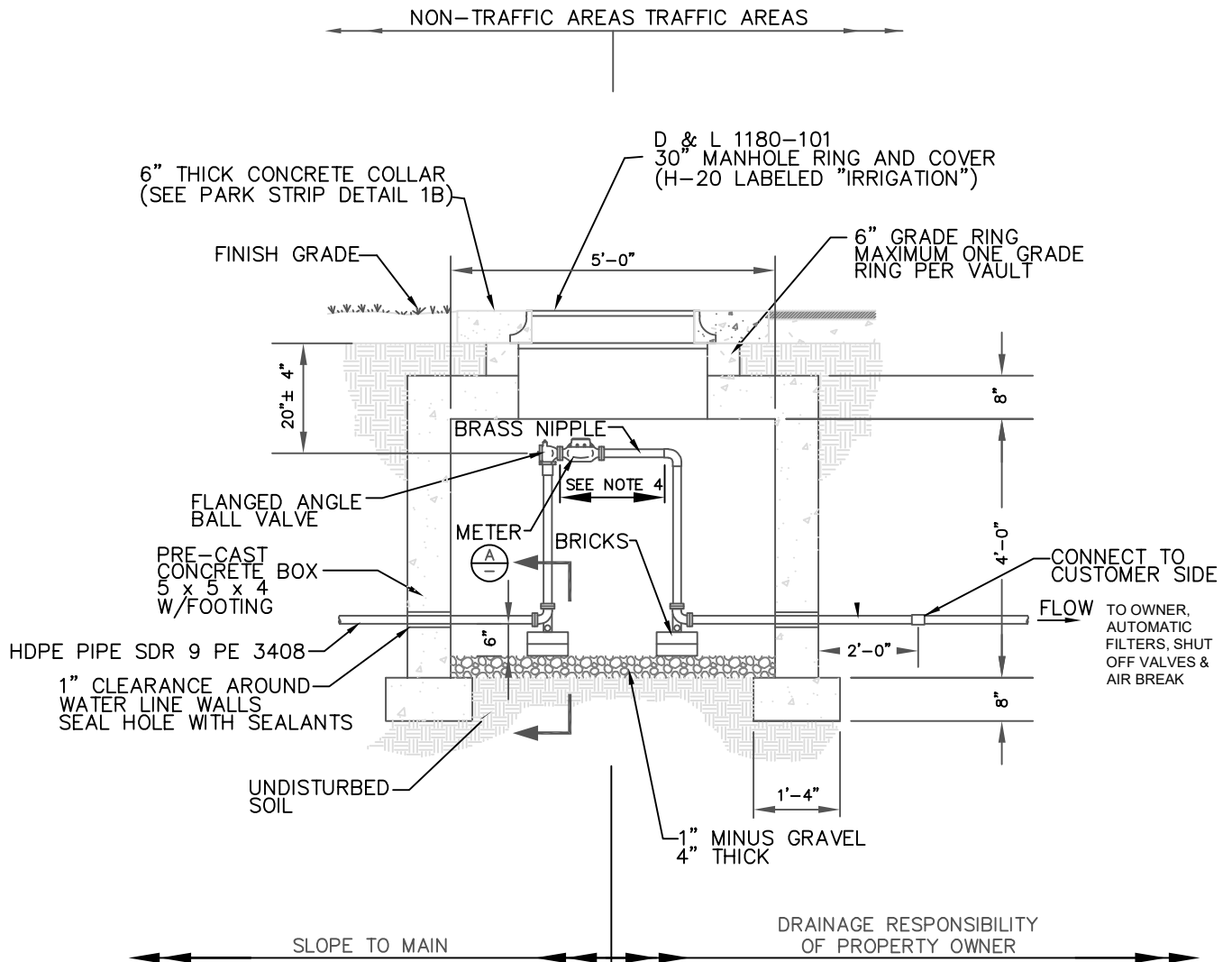
WATER METER SETTER	
METER SIZE	MUELLER MODEL #
3/4"	250B2418-R-09N
1"	330B2418-R-09N



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SECONDARY SINGLE WATER SERVICE CONNECTION DETAIL

DEPARTMENT ENGINEERING	
STANDARD DETAIL 17	REVISION 2025



NOTES:

1. ALL WORK MUST BE INSPECTED BY MAGNA WATER DISTRICT PRIOR TO BACKFILL.
2. CENTER MANHOLE OVER THE METER.
3. METER SUPPLIED BY MAGNA WATER DISTRICT.
4. METER LAYING LENGTH AS PER TABLE.
5. INSTALL TRACER WIRE FROM MAIN TO METER SETTER

WATER METER SETTER		
METER SIZE	FORD MODEL #	MUELLER MODEL #
1 1/2"	VB76-24-44-66	B-2422
2"	VB77-24-44-77	B-2422

METER SIZE	LAYING LENGTH
1 1/2" TURBINE METER	13 1/4"
2" TURBINE METER	17 1/4"



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SECONDARY WATER 1-1/2" & 2" METER VAULT

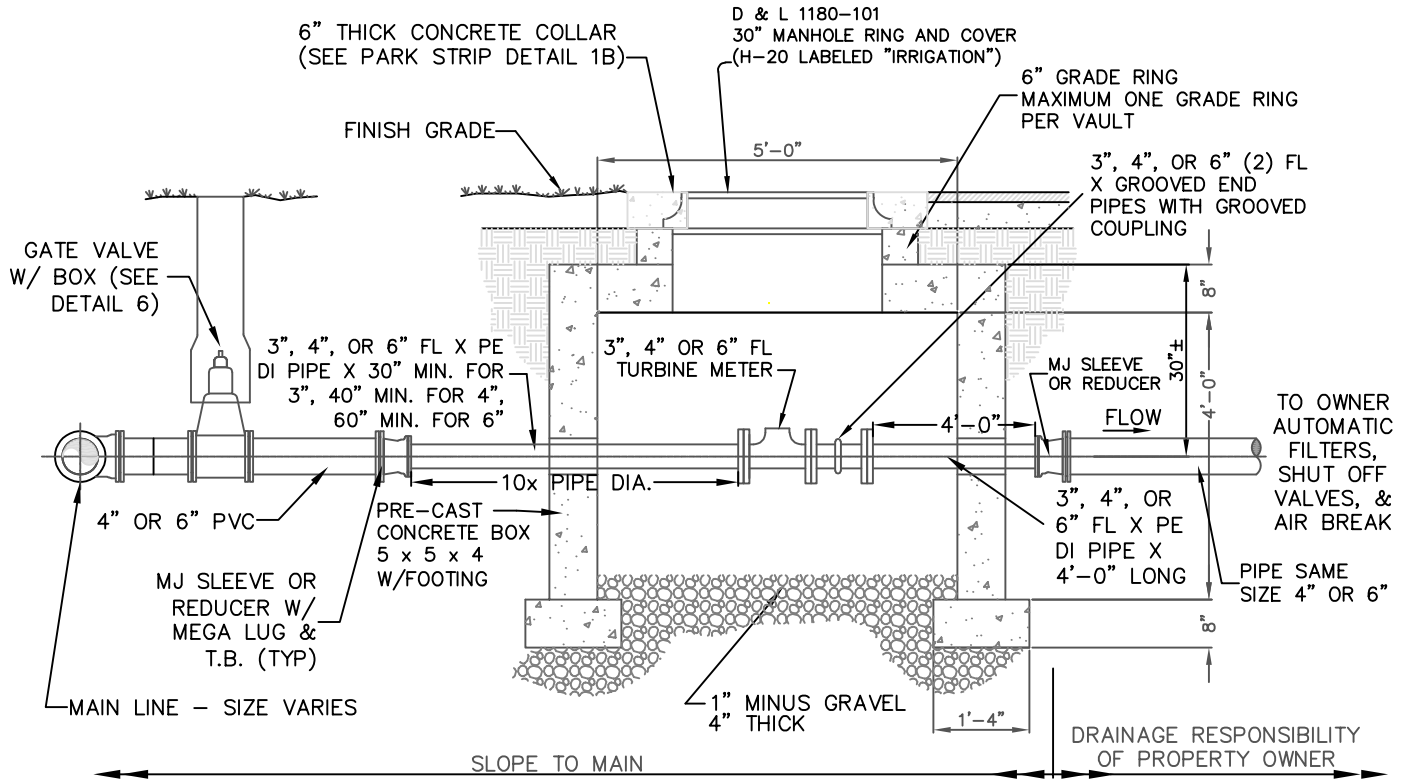
DEPARTMENT	
ENGINEERING	
STANDARD DETAIL	REVISION
18	2025

NOTES:

1. ALL WORK MUST BE INSPECTED BY MAGNA WATER DISTRICT PRIOR TO BACKFILL.
2. CENTER MANHOLE OVER THE METER.
3. METER SUPPLIED BY MAGNA WATER DISTRICT.
4. METER LAYING LENGTH AS PER TABLE.

METER SIZE	LAYING LENGTH
3" TURBINE METER	10"
4" TURBINE METER	14"
6" TURBINE METER	18"

5. BOLTS TO BE CADMIUM PLATED.



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SECONDARY WATER 3", 4" OR 6" METER VAULT

DEPARTMENT

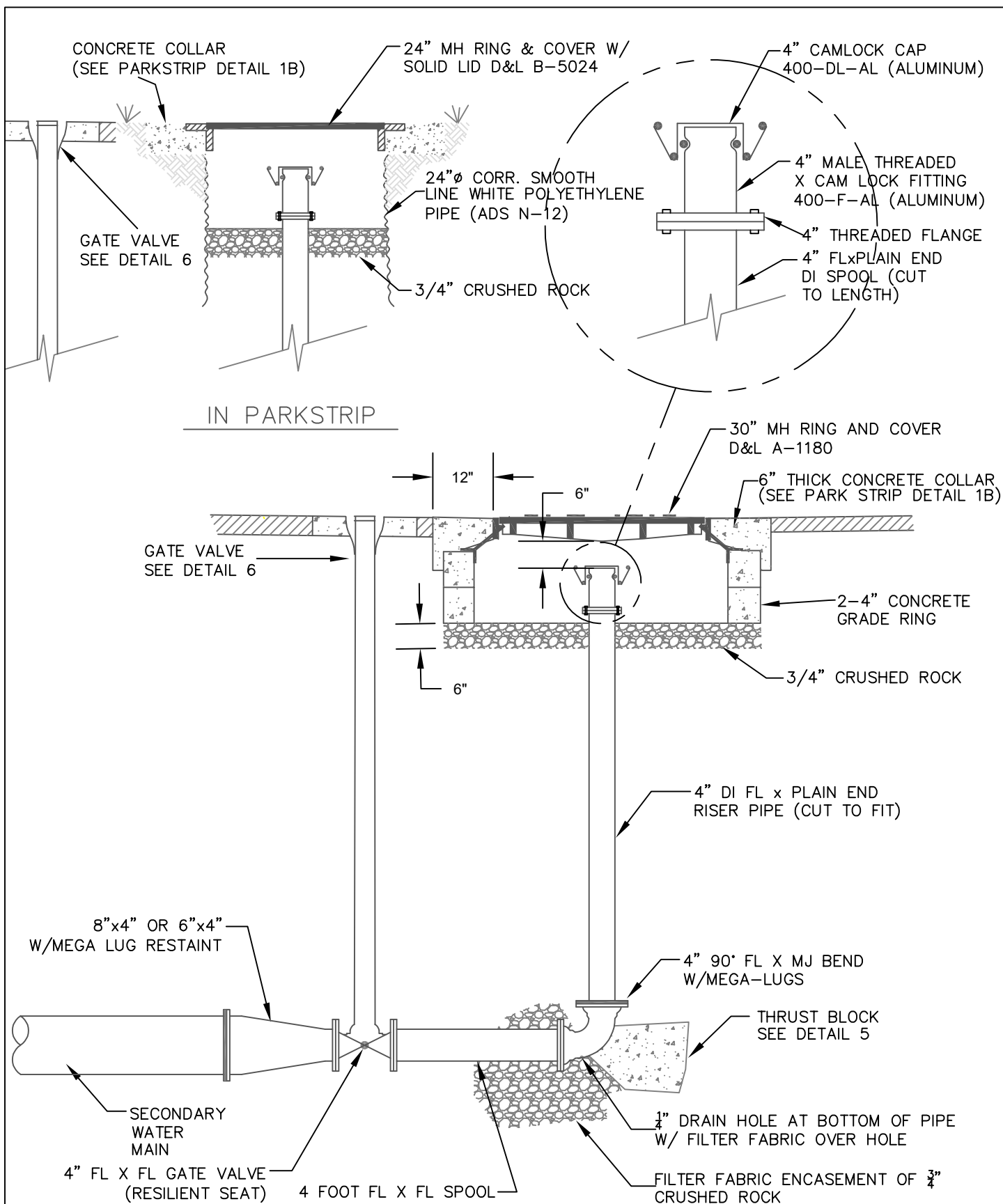
ENGINEERING

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NOTE:

- * REDUCER SIZE ACCORDING TO SIZE OF MAIN
- ** ALL JOINTS TO BE MEGA-LUGGED.
- *** BLOW-OFFS SHALL BE INSTALLED ON BOTH ENDS OF DRY MAIN
- **** MAY ONLY BE USED AS A PERMANENT BLOW OFF IF THE MAIN LINE IS 8" OR LESS



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4" BLOW-OFF

DEPARTMENT

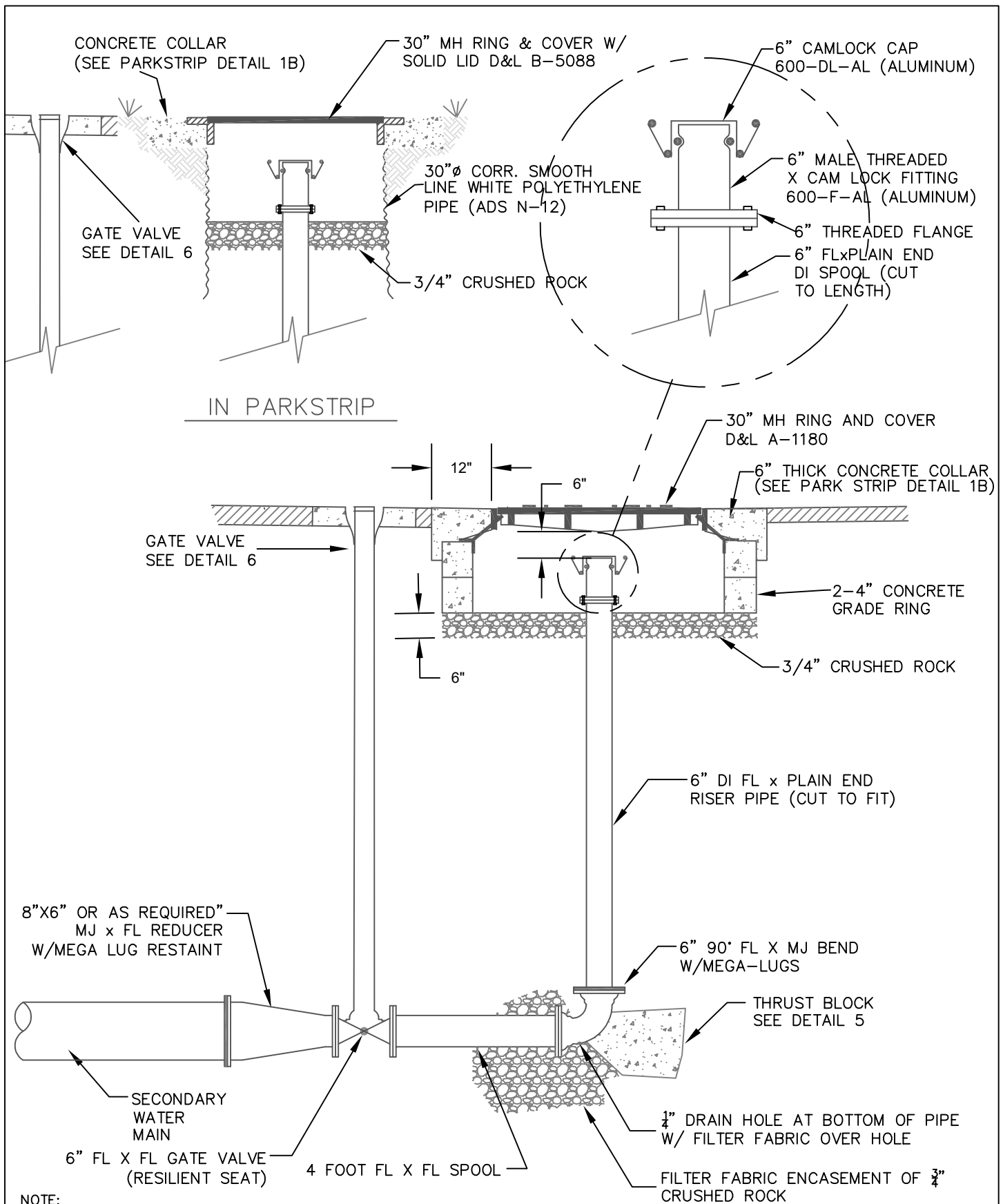
ENGINEERING

STANDARD DETAIL

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2025



NOTE:

- * REDUCER SIZE ACCORDING TO SIZE OF MAIN
- ** ALL JOINTS TO BE MEGA-LUGGED.
- *** BLOW-OFFS SHALL BE INSTALLED ON BOTH ENDS OF DRY MAIN
- **** USED AS A PERMANENT BLOW OFF IF THE MAIN LINE IS 8" OR LARGER



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6" BLOW-OFF

DEPARTMENT

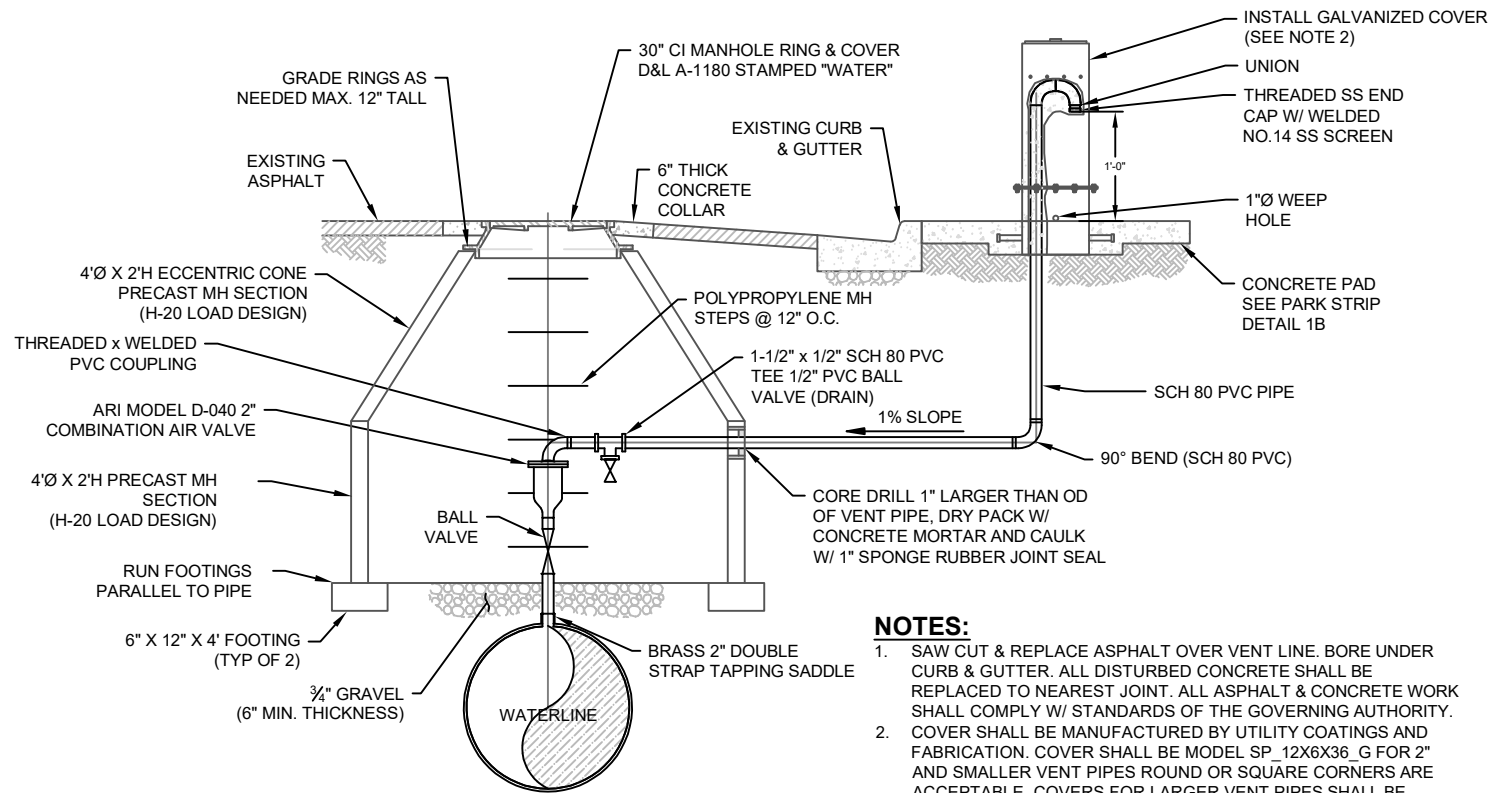
ENGINEERING

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NOTES:

1. SAW CUT & REPLACE ASPHALT OVER VENT LINE. BORE UNDER CURB & GUTTER. ALL DISTURBED CONCRETE SHALL BE REPLACED TO NEAREST JOINT. ALL ASPHALT & CONCRETE WORK SHALL COMPLY W/ STANDARDS OF THE GOVERNING AUTHORITY.
2. COVER SHALL BE MANUFACTURED BY UTILITY COATINGS AND FABRICATION. COVER SHALL BE MODEL SP. 12X6X36_G FOR 2" AND SMALLER VENT PIPES ROUND OR SQUARE CORNERS ARE ACCEPTABLE. COVERS FOR LARGER VENT PIPES SHALL BE CUSTOM MANUFACTURED.
3. RESTORE ALL DISTURBED VEGETATION, LANDSCAPING, & OTHER SURFACE FEATURES.
4. COMBINATION AIR VALVE TO BE SIZED BY DISTRICT ENGINEER



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CULINARY WATER AIR VAC VALVE

DEPARTMENT

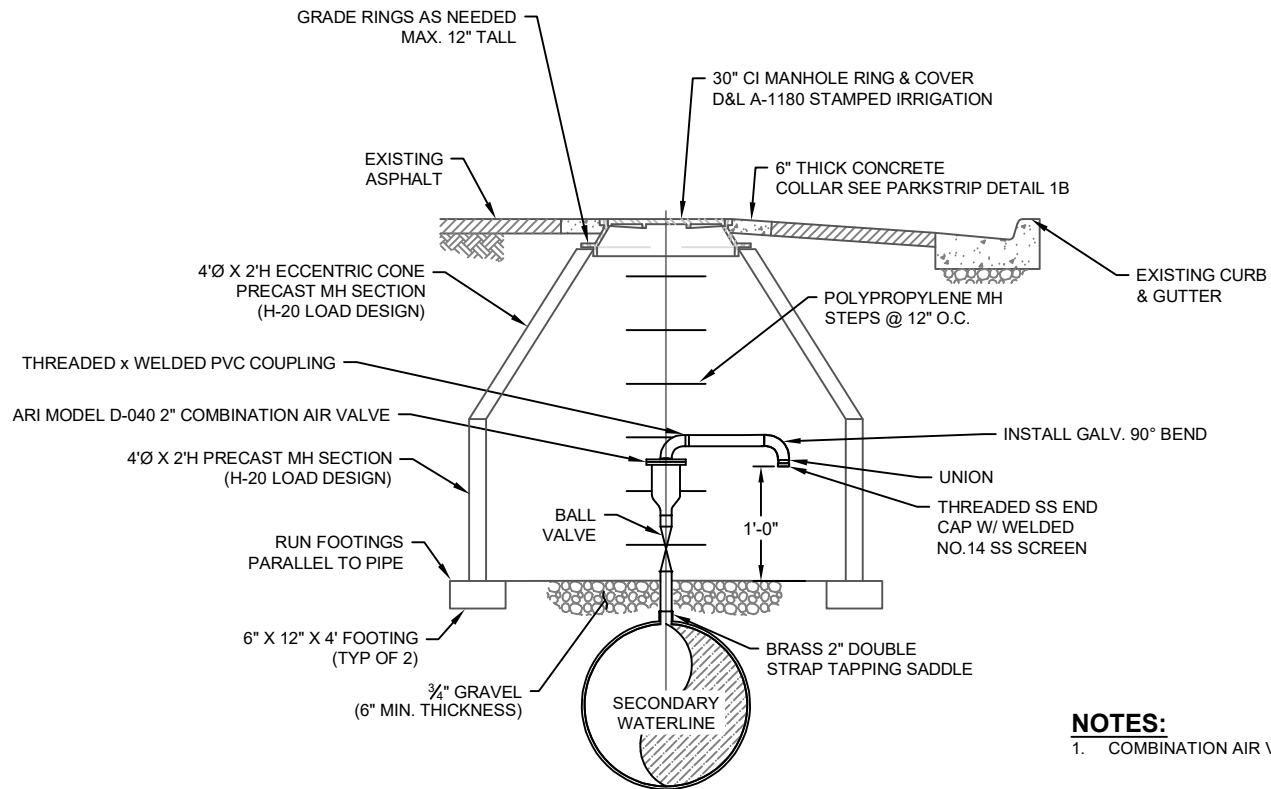
ENGINEERING

STANDARD DETAIL

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NOTES:

1. COMBINATION AIR VALVE TO BE SIZED BY DISTRICT ENGINEER



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**SECONDARY WATER AIR
VAC VALVE**

DEPARTMENT

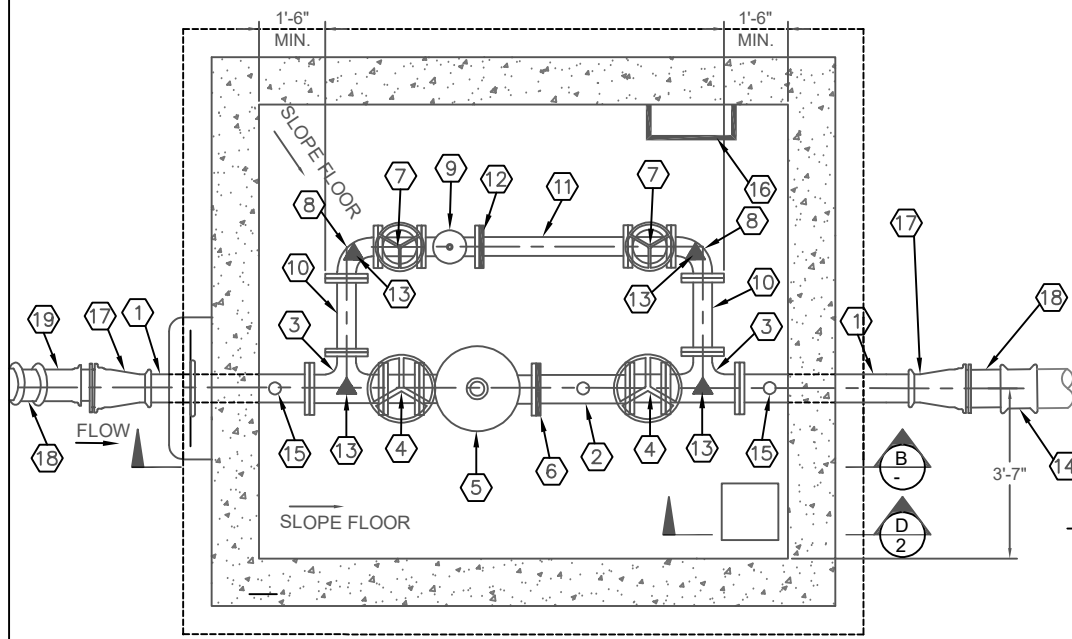
ENGINEERING

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(A) PRV VAULT PLAN VIEW
- N.T.S.

PIPE & FITTING VARIABLES		
X	MAIN DIAMETER	___"
Y	HIGH FLOW PRV	___"
Z	LOW FLOW PRV	___"

*DETERMINED BY DISTRICT ENGINEER

MARK	QUANTITY	DESCRIPTION
1	2	Y" FL x PE DI PIPE
2	1	Y" FL x GE SPOOL
3	2	Y" x Z" FL TEE
4	2	Y" FL GATE VALVE
5	1	Y" FL PRV (OWNER SUPPLIED)
6	1	Y" FL x GE ADAPTER
7	2	Z" FL GATE VALVE
8	2	Z" FL 90° BEND
9	1	Z" FL PRV (OWNER SUPPLIED)
10	2	Z" FL SPOOL

MARK	QUANTITY	DESCRIPTION
11	1	Z" FL x GE SPOOL
12	1	Z" FL x GE ADAPTER
13	4	PIPE SUPPORT (5)
14	1	X" MJ SOLID SLEEVE W/ M.L.
15	2	PRESSURE GAUGE DETAIL (5)
16	-	POLYPROPYLENE MANHOLE STEPS (12" O.C.)
17	2	X" x Y" MJ REDUCER W/ M.L.
18	1	X" DI SPOOL
19	2	X" MJ 45° BEND W/M.L.
20	X	XXX

MEG-A-LUG W/ CONCRETE THRUST BLOCK AS PER THE DEAD END BEARING AREA AS SPECIFIED IN THE TABLE ON STANDARD DETAIL 5

REMOVABLE LID WITH LIFTING ANCHORS

PROVIDE GRADE RINGS & ACCESSORIES TO INSTALL MH COVERS FLUSH W/ROADWAY

D&L A-1180

SEPARATION JOINT AS NEEDED

6" RIBBED PVC WATERSTOP WELDED CONTINUOUS CENTER IN WALL

6" THICK UBC OR 3/4" CRUSHED ROCK COMPACT TO 95% OF MAX DRY DENSITY

(B) PROFILE VIEW
- N.T.S.

NOTES:

- PRECAST BOX SUBJECT TO FOLLOWING:
 - H-20 LOADING
 - SUBMERGENCE DEPTH OF 8 FEET
 - NO HORIZONTAL JOINTS THROUGH THE PIPE OPENINGS.
 - WATER STOP @ WALL/FLOOR JOINT.
- FLANGES TO BE 250 PSI ANSI FLANGES
- ALL BOLTS TO BE STAINLESS STEEL
- VAULT DIMENSIONS DESIGNED BY DISTRICT ENGINEER



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PRV STATION

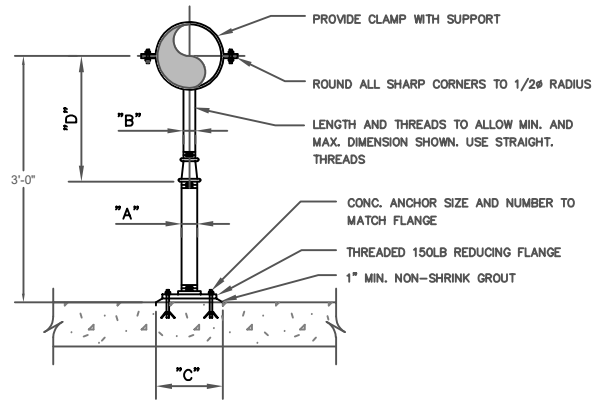
DEPARTMENT

ENGINEERING

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2025

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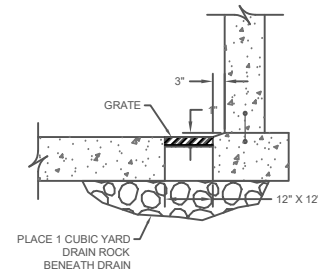
NOTES:

1. HOT DIP GALVANIZE AFTER FABRICATION.
2. PIPE SHALL BE SCHEDULE 40.

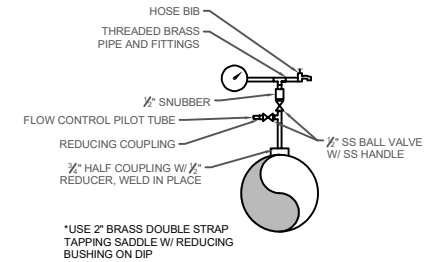
C
1
ADJUSTABLE PIPE SUPPORT
N.T.S.

ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D	
				MINIMUM	MAXIMUM
*2 1/2	2 1/2	1 1/2	9	8	13
3	2 1/2	1 1/2	9	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	9	8 1/2	13 1/2
4	3	2 1/2	9	9 1/2	14
6	3	2 1/2	9	10 1/2	15 1/2
8	3	2 1/2	9	11 1/2	16 1/2
10	3	2 1/2	9	13 1/2	18 1/2
12	3	2 1/2	9	15	19 1/2

* USE 2 1/2" SUPPORTS FOR PIPE LESS THAN 2 1/2"

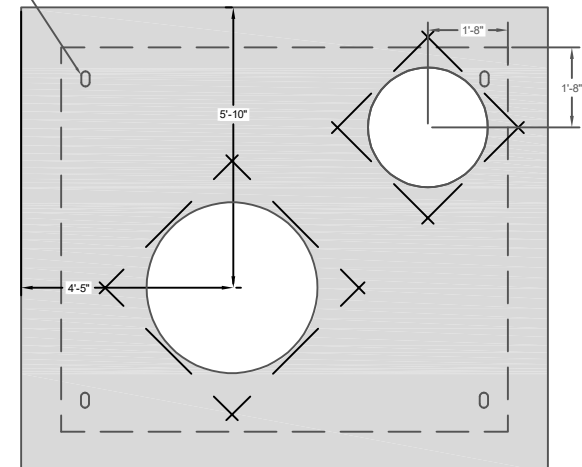


D
1
DRAIN SECTION
N.T.S.



E
1
PRESSURE GAUGE DETAIL
N.T.S.

ANCHOR TO REMOVE LID (TYP)



F
1
DECK SLAB PLAN VIEW
N.T.S.



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PRV STATION

DEPARTMENT
ENGINEERING

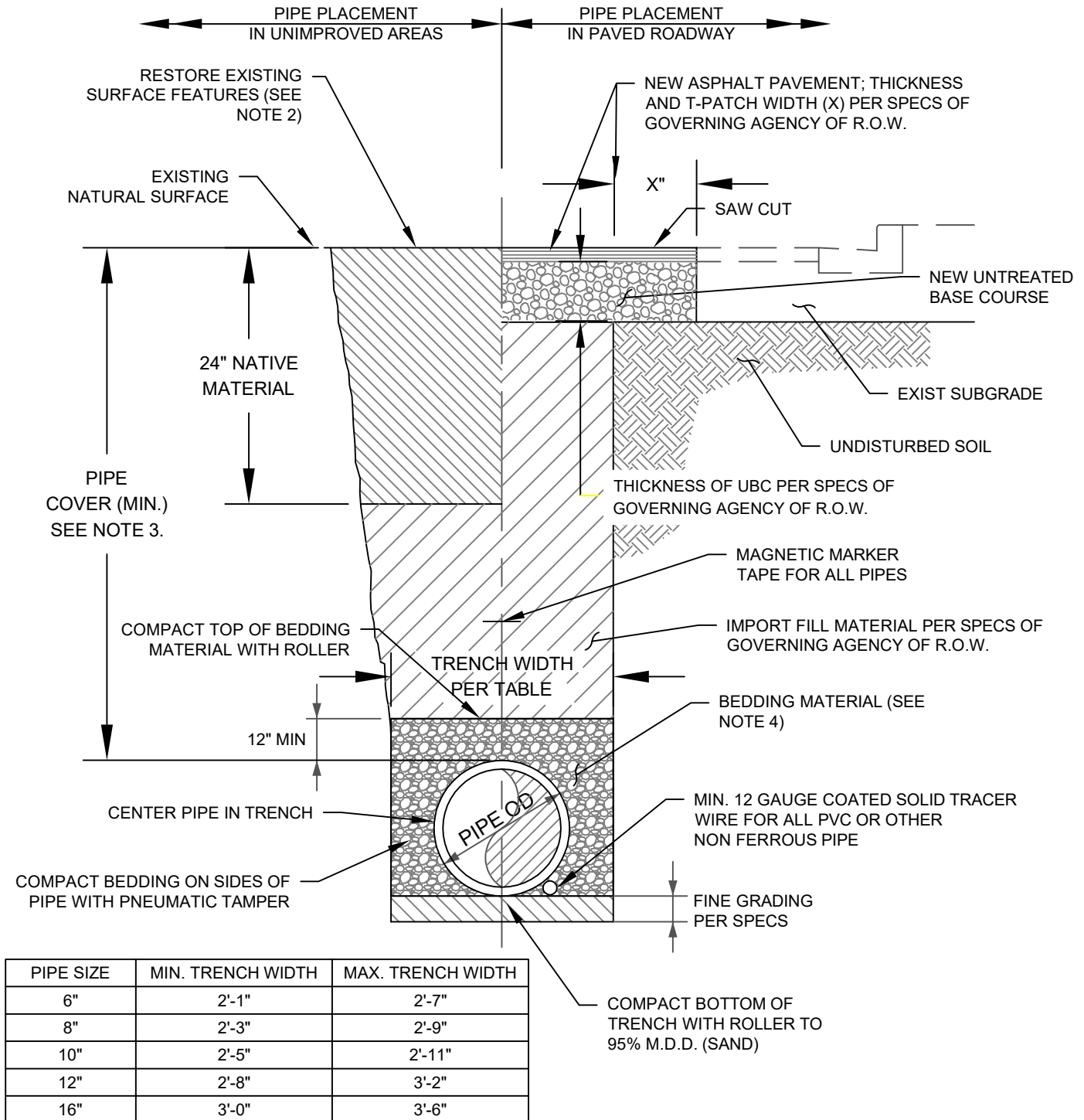
STANDARD DETAIL
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NOTES:

1. SEE SPECS FOR SHORING REQUIREMENTS.
2. RESTORE ALL DISTURBED VEGETATION, LANDSCAPING, & OTHER SURFACE FEATURES.
3. CULINARY PIPE COVER MIN. OF 4'-0"
SECONDARY PIPE COVER MIN. OF 2'-6"
SEWER PIPE COVER MIN. OF 6'-6"
4. BEDDING MATERIAL SHALL BE SAND FOR SECONDARY WATERLINES AND CULINARY WATERLINES;
BEDDING MATERIAL FOR SEWER PIPE SHALL BE $\frac{3}{4}$ " DRAIN ROCK
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT THE ENDS OF EACH SECTION OF CULINARY WATER PIPE HAVE BEEN SEALED BEFORE CREWS, LEAVE THE TRENCH AT THE END OF THE DAY, FOR LUNCH, OR FOR ANY OTHER EXTENDED PERIOD OF TIME. PLUGS SHALL BE RUBBER COMPRESSION, INFLATABLE, OR ANY OTHER METHOD APPROVED BY THE DISTRICT'S INSPECTOR.
6. PIPE MUST BE POLY WRAPPED WHEN GROUNDWATER IS PRESENT.



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SEWER, CULINARY & SECONDARY PIPE TRENCH CROSS SECTION

DEPARTMENT

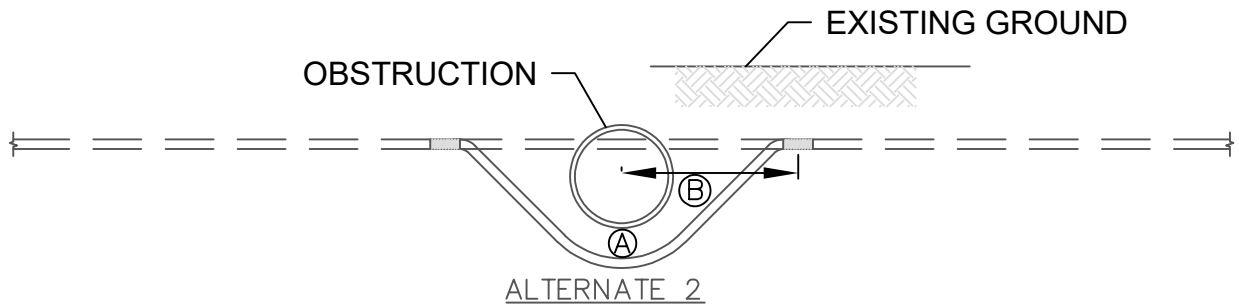
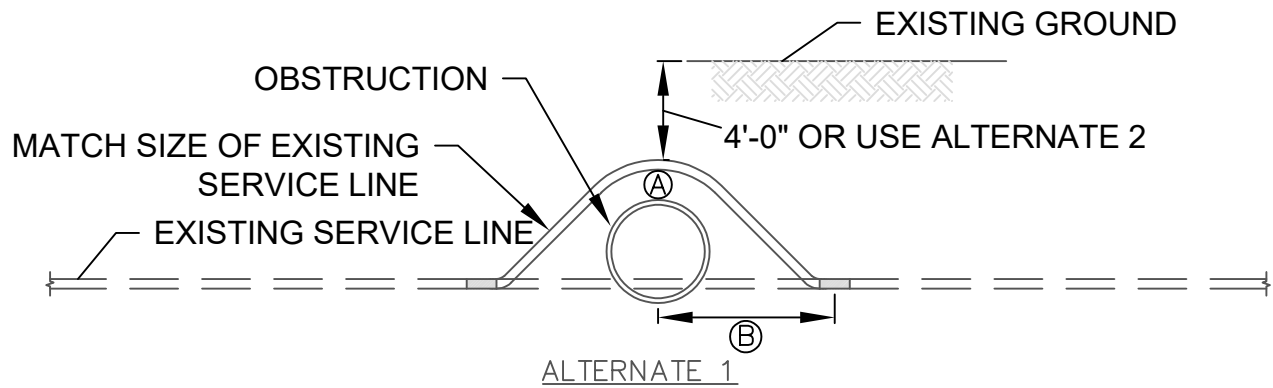
ENGINEERING

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TYPE A - WATER SERVICE LINE

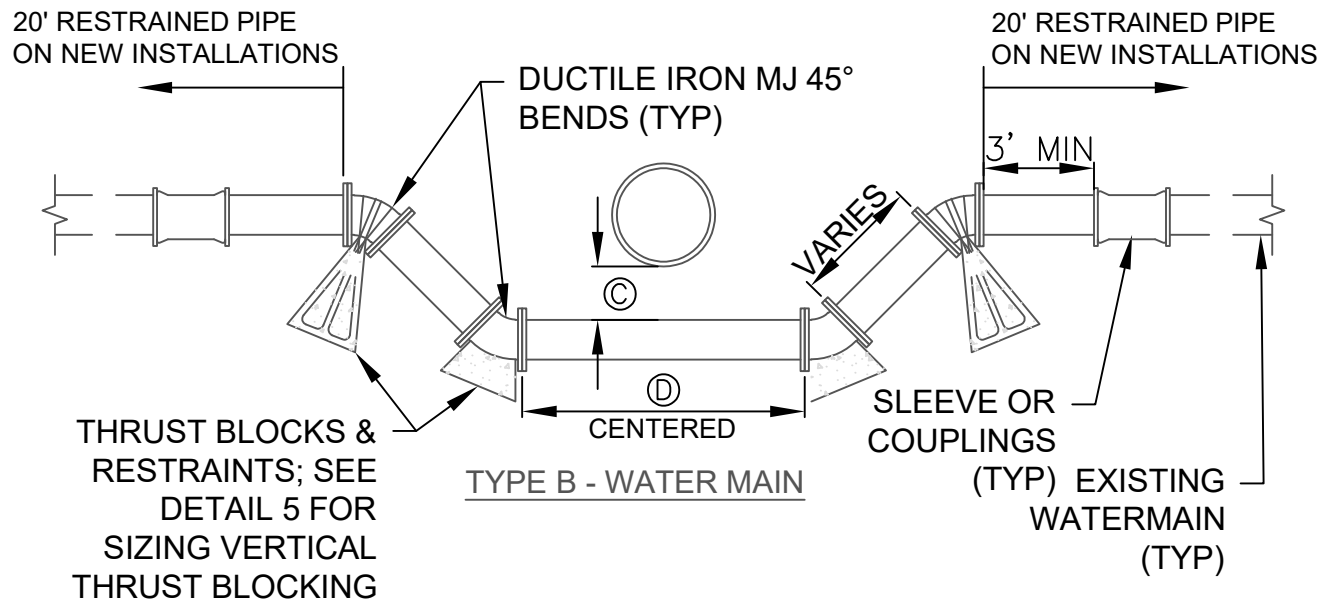


TABLE OF DIMENSIONS		
NO.	OBSTRUCTION	
	SEWER MAIN	OTHER
(A)	18"	2"
(B)	10'-0"	6"
(C)	18"	12" MIN.
(D)	FULL PIPE LENGTH	O.D. + 12"



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PIPELINE LOOP

DEPARTMENT

ENGINEERING

STANDARD DETAIL
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REVISION
2025