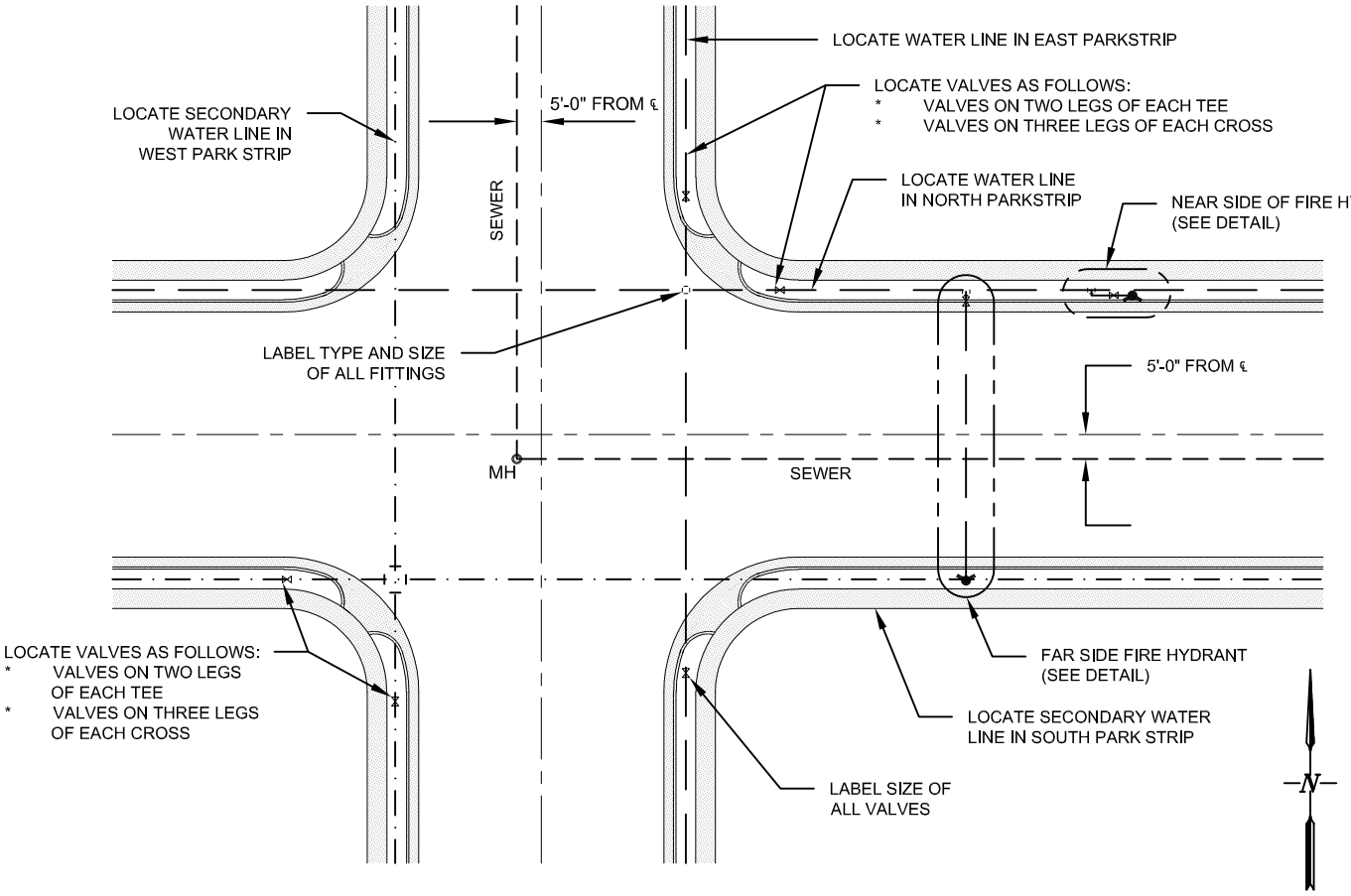
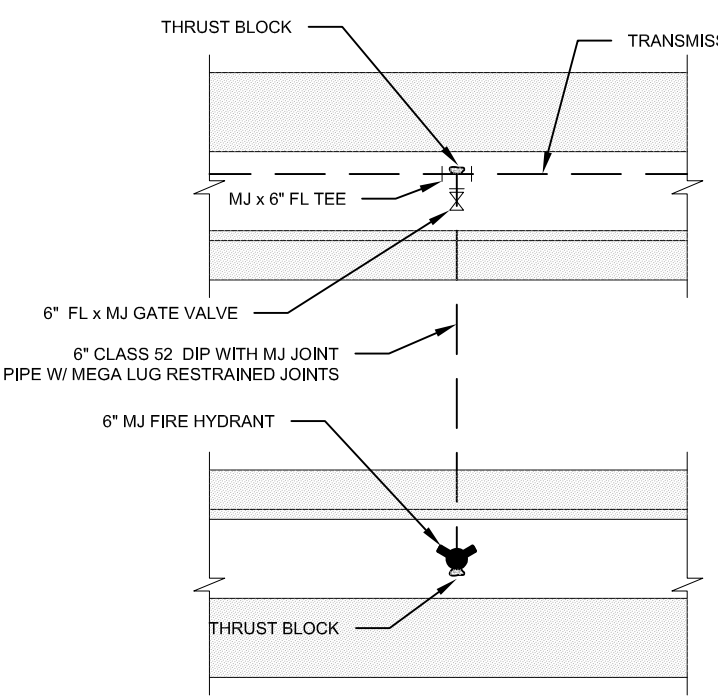
TYPICAL DETAILS INDEX

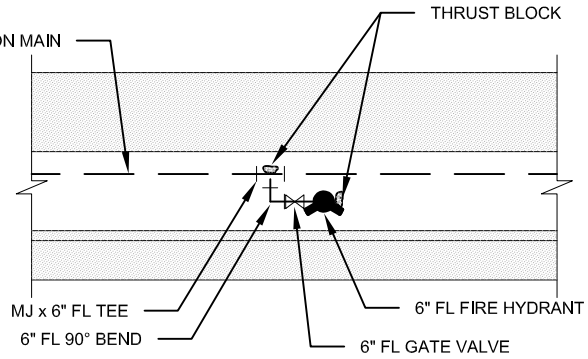
1) Typical Intersection and Cul-de-sac - Pipeline Placement (1A and 1B)
2) Standard Manhole
3) Sewer Cleanout
4) Sewer Service Lateral
5) Waterline Thrust Blocking
6) Gate Valve
7) Fire Hydrant
8) 3/4" Water Meter Service With Setter
8A) 3/4” Water Meter Service Without Setter
9) 1" Water Meter Service
10) 1 ½” 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 ½” & 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



INTERSECTION DETAIL



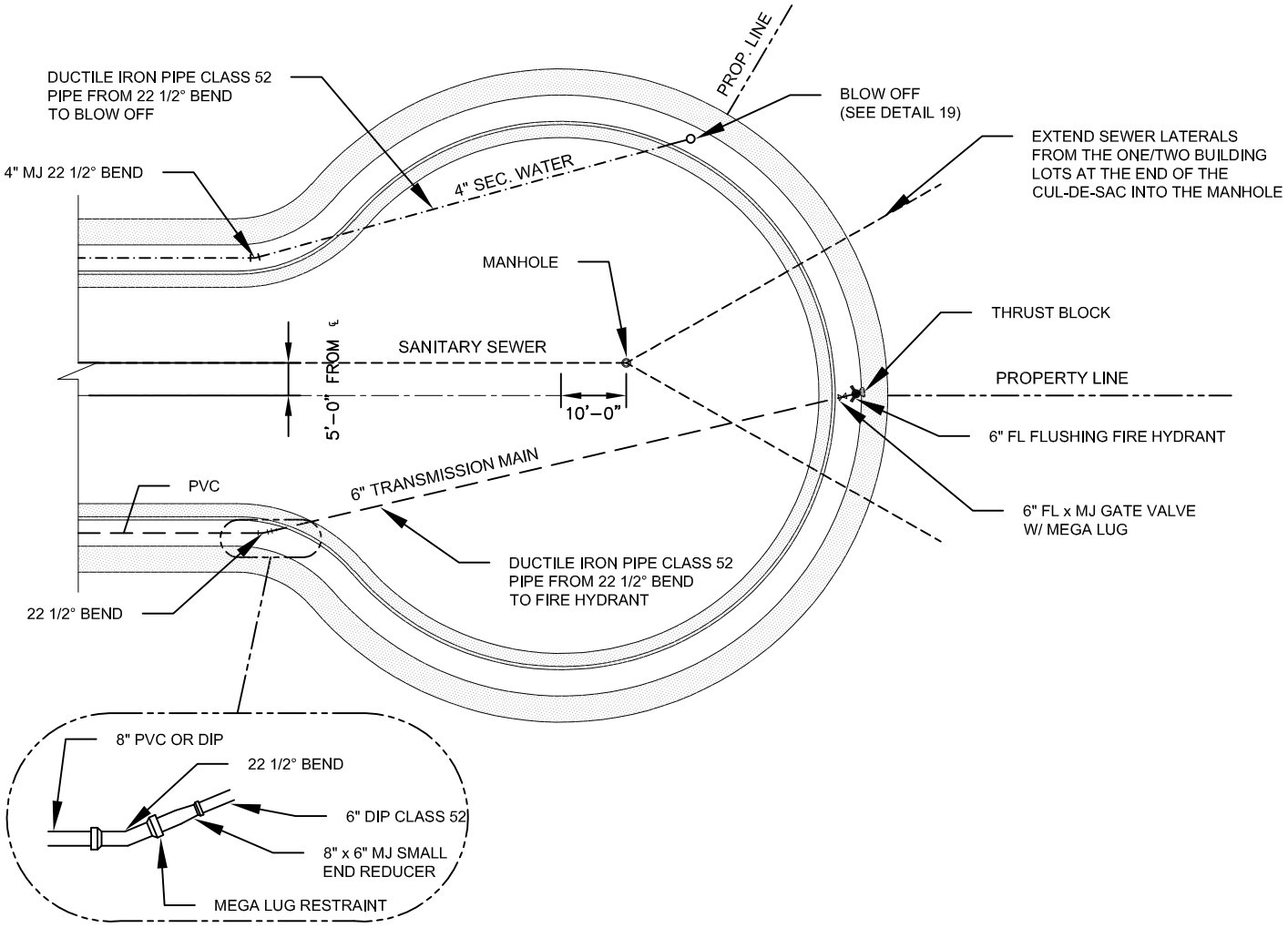
FAR SIDE FIRE HYDRANT DETAIL



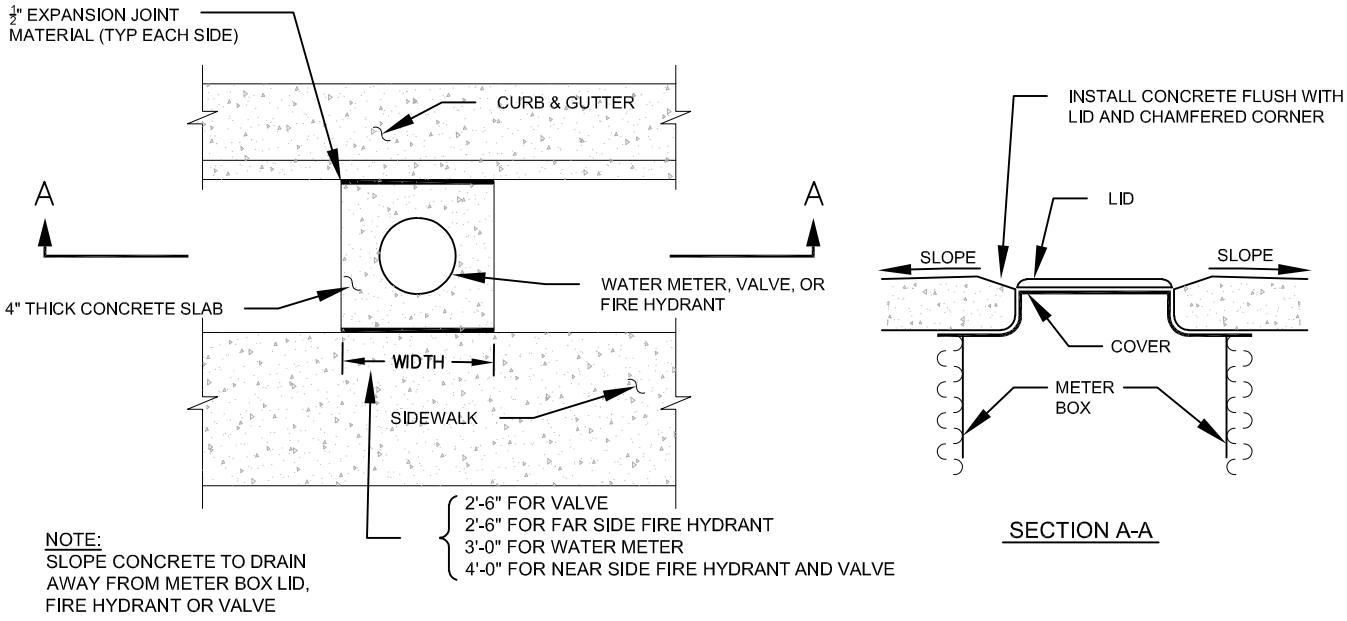
NEAR SIDE FIRE HYDRANT DETAIL

NOTE:
SEE TYPICAL DETAIL #7
FOR HYDRANT DETAILS

MAGNA WATER DISTRICT 8885 WEST 3500 SOUTH MAGNA, UTAH, 84044 801-250-2118	CULINARY, SECONDARY & SEWER PLACEMENT DETAIL	DEPARTMENT ENGINEERING	
		STANDARD DETAIL 1A	REVISION JULY 2020



CUL-DE-SAC DETAIL



NOTE:
SLOPE CONCRETE TO DRAIN
AWAY FROM METER BOX LID,
FIRE HYDRANT OR VALVE

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
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CULINARY, SECONDARY &
SEWER PLACEMENT DETAIL

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ENGINEERING

STANDARD DETAIL
1B

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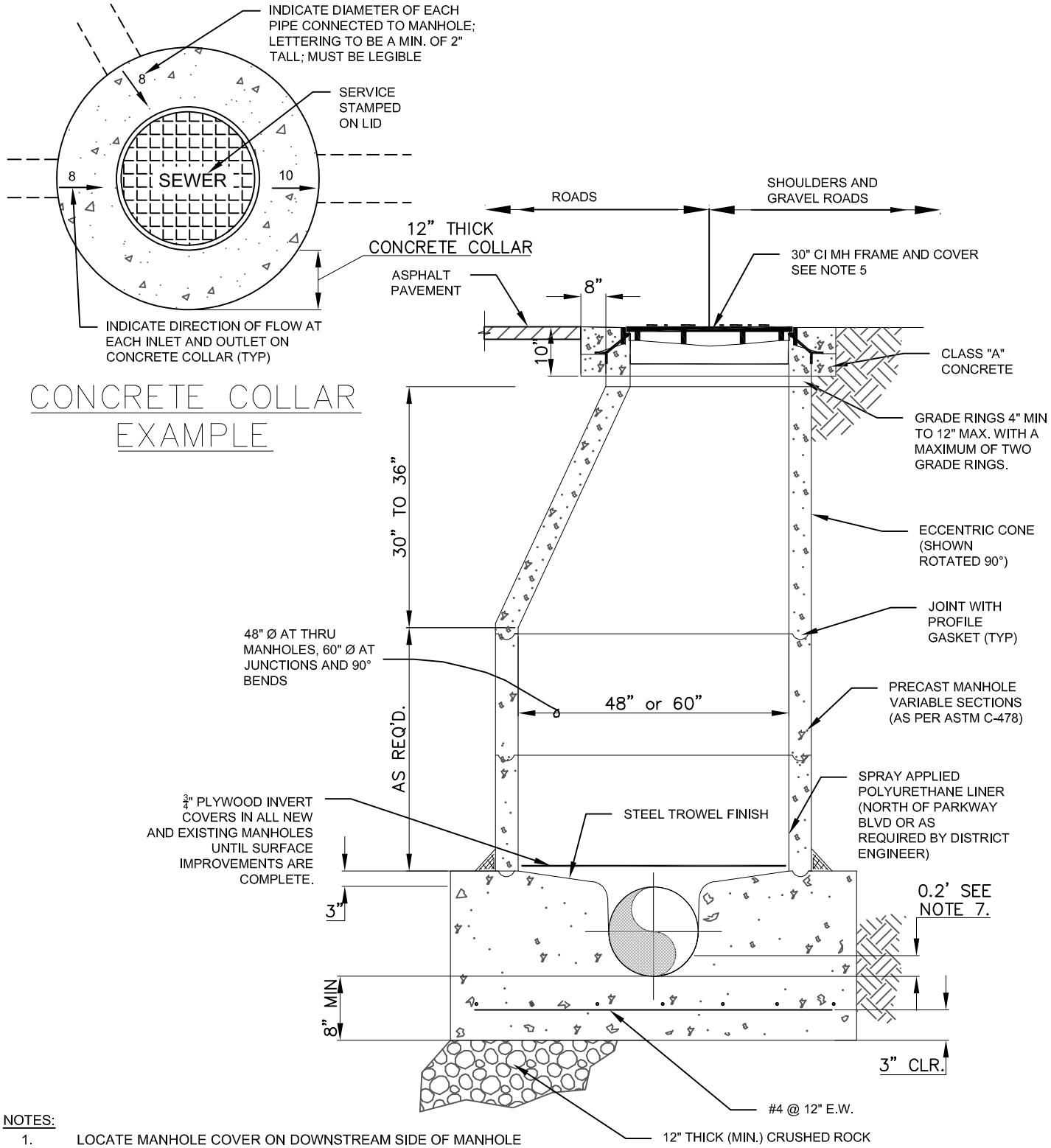
JULY 2020



CONCRETE COLLAR EXAMPLE

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. FOR HIGH FLOW TRANSMISSION MAINS, THE ELEVATION SHALL MATCH THE HYDRAULIC GRADE LINES DETERMINED BY AN ENGINEER.

PRECAST MANHOLE DETAIL

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STANDARD MANHOLE DETAIL

DEPARTMENT
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STANDARD DETAIL
2

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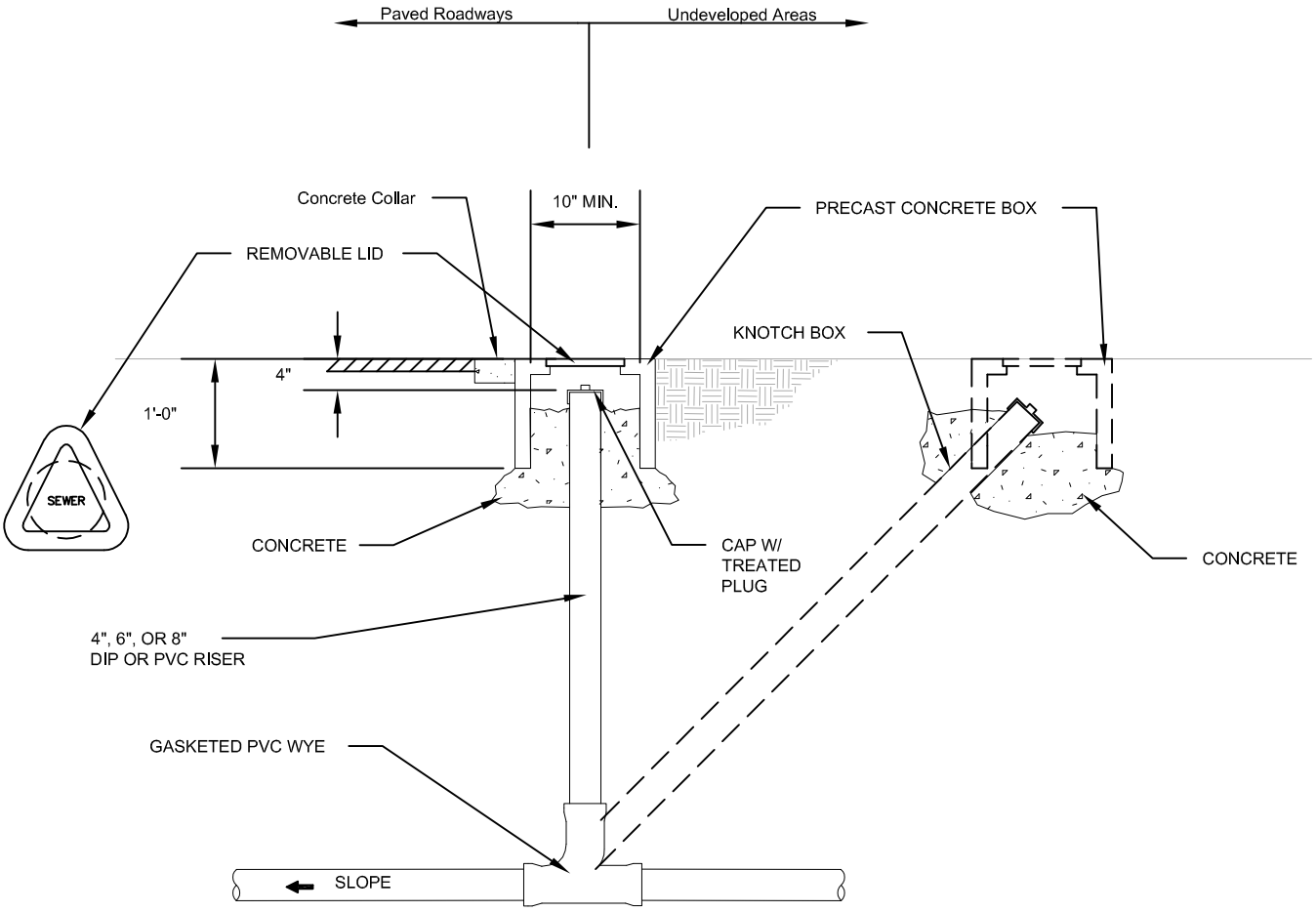
JULY 2020



A – SEWER CLEANOUT
N.T.S.

MAGNA WATER DISTRICT
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SEWER CLEANOUT

DEPARTMENT
ENGINEERING

STANDARD DETAIL
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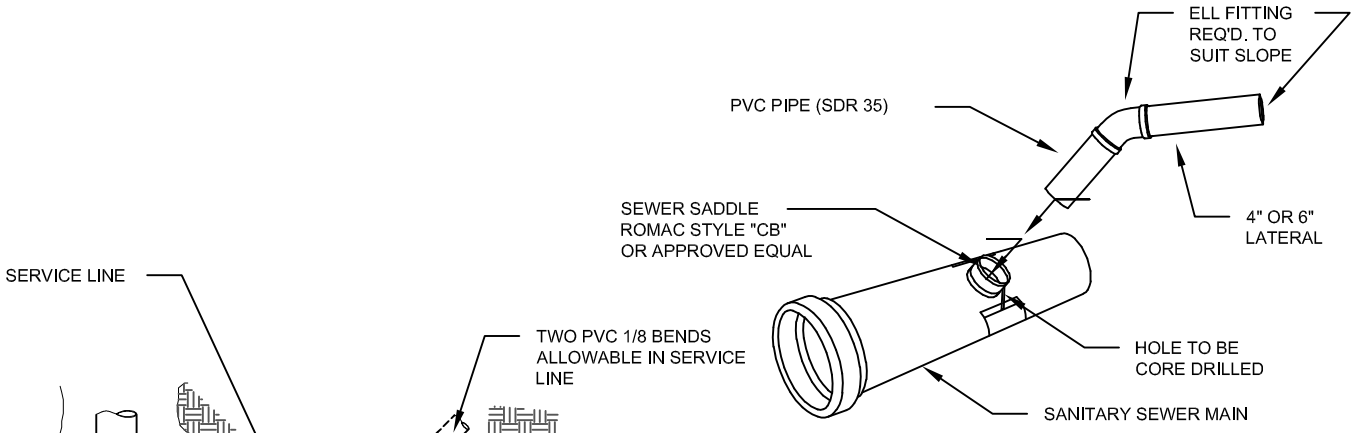
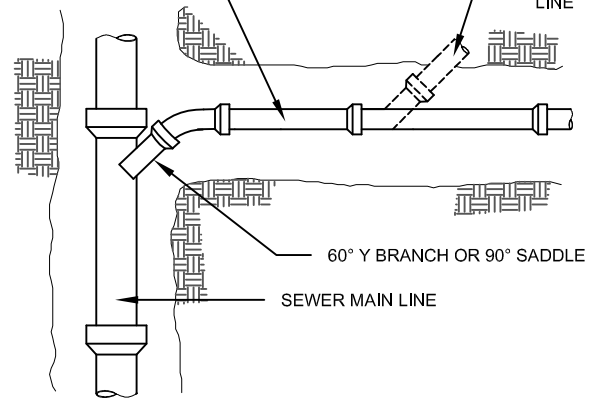
REVISION
JULY 2020

NOTES:

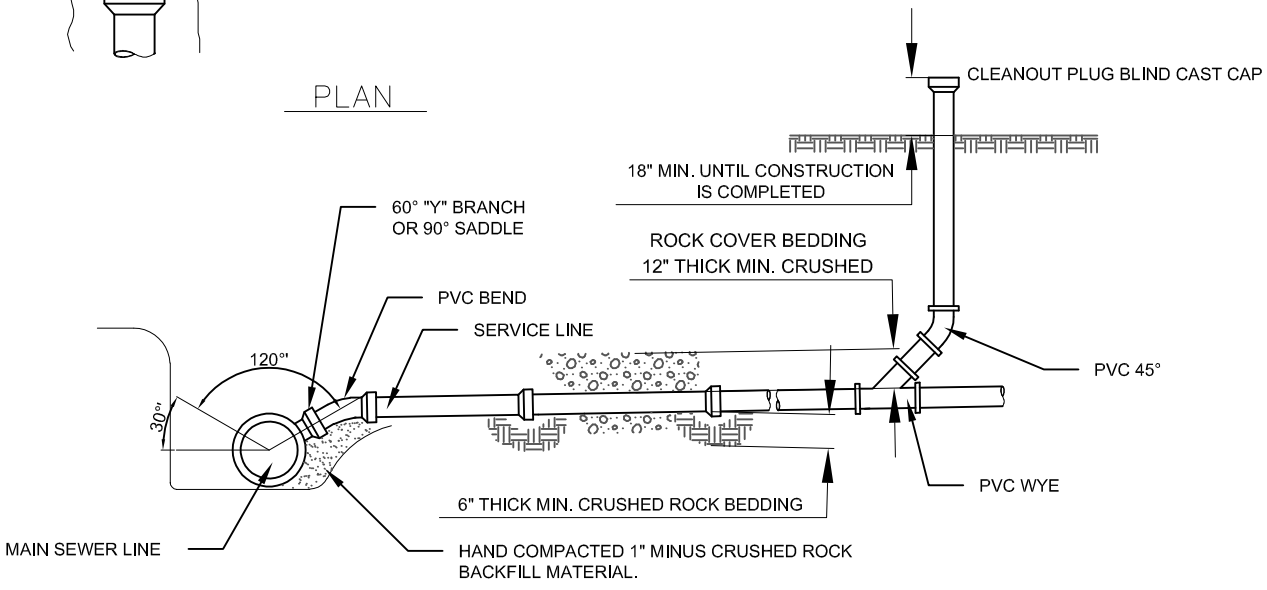
1. CLEANOUTS WILL BE REQUIRED WHERE SERVICE LATERALS EXCEED 50' FROM BUILDING TO PROPERTY LINE AND WHERE DEEMED NECESSARY BY THE INSPECTOR.
2. CONNECTIONS TO EXISTING MAINS SHALL BE SEWER SADDLE TYPE MACHINE CORE DRILLED AND GASKETED.
3. PREFERRED ARRANGEMENT: CENTERLINE OF WYE BRANCH TO BE PLACED IN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



SADDLE DETAIL



PLAN



MIN. SLOPE -- 1/8" PER FOOT FOR 6" PIPE (1%)

-- 1/4" PER FOOT FOR 4" PIPE (2%)

ELEVATION

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
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SEWER SERVICE LATERAL

DEPARTMENT: ENGINEERING

STANDARD DETAIL: 4

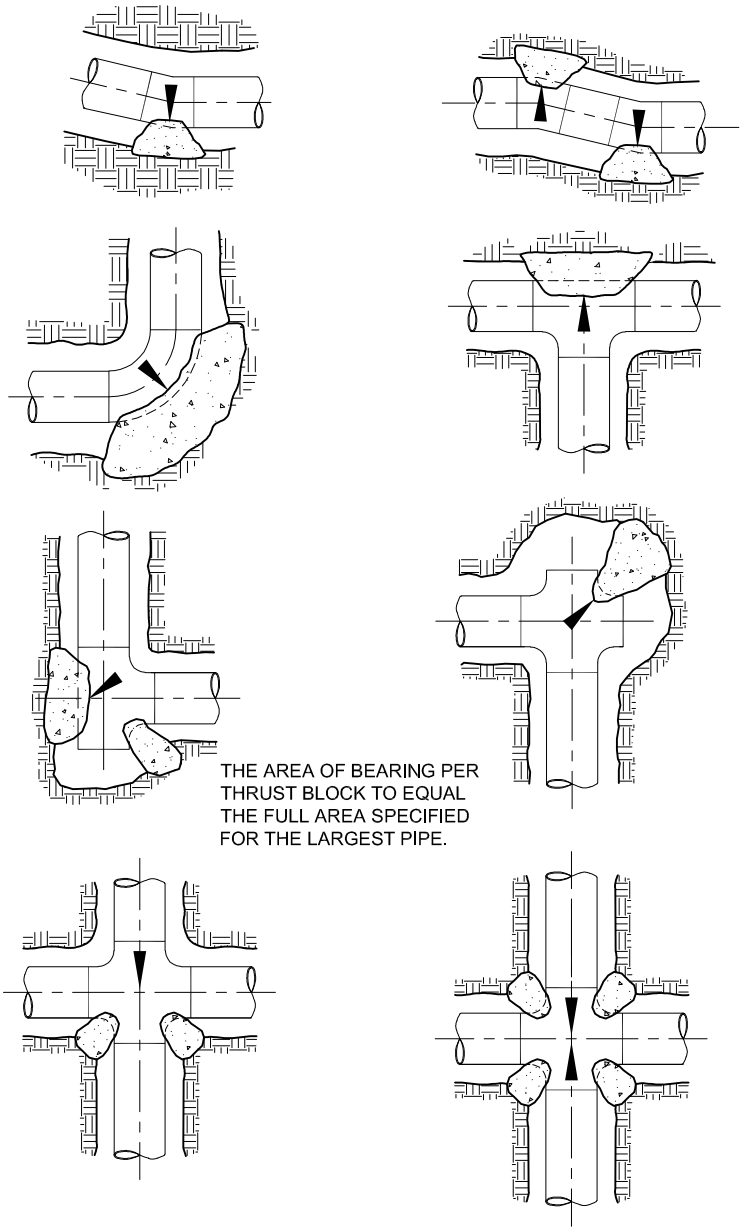
REVISION: JULY 2020

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.

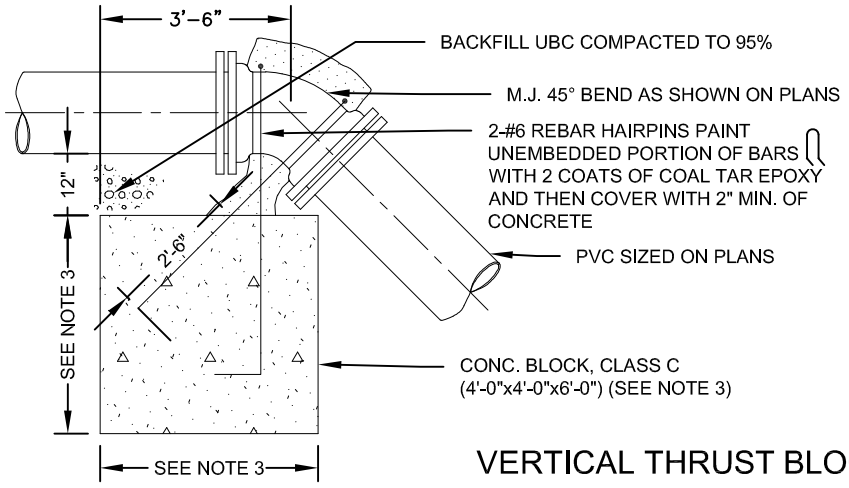
THE AREA OF BEARING PER THRUST BLOCK TO EQUAL 1/2 THE AREA SPECIFIED FOR THE LARGEST PIPE.

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



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

VERTICAL THRUST BLOCKING

MAGNA WATER DISTRICT
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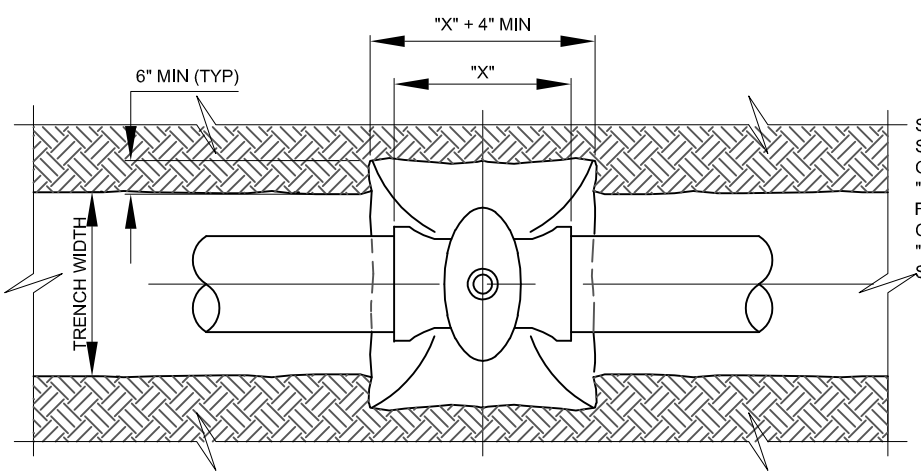
WATERLINE THRUST BLOCKING

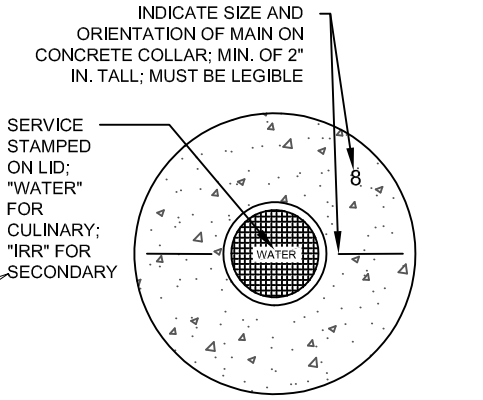
DEPARTMENT
ENGINEERING

STANDARD DETAIL
5

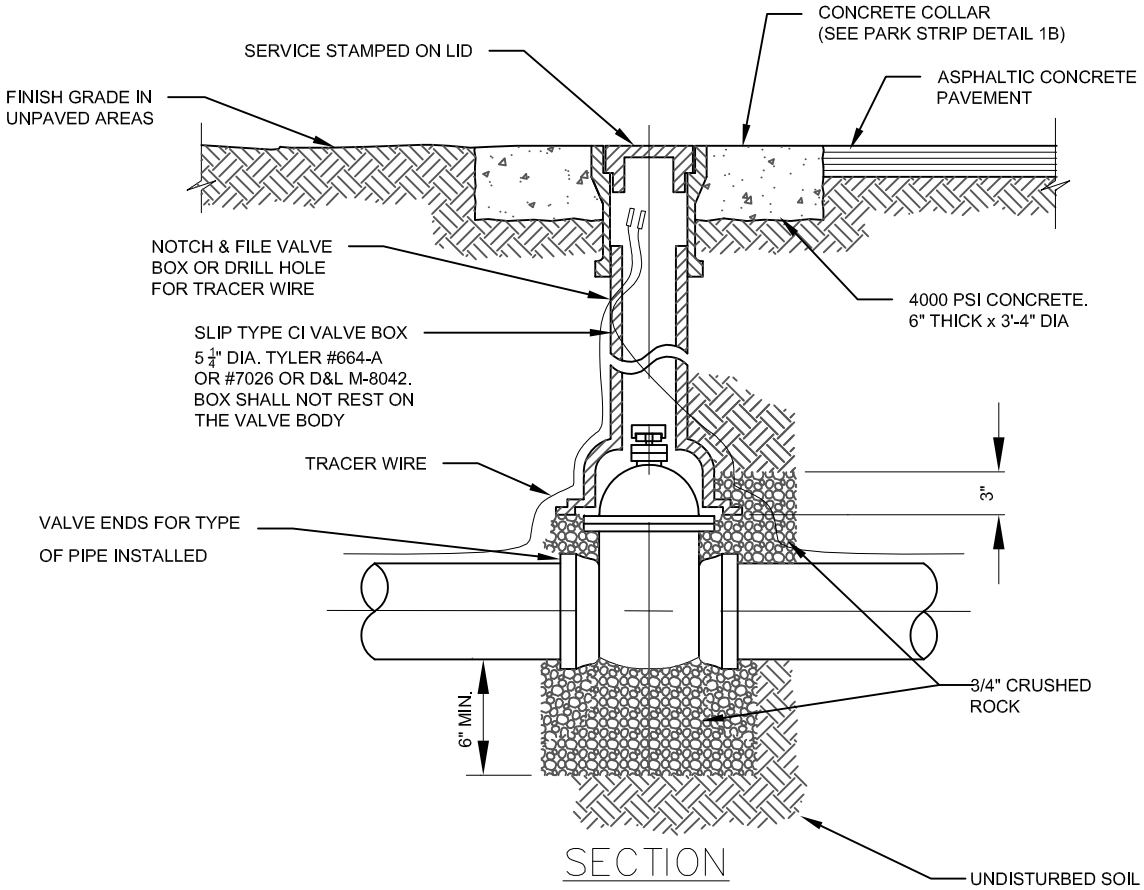
REVISION
JULY 2020



PLAN



CONCRETE COLLAR EXAMPLE



SECTION

NOTES:

1. ALL BURIED VALVES SHALL BE PROVIDED W/ 2" SQ. AWWA NUT. NUT IS TO INDICATE DIRECTION OF ROTATION TO OPEN VALVE.
2. COAT BURIED PIPE & VALVE BOX PER SPECIFICATIONS.
3. CLEAN VALVE BOX OF ALL DEBRIS AND SOIL.

MAGNA WATER DISTRICT
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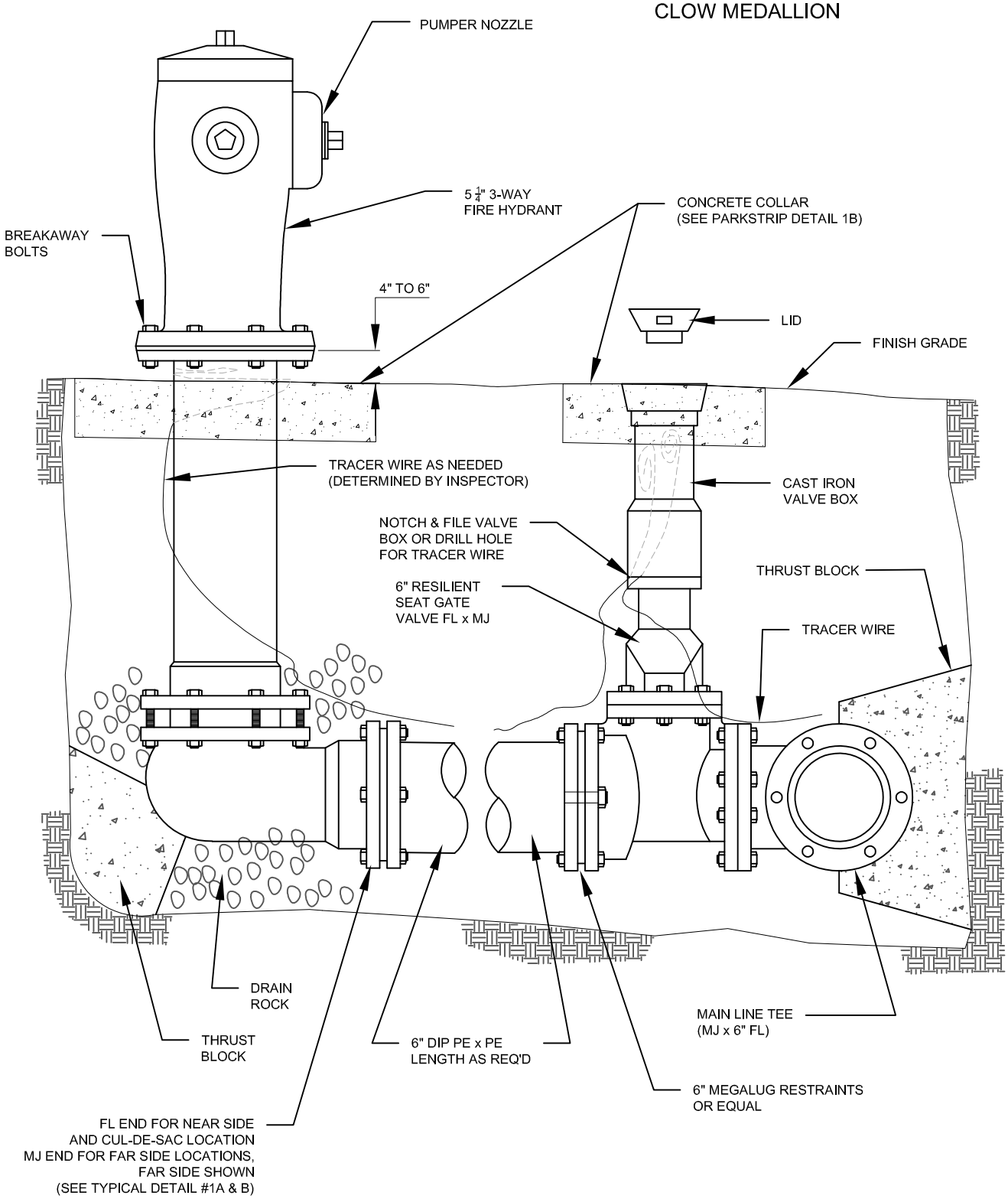
GATE VALVE

DEPARTMENT
ENGINEERING

STANDARD DETAIL
6

REVISION
JULY 2020

APPROVED MANUFACTURERS:
MUELLER SUPER CENTURION,
CLOW MEDALLION



NOTE: HYDRANT & FITTINGS
TO BE POLY WRAPPED.

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FIRE HYDRANT DETAIL

DEPARTMENT
ENGINEERING

STANDARD DETAIL
7

REVISION
JULY 2020

RELOCATED METERS

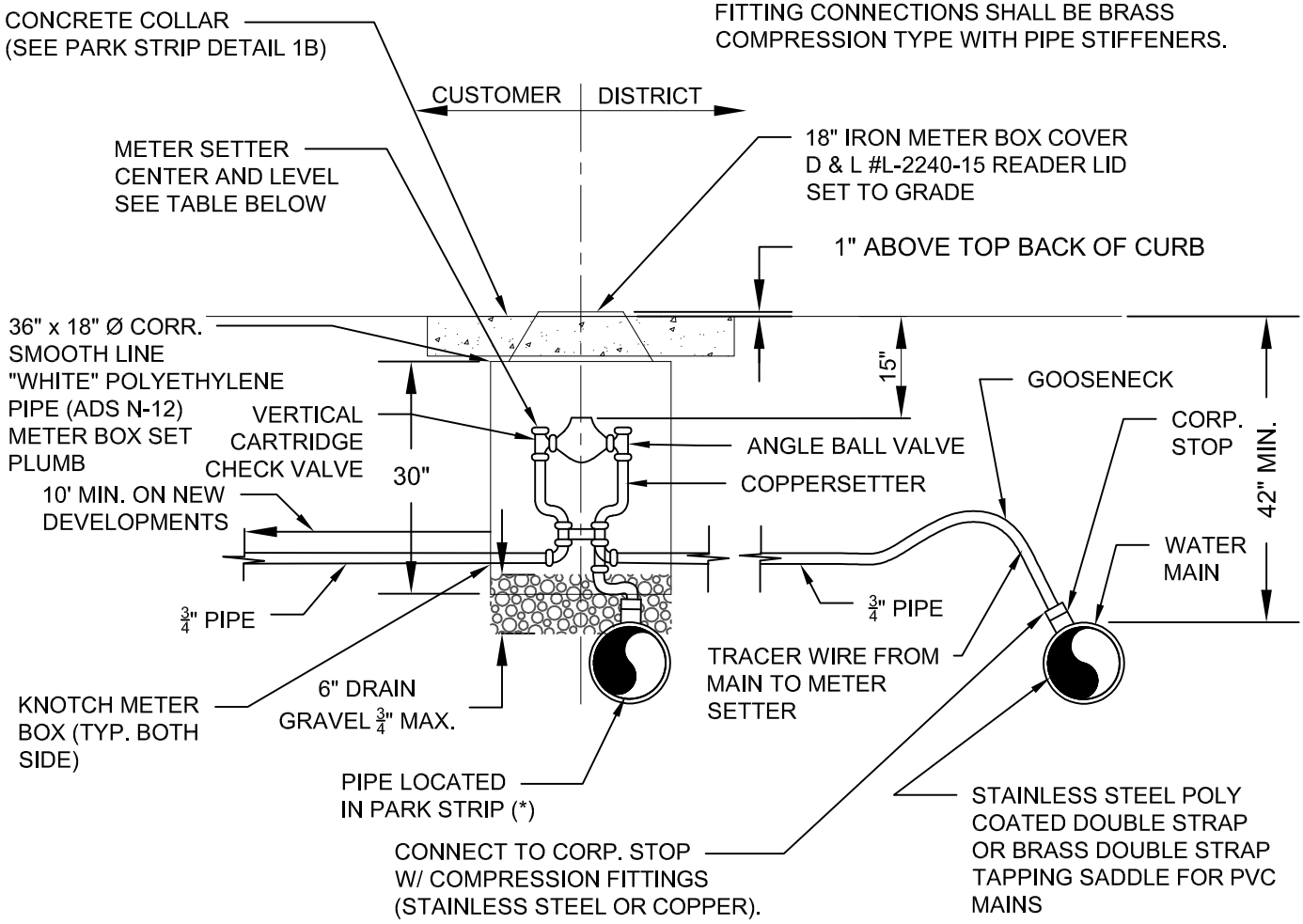
EXIST. LID, BOX, METER, AND SETTER TO BE RELOCATED TO LOCATIONS SHOWN ON PLANS. CONNECTION TO THE SUPPLY MAIN, CORP. STOP, AND SERVICE PIPING FROM THE MAIN TO THE METER, AND FROM THE METER TO THE OWNER'S PIPING TO BE PROVIDED BY THE CONTRACTOR MAKING SERVICE COMPLETE AND OPERATIONAL. AT THE OPTION OF 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 #
5/8" x 3/4"	18"	B-2470-6AN
3/4" x 3/4"	18"	B-2470-6AN

MAGNA WATER DISTRICT
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¾" WATER METER SERVICE WITH SETTER

DEPARTMENT
ENGINEERING

STANDARD DETAIL
8

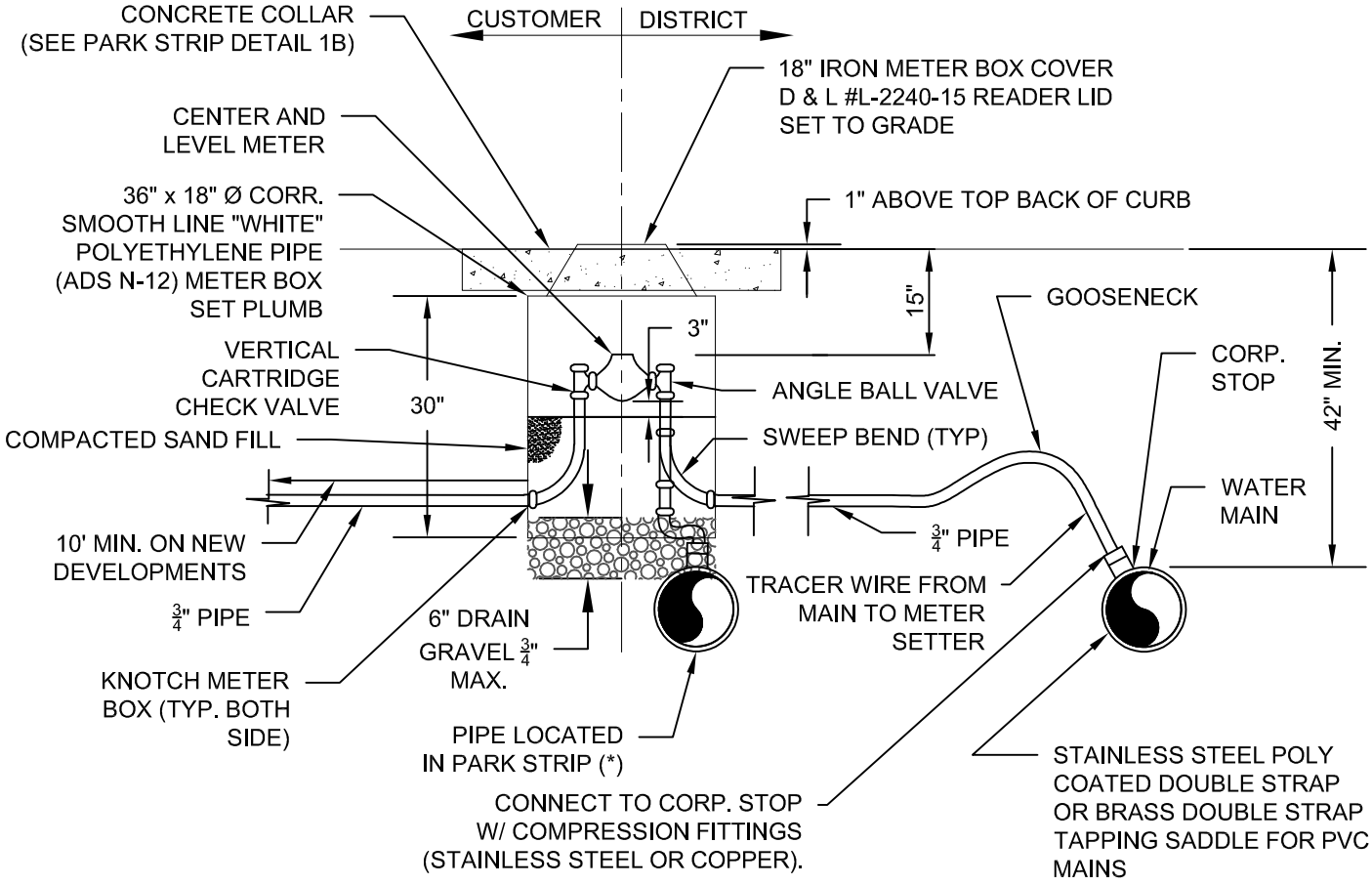
REVISION
JULY 2020

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 OWNERS 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 THE METER WILL BE PROVIDED BY THE DISTRICT. SETTER WILL BE PROVIDED BY THE CONTRACTOR. CONNECTION TO THE SUPPLY MAIN, CORP. STOP, AND SERVICE PIPING FROM THE MAIN TO THE METER AND FROM THE METER TO 10'-0" ONTO THE OWNERS PROPERTY SHALL BE PROVIDED BY THE CONTRACTOR.

GENERAL NOTE

1. ALL SERVICE LINES 1" OR LESS SHALL USE SMOOTH WALL HDPE PIPE SDR 9 PE 3408. FITTING CONNECT SHALL BE BRASS COMPRESSION TYPE WITH PIPE STIFFENERS.
2. DETAIL 8A IS AN ALTERNATIVE TO DETAIL 8 AND MAY ONLY BE USED IF GIVEN APPROVAL BY THE DISTRICT ENGINEER.



MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
801-250-2118

¾" WATER METER SERVICE WITHOUT SETTER

DEPARTMENT: ENGINEERING

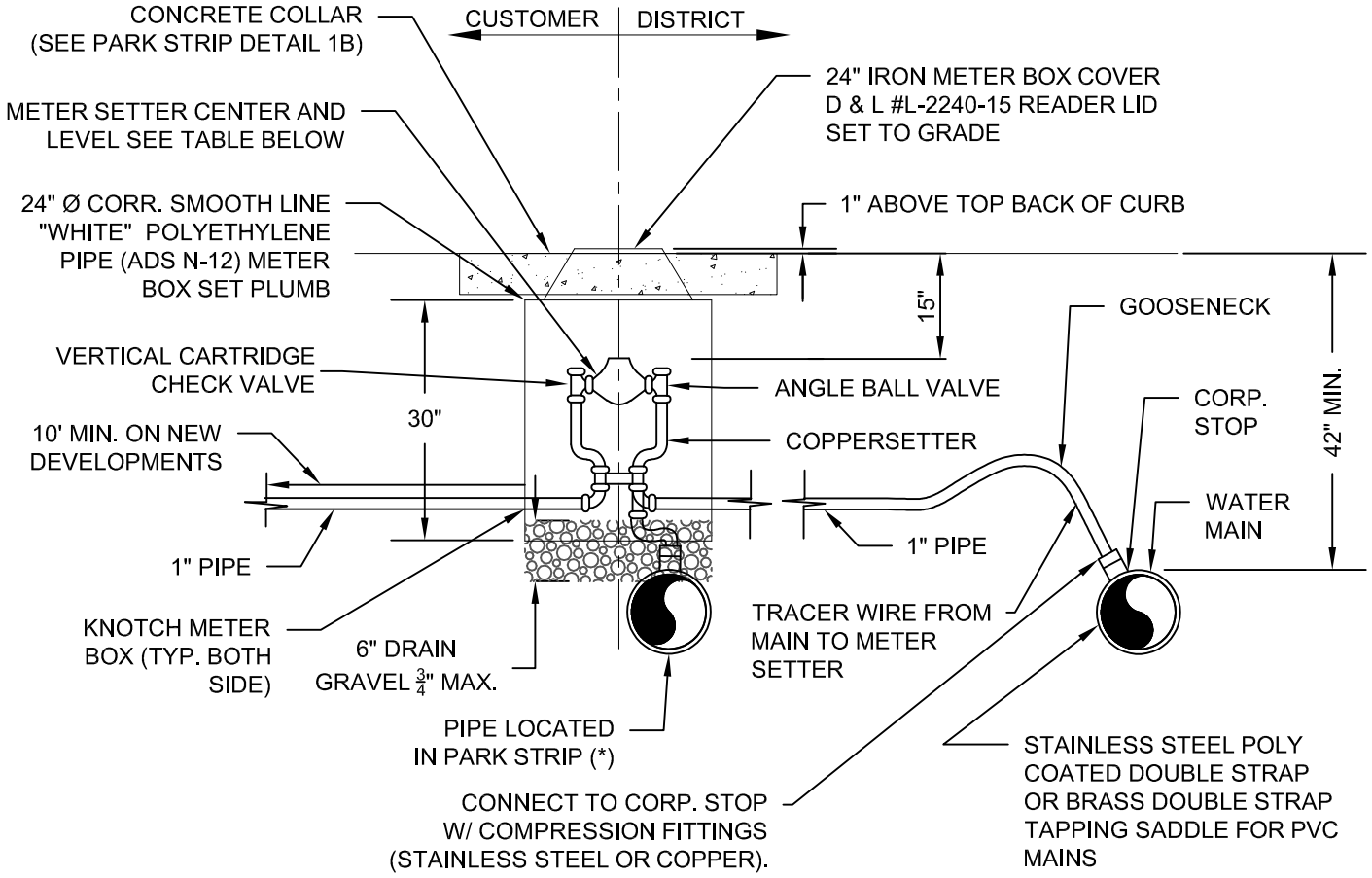
STANDARD DETAIL: 8A

REVISION: JULY 2020

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 OWNERS 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 PIPING FROM THE MAIN TO THE METER AND FROM THE METER TO 10'-0" ONTO THE OWNERS PROPERTY SHALL BE PROVIDED BY THE CONTRACTOR.

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



WATER METER SETTER		
METER SIZE	RISER HEIGHT	MUELLER MODEL #
1" x 1"	18"	B-2470-6AN

MAGNA WATER DISTRICT
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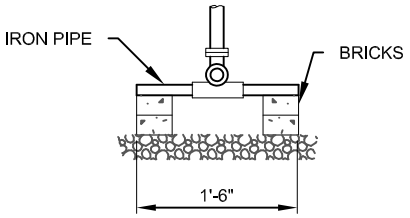
1" WATER METER SERVICE

DEPARTMENT
ENGINEERING

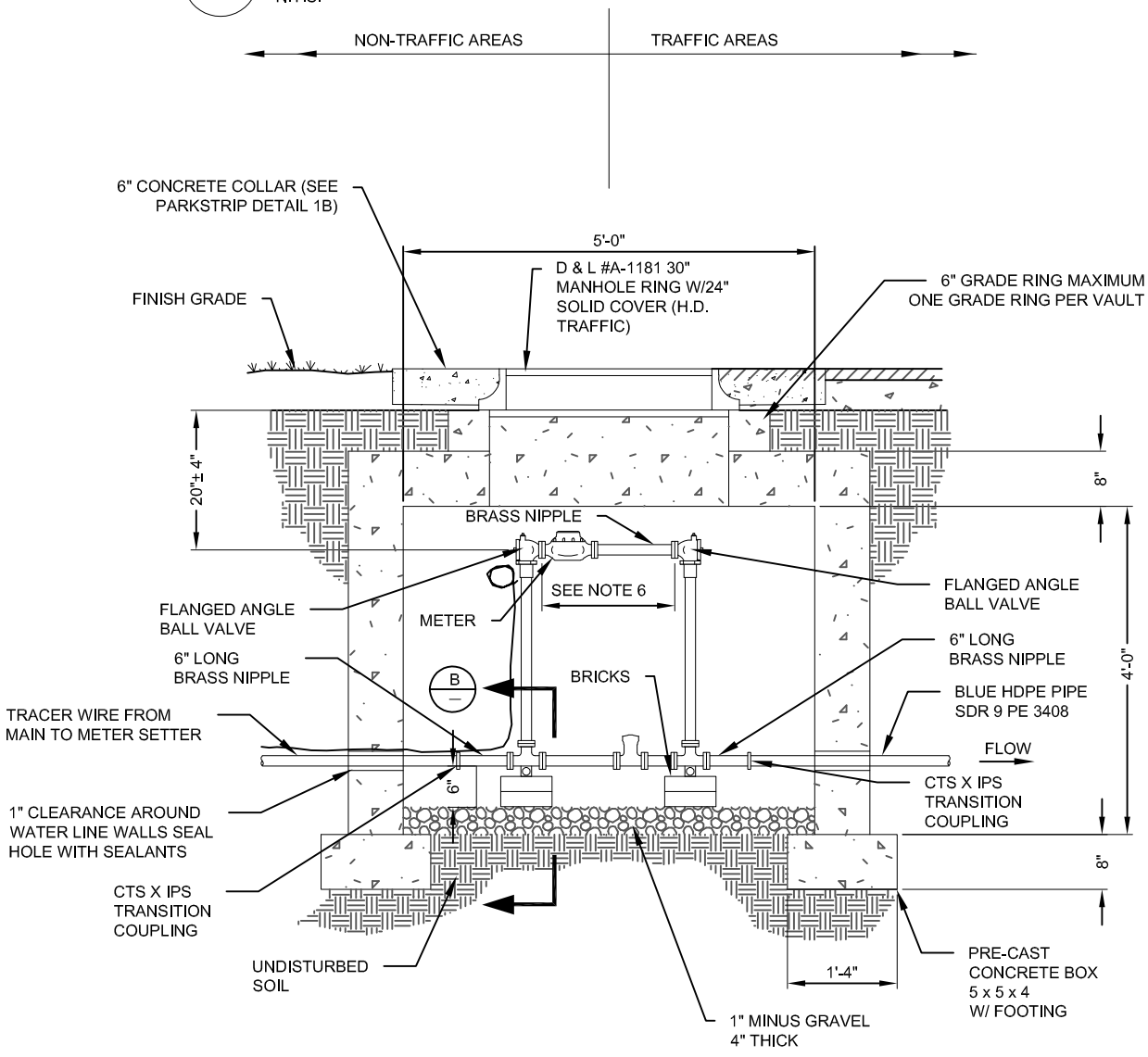
STANDARD DETAIL
9

REVISION
JULY 2020



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"

B — SECTION
— N.T.S.



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

MAGNA WATER DISTRICT
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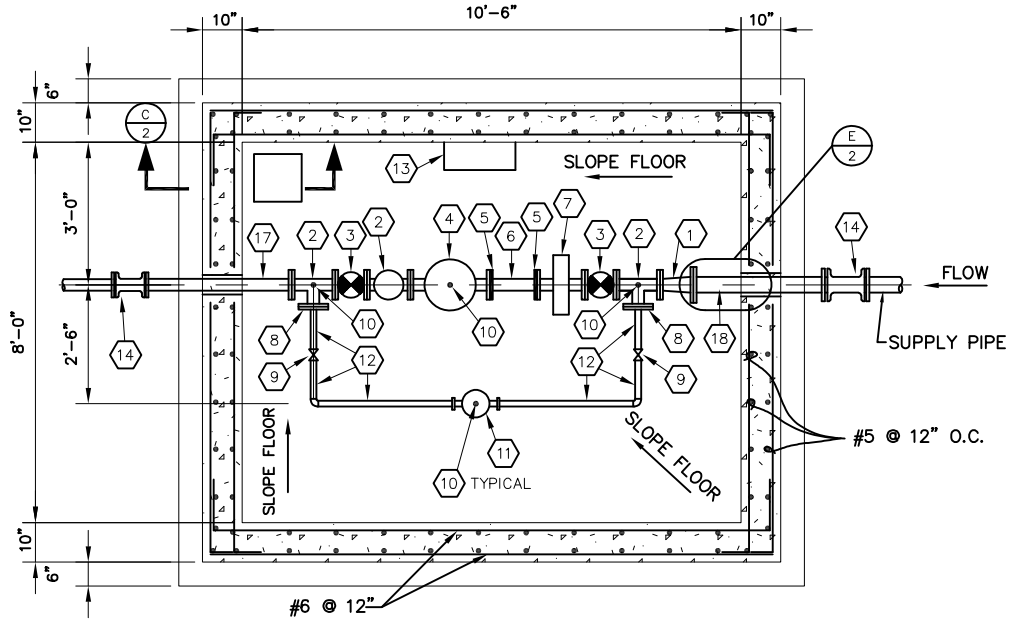
1 1/2" & 2" METER VAULT

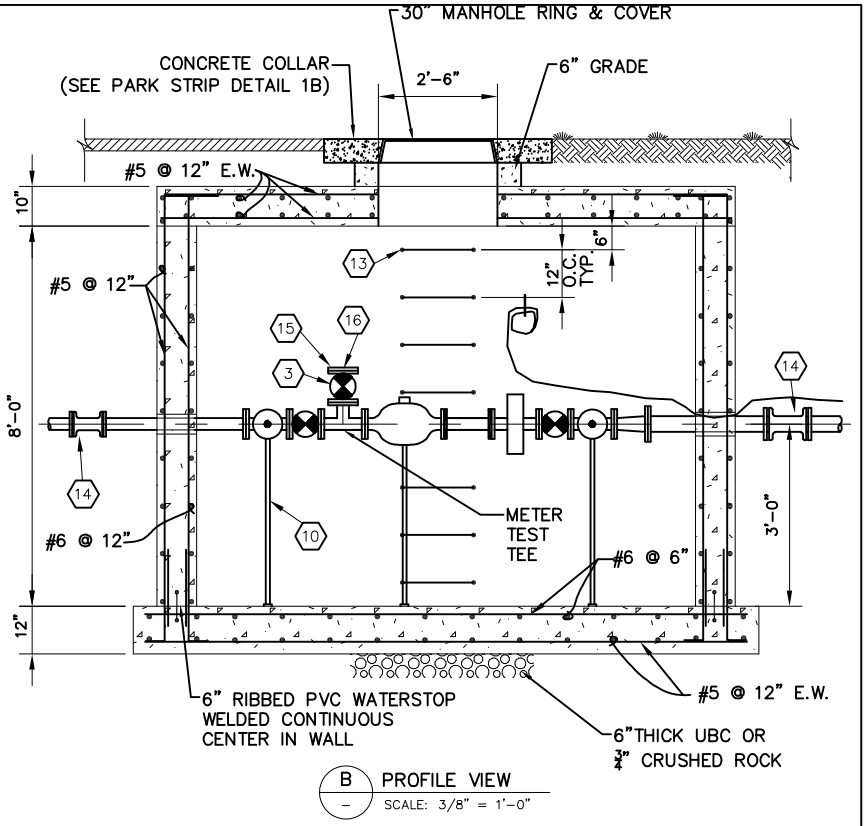
DEPARTMENT
ENGINEERING

STANDARD DETAIL
10

REVISION
JULY 2020



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	–	POLYPROPLYNE 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.

MAGNA WATER DISTRICT
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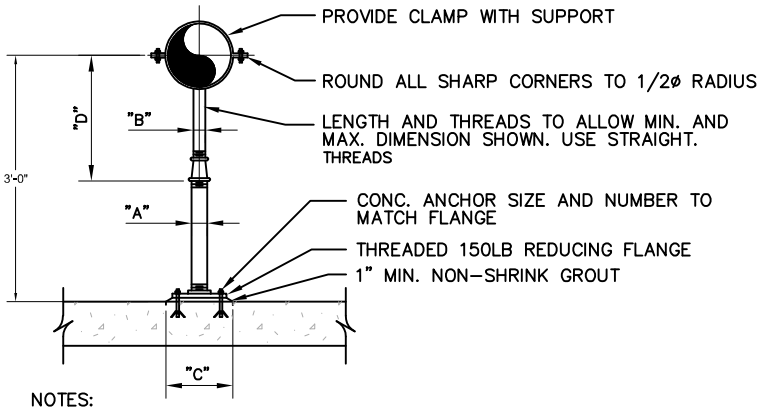
3-INCH WATER METER VAULT

DEPARTMENT
ENGINEERING

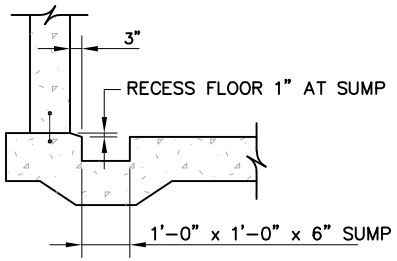
STANDARD DETAIL	REVISION	DRAWING NO.
11	JULY 2020	1 OF 2



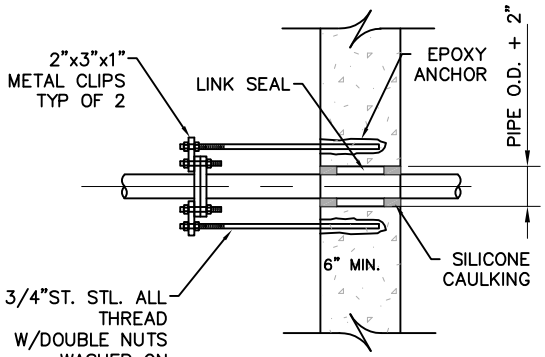
NOTES:

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

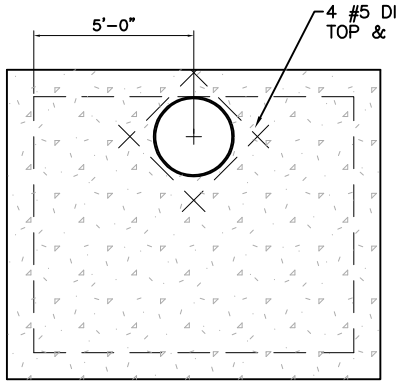
F / 1 ADJUSTABLE PIPE SUPPORT
N.T.S.



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



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



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

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

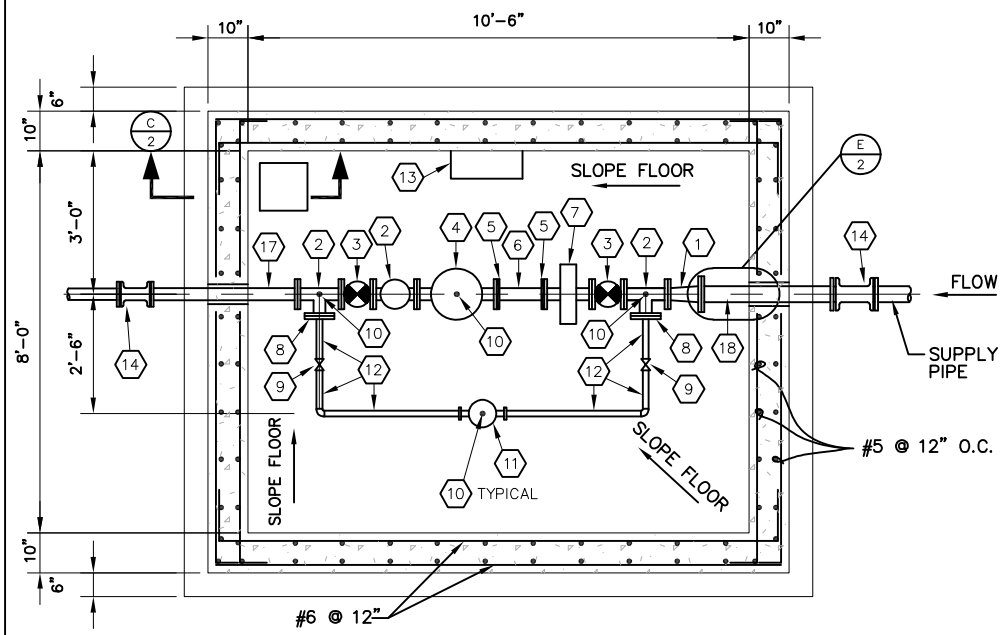
* USE 2 1/2" SUPPORTS FOR PIPE LESS THAN 2 1/2"ø

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
801-250-2118

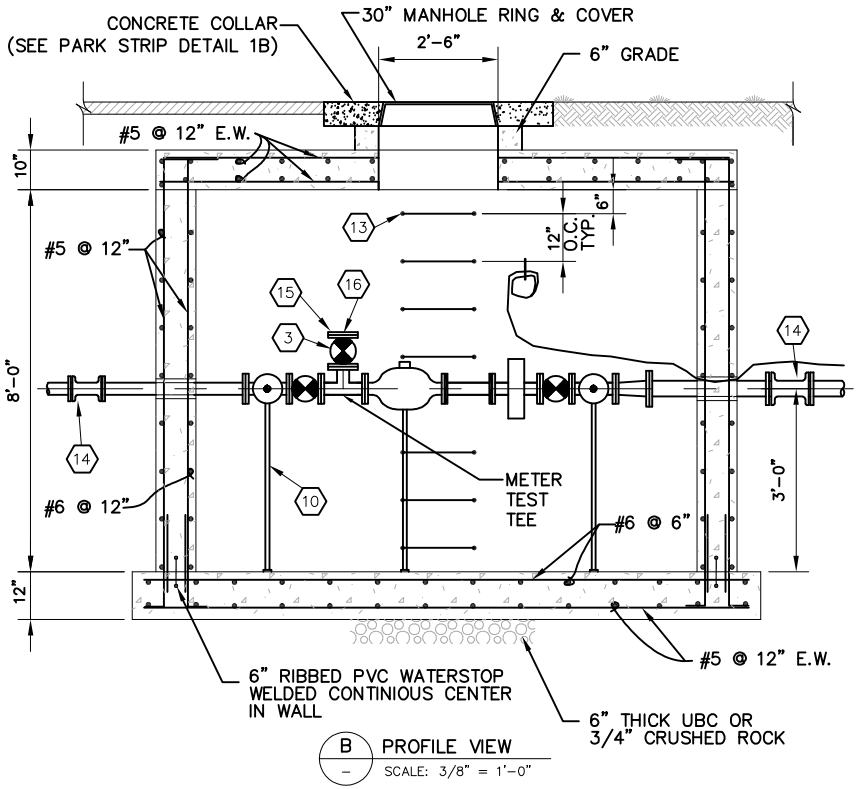
3-INCH WATER METER VAULT

DEPARTMENT
ENGINEERING

STANDARD DETAIL	REVISION	DRAWING NO.
11	JULY 2020	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	–	POLYPROPLYNE 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.

MAGNA WATER DISTRICT
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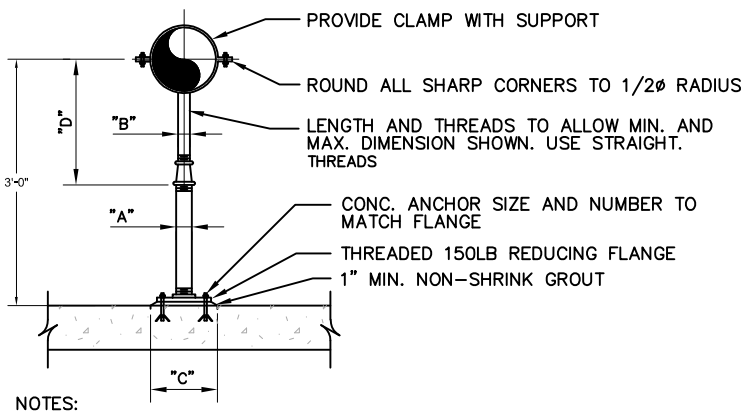
801-250-2118

4-INCH WATER METER VAULT

DEPARTMENT: ENGINEERING

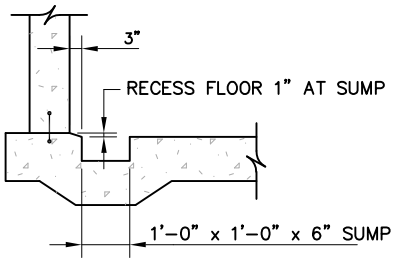
STANDARD DETAIL	REVISION	DRAWING NO.
12	JULY 2020	1 OF 2



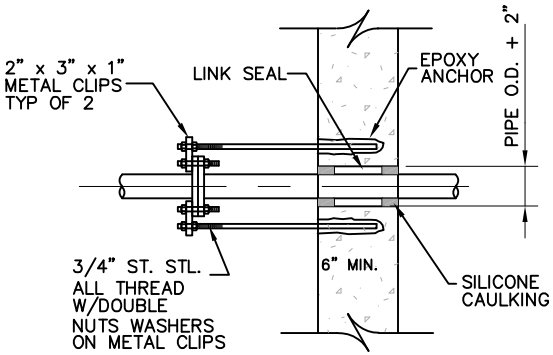
NOTES:

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

F / 1 ADJUSTABLE PIPE SUPPORT
N.T.S.



C / 1 SUMP SECTION
SCALE: N.T.S.

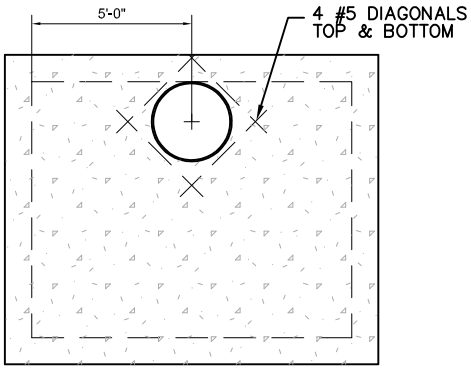


E / 1 THRUST RESTRAINT
TYP INLET & OUTLET PIPES
SCALE: N.T.S.

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



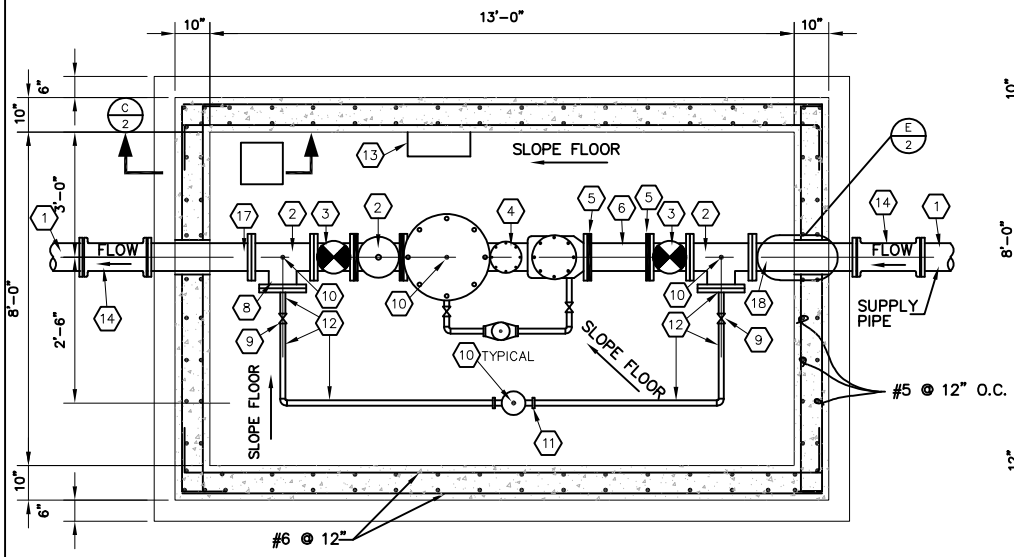
D / 1 DECK SLAB PLAN VIEW
SCALE: N.T.S.

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
801-250-2118

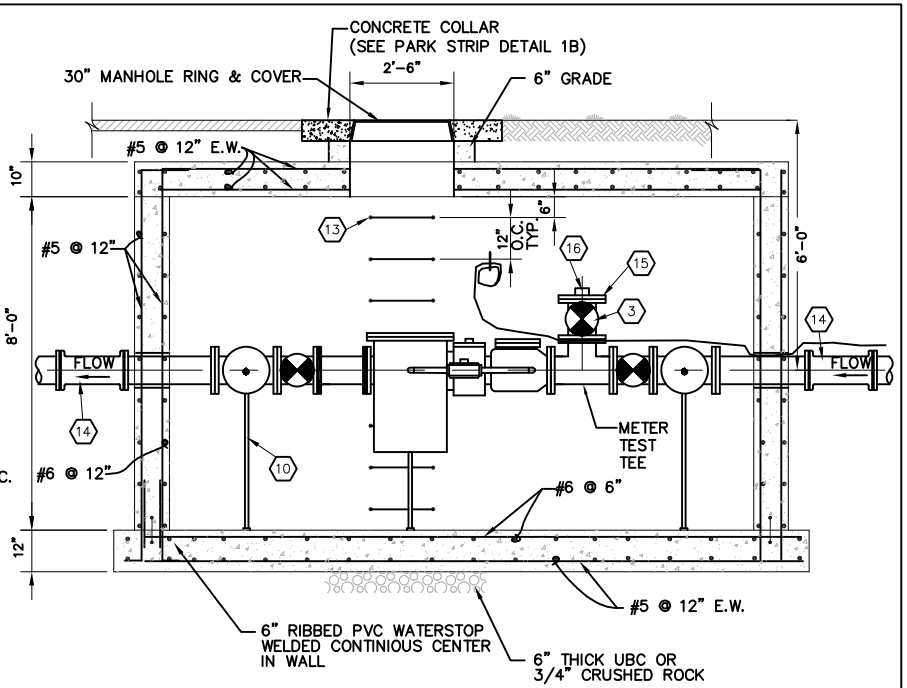
4-INCH WATER METER VAULT

DEPARTMENT
ENGINEERING

STANDARD DETAIL	REVISION	DRAWING NO.
12	JULY 2020	2 OF 2



A METER VAULT PLAN VIEW



B PROFILE VIEW

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	–	POLYPROPLYNE 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.

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
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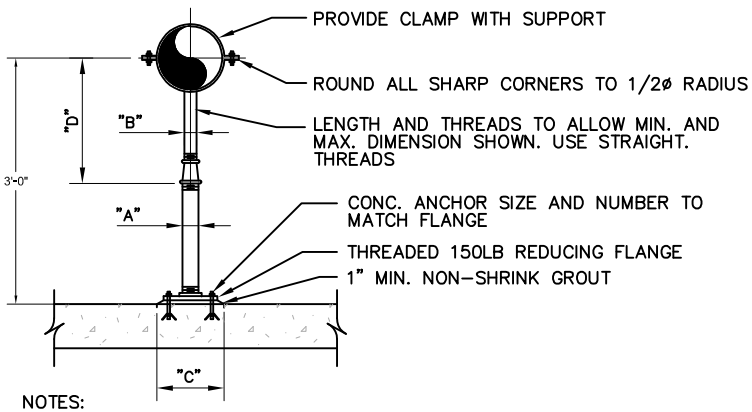
8 & 10-INCH WATER METER VAULT

DEPARTMENT
ENGINEERING

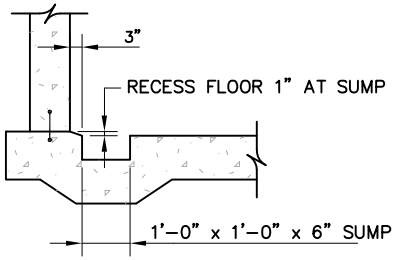
STANDARD DETAIL	REVISION	DRAWING NO.
13	JULY 2020	1 OF 2



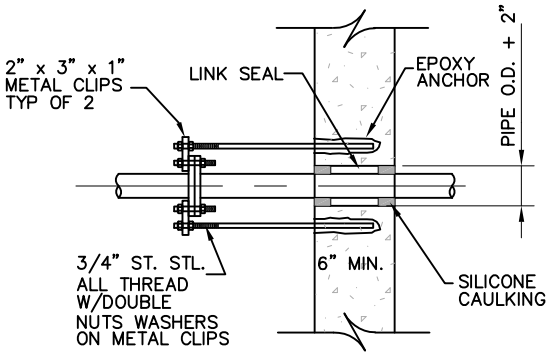
NOTES:

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

F / 1 ADJUSTABLE PIPE SUPPORT
N.T.S.



C / 1 SUMP SECTION
SCALE: N.T.S.

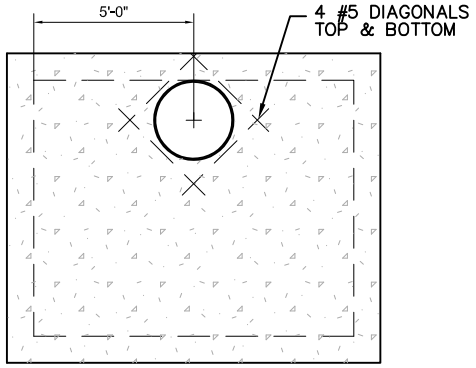


E / 1 THRUST RESTRAINT
TYP INLET & OUTLET PIPES
SCALE: N.T.S.

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



D / 1 DECK SLAB PLAN VIEW
SCALE: N.T.S.

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
801-250-2118

8 & 10-INCH WATER METER VAULT

DEPARTMENT
ENGINEERING

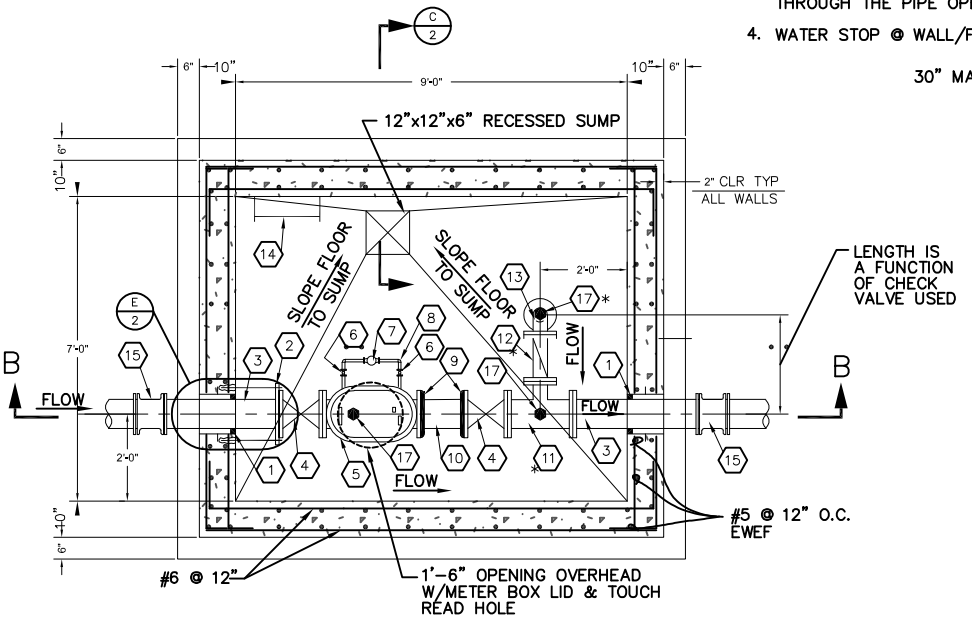
STANDARD DETAIL	REVISION	DRAWING NO.
13	JULY 2020	2 OF 2

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

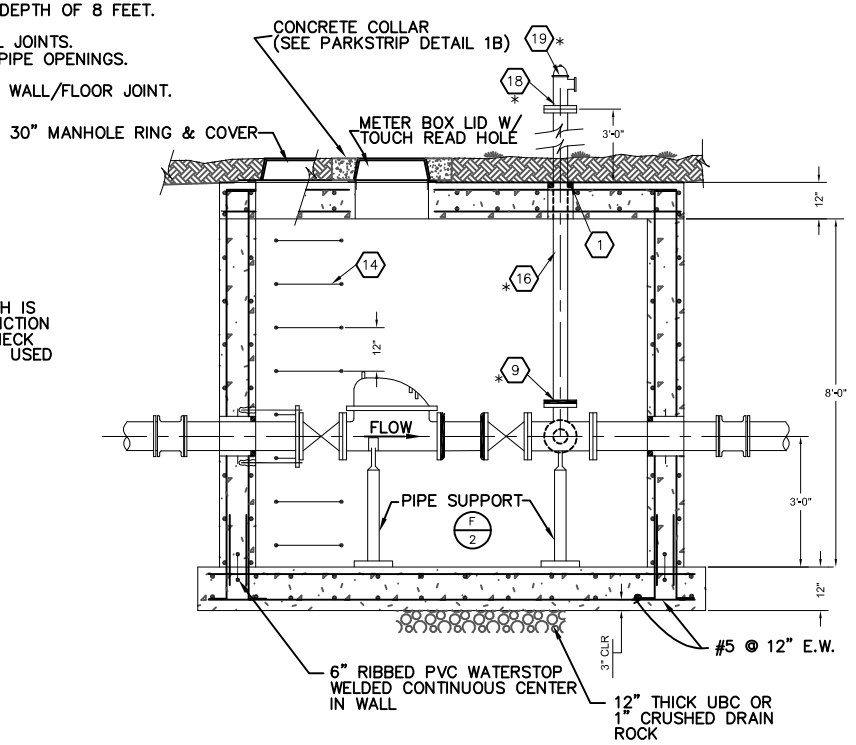


A/– FLOW DETECTOR CHECK VAULT
PLAN VIEW
SCALE: NTS

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.



B/– SECTION VIEW
SCALE: NTS

MARK	DESCRIPTION
1	GALV. PIPE SLEEVE WITH 3" SEEP RING AND "LINK SEAL"
2	THRUST RESTRAINTSEE F/2
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
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	POLYPROPLYNE MH STEPS @ 12" O.C.
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

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
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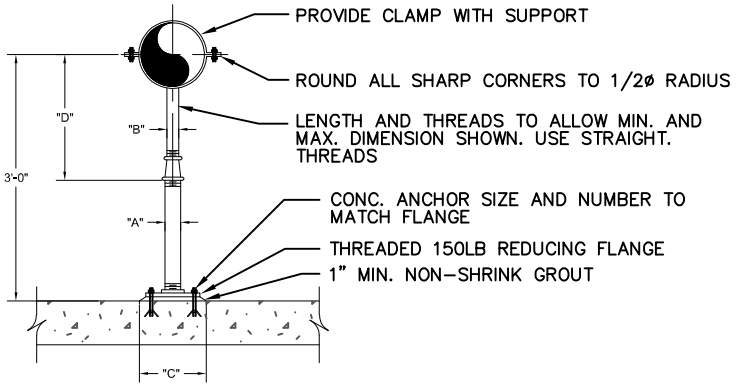
6" & 8" FIRE FLOW DETECTOR

DEPARTMENT: ENGINEERING

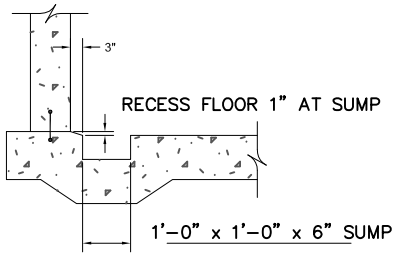
STANDARD DETAIL	REVISION	DRAWING NO.
14	JULY 2020	1 OF 2



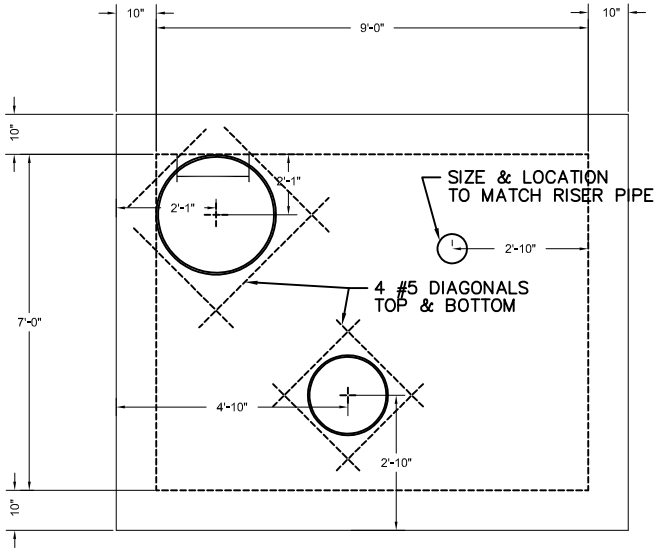
NOTES:

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

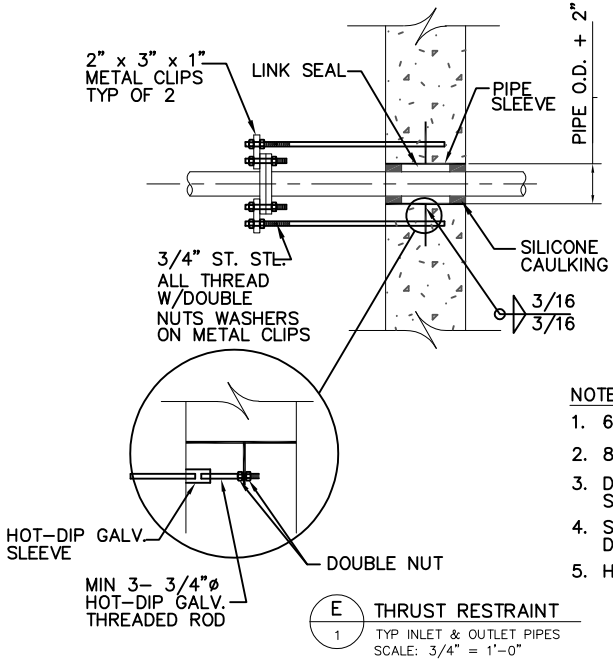
F / 1 ADJUSTABLE PIPE SUPPORT
N.T.S.



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



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



E / 1 THRUST RESTRAINT
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
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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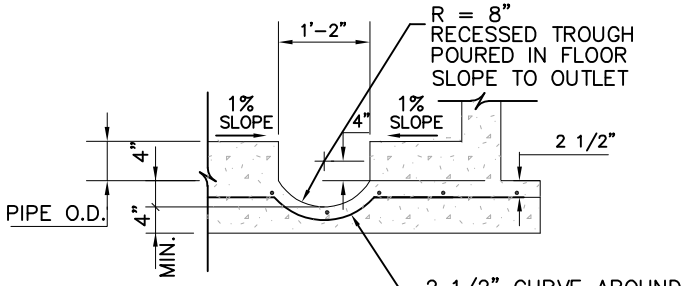
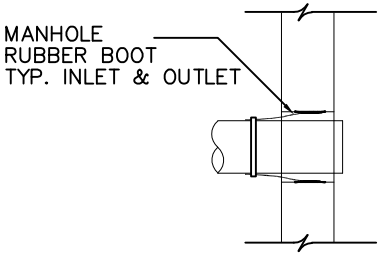
6" & 8" FIRE FLOW DETECTOR

DEPARTMENT
ENGINEERING

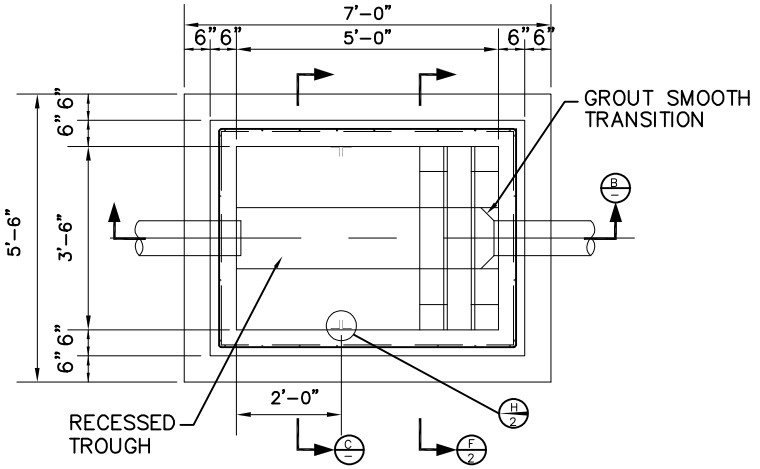
STANDARD DETAIL	REVISION	DRAWING NO.
14	JULY 2020	2 OF 2



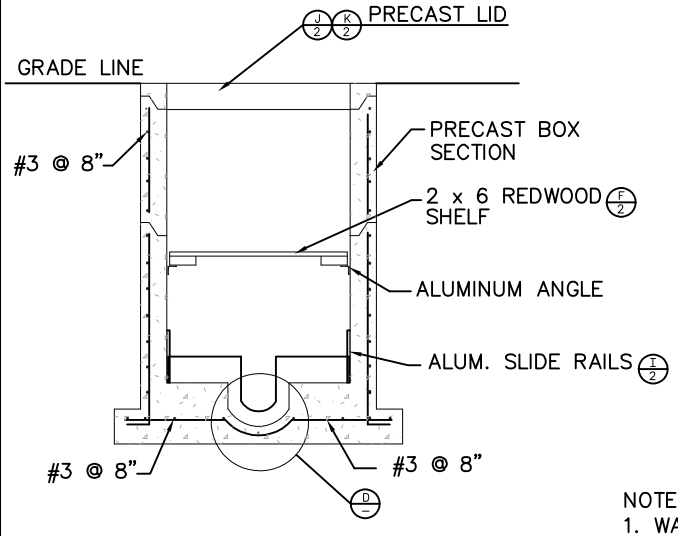
D — SECTION
N.T.S.



E — RUBBER BOOT
N.T.S.

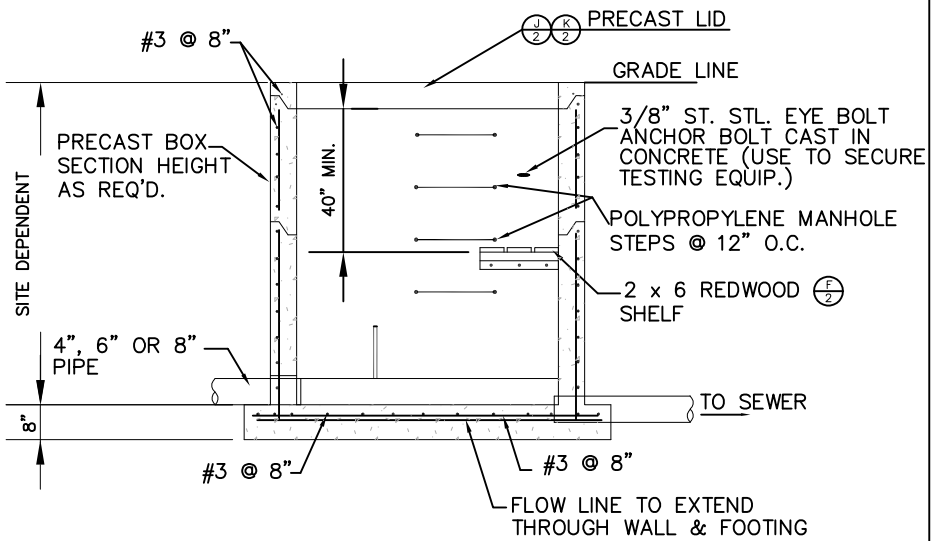


A — SAMPLE BOX PLAN
N.T.S.



C — SECTION
N.T.S.

NOTES:
1. WALLS & FLOOR POURED MONOLITHIC
2. USE MASTIC AT PRECAST JOINTS.
3. ALL JOINTS TO BE WATER TIGHT.



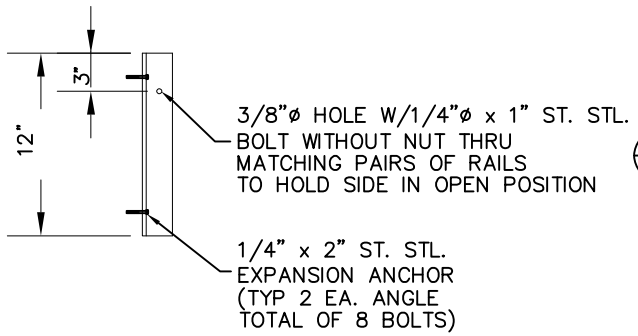
B — SECTION
N.T.S.

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
801-250-2118

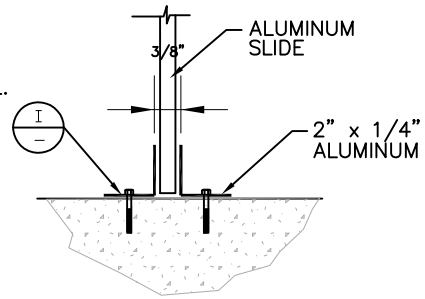
SAMPLE VAULT

DEPARTMENT
ENGINEERING

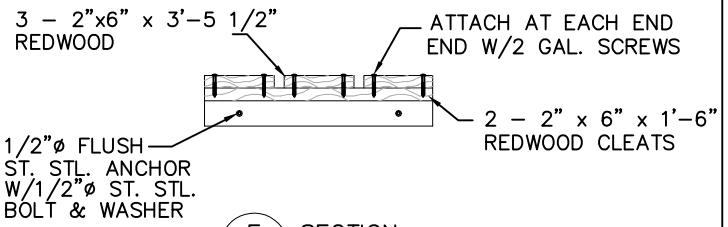
STANDARD DETAIL	REVISION	DRAWING NO.
15	JULY 2020	1 OF 2



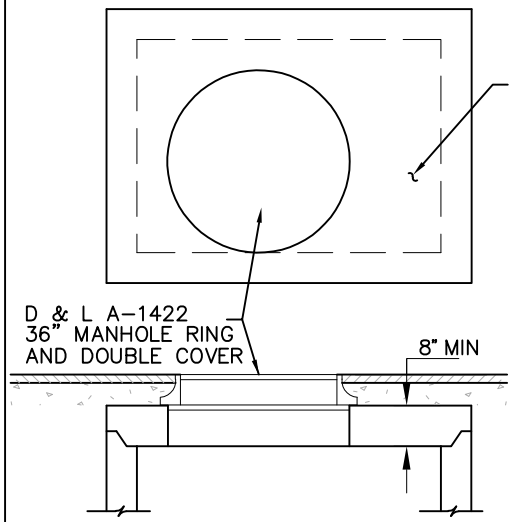
I / 1 ALUMINUM SLIDE RAILS
N.T.S. (TYP OF 4)



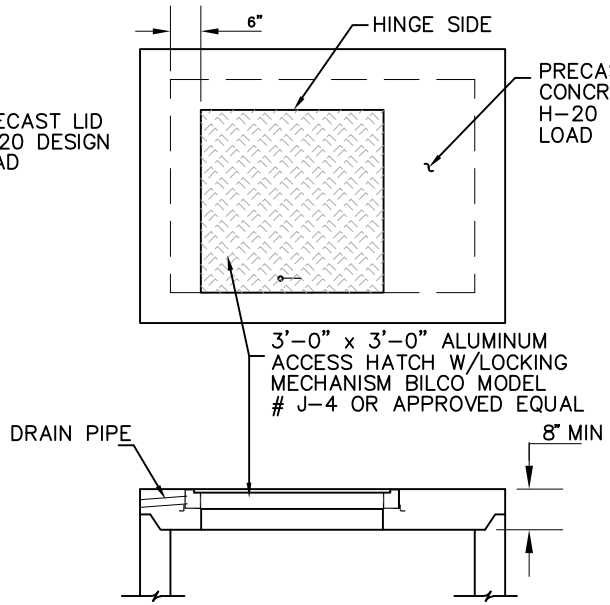
H / 1 DETAIL
N.T.S.



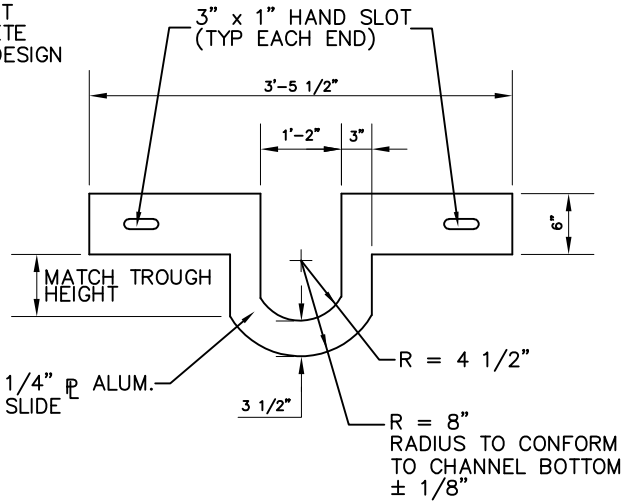
F / 1 SECTION
N.T.S.



J / 1 TRAVELED LID
N.T.S.



K / 1 NON TRAVELED LID
N.T.S.



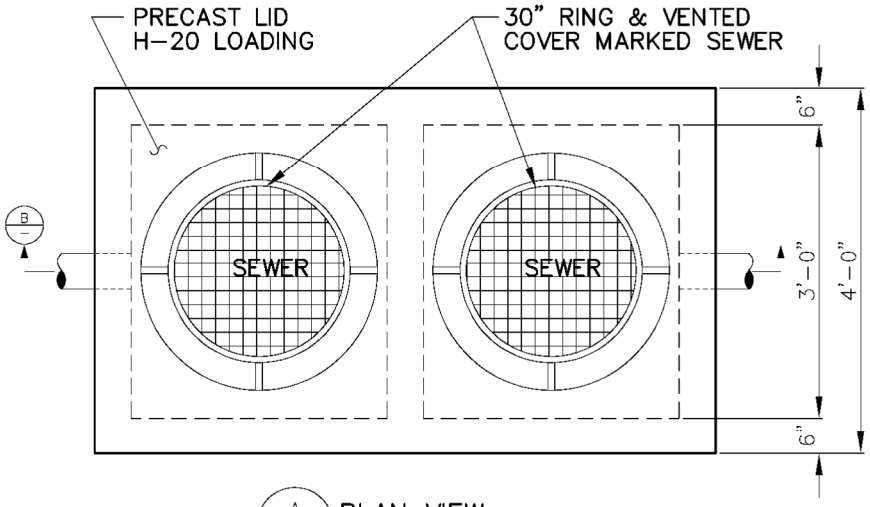
G / 1 ALUMINUM SLIDE
N.T.S.

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
MAGNA, UTAH, 84044
801-250-2118

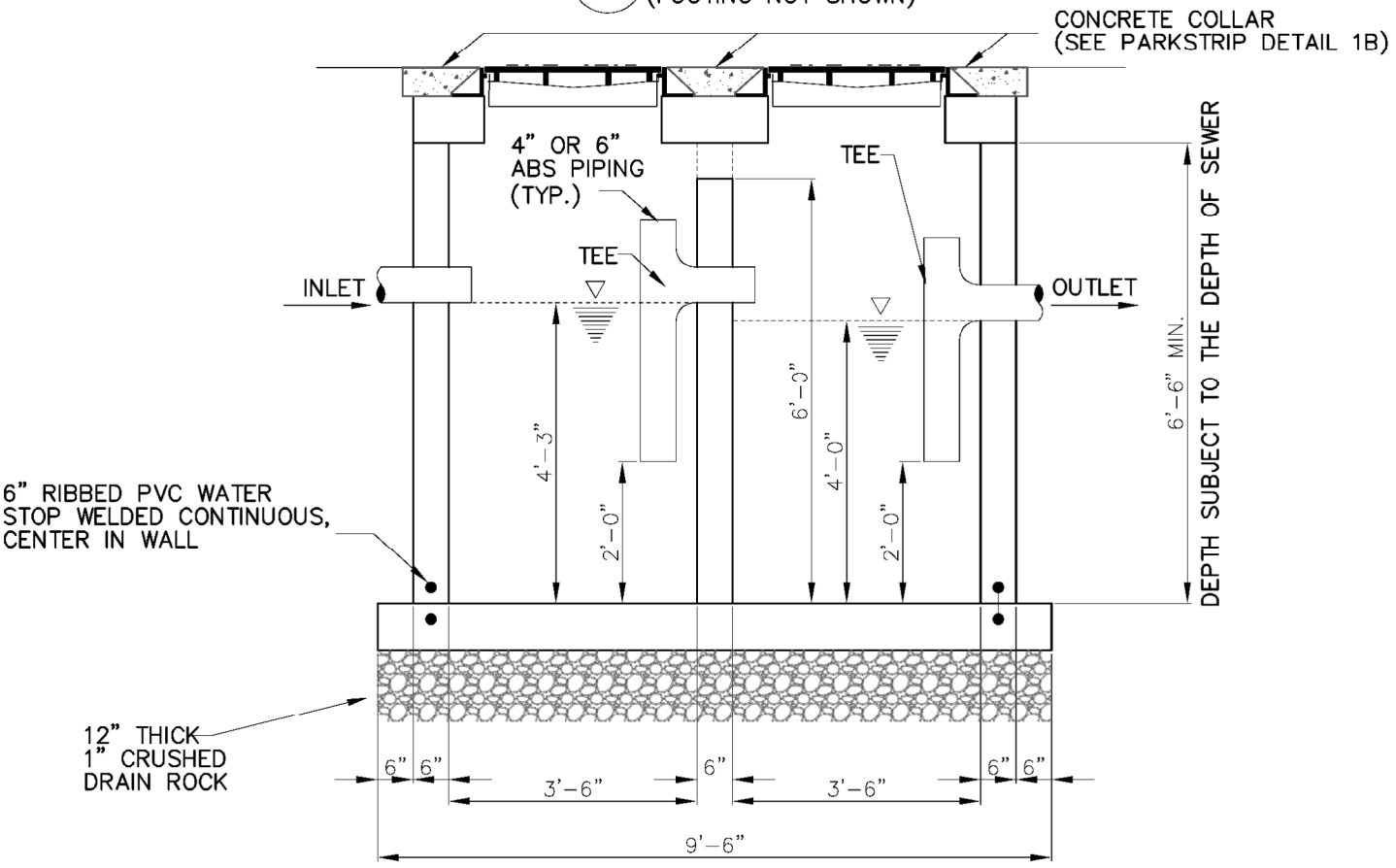
SAMPLE VAULT

DEPARTMENT
ENGINEERING

STANDARD DETAIL	REVISION	DRAWING NO.
15	JULY 2020	2 OF 2



A — PLAN VIEW
(FOOTING NOT SHOWN)



B — SECTION

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.

OIL & GREASE SEPARATOR
800 TO 1000 GALLON CAPACITY

MAGNA WATER DISTRICT
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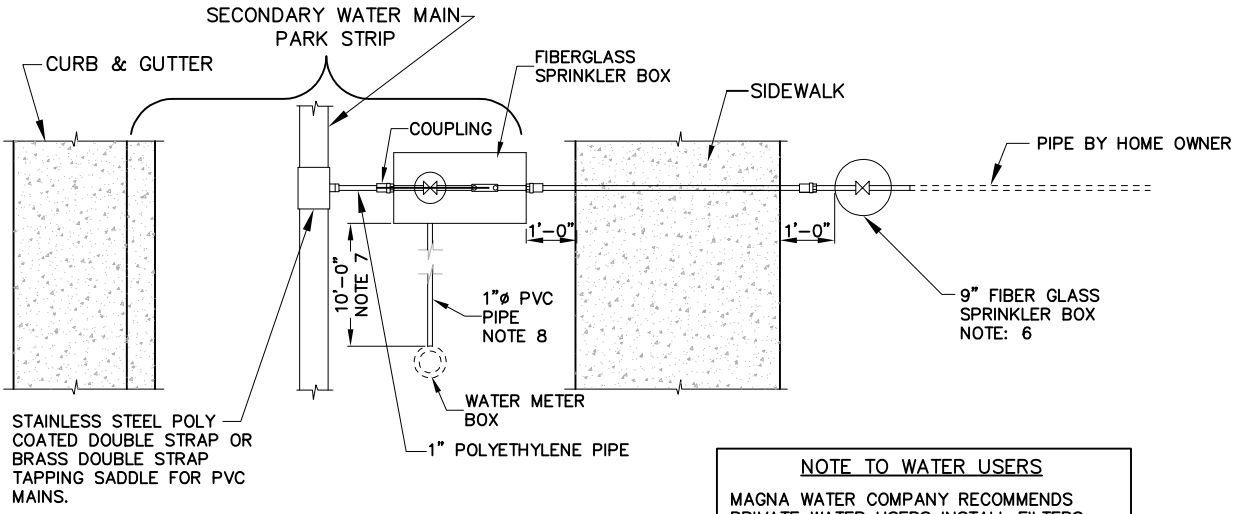
MAGNA, UTAH, 84044
801-250-2118

OIL & GREASE SEPARATOR

DEPARTMENT: ENGINEERING

STANDARD DETAIL: 16

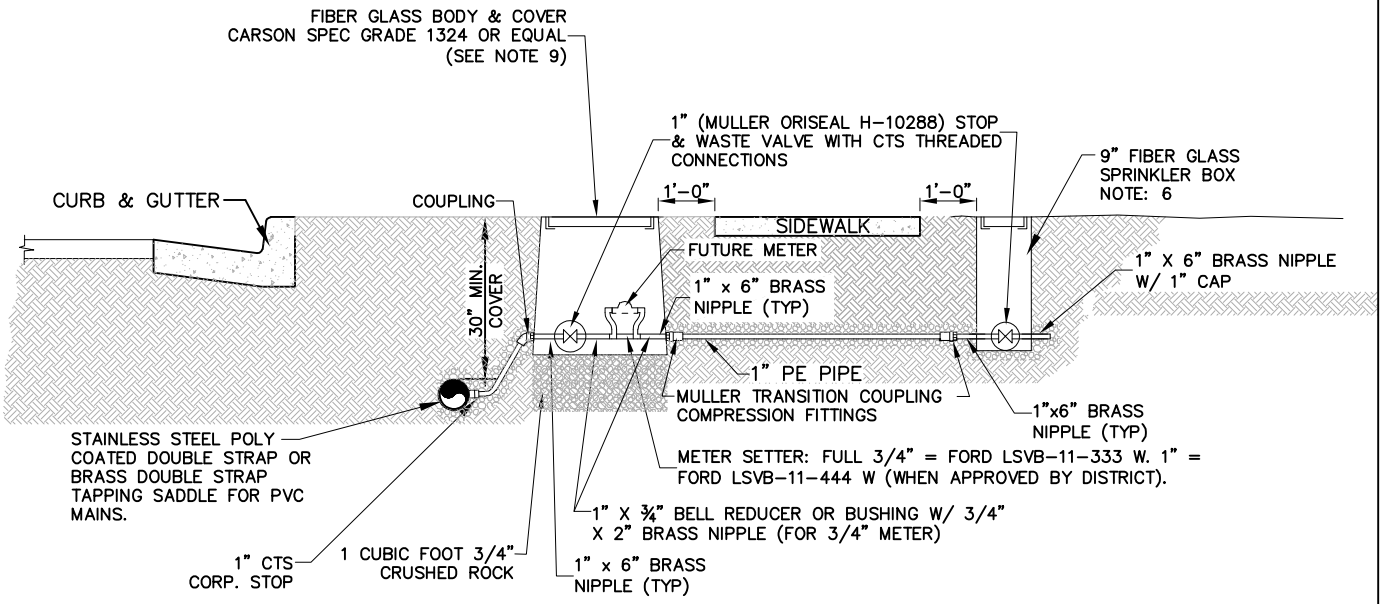
REVISION: JULY 2020



PLAN VEIW

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) PVC LINE SHALL BE INSTALLED BETWEEN METER BOXES FOR COMMUNICATION CABLE.
9) INSTALL CONCRETE METER BOX IN TRAFFICKED AREAS AS DETERMINED BY THE DISTRICT INSPECTOR

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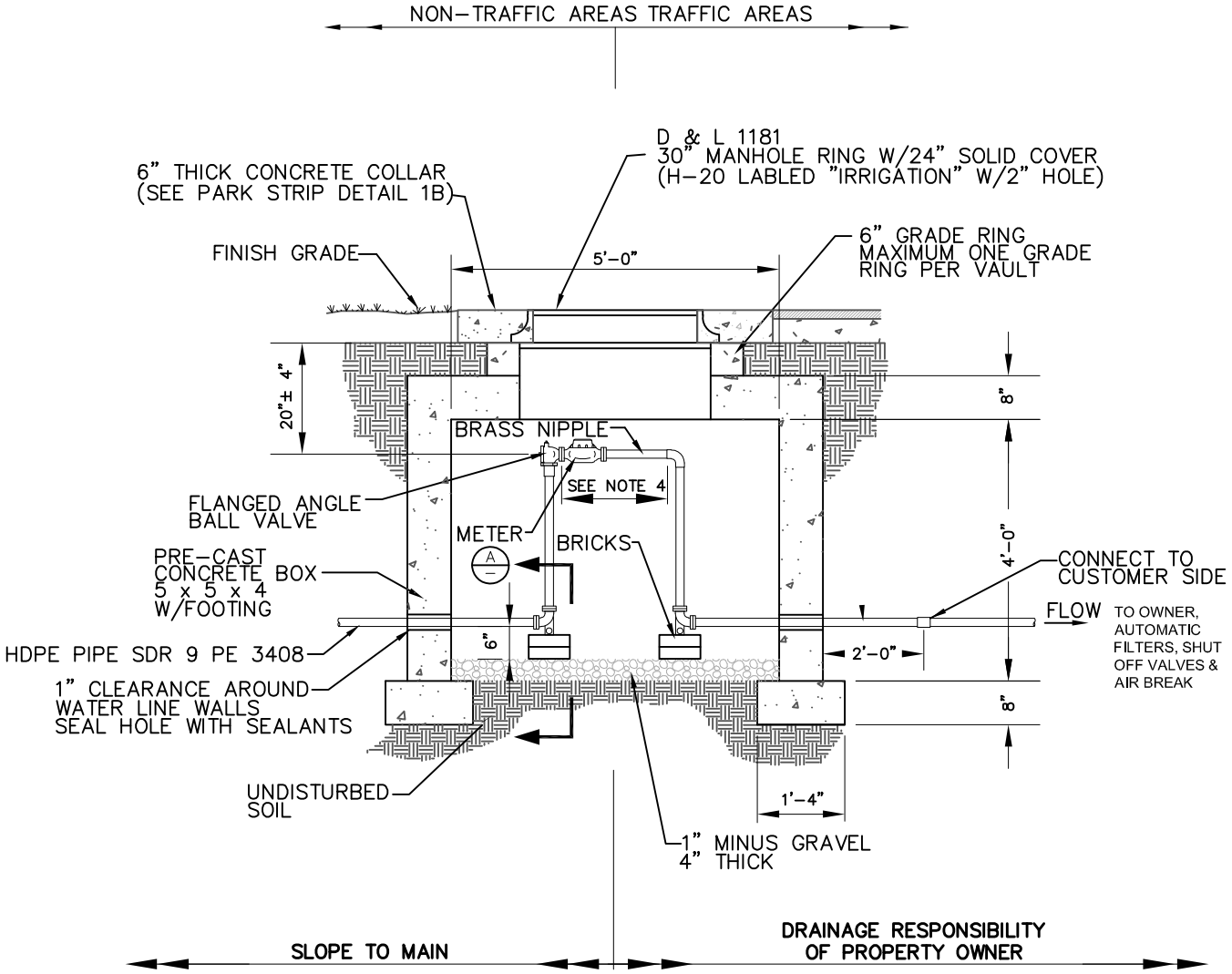
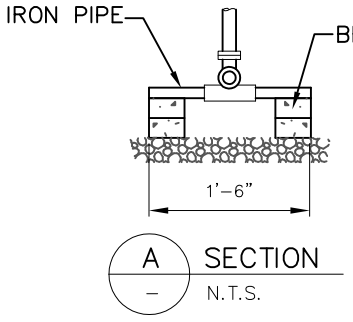
SECONDARY SINGLE WATER SERVICE CONNECTION DETAIL

DEPARTMENT: ENGINEERING

STANDARD DETAIL: 17

REVISION: JULY 2020





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
18

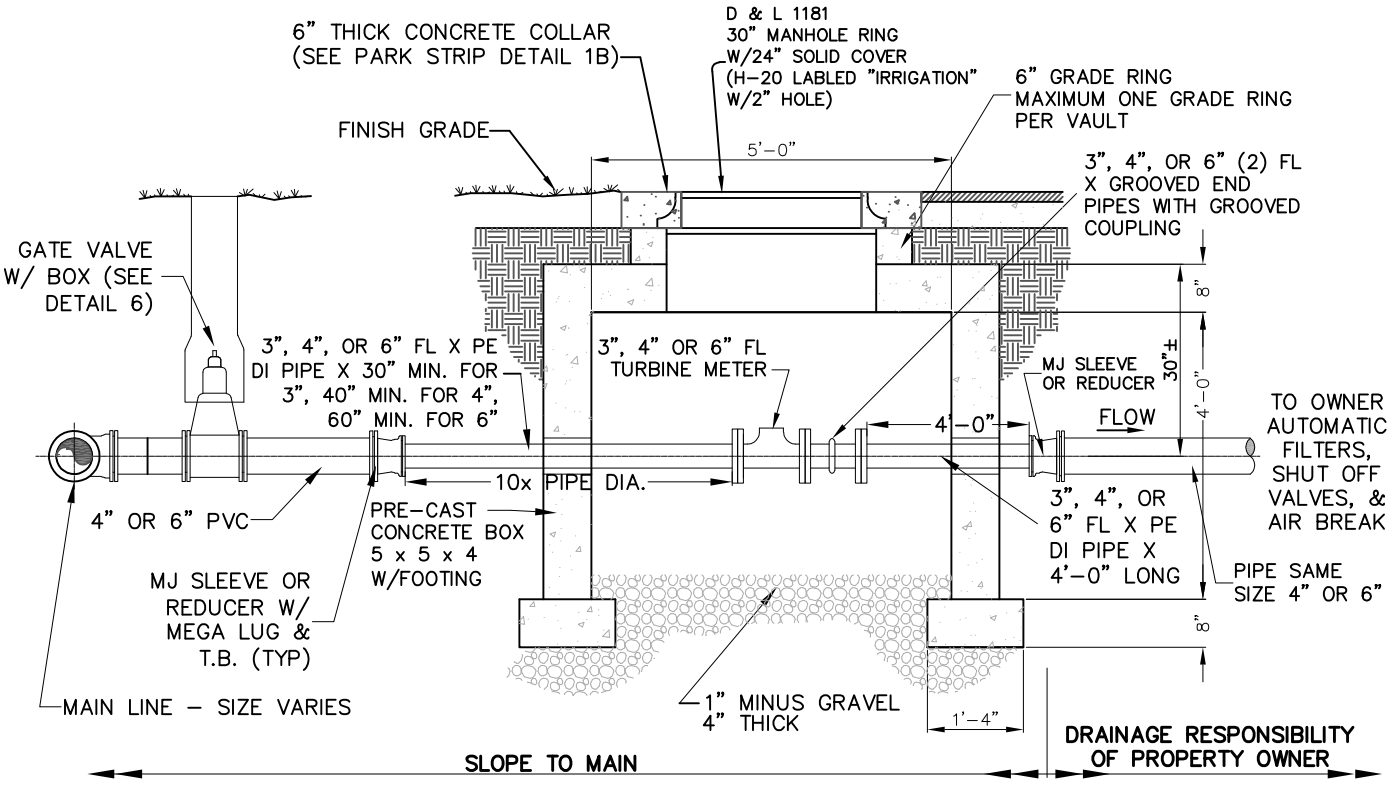
REVISION
JULY 2020

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 CADNIUM PLATED.



MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
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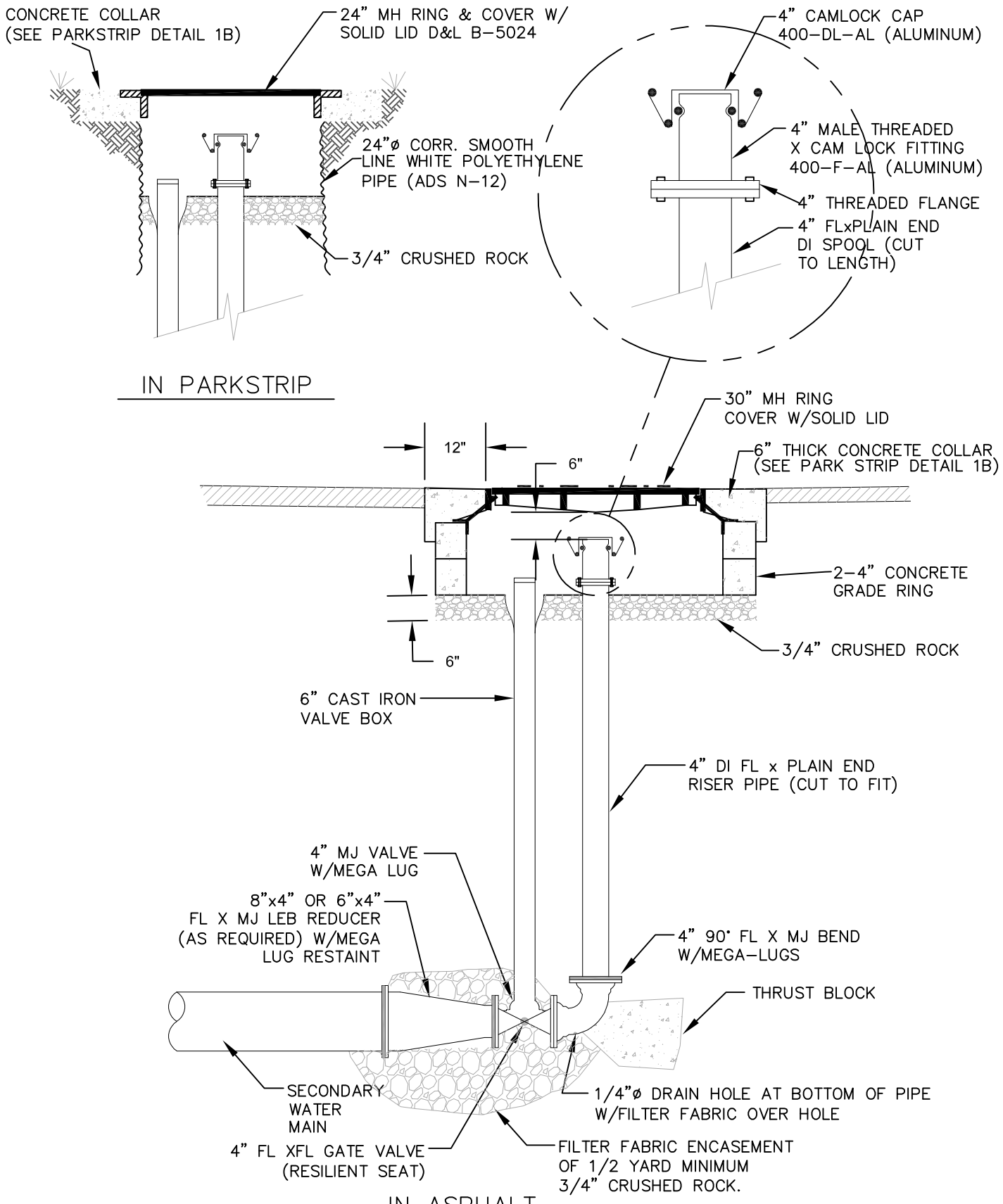
SECONDARY WATER 3", 4" OR 6" METER VAULT

DEPARTMENT: ENGINEERING

STANDARD DETAIL: 19

REVISION: JULY 2020



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

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4" BLOW-OFF

DEPARTMENT
ENGINEERING

STANDARD DETAIL
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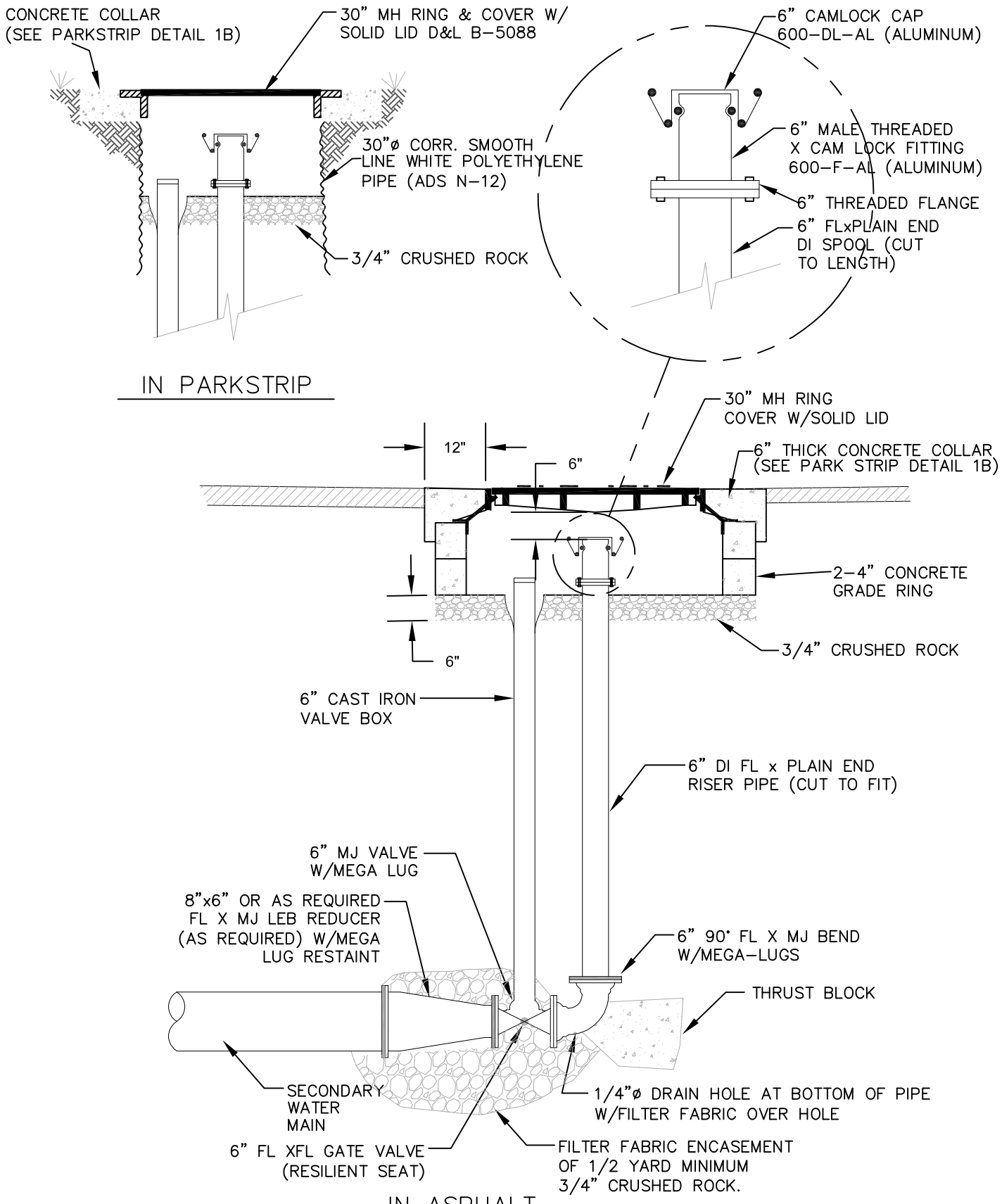
REVISION
JULY 2020



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

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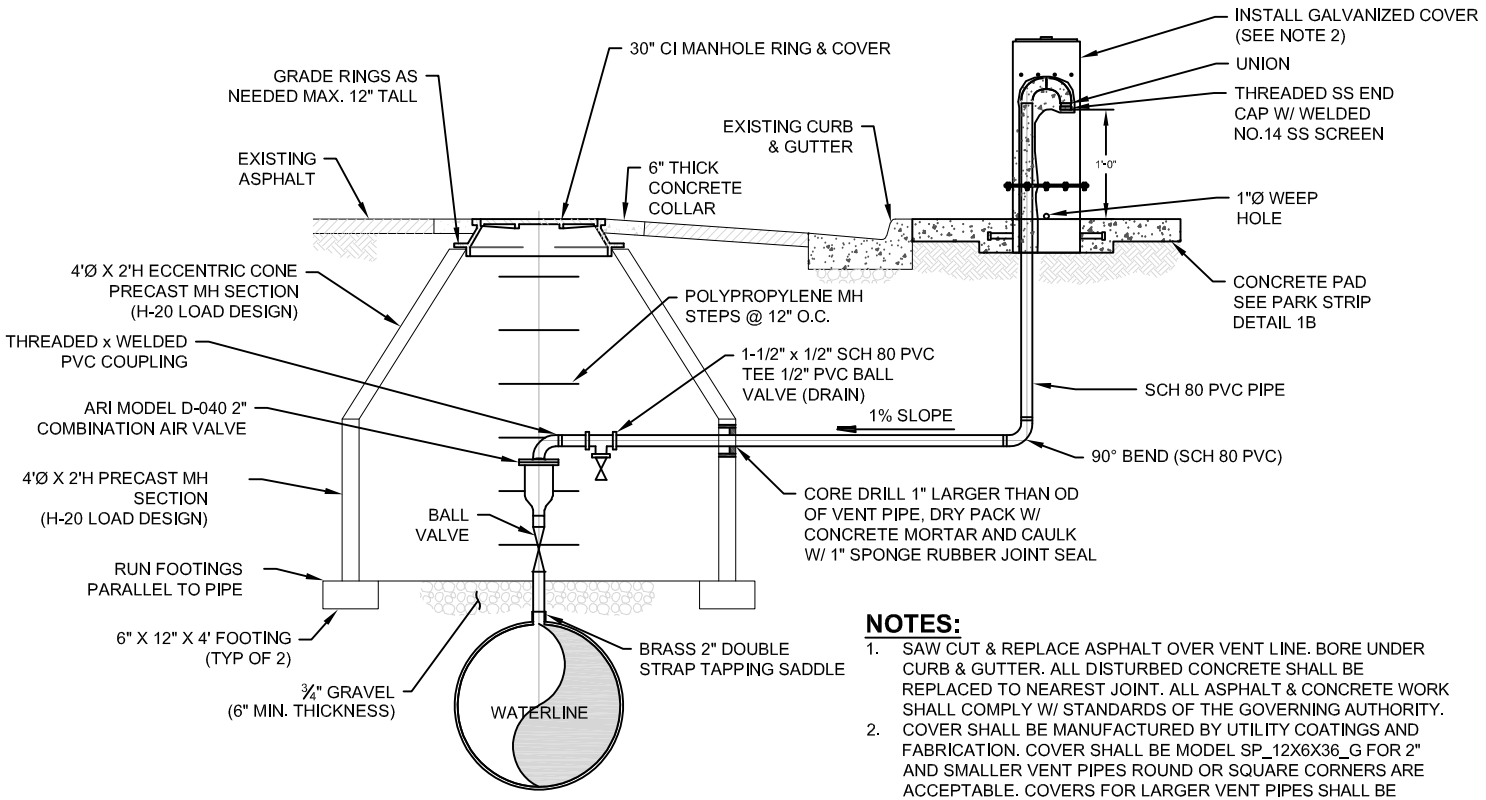
6" BLOW-OFF

DEPARTMENT
ENGINEERING

STANDARD DETAIL
21

REVISION
JULY 2020



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

MAGNA WATER DISTRICT
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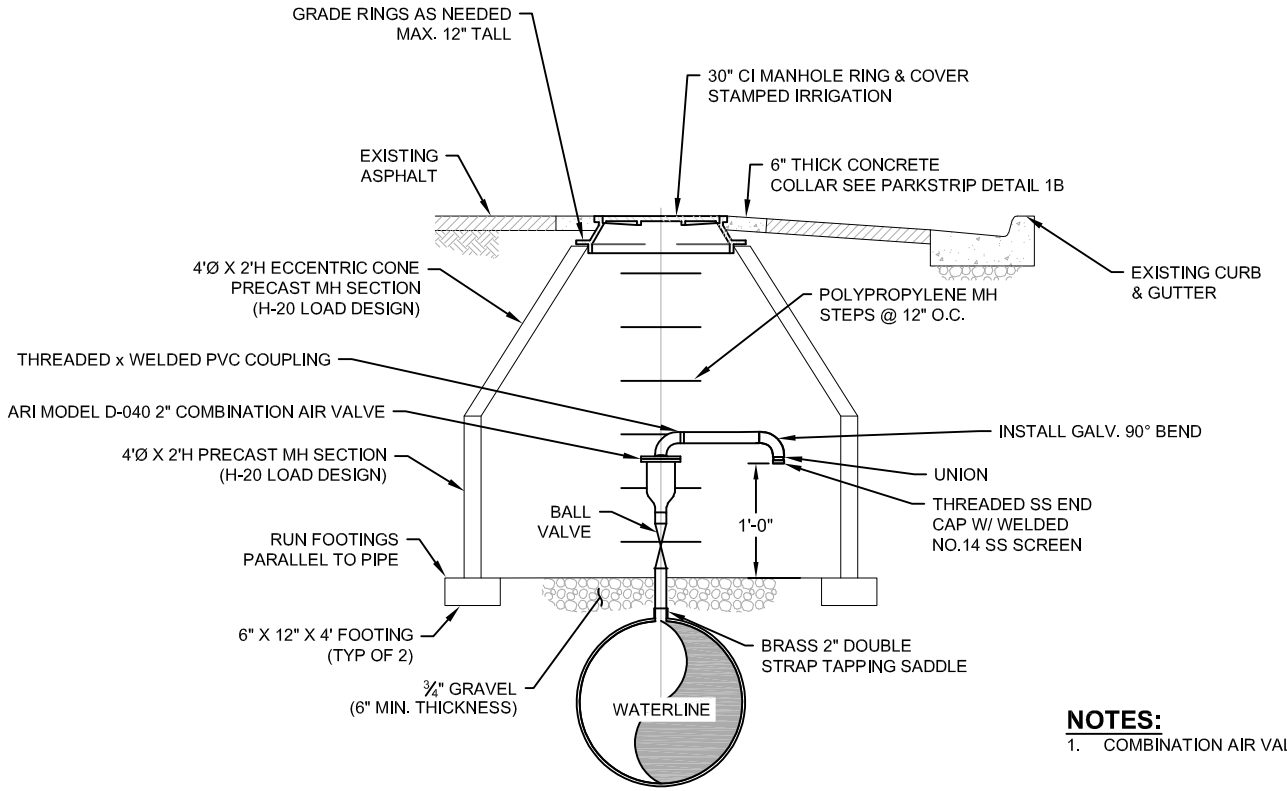
CULINARY WATER
AIR VAC VALVE

DEPARTMENT
ENGINEERING

STANDARD DETAIL
22

REVISION
JULY 2020



NOTES:

1. COMBINATION AIR VALVE TO BE SIZED BY DISTRICT ENGINEER

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
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801-250-2118

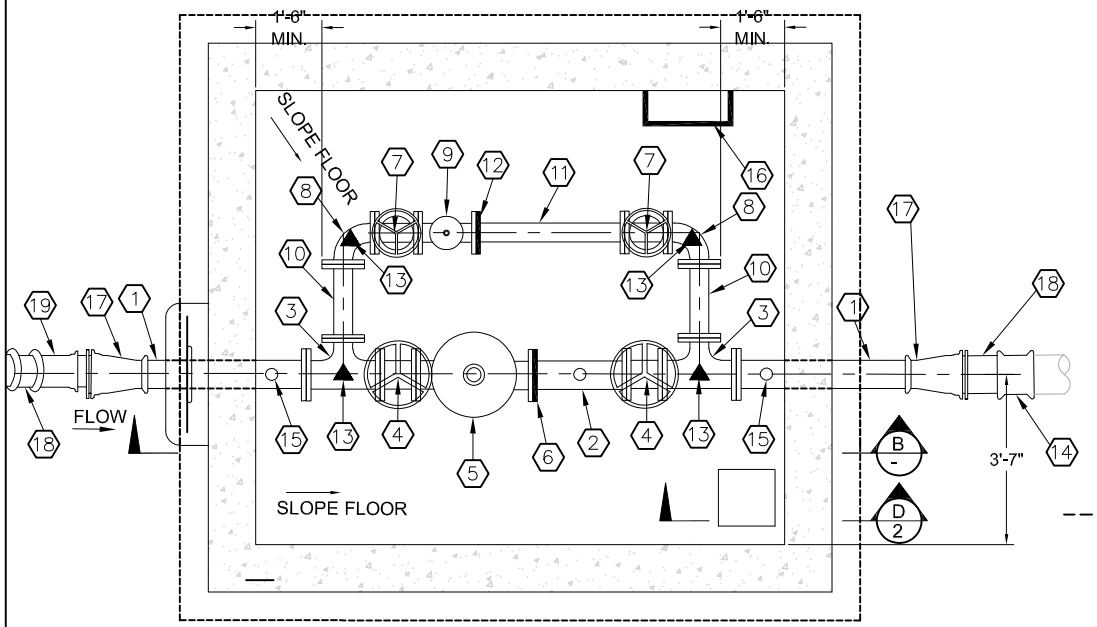
SECONDARY WATER AIR VAC VALVE

DEPARTMENT: ENGINEERING

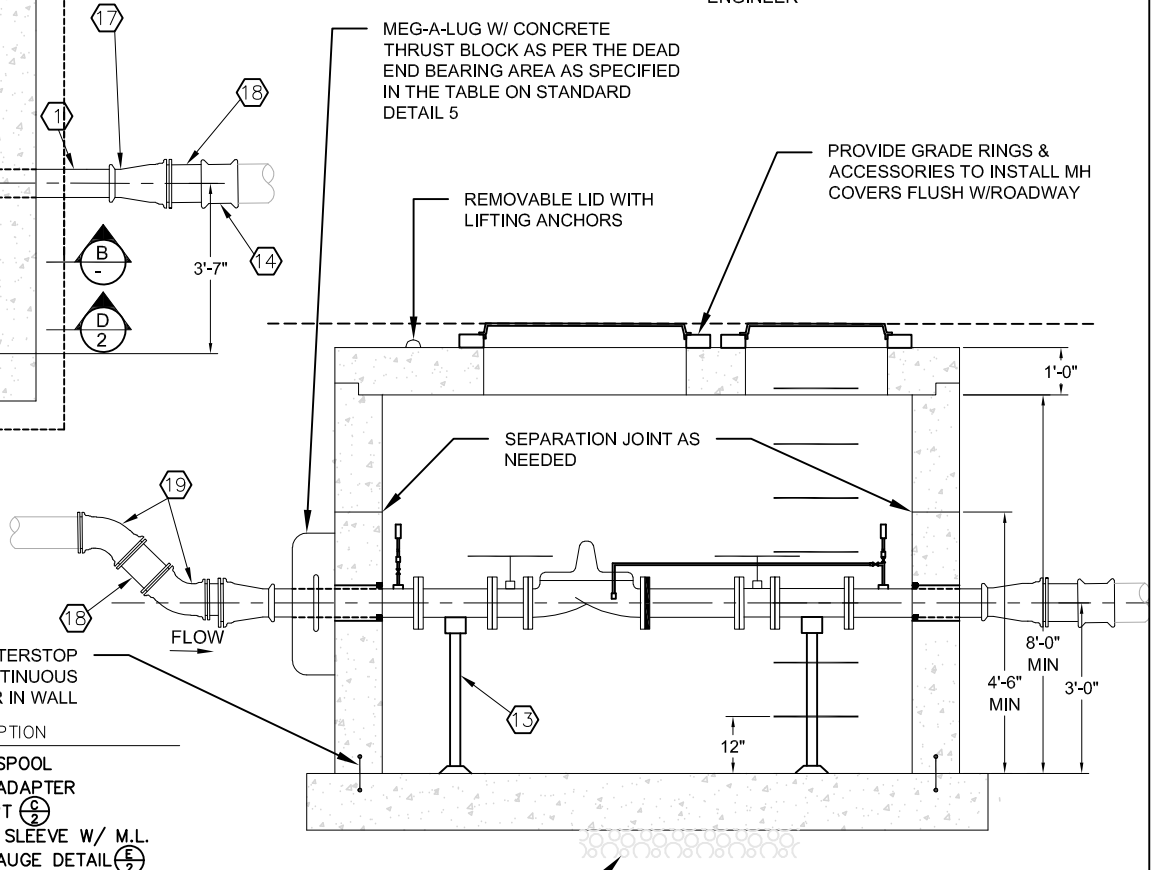
STANDARD DETAIL: 23

REVISION: JULY 2020

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



A – PRV VAULT PLAN VIEW N.T.S.



B – PROFILE 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 C/2
14	1	X" MJ SOLID SLEEVE W/ M.L.
15	2	PRESSURE GAUGE DETAIL E/2
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

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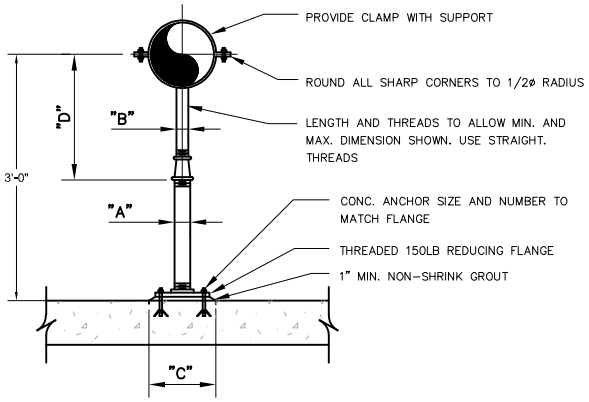
PRV STATION

DEPARTMENT: ENGINEERING

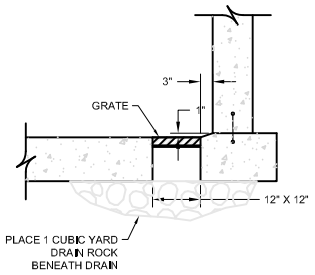
STANDARD DETAIL	REVISION	DRAWING NO.
24	JULY 2020	1 OF 2



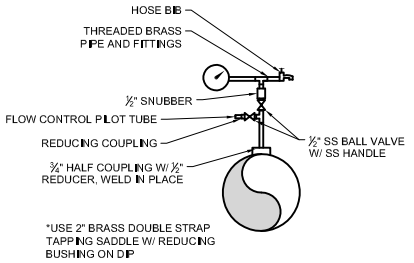
NOTES:

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

C / 1 ADJUSTABLE PIPE SUPPORT
N.T.S.



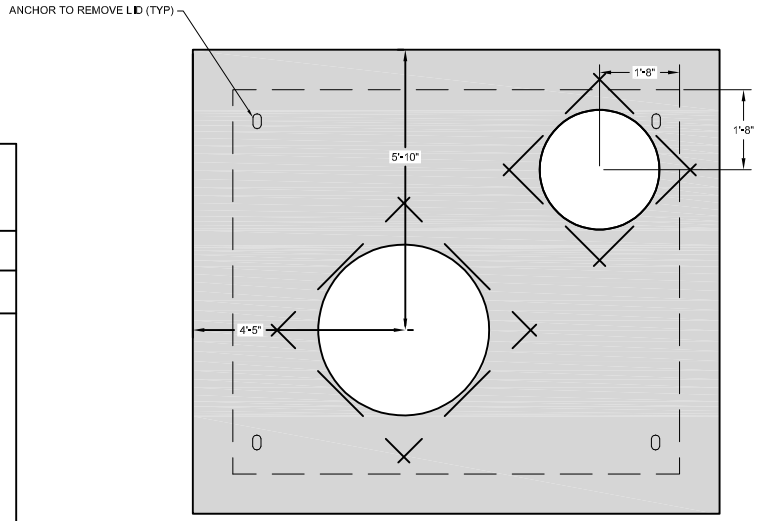
D / 1 DRAIN SECTION
N.T.S.



E / 1 PRESSURE GAUGE DETAIL
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



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

MAGNA WATER DISTRICT
8885 WEST 3500 SOUTH
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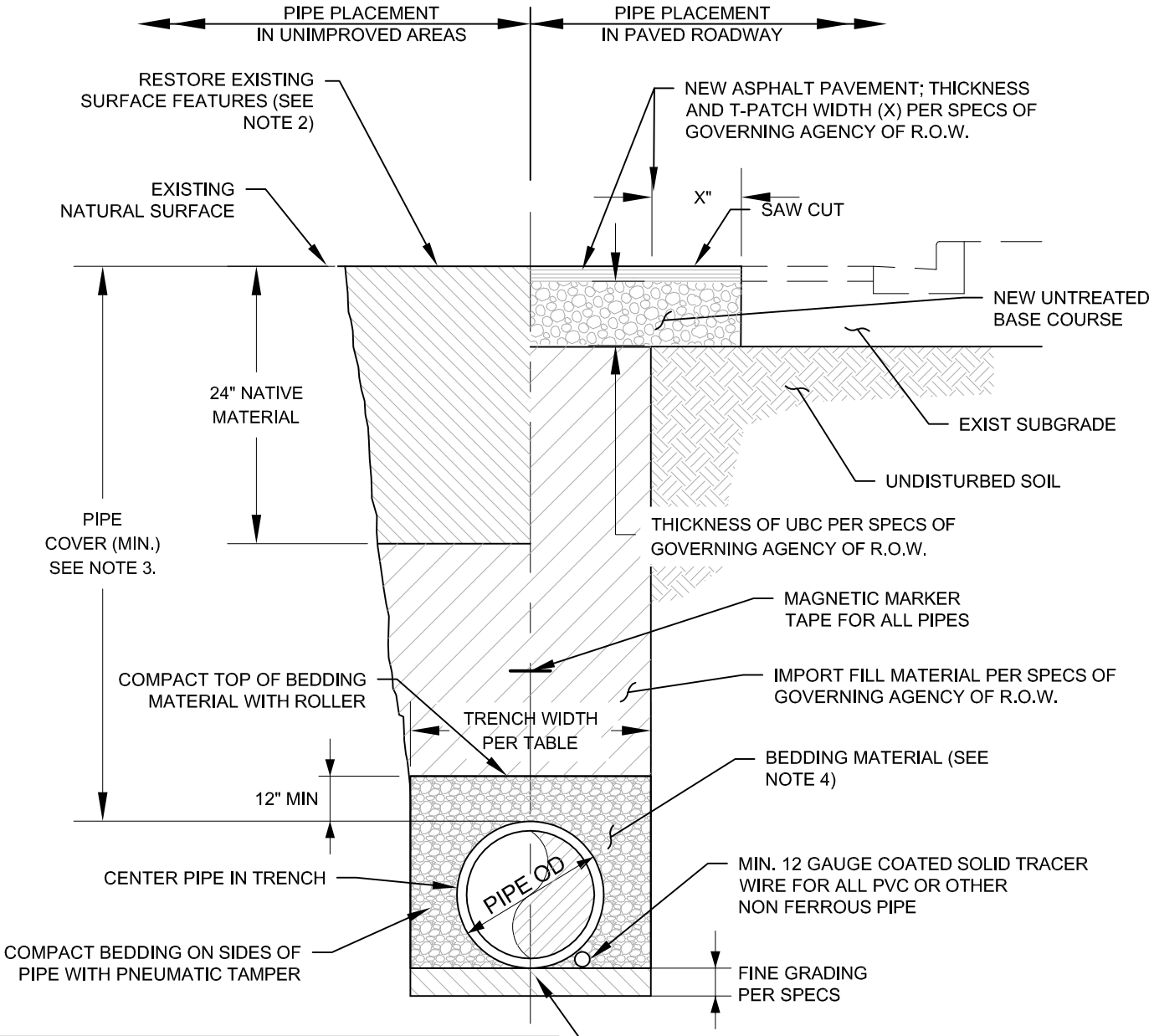
PRV STATION

DEPARTMENT
ENGINEERING

STANDARD DETAIL	REVISION	DRAWING NO.
24	JULY 2020	2 OF 2

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.



PIPE SIZE	MIN. TRENCH WIDTH	MAX. TRENCH WIDTH
6"	2'-1"	2'-7"
8"	2'-3"	2'-9"
10"	2'-5"	2'-11"
12"	2'-8"	3'-2"
16"	3'-0"	3'-6"

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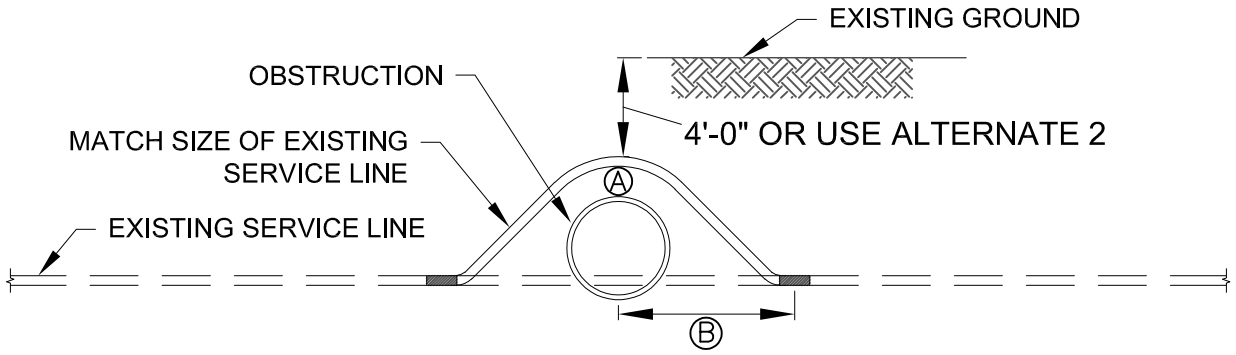
SEWER, CULINARY & SECONDARY PIPE TRENCH CROSS SECTION

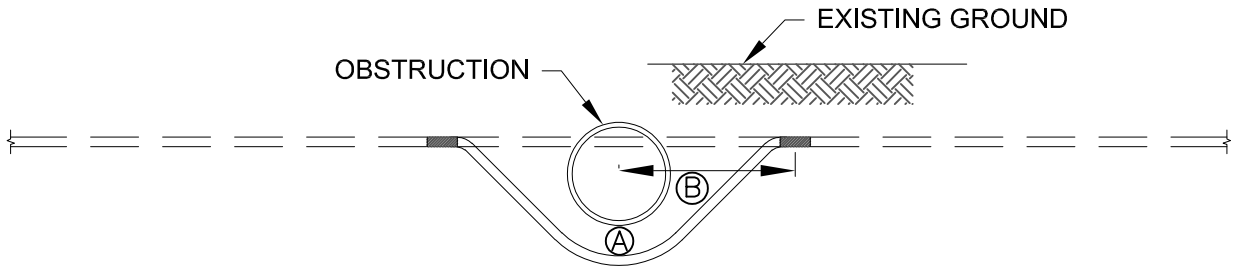
DEPARTMENT: ENGINEERING

STANDARD DETAIL: 25

REVISION: JULY 2020

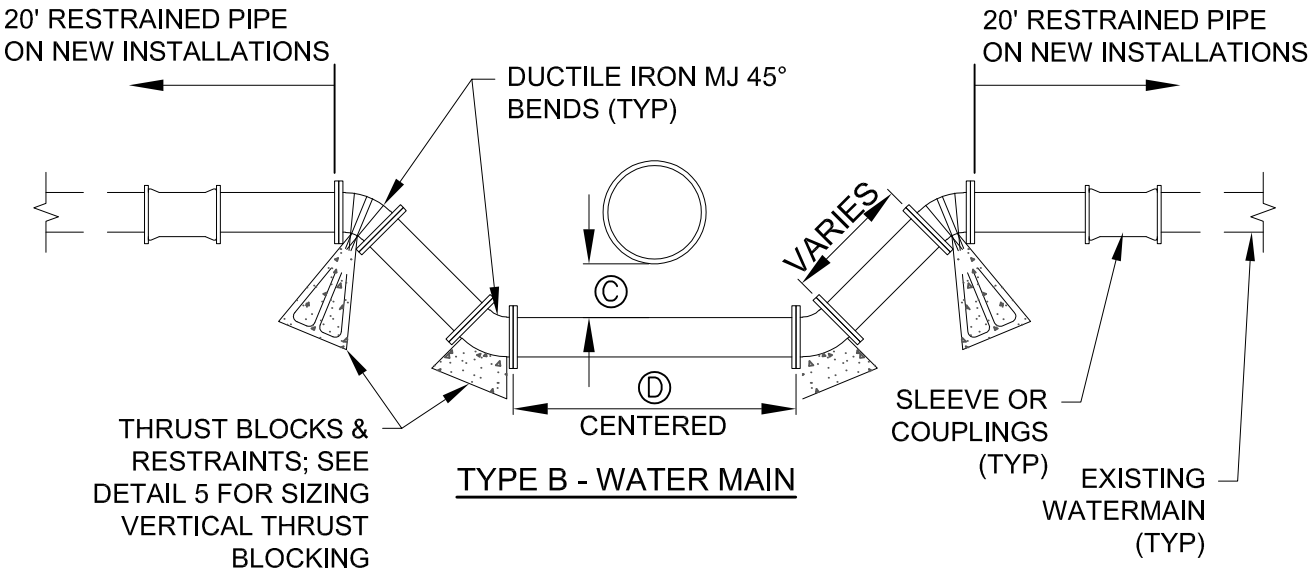


ALTERNATE 1



ALTERNATE 2

TYPE A - WATER SERVICE LINE



TYPE B - WATER MAIN

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

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PIPELINE LOOP

DEPARTMENT
ENGINEERING

STANDARD DETAIL
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