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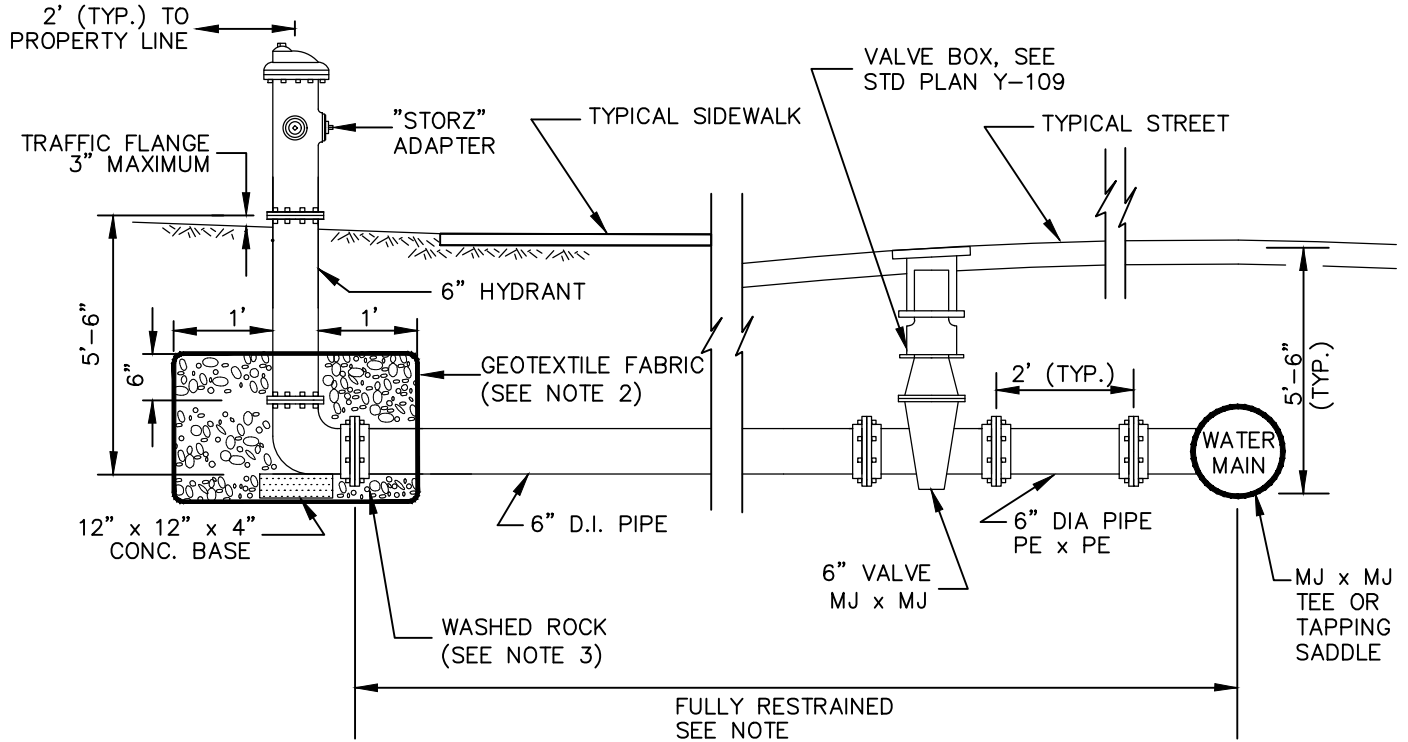
CITY OF SPOKANE STANDARD PLANS – SECTION Y

X-### = Revised Standard Plan
 ***X-### = New Standard Plan

[Back to Main TOC](#)

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SEE SEC. 9-30.5 OF
STANDARD SPECIFICATIONS



PROFILE

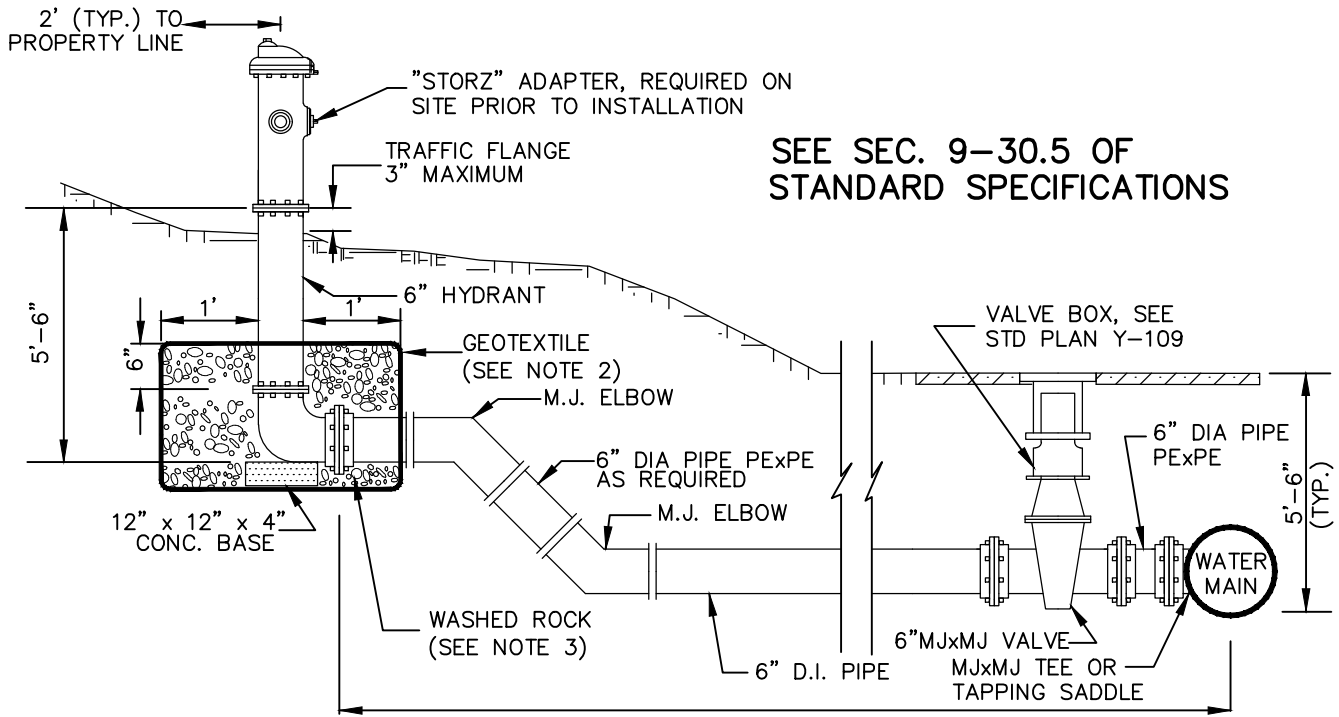
NOTES:

1. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
2. SEE SECTION 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1'-6" MIN. WRAP AND SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.
3. SEE SECTION 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.
4. SEE COS GSP SPEC 7-14.3 FOR FIRE HYDRANT PLACEMENT DISTANCE FROM CURB RAMPS AND DRIVEWAYS.
5. MAINTAIN MINIMUM 3' DISTANCE FROM HYDRANT TO TRAVELED ROADWAY OR CURB.
6. MINIMUM 3' CLEAR TO OBSTRUCTIONS REQUIRED FOR OPERATING NUT AND STORZ FITTING.
7. STORZ FITTING REQUIRED ON SITE PRIOR TO INSTALLATION.

APPROVED BY
[Signature]
ENGINEERING SERVICES DIRECTOR
KYLE TWOHIG
CITY ENGINEER
DAN BULLER, P.E.

ADOPTED: _____
REVISED: 07/2020
SUPERSEDES: 02/2017
SCALE: _____ NTS
DWG./REV BY: MB/MLD

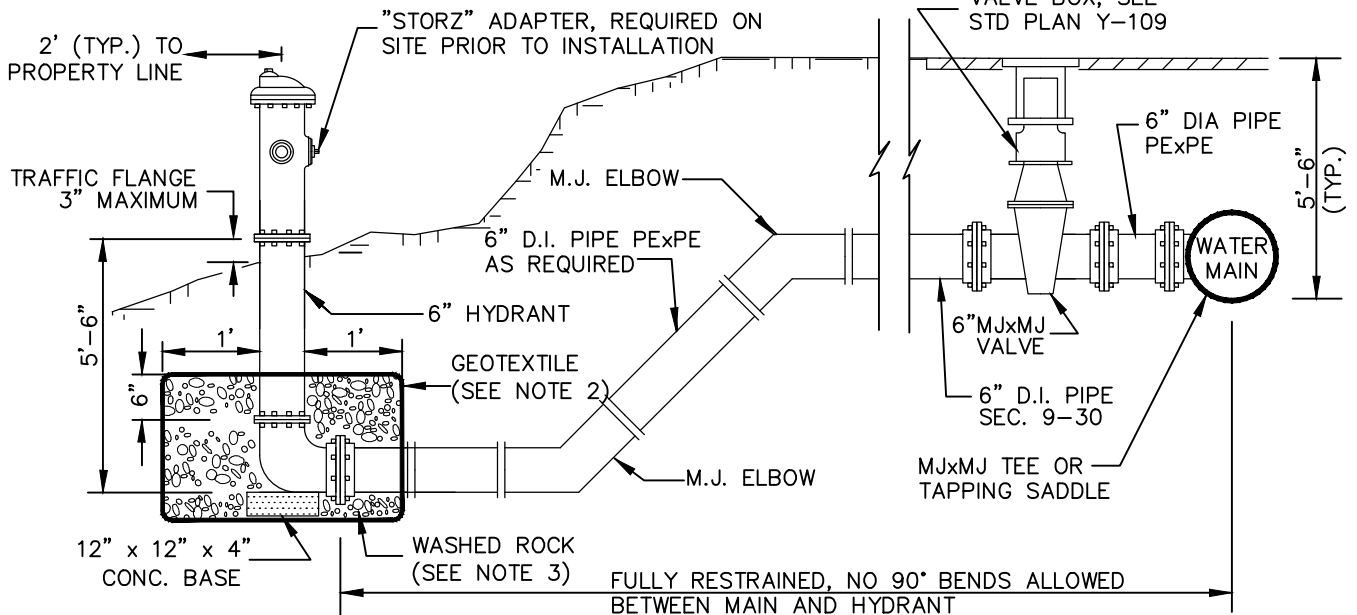
**HYDRANT SETTING
STANDARD**
ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON
STANDARD
PLAN No.
Y-101



SEE SEC. 9-30.5 OF STANDARD SPECIFICATIONS

FULLY RESTRAINED, NO 90° BENDS ALLOWED BETWEEN MAIN AND HYDRANT

RAISED OFFSET



FULLY RESTRAINED, NO 90° BENDS ALLOWED BETWEEN MAIN AND HYDRANT

NOTES:

DEPRESSED OFFSET

1. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
2. SEE SECTION 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1'-6" MIN. WRAP AND SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.
3. SEE SECTION 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.
4. SEE COS GSP SPEC 7-14.3 FOR HYDRANT PLACEMENT DISTANCE FROM CURB RAMPS & DRIVEWAYS. MAINTAIN MIN 3' HYDRANT PLACEMENT DISTANCE FROM TRAVELED ROADWAYS & CURBS. MIN 3' CLEAR TO OBSTRUCTIONS REQUIRED FOR OPERATING NUT AND STORZ FITTING

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[Signature]
 ENGINEERING SERVICES DIRECTOR
 KYLE TWOHIG
 CITY ENGINEER
 DAN BULLER, P.E.

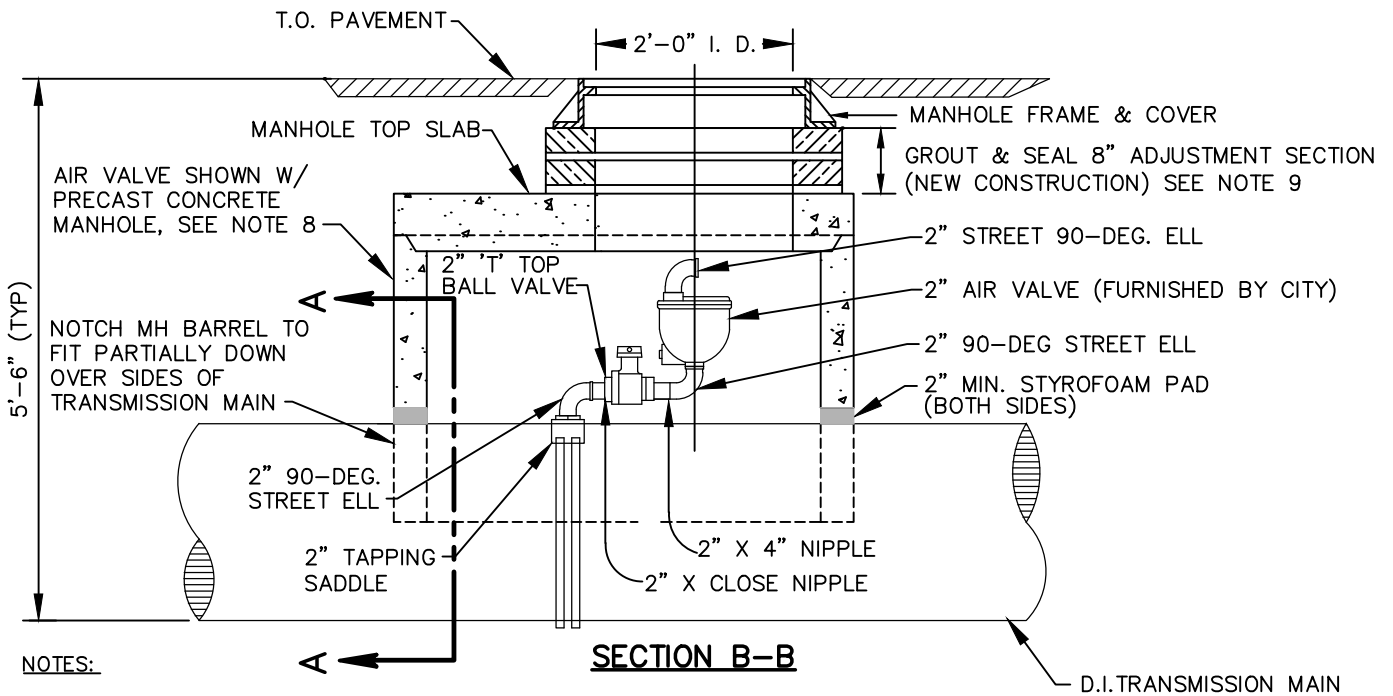
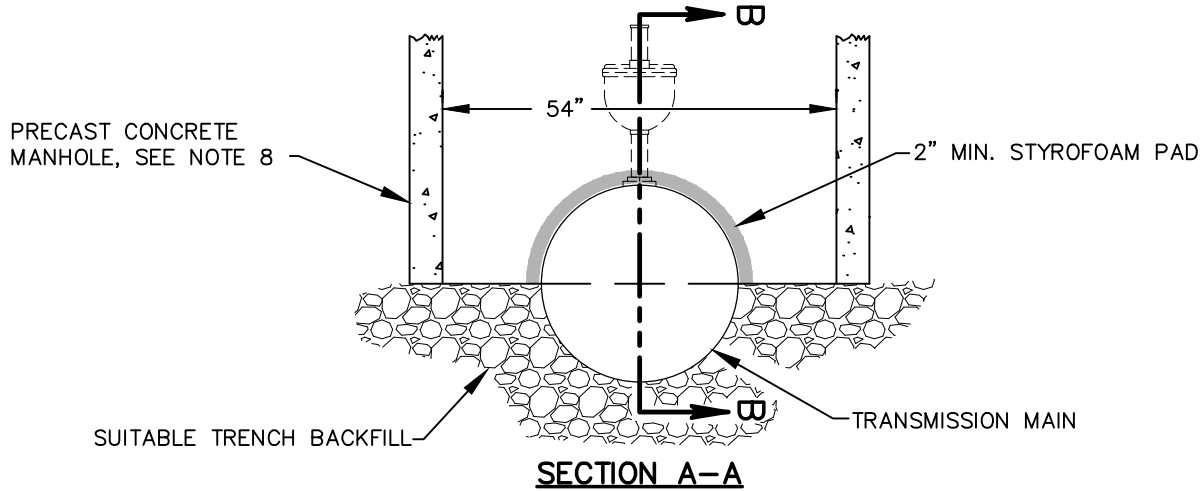
ADOPTED: _____
 REVISED: 07/2020
 SUPERSEDES: 02/2017
 SCALE: _____ NTS
 DWG./REV BY: MB/MLD

HYDRANT SETTING OFFSETS



ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD
 PLAN No.
Y-101A



1. SEE SEC. 7-100 FOR VALVE CHAMBERS, & SEC. 9-12.4 FOR PRECAST CONCRETE MANHOLES.
2. SEE SECS. 7-12 & 9-30 FOR WATER FITTINGS.
3. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
4. SEE STD PLAN Z-101 FOR MANHOLE - 48" & Z-102 FOR MANHOLE - 54".
5. SEE STD PLAN Z-108 FOR MANHOLE TOP SLAB REINFORCEMENT DETAILS.
6. TOP SLAB & BARREL JOINT(S) MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
7. ADJUSTMENT SECTION, TOP SLAB, & BARREL JOINT(S) TO BE SEALED PER SECS. 7-05 & 9-04.
8. USE MANHOLE - 48" W/ CONCENTRIC CONE TOP WHEN VERTICAL CLEARANCE IS ADEQUATE. USE MANHOLE - 54" W/ TOP SLAB AS SHOWN ABOVE, WHEN VERTICAL CLEARANCE IS MINIMAL.
9. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQ'D (3" MIN-16" MAX)

APPROVED BY

[Signature]

DIRECTOR OF ENGINEERING SERVICES KYLE TWOHIG

[Signature]

CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____

REVISED: 04/2022

SUPERSEDES: 04/2021

CHECKED BY: JAG

SCALE: NTS

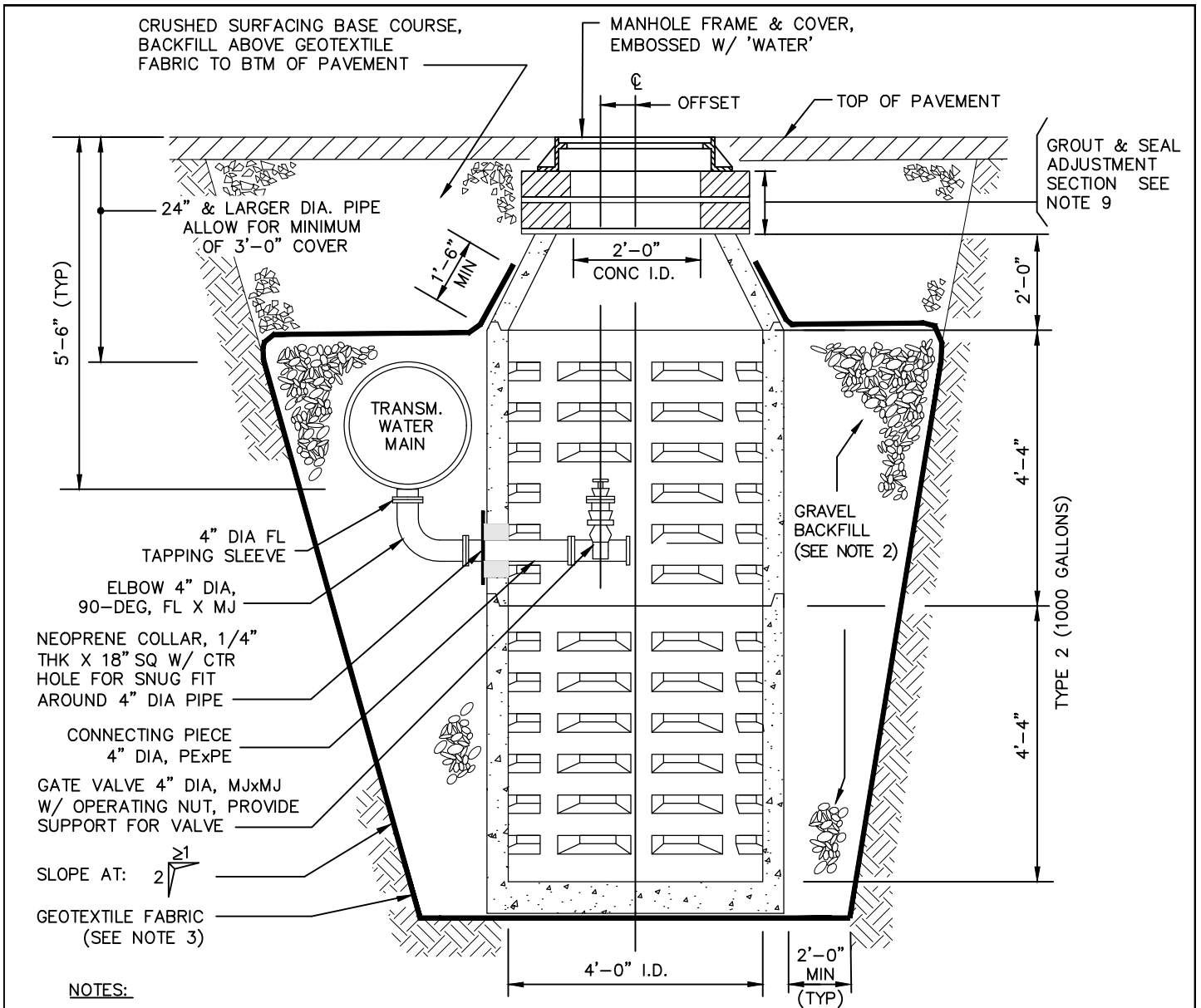
REVISED BY: SRM/MLD



**2" AIR VALVE
FOR DUCTILE IRON PIPE**

ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD
PLAN No.
Y-102




SECTION

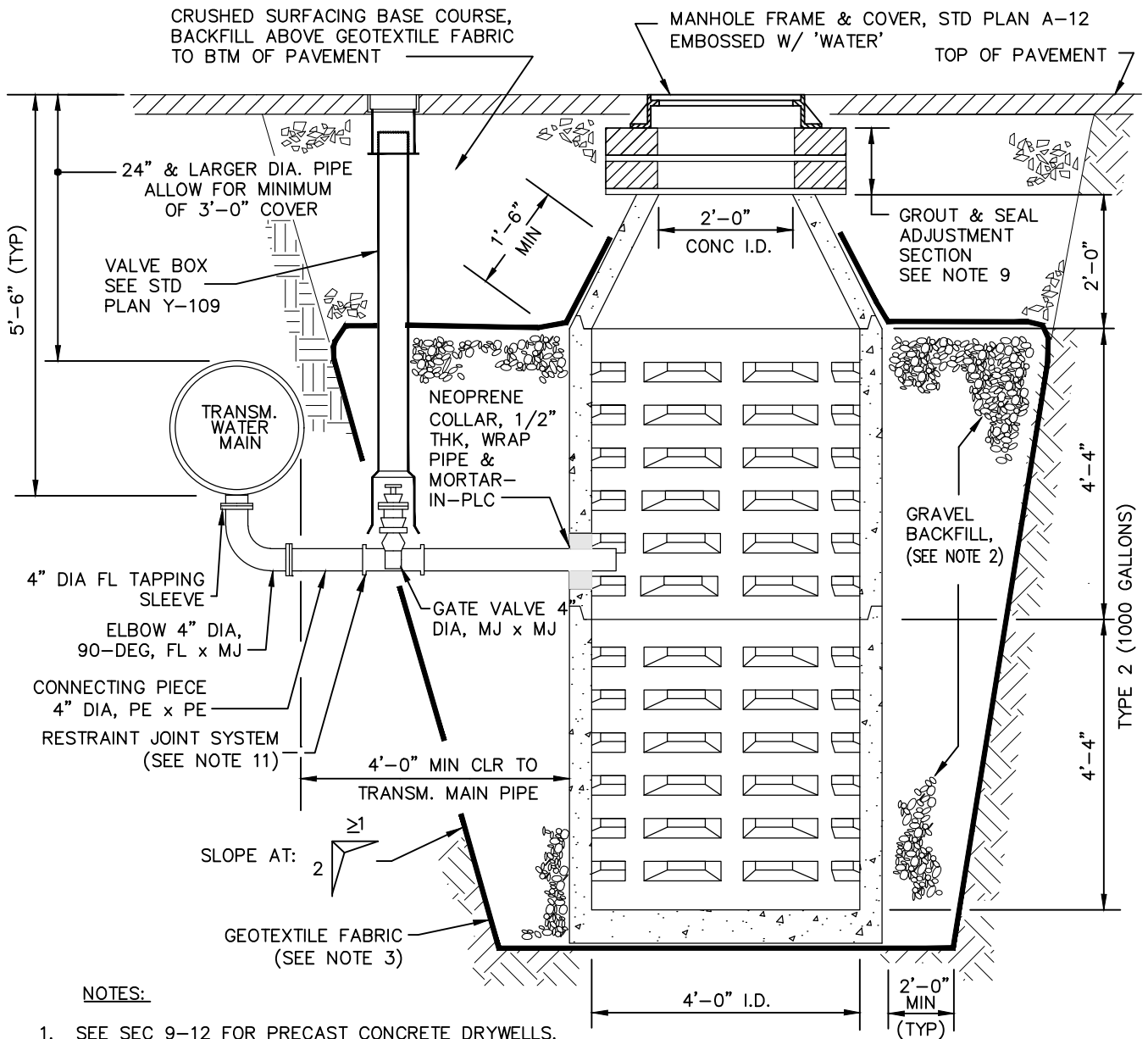
1. SEE SEC 9-12 FOR PRECAST CONCRETE DRYWELLS.
2. SEE SEC 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.
3. SEE SEC 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1'-6" MIN. WRAP & SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.
4. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
5. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
6. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
7. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
8. ONE DRYWELL MAY SERVE MORE THAN ONE INTERIOR BLOW-OFF VALVE.
9. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQUIRED SEE STANDARD PLAN A-8.
10. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
11. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.

APPROVED BY

 ENGINEERING SERVICES DIRECTOR
 KYLE TWOHIG
 CITY ENGINEER
 DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 4/2021
 SUPERSEDES: 10/2019
 SCALE: NTS
 DWG/REV. BY: SRM/MLD

DRYWELL BLOW-OFF INTERIOR 4" GATE VALVE	
	ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON
STANDARD PLAN No. Y-103	

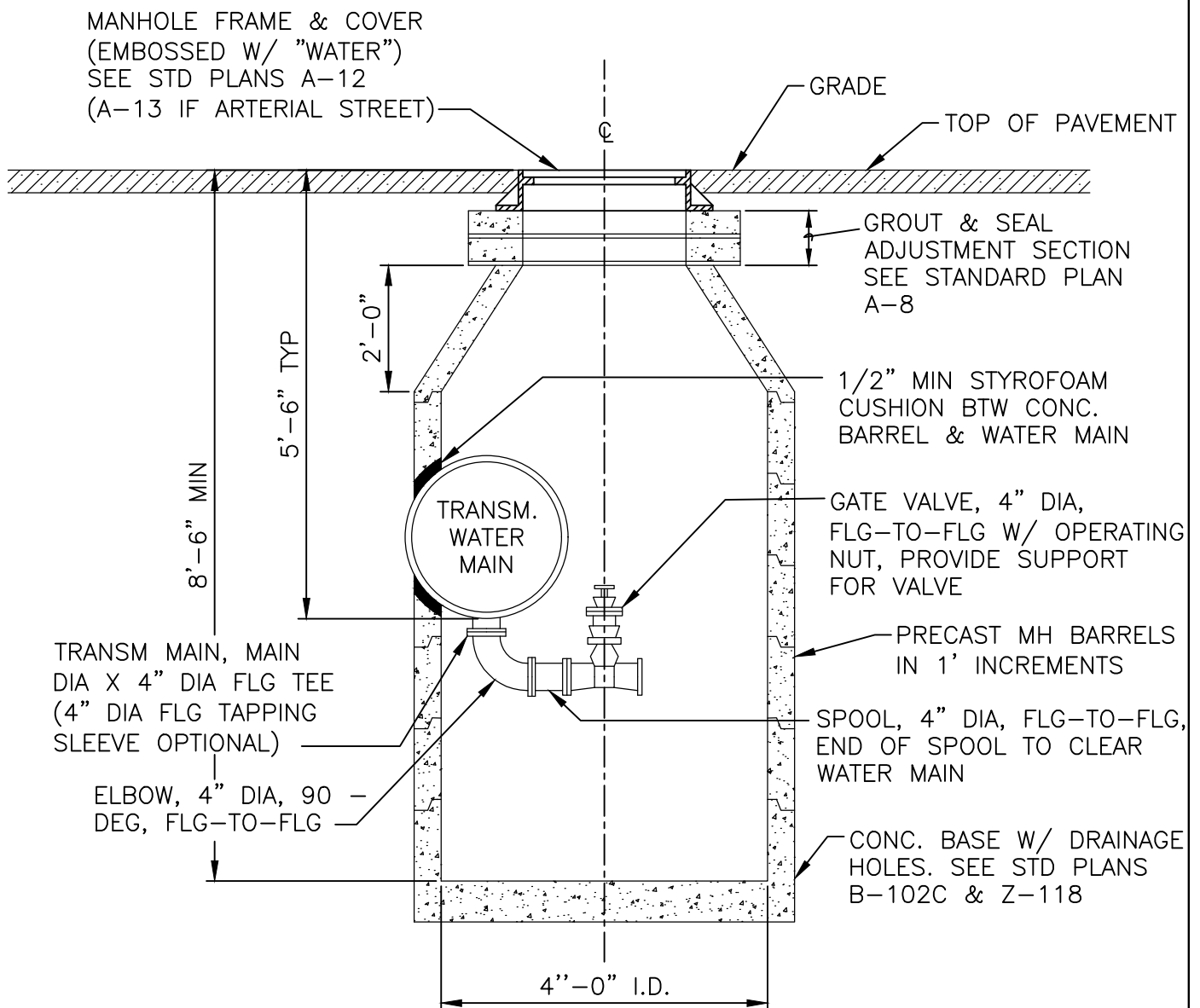


NOTES:

1. SEE SEC 9-12 FOR PRECAST CONCRETE DRYWELLS.
2. SEE SEC 9-03.12(5) FOR GRAVEL BACKFILL FOR DRYWELLS.
3. SEE SEC 9-33 FOR WOVEN GEOTEXTILE FABRIC (MODERATE SURVIVABILITY, CLASS A). OVERLAP ALL FABRIC JOINTS 1 WRAP & SECURE FABRIC AROUND PIPE TO PREVENT MIGRATION OF FINES INTO GRAVEL ENVELOPE.
4. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
5. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
6. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
7. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
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10. WATER DISTRIBUTION MATERIALS AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
11. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.

SECTION

<p>APPROVED BY</p> <p>ENGINEERING SERVICES DIRECTOR KYLE TWOHIG</p> <p>CITY ENGINEER DAN BULLER, P.E.</p>	<p>ADOPTED: _____</p> <p>REVISED: 4/2021</p> <p>SUPERSEDES: 10/2019</p> <p>SCALE: NTS</p> <p>DWG/REV. BY: SRM/MLD</p>	<p>DRYWELL BLOW-OFF</p> <p>EXTERIOR 4" GATE VALVE</p>	<p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p> <p>STANDARD PLAN No. Y-103A</p>
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NOTES:

1. SEE SECTIONS 7-05 & 9-12.4 FOR PRECAST CONCRETE MANHOLES
2. SEE SECTIONS 7-12 & 9-30 FOR WATER FITTINGS.
3. SEE STD PLAN Z-109 FOR MANHOLE STEP DETAILS.
4. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.

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ENGINEERING SERVICES DIRECTOR KYLE TWOHIG



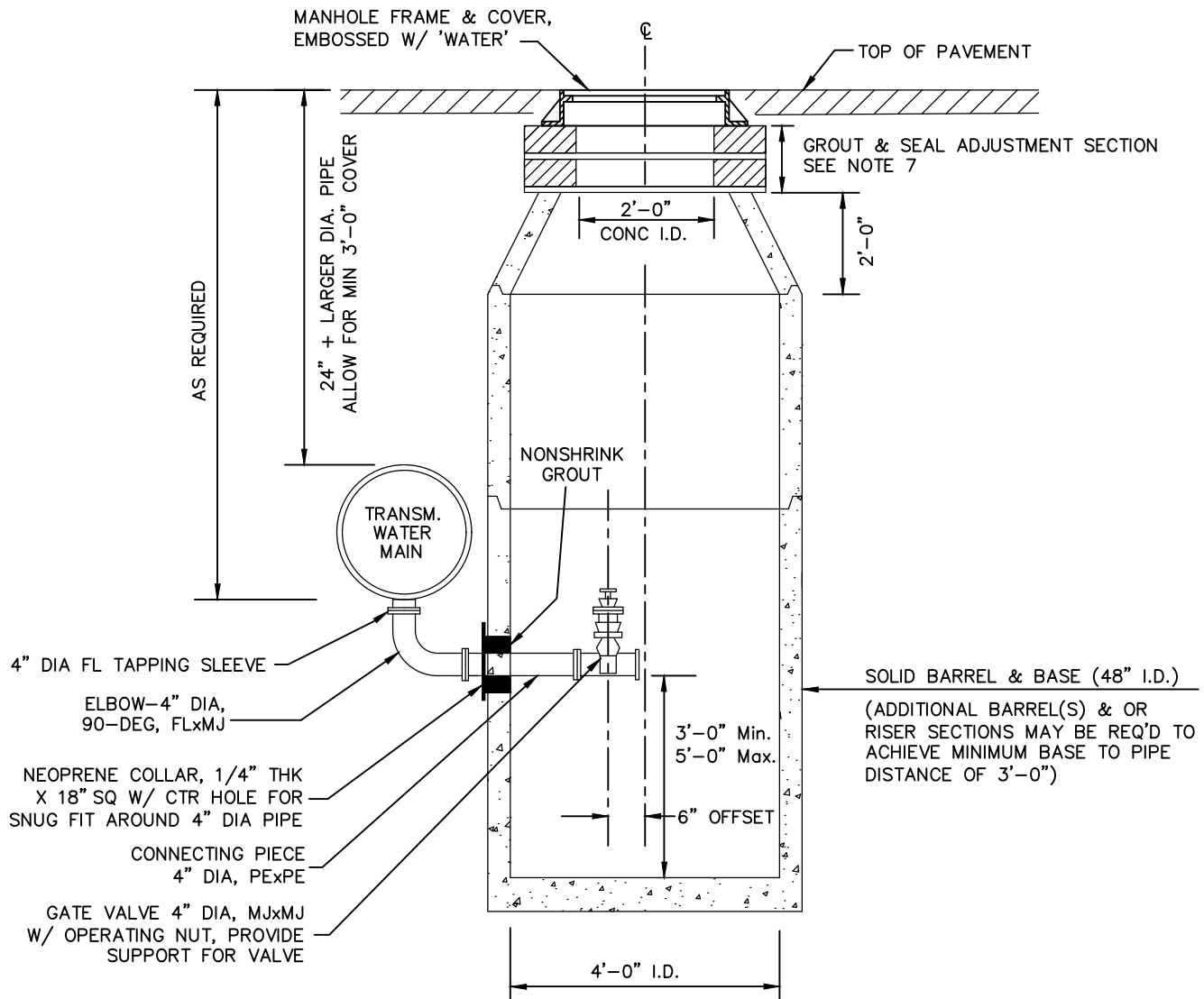
CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 4/2021
 SUPERSEDES: 10/2019
 CHECKED BY: JAG
 SCALE: NTS
 DWG/REV. BY: RLB/MLD

MANHOLE BLOW-OFF
 INTERIOR 4" GATE VALVE

ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD
 PLAN No.
Y-104



SECTION

NOTES:

1. SEE SEC 9-12 FOR PRECAST CONCRETE MANHOLES.
2. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
3. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
4. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
5. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
6. ONE MANHOLE MAY SERVE MORE THAN ONE INTERIOR BLOW-OFF VALVE.
7. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQUIRED SEE STANDARD PLAN A-8.
8. WATER DISTRIBUTION MATERIAL AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
9. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.

APPROVED BY



ENGINEERING SERVICES DIRECTOR KYLE TWOHIG

CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____

REVISED: 4/2021


SUPERSEDES: 10/2019

CHECKED BY: JTG

SCALE: NTS

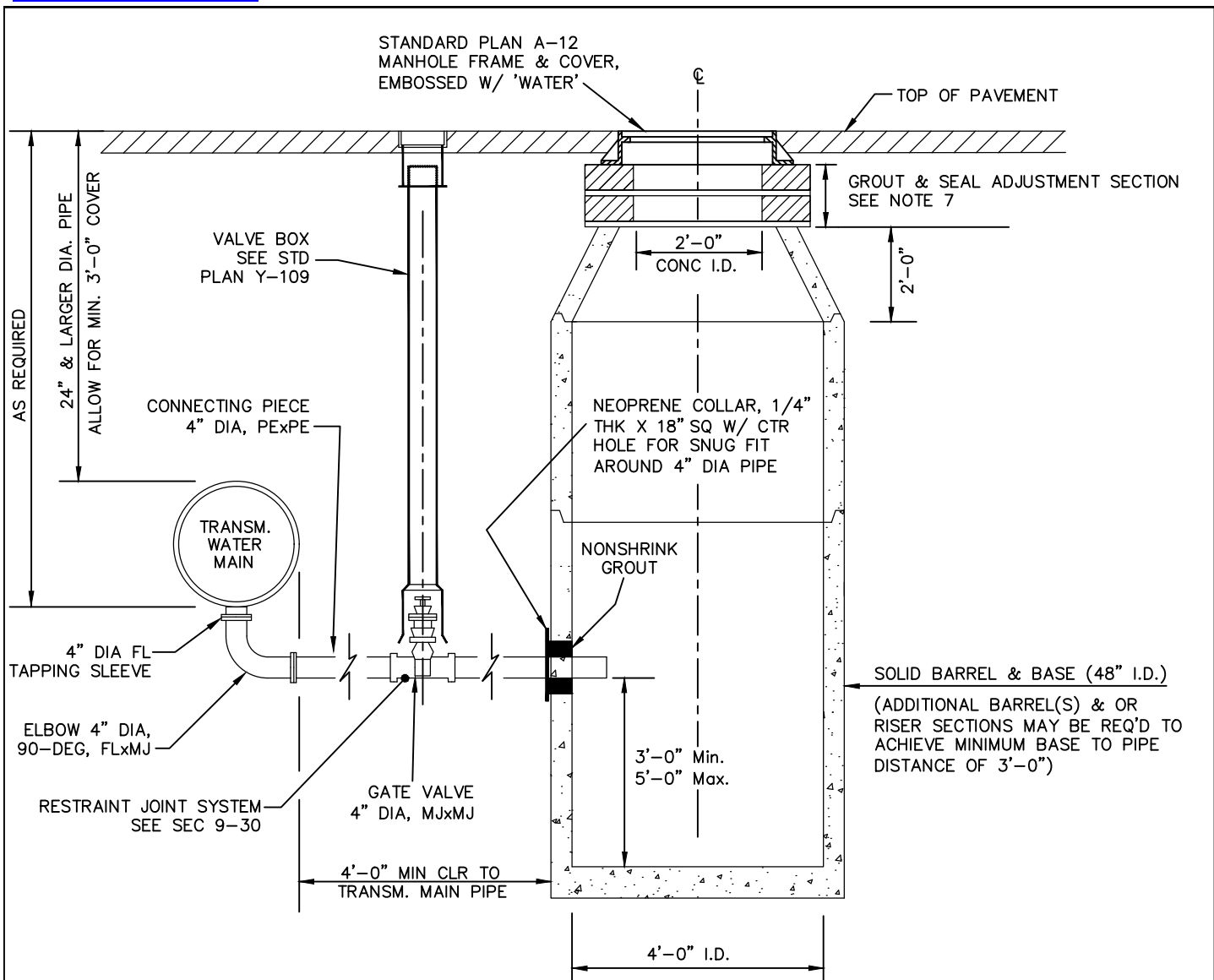
DWG/REV. BY: LWK/MLD

PUMPER STYLE BLOW-OFF
INTERIOR 4" GATE VALVE



ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. Y-105



SECTION


NOTES:

1. SEE SEC 9-12 FOR PRECAST CONCRETE MANHOLES.
2. SEE STD PLANS A-12 (BY DEFAULT) & A-13 (IF LOCATED IN ARTERIAL STREET) FOR MANHOLE FRAME & COVER.
3. SEE STD PLANS B-102C & Z-118 FOR BASE & FOUNDATION DETAILS.
4. CONE & BARREL JOINTS MAY BE EITHER TONGUE & GROOVE OR REVERSE TONGUE & GROOVE.
5. ADJUSTMENT SECTION, CONE & BARREL JOINTS TO BE SEALED PER SEC 7-05.
6. ONE MANHOLE MAY SERVE MORE THAN ONE INTERIOR BLOW-OFF VALVE.
7. ADJUSTMENT SECTION HEIGHT FOR EXISTING STRUCTURES TO MATCH FIELD CONDITIONS AS REQUIRED SEE STANDARD PLAN A-8
8. WATER DISTRIBUTION MATERIAL AND APPURTENANCES SHALL CONFORM TO SEC 9-30.
9. ALL JOINTS SHALL BE RESTRAINED JOINTS PER SEC 9-30.

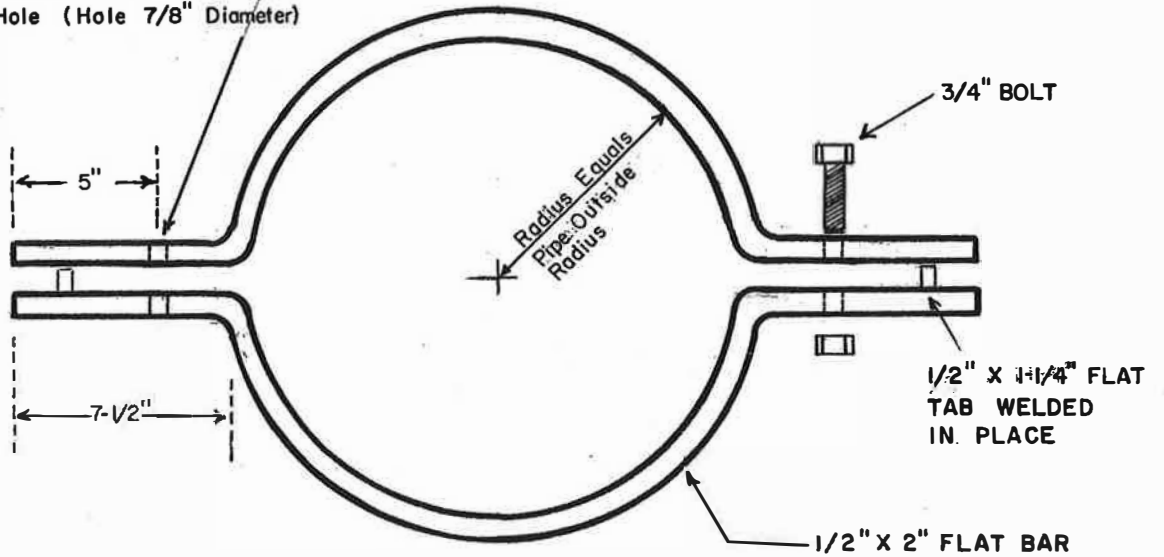
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 ENGINEERING SERVICES DIRECTOR KYLE TWOHIG
 CITY ENGINEER DAN BULLER, P.E.

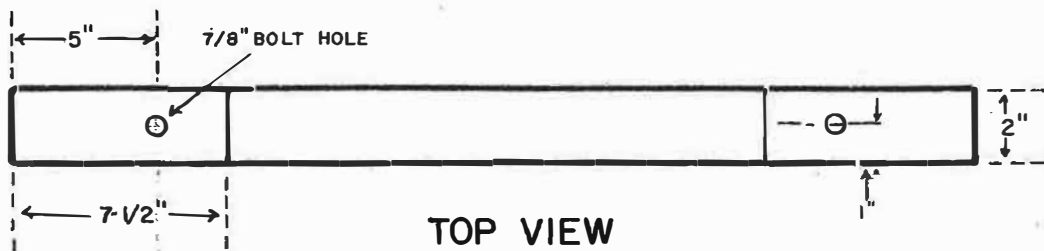
ADOPTED: _____
 REVISED: 04/2021
 SUPERSEDES: 10/2019
 CHECKED BY: JTG
 SCALE: NTS
 DWG/REV. BY: LWK/MLD

PUMPER STYLE BLOW-OFF
 EXTERIOR 4" GATE VALVE
 ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON
 STANDARD PLAN No. Y-105A

Center Bolt Hole (Hole 7/8" Diameter)

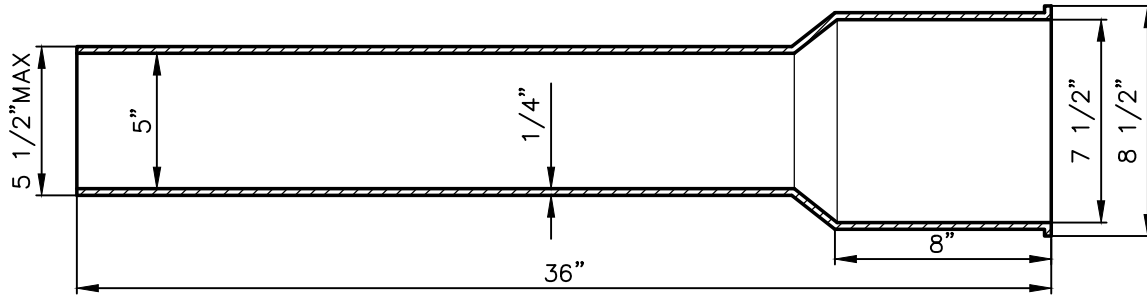


SIDE VIEW

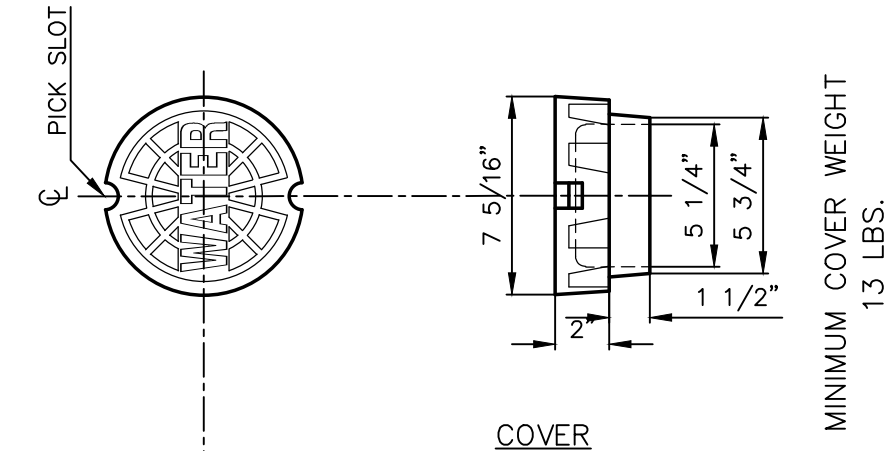


TOP VIEW

<p>APPROVED BY</p> <p>CITY ENGR. <i>[Signature]</i></p>	<p>SCALE <u>NONE</u></p> <p>ADOPTED <u>2-86</u></p>	<p>TYPICAL DUCTILE IRON PIPE CLAMP FOR PIPE UP TO 12" DIA.</p>	
<p>CH. DES. ENGR. <i>[Signature]</i></p>	<p>REVISED -----</p>	<p>DEPT. OF PUBLIC WORKS ENGR. DIVISION SPOKANE, WN.</p>	<p>STANDARD PLAN No. Y-108</p>

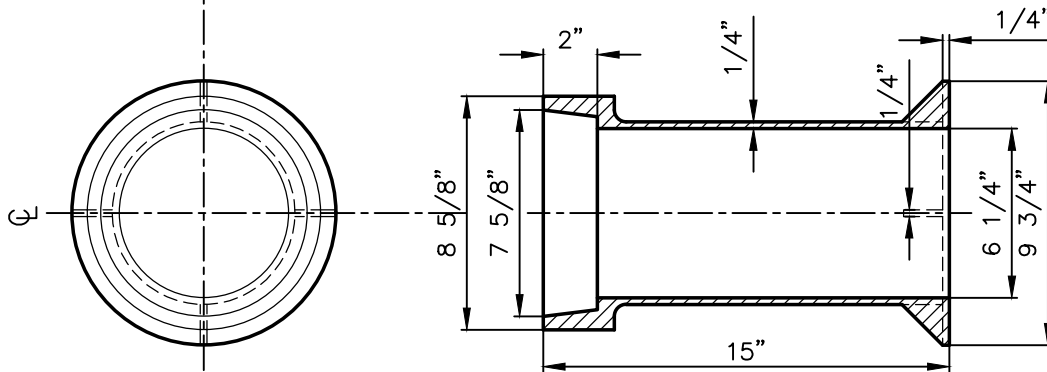


BOTTOM SECTION



MINIMUM COVER WEIGHT
13 LBS.

COVER



TOP SECTION**

*OLYMPIC FOUNDRY MODEL 930 – 15” TOP, 5 1/4” HEAVY LID (OR APPROVED EQUAL)

**TOP SECTION & COVER TO ALSO BE USED TO PROTECT CURB STOPS LOCATED IN PAVED OR CONCRETE AREAS

APPROVED BY

[Signature]
ENGINEERING SERVICES DIRECTOR KYLE TWOHIG
[Signature]
CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
REVISED: 04/2021
SUPERSEDES: 02/2017

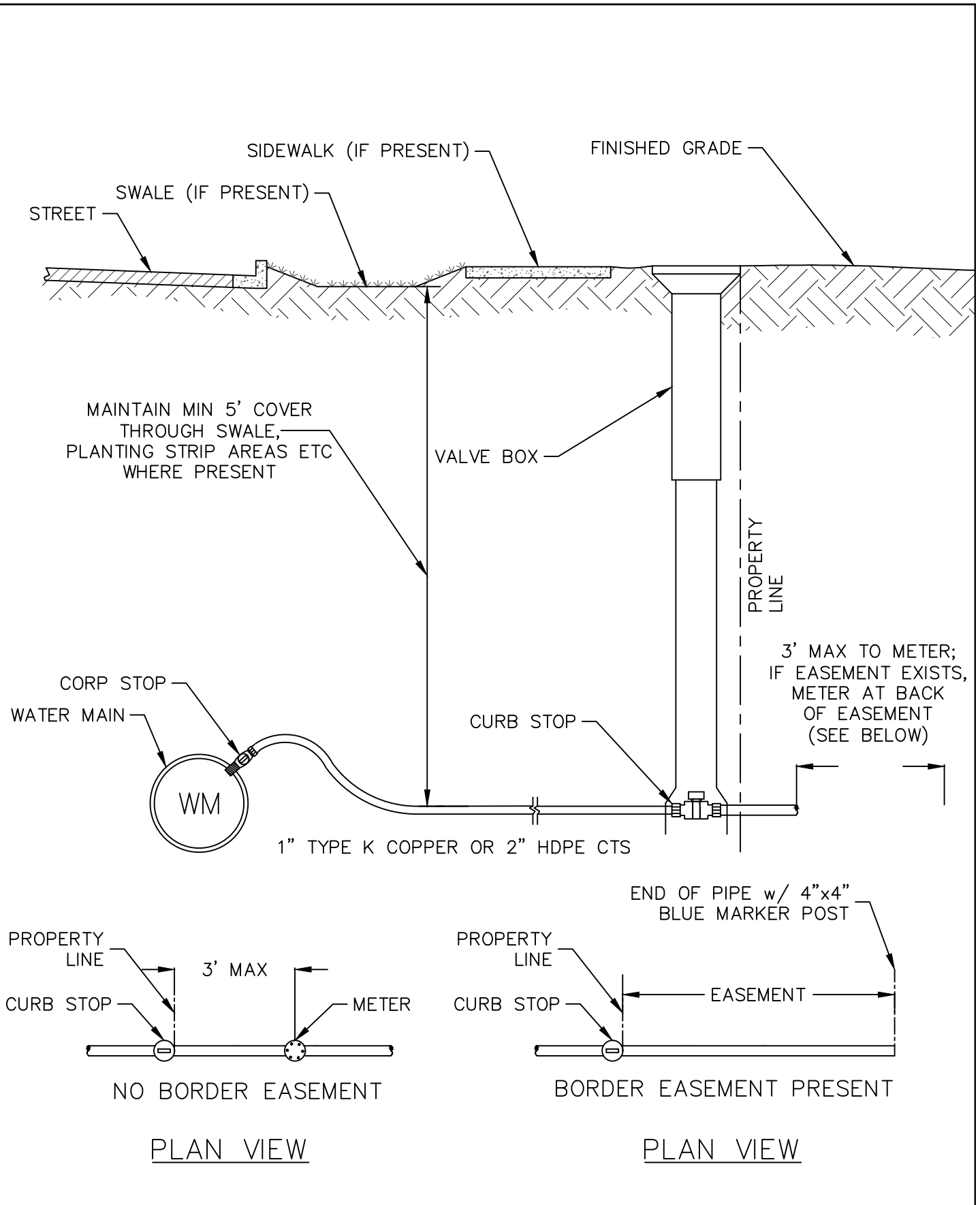
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DWG./REV BY: DGB/MLD

CAST IRON VALVE BOX*



ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD
PLAN No.
Y-109



APPROVED BY

[Signature]

ENGINEERING SERVICES DIRECTOR

KYLE TWOHIG

CITY ENGINEER

DAN BULLER, P.E.

ADOPTED: _____

REVISED: 04/2021

SUPERSEDES: 01/2017

CHECKED BY: JTG

SCALE: NTS

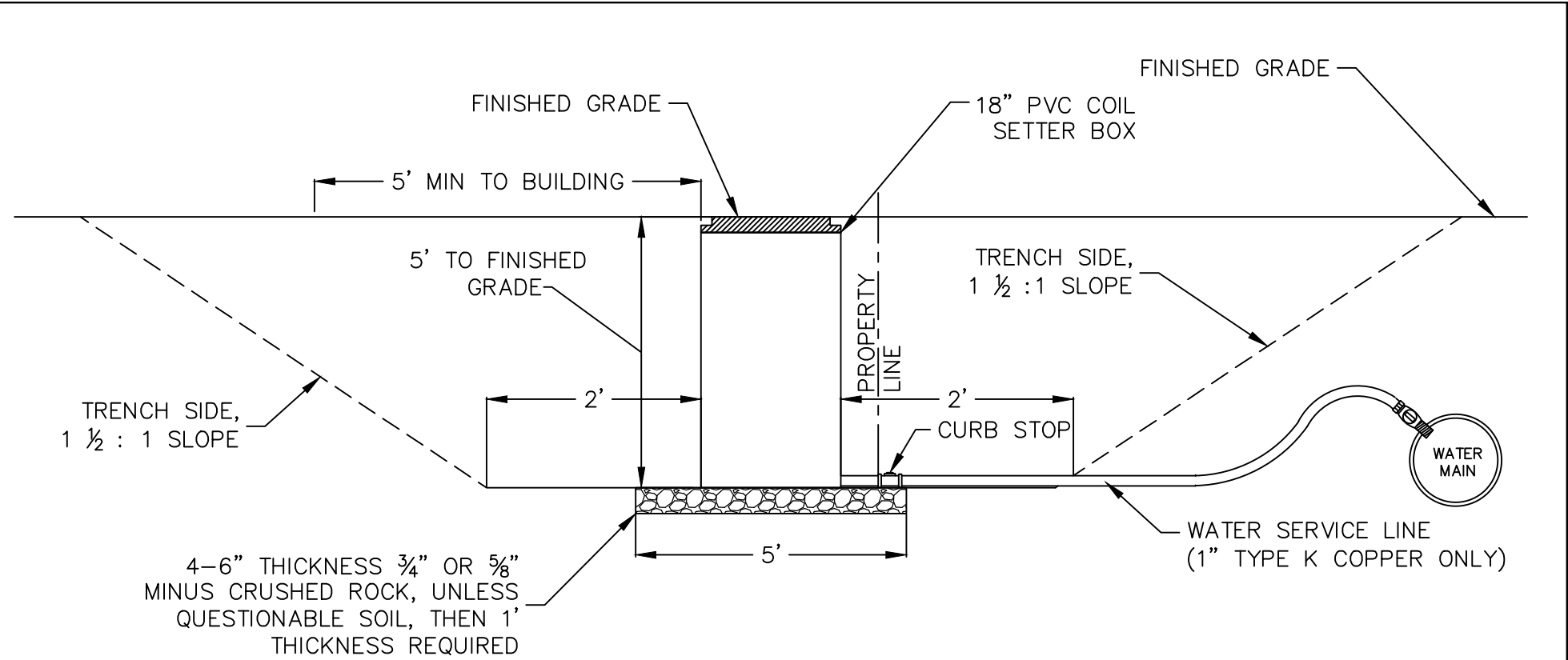
DWG/REV. BY: ABM/MLD

TYPICAL 1-2" WATER SERVICE

ENGINEERING SERVICES

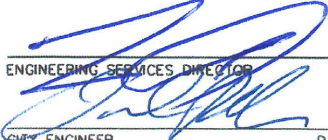

CITY OF SPOKANE, WASHINGTON

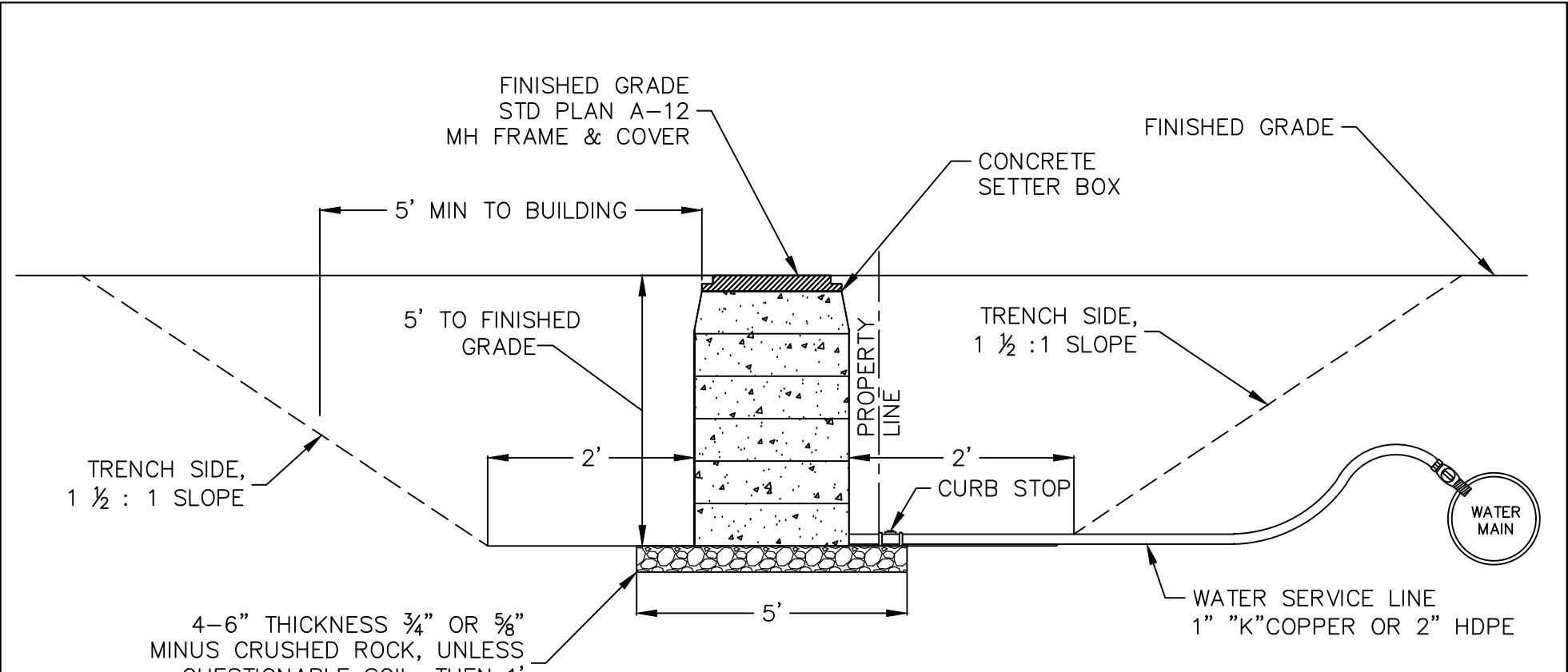
STANDARD PLAN No. Y-111



NOTES:

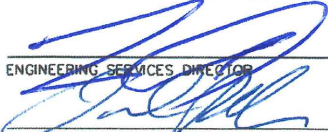


- 1) IF CURB STOP IS NOT AT 5' DEPTH FROM FINISHED GRADE, SERVICE WILL NEED TO BE EXCAVATED 3-4' TOWARD THE STREET TO FACILITATE RAISING OR LOWERING CURB STOP, BY CITY FORCES, TO 5' DEPTH
- 2) EXCAVATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS
- 3) BEDDING MUST BE ON SITE, FILL IN 1' LIFTS TO AVOID OVALING
- 4) 5/8", 3/4", 1" T-10 METERS ONLY
- 5) BOX IS NOT TRAFFIC RATED, NOT TO BE INSTALLED IN SIDEWALKS, DRIVEWAYS OR STREETS
- 6) MUST BE AT FINISH GRADE FOR FINAL INSPECTION OR IT WILL NEED TO BE RESET

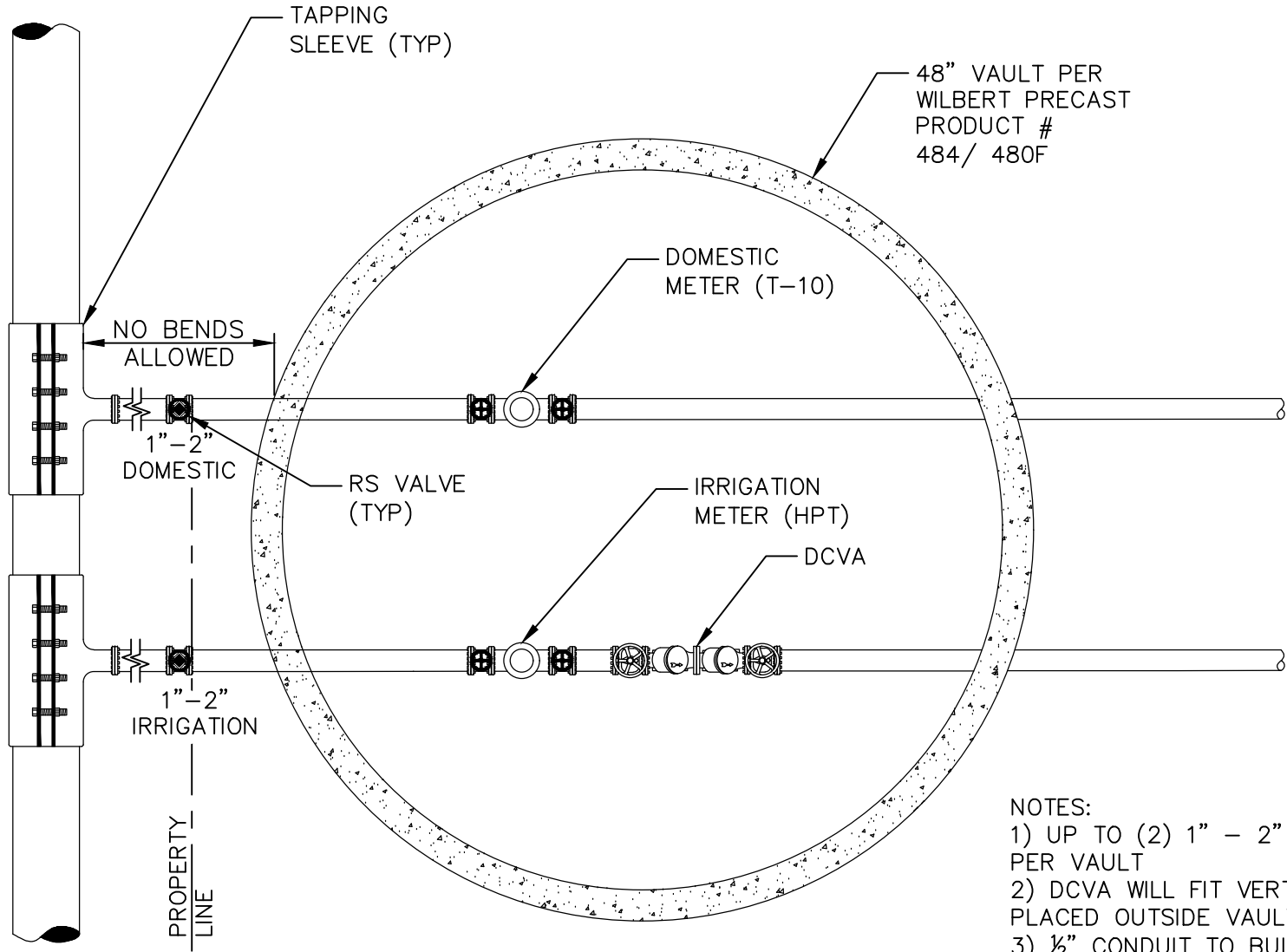
<p>APPROVED BY</p>  <p>ENGINEERING SERVICES DIRECTOR KYLE TWOHIG</p> <p>CITY ENGINEER DAN BULLER, P.E.</p>	<p>ADOPTED: _____</p> <p>REVISED: 04/2021</p> <p>SUPERSEDES: 01/2017</p> <p>CHECKED BY: JTG</p> <p>SCALE: NTS</p> <p>DWG/REV. BY: ABM/MLD</p>	<p>PVC WATER METER BOX TYPICAL INSTALLATION</p>  <p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>	<p>STANDARD PLAN No. Y-112</p>
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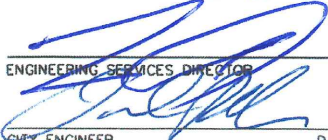


NOTES:

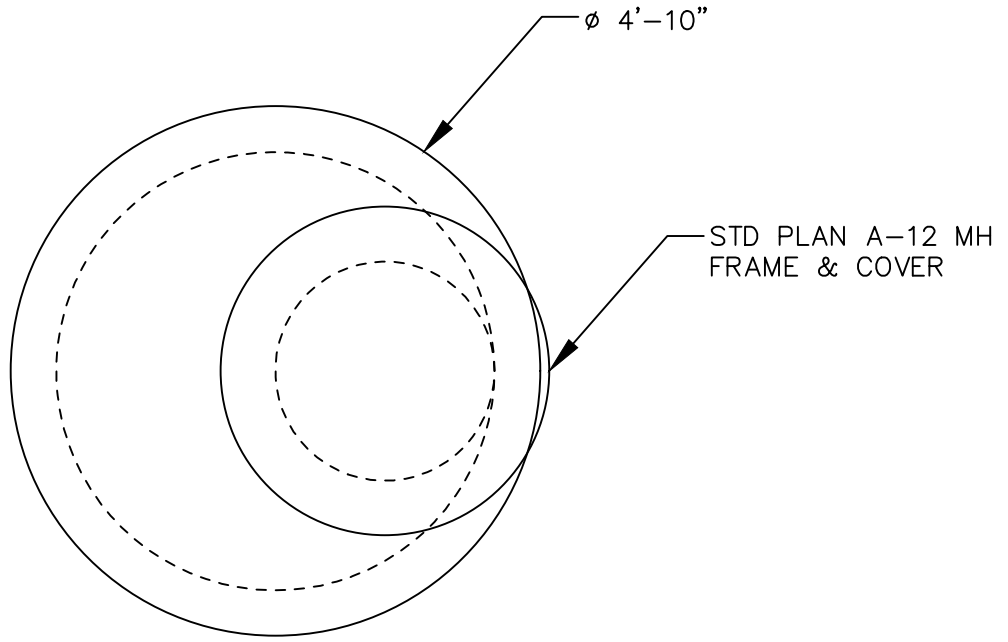
- 1) ONE SERVICE & METER PER BOX
- 2) IF CURB STOP IS NOT AT 5' DEPTH FROM FINISHED GRADE, SERVICE WILL NEED TO BE EXCAVATED 3-4' TOWARD THE STREET TO FACILITATE RAISING OR LOWERING CURB STOP, BY CITY FORCES, TO 5' DEPTH
- 2) EXCAVATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS
- 3) BEDDING MUST BE ON SITE
- 4) DOMESTIC METERS: 3/4", 1", 1 1/2", OR 2" T-10 METER OR
- 5) IRRIGATION METERS 1 1/2" OR 2" HPT METER (NO IRR. SYSTEM OR DVCA IN BOX)
- 6) 1/2" CONDUIT MUST BE INSTALLED FROM BOX TO HOUSE OR BUILDING

<p>APPROVED BY</p>  <p>ENGINEERING SERVICES DIRECTOR KYLE TWOHIG</p>  <p>CITY ENGINEER DAN BULLER, P.E.</p>	<p>ADOPTED: _____</p> <p>REVISED: 04/2021</p> <p>SUPERSEDES: 01/2017</p> <p>CHECKED BY: JTG</p> <p>SCALE: NTS</p> <p>DWG/REV. BY: ABM/MLD</p>	<p style="text-align: center;">CONCRETE WATER METER BOX TYPICAL INSTALLATION</p>  <p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p> <p>STANDARD PLAN No. Y-112A</p>
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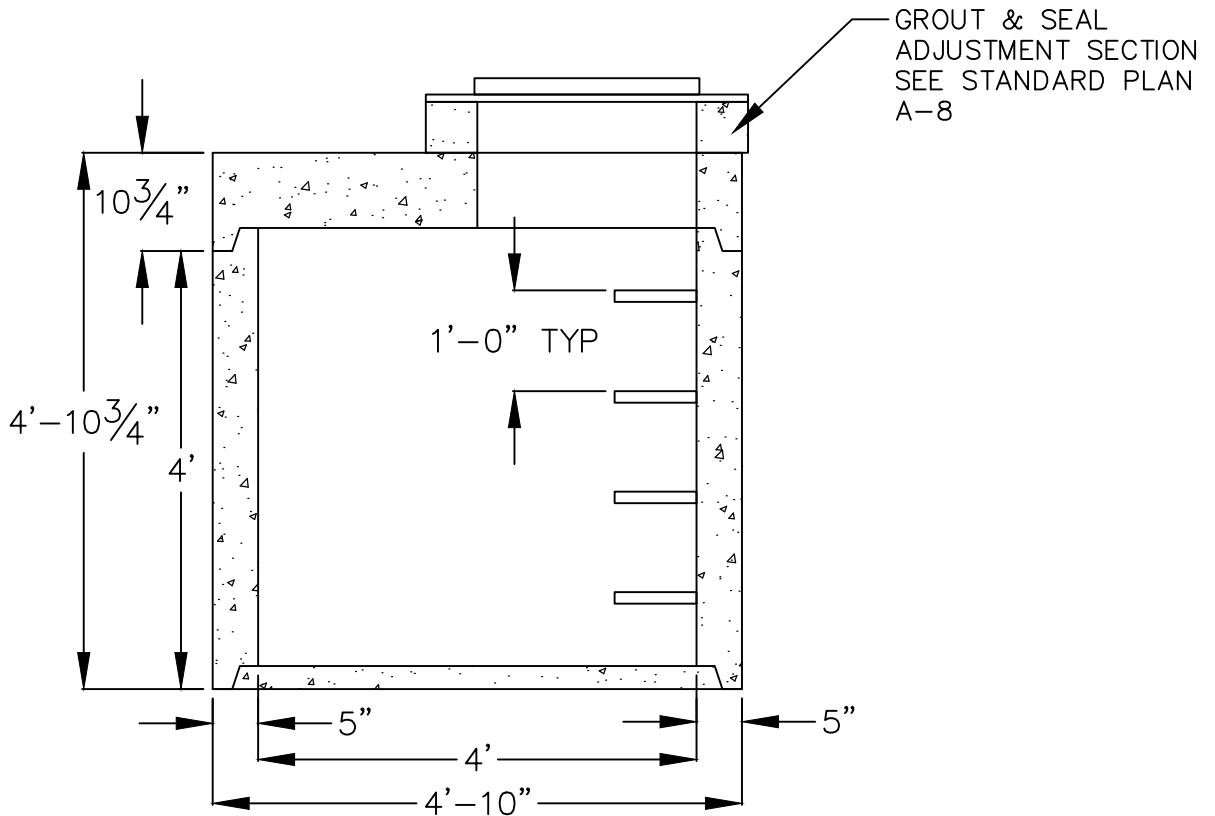


- NOTES:
- 1) UP TO (2) 1" - 2" SERVICES & METERS PER VAULT
 - 2) DCVA WILL FIT VERTICALLY OR MAY BE PLACED OUTSIDE VAULT IN IRRIGATION BOX
 - 3) 1/2" CONDUIT TO BUILDING FOR WIRE IS REQUIRED

<p>APPROVED BY</p>  <p>ENGINEERING SERVICES DIRECTOR KYLE TWOHIG</p>  <p>CITY ENGINEER DAN BULLER, P.E.</p>	<p>ADOPTED: _____</p> <p>REVISED: 04/2021</p> <p>SUPERSEDES: 01/2017</p> <p>CHECKED BY: JTG</p> <p>SCALE: NTS</p> <p>DWG/REV. BY: ABM/MLD</p>	<p style="text-align: center;">48" METER VAULT</p>  <p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>	<p>STANDARD PLAN No. Y-113</p>
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PLAN VIEW




SECTION VIEW

APPROVED BY

 ENGINEERING SERVICES DIRECTOR KYLE TWOHIG
 CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 04/2021
 SUPERSEDES: 10/2019
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 DWG/REV. BY: ABM/MLD

48" PRECAST CONCRETE VAULT
 ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON
 STANDARD PLAN No. **Y-114**

MINIMUM WATER SERVICE VAULT DIMENSIONS

	W X L X H (INSIDE)
3" DOMESTIC	6' X 8' X 6'6"
3" DOMESTIC W/DCVA	6' X 10' X 6'6"
3" IRRIGATION W/DCVA	6' X 10' X 6'6"
4" DOMESTIC	6' X 8' X 6'6"
4" DOMESTIC W/DCVA	6' X 10' X 6'6"
4" FIRE ONLY	6' X 7' X 6'6"
4" FIRE & DOMESTIC	6' X 12' X 6'6"
4" IRRIGATION W/DCVA	6' X 10' X 6'6"
6" DOMESTIC	6' X 8' X 6'6"
6" DOMESTIC W/DCVA	6' X 12' X 6'6"
6" FIRE ONLY	6' X 8' X 6'6"
6" FIRE & DOMESTIC	6' X 14' X 6'6"
6" IRRIGATION W/DCVA	6' X 12' X 6'6"
8" FIRE ONLY	6' X 10' X 6'6"
8" FIRE & DOMESTIC	6' X 16' X 6'6"
10" FIRE ONLY	6' X 10' X 6'6"
10" FIRE & DOMESTIC	6' X 16' X 6'6"

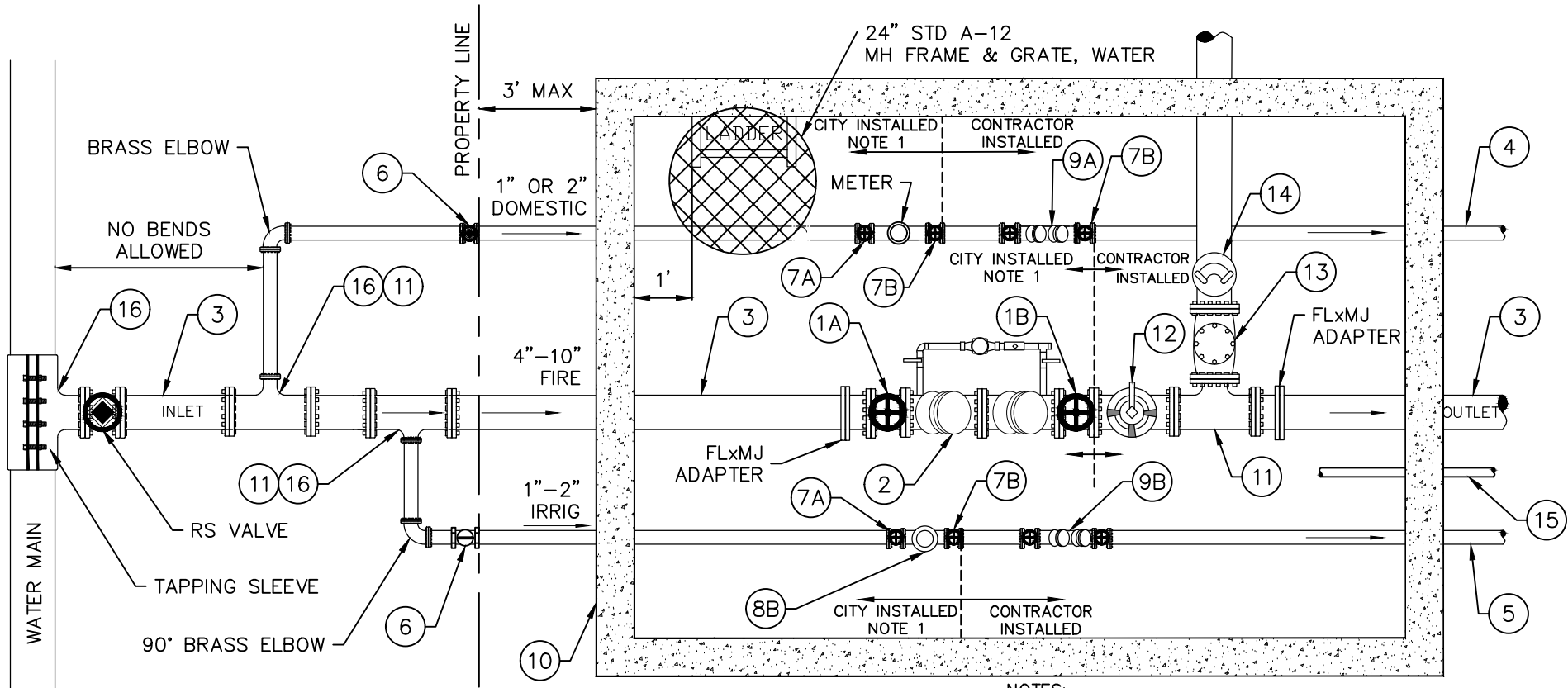
1. IF THERE ARE 2 SERVICES, (EG TWO LINES 4" AND LARGER OR THREE LINES 2" AND LARGER RUNNING PARALLEL IN VAULT) ALL VAULTS SHALL BE A MINIMUM OF 8' WIDE.

2. IF THERE ARE MORE THAN 2 SERVICES, VAULT DIMENSIONS MUST BE OBTAINED FROM THE TAPPING DEPARTMENT (509) 625-7847

3. ALL VAULTS WILL BE HEAVY DUTY TRAFFIC RATED

4. THESE VAULTS ARE MINIMUM INSIDE DIMENSIONS

<p style="text-align: center;">APPROVED BY</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: right;"> <p style="font-size: small;">KYLE TWOHIG</p> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <p style="font-size: x-small;">ENGINEERING SERVICES DIRECTOR</p> <p style="font-size: x-small;">DAN BULLER, P.E.</p> </div>	<p>ADOPTED: _____</p> <p>REVISED: <u>07/2020</u></p> <p>SUPERSEDES: <u>02/2017</u></p> <p>SCALE: _____ NTS</p> <p>DWG./REV BY: <u>MB/MLD</u></p>	<p style="font-weight: bold; margin: 0;">WATER SERVICE VAULT MINIMUM DIMENSIONS</p>
<p style="font-size: small;">ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>		<p style="font-size: small;">STANDARD PLAN No. Y-115</p>



- (1A) FIRE LINE OSY, INLET
- (1B) FIRE LINE OSY, OUTLET
- (2) DCVA W/ 5/8" T-10 METER
- (3) DUCTILE IRON PIPE
- (4) DOMESTIC SERVICE
- (5) IRRIGATION SERVICE
- (6) CURB STOP
- (7A) INLET VALVE, DOMESTIC/IRRIGATION
- (7B) OUTLET VALVE, DOMESTIC/IRRIGATION
- (8A) NEPTUNE TRUFLOW METER
- (8B) IRRIGATION METER

- (9A) DCVA ON ALL COMMERCIAL APPLICATIONS AND RESIDENTIAL WHERE REQUIRED
- (9B) BACKFLOW ASSEMBLY, IRRIGATION
- (10) VAULT (PER Y-115) PROVIDED AND INSTALLED BY CONTRACTOR
- (11) TEE OR TAPPING SADDLE
- (12) POST INDICATOR (THROUGH VAULT TOP)
- (13) CHECK WITH BALL DRIP
- (14) PUMPER CONNECTION (FDC) (THROUGH VAULT)
- (15) 3/4" ELECTRICAL CONDUIT FOR REMOTE READER, VAULT TO BUILDING OR BOLLARD (36" ABOVE GROUND), ETC
- (16) TAP PERMIT REQUIRED


NOTES:
 1. ALL EXCAVATION, BEDDING, BACKFILL, & RESTORATION, INCLUDING FOR CITY INSTALLED PIPING, IS TO BE DONE BY CONTRACTOR.
 2. IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

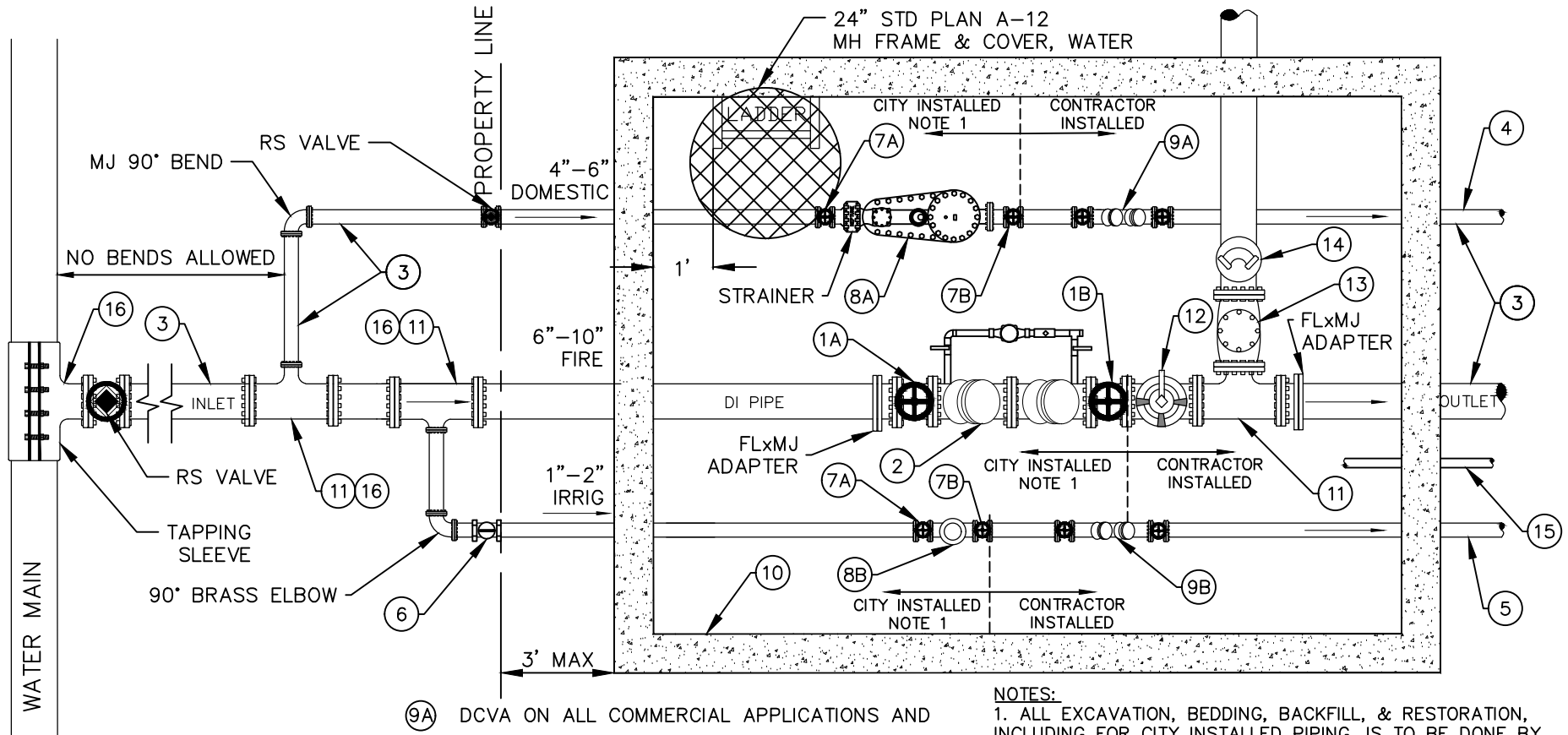
- a) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.
- b) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

APPROVED BY

 ENGINEERING SERVICES DIRECTOR KYLE TWOHIG
 CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 04/2021
 SUPERSEDES: 07/2020
 CHECKED BY: DCS
 SCALE: NTS
 DWG/REV. BY: ABM/MLD

WATER METER VAULT SMALL	
 ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No. Y-116



- ①A FIRE LINE OSY, INLET
- ①B FIRE LINE OSY, OUTLET
- ② DCDVA W/ 5/8" T-10 METER
- ③ DUCTILE IRON PIPE
- ④ DOMESTIC SERVICE
- ⑤ IRRIGATION SERVICE
- ⑥ CURB STOP
- ⑦A INLET VALVE, DOMESTIC/IRRIGATION
- ⑦B OUTLET VALVE, DOMESTIC/IRRIGATION
- ⑧A NEPTUNE TRUFLOW METER
- ⑧B IRRIGATION METER

- ⑨A DCVA ON ALL COMMERCIAL APPLICATIONS AND RESIDENTIAL WHERE REQUIRED
- ⑨B BACKFLOW ASSEMBLY, IRRIGATION
- ⑩ VAULT (PER Y-115) PROVIDED AND INSTALLED BY CONTRACTOR
- ⑪ TEE OR TAPPING SADDLE
- ⑫ POST INDICATOR (THROUGH VAULT TOP)
- ⑬ CHECK WITH BALL DRIP
- ⑭ PUMPER CONNECTION (FDC) (THROUGH VAULT)
- ⑮ 3/4" ELECTRICAL CONDUIT FOR REMOTE READER, VAULT TO BUILDING OR BOLLARD (36" ABOVE GROUND), ETC
- ⑯ TAP PERMIT REQUIRED


NOTES:

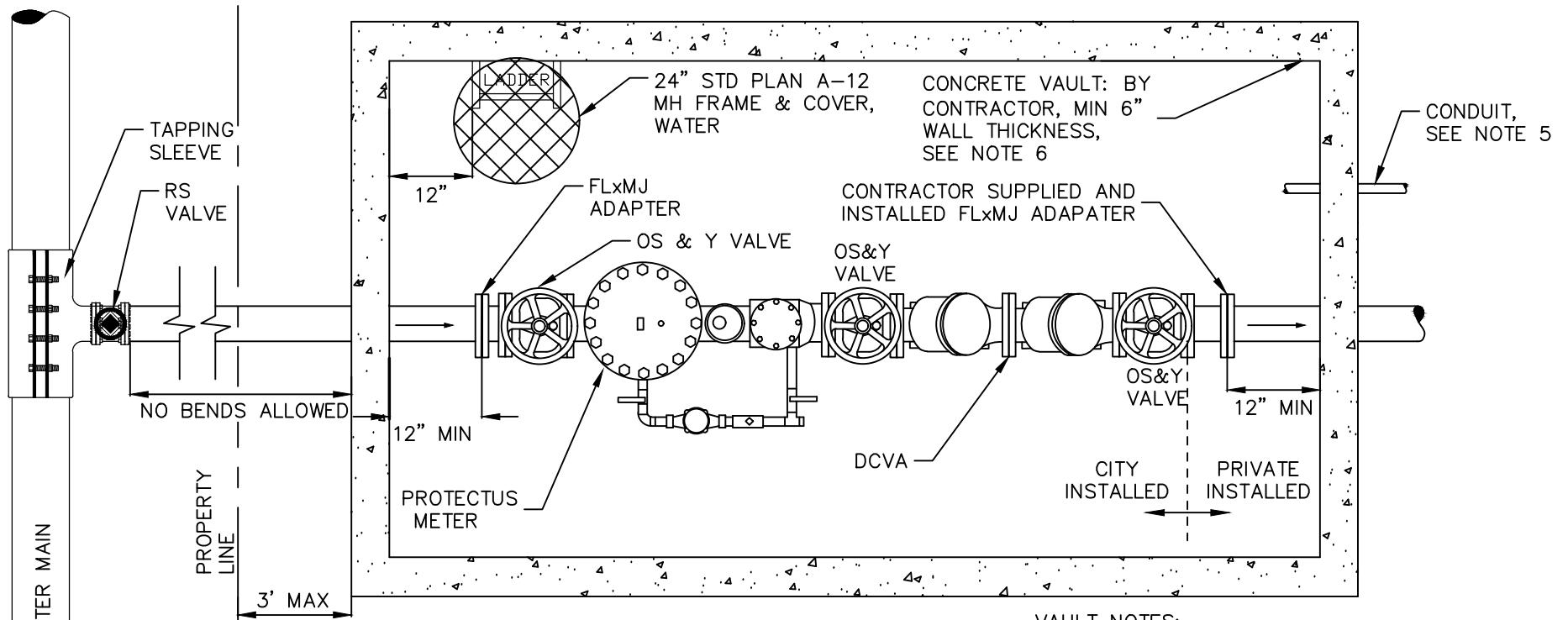
1. ALL EXCAVATION, BEDDING, BACKFILL, & RESTORATION, INCLUDING FOR CITY INSTALLED PIPING, IS TO BE DONE BY CONTRACTOR.
2. IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:
 - a) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.
 - b) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

APPROVED BY

 ENGINEERING SERVICES DIRECTOR KYLE TWOHIG
 CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 04/2021
 SUPERSEDES: 07/2020
 CHECKED BY: JTG
 SCALE: NTS
 DWG/REV. BY: ABM/MLD

WATER METER VAULT LARGE	
 ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No. Y-117



SITE NOTES:

IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

- A) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.
- B) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

VAULT NOTES:

- 1) TRAFFIC RATED LID
- 2) OPEN BOTTOM UNLESS IN HIGH GROUNDWATER AREAS, SEE SITE NOTE
- 3) DIMENSION BASED ON: WATTS 709 DCVA NEPTUNE HP PROTECTUS III METER
- 4) EXCAVATION, BEDDING, BACKFILL & SURFACE RESTORATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS
- 5) 3/4" MIN CONDUIT REQUIRED FOR REMOTE READER, VAULT TO BUILDING OR BOLLARD (36" ABOVE GROUND), ETC
- 6) VAULT SIZE PER Y-115

APPROVED BY

 ENGINEERING SERVICES DIRECTOR KYLE TWOHIG

 CITY ENGINEER DAN BULLER, P.E.

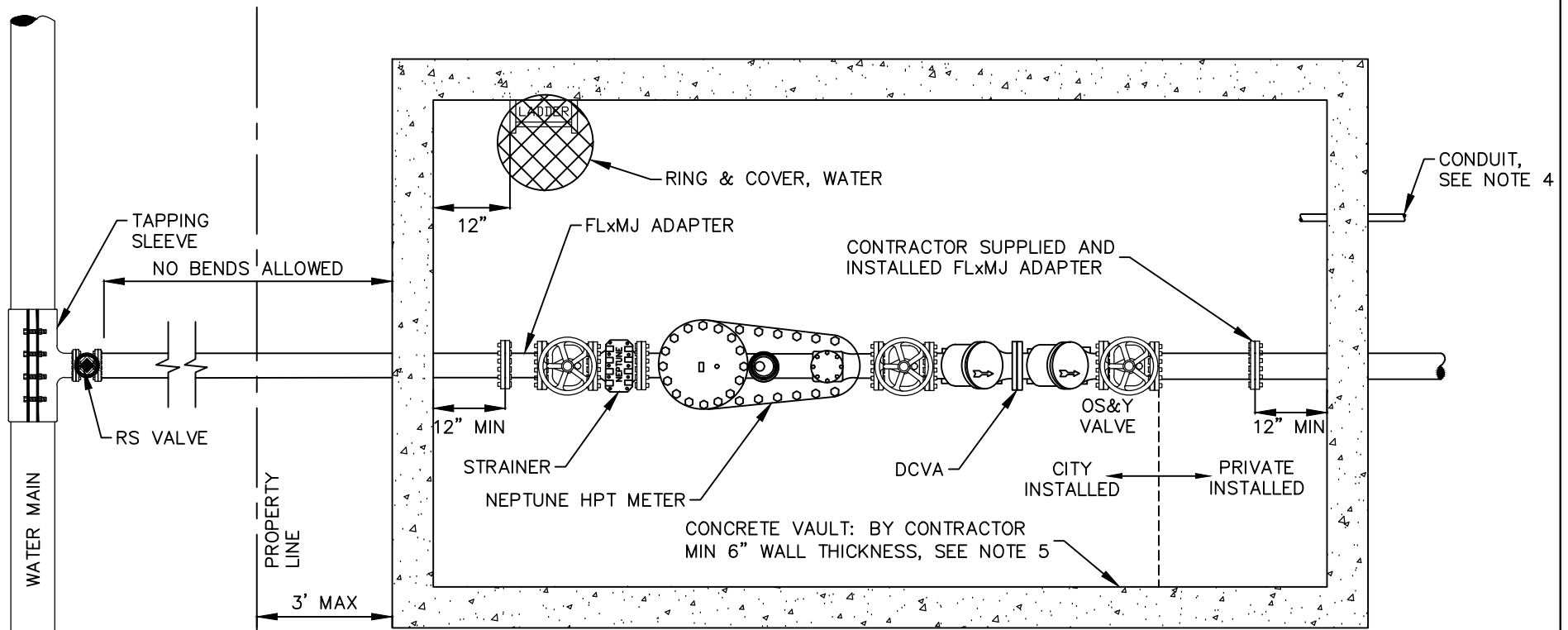
ADOPTED: _____
 REVISED: 04/2021
 SUPERSEDES: 07/2020
 CHECKED BY: JTG
 SCALE: NTS
 DWG/REV. BY: ABM/MLD

**DOMESTIC/FIRELINE 4"-10" SERVICE
 DOUBLE CHECK VALVE ASSEMBLY**



ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD
 PLAN No.
Y-118



SITE NOTES:

IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

- A) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.
- B) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

VAULT NOTES:

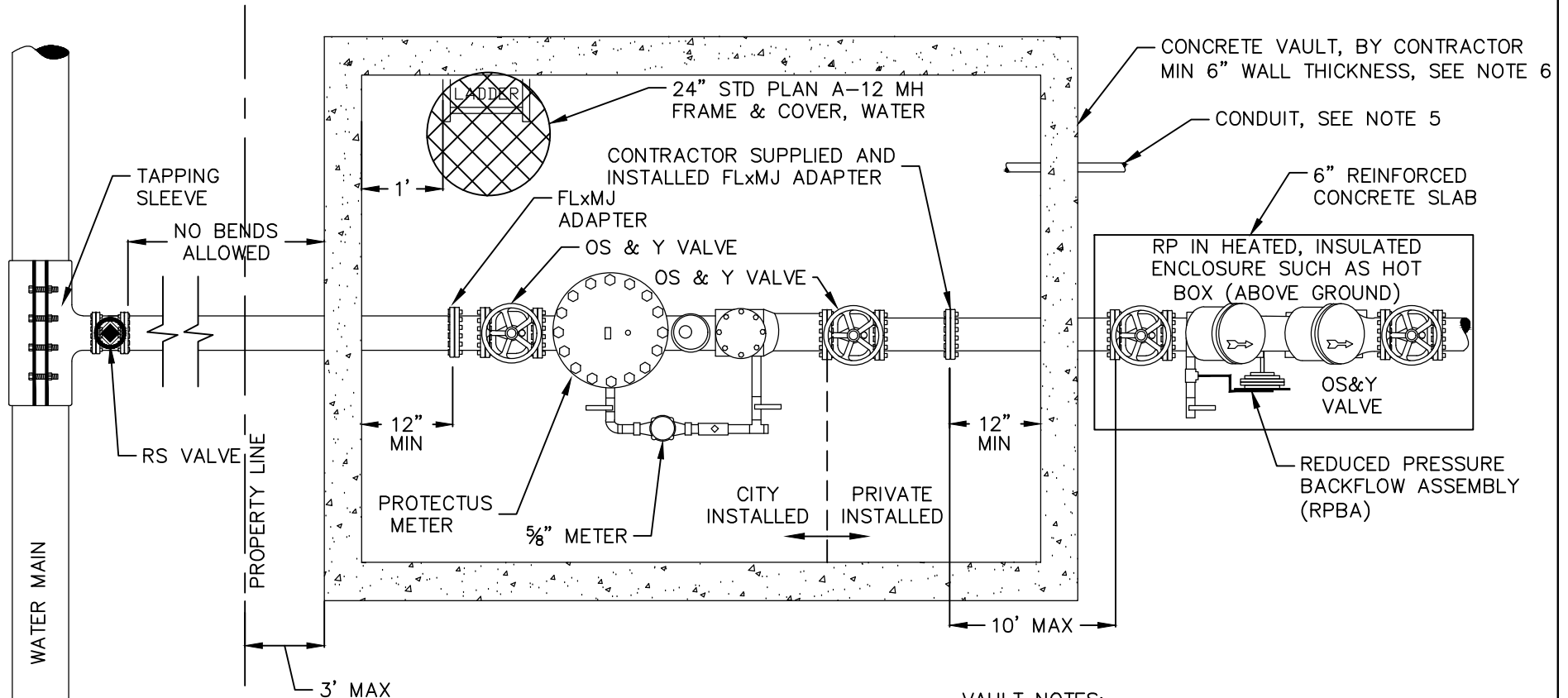
- 1) TRAFFIC RATED LID
- 2) OPEN BOTTOM UNLESS IN HIGH GROUNDWATER AREAS, SEE SITE NOTE
- 3) EXCAVATION, BEDDING, BACKFILL & SURFACE RESTORATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS
- 4) 3/4" MIN CONDUIT REQUIRED FOR REMOTE READER, VAULT TO BUILDING OR BOLLARD (36" ABOVE GROUND), ETC
- 5) VAULT SIZE PER Y-115

APPROVED BY

 ENGINEERING SERVICES DIRECTOR KYLE TWOHIG
 CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 04/2021
 SUPERSEDES: 07/2020
 CHECKED BY: DCS
 SCALE: NTS
 DWG/REV. BY: ABM/MLD

IRRIGATION SERVICE WITH DCVA 3"-6"	
 ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No. Y-119



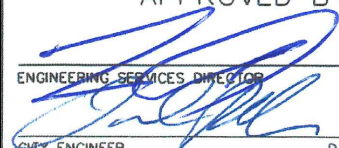

SITE NOTES:

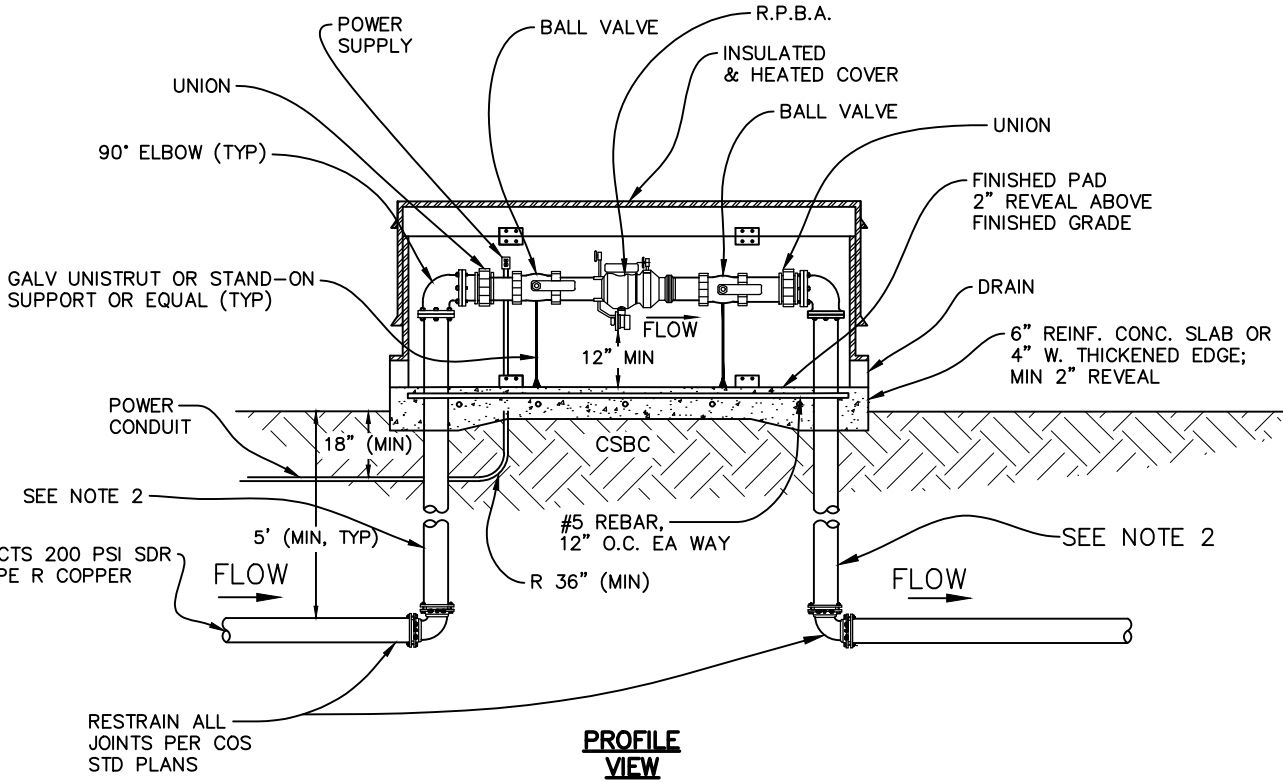
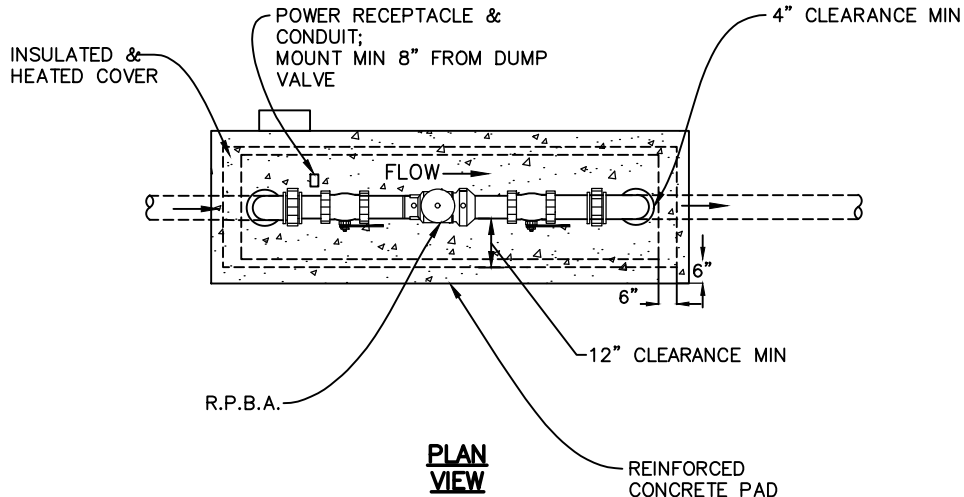
IN SHALLOW GROUNDWATER AREAS WHERE SEASONAL HIGH LEVEL WILL REACH BOTTOM OF VAULT OR IS <7' DEEP, METER VAULT SHALL BE ONE OF THE FOLLOWING:

- A) BUOYANT RESISTANT VAULT WITH WATERTIGHT JOINTS AND PIPE PENETRATIONS, AND EXTERIOR WATER PROOF COATING (XYPEX OR EQUIVALENT). MIN 12" WIDE BY 6" DEEP SUMP TO BE PROVIDED FOR PUMP OUT. BOLTS FOR FLANGES AND MJ FITTINGS SHALL BE ASTM 316.
- B) BE LOCATED ABOVE GROUND IN THE HEATED AND INSULATED ENCLOSURE SUCH AS HOTBOX MOUNTED ON MIN 6" THICK REINFORCED CONCRETE BASE.

VAULT NOTES:

- 1) TRAFFIC RATED LID
- 2) OPEN BOTTOM UNLESS IN HIGH GROUNDWATER AREA, SEE SITE NOTE
- 3) DIMENSIONS BASED ON: WILKINS 350A NEPTUNE HP PROTECTUS III METER
- 4) EXCAVATION, BEDDING, BACKFILL & RESTORATION TO BE DONE BY CONTRACTOR PER L&I REGULATIONS.
- 5) 3/4" MIN CONDUIT REQUIRED, STUB 36" ABOVE GROUND
- 6) VAULT SIZE PER Y-115

APPROVED BY  ENGINEERING SERVICES DIRECTOR KYLE TWOHIG CITY ENGINEER DAN BULLER, P.E.	ADOPTED: _____ REVISED: 04/2021 SUPERSEDES: 07/2020 CHECKED BY: DCS SCALE: NTS DWG/REV. BY: ABM/MLD	DOMESTIC/FIRE LINE 4"-6", 8" OR 10" SERVICE REDUCED PRESSURE ASSEMBLY (PER WAC 246.290.490)	 ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No. Y-120
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- NOTES:
- (1) BASE FOUNDATIONS FOR ALL UTILITY VAULTS AND PADS TO BE PLACED ON 6" MINIMUM OF COMPACTED CSBC OR MATERIAL ALLOWED BY ENGINEER. MATERIAL TO BE COMPACTED TO DIV. 4 REQUIREMENTS
 - (2) STAINLESS STEEL PIPE (SCH 40, ASTM 304), TYPE K COPPER OR RIGID HDPE 200 PSI SDR9 WITH GALV STEEL (OR SCH. 40 PVC WITH 1/2" ANNULAR CLEARANCE) SLEEVES THROUGH SLAB

APPROVED BY

 DIRECTOR OF ENGINEERING SERVICES KYLE TWOHIG

 CITY ENGINEER DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 04/2022
 SUPERSEDES: 04/2021
 CHECKED BY: ABM
 SCALE: NTS
 REVISED BY: ABM

**ABOVE GROUND REDUCED PRESSURE
 BACKFLOW ASSEMBLY (RPBA)
 PIPE SIZE 2" & UNDER**

 ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD
 PLAN No.
Y-121