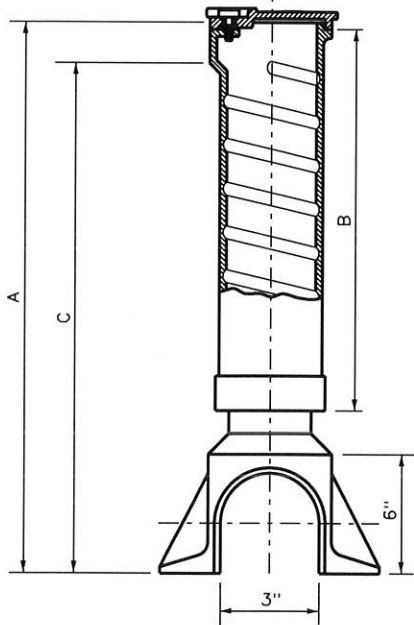
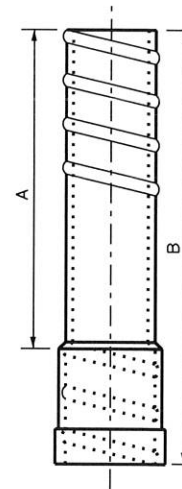


**APPENDIX G
PWSA STANDARD DETAILS FOR
WATER TAP-INS & AN EXAMPLE OF
A WATER TAP-IN DRAWING**



TOP SECTION, BOTTOM SECTION AND COVER



SERVICE BOX EXTENSION

SIZE NO.	INCREASES LENGTH-A	OVERALL LENGTH-B	WEIGHT
155	20	22.75	13.1
156	24	26.75	17.7

SIZE NO.	EXTENSION RANGE - A	TOP SECTION & COVER			BOTTOM SECTION			TOTAL WEIGHT
		NO.	WEIGHT	DIM. B	NO.	WEIGHT	DIM. C	
2	24" - 39"	9	19.6	18	2	14.1	23.0	32.7

NOTES:

- SERVICE BOX SHALL BE BINGHAM & TAYLOR BUFFALO STYLE (3" OLD STYLE), No. 4930 OR APPROVED EQUAL.
- DIMENSIONS IN INCHES; WEIGHT IN POUNDS.
- LABELED "WATER" ON THE COVER.

R E V I S I O N S

1.	MAC	3-12-04	
2.	MAC	8-15-07	
3.	MAC	12-28-07	
4.	LRC	1-31-14	

Approved by:



Pittsburgh Water and Sewer Authority

3" Curb Service Box

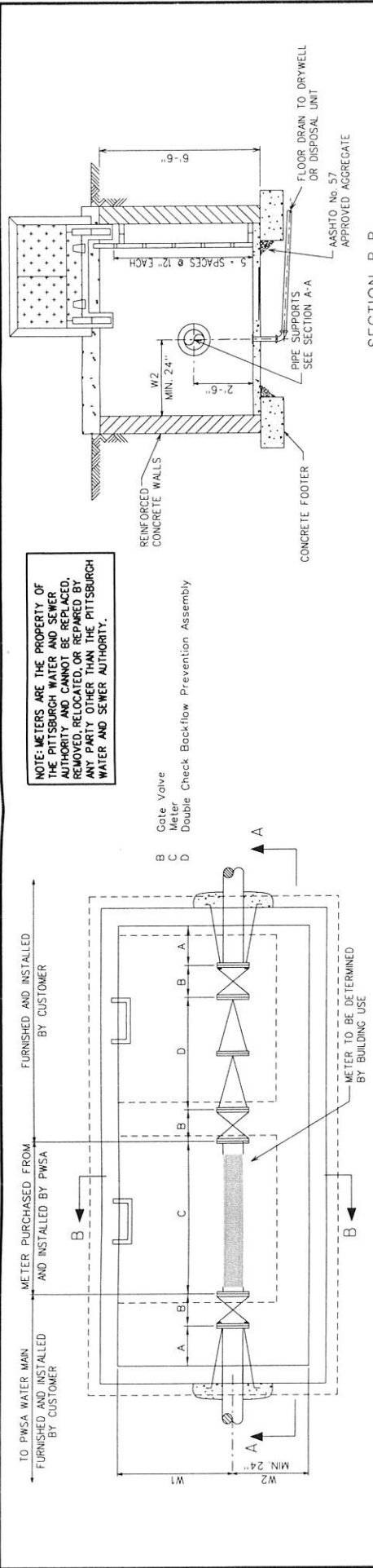
Scale: N.T.S.

Supplemental Detail Drawing:

WCB-1

2/24/2014

M:\pwsa\gis\det\Standards\stdcbl.det



SECTION B-B

NOTE: METERS ARE THE PROPERTY OF THE PITTSBURGH WATER AND SEWER AUTHORITY AND CANNOT BE REPLACED, REMOVED, RELOCATED OR REPAIRED BY ANY PARTY OTHER THAN THE PITTSBURGH WATER AND SEWER AUTHORITY.

WHEN VAULT IS BUILT ON PRIVATE PROPERTY, IT SHOULD BE RAISED 6" MINIMUM. IF VAULT IS IN A ROAD OR SIDEWALK, IT SHOULD BE FLUSH TO FINISHED GRADE OF THE CARTWAY OR SIDEWALK.

REINFORCED CONCRETE WALLS

CONCRETE FOOTER

PIPE SUPPORTS SEE SECTION A-A

FLOOR DRAIN TO DRYWELL OR DISPOSAL UNIT

AASHTO No. 57 APPROVED AGGREGATE

Gate Valve

Meter

Double Check Backflow Prevention Assembly

MIN. 24"

W2

5" SPACES @ 12" EACH

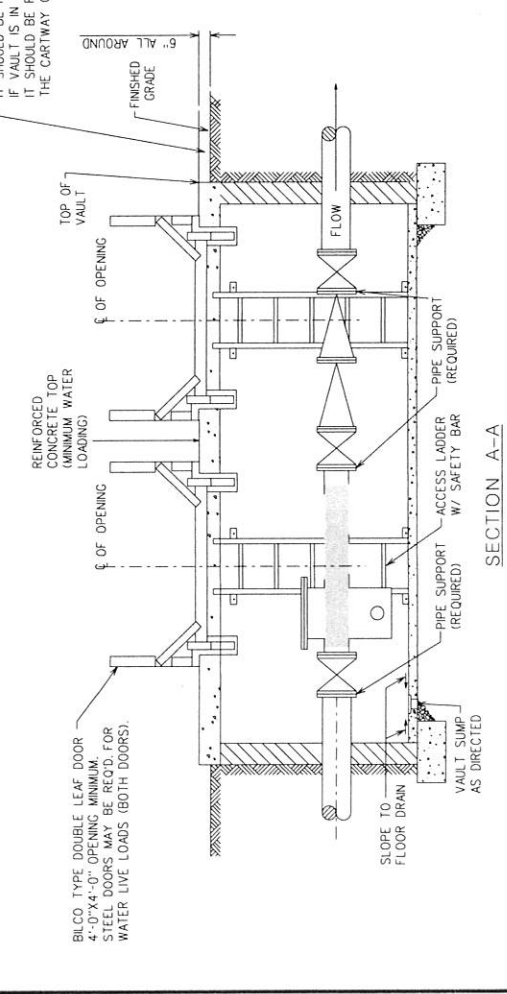
PIPE SUPPORTS SEE SECTION A-A

FLOOR DRAIN TO DRYWELL OR DISPOSAL UNIT

AASHTO No. 57 APPROVED AGGREGATE

SECTION B-B

SECTION A-A



SECTION A-A

1. CUSTOMER TO CONSTRUCT METERING VAULT AS SHOWN TO MINIMUM DIMENSIONS AND GENERAL CONFIGURATION.
2. PIPE SUPPORTS, IE RODS, ANCHORS AND TRUST BRACING AT FITTINGS AND VALVES SHALL BE PROVIDED SUFFICIENT TO ALLOW PIPING TO STAND WITH REMOVAL OF METERS. FRICTION CLAMPS ARE NOT PERMITTED FOR RESTRAINT OF PIPING SYSTEMS.
3. DOUBLE CHECK BACKFLOW PREVENTION DEVICE IS REQUIRED AS SHOWN AND/OR ADDITIONAL BACKFLOW PREVENTION DEVICE OF REDUCED PRESSURE (RPZ TYPE), THE RPZ TYPE MUST BE INSTALLED ON THE SERVICE LINE INSIDE AT THE POINT WHERE IT ENTERS THE BUILDING. PRINCIPAL DESIGNER SHALL BE REQUIRED TO TYPE AND MANUFACTURER OF BACKFLOW PREVENTION DEVICE MUST BE LISTED IN THE ASSE STANDARD No. 105. MANDATORY TEST REQUIRED PRIOR TO INSTALLATION PER IPC 312.9.2.
4. 2" VALVES AND UNDER ARE (P.S.): 4" VALVES AND OVER ARE FLANGED - 125 P.S.I. CLASS FLANGE WITH 125 P.S.I. DRILLING.
5. IT WILL BE NECESSARY FOR THE CUSTOMER TO INSTALL PROPER DRAINAGE OR PROVIDE OTHER MECHANICAL MEANS TO KEEP THE VAULT DEWATERED.
6. WATER SERVICE WILL NOT BE PROVIDED UNTIL THE VAULT IS COMPLETED AS DETAILED. THE PITTSBURGH WATER AND SEWER AUTHORITY TO REVIEW FINAL LOCATION AND CONDITION OF VAULT BY CUSTOMER FOR DIMENSIONS AND OVERALL CONFIGURATION.
7. GATE VALVES MUST BE SAME SIZE AS METERS.
8. ALL VALVES AND BACKFLOW PREVENTION DEVICES ARE TO BE MAINTAINED BY CUSTOMERS.
9. BILCO TYPE DOOR TO BE CENTERED OVER METER ASSEMBLY AND APPROVED ACCESS LADDER.
10. METER ASSEMBLY WILL NOT BE INSTALLED UNTIL ALL PIPING IS COMPLETED IN THE VAULT. IT IS RECOMMENDED THAT A FILLER PIECE BE INSTALLED TO ASSURE PROPER ALIGNMENT OF FLANGES. METER AND METER ASSEMBLY TO BE PURCHASED FROM AND INSTALLED BY THE PITTSBURGH WATER AND SEWER AUTHORITY.
11. THE RODS TO BE EMBEDDED IN CONCRETE OR BOLTED TO STEEL PLATES ON EXTERIOR WALLS. THE PITTSBURGH WATER AND SEWER AUTHORITY IS TO INSPECT BEFORE BACKFILLING OF SAID VAULT.

PITTSBURGH WATER AND SEWER AUTHORITY	
Quality Water Quality Service	
Engineering & Construction Division	
Scale: N.T.S.	
Supplemental Detail Drawing: WMV	
Approved by:	
REVISIONS	
1. MSR 4-23-01	
2. RDH 1-13-06	
3. LRC 1-31-14	

TO PWSA WATER MAIN FURNISHED AND INSTALLED BY CUSTOMER

METER PURCHASED FROM AND INSTALLED BY PWSA

METER TO BE DETERMINED BY BUILDING USE

MIN. 24"

W1

W2

6" ALL AROUND

FINISHED GRADE

TOP OF VAULT

REINFORCED CONCRETE TOP (MINIMUM WATER LOADING)

PIPE SUPPORT (REQUIRED)

PIPE SUPPORT (REQUIRED)

ACCESS LADDER W/ SAFETY BAR

PIPE SUPPORT (REQUIRED)

PIPE SUPPORT (REQUIRED)

VAULT SUMP AS DIRECTED

SLOPE TO FLOOR DRAIN

FLOW

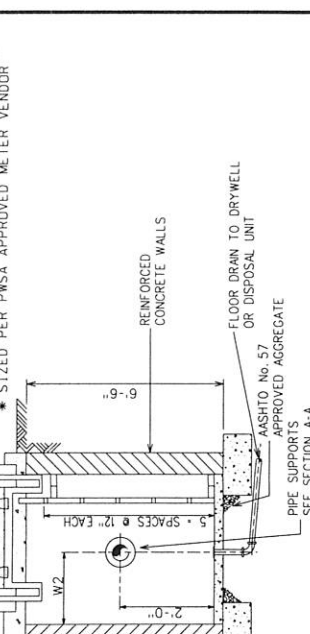
- A. VAULT DESIGN TO BE APPROVED BY PA REGISTERED PROFESSIONAL ENGINEER; MINIMUM LOAD DESIGN AASHTO H20 LOADING OR EXPECTED LOADING. MAINTENANCE HOLES SEWER SERVICE TO PROVIDE FOR ALL EXPECTED FIELD CONDITIONS, INCLUDING A SAFE WORKING ENVIRONMENT FOR MAINTENANCE PERSONNEL PER OSHA STANDARDS.
- B. PRECAST VAULTS INCLUDING HARDWARE ARE AVAILABLE AND CUSTOMERS SHOULD VERIFY DESIGN BY THEIR ENGINEER ACTUAL VAULT LENGTH WILL VARY BY METER SIZE REQUIRED.
- C. VAULT AND METER INSTALLATION IS THE PITTSBURGH WATER AND SEWER AUTHORITY STANDARD FOR OPTIMUM PERFORMANCE AND DESIGNED FOR INSTALLATION AND SERVICING. ALTERNATE DESIGNS MAY BE REQUIRED TO SUIT PREVAILING CONDITIONS.
- D. THE PITTSBURGH WATER AND SEWER AUTHORITY MAY REQUIRE TELEPHONE AND/OR POWER (120 VAC, 15 AMP) IN THE VAULT FOR 'AMR' INSTALLATION OR SUMP PUMP FOR DRAINAGE.
- E. IF BOX IS PROVIDED WITH ELECTRICAL SUPPLY, PLEASE SUPPLY OUTSIDE DISCONNECT AND MAKE PROVISIONS FOR SUMP PUMP (FUTURE).

APPROVED METER LAYING LENGTHS

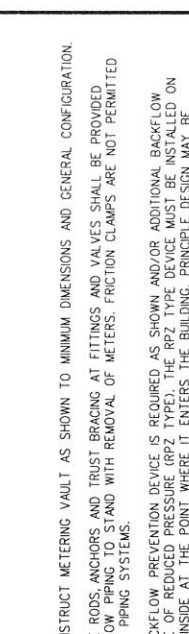
METER PACKAGE SIZE	W1	W2	A	B	C	D	H	J	TOTAL
4"	4"	30"	24"						
6"	6"	36"	24"						
8"	6"	36"	24"						
10"	6"	36"	24"						

* SIZED PER PWSA APPROVED METER VENDOR

NOTE: METERS ARE THE PROPERTY OF THE PITTSBURGH WATER AND SEWER AUTHORITY AND CANNOT BE REPAIRED, REMOVED, RELOCATED, OR REPAIRED BY ANY PARTY OTHER THAN THE PITTSBURGH WATER AND SEWER AUTHORITY.



SECTION A-A

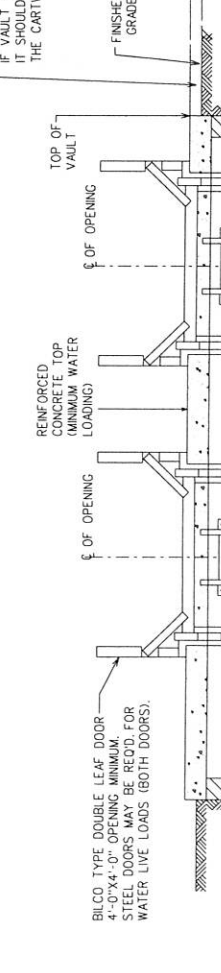


SECTION B-B

- NOTES:**
- CUSTOMER TO CONSTRUCT METERING VAULT AS SHOWN TO MINIMUM DIMENSIONS AND GENERAL CONFIGURATION.
 - PIPE SUPPORTS, TIE RODS, ANCHORS AND TRUST BRACING AT FITTINGS AND VALVES SHALL BE PROVIDED SUFFICIENT TO ALLOW PIPING TO STAND WITH REMOVAL OF METERS. FRICTION CHAMPS ARE NOT PERMITTED FOR RESTRAINT OF PIPING SYSTEMS.
 - DOUBLE CHECK BACKFLOW PREVENTION DEVICE IS REQUIRED AS SHOWN AND/OR ADDITIONAL BACKFLOW PREVENTION DEVICE OF REDUCED PRESSURE (RPZ) TYPE. THE RPZ TYPE DEVICE MUST BE INSTALLED ON THE SERVICE LINE INSIDE AT THE POINT WHERE IT ENTERS THE BUILDING. PRINCIPLE DESIGN MAY BE REQUIRED. TYPE AND MANUFACTURER OF BACKFLOW PREVENTION DEVICE MAY AFFECT DIMENSIONS. ASSEMBLY PER ASSE STANDARD NO. 1075. MANDATORY TEST REQUIRED PRIOR TO INSTALLATION PER IPC 312.9.2.
 - 2" VALVES, AND UNDER ARE 1/2 S.I. 4" VALVES AND OVER ARE FLANGED - 125 P.S.I. CLASS FLANGE WITH 125 P.S.I. DRILLING.
 - IT WILL BE NECESSARY FOR THE CUSTOMER TO INSTALL PROPER DRAINAGE OR PROVIDE OTHER MECHANICAL MEANS TO KEEP THE VAULT Dewatered.
 - WATER SERVICE WILL NOT BE PROVIDED UNTIL THE VAULT IS COMPLETED AS DETAILED. THE PITTSBURGH WATER AND SEWER AUTHORITY TO REVIEW FINAL LOCATION AND CONDITION OF VAULT BY CUSTOMER FOR DIMENSIONS AND OVERALL CONFIGURATION.
 - GATE VALVES MUST BE SAME SIZE AS METERS.
 - ALL VALVES AND BACKFLOW PREVENTION DEVICES ARE TO BE MAINTAINED BY CUSTOMERS.
 - BILCO TYPE DOOR TO BE CENTERED OVER METER ASSEMBLY AND APPROVED ACCESS LADDER.
 - METER ASSEMBLY WILL NOT BE INSTALLED UNTIL ALL PIPING IS COMPLETED IN THE VAULT. IT IS RECOMMENDED THAT A FILLER PIECE BE INSTALLED TO ASSURE PROPER ALIGNMENT OF FLANGES. METER AND MUI ASSEMBLY TO BE PURCHASED FROM AND INSTALLED BY THE PITTSBURGH WATER AND SEWER AUTHORITY.
 - TIE RODS TO BE EMBEDDED IN CONCRETE OR BOLTED TO STEEL PLATES ON EXTERIOR WALLS. THE PITTSBURGH WATER AND SEWER AUTHORITY IS TO INSPECT BEFORE BACKFILLING OF SAID VAULT.



PLAN



SECTION A-A

- NOTES:**
- VAULT DESIGN TO BE APPROVED BY P.A. REGISTERED PROFESSIONAL ENGINEER; MINIMUM LOAD DESIGN ASHTO H20 LOADING OR EXPECTED LOADING, WHICHEVER IS MORE SEVERE. DESIGN MUST PROVIDE FOR ALL EXPECTED FIELD CONDITIONS, INCLUDING A SAFE WORKING ENVIRONMENT FOR MAINTENANCE PERSONNEL PER OSHA STANDARDS.
 - PRECAST VAULTS INCLUDING HARDWARE ARE AVAILABLE AND CUSTOMERS SHOULD VERIFY DESIGN BY THEIR ENGINEER. ACTUAL VAULT LENGTH WILL VARY BY METER SIZE REQUIRED.
 - VAULT AND METER INSTALLATION IS THE PITTSBURGH WATER AND SEWER AUTHORITY STANDARD FOR OPTIMUM PERFORMANCE AND DESIGNED FOR INSTALLATION AND SERVICING. ALTERNATE DESIGNS MAY BE REQUIRED TO SUIT PREVAILING CONDITIONS.
 - PITTSBURGH WATER AND SEWER AUTHORITY MAY REQUIRE TELEPHONE AND/OR POWER (120 VAC, 15 AMP) IN THE VAULT FOR 'AMR' (AUTOMATIC METER READING) EQUIPMENT FOR DRAINAGE.
 - IF BOX IS PROVIDED WITH ELECTRICAL SUPPLY, PLEASE SUPPLY OUTSIDE DISCONNECT AND MAKE PROVISIONS FOR SUMP PUMP (FUTURE).

PWSA
PITTSBURGH WATER AND SEWER AUTHORITY
Quality Water Quality Service

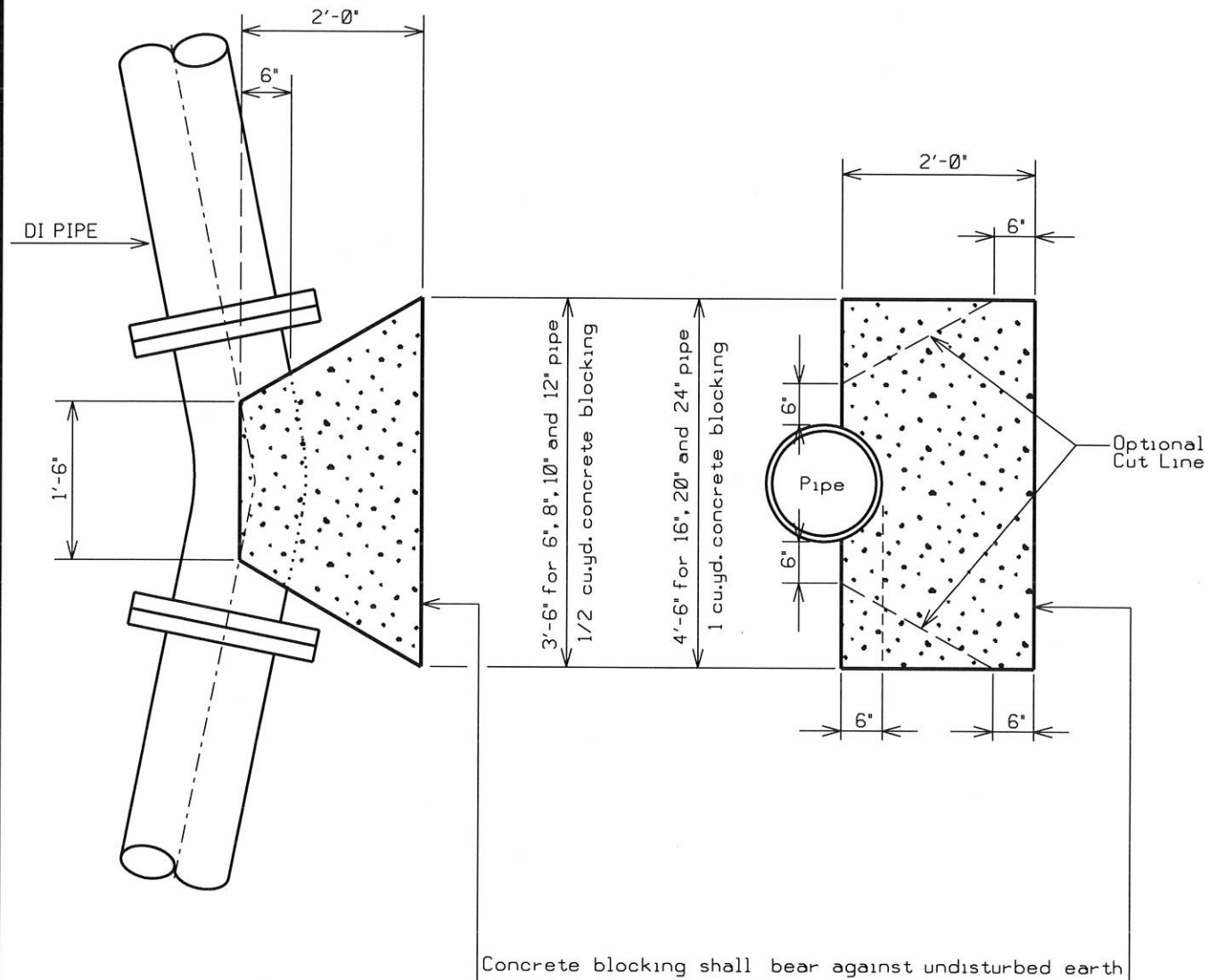
Pittsburgh Water and Sewer Authority
Meter Vault With Bypass

REVISIONS

1.	MSR	4-23-01
2.	DWP	9-15-05
3.	LRC	1-31-14

Scale: N.T.S.
Supplemental Detail Drawing: **WN1VB**

- Approved by:**
- VAULT DESIGN TO BE APPROVED BY P.A. REGISTERED PROFESSIONAL ENGINEER; MINIMUM LOAD DESIGN ASHTO H20 LOADING OR EXPECTED LOADING, WHICHEVER IS MORE SEVERE. DESIGN MUST PROVIDE FOR ALL EXPECTED FIELD CONDITIONS, INCLUDING A SAFE WORKING ENVIRONMENT FOR MAINTENANCE PERSONNEL PER OSHA STANDARDS.
 - PRECAST VAULTS INCLUDING HARDWARE ARE AVAILABLE AND CUSTOMERS SHOULD VERIFY DESIGN BY THEIR ENGINEER. ACTUAL VAULT LENGTH WILL VARY BY METER SIZE REQUIRED.
 - VAULT AND METER INSTALLATION IS THE PITTSBURGH WATER AND SEWER AUTHORITY STANDARD FOR OPTIMUM PERFORMANCE AND DESIGNED FOR INSTALLATION AND SERVICING. ALTERNATE DESIGNS MAY BE REQUIRED TO SUIT PREVAILING CONDITIONS.
 - PITTSBURGH WATER AND SEWER AUTHORITY MAY REQUIRE TELEPHONE AND/OR POWER (120 VAC, 15 AMP) IN THE VAULT FOR 'AMR' (AUTOMATIC METER READING) EQUIPMENT FOR DRAINAGE.
 - IF BOX IS PROVIDED WITH ELECTRICAL SUPPLY, PLEASE SUPPLY OUTSIDE DISCONNECT AND MAKE PROVISIONS FOR SUMP PUMP (FUTURE).



NOTES:

1. Concrete thrust blocking shall be provided at all tees, bends, caps, and plugs.
In addition, all pipe bends shall be harnessed with mechanical joint retainer glands, using either set screw or lug type retaining system, as directed.
2. Concrete thrust blocks shall be minimum 4000 PSI cement concrete.
3. See detail WS-VB and WS-VBL for vertical bends requirements.

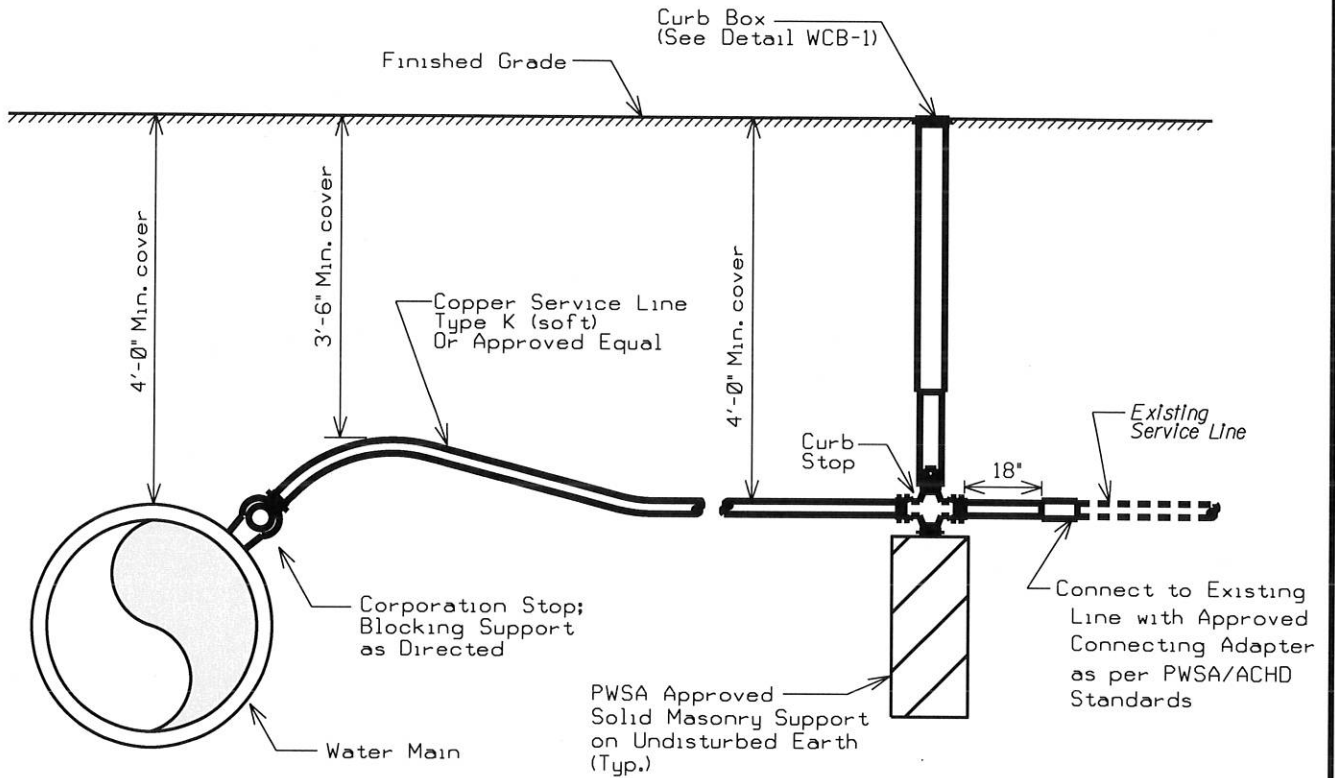
R E V I S I O N S	
1. MSR 4-23-01	
2. MAC 8-13-07	
3. LRC 1-31-14	

Approved by: _____

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
Concrete Blocking For Pressure Pipe
 Scale: N.T.S.
 Supplemental Detail Drawing: **WS-3**

2/24/2014



Note:

For PEX Pipe Installation, Corporation And Curb Stops Shall Be Compression Type Fitting And Shall Have Tracer Wire Installed Per Manufacturer's Specifications.

R E V I S I O N S	
1. MSR 4-23-01	5. LRC 1-31-14
2. MAC 9-1-05	
3. MAC 8-13-07	
4. MAC 1-2-08	

Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water & Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
**Water Service Line
 Reconnection To Existing Service**

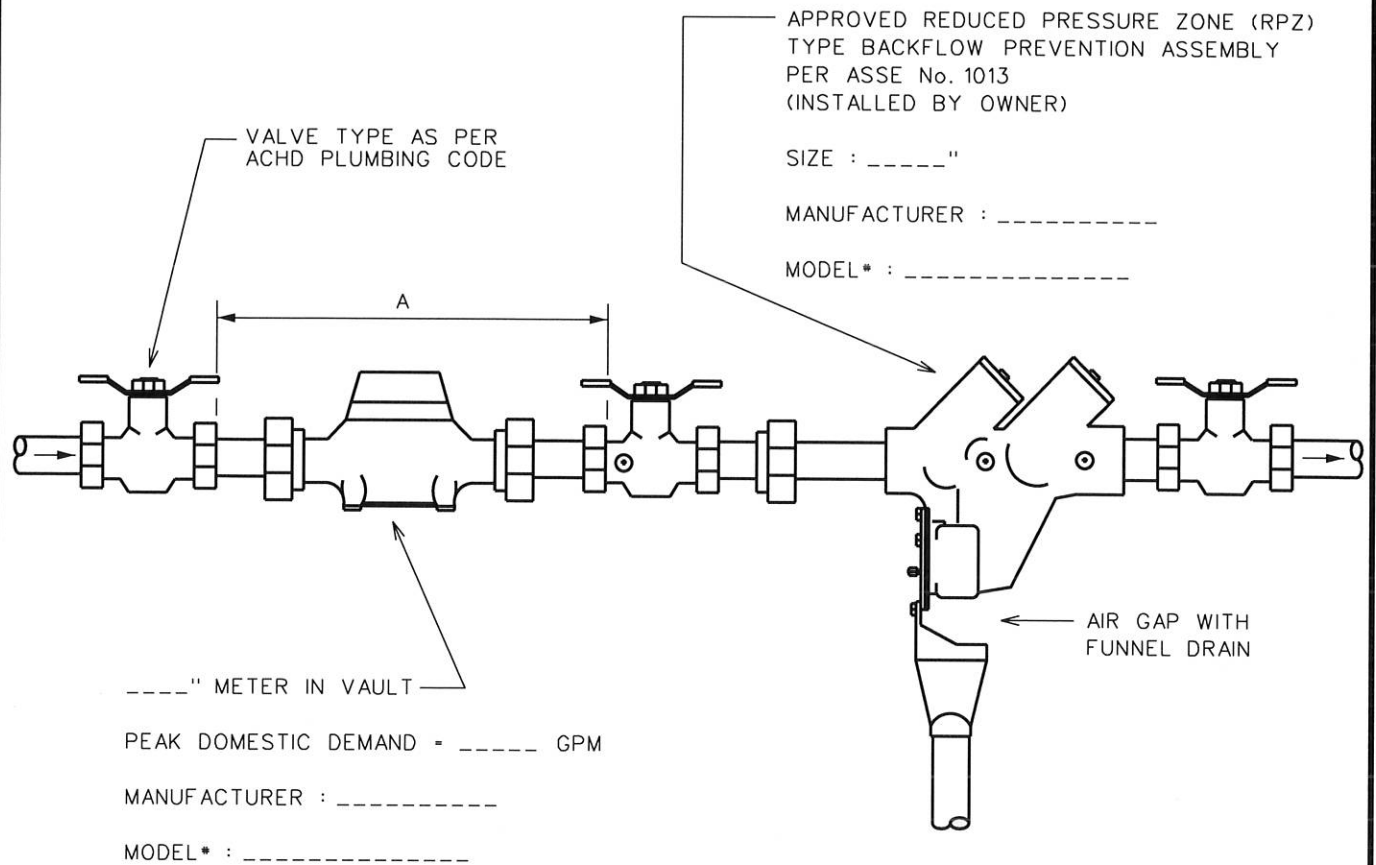
Scale: N.T.S.

Supplemental
 Detail Drawing:

WS-5

M:\pwsa\gis\det\Standards\stdws5.det

2/24/2014



NOTES

1. METER TO BE INSTALLED IN A WARM, NON-FREEZING, ACCESSIBLE AREA WITHIN DWELLING, A MINIMUM OF 2' FROM FLOOR AND A MAXIMUM OF 3' FROM POINT OF ENTRY AND/OR FROM INSIDE WALL.

2. SEE ACHD PLUMBING CODE FOR ADDITIONAL PIPING AND PRESSURE REGULATOR REQUIREMENTS.

3. PROPER METER ACCESS REQUIRED. METER SETTING CAN NOT BE IN A RESTRICTED AREA (e.g. UNDER STEPS, BEHIND FURNACE OR HOT WATER TANK), OR IN OTHER OBSTRUCTED AREAS IN ANY WAY.

4. METER SETTING VALUES:

SIZE	COUPLING SPACE Δ	METER TAIL-PIECE	FLOW (GPM)
5/8"	12.5"	1/2"	20
5/8x3/4"	12.5"	3/4"	20
3/4"	14.25"	3/4"	30
1"	16.5"	1"	50

5. THE METER AND MIU SHALL BE PURCHASED FROM AND INSTALLED BY PWSA.

6. METER ASSEMBLY SETTINGS MUST BE INSTALLED BY THE CUSTOMER BEFORE THE METER WILL BE SET, INCLUDING METER SIGNAL WIRING.

7. CUSTOMER SHALL PROVIDE PROPER DRAIN AT METER SETTING LOCATION.

8. METER MUST BE INSTALLED IN A HORIZONTAL POSITION ONLY.

9. CUSTOMER TO PROVIDE DATA FOR PROPER PWSA SIZING AND PEAK DOMESTIC DEMAND.

R E V I S I O N S

1. MSR 4-23-01	5. LRC 1-31-14
2. DWP 9-15-05	
3. MAC 8-13-07	
4. MAC 4-14-09	

Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority

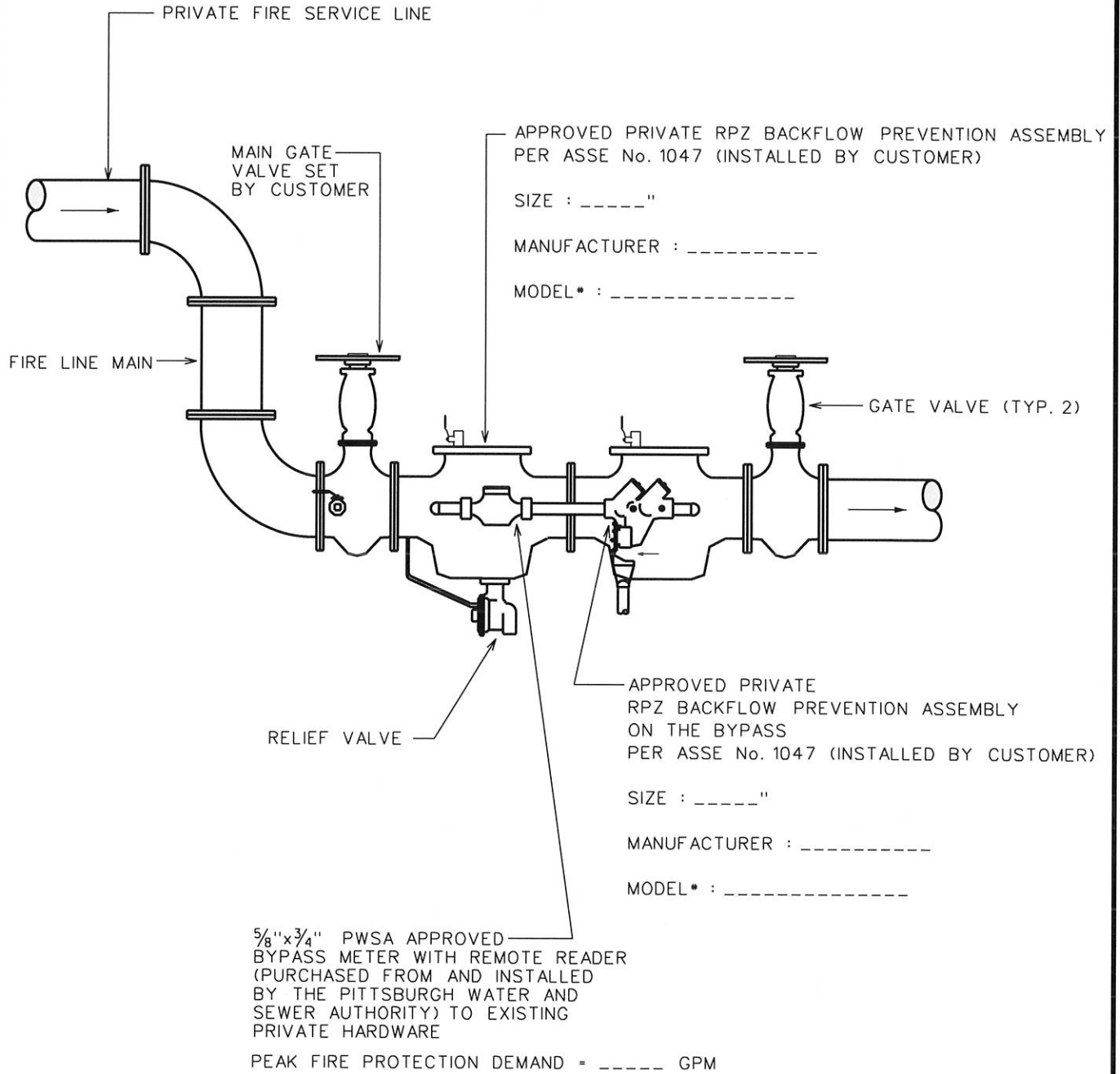
**Domestic Service Internal Meter Setting
 Commercial And Multi-Family**

Scale: N.T.S.

Supplemental
 Detail Drawing: **WS-5CDI**

M:\pwsa\gis\det\Standards\stdws5cdi.det

2/24/2014



NOTES:

1. ALL ITEMS SHOWN EXCEPT THE BYPASS METER AND MIU SHALL BE FURNISHED AND INSTALLED BY THE CUSTOMER.
2. CUSTOMER TO PROVIDE DATA FOR CORRECT SIZE, MODEL, MANUFACTURER, AND PEAK FIRE DEMAND.
3. INSTALLATION OF ASSEMBLY IS PERMITTED IN VAULT, AS DIRECTED.
4. MANDATORY TEST REQUIRED AT TIME OF INSTALLATION PER IPC 312.9.2. FIELD TESTING REQUIREMENTS AND REPORTING SHALL BE PER ASSE No. 5013 2.0 AND 3.0.

R E V I S I O N S	
1. MSR 4-23-01	5. LRC 1-31-14
2. DWP 9-15-05	
3. MAC 8-13-07	
4. BDB 1-9-12	

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

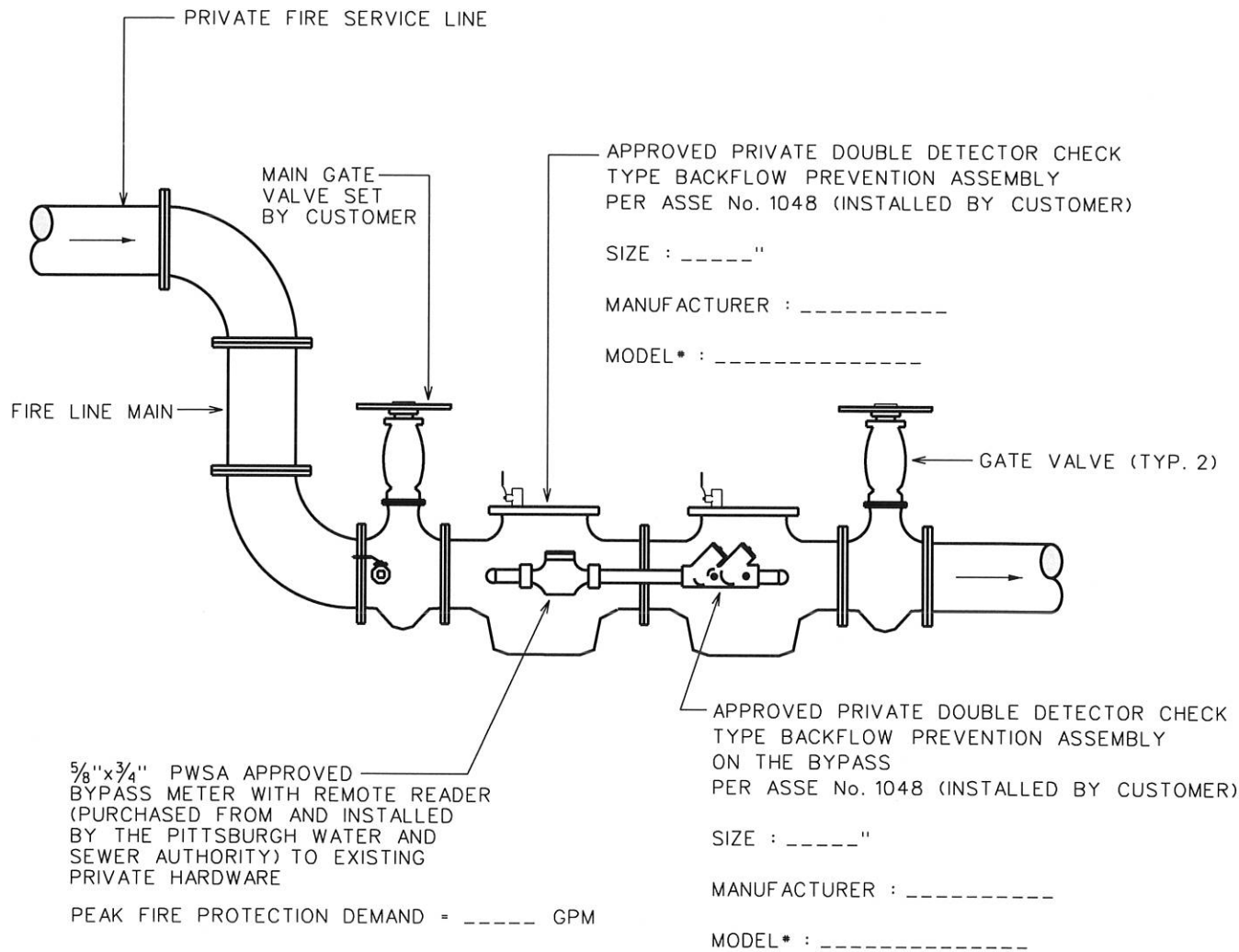
Pittsburgh Water and Sewer Authority
Typical Plumbing Schematic
High Hazard Fire Protection Service

Approved by:

Scale: N.T.S.

Supplemental Detail Drawing: **WS-5FPHH**

2/25/2014



NOTES:

1. ALL ITEMS SHOWN EXCEPT THE BYPASS METER AND MIU SHALL BE FURNISHED AND INSTALLED BY THE CUSTOMER.
2. CUSTOMER TO PROVIDE DATA FOR CORRECT SIZE, MODEL, MANUFACTURER, AND PEAK FIRE DEMAND.
3. INSTALLATION OF ASSEMBLY IS PERMITTED IN VAULT, AS DIRECTED.
4. MANDATORY TEST REQUIRED AT TIME OF INSTALLATION PER IPC 312.9.2. FIELD TESTING REQUIREMENTS AND REPORTING SHALL BE PER ASSE No. 5013 2.0 AND 3.0.

R E V I S I O N S	
1.	MSR 4-23-01
2.	DWP 9-15-05
3.	MAC 8-13-07
4.	LRC 1-31-14

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
 Typical Plumbing Schematic
 Low Hazard Fire Protection Service

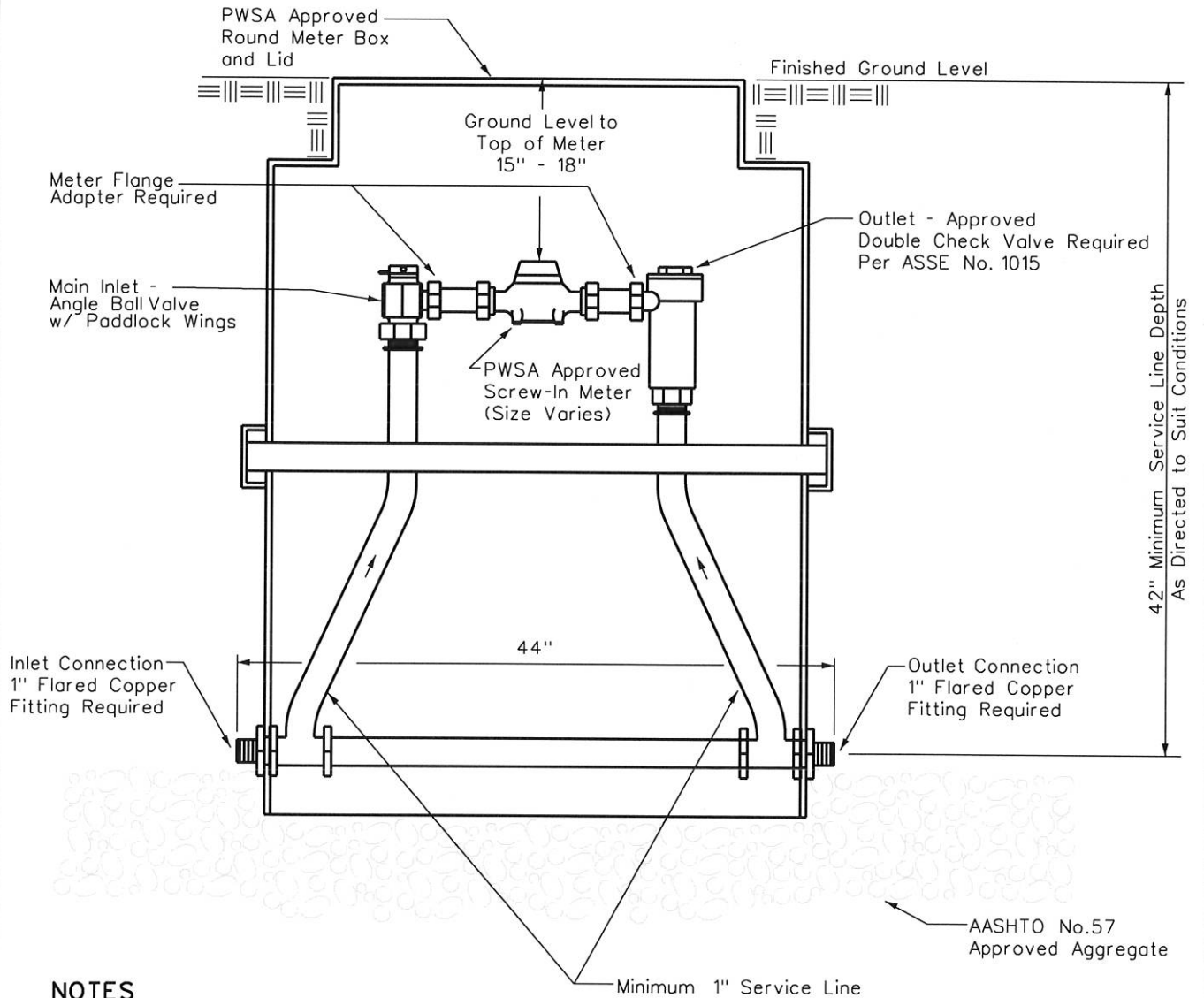
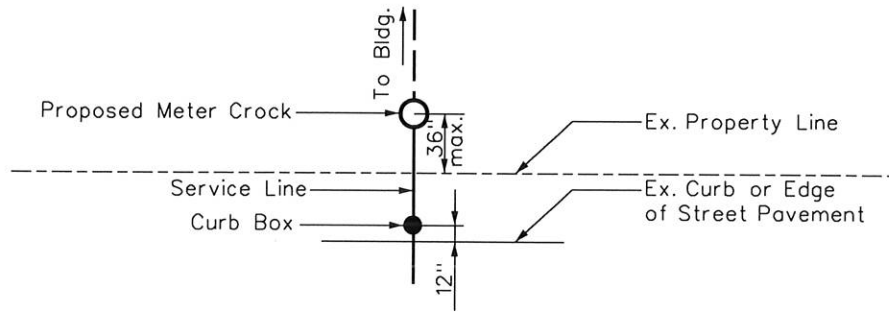
Approved by:

Scale: N.T.S.

Supplemental Detail Drawing: **WS-5FPLH**

2/25/2014

M:\pwsa\gis\det\Standards\stdws5fplh.det



NOTES

1. METER SETTING ASSEMBLY MUST BE FORD, OR EQUAL, COPPERSETTER WITH DOUBLE CHECK VALVE OR APPROVED EQUAL PER ASSE No. 1015, COMPLETE WITH MIU.
2. METER BOX SETTING AND PIPE ASSEMBLY TO BE CONSTRUCTED BY THE PROPERTY OWNER. THE PWSA IS ONLY RESPONSIBLE FOR THE METER AND MIU READING DEVICE. THE PROPERTY OWNER IS RESPONSIBLE FOR ALL OTHER ITEMS, INCLUDING PROTECTING THE PWSA METER AND MIU FROM ABUSE AND/OR FREEZING.
3. METER CROCK BASE TO REMAIN OPEN TO BASE MATERIAL, DO NOT SEAL.

2/25/2014

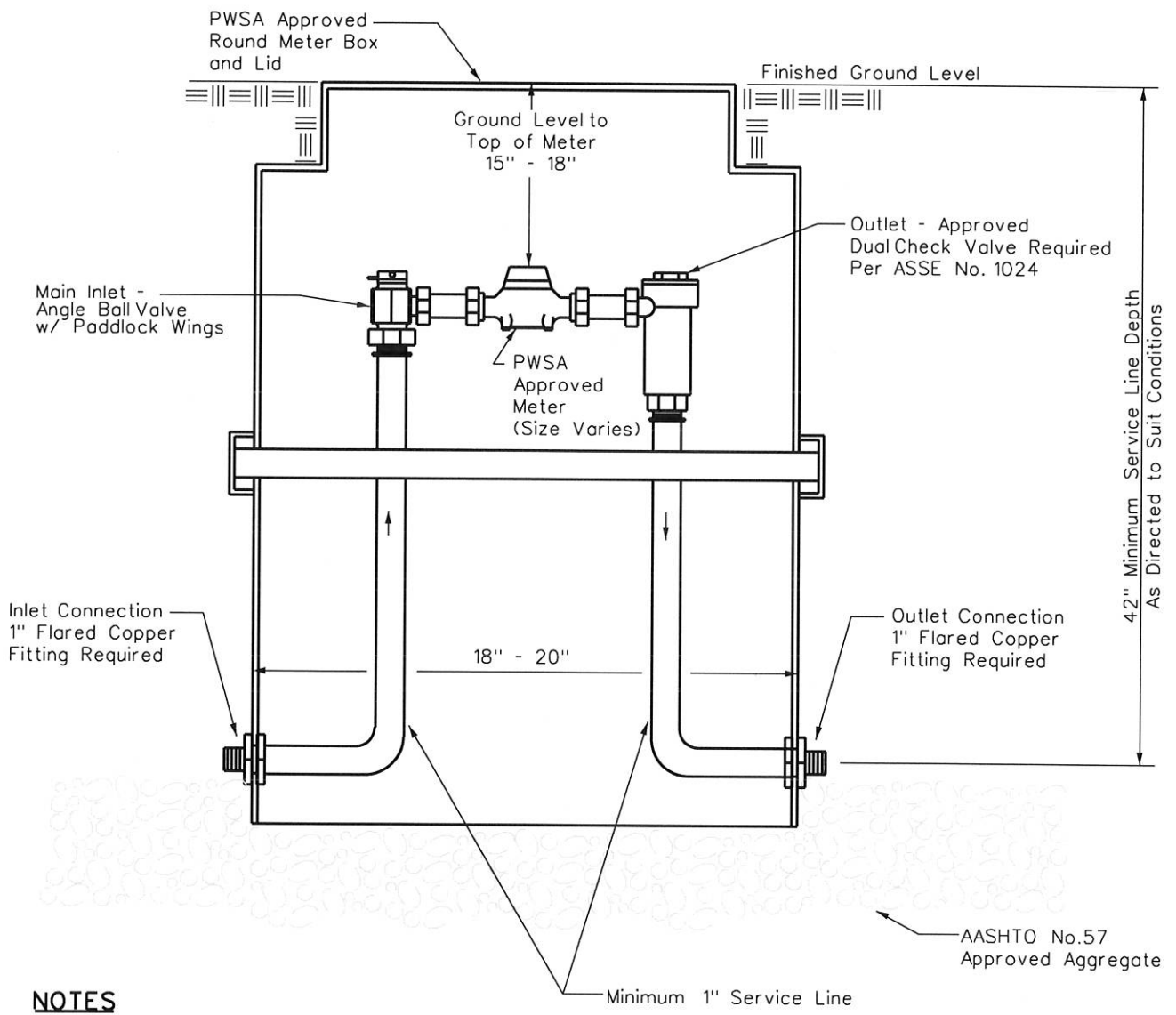
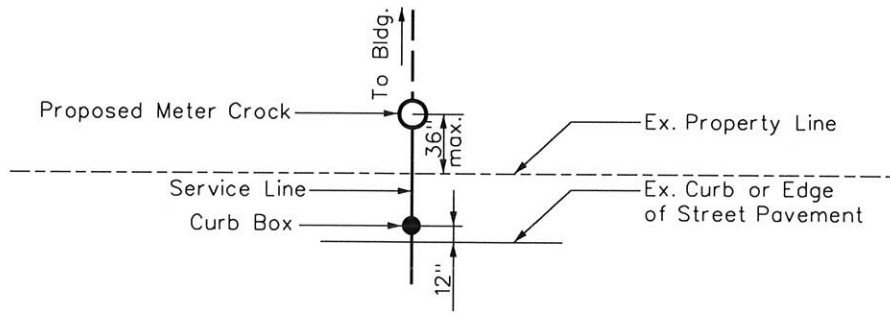
R E V I S I O N S	
1. MSR 4-23-01	
2. DWP 9-15-05	
3. MAC 8-16-07	
4. LRC 1-31-14	
Approved by:	

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
Commercial Service
External Setting 1-1/2" - 2" Meter

Scale: N.T.S. Supplemental Detail Drawing: **WS-5MPC**

M:\pwsa\gis\det\Standards\stdws5mpc.det



NOTES

1. METER SETTING ASSEMBLY MUST BE FORD, OR EQUAL, COPPERSETTER WITH DUAL CHECK VALVE OR APPROVED EQUAL PER ASSE No. 1024, COMPLETE WITH MIU.
2. METER BOX SETTING AND PIPE ASSEMBLY TO BE CONSTRUCTED BY THE PROPERTY OWNER. THE PWSA IS ONLY RESPONSIBLE FOR THE METER AND MIU READING DEVICE. THE PROPERTY OWNER IS RESPONSIBLE FOR ALL OTHER ITEMS, INCLUDING PROTECTING THE PWSA METER AND MIU FROM ABUSE AND/OR FREEZING.
3. METER CROCK BASE TO REMAIN OPEN TO BASE MATERIAL, DO NOT SEAL.

2/25/2014

R E V I S I O N S	
1. MSR 4-23-01	
2. DWP 9-15-05	
3. MAC 8-16-07	
4. LRC 1-31-14	

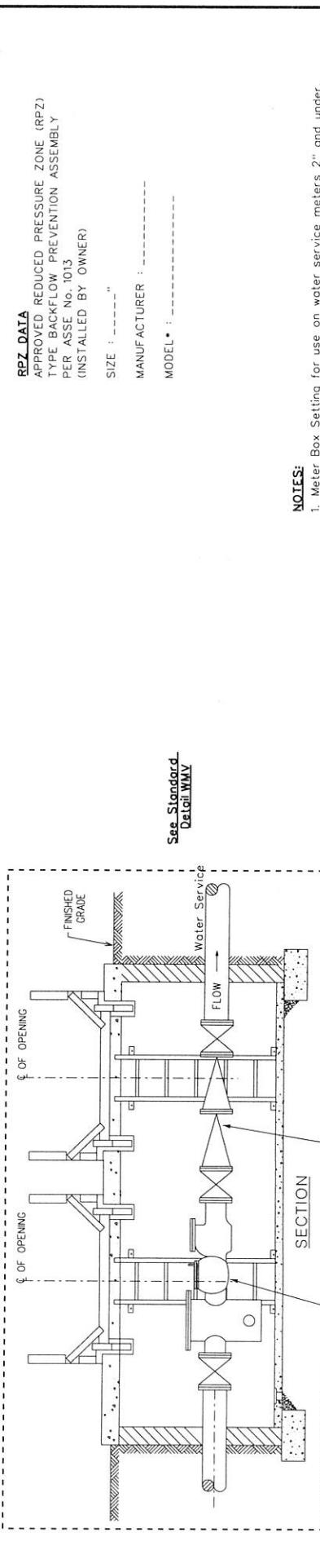
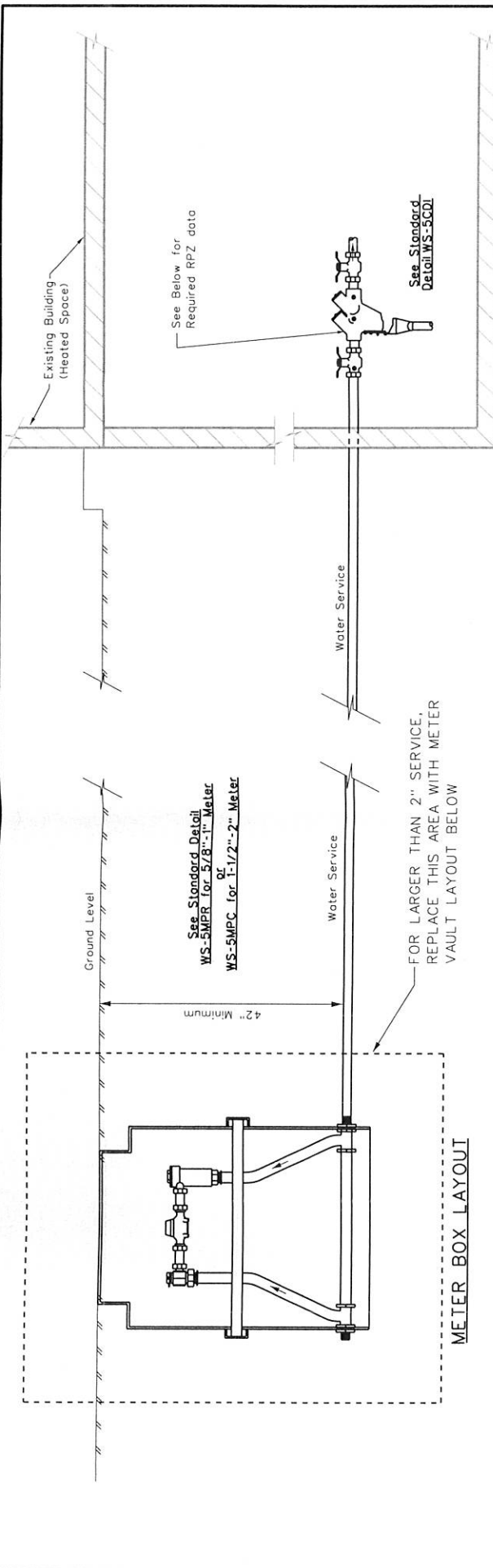
Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
**Residential Domestic Service
 External Setting 5/8" - 1" Meter**

Scale: N.T.S. Supplemental Detail Drawing: **WS-5MPR**

M:\pwsa\gis\det\Standards\stdws5mpr.det

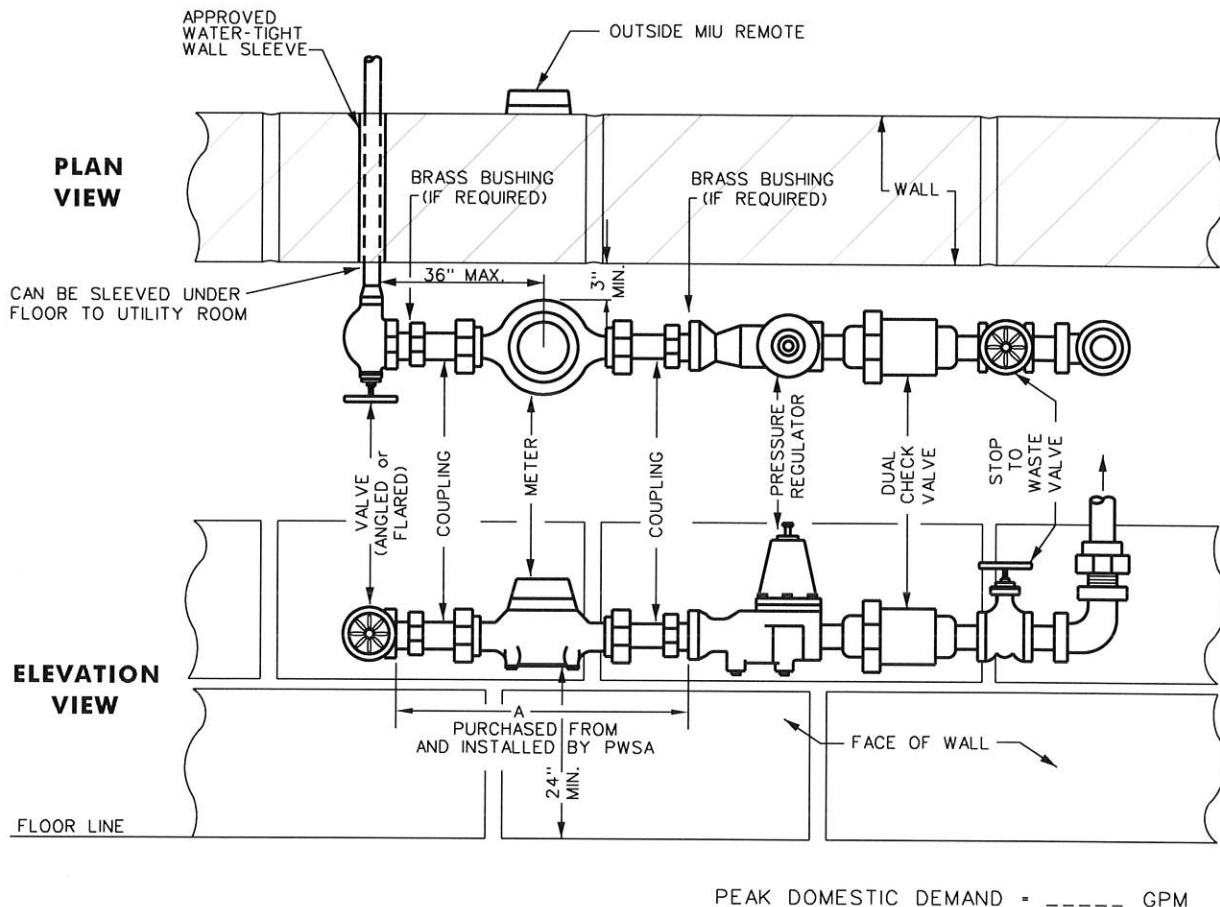


- NOTES:**
1. Meter Box Setting for use on water service meters 2" and under.
 2. Meter Vault required on meters larger than 2".
 3. Mandatory test required at time of installation per IPC 312.9.2.

Pittsburgh Water and Sewer Authority	
Domestic Service External Meter Setting	
Commercial And Multi-Family	
Scale: N.T.S.	Supplemental Detail Drawing: WS-5MPRPZ

PWSA	
THE PITTSBURGH WATER & SEWER AUTHORITY	
quality water quality service	
Engineering & Construction Division	
Approved by:	

R	E	V	I	S	I	O	N	S
1.	RDH	8-8-07						
2.	MAM	3-30-10						
3.	LRC	1-31-14						



PEAK DOMESTIC DEMAND = ----- GPM

NOTES

1. METER TO BE INSTALLED IN A WARM, NON-FREEZING, ACCESSIBLE AREA WITHIN DWELLING, A MINIMUM OF 2' FROM FLOOR AND A MAXIMUM OF 3' FROM POINT OF ENTRY AND/OR FROM INSIDE WALL.

2. SEE ACHD PLUMBING CODE FOR ADDITIONAL PIPING AND PRESSURE REGULATOR REQUIREMENTS.

3. PROPER METER ACCESS REQUIRED. METER SETTING CAN NOT BE IN A RESTRICTED AREA (e.g. UNDER STEPS, BEHIND FURNACE OR HOT WATER TANK), OR IN OTHER OBSTRUCTED AREAS IN ANY WAY.

4. METER SETTING VALUES:

SIZE	COUPLING SPACE A	METER TAIL-PIECE	FLOW (GPM)
5/8"	12.5"	1/2"	20
5/8x3/4"	12.5"	3/4"	20
3/4"	14.25"	3/4"	30
1"	16.5"	1"	50

5. THE METER AND MIU SHALL BE PURCHASED FROM AND INSTALLED BY PWSA.

6. METER ASSEMBLY SETTINGS MUST BE INSTALLED BY THE CUSTOMER BEFORE THE METER WILL BE SET, INCLUDING METER SIGNAL WIRING.

7. CUSTOMER SHALL PROVIDE PROPER DRAIN AT METER SETTING LOCATION.

8. METER MUST BE INSTALLED IN A HORIZONTAL POSITION ONLY.

9. CUSTOMER TO PROVIDE DATA FOR PROPER PWSA SIZING AND PEAK DOMESTIC DEMAND.

10. APPROVED BACKFLOW PREVENTER REQUIRED, PER ASSE No. 1024.

REVISIONS

1. MSR 4-23-01	
2. DWP 9-15-05	
3. MAC 8-13-07	
4. LRC 1-31-14	

Approved by:



THE PITTSBURGH WATER & SEWER AUTHORITY
Quality Water Quality Service

Engineering & Construction Division

Pittsburgh Water and Sewer Authority

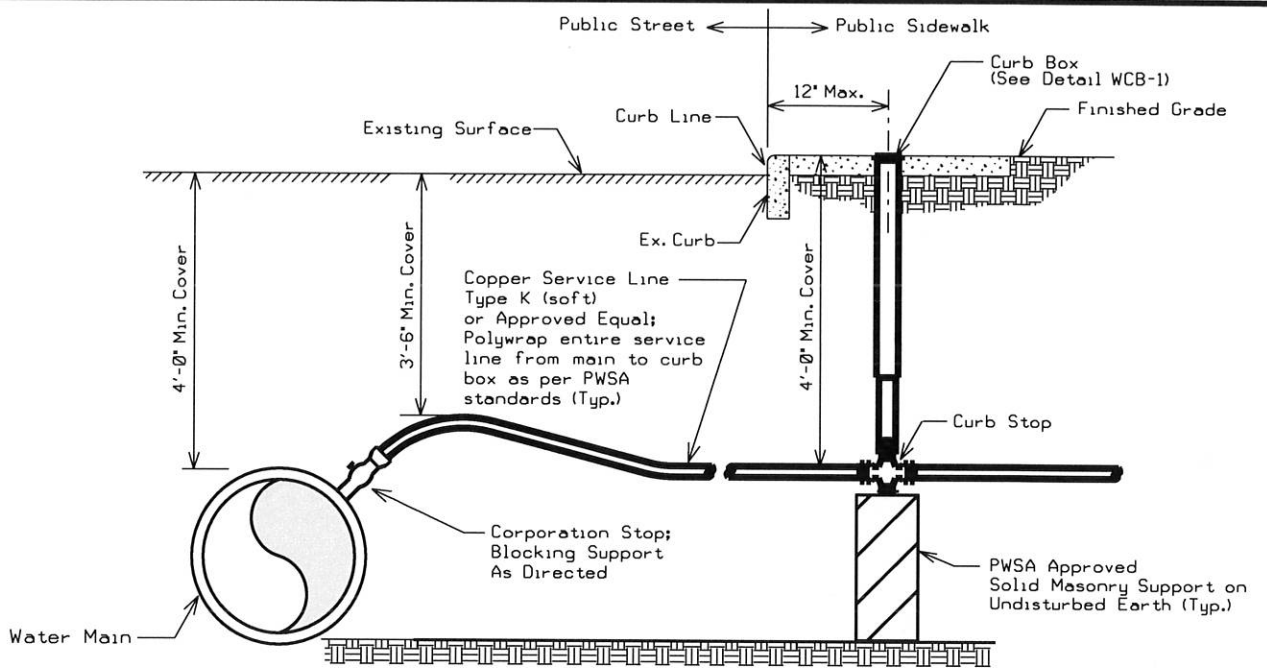
**Domestic Meter Setting Specifications
Indoor Residential 5/8" - 1" Meter**

Scale: N.T.S.

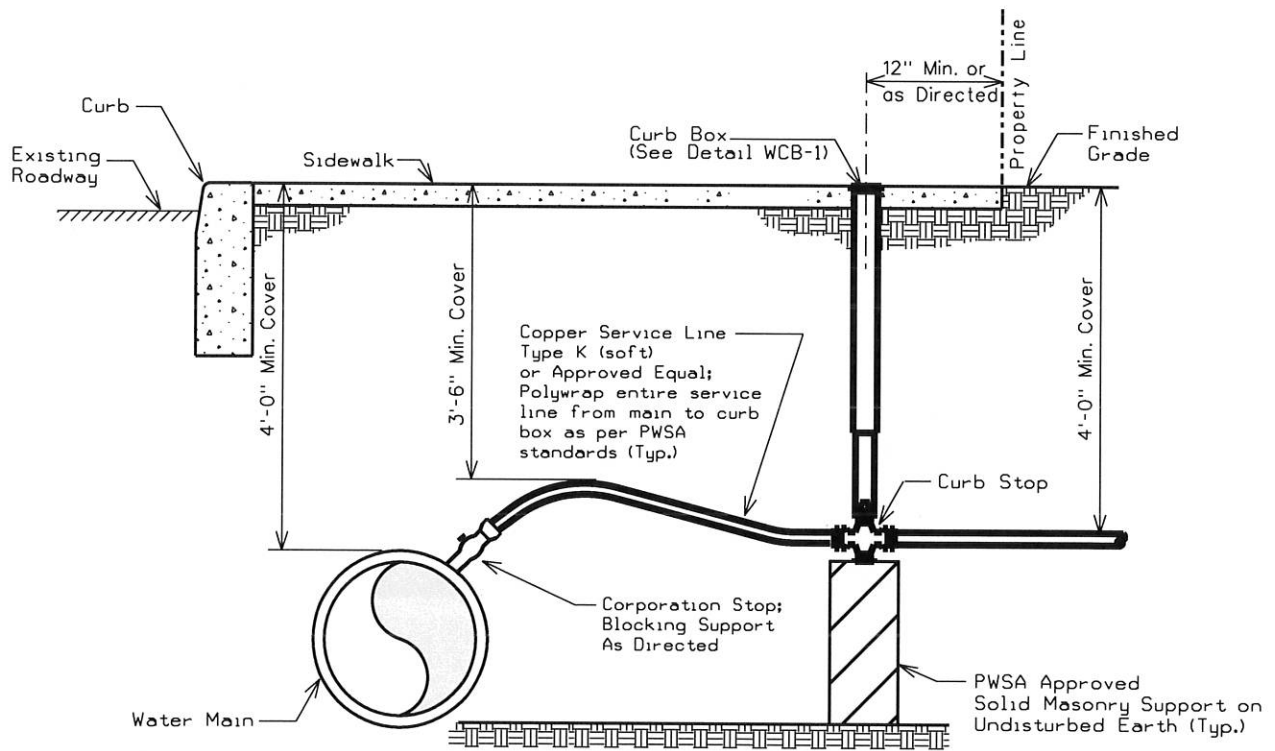
Supplemental Detail Drawing: **WS-5MS**

M:\pwsa\gis\det\standards\stdws5ms.det

2/24/2014



SECTION - 1" AND 1-1/2" INSTALLATION STREET MAIN



SECTION - 1" AND 1-1/2" INSTALLATION SIDEWALK MAIN

NOTES:

1. Only one PWSA meter will be installed per each service tap.
2. Domestic Service is 1' min. from PWSA Main to Meter.

R E V I S I O N S	
1. MSR 4-23-01	5. LRC 1-31-14
2. MAC 9-1-05	
3. MAC 8-10-07	
4. MAC 1-2-08	

Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

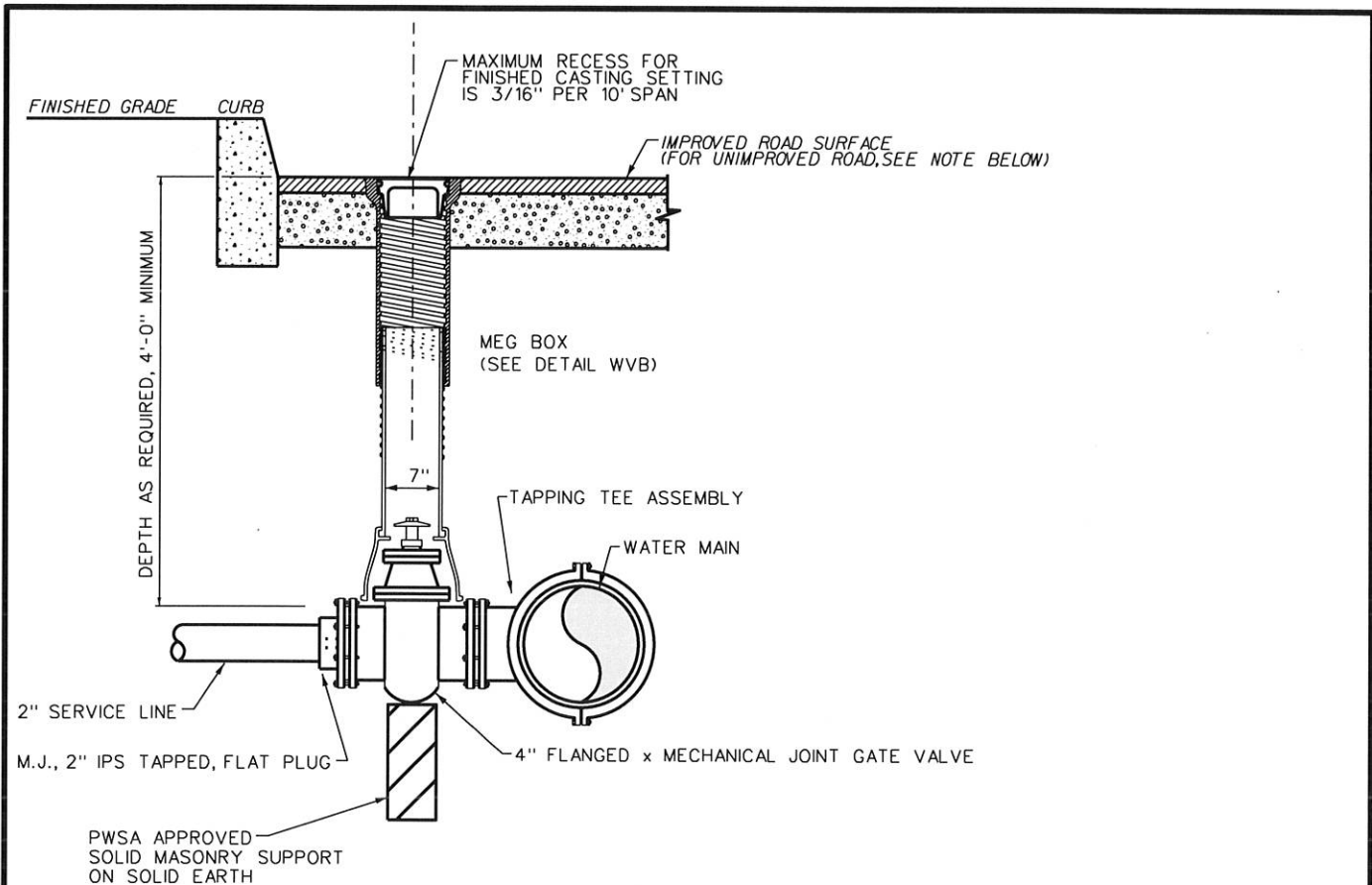
Pittsburgh Water and Sewer Authority
Water Service Line
1" And 1-1/2" Domestic / Fire
New Installation

Scale: N.T.S.

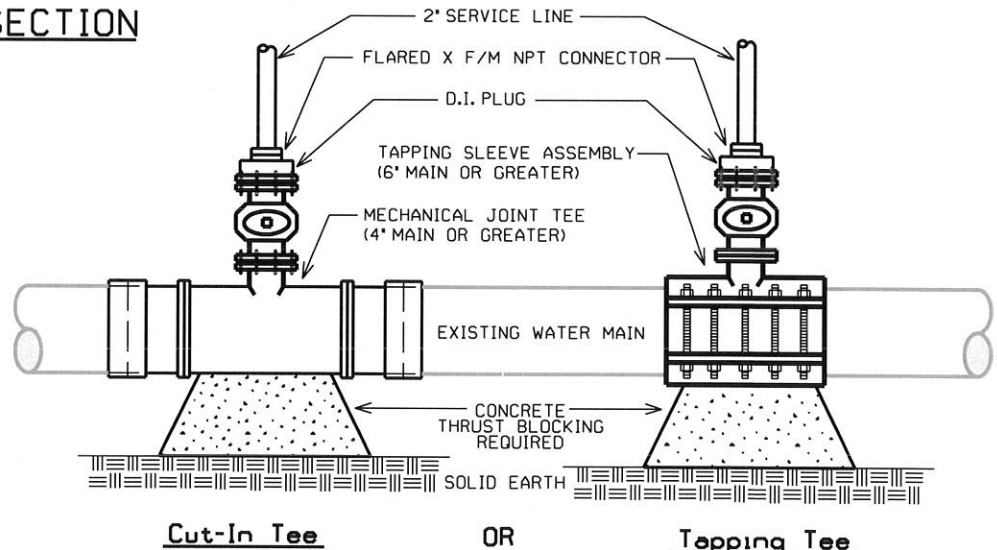
Supplemental Detail Drawing: **WS-5NT**

M:\pwsa\gis\det\Standards\stdws5nt.det

2/24/2014



SECTION



Cut-In Tee OR Tapping Tee
PLAN

NOTES:

1. ALL FITTINGS SHALL HAVE THRUST BLOCKS (SEE DETAIL WS-3).
2. STANDARD GATE BOX LID: TWO NOTCH OPENINGS REQUIRED. DIAMETER TO MATCH BOX.
3. GATE BOX EXTENSION: GATE BOX EXTENSION RINGS ARE NOT TO BE USED IN NEW WORK.
4. MEG BOX MATERIAL SHALL BE CAST IRON.
5. IF MEG BOX IS LOCATED IN AN UNIMPROVED AREA, THEN A 30"X30"X 8"D CONCRETE PAD APRON CENTERED AROUND THE MEG BOX IS REQUIRED.
6. ALL VALVES MUST BE "RIGHT TURN TO OPEN".
7. PRIVATE SERVICE LINE MATERIAL AND EQUIPMENT SHALL CONFORM TO ALLEGHENY COUNTY PLUMBING CODE, ARTICLE XV.
8. ONLY ONE PWSA METER WILL BE INSTALLED PER EACH SERVICE TAP.
9. MAIN LINE SHUT REQUIRED AND MUST BE COORDINATED AT THE PWSA PERMITS COUNTER.

R E V I S I O N S	
1. MSR 4-23-01	5. LRC 1-31-14
2. MAC 9-1-05	
3. MAC 8-10-07	
4. MAC 1-2-08	

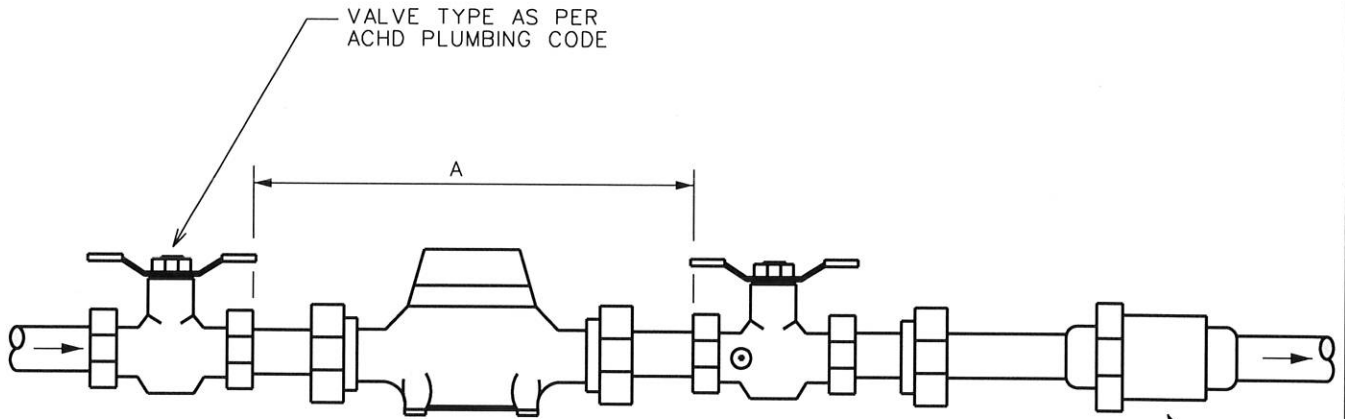
Approved by:

PWSA
THE PITTSBURGH WATER & SEWER AUTHORITY
Quality Water Quality Service
Engineering & Construction Division

Pittsburgh Water and Sewer Authority
**Water Service Line
2" Domestic / Fire
New Installation**

Scale: N.T.S.
Supplemental Detail Drawing: **WS-5NT2**

2/24/2014



-----" METER IN VAULT
 PEAK DOMESTIC DEMAND = ----- GPM
 MANUFACTURER : -----
 MODEL* : -----

APPROVED DUAL CHECK VALVE
 BACKFLOW PREVENTION ASSEMBLY
 PER ASSE No. 1024
 (INSTALLED BY OWNER)
 SIZE : -----"
 MANUFACTURER : -----
 MODEL* : -----

NOTES

- METER TO BE INSTALLED IN A WARM, NON-FREEZING, ACCESSIBLE AREA WITHIN DWELLING, A MINIMUM OF 2' FROM FLOOR AND A MAXIMUM OF 3' FROM POINT OF ENTRY AND/OR FROM INSIDE WALL.
- SEE ACHD PLUMBING CODE FOR ADDITIONAL PIPING AND PRESSURE REGULATOR REQUIREMENTS.
- PROPER METER ACCESS REQUIRED. METER SETTING CAN NOT BE IN A RESTRICTED AREA (e.g. UNDER STEPS, BEHIND FURNACE OR HOT WATER TANK), OR IN OTHER OBSTRUCTED AREAS IN ANY WAY.
- METER SETTING VALUES:

- THE METER AND MIU SHALL BE PURCHASED FROM AND INSTALLED BY PWSA.
- METER ASSEMBLY SETTINGS MUST BE INSTALLED BY THE CUSTOMER BEFORE THE METER WILL BE SET, INCLUDING METER SIGNAL WIRING.
- CUSTOMER SHALL PROVIDE PROPER DRAIN AT METER SETTING LOCATION.
- METER MUST BE INSTALLED IN A HORIZONTAL POSITION ONLY.
- CUSTOMER TO PROVIDE DATA FOR PROPER PWSA SIZING AND PEAK DOMESTIC DEMAND.

SIZE	COUPLING SPACE A	METER TAIL-PIECE	FLOW (GPM)
5/8"	12.5"	1/2"	20
5/8x3/4"	12.5"	3/4"	20
3/4"	14.25"	3/4"	30
1"	16.5"	1"	50

R E V I S I O N S	
1. MSR 4-23-01	5. LRC 1-31-14
2. DWP 9-15-05	
3. MAC 8-13-07	
4. MAC 4-14-09	

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
**Domestic Service Internal Meter Setting
 Residential And Low Hazard**

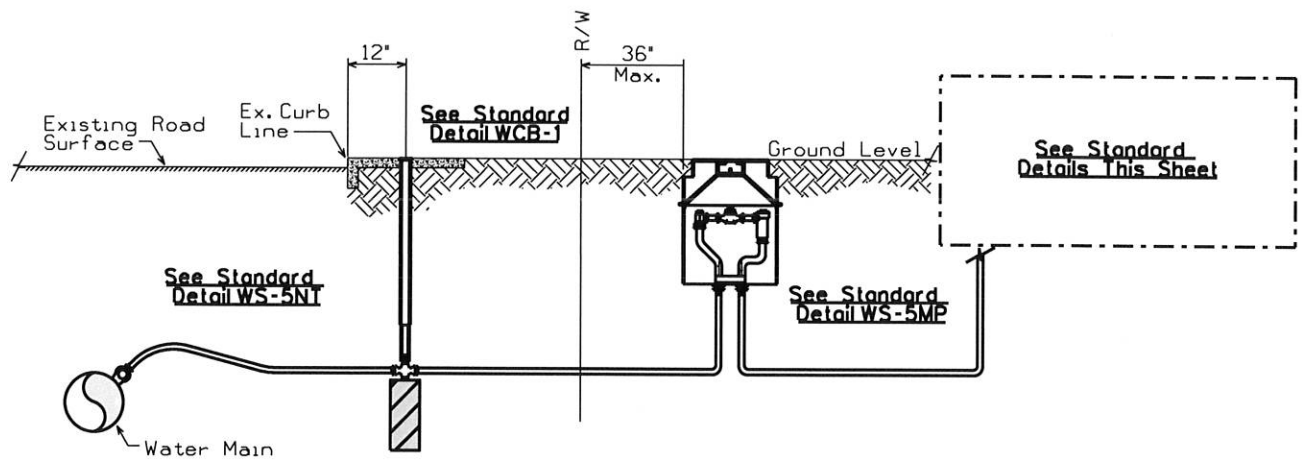
Approved by:

Scale: N.T.S.

Supplemental Detail Drawing: **WS-5RDI**

M:\pwsa\gis\det\Standards\stdws5rdi.det

2/24/2014

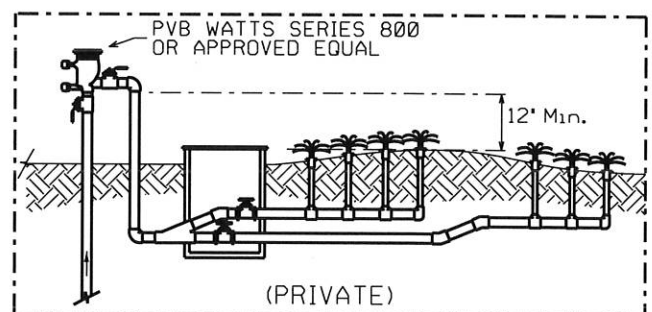
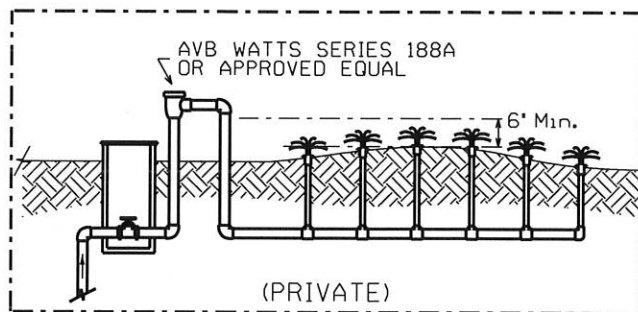


ATMOSPHERIC VACUUM BREAKER (AVB):

1. ONE AVB REQUIRED FOR EACH IRRIGATION ZONE; NO (ON/OFF VALVES) ALLOWED DOWNSTREAM OF THE AVB.
2. EACH AVB MUST BE INSTALLED A MINIMUM OF SIX INCHES (6") ABOVE THE HIGHEST POINT OF WATER IN THE ZONE IT PROTECTS.
3. NO CHEMICAL OR FERTILIZER CAN BE INTRODUCED INTO AN IRRIGATION SYSTEM PROTECTED WITH AVB'S.
4. NO PUMPS OR SOURCES FOR BACK PRESSURE ON DOWNSTREAM SIDE OF AN AVB.
5. ANTI-SIPHON, SINGLE ZONE.
6. CAN ONLY BE PRESSURIZED A MAXIMUM OF A 12 HOUR PERIOD OUT OF 24 HOURS.

PRESSURE VACUUM BREAKER (PVB):

1. ONLY ONE PVB REQUIRED TO PROTECT THE WHOLE SYSTEM; (ON/OFF VALVES) CAN BE LOCATED DOWNSTREAM OF THE PVB.
2. PVB'S MUST BE INSTALLED A MINIMUM OF (12") ABOVE THE HIGHEST POINT OF WATER IN THE SPRINKLER SYSTEM.
3. PVB'S MUST BE TESTED BY A STATE-CERTIFIED BACKFLOW ASSEMBLY TESTER WHEN INSTALLED, ANNUALLY, OR WHEN MOVED/REPAIRED.
4. NO CHEMICAL OR FERTILIZER CAN BE INTRODUCED INTO AN IRRIGATION SYSTEM PROTECTED WITH PVB'S.
5. NO PUMPS OR SOURCES OF BACK PRESSURE ON DOWNSTREAM SIDE OF (AFTER) A PVB.
6. CAN BE PRESSURIZED A FULL 24 HOURS.



R E V I S I O N S	
1.	RJM 8-5-10
2.	LRC 1-31-14

Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

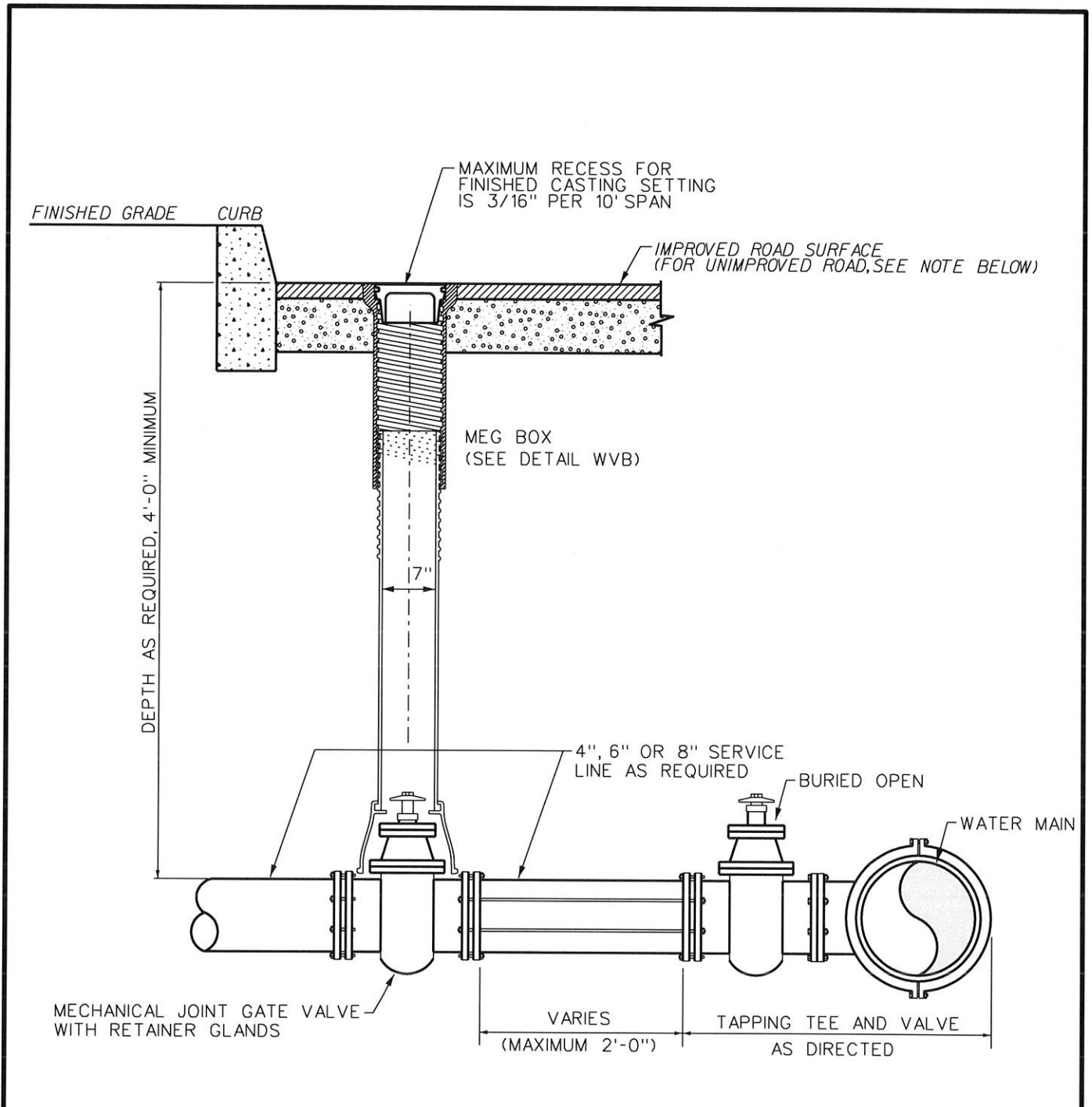
Pittsburgh Water and Sewer Authority
SPRINKLER BACKFLOW PREVENTION

Scale: N.T.S.

Supplemental Detail Drawing: **WS-5SVB**

M:\pwsa\gis\det\standards\stdws5svb.det

2/24/2014



NOTES:

1. ALL PIPING TO BE RESTRAINED WITH RODDING AND/OR RETAINER GLANDS.
2. ALL FITTINGS SHALL HAVE THRUST BLOCKS (SEE DETAIL WS-3).
3. STANDARD GATE BOX LID: TWO NOTCH OPENINGS REQUIRED. DIAMETER TO MATCH BOX.
4. GATE BOX EXTENSION: GATE BOX EXTENSION RINGS ARE NOT TO BE USED IN NEW WORK.
5. A MAXIMUM OF 3 EXTENSION RINGS CAN BE USED PER EXISTING GATE BOX.
6. MEG BOX MATERIAL SHALL BE CAST IRON.
7. IF MEG BOX IS LOCATED IN AN UNIMPROVED AREA, THEN A 30"x30"x 8"D CONCRETE PAD APRON CENTERED AROUND THE MEG BOX IS REQUIRED.
8. ALL VALVES MUST BE "RIGHT TURN TO OPEN".
9. PRIVATE SERVICE LINE MATERIAL AND EQUIPMENT SHALL CONFORM TO ALLEGHENY COUNTY PLUMBING CODE, ARTICLE XV.

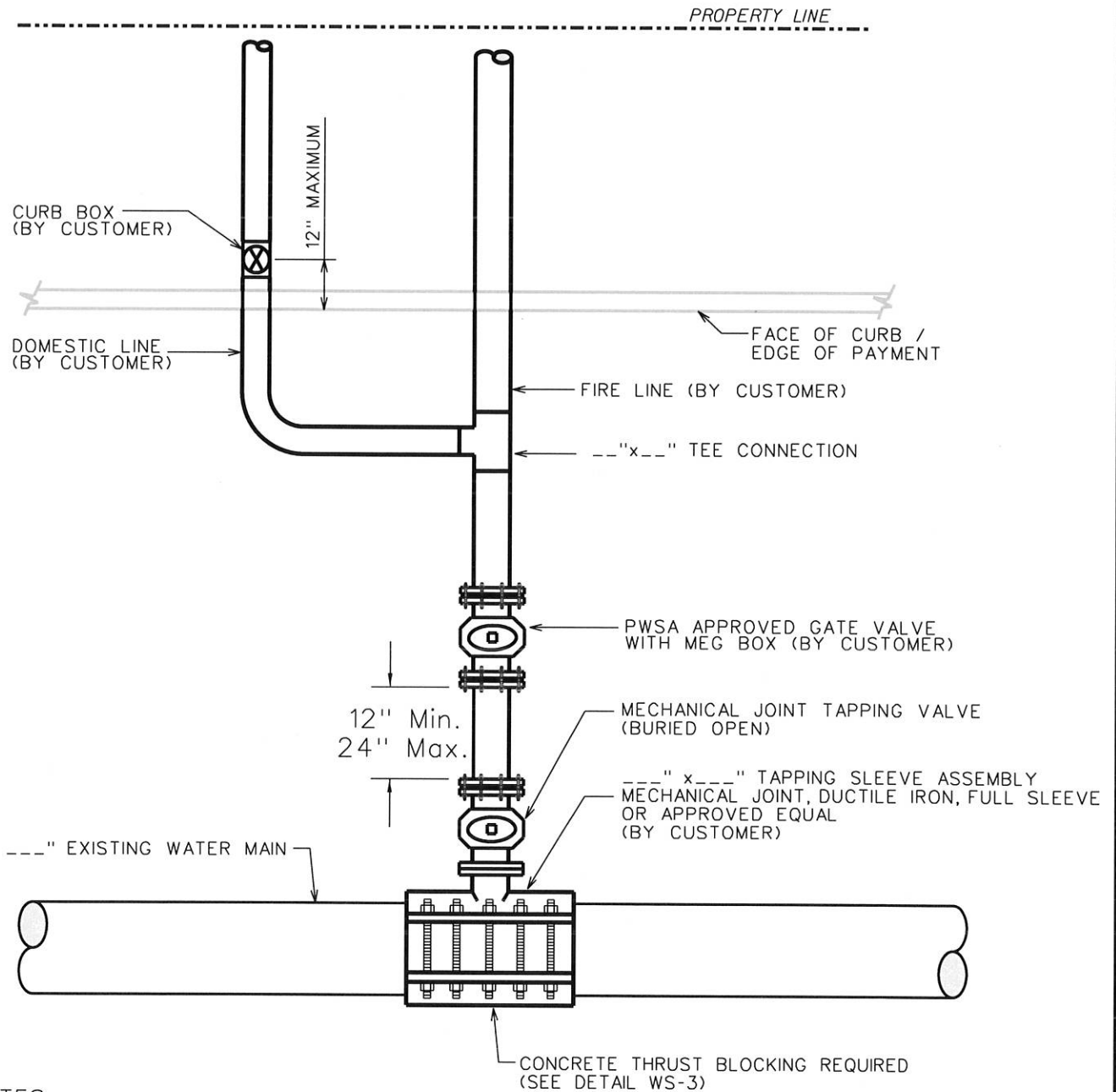
R E V I S I O N S	
1.	MSR 4-23-01
2.	MAC 11-2-07
3.	LRC 1-31-14

Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
Service Connection 4" Through 8"
 Scale: N.T.S.
 Supplemental Detail Drawing: **WS-A**

2/24/2014



NOTES:

1. PWSA PERFORMS ACTUAL TAP TO MAIN ONLY AND MAINTAINS METER; ALL OTHER WORK BY CUSTOMER.
2. TAPPING TEE SHALL BE FULL SLEEVE; SADDLE STYLE NOT PERMITTED.
3. CUSTOMER IS REQUIRED TO ENTER VALUES FOR ALL DIMENSION FIELDS ABOVE.
4. CUT-IN TEE CONNECTION ALSO ACCEPTABLE AND IS REQUIRED FOR SIZE ON SIZE (e.g. 8" TAP ON 8" MAIN).
5. CENTERING OF TAPPING TEE CONNECTION SHALL BE 18" MINIMUM FROM EXISTING WATER MAIN BELL/HUB OR OTHER EXISTING SERVICE CONNECTIONS.
6. CUSTOMER IS RESPONSIBLE FOR, MAINTAINS, AND OWNS, INCLUDING THE TAPPING TEE ASSEMBLY, FROM THE MAIN TO THE BUILDING.
7. ADDITIONAL BACKFLOW PREVENTION (RPZ TYPE) REQUIRED INTERNALLY ON COMMERCIAL OR HIGH HAZARD PROPERTIES.
8. ALL VALVES MUST BE "RIGHT TURN TO OPEN".
9. PRIVATE SERVICE LINE MATERIAL AND EQUIPMENT SHALL CONFORM TO ALLEGHENY COUNTY PLUMBING CODE, ARTICLE XV.

R E V I S I O N S	
1. MSR 4-23-01	5. MAC 11-1-07
2. MAC 9-9-05	6. LRC 1-31-14
3. DWP 9-15-05	
4. MAC 12-13-05	

Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
Single Service Connection
 (4" And larger)

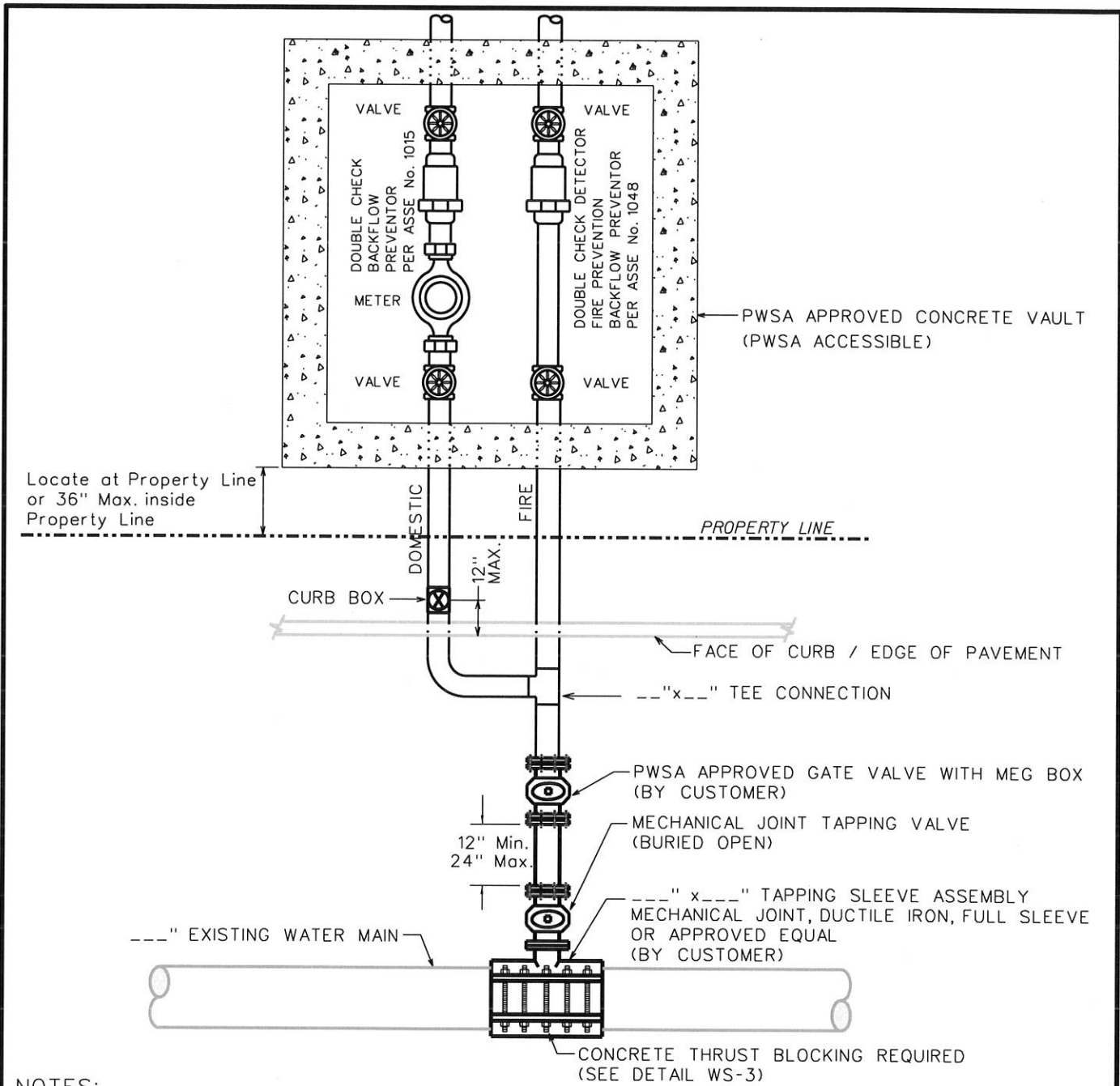
Scale: N.T.S.

Supplemental
 Detail Drawing:

WS-C1

2/24/2014

M:\pwsa\gis\det\Standards\stdwsc1.det



NOTES:

1. PWSA PERFORMS ACTUAL TAP TO MAIN ONLY AND MAINTAINS METER; ALL OTHER WORK BY CUSTOMER.
2. TAPPING TEE SHALL BE FULL SLEEVE; SADDLE STYLE NOT PERMITTED.
3. CUSTOMER IS REQUIRED TO ENTER VALUES FOR ALL DIMENSION FIELDS ABOVE.
4. CUT-IN TEE CONNECTION ALSO ACCEPTABLE AND IS REQUIRED FOR SIZE ON SIZE (e.g. 8" TAP ON 8" MAIN).
5. CENTERING OF TAPPING TEE CONNECTION SHALL BE 18" MINIMUM FROM EXISTING WATER MAIN BELL/HUB OR OTHER EXISTING SERVICE CONNECTIONS.
6. CUSTOMER IS RESPONSIBLE FOR VAULT AND CONDUIT MAINTAINANCE, AND OWNS, INCLUDING THE TAPPING TEE ASSEMBLY, FROM THE MAIN TO THE BUILDING.
7. ADDITIONAL BACKFLOW PREVENTION (RPZ TYPE) REQUIRED INTERNALLY ON COMMERCIAL OR HIGH HAZARD PROPERTIES.
8. ALL VALVES MUST BE "RIGHT TURN TO OPEN".
9. PRIVATE SERVICE LINE MATERIAL AND EQUIPMENT SHALL CONFORM TO ALLEGHENY COUNTY PLUMBING CODE, ARTICLE XV.

R E V I S I O N S	
1. MSR 4-23-01	5. LRC 1-31-14
2. DWP 9-15-05	
3. RDH 10-19-05	
4. MAC 11-1-07	

Approved by:

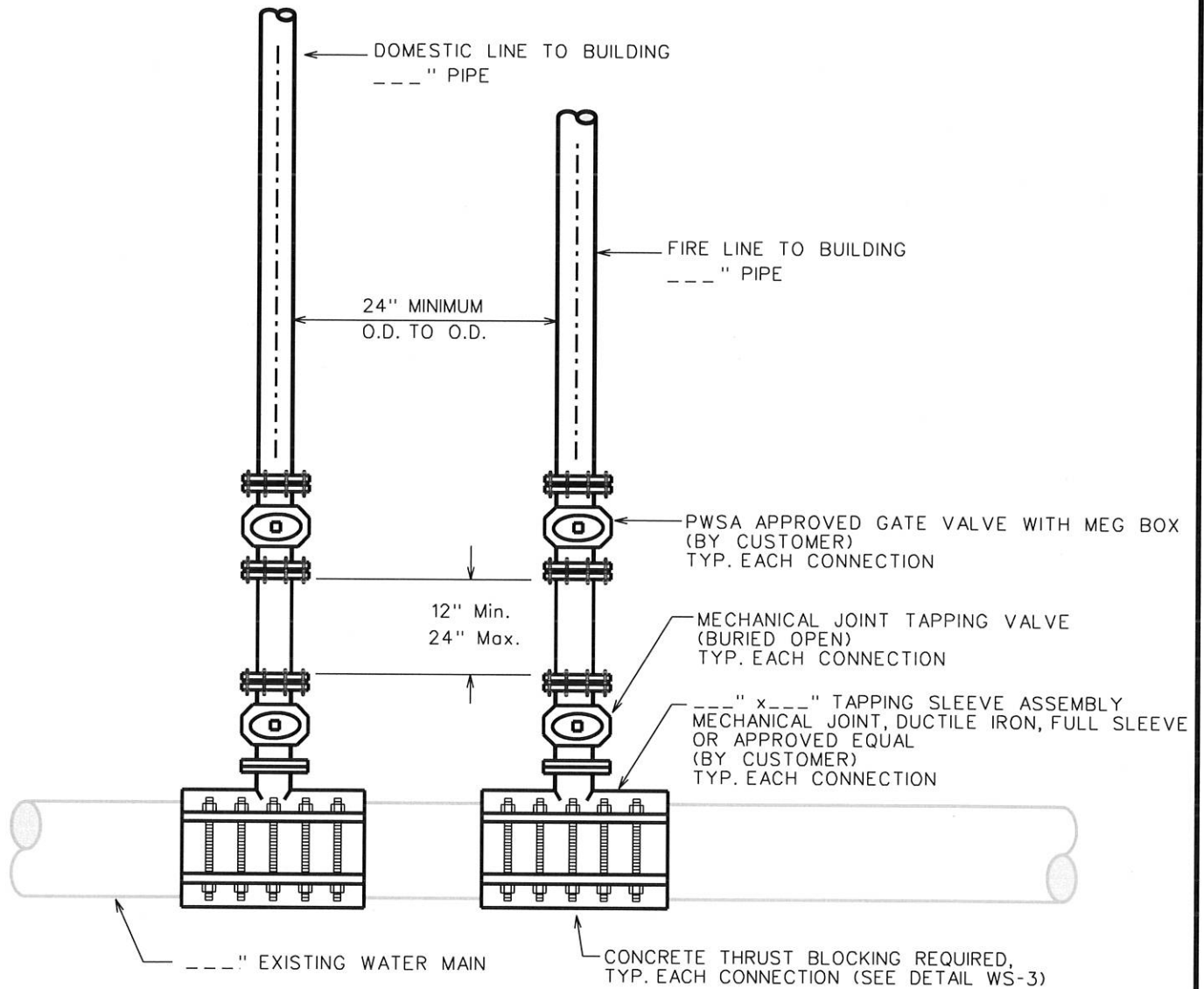
PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
**Commercial And Multi-Family
 Water Service Connection For
 Fire And Domestic Tap-In Vault**

Scale: N.T.S.
 M:\pwsa\gis\det\Standards\stdwsciv.det

Supplemental
 Detail Drawing: **WS-C1V**

2/25/2014



NOTES:

1. PWSA PERFORMS ACTUAL TAP TO MAIN ONLY AND MAINTAINS METER; ALL OTHER WORK BY CUSTOMER.
2. TAPPING TEE SHALL BE FULL SLEEVE; SADDLE STYLE NOT PERMITTED.
3. CUSTOMER IS REQUIRED TO ENTER VALUES FOR ALL DIMENSION FIELDS ABOVE.
4. CUT-IN TEE CONNECTION ALSO ACCEPTABLE AND IS REQUIRED FOR SIZE ON SIZE (e.g. 8" TAP ON 8" MAIN).
5. CENTERING OF TAPPING TEE CONNECTION SHALL BE 18" MINIMUM FROM EXISTING WATER MAIN BELL/HUB OR OTHER EXISTING SERVICE CONNECTIONS.
6. CUSTOMER IS RESPONSIBLE FOR, MAINTAINS, AND OWNS, INCLUDING THE TAPPING TEE ASSEMBLY, FROM THE MAIN TO THE BUILDING.
7. ALL VALVES MUST BE "RIGHT TURN TO OPEN".
8. PRIVATE SERVICE LINE MATERIAL AND EQUIPMENT SHALL CONFORM TO ALLEGHENY COUNTY PLUMBING CODE, ARTICLE XV.

R E V I S I O N S	
1. MSR 4-23-01	5. LRC 1-31-14
2. MAC 7-26-04	
3. MAC 9-9-05	
4. DWP 9-15-05	

Approved by:

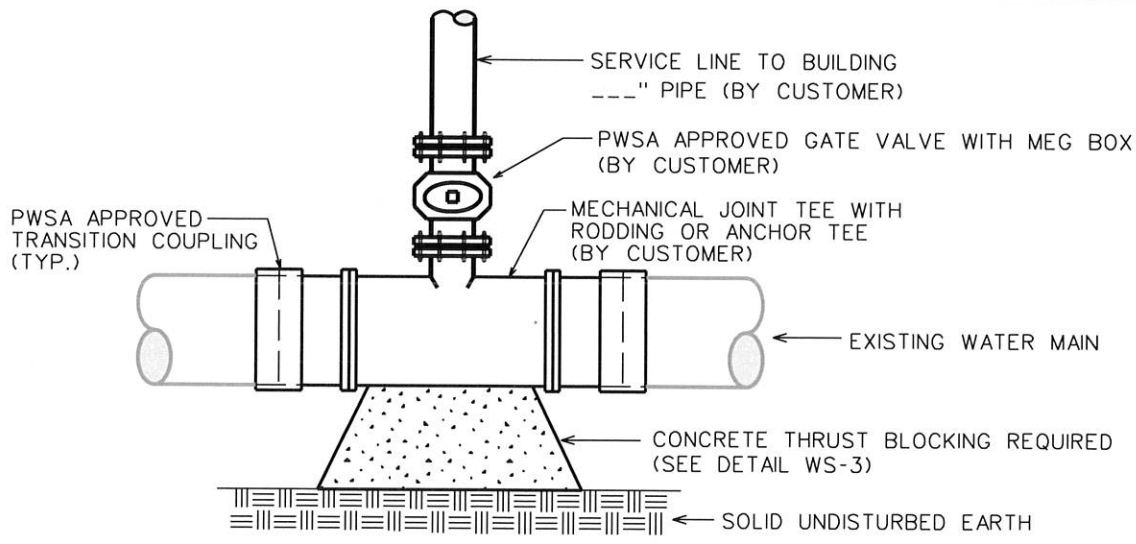
PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
Separate Domestic And Fire Service Connection (4" And Larger)

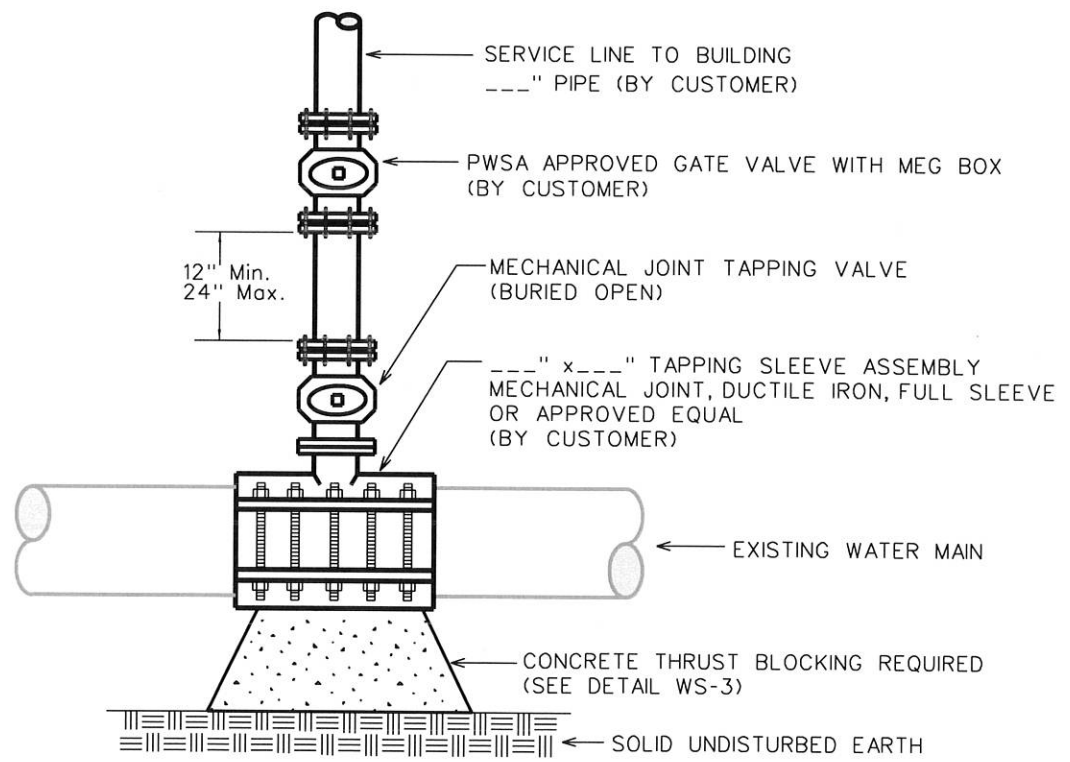
Scale: N.T.S.
 M:\pwsa\gis\det\Standards\stdwsc2.det

Supplemental Detail Drawing: **WS-C2**

2/24/2014



Cut-In Tee



Tapping Tee

NOTES:

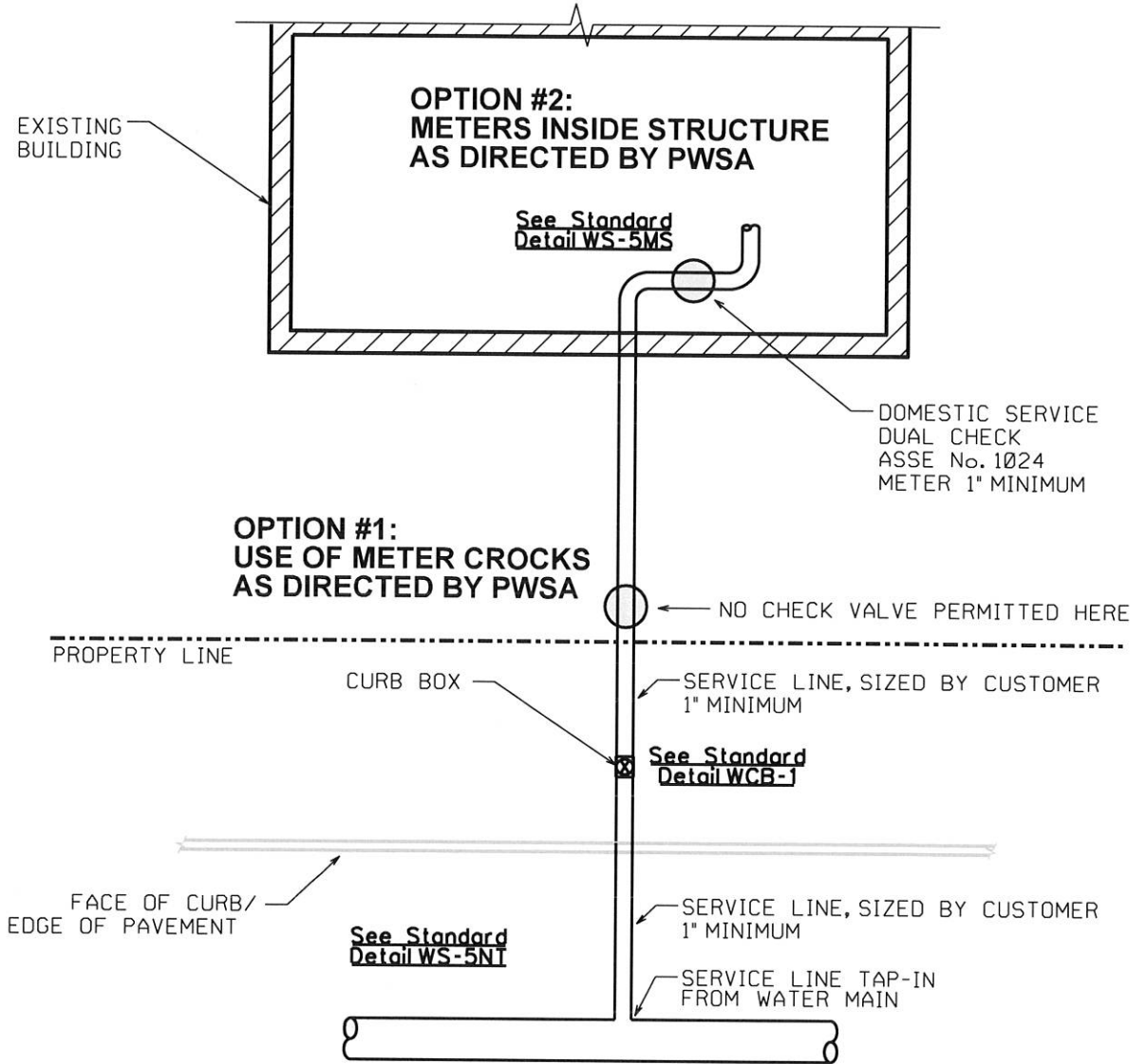
1. PWSA PERFORMS ACTUAL TAP TO MAIN ONLY AND MAINTAINS METER; ALL OTHER WORK BY CUSTOMER.
2. TAPPING TEE SHALL BE FULL SLEEVE; SADDLE STYLE NOT PERMITTED.
3. CUT-IN TEE CONNECTION ALSO ACCEPTABLE AND IS REQUIRED FOR SIZE ON SIZE (e.g. 8" TAP ON 8" MAIN).
4. CENTERING OF TAPPING TEE CONNECTION SHALL BE 18" MINIMUM FROM EXISTING WATER MAIN BELL/HUB OR OTHER EXISTING SERVICE CONNECTIONS.
5. ALL VALVES MUST BE "RIGHT TURN TO OPEN".
6. PRIVATE SERVICE LINE MATERIAL AND EQUIPMENT SHALL CONFORM TO ALLEGHENY COUNTY PLUMBING CODE, ARTICLE XV.
7. MJxMJ tapping sleeve may be submitted to PWSA for an approved option.

2/24/2014

R E V I S I O N S			Pittsburgh Water and Sewer Authority Cut-In Tee And Tapping Tee	
1. MSR 4-23-01	5. LRC 1-31-14			
2. MAC 7-26-04				
3. DWP 9-15-05				
4. MAC 11-1-07				
Approved by:		Scale: N.T.S.	Supplemental Detail Drawing: WS-CTT	
Engineering & Construction Division		M:\pwsa\gis\det\Standards\stdwsc.ttdet		

DOMESTIC METER:

- SIZE
- MODEL
- MAKE
- GPM
- PSI



EFFECTIVE 4/1/2010
PER IBC CODES 2010

R E V I S I O N S	
1. LRC 1-31-14	

Approved by:

PWSA
THE PITTSBURGH WATER & SEWER AUTHORITY
Quality Water Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
RESIDENTIAL DOMESTIC AND FIRE SERVICE CONNECTION MULTI-PURPOSE SYSTEM
 Scale: N.T.S.
 Supplemental Detail Drawing: **WS-RDF1**

2/24/2014

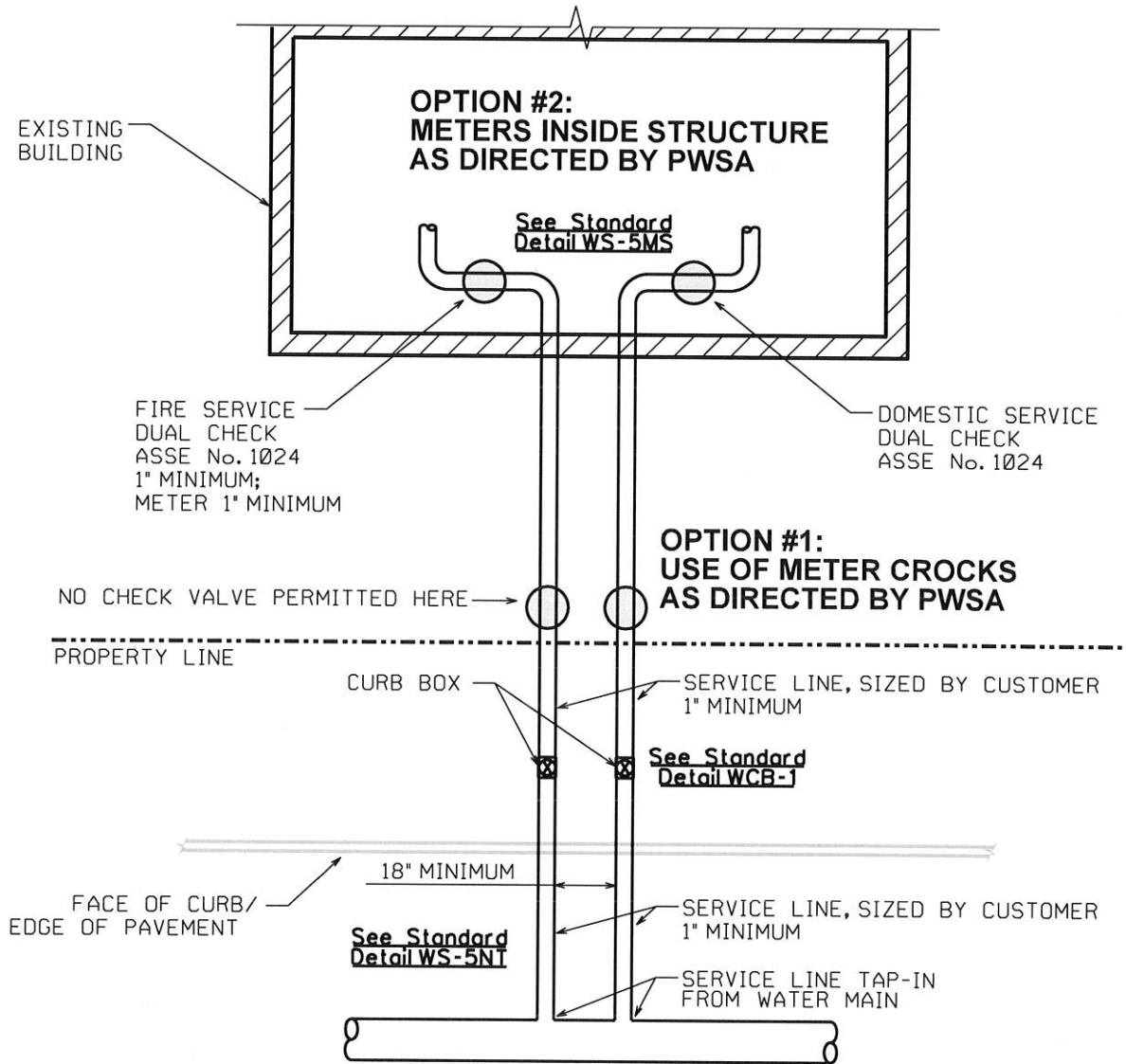
M:\pwsa\gis\det\Standards\stdwsrdf1.det

FIRELINE METER:

- SIZE
- MODEL
- MAKE
- GPM
- PSI

DOMESTIC METER:

- SIZE
- MODEL
- MAKE
- GPM
- PSI



EFFECTIVE 4/1/2010
PER IBC CODES 2010

R E V I S I O N S	
1.	LRC 1-31-14

Approved by:

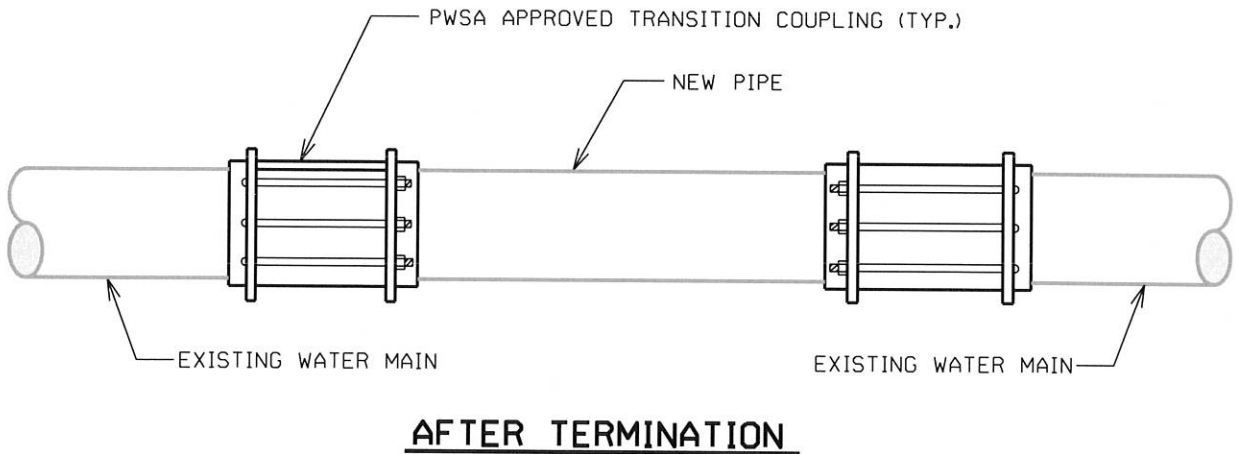
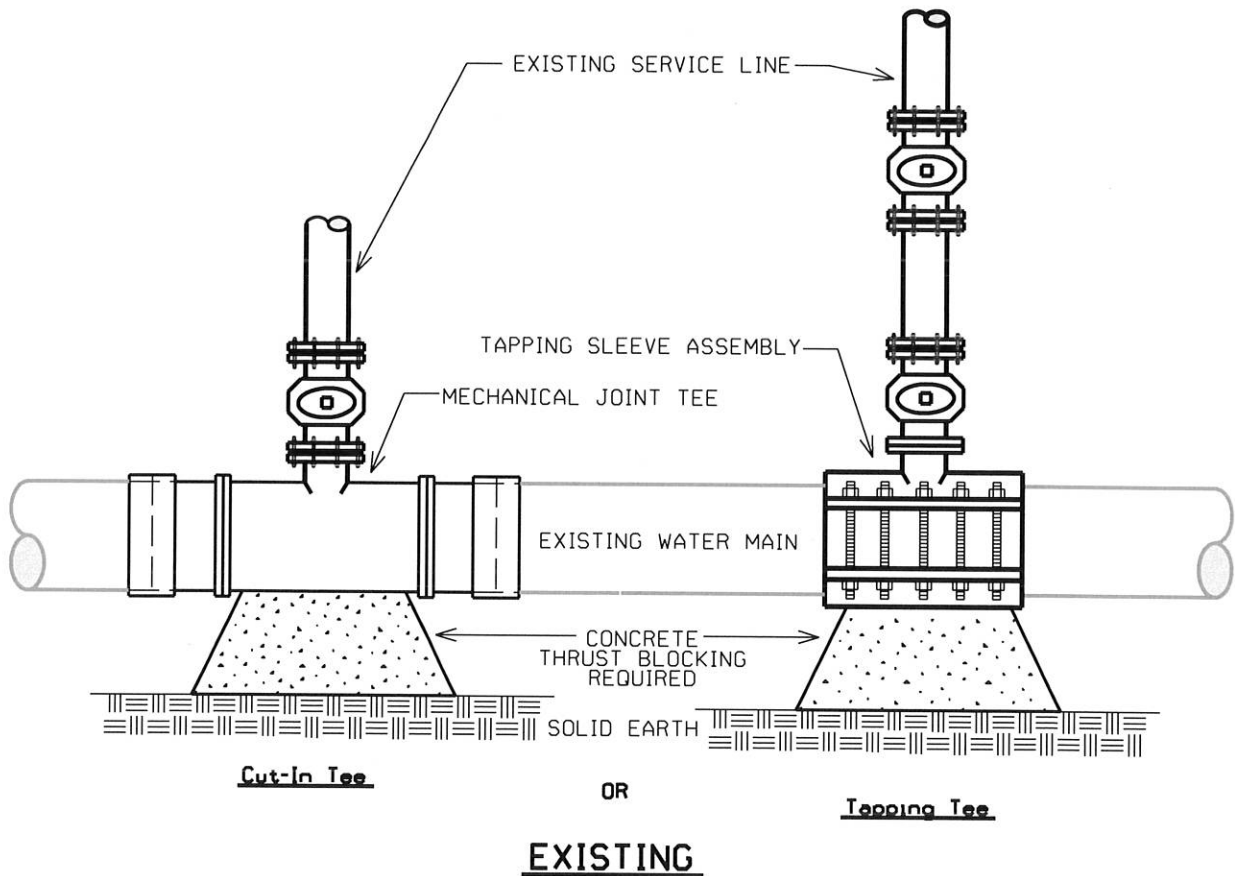
PWSA
THE PITTSBURGH WATER & SEWER AUTHORITY
Quality Water Quality Service
Engineering & Construction Division

Pittsburgh Water and Sewer Authority
**RESIDENTIAL DOMESTIC
AND FIRE SERVICE CONNECTION
STAND-ALONE SYSTEM**

Scale: N.T.S. Supplemental Detail Drawing: **WS-RDF2**

M:\pwsa\gis\det\Standards\stdsrdf2.det

2/24/2014



NOTES:

1. CUT AND REMOVE EXISTING TEE; INSTALL SIZE ON SIZE SPOOL PIECE CONNECTING TO EXISTING MAIN AT EACH END WITH TRANSITION SLEEVES, AS DIRECTED.
2. MAIN LINE SHUT REQUIRED AND MUST BE COORDINATED AT THE PWSA PERMITS COUNTER.

R E V I S I O N S	
1. MSR 4-23-01	
2. MAC 8-10-07	
3. LRC 1-31-14	

Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

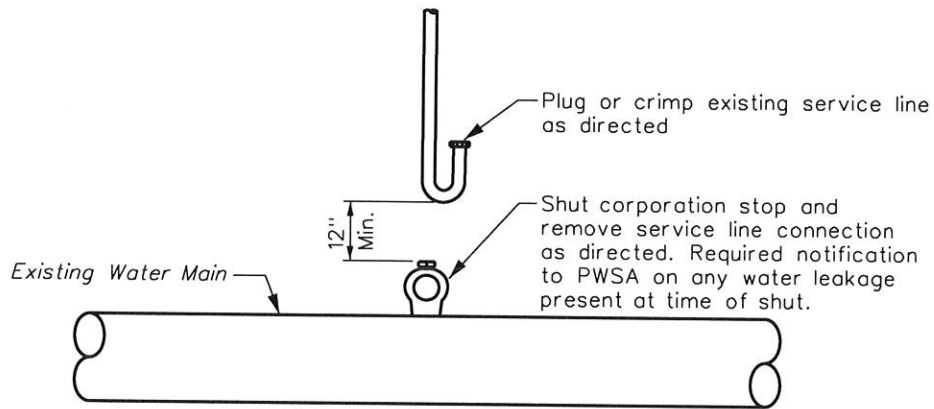
Pittsburgh Water and Sewer Authority
**Typical Water Tap Service Termination
 For 4" And Larger Connection**

Scale: N.T.S.

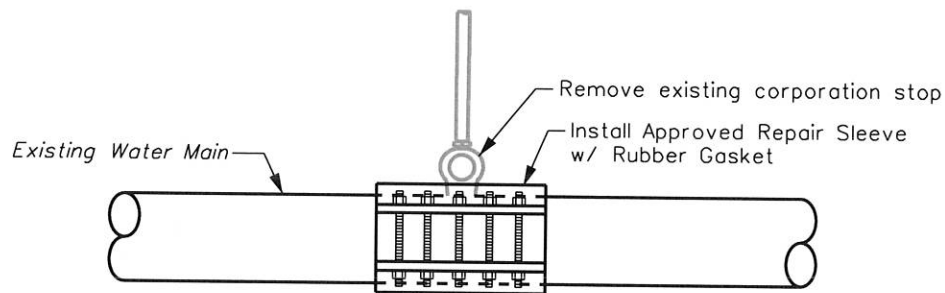
Supplemental
 Detail Drawing: **WS-STL**

M:\pwsa\gis\det\Standards\stdwssl.det

2/24/2014



OPTION 1



OPTION 2

(IF REQUIRED BY PWSA)

NOTES:

1. OPTION 2 REQUIRES MAIN LINE SHUT; THIS WOULD BE ADDITIONAL PWSA CHARGE.
2. TERMINATION OPTION FROM ABOVE AS DIRECTED BY THE PWSA.

2/24/2014

R E V I S I O N S	
1. MSR 4-18-01	5. LRC 1-31-14
2. RDH 3-13-03	
3. DWP 9-15-05	
4. MAC 8-10-07	

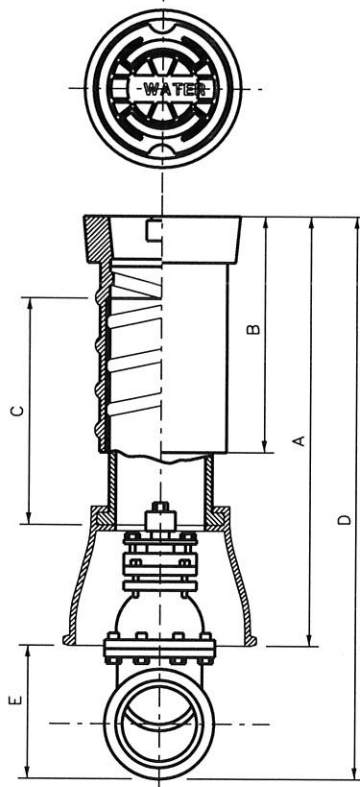
Approved by:

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water Quality Service
 Engineering & Construction Division

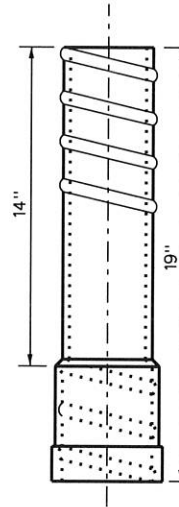
Pittsburgh Water and Sewer Authority
**Typical Water Tap Service Termination
 For 2" And Smaller Connection**

Scale: N.T.S.
 Supplemental Detail Drawing: **WS-ST5**

M:\pwsa\gis\det\Standards\stdwsssts.det



TOP SECTION, BOTTOM SECTION AND COVER



VALVE BOX EXTENSION

SIZE NO.	EXTENSION RANGE - A	TOP SECTION & COVER			BOTTOM SECTION			No. 6 BASE WT	TOTAL WEIGHT
		NO.	DIM. B	WEIGHT	NO.	DIM. C	WEIGHT		
II	21" - 27"	74	9.00	58.5	80	8.00	14.0	45.0	117.50
I	27" - 39"	75	15.25	81.5	81	14.00	24.5	45.0	151.00
J	33" - 45"	75	15.25	81.5	82	20.00	30.0	45.0	156.50
K	39" - 51"	75	15.25	81.5	83	26.25	41.0	45.0	167.50
L	39" - 60"	76	26.00	111.0	83	26.25	41.0	45.0	197.00

TABLE FOR DETERMINING LENGTH OF BOX NEEDED

SIZE OF VALVE	BOTTOM BASE TO BOTTOM TRENCH (DIM. E)	No. BASE USED	DEPTH OF TRENCH (DIM. D)								
			36"	42"	48"	54"	60"	66"	72"	78"	84"
3	8"	4	II	I	J	K	L	L	L*	L*	O*
4	13-1/2"	4	II	I	J	J	K	L	L	L*	L*
6	15"	6	II	II	J	J	J	K	L	L*	L*
8	19"	6		II	I	J	J	K	L	L	L*
10	24"	6			II	I	I	K	K	L	L
12	31"	160				II	I	J	K	K	L
14	36-1/2"	160					II	I	J	J	K
16	41-1/4"	160						II	I	I	J

* LONGER BOXES MADE BY ADDING EXTENSIONS TO SIZE L. FOR VALVE CLOSER TO SURFACE, USE NO. 140 ROUND BASE AND REDUCE LENGTH SHOWN ABOVE BY 6 INCHES.

NOTES:

- MEDIUM EXTENSION GATE VALVE BOX SHALL BE BINGHAM & TAYLOR No. 5001, OR APPROVED EQUAL.
- MADE OF CAST IRON, SCREW TYPE, 3-PIECE BOX w/ LID AND #6 BASE, 7" DIAMETER SHAFT.
- LABELLED "WATER" ON THE COVER.

R E V I S I O N S	
1.	LRC 1-31-14
Approved by: _____	

PWSA
 THE PITTSBURGH WATER & SEWER AUTHORITY
 Quality Water & Sewer Authority
 Quality Service
 Engineering & Construction Division

Pittsburgh Water and Sewer Authority
Valve Box
 (Medium Extension Gate Box)

Scale: N.T.S.

Supplemental Detail Drawing: **WVB**

Ms\pwsa\gis\det\Standards\stdwvb.det

2/24/2014