APPENDIX 10E FLUSH ASSEMBLY INSTALLATIONS

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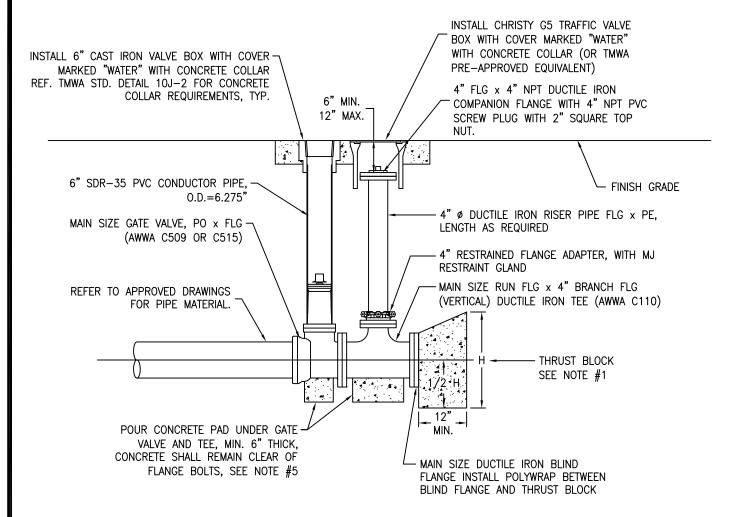


DATE

7/2001

REV 9/2016 APPENDIX 10E FLUSH ASSEMBLY INSTALLATIONS INDEX DRAWING NUMBER

- 1. REFERENCE TMWA STANDARD DETAIL 10L-2 FOR THRUST BLOCK SIZING AND REQUIREMENTS (DEAD END CONDITION).
- 2. ALL EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC.
- 3. ALL BOLTS AND ASSOCIATED HARDWARE SHALL BE FLUOROPOLYMER COATED.
- 4. TEE, VALVE, FITTINGS, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
- 5. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
- 6. ALL PIPE AND FITTINGS IN CONTACT WITH WATER SHALL BE NSF-61 CERTIFIED.



MATERIAL LIST

QTY.	DESCRIPTION
1	MAIN SIZE RUN FLG x 4" BRANCH FLG DUCTILE IRON TEE (AWWA C110)
1	MAIN SIZE GATE VALVE, PO x FLG, (AWWA C509 OR C515)
1	MAIN SIZE DUCTILE IRON BLIND FLANGE
1	4" FLG x 4" NPT DUCTILE IRON COMPANION FLANGE
1	4" Ø DUCTILE IRON RISER PIPE FLG x PE (LENGTH AS REQUIRED)
1	4" RESTRAINED FLANGED ADAPTER WITH MJ RESTRAINT GLAND
1	4" PVC SCREW PLUG, NPT, WITH 2" SQUARE TOP NUT
1	6" CAST IRON VALVE BOX WITH COVER MARKED "WATER"
1	CHRISTY G5 TRAFFIC VALVE BOX WITH COVER MARKED "WATER"
1	6" SDR-35 PVC CONDUIT PIPE SECTION, O.D.=6.275"
_	CONCRETE BULK - THRUST BLOCKS, PADS, COLLARS



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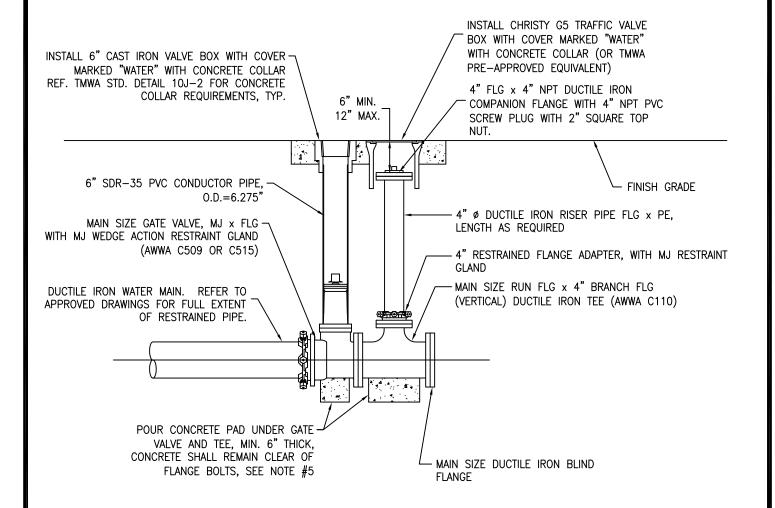
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APPENDIX 10E FLUSH ASSEMBLY INSTALLATIONS

FOR PERMANENT DEAD-END LOCATIONS
FOR MAIN SIZES 6" TO 12"

DRAWING NUMBER

- ALL EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC.
- 2. ALL BOLTS AND ASSOCIATED HARDWARE SHALL BE FLUOROPOLYMER COATED.
- 3. TEE, VALVE, FITTINGS, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
- 4. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
- 5. ALL PIPE AND FITTINGS IN CONTACT WITH WATER SHALL BE NSF-61 CERTIFIED.



MATERIAL LIST

QTY.	DESCRIPTION
1	MAIN SIZE RUN FLG x 4" BRANCH FLG DUCTILE IRON TEE (AWWA C110)
1	MAIN SIZE GATE VALVE, MJ x FLG, (AWWA C509 OR C515)
1	MAIN SIZE MJ WEDGE ACTION RESTRAINT GLAND
1	MAIN SIZE DUCTILE IRON BLIND FLANGE
1	4" FLG x 4" NPT DUCTILE IRON COMPANION FLANGE
1	4" Ø DUCTILE IRON RISER PIPE FLG x PE (LENGTH AS REQUIRED)
1	4" RESTRAINED FLANGE ADAPTER, WITH MJ RESTRAINT GLAND
1	4" PVC SCREW PLUG, NPT, WITH 2" SQUARE TOP NUT
1	6" CAST IRON VALVE BOX WITH COVER MARKED "WATER"
1	CHRISTY G5 TRAFFIC VALVE BOX WITH COVER MARKED "WATER"
1	6" SDR-35 PVC CONDUIT PIPE SECTION, O.D.=6.275"
_	CONCRETE BULK - PADS, COLLARS



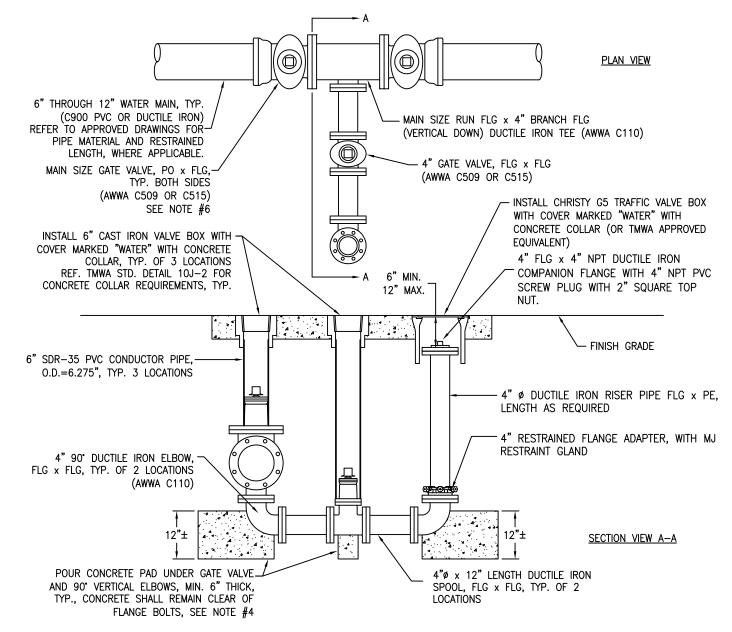
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APPENDIX 10E FLUSH ASSEMBLY INSTALLATIONS

FOR TEMPORARY DEAD-END LOCATIONS
FOR MAIN SIZES 6" TO 12"

DRAWING NUMBER

- I. ALL EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC.
- 2. ALL BOLTS AND ASSOCIATED HARDWARE SHALL BE FLUOROPOLYMER COATED.
- 3. TEE, VALVES, FITTINGS, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
- 4. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
- 5. ALL PIPE AND FITTINGS IN CONTACT WITH WATER SHALL BE NSF-61 CERTIFIED.
- 6. MJ x FLG GATE VALVES WITH MJ WEDGE ACTION RESTRAINT GLANDS MAY BE REQUIRED IN LIEU OF PO x FLG GATE VALVES, REFERENCE WATER IMPROVEMENT PLANS.



MATERIAL LIST

QTY. DESCRIPTION

- MAIN SIZE RUN FLG x 4" BRANCH FLG DUCTILE IRON TEE (AWWA C110)
- 2 MAIN SIZE GATE VALVE, PO x FLG, (AWWA C509 OR C515)
- 4" GATE VALVE, FLG x FLG, (AWWA C509 OR C515)
- 4" 90° DUCTILE IRON ELBOW, FLG x FLG (AWWA C110)
- 2 4"ø x 12" LENGTH DUCTILE IRON SPOOL, FLG x FLG
- 1 4" FLG x 4" NPT DUCTILE IRON COMPANION FLANGE
 - 4" RESTRAINED FLANGE ADAPTER, WITH MJ RESTRAINT GLAND

MATERIAL LIST (CONT.)

QTY. DESCRIPTION

- 4"ø DUCTILE IRON SPOOL, FLG x PE (LENGTH AS REQUIRED)
- 4" PVC SCREW PLUG, NPT, WITH 2" SQUARE TOP NUT
- 3 6" CAST IRON VALVE BOX WITH COVER MARKED "WATER"
 - CHRISTY G5 TRAFFIC VALVE BOX WITH COVER MARKED "WATER"
- 3 6" SDR-35 PVC CONDUIT PIPE SECTION, O.D.=6.275"
- CONCRETE BULK THRUST BLOCKS, PADS, COLLARS



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APPENDIX 10E FLUSH ASSEMBLY INSTALLATIONS

> BLOW-OFF ASSEMBLY FOR MAIN SIZES 6" TO 12"

V-OFF ASSEMBLY

DRAWING NUMBER

NOTES: ALL EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC. ALL BOLTS AND ASSOCIATED HARDWARE SHALL BE FLUOROPOLYMER COATED. TEE, VALVES, FITTINGS, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ALL PIPE AND FITTINGS IN CONTACT WITH WATER SHALL BE NSF-61 CERTIFIED. 5. MJ x FLG GATE VALVES WITH MJ WEDGE ACTION RESTRAINT GLANDS MAY BE REQUIRED IN LIEU OF PO x FLG GATE VALVES, REFERENCE WATER IMPROVEMENT PLANS. \bigcirc PLAN VIEW MAIN SIZE RUN FLG x 4" BRANCH FLG 6" THROUGH 12" WATER MAIN, TYP. DUCTILE IRON TEE (AWWA C110) (C900 PVC OR DUCTILE IRON) 4" GATE VALVE, FLG x FLG MAIN SIZE GATE VALVE, PO x FLG, (AWWA C509 OR C515) TYP. BOTH SIDES (AWWA C509 OR C515) INSTALL CHRISTY G5 TRAFFIC VALVE BOX SEE NOTE #6 WITH COVER MARKED "WATER" WITH CONCRETE COLLAR (OR TMWA APPROVED **EQUIVALENT**) INSTALL 6" CAST IRON VALVE BOX WITH-COVER MARKED "WATER" WITH CONCRETE 4" FLG x 4" NPT DUCTILE IRON COLLAR, TYP. 3 LOCATIONS COMPANION FLANGE WITH 4" NPT REF. TMWA STD. DETAIL 10J-2 FOR 6" MIN. CONCRETE COLLAR REQUIREMENTS, TYP. PVC SCREW PLUG WITH 2" 12" MAX. SQUARE TOP NUT. FINISH GRADE 6" SDR-35 PVC CONDUCTOR PIPE, O.D.=6.275", TYP. 3 LOCATIONS 4" Ø DUCTILE IRON RISER PIPE FLG x PE, LENGTH AS REQUIRED THRUST BLOCK 4" RESTRAINED FLANGE ADAPTER, REF. TMWA STD. DETAIL 10L-2 FOR WITH MJ RESTRAINT GLAND REQUIREMENTS, TYP. 4" 90° DUCTILE IRON ELBOW, FLG x FLG (AWWA C110) 12"± SECTION VIEW A-A POUR CONCRETE PAD UNDER GATE VALVE AND 90° VERTICAL ELBOW, MIN. 6" THICK, TYP., CONCRETE SHALL REMAIN CLEAR OF FLANGE 4"ø x 12" LENGTH DUCTILE IRON SPOOL, BOLTS, SEE NOTE #4 FLG x FLG, MATERIAL LIST MATERIAL LIST (CONT.) QTY. DESCRIPTION OTY. DESCRIPTION MAIN SIZE RUN FLG x 4" BRANCH FLG DUCTILE IRON TEE (AWWA 1 4"ø DUCTILE IRON SPOOL, FLG x PE (LENGTH AS REQUIRED) 4" PVC SCREW PLUG, NPT, WITH 2" SQUARE TOP NUT MAIN SIZE GATE VALVE, PO x FLG, (AWWA C509 OR C515) 6" CAST IRON VALVE BOX WITH COVER MARKED "WATER" 4" GATE VALVE, FLG x FLG, (AWWA C509 OR C515) CHRISTY G5 TRAFFIC VALVE BOX WITH COVER MARKED "WATER" 4" 90° DUCTILE IRON ELBOW, FLG x FLG (AWWA C110) 6" SDR-35 PVC CONDUIT PIPE SECTION, O.D.=6.275'

1 4"ø x 12" LENGTH DUCTILE IRON SPOOL, FLG x FLG

1 4" FLG x 4" NPT DUCTILE IRON COMPANION FLANGE

4" RESTRAINED FLANGE ADAPTER WITH MJ RESTRAINT GLAND

CONCRETE BULK - THRUST BLOCKS, PADS, COLLARS



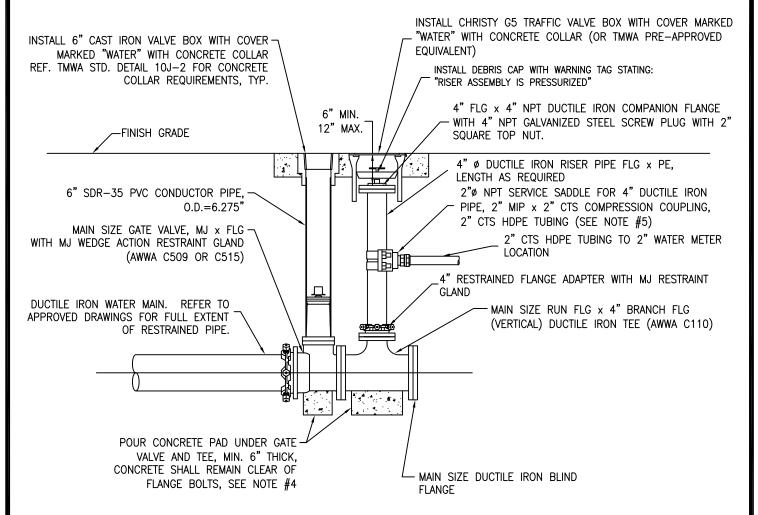
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APPENDIX 10E FLUSH ASSEMBLY INSTALLATIONS

IN-LINE FLUSH ASSEMBLY
FOR MAIN SIZES 6" TO 12"

DRAWING NUMBER

- 1. REFERENCE TMWA STANDARD DETAIL 10L-2 FOR THRUST BLOCK SIZING AND REQUIREMENTS (DEAD END CONDITION) FOR PERMANENT FLUSH VALVE ASSEMBLIES.
- 2. ALL EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC.
- 3. ALL BOLTS AND ASSOCIATED HARDWARE SHALL BE FLUOROPOLYMER COATED.
- 4. TEE, VALVE, FITTINGS, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
- 5. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
- 6. RETIREMENT REQUIRES REMOVAL OF 4" DUCTILE IRON RISER WITH TAP AND ALL ASSOCIATED 2" CTS HDPE TUBING AND METER BOX. REPLACE WITH NEW 4" DUCTILE IRON FLG x PE SPOOL.
- 7. ALL PIPE AND FITTINGS IN CONTACT WITH WATER SHALL BE NSF-61 CERTIFIED.



FOR EXISTING FLUSH VALVE ASSEMBLIES:

- ENSURE THAT PLUG IS PRESSURE RATED. PVC SCREW PLUGS SHALL BE REPLACED TO CONFORM TO THIS DETAIL.
- NOT ALL EXISTING FLUSH VALVE ASSEMBLIES WILL BE CONNECTED TO MECHANICALLY RESTRAINED PIPE: THRUST BLOCKS AT THE END OF THE MAIN SHALL NOT BE DISTURBED.
- RISER SHALL BE REPLACED TO THE ABOVE SPECIFICATIONS.

