

# INDEX

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# GENERAL NOTES

FULTON COUNTY STANDARD DETAIL  
INDEX AND GENERAL NOTES

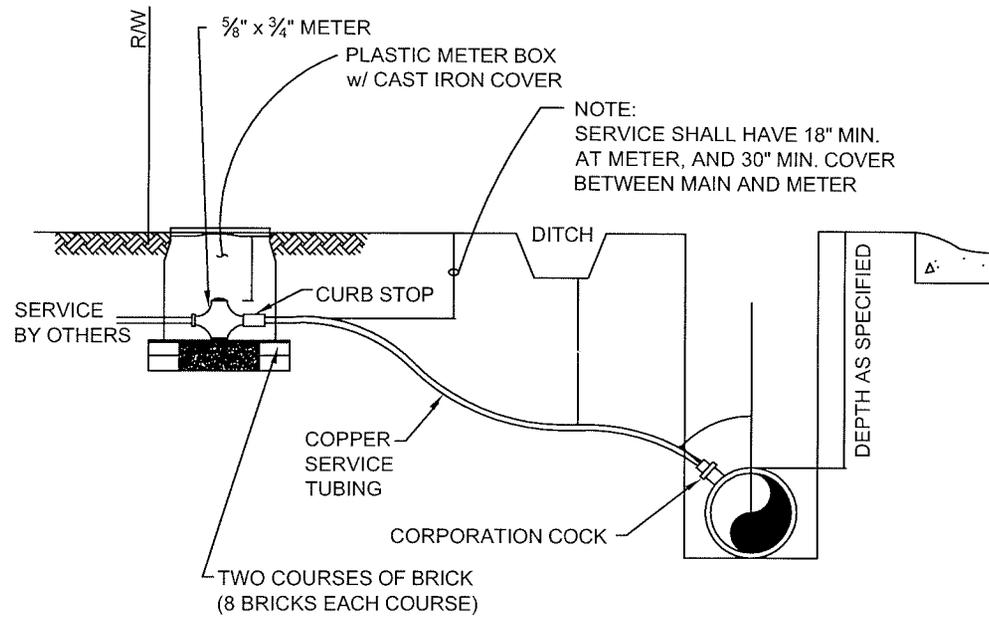
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141 PRYOR ST. ATLANTA, GA. 30303  
404-730-7400 FAX: 404-730-6325

DRAWING NO.  
INDEX  
800



NOTES:

1. SERVICE LINE SHALL BE 3/4" DIAMETER FROM MAIN TO METER
2. USE ALL FLARE JOINTS
3. INSTALLATION SHALL ALLOW ADEQUATE ROOM TO REMOVE AND/OR REPAIR METER.
4. METER BOX SHALL BE APPROXIMATELY 12" x 18".

FULTON COUNTY STANDARD DETAIL 801  
5/8" METER INSTALLATION

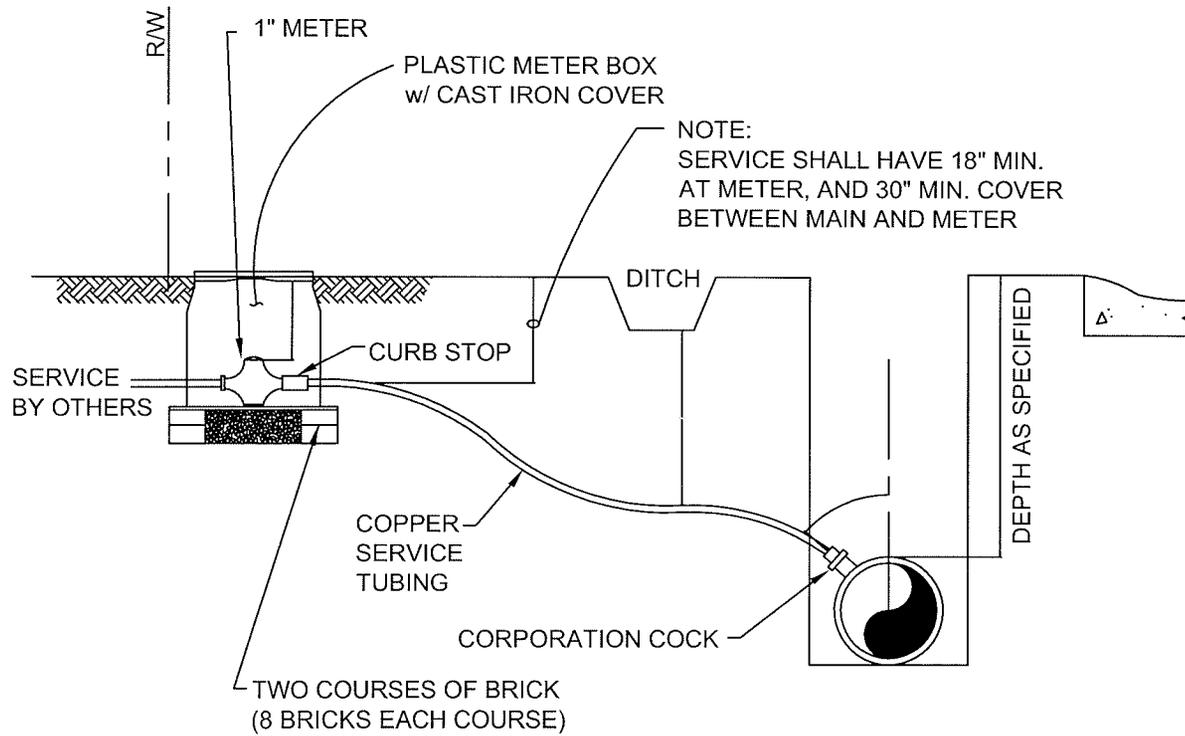
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DRAWING NO.  
801



NOTES:

1. SERVICE LINE SHALL BE 1" FROM MAIN TO METER.
2. USE ALL FLARE JOINTS.
3. INSTALLATION SHALL ALLOW ADEQUATE ROOM TO REMOVE AND/OR REPAIR METER.
4. METER BOX SHALL BE APPROXIMATELY 18" x 24".

FULTON COUNTY STANDARD DETAIL 802  
1" METER INSTALLATION

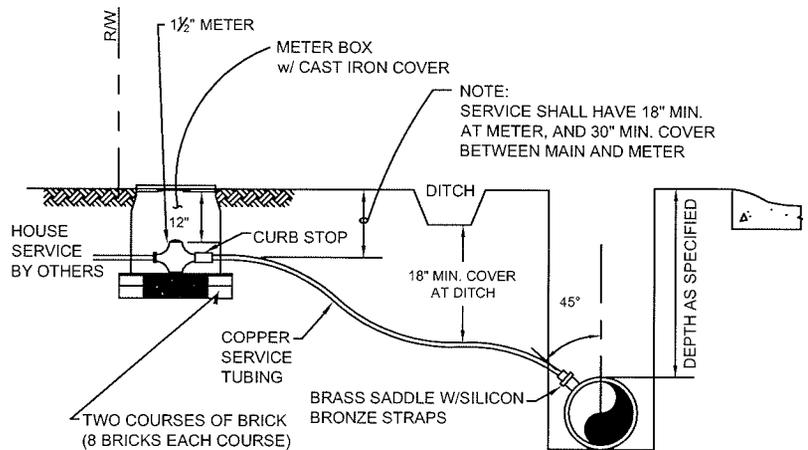
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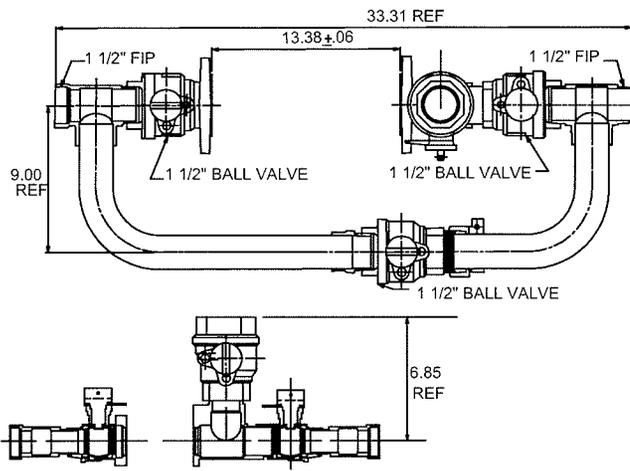
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DRAWING NO.  
802



**NOTES:**

1. SERVICE LINE SHALL BE 1 1/2" FROM THE MAIN TO THE METER.
2. USE ALL COMPRESSION GRIP JOINT.
3. INSTALLATION SHALL ALLOW ADEQUATE ROOM TO REMOVE AND/OR REPAIR METER.
4. METER BOX SHALL BE APPROXIMATELY 24" x 36".



FULTON COUNTY STANDARD DETAIL 803  
1 1/2" METER INSTALLATION

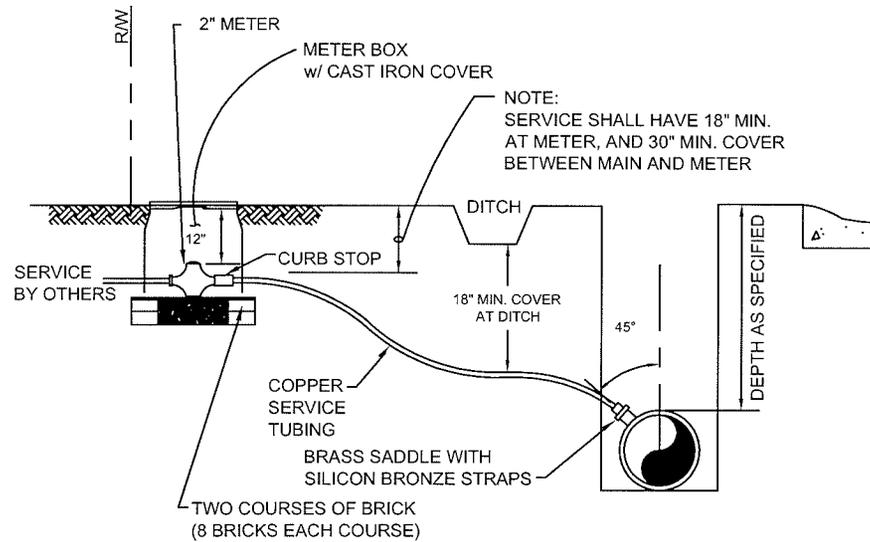
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DATE: 12-2-05



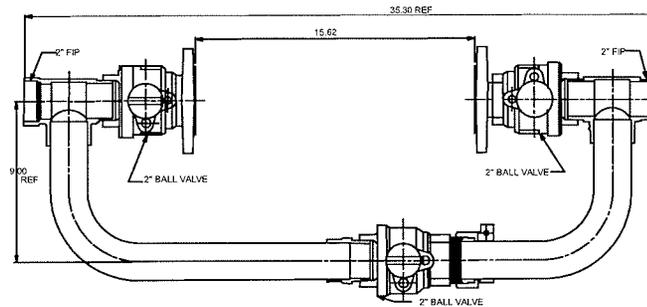
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DRAWING NO.  
803



**NOTES:**

1. SERVICE LINE SHALL BE 2" DIAMETER FROM THE MAIN TO THE METER
2. USE ALL COMPRESSION GRIP JOINTS.
3. INSTALLATION SHALL ALLOW ADEQUATE ROOM TO REMOVE AND/OR REPAIR METER.
4. METER BOX SHALL BE APPROXIMATELY 24" x 36".



FULTON COUNTY STANDARD DETAIL 804  
2" METER INSTALLATION

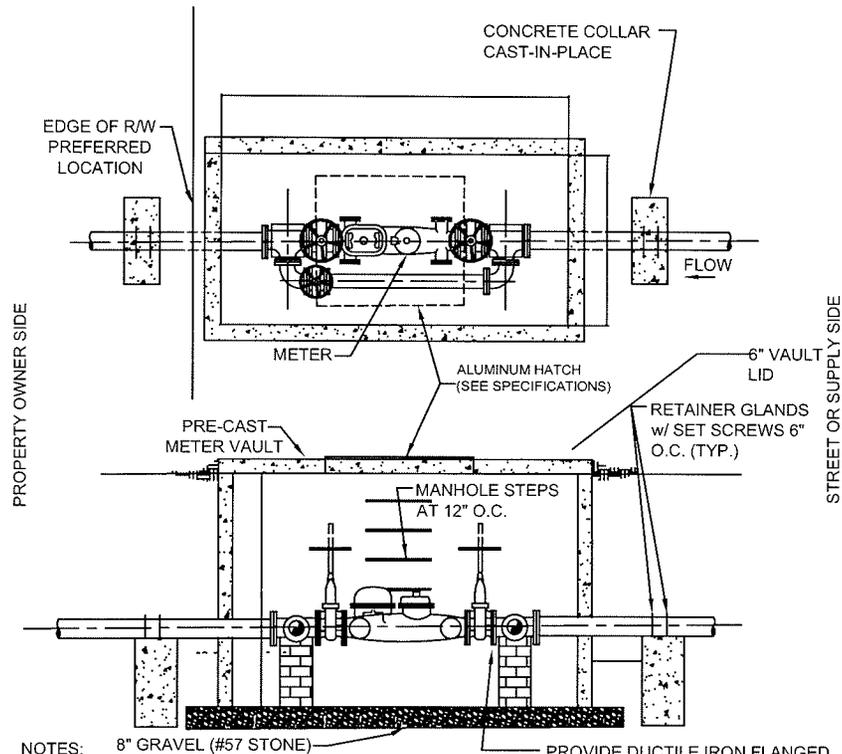
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804



**NOTES:**

1. BOXES EXCEEDING 5' IN DEPTH MUST BE APPROVED BY FULTON COUNTY.
2. WHEN METER BOX CANNOT BE LOCATED ENTIRELY ON R/W, A PERMANENT EASEMENT SHALL BE OBTAINED TO PREVENT FENCES OR OTHER OBSTRUCTIONS FROM BEING ERRECTED AROUND THE METER BOX.
3. COVER OPENING & STEPS TO BE PLACED NEAREST THE METER REGISTER.
4. THE METER MUST BE INSTALLED WITH AT LEAST 8 DIAMETERS OF STRAIGHT PIPE SAME SIZE AS METER ON THE INLET SIDE TO PERMIT ON-SITE MAINTENANCE AND CALIBRATION. A STRAINER MAY BE PROVIDED IN LIEU OF THE STRAIGHT PIPE IN ACCORDANCE WITH THE METER MANUFACTURER'S RECOMMENDATIONS. AN INLET AND OUTLET GATE VALVE WITH BYPASS LINE ARE REQUIRED (SEE ILLUSTRATION).
5. THESE BOXES ARE NOT TO BE INSTALLED IN TRAFFIC AREAS WITHOUT PRIOR PERMISSION FROM FULTON COUNTY.
6. ALL VALVES AND FITTINGS INSIDE THE VAULT SHALL BE FLANGED.
7. ALL FITTINGS OUTSIDE THE VAULT SHALL BE PUSH-ON JOINT WITH AMERICAN 'FAST-GRIP' GASKETS OR APPROVED EQUAL.
8. ALL METERS SHALL COME EQUIPPED WITH A TOUCHREAD OR TOUCHLESS SENSOR COMPATIBLE WITH FULTON COUNTY'S METER READING EQUIPMENT.
9. THIS DETAIL ALSO AUTHORIZED FOR INSTALLATION OF 3" AND LARGER RE-USE METERS.
10. HATCH SHALL BE 4' X 6', DOUBLE LEAF, FLUSH MOUNT, 1/4" DIAMOND PLATE, ALUMINUM DOORS LOCKABLE WITH A 5/8" ROD. HATCH SHALL BE BILCO # PDCM-3 OR PRE-APPROVED EQUAL FOR 6" & 8" METERS. HATCH SHALL BE 3'6" X 3'6" SINGLE LEAF FLUSH MOUNT 1/4" DIAMOND PLATE, ALUMINUM DOOR LOCKABLE WITH 5/8" ROD. HATCH SHALL BE B.LCO#PCM - 5 OR PRE-APPROVED EQUAL FOR 3" & 4" METERS.

METER SIZE	VAULT			HATCH SIZE
	L	W	D	
3"	9'	5'	6'	3'6" X 3'6"
4"	9'	5'	6'	3'6" X 3'6"
6"	12'	6'	6'	4' X 6'
8"	12'	6'	6'	4' X 6'

FULTON COUNTY STANDARD DETAIL 805  
LARGE METERS AND VAULT

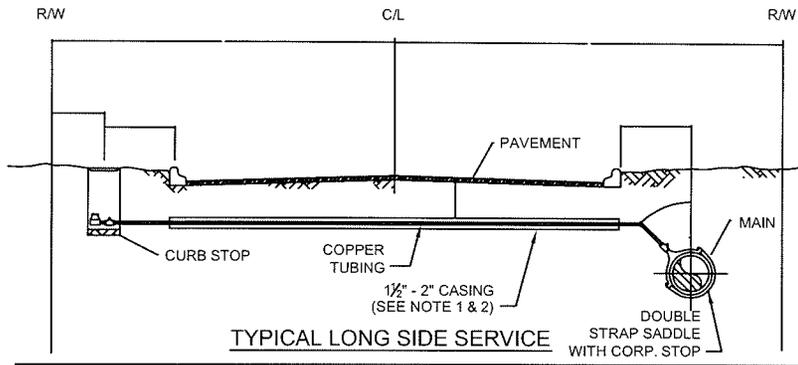
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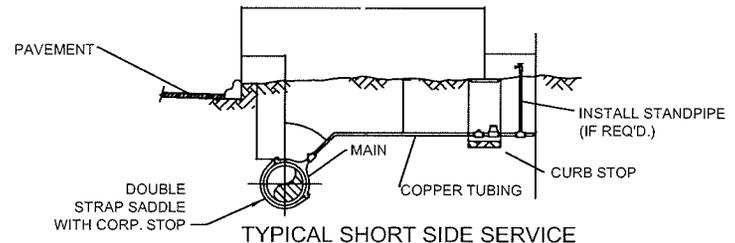


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805



TYPICAL LONG SIDE SERVICE



TYPICAL SHORT SIDE SERVICE

NOTES

1. IN THE EVENT CASING IS NOT PRESENT ON LONG SIDE LOT, BORING SHALL BE PERMITTED. WHEN CASING DOES EXIST - 1" OR 3/4" PIPE SHALL BE INSERTED THROUGH CASING TO COMPLETE THE INSTALLATION FROM THE MAIN TO THE METER.
2. APPROVAL MUST BE OBTAINED BY FULTON COUNTY DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION. PRIOR TO ROAD CUT, THE PUBLIC WORKS WATER SERVICES DIVISION DOES NOT HAVE THE AUTHORITY TO APPROVE ROAD CUTS. NO ROAD CUT SHALL BE PERMITTED UNTIL 3 ATTEMPTS HAVE BEEN MADE AT BORING OR LOCATING CASING.
3. 24" COVER (MIN.) FROM SURFACE TO TOP OF SERVICE PIPE APPLIES TO COUNTY MAINTAINED ROADS FOR STATE ROADS SAID MINIMUM CLEARANCE SHALL BE 48".
4. ALL CUTS IN PAVEMENT SHALL BE REPAIRED IN ACCORDANCE WITH EITHER GA. D.O.T. OR FULTON CO. STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DITCH COMPACTION, CUT BACK OF DITCH SIDES AND PAVING OF THE REQUIRED CONCRETE SUB-BASE AND PLATING THE DITCH TO ALLOW TRAFFIC FLOW WHILE CONCRETE IS SETTING UP. STEEL TRAFFIC PLATES WILL COVER POURED CONCRETE FOR A MINIMUM OF 24 HOURS.
5. METERS ARE TO BE SET DIRECTLY OPPOSITE TAP ON MAIN. THE METER SHALL NOT BE OFFSET Laterally FROM TAP ON WATER MAIN.

FULTON COUNTY STANDARD DETAIL 806  
 3/4" - 1" METER SETTING  
 SHORT AND LONG SIDES

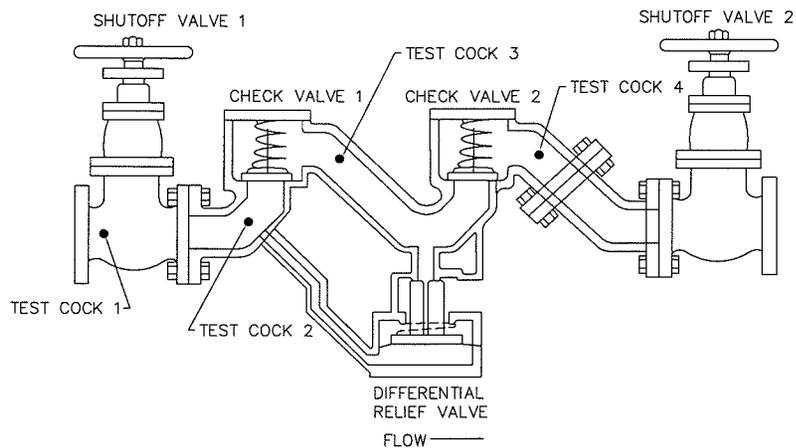
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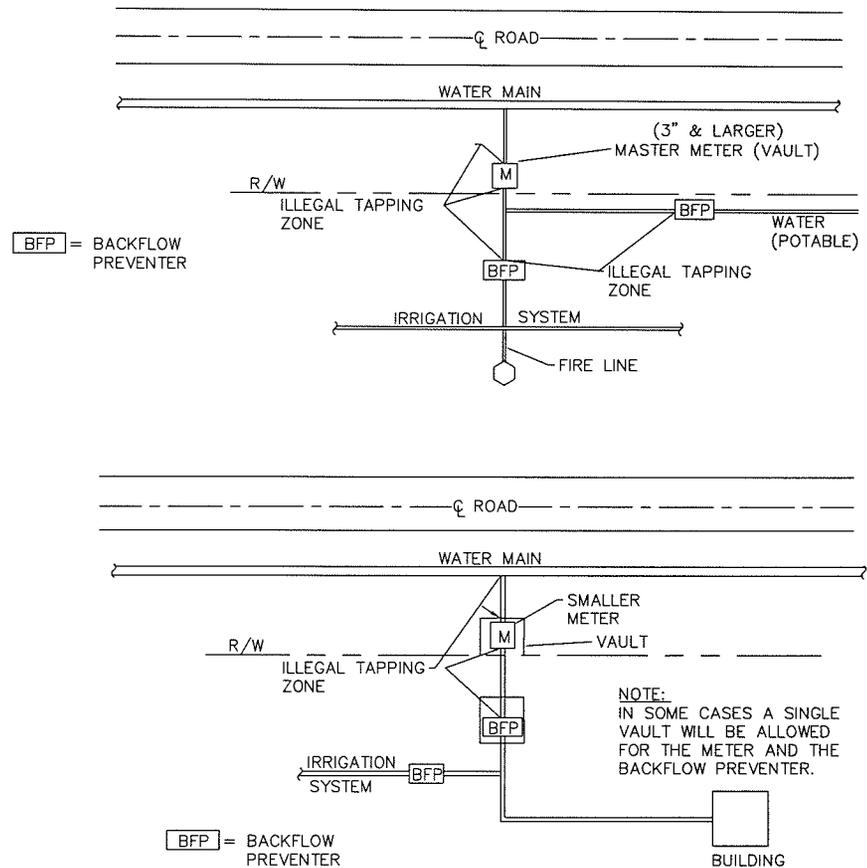
DRAWING NO.  
 806



**NOTE:**

THE AIR-GAP OR MECHANICAL BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED SUBJECT TO THE APPROVAL OF FULTON COUNTY PUBLIC WORKS. ANY DEVIATION FROM THE METHODS DESCRIBED ABOVE MUST RECEIVE APPROVAL PRIOR TO INSTALLATION. ALL MECHANICAL BACKFLOW PREVENTION ASSEMBLIES APPROVED BY FULTON COUNTY PUBLIC WORKS FOR INSTALLATION AT THE SERVICE CONNECTION MUST BE APPROVED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA. THESE ASSEMBLIES ARE ONLY APPROVED FOR THE HORIZONTAL ORIENTATIONS. CHOICE OF THE TYPE OF BACKFLOW PREVENTION ASSEMBLY, I.E. REDUCED PRESSURE PRINCIPLE OR DOUBLE CHECK VALVE ASSEMBLY, WILL BE BASED ON THE DEGREE OF HAZARD AS EVALUATED BY FULTON COUNTY PUBLIC WORKS.

FOR FURTHER INFORMATION REFER TO THE FULTON COUNTY MANUAL ON CROSS CONNECTIONS.



FULTON COUNTY STANDARD DETAIL 807  
REDUCED PRESSURE PRINCIPLE  
BACKFLOW-PREVENTION ASSEMBLY

DATE	REVISIONS	DATE	REVISIONS

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807

REDUCED - PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (RPBA)

DESCRIPTION

THE APPROVED REDUCED-PRESSURE PRINCIPLE BACKFLOW-PREVENTION ASSEMBLY CONSISTS OF TWO INDEPENDENTLY ACTING, APPROVED CHECK VALVES TOGETHER WITH A HYDRAULICALLY OPERATING, MECHANICALLY INDEPENDENT PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED BETWEEN THE CHECK VALVES AND BELOW THE FIRST CHECK VALVE. THESE UNITS ARE LOCATED BETWEEN TWO TIGHTLY CLOSING RESILIENT-SEATED SHUTOFF VALVES, AS AN ASSEMBLY, AND ARE EQUIPPED WITH PROPERLY LOCATED RESILIENT-SEATED TEST COCKS AS SHOWN.

APPLICATION

THE RPBA IS EFFECTIVE AGAINST BACKFLOW CAUSED BY BACKPRESSURE AND BACKSIPHONAGE.  
THE RPBA IS NORMALLY USED IN LOCATIONS WHERE AN APPROVED AIR GAP IS IMPRACTICAL.

INSTALLATION

THE RPBA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. THE INSTALLATION SHOULD NOT REQUIRE PLATFORMS, LADDERS, OR LIFTS FOR ACCESS.  
ADEQUATE CLEARANCE FROM THE FLOOR, CEILING, AND WALLS MUST BE PROVIDED TO FACILITATE THE REMOVAL OF THE RELIEF VALVE AND/OR CHECK VALVES.

AN RPBA MUST BE PROTECTED FROM FREEZING TEMPERATURES AND IF INSTALLED WHERE TEMPERATURES WILL REACH 110 DEGREES FAHRENHEIT (43 DEGREES CELSIUS) OR ABOVE, THE HOT-WATER TYPE OF ASSEMBLY MUST BE USED.  
CONSULT MANUFACTURER'S SPECIFICATIONS FOR RECOMMENDATIONS.  
AN RPBA SHALL NOT BE INSTALLED IN A PIT BELOW GROUND LEVEL. SEMIBURIED PITS ARE ACCEPTABLE IF THE RPBA IS INSTALLED ABOVE THE GROUND OR THE MAXIMUM FLOOD LEVEL WITH THE APPROVED AIR GAP BETWEEN THE RELIEF VALVE PORT AND THE DAYLIGHT DRAIN.

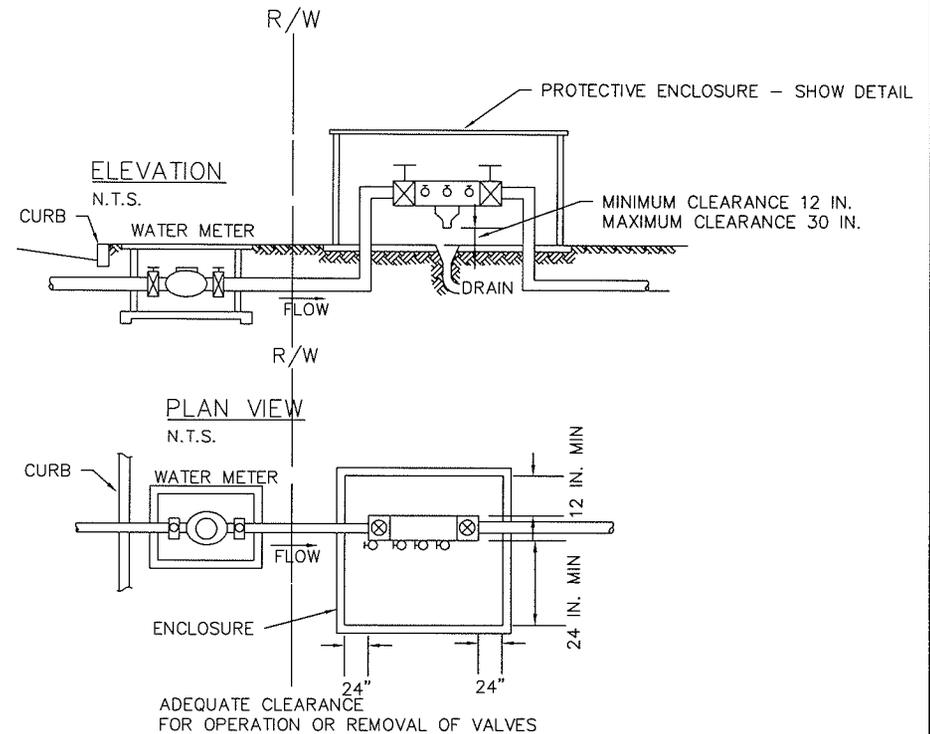
THE DAYLIGHT DRAIN FROM ABOVE GROUND OR SEMIBURIED VAULTS MUST PROVIDE: ADEQUATE DRAINAGE FOR THE DISCHARGE FROM THE REDUCED-PRESSURE PRINCIPLE ASSEMBLY RELIEF VALVE PORT.  
ACCESS FOR MAINTENANCE AND PERIODIC TESTING MUST ALSO BE PREPARED.

BEFORE INSTALLING AN RPBA, ENSURE THAT THE RELIEF VALVES ARE IN GOOD WORKING CONDITION.

IF THE RPBA IS LOCATED INSIDE A BUILDING, A DRAIN MUST BE PROVIDED TO RECEIVE SPILLAGE FROM THE RELIEF VALVE PORT. THE RELIEF VALVE PORT MUST ALWAYS HAVE AN APPROVED AIR GAP BETWEEN IT AND THE DRAIN OR MAXIMUM FLOOD LEVEL, WHICHEVER IS HIGHEST.

ALL REDUCED-PRESSURE PRINCIPLE ASSEMBLIES SHALL BE INSTALLED IN THE

THE RPBA SHALL NOT BE INSTALLED IN AN AREA WHERE CORROSIVE FUMES OR GASES COULD RENDER THE ASSEMBLY INOPERABLE.



FULTON COUNTY STANDARD DETAIL 808  
REDUCED PRESSURE PRINCIPLE  
BACKFLOW-PREVENTION ASSEMBLY

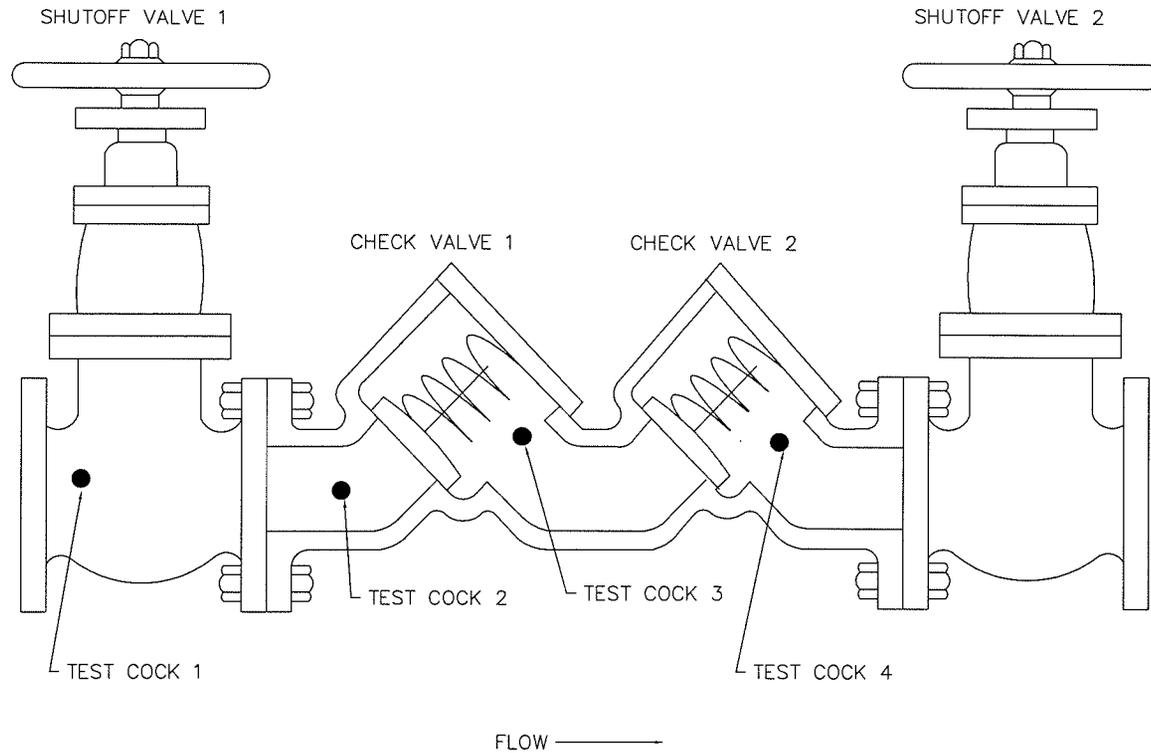
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DRAWING NO.  
808



**NOTE:** THE AIR-GAP OR MECHANICAL BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED SUBJECT TO THE APPROVAL OF FULTON COUNTY PUBLIC WORKS. ANY DEVIATION FROM THE METHODS DESCRIBED ABOVE MUST RECEIVE APPROVAL PRIOR TO INSTALLATION. ALL MECHANICAL BACKFLOW PREVENTION ASSEMBLIES APPROVED BY FULTON COUNTY PUBLIC WORKS FOR INSTALLATION AT THE SERVICE CONNECTION MUST BE APPROVED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA. THESE ASSEMBLIES ARE ONLY APPROVED FOR THE HORIZONTAL ORIENTATIONS. CHOICE OF THE TYPE OF BACKFLOW PREVENTION ASSEMBLY, I.E. REDUCED PRESSURE PRINCIPLE OR DOUBLE CHECK VALVE ASSEMBLY, WILL BE BASED ON THE DEGREE OF HAZARD AS EVALUATED BY FULTON COUNTY PUBLIC WORKS.

FOR FURTHER INFORMATION REFER TO THE FULTON COUNTY MANUAL ON CROSS CONNECTIONS.

FULTON COUNTY STANDARD DETAIL 809  
DOUBLE CHECK VALVE ASSEMBLY

DATE	REVISIONS	DATE	REVISIONS

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809

**DOUBLE CHECK VALVE ASSEMBLY (DCVA)**

**DESCRIPTION**

THIS ASSEMBLY CONSISTS OF TWO INTERNALLY LOADED CHECK VALVES, EITHER SPRING-LOADED OR INTERNALLY WEIGHTED, INSTALLED AS A UNIT BETWEEN TWO TIGHTLY CLOSING RESILIENT-SEATED SHUTOFF VALVES AS AN ASSEMBLY, AND FITTINGS WITH PROPERLY LOCATED RESILIENT-SEATED TEST COCKS AS SHOWN.

**APPLICATION**

THE DCVA IS EFFECTIVE AGAINST BACKFLOW CAUSED BY BACKPRESSURE AND BACKSIPHONAGE AND IS USED TO PROTECT THE WATER SYSTEM FROM POLLUTANTS THAT WOULD NOT CONSTITUTE AN ACTUAL HEALTH HAZARD, BUT THAT MIGHT BE OBJECTIONABLE TO THE WATER SUPPLY SYSTEM.

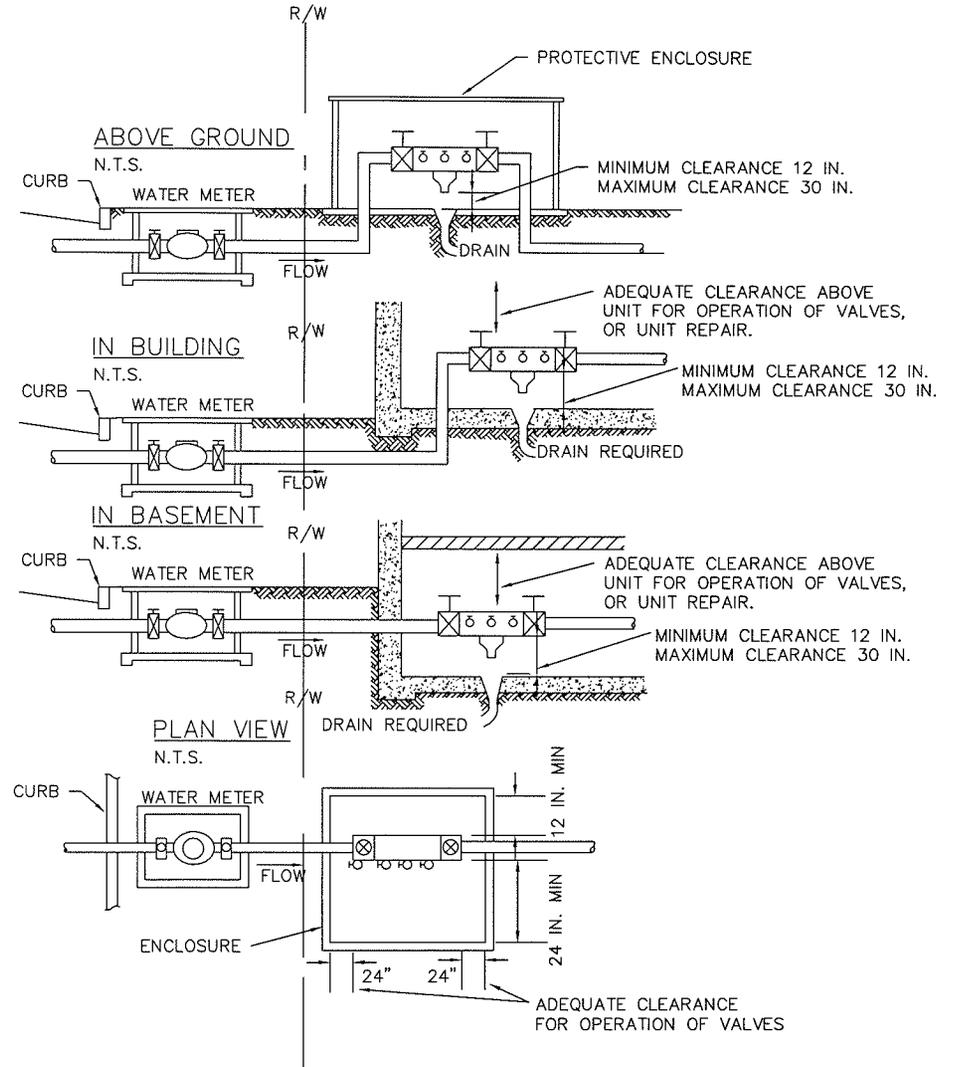
**INSTALLATION**

THE DCVA SHOULD BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING AND SHOULD HAVE FREE ACCESS WITHOUT THE USE OF PLATFORMS, LADDERS, OR LIFTS.

A DCVA SHOULD NOT BE INSTALLED BELOW GROUND LEVEL UNLESS PROVIDED WITH ADEQUATE DRAINAGE TO MAINTAIN A DRY LOCATION. WHERE AN ASSEMBLY MUST BE INSTALLED IN A LOCATION THAT IS SUSCEPTIBLE TO FLOODING, SUCH AS A BASEMENT, THE TEST COCKS SHALL BE PLUGGED.

ALL DCVAS SHALL BE INSTALLED IN A HORIZONTAL POSITION UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER AND/OR FULTON COUNTY PUBLIC WORKS.

A DCVA MUST BE PROTECTED FROM FREEZING TEMPERATURES. FOR TEMPERATURES OF 100 DEGREES FAHRENHEIT (43 DEGREES CELSIUS) OR ABOVE, CONSULT MANUFACTURER'S LITERATURE FOR RECOMMENDATIONS.



TYPICAL INSTALLATIONS WITH MINIMUM CLEARANCES  
DOUBLE CHECK VALVE ASSEMBLIES

FULTON COUNTY STANDARD DETAIL 810  
DOUBLE CHECK VALVE ASSEMBLY

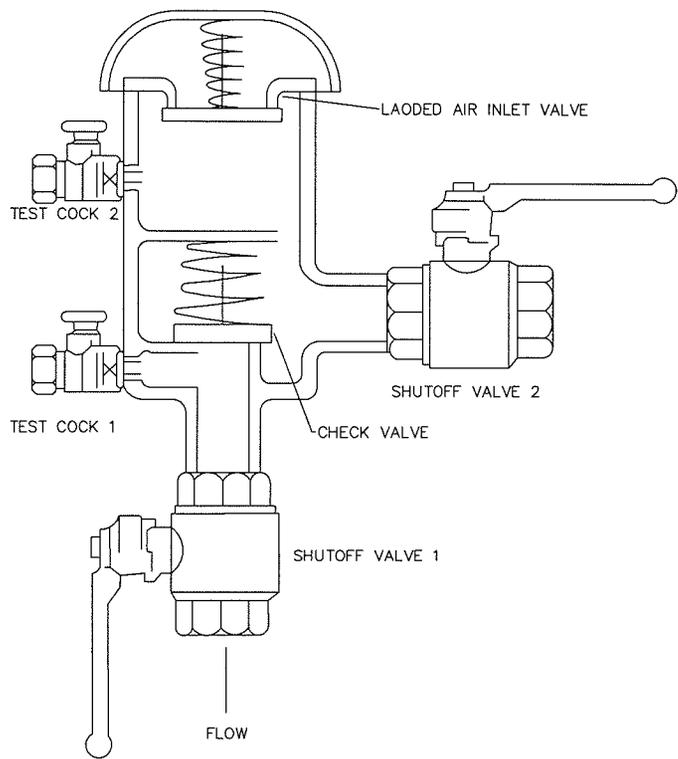
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FOR FURTHER INFORMATION REFER TO THE FULTON COUNTY BACKFLOW PREVENTION PROGRAM.

FULTON COUNTY STANDARD DETAIL 811  
PRESSURE VACUUM BREAKER ASSEMBLY

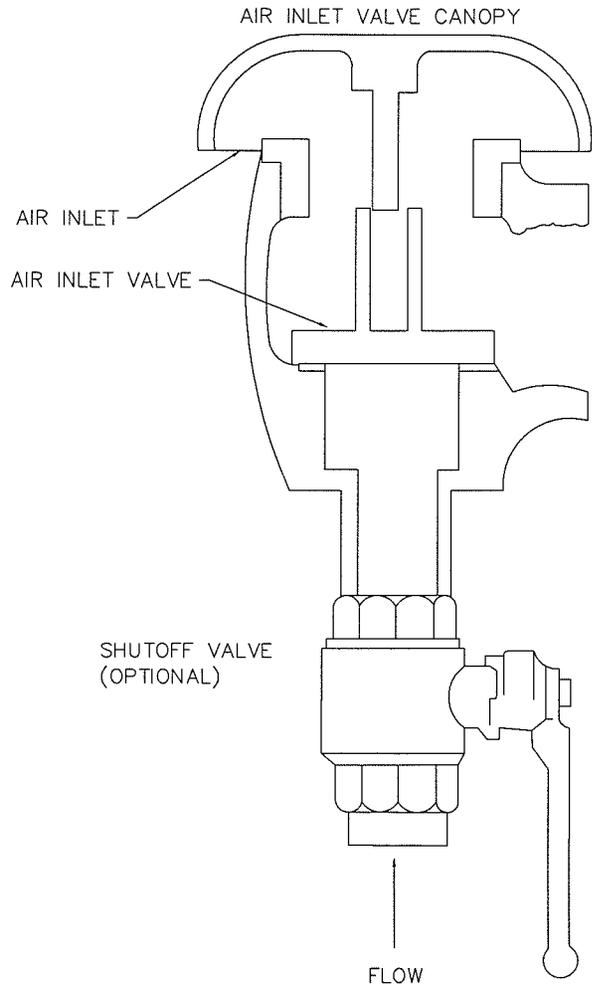
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811



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FOR FURTHER INFORMATION REFER TO THE FULTON COUNTY BACKFLOW PREVENTION PROGRAM.

FULTON COUNTY STANDARD DETAIL 812  
ATMOSPHERIC VACUUM BREAKER ASSEMBLY

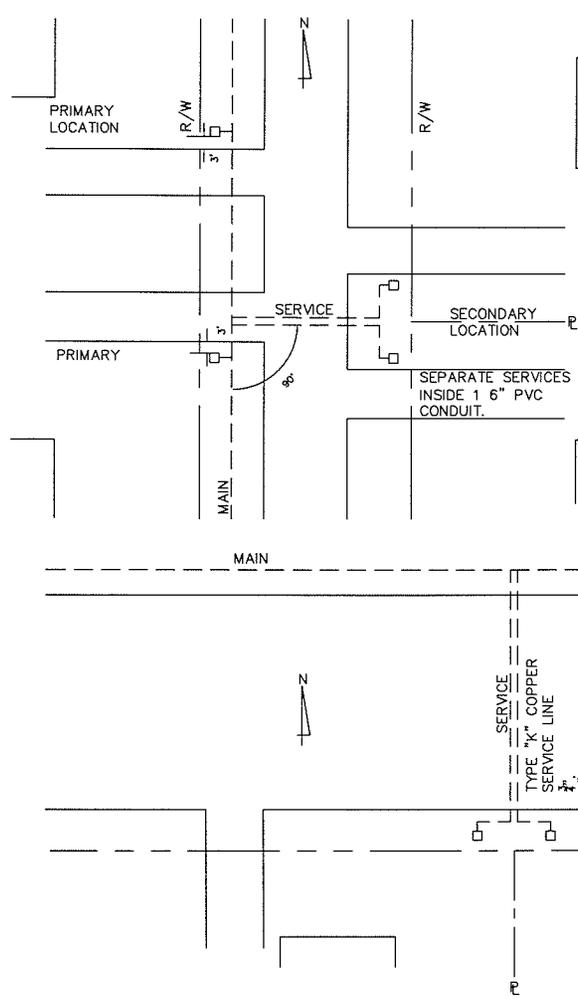
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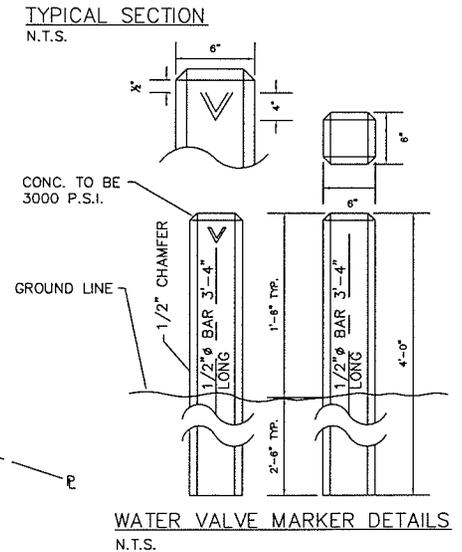
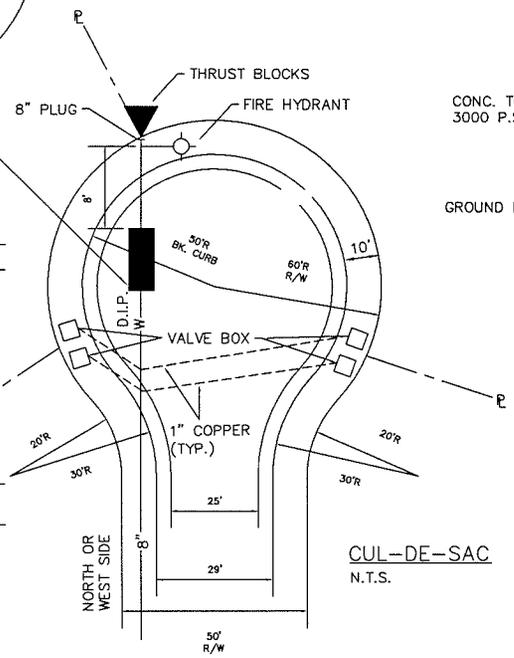
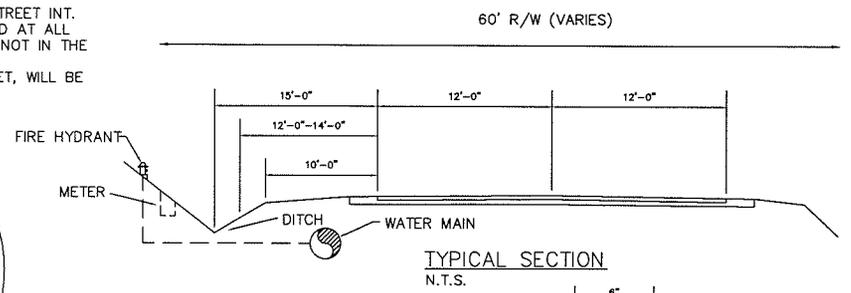
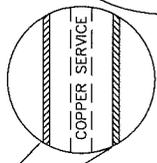
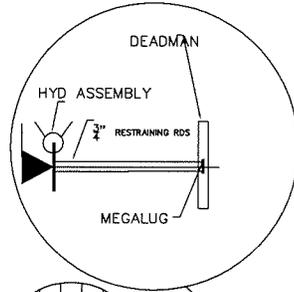


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SEE STD. # 808 FOR VALVE LOC. AT STREET INT. WATER VALVE MARKERS WILL BE PLACED AT ALL LOCATIONS WHERE WATER VALVES ARE NOT IN THE STREET. WATER VALVES THAT ARE IN THE STREET, WILL BE CLEARLY MARKED ON THE CURB.



FULTON COUNTY STANDARD DETAIL 813  
 WATER METER INSTALLATION & 3/4" COPPER SERVICE  
 WATER VALVE MARKERS

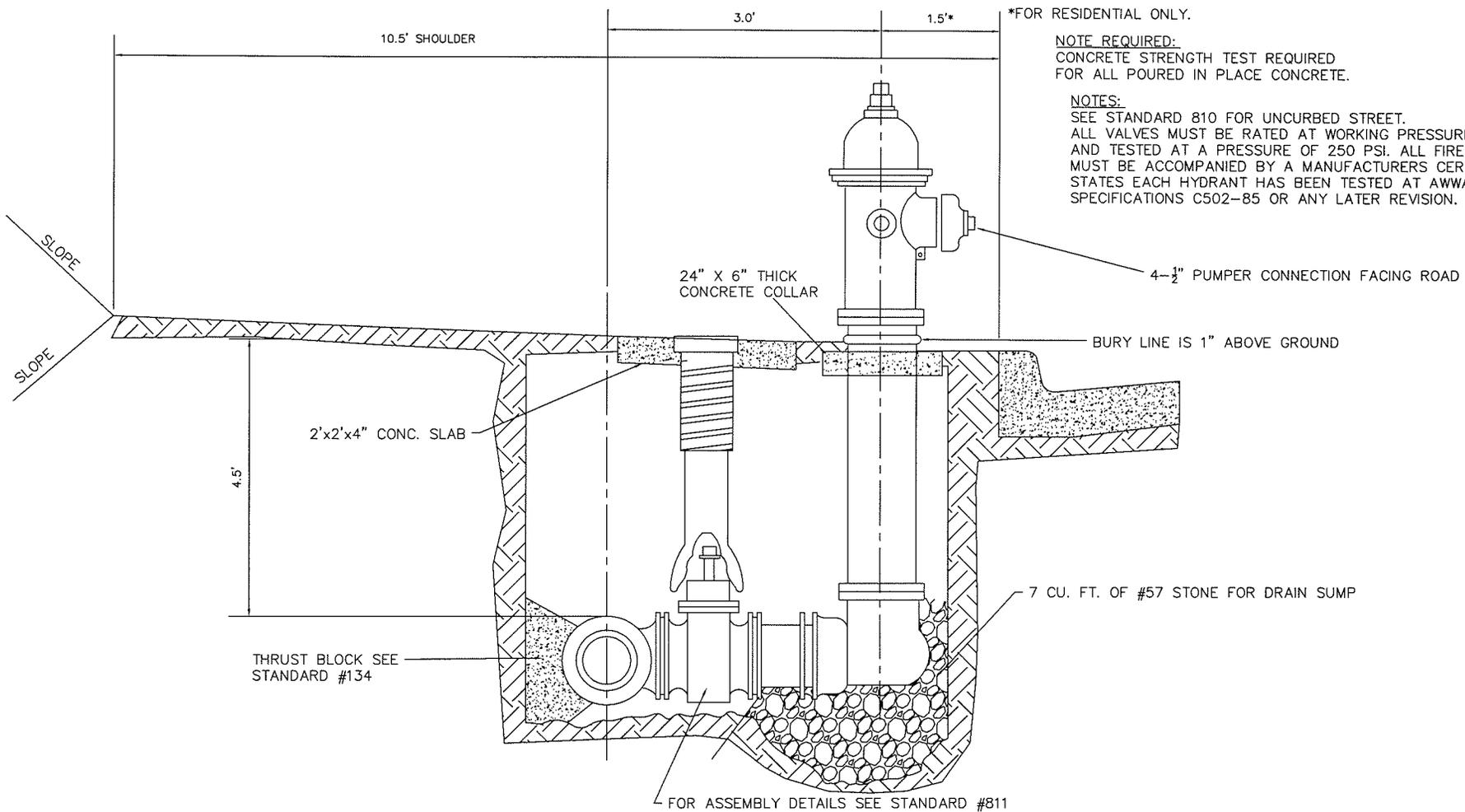
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DRAWING NO.  
 813



\*FOR RESIDENTIAL ONLY.

**NOTE REQUIRED:**  
 CONCRETE STRENGTH TEST REQUIRED  
 FOR ALL POURED IN PLACE CONCRETE.

**NOTES:**  
 SEE STANDARD 810 FOR UNCURBED STREET.  
 ALL VALVES MUST BE RATED AT WORKING PRESSURE OF 200 PSI  
 AND TESTED AT A PRESSURE OF 250 PSI. ALL FIRE HYDRANTS  
 MUST BE ACCOMPANIED BY A MANUFACTURERS CERTIFICATE THAT  
 STATES EACH HYDRANT HAS BEEN TESTED AT AWWA  
 SPECIFICATIONS C502-85 OR ANY LATER REVISION.

FULTON COUNTY STANDARD DETAIL 814  
 HYDRANT LOCATION DETAIL FOR  
 CURB & GUTTER STREETS

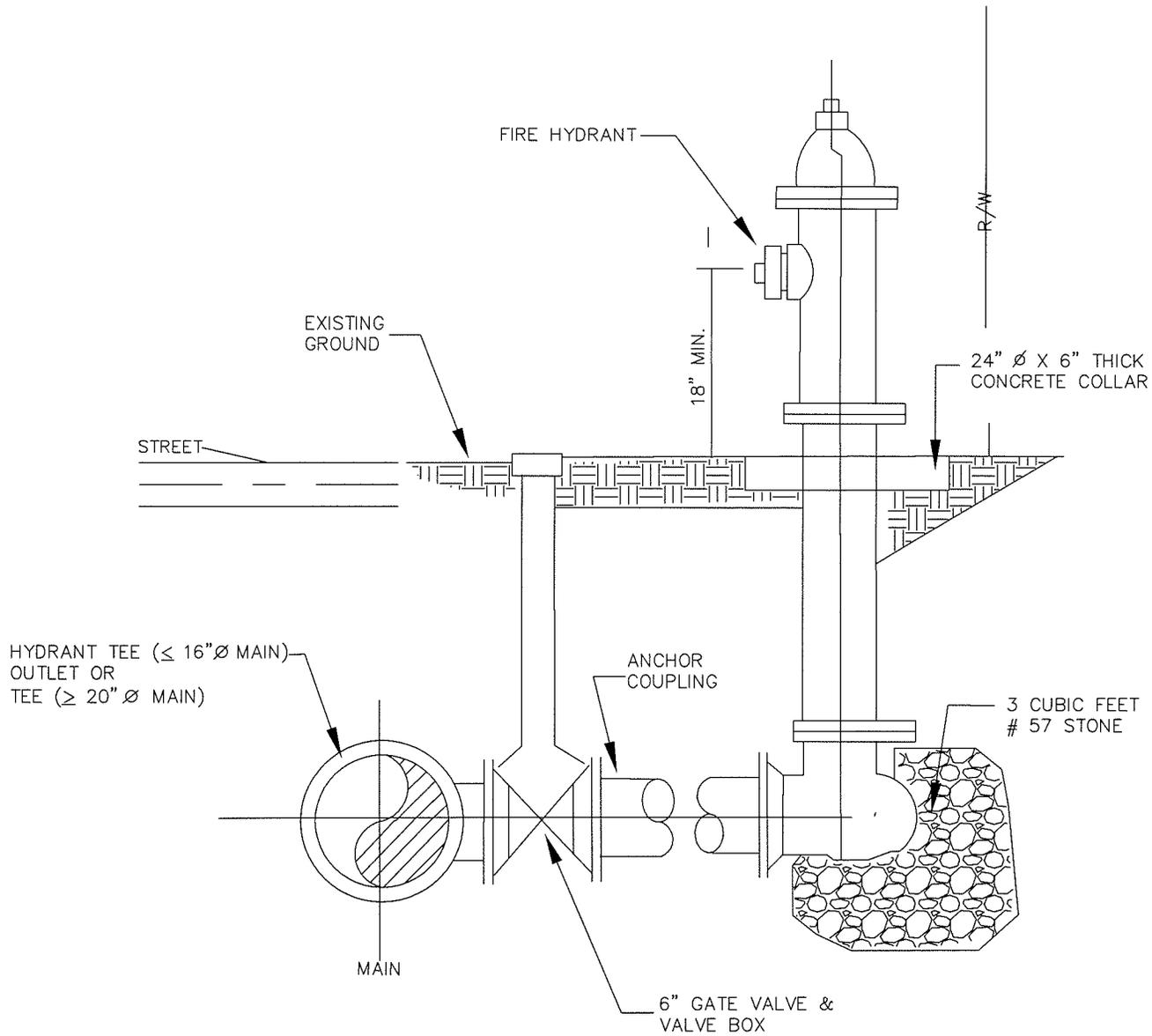
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
 APPROVED: REW  
 DATE: 12-2-05



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 814



FULTON COUNTY STANDARD DETAIL 815  
FIRE HYDRANT STREET UNCURRED

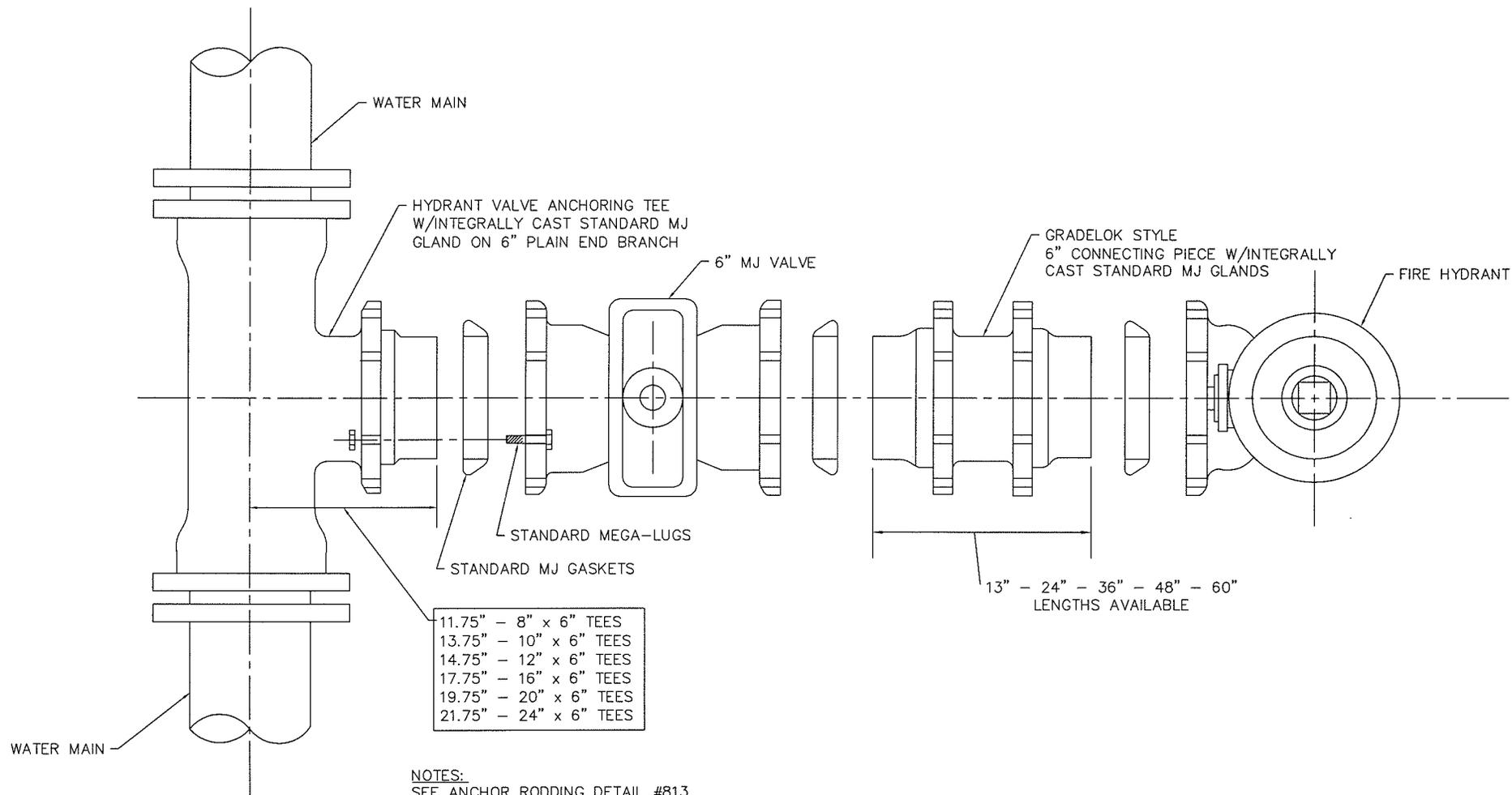
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
APPROVED: REW  
DATE: 12-2-05



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DRAWING NO.  
815



- 11.75" - 8" x 6" TEES
- 13.75" - 10" x 6" TEES
- 14.75" - 12" x 6" TEES
- 17.75" - 16" x 6" TEES
- 19.75" - 20" x 6" TEES
- 21.75" - 24" x 6" TEES

NOTES:  
 SEE ANCHOR RODDING DETAIL #813.  
 GRADE-LOCS CAN BE USED TO ADJUST  
 HYDRANTS TO PROPER BURY DEPTH.

FULTON COUNTY STANDARD DETAIL 816  
 FIRE HYDRANT INSTALLATION DETAILS

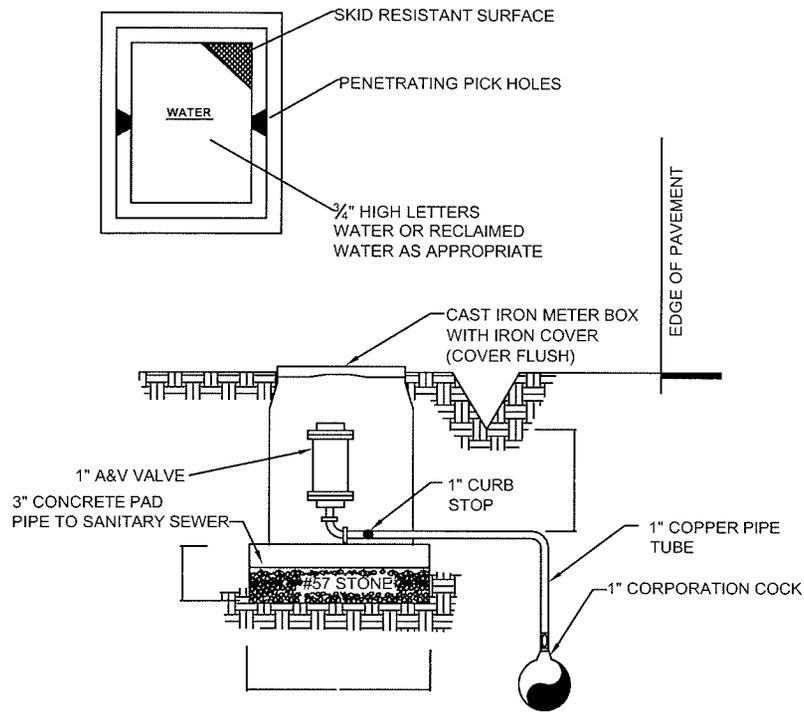
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
 APPROVED: REW  
 DATE: 12-2-05



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DRAWING NO.  
 816



**NOTES:**

1. VALVE MARKER REQUIRED.
2. A & V VALVE AND COPPER SHALL BE SIZED IN ACCORDANCE WITH VALVE MANUFACTURER'S RECOMMENDATIONS.
3. METER BOX SHALL BE CDR 10 X 15HC OR APPROVED EQUAL
4. A & V VALVE SHALL BE VENT-O-MAT SERIES RBX OR EQUAL

FULTON COUNTY STANDARD DETAIL 817  
 A & V RELEASE VALVE ASSEMBLY  
 1" OR 2"

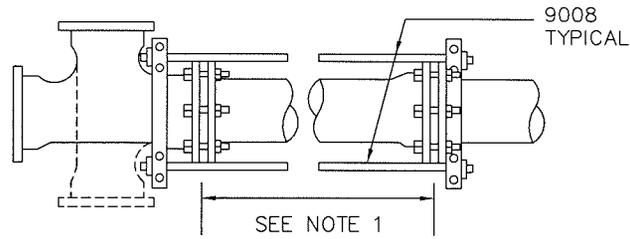
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: CMS  
 APPROVED: REW  
 DATE: 12-2-05

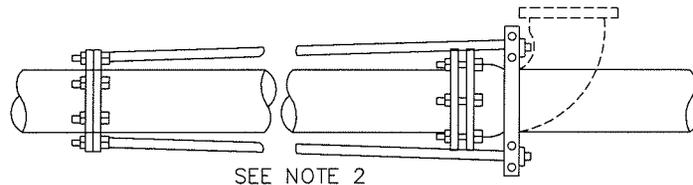


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DRAWING NO.  
 817



TEE ANCHOR  
N.T.S.



PIPE OR BEND ANCHOR TO FLANGE SPIGOT  
N.T.S.

NOTES:

1. IN THE ASSEMBLIES OF RODS AND CLAMPS SHOWN, RODS RUN FROM A LUG ON THE FITTING (OR A CLAMP BEHIND THE HUB OF A BELL) TO A CLAMP AGAINST THE FACE OF A BELL. NOTE THAT THIS ARRANGEMENT ANCHORS ONLY ONE JOINT. THE STABILITY OF THE JOINT WHERE THE CLAMP IS AGAINST THE FACE OF THE BELL DEPENDS ON HAVING SOIL ABOVE A RELATIVELY LONG PIECE OF PIPE ON BOTH SIDES OF THE JOINT. CONSEQUENTLY, IF THE DISTANCE BETWEEN THE FIRST AND SECOND JOINT IS LESS THAN 12 FEET, THE SECOND JOINT SHOWN SHALL BE ANCHORED BY A CLAMP BEHIND THE HUB OF THE BELL AND RODS TO A CLAMP AT THE FACE OF THE NEXT BELL.
2. IN THE ASSEMBLIES SHOWN FOR RODS TO FLANGED FITTINGS, NOTE THAT THE FLANGED FITTING IS NOT TO BE BURIED IN SOIL.
3. AFTER INSTALLATION TIE RODS AND CLAMP ASSEMBLY SHALL BE THOROUGHLY COVERED WITH ROYSTON LABORATORIES INC. ROSKOTE MASTIC NO. A-938 OR KOPPERS CO INC. BITUMASTIC SUPERSERVICE BLACK OR APPROVED EQUIVALENT.
4. RODS TO BE HIGH TENSILE, HOT ROLLED STEEL WITH TENSILE STRENGTH OF 150,000 P.S.I. AND A MINIMUM YIELD STRENGTH OF 130,000 P.S.I.

FULTON COUNTY STANDARD DETAIL 818  
TYPICAL ANCHORS

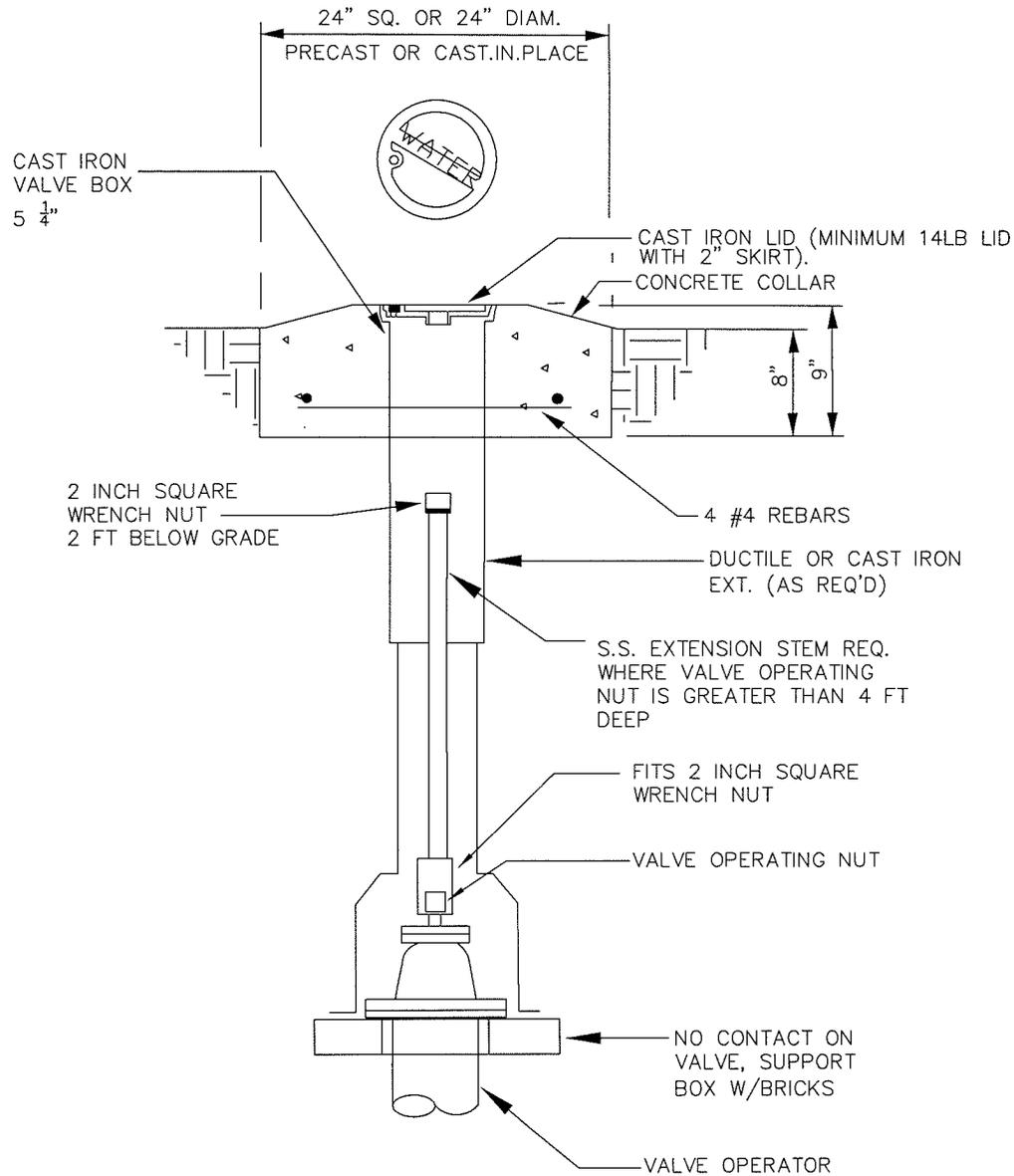
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
APPROVED: REW  
DATE: 12-2-05



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DRAWING NO.  
818



FULTON COUNTY STANDARD DETAIL 819  
UNDERGROUND VALVE BOX

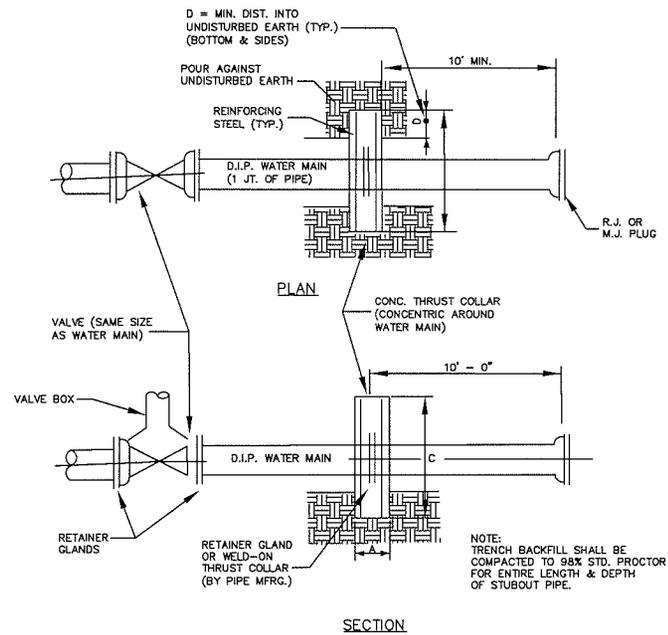
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
APPROVED: REW  
DATE: 12-2-05



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DRAWING NO.  
819



NOTE:  
TRENCH BACKFILL SHALL BE  
COMPACTED TO 98% STD. PROCTOR  
FOR ENTIRE LENGTH & DEPTH  
OF STUBOUT PIPE.

MAIN DIA	CONCRETE COLLAR DIM.				REINFORCING STEEL
	A	B	C	D	
24"	1'-10"	9'-3"	9'-3"	2'-9"	#9 @ 12" O.C. E.W.E.F.
16"	1'-3"	6'-6"	6'-6"	1'-10"	#8 @ 12" O.C. E.W.E.F.
10" OR 12"	1'-2"	5'-3"	5'-3"	1'-4"	#7 @ 12" O.C. E.W.E.F.
6" OR 8"	1'-0"	4'-0"	4'-0"	1'-0"	#6 @ 12" O.C. E.W.E.F.

TEST PRESSURE: 250 P.S.I.  
SOIL BEARING PRESSURE: 2500 P.S.F.

NOTE:  
TERMINATION DETAIL FOR LARGER  
DIAMETER PIPE SHALL BE  
DETERMINED FOR EACH PROJECT.

FULTON COUNTY STANDARD DETAIL 820  
WATER MAIN TERMINATION

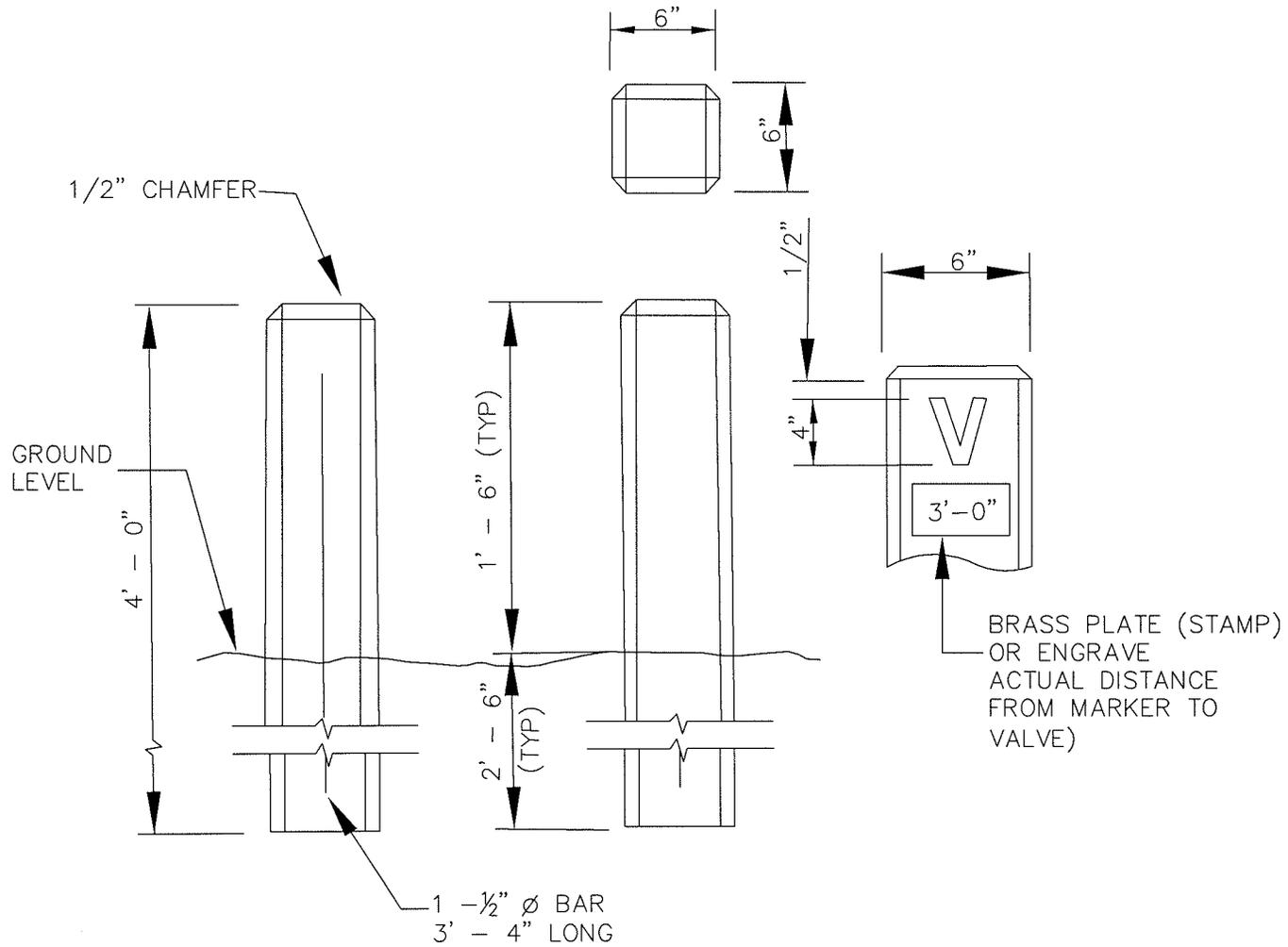
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
APPROVED: REW  
DATE: 12-2-05



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DRAWING NO.  
820



FULTON COUNTY STANDARD DETAIL 821  
WATER VALVE MARKER

DATE	REVISIONS	DATE	REVISIONS

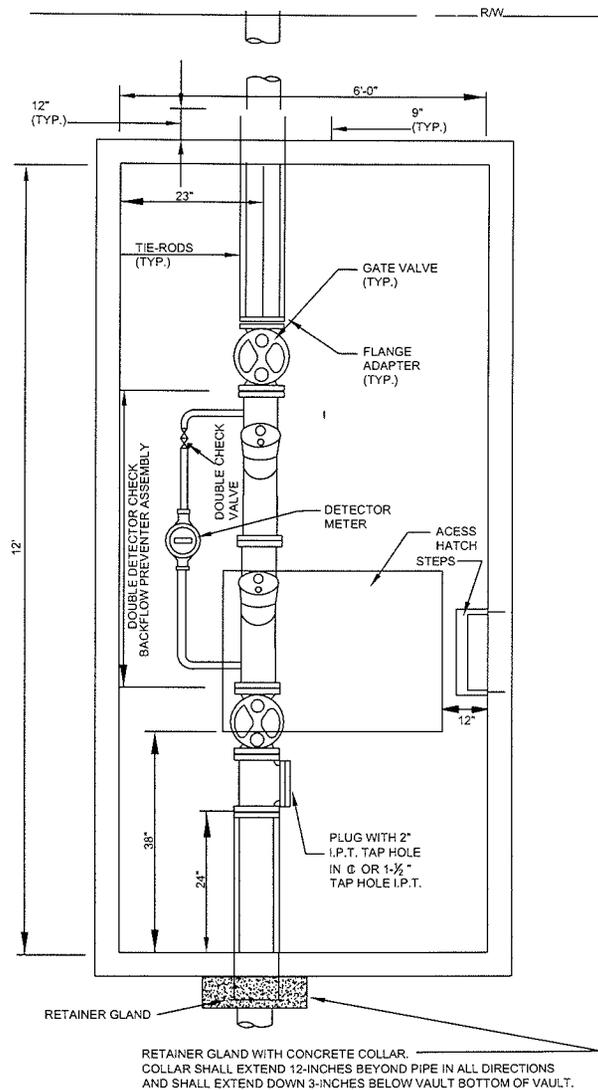
DGS/DRN/CHKD: REB  
APPROVED: REW  
DATE: 12-2-05



FULTON COUNTY PUBLIC WORKS  
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DRAWING NO.

821



1. TYPE I VAULT SHALL BE USED FOR 3,4,6 OR 8-INCH DOUBLE DETECTOR CHECK BACKFLOW PREVENTER FOR USE WITH 1, 1- $\frac{1}{2}$  AND 2-INCH METER.
2. SEE SPECIFICATION SECTION 02665 FOR MATERIAL SPECIFICATIONS. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
3. ALL FITTING SHALL BE DUCTILE IRON WITH FLANGED JOINTS. GATE VALVES SHALL BE OUTSIDE STEM AND YOKE (OSY) WITH HANDWHEEL.
4. VAULT SHALL BE PRECAST CONCRETE. MIN. INSIDE HEIGHT SHALL BE 6 FEET. LOAD BEARING VAULT SHALL BE DESIGNED BY PROPERTY OWNER'S ENGINEER, AND SUBMITTED TO COUNTY FOR APPROVAL.
5. ACCESS HATCH/FLOOR DOOR SHALL BE MIN. 36" X 36".
6. VAULT FLOOR SHALL BE # 57 CRUSHED STONE, MIN. 6-INCHES THICK.
7. PROVIDE CONCRETE PIER UNDER BFP 12" X 12" X 18" HIGH.
8. PROVIDE RETAINER GLAND ON PIPE BEYOND VAULT WALLS. PROVIDE TWO TIE RODS FROM FIRST INTERIOR FLANGE TO RETAINER GLANDS, WITH DOUBLE NUTS AND WASHERS. ENCASE RETAINER GLANDS IN CONCRETE. ALSO, PROVIDE TIE RODS FROM RETAINER GLAND TO TAPPING VALVE OR CASING UNDER ROAD, WHICHEVER IS CLOSER. RODS SHALL BE PROVIDED WITH BITUMASTIC COATING.
9. VAULT WALL OPENINGS SHALL BE SEALED WITH NON-SHRINK GROUT. ENSURE 1-INCH CLEARANCE BETWEEN TOP OF PIPE AND PRECAST WALL.
10. MANHOLE STEPS SHALL BE DOWELLED INTO VAULT WALL AND CENTERED ON ACCESS HATCH.

FULTON COUNTY STANDARD DETAIL 822  
FIRE LINE VAULT-TYPE I

DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
APPROVED: REW  
DATE: 12-2-05



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DRAWING NO.  
822

### ASSUMPTIONS FOR STANDARD LENGTHS

PIPE: DUCTILE IRON, AWWA C-151
SOIL: GC & SC. CLAYEY GRAVELS, CLAYEY SANDS, GRAVEL-SAND-CLAY MIXTURES, SAND-CLAY MIXTURES.
AVERAGE DEPTH OF BURY: 4 FT
TRENCH TYPE: 4
TEST PRESSURE: 250 PSI
SAFETY FACTOR: 1.5:1 (BASED ON TEST PRESSURE)

**NOTES:**

1. A FULL LENGTH OF PIPE ATTACHED TO EACH SIDE RUN OR BRANCH OUTLET SHALL BE INSTALLED, NO CUT OR PIECE OF PIPE SHALL BE USED.
2. WHERE FILL DIRT HAS BEEN ADDED TO SHOULDER, DEADMAN WILL BE INSTALLED 10 FT. FROM ANY BRANCH OUTLET OR END PIPE.
3. ALL JOINTS THAT FALL WITHIN THESE STANDARD LENGTH SHOULD BE RESTRAINED. (ON EACH SIDE OF BENDS ON THE BRANCH OUTLET OF TEES, AND BEFORE DEAD-ENDS).
4. STANDARD LENGTHS SHALL BE MODIFIED IF ACTUAL CONDITIONS DO NOT MEET MINIMUM REQUIREMENTS IN "ASSUMPTIONS FOR STANDARD LENGTHS".

### RECOMMENDED RESTRAINED LENGTHS OF DUCTILE IRON PIPE

NOM. PIPE SIZE (IN)	90 DEG. BEND	45 DEG. BEND	22.5 DEG. BEND	11.25 DEG. BEND	SIZE ON SIZE TEE*	VALVE/DEAD-END
6	19 FT	8 FT	4 FT	2 FT	3 FT	35 FT
8	25 FT	11 FT	5 FT	3 FT	13 FT	46 FT
10	30 FT	13 FT	6 FT	3 FT	23 FT	56 FT
12	36 FT	15 FT	7 FT	4 FT	34 FT	67 FT
14	41 FT	17 FT	8 FT	4 FT	43 FT	77 FT
16	46 FT	19 FT	9 FT	5 FT	53 FT	87 FT
18	51 FT	21 FT	10 FT	5 FT	63 FT	96 FT
20	56 FT	23 FT	11 FT	6 FT	72 FT	106 FT
24	65 FT	27 FT	13 FT	7 FT	91 FT	126 FT

\*RECOMMENDED RESTRAINED LENGTHS FOR TEES ARE FOR THE BRANCH OUTLET AND ASSUME A MINIMUM 10 FT. SECTION OF PIPE ATTACHED TO EACH SIDE OF THE RUN. RESTRAINT DEVICES SHOULD ALSO BE INSTALLED ON BOTH RUN JOINTS OF THE TEE ITSELF.

FULTON COUNTY STANDARD DETAIL 823  
RESTRAINED JOINT PIPE STANDARD  
LENGTHS

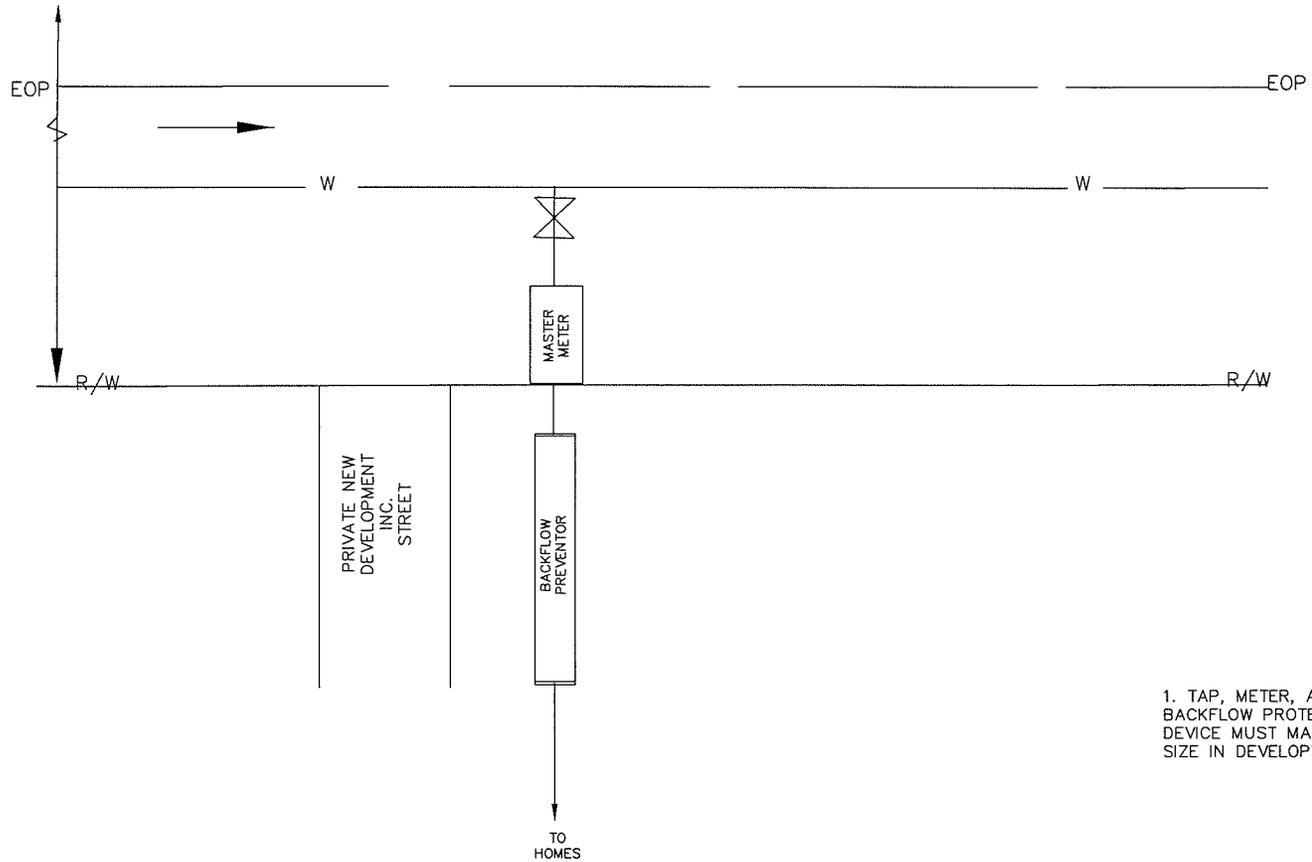
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: REB  
APPROVED: REW  
DATE: 12-2-05



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DRAWING NO.  
823



1. TAP, METER, AND BACKFLOW PROTECTION DEVICE MUST MATCH MAIN SIZE IN DEVELOPMENT.

N.T.S.

FULTON COUNTY STANDARD DETAIL 824  
 WATER SERVICES  
 TOWNHOME/APT./CONDOMINIUM  
 PRIVATE DEVELOPMENT

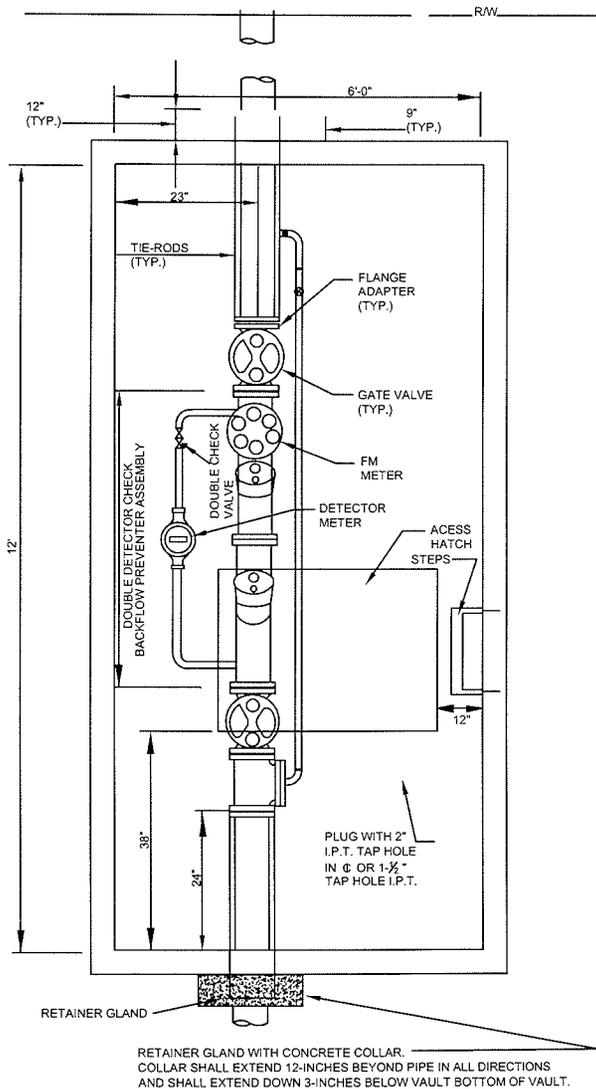
DATE	REVISIONS	DATE	REVISIONS

DGS/DRN/CHKD: CMS  
 APPROVED: REW  
 DATE: 12-2-05



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DRAWING NO.  
 824



1. TYPE I VAULT SHALL BE USED FOR 3,4,6 OR 8-INCH FM METER.
2. SEE SPECIFICATION SECTION 02665 FOR MATERIAL SPECIFICATIONS. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
3. ALL FITTINGS SHALL BE DUCTILE IRON WITH FLANGED JOINTS. GATE VALVES SHALL BE WITH HANDWHEELS.
4. VAULT SHALL BE PRECAST CONCRETE. MIN. INSIDE HEIGHT SHALL BE 6 FEET. LOAD BEARING VAULT SHALL BE DESIGNED BY PROPERTY OWNER'S ENGINEER, AND SUBMITTED TO COUNTY FOR APPROVAL.
5. ACCESS HATCH/FLOOR DOOR SHALL BE MIN. 36"X36" (BILCO MODEL PCM-5) FOR 3 & 4-INCH METERS OR 54"X54" (BILCO MODEL PDCM-3) FOR 6 & 8-INCH METERS.
6. VAULT FLOOR SHALL BE # 57 CRUSHED STONE, MIN. 6-INCHES THICK.
7. PROVIDE RETAINER GLAND ON PIPE BEYOND VAULT WALLS. PROVIDE TWO TIE RODS FROM FIRST INTERIOR FLANGE TO RETAINER GLANDS, WITH DOUBLE NUTS AND WASHERS. ENCASE RETAINER GLANDS IN CONCRETE. ALSO, PROVIDE TIE RODS FROM RETAINER GLAND TO TAPPING VALVE OR CASING UNDER ROAD, WHICHEVER IS CLOSER. RODS SHALL BE PROVIDED WITH BITUMASTIC COATING.
8. VAULT WALL OPENINGS SHALL BE SEALED WITH NON-SHRINK GROUT. ENSURE 1-INCH CLEARANCE BETWEEN TOP OF PIPE AND PRECAST WALL.
9. MANHOLE STEPS SHALL BE DOWELLED INTO VAULT WALL AND CENTERED ON ACCESS HATCH.

FM METER		
METER SIZE	6" & 8"	3" & 4"
VAULT INTERIOR DIMENSION	12' X 6'	9' X 5'

FULTON COUNTY STANDARD DETAIL 825  
FM ASSEMBLY

DATE	REVISIONS	DATE	REVISIONS

DCS/DRN/CHKD: CMS  
APPROVED: REW  
DATE: 3-7-06



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825