

CITY OF GOSHEN STANDARD WATER DETAILS

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WA-206	DOMESTIC WATER METER PIT

SECTION 300 WATER MAIN VALVE DETAILS

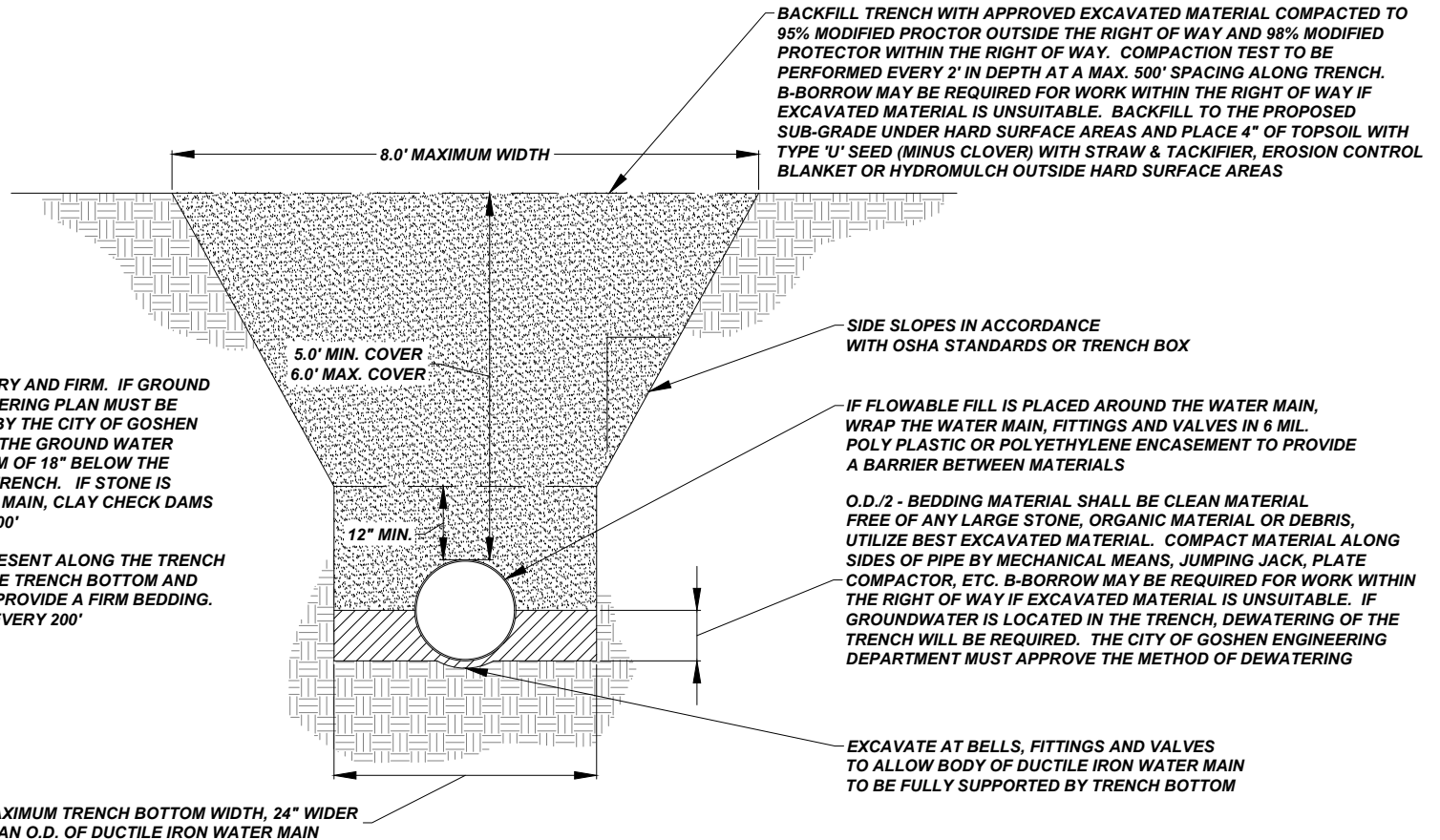
WA-301	RESILIENT WEDGE GATE VALVE
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SECTION 400 FIRE HYDRANT, YARD HYDRANT AND REMOTE FDC DETAILS

WA-401	FIRE HYDRANT ASSEMBLY
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SECTION 500 FOUNDATION PENETRATION DETAILS

WA-501	WATER SERVICE - CONCRETE, CINDER BLOCK OR FIELD STONE FOUNDATION PENETRATION
WA-502	WATER SERVICE - MICHIGAN BASEMENT PENETRATION



NOTES:

1. TRENCH BOTTOM SHALL BE DRY AND FIRM. IF GROUND WATER IS PRESENT, A DEWATERING PLAN MUST BE PRESENTED AND APPROVED BY THE CITY OF GOSHEN ENGINEERING DEPARTMENT. THE GROUND WATER MUST BE LOWERED A MINIMUM OF 18" BELOW THE BOTTOM OF THE PROPOSED TRENCH. IF STONE IS PLACED AROUND THE WATER MAIN, CLAY CHECK DAMS MUST BE INSTALLED EVERY 200'
2. IF UNSUITABLE SOILS ARE PRESENT ALONG THE TRENCH BOTTOM, OVER EXCAVATE THE TRENCH BOTTOM AND PLACE No. 8 AGGREGATE TO PROVIDE A FIRM BEDDING. INSTALL CLAY CHECK DAMS EVERY 200'

WATER MAIN TRENCH

NOT TO SCALE

The City Of Goshen
Department of Public Works & Safety
Office of Engineering

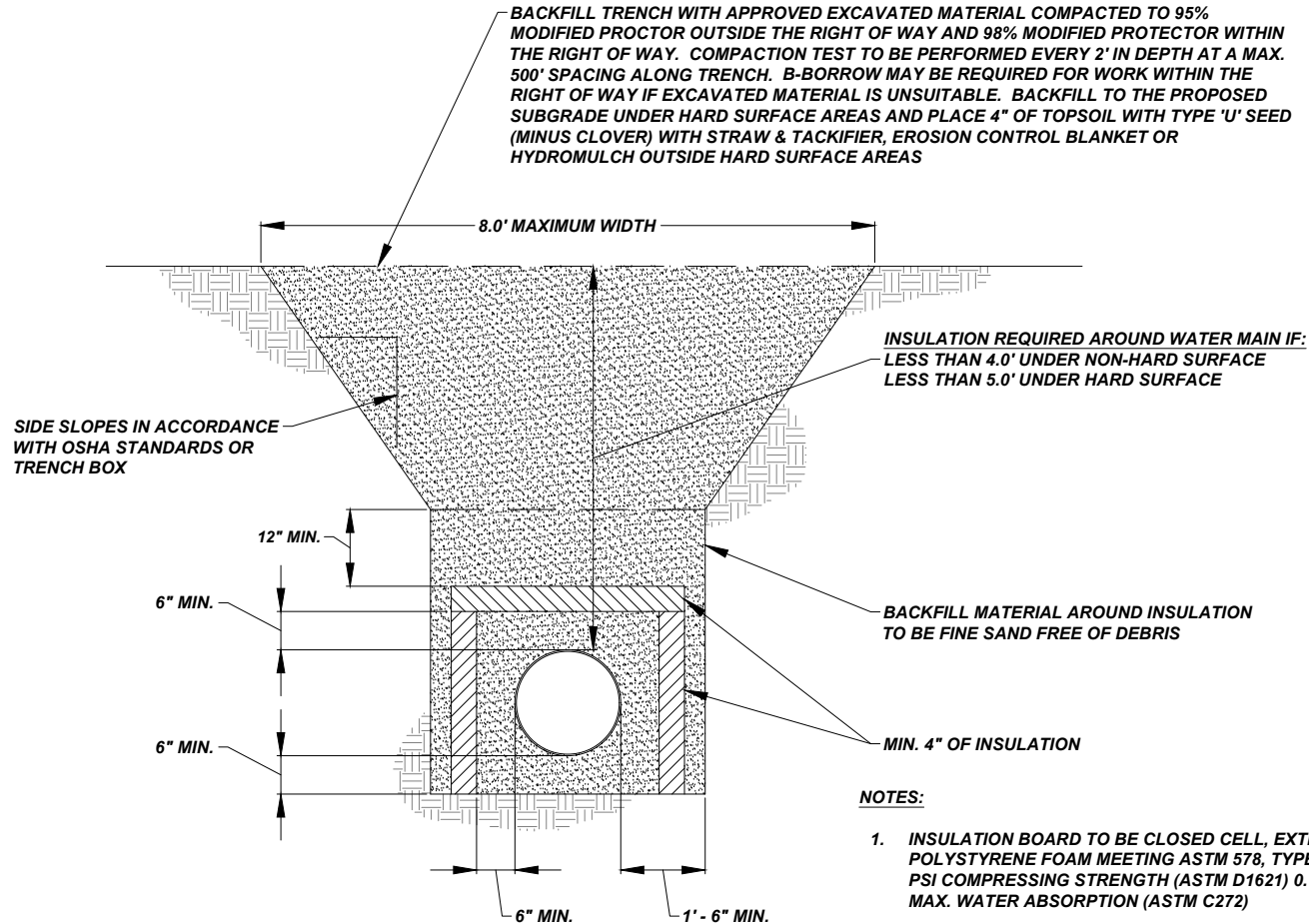
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03/27/2025

CITY OF GOSHEN, INDIANA
STANDARD DETAIL

Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.
Drawing Number: **WA-101**



INSULATED WATER MAIN TRENCH

NOT TO SCALE

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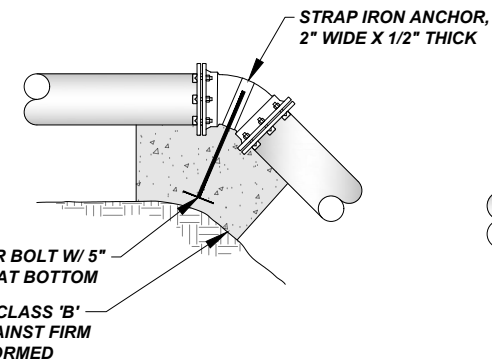
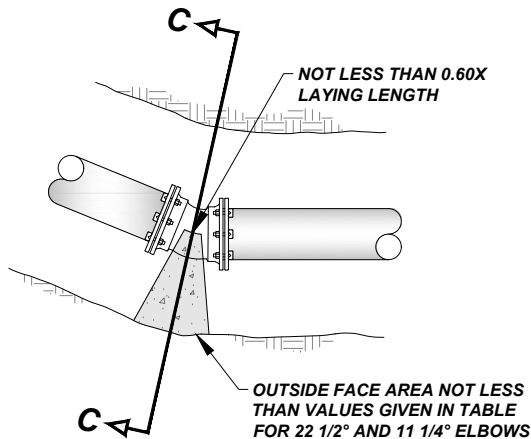
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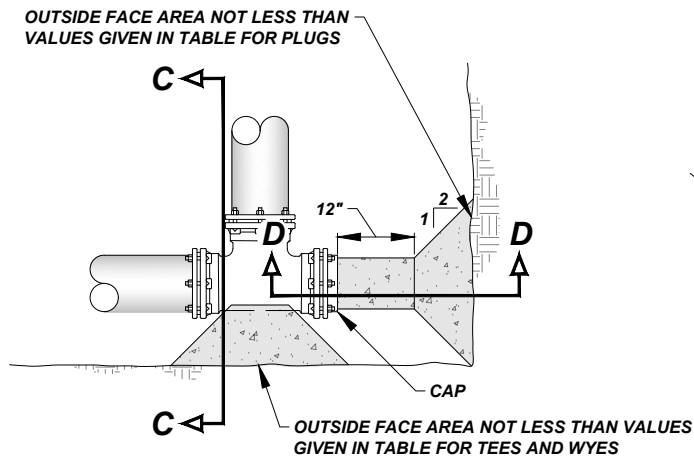
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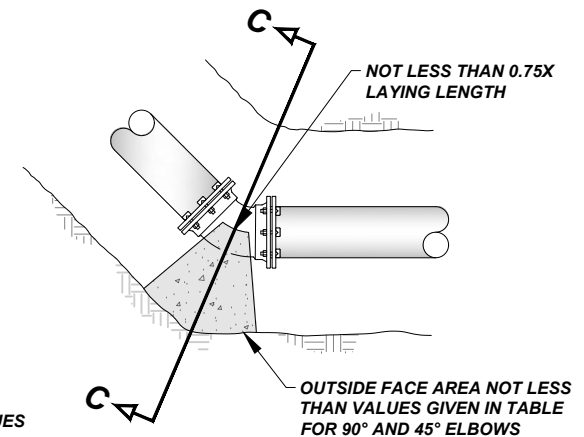
Drawing Number:
WA-102



DOWNWARD BEND



SECTION D - D



SECTION C - C

BLOCKING FOR PLUGS AND ELBOWS					
OUTSIDE FACE AREA (SQ. FT.)					
PIPE SIZE (IN.)	PLUG	90° ELBOW	45° ELBOW	22 1/2° ELBOW	11 1/4° ELBOW
20	16	25	14	7*	4*
16	12	16	9	5*	3*
12	7	9	5	3*	2*
10	4	7	4	2*	1*
8	3	5	3	2*	1*
6	2	3	2	1*	1*

* NOT REQUIRED UNLESS SPECIFIED

BLOCKING FOR TEES AND WYES		
SIZE OF RUN (IN.)	SIZE OF BRANCH (IN.)	OUTSIDE FACE AREA (SQ. FT.)
20 OR 16	16	12
	12	7
	10	6
	8	5
12 OR LESS	12	7
	10	6
	8	4
	6	2

NOTES:

1. USE CLASS 'B' CONCRETE FOR ALL THRUST BLOCKS
2. THRUST BLOCKS ARE INCIDENTAL TO THE INSTALLATION OF WATER MAIN
3. FOLLOW DIPA PIPE RESTRAINT REQUIREMENTS FOR PIPE LENGTH INTO AND OUT OF A FITTING
4. MECHANICAL RESTRAINTS ARE REQUIRED WITH THRUST BLOCKS

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WATER MAIN RESTRAINT/THRUST BLOCKS

NOT TO SCALE

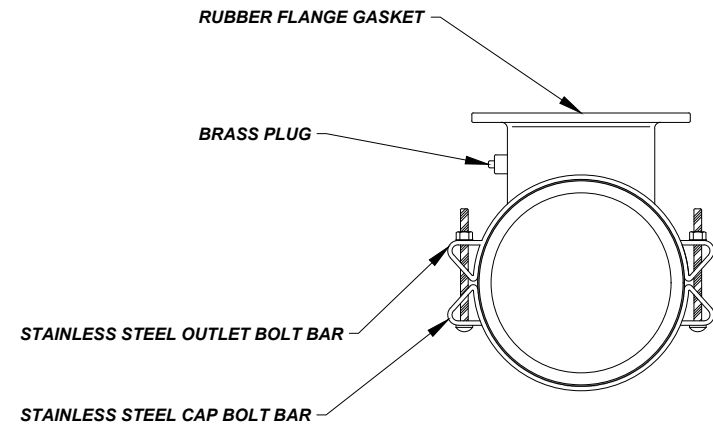
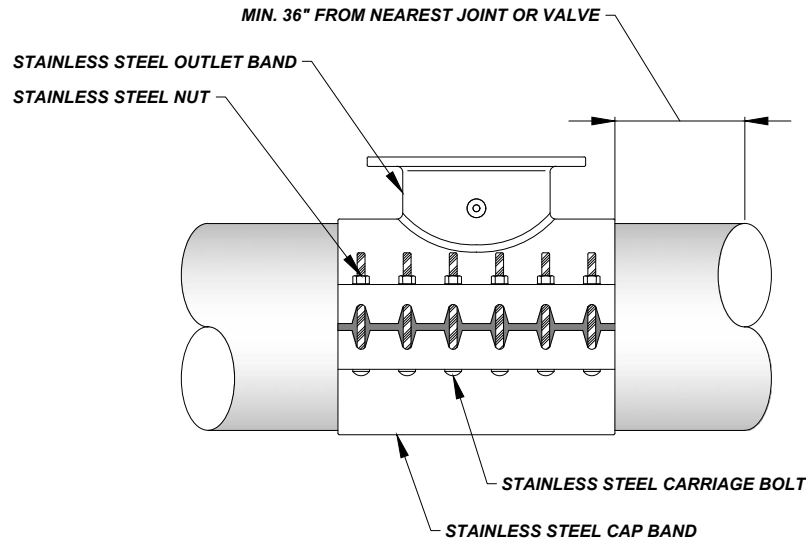
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NOTES:

1. A MINIMUM OF 36" BETWEEN TAPPING SLEEVES, WATER MAIN JOINTS, FIRE PROTECTION AND DOMESTIC SERVICES
2. IF THE CITY INSTALLS THE TAPPING SLEEVE, THE CONTRACTOR IS RESPONSIBLE TO EXPOSE THE WATER MAIN AND PREPARE THE AREA FOR THE CREW
3. IF THE CONTRACTOR INSTALLS THE TAPPING SLEEVE, SHOP DRAWINGS MUST BE PROVIDED AND APPROVED BY THE CITY ENGINEERING DEPARTMENT PRIOR TO INSTALLATION. THE INSTALLATION MUST BE INSPECTED BY A CITY REPRESENTATIVE PRIOR TO BACKFILLING

STAINLESS STEEL TAPPING SLEEVE

NOT TO SCALE

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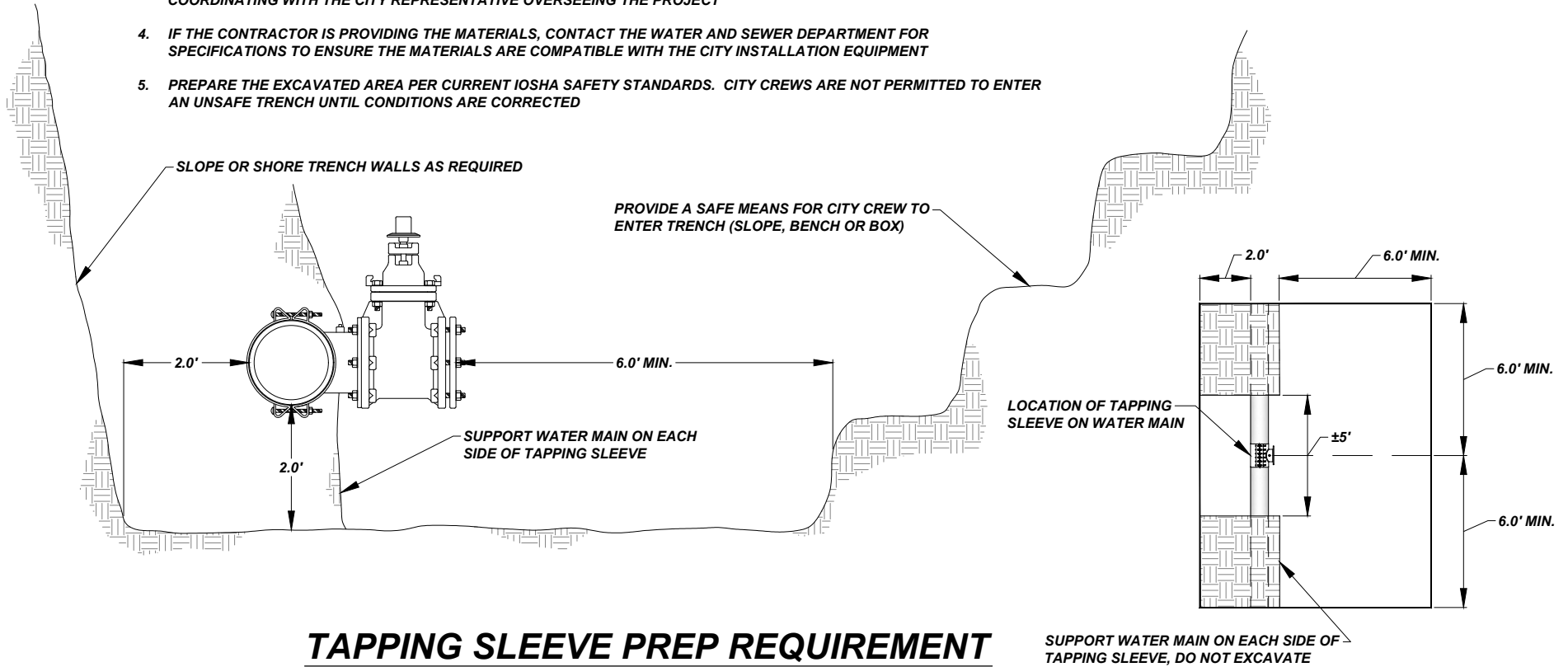
CITY OF GOSHEN, INDIANA
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Drawing Number:
WA-104

NOTES:

1. ACCESS TO THE WATER MAIN LOCATION MUST BE PROVIDED BY THE CONTRACTOR. A FIRM, REASONABLY LEVEL PATH MUST BE PROVIDED FOR THE CITY VEHICLE PULLING AN ENCLOSED TRAILER
2. AN AREA AT THE LOCATION MUST BE PROVIDED THAT ALLOWS THE ENCLOSED TRAILER TO PARK NEXT TO THE TRENCH. WATER AND POWER IS PROVIDED BY THE TRAILER DURING THE INSTALLATION
3. SCHEDULE THE INSTALLATION BY CONTACTING THE CITY WATER AND SEWER DEPARTMENT AT (574) 534-5306 OR COORDINATING WITH THE CITY REPRESENTATIVE OVERSEEING THE PROJECT
4. IF THE CONTRACTOR IS PROVIDING THE MATERIALS, CONTACT THE WATER AND SEWER DEPARTMENT FOR SPECIFICATIONS TO ENSURE THE MATERIALS ARE COMPATIBLE WITH THE CITY INSTALLATION EQUIPMENT
5. PREPARE THE EXCAVATED AREA PER CURRENT IOSHA SAFETY STANDARDS. CITY CREWS ARE NOT PERMITTED TO ENTER AN UNSAFE TRENCH UNTIL CONDITIONS ARE CORRECTED



TAPPING SLEEVE PREP REQUIREMENT

NOT TO SCALE

**REQUIRED EXCAVATION LIMITS
(TOP VIEW)**

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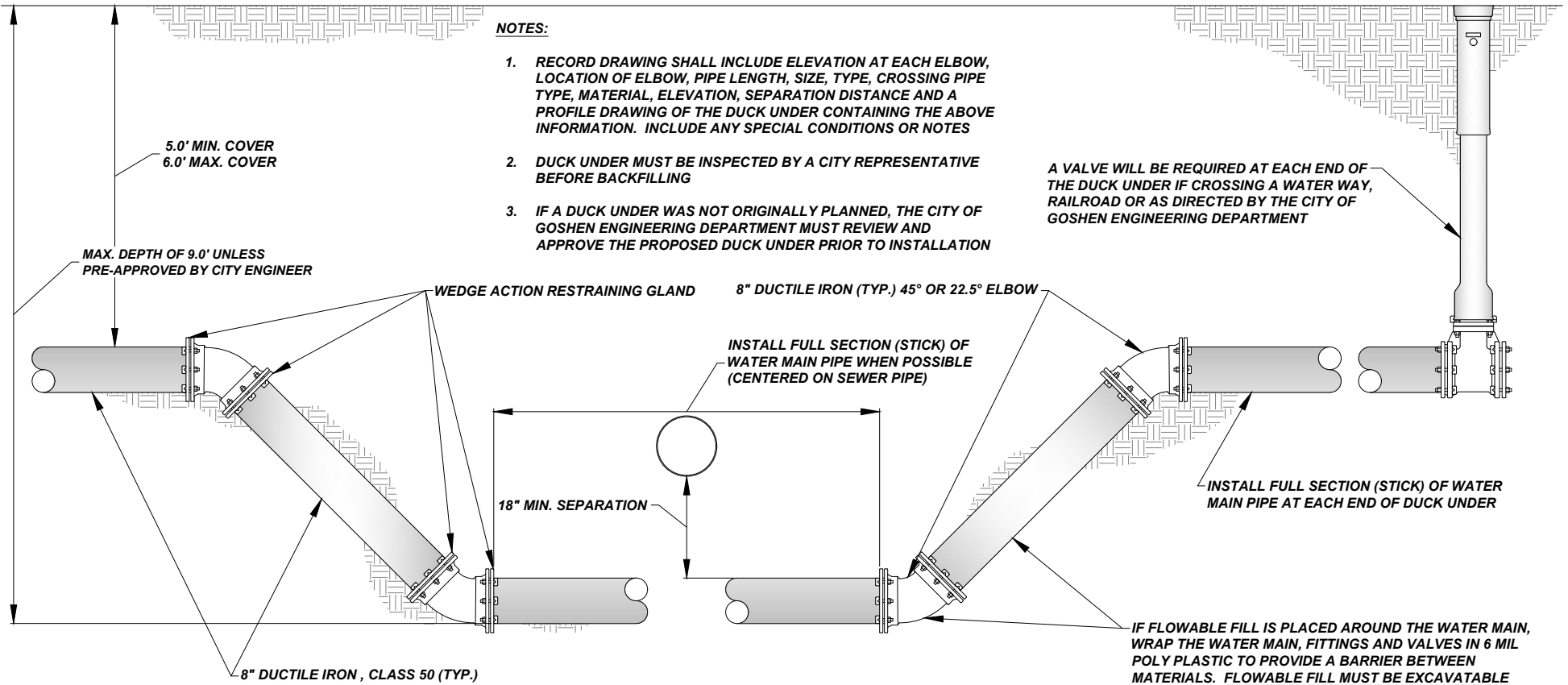
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NOTES:

1. RECORD DRAWING SHALL INCLUDE ELEVATION AT EACH ELBOW, LOCATION OF ELBOW, PIPE LENGTH, SIZE, TYPE, CROSSING PIPE TYPE, MATERIAL, ELEVATION, SEPARATION DISTANCE AND A PROFILE DRAWING OF THE DUCK UNDER CONTAINING THE ABOVE INFORMATION. INCLUDE ANY SPECIAL CONDITIONS OR NOTES
2. DUCK UNDER MUST BE INSPECTED BY A CITY REPRESENTATIVE BEFORE BACKFILLING
3. IF A DUCK UNDER WAS NOT ORIGINALLY PLANNED, THE CITY OF GOSHEN ENGINEERING DEPARTMENT MUST REVIEW AND APPROVE THE PROPOSED DUCK UNDER PRIOR TO INSTALLATION

A VALVE WILL BE REQUIRED AT EACH END OF THE DUCK UNDER IF CROSSING A WATER WAY, RAILROAD OR AS DIRECTED BY THE CITY OF GOSHEN ENGINEERING DEPARTMENT



WATER MAIN DUCK UNDER

NOT TO SCALE

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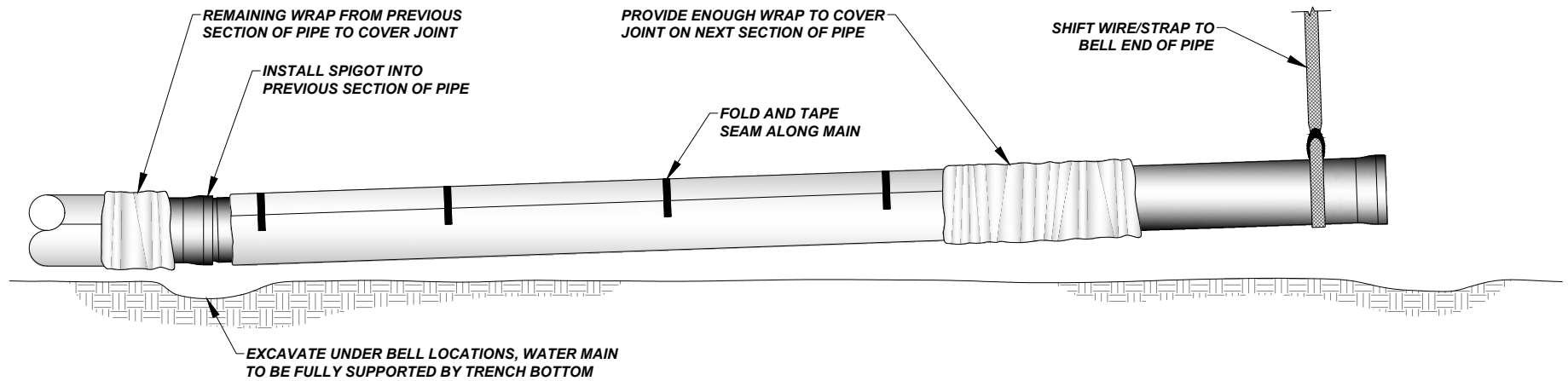
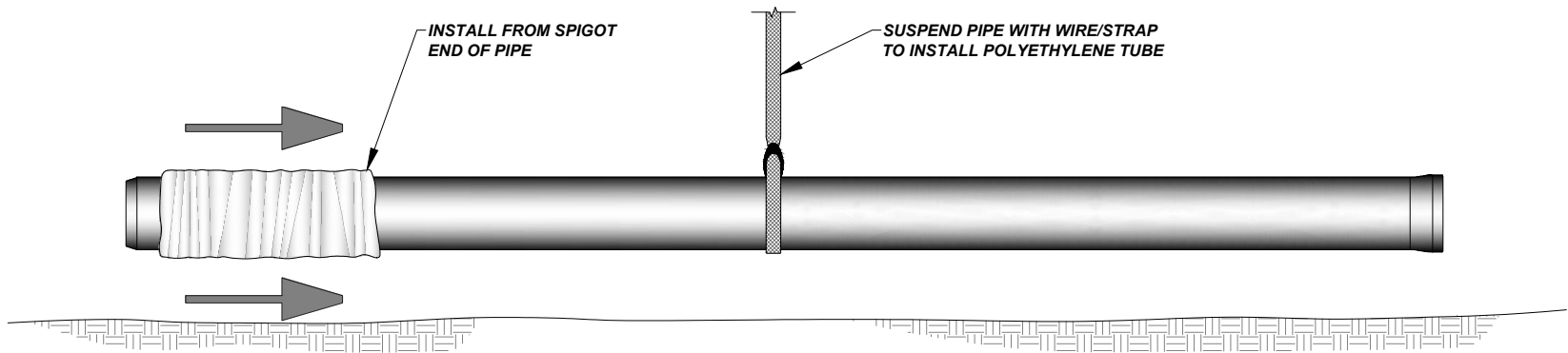
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CITY OF GOSHEN, INDIANA
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WA-105



POLYETHYLENE ENCASEMENT

NOT TO SCALE

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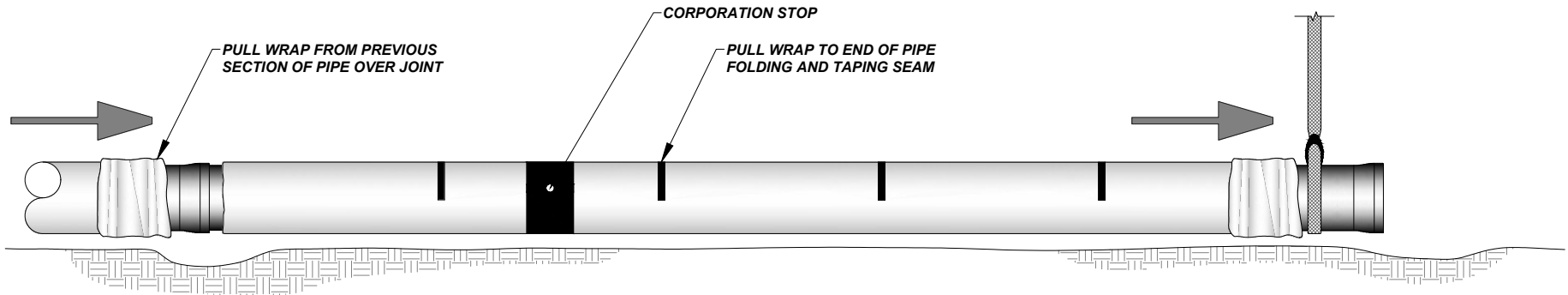
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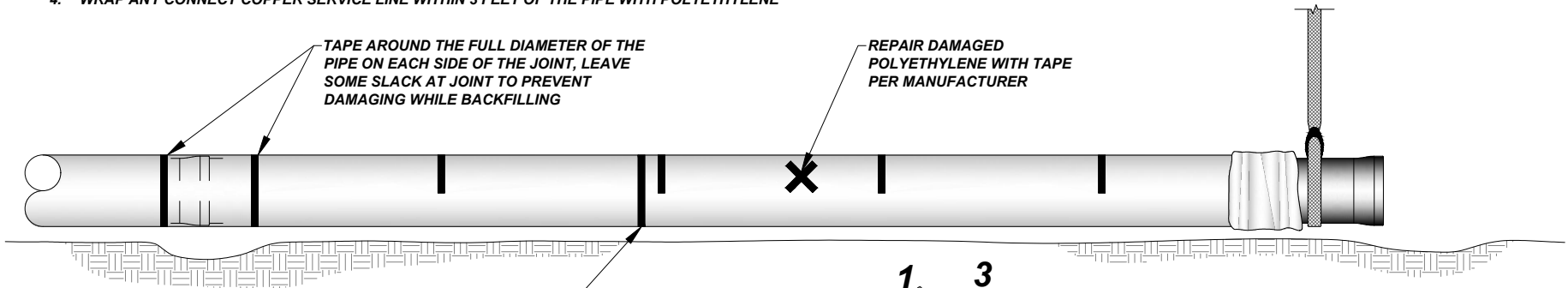
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PAGE 1 OF 3



CORPORATION STOP INSTALLATION:

1. WRAP 2 TO 3 LAYERS OF POLYETHYLENE ADHESIVE TAPE COMPLETELY AROUND THE PIPE TO COVER THE AREA THE TAPPING MACHINE AND CHAIN WILL BE MOUNTED
2. MOUNT THE TAPPING MACHINE, MAKE THE TAP AND INSTALL THE CORPORATION STOP
3. REMOVE THE TAPPING MACHINE AND CHECK FOR DAMAGE TO THE TAPE AND POLYETHYLENE, MAKE NECESSARY REPAIRS
4. WRAP ANY CONNECT COPPER SERVICE LINE WITHIN 3 FEET OF THE PIPE WITH POLYETHYLENE



NOTE:

1. GO TO DIPRA.ORG FOR INSTALLATION DETAILS INCLUDING TAPS AND SEALING AROUND APPARATUS

SEAM FOLD AND TAPE SEQUENCE

POLYETHYLENE ENCASEMENT

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DRY TRENCH INSTALLATION:

1. CUT A SECTION OF POLYETHYLENE TUBE APPROXIMATELY 24" LONGER THAN THE PIPE SECTION. CLEAN DEBRIS FROM THE SURFACE OF THE PIPE. SLIP THE POLYETHYLENE TUBE AROUND THE PIPE, STARTING AT THE SPIGOT END. BUNCH THE TUBE ACCORDION FASHION ON THE END OF THE PIPE. PILL BACK THE OVERHANGING END OF THE TUBE AND CIRCUMFERENTIALLY TAPE IT TO THE BARREL OF THE PIPE BEHIND THE INSERTION LINE. AFTER ASSEMBLY OF THE JOINT, THE TAPE SHOULD BE AS CLOSE TO THE FACE OF THE BELL AS POSSIBLE, BUT NOT SO CLOSE TO THE SPIGOT END THAT IT INTERFERES WITH THE GASKET
2. TAKE UP THE SLACK IN THE TUBE ALONG THE BARREL TO MAKE A SNUG, BUT NOT TIGHT, FIT. FOLD EXCESS POLYETHYLENE BACK OVER THE TOP OF THE PIPE AND USE PIECES OF TAPE ACROSS THE FOLD TO SECURELY HOLD IT. THIS STEP IS EXTREMELY IMPORTANT TO AVOID THE SAGGING OF THE FILM AT THE BOTTOM OF THE PIPE
3. DIG A SHALLOW BELL HOLE IN THE TRENCH BOTTOM AT THE JOINT LOCATION TO FACILITATE INSTALLATION OF THE POLYETHYLENE TUBE. LOWER THE PIPE INTO THE TRENCH AND MAKE UP THE PIPE JOINT WITH THE PRECEDING SECTION OF PIPE
4. MOVE THE CABLE/STRAP TO THE BELL END OF THE PIPE AND LIFT THE PIPE SLIGHTLY TO PROVIDE ENOUGH CLEARANCE TO EASILY SLIDE THE TUBE OVER THE REMAINING BARREL OF THE PIPE. SNUGLY FOLD OVER THE EXCESS WRAP USING TAPE TO HOLD IT IN PLACE. MAKE SURE THAT NO DIRT OR OTHER BEDDING MATERIALS BECOME TRAPPED BETWEEN THE WRAP AND PIPE
5. SECURE THE POLYETHYLENE IN PLACE BEHIND THE PRECEDING BELL BY USING A CIRCUMFERENTIAL WRAP OF TAPE. MAKE THE OVERLAP OF THE POLYETHYLENE TUBE BY PULLING BACK THE BUNCHED POLYETHYLENE FROM THE PRECEDING LENGTH OF PIPE AND ENSURE THERE IS AT LEAST A 24" OVERLAP
6. PLACE ANOTHER CIRCUMFERENTIAL WRAP OF TAPE ON THE OVERLAPPING POLYETHYLENE, SECURING IT TO THE SPIGOT SIDE OF THE JOINT
7. REPAIR ALL SMALL RIPS, TEARS, OR OTHER TUBE DAMAGE WITH ADHESIVE TAPE. IF THE POLYETHYLENE IS BADLY DAMAGED, REPAIR THE DAMAGED AREA WITH A SHEET OF POLYETHYLENE AND SEAL THE EDGES OF THE REPAIR WITH ADHESIVE TAPE
8. CAREFULLY BACKFILL THE TRENCH ACCORDING TO THE PROCEDURES IN AWWA C600 STANDARDS. TO PREVENT DAMAGE DURING BACKFILLING, ALLOW ADEQUATE SLACK IN THE TUBE AT THE JOINT. BACKFILL SHOULD BE FREE OF CINDERS, ROCKS, BOULDERS, NAILS, STICKS OR OTHER MATERIALS THAT MIGHT DAMAGE THE POLYETHYLENE. AVOID DAMAGING THE POLYETHYLENE WHEN USING TAMPING DEVICES

WET TRENCH INSTALLATION:

1. CUT A SECTION OF POLYETHYLENE TUBE APPROXIMATELY 24" LONGER THAN THE PIPE SECTION. CLEAN DEBRIS FROM THE SURFACE OF THE PIPE. SLIP THE POLYETHYLENE TUBE AROUND THE PIPE, STARTING AT THE SPIGOT END. BUNCH THE TUBE ACCORDION FASHION ON THE END OF THE PIPE. PILL BACK THE OVERHANGING END OF THE TUBE AND CIRCUMFERENTIALLY TAPE IT TO THE BARREL OF THE PIPE BEHIND THE INSERTION LINE. AFTER ASSEMBLY OF THE JOINT, THE TAPE SHOULD BE AS CLOSE TO THE FACE OF THE BELL AS POSSIBLE, BUT NOT SO CLOSE TO THE SPIGOT END THAT IT INTERFERES WITH THE GASKET
2. TAKE UP THE SLACK IN THE TUBE ALONG THE BARREL TO MAKING A SNUG FIT AND FOLD OVER THE EXCESS POLYETHYLENE. APPLY CIRCUMFERENTIAL WRAPS OF TAPE EVERY 24" INCHES UNTIL YOU RUN OUT OF ROOM. THIS IS EXTREMELY IMPORTANT TO AVOID THE SAGGING OF THE FILM AT THE BOTTOM OF THE PIPE
3. DIG A SHALLOW BELL HOLE IN THE TRENCH BOTTOM, LOWER THE PIPE AND MAKE UP THE JOINT. SLIDE THE WIRE/STRAP TO THE BELL END AND LIFT SLIGHTLY TO PROVIDE CLEARANCE TO SLIDE THE ENCASEMENT TO THE END. CONTINUE TO SNUGLY FOLD OVER AND TAPE AT 24" INTERVALS TO SECURE THE POLYETHYLENE
4. MAKE THE OVERLAP OF THE POLYETHYLENE TUBE BY PILLING BACK THE BUNCHED POLYETHYLENE FROM THE PRECEDING LENGTH OF PIPE AND ENSURE THERE IS AT LEAST A 12" OVERLAP. SECURE THE POLYETHYLENE WITH A CIRCUMFERENTIAL WRAP OF TAPE AT THE OVERLAP AND BEHIND THE PRECEDING BELL
5. REPAIR ALL SMALL RIPS, TEARS, OR OTHER TUBE DAMAGE WITH ADHESIVE TAPE. IF THE POLYETHYLENE IS BADLY DAMAGED, REPAIR THE DAMAGED AREA WITH A SHEET OF POLYETHYLENE AND SEAL THE EDGES OF THE REPAIR WITH ADHESIVE TAPE
6. CAREFULLY BACKFILL THE TRENCH ACCORDING TO THE PROCEDURES IN AWWA C600 STANDARDS. TO PREVENT DAMAGE DURING BACKFILLING, ALLOW ADEQUATE SLACK IN THE TUBE AT THE JOINT. BACKFILL SHOULD BE FREE OF CINDERS, ROCKS, BOULDERS, NAILS, STICKS OR OTHER MATERIALS THAT MIGHT DAMAGE THE POLYETHYLENE. AVOID DAMAGING THE POLYETHYLENE WHEN USING TAMPING DEVICES

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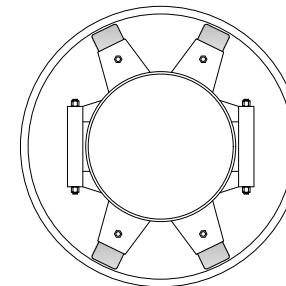
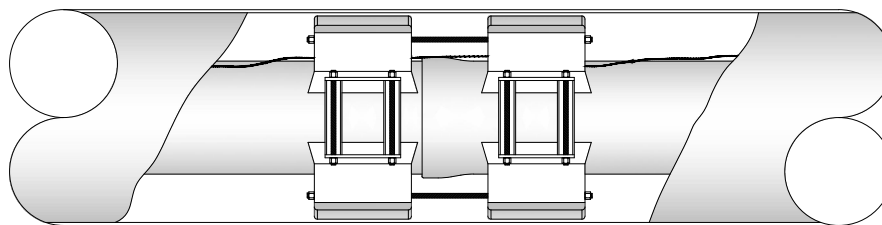
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WA-106

PAGE 3 OF 3



WATER MAIN CASING WITH RESTRAINED CASING SPACERS

NOT TO SCALE

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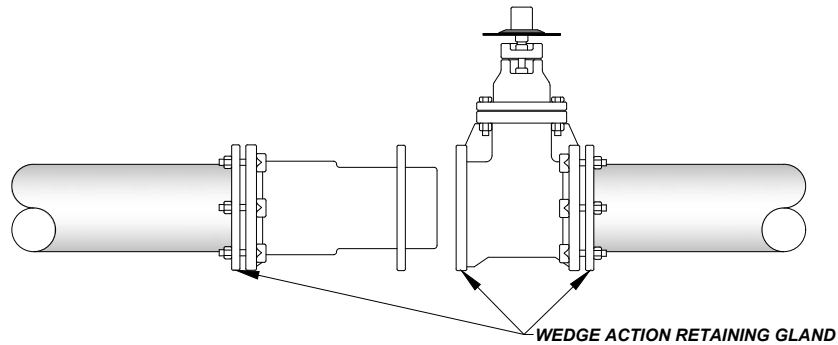
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**CITY OF GOSHEN, INDIANA
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PAGE 2 OF 2

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CUT-IN-VALVE WITH MECHANICAL
JOINT CUTTING-IN-SLEEVE

NOT TO SCALE

The City Of Goshen

*Department of Public Works & Safety
Office of Engineering*

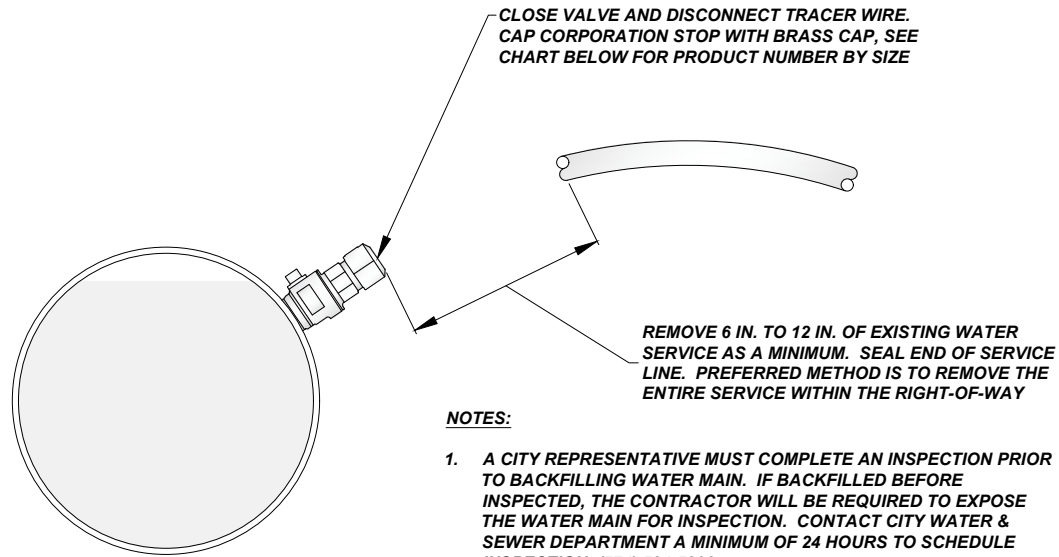
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Drawing Number:	
WA-108	



2. INCLUDE LOCATION OF RETIRED SERVICE ON RECORD DRAWING

CORPORATION STOP CAP WITH COPPER SHUT OFF DISC			
SERVICE SIZE	FORD PART NO.	AY MCDONALD PART NO.	MUELLER CO. PART NO.
5/8"	FB1000-4-TW-Q-NL	74742LFCAP 5/8 XS LF-NL	-
3/4"	CAP-24-3-NL	74742LFCAP 3/4 XS LF-NL	H-15545N (CTS 110 THREAD) H-15540N (COPPER FLARE THREAD)
1"	CAP-4-4-NL	74742LFCAP 1 XS LF-NL	H-15545N (CTS 110 THREAD) H-15540N (COPPER FLARE THREAD)
1 1/2"	-	-	H-15545N (CTS 110 THREAD) H-15540N (COPPER FLARE THREAD)
2"	-	-	H-15545N (CTS 110 THREAD) H-15540N (COPPER FLARE THREAD)

WATER SERVICE RETIREMENT

NOT TO SCALE

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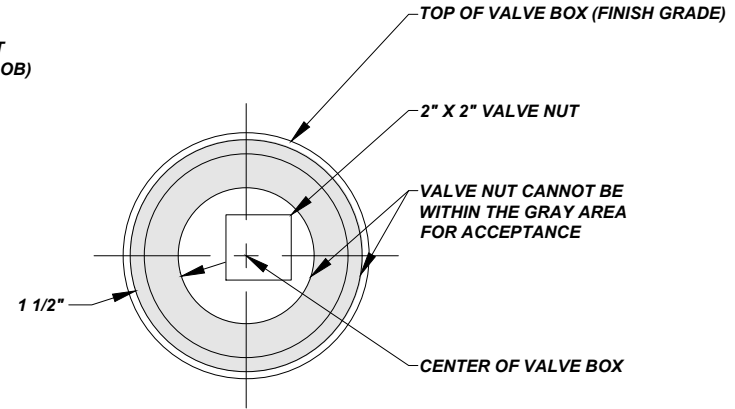
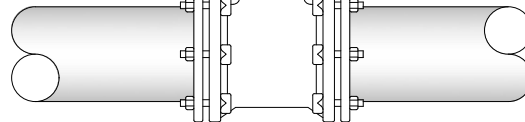
CHECK FOR COMPLIANCE BY MEASURING
FROM THE VALVE NUT SIDE OR CORNER
CLOSES TO THE VALVE BOX BODY

PLUMB LINE FROM VALVE NUT
(ESTABLISHED WITH PLUMB BOB)

NOTES:

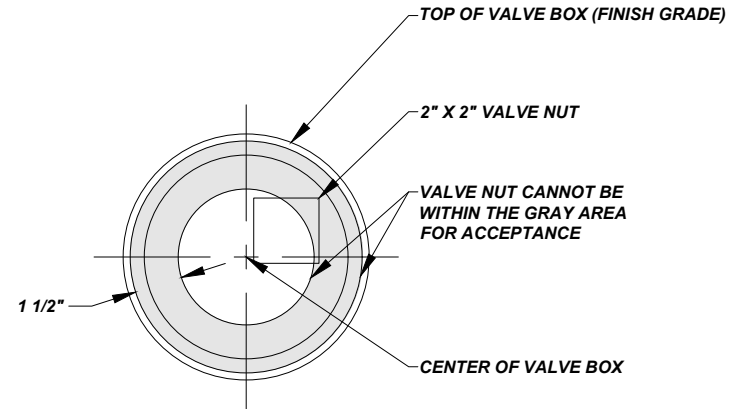
1. CITY REPRESENTATIVE WILL INSPECT WATER VALVE BOXES FOR ACCEPTANCE PRIOR TO PATCHING OR PAVING
2. CONTRACTOR MAY USE OTHER METHODS TO CHECK FOR PLUMB DURING INSTALLATION. THE METHOD SHOWN IS FOR AN EXAMPLE
3. CLEAN ASPHALT FROM LID AND CASTING. INSURE THE LIFTING NOTCHES ARE CLEAN AND THE LID SITS FLUSH WITH THE CASTING
4. REMOVE ALL DEBRIS THAT HAS FALLEN INTO THE VALVE BOX BEFORE FINAL INSPECTION

VALVE NUT
CENTERING DISK



ACCEPTABLE VALVE BOX ALIGNMENT

PLAN VIEW



UNACCEPTABLE VALVE BOX ALIGNMENT

PLAN VIEW

WATER VALVE BOX ACCEPTANCE STANDARD

NOT TO SCALE

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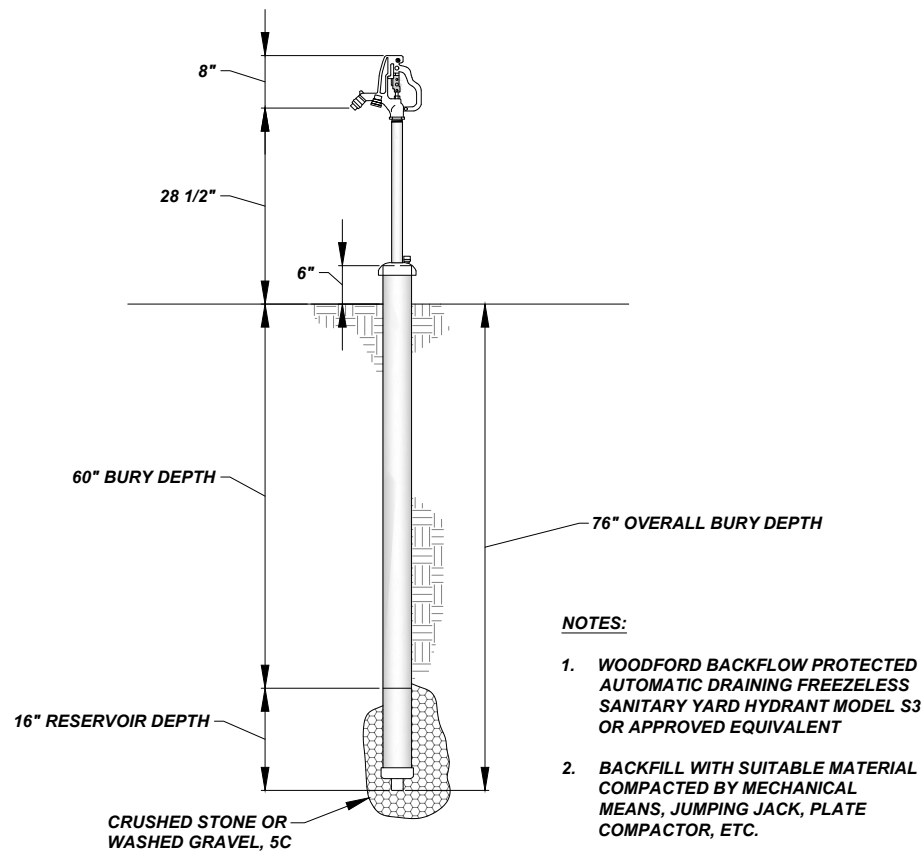
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FROST FREE YARD HYDRANT ASSEMBLY

NOT TO SCALE

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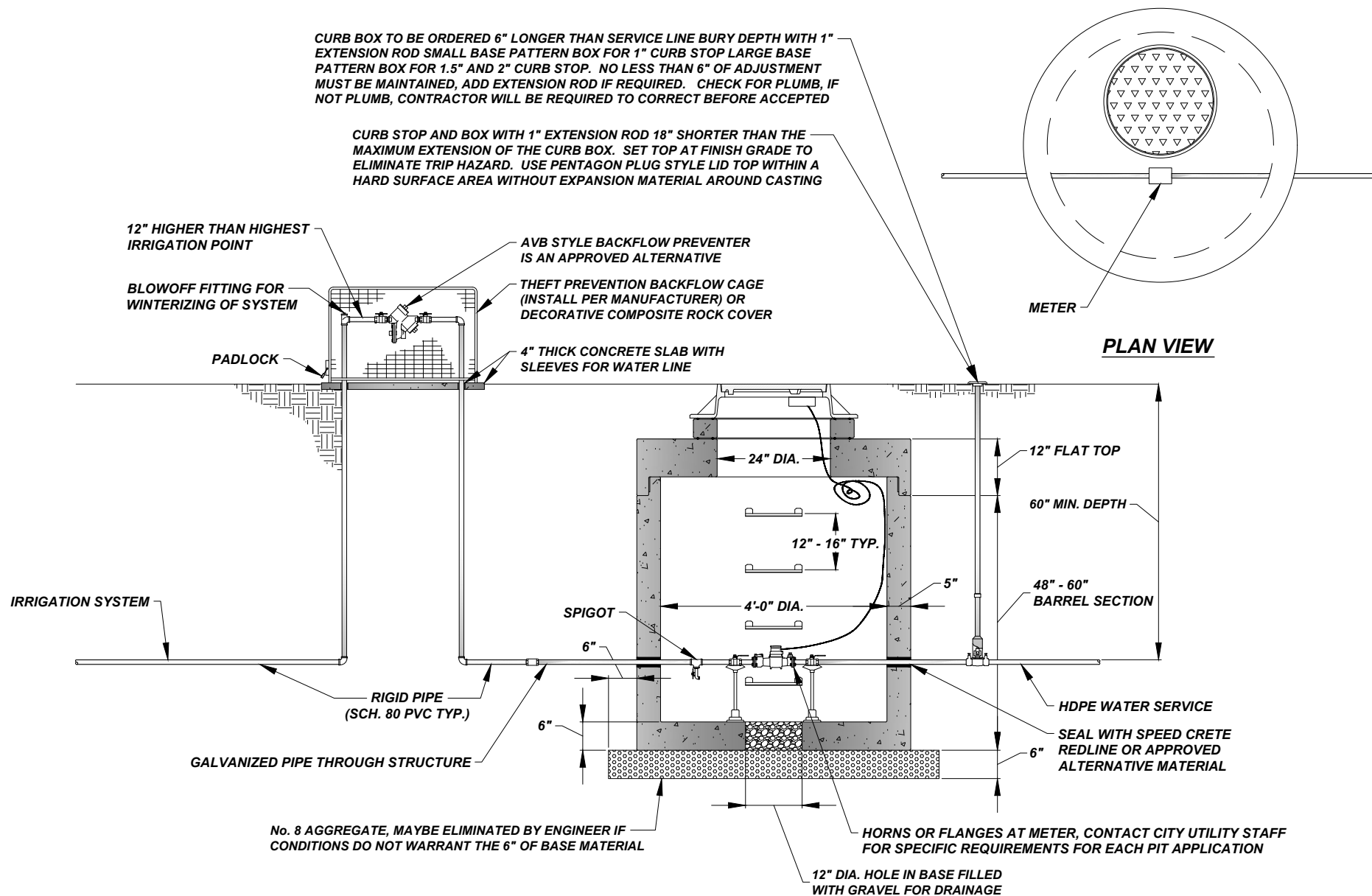
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Date Approved By The City Of Goshen Board Of Public Works & Safety and Approved Revisions

03/27/2025

CITY OF GOSHEN, INDIANA
STANDARD DETAIL

Drafted By: J. Hoffman
 Approved By: D. Sailor, P.E.
 Drawing Number: **WA-111**



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IRRIGATION METER PIT AND BACKFLOW PREVENTER W/ CASTING

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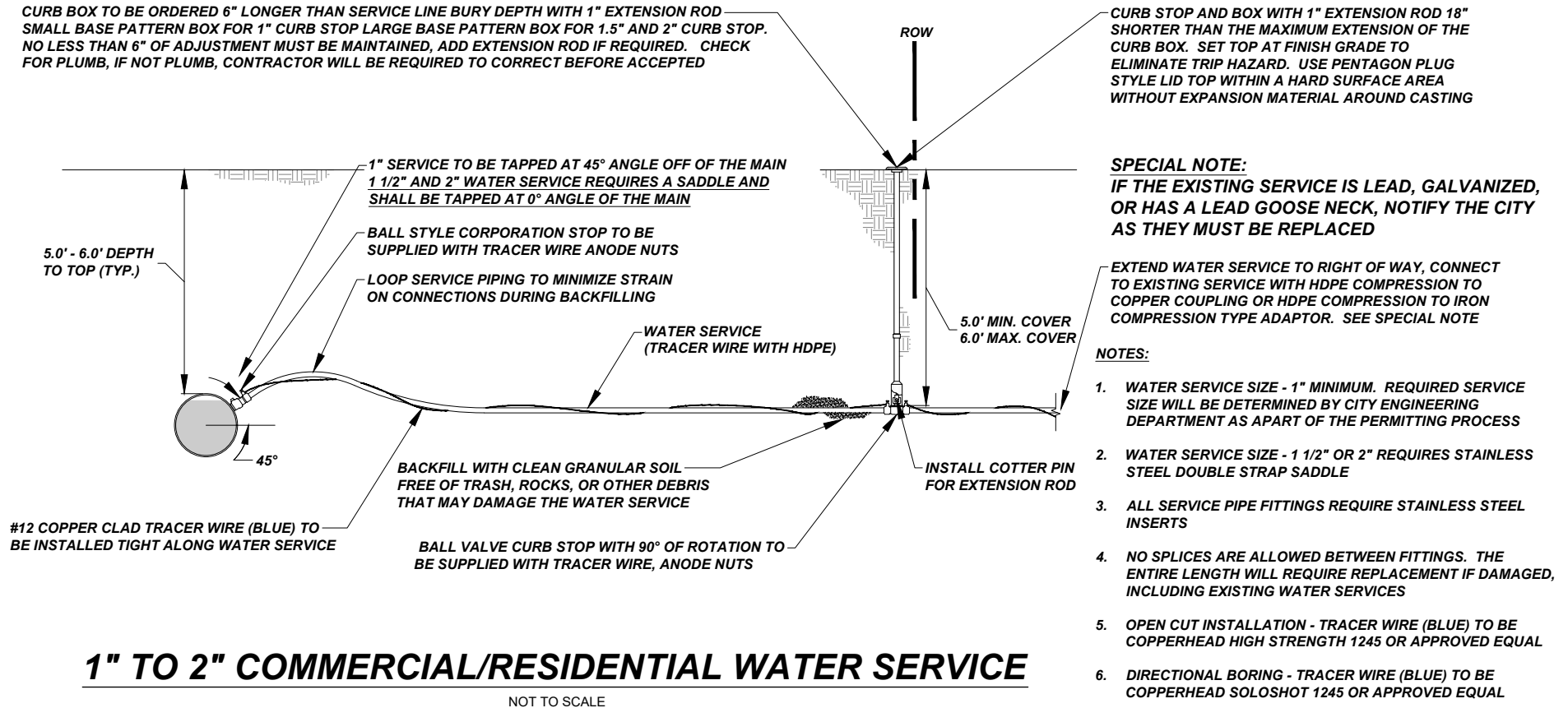
CITY OF GOSHEN, INDIANA
STANDARD DETAIL

Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.
Drawing Number: **WA-112**

NOTE: CONNECT TRACER WIRE TO CORPORATION STOP AND CURB STOP, ANODE NUTS ON BOTH

CORPORATION STOP			CURB STOP		CONNECTION TO EXISTING SERVICE	
SERVICE SIZE	FORD PART NO.	AY MCDONALD PART NO.	FORD PART NO.	AY MCDONALD PART NO.	FORD PART NO.	AY MCDONALD PART NO.
1"	FB1000-4-TW-Q-NL	74701BQA	B44-444-TW-Q-NL	76100QA	B41-444-TW-Q-NL	76102QA
1.5"	FB1000-6-TW-Q-NL	74701BQA	B44-666-TW-Q-NL	76100QA	B41-666-TW-Q-NL	76102QA
2"	FB1000-7-TW-Q-NL	74701BQA	B44-777-TW-Q-NL	76100QA	B41-777-TW-Q-NL	76102QA
CURB STOP LID STYLE: GREEN SPACE - ERIE STYLE HARD SURFACE - PENTAGON PLUG STYLE						

CURB BOX TO BE ORDERED 6" LONGER THAN SERVICE LINE BURY DEPTH WITH 1" EXTENSION ROD
SMALL BASE PATTERN BOX FOR 1" CURB STOP LARGE BASE PATTERN BOX FOR 1.5" AND 2" CURB STOP.
NO LESS THAN 6" OF ADJUSTMENT MUST BE MAINTAINED, ADD EXTENSION ROD IF REQUIRED. CHECK
FOR PLUMB, IF NOT PLUMB, CONTRACTOR WILL BE REQUIRED TO CORRECT BEFORE ACCEPTED



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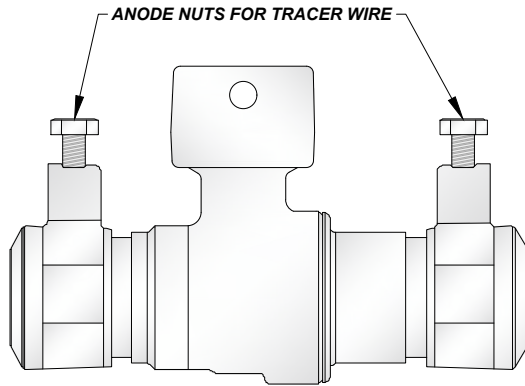
**CITY OF GOSHEN, INDIANA
STANDARD DETAIL**

Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.

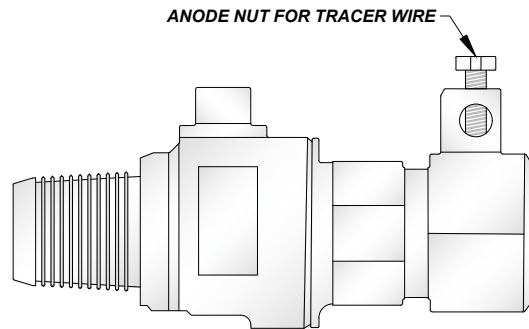
Drawing Number:
WA-201

NOTE: CONNECT TRACER WIRE TO CORPORATION STOP AND CURB STOP, ANODE NUTS ON BOTH

SERVICE SIZE	CORPORATION STOP		CURB STOP		CONNECTION TO EXISTING SERVICE	
	FORD PART NO.	AY MCDONALD PART NO.	FORD PART NO.	AY MCDONALD PART NO.	FORD PART NO.	AY MCDONALD PART NO.
1"	FB1000-4-TW-Q-NL	74701BQA	B44-444-TW-Q-NL	76100QA	B41-444-TW-Q-NL	76102QA
1.5"	FB1000-6-TW-Q-NL	74701BQA	B44-666-TW-Q-NL	76100QA	B41-666-TW-Q-NL	76102QA
2"	FB1000-7-TW-Q-NL	74701BQA	B44-777-TW-Q-NL	76100QA	B41-777-TW-Q-NL	76102QA
CURB STOP LID STYLE: GREEN SPACE - ERIE STYLE HARD SURFACE - PENTAGON PLUG STYLE						



CURB STOP WITH ANODE NUT



CORPORATION STOP WITH ANODE NUT

CORPORATION STOP AND CURB STOP

NOT TO SCALE

NOTES:

1. RESIDENTIAL SERVICE CONNECTIONS TO BE 1"
2. COMMERCIAL SERVICE CONNECTIONS TO BE 1 1/2" OR 2" WITH SADDLE (ENGINEER TO DETERMINE)
3. ALL HDPE SERVICE PIPE CONNECTION POINTS REQUIRE STAINLESS STEEL INSERTS
4. TRACER WIRE TO BE COPPERHEAD, 12 AWG, 452 POUNDS BREAK LOAD, OPEN CUT
5. TRACER WIRE TO BE COPPERHEAD, 12 AWG 1,150 POUNDS BREAK LOAD, DIRECTIONAL BORE. 2 WIRES REQUIRED
6. WIRE SPLICES TO BE MADE WITH SNAKEBITE OR 3M DBR CONNECTORS

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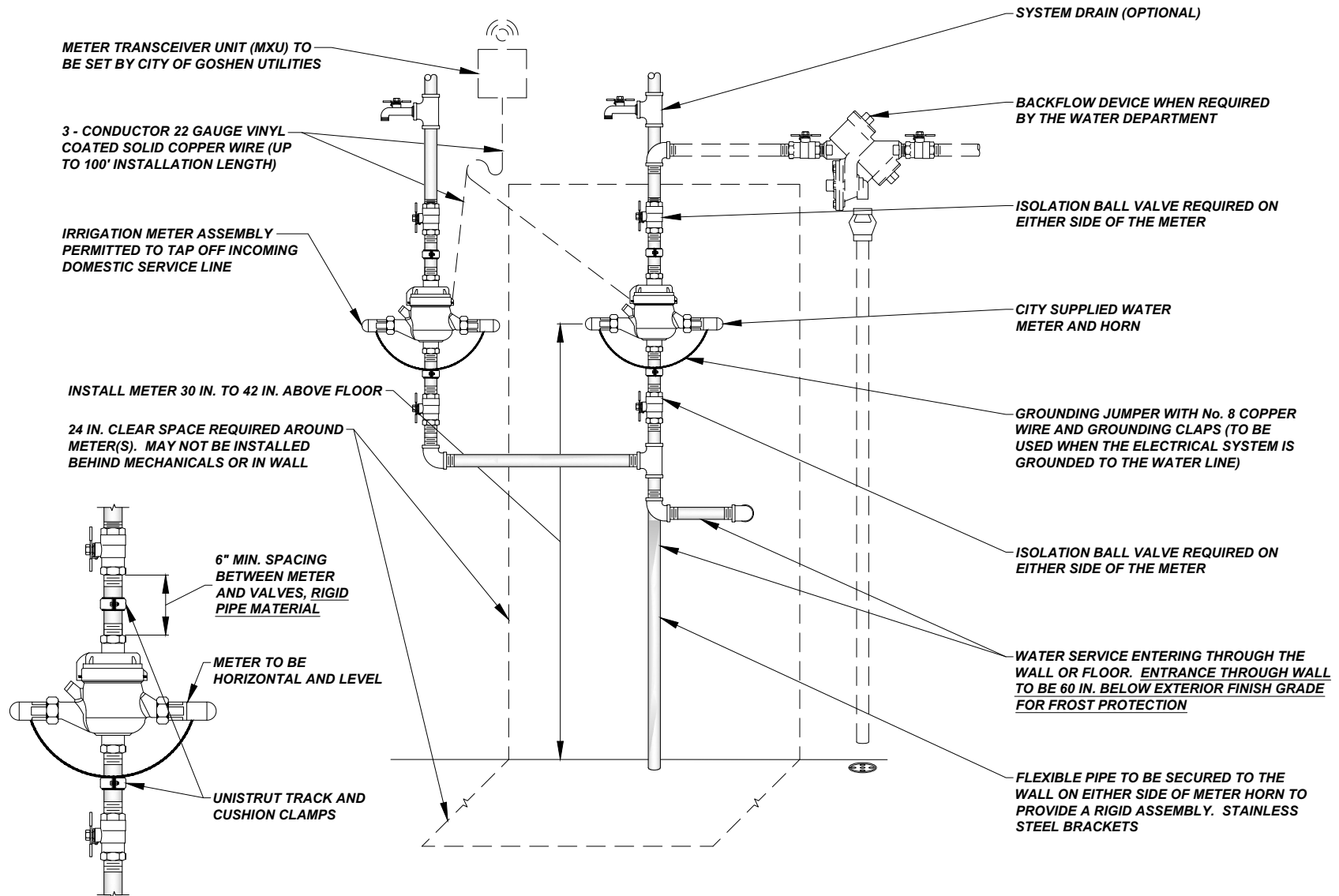
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Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.
Drawing Number: **WA-202**



5/8", 3/4" & 1" WATER DOMESTIC METER

The City Of Goshen
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Office of Engineering

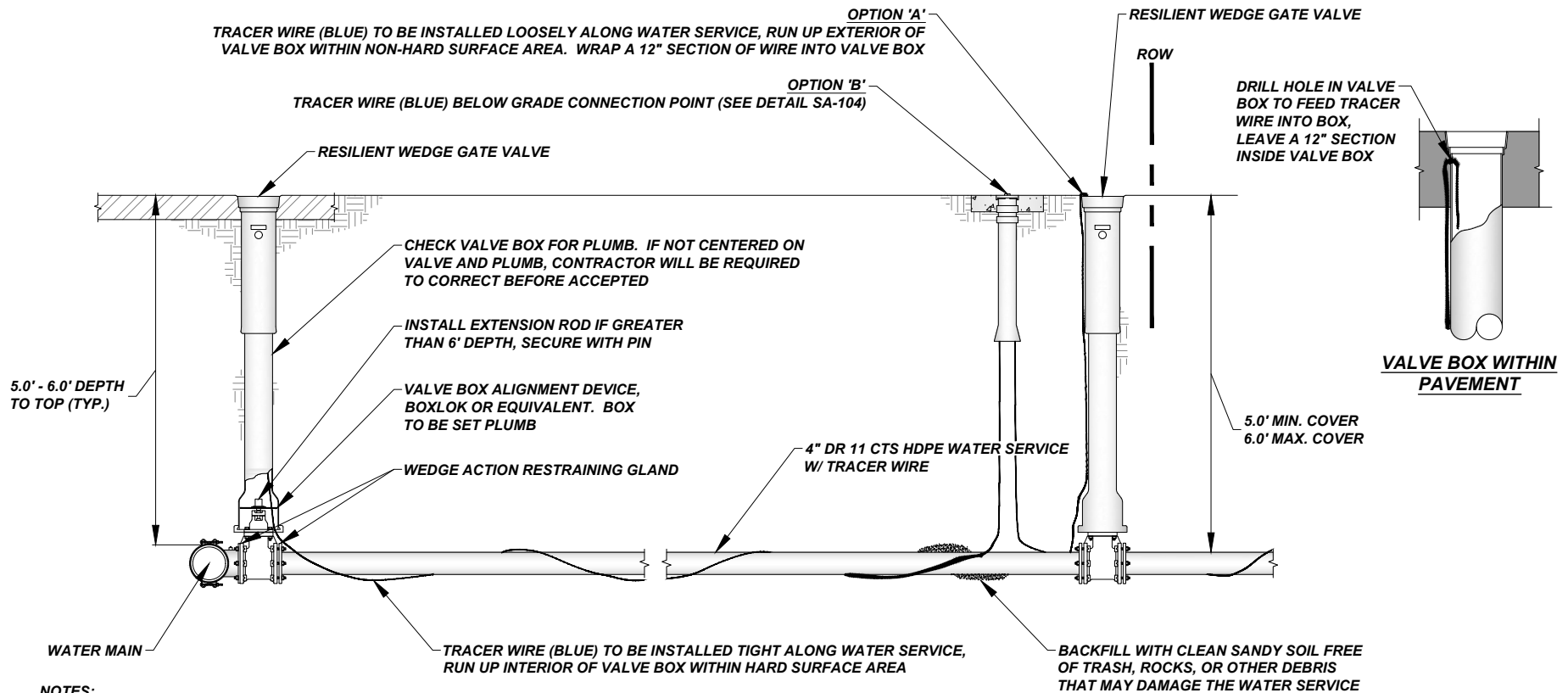
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CITY OF GOSHEN, INDIANA
STANDARD DETAIL

Drafted By: J. Hoffman	Approved By: D. Sailor, P.E.
Drawing Number: WA-203	



NOTES:

1. OPEN CUT INSTALLATION - TRACER WIRE (BLUE) TO BE COPPERHEAD HIGH STRENGTH 1245 OR APPROVED EQUAL
2. DIRECTIONAL BORING - TRACER WIRE (BLUE) TO BE COPPERHEAD SOLOSHOT 1245 OR APPROVED EQUAL
3. WIRE SPLICES TO BE MADE WITH SNAKEBITE OR 3M DBR CONNECTORS
4. FUSED MECHANICAL FITTINGS REQUIRED
5. LIVE TAP FOR WATER MAINS, LESS THAN OR EQUAL TO 12" DIA., TO BE INSTALLED BY CITY. MATERIAL SUPPLIED BY CONTRACTOR. CONTRACTOR TO EXPOSE WATER MAIN AND PREPARE THE AREA FOR CITY TAP EQUIPMENT (SEE DETAIL WA-101)

4" COMMERCIAL HDPE WATER SERVICE

NOT TO SCALE

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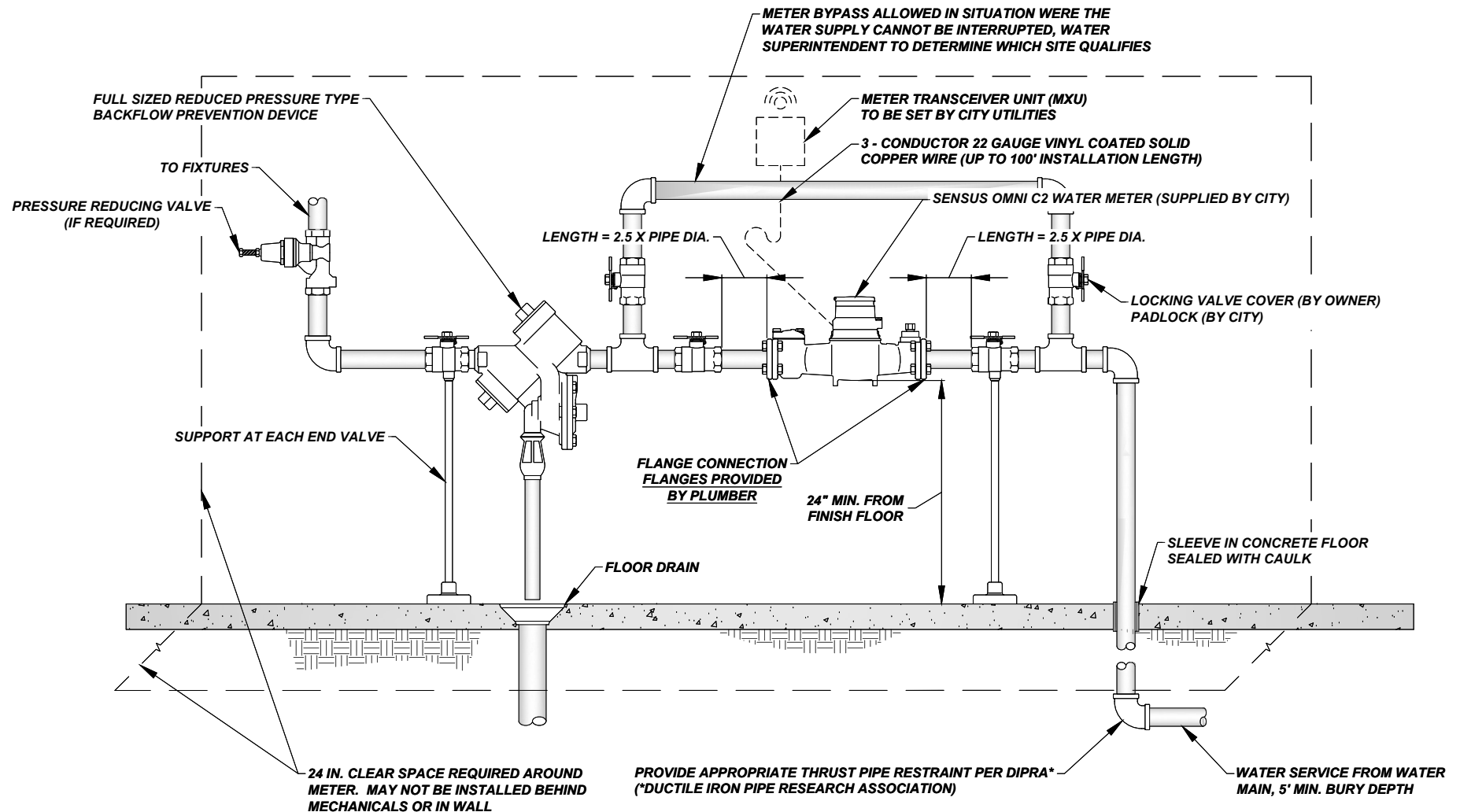
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CITY OF GOSHEN, INDIANA
STANDARD DETAIL

Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.

Drawing Number:
WA-204



COMMERCIAL 1 1/2" OR LARGER DIA. WATER METER WITH BACKFLOW PREVENTER

NOT TO SCALE

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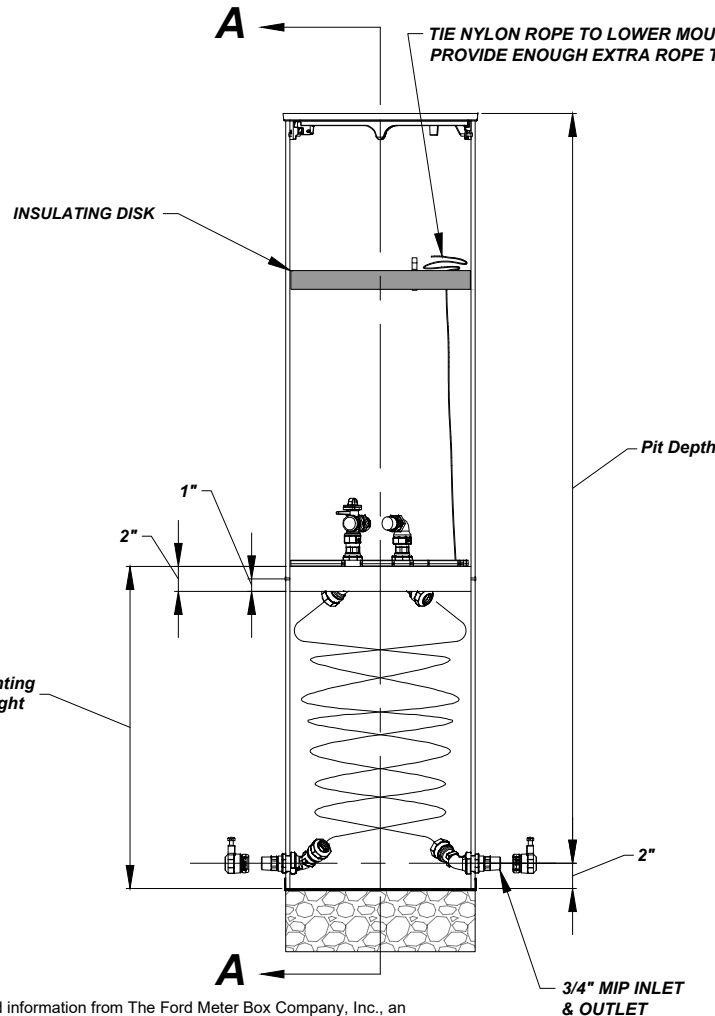
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**CITY OF GOSHEN, INDIANA
STANDARD DETAIL**

Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.

Drawing Number:
WA-205

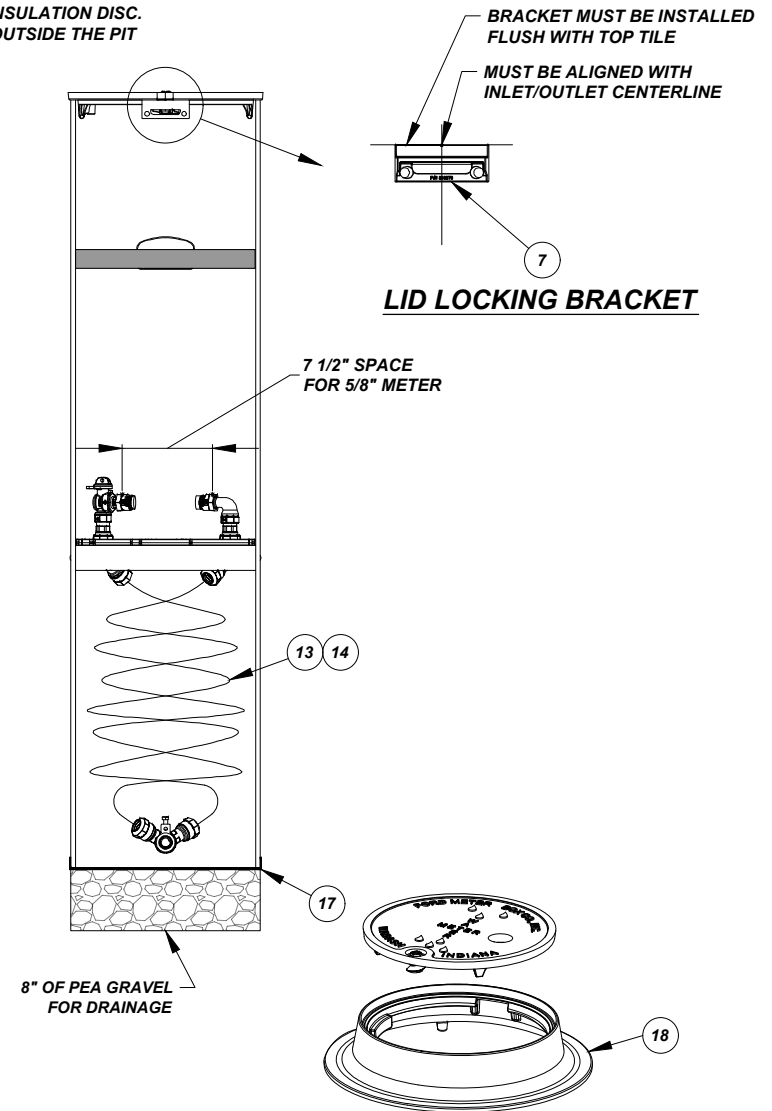


Detail and information from The Ford Meter Box Company, Inc., an equivalent product may be provided to the City of Goshen for approval

STRUCTURE DETAIL			
PIT DIAMETER AND DEPTH	LOWER MOUNTING BRACKET HEIGHT	MANUFACTURER	CATALOG NUMBER
15" X 60"	26"	THE FORD METER BOX, INC.	PFCBL-144-15-60-NA-TW-QNL

* The angle ball valve is a one way directional valve designed for the inlet side of the meter and should not be used as a customer shut-off on the customer side of the meter

PIT DEPTH	LOWER MOUNTING BRACKET HEIGHT
36"	14"
42"	20"
48"	26"
54"	26"
60"	26"
66"	26"
72"	26"
78"	26"
84"	26"
90"	26"
96"	26"



CASTING FOR HARD SURFACE AREAS

DOMESTIC WATER METER PIT

NOT TO SCALE

PAGE 1 OF 2

The City Of Goshen
Department of Public Works & Safety
Office of Engineering

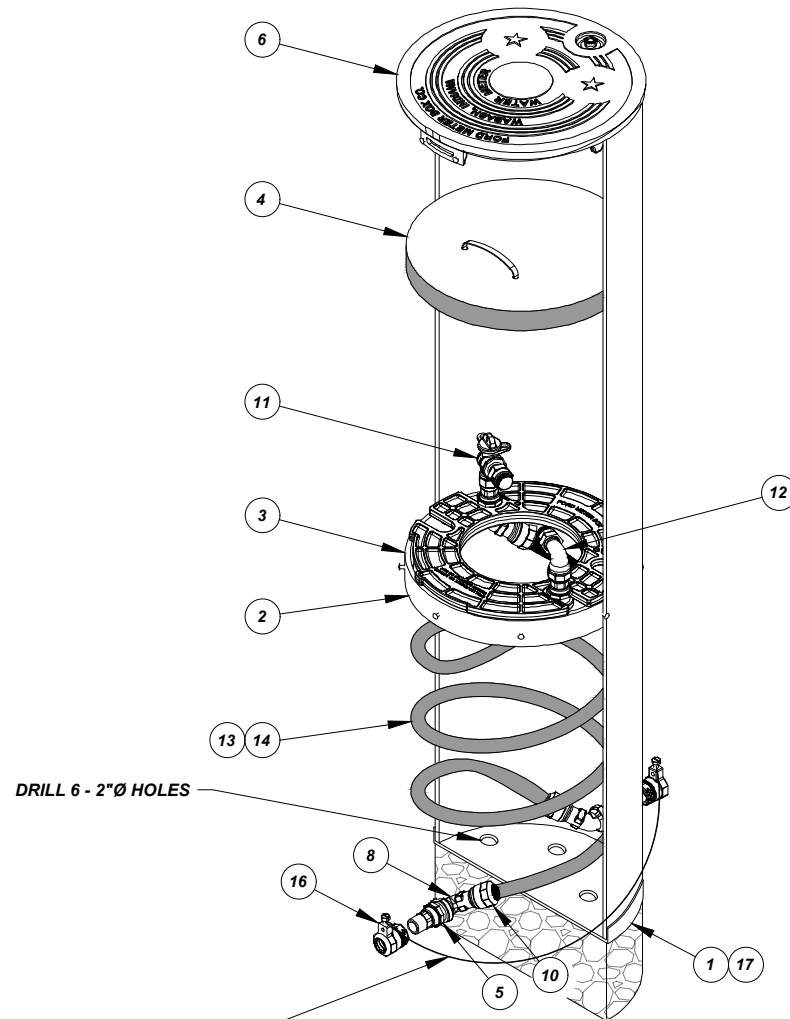
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CITY OF GOSHEN, INDIANA
STANDARD DETAIL

Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.
Drawing Number: **WA-206**



SECTION A-A

METER PIT PART LIST			
ITEM NO.	DESCRIPTION	QUANTITY	PART NUMBER
1	15" TILE (0.300 THICK WALL)	1	300372
2	LOWER PLATE STOP	1	CPS-INRSTOP-15-2
3	MOUNTING PLATE	1	PFCPLATE-300374
* 4	INSULATING DISK	1	CCID-15
5	NUT	2	YLN-2-001
* 6	LOCKING LID	1	PPSC-15-L-T
7	LID LOCKING BRACKET	2	PFCBRACKET-300373
8	60 DEGREE END PIECE	2	PSIOL84-33-60-002-NL
9	INSERT, 3/4" CTS #51 (NOT SHOWN)	4	INSERT-51
10	QUICK JOINT NUT	2	QJN4-3
11	70 DEGREE INLET ASSEMBLY	1	PC1-B-95663-003-NL
12	70 DEGREE OUTLET ASSEMBLY	1	PC1-L-95663-041-NL
13	3/4" COIL TUBE (OUTLET)	1	COILTUBE-300671
14	3/4" COIL TUBE (INLET)	1	COILTUBE-300675
15	METER GASKET	2	GT-108
16	COUPLING	2	C14-33-TW-Q-NL
17	SOLID PLASTIC BOTTOM PLATE	1	PPSBP-15-P
CASTING FOR HARD SURFACE AREAS			
* 18	15" FRAME/LID ASSEMBLY, LOCKING	1	A51H-T

* ORDERED SEPARATELY

* SHIPPED UNASSEMBLED

NOTES:

- ALL BRASS THAT COMES IN CONTACT WITH POTABLE WATER CONFORMS TO AWWA STANDARD C800 (ASTM B584, UNS C89833)
- LIGHTWEIGHT BODY IS MADE FROM 15" PVC TILE, PER ASTM D 2241
- 3/4" HDPE COIL TUBING, PER ASTM D 2737, SDR 9 CTS SIZED
- COIL COMPLIES WITH AWWA C901
- COIL IS NSF STANDARD 61 APPROVED
- COIL RATED AT 200 PSIG WORKING PRESSURE
- *FLAT CAST IRON LOCKING COVER, PER ASTM A48, CLASS 25 (PART NUMBER: PPSC-15-L-T, ORDERED SEPARATELY)

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CITY OF GOSHEN, INDIANA
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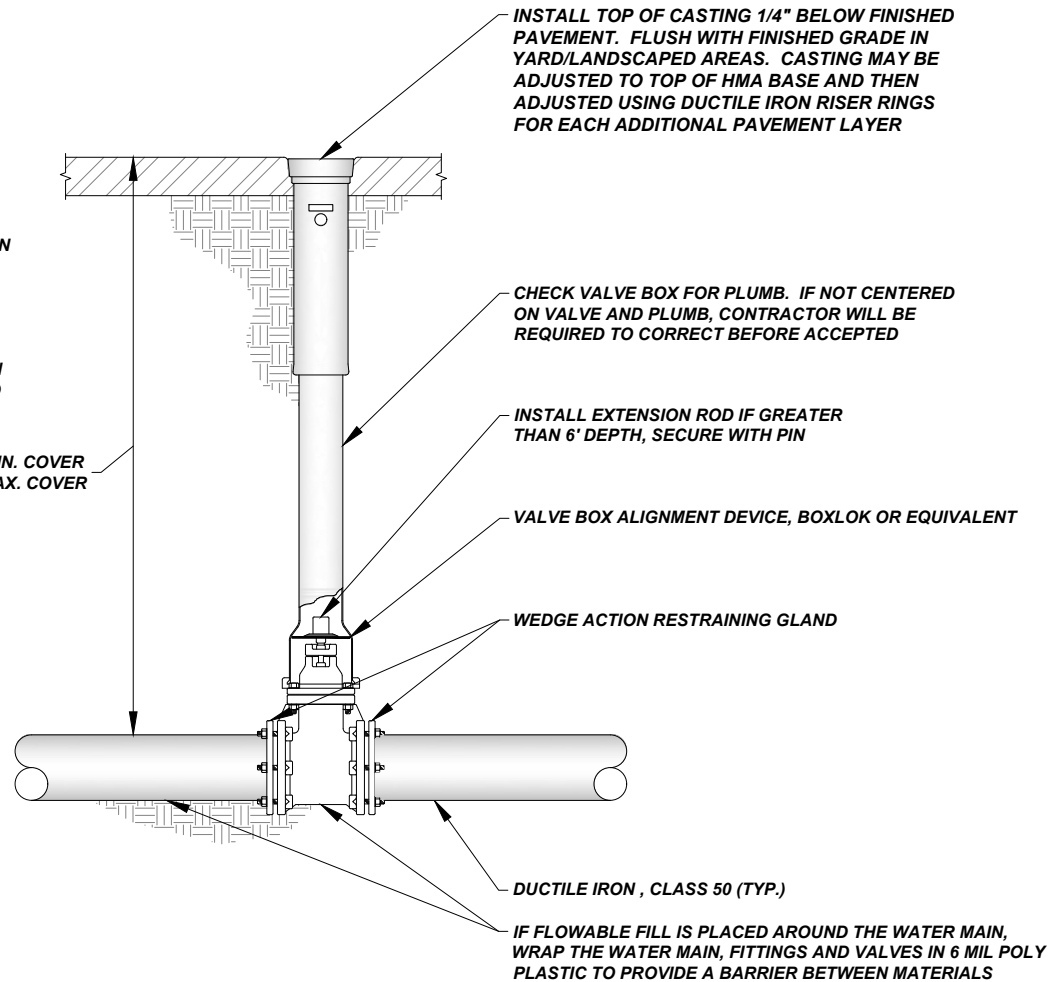
Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.

Drawing Number:
WA-206

NOTES:

1. USE RESILIENT WEDGE GATE VALVES ON WATER MAINS UNDER 12" IN DIAMETER
2. MATERIAL TO BE DUCTILE IRON
3. WATER VALVES GREATER THAN 6' IN DEPTH REQUIRE A 1" SHAFT EXTENSION WITH 2" TOP NUT, CENTERING RING AND BOTTOM SET SCREW OR PIN

5.0' MIN. COVER
6.0' MAX. COVER



RESILIENT WEDGE GATE VALVE

NOT TO SCALE

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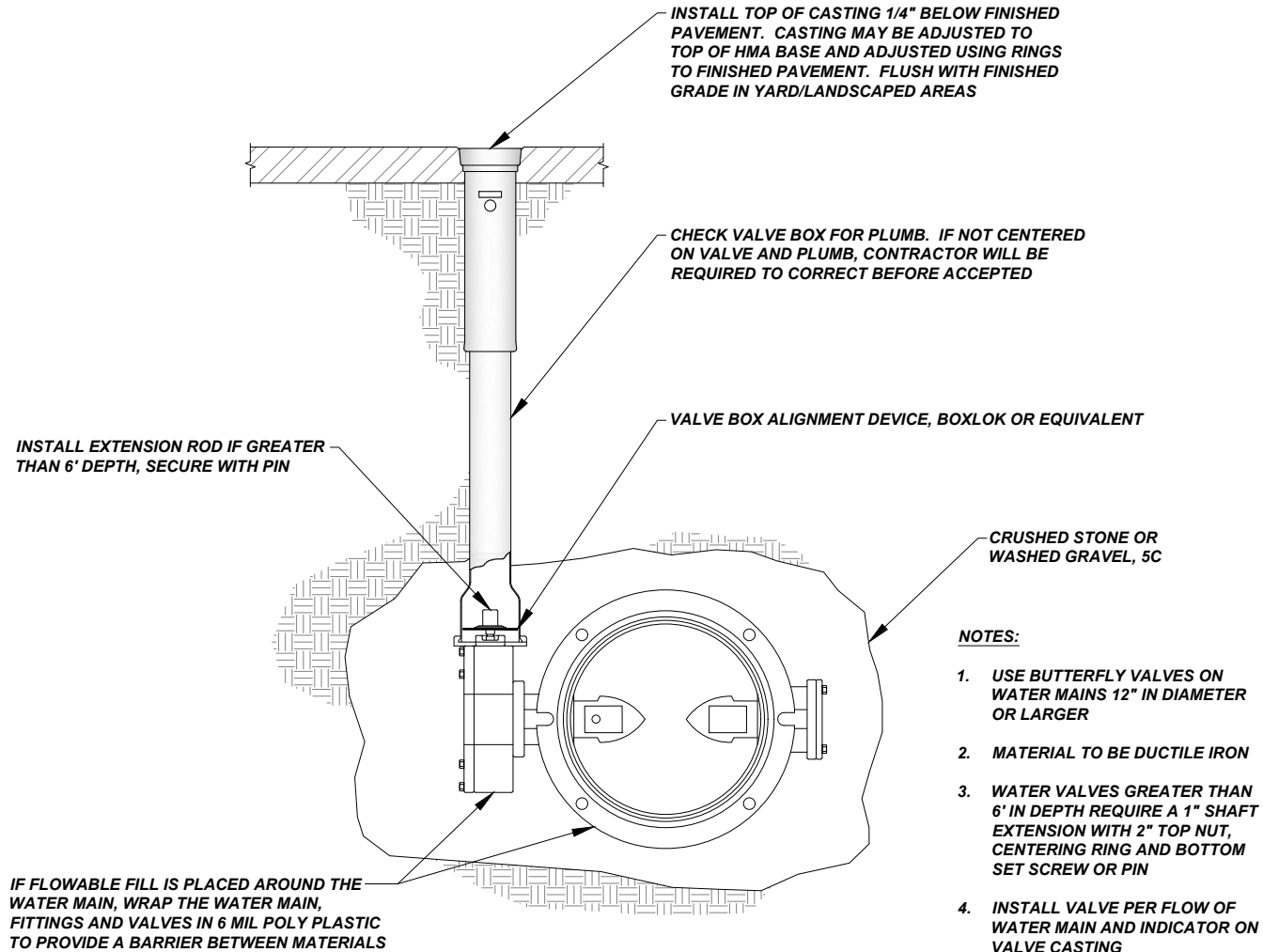
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CITY OF GOSHEN, INDIANA
STANDARD DETAIL

Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.

Drawing Number:
WA-301



BUTTERFLY VALVE

NOT TO SCALE

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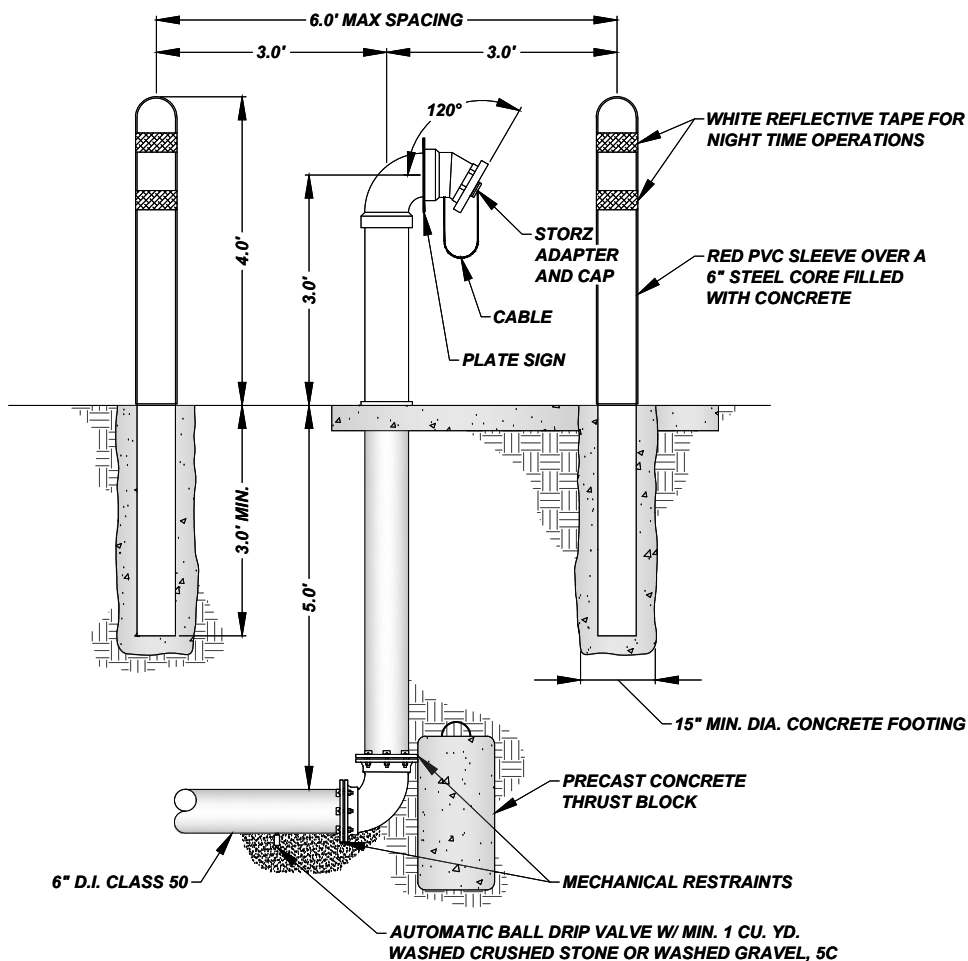
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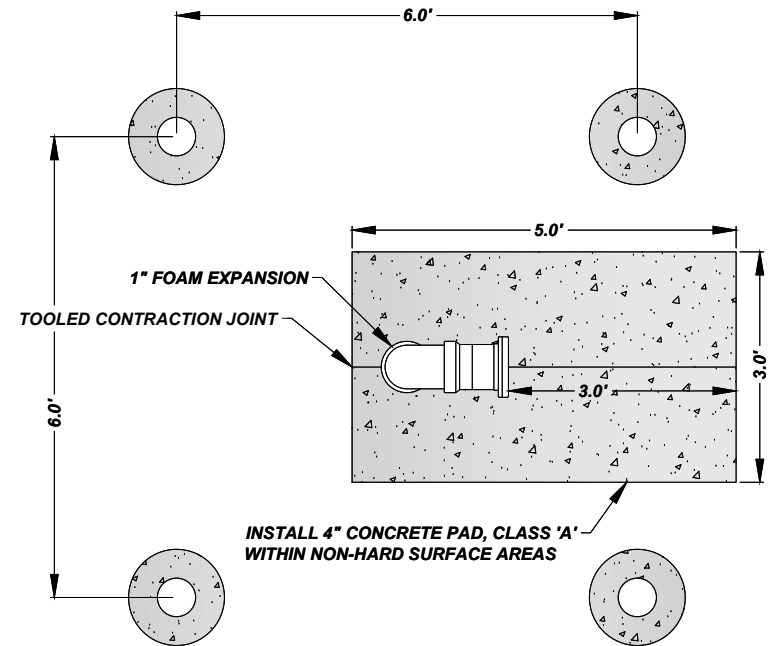
Drawing Number:
WA-302

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NOTE:

1. TYPICALLY, ONLY TWO BOLLARDS LOCATED AT THE FRONT ARE REQUIRED. FOUR BOLLARDS REQUIRED IF THE LOCATION WARRANTS (WITHIN PARKING AREAS WITH NO CURB AND/OR VEHICLES CAN MANEUVER AROUND THE FDC). CITY TO DETERMINE WHEN FOUR BOLLARDS ARE REQUIRED



PLAN VIEW

NOTES:

1. ALL EXPOSED PIPING SHALL BE GALVANIZED
2. 5" STORZ ADAPTER AND CAP
3. 10" X 10" RED PLATE SIGN WITH WHITE LETTERING 'AUTO SPKR FIRE DEPT. CONNECTION' CONFORMING WITH NFPA REQUIREMENTS SECTION 912 FOR THE CLEAR IDENTIFICATION OF STANDPIPE CONNECTIONS

REMOTE FDC ASSEMBLY

NOT TO SCALE

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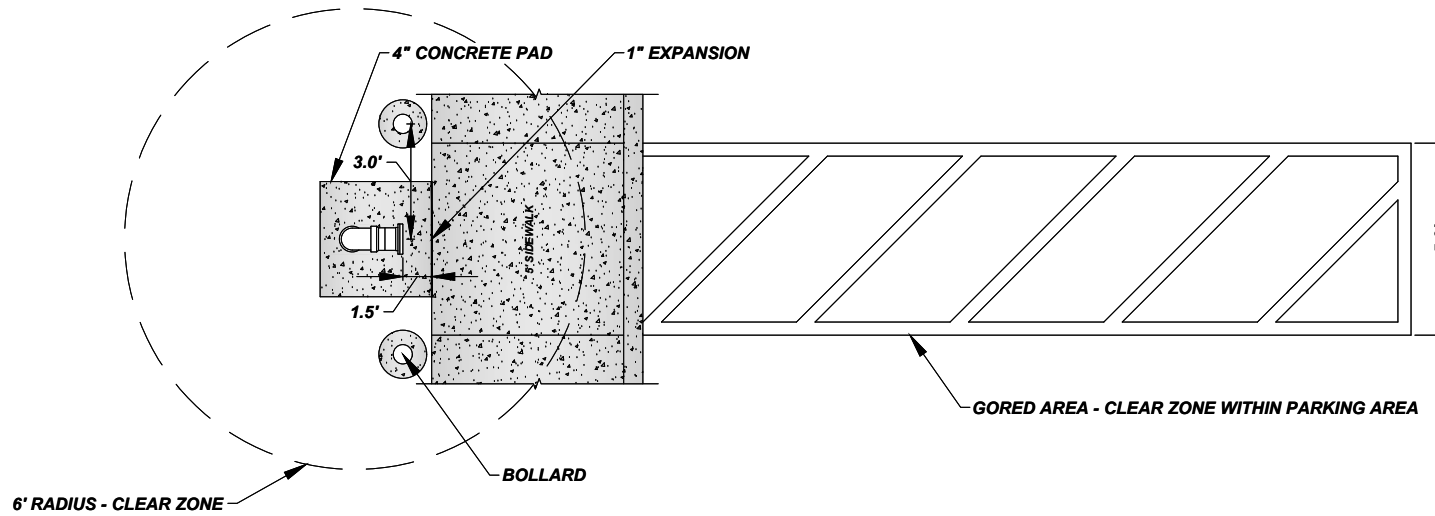
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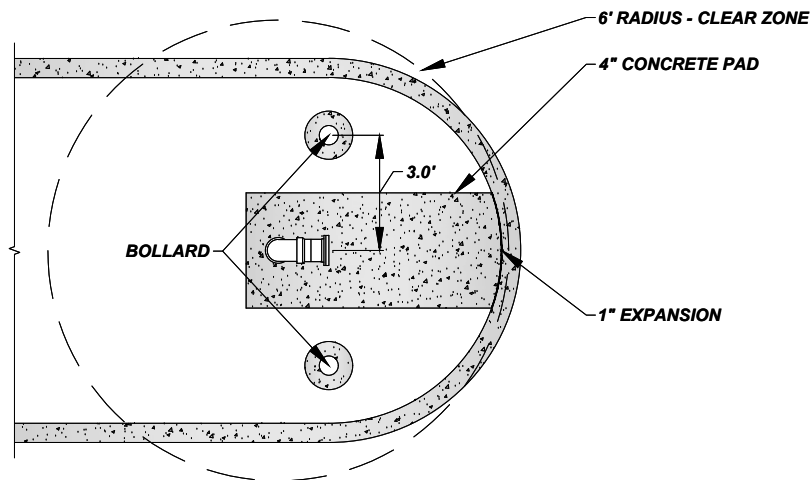
Drafted By: J. Hoffman
Approved By: D. Sailor, P.E.

Drawing Number:
WA-402



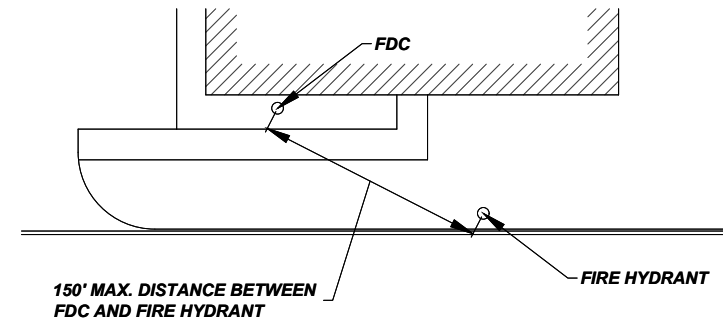
REMOTE FDC AT PARKING LOT

NOT TO SCALE



REMOTE FDC IN PARKING LOT ISLAND

NOT TO SCALE



NOTE:

1. IF THE FDC CANNOT BE POSITIONED WITHIN 150' OF A FIRE HYDRANT, AN ADDITIONAL FIRE HYDRANT WILL BE REQUIRED TO MEET THE REQUIREMENT

REMOTE FDC LOCATION

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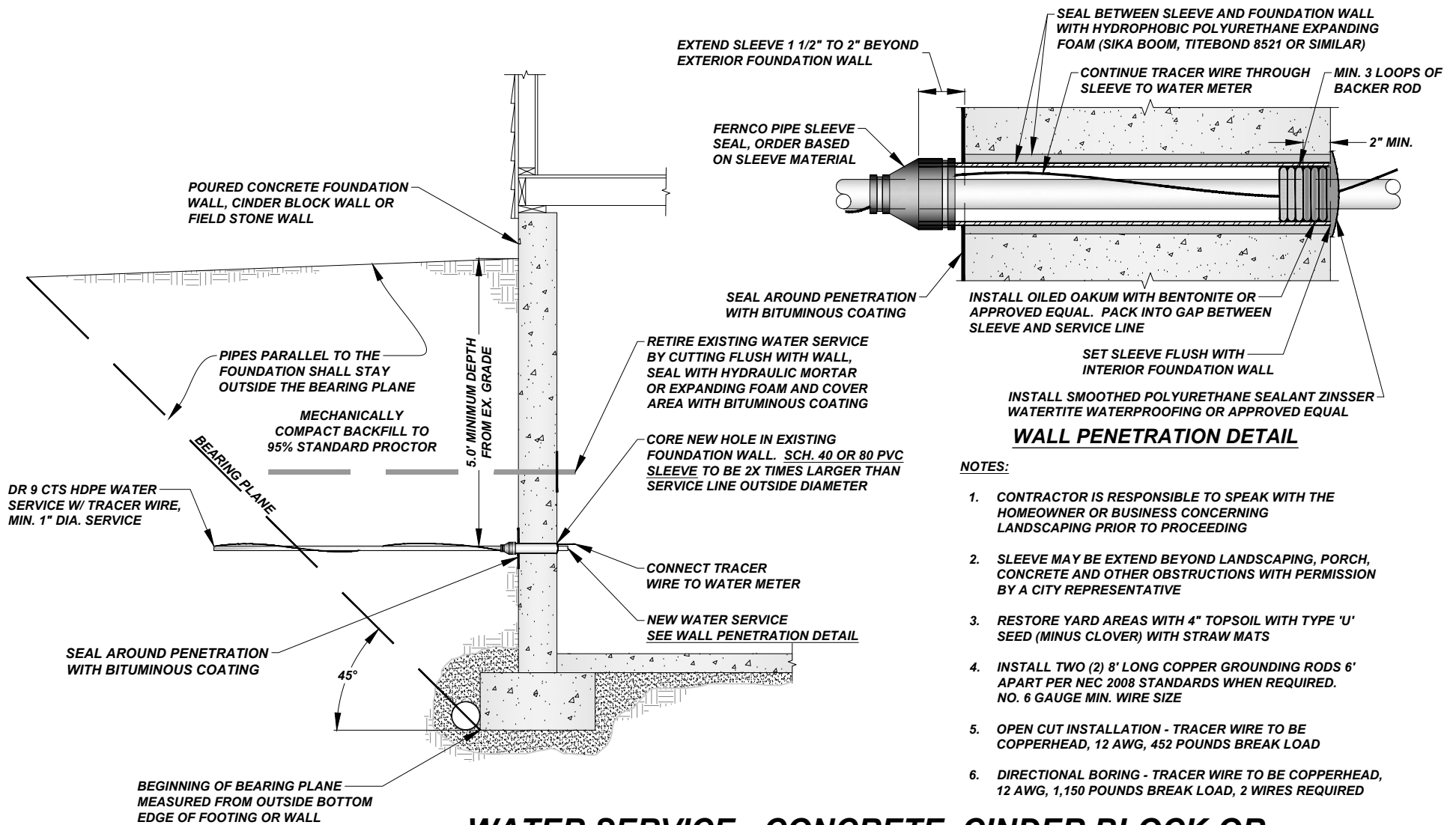
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Drawing Number:
WA-402



WATER SERVICE - CONCRETE, CINDER BLOCK OR FIELD STONE FOUNDATION PENETRATION

NOT TO SCALE

WALL PENETRATION DETAIL

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO SPEAK WITH THE HOMEOWNER OR BUSINESS CONCERNING LANDSCAPING PRIOR TO PROCEEDING
2. SLEEVE MAY BE EXTEND BEYOND LANDSCAPING, PORCH, CONCRETE AND OTHER OBSTRUCTIONS WITH PERMISSION BY A CITY REPRESENTATIVE
3. RESTORE YARD AREAS WITH 4" TOPSOIL WITH TYPE 'U' SEED (MINUS CLOVER) WITH STRAW MATS
4. INSTALL TWO (2) 8' LONG COPPER GROUNDING RODS 6' APART PER NEC 2008 STANDARDS WHEN REQUIRED. NO. 6 GAUGE MIN. WIRE SIZE
5. OPEN CUT INSTALLATION - TRACER WIRE TO BE COPPERHEAD, 12 AWG, 452 POUNDS BREAK LOAD
6. DIRECTIONAL BORING - TRACER WIRE TO BE COPPERHEAD, 12 AWG, 1,150 POUNDS BREAK LOAD, 2 WIRES REQUIRED

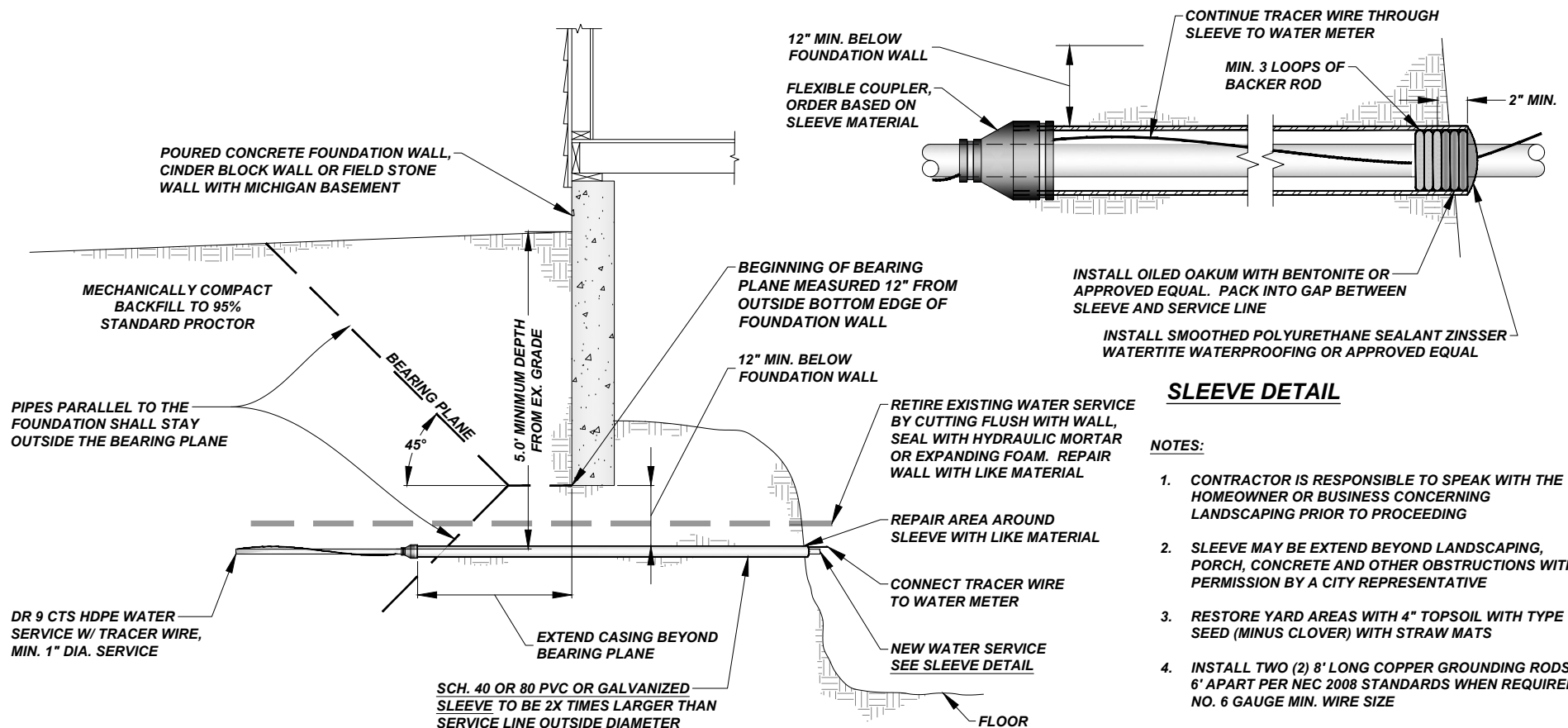
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CITY OF GOSHEN, INDIANA
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Drafted By: J. Hoffman	Approved By: D. Sailor, P.E.
Drawing Number: WA-501	



WATER SERVICE - MICHIGAN BASEMENT PENETRATION

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Approved By: D. Sailor, P.E.
Drawing Number: **WA-502**