

#### SPACER MATERIAL SPECIFICATIONS

1. SHELL - MINIMUM 14 GAUGE T-304 STAINLESS STEEL. ALL SURFACES ARE FULLY CHEMICALLY PASSIVATED. FLANGES ARE RIBBED FOR STRENGTH
2. RISERS - MAXIMUM 10 GAUGE T-304 STAINLESS STEEL, REINFORCED 6" AND OVER IN HEIGHT
3. FASTENERS - 5/16 - 18 T-304 STAINLESS STEEL
4. LINER - PVC, 0.90 THICK, 85-90 DUROMETER (ASTM D1706 - 61T) MAX. CONSTANT OPERATING TEMPERATURE - 150 DEGREES (F) ELECTRICAL PROPERTIES - (ASTM - D149 - 61) 1380 V/min. RESISTANCE - SALT SPRAY (ASTM - B117) EXCELLENT - ACIDS GOOD
5. RUNNERS - ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE LOW COEFFICIENT OF FRICTION HIGH RESISTANCE TO ABRASION AND SLIDING WEAR TOUGHNESS UNDER IMPACT LOW DEFLECTION UNDER COMPRESSION DIELECTRIC INSULATION

CASCADE CASING SPACERS MODEL CCS AS MANUFACTURED BY CASCADE WATERWORKS MFG. OR APPROVED EQUAL

CASING SPECIFICATIONS		
WATER MAIN SIZE	CASING SIZE	CASING WALL THICKNESS
20"	36"	0.750"
16"	30"	0.688"
12"	24"	0.688"
8"	16"	0.500"
6"	12"	0.500"

## WATER MAIN CASING

NOT TO SCALE

### CENTERED AND RESTRAINED SECTION A-A

#### NOTES:

1. TRACER WIRE SHALL BE INSTALLED THROUGH CASING WITH LOCATION STATION AT EACH END, SEE DETAIL SA-406
2. 5.0' MINIMUM COVER MEASURED FROM SUB-GRADE TO TOP OF CASING
3. SUBMIT SHOP DRAWINGS TO THE CITY ENGINEERING DEPARTMENT FOR APPROVAL
4. ALL CHANGES TO MATERIALS OR MODIFICATIONS TO PLANS MUST BE PRE-APPROVED BY THE CITY ENGINEERING DEPARTMENT
5. RECORD DRAWING SHALL INCLUDE ELEVATION AT EACH END OF THE PIPE AND CASING, LOCATION OF EACH OF THE CASING, CASING LENGTH, SIZE, TYPE, A PROFILE DRAWING OF THE CASING CONTAINING THE ABOVE INFORMATION. INCLUDE ANY SPECIAL CONDITIONS OR NOTES

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

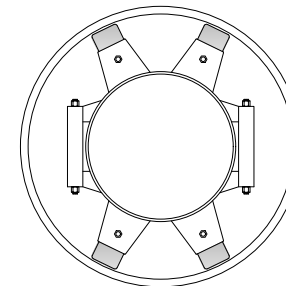
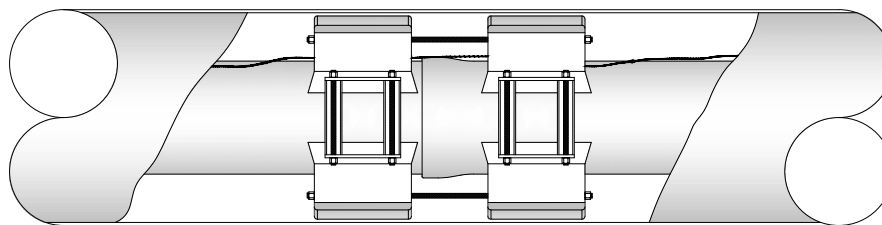
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Date Approved By The City Of Goshen Board Of Public Works & Safety and Approved Revisions

03/27/2025

**CITY OF GOSHEN, INDIANA**  
**STANDARD DETAIL**

Drafted By: J. Hoffman  
Approved By: D. Sailor, P.E.  
Drawing Number: **WA-107**



# **WATER MAIN CASING WITH RESTRAINED CASING SPACERS**

NOT TO SCALE

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