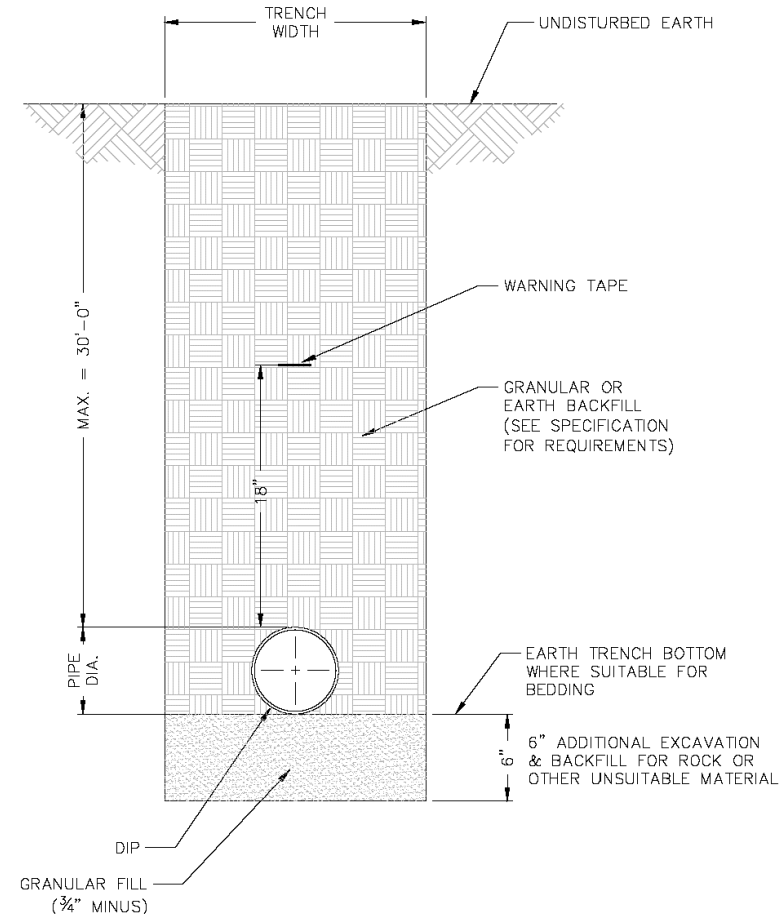


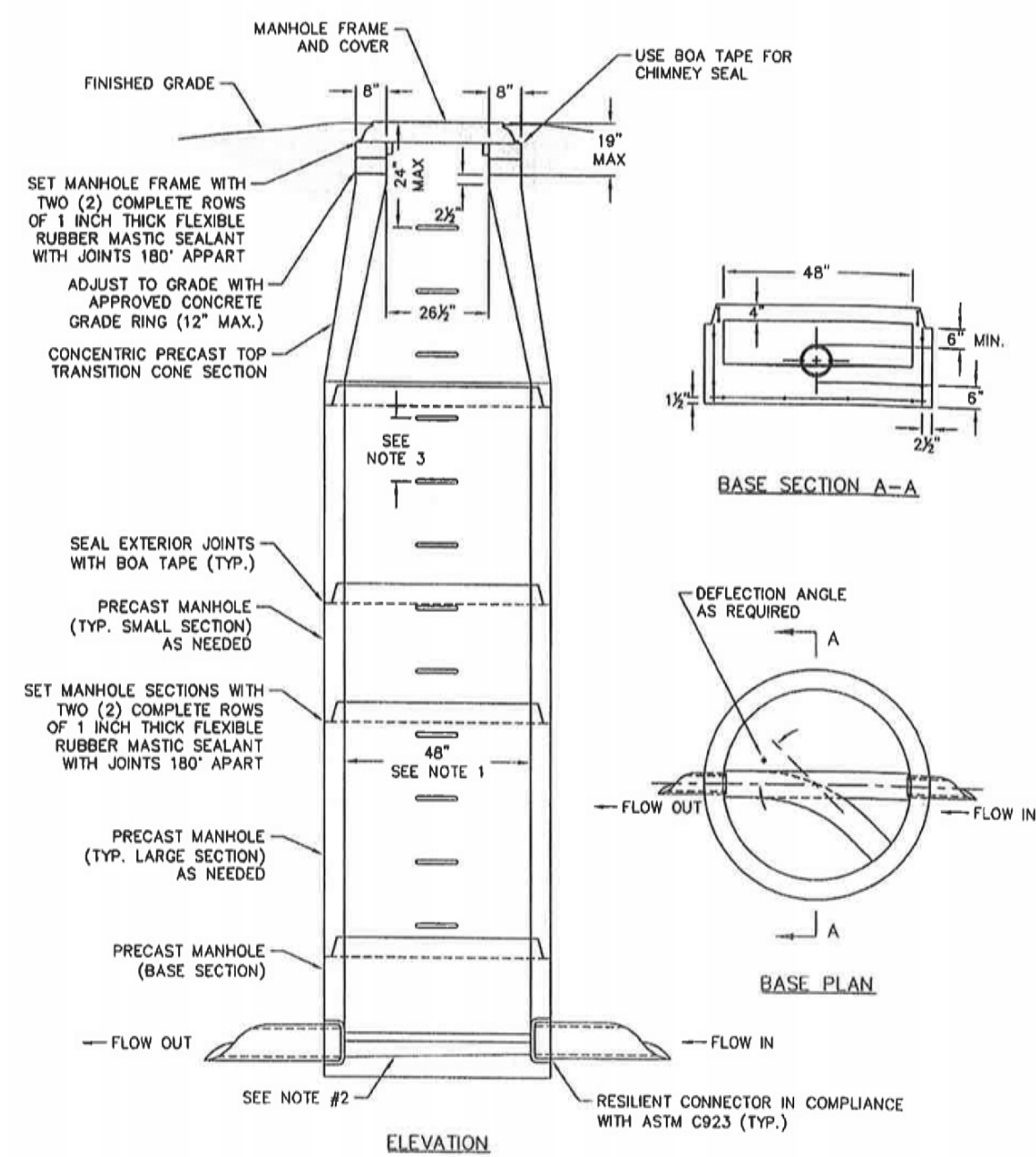
- NOTE:**
- BACKFILL TO BE COMPACTED TO 95% PER STANDARD PROCTOR TEST METHOD (ASTM D998)
 - SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

**TYPICAL GRAVITY SEWER TRENCH SECTION
DETAIL "A"**
NOT TO SCALE
PAGE 1 OF 3



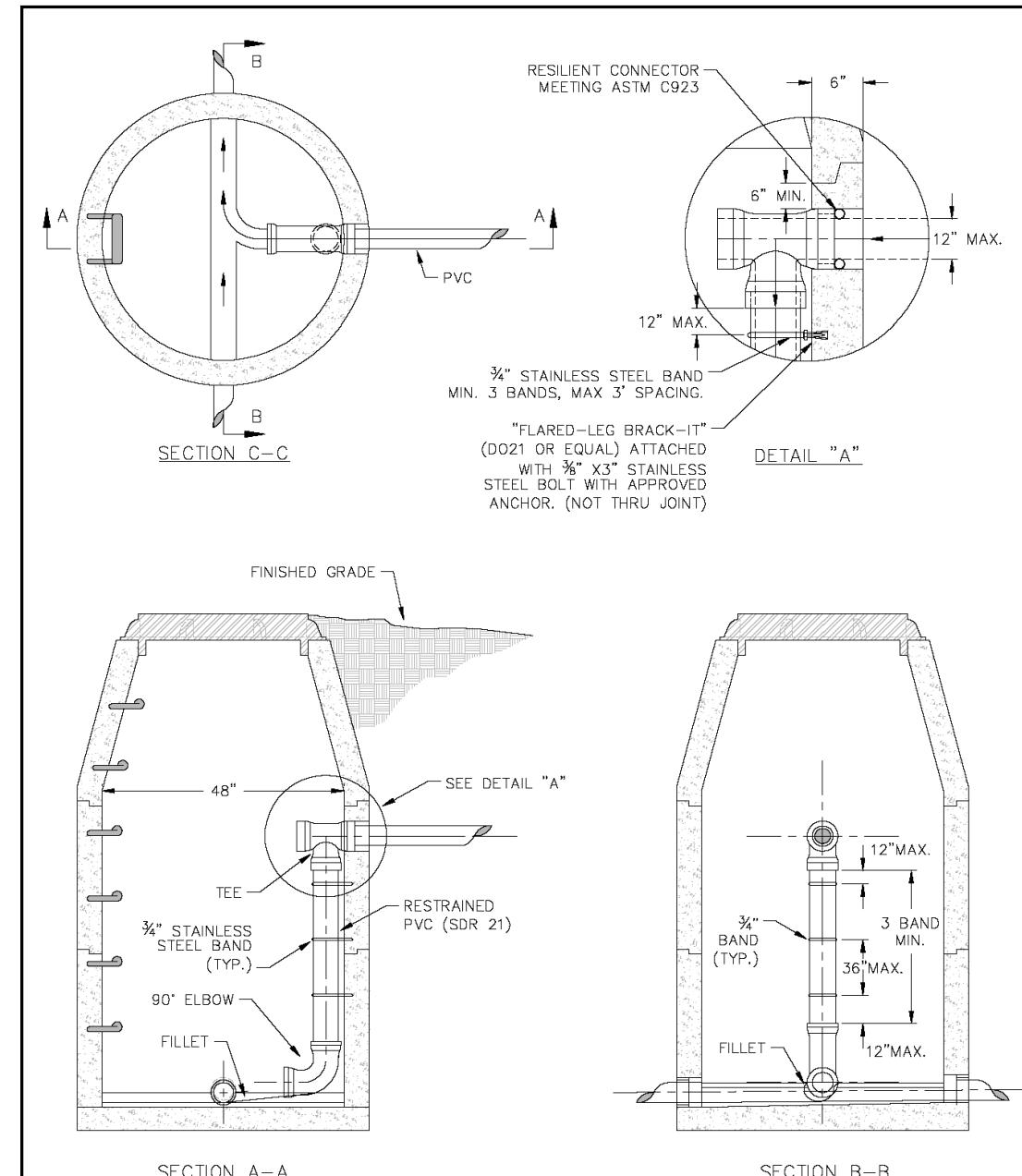
- NOTE:**
- SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.

**TYPICAL GRAVITY SEWER TRENCH SECTION
FOR DUCTILE IRON PIPE
DETAIL "A"**
NOT TO SCALE
PAGE 2 OF 3



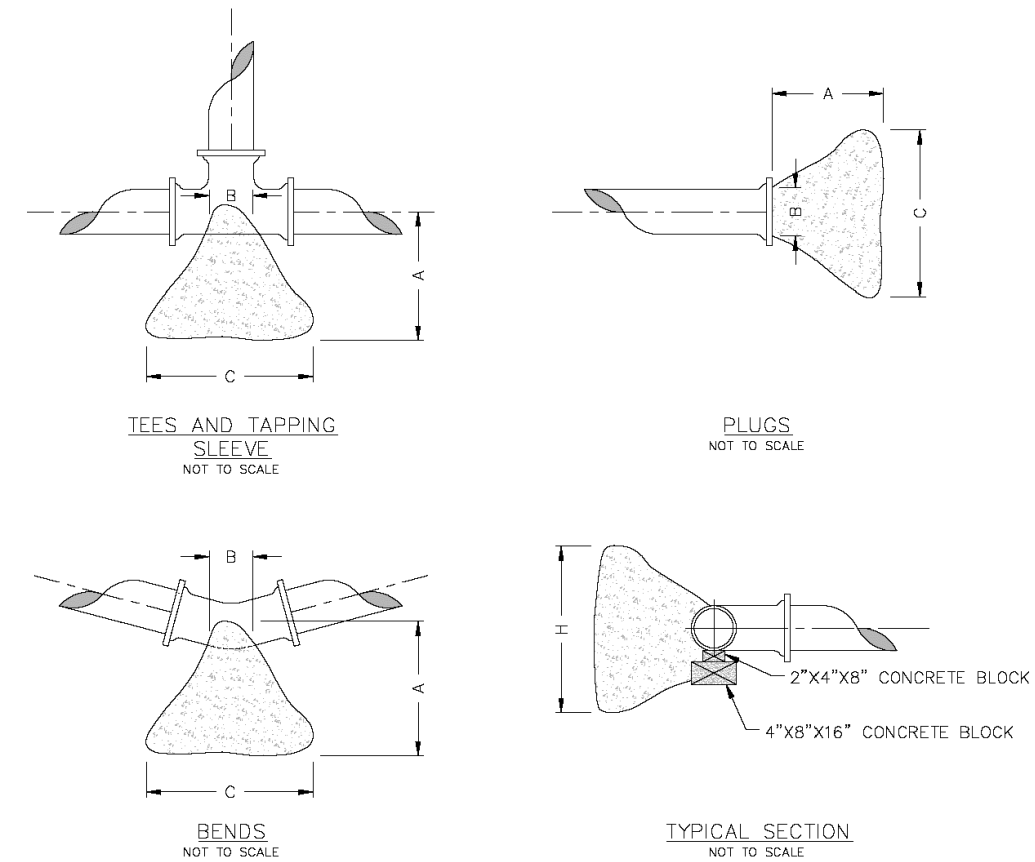
- NOTES:**
- THE MINIMUM INSIDE DIAMETER FOR THE BASE AND RISER SECTIONS SHALL BE 48\"/>
 - FLOW LINE ELEVATION OF INCOMING PIPES SHALL BE 1 INCH HIGHER THAN THAT OF OUTGOING PIPE.
 - SHAFT STEPS UNIFORMLY SPACED AT 16\"/>
 - LINE OUTSIDE WITH URETHANE ASPHALT @ 20 MILS.

**TYPICAL MANHOLE
DETAIL "B"**
NOT TO SCALE



- NOTES:**
- THE MINIMUM INSIDE DIAMETER FOR THE BASE AND RISER SECTIONS SHALL BE 48\"/>
 - DIAMETER OF DROP PIPE FOR SANITARY SEWERS IS THE SAME AS IN COMING PIPE SEWER UNLESS OTHERWISE SHOWN ON PROJECT PLANS.
 - INVERT BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE.

**TYPICAL INSIDE DROP MANHOLE
DETAIL "D"**
NOT TO SCALE

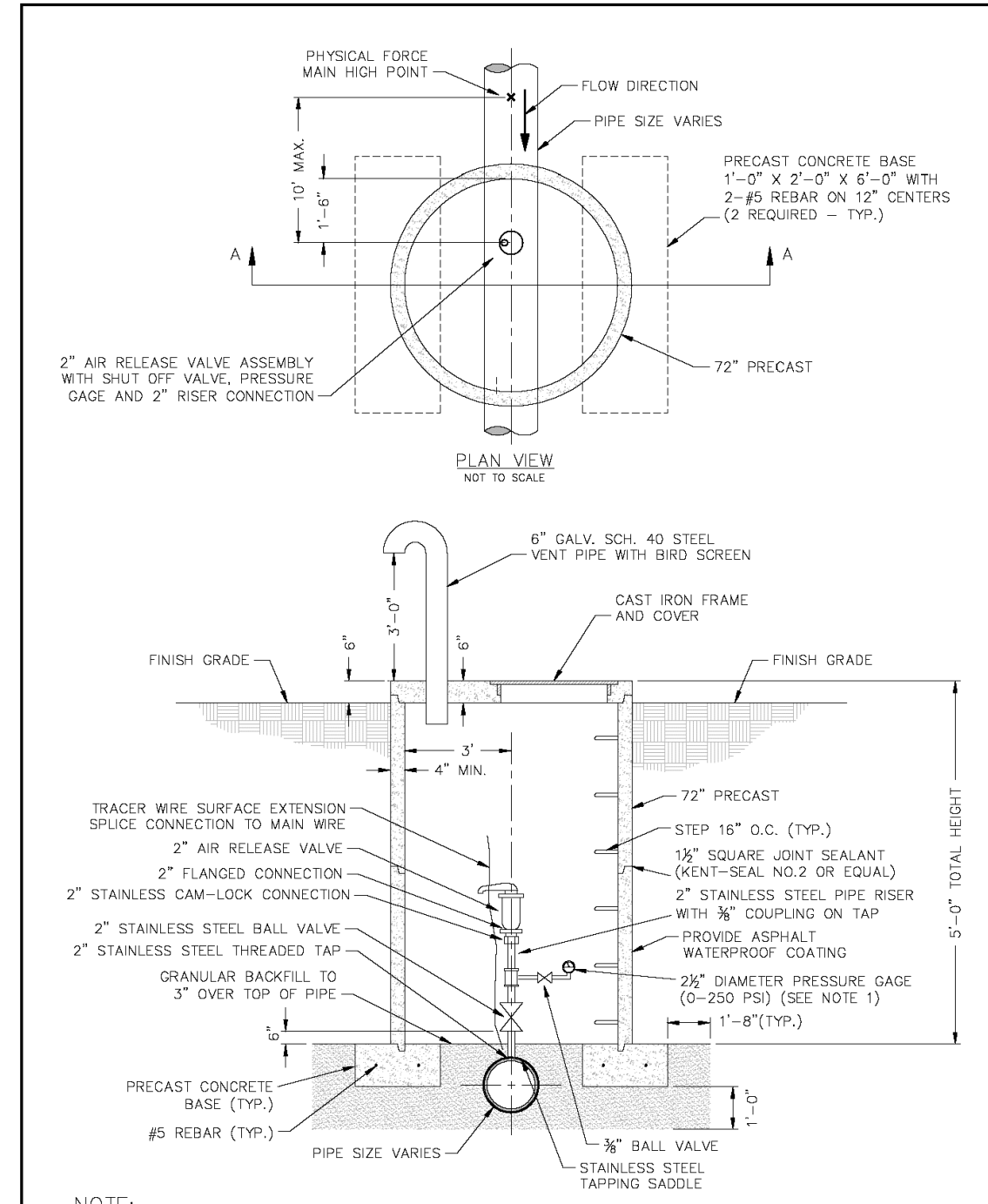


THRUST BLOCK DIMENSIONS - INCHES

| PIPE DIA. | ALL FTGS. | | TEE PLUG TAPPING | | 90 DEGREE BEND | | 45 DEGREE BEND | | 22-1/2 BEND | | 11-1/4 BEND | |
|-----------|-----------|----|------------------|----|----------------|----|----------------|----|-------------|----|-------------|----|
| | A | B | C | H | C | H | C | H | C | H | C | H |
| 4 | 14 | 4 | 24 | 12 | 26 | 15 | 18 | 12 | 12 | 12 | 12 | 12 |
| 6 | 16 | 6 | 36 | 18 | 36 | 24 | 30 | 18 | 24 | 12 | 12 | 12 |
| 8 | 20 | 8 | 36 | 30 | 42 | 36 | 36 | 24 | 24 | 18 | 18 | 12 |
| 10 | 20 | 10 | 48 | 36 | 48 | 36 | 36 | 28 | 24 | 18 | 18 | 18 |
| 12 | 24 | 12 | 68 | 36 | 82 | 42 | 52 | 36 | 40 | 24 | 28 | 18 |

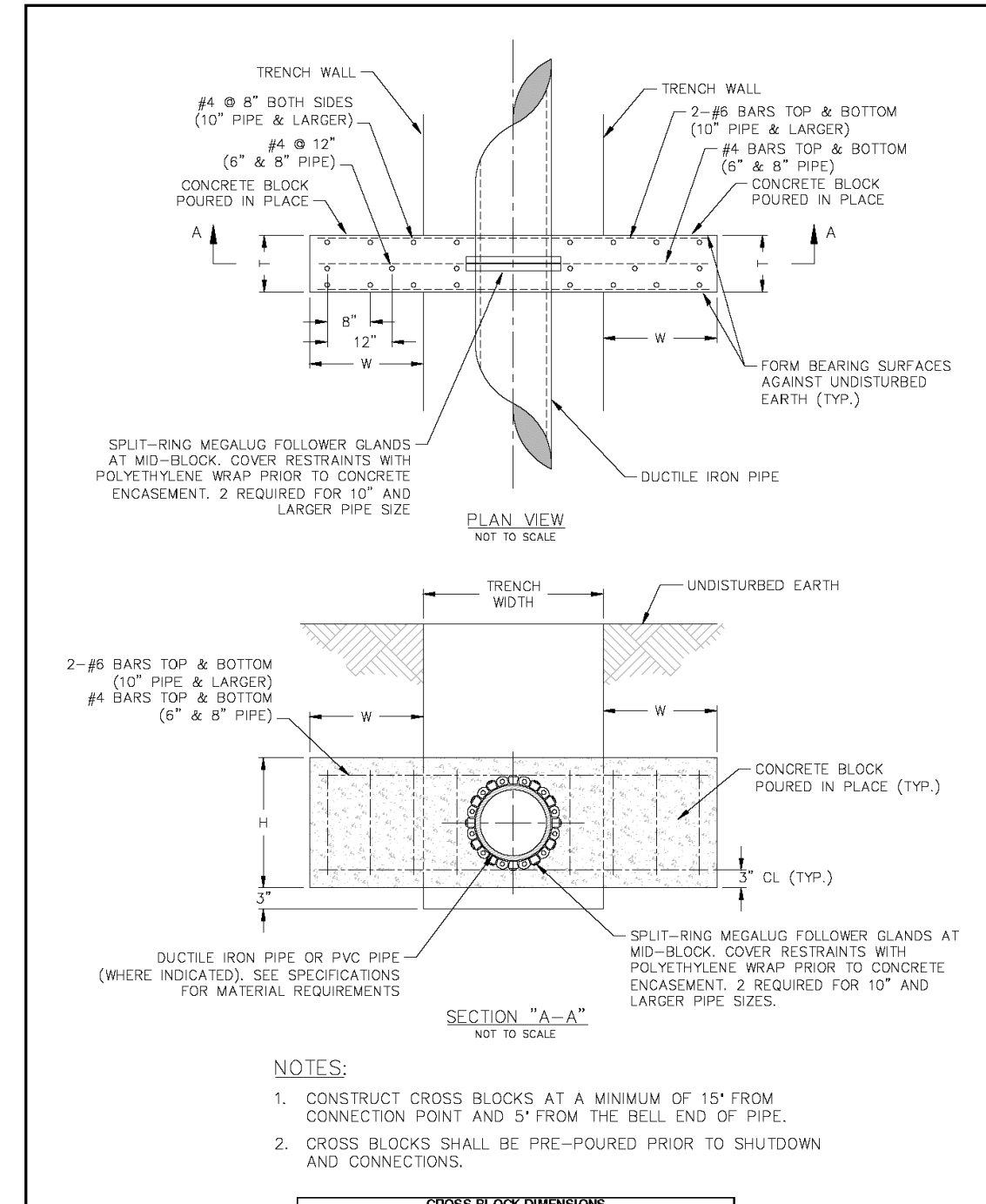
- NOTE:**
- FOR FITTINGS LARGER THAN 12\", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.

**HORIZONTAL THRUST BLOCKING
FOR FORCE MAINS
DETAIL "E"**



- NOTE:**
- FACE OF PRESSURE GAGE SHALL BE VIEWABLE THROUGH THE AIR RELEASE VALVE VAULT HATCH WITHOUT ENTERING THE VAULT.

**TYPICAL AIR RELEASE
DETAIL "G"**
NOT TO SCALE

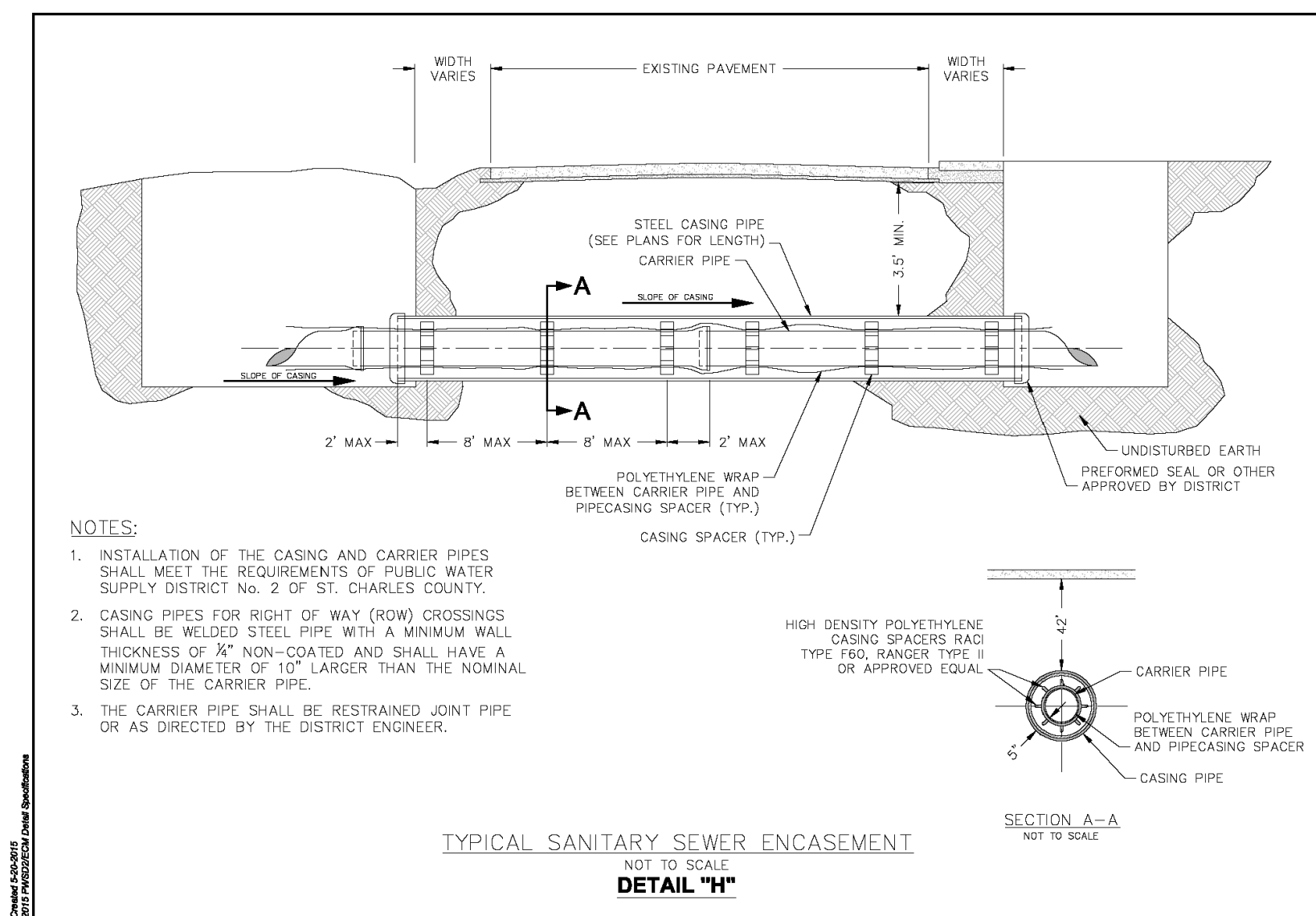


- NOTES:**
- CONSTRUCT CROSS BLOCKS AT A MINIMUM OF 15\"/>
 - CROSS BLOCKS SHALL BE PRE-POURED PRIOR TO SHUTDOWN AND CONNECTIONS.

CROSS BLOCK DIMENSIONS

| PIPE DIA. 1/2" | WIDTH "W" | HEIGHT "H" | THICKNESS "T" |
|----------------|-----------|------------|---------------|
| 4 | 12 | 12 | 12 |
| 6 | 24 | 24 | 12 |
| 8 | 24 | 24 | 12 |
| 10 | 30 | 30 | 18 |
| 12 | 36 | 36 | 18 |

**CROSS BLOCK
DETAIL "J"**
NOT TO SCALE



- NOTES:**
- INSTALLATION OF THE CASING AND CARRIER PIPES SHALL MEET THE REQUIREMENTS OF PUBLIC WATER SUPPLY DISTRICT NO. 2 OF ST. CHARLES COUNTY.
 - CASING PIPES FOR RIGHT OF WAY (ROW) CROSSINGS SHALL BE WELDED STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 1/4\"/>
 - THE CARRIER PIPE SHALL BE RESTRAINED JOINT PIPE OR AS DIRECTED BY THE DISTRICT ENGINEER.

**TYPICAL SANITARY SEWER ENCASEMENT
DETAIL "H"**
NOT TO SCALE

PROJECT TITLE:
**SHADY CREEK
COMMERCIAL**

**ENGINEERING
PLANNING
SURVEYING**
22 Point View Blvd.
St. Charles, MO 63301
636-928-5562
FAX 928-1718

DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

REVISIONS

| DATE | CITY COMMENTS |
|----------|-----------------------|
| 09/01/22 | CITY COMMENTS |
| 10/11/22 | CITY & PWS&D COMMENTS |
| 10/17/22 | CITY COMMENTS |

Developer / Owner:
JoAnn Griffith and Gary Kopact
8780 Highway N
Lake Saint Louis, MO 63367
636-544-2128

P+Z No. 22-004236
Approval Date: 10/07/2022
City No. CSP22-000027
Page No. 6 of 7

SANITARY SEWER DETAILS

**ENGINEER'S SEAL
DOES NOT APPLY
TO DETAILS ON
THIS SHEET**