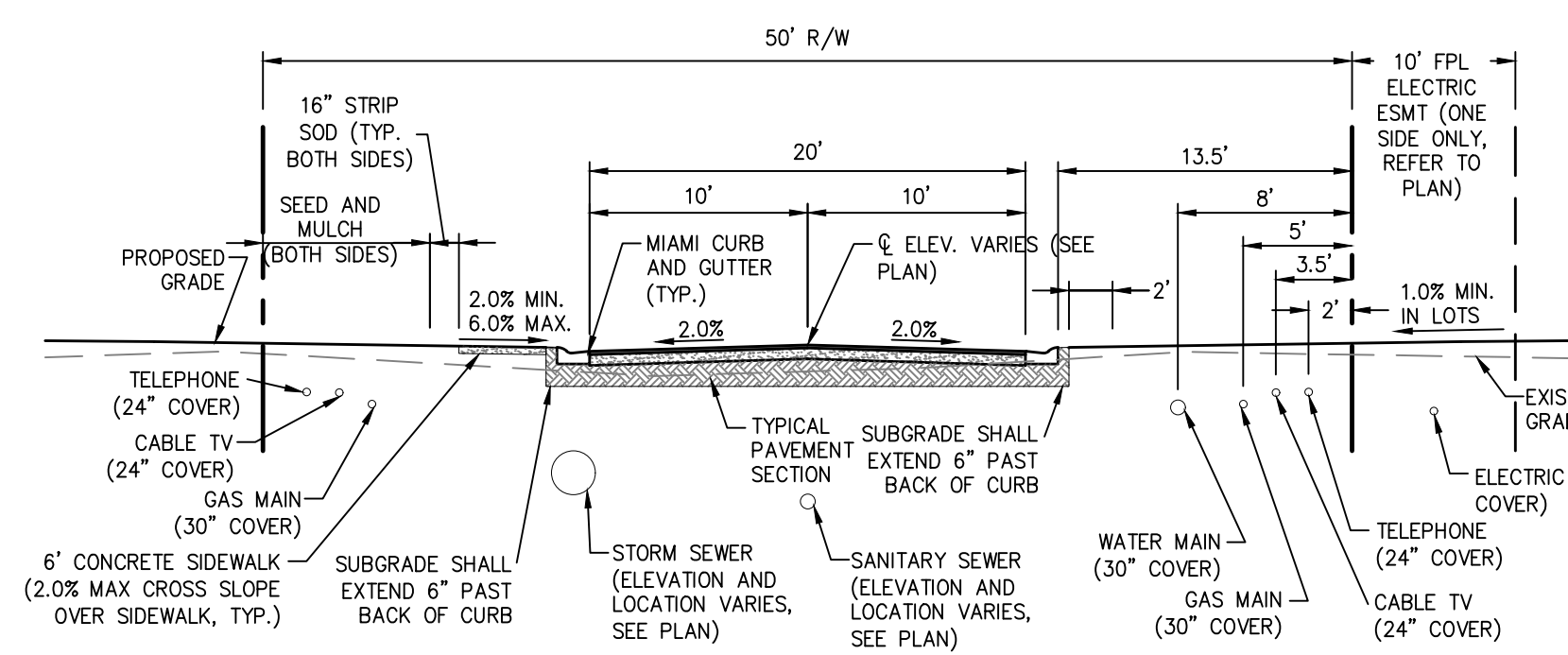


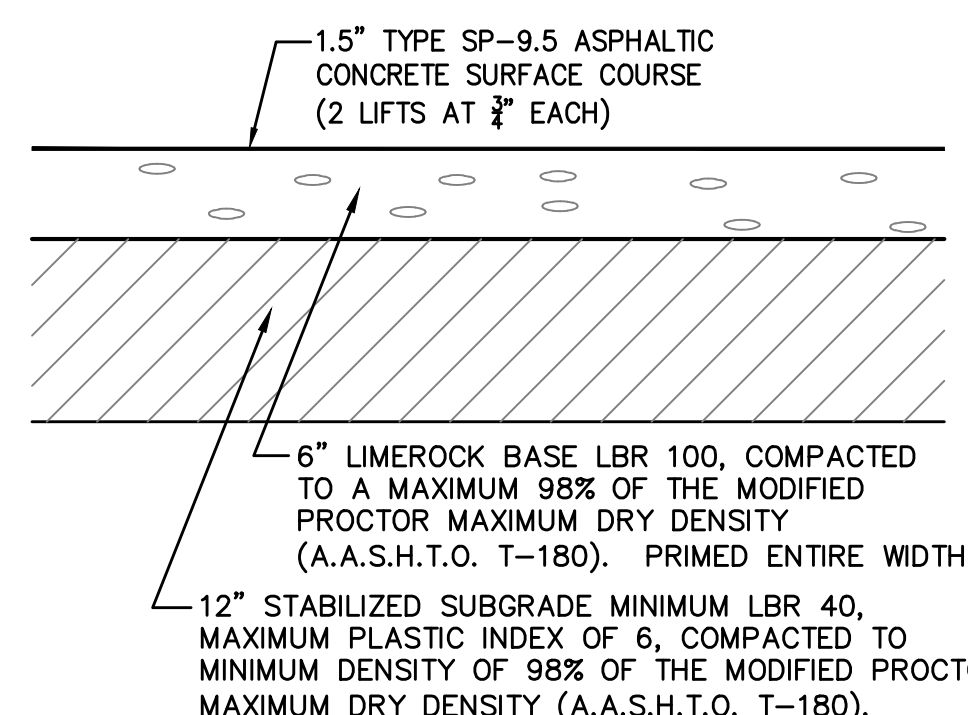
Printed: Oct 25, 2023 1:46pm
 Printed: Oct 25, 2023 1:46pm
 J:\21-01-0057 Sandy Bluff\Design\Drawings\Plots\21-01-0057 P\Details-Sheets.dwg



NOTES:

- CONTRACTOR SHALL GRADE AND DRESS ALL R/W AREAS TO 0.1:1 FEET AND REMOVE ALL DEBRIS AND ROOTS 3/8" DIAMETER AND LARGER.
- CABLE/PHONE SHALL BE DESIGNED BY OTHERS (LOCATION SHOWN IS GENERAL GUIDELINE ONLY).

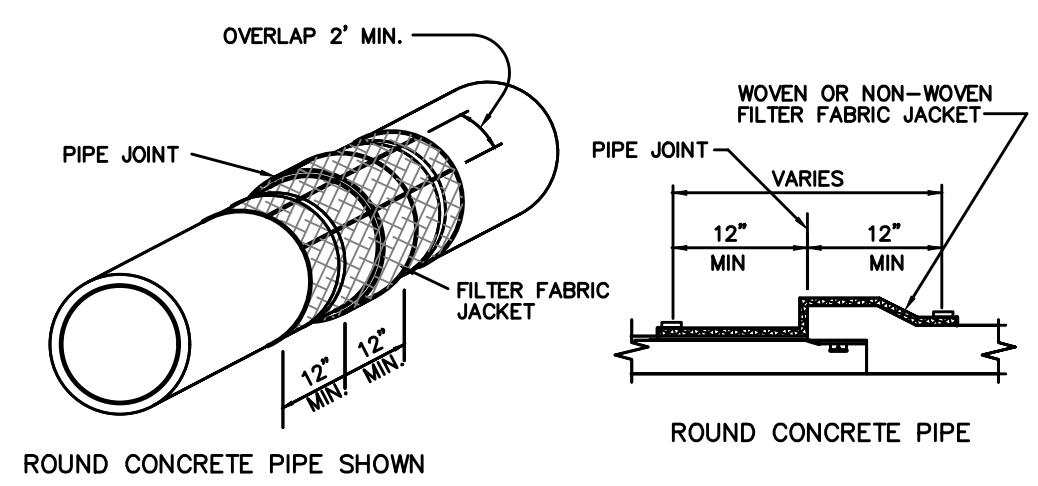
TYPICAL ROADWAY CROSS SECTION OF 50' RIGHT-OF-WAY WITH 20' PAVEMENT
N.T.S.



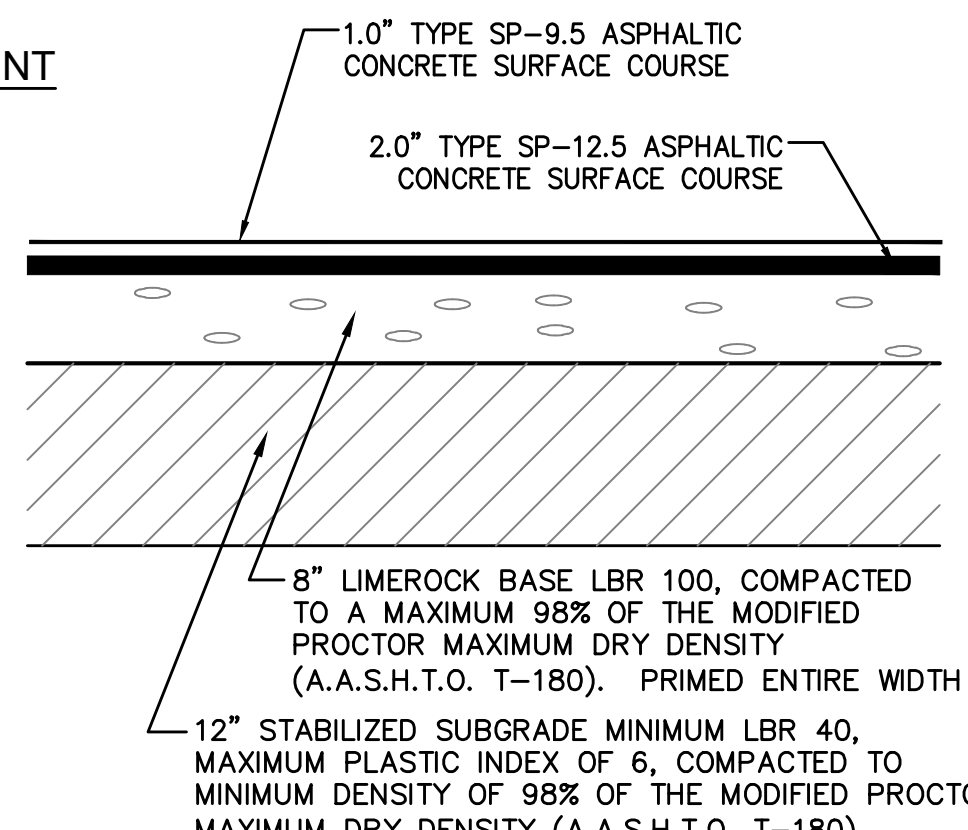
NOTES:

- ANY DISTURBED AREAS WITHIN NASSAU COUNTY RIGHT-OF-WAY SHALL BE SODDED PER NASSAU COUNTY GENERAL DEVELOPMENT NOTE #7.
- SOIL ANALYSIS MAY INDICATE THE NEED FOR THICKER BASE COURSES THAN THOSE HEREIN. THE PAVEMENT THICKNESS SHOWN HEREIN ARE NOT INTENDED TO BE ABSOLUTE, BUT ARE PRELIMINARY CRITERIA AND MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITY OF VARIOUS SUBGRADES.
- ALL ASPHALTIC CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 331 AND/OR 333, FDOT STANDARD SPECIFICATIONS, LATEST EDITION.
- THE ASPHALTIC CONCRETE PAVEMENT CONSTRUCTION SHALL MEET THE REQUIREMENTS SPECIFIED IN THE NASSAU COUNTY LAND DEVELOPMENT CODE (ROADWAY PAVEMENT REQUIREMENTS).

TYPICAL PAVEMENT SECTION
N.T.S.



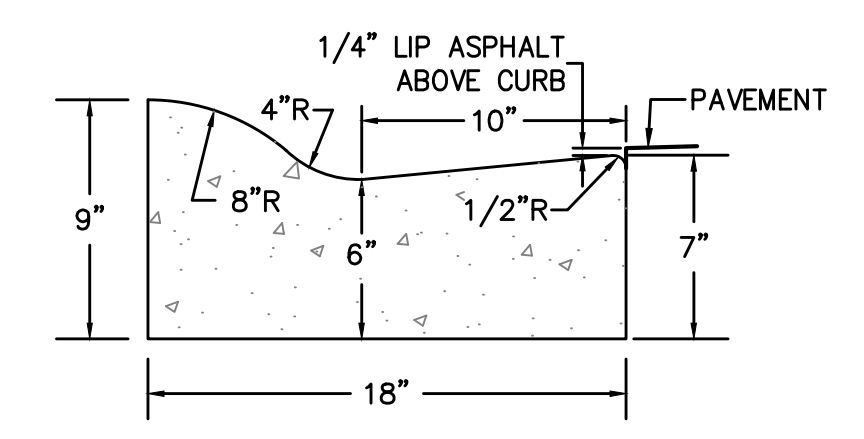
PIPE JOINT
OVERLAP 2" MIN.
WOVEN OR NON-WOVEN FILTER FABRIC JACKET
12" MIN.
12" MIN.
ROUND CONCRETE PIPE SHOWN
ISOMETRIC VIEW
PIPE SECTION
COST OF FILTER FABRIC TO BE INCLUDED IN COST OF PIPE.
FILTER FABRIC JACKET DETAIL
N.T.S.



NOTES:

- ANY DISTURBED AREAS WITHIN NASSAU COUNTY RIGHT-OF-WAY SHALL BE SODDED PER NASSAU COUNTY GENERAL DEVELOPMENT NOTE #7.
- SOIL ANALYSIS MAY INDICATE THE NEED FOR THICKER BASE COURSES THAN THOSE HEREIN. THE PAVEMENT THICKNESS SHOWN HEREIN ARE NOT INTENDED TO BE ABSOLUTE, BUT ARE PRELIMINARY CRITERIA AND MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITY OF VARIOUS SUBGRADES.
- ALL ASPHALTIC CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 331 AND/OR 333, FDOT STANDARD SPECIFICATIONS, LATEST EDITION.
- THE ASPHALTIC CONCRETE PAVEMENT CONSTRUCTION SHALL MEET THE REQUIREMENTS SPECIFIED IN NASSAU COUNTY LAND DEVELOPMENT CODE (ROADWAY PAVEMENT REQUIREMENTS).

ROSE'S BLUFF ROAD ROW PAVEMENT SECTION
N.T.S.

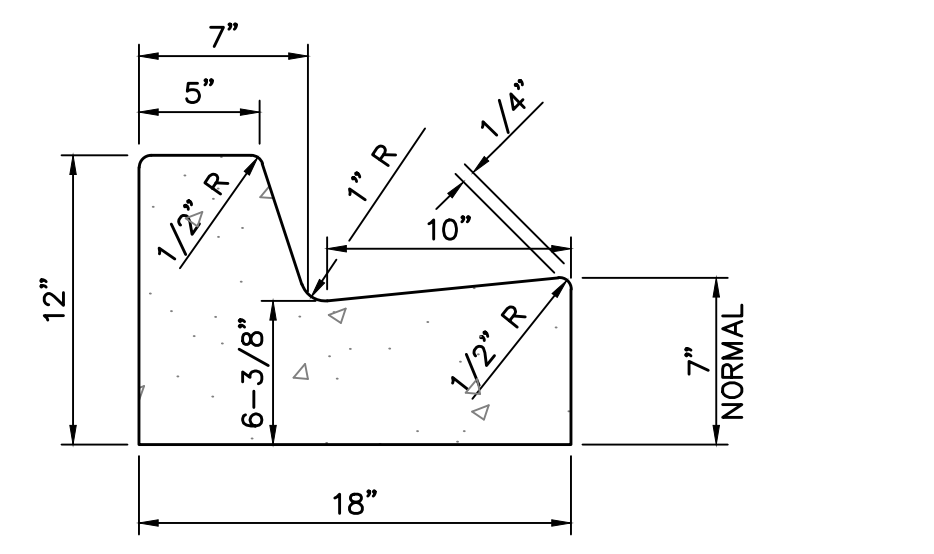


NOTE: WHEN USED ON HIGH SIDE OF ROADWAY, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT.

CURB AND CURB & GUTTER NOTES:

- MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
- WHEN USED ON THE HIGH SIDE OF ROADWAY SECTIONS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. WHERE THIS CONDITION IS ENCOUNTERED, THE FRONT FACE VERTICAL DIMENSION SHALL REMAIN AS SHOWN FOR NORMAL SECTIONS SHOWN HEREON.

MIAMI CURB & GUTTER
N.T.S.

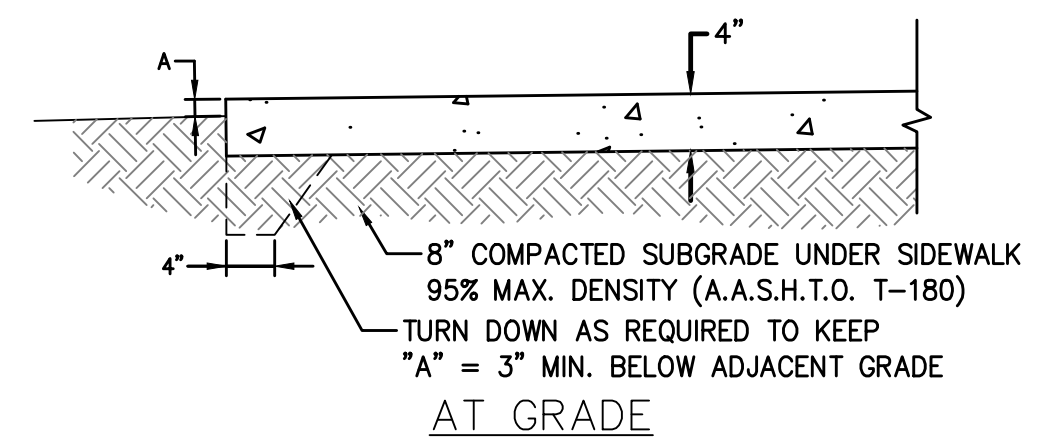


NOTE: WHEN USED ON HIGH SIDE OF ROADWAY, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT.

CURB AND CURB & GUTTER NOTES:

- MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
- WHEN USED ON THE HIGH SIDE OF ROADWAY SECTIONS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. WHERE THIS CONDITION IS ENCOUNTERED, THE FRONT FACE VERTICAL DIMENSION SHALL REMAIN AS SHOWN FOR NORMAL SECTIONS SHOWN HEREON.

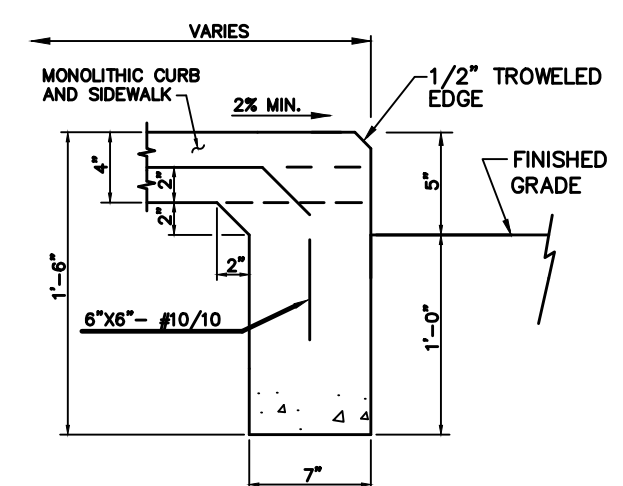
STANDARD CURB & GUTTER
N.T.S.



NOTES:

- CONSTRUCT STRAIGHT JOINTS WITH FACE PERPENDICULAR TO SURFACE OF CONCRETE. TRAVERSE JOINTS SHALL BE AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED ON PLANS.
- PROVIDE EXPANSION JOINTS AT 100' INTERVAL MAXIMUM SPACING ON CENTER.
- PROVIDE EXPANSION JOINTS FILLER FOR JOINTS ABUTTING CURBS, CATCH BASINS, MANHOLES, INLETS STRUCTURES, WALKS AND OTHER FIXED OBJECTS UNLESS OTHERWISE INDICATED ON PLANS.
- EXTEND JOINTS FILLER FULL WIDTH AND DEPTH OF JOINT, AND 1/2" BELOW FINISHED SURFACE. PLACE SEALANT OVER JOINT FILLER PER MANUFACTURERS RECOMMENDATIONS.
- USE PREMOLDED ASPHALT-IMPREGNATED FIBERBOARD, 1/2" THICK CONFORMING TO ASTM D1751.
- CONTRACTION JOINT SHALL BE SAW CUT (1/4" WIDE BY 1" DEEP).
- FINISHED SURFACE FOR CONCRETE SIDEWALK SHALL BE GRAY CONCRETE WITH LIGHT BROOM FINISH PERPENDICULAR TO LINE OF TRAFFIC.
- PROVIDE CRACK CONTROL JOINTS @ (SAME AS WIDTH) O.C.
- PROVIDE 16" STRIP SOD ADJACENT TO ALL EDGES OF SIDEWALK, CURB AND PAVEMENT AREAS.
- CONCRETE COMPRESSION STRENGTH 3000 P.S.I. @ 28 DAYS
- SIDEWALK TO BE CONSTRUCTED WITH SLOPES COMPLYING TO WITH LATEST ADA CODE AND FDOT INDEX 304. SIDEWALK MAX VERTICAL SLOPE OF 5.0% AND MAX CROSS SLOPE OF 2.0%

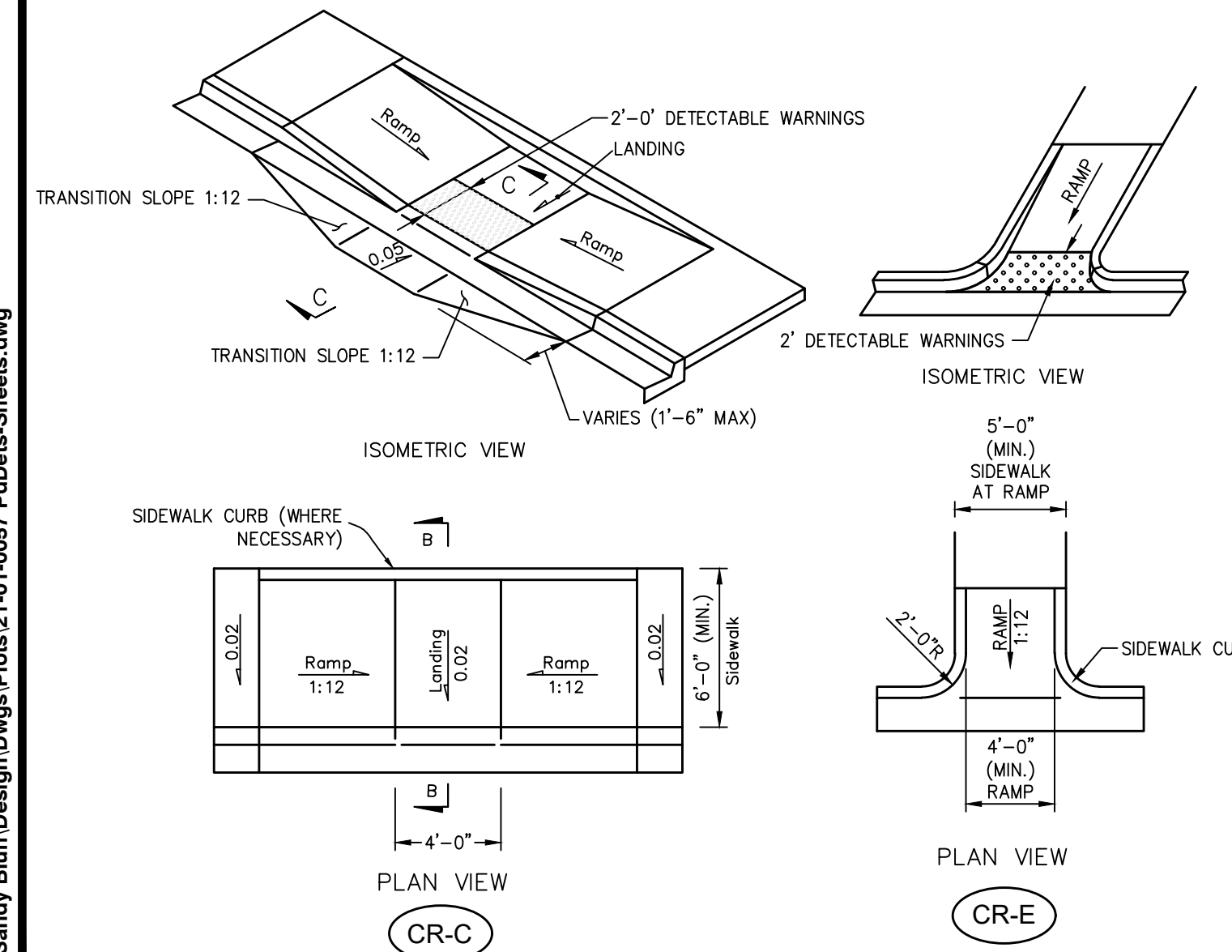
CONCRETE WALK
N.T.S.



NOTES:

- PROVIDE TROWELED JOINTS IN SIDEWALK EQUALLY SPACED AT INTERVALS APPROX. EQUAL TO THE SIDEWALK WIDTH.
- PROVIDE 1/2" EXPANSION JOINT WITH PRE MOLDED EXPANSION JOINT FILLER AT ALL INTERSECTIONS, STRUCTURES OR BUILDINGS AND AT A MAXIMUM SPACING OF 40 FEET.

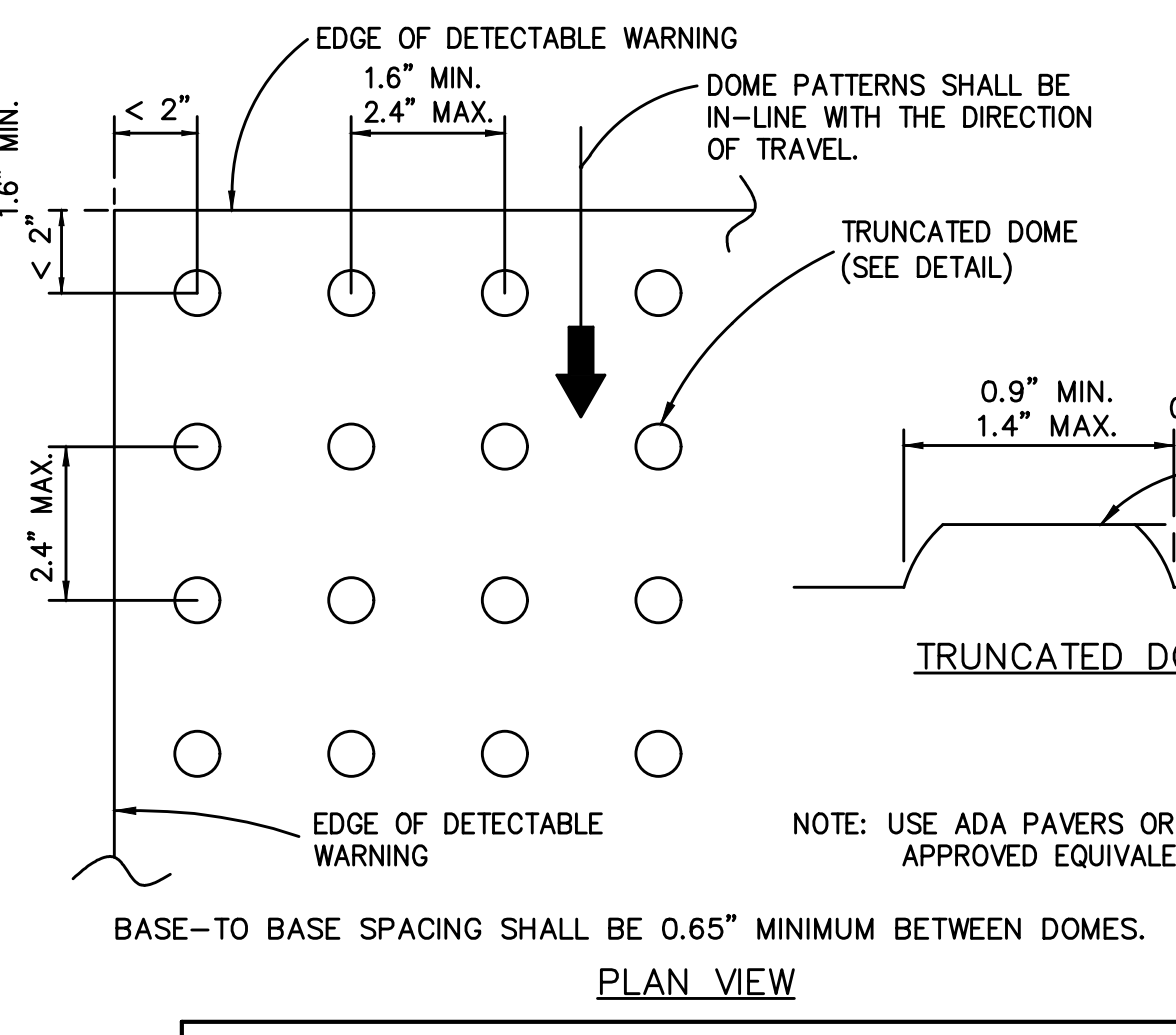
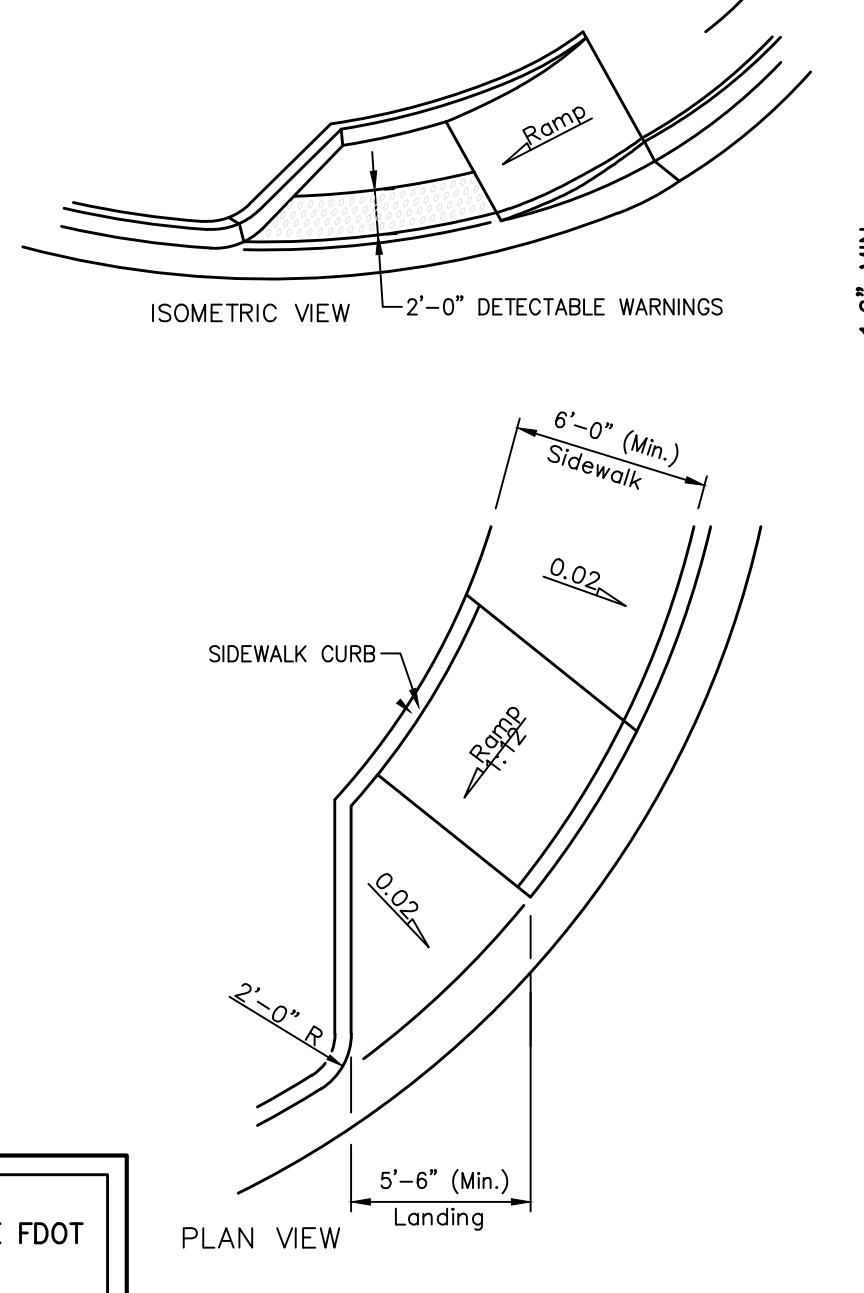
MONOLITHIC CURB & SIDEWALK DETAIL
N.T.S.



NOTES:

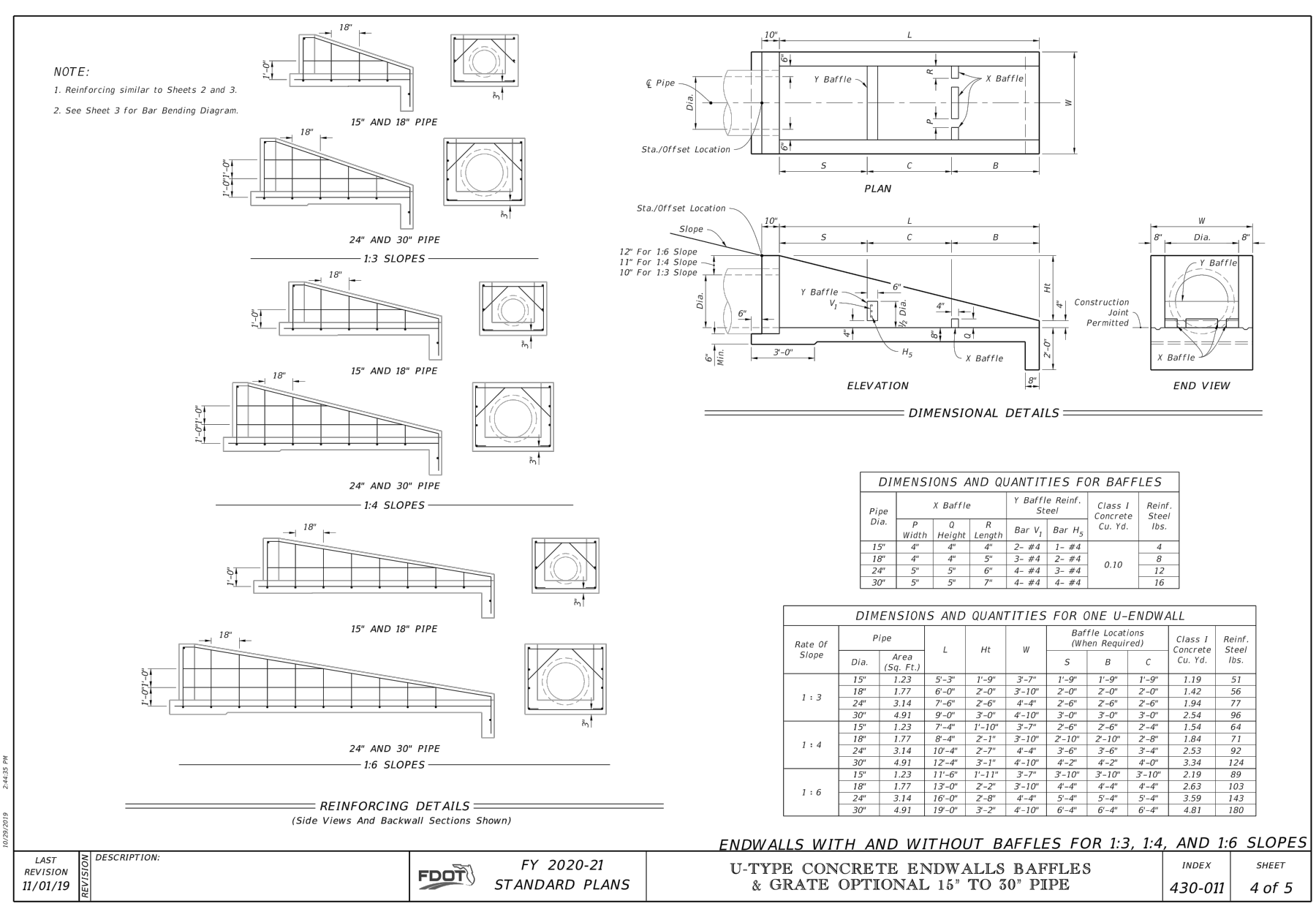
- THIS DETAIL IS FOR INFORMATIONAL PURPOSES ONLY, SEE FDOT INDEX 304 FOR COMPLETE NOTES AND DETAILS

FDOT INDEX 522-002 CURB RAMP DETAIL
N.T.S.

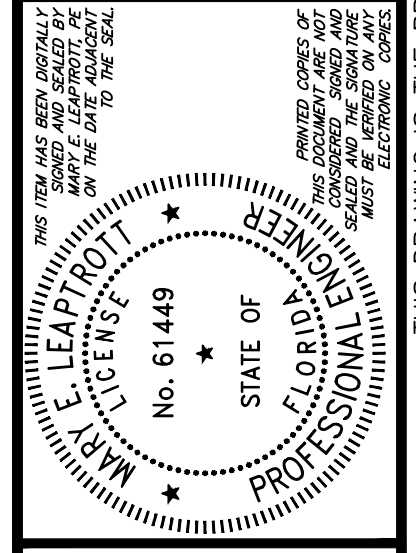


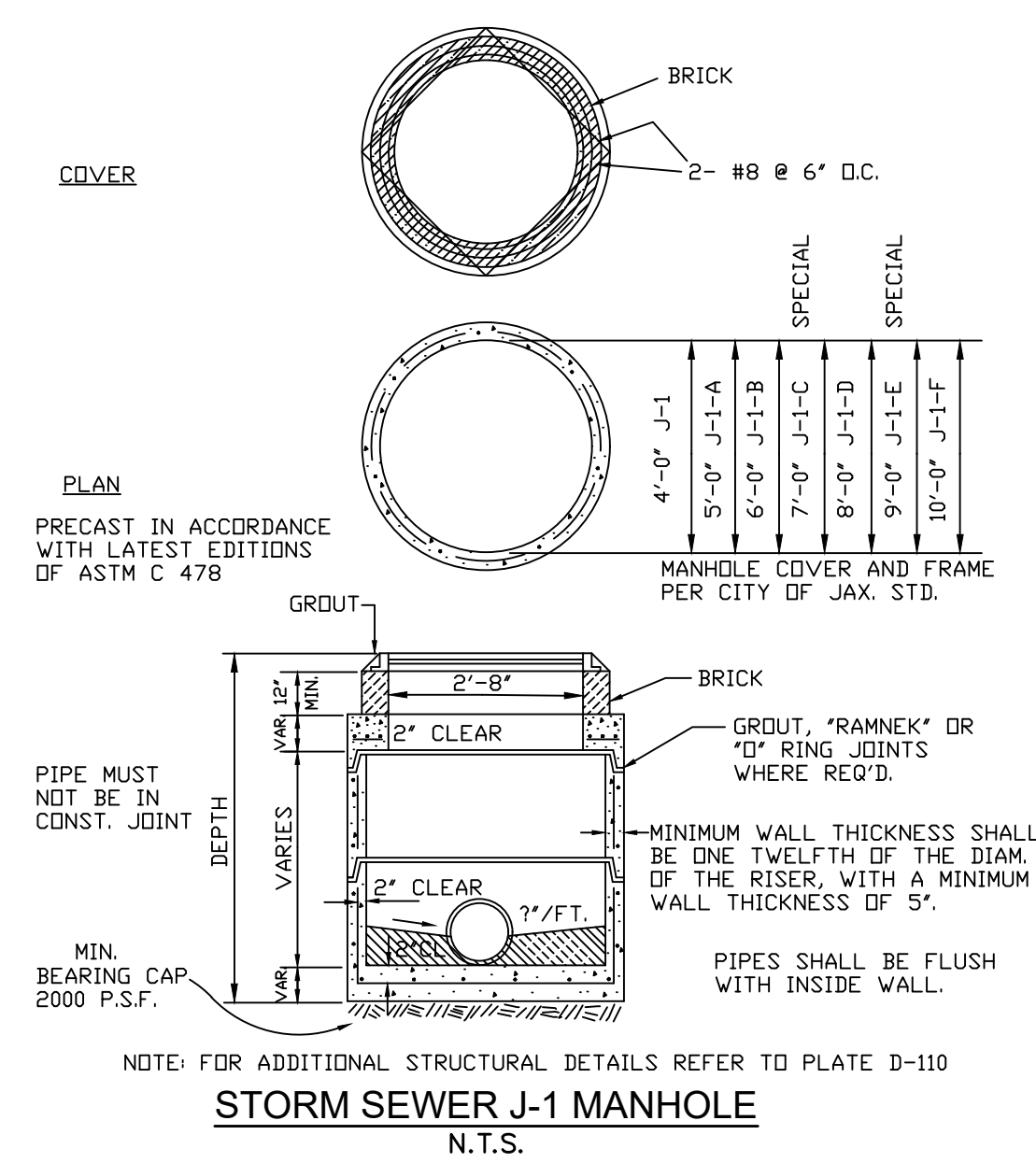
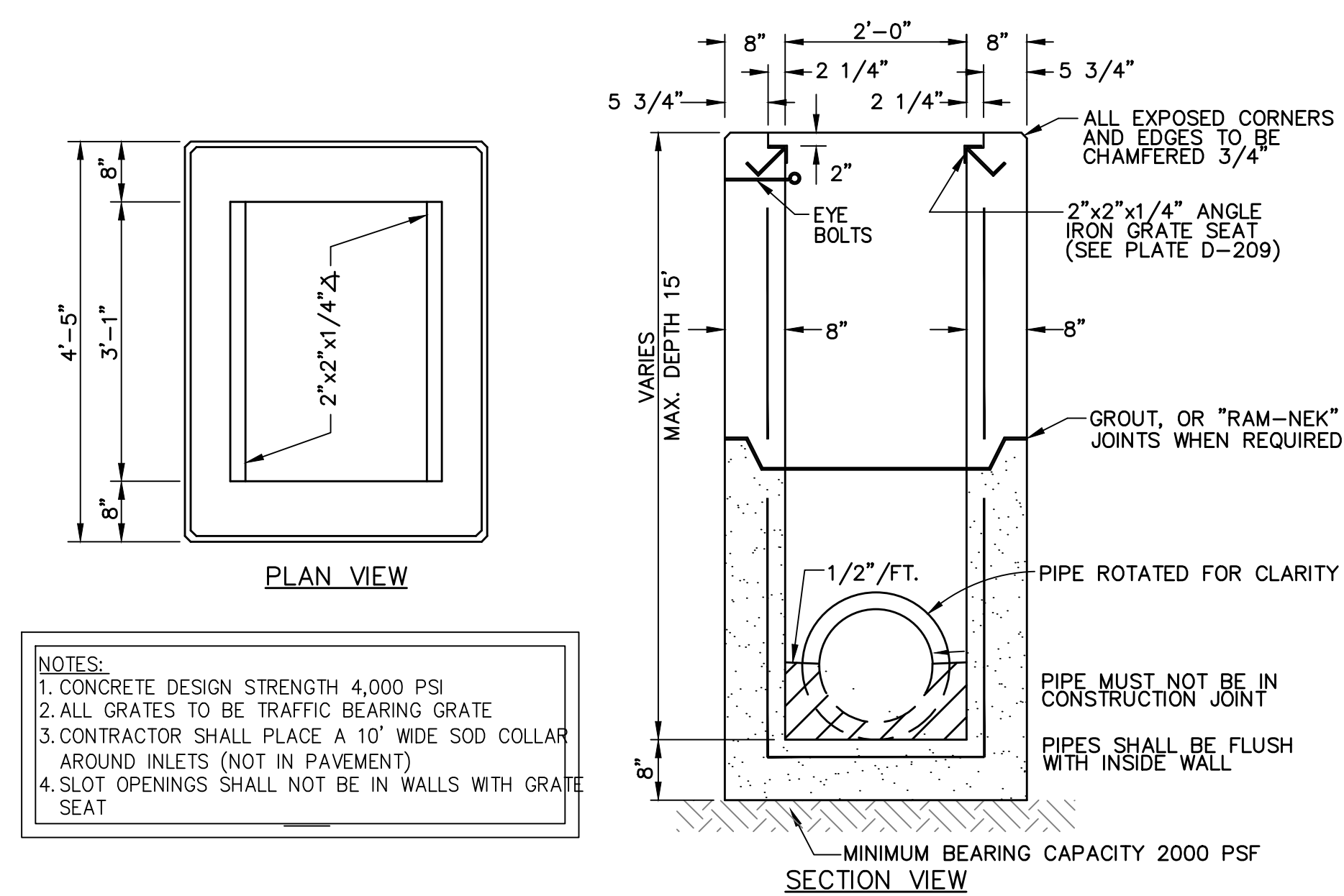
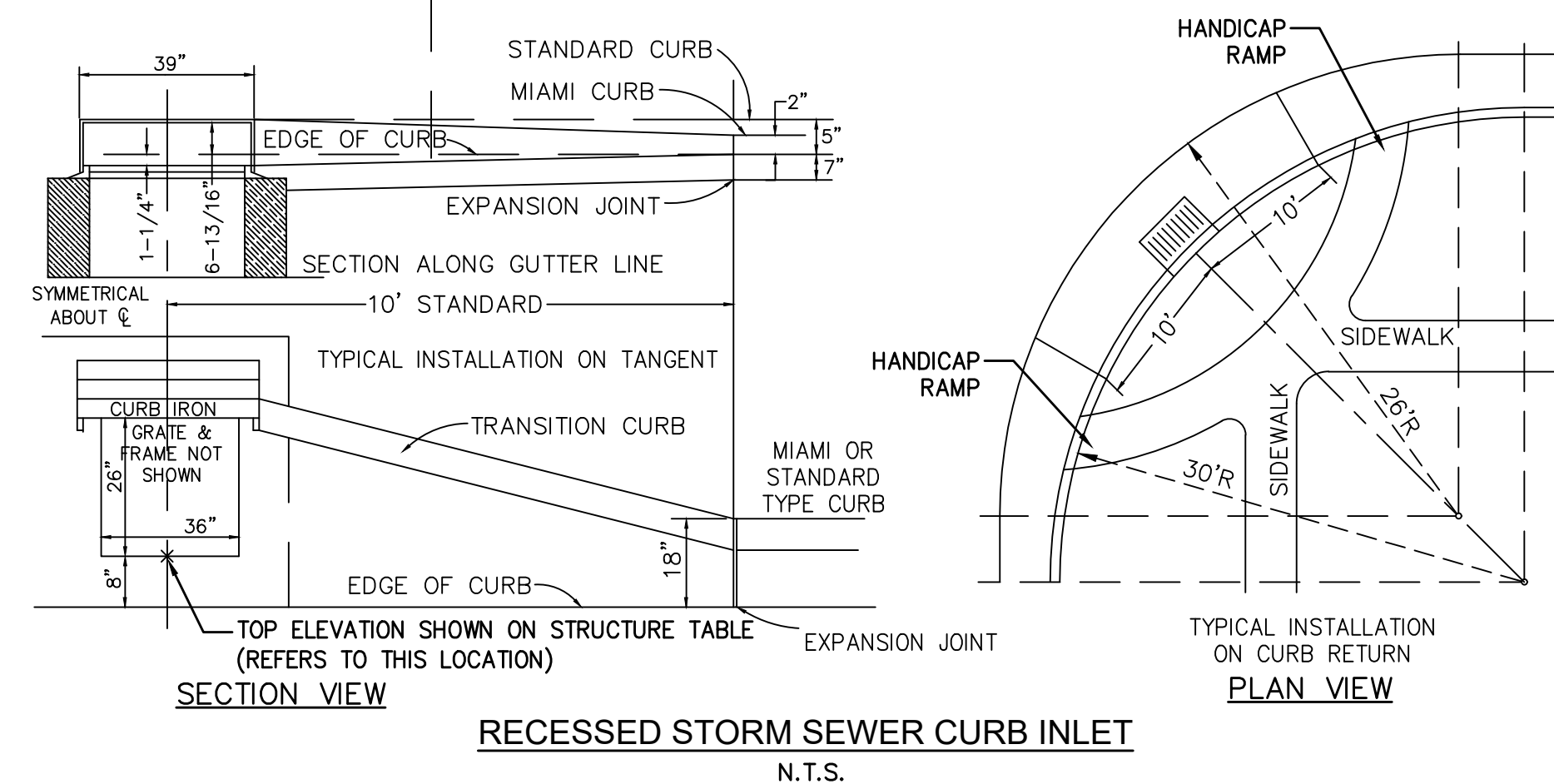
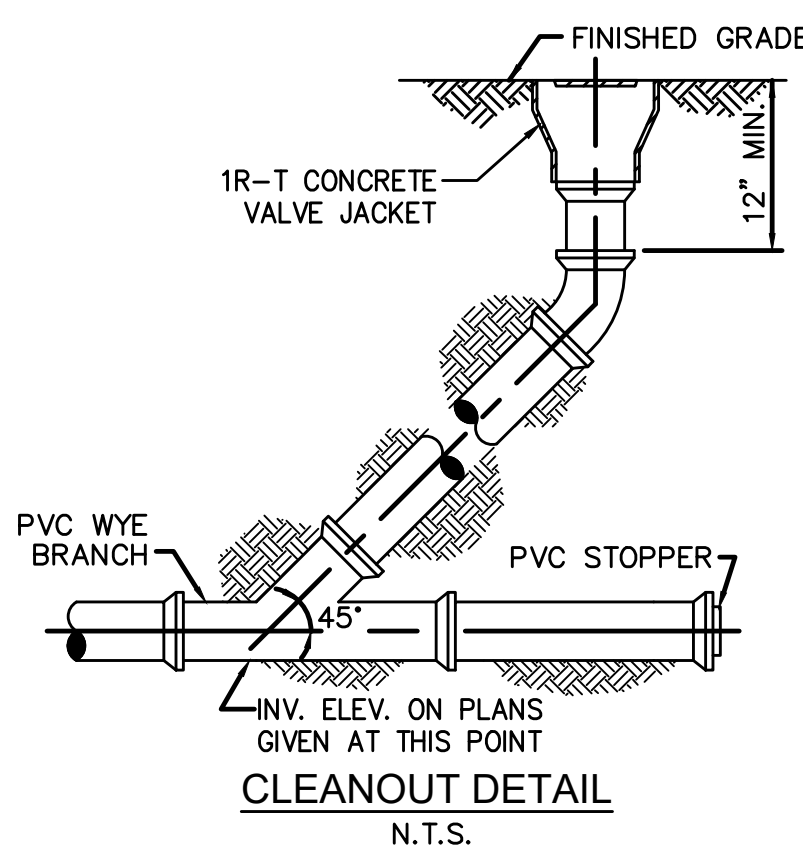
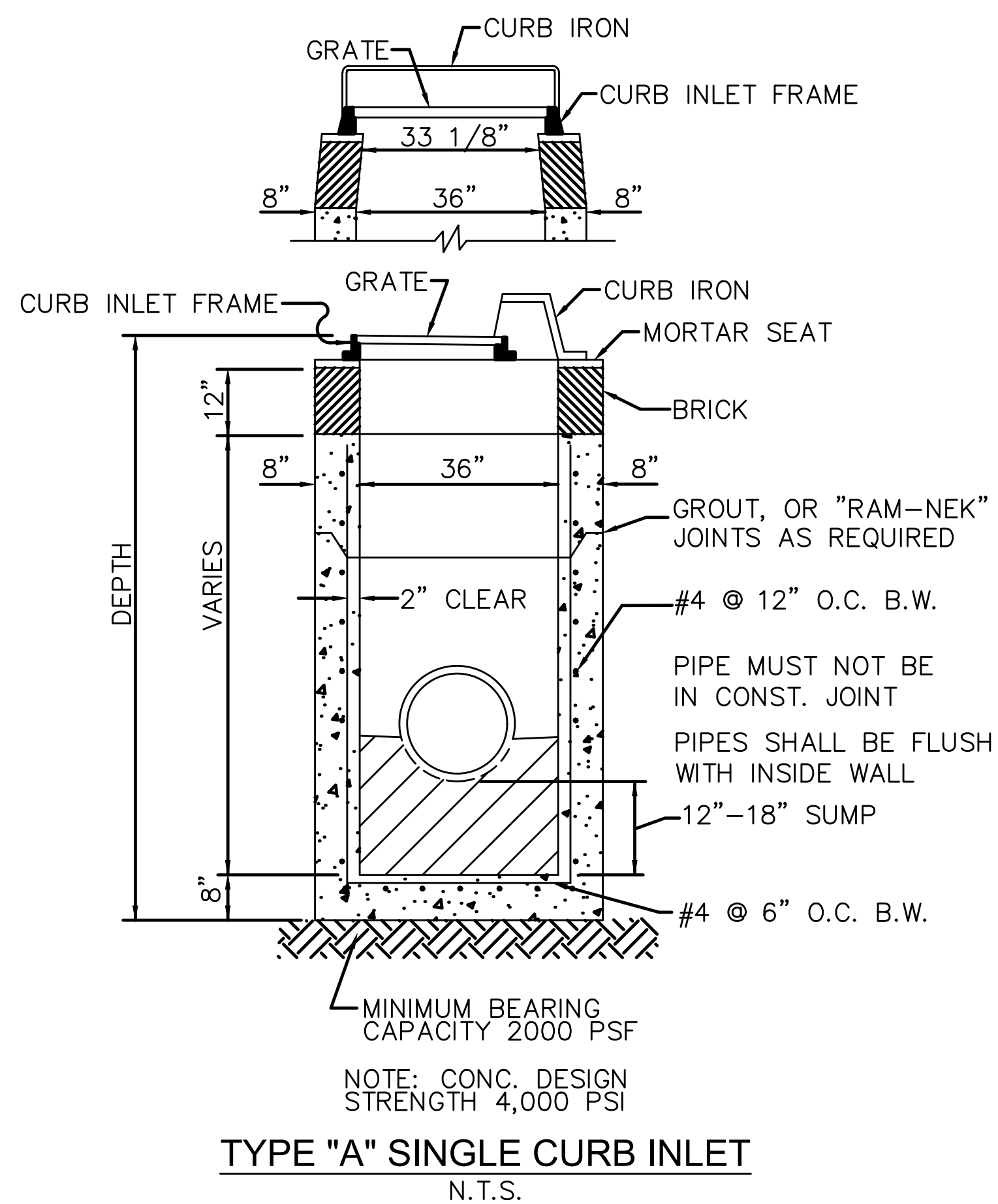
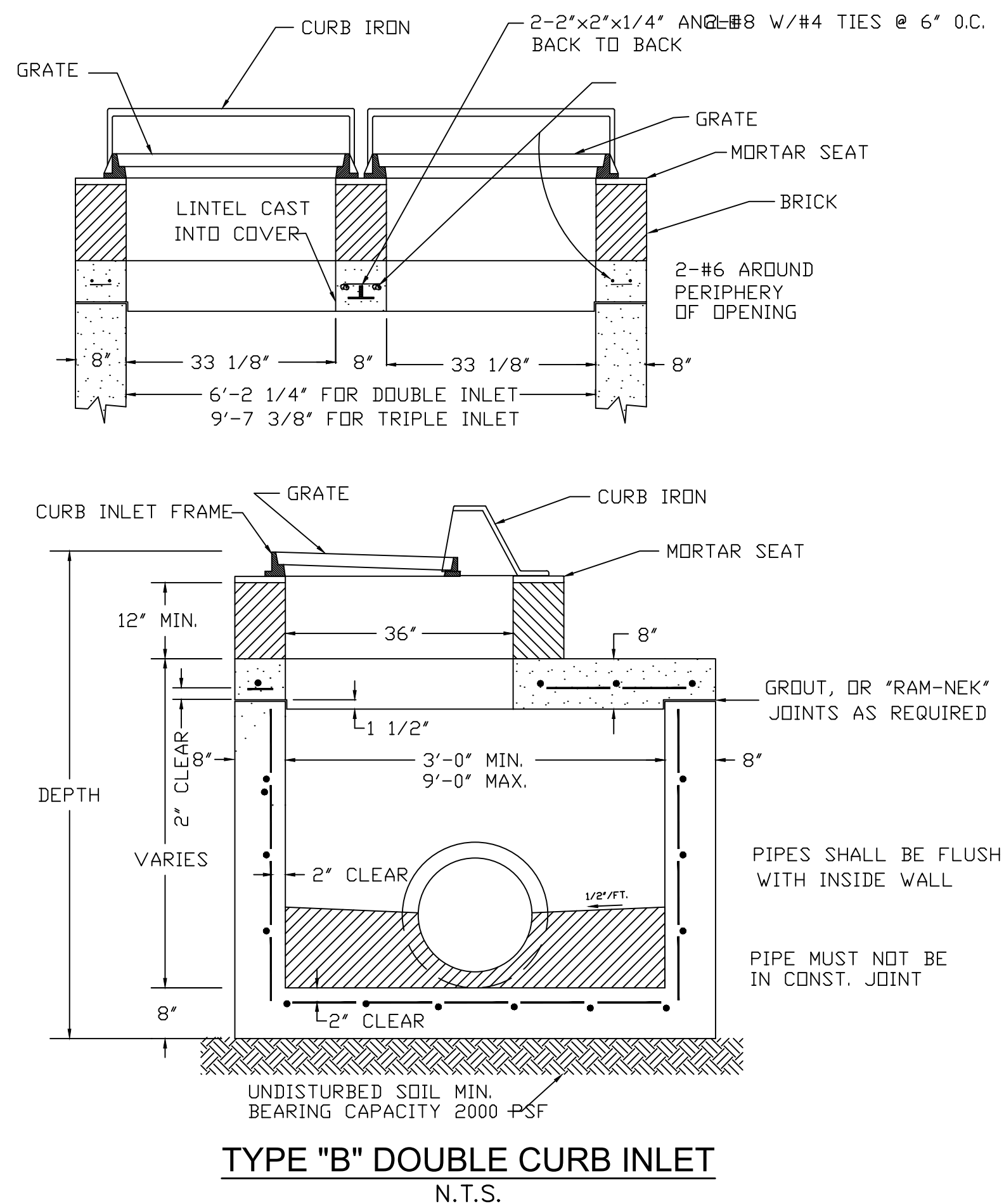
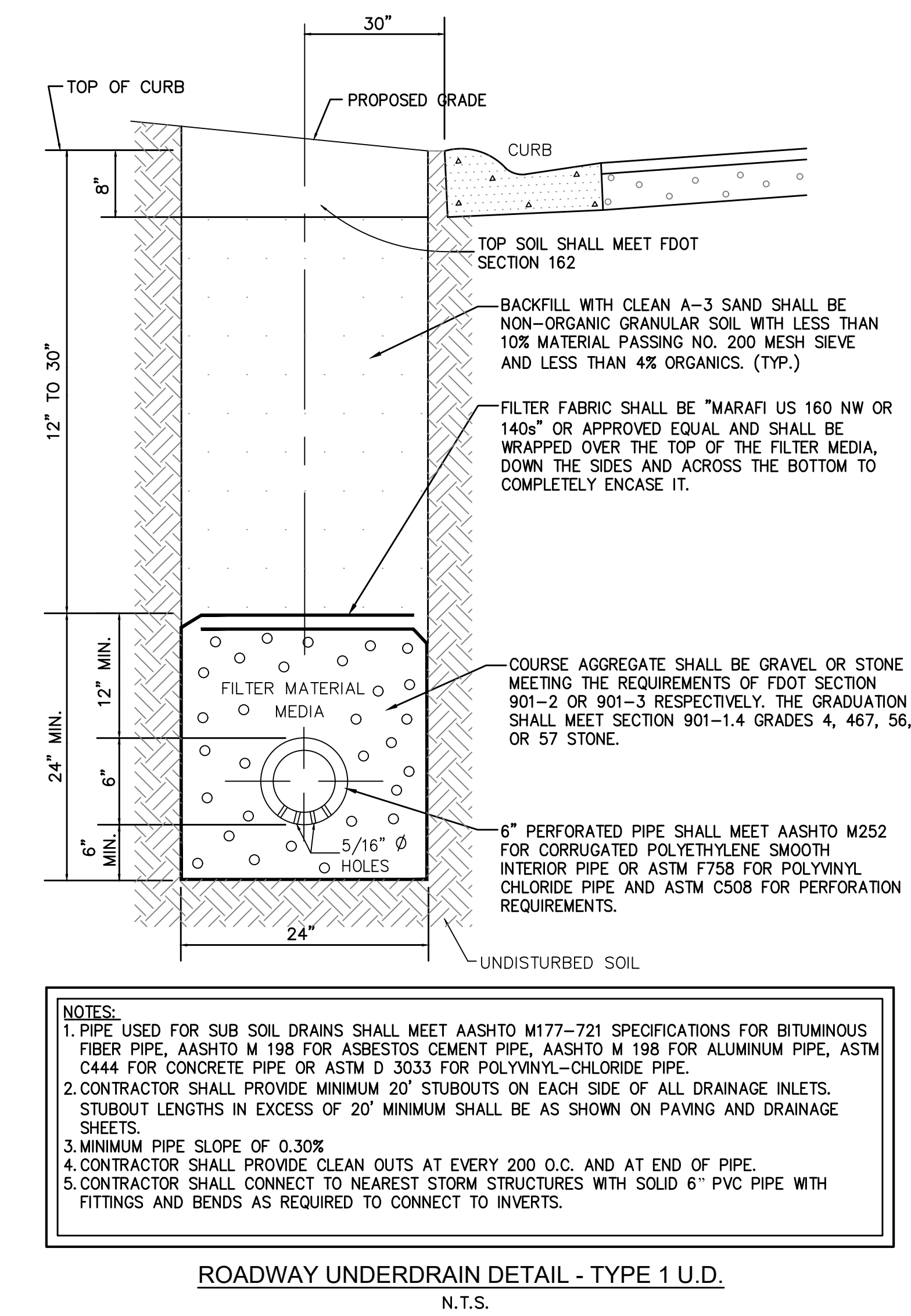
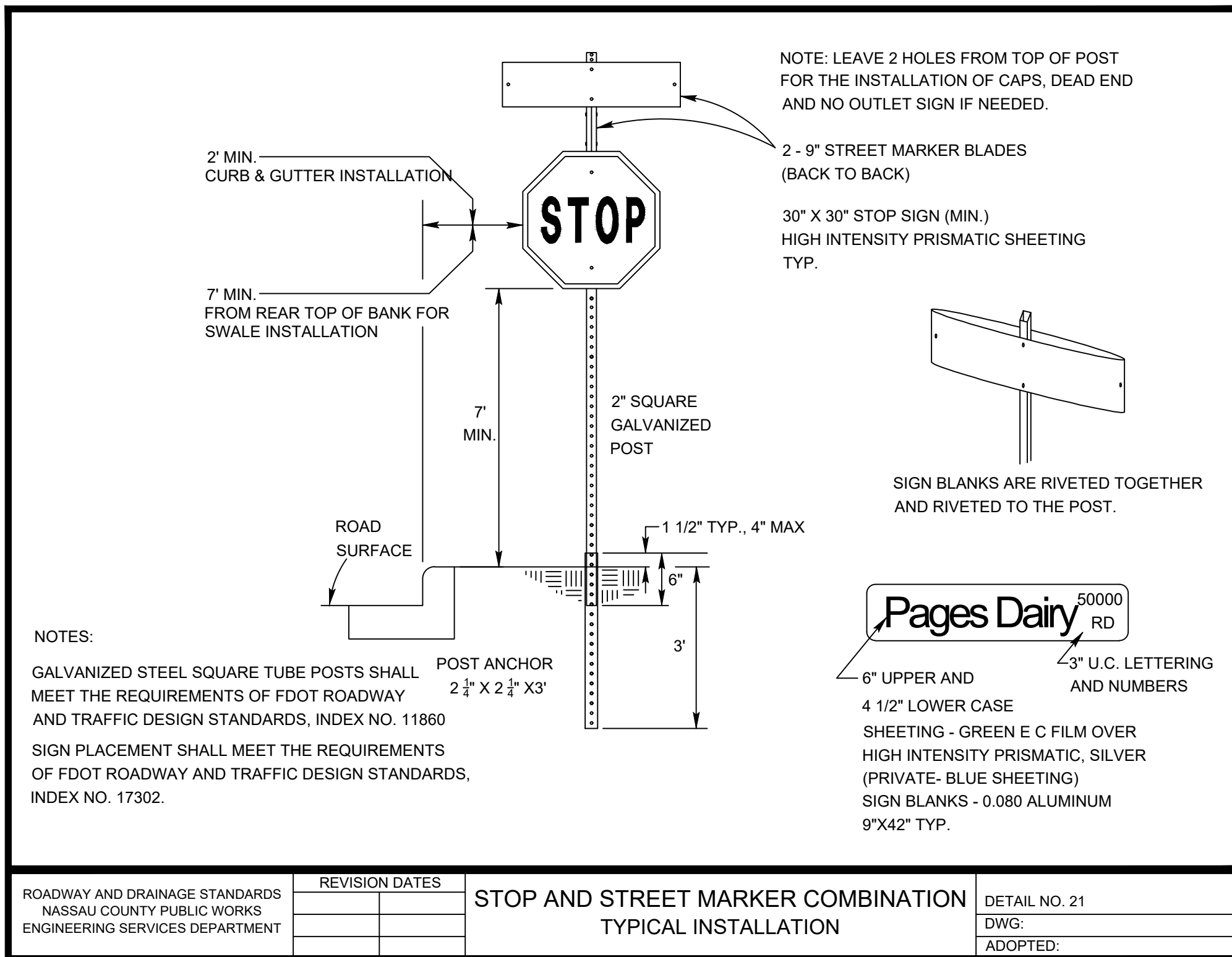
ALL SIDEWALK CURB RAMP SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB

CURB RAMP DETECTABLE WARNING
N.T.S.



| No. | Date | Revision |
|-----|------|----------|
| | | |
| | | |
| | | |
| | | |





OW Connelly & Wicker Inc.
Engineering - Landscape Architecture
10060 Skimmer Lake Drive, Suite 500 Jacksonville, Florida 32246
(904) 265-3030 FAX: (904) 265-3031 www.owcon.com
Florida Registry 5650 L.A. Number: LC26000311

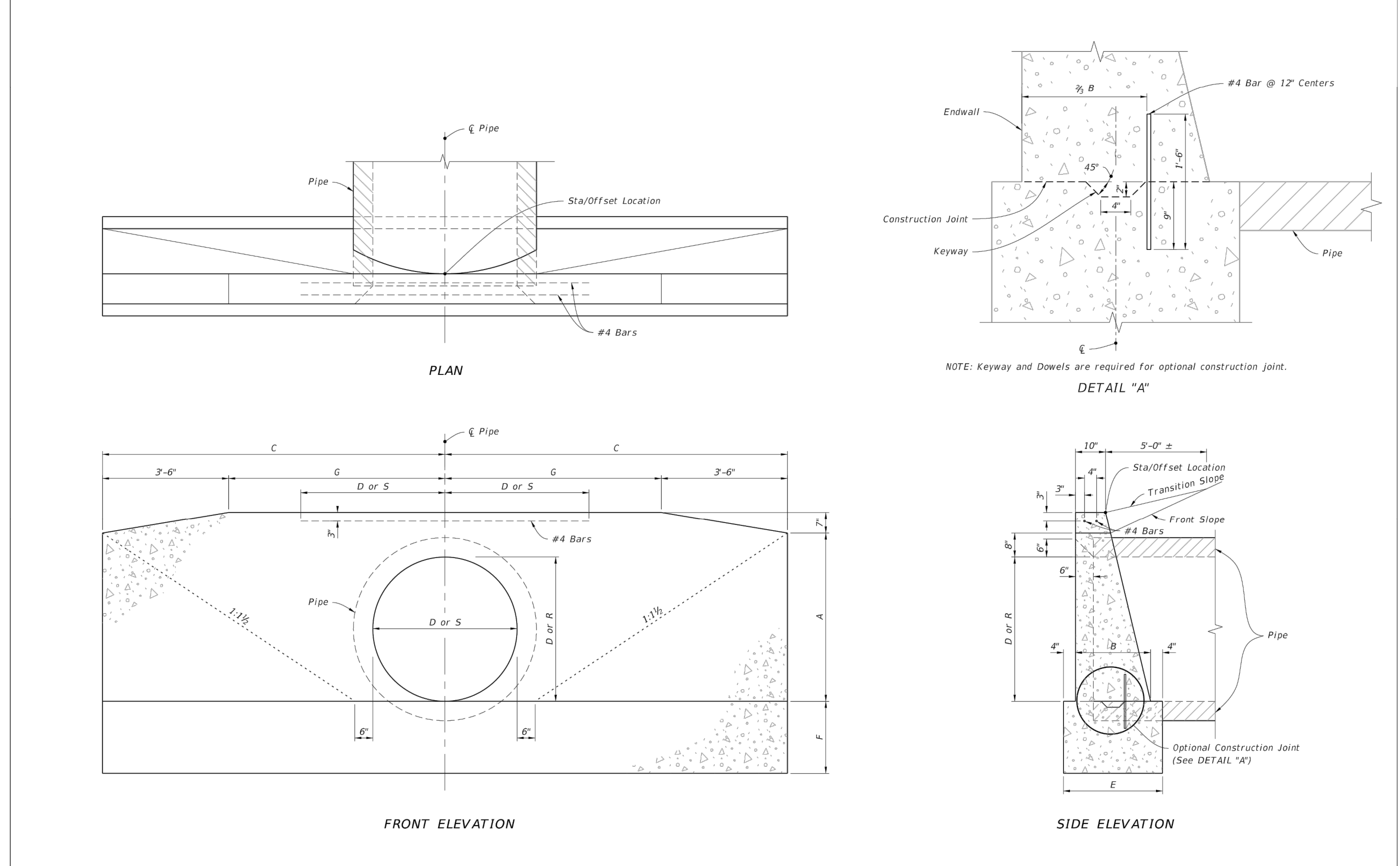
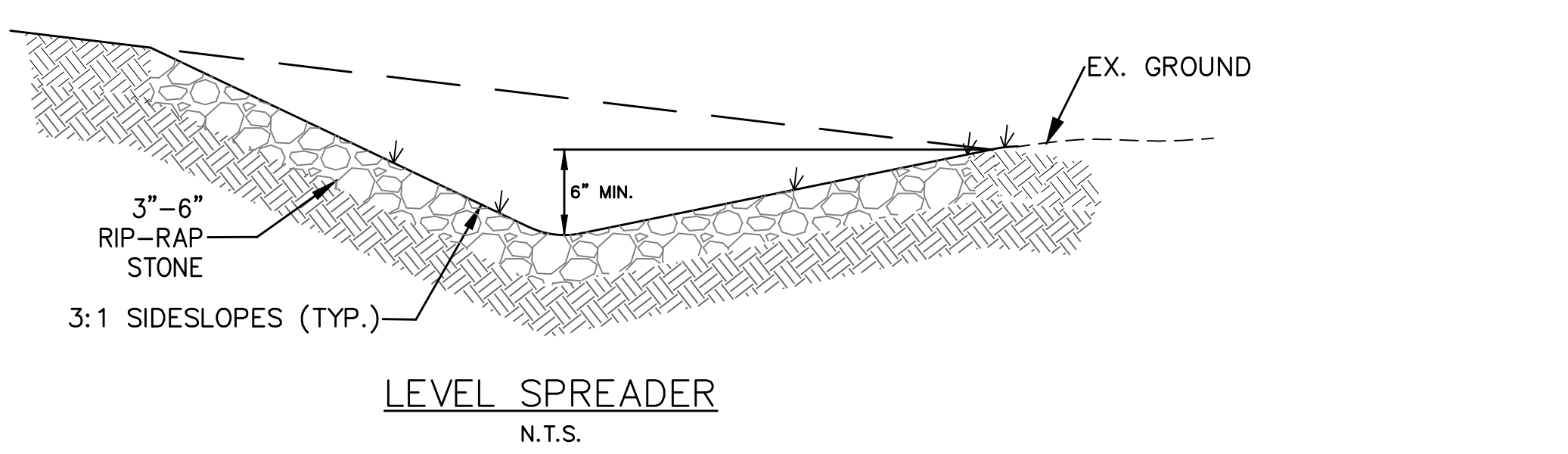
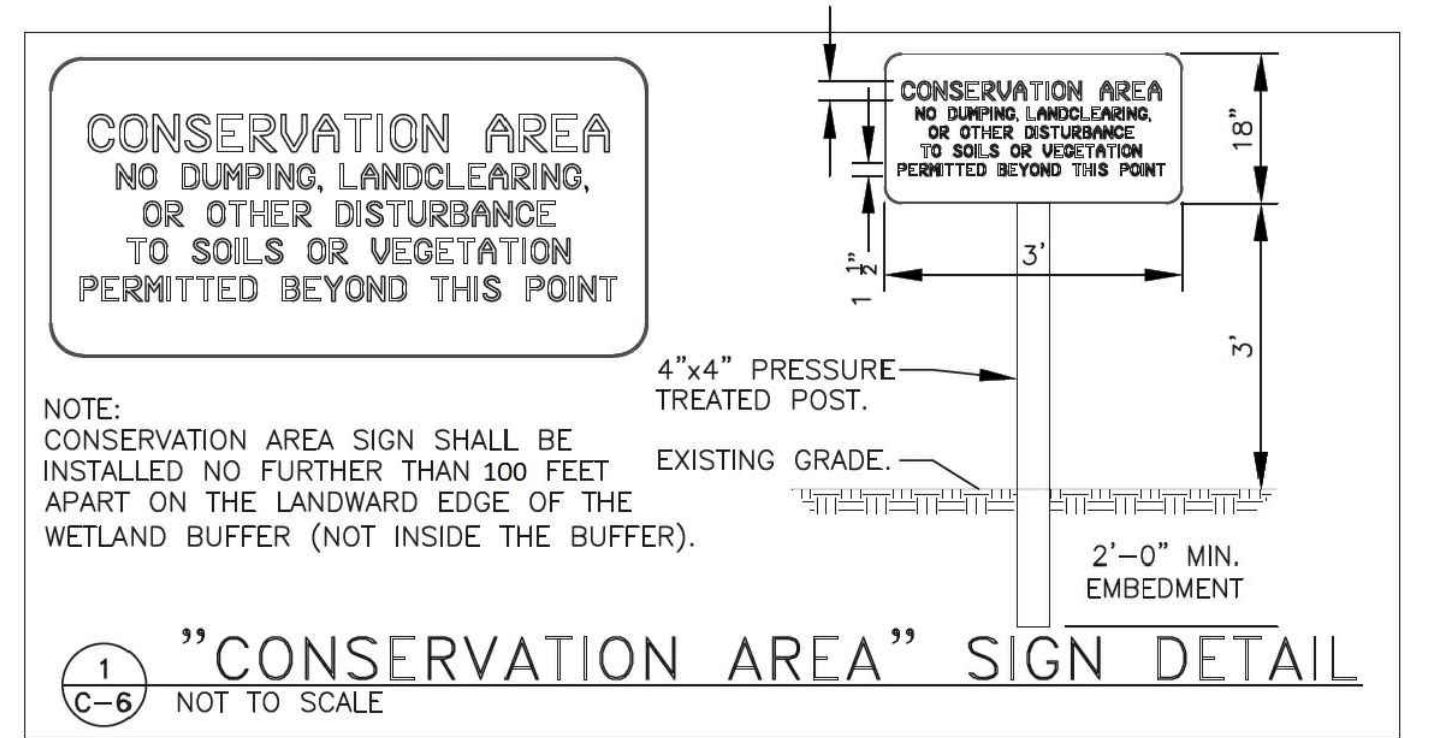
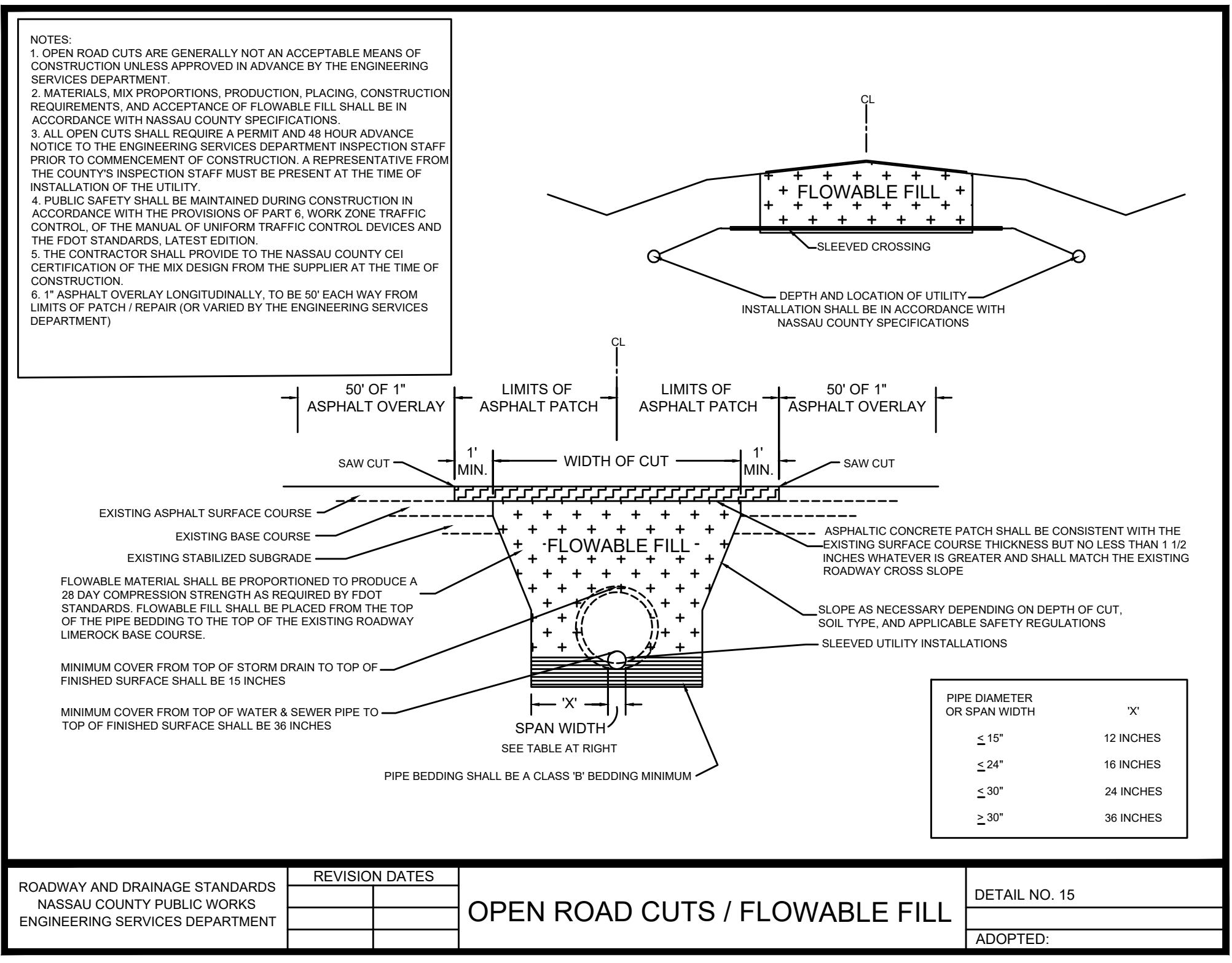
PAVING AND DRAINAGE DETAILS

SANDY BLUFF SUBDIVISION

PREPARED FOR
SANDY BLUFF DEVELOPMENT INC

THIS DRAWING IS THE PROPERTY OF CONNELLY & WICKER INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED ON REQUEST.

Project No.: 21-01-0057
Designed: MEL
Date: 10/25/23
Scale: N/A
Drawn: ANB
Sheet: 14B



LAST REVISION: 11/01/19
DESCRIPTION: FY 2021-22 STANDARD PLANS
SD: STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE
INDEX: 430-030
SHEET: 2 of 4

ROUND CONCRETE AND CORRUGATED METAL PIPE

| Dia. D | Opening Area (SF) | Dimensions | | | | | | | | | | | | Class I Concrete (CY) | | | | | | | | | | | | | | |
|--------|-------------------|-----------------|------|------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-----------------------|-------|------|------|---|------|------|------|-----------|------|------|------|------|------|------|
| | | Number Of Pipes | | | | A | | | | B | | | | C | | | | Number Of Pipe And Skew Angle Of Pipe (α) | | | | Quadruple | | | | | | |
| 12" | 1.23 | 2.46 | 3.69 | 4.92 | 1'-11" | 1'-2" | 4'-0" | 1'-10" | 1'-2" | 0'-0" | 2'-2" | 2'-2" | 2'-8" | 3'-0" | 3'-8" | 1.23 | 1.59 | 1.60 | 1.63 | 1.74 | 1.94 | 1.96 | 2.05 | 2.23 | 2.30 | 2.34 | 2.47 | 2.74 |

ELLIPTICAL CONCRETE AND CORRUGATED METAL PIPE ARCH

| Pipe Rise R | Span S | Opening Area (SF) | | | | Dimensions | | | | | | | | | | | | Class I Concrete (CY) | | | | | | | | | | | |
|-------------|--------|-------------------|-----|-----|-----|------------|-------|-------|--------|-------|-------|--------|--------|-------|-------|------|------|---|------|------|------|-----------|------|------|------|------|------|------|--|
| | | Number Of Pipes | | | | A | | | | B | | | | C | | | | Number Of Pipe And Skew Angle Of Pipe (α) | | | | Quadruple | | | | | | | |
| 12" | 18" | 1.3 | 2.6 | 3.9 | 5.2 | 1'-8" | 1'-2" | 3'-9" | 1'-10" | 1'-2" | 0'-2" | 2'-10" | 2'-11" | 3'-3" | 4'-9" | 1.09 | 1.45 | 1.46 | 1.51 | 1.60 | 1.80 | 1.82 | 1.91 | 2.09 | 2.16 | 2.20 | 2.33 | 2.60 | |

NOTES:
 1. Dimension X is calculated as: $X = S^2 \sec \alpha$
 2. Select tabular quantities using skew values as follows:

| | |
|------------------|---------------------|
| End Skew to Pipe | Use Tabulated Value |
| 0° to 5° | 0° |
| 6° to 15° | 15° |
| 16° to 30° | 30° |
| 31° or over | 45° |

LAST REVISION: 11/01/19
DESCRIPTION: FY 2021-22 STANDARD PLANS
SD: STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE
INDEX: 430-030
SHEET: 3 of 4

Connelly & Wicker Inc.
 Engineering • Landscape Architecture
 10060 Skimmer Lake Drive, Suite 500 Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.connelly-wicker.com
 Florida Registry 3630 L.A. Number: LC26000031

| No. | Date | Revision |
|-----|------|----------|
| | | |
| | | |
| | | |
| | | |

PAVING AND DRAINAGE DETAILS

SANDY BLUFF SUBDIVISION
 PREPARED FOR SANDY BLUFF DEVELOPMENT INC

STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 No. 61449
 M. L. LEAP, P.E.
 LICENSED PROFESSIONAL ENGINEER
 IN THE STATE OF FLORIDA
 EXP. DATE 12/31/2024

Project No.: 21-01-0057
 Designed: MEL
 Date: 10/25/23
 Drawn: ANB
 Scale: N/A

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

| CONFLICTING UTILITY | PROPOSED UTILITY | | | | | | | | | | | |
|--|------------------|-------|----------------|-----------------------------------|---------------|----------------|-----------------|-------|----------------|-----------------|-------|----------------|
| | POTABLE WATER | | | WASTEWATER GRAVITY AND FORCE MAIN | | | RECLAIMED WATER | | | VACUUM SEWERS | | |
| | HORIZ. | VERT. | JOINT SPACING* | HORIZ. | VERT. | JOINT SPACING* | HORIZ. | VERT. | JOINT SPACING* | HORIZ. | VERT. | JOINT SPACING* |
| POTABLE WATER | 3' NOTE 1 | 12" | 3' NOTE 2 | 6' to 10' | 12" NOTE 5 | 6' NOTE 2 | 3' | 12" | 6' NOTE 2 | 3' to 10' | 12" | 3' NOTE 2 |
| RECLAIMED WATER | 3' | 12" | 6' NOTE 2 | 3' NOTE 1 | 12" | 6' NOTE 2 | 3' | 12" | 6' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 |
| WASTEWATER (GRAVITY AND FORCE MAIN) | 6' to 10' | 12" | 6' NOTE 2 | 3' NOTE 1 | 12" | 6" | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 |
| VACUUM SEWERS | 3' to 10' | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 6" | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 |
| RIGHT OF WAYS | 3' NOTE 1 | N/A | N/A | 3' NOTE 1 | N/A | N/A | 3' NOTE 1 | N/A | N/A | 3' NOTE 1 | N/A | N/A |
| PERMANENT STRUCTURES (BUILDINGS, SIGNS, POLES, ETC.) | SEE NOTE 7 | N/A | N/A | SEE NOTE 7 | N/A | N/A | SEE NOTE 7 | N/A | N/A | SEE NOTE 7 | N/A | N/A |
| STORM SEWERS | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 |
| GAS | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 |
| TREES | 3'-6' NOTE 6 | N/A | N/A | 3'-6' NOTE 6 | N/A | N/A | 3'-6' NOTE 6 | N/A | N/A | 3'-6' NOTE 6 | N/A | N/A |
| ALL OTHER UTILITIES | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 | 3' NOTE 1 | 12" | 3' NOTE 2 |

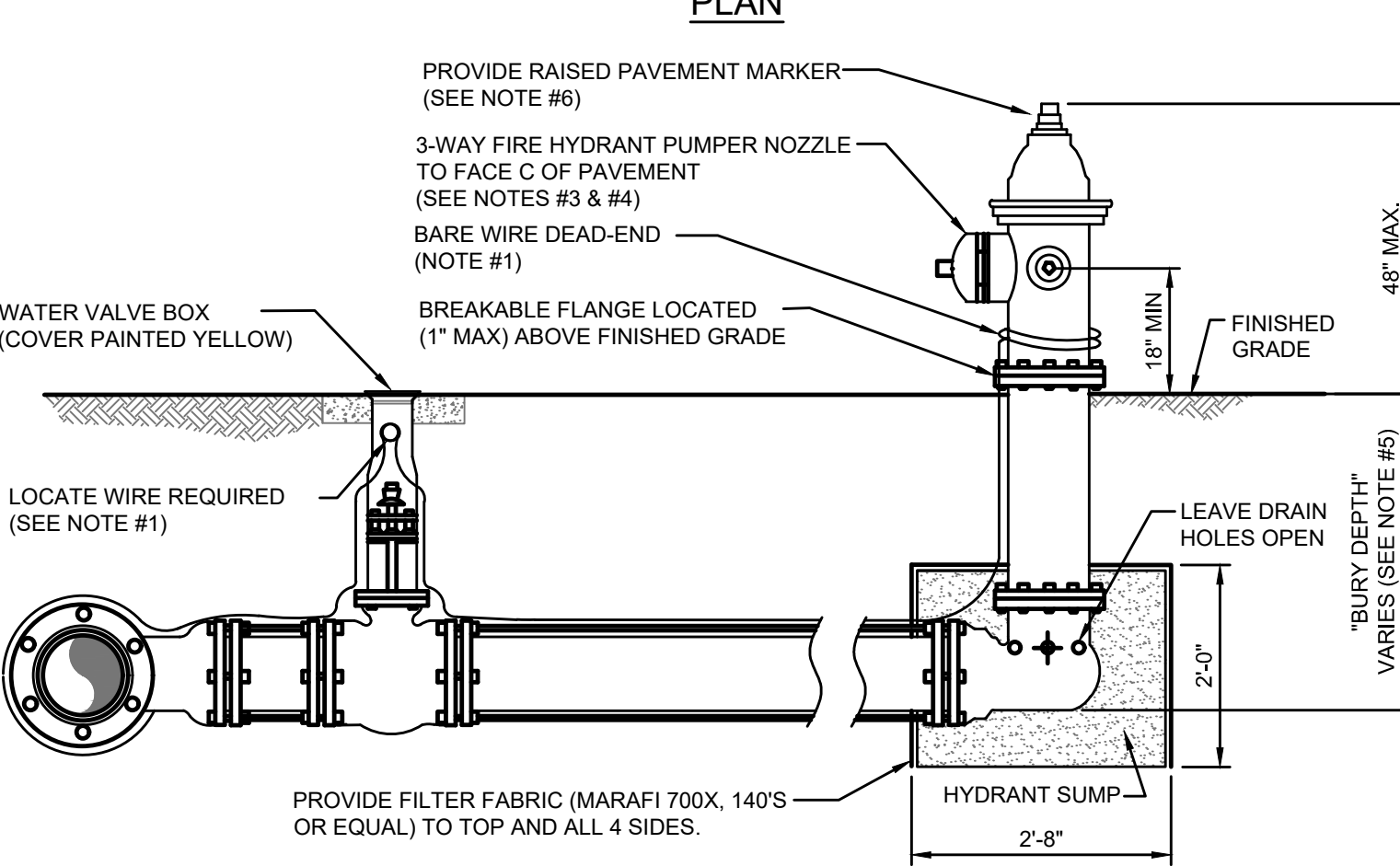
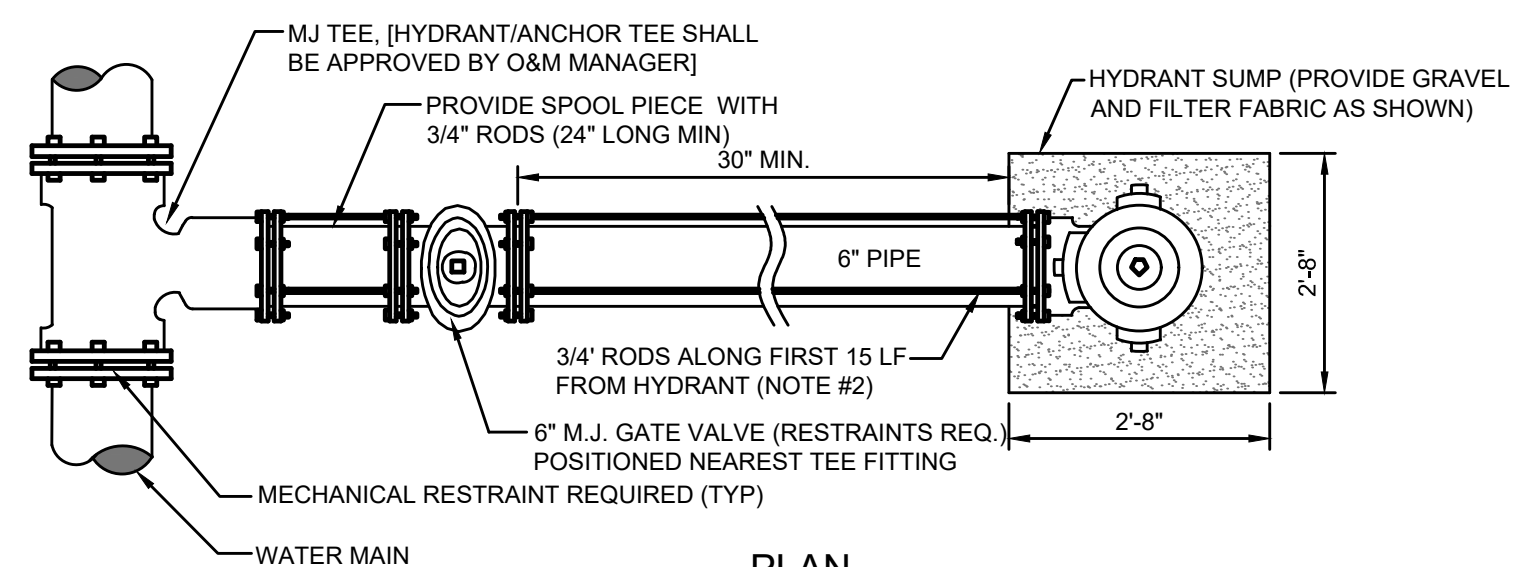
- NOTES:**
- THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTH, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
 - THE MINIMUM JOINT SPACING REQUIRED FROM CROSSING FROM OTHER UTILITIES WHILE STILL MAINTAINING MINIMUM VERTICAL SEPARATION.
 - DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
 - NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURES.
 - WATER MAIN SHOULD CROSS ABOVE OTHER PIPES WHENEVER POSSIBLE. WHEN WATER MAIN MUST BE BELOW OTHER UTILITY PIPING, THE MINIMUM SEPARATION SHALL BE 12 INCHES.
 - REFER TO POTABLE WATER PIPING- SECTION 350, III.4.1.1.
 - SEE SECTION 350, III.4.10 FOR MINIMUM SEPARATION REQUIREMENTS FROM PIPE TO STRUCTURES.

SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS
JANUARY 2023 PLATE W-10

WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS - NOTES

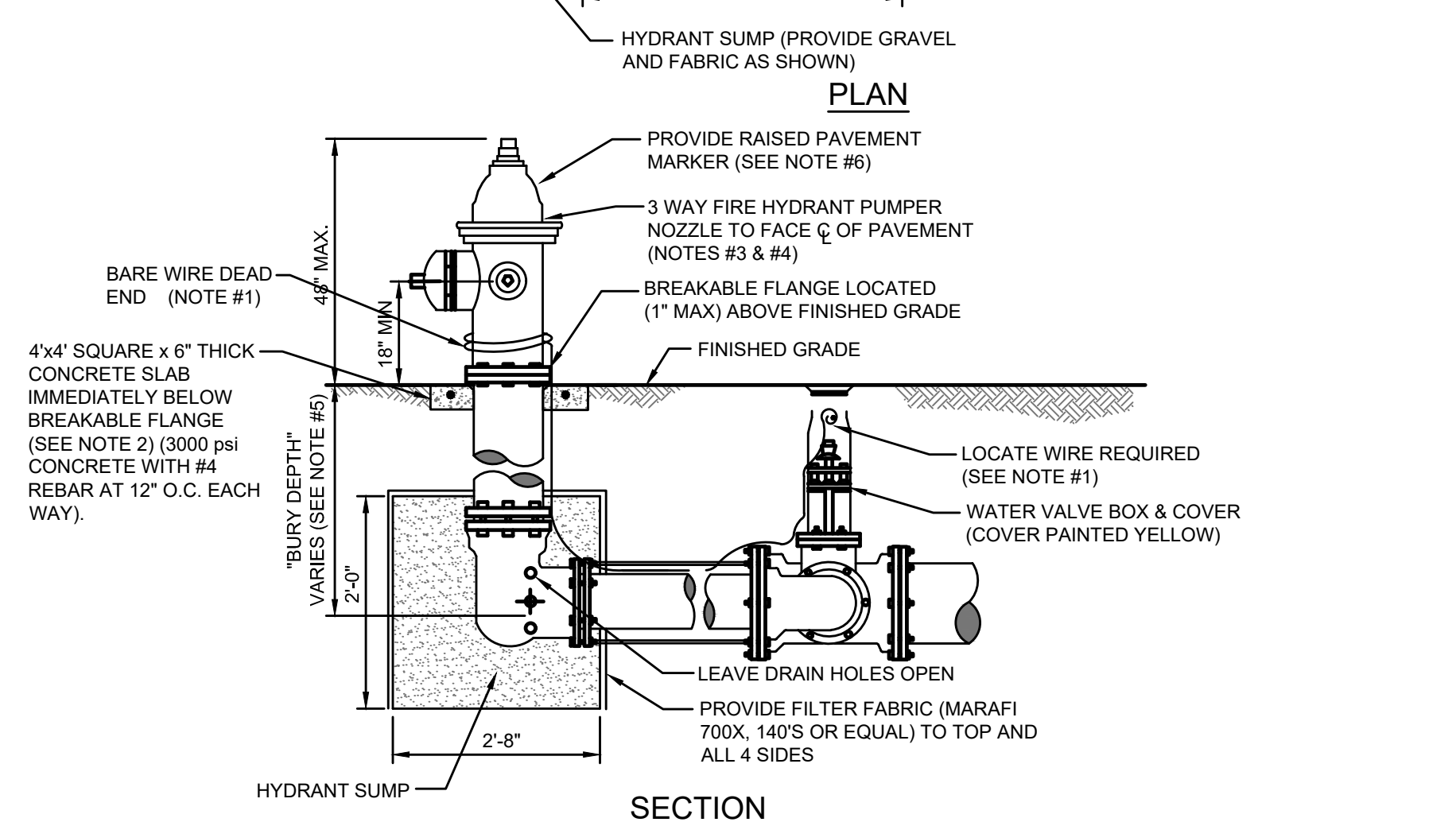
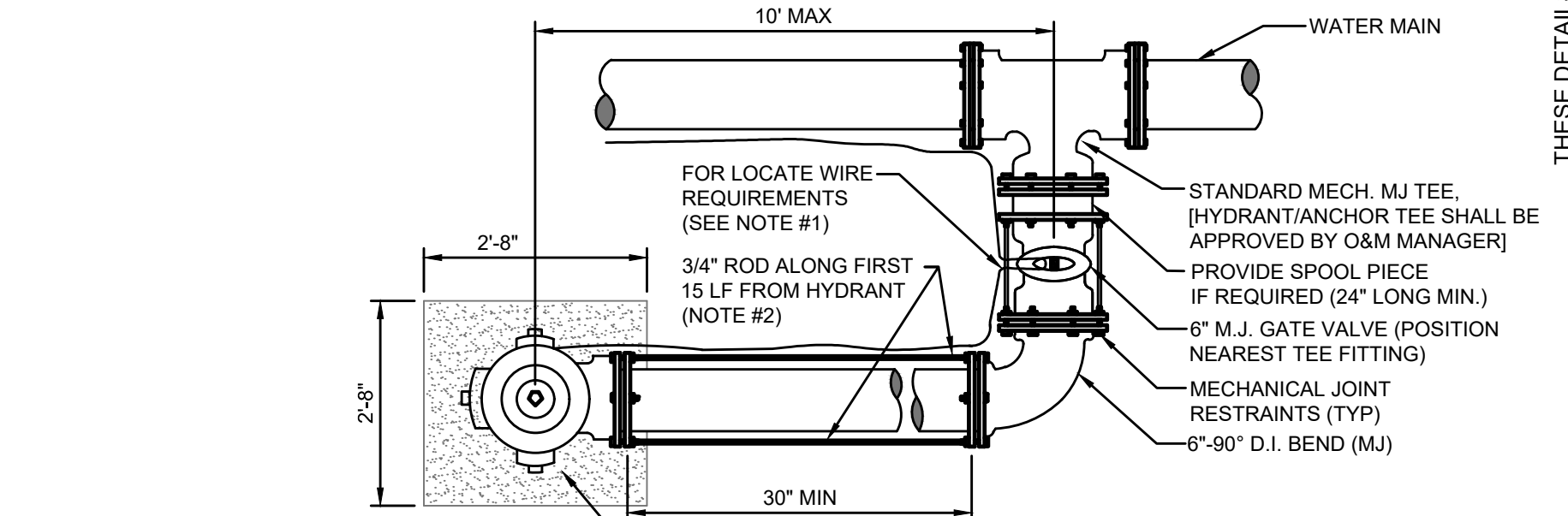
- IT IS REQUIRED THAT "WATER MAINS" BE INSTALLED, CLEANED, DISINFECTED AND HAVE A SATISFACTORY BACTERIOLOGICAL SURVEY PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE AWWA STANDARDS, CHAPTER 62-555, F.A.C. AND LATEST JEA WATER AND SEWER STANDARDS. FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER, FIRE HYDRANT LEADS, AND SERVICE LINES THAT HAVE AN INSIDE DIAMETER OF THREE (3) INCHES OR GREATER. IN ADDITION, THE PHRASE "RECLAIMED WATER" REFERS TO THE WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER.
- NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER (SPECIAL CASE).
- NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLY TWELVE (12) INCHES, ABOVE OR AT LEAST TWELVE (12) INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER, SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST TWELVE (12) INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- AT THE UTILITY CROSSINGS DESCRIBED IN NOTES 4 AND 5 ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE (3) FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX (6) FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINE CONVEYING RECLAIMED WATER.
- NEW OR RELOCATED FIRE HYDRANTS SHALL BE LOCATED SO THAT THE HYDRANTS ARE AT LEAST THREE (3) FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER; AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR WASTEWATER FORCE MAIN.
- WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE, THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS, PRIOR TO CONSTRUCTION.

NOTES ON UTILITY SEPARATION REQUIREMENTS
JANUARY 2023 PLATE W-11



- NOTES:**
- LOCATE WIRE SHALL BE ROUTED FROM THE VALVE TO THE HYDRANT AS SHOWN ABOVE LEAVING ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE. THE END OF THE WIRE SHALL BE SECURED TO THE PIPE MAIN. SEE SECTION 350, LOCATE WIRE INSTALLATION PARAGRAPH.
 - FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK AND NOT WITHIN SWALE/DITCH AREAS. THE DISTANCE RANGE FROM EDGE OF ADJACENT PAVEMENT, BACK OF CURB AND FACE OF SIDEWALK SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA AND APPLICABLE PERMITTING AGENCIES. DISTANCE SHALL BE MEASURED TO THE CLOSEST PART OF THE FIRE HYDRANT (I.E. THE PUMPER NOZZLE). THE MAXIMUM DISTANCE (BACK OF CURB) SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA. FOR OTHER LOCATION LIMITATIONS SEE PLATES W-10 AND W-11. IF PIPING BETWEEN TEE AND HYDRANT IS LONGER THAN 80 LF, AN ADDITIONAL 6" GATE VALVE IS REQUIRED AT THE HYDRANT LOCATION (PROVIDE 30" SEPARATION). ALL PIPING, VALVES AND FITTINGS ALONG THE HYDRANT BRANCH MAIN WHICH IS WITHIN 15 LF OF THE HYDRANT SHALL BE RESTRAINED UTILIZING ONLY TWO 3/4" DIA (THREADED ENDS) STEEL RODS AND EYE BOLTS (NO JOINT RESTRAINT DEVICES REQUIRED). A SPLIT SERRATED RING WITH RESTRAINT EARS (EBA 15 PF06 or EQUAL) MAYBE USED IN THIS ASSEMBLY. ALL OTHER JOINTS ALONG THE HYDRANT BRANCH MAIN OUTSIDE OF THE FIRST 15 LF SHALL INCLUDE JOINT RESTRAINTS.
 - OPERATION OF THE FIRE HYDRANT SHALL BE EITHER FULL OPEN POSITION OR TOTALLY CLOSED POSITION. THE HYDRANT SHALL NOT BE UTILIZED TO THROTTLE OUTLET FLOW.
 - PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE RE-OILED, GREASED AND REPAINTED (RUS- KIL ENAMEL-INTERNATIONAL YELLOW OR EQUAL), PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS SHALL BE PAINTED RED.
 - FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THIS IS ESPECIALLY IMPORTANT FOR BRANCH LINES WHICH TEE-OFF A 12" OR LARGER WATER MAIN UNLESS APPROVED OTHERWISE BY JEA. THE INSTALLATION OF (45°) BENDS IS NOT ACCEPTABLE WHEN UTILIZED TO CORRECT AN IMPROPERLY FURNISHED HYDRANT. THE USE OF HYDRANT EXTENSIONS SHOULD BE MINIMIZED.
 - BLUE REFLECTIVE MARKERS SHALL BE INSTALLED IN SUCH A MANNER THAT THE REFLECTIVE FACE OF THE MARKER IS PERPENDICULAR TO A LINE PARALLEL TO THE ROADWAY CENTERLINE. THE BLUE REFLECTIVE MARKERS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, DIRECTLY ACROSS FROM AND ADJACENT TO EACH FIRE HYDRANT.

FIRE HYDRANT INSTALLATION USING MECHANICAL JOINT TEE
JANUARY 2023 PLATE W-13



- NOTES:**
- LOCATE WIRE SHALL BE ROUTED FROM THE VALVE TO THE HYDRANT AS SHOWN ABOVE LEAVING ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE. THE END OF THE WIRE SHALL BE SECURED TO THE PIPE MAIN. SEE SECTION 350, LOCATE WIRE INSTALLATION PARAGRAPH.
 - FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK. ALL HYDRANTS SHALL BE LOCATED NO LESS THAN THREE (3) FEET FROM THE EDGE OF PAVEMENT OR BACK OF CURB OF THE ADJACENT ROADWAY AND NO LESS THAN THREE (3) FEET FROM ANY PHYSICAL FEATURE WHICH MAY OBSTRUCT ACCESS OR VIEW OF ANY HYDRANT UNLESS OTHERWISE APPROVED BY THE JEA. THE MAXIMUM DISTANCE (BACK OF CURB) SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA. FOR OTHER LOCATION LIMITATIONS SEE PLATES W-10 AND W-11. IF PIPING BETWEEN TEE AND HYDRANT IS LONGER THAN 80 LF, AN ADDITIONAL 6" GATE VALVE IS REQUIRED AT THE HYDRANT LOCATION (PROVIDE 30" SEPARATION). ALL PIPING, VALVES AND FITTINGS ALONG THE HYDRANT BRANCH MAIN WHICH IS WITHIN 15 LF OF THE HYDRANT SHALL BE RESTRAINED UTILIZING ONLY TWO 3/4" DIA (THREADED ENDS) STEEL RODS AND EYE BOLTS (NO JOINT RESTRAINT DEVICES REQUIRED). A SPLIT SERRATED RING WITH RESTRAINT EARS (EBA 15 PF06 or EQUAL) MAYBE USED IN THIS ASSEMBLY. ALL OTHER JOINTS ALONG THE HYDRANT BRANCH MAIN OUTSIDE OF THE FIRST 15 LF SHALL INCLUDE JOINT RESTRAINTS.
 - OPERATION OF THE FIRE HYDRANT SHALL BE EITHER FULL OPEN POSITION OR TOTALLY CLOSED POSITION. THE HYDRANT SHALL NOT BE UTILIZED TO THROTTLE OUTLET FLOW.
 - PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE RE-OILED, GREASED AND REPAINTED (RUS- KIL ENAMEL-INTERNATIONAL YELLOW OR EQUAL), PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS SHALL BE PAINTED RED.
 - FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THIS IS ESPECIALLY IMPORTANT FOR BRANCH LINES WHICH TEE-OFF A 12" OR LARGER WATER MAIN UNLESS APPROVED OTHERWISE BY JEA. THE INSTALLATION OF (45°) BENDS IS NOT ACCEPTABLE WHEN UTILIZED TO CORRECT AN IMPROPERLY FURNISHED HYDRANT. THE USE OF HYDRANT EXTENSIONS SHOULD BE MINIMIZED.
 - BLUE REFLECTIVE MARKERS SHALL BE INSTALLED IN SUCH A MANNER THAT THE REFLECTIVE FACE OF THE MARKER IS PERPENDICULAR TO A LINE PARALLEL TO THE ROADWAY CENTERLINE. THE BLUE REFLECTIVE MARKERS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, DIRECTLY ACROSS FROM AND ADJACENT TO EACH FIRE HYDRANT.

FIRE HYDRANT INSTALLATION LIMITED SPACE
JANUARY 2023 PLATE W-14

Connelly & Wicker Inc.
Engineering - Landscape Architecture
10060 Skimmer Lake Drive, Suite 500 Jacksonville, Florida 32246
(904) 265-3030 FAX: (904) 265-3031 www.cwreng.com
Florida Registry 3650 L.A. Number: LC26000311

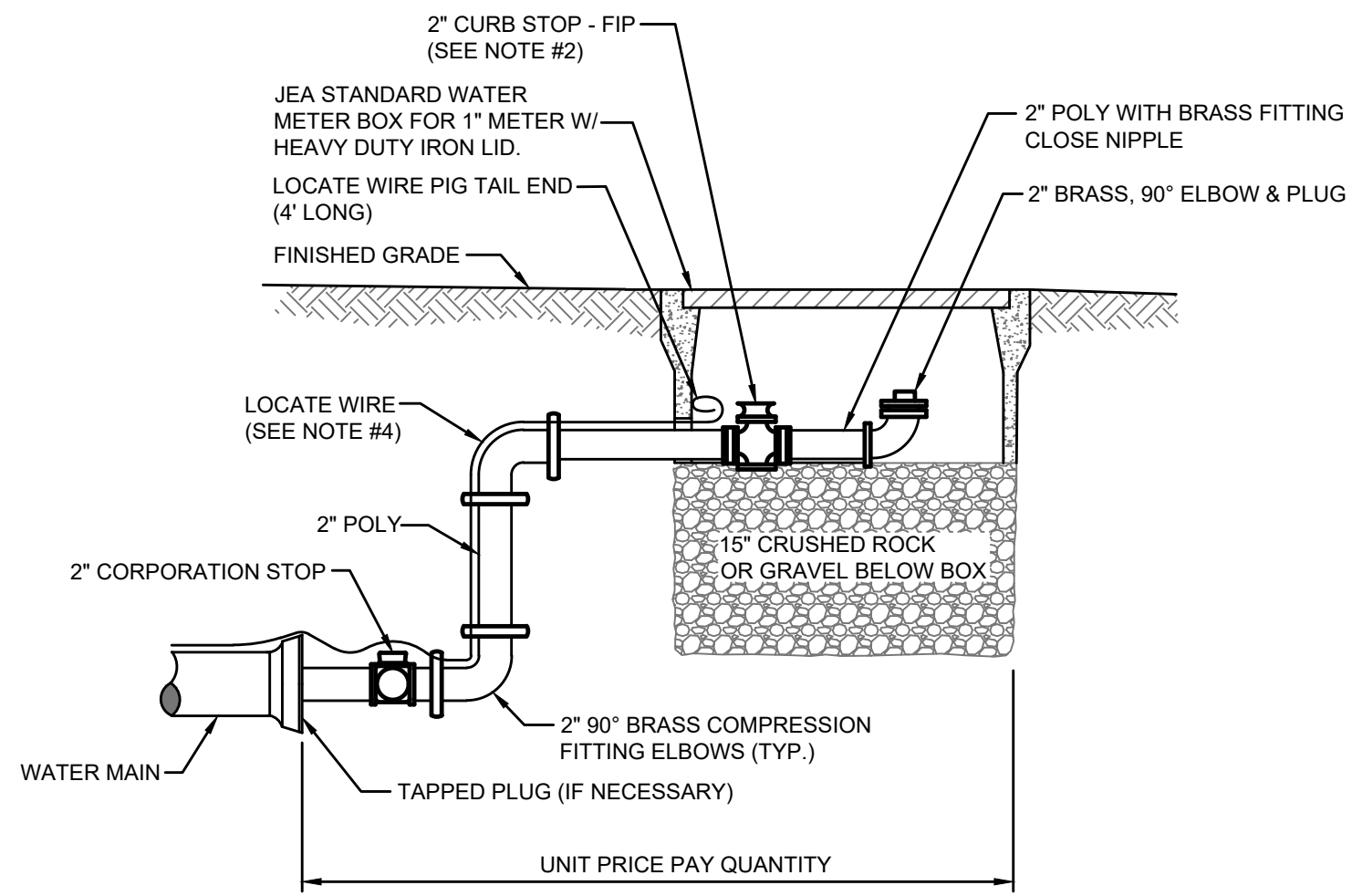
| NO. | BY | DATE | REVISIONS |
|-----|----|------|-----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |

| DESIGN ENGINEER | FLORIDA REGISTRATION NO. |
|----------------------|--------------------------|
| MARY E. LEAPROTT, PE | PE NO. 61449 |

JEA
Building Community™

| NO. SHEETS | PROJ. NO. | DATE | SCALE |
|------------|------------|------------------|----------|
| 15A | 21-01-0057 | October 25, 2023 | AS NOTED |

| DESIGNER | CHECKED BY | DATE |
|----------|------------|------|
| MEL | MEL | |

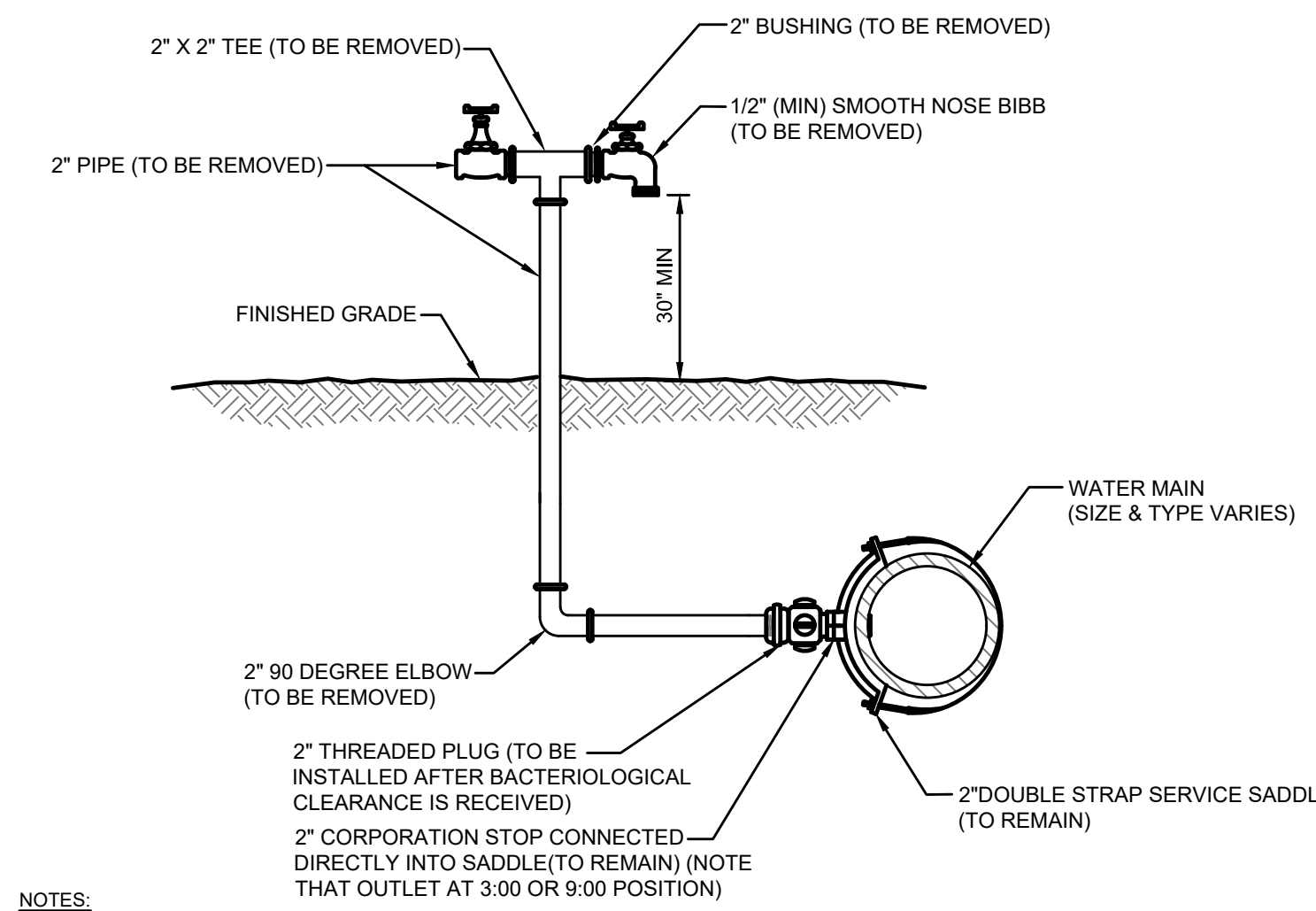


- NOTES:**
1. PIPE SHALL BE POLYETHYLENE. FITTINGS SHALL BE BRASS.
 2. THE 2" CURB STOP SHALL BE ALL BRONZE. FITTINGS SHALL BE BRASS.
 3. ANY RECLAIMED WATER VALVE SHALL HAVE RECLAIMED EMBLEM.
 4. LOCATE WIRE FOR 10' OR GREATER IN LENGTH.
 5. CANNOT BE PLACED UNDER CONCRETE OR PAVEMENT.
 6. PLACE 2 FEET PAST LAST WATER MAIN SERVICE CONNECTION.

FLUSHING VALVE BELOW GRADE

JANUARY 2023

PLATE W-28

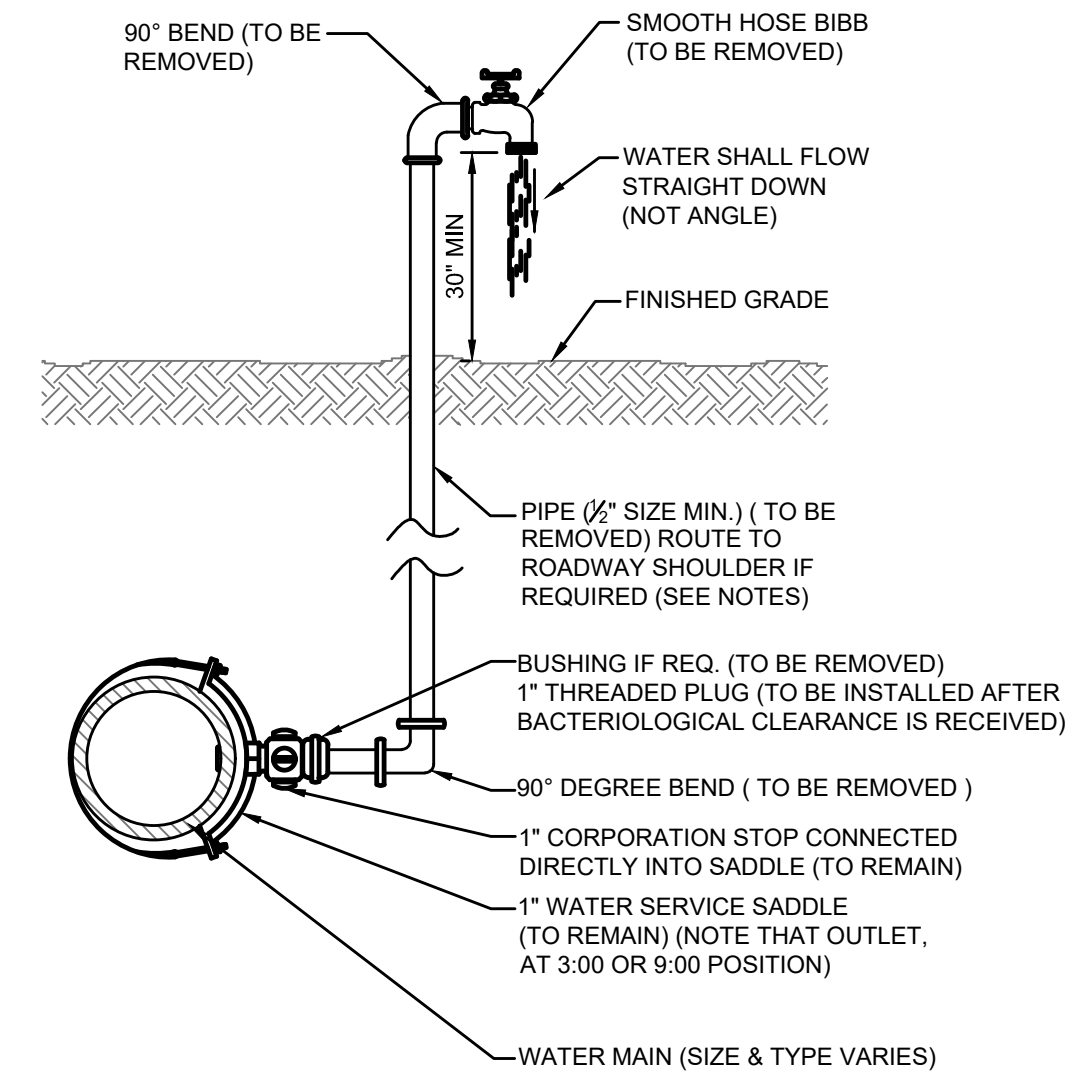


- NOTES:**
1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
 2. ALL PIPE & FITTING SHALL BE GALVANIZED MATERIAL OR PVC (S-40).
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTING (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
 4. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS OUTLINED BY THE JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

2" TEMPORARY SAMPLE TAP FOR STUB OUT

JANUARY 2023

PLATE W-26

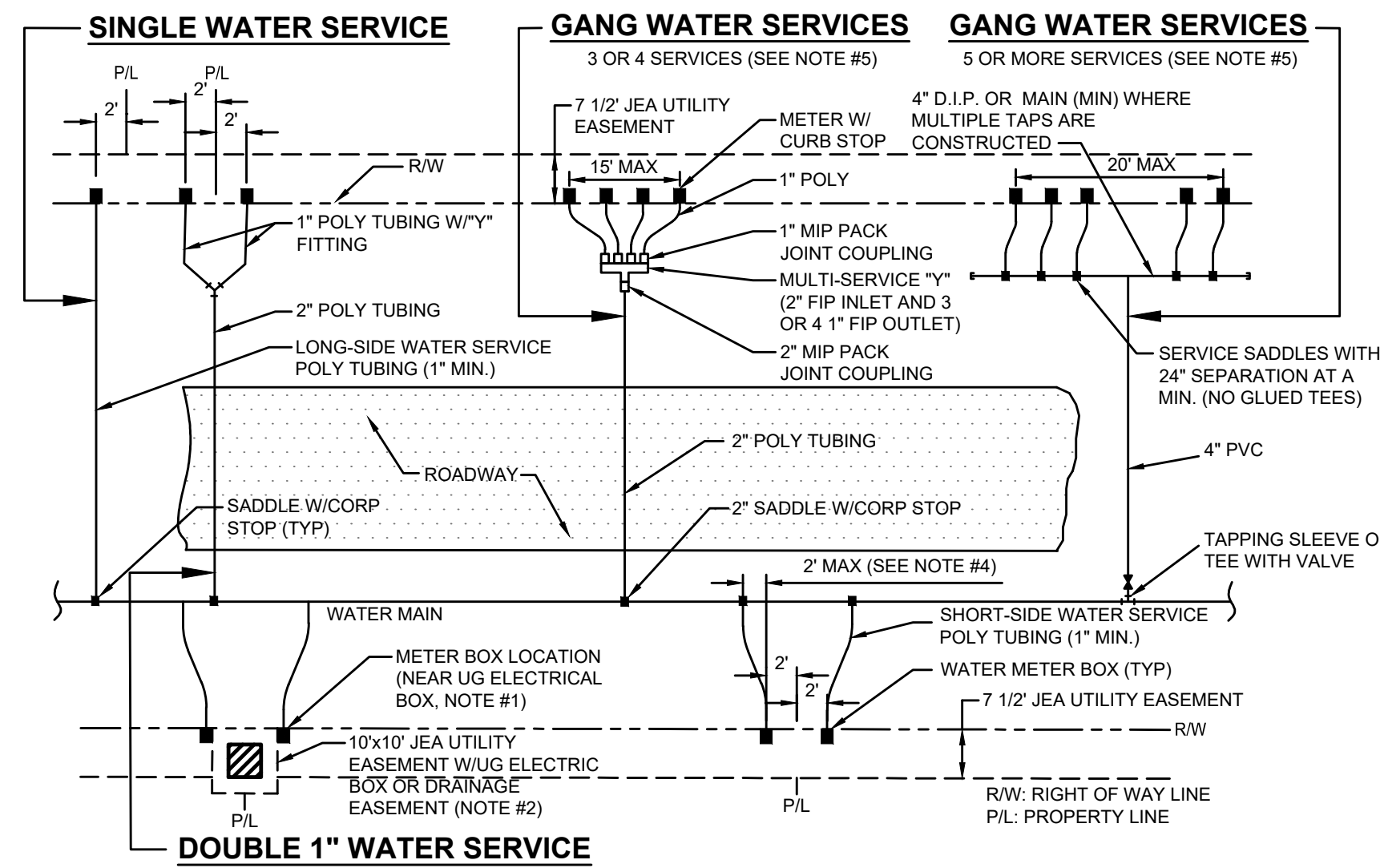


- NOTES:**
1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED), AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
 3. PIPE AND FITTINGS SHALL BE PVC (SCH. 40) OR GALV. MATERIAL.
 4. THE USE OF THE ABOVE CONSTRUCTION FOR A TEMPORARY SAMPLE POINT SHALL BE LIMITED TO AREAS WHERE A SAMPLE TAP BY ALTERNATIVE METHODS (SEE W-24) IS NOT FEASIBLE OR IF DIRECTED OTHERWISE BY JEA.
 5. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS AS OUTLINED BY JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

TEMPORARY SAMPLE TAP

JANUARY 2023

PLATE W-25

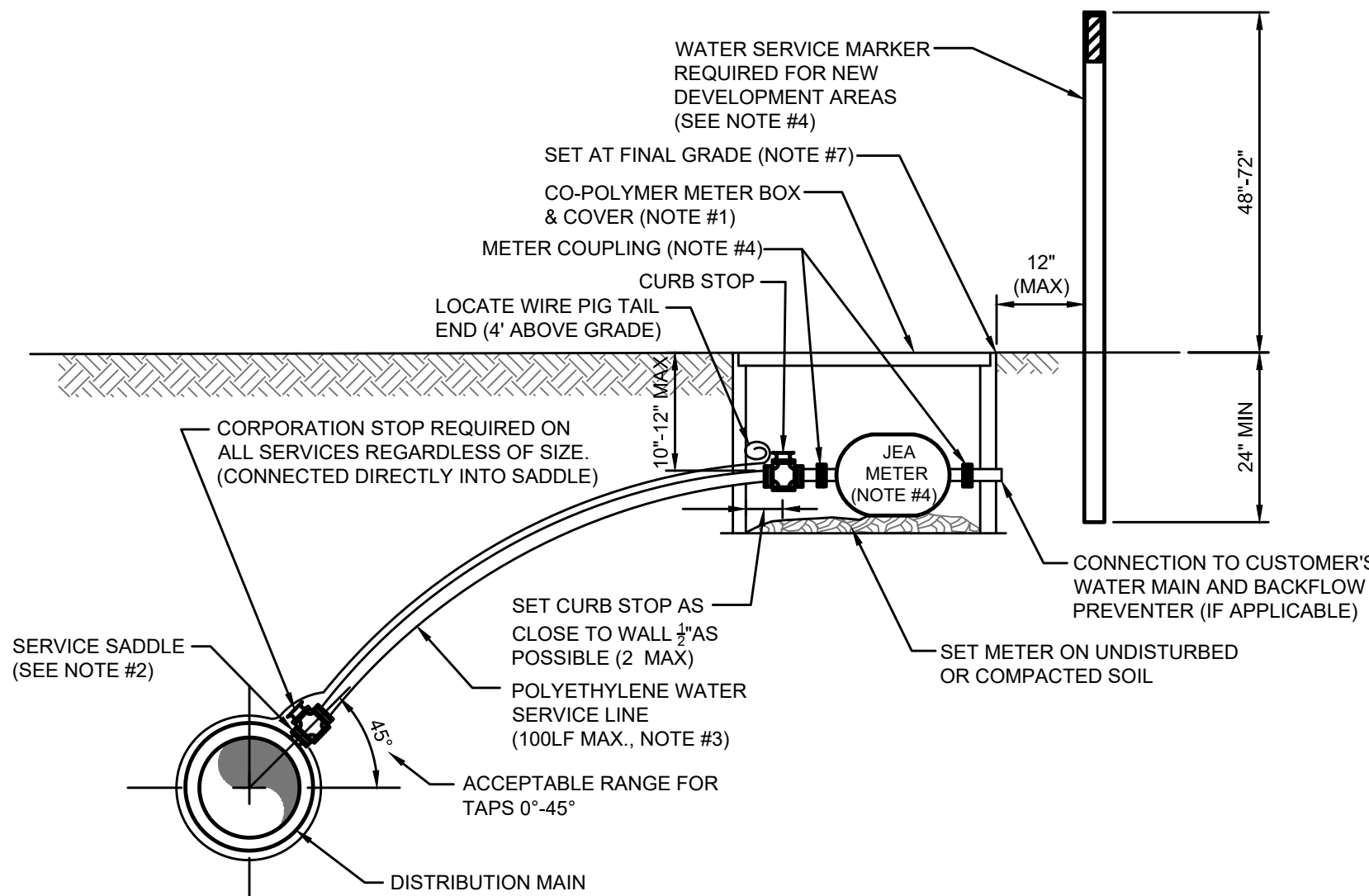


- NOTES:**
1. THE SKETCHES ABOVE INDICATE TYPICAL WATER SERVICE AND METER BOX LOCATIONS. ACTUAL LOCATIONS OF BOXES MAY VARY SLIGHTLY ACCORDING TO FIELD CONDITIONS ENCOUNTERED. TYPICALLY, THE METER BOX SHALL BE LOCATED AT THE R/W LINE BUT INSIDE THE 7 1/2" ELECTRIC EASEMENT.
 2. UNLESS SPECIFIED OTHERWISE BY THE APPLICABLE COUNTY (NASSAU, CLAY OR ST. JOHNS COUNTY), THE METER BOX SHALL BE LOCATED IN THE JEA 7 1/2" UTILITY EASEMENT, AND TWO FEET INSIDE OF THE PROLONGATION OF ONE OF THE SIDE PROPERTY LINES. IF A CONFLICT EXISTS WITH OTHER UTILITIES, THE METER BOX MAY BE ADJUSTED TO FOUR FEET (MAX.) INSIDE PROPERTY LINES (IN LIEU OF TWO FEET). UNLESS APPROVED OTHERWISE BY JEA, THE WATER METER BOX SHALL BE LOCATED IN NON-TRAFFIC AREAS (NOT IN SIDEWALKS OR DRIVEWAYS). IF THE METER BOX IS APPROVED BY JEA TO BE LOCATED IN A DRIVEWAY OR SIDEWALK, THEN THE CONSTRUCTION SHALL MEET STANDARD DETAIL NUMBERS W-384, AT A MINIMUM (SEE W-3 AND W-4 FOR THE REQUIREMENTS OF SPECIAL ORDER POLYMER BOX AND TOP). SET TOP OF BOX AT FINISHED GRADE. IF AN UNAPPROVED METER BOX IS IDENTIFIED BY JEA, THEN THE CONTRACTOR OR CUSTOMER SHALL BE RESPONSIBLE FOR THE COST OF RELOCATING ANY METER BOX WHICH IS LOCATED IN THE SIDEWALK OR DRIVEWAY OR THE COST TO PROVIDE THE CORRECT METER BOX. JEA SHALL APPROVE ALL DEVIATIONS TO THE ABOVE PRIOR TO CONSTRUCTION.
 3. IF DRAINAGE OR OTHER EASEMENT LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT AREA.
 4. FOR SINGLE SERVICES, THE HORIZONTAL DISTANCE (PERPENDICULAR TO THE MAIN) BETWEEN THE SERVICES SADDLE AND THE METER BOX SHALL BE 2 FEET MAXIMUM. FOR DOUBLE "S" SERVICES, THE 2" POLY MAIN SHALL BE LOCATED CENTERED BETWEEN THE TWO METER BOXES. LOCATE WIRE IS REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH. IF LOCATE WIRE IS REQUIRED, THE WIRE SHALL RUN FROM THE METER BOX (W/ PIG TAIL) TO THE MAIN (DEAD END SHALL BE TAPED WITH NO CONNECTION TO MAIN WIRE WITH THE LAST 24 INCHES STRIPED OF INSULATION/BARE WIRE AS GROUND). ALL EXCEPTIONS TO THIS REQUIREMENT MUST BE APPROVED BY JEA. THIS WILL ASSIST IN LOCATING EXISTING SERVICE LINES IN THE FUTURE.
 5. GANG WATER SERVICES: FOR 3 OR 4 SERVICES IN ONE AREA, A DUCTILE IRON PIPE (D.I.P.) WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS. LOCATE WIRE SHALL EXTEND FROM ONE METER BOX TO CORP STOP AT WATER MAIN. FOR 5 OR MORE SERVICES IN ONE AREA, A WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS (TAPS STAGGERED AND AT 2 FEET ON CENTER-MIN). FOR WATER SUPPLY HEADERS WHERE 5 OR MORE TAPS ARE CONSTRUCTED, THE HEADER PIPE SHALL BE 4" AT A MINIMUM. EXAMPLE: CONSTRUCT A 4" MAIN PVC CROSSING THE STREET FOR 5 RESIDENTIAL CUSTOMERS, UTILIZING 4" DIP, 4" PIPE, 4"x1" SADDLES AND 1" CORP STOPS (NO GLUED TEE FITTINGS). THE 4" OR LARGER D.I.P. WATER MAIN MUST BE SIZED AND DESIGNED BY THE P.E. ENGINEER.
 6. DOUBLE "1" WATER SERVICES IS ALLOWED FOR SHORT SIDE OR LONG SIDE SERVICES AND WHERE SHOWN ON THE DRAWINGS.
 7. A 1" IRRIGATION SERVICE MAYBE TAPPED INTO THE (1" MIN) DOMESTIC WATER SERVICE LINE (WHICH SERVES THE SAME CUSTOMER) UTILIZING A 1" BRONZE "Y" FITTING. (IN AREAS WHERE NO RECLAIMED WATER IS AVAILABLE).
 8. NO 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.
 9. RECLAIMED WATER METER BOXES OR SERVICES SHALL BE CONSTRUCTED SIMILAR TO THE ABOVE AND SHALL BE LOCATED, AT A MIN. OF 10' FROM THE POTABLE WATER SERVICE, AND/OR BOX AND NOT ALLOWED IN CONCRETE OR ASPHALT UNLESS APPROVED OTHERWISE BY JEA.
 10. SERVICE SIZE SHALL BE SAME AS THE METER SIZE.

WATER OR RECLAIM SERVICE INSTALLATIONS 2" AND SMALLER METER

JANUARY 2023

PLATE W-1

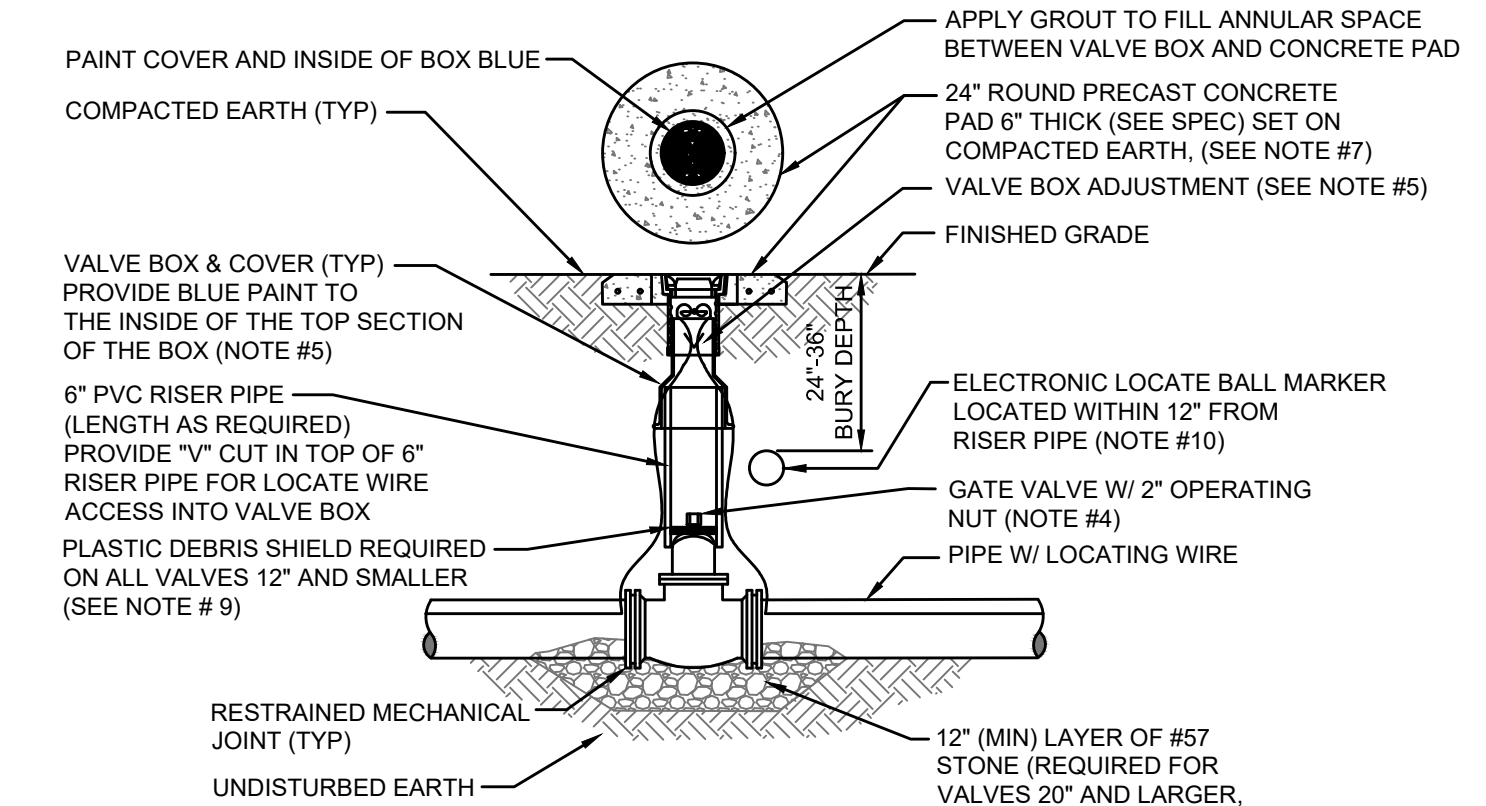


- NOTES:**
1. SEE PLATE W-1 FOR METER LOCATION REQUIREMENTS.
 2. SINGLE BAND SADDLES SHALL BE UTILIZED ON NEW 1" WATER SERVICES WHICH ARE INSTALLED ON A DRY 10" SIZE OR SMALLER WATER MAIN (NEW WATER MAIN CONSTRUCTION). FOR WET TAPS OR WATER MAINS 12" SIZE AND LARGER, A DOUBLE BAND SADDLE IS REQUIRED. BRASS SADDLES MAY BE UTILIZED ON NEW 1 INCH AND SMALLER WATER SERVICES WHICH ARE INSTALLED ON A DRY 10 INCH OR SMALLER PVC WATER MAIN.
 3. NO OPEN CUT UNDER ROADWAY PAVING ALLOWED UNLESS THE ROADWAY IS BEING RECONSTRUCTED OR IF DIRECTED OTHERWISE BY JEA. CONSTRUCT POLY LINE WITH 24" (MIN.) COVER UNDER ROADWAYS. THE POLY WATER SERVICE LINE SHALL BE SAME SIZE AS THE METER (1" MINIMUM) AND BE INSTALLED PERPENDICULAR TO THE MAIN AND NOT EXCEED 100LF UNLESS APPROVED OTHERWISE BY JEA.
 4. INSTALL PVC PLUG IN ALL CURB STOPS IF WATER SERVICE IS "NOT IN USE" (I.E. IF NO METER IS INSTALLED). WATER SERVICES SERVING VACANT LOTS (SERVICE NOT IN USE), SHALL INCLUDE A "W" CUT (CLOSEST TO THE METER BOX), AND PAINTED BLUE (PAINTED PURPLE FOR RECLAIMED WATER). IN ADDITION, FOR NEW DEVELOPMENT AREAS WHERE THE WATER SERVICE IS "NOT IN USE", A LANDSCAPE TIMBER OR 3/8 MIN. P.T. POST (TOP PAINTED BLUE OR PURPLE FOR RECLAIMED WATER). THE REMOVAL OR TRANSFER OF A WATER SERVICE SHALL INCLUDE BRASS METER COUPLINGS (HEX ON BARREL TYPE).
 5. NO 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE METER OR ELECTRONIC DEVICES IF DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD.
 7. METER BOX AND TOP SHALL BE CLEAR OF ALL DEBRIS TO ALLOW FULL ACCESS TO BOX (I.E. NO DIRT, TRASH OR OTHER DEBRIS PLACED ON TOP OF BOX).
 8. LOCATE WIRING REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH. SEE PLATE W-44.

WATER SERVICE DETAIL- 2" AND SMALLER METER

JANUARY 2023

PLATE W-2



- NOTES:**
1. FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.
 2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAIL W-44).
 3. A "Y" CUT SHALL BE INSTALLED IN THE CURB CLOSEST/ADJACENT/ (ASPHALT IF NO CURB) TO ALL BELOW GRADE VALVES. THE "Y" CUT IS TO BE PAINTED BLUE WATER/PURPLE RECLAIMED.
 4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
 5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THRU A "Y" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 24" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
 6. BRASS IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A 3/4" HOLE IN BRASS TAG AND ATTACH TAG (WITH WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
 7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2- #4 REBAR AROUND PERIMETER, MAY BE USED.
 8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO 1/4 THE OVERALL HEIGHT OF THE VALVE.
 9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOX/LOK OR APPROVED EQUAL.
 10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1403XR FOR WATER AND 1408XR FOR RECLAIMED WATER).

WATER VALVE INSTALLATION DETAIL

JANUARY 2023

PLATE W-18

Connelly & Wicker Inc.
 Engineering - Landscape Architecture
 10060 Skimmer Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cwrena.com
 Florida Registry 3650 L.A. Number: LC26000311

| NO. | BY | DATE | REVISIONS |
|-----|----|------|-----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |

| DESIGN ENGINEER | CHECKED BY | DATE |
|--------------------------|------------|------|
| MARY E. LEAPROTT, PE | MEL | |
| FLORIDA REGISTRATION NO. | | |
| PE NO. 61449 | | |

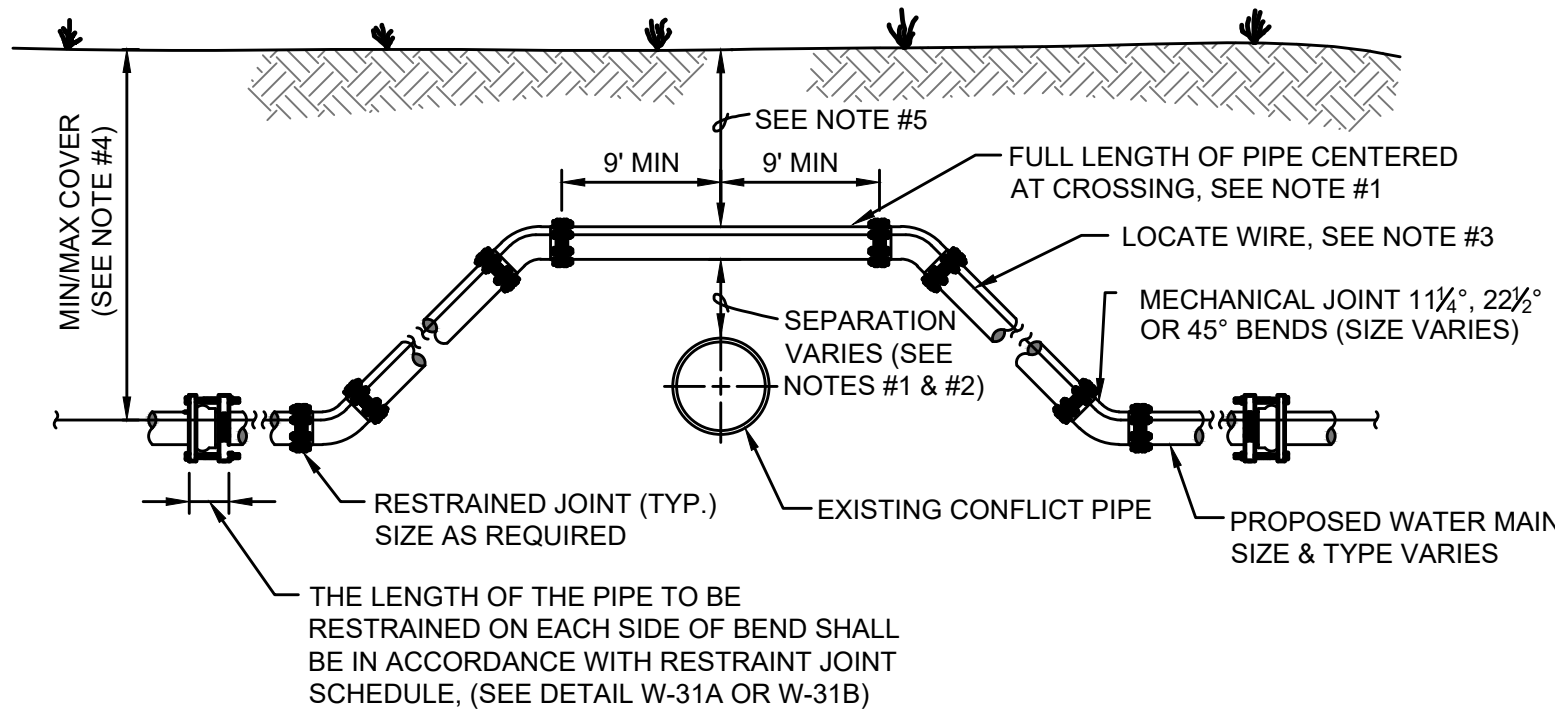
THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

JEA
 Building Community™

WATER AND SEWER DETAILS

| NO. SHEETS | SHEET NO. | DRAWING NO. |
|------------|-----------|-------------|
| 158 | 158 | |

PROJ. NO. 21-01-0057
 DATE: October 25, 2023
 SCALES NOTED

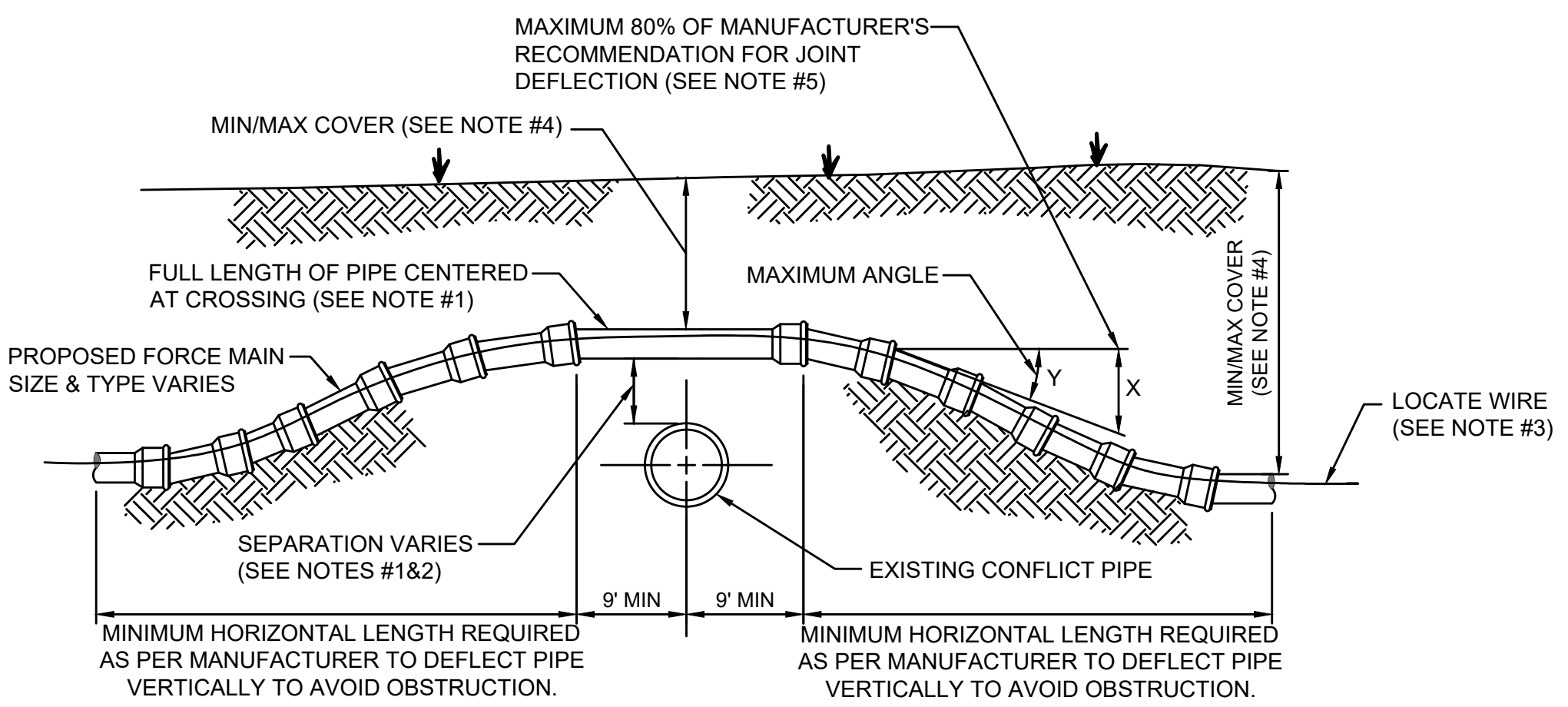


CASE "A" CROSSING

- NOTES:**
- THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
 - FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11).
 - LOCATING WIRE REQUIRED: SEE DETAIL W-44.
 - THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
 - IF UTILITY CONFLICT IS LOCATED IN A NON-TRAFFIC AREA (NO TRAFFIC LOADS) AND THE NEW PIPE IS D.I.P., THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).

**ADJUSTMENT OVER EXISTING UTILITIES
MECHANICAL RESTRAINTS**

JANUARY 2023 PLATE W-32



CASE "A" CROSSING

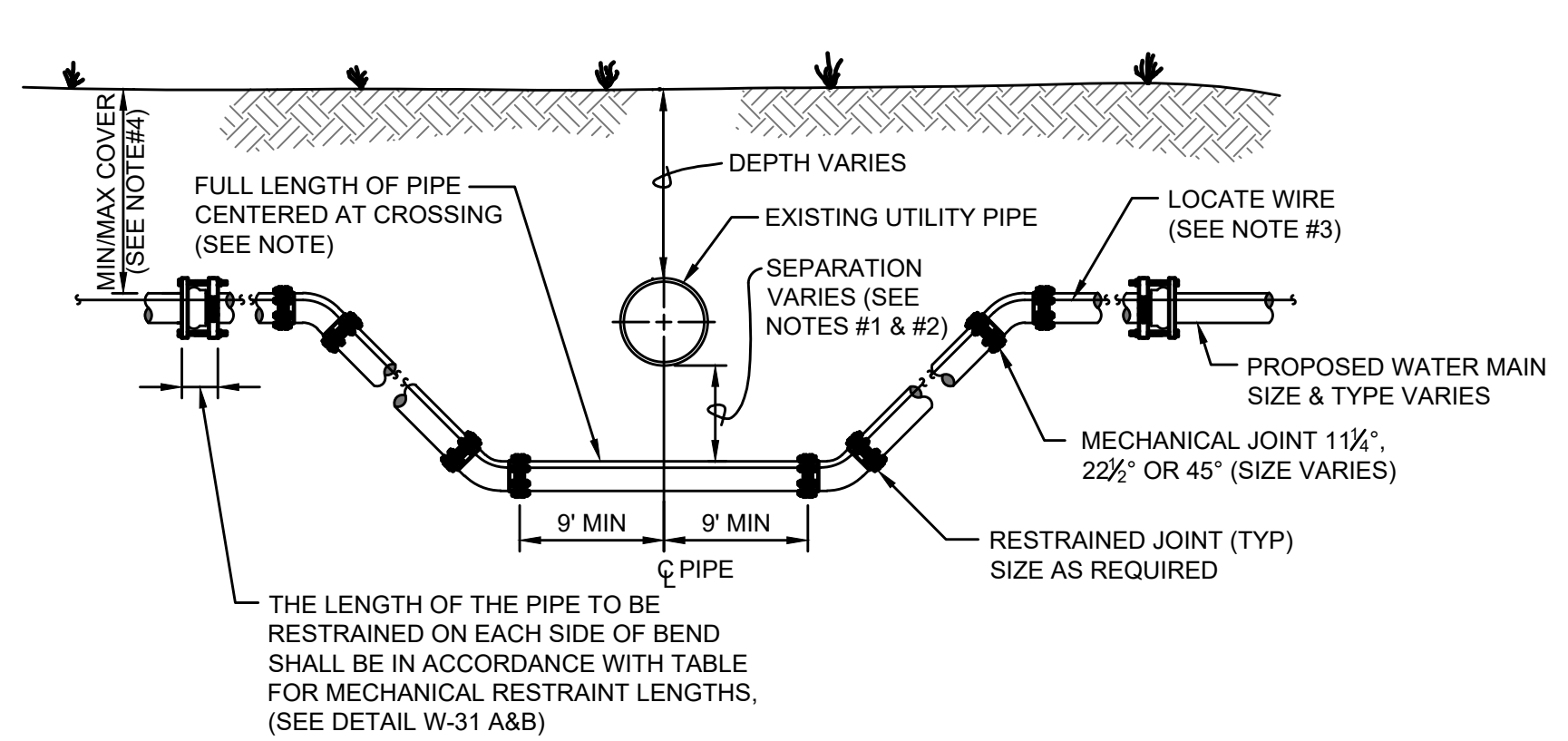
MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

| PVC PIPE | | | | DUCTILE IRON PIPE (Mechanical Joint) | | | |
|-----------------|-----------------------|-----------------------|--|--------------------------------------|-----------------------|-----------------------|--|
| PIPE SIZE (IN.) | (X) MAX. OFFSET (IN.) | (Y) ANGLE AT ONE BELL | RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS | PIPE SIZE (IN.) | (X) MAX. OFFSET (IN.) | (Y) ANGLE AT ONE BELL | RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS |
| 2 | 30 | 7° | 158 FT | - | - | - | - |
| 4 | 10 | 2.4° | 480 FT | 4 | 27 | 6.5° | 177 FT |
| 6 | 10 | 2.4° | 480 FT | 6 | 24 | 5.7° | 200 FT |
| 8 | 10 | 2.4° | 480 FT | 8 - 12 | 17.5 | 4.2° | 273 FT |
| 10 | 10 | 2.4° | 480 FT | 14 - 16 | 12 | 2.9° | 400 FT |
| 12 | 8.5 | 2° | 564 FT | 18 - 20 | 10 | 2.4° | 477 FT |
| 14 - 24 | 5 | 1.2° | 960 FT | 24 - 30 | 8 | 1.9° | 600 FT |
| 30 - 48 | 3.25 | 0.8° | 1477 FT | 36 | 7 | 1.7° | 687 FT |
| | | | | 42 - 48 | 6.7 | 1.6° | 716 FT |

- NOTES:**
- IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
 - FOR OTHER LOCATION LIMITATIONS SEE DETAIL (W-10 & W-11).
 - LOCATING WIRE REQUIRED: SEE DETAIL W-44.
 - THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.
 - JEA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED, UNLESS OTHERWISE APPROVED BY JEA. THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH.

**ADJUSTMENT OVER EXISTING UTILITIES PIPE
JOINT DEFLECTION**

JANUARY 2023 PLATE W-41

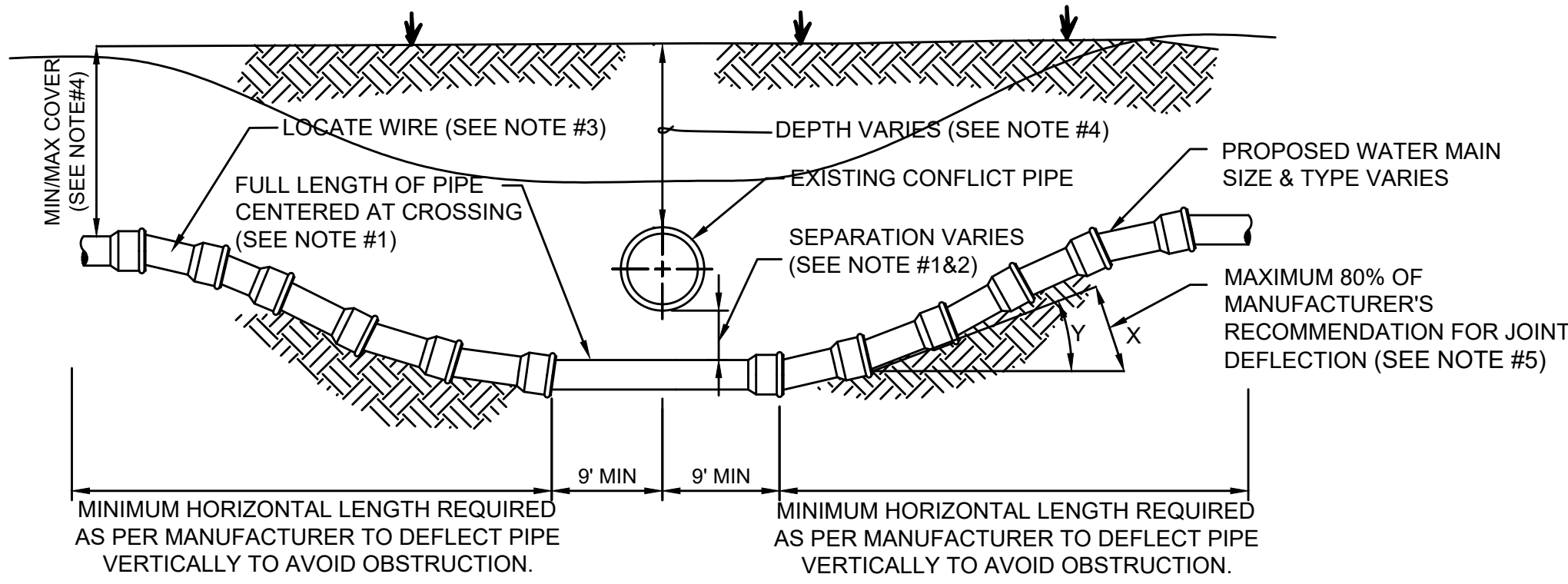


CASE "B" CROSSING

- NOTES:**
- THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
 - FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAILS (W-10 AND W-11).
 - LOCATING WIRE REQUIRED: SEE DETAIL W-44.
 - THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREA, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
 - IN LOCATIONS WHERE WATER/RECLAIM MAINS CROSS UNDER A BOX-CULVERT, OR 36-INCH DIAMETER AND LARGER STORM WATER MAIN, JEA WILL REQUIRE DIP TO BE UTILIZED FOR THE MAIN.

**ADJUSTMENT UNDER EXISTING UTILITIES
MECHANICAL RESTRAINTS**

JANUARY 2023 PLATE W-34



CASE "B" CROSSING

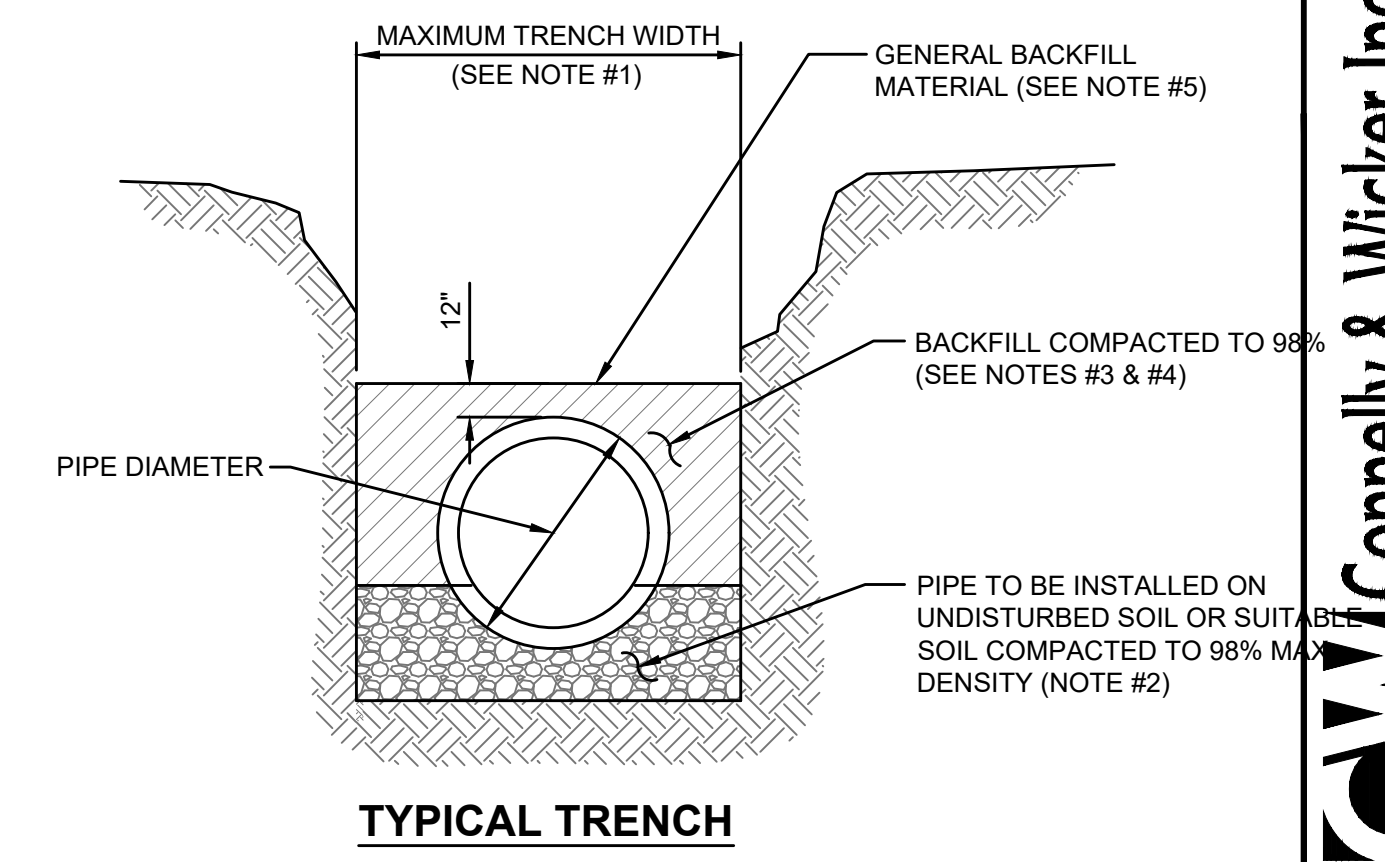
MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

| PVC PIPE | | | | DUCTILE IRON PIPE (Mechanical Joint) | | | |
|-----------------|-----------------------|-----------------------|--|--------------------------------------|-----------------------|-----------------------|--|
| PIPE SIZE (IN.) | (X) MAX. OFFSET (IN.) | (Y) ANGLE AT ONE BELL | RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS | PIPE SIZE (IN.) | (X) MAX. OFFSET (IN.) | (Y) ANGLE AT ONE BELL | RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS |
| 2 | 30 | 7° | 158 FT | - | - | - | - |
| 4 | 10 | 2.4° | 480 FT | 4 | 27 | 6.5° | 177 FT |
| 6 | 10 | 2.4° | 480 FT | 6 | 24 | 5.7° | 200 FT |
| 8 | 10 | 2.4° | 480 FT | 8 - 12 | 17.5 | 4.2° | 273 FT |
| 10 | 10 | 2.4° | 480 FT | 14 - 16 | 12 | 2.9° | 400 FT |
| 12 | 8.5 | 2° | 564 FT | 18 - 20 | 10 | 2.4° | 477 FT |
| 14 - 24 | 5 | 1.2° | 960 FT | 24 - 30 | 8 | 1.9° | 600 FT |
| 30 - 48 | 3.25 | 0.8° | 1477 FT | 36 | 7 | 1.7° | 687 FT |
| | | | | 42 - 48 | 6.7 | 1.6° | 716 FT |

- NOTES:**
- IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
 - FOR OTHER LOCATION LIMITATIONS SEE DETAIL (W-10 & W-11).
 - LOCATING WIRE REQUIRED: SEE DETAIL W-44.
 - THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.
 - JEA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED, UNLESS OTHERWISE APPROVED BY JEA. THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH.

**ADJUSTMENT UNDER EXISTING UTILITIES PIPE
JOINT DEFLECTION**

JANUARY 2023 PLATE W-40



TYPICAL TRENCH

- NOTES:**
- TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE. OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
 - BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
 - BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.
 - BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 98% OF ITS MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
 - SEE "EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

JANUARY 2023 IN CITY RIGHT -OF-WAY PLATE W-42

Connelly & Wicker Inc.
 Engineering - Landscape Architecture
 10060 Skinner Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cweng.com
 Florida Registry 3650 L.A. Number: LC26000311

| NO. | BY | DATE | REVISIONS |
|-----|----------------------|------|-----------|
| 1 | MARY E. LEAPROTT, PE | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

DESIGN ENGINEER: MARY E. LEAPROTT, PE
 FLORIDA REGISTRATION NO.:
 PE NO. 61449

JEA
 Building Community™

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

| NO. SHEETS | SHEET NO. | DRAWING NO. |
|------------|-----------|-------------|
| 15C | 15C | |

PROJECT NO.: 21-01-0057
 DATE: October 25, 2023
 SCALE: AS NOTED

WATER AND SEWER DETAILS

Wed Oct 25, 2023 - 13:47
 Current Layout Tab = C
 u:\21\21-01-0057 Sonoly Bluff\Design\Draws\Plots\21-01-0057 Water-Dets.dwg

Xrefs Attached=

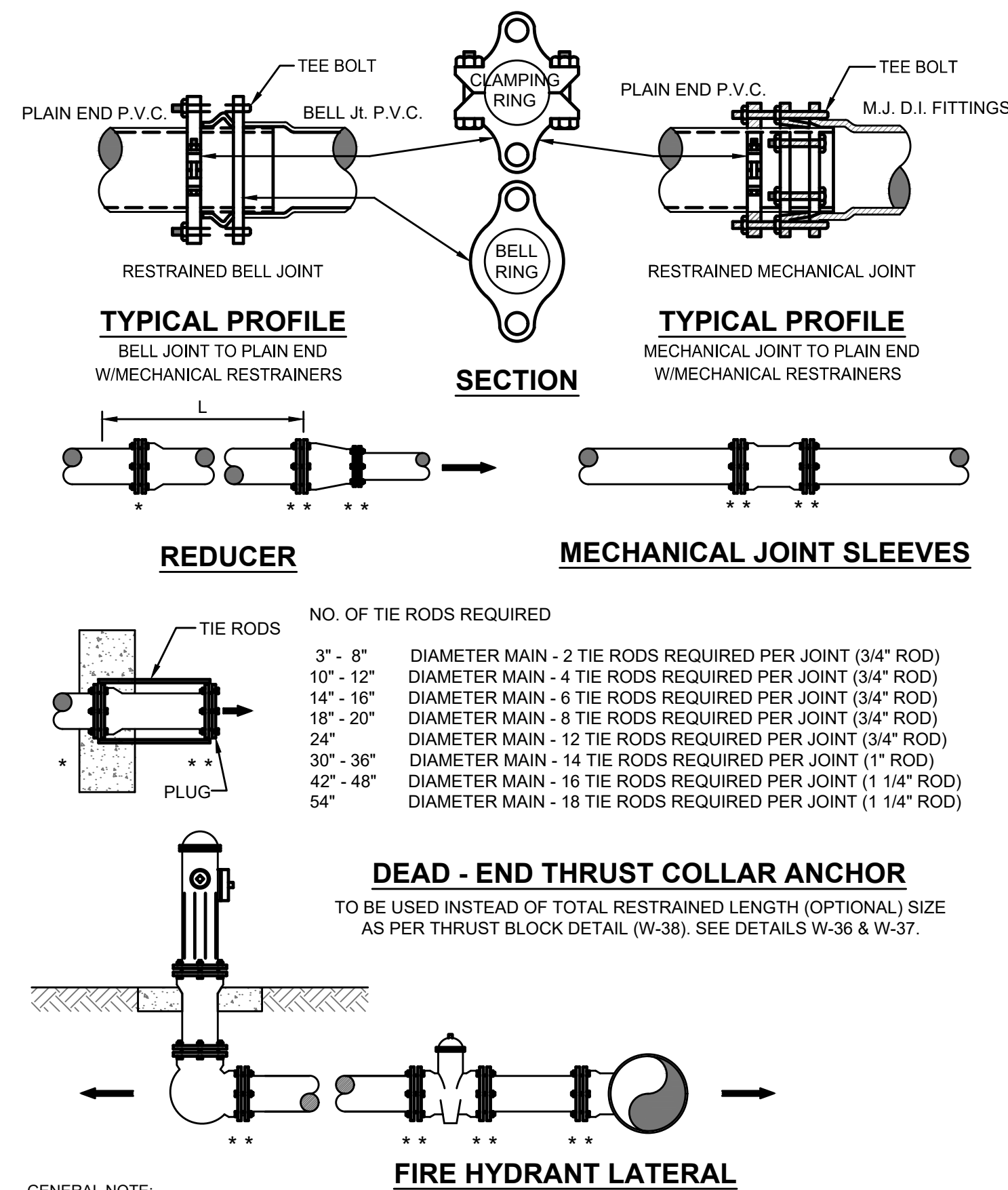
| NOMINAL PIPE SIZE (IN.) | HORIZONTAL BENDS | | | | VERTICAL OFFSETS 45° BENDS (SEE NOTE 4) | | VALVES OR DEAD ENDS | REDUCERS | | TEES SEE NOTE 5 | | |
|-------------------------|-------------------|-------------------|---------------------|----------------------|---|---------------|---------------------|------------|---------|-----------------|-------------------|---------|
| | 90° BENDS L (FT.) | 45° BENDS L (FT.) | 22.5° BENDS L (FT.) | 11.25° BENDS L (FT.) | UPPER L (FT.) | LOWER L (FT.) | | SIZE (IN.) | L (FT.) | RUN SIZE (IN.) | BRANCH SIZE (IN.) | L (FT.) |
| 4 | 21 | 9 | 5 | 3 | 17 | 3 | 47 | 6x4 | 34 | 4 | 4 | F.O. |
| 6 | 30 | 13 | 6 | 3 | 23 | 4 | 66 | 8x6 | 36 | 4 | 6 | F.O. |
| 8 | 38 | 16 | 8 | 4 | 30 | 6 | 86 | 8x4 | 62 | 8 | 4 < LESS | F.O. |
| 10 | 45 | 19 | 9 | 5 | 36 | 7 | 103 | 10x8 | 35 | 8 | 6 < LESS | F.O. |
| 12 | 53 | 22 | 11 | 6 | 43 | 8 | 121 | 10x6 | 63 | 10 | 10 | 45 |
| 14 | 61 | 26 | 13 | 6 | 50 | 9 | 140 | 12x10 | 36 | 8 | 8 | 13 |
| 16 | 66 | 28 | 14 | 7 | 55 | 10 | 154 | 12x8 | 64 | 12 | 12 | 62 |
| 18 | 73 | 30 | 15 | 8 | 60 | 11 | 170 | 16x12 | 66 | 10 | 10 | 32 |
| 20 | 79 | 33 | 16 | 8 | 66 | 12 | 186 | 16x10 | 92 | 12 | 8 < LESS | F.O. |
| 24 | 93 | 39 | 19 | 10 | 77 | 15 | 215 | 20x18 | 35 | 16 | 16 | 94 |
| 30 | 106 | 45 | 22 | 11 | 88 | 17 | 242 | 20x16 | 66 | 16 | 12 | 39 |
| 36 | 117 | 49 | 24 | 12 | 100 | 19 | 270 | 24x20 | 56 | 20 | 10 < LESS | F.O. |
| 42 | 127 | 53 | 26 | 13 | 113 | 21 | 300 | 24x18 | 80 | 20 | 12 | 76 |
| 48 | 136 | 57 | 28 | 14 | 127 | 23 | 330 | 24x16 | 101 | 24 | 10 < LESS | F.O. |
| | | | | | | | | 30x24 | 78 | 24 | 24 | 124 |
| | | | | | | | | 30x20 | 121 | 24 | 20 | 84 |
| | | | | | | | | 36x30 | 78 | 30 | 16 | 36 |
| | | | | | | | | 36x24 | 141 | 30 | 12 < LESS | F.O. |
| | | | | | | | | 42x36 | 75 | 36 | 30 | 159 |
| | | | | | | | | 42x30 | 140 | 36 | 24 | 104 |
| | | | | | | | | 48x42 | 75 | 48 | 16 < LESS | F.O. |
| | | | | | | | | 48x36 | 139 | 48 | 20 | 192 |
| | | | | | | | | | | 42 | 42 | 223 |
| | | | | | | | | | | 30 | 36 | 178 |
| | | | | | | | | | | 30 | 30 | 124 |
| | | | | | | | | | | 24 | 24 | 59 |
| | | | | | | | | | | 20 | 20 | 5 |
| | | | | | | | | | | 16 | 16 | 5 |
| | | | | | | | | | | 48 | 48 | 253 |
| | | | | | | | | | | 42 | 42 | 209 |
| | | | | | | | | | | 36 | 36 | 162 |
| | | | | | | | | | | 30 | 30 | 104 |
| | | | | | | | | | | 24 | 24 | 34 |
| | | | | | | | | | | 20 | 20 | 5 |
| | | | | | | | | | | 16 | 16 | 5 |
| | | | | | | | | | | 12 | 12 | 5 |

PVC PIPE RESTRAINT NOTES:

- THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM, PER THE DETAILS. Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
- TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINED LENGTH ON TEE "BRANCH" LINE.
- HOPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
- THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS (DR-18 & 25 PIPE) SHALL BE COMPLETED PER THE MANUFACTURER'S RECOMMENDATION, WHICH INCLUDES NOT OVER-TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD ONLY BE SNUG TIGHT. THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED. OVER-TIGHTENING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

PVC PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2023 PLATE W-31A



GENERAL NOTE:

- PAY ITEM *** DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIC.
- PAY ITEM **** DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.
- ➔ INDICATES DIRECTION OF THRUST FORCE.

MECHANICAL RESTRAINT DETAILS - I

JANUARY 2023 PLATE W-31C

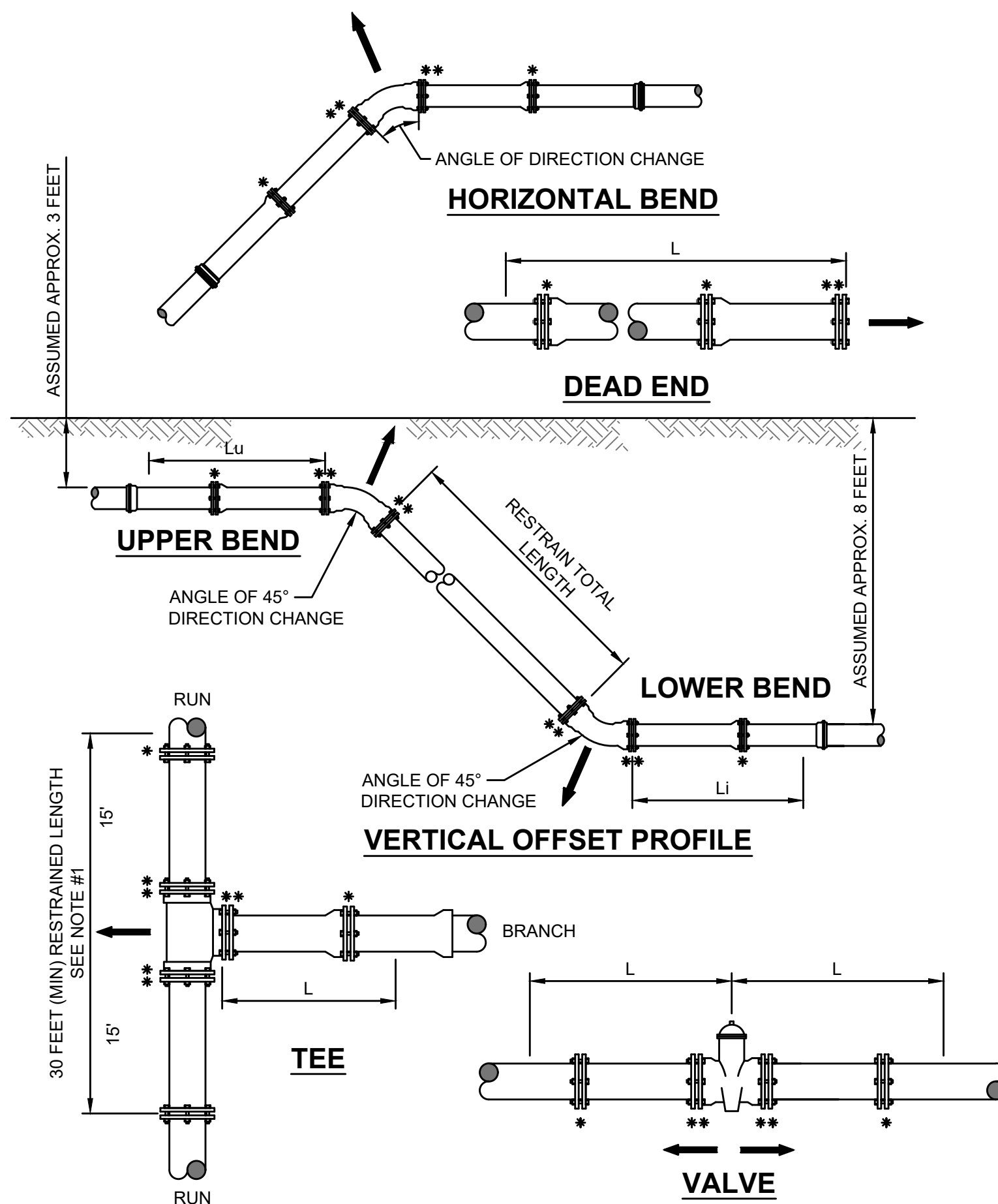
| NOMINAL PIPE SIZE (IN.) | HORIZONTAL BENDS | | | | VERTICAL OFFSETS 45° BENDS (SEE NOTE 4) | | VALVES OR DEAD ENDS | REDUCERS | | TEES SEE NOTE 5 | | |
|-------------------------|-------------------|-------------------|---------------------|----------------------|---|---------------|---------------------|------------|---------|-----------------|-------------------|---------|
| | 90° BENDS L (FT.) | 45° BENDS L (FT.) | 22.5° BENDS L (FT.) | 11.25° BENDS L (FT.) | UPPER L (FT.) | LOWER L (FT.) | | SIZE (IN.) | L (FT.) | RUN SIZE (IN.) | BRANCH SIZE (IN.) | L (FT.) |
| 4 | 17 | 7 | 4 | 2 | 11 | 3 | 30 | 6x4 | 22 | 4 | 4 | F.O. |
| 6 | 24 | 15 | 5 | 3 | 15 | 4 | 42 | 8x6 | 23 | 4 | 6 | F.O. |
| 8 | 31 | 13 | 6 | 3 | 20 | 5 | 55 | 8x4 | 39 | 8 | 4 < LESS | F.O. |
| 10 | 36 | 15 | 8 | 4 | 23 | 6 | 65 | 10x8 | 22 | 8 | 6 < LESS | F.O. |
| 12 | 42 | 18 | 9 | 5 | 27 | 7 | 77 | 10x6 | 40 | 10 | 10 | 29 |
| 14 | 48 | 20 | 10 | 5 | 31 | 7 | 87 | 12x10 | 23 | 8 | 8 | 9 |
| 16 | 53 | 22 | 11 | 6 | 35 | 8 | 97 | 12x8 | 41 | 10 | 6 < LESS | F.O. |
| 18 | 58 | 24 | 12 | 6 | 39 | 9 | 107 | 16x12 | 42 | 12 | 12 | 40 |
| 20 | 63 | 27 | 13 | 6 | 42 | 10 | 118 | 16x10 | 58 | 12 | 8 < LESS | F.O. |
| 24 | 63 | 27 | 13 | 7 | 49 | 12 | 118 | 20x18 | 22 | 16 | 16 | 60 |
| 30 | 75 | 31 | 15 | 8 | 59 | 14 | 141 | 20x16 | 42 | 16 | 12 | 25 |
| 36 | 86 | 36 | 17 | 9 | 68 | 17 | 163 | 24x20 | 36 | 20 | 10 < LESS | F.O. |
| 42 | 95 | 40 | 19 | 10 | 76 | 19 | 183 | 24x18 | 51 | 24 | 12 | 21 |
| 48 | 117 | 43 | 21 | 11 | 84 | 21 | 203 | 30x24 | 50 | 24 | 20 | 54 |
| | | | | | | | | 30x20 | 77 | 24 | 16 | 23 |
| | | | | | | | | 36x30 | 59 | 30 | 12 < LESS | F.O. |
| | | | | | | | | 42x36 | 48 | 36 | 30 | 101 |
| | | | | | | | | 42x30 | 89 | 36 | 24 | 66 |
| | | | | | | | | 48x42 | 48 | 42 | 12 < LESS | F.O. |
| | | | | | | | | 48x36 | 88 | 42 | 16 | 38 |
| | | | | | | | | | | 48 | 48 | 122 |
| | | | | | | | | | | 36 | 30 | 90 |
| | | | | | | | | | | 30 | 24 | 66 |
| | | | | | | | | | | 24 | 20 | 38 |
| | | | | | | | | | | 20 | 16 | 21 |
| | | | | | | | | | | 16 | 12 | 5 |
| | | | | | | | | | | 42 | 42 | 141 |
| | | | | | | | | | | 36 | 30 | 79 |
| | | | | | | | | | | 30 | 24 | 38 |
| | | | | | | | | | | 24 | 20 | 3 |
| | | | | | | | | | | 20 | 16 | 1 |
| | | | | | | | | | | 16 | 12 | 1 |
| | | | | | | | | | | 48 | 48 | 160 |
| | | | | | | | | | | 42 | 42 | 133 |
| | | | | | | | | | | 36 | 36 | 103 |
| | | | | | | | | | | 30 | 30 | 66 |
| | | | | | | | | | | 24 | 24 | 22 |
| | | | | | | | | | | 20 | 20 | 5 |

DUCTILE IRON PIPE RESTRAINT NOTES:

- THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: DUCTILE IRON PIPE (WITHOUT POLY WRAP), SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE. FOR D.I.P. W/POLY WRAP, USE RESTRAINT JOINT SCHEDULE FOR PVC PIPE.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM, PER THE DETAILS. Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
- TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINED LENGTH ON TEE "BRANCH" LINE.
- HOPE TO D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2023 PLATE W-31B

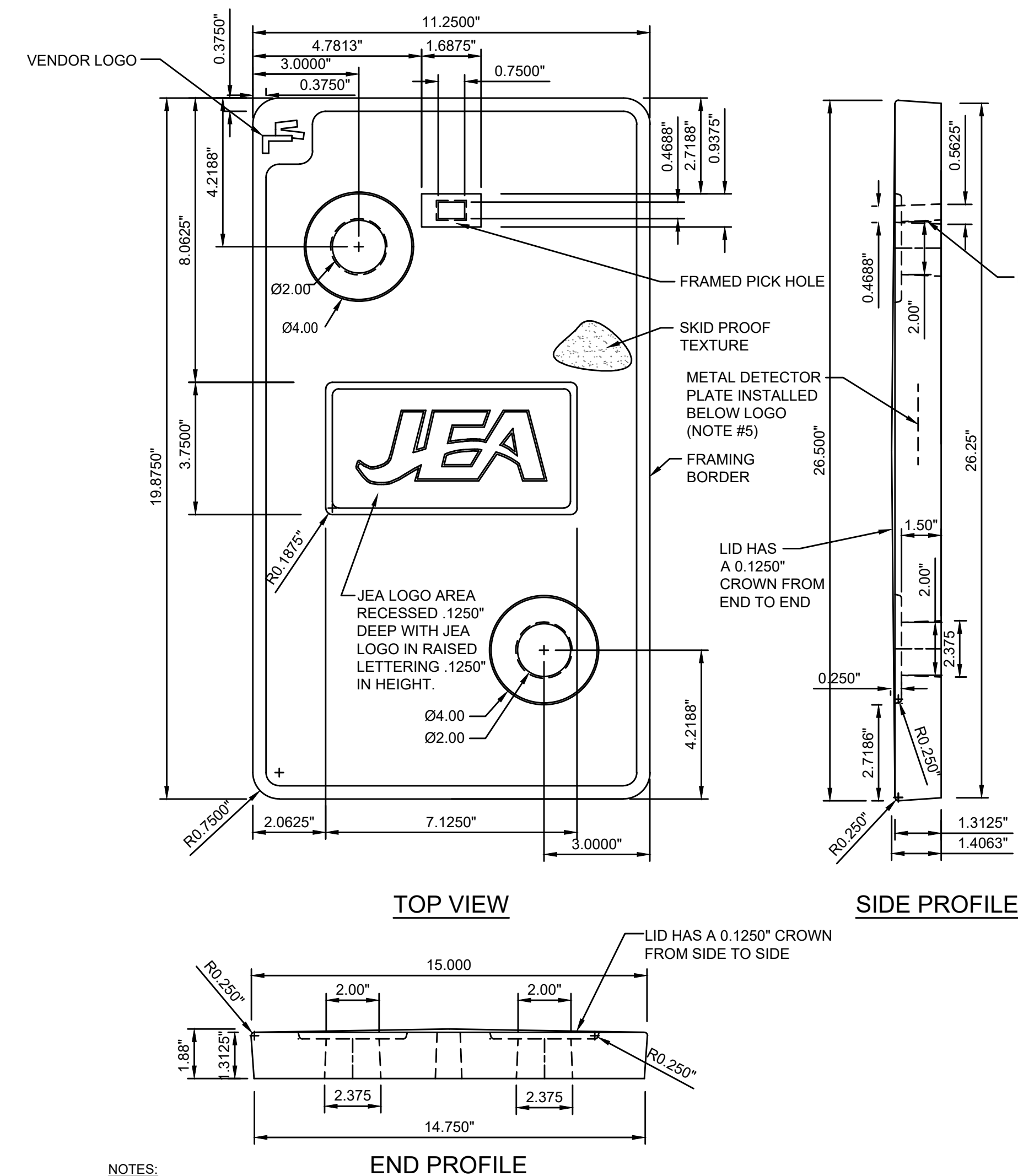


NOTES:

- TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN).
- PAY ITEM *** DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIC.
- PAY ITEM **** DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

MECHANICAL RESTRAINT DETAILS - II

JANUARY 2023 PLATE W-31D



NOTES:

- ALL DIMENSIONS ARE IN INCHES.
- COLOR SHALL BE OFF-WHITE, NON-POROUS, SAND TEXTURED SATIN FINISH.
- ALL TOPS SHALL MEET A-8 (ASTM C857) LOAD RATING.
- THE LID SHALL BE CERTIFIED BY CELLNET TECHNOLOGY INC AND SENSUS METERING SYSTEMS TO BE RF COMPATIBLE WITH THE SENSUS MTU.
- METAL DETECTOR PLATE SHALL BE DETECTABLE BY JEA MAGNETIC LOCATE EQUIPMENT.

WATER METER BOX POLYMER CONCRETE COVER MODEL No. 65 - TWO HOLE

JANUARY 2023 PLATE W-4A

Connelly & Wicker Inc.
 Planning - Engineering - Landscape Architecture
 10060 Skinner Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cweng.com
 Florida Registry 3650 L.A. Number: LC2600031

| NO. | SHEET NO. | DRAWING NO. | NO. | BY | DATE | REVISIONS |
|-----|-----------|-------------|-----|----|------|-----------|
| 1 | 15D | | 6 | | | |
| 2 | | | 6 | | | |
| 3 | | | 6 | | | |
| 4 | | | 6 | | | |
| 5 | | | 6 | | | |
| 6 | | | 6 | | | |

DESIGN ENGINEER: MARY E. LEAPROTT, PE
 FLORIDA REGISTRATION NO.:
 PE NO. 61449

CHECKED BY: MEL
 DATE:

DESIGNED BY: MEL
 DATE:

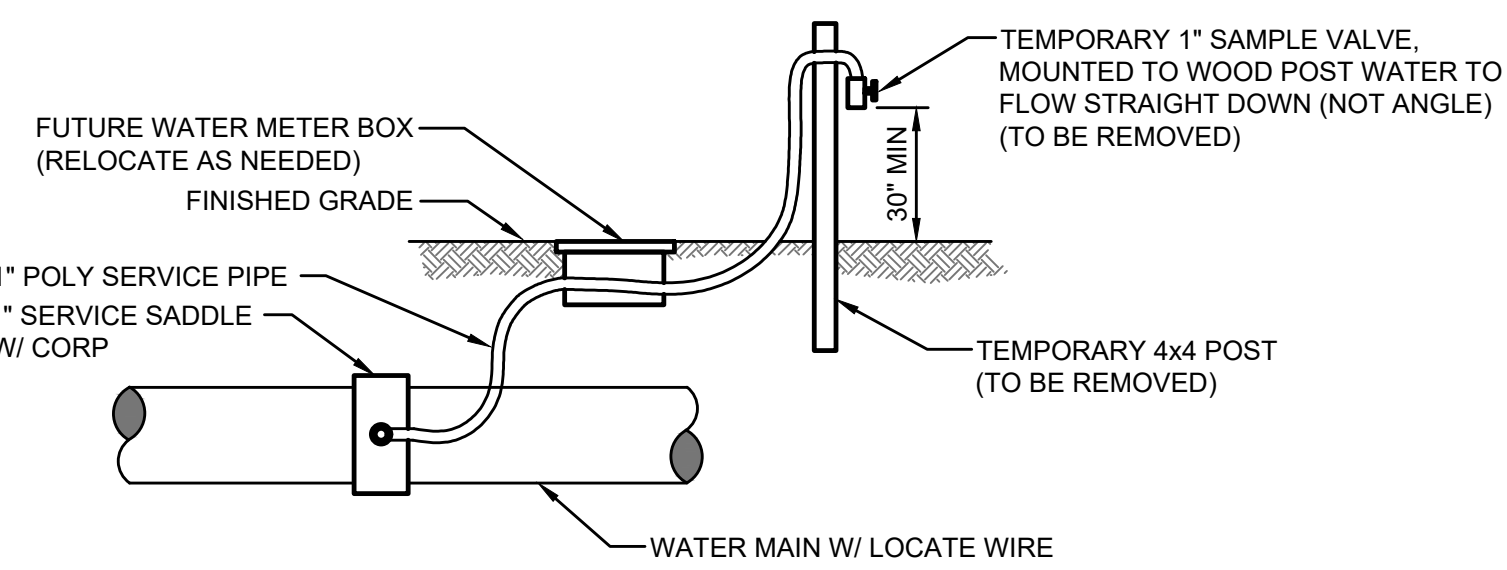
CONSTRUCTION: MEL
 DATE:

SCALEAS NOTED

PROJ. NO. 21-01-0057
 DATE: October 25, 2023

JEA
 Building Community™

WATER AND SEWER DETAILS



TEMPORARY SAMPLE TAP UTILIZING A NEW 1" WATER SERVICE

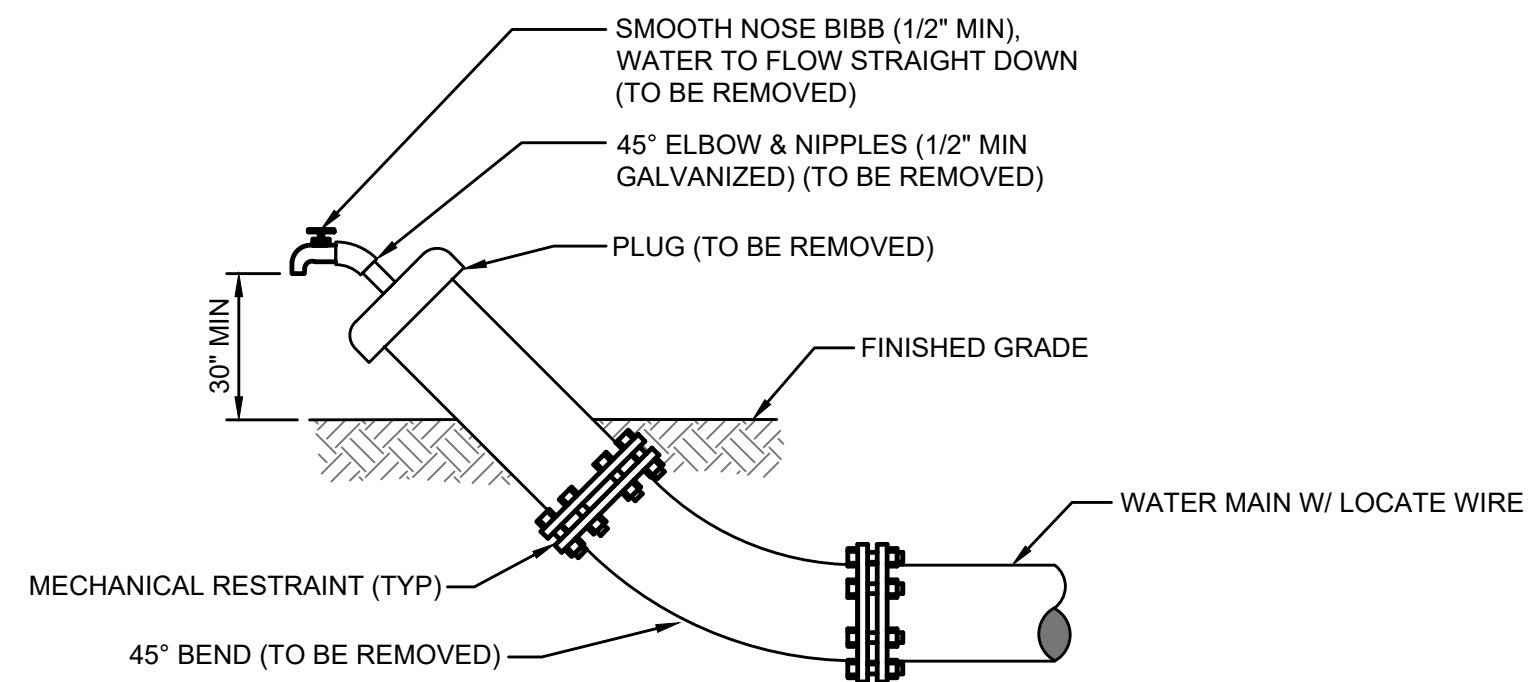
NOTES:

1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROAD SHOULDERS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
3. THE CONTRACTOR SHALL UTILIZE THE ABOVE ALTERNATIVE METHODS FOR CONSTRUCTION OF TEMPORARY SAMPLE POINTS IN ALL AREAS, WHERE POSSIBLE.
4. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS OUTLINED BY THE JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

TEMPORARY SAMPLE TAP ALTERNATIVE METHOD A

JANUARY 2023

PLATE W-24



TEMPORARY SAMPLE TAP UTILIZING PLUG AT FLUSHING LOCATION

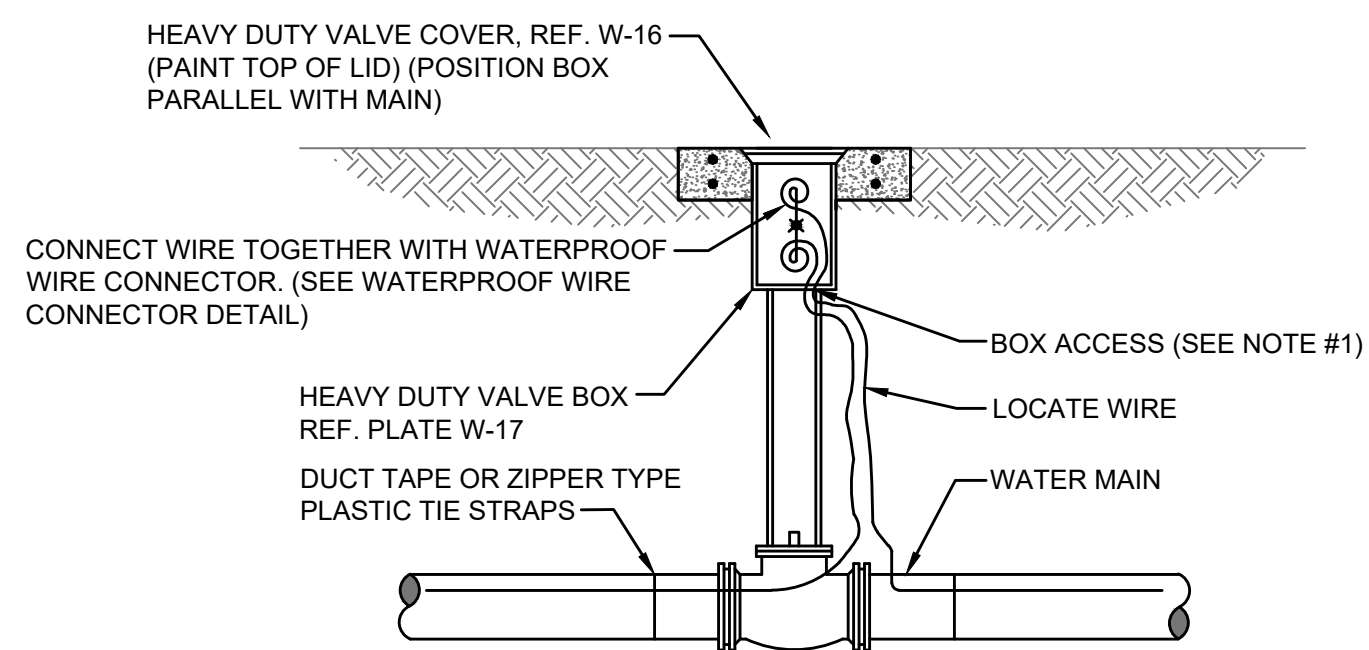
NOTES:

1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROAD SHOULDERS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
3. THE CONTRACTOR SHALL UTILIZE THE ABOVE ALTERNATIVE METHODS FOR CONSTRUCTION OF TEMPORARY SAMPLE POINTS IN ALL AREAS, WHERE POSSIBLE.
4. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS OUTLINED BY THE JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

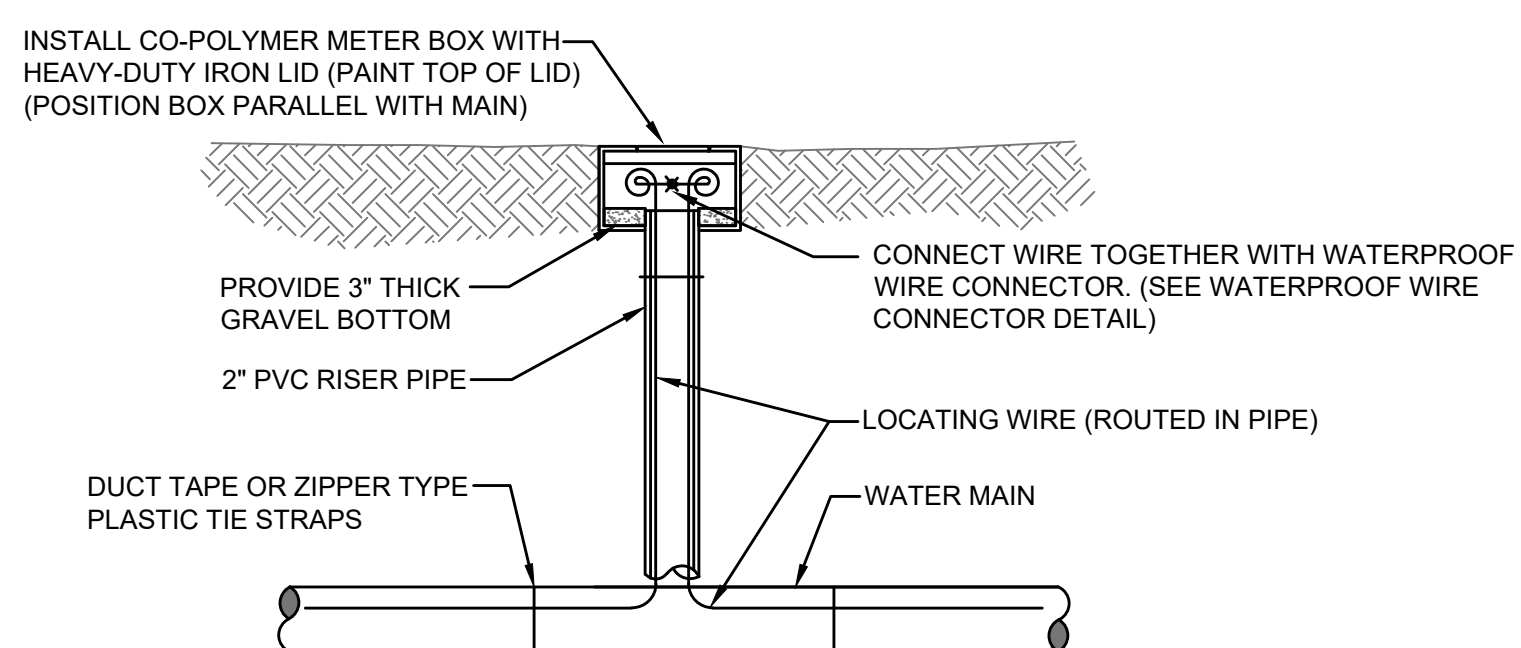
TEMPORARY SAMPLE TAP ALTERNATIVE METHOD B

JANUARY 2023

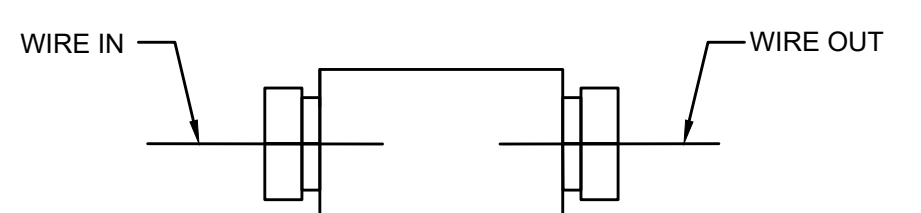
PLATE W-24A



LOCATE WIRE BOX UTILIZING VALVE BOX



LOCATE WIRE BOX UTILIZING METER BOX



WATERPROOF WIRE CONNECTOR DETAIL

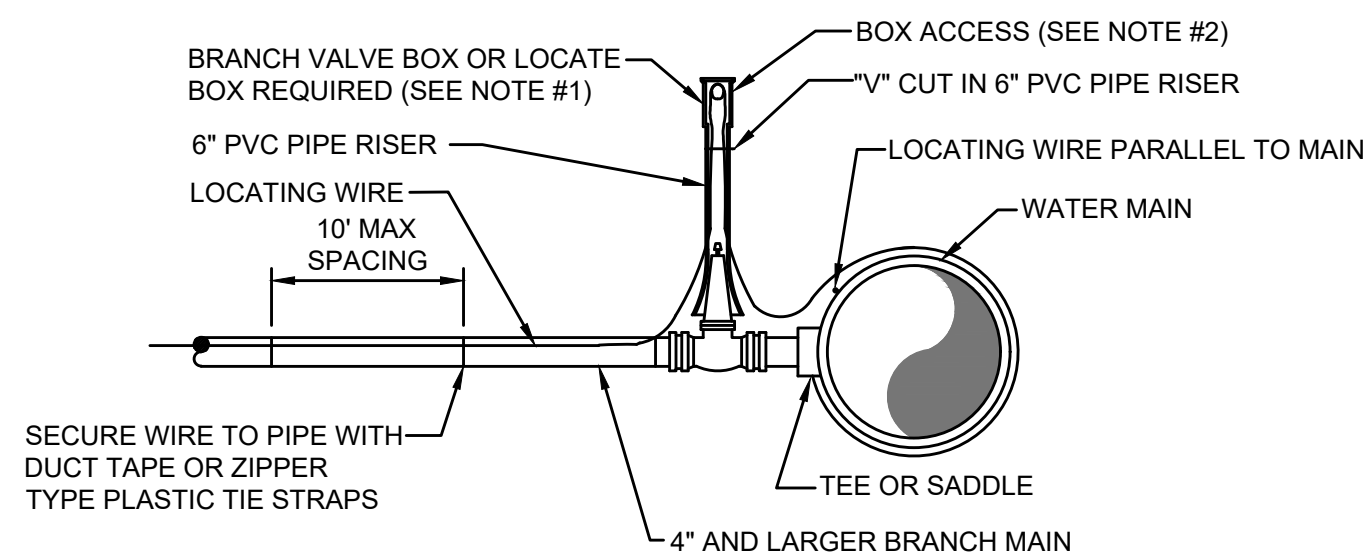
NOTES:

1. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A 1/2" CUT IN THE 6" PVC RISER PIPE (SEE W-18).
2. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.
3. LOCATE WIRE CONNECTION SHALL ONLY BE A 2 WAY CONNECTION.

LOCATE WIRE BOX

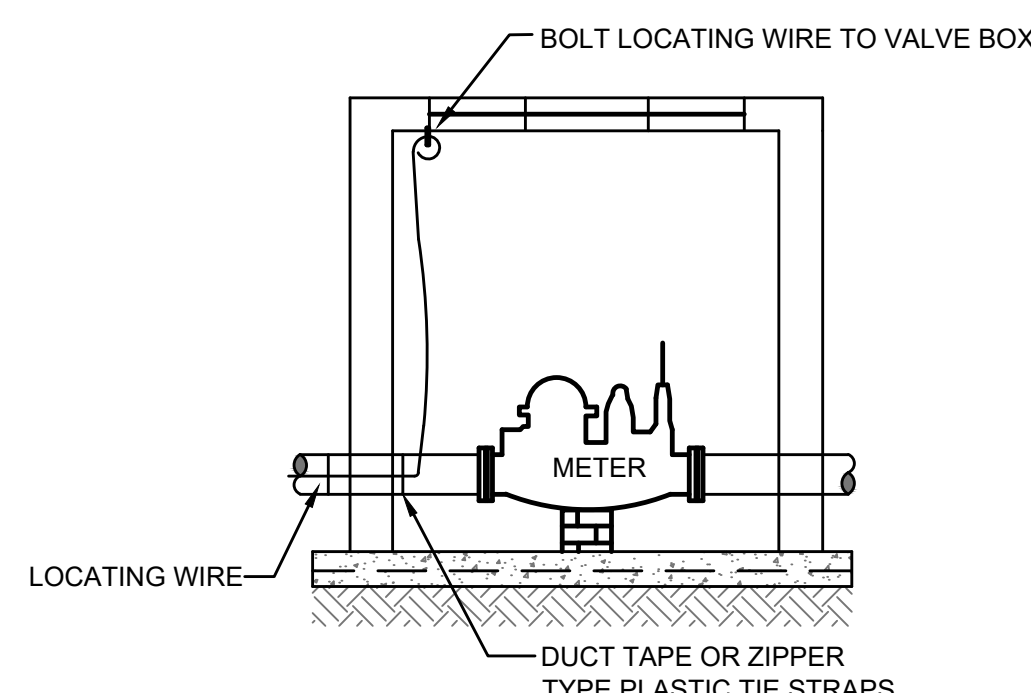
JANUARY 2023

PLATE W-44B



BRANCH FORCE MAIN

(2" AND LARGER WATER MAIN OR 3" AND LARGER WATER SERVICE PIPE)



CONNECTION AT LARGE METER BOX

(3" OR LARGER SERVICE)

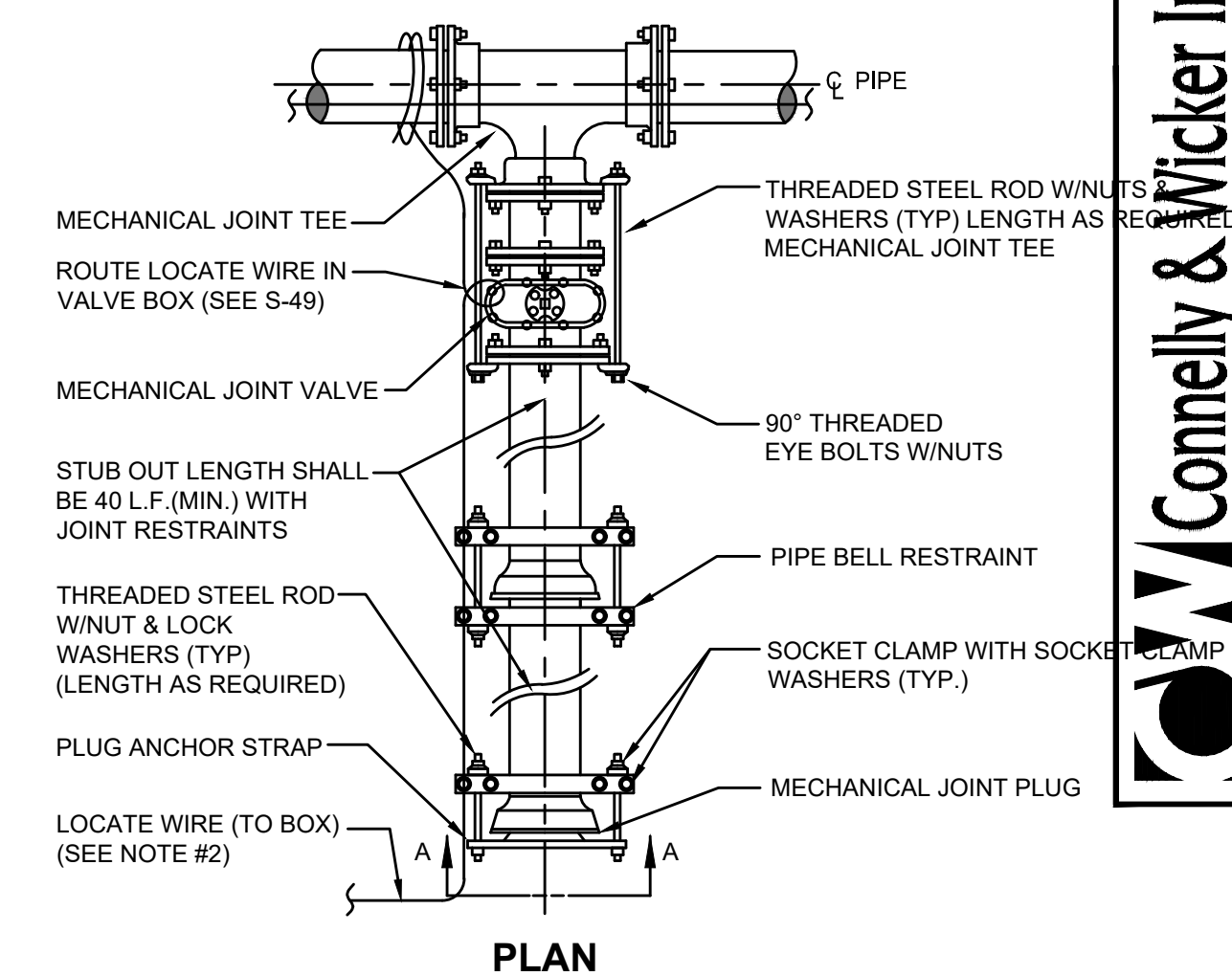
NOTES:

1. NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
2. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A 1/2" CUT IN THE 6" PVC RISER PIPE SECTION (SEE W-18).
3. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.

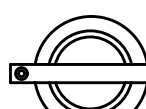
LOCATE WIRE FOR BRANCH MAIN

JANUARY 2023

PLATE W-44A



PLAN



SECTION "A-A"

NOTES:

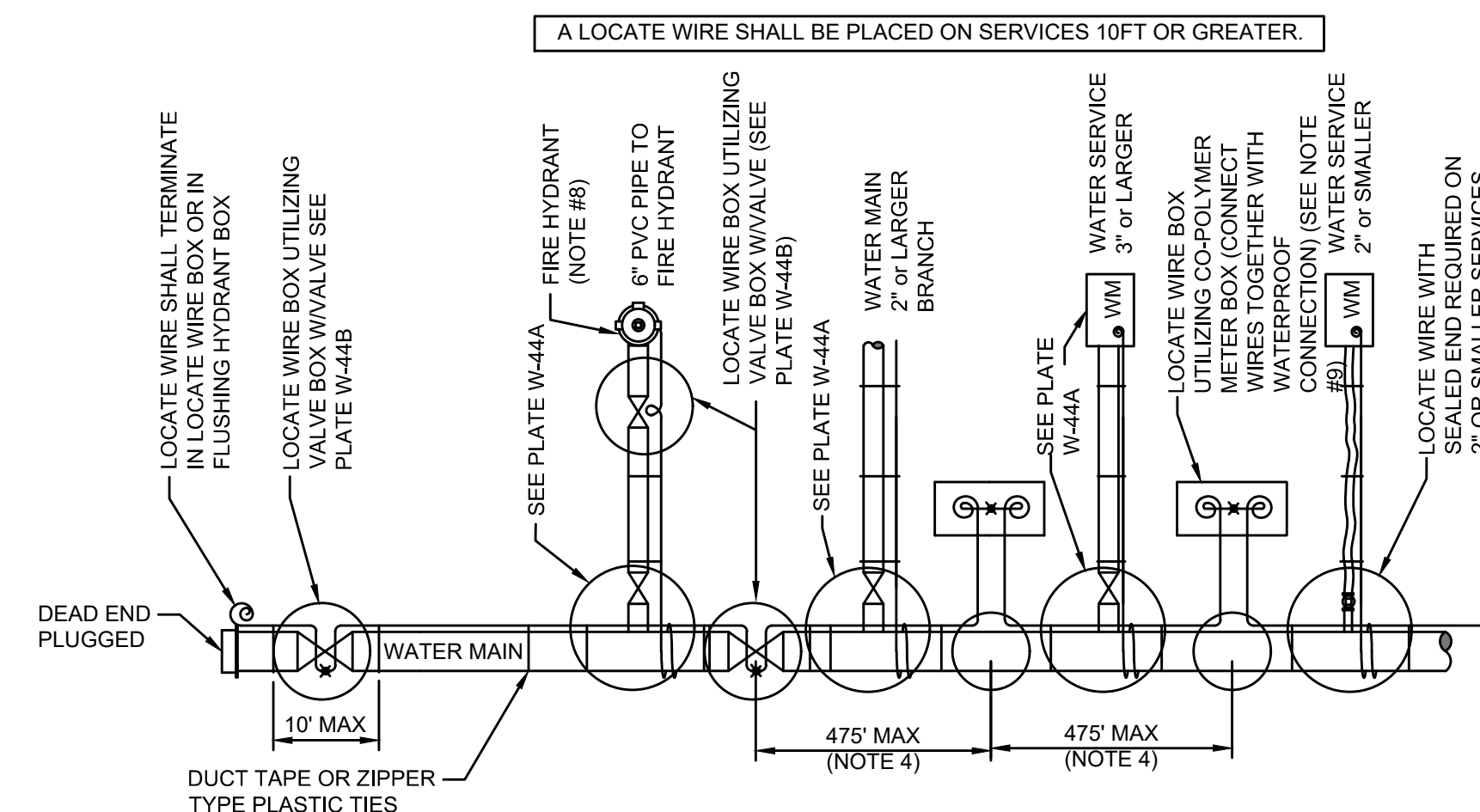
1. IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.
2. LOCATING WIRE REQUIRED. UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
3. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS:

| | |
|-----------|---|
| 3" - 8" | DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD) |
| 10" - 12" | DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD) |
| 14" - 16" | DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD) |
| 18" - 20" | DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD) |
| 24" | DIAMETER MAIN - 12 TIE RODS REQUIRED PER JOINT (3/4" ROD) |
| 30" - 36" | DIAMETER MAIN - 14 TIE RODS REQUIRED PER JOINT (1" ROD) |
| 42" - 48" | DIAMETER MAIN - 16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD) |
| 54" | DIAMETER MAIN - 18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD) |
4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT, IF POSSIBLE. THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (MIN.) WHERE POSSIBLE.

PLUGGED DEAD END USING MECHANICAL RESTRAINTS

JANUARY 2023

PLATE W-37



LOCATE WIRE SYSTEM

NOTES:

1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON OR PVC (PRESSURE MAINS). LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL (HDPE) POLY MAIN PIPING (1:00 OR 11:00 POSITION, IF POSSIBLE).
2. SECURE LOCATING WIRE TO PVC & D.I.P. WATER MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
3. THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY. WHERE INSTALLED UNDER PAVEMENT AREAS, TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF PAVEMENT, UNLESS APPROVED OTHERWISE BY JEA.
4. LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX (WITH A VALVE) OR A METER BOX (IF NO VALVE) AT 475' INTERVALS. SEE DETAIL PLATE W-44B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
5. REFER TO SECTION 350 FOR LOCATE WIRE SPECIFICATIONS.
6. * * INDICATES THAT THE WIRES ARE CONNECTED TOGETHER WITH A WATERPROOF CONNECTION. (SEE DETAIL W-44B)
7. * * INDICATES A WIRE PIG-TAIL (4' LONG)
8. FOR FIRE HYDRANT LOCATE WIRE REQUIREMENTS AND EXCLUSIONS. SEE PLATES W-12,13 AND 14.
9. AN "LW" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES.
10. FOUR LANES OF TRAFFIC (HAVING TWO LANES OF TRAFFIC IN EACH DIRECTION) OR GREATER THE LOCATE WIRE AND VALVE BOX SHALL BE OFF-SET TO THE RIGHT-OF-WAY.

LOCATE WIRE CONSTRUCTION FOR WATER MAINS

JANUARY 2023

PLATE W-44

Connelly & Micker Inc.
 Engineering - Landscape Architecture
 10060 Skimmer Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cwreny.com
 Florida Registry 3650 L.A. Number: LC26000311

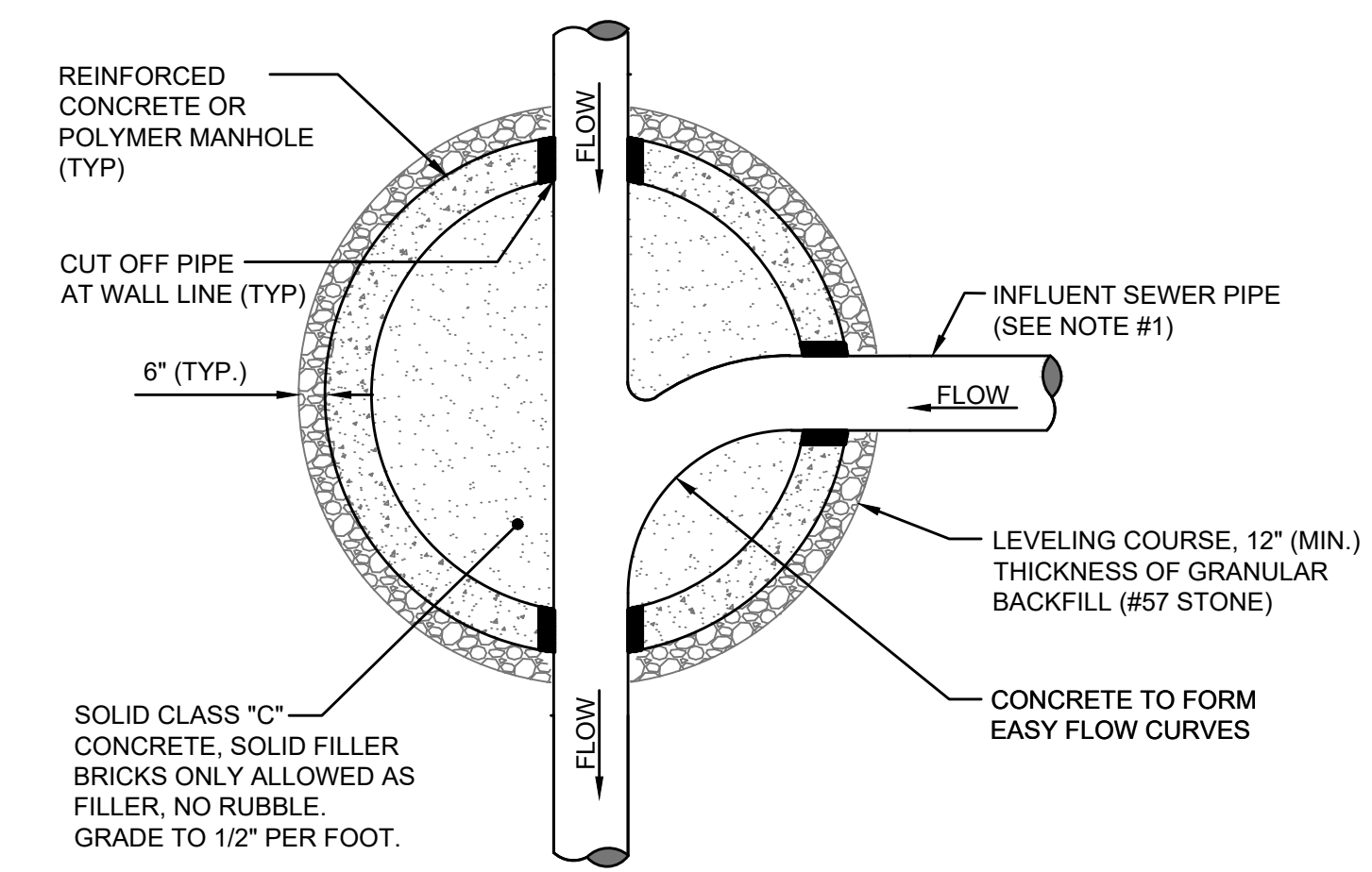
| NO. | BY | DATE | REVISIONS |
|-----|----|------|-----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |

| | |
|---------------------------|--------------|
| DESIGNER: MEL | DATE: |
| DRAWN: ANB | DATE: |
| CHECKED BY: MEL | DATE: |
| FLORIDA REGISTRATION NO.: | PE NO. 61449 |

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

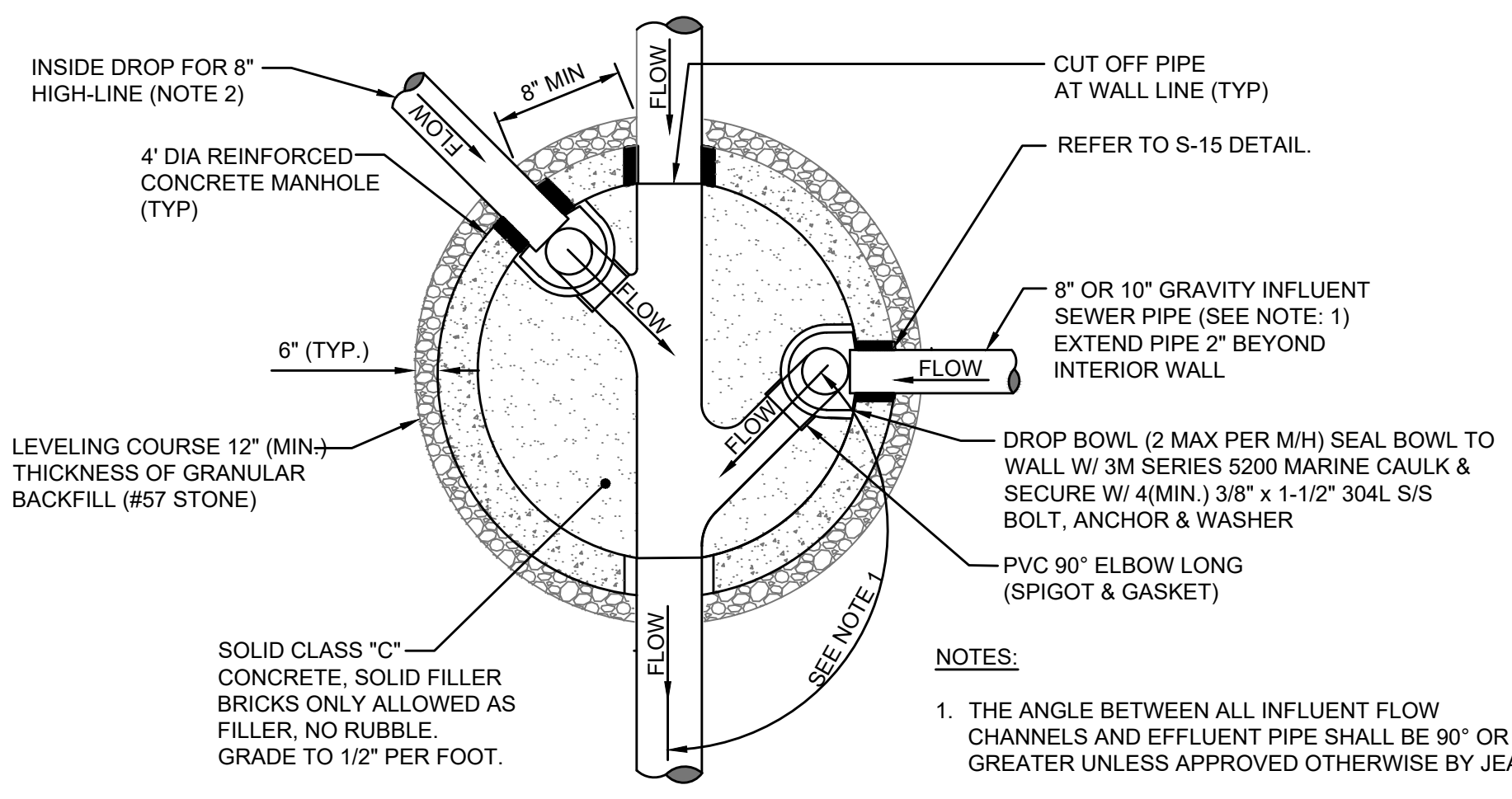
| | |
|----------------------|------------------------|
| PROJ. NO. 21-01-0057 | DATE: October 25, 2023 |
| SHEET NO. 15E | SCALE: AS NOTED |
| DRAWING NO. | |

WATER AND SEWER DETAILS



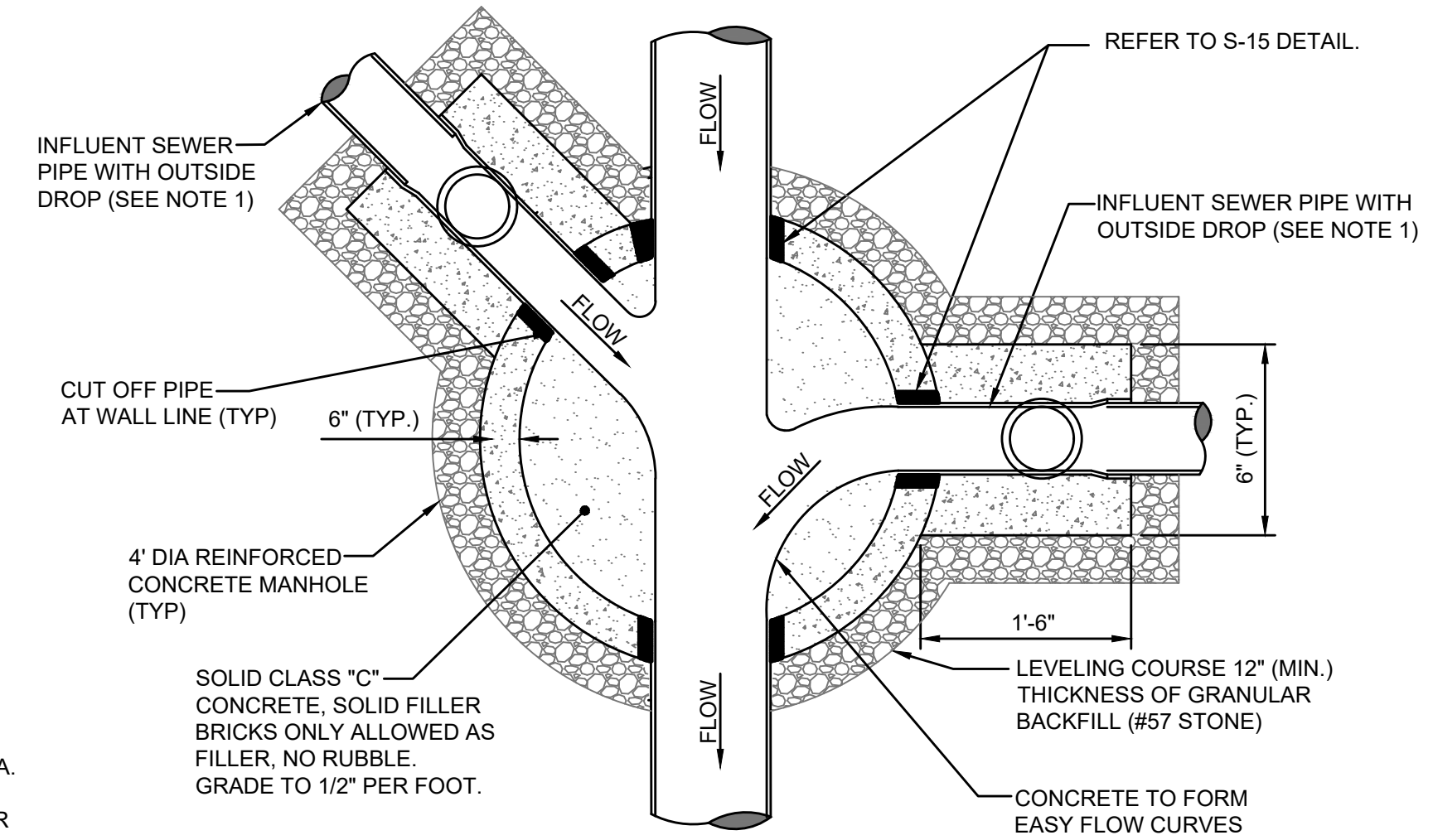
PLAN VIEW (S-3)

- NOTES:
- THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE BETWEEN 90° - 180° UNLESS OTHERWISE APPROVED BY JEA.



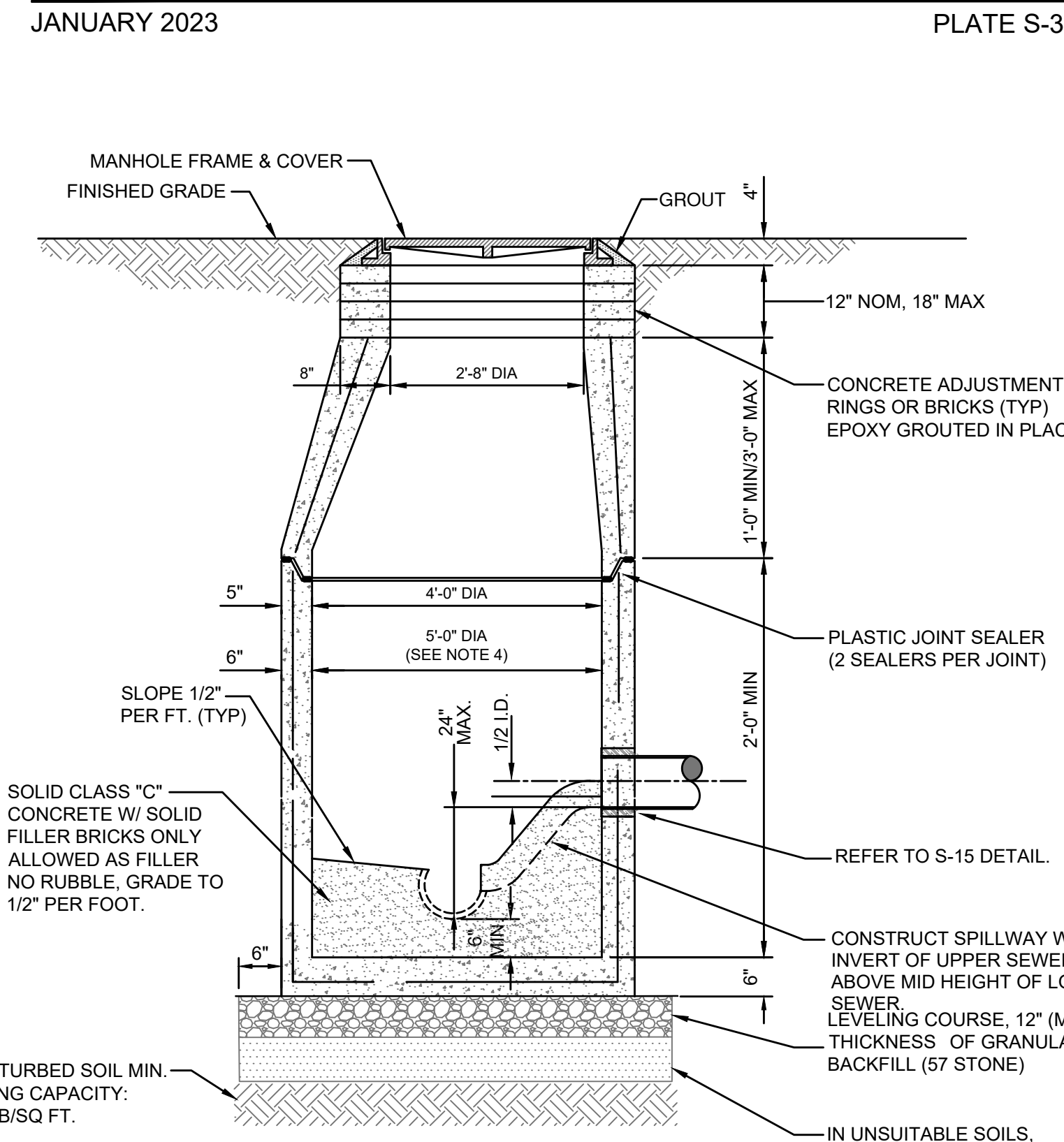
PLAN VIEW (S-5)
(FOR SECTION VIEW SEE S-4)

- NOTES:
- THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE 90° OR GREATER UNLESS APPROVED OTHERWISE BY JEA.
 - THE 8" HIGH-LINE, WHERE UTILIZED, SHALL ENTER THE MANHOLE OFF-CENTER AS SHOWN ABOVE.



PLAN VIEW (S-8)

- NOTES:
- THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE 90° OR GREATER UNLESS APPROVED OTHERWISE BY JEA.
 - THE INTERIOR AND EXTERIOR OF THE MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
 - IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
 - TYPE "D" MANHOLES SHALL BE USED FOR 12" OR LARGER INFLUENT PIPES W/ 2' OR GREATER INFLUENT DROP.

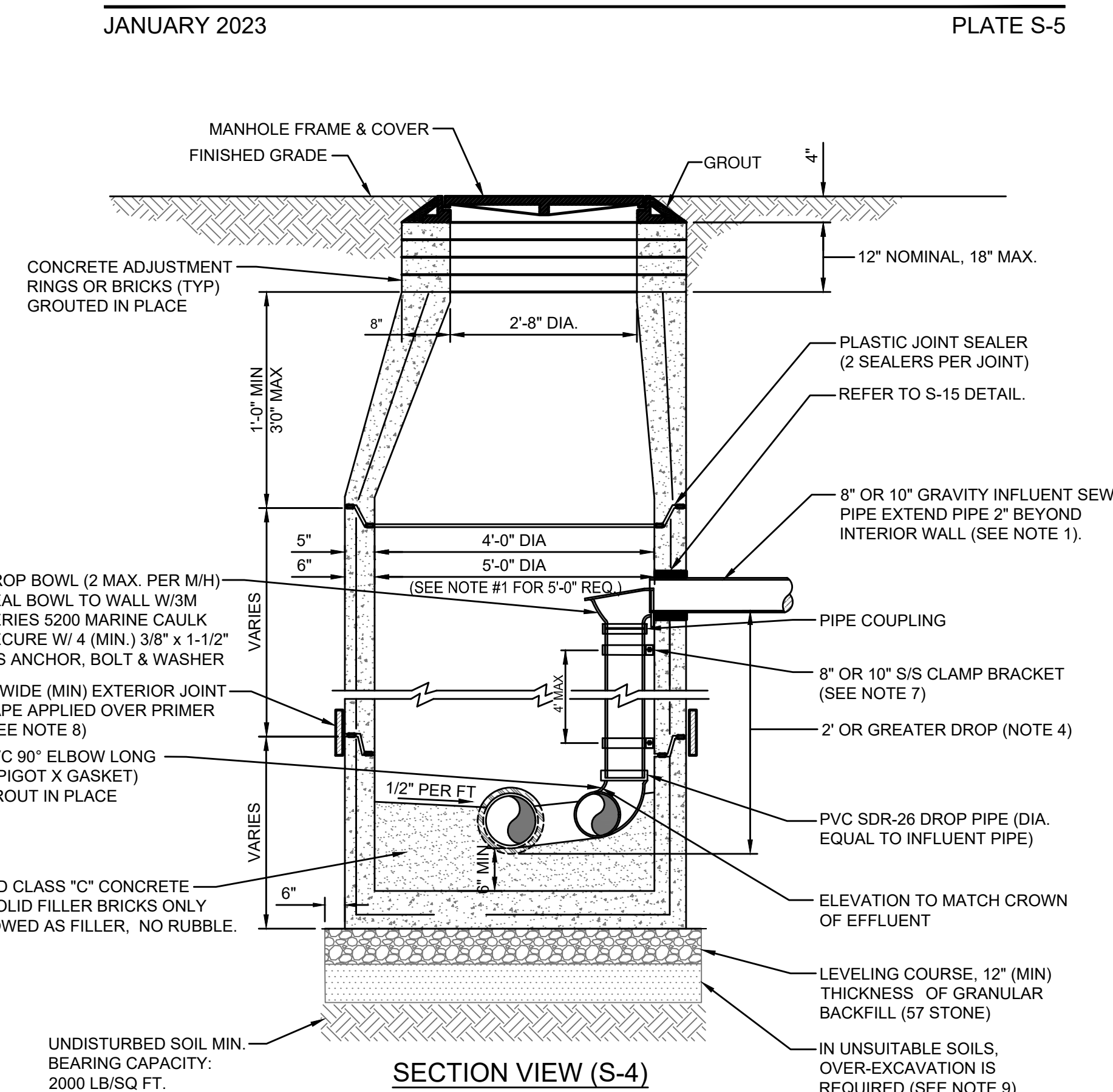


SECTION VIEW (S-2)
(FOR PLAN VIEW SEE S-3)

- NOTES:
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
 - THE INTERIOR AND EXTERIOR OF MANHOLE AND ADJUSTING RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
 - IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE SURFACE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
 - JUNCTION MANHOLE (CLOSEST TO WETWELL) SHALL BE 5' DIA WITH SPECIALTY LINER.
 - ALL MANHOLE JOINTS BELOW THE TOP COVER SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (WITH PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL. SEE PLATE S-17.
 - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98% ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER CONCRETE TYPE "A" MANHOLE
8"-21" SEWERS

JANUARY 2023 PLATES S-2, S-3

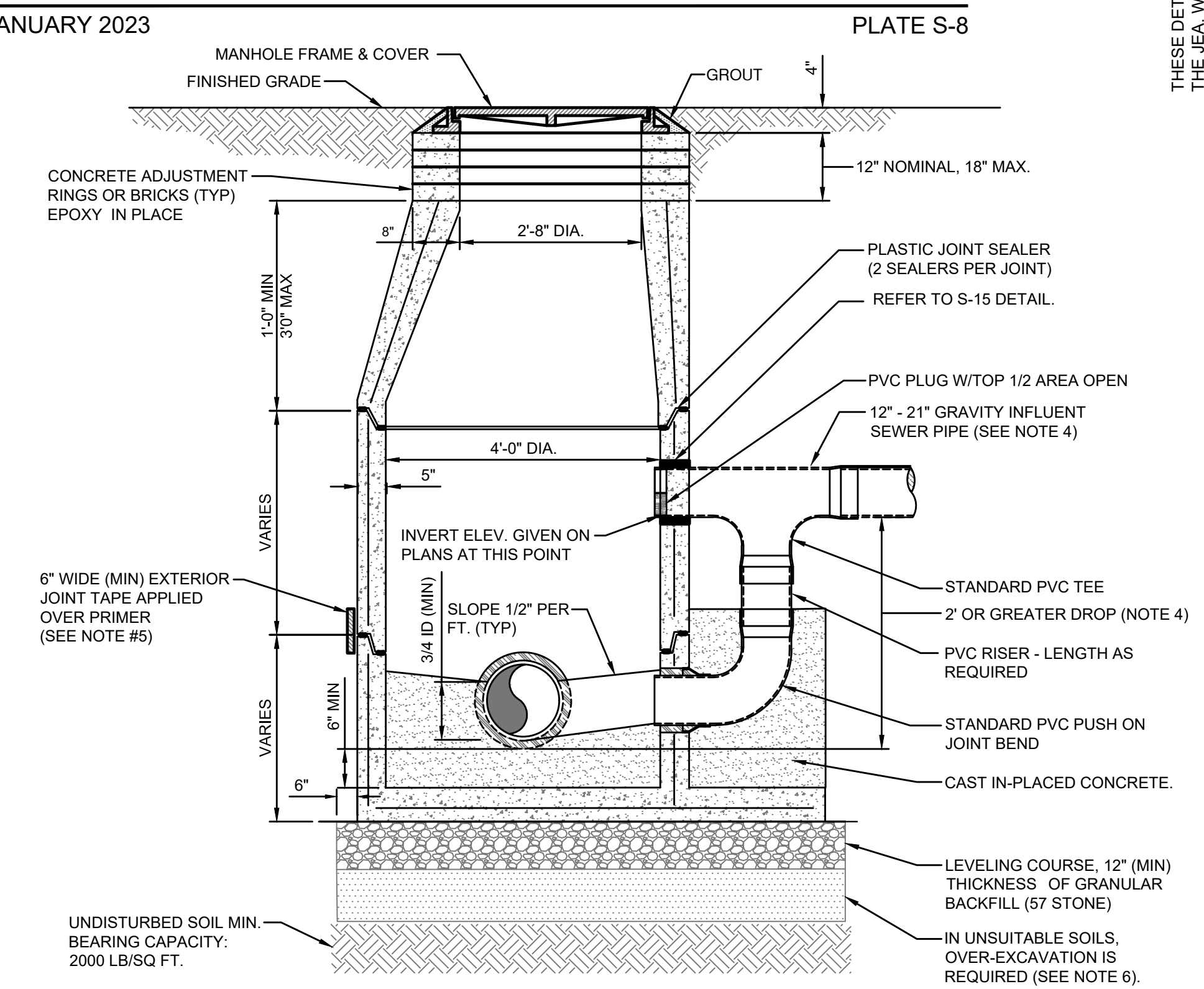


SECTION VIEW (S-4)
(FOR PLAN VIEW SEE S-5)

- NOTES:
- THIS ASSEMBLY IS FOR 8" OR 10" GRAVITY INFLUENT LINES ONLY. NEW CONSTRUCTION ONLY NO FORCE MAINS LARGER THAN 6". MAXIMUM OF 2 INSIDE DROP BOWLS PER MANHOLE. A 5'-0" DIA. MANHOLE (6" THICK WALLS) IS REQUIRED IF TWO INSIDE DROPS ARE CONSTRUCTED WITH ONE OR BOTH BEING 10" SIZE. DROP BOWL BY RELINER OR APPROVED EQUAL REQUIRED. THE INSIDE DROP FOR AN 8" HIGH-LINE SHALL BE CONSTRUCTED SIMILAR TO ABOVE (SEE PLATE S-5).
 - PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
 - THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
 - TYPE "B" MANHOLE MUST BE USED FOR 2' OR GREATER INFLUENT PIPE DROPS.
 - THE DROP BOWL ASSEMBLY SHALL BE INSTALLED PRIOR TO APPLICATION OF SPECIALTY LINING MATERIAL.
 - A TYPE "D" MANHOLE SHALL BE UTILIZED WHEN THREE OR MORE (2' OR GREATER) DROPS ARE INVOLVED OR WHEN INFLUENT PIPES AREA LARGER THAN 10" IN SIZE.
 - ADJUSTABLE CLAMPING BRACKET (MIN. 2 PER DROP BOWL ASSY). 1-1/2" WIDE, 11 GA. W/ 3/8" DIA. 18-8 PINCH BOLTS AND NUTS. SECURE TO MH WALL WITH (2) 3/8" X 1" BOLT, ANCHOR & WASHER PER BRACKET ASSY. ALL 304 OR 316 STAINLESS STEEL MATERIALS.
 - ALL MH JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL.
 - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98% ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER CONCRETE TYPE "B" MANHOLE
8"-10" SEWERS

JANUARY 2023 PLATES S-4, S-5



SECTION VIEW (S-7)
(FOR PLAN VIEW SEE S-8)

- NOTES:
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
 - THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
 - IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE SURFACE OF MANHOLE, THE BITUMINOUS WATERPROOFING SHALL BE OMITTED ON INSIDE.
 - TYPE "D" MANHOLE SHALL BE USED FOR 12" OR LARGER INFLUENT PIPES W/ 2' OR GREATER INFLUENT DROP.
 - ALL MH JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL.
 - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98% ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER CONCRETE TYPE "D" MANHOLE
12"-21" SEWERS

JANUARY 2023 PLATES S-7, S-8

Connelly & Wicker Inc.
 Engineering - Landscape Architecture
 10060 Skimmer Lake Drive, Suite 500 Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cweng.com
 Florida Registry 3650 L.A. Number: LC26000311

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

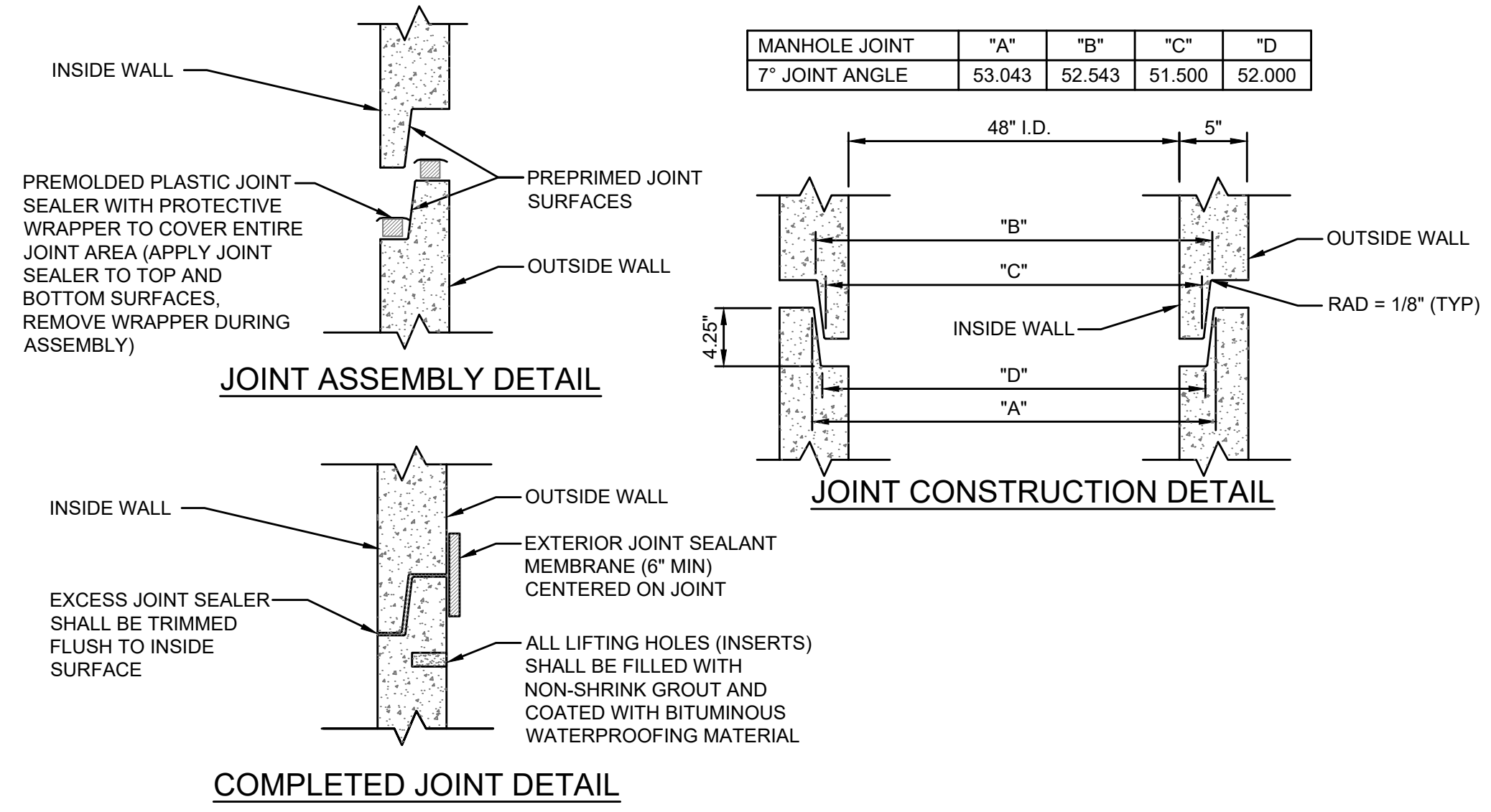
| NO. | BY | DATE | REVISIONS |
|-----|-----|------|-----------|
| 1 | MEL | | |
| 2 | MEL | | |
| 3 | MEL | | |
| 4 | MEL | | |

| | |
|---------------------------|-------|
| DESIGNER: | MEL |
| CHECKED BY: | MEL |
| DATE: | |
| FLORIDA REGISTRATION NO.: | |
| PE NO.: | 61449 |

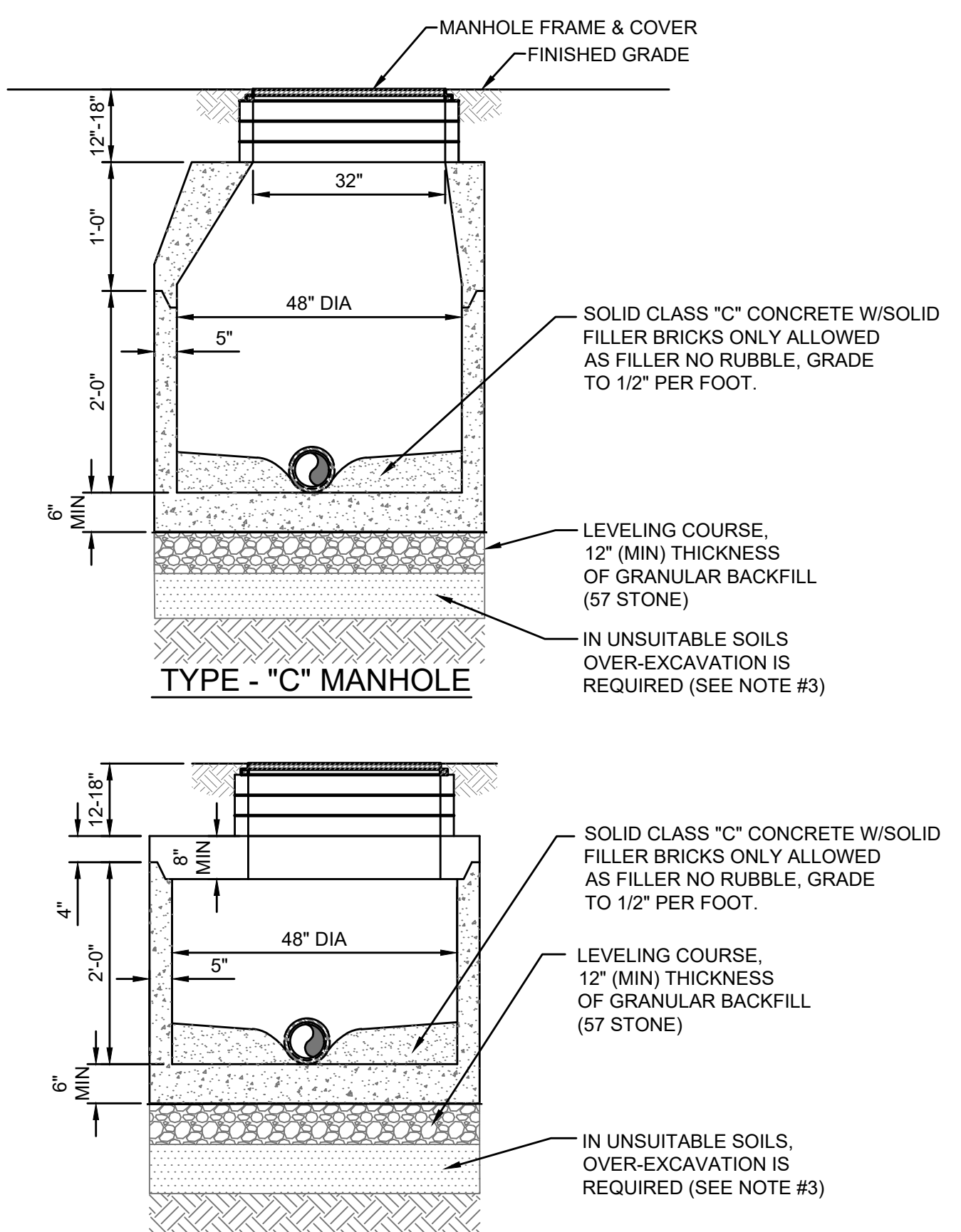
JEA
 Building Community™

WATER AND SEWER DETAILS

| | |
|--------------|------------------|
| PROJ. NO.: | 21-01-0057 |
| DATE: | October 25, 2023 |
| SHEET NO.: | 15F |
| DRAWING NO.: | |
| SCALE: | NOTED |

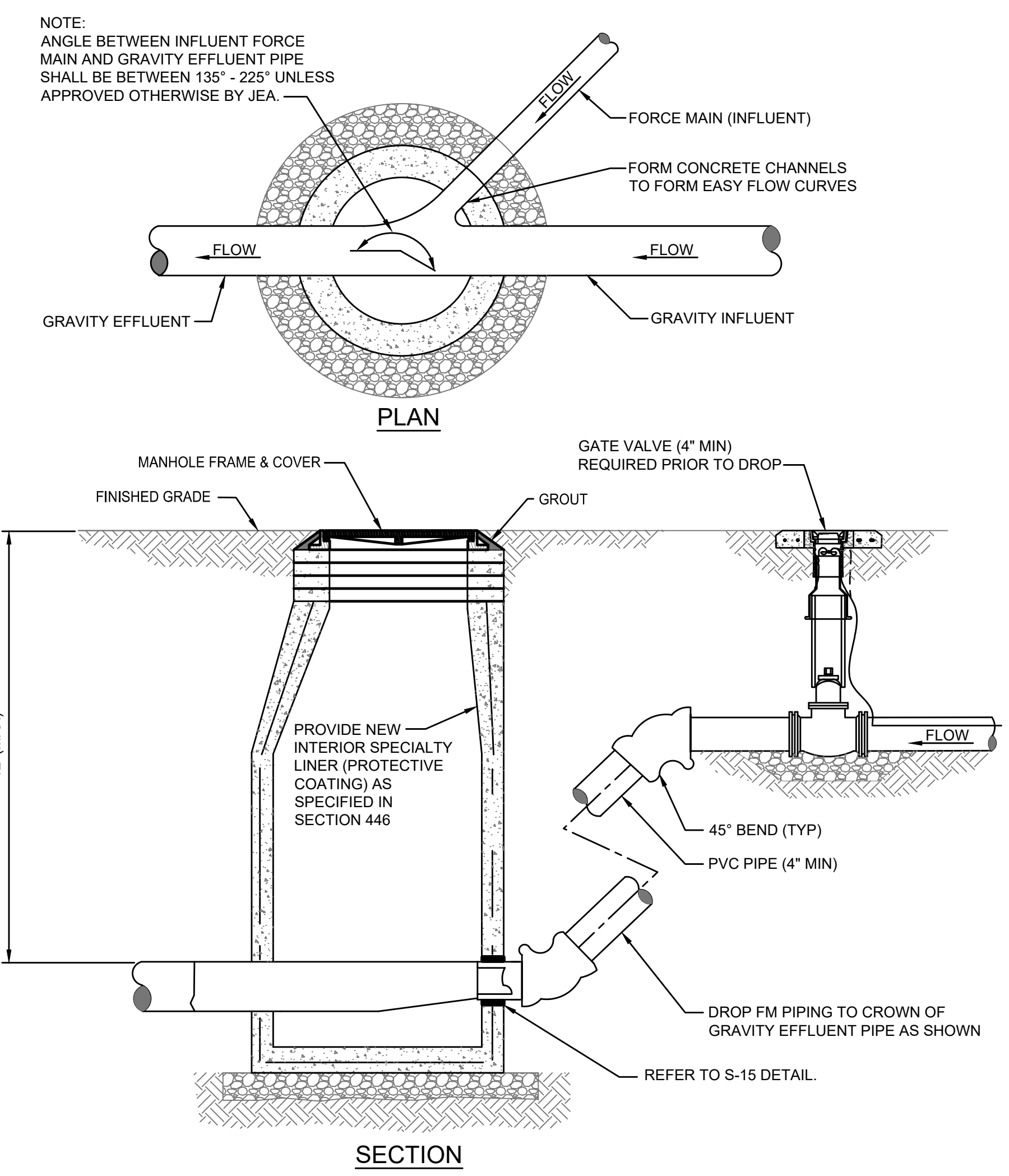


PRECAST CONCRETE SEWER MANHOLE JOINT DETAIL
 JANUARY 2023 PLATE S-17

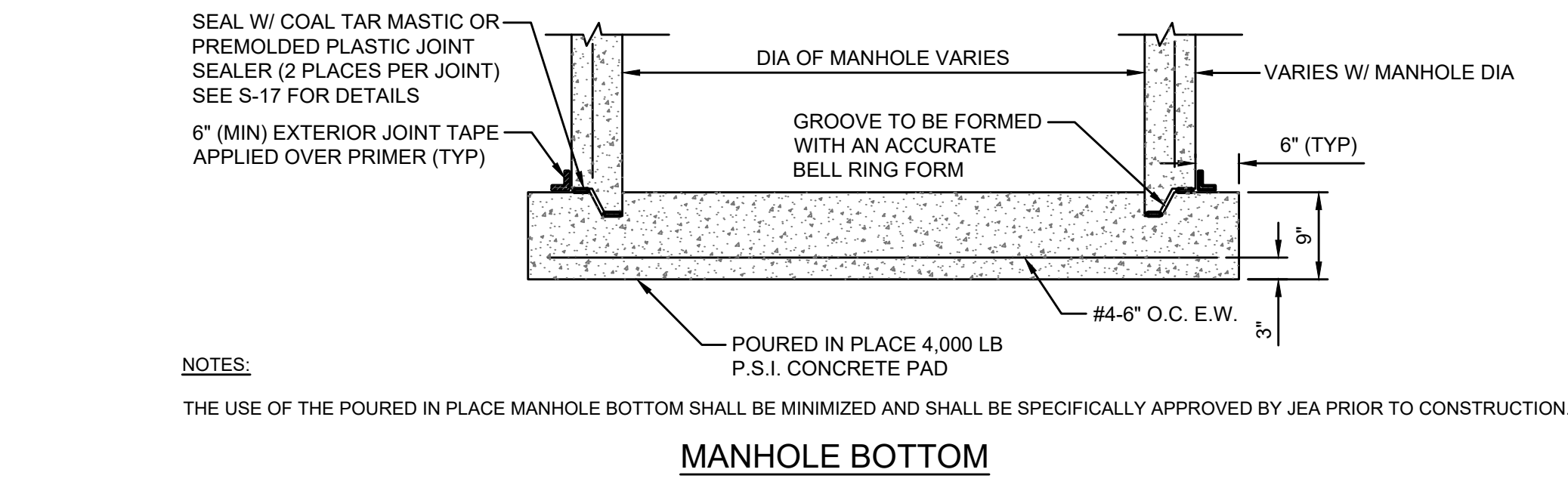
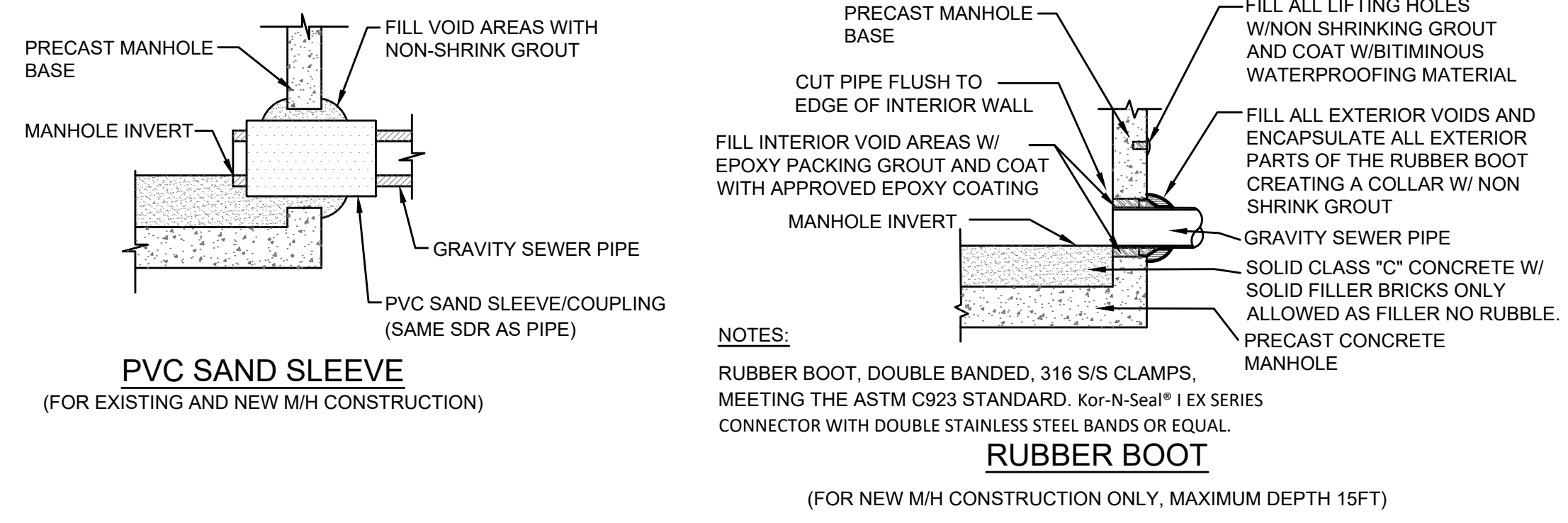


SANITARY SEWER CONCRETE TYPE "C" MANHOLE
8"-21" SEWERS
 JANUARY 2023 PLATE S-6

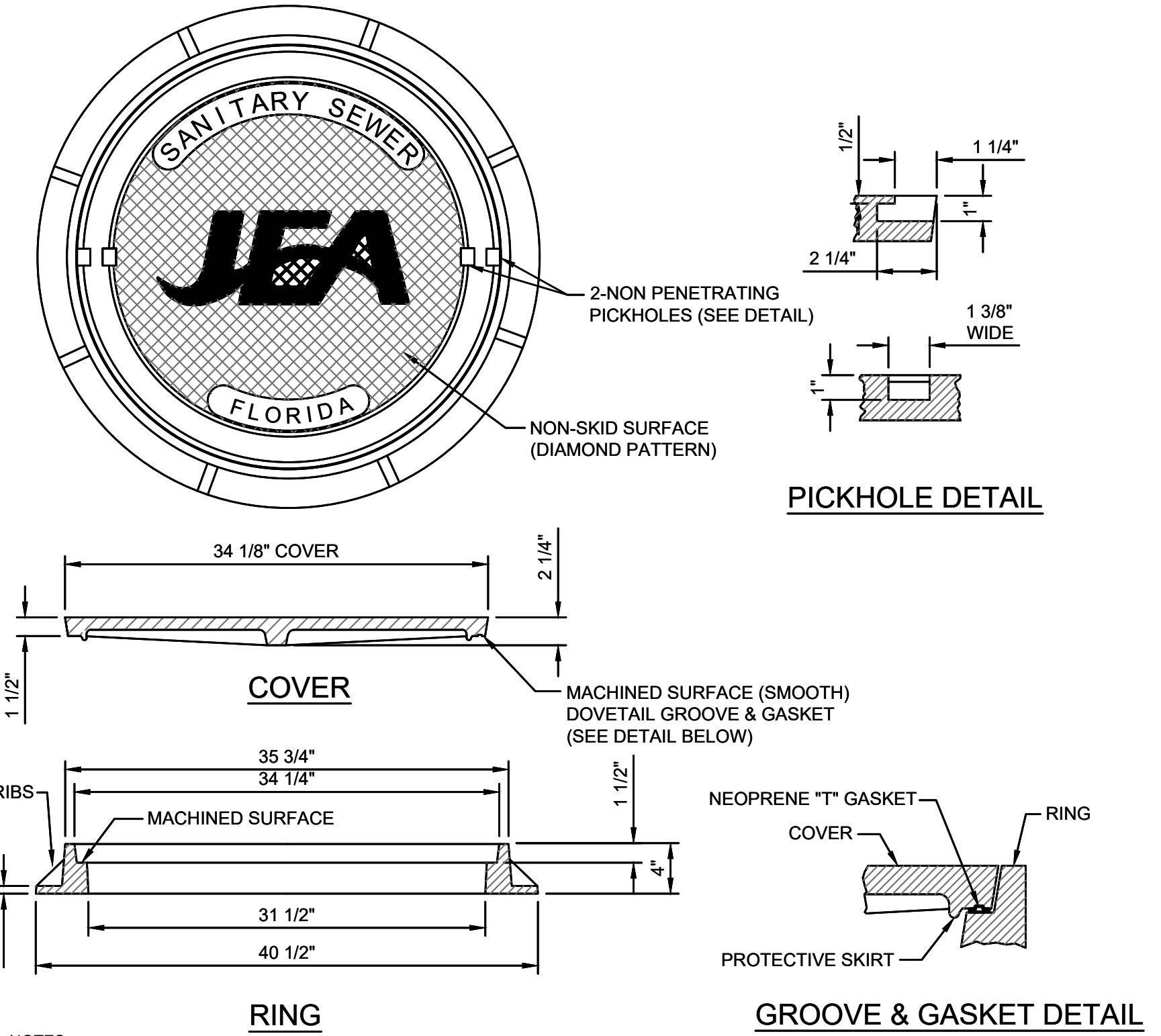
- NOTES:**
1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
 2. THE INTERIOR AND EXTERIOR OF MANHOLE AND INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COAT OF BITUMINOUS WATERPROOFING MATERIAL.
 3. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).



TYPICAL FORCE MAIN CONNECTION TO MANHOLE
 JANUARY 2023 PLATE S-18



CONCRETE MANHOLE PIPE CONNECTION DETAIL
 JANUARY 2023 PLATE S-15



SANITARY SEWER MANHOLE FRAME AND COVER
 JANUARY 2023 PLATE S-1

- NOTES:**
1. MATERIAL: ASTM A-48 CLASS 35B GRAY IRON.
 2. RING WEIGHT 230 LBS APPROX.
 3. COVER WEIGHT 230 LBS. APPROX.
 4. ALL DIMENSIONS ARE SHOWN IN INCHES.
 5. FOR MANHOLES WHICH WILL BE MAINTAINED BY JEA (INCLUDING UTILITY DEDICATION PROJECTS), THE COVER SHALL INCLUDE THE "JEA" LOGO AND A NEOPRENE GASKET.
 6. FOR MANHOLES WHICH WILL BE MAINTAINED BY PARTIES OTHER THAN JEA (SUCH AS PRIVATE SEWER COLLECTION SYSTEMS, PRIVATE (FORCE MAIN) PUMP OUT BOX AND SYSTEMS NOT MAINTAINED BY JEA), THE COVER SHALL INCLUDE "SANITARY SEWER" GENERIC LETTERING (NO "JEA" LOGO OR NEOPRENE GASKET).

JEA Connelly & Wicker Inc.
 Engineering - Landscape Architecture
 10060 Skinner Lake Drive, Suite 500 Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cweng.com
 Florida Registry 3650 L.A. Number: LC26000311

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

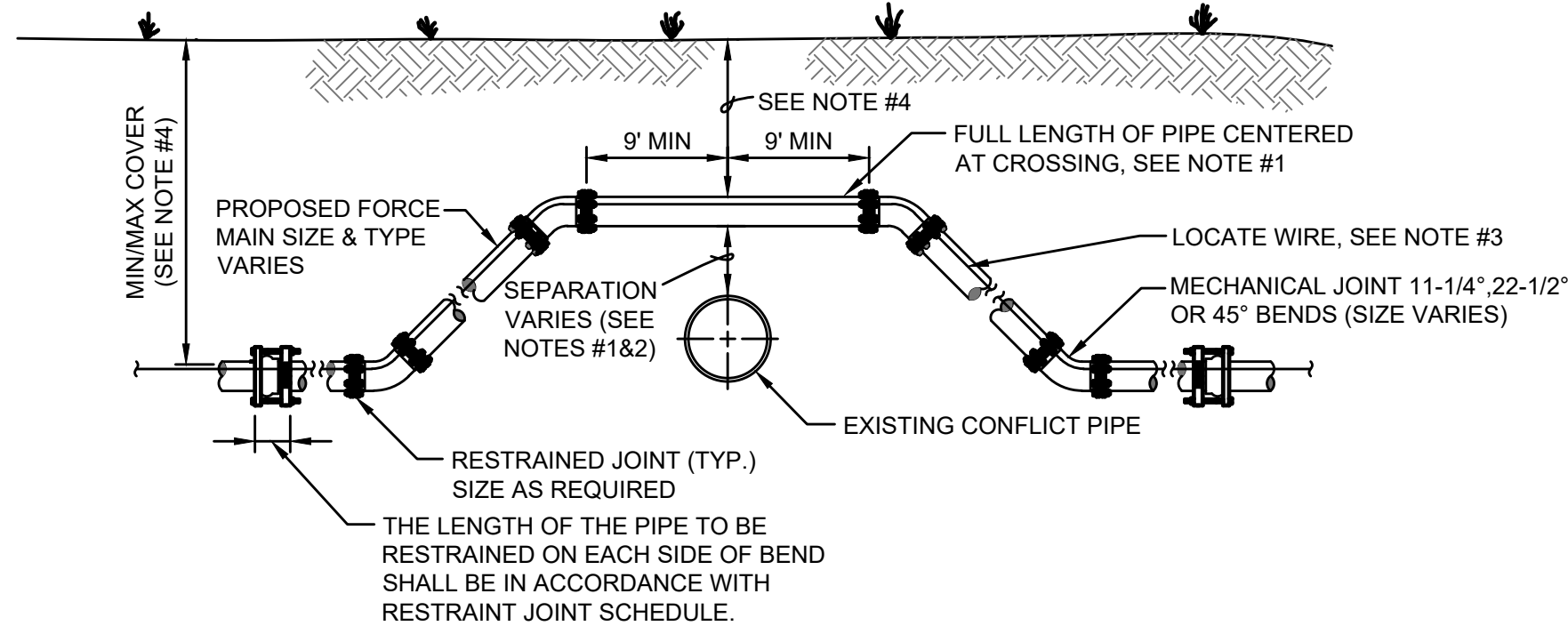
| NO. | BY | DATE | REVISIONS |
|-----|-----|------|-----------|
| 1 | MEL | | |
| 2 | MEL | | |
| 3 | MEL | | |
| 4 | MEL | | |
| 5 | MEL | | |
| 6 | MEL | | |

JEA Building Community

WATER AND SEWER DETAILS

| | | |
|----------------------|------------------------|----------------|
| PROJ. NO. 21-01-0057 | DATE: October 25, 2023 | SCALE(S) NOTED |
| NO. SHEETS 15G | | |
| SHEET NO. 15G | | |
| DRAWING NO. | | |

u:\21-01-0057 Sonoly Bluff\Design\Draws\Plots\21-01-0057 Sew-Deta.dwg Current Layout Tab = G Wed Oct 25, 2023 13:47 Xrefs Attached=



NOTES:

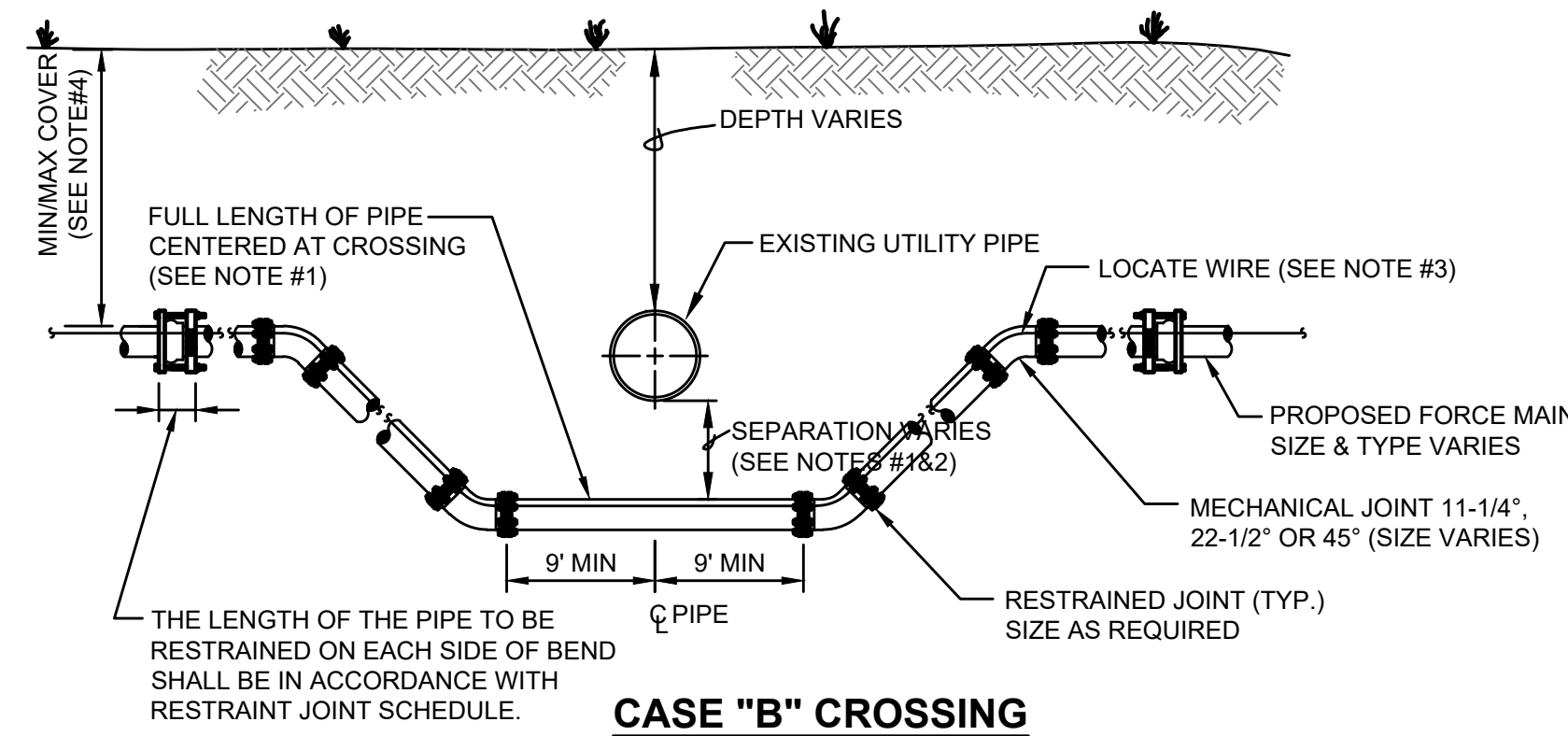
- IF EXISTING CONFLICT PIPE IS A WATER OR RECLAIMED WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSINGS.
- FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).
- LOCATING WIRE REQUIRED: SEE DETAIL S-49.
- THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS PRE-APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- THE SOILS BETWEEN THE MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.

CASE "A" CROSSING

**ADJUSTMENT OVER EXISTING UTILITIES
MECHANICAL RESTRAINTS**

JANUARY 2023

PLATE S-39



NOTES:

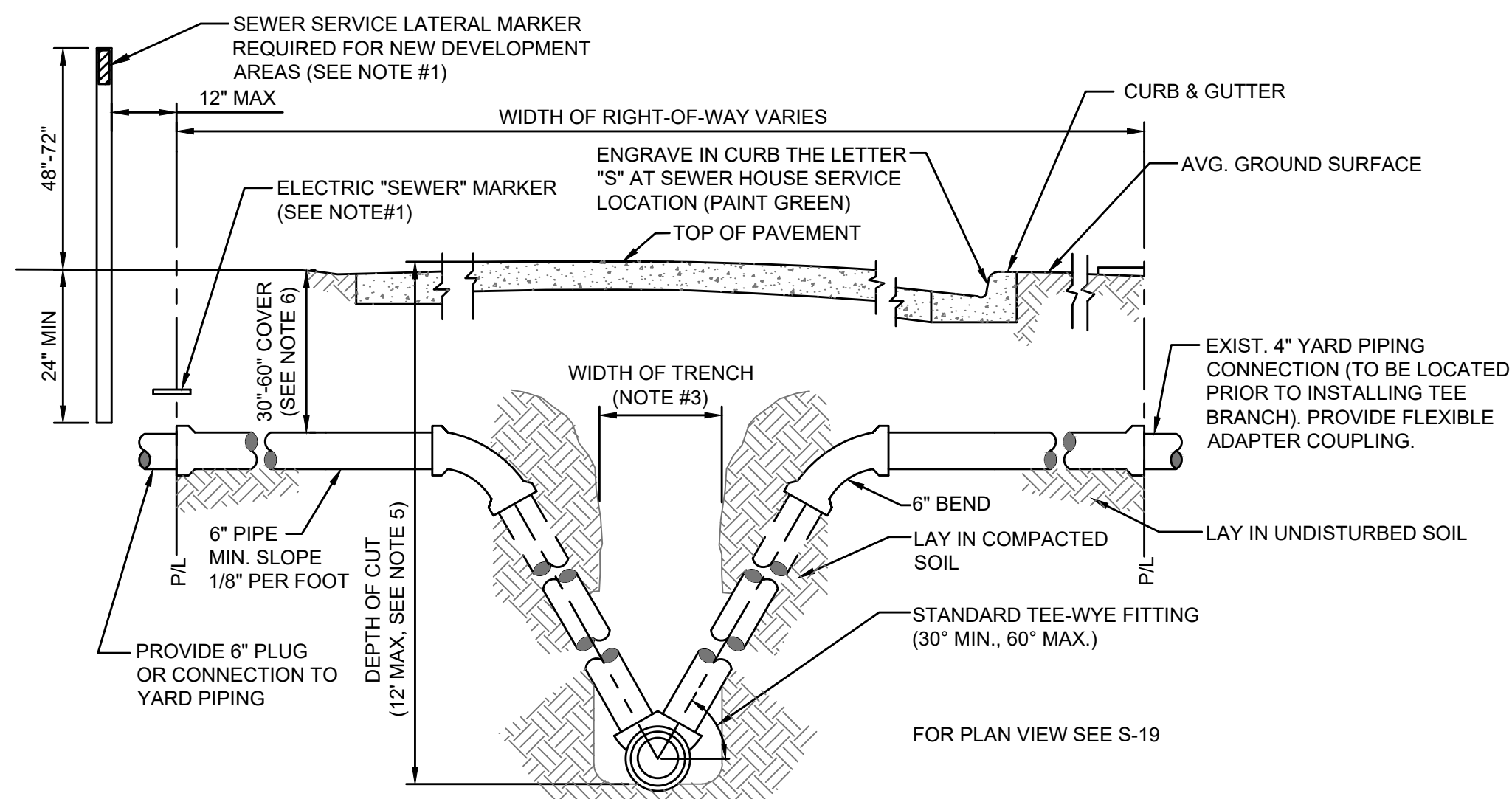
- IF EXISTING CONFLICT PIPE IS A WATER OR RECLAIMED WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSINGS.
- FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).
- LOCATING WIRE REQUIRED: SEE DETAIL S-49.
- THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS PRE-APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- THE SOILS BETWEEN THE MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.

CASE "B" CROSSING

**ADJUSTMENT UNDER EXISTING UTILITIES
MECHANICAL RESTRAINTS**

JANUARY 2023

PLATE S-41



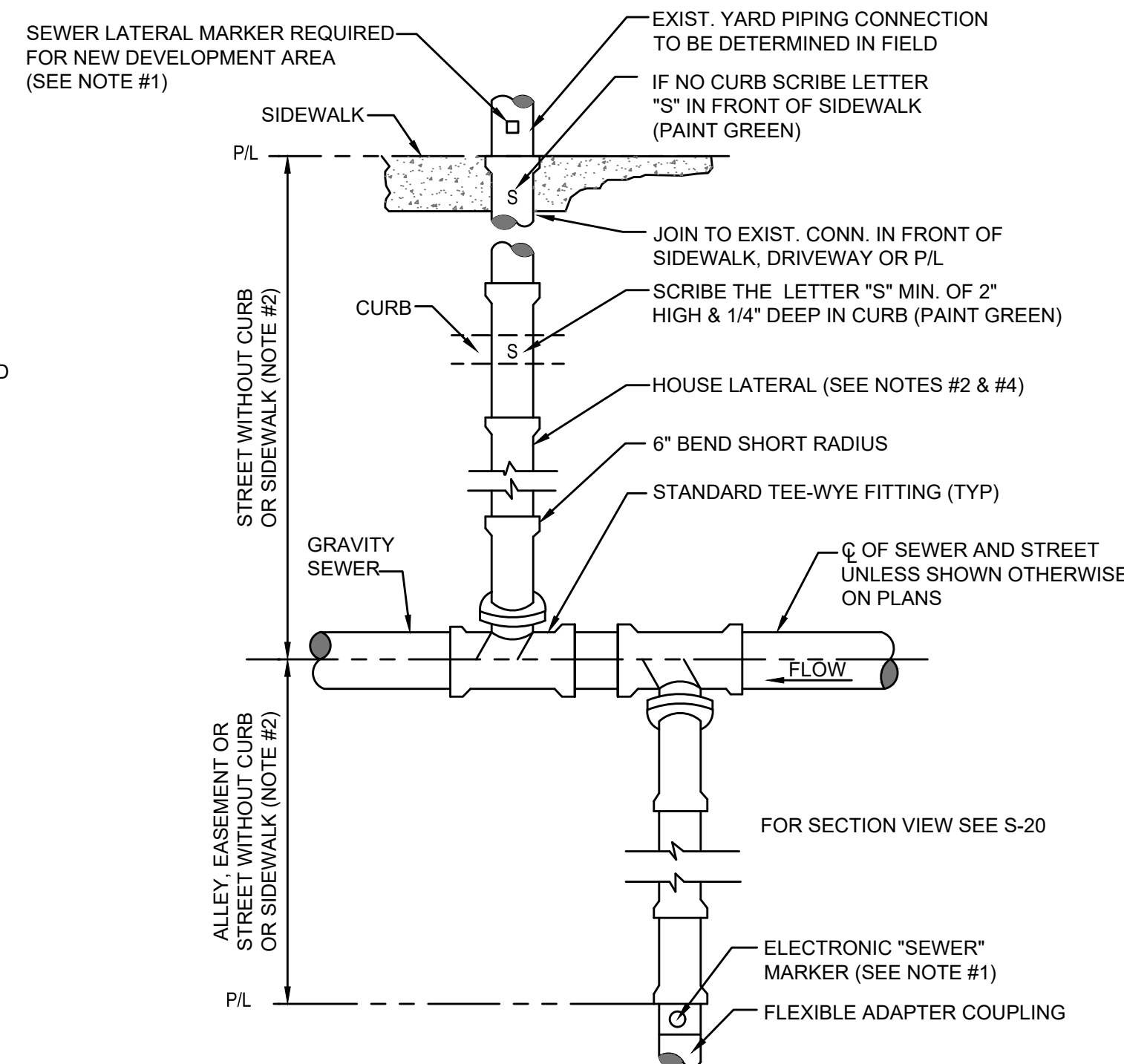
NOTES:

- TO MARK THE LOCATION OF THE 6" PLUG FOR NEW SERVICE, FOR PROJECTS WHERE NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE BEING INSTALLED FOR FUTURE USE AT A MAX DEPTH OF 3' AT FINISH GRADE. FOR NEW DEVELOPMENT AREAS WHERE THE SEWER LATERAL IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED, WHERE REQUIRED BY JEA OR NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER SHALL BE INSTALLED TO MARKER SHALL ALSO BE INSTALLED.
- THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN OR MANHOLE TO CUSTOMERS PROPERTY LINE).
- SEE MEASUREMENT AND PAYMENT SECTION FOR MAXIMUM PAYMENT WIDTHS.
- ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTINGS) SHALL BE PVC SDR-26.
- UNLESS APPROVED OTHERWISE BY A JEA O&M MANAGER, NO GRAVITY SEWER MAIN WITH SEWER SERVICE LATERALS SHALL BE CONSTRUCTED WITH A "DEPTH OF CUT" GREATER THAN 12 FEET.
- SEWER SERVICE LATERALS ASSOCIATED WITH GRAVITY SEWER MAINS WHICH ARE DEEPER THAN 12 FEET, MUST BE ROUTED TO A GRAVITY SEWER HIGH-LINE, A MANHOLE OR OTHER JEA APPROVED METHOD.
- THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER, WHERE POSSIBLE (CONTINGENT UPON MEETING THE CUSTOMER'S ON-SITE CONDITIONS AND LOCAL CONSTRUCTION STANDARDS). A LATERAL REQUIRING MORE THAN 60" OF COVER MUST BE APPROVED, PRIOR TO CONSTRUCTION, BY JEA.

HOUSE LATERAL - SECTION VIEW

JANUARY 2023

PLATE S-20



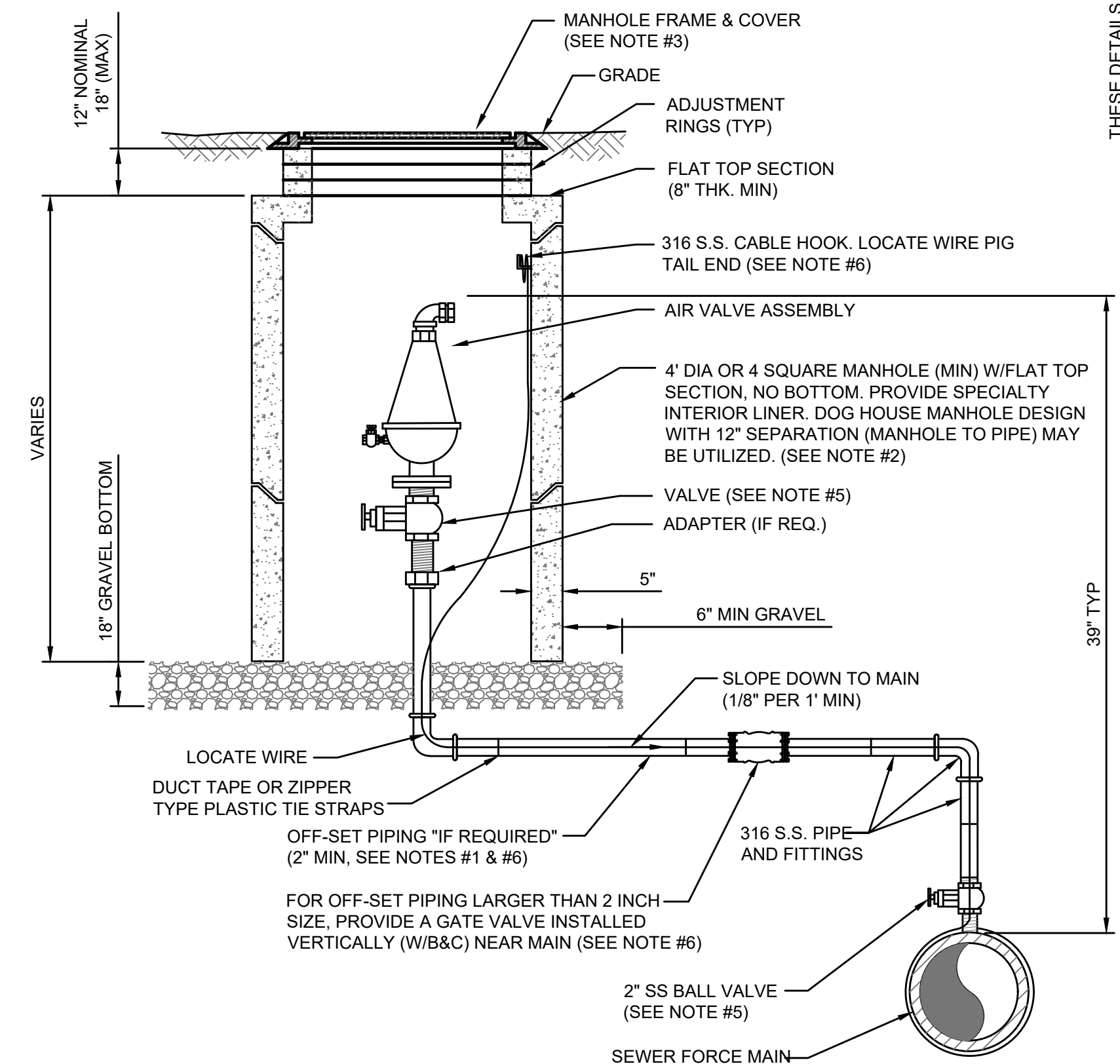
NOTES:

- TO MARK THE LOCATION OF THE 6" PLUG FOR NEW SERVICE, FOR PROJECTS WHERE NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE BEING INSTALLED FOR FUTURE USE AT A MAX DEPTH OF 3' AT FINISH GRADE. FOR NEW DEVELOPMENT AREAS WHERE THE SEWER LATERAL IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED, WHERE REQUIRED BY JEA OR NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER SHALL BE INSTALLED TO MARKER SHALL ALSO BE INSTALLED.
- THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN OR MANHOLE TO CUSTOMERS PROPERTY LINE).
- NO SEWER SERVICE CONNECTIONS PERMITTED ON GRAVITY SEWER PIPE WHICH ARE 16" AND LARGER.
- ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING) SHALL BE PVC SDR-26.

HOUSE LATERAL - PLAN VIEW

JANUARY 2023

PLATE S-19



NOTES:

- THE AIR ASSEMBLY MANHOLE SHALL BE LOCATED OUTSIDE OF THE ROADWAY PAVEMENT AREA (I.E. LOCATED IN NON-TRAFFIC AREAS). IF OFF-SET PIPING IS REQUIRED, THE PIPING SHALL BE 2" INCH MINIMUM, (SAME SIZE AS AIR VALVE INLET). FOR PIPE SIZES 3 INCH AND SMALLER: PIPING SHALL BE 316 STAINLESS STEEL SCH.40 STD GRADE, THREADED. FOR PIPE SIZES 4 INCH AND LARGER: PIPING SHALL BE 316 STAINLESS STEEL SCH. 10 (MIN), WELDED OR PVC DR-18 PIPE AND FITTINGS-RESTRAINED.
- THE CONCRETE MANHOLE SHALL INCLUDE A POLYURETHANE SPECIALTY LINER (PER SPEC SECTION 446) TO BE INSTALLED ON THE INTERIOR SURFACES INCLUDING THE RISER SECTION TOP AND THE ADJUSTMENT RINGS. A BITUMINOUS WATER-PROOFING MATERIAL SHALL BE PROVIDED ON THE OUTSIDE SURFACES OF THE MANHOLE.
- FRAME AND COVER SHALL BE JEA STANDARD. THE COVER SHALL HAVE NO GASKET TO ALLOW AIR TO EXIT VAULT (REMOVE GASKET IF NECESSARY FROM THE UNDER SIDE OF STANDARD JEA COVER). THE COVER (WHEN FLIPPED OPEN) MUST CLEAR THE AIR VALVE ASSEMBLY AT ALL TIMES OR A SQUARE TOP WITH ALUMINUM DOOR SHALL BE PROVIDED (NON-TRAFFIC LOCATIONS ONLY).
- FOR PIPE SIZES 3 INCH AND SMALLER, PROVIDE A STAINLESS STEEL BALL VALVE (2" MIN). FOR PIPE SIZES 4 INCH AND LARGER, PROVIDE A FLANGE GATE VALVE (WHEEL OPERATOR) OR PLUG VALVE. (LEVER ARM OPERATOR) SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
- FOR A 2" AIR VALVE, PROVIDE 2" STAINLESS STEEL BALL VALVE AT THE MAIN. FOR AIR VALVES LARGER THAN 2" SIZE, PROVIDE A TAPPING SLEEVE OR DUCTILE IRON TEE FITTING. ALSO, FOR OFF-SET PIPING LARGER THAN 2 INCH SIZE, PROVIDE A GATE VALVE (INSTALLED VERTICALLY NEAR MAIN). SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE.

AIR VALVE ASSEMBLY INSIDE MANHOLE

JANUARY 2023

PLATE S-29

JEA Connelly & Wicker Inc.
 Planning · Engineering · Landscape Architecture
 10060 Skimmer Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cwreng.com
 Florida Registry 3650 L.A. Number: LC26000311

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

| NO. | SHEETS | DATE | BY | DATE | REVISIONS |
|-----|--------|------------------|----------------------|------|-----------|
| 1 | 15H | October 25, 2023 | MARY E. LEAPROTT, PE | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |

DESIGN ENGINEER: MARY E. LEAPROTT, PE
 FLORIDA REGISTRATION NO.: PE NO. 61449

CHECKED BY: MEL
 DATE:

SCALE(S) NOTED

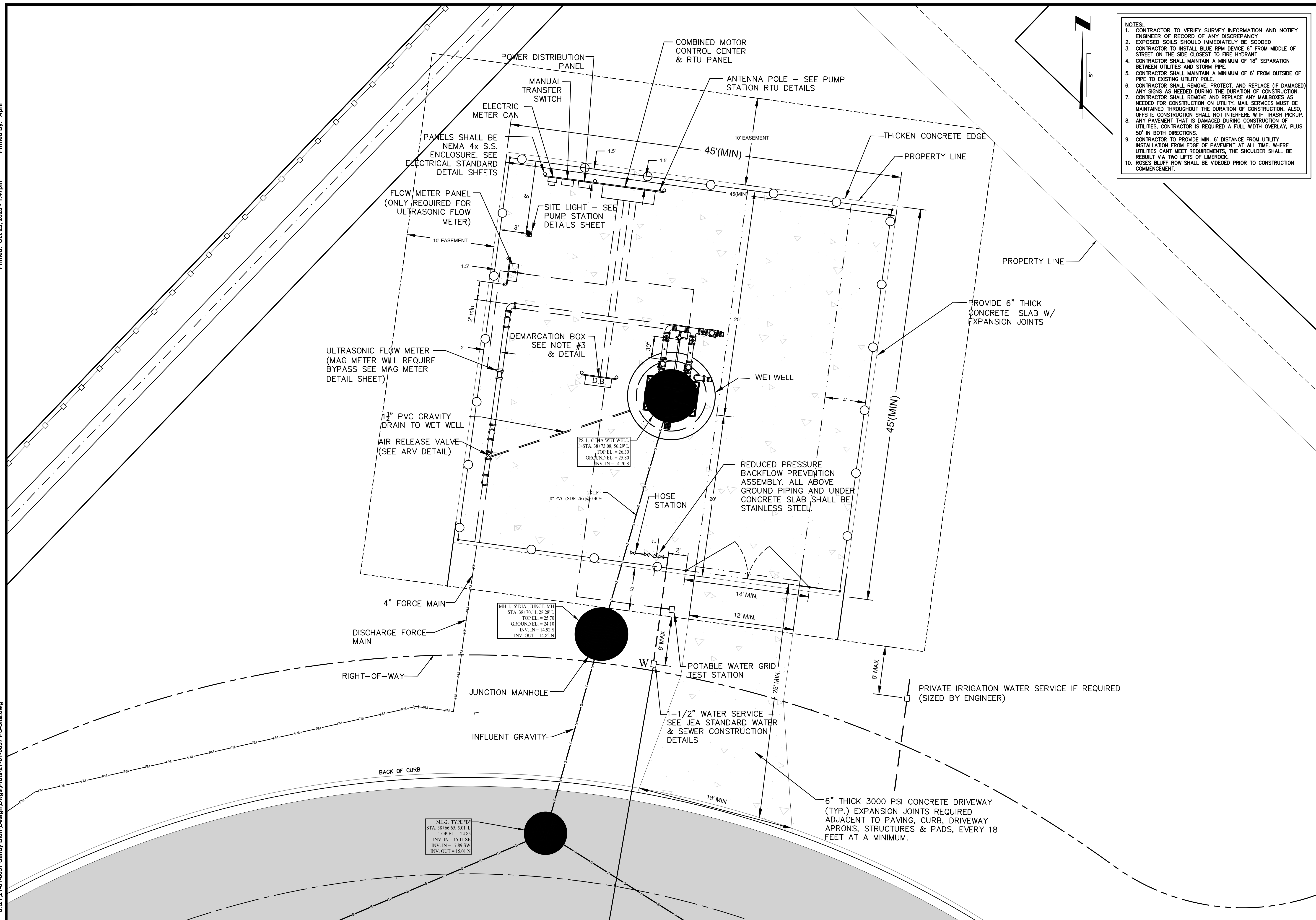
JEA Building Community

WATER AND SEWER DETAILS

PROJ. NO.: 21-01-0057
 DATE: October 25, 2023
 SHEET NO.: 15H
 DRAWING NO.:

Printed: Oct 25, 2023 - 1:47pm

J:\21-01-0057 Sandy Bluff\Design\Drawings\Plots\21-01-0057 PS-Site.dwg



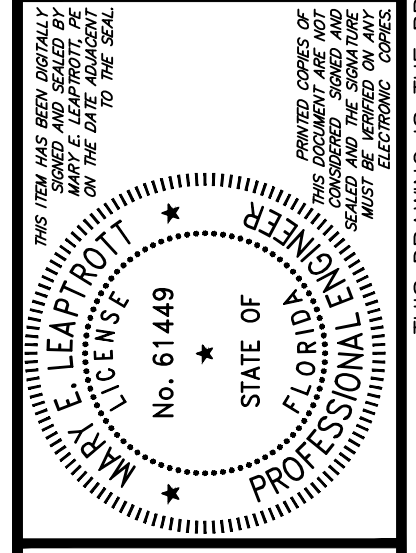
- NOTES:**
- CONTRACTOR TO VERIFY SURVEY INFORMATION AND NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCY
 - EXPOSED SOILS SHOULD IMMEDIATELY BE SOODED
 - CONTRACTOR TO INSTALL BLUE RPM DEVICE 6" FROM MIDDLE OF STREET ON THE SIDE CLOSEST TO FIRE HYDRANT
 - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 18" SEPARATION BETWEEN UTILITIES AND STORM PIPE.
 - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 6' FROM OUTSIDE OF PIPE TO EXISTING UTILITY POLE.
 - CONTRACTOR SHALL REMOVE, PROTECT, AND REPLACE (IF DAMAGED) ANY SIGNS AS NEEDED DURING THE DURATION OF CONSTRUCTION.
 - CONTRACTOR SHALL REMOVE AND REPLACE ANY MAILBOXES AS NEEDED FOR CONSTRUCTION ON UTILITY. MAIL SERVICES MUST BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. ALSO, OFFSITE CONSTRUCTION SHALL NOT INTERFERE WITH TRASH PICKUP.
 - ANY PAVEMENT THAT IS DAMAGED DURING CONSTRUCTION OF UTILITIES, CONTRACTOR IS REQUIRED A FULL WIDTH OVERLAY, PLUS 50' IN BOTH DIRECTIONS.
 - CONTRACTOR TO PROVIDE MIN. 6' DISTANCE FROM UTILITY INSTALLATION FROM EDGE OF PAVEMENT AT ALL TIME, WHERE UTILITIES CAN'T MEET REQUIREMENTS, THE SHOULDER SHALL BE REBUILT VIA TWO LIFTS OF LIMEROCK.
 - ROSES BLUFF ROW SHALL BE VIDEOED PRIOR TO CONSTRUCTION COMMENCEMENT.

OW Connelly & Wicker Inc.
 Planning · Engineering · Landscape Architecture
 10060 Skimmer Lake Drive, Suite 500 Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.owc.com
 Florida Registry 3650 L.A. Number: LC26000311

| No. | Date | Revision |
|-----|------|----------|
| | | |
| | | |
| | | |
| | | |
| | | |

PUMP STATION SITE PLAN

SANDY BLUFF SUBDIVISION
 PREPARED FOR SANDY BLUFF DEVELOPMENT INC



Project No.: 21-01-0057
 Designed: MEL Drawn: ANB
 Date: 10/25/23 Scale: 1"=5'
 Sheet 16A

THIS DRAWING IS THE PROPERTY OF CONNELLY & WICKER INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT AND IS TO BE RETURNED ON REQUEST.

LANDSCAPE NOTES:

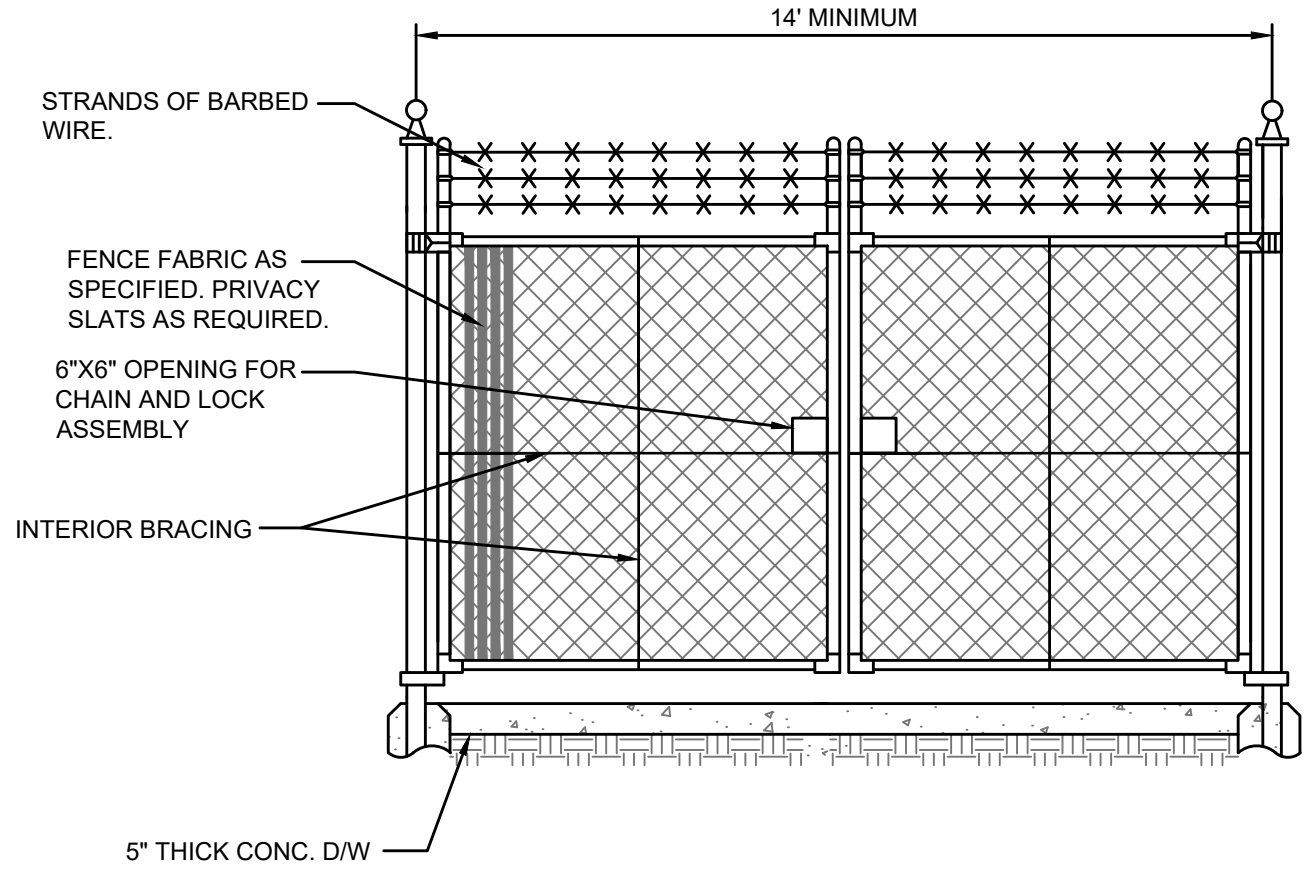
- APPROVED CLUSTER NON-SHADE TREES, (PER CITY OF JACKSONVILLE CODE 656.12.11) TO BE PROVIDED AT JEA PUMPING STATIONS. TREES TO BE PLANTED 12" O.C. MULTI-TRUNK VARIETIES TO BE MIN. 8' HEIGHT AND 3" TRUNK MINIMUM TOTALING 2" CALIPER. SINGLE TRUNK TREES TO BE MIN. 10' HEIGHT AND 2" CALIPER AT TIME OF PLANTING.

| COMMON NAME | BOTANICAL NAME |
|---------------------|--------------------------|
| YAPOUN HOLLY | ilex vomitoria |
| JAPANESE PRIVET | ligustrum japonicum |
| DAHOON HOLLY | ilex cassine |
| NELLY STEVENS HOLLY | ilex 'nellie r. stevens' |
| CRAPE MYRTLE | lagerstroemia indica |
| DOG WOOD | cornus florida |
| REDBUD | cercis canadensis |
- ALL SHRUBS SHALL BE EVERGREEN A ROW OF EVERGREEN SHRUBS SHALL BE A MINIMUM 3' TALL AT TIME OF PLANTING, PLANTED AT 3' ON CENTER.
- APPROVED SHRUBS INCLUDE ANY OF THE FOLLOWING:

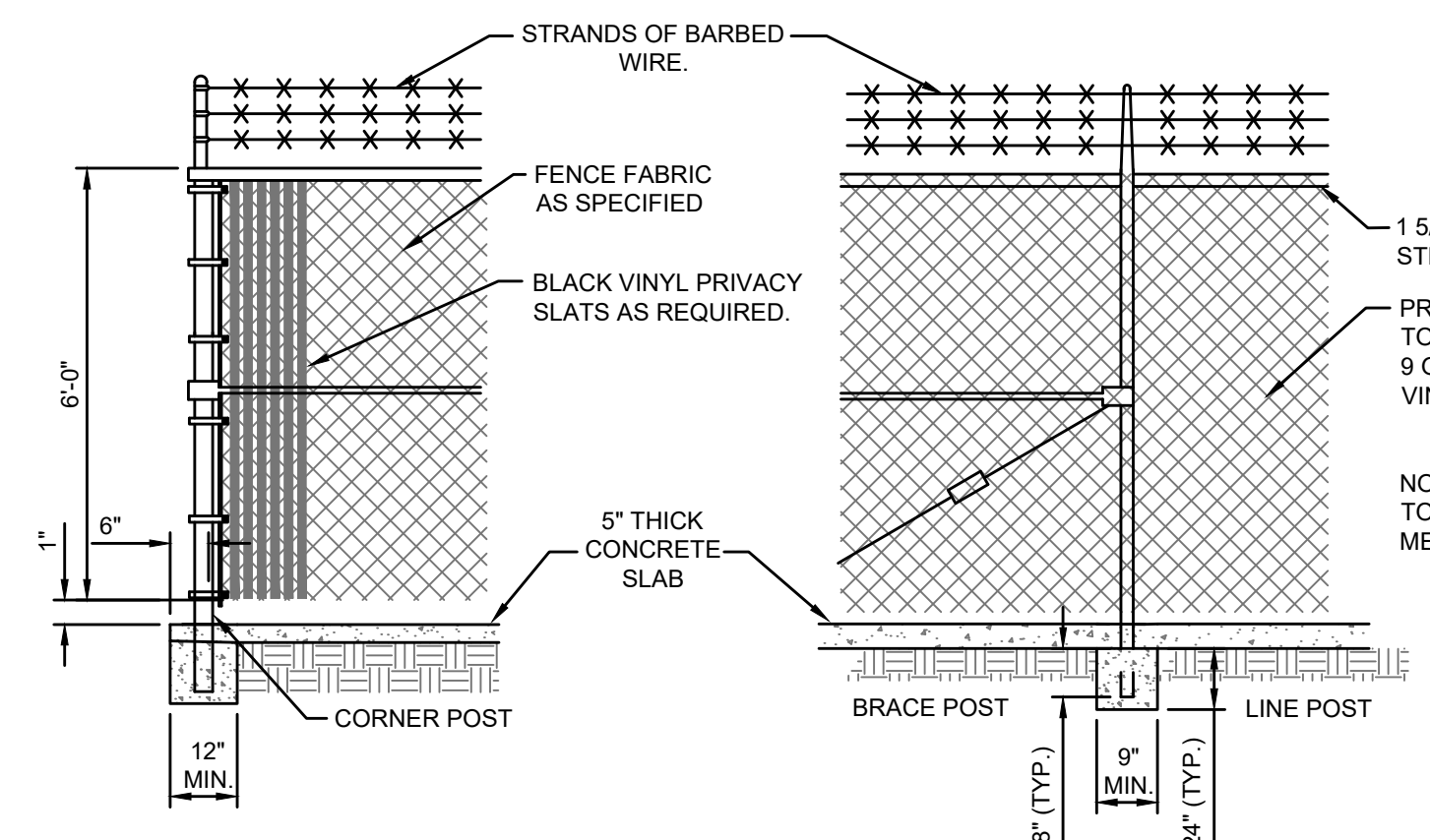
| COMMON NAME | BOTANICAL NAME |
|------------------------|------------------------|
| SWEET VIBURNUM | viburnum odoratissimum |
| DWARF WALTERS VIBURNUM | viburnum obovatum |
| SAW PALMETTO | serenoa repens |
| JAPANESE PRIVETT | ligustrum japonicum |
| HETZII OR PHTIZERANA | juniperus chinensis |
| DWARF BUFORD HOLLY | ilex cornuta 'Buford' |
| STAR ANISE | illicium spp. |
- ALL LANDSCAPING SHALL BE CONSISTENT WITH FLORIDA FRIENDLY LANDSCAPE STANDARDS. TREES AND SHRUBS SHALL BE SELECTED FROM THE FLORIDA WATERWISE PLANT LIST AND BE APPROPRIATE TO THE LOCAL SOIL AND LIGHT CONDITIONS.

NOTE: JEA NEIGHBORHOOD PUMP STATION WITHIN DUVAL COUNTY
 (A) LANDSCAPE PERFORMANCE STANDARDS (SEC. 656.1223)
 THE VISUAL IMPACTS OF THE BELOW GROUND PUMP STATION SITES SHALL BE MITIGATED THROUGH THE USE OF A LANDSCAPING BUFFER OUTSIDE THE SECURITY FENCE. THE BUFFER SHALL BE A MINIMUM OF 5' AT THE STREET FRONTAGE AND A MINIMUM OF 10' ON ALL OTHER SIDES AND SUBJECT TO AND CONSISTING OF THE FOLLOWING:

- A ROW OF SHADE TREES, BEGINNING AT THE HALFWAY POINT ALONG EACH SIDE FENCE AND ACROSS THE BACK, WITH NO TREES ALLOWED IN THE FRONT OF THE PUMP STATION, PLANTED A MINIMUM OF 25' ON CENTER. AT THE TIME OF PLANTING, THE TREES SHALL BE MINIMUM OF 10' TALL WITH A 2" CALIPER, AND
 - A ROW OF EVERGREEN SHRUBS SUCH AS VIBURNUM, LIGUSTRUM, HOLLY OR JUNIPER, OR ANY OTHER EVERGREEN SHRUB PERMITTED BY SECTION 656.1223, A MINIMUM OF 3' TALL AT TIME OF PLANTING, PLANTED AT 3' ON CENTER; AND
 - A 6' TALL PRIVACY FENCE WITH BLACK VINYL PRIVACY SLATS AND A MINIMUM 14' WIDE PRIVACY GATE.
 - THE REQUIRED LANDSCAPING SHALL BE PROPERLY MAINTAINED THROUGH AN IRRIGATION SYSTEM WITH RAIN SENSOR.
- (B) DEVIATIONS FROM THE STANDARDS IN SUBSECTION (A) MUST BE REVIEWED AND APPROVED BY JEA AND BY THE CITY OF JACKSONVILLE LANDSCAPE ARCHITECT.



DOUBLE GATE DETAIL



CORNER POST DETAIL
LINE POST DETAIL
FENCE DETAILS
NOT TO SCALE

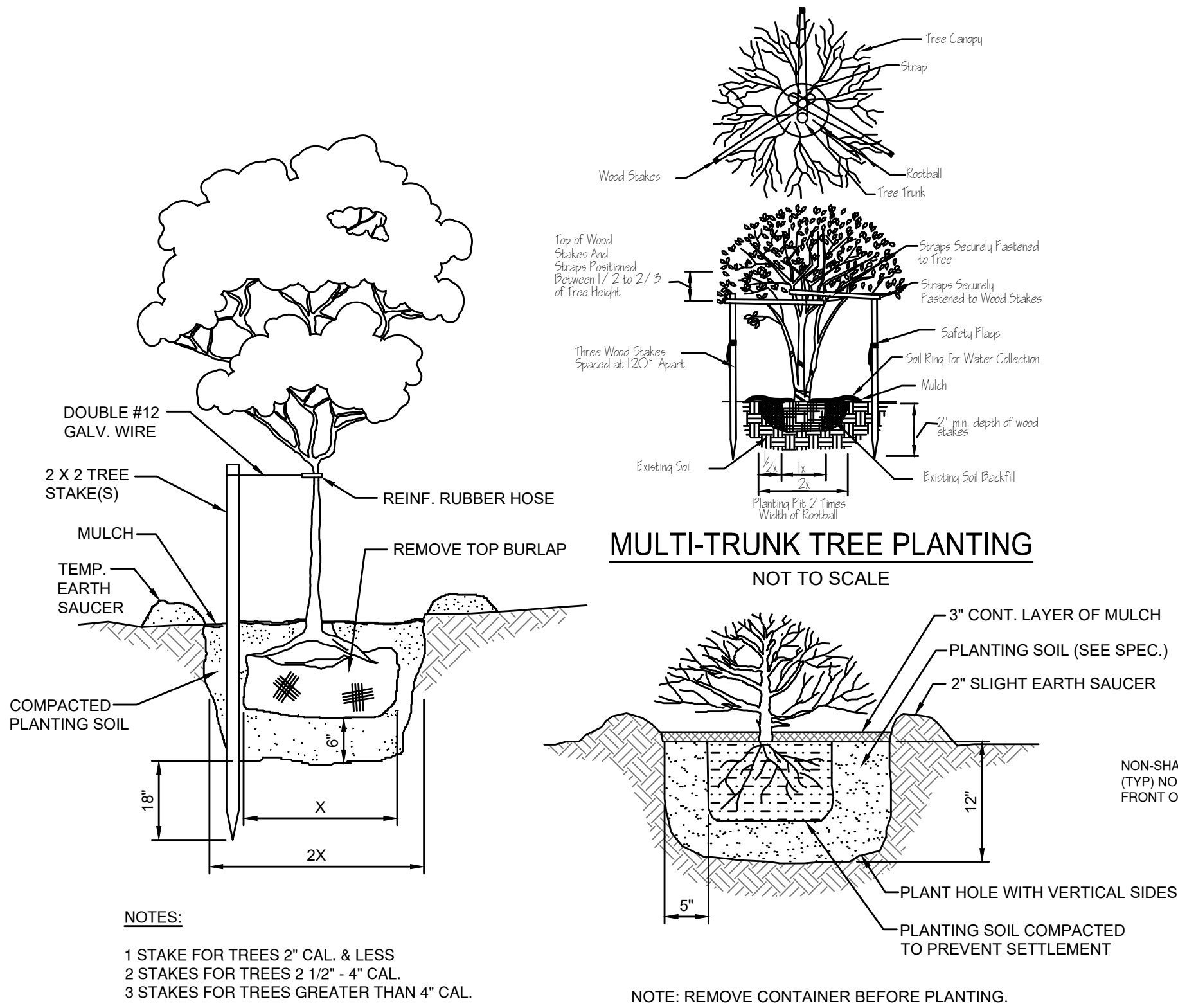
FENCE NOTES

- FENCE TO BE INSTALLED AS INDICATED ON SITE PLAN.
- GATE POST TO BE 4" O.D. PVC COATED GALVANIZED STEEL PIPE. CORNER POST TO BE 3" O.D. PVC COATED GALVANIZED STEEL PIPE. LINE POST TO BE 2 1/2" O.D. PVC COATED GALVANIZED STEEL PIPE.
- ALL FENCE SHALL BE GROUNDED IN ACCORDANCE WITH JEA GROUNDING STANDARDS.
- BONDING WIRE BETWEEN GATE POST IS NOT REQUIRED WHERE EXISTING ROAD PAVING OR RAILROAD TRACKS WOULD MAKE INSTALLATION IMPRACTICAL.
- ALL FENCING SHALL BE IN ACCORDANCE WITH JEA SPECIFICATION NO. 492.
- EMBEDDED CONCRETE PORTION OF FENCE POST SHALL HAVE MASTIC SEAL OR EQUAL COATING TO A MINIMUM OF 6" ABOVE FINISH GRADE.
- AN INTERIOR DOUBLE 14' WIDE SLIDING/ROLLING GATE IS AN ACCEPTABLE OPTION.
- FENCE FABRIC SHALL BE KNUCKLED ON TOP AND TWIST ON BOTTOM.
- ALL FENCING, RAILS, POSTS, BRACKETS, BOLTS ETC. WILL BE PVC COATED.
- CONTACT SECURITYSERVICE@JEA.COM FOR THE LATEST SECURITY FENCE UPDATES.

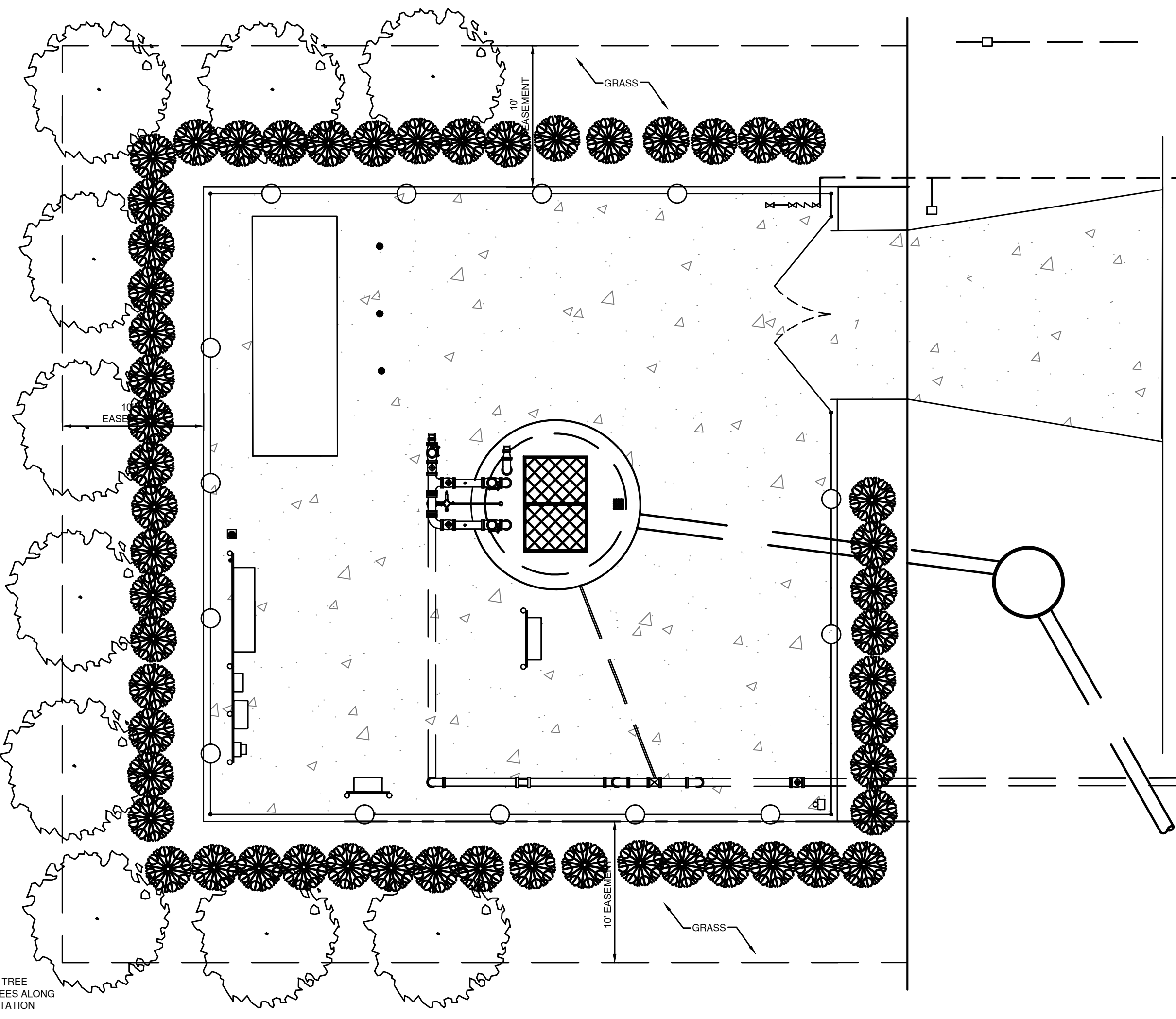
PLANTING NOTES:

- JEA IS NOT REQUIRED TO PLANT ANY LANDSCAPING OUTSIDE OF THE PROPERTY LINE. THIS DRAWING REPRESENTS THE MINIMUM AMOUNT OF LANDSCAPING REQUIRED IF LANDSCAPING IS PROVIDED WITHIN THE 10' EASEMENT. HOWEVER, ADDITIONAL PLANTINGS WILL BE ALLOWED IN THE 10' EASEMENT WITH APPROVAL FROM JEA, OR JEA'S REPRESENTATIVE.
- JEA IS NOT RESPONSIBLE FOR THE MAINTENANCE OF LANDSCAPE MATERIAL OUTSIDE OF THE PROPERTY LINE. IF LANDSCAPING IS REQUIRED BY OTHER GOVERNMENT AGENCIES, THE REQUIRED LANDSCAPING SHALL BE INSTALLED IN THE 10' EASEMENT BY THE DEVELOPER AND MAINTAINED BY THE UNDERLYING LAND OWNER.
- IT IS NOT THE RESPONSIBILITY OF JEA TO PROVIDE IRRIGATION WITHIN THE 10' EASEMENT. HOWEVER, JEA WILL ALLOW IRRIGATION WITHIN THE EASEMENT WITH THE UNDERSTANDING THAT SUCH IRRIGATION IS MAINTAINED BY THE CONTRACTOR RESPONSIBLE, OR OTHER RESPONSIBLE PARTY, SUCH AS A HOMEOWNERS ASSOCIATION (H.O.A.). IF AN RESPONSIBLE PARTY, OR H.O.A. IS NOT INVOLVED IN THE PUMP STATION SITE, ONLY THEN WILL JEA BE RESPONSIBLE FOR PROVIDING AN IRRIGATION SYSTEM. WHEN IRRIGATION IS REQUIRED BY OTHER GOVERNMENT AGENCIES, THE RESPONSIBLE PARTY WILL PROVIDE AN IRRIGATION SYSTEM WITH A RAIN SENSOR IN ACCORDANCE WITH SPECIFICATIONS SECTION 433. THE TREES SHALL BE IRRIGATED WITH BUBBLERS, THE SHRUBS WITH A MICRO IRRIGATION SYSTEM AND SOD WITH SPRAY HEADS.
- FOR STATION WITHIN DUVAL COUNTY, THE TREES, SHRUBS AND SOD SHALL ALL BE IRRIGATED ON SEPARATED ZONES. SPRAYS, ROTORS OR MICRO IRRIGATION ARE NOT PERMITTED ON SAME ZONE. SEE COJ CODE 656.1212.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT SITE CONDITIONS AND ALL QUANTITIES INDICATED ON THESE PLANS, BEFORE PRICING WORK.
- ALL PLANT MATERIAL SHALL BE FLORIDA GRADE NO. 1 OR BETTER NURSERY GROWN IN ACCORDANCE TO FLORIDA GRADES AND STANDARDS HANDBOOK.
- PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECTS, EGGS OR LARVAE AND SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS. THEY SHALL BE FREE FROM PHYSICAL DAMAGE OR ADVERSE CONDITIONS THAT WOULD PREVENT THRIVING GROWTH.
- ALL PLANTS MUST BE CONTAINER GROWN OR AS INDICATED IN THE PLANT LIST.
- ALL PLANTS SHALL CONFORM TO THE VARIETIES INDICATED IN THE PLANT LIST.
- SUBSTITUTION OF PLANT MATERIALS WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY JEA, AGENCY LANDSCAPE ARCHITECT OR THE ENGINEER.
- PLANT MATERIAL LOCATIONS AND BED OUTLINES SHALL BE STAKED OR FLAGGED ON SITE BY THE CONTRACTOR AND SHALL BE ADJUSTED IF REQUIRED TO FIT ACTUAL AS-BUILT CONDITIONS ON SITE AND APPROVED BY JEA OR JEA'S REPRESENTATIVE.
- ALL PROPOSED TREE PLANTING LOCATIONS AND APPROVED BY JEA OR JEA'S REPRESENTATIVE.
- ALL CONTAINER GROWN ROOTBALLS SHALL BE CAREFULLY SCOURED BEFORE SETTING IN PLANT PITS.
- ALL BACKFILL AROUND PLANT MATERIAL SHALL BE WORKED FIRMLY, TAMPED AND WATERED IN UNDER AND AROUND THE ROOT BALL TO FILL ALL VOIDS.
- LANDSCAPE CONTRACTOR SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS. ANY DISCREPANCY IN THE DRAWINGS, OBSTRUCTION ON THE SITE, OR PRIOR TO WORK DONE BY ANY OTHER PARTY, WHICH THE CONTRACTOR FEELS PRECLUDES ESTABLISHING PROPER DRAINAGE SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER FOR CORRECTION OR RELIEF OF SAID RESPONSIBILITY.
- PLANTING BEDS SHALL BE CUT OR EDGED TO FORM A UNIFORM CLEAN LINE BETWEEN BEDS AND LAWN AREAS.
- AFTER ALL PLANT MATERIAL IN A PLANT BED AREA HAS BEEN INSTALLED AND APPROVED, THE AREAS BETWEEN PLANTS SHALL BE RAKED TO AN EVEN GRADE TO CONFORM TO PRE MULCHING FINISH GRADES. ALL PLANTING BEDS AND PLANT SAUCERS SHALL THEN BE UNIFORMLY COVERED WITH A MINIMUM THREE INCH LAYER OF #2 GRADE OR BETTER CYPRESS MULCH, PINE STRAW OR OTHER JEA ACCEPTABLE MATERIAL.
- PLANT MATERIAL BACKFILL MIXTURE SHALL BE THOROUGHLY MIXED IN THE FOLLOWING PREPARATIONS:

| | |
|----------------------------|----------------|
| 50% EXISTING CLEAN TOPSOIL | 1/3 TOPSOIL |
| 50% SOIL MIX | 1/3 PEAT |
| | 1/3 COW MANURE |
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL FINE GRADING PREPARATION FOR PLANTING.
- ROUGH GRADES WILL BE ESTABLISHED BY THE OWNERS GENERAL CONTRACTOR AT APPROXIMATELY 3 INCHES BELOW CURBS, SIDEWALKS, HARDSCAPE AMENITIES, MOWING STRIPS AND ABUTMENTS.
- THE JEA OR JEA'S REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT ANY AND ALL WORK WHICH IN HIS OPINION DOES NOT MEET WITH THE REQUIREMENTS OF THE SPECIFICATIONS AT ANY STAGE OF THE PROJECT OPERATION.
- IN GENERAL, THE WORK SHALL PROCEED AS RAPIDLY AS THE SITE BECOMES AVAILABLE. KEEP ALL AREAS OF WORK CLEAN, NEAT, AND ORDERLY AT ALL TIMES.
- THERE WILL BE SPECIAL CARE TO ALL EXISTING TREES TO BE RETAINED ON SITE TO AVOID CONSTRUCTION DAMAGE.
- A BACKFLOW PREVENTION SHALL BE INSTALLED AS REQUIRED.
- AFTER THE LANDSCAPE PLAN IS APPROVED BY THE GOVERNMENTAL AGENCY ANY SUBSEQUENT CHANGES MUST BE RESUBMITTED FOR REVIEW AND APPROVAL.



TREE PLANTING DETAIL
CONTAINER GROWN SHRUB DETAIL
NOT TO SCALE



STANDARD LANDSCAPE PLAN
SCALE: 1"=5'

DESIGN NOTES:
 1. LANDSCAPE ARCHITECT SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.

Connelly & Wicker Inc.
 Landscape Architecture
 Engineering
 10060 Skimmer Lake Drive, Suite 500 Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cwreny.com
 Florida Registry 3650 L.A. Number: LC26000311

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

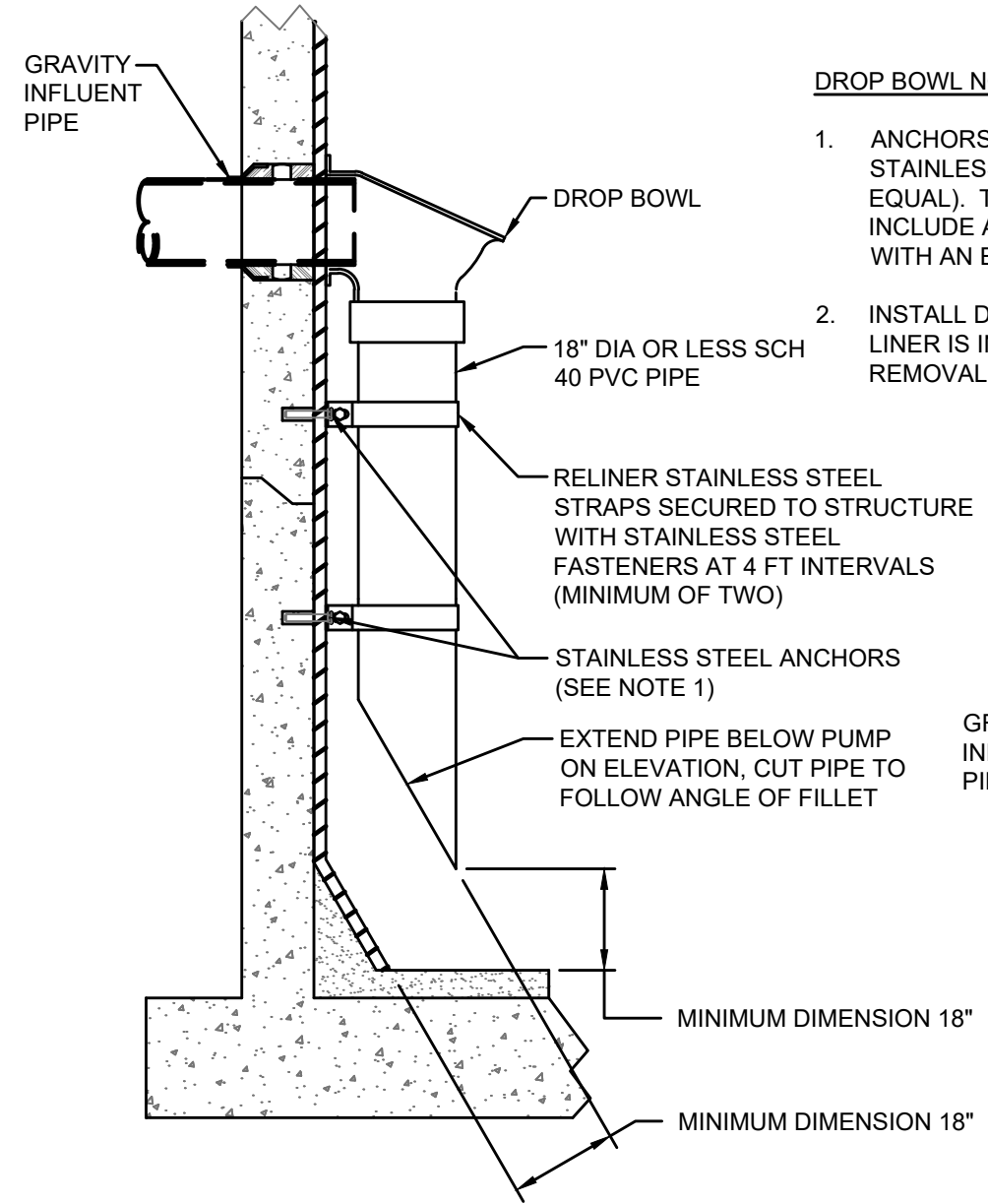
| NO. | BY | DATE | REVISIONS |
|-----|----|------|-----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

JEA
 Building Community™

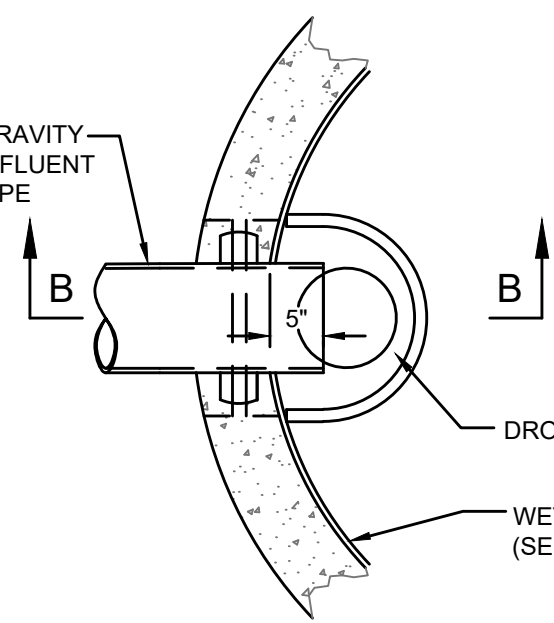
PUMP STATION LANDSCAPE PLAN

| | | |
|----------------------|----------------|-----------------|
| PROJ. NO. 21-01-0057 | DATE: 10/25/23 | SCALE: AS NOTED |
| SHEET NO. 16C | | |
| DRAWING NO. | | |

NO. SHEETS 16C

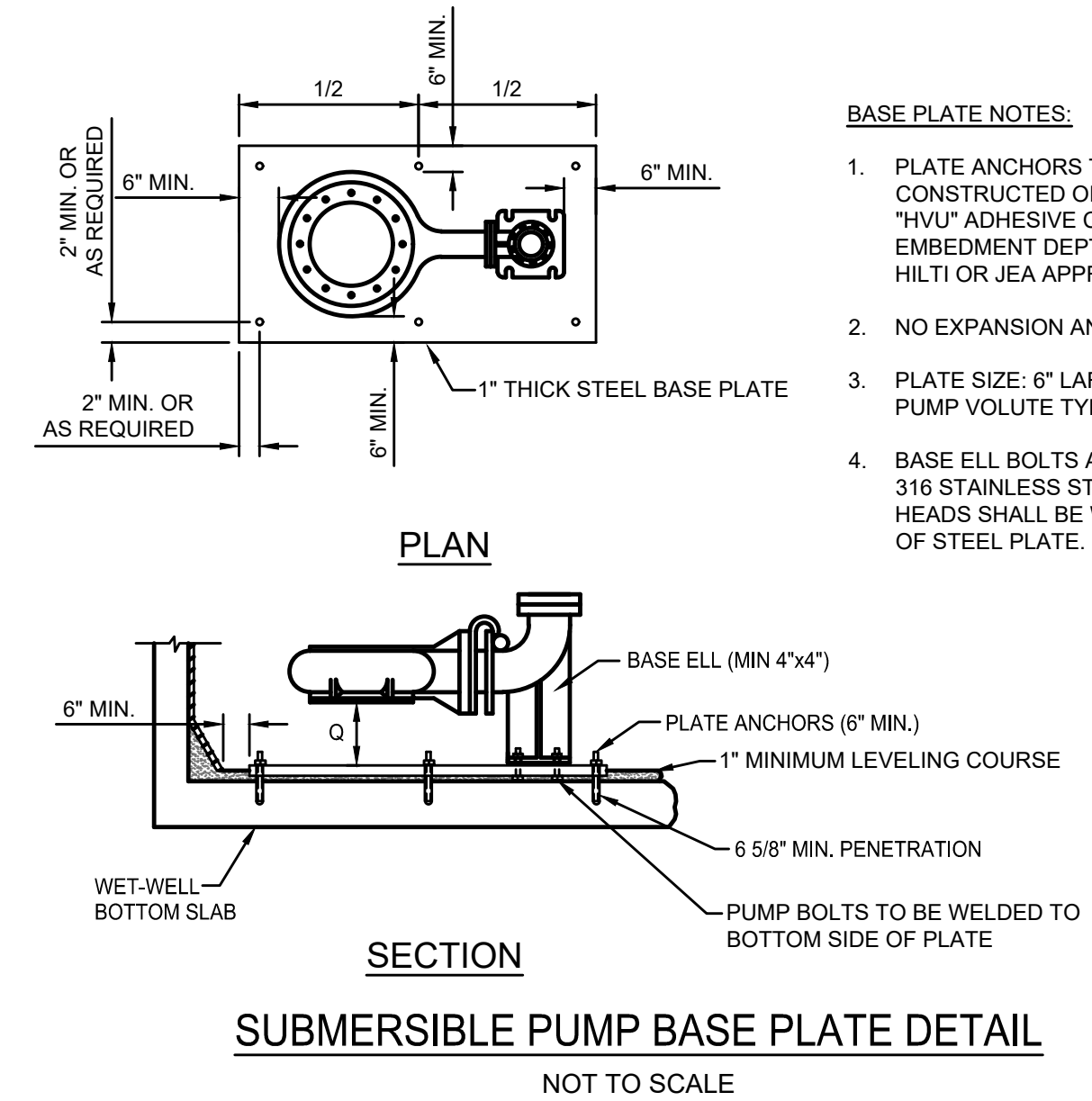


- DROP BOWL NOTES:**
1. ANCHORS TO BE CONSTRUCTED OF 316 STAINLESS STEEL "H.A.S." ROD BY HILTI OR EQUAL. THE ANCHORING SYSTEM SHALL INCLUDE ADHESIVE (HILTI H.V.U. OR EQUAL) WITH AN EMBEDMENT DEPTH OF 4 1/4".
 2. INSTALL DROP BOWL AFTER THE WET WELL LINER IS INSTALLED. THIS WILL ENSURE EASY REMOVAL OF THE DROP BOWL (IN THE FUTURE).



SECTION "B-B"

PLAN VIEW



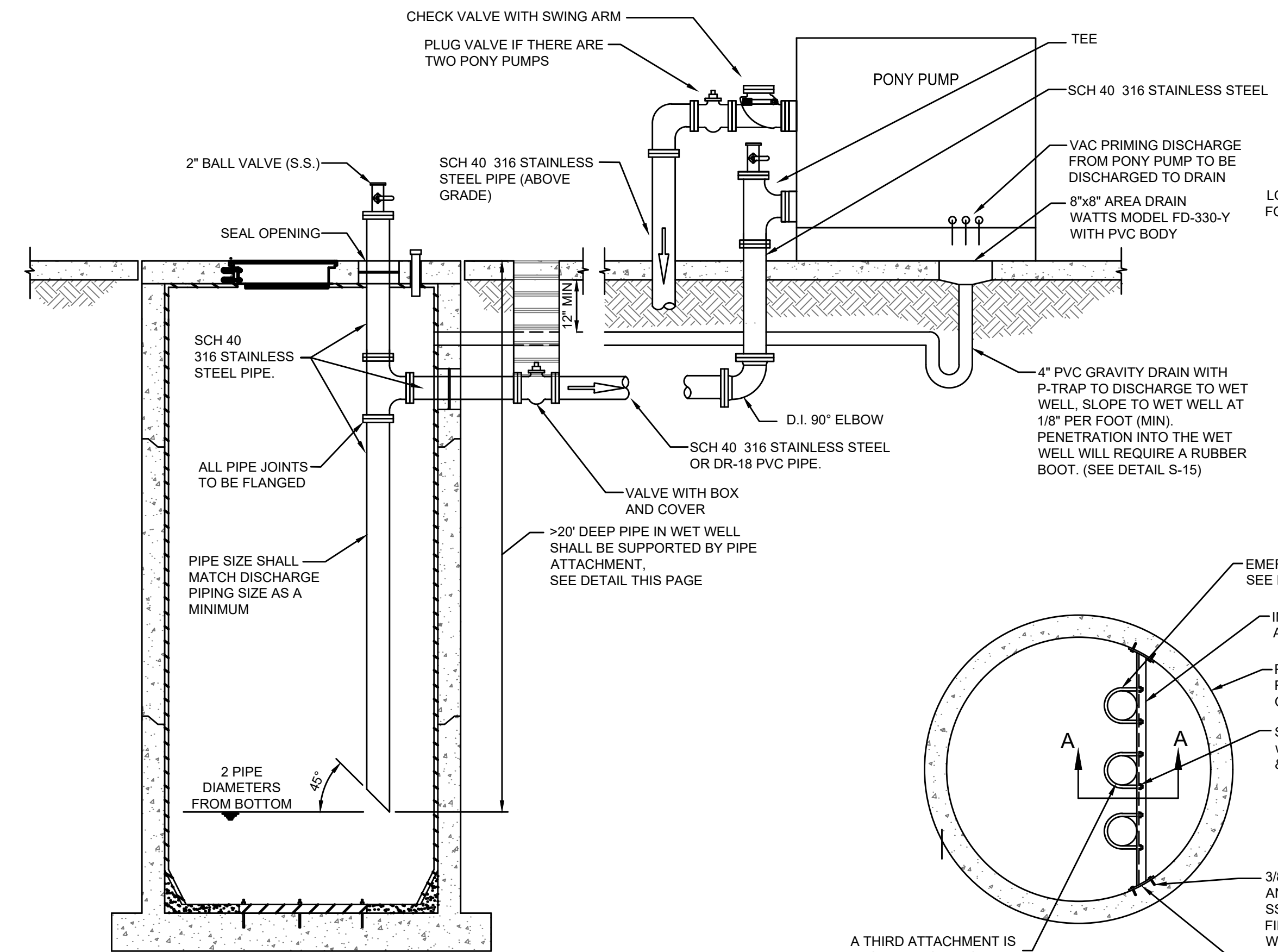
SUBMERSIBLE PUMP BASE PLATE DETAIL

NOT TO SCALE

- BASE PLATE NOTES:**
1. PLATE ANCHORS TO BE 3/4" DIAMETER, CONSTRUCTED OF 316 S.S. (H.A.S. ROD) w/ "H.V.U" ADHESIVE CAPSULE PROVIDING AN EMBEDMENT DEPTH OF 6 5/8". ACCEPTABLE: HILTI OR JEA APPROVED EQUAL.
 2. NO EXPANSION ANCHORS ALLOWED.
 3. PLATE SIZE: 6" LARGER THAN BASE ELL & PUMP VOLUTE TYP. ALL AROUND.
 4. BASE ELL BOLTS AND STUDS TO BE TYPE 316 STAINLESS STEEL. 5. BASE ELL BOLT HEADS SHALL BE WELDED TO UNDER SIDE OF STEEL PLATE.

DROP BOWL DETAIL

NOT TO SCALE

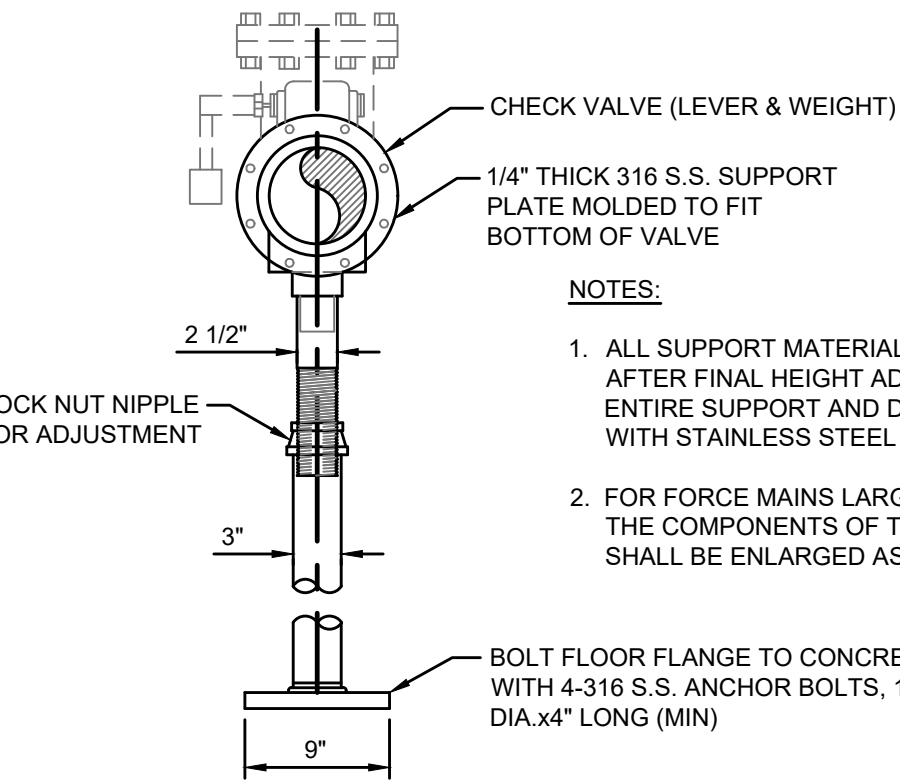


WETWELL CONNECTION TO PONY PUMP DETAIL

NOT TO SCALE

NOTE: ENGINEER SHALL BE RESPONSIBLE FOR SIZING PIPING FOR NET POSITIVE SUCTION HEAD REQUIRED.

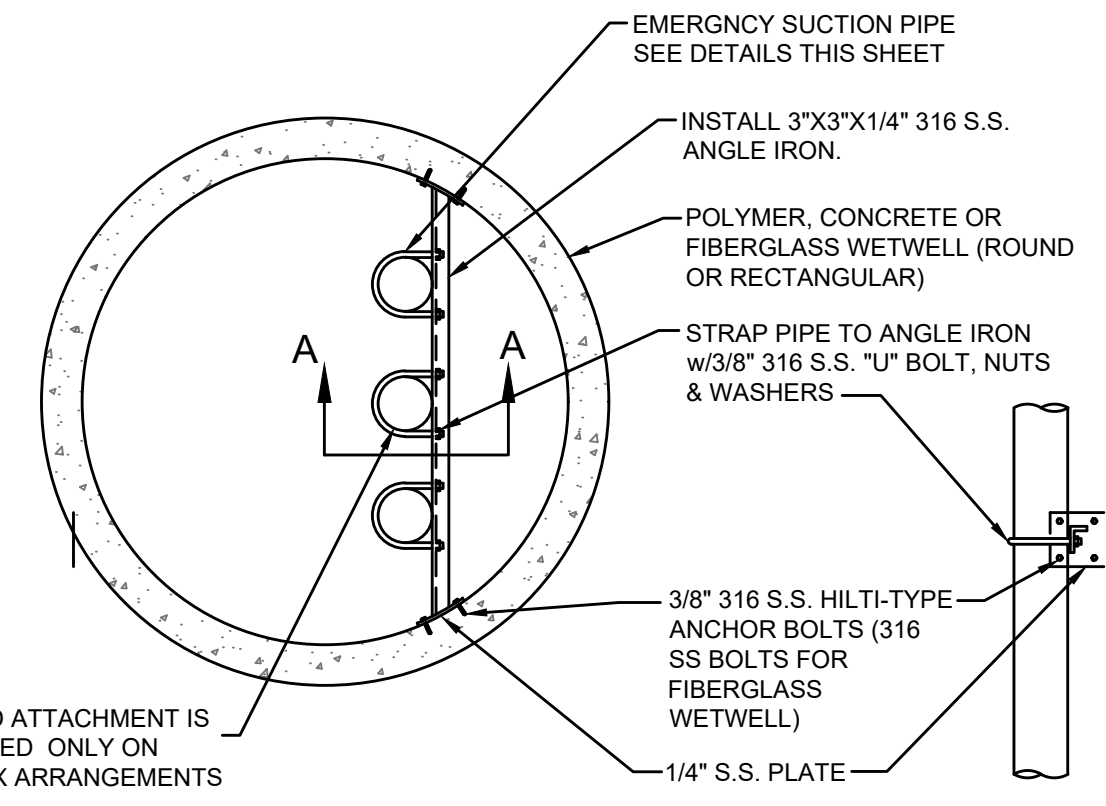
THE ABOVE PIPING IS SHOWN FOR CLARITY. SEE PLAN VIEW FOR PIPE ORIENTATION.



ADJUSTABLE VALVE SUPPORT DETAIL

NOT TO SCALE

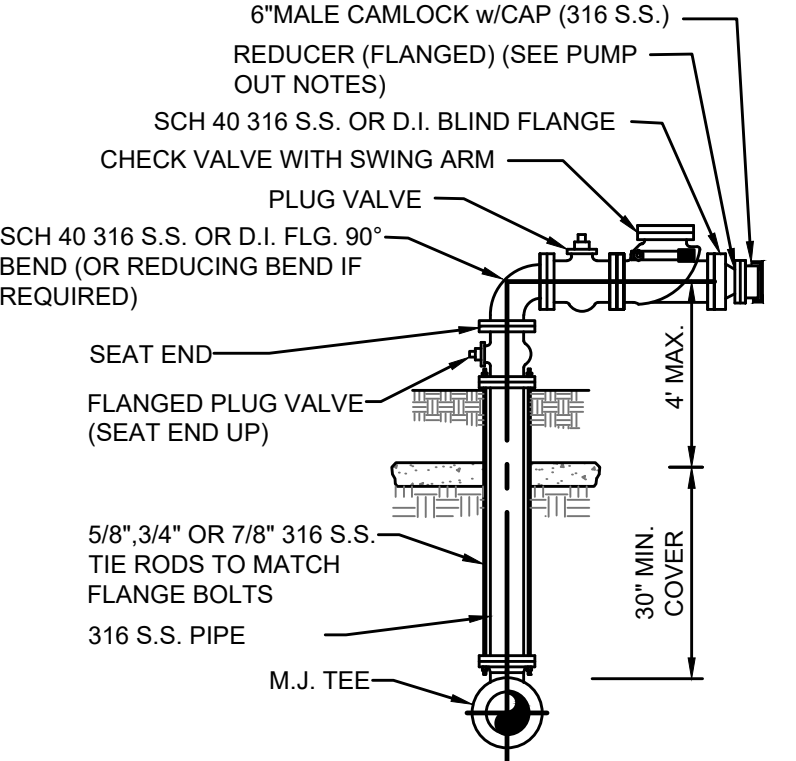
- NOTES:**
1. ALL SUPPORT MATERIALS SHALL BE 316 S.S. AFTER FINAL HEIGHT ADJUSTMENT, COAT ENTIRE SUPPORT AND DISCHARGE PIPING WITH STAINLESS STEEL SPRAY PAINT.
 2. FOR FORCE MAINS LARGER THAN 10" SIZE, THE COMPONENTS OF THE VALVE SUPPORT SHALL BE ENLARGED AS APPROVED BY JEA.



PIPE ATTACHMENT TO WALL DETAIL

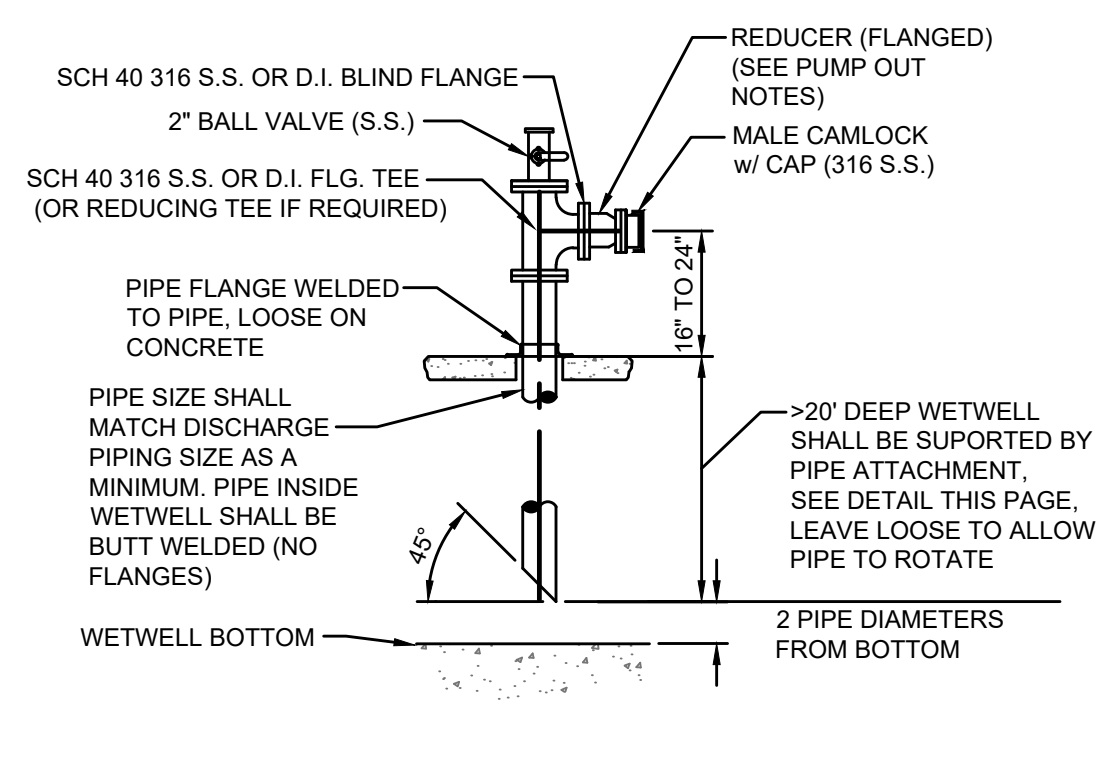
REQUIRED FOR ALL PUMPING STATIONS WITH WETWELL 20' DEEP AND GREATER (INSTALLED PRIOR TO SPECIALTY LINER)

NOT TO SCALE



FREE STANDING PUMP OUT DETAIL

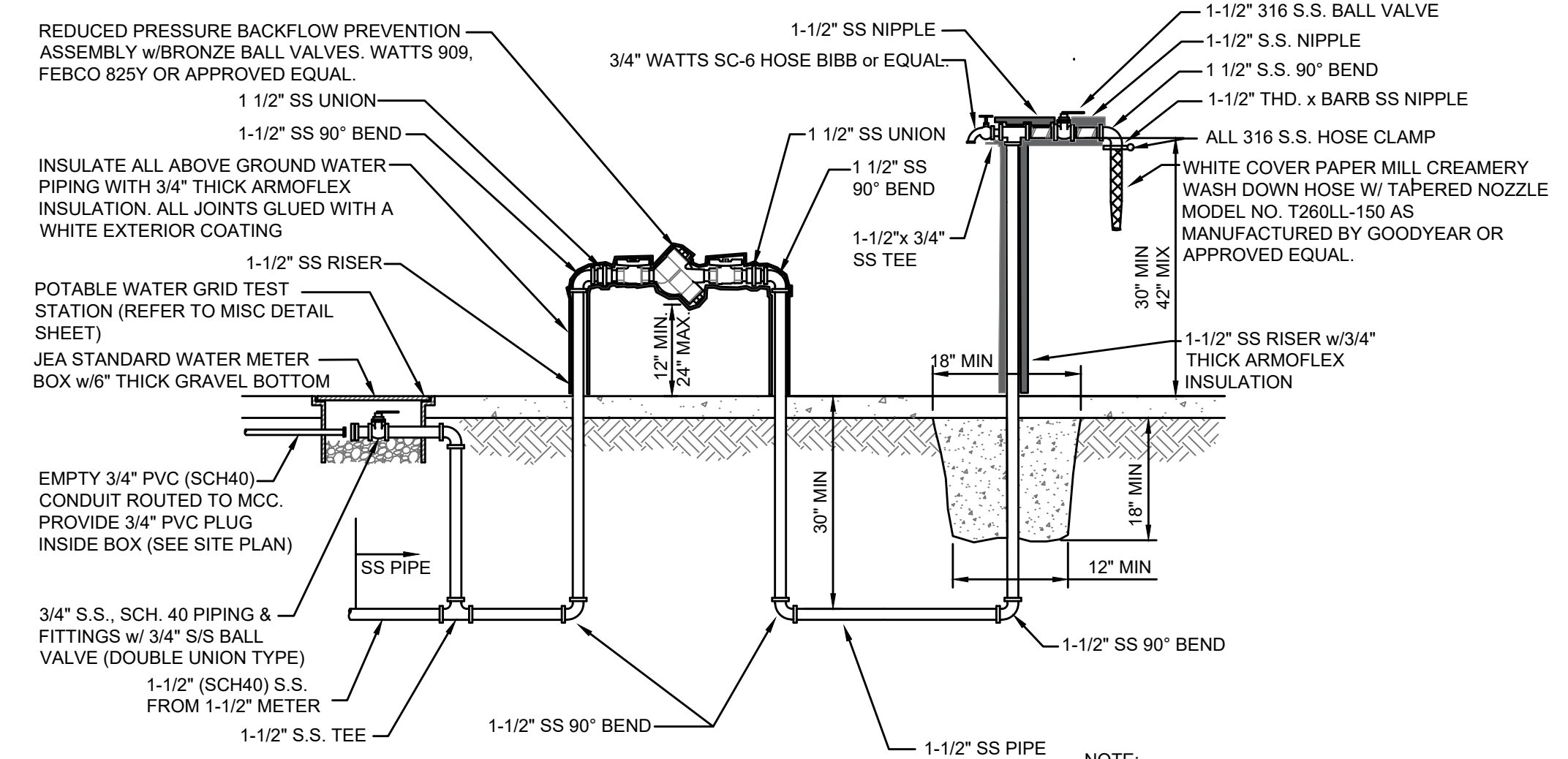
NOT TO SCALE



EMERGENCY SUCTION PIPE DETAIL

NOT TO SCALE

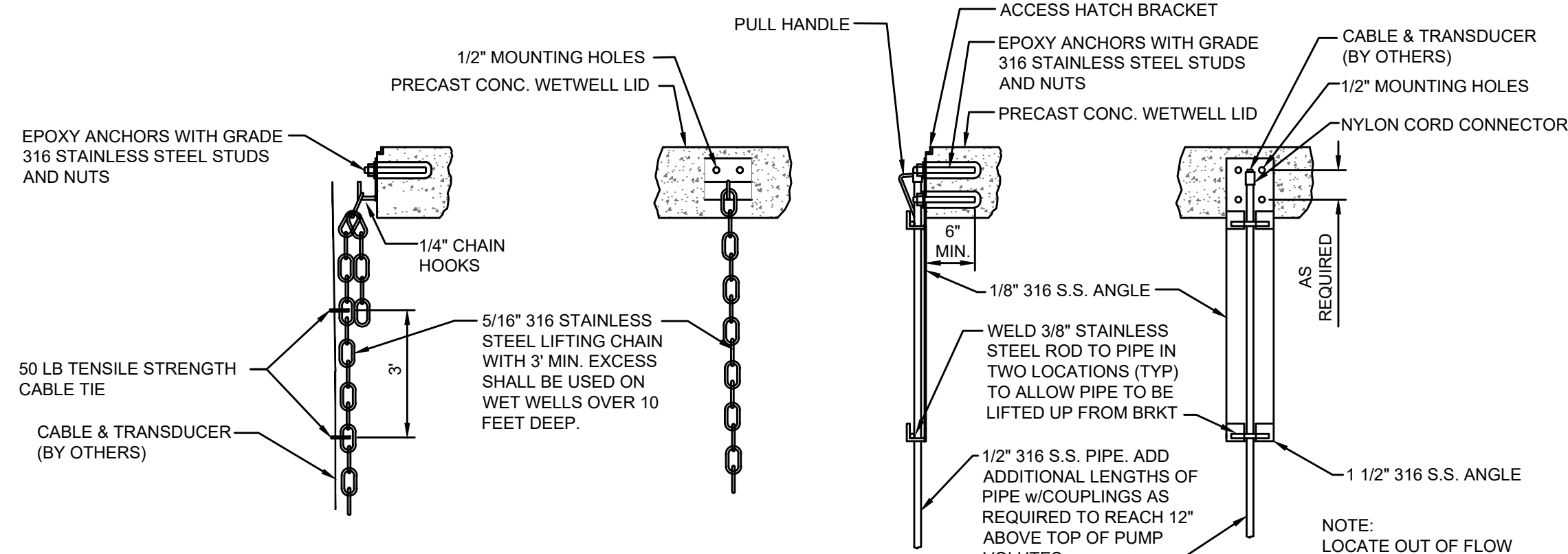
FOR FLOWS GREATER THAN 1000 GPM OR DISCHARGE PIPING GREATER THAN 6"



1-1/2" HOSE STATION DETAIL

NOT TO SCALE

- NOTE:**
1. ALL PIPING ABOVE AND UNDER CONCRETE SLAB SHALL BE 316 SS SCHEDULE 40.
 2. ALL EXTERNAL LONG RUNS OF PIPE SHALL BE SCHEDULE 80 PVC.



TRANSDUCER BRACKET DETAIL

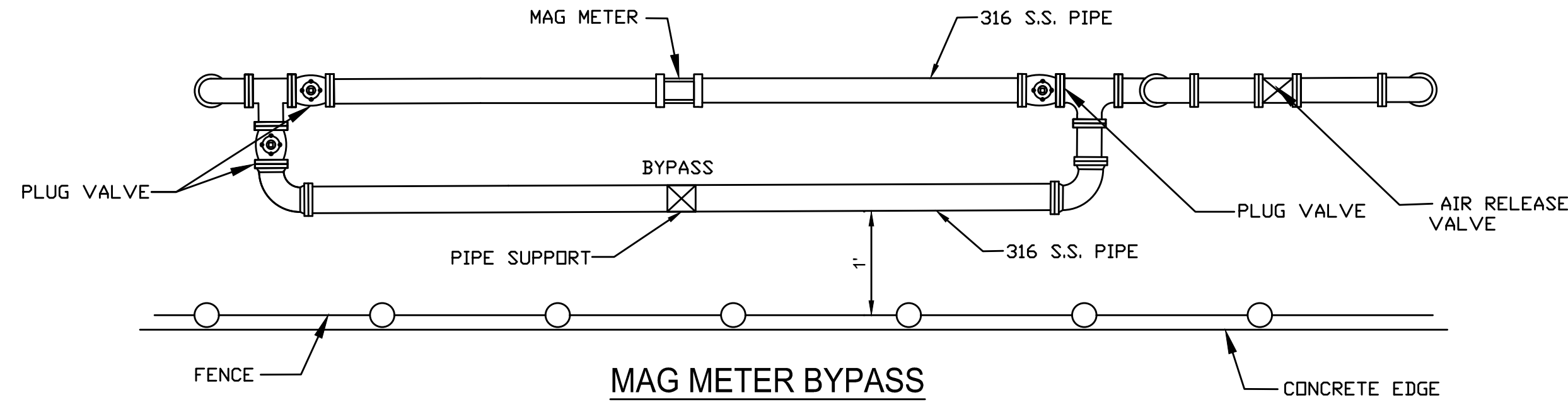
NOT TO SCALE

THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

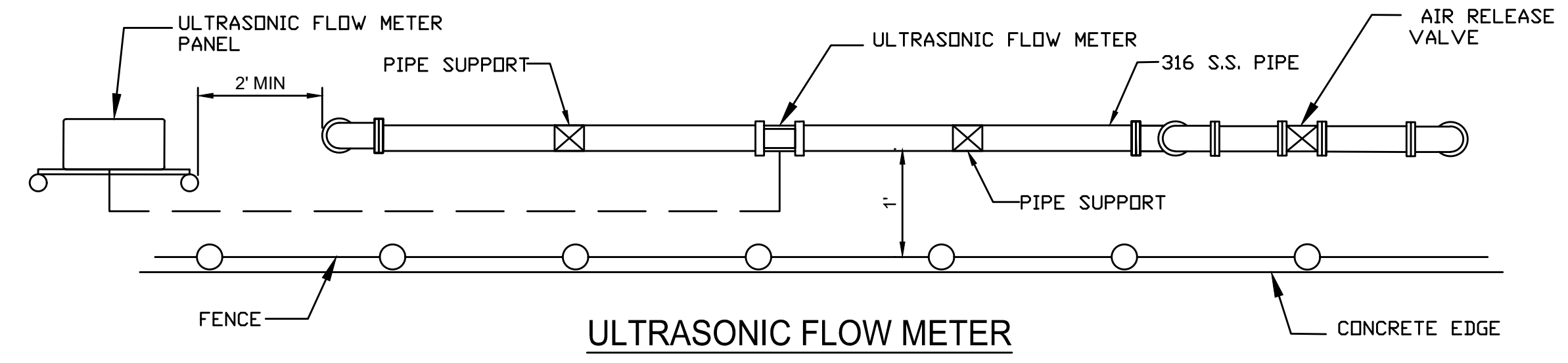
JEA
Building Community™

Connelly & Wicker Inc.
Landscape Architecture
10060 Skinner Lake Drive, Suite 500 Jacksonville, Florida 32246
(904) 265-3030 FAX: (904) 265-3031 www.cwrena.com
Florida Registry 3650 L.A. Number: LC26000311

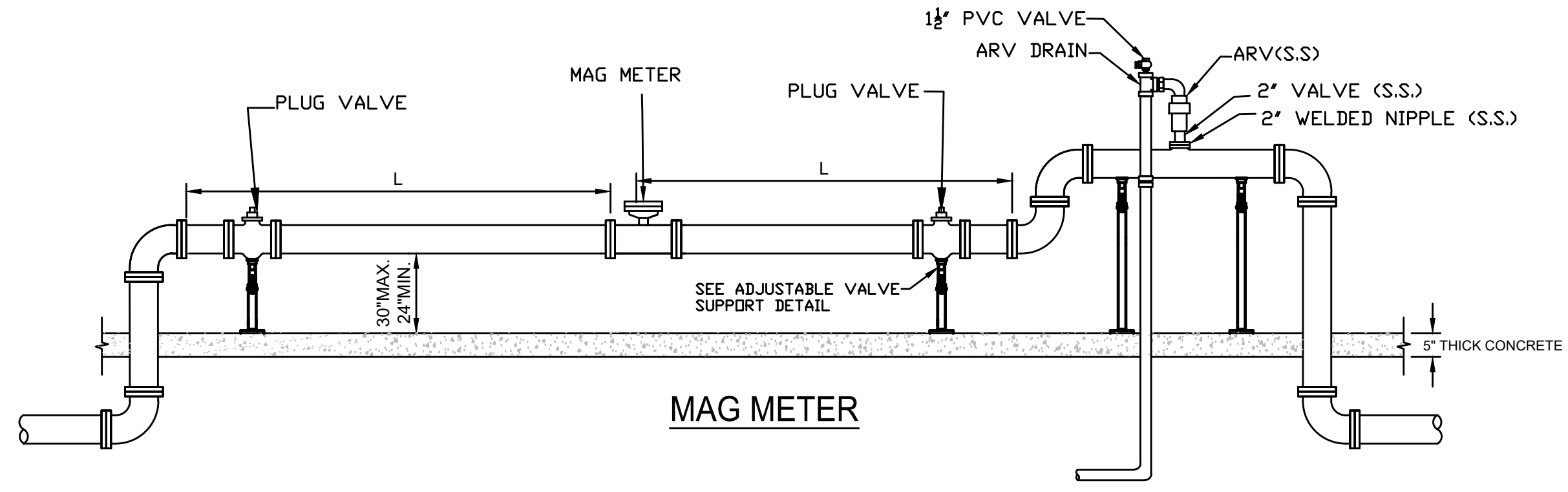
| | | |
|---------------------------|----------------------|------------|
| NO. SHEETS | PROJ. NO. | 21-01-0057 |
| SHEET NO. | DATE: | 10/25/23 |
| DRAWING NO. | SCALE: | |
| DESIGNER: | MEL | |
| DRAWN BY: | AMB | |
| CHECKED BY: | MEL | |
| DATE: | | |
| DESIGN ENGINEER: | MARY E. LEAPROTT, PE | |
| FLORIDA REGISTRATION NO.: | | |
| PE NO.: | 61449 | |
| REVISIONS | NO. | BY |
| | DATE | |



MAG METER BYPASS

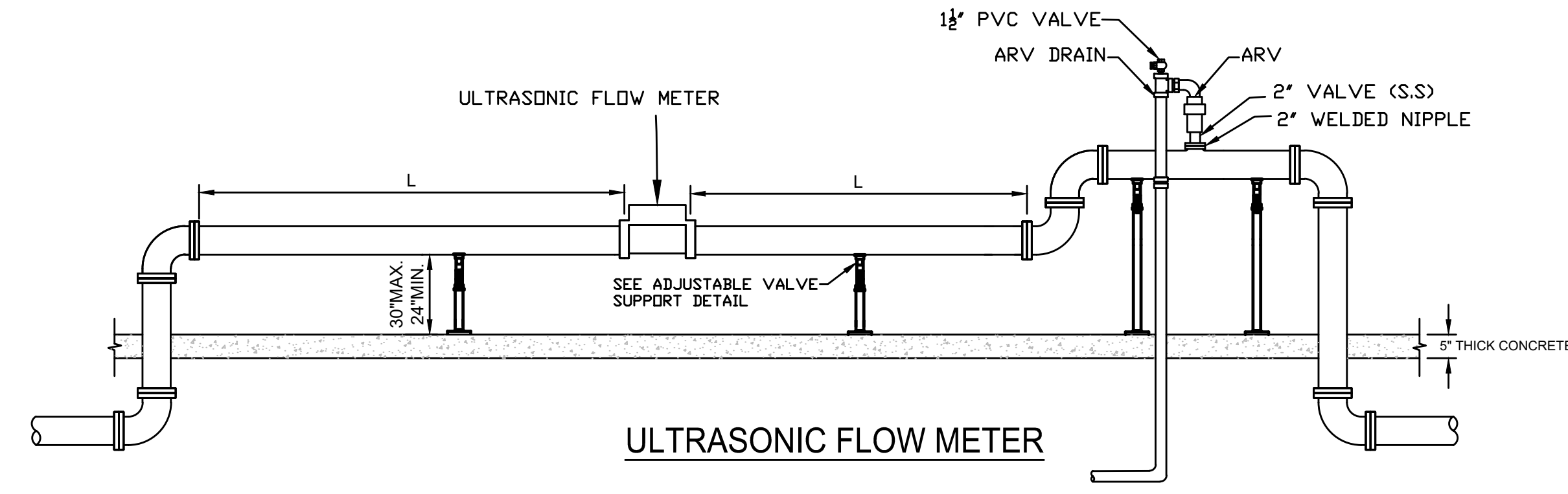


ULTRASONIC FLOW METER



MAG METER DETAIL

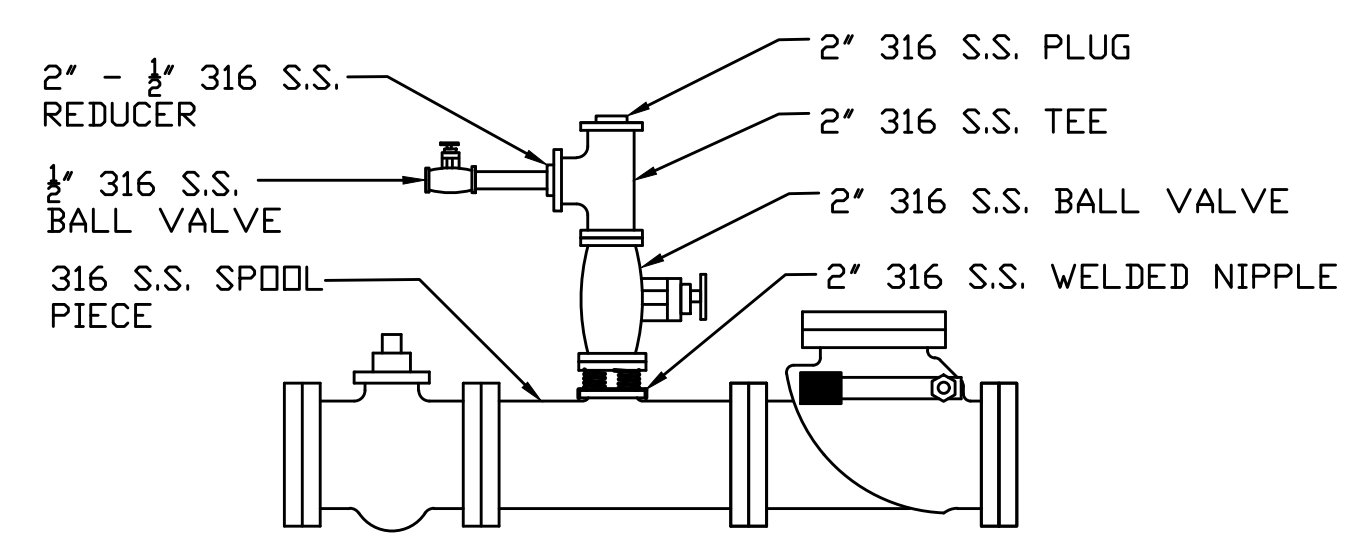
NOT TO SCALE



ULTRASONIC FLOW METER DETAIL

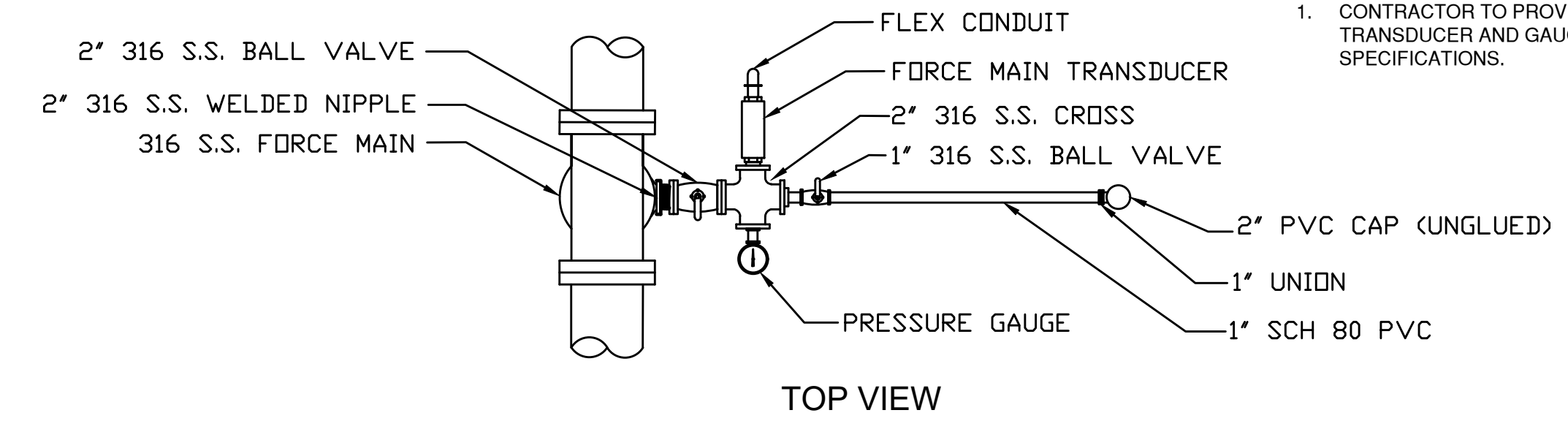
NOT TO SCALE

METER NOTES:
1. DIMENSION "L" TO BE DESIGNED BY ENGINEER.

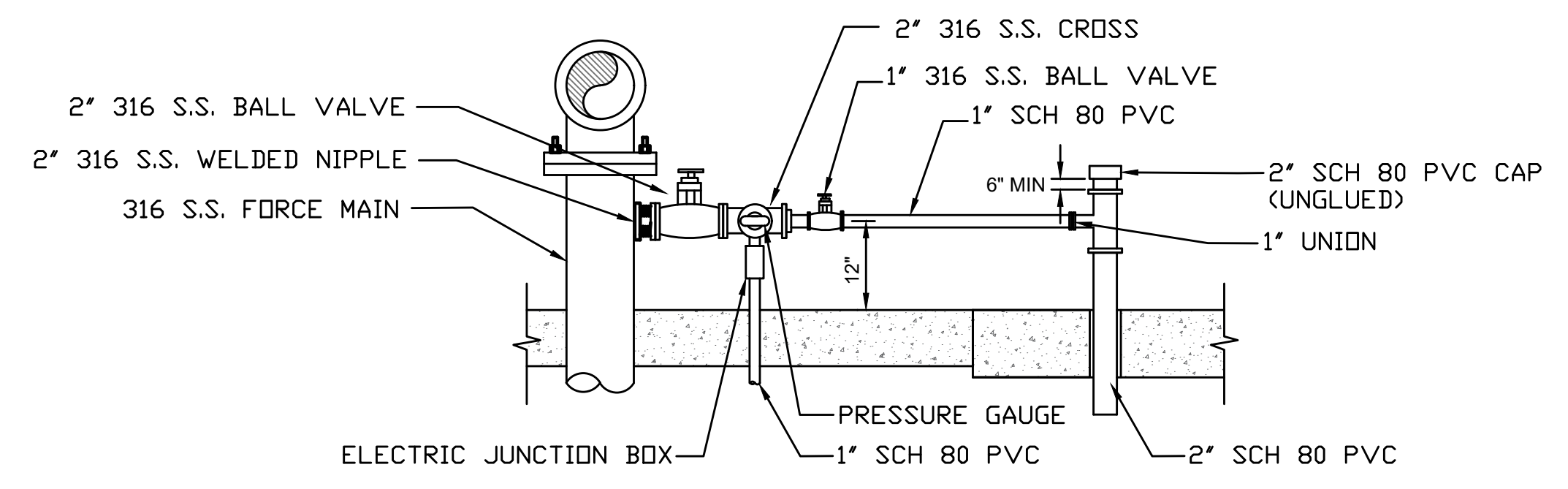


FUTURE DISCHARGE ARV DETAIL

NOT TO SCALE



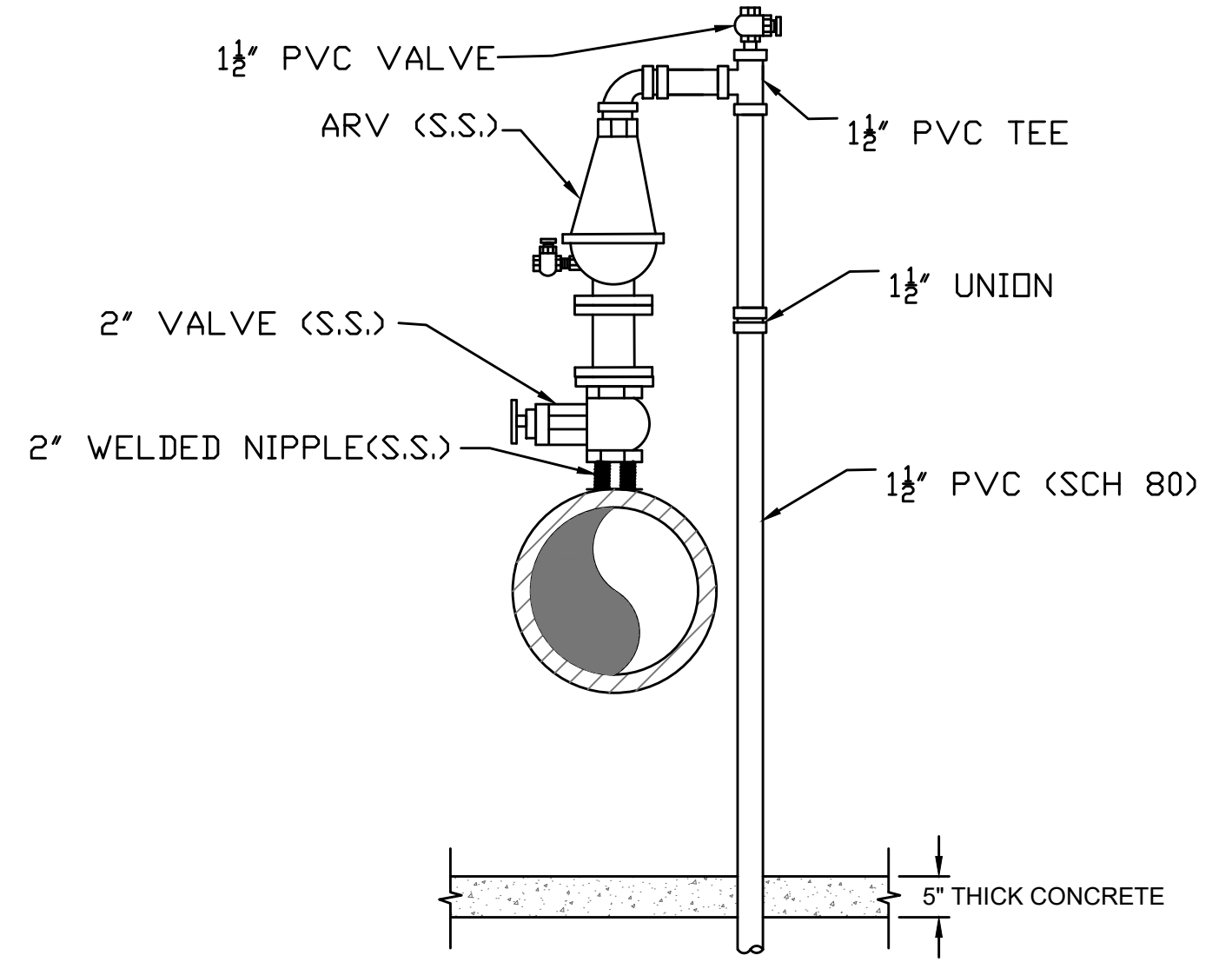
TOP VIEW



SIDE VIEW

FORCE MAIN TRANSDUCER DETAIL

NOT TO SCALE



ARV DRAIN DETAIL

NOT TO SCALE

NOTES:
1. CONTRACTOR TO PROVIDE AND INSTALL TRANSDUCER AND GAUGE PER JEA SPECIFICATIONS.

Connelly & Wicker Inc.
 Planning · Engineering · Landscape Architecture
 10060 Skimmer Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cweng.com
 Florida Registry 3650 L.A. Number: LC26000311

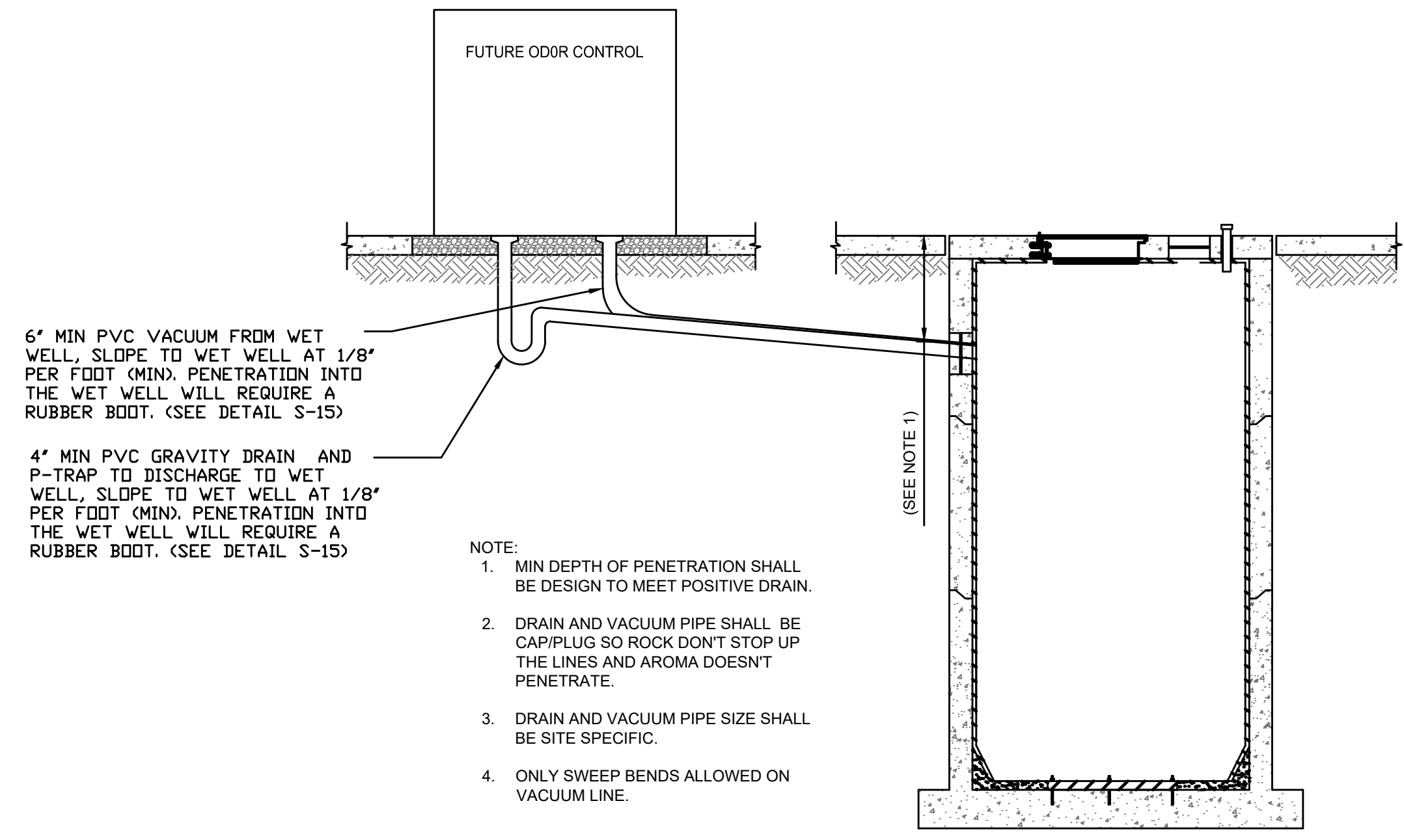
THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

| | |
|--------------------------|----------------------|
| DESIGN ENGINEER | MARY E. LEAPROTT, PE |
| FLORIDA REGISTRATION NO. | PE NO. 61449 |
| CHECKED BY: | MEL |
| DATE: | |
| REVISIONS | |
| NO. | DATE |
| 1 | |
| 2 | |
| 3 | |
| 4 | |

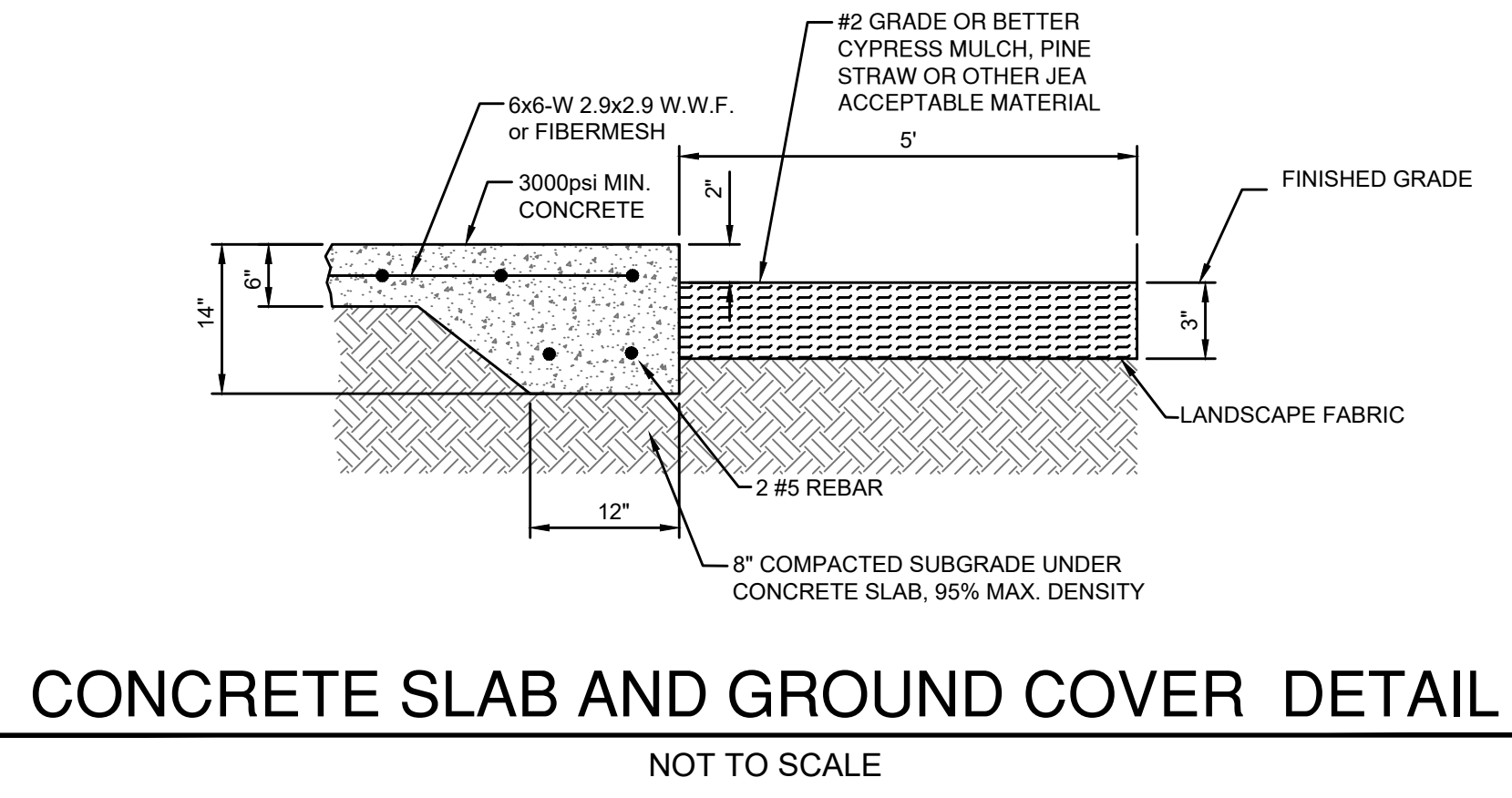
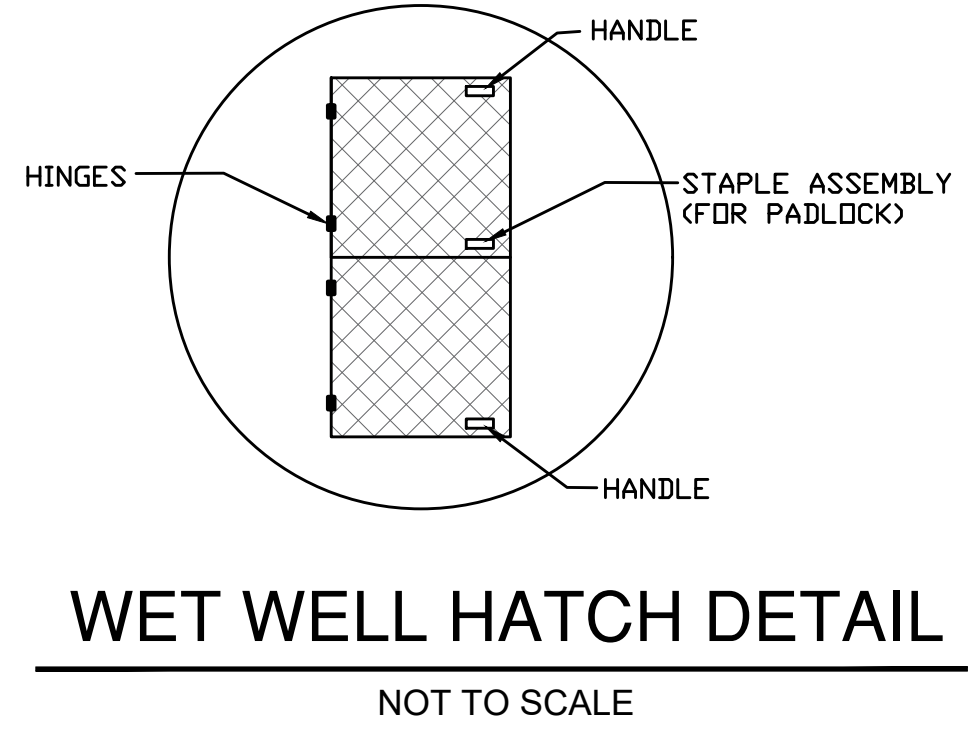
JEA
 Building Community™

JEA STANDARD PUMP STATION DETAILS

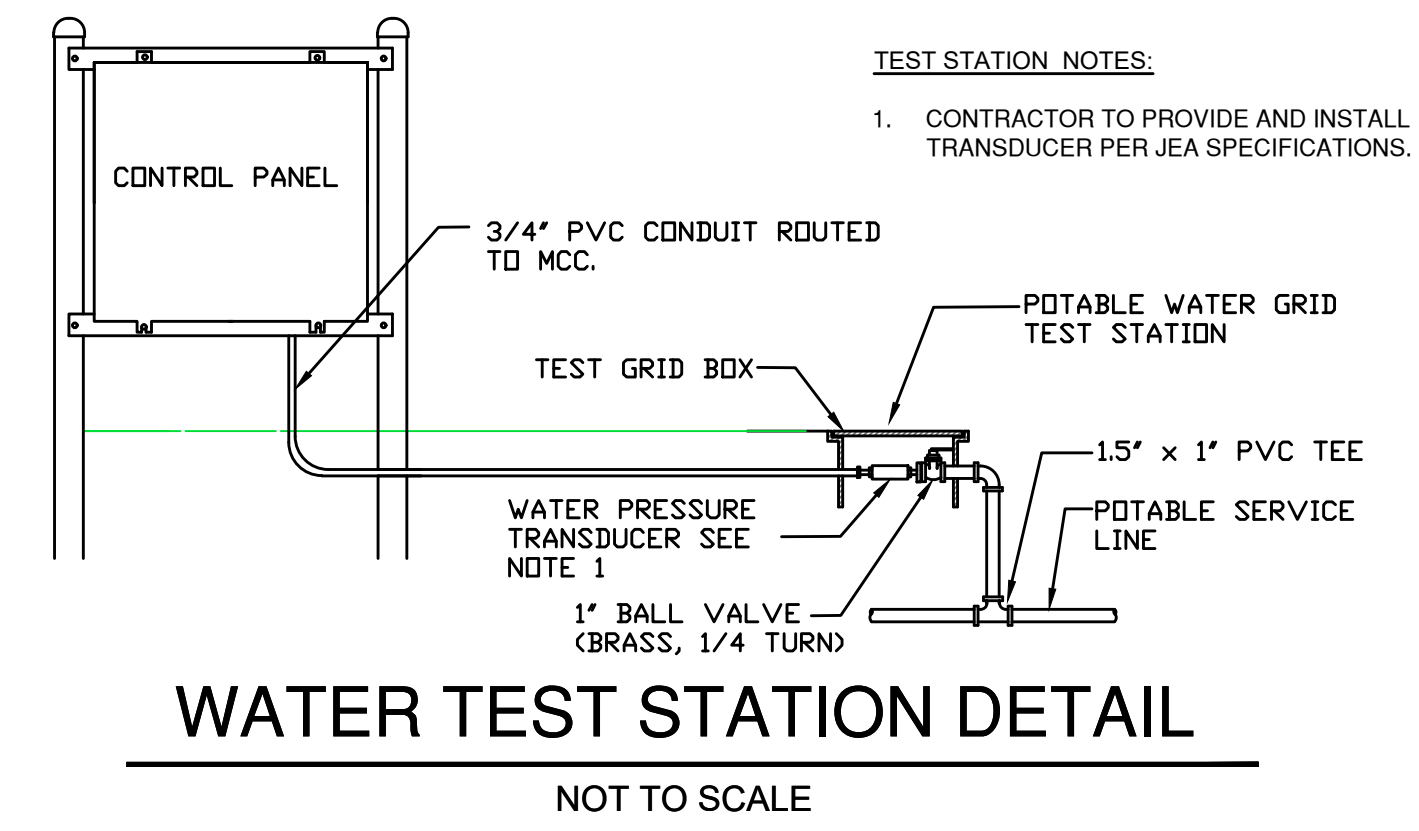
| | |
|-------------|------------|
| PROJ. NO. | 21-01-0057 |
| DATE: | 10/25/23 |
| SHEET NO. | 16E |
| DRAWING NO. | SCALE: |



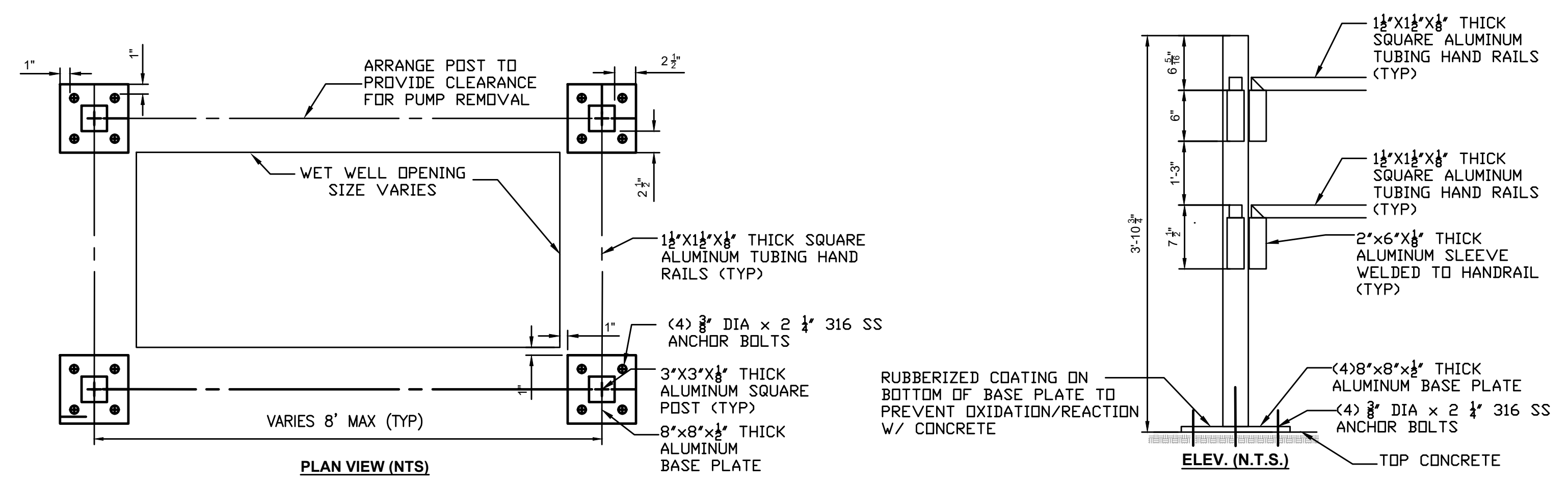
ODOR CONTROL DRAIN AND VACUUM CONNECTION TO WET WELL DETAIL
NOT TO SCALE



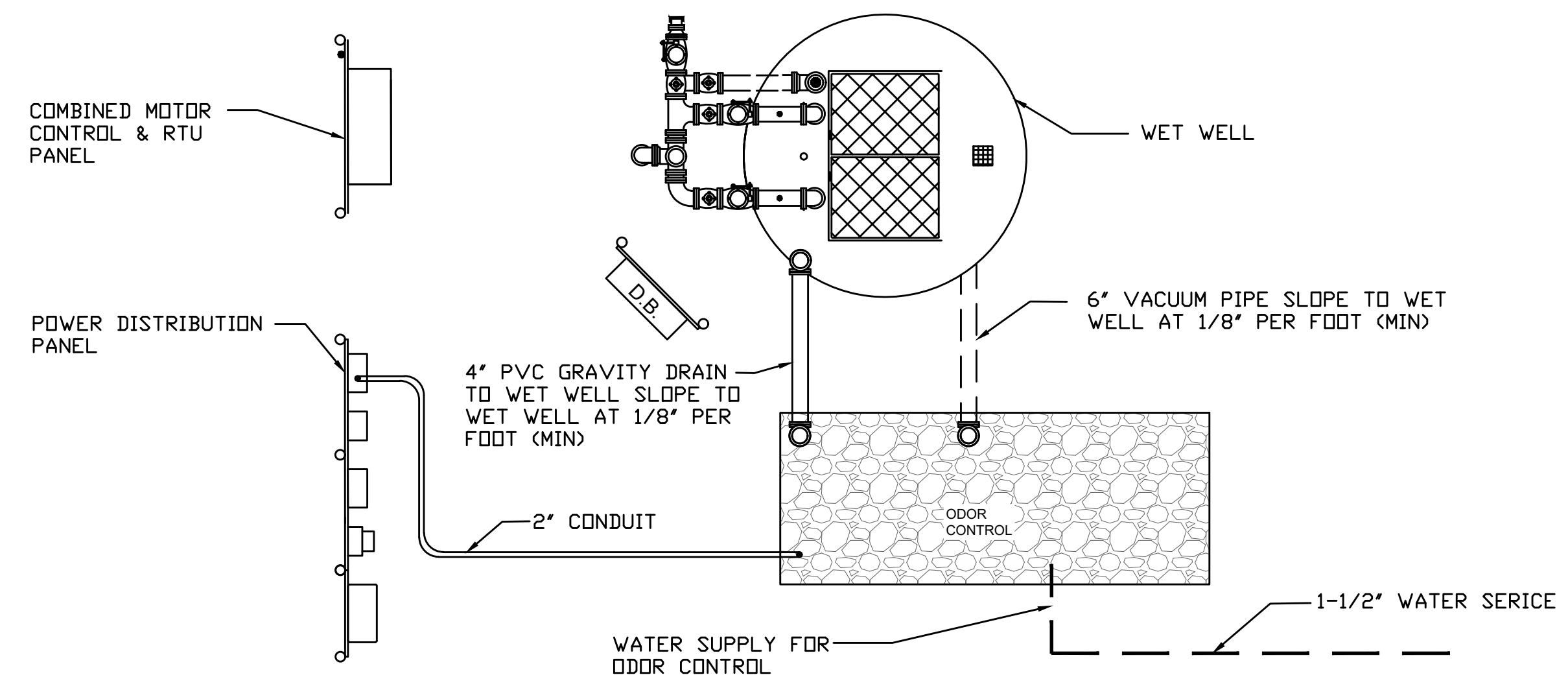
CONCRETE SLAB AND GROUND COVER DETAIL
NOT TO SCALE



WATER TEST STATION DETAIL
NOT TO SCALE



PUMP STATION HANDRAIL DETAIL
NOT TO SCALE



ODOR CONTROL STUB OUT DETAIL
NOT TO SCALE

Connelly & Wicker Inc.
 Planning · Engineering · Landscape Architecture
 10060 Skinner Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cwveng.com
 Florida Registry 3650 L.A. Number: LC26000311

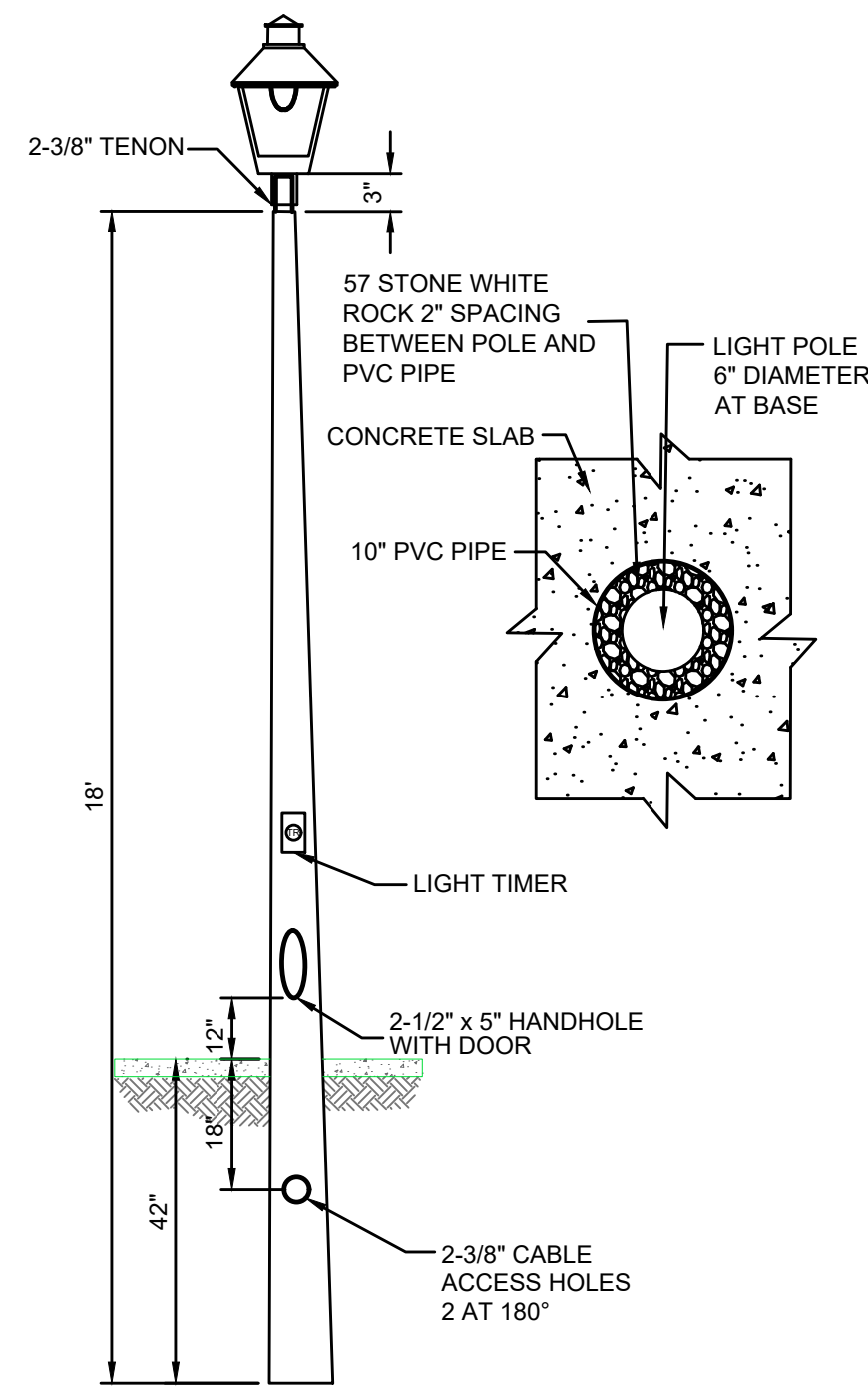
THESE DETAILS AS SHOWN ON THIS DRAWING ARE BY THE JEA. WE TAKE NO EXCEPTION TO THE DESIGN.

| NO. | DATE | BY | REVISIONS |
|-----|------|----|-----------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |

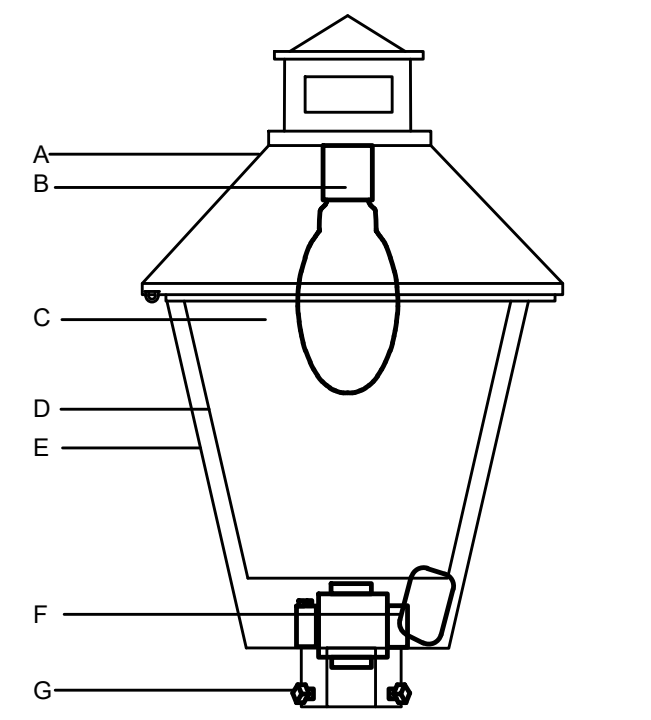
JEA
 Building Community™

JEA STANDARD PUMP STATION DETAILS

| | | |
|----------------------|----------------|--------|
| PROJ. NO. 21-01-0057 | DATE: 10/25/23 | SCALE: |
| NO. SHEETS 16F | DRAWING NO. | |

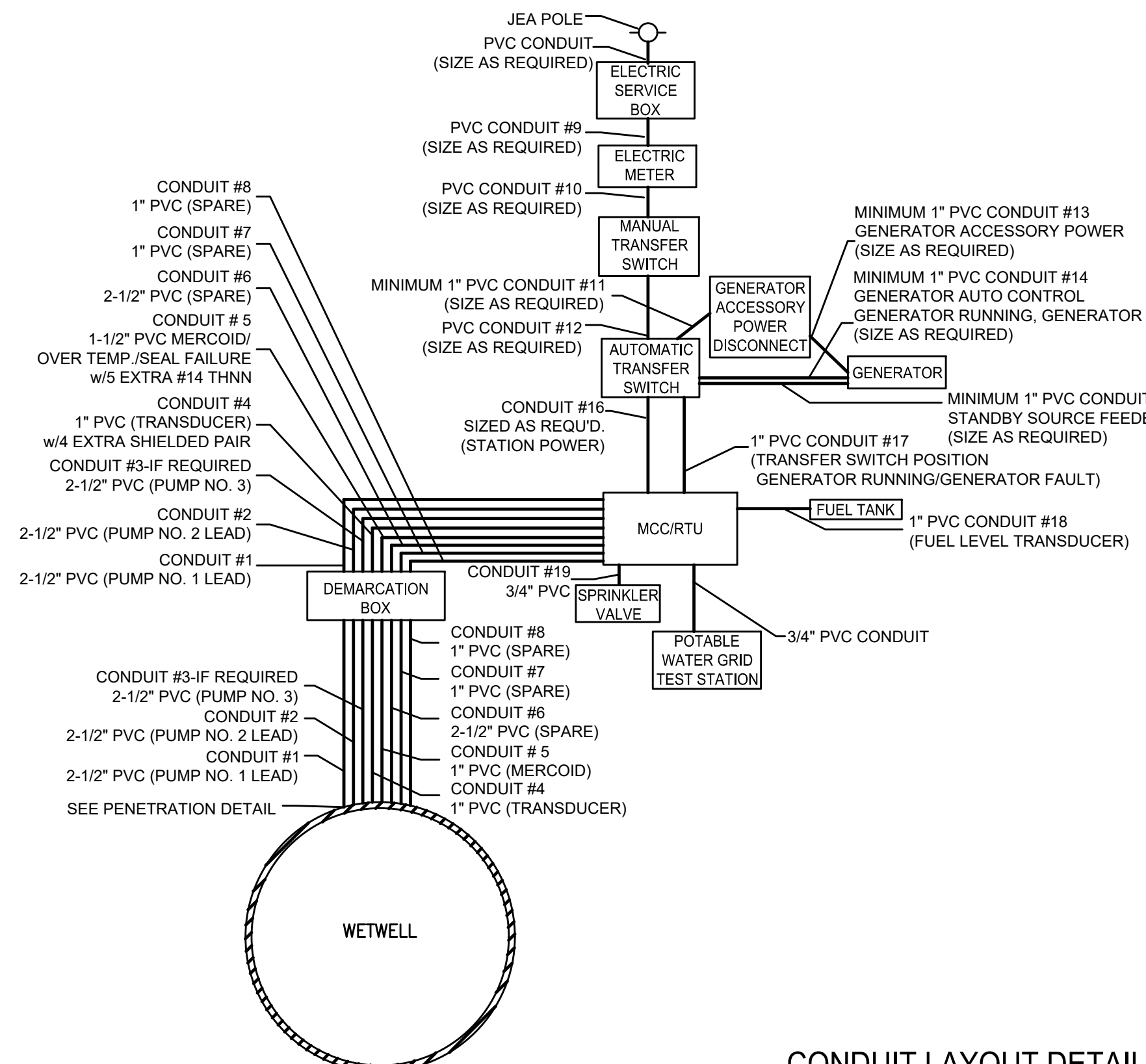


SPECIFICATION:
 COOPER LIGHTING
 LEXINGTON LXF
 CATALOG NO.: LWF70SH233U0115
 70W HPS REC-HPF 120V PCR, TOOL-LESS
 70W
 HIGH PRESSURE SODIUM
 METAL HALIDE MERCURY

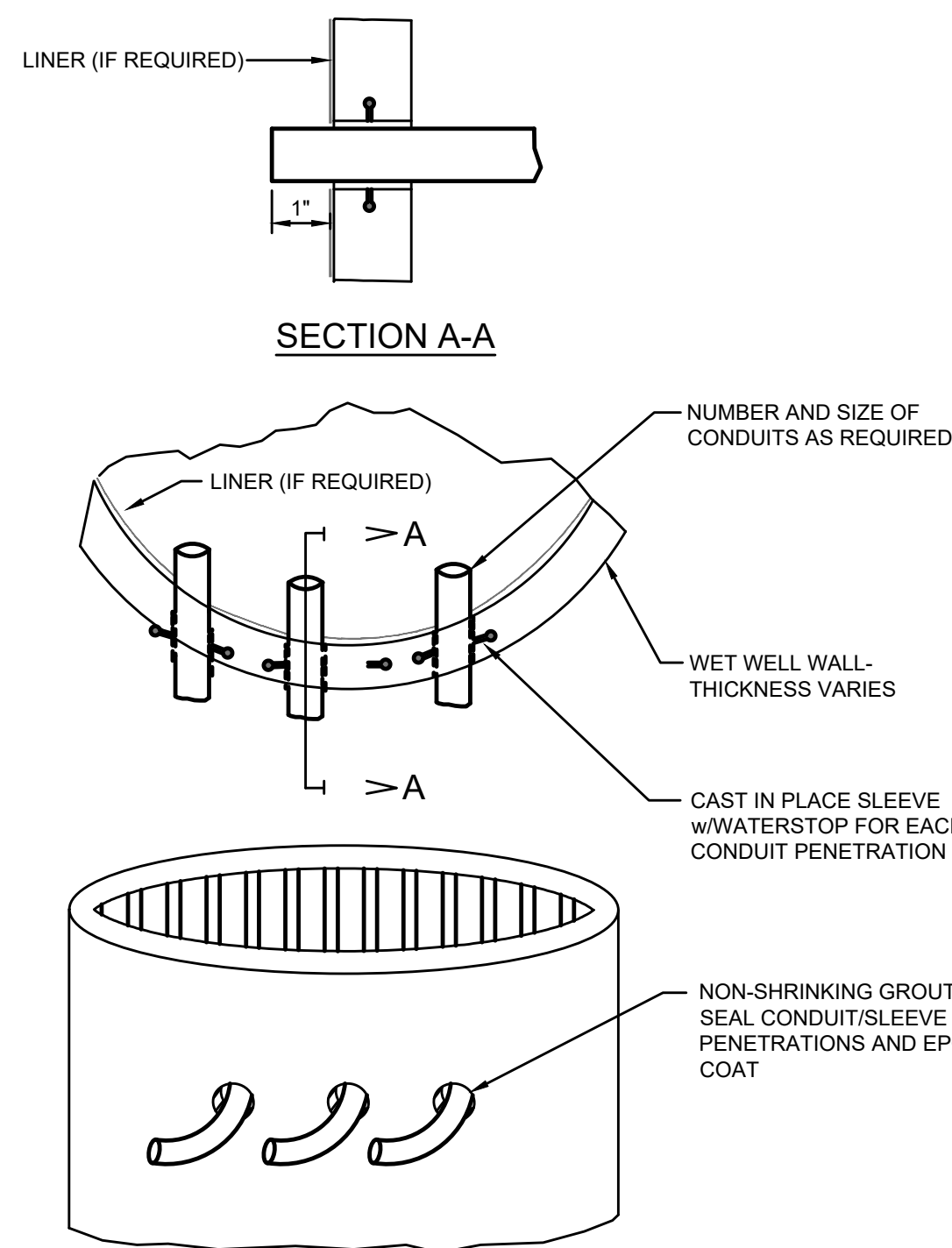


- A. TOP HINGED DIE-CAST ALUMINUM TOP WITH CUOLA COVER.
- B. SOCKET VERTICAL: BASE UP STANDARD ON TYPE I.
- C. LAMP 70W HIGH PRESSURE SODIUM
- D. REFRACTOR INJECTION MOLDED ACRYLIC REFRACTOR PANELS.
- E. HOUSING DIE-CAST ALUMINUM BADE HOUSING. STANDARD COLOR: BLACK
- F. STARTER PLUG-IN STARTER
- G. MOUNTING SELF-ALIGNING POLE TOP FITTER FOR 2-3/8 O.D. TENONS. SQUARE HEADED 1-1/4\"/>

SITE LIGHT DETAIL
NOT TO SCALE



CONDUIT LAYOUT DETAIL
NOT TO SCALE



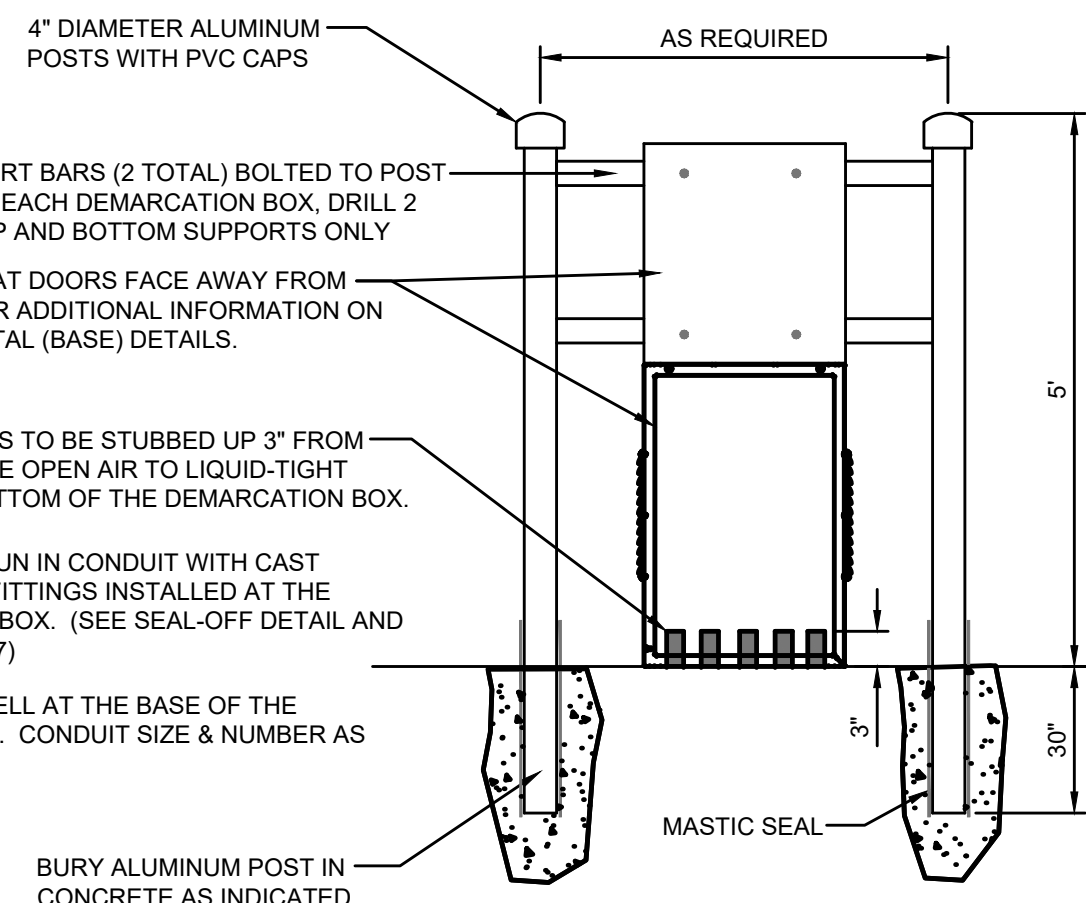
NOTES:

1. CORE BORING FOR CONDUITS SHALL BE ALLOWED FOR EXISTING WET WELLS ONLY.
2. EXTEND CONDUITS AND ARV DRAIN 1\"/>

WET WELL PENETRATION DETAIL
NOT TO SCALE

NOTES:

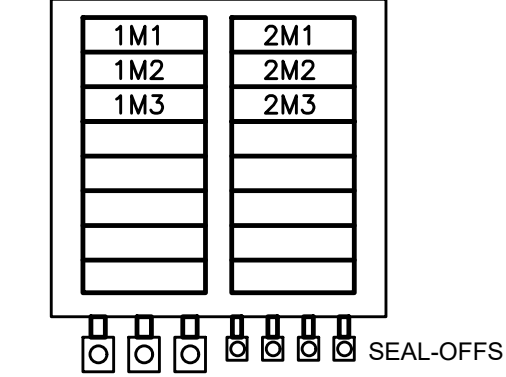
1. MINIMUM SCHEDULE 80 PVC CONDUIT SIZE AS SHOWN. CONDUIT SIZE MUST MEET NEC REQUIREMENTS FOR CONDUIT FILL.
2. ALL CONDUITS THAT RUN STRAIGHT FROM THE MCC TO THE DEMARCATION BOX SHALL BE ALLOWED TWO 90\"/>



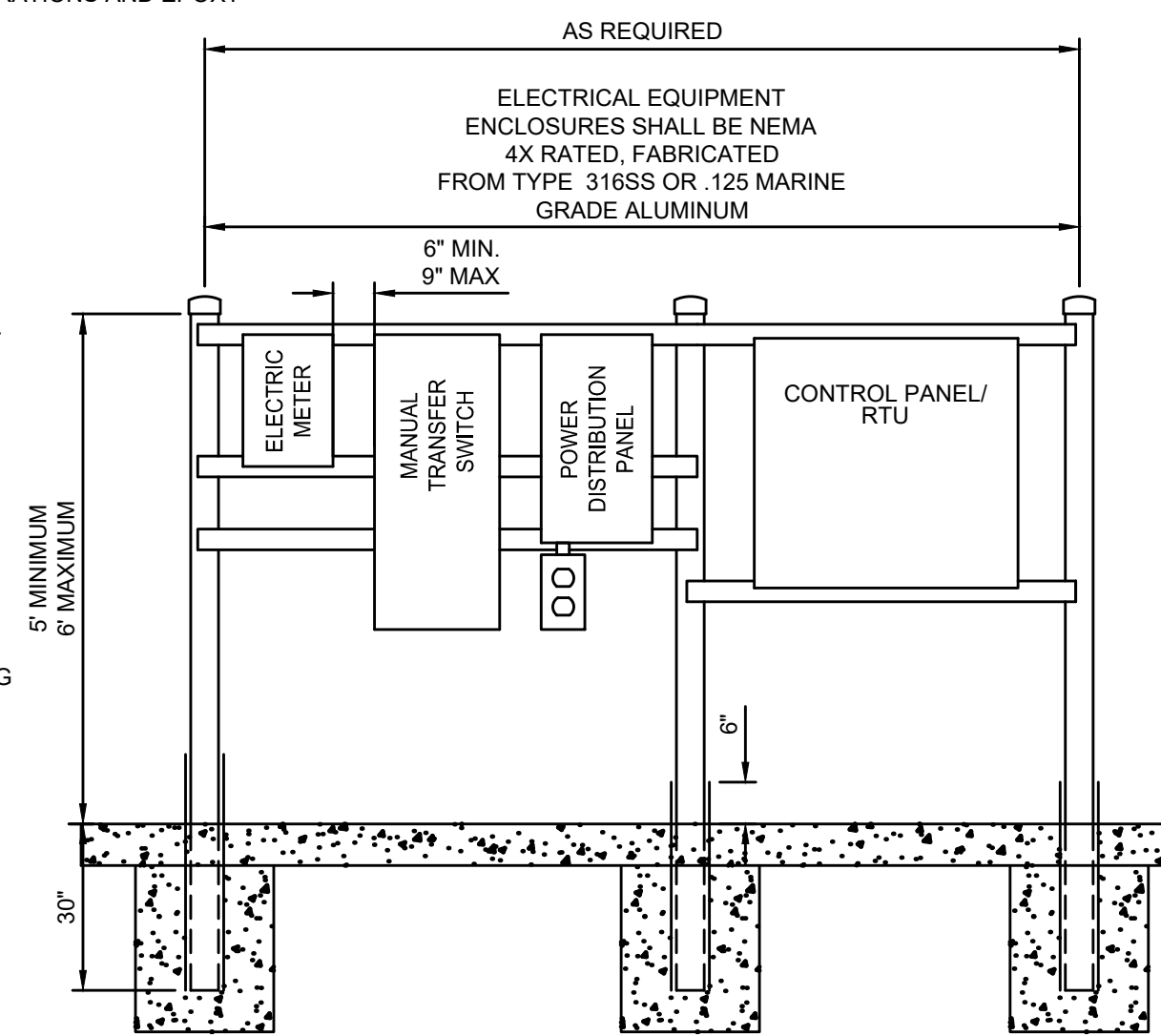
DEMARCATION BOX DETAILS
NOT TO SCALE

1/2\"/>

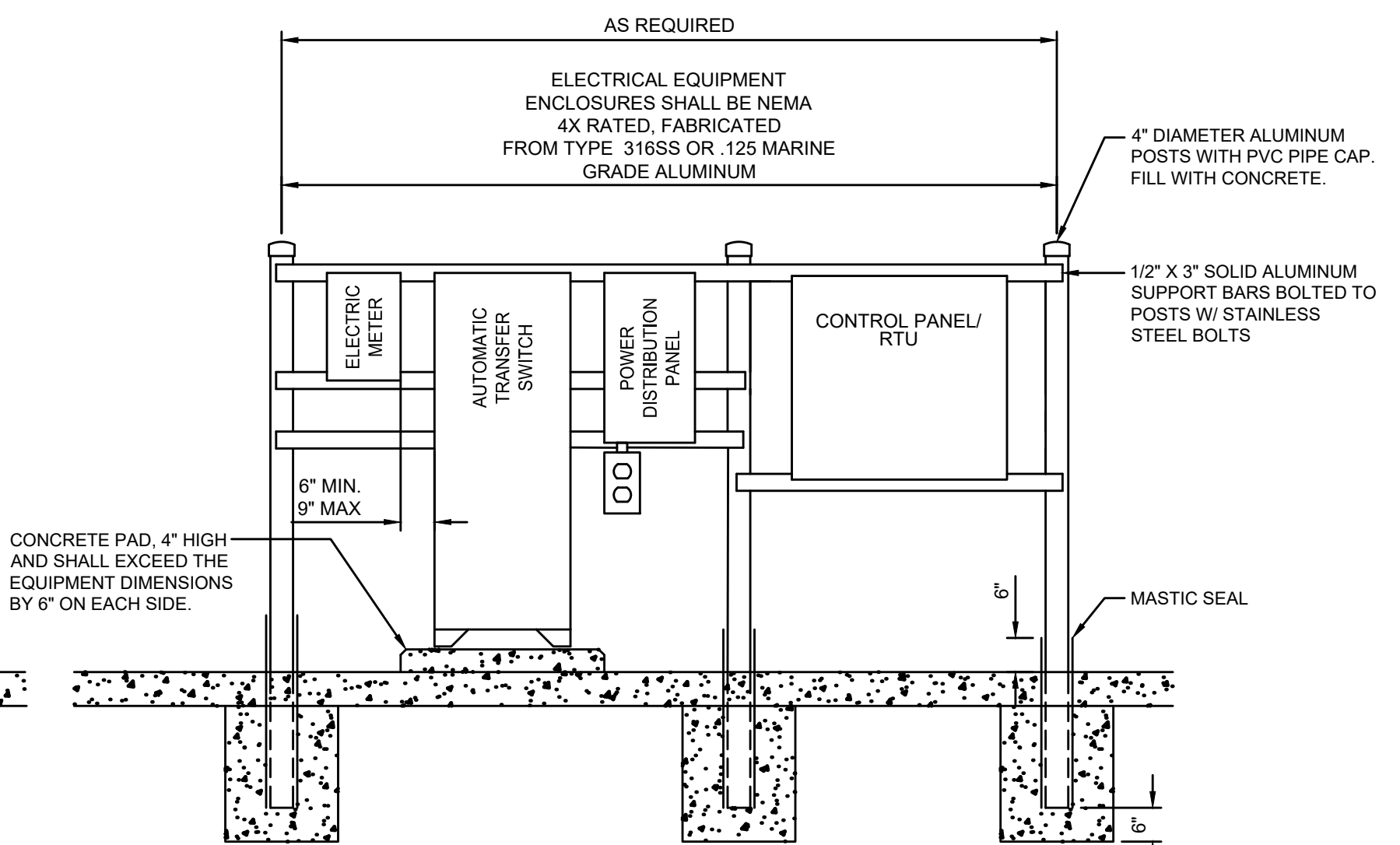
MOTOR TERMINAL BLOCKS SHALL BE WAGO \"POWER CAGE CLAMP\" SERIES. CONDUCTOR AMPACITY, VOLTAGE, AND WIRE SIZE SHALL DETERMINE FINAL SELECTION.



SEAL-OFF DETAIL
SEE DEMARCATION BOX DRAWINGS FOR ADDITIONAL INFORMATION

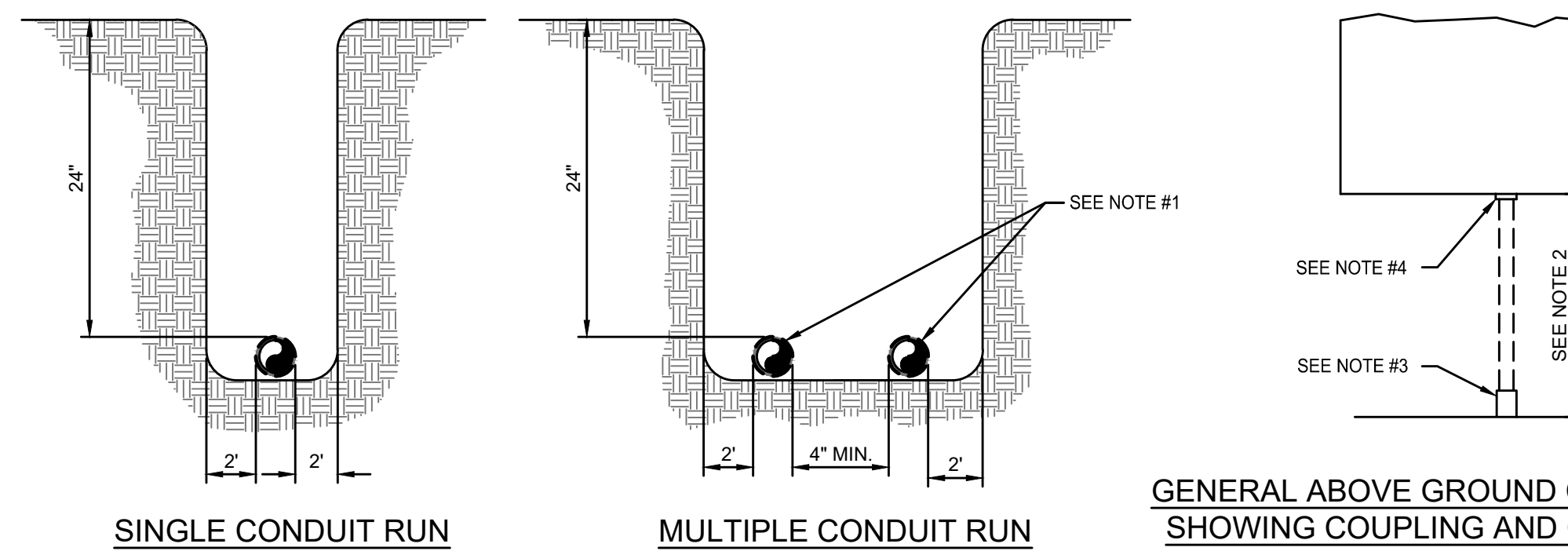


PUMP STATIONS WITHOUT STANDBY GENERATOR



PUMP STATIONS WITH STANDBY GENERATOR

ELECTRICAL EQUIPMENT RACK DETAIL
NOT TO SCALE



ABOVE AND UNDERGROUND ELECTRICAL RACEWAY DETAILS
NOT TO SCALE

NOTES:

1. UNDERGROUND CONDUIT SCHEDULE 80 PVC. MANUFACTURER: CARLON
2. CONDUIT ABOVE GROUND TO CABINETS SCHEDULE 80 PVC NEMA TC-2 SUNLIGHT RESISTANT. MANUFACTURER: CARLON
3. UNDERGROUND PVC COUPLED TO ABOVE GROUND PVC WITH A PVC COUPLING. MANUFACTURER: CARLON
4. ABOVE GROUND PVC CONNECTED TO RTU AND MCC USING A PVC CONNECTOR. MANUFACTURER: CARLON

Connelly & Wicker Inc.
 Planning · Engineering · Landscape Architecture
 10060 Skinner Lake Drive, Suite 500, Jacksonville, Florida 32246
 (904) 265-3030 FAX: (904) 265-3031 www.cweng.com
 Florida Registry 3650 L.A. Number: LC26000311

| NO. | BY | DATE | REVISIONS |
|-----|-----|----------|----------------------|
| 1 | MEL | 10/25/23 | ISSUED FOR PERMIT |
| 2 | MEL | 10/25/23 | REVISED PER COMMENTS |
| 3 | MEL | 10/25/23 | REVISED PER COMMENTS |
| 4 | MEL | 10/25/23 | REVISED PER COMMENTS |
| 5 | MEL | 10/25/23 | REVISED PER COMMENTS |

JEA
 Building Community™

JEA STANDARD PUMP STATION DETAILS

| | | |
|----------------------|----------------|--------|
| PROJ. NO. 21-01-0057 | DATE: 10/25/23 | SCALE: |
| SHEET NO. 16G | DRAWING NO. | |