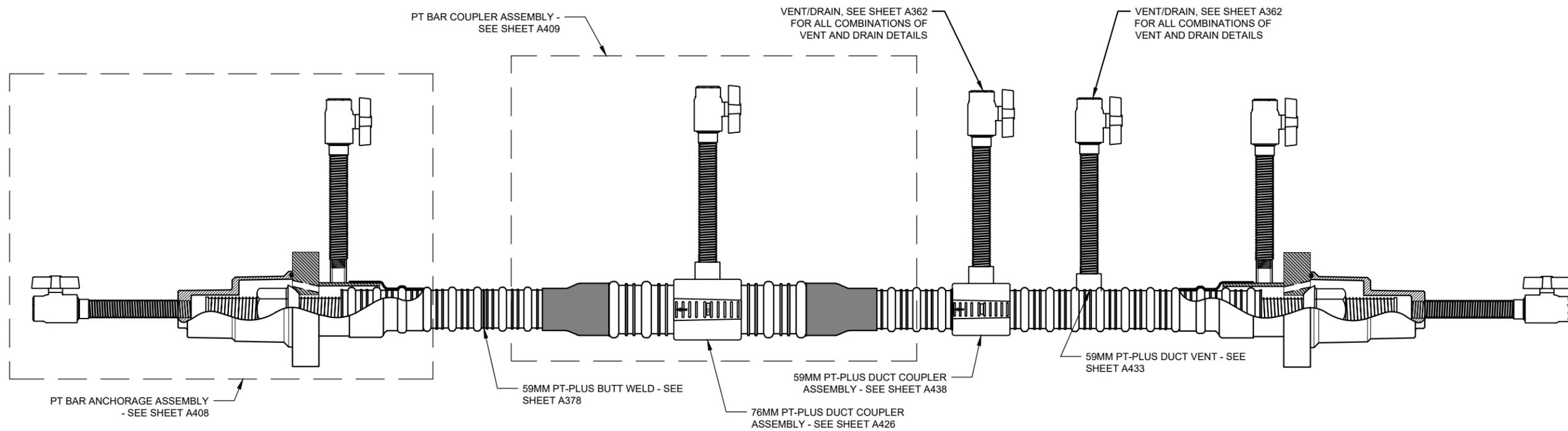


ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



**OVERALL ASSEMBLY W/ BAR COUPLER**

\* PT BAR COUPLER TO BE PLACED INSIDE 76MM DUCT

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PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:  
**INTERNAL BONDED 1.375" PT BAR OVERALL ASSEMBLY**

PROJECT NO:  
**SYSTEM**

SHEET NO:

SCALE:  
**NTS**

**A407**

**structural TECHNOLOGIES**

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 structuraltechnologies.com

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

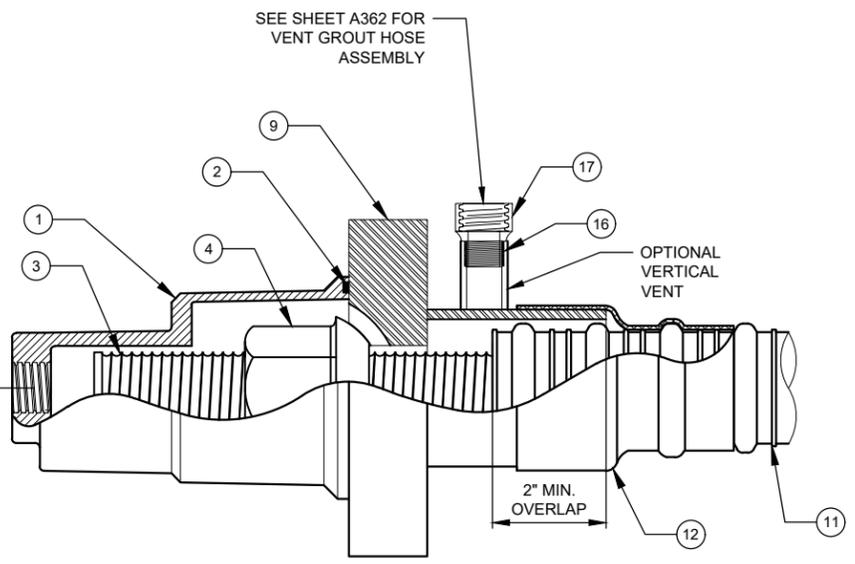
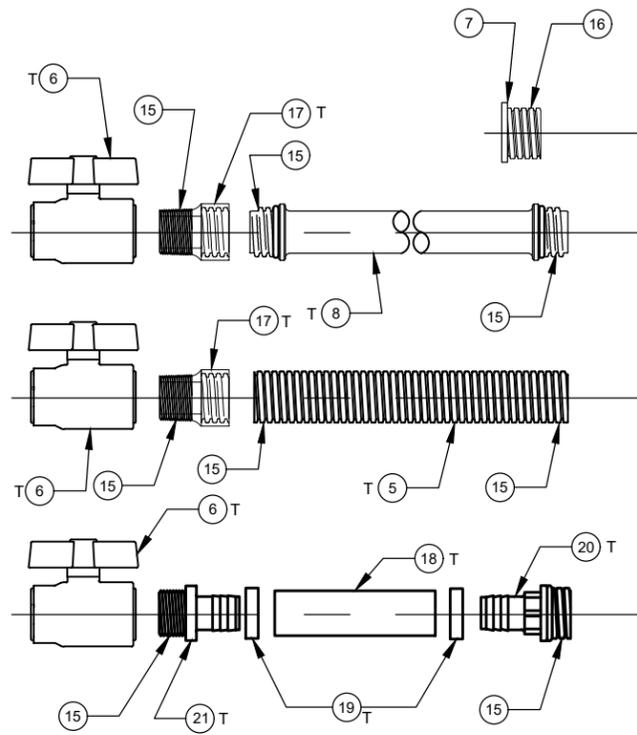
BY

CDL ZX

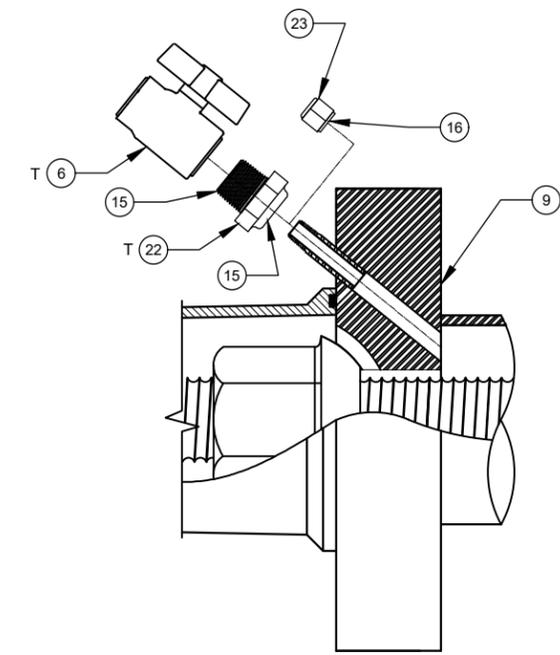
DATE

29JAN2020

ELECTRONIC FILE LOCATION: I:\VSI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



**ANCHORAGE W/ 3" SCH 40 X 4" LONG TRUMPET  
ELEVATION VIEW**



**INSPECTION PORT ASSEMBLY  
ELEVATION VIEW**

| ITEM | QTY | DESCRIPTION  | MATERIAL  | INVENTORY #     | DWG # |
|------|-----|--|---|-----------------|-------|
| 1    | 1   | WMS NYLON REINFORCED END CAP   | NYLON PER ASTM D5989  | R78K-36         | C891  |
| 2    | 1   | WMS NYLON REINFORCED END CAP O-RING  | BUNA-N 70 D PER FDOT 960 TABLE 2.2.1.7-1                      | INCLUDED W/ CAP | C894  |
| 3    | 1   | WMS 1-3/8" (36MM) 150 KSI TYPE II ALL-THREAD-BAR   | HIGH-STRENGTH STEEL BAR PER ASTM A722 TYPE II AND AASHTO M275 | R71-11-03600    | C890  |
| 4    | 1   | WMS 1-3/8" (36MM) SPHERICAL HEX NUT  | DUCTILE IRON 100-70-03 PER ASTM A536                          | R88-11          | C888  |
| 5    | 1   | 23MM GROUT HOSE  | HDPE BLACK PER ASTM D3350                                     | 02DT0310        | C587  |
| 6    | 2   | 3/4" NPT PVC 1/4 TURN BALL VALVE   | SCH 80 WHITE PVC  | 02DT01916       | C720  |
| 7    | 1   | 23MM GROUT PLUG  | HDPE BLACK PER ASTM D3350                                     | 02DT0341        | C583  |
| 8    | 1   | 23MM BP GROUT EXTENSION  | WHITE POLYPROPYLENE PER ASTM D4101                            | 02DT0318        | C714  |
| 9    | 1   | STEEL BEARING PLATE W/ FRONT INSPECTION PORT, 3/8" GROUT GROOVE & 3" SCH. 40 TRUMPET GALV. PER ASTM A123 | ASTM A36-01, AASHTO M183, ASTM A53, ASTM A512, ASTM A123      | JOB SPECIFIC    | C868  |
| 11   | -   | 59MM PT-PLUS DUCT  | WHITE POLYPROPYLENE PER ASTM D4101                            | 02DT0412        | C684A |
| 12   | 1   | HEAT SHRINK SLEEVE CANUSA PLA-63-YE (12" LONG)   | POLYOLEFIN PER FDOT 960 TABLE 2.2.1.8-1                       | 02DT0504        | C791  |
| 15   | -   | SILICONE GREASE  | COMMERCIALY AVAILABLE   | -               | -     |
| 16   | -   | BONDUIT  | COMMERCIALY AVAILABLE   | -               | -     |
| 17   | 2   | BR PLATE BUSHING 3/4" NPT 23mm   | BLACK POLYPROPYLENE PER ASTM D4101                            | 02DT0316        | C715  |
| 18   | 1   | 3/4" SMOOTH HOSE   | HDPE BLACK PER ASTM D3350                                     | 02DT01901       | C685  |
| 19   | 2   | 3/4" ONE EAR BAND CLAMP  | 316 STAINLESS STEEL PER ASTM A240                             | 02DT01905       | C690  |
| 20   | 1   | 3/4" HOSE BARB TO 23MM FITTING   | BLACK POLYPROPYLENE PER ASTM D4101                            | 02DT01903       | C692  |
| 21   | 1   | 3/4" HOSE BARB TO 3/4" NPT FITTING   | BLACK POLYPROPYLENE PER ASTM D4101                            | 02DT01908       | C694  |
| 22   | 1   | 1/4" NPT TO 3/4" NPT BUSHING   | SCH 80 WHITE PVC  | 02DT01935       | C857  |
| 23   | 1   | 1/4" NPT FEMALE HEX CAP  | BLACK POLYPROPYLENE PER ASTM D4101                            | 02DT01907       | C858  |

**NOTES**

- ITEMS MARKED WITH A "T" ARE TEMPORARY AND ARE NOT A PERMANENT PART OF THE SYSTEM.
- DUCT MUST BE PRESSURE RATED FOR 125 PSI.
- ALL OTHER COMPONENTS EXCEPT DUCT MUST BE PRESSURE RATED FOR 150 PSI.
- CONCRETE COVER MUST MEET FDOT STRUCTURES DESIGN GUIDELINES SECTION 1.4.2
- INSPECTION PORT OPTIONAL FOR VERTICAL TENDONS.

INSTALLATION PROCEDURES (INSTALLATION PROCEDURE IS GENERIC. FOLLOW THE PROJECT SPECIFIC REQUIREMENTS AND THE FDOT SPECIFICATIONS)

- INSTALL BEARING PLATE WITH ORIENTATION THAT GROUT PORT IS IN VERTICAL POSITION.
- PUSH THE DUCT A MINIMUM 2" INTO THE STEEL TRUMPET, SECURE THE CONNECTION WITH HEAT SHRINK SLEEVE.
- IF VACUUM ASSISTED FILLER INJECTION WILL BE USED, THEN VACUUM TEST PER 462-8.2.1.2 JUST PRIOR TO CONCRETE PLACEMENT.
- CONCRETE PLACEMENT OCCURS BY OTHERS.
- INSTALL WMS PT BAR SPHERICAL NUT.
- ONLY STRESS WMS BAR IF CONCRETE HAS REACHED REQUIRED STRENGTH SPECIFIED ON DRAWINGS.
- ELONGATION SHOULD BE WITHIN ±7%.
- AFTER FORM WORK IS REMOVED, INSTALL ANCHORAGE CAP WITH O-RING.
- SYSTEM IS NOW READY TO AIR TEST.
- PER THE FDOT SPECIFICATION SECTION 462-8.2.2, AIR PRESSURE TEST IS REQUIRED AFTER STRESSING AND PRIOR TO GROUT INJECTION.
- GROUT TENDON PER GROUT SPEC.

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PHONE: (410) 850-7000  
 structuraltechnologies.com

PROJECT INFORMATION:

**SYSTEM DRAWING**

TITLE: **INTERNAL BONDED 1.375" PT BAR BEARING PLATE ASSEMBLY**

APPROVED FOR CONSTRUCTION

NO

DATE: 29JAN2020

CHK: ZX

BY: CDL

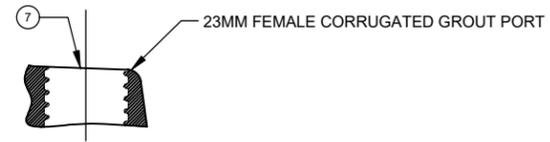
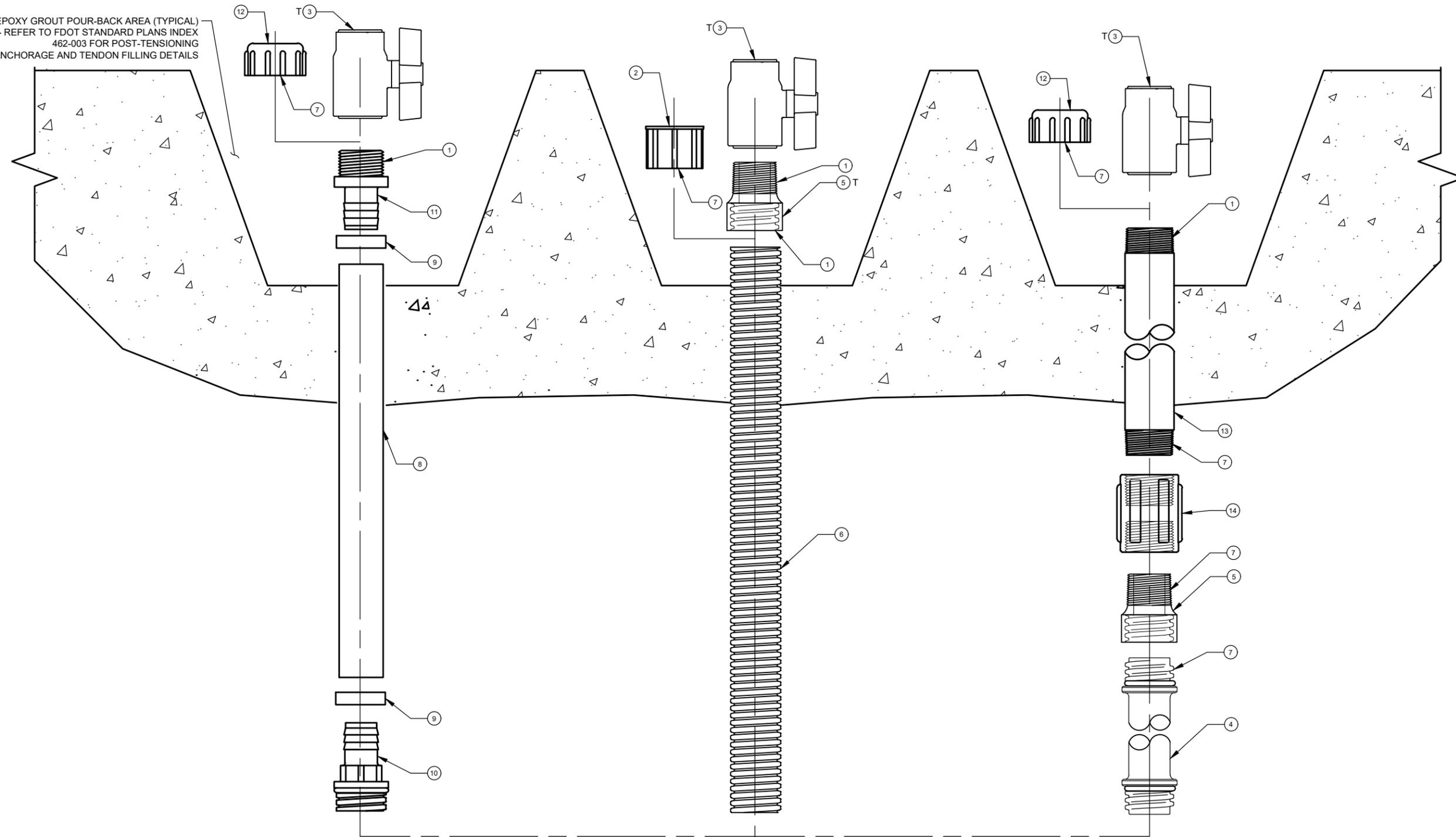
DESCRIPTION

PROJECT NO: **SYSTEM**

SHEET NO: **A408**

SCALE: **NTS**

EPOXY GROUT POUR-BACK AREA (TYPICAL)  
- REFER TO FDOT STANDARD PLANS INDEX  
462-003 FOR POST-TENSIONING  
ANCHORAGE AND TENDON FILLING DETAILS



| ITEM | QTY | DESCRIPTION                          | MATERIAL                            | INVENTORY # | DWG # |
|------|-----|--------------------------------------|-------------------------------------|-------------|-------|
| 1    | -   | SILICONE GREASE                      | COMMERCIALY AVAILABLE               | -           | -     |
| 2    | 1   | 23MM GROUT HOSE CAP                  | HDPE BLACK PER ASTM D3350           | 02DT0314    | C586  |
| 3    | 1   | PVC 1/4 TURN BALL VALVE W/ 3/4" FNPT | WHITE SCH 80 PVC                    | 02DT01916   | C720  |
| 4    | 1   | 23MM BP GROUT EXTENSION              | WHITE POLYPROPYLENE PER ASTM D4101  | 02DT0318    | C714  |
| 5    | 1   | BR PLATE BUSHING 3/4" NPT 23MM       | BLACK POLYPROPYLENE PER ASTM D4101  | 02DT0316    | C715  |
| 6    | -   | 23MM GROUT HOSE                      | HDPE BLACK PER ASTM D3350           | 02DT0310    | C587  |
| 7    | -   | BONDUIT                              | COMMERCIALY AVAILABLE               | -           | -     |
| 8    | 1   | 3/4" SMOOTH HOSE                     | HDPE BLACK PER ASTM D3350           | 02DT01901   | C685  |
| 9    | 2   | 3/4" ONE EAR BAND CLAMP              | (316L) STAINLESS PER ASTM A240      | 02DT01905   | C690  |
| 10   | 1   | 3/4" HOSE BARB TO 23MM FITTING       | BLACK POLYPROPYLENE PER ASTM D4101  | 02DT01903   | C692  |
| 11   | 1   | 3/4" HOSE BARB TO 3/4" NPT FITTING   | BLACK POLYPROPYLENE PER ASTM D4101  | 02DT01908   | C694  |
| 12   | 1   | RIBBED CAP 3/4" FNPT                 | BLACK POLYPROPYLENE PER ASTM D4101  | 02DT01912   | C701  |
| 13   | 1   | 3/4" NPT PP NIPPLE                   | SCH 80 POLYPROPYLENE PER ASTM D4101 | -           | C723  |
| 14   | 1   | 3/4" NPT F/F PP COUPLER              | BLACK POLYPROPYLENE PER ASTM D4101  | 02DT01931   | C775  |

- NOTES:
- ITEMS MARKED WITH A "T" ARE TEMPORARY AND ARE NOT A PERMANENT PART OF THE SYSTEM.
  - ALL COMPONENTS MUST BE PRESSURE RATED FOR 150 PSI MINIMUM CONCRETE COVER SHALL BE 2" AND MUST MEET FDOT STRUCTURES DESIGN GUIDELINES SECTION 1.4.2
  - COMPONENTS MAY BE ASSEMBLED AS A VENT OR A DRAIN AS REQUIRED.

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ELECTRONIC FILE LOCATION: I:\S\1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Grouting Accessories

PROJECT INFORMATION:

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 PHONE: (410) 860-7000  
 structuraltechnologies.com

DATE

PROJECT NO:

APPROVED FOR CONSTRUCTION

NO

DATE

PROJECT INFORMATION:

SYSTEM DRAWING

GROUT INJECTION/VENT CONFIGURATION USING CORRUGATED GROUT PORT

DATE

PROJECT NO:

SYSTEM

NTS

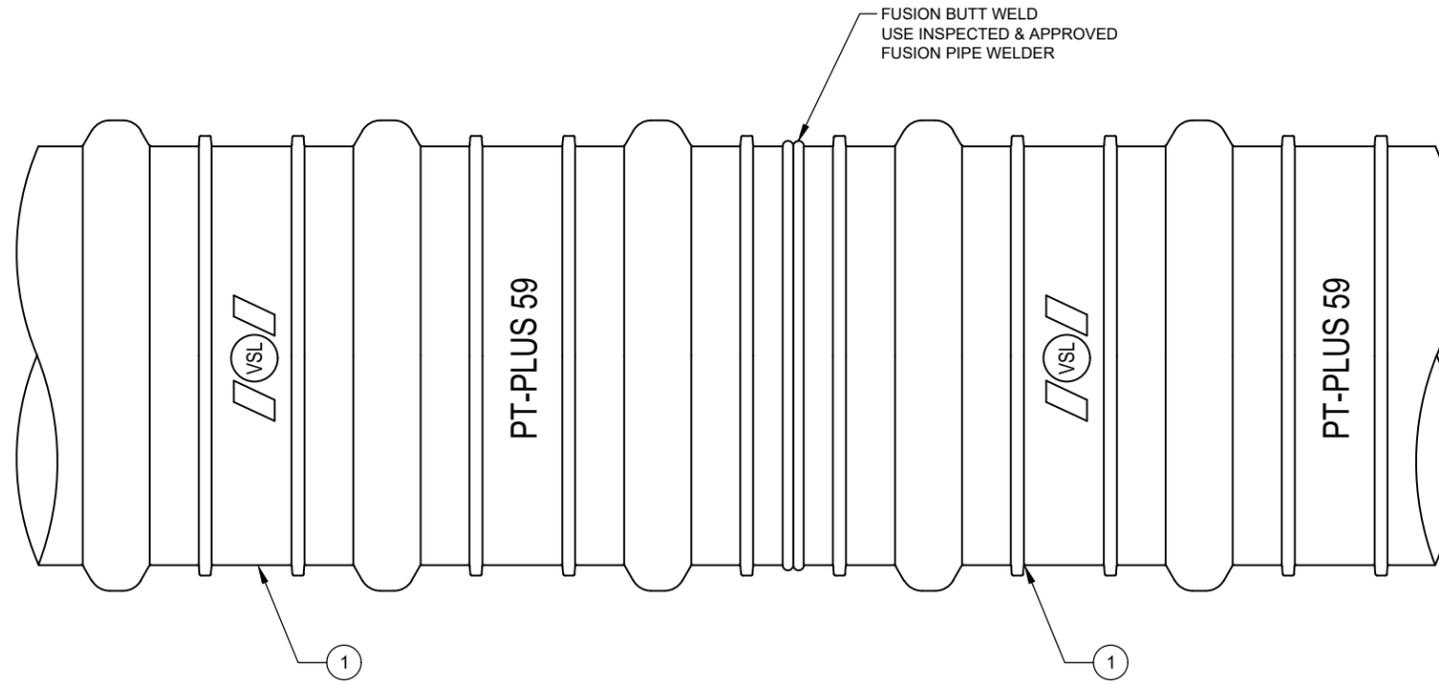
DATE

SHEET NO:

A362

DATE

ELECTRONIC FILE LOCATION: I:\VSL\_System Drawings\Work In Progress Drawings\Florida DOT\_Test 2017\ECI 6-7 Grouted System



ELEVATION VIEW

**NOTES:**

1. 59MM PT-PLUS DUCT MEETS FDOT 960 SPEC.
2. SEE VSL BUTT-WELDING PROCEDURE IN APPENDIX.
3. ADJUST THE LOCATION OF THE LAST FUSION BUTT WELD SO THAT THE FINAL DUCT COUPLER CONNECTION CAN BE APPLIED PROPERLY.

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| ITEM | QTY | DESCRIPTION                 | MATERIAL                           | INVENTORY # | DWG # |
|------|-----|-----------------------------|------------------------------------|-------------|-------|
| 1    | 2   | DUCT, WHT PP, 59 MM PT-PLUS | WHITE POLYPROPYLENE PER ASTM D4101 | 02DT0412    | C684A |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:  
**59MM PT-PLUS BUTT WELD CONNECTION**

PROJECT NO:  
SYSTEM

SHEET NO:

SCALE:  
NTS

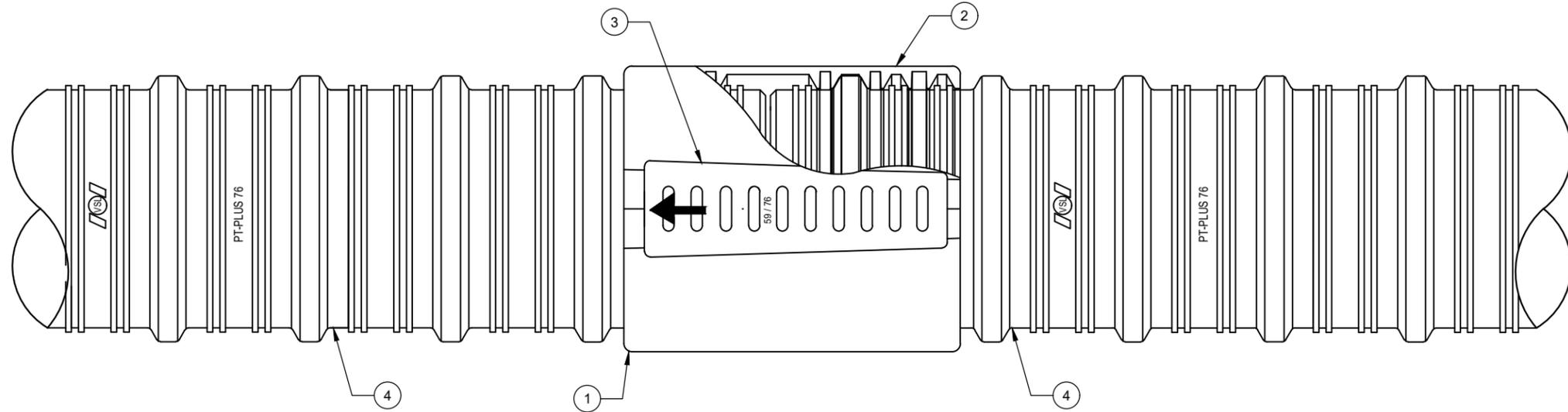
**A378**

**structural TECHNOLOGIES**  
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|    |                           |    |        |      |           |
|----|---------------------------|----|--------|------|-----------|
| NO | APPROVED FOR CONSTRUCTION | BY | CDL ZX | DATE | 29JAN2020 |
|    | DESCRIPTION               |    |        |      |           |



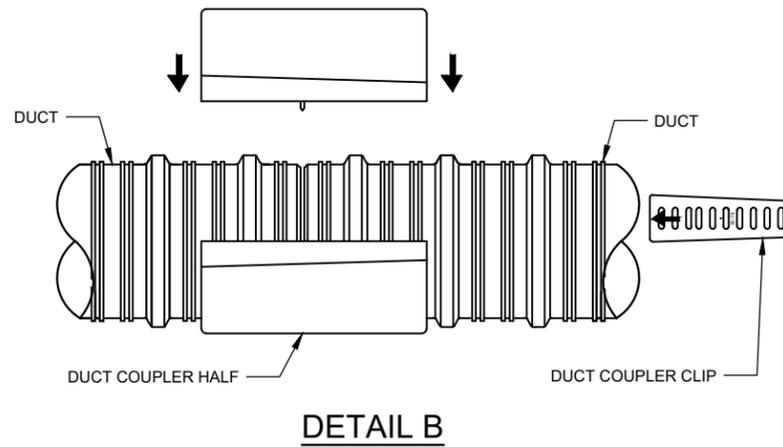
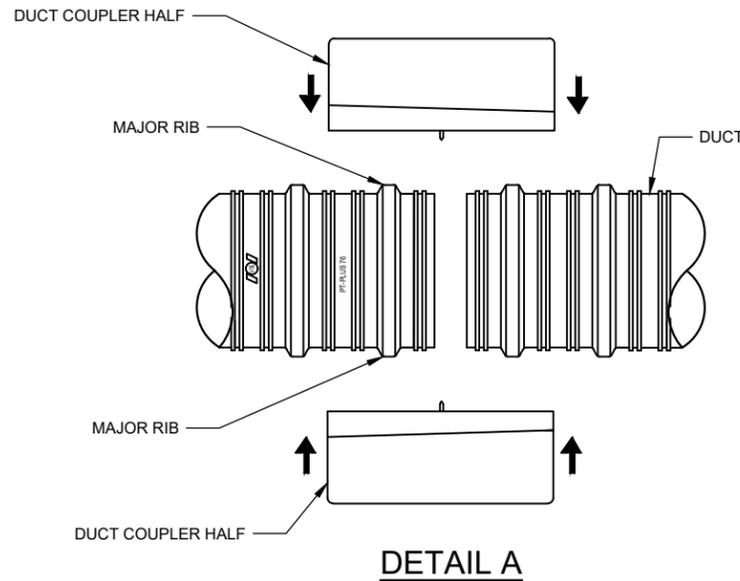
ELECTRONIC FILE LOCATION: I:\VSI\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\ECJ 6-12 Grouted System



**ELEVATION VIEW**

**INSTALLATION PROCEDURES**

1. CUT DUCT HALF WAY BETWEEN 2 MAJOR RIBS SEE DETAIL A
2. INSTALL DUCT INTO COUPLER HALF. PLACE COUPLER HALF OVER MAJOR RIB. SEE DETAIL B
3. PLACE SECOND COUPLER HALF OVER DUCT, USING INTERLOCKING PINS TO CENTER SECOND COUPLER HALF
4. PARTIALLY INSTALL COUPLER CLIPS IN DIRECTION INDICATED BY ARROWS SHOWN ON COUPLER HALF.
5. INSURE BOTH DUCTS ARE SECURED IN COUPLER.
6. FINISH INSTALLATION OF CLIPS.



**DETAIL B**

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960.

| ITEM | QTY | DESCRIPTION                     | MATERIAL                            | INVENTORY # | DWG # |
|------|-----|---------------------------------|-------------------------------------|-------------|-------|
| 1    | 2   | COUPLER HALF, 76 MM PT-PLUS     | BLACK POLYPROPYLENE PER ASTM D4101  | 02DT0027    | C626  |
| 2    | 2   | SEAL (INCLUDED IN COUPLER HALF) | SANTOPRENE PER FDOT TABLE 2.2.1.7-2 | 02DT0027    | C626  |
| 3    | 2   | COUPLER CLAMP, 76 MM PT-PLUS    | BLACK POLYPROPYLENE PER ASTM D4101  | 02DT0029    | C628  |
| 4    | -   | DUCT, WHT PP, 76 MM PT-PLUS     | WHITE POLYPROPYLENE PER ASTM D4101  | 02DT0426    | C684B |

\* SEE SHEET C626 FOR COUPLER HALF, 76 MM PT-PLUS VENTED

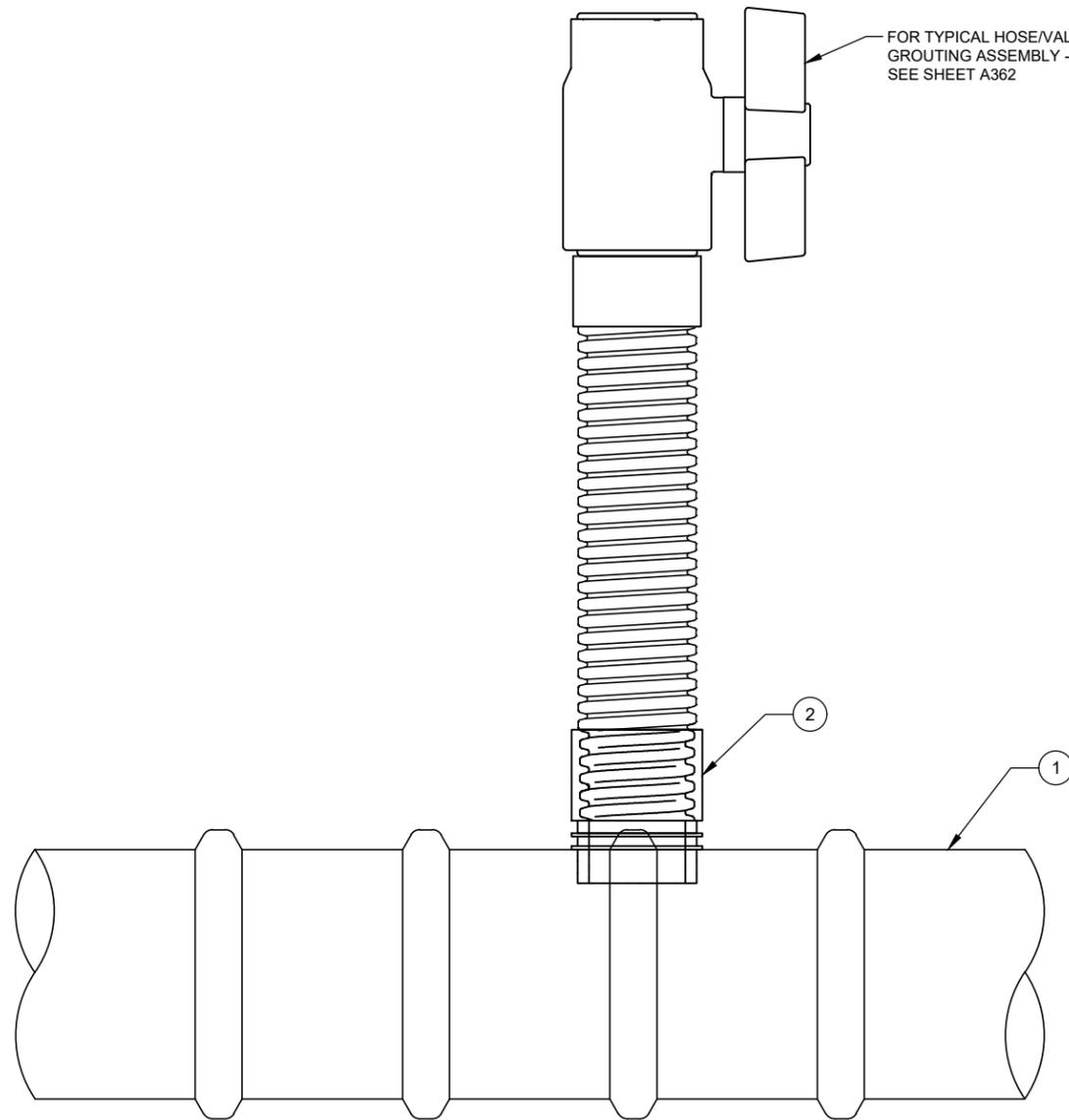
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|  |   |
|--|---|
| <p><b>structural TECHNOLOGIES</b></p> <p style="font-size: small;">Dallas, TX / Washington DC / Denver, CO / Pompano Beach, FL<br/>         10150 OLD COLUMBIA RD<br/>         COLUMBIA, MD 21046</p> <p style="font-size: x-small;">PHONE: (410) 850-7000<br/>         structuraltechnologies.com</p> | <p>PROJECT INFORMATION:</p> <p>PROJECT NO: SYSTEM</p> <p>SHEET NO: A426</p> |
| <p>SYSTEM DRAWING</p> <p>TYPICAL 76MM PT-PLUS DUCT TO DUCT CONNECTION</p>  | <p>APPROVED FOR CONSTRUCTION</p> <p>NO</p>                                  |
| <p>DESCRIPTION</p>   | <p>CDL ZK</p> <p>BY</p> <p>CHK</p> <p>DATE</p> <p>29JAN2020</p>             |

ELECTRONIC FILE LOCATION: I:\VSI\_System Drawings\Work In Progress Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System

- NOTES:
1. MATERIALS MEET OR EXCEED FDOT SPECIFICATION 960.
  2. FITTINGS ARE RATED TO 150 PSI.



ELEVATION VIEW

23MM EXTERNAL GROUT PORT INSTALLATION

1. CLEAN PIPE PRIOR TO GROUT PORT INSTALLATION.
2. DRILL Ø7/8" HOLE INTO PIPE.
3. CONNECT THE SOCKET WELDING DEVICE TO THE POWER SOURCE.
4. ALLOW THE SOCKET WELDING DEVICE TO REACH ITS WORKING TEMPERATURE.
5. SIMULTANEOUSLY, INSERT MALE ADAPTER OF SOCKET WELDING DEVICE FROM DRILLED HOLE AND GROUT PORT FROM FEMALE ADAPTER.
6. APPLY LIGHT PRESSURE FOR 20-25 SECONDS BY PUSHING THE GROUT PORT WITH THE PALM OF HAND.
7. SIMULTANEOUSLY, REMOVE SOCKET WELDING DEVICE FROM DRILLED HOLE AND GROUT PORT FROM FEMALE ADAPTER.
8. INSERT GROUT PORT INTO HOLE UNTIL THE SHOULDER IS REACHED.
9. THIS OPERATION SHOULD BE CARRIED OUT AS QUICKLY AND CAREFULLY AS POSSIBLE, WITHIN 5 SECONDS. FIRMLY HOLD THE PIECES TOGETHER FOR A MINIMUM OF 10 SECONDS.

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| ITEM | QTY | DESCRIPTION              | MATERIAL                           | INVENTORY # | DWG # |
|------|-----|--------------------------|------------------------------------|-------------|-------|
| 1    | -   | DUCT WHT PP 59MM PT-PLUS | WHITE POLYPROPYLENE PER ASTM D4101 | 02DT0412    | C684A |
| 2    | 1   | EXTERNAL GROUT PORT 23MM | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT0250    | C585  |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:  
59MM PT-PLUS DUCT W/ GROUTING VENT

PROJECT NO:  
SYSTEM

SHEET NO:

SCALE:  
NTS

A433

**structural  
TECHNOLOGIES**

Dallas, TX / Washington DC / Denver, CO / Pompano Beach, FL  
 STRUCTURAL TECHNOLOGIES, LLC 10150 OLD COLUMBIA RD  
 CORPORATE OFFICE COLUMBIA, MD 21046  
 PHONE: (410) 860-7000  
 structuraltechnologies.com

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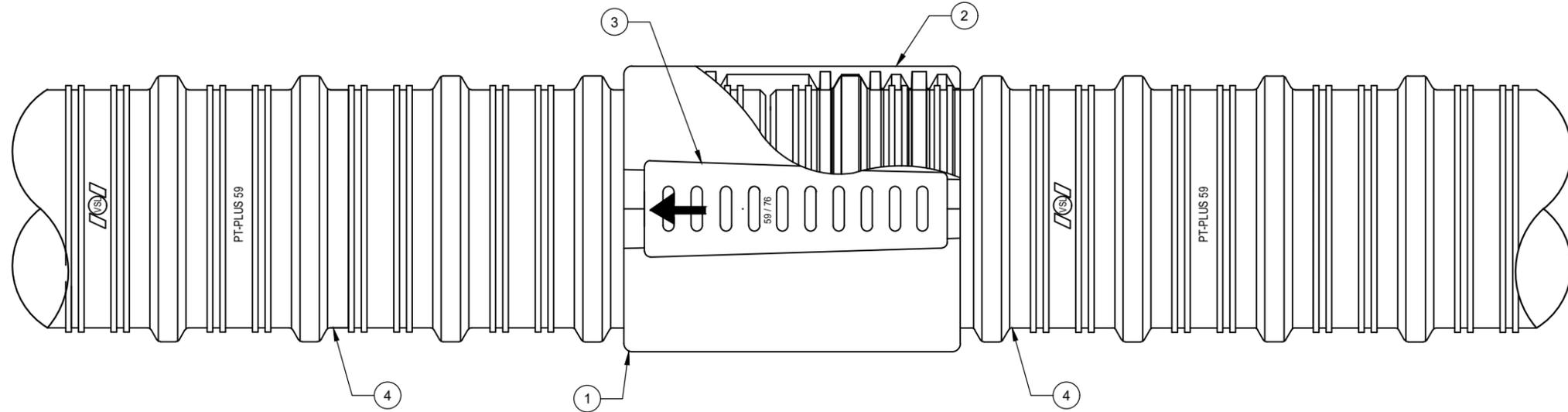
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BY

CDL ZX

29JAN2020  
 DATE

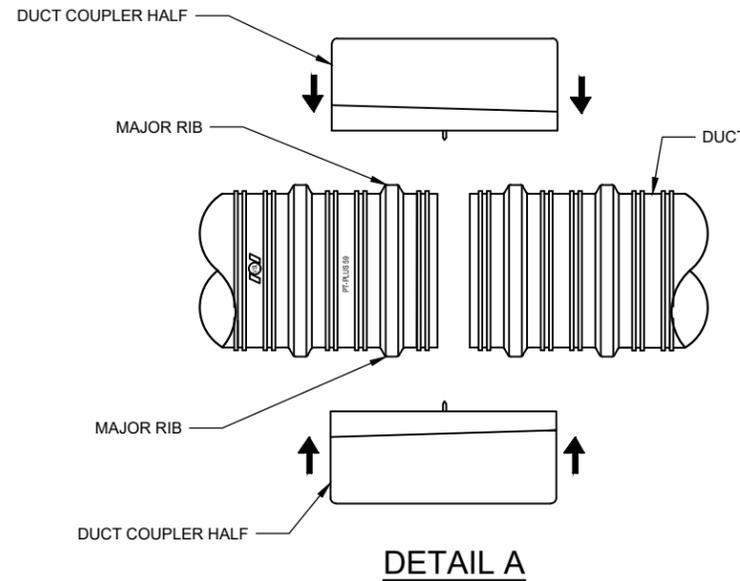
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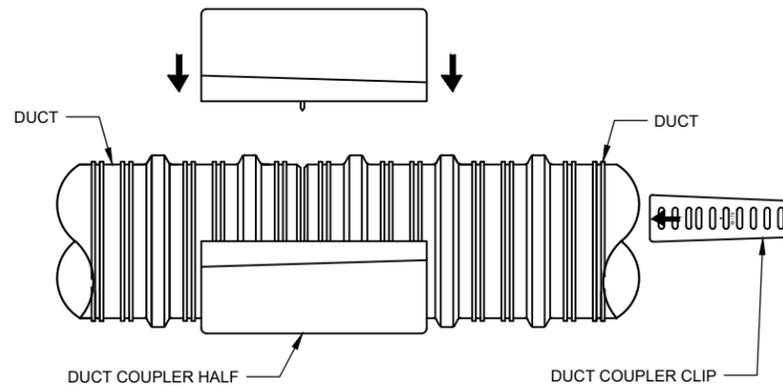
**ELEVATION VIEW**

**INSTALLATION PROCEDURES**

1. CUT DUCT HALF WAY BETWEEN 2 MAJOR RIBS SEE DETAIL A
2. INSTALL DUCT INTO COUPLER HALF. PLACE COUPLER HALF OVER MAJOR RIB. SEE DETAIL B
3. PLACE SECOND COUPLER HALF OVER DUCT, USING INTERLOCKING PINS TO CENTER SECOND COUPLER HALF
4. PARTIALLY INSTALL COUPLER CLIPS IN DIRECTION INDICATED BY ARROWS SHOWN ON COUPLER HALF.
5. INSURE BOTH DUCTS ARE SECURED IN COUPLER.
6. FINISH INSTALLATION OF CLIPS.



**DETAIL A**



**DETAIL B**

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960.

| ITEM | QTY | DESCRIPTION                     | MATERIAL                                | INVENTORY # | DWG # |
|------|-----|---------------------------------|---|-------------|-------|
| 1    | 2   | COUPLER HALF, 59 MM PT-PLUS     | BLACK POLYPROPYLENE PER ASTM D4101      | 02DTCH059   | C816  |
| 2    | 2   | SEAL (INCLUDED IN COUPLER HALF) | SANTOPRENE PER FDOT 960 TABLE 2.2.1.7-2 | 02DTCH059   | C816  |
| 3    | 2   | COUPLER CLAMP, 59 MM PT-PLUS    | BLACK POLYPROPYLENE PER ASTM D4101      | 02DT0029    | C628  |
| 4    | -   | DUCT, WHT PP, 59 MM PT-PLUS     | WHITE POLYPROPYLENE PER ASTM D4101      | 02DT0412    | C684A |

\* SEE SHEET C816 FOR COUPLER HALF, 59 MM PT-PLUS VENTED

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PHONE: (410) 860-7000  
structuralltechnologies.com

APPROVED FOR CONSTRUCTION  
CDL ZX  
NO

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:  
TYPICAL 59MM PT-PLUS DUCT TO DUCT CONNECTION

PROJECT NO:  
SYSTEM

SCALE:  
NTS

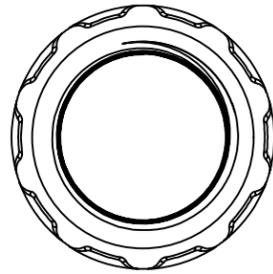
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29JAN2020

SHEET NO:  
A438

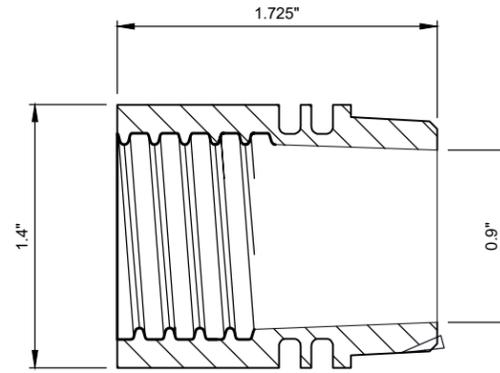
DESCRIPTION



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END VIEW



SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

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| DESCRIPTION              | MATERIAL                           | INVENTORY # |
|--------------------------|------------------------------------|-------------|
| EXTERNAL GROUT PORT 23MM | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT0250    |

PROJECT INFORMATION:

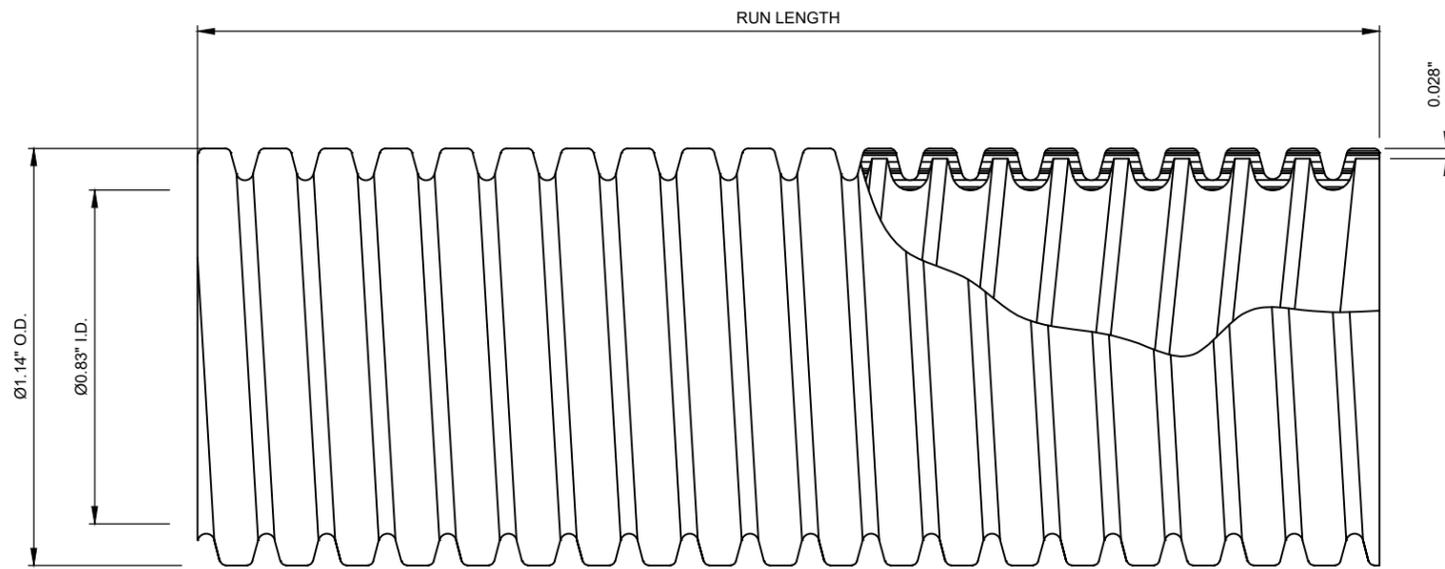
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|-------------|--------------------------|
| PROJECT NO: | SYSTEM                   |
| TITLE:      | EXTERNAL GROUT PORT 23MM |
| SHEET NO:   | C585                     |
| SCALE:      | NTS                      |

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 PHONE: (410) 850-7000  
 structuraltechnologies.com

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|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|    | DESCRIPTION               | BY     | CHK       |
|    |                           |        | DATE      |



ELECTRONIC FILE LOCATION: I:\VSI\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Grouting Accessories



SIDE VIEW

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| DESCRIPTION     | MATERIAL                  | INVENTORY # |
|-----------------|---------------------------|-------------|
| 23MM GROUT HOSE | HDPE BLACK PER ASTM D3350 | 02DT0310    |

PROJECT INFORMATION:

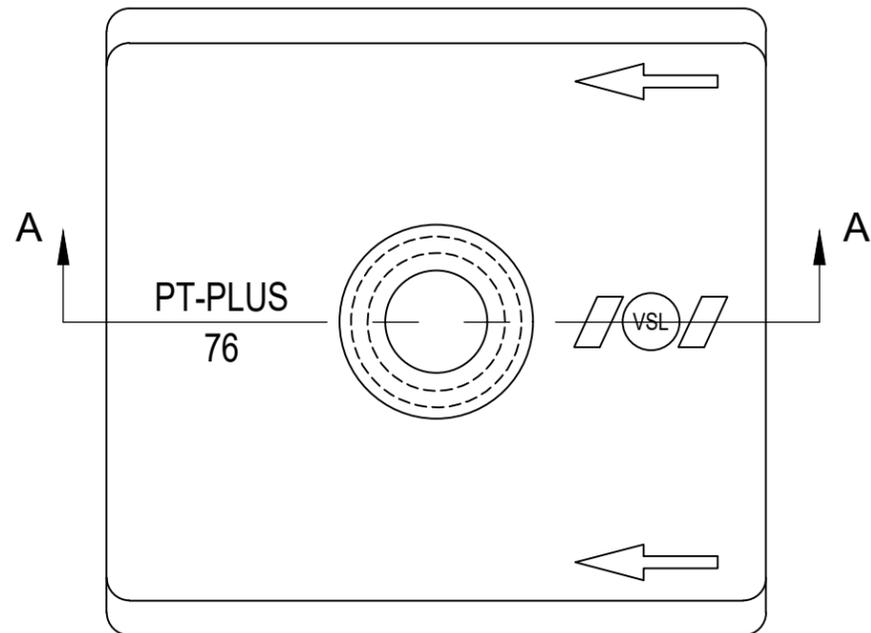
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| PROJECT NO: | SYSTEM          |
| SHEET NO:   | NTS             |
| TITLE:      | 23MM GROUT HOSE |

**structural TECHNOLOGIES**

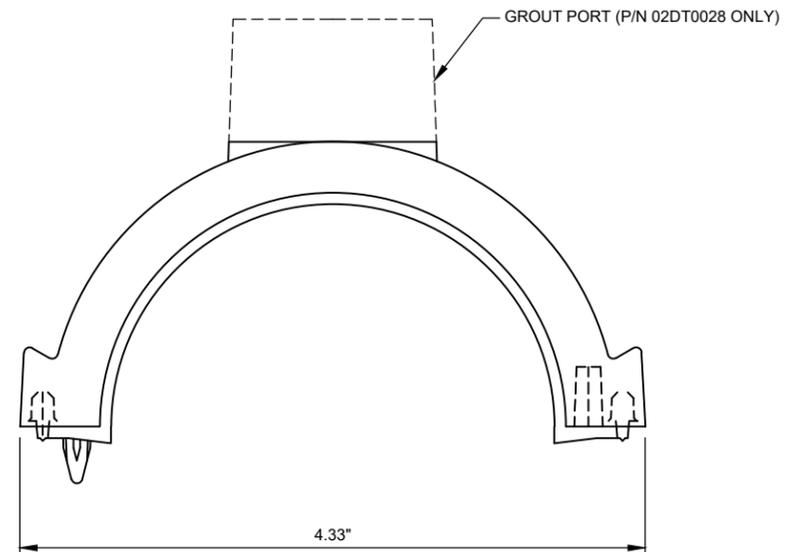
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 CORPORATE OFFICE COLUMBIA, MD 21046

PHONE: (410) 860-7000  
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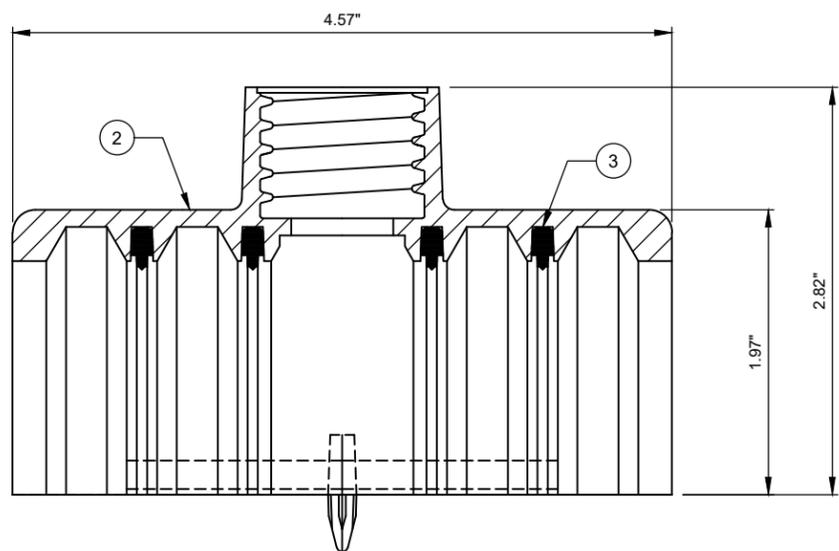
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| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
| NO | DESCRIPTION               | BY     | CHK       |
|    |                           |        | DATE      |



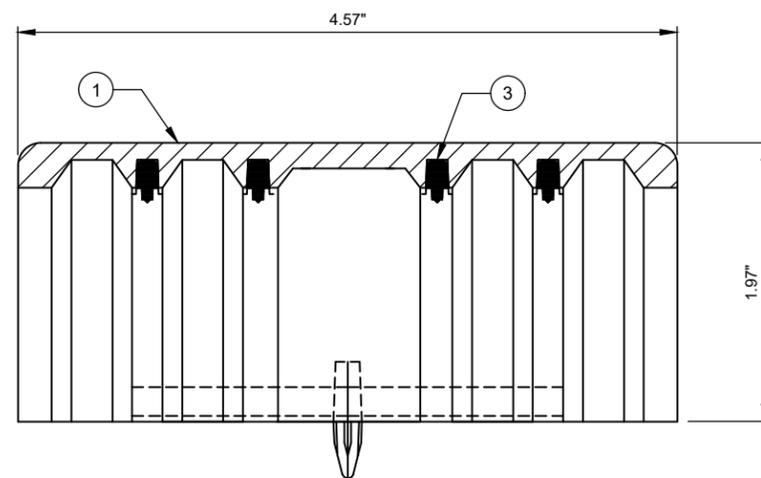
TOP VIEW



SIDE VIEW



HALF SHELL W/ VENT  
SECTION A-A



HALF SHELL W/O VENT  
SECTION A-A

ELECTRONIC FILE LOCATION: I:\VSL\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\ECI 6-12 Grouted System

| ITEM | DESCRIPTION                                  | MATERIAL                                | INVENTORY # |
|------|--|---|-------------|
| 1    | 76MM PT-PLUS DUCT COUPLER HALF SHELL         | BLACK POLYPROPYLENE PER ASTM D4101      | 02DT0027    |
| 2    | 76MM PT-PLUS DUCT COUPLER HALF SHELL W/ VENT | BLACK POLYPROPYLENE PER ASTM D4101      | 02DT0028    |
| 3    | SEAL   | SANTOPRENE PER FDOT 960 TABLE 2.2.1.7-2 | INCLUDED    |

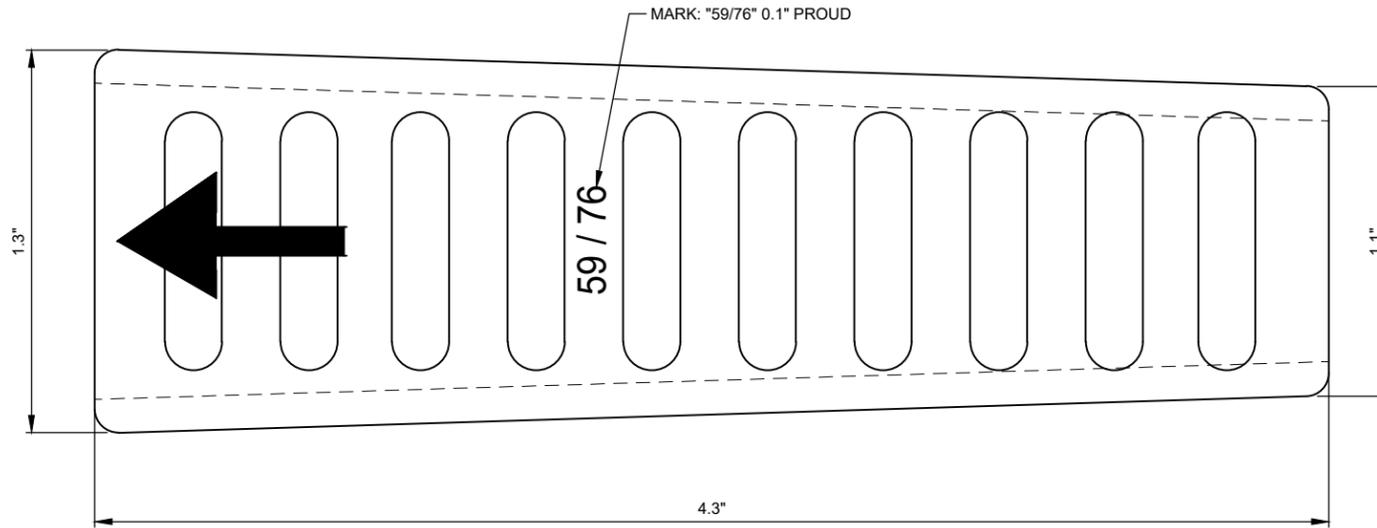
- NOTES:
- MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960.
  - USE TWO HALF-SHELLS W/O VENT (INV. #02DT0027) FOR STANDARD DUCT COUPLING.
  - USE ONE HALF-SHELL W/O VENT (INV. #02DT0027) AND ONE HALF-SHELL W/ VENT (INV. #02DT0028) FOR DUCT COUPLING WHERE A GROUT VENT IS NEEDED.

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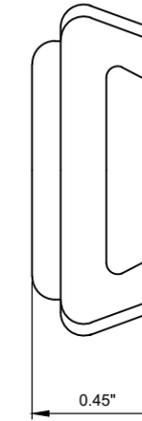
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|  |  | NO                        | BY     | DATE      |
| <p>PROJECT INFORMATION:</p> <p>SYSTEM DRAWING</p> <p>76MM PT-PLUS DUCT COUPLER, HALF SHELL VENTED &amp; NON-VENTED</p>   |  | DESCRIPTION               | CHK    | DATE      |
| <p>PROJECT NO: SYSTEM</p> <p>SHEET NO: C626</p>  |  | NO                        | BY     | DATE      |

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TOP VIEW



SIDE VIEW

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| DESCRIPTION          | MATERIAL                           | INVENTORY # |
|----------------------|------------------------------------|-------------|
| 59/76MM PT-PLUS CLIP | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT0029    |

PROJECT INFORMATION:

SYSTEM DRAWING

59/76MM PT-PLUS CLIP

PROJECT NO:  
SYSTEM

SCALE:  
NTS

SHEET NO:

C628

|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
| NO | DESCRIPTION               | BY     | CHK       |
| NO | DATE                      | DATE   | DATE      |

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CORPORATE OFFICE

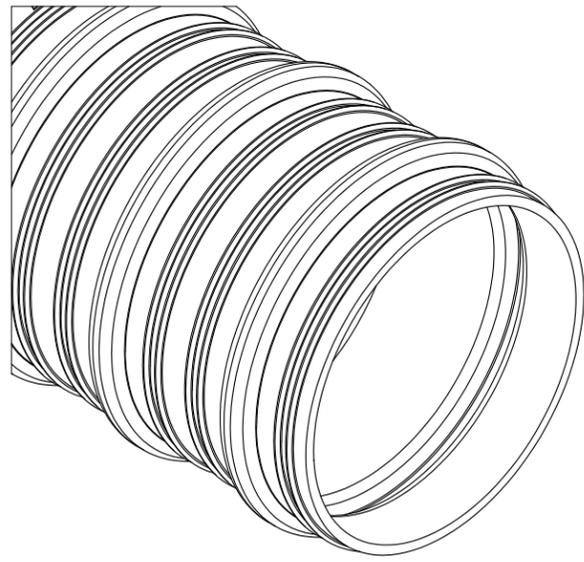
10150 OLD COLUMBIA RD  
COLUMBIA, MD 21046

Dallas, TX / Washington DC / Denver, CO / Pompano Beach, FL

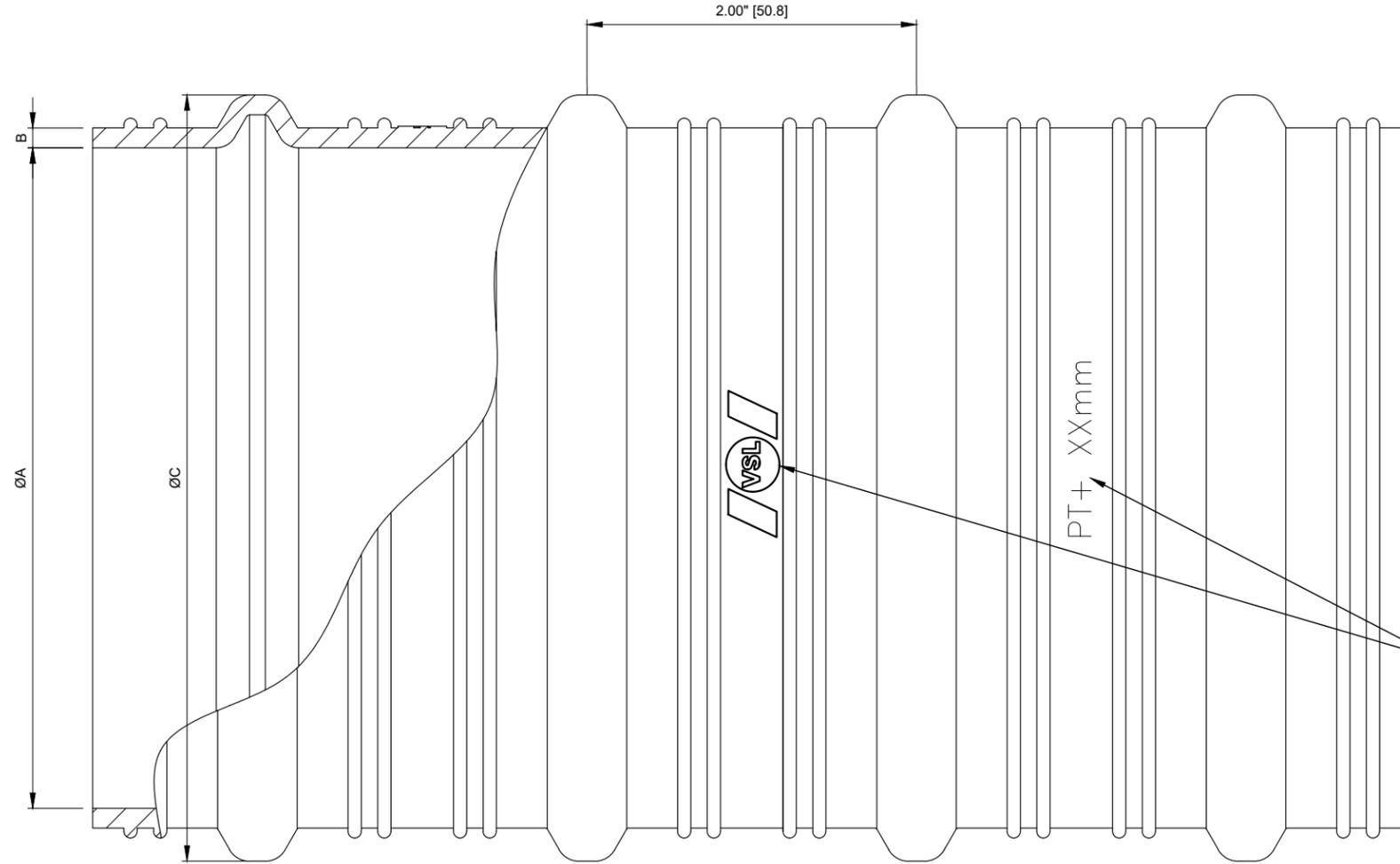
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structuraltechnologies.com

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ELECTRONIC FILE LOCATION: I:\VSL\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crafting Accessories



3D VIEW



SIDE VIEW

MOLDED NOTES:  
 VSL LOGO, REPEAT EVERY 6'-0"  
 REPLACE "XX" WITH ACTUAL DUCT SIZE  
 (48, 59, 76, 85, 100, 115, 130, 150)

PRINTED NOTES:  
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 A RUNNING LABEL WILL INCLUDE AT A  
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 - VSL LOGO  
 - DUCT SIZE  
 - DATE OR BATCH CODE

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| DUCT TYPE | ØA - DUCT INNER DIAMETER, INCHES (MM) | B - WALL THICKNESS NOMINAL, INCHES (MM) | ØC - DUCT MAJOR DIAMETER NOM., INCHES (MM) | MATERIAL                           | INVENTORY # |
|-----------|---------------------------------------|---|--|------------------------------------|-------------|
| 59MM      | 2.32 (59)                             | 0.1 (2.54)                              | 2.87 (73)                                  | WHITE POLYPROPYLENE PER ASTM D4101 | 02DT0412    |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE: VSL 59MM PT-PLUS ROUND DUCT

PROJECT NO: SYSTEM

SHEET NO:

SCALE: NTS

C684A

**structural TECHNOLOGIES**

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 PHONE: (410) 850-7000  
 structuraltechnologies.com

APPROVED FOR CONSTRUCTION

DESCRIPTION

NO

BY

CHK

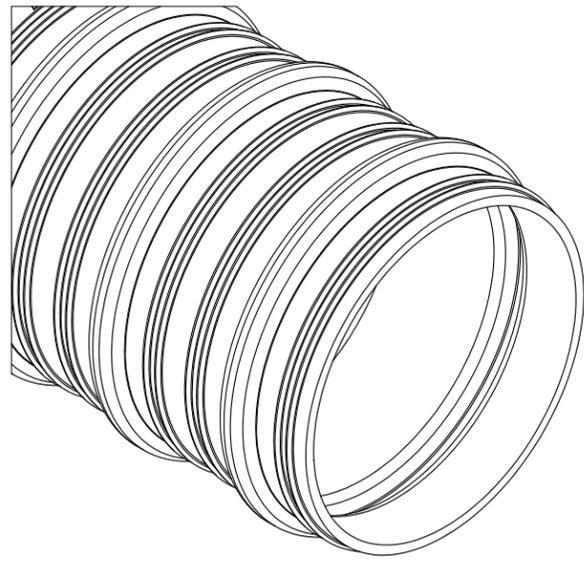
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29JAN2020

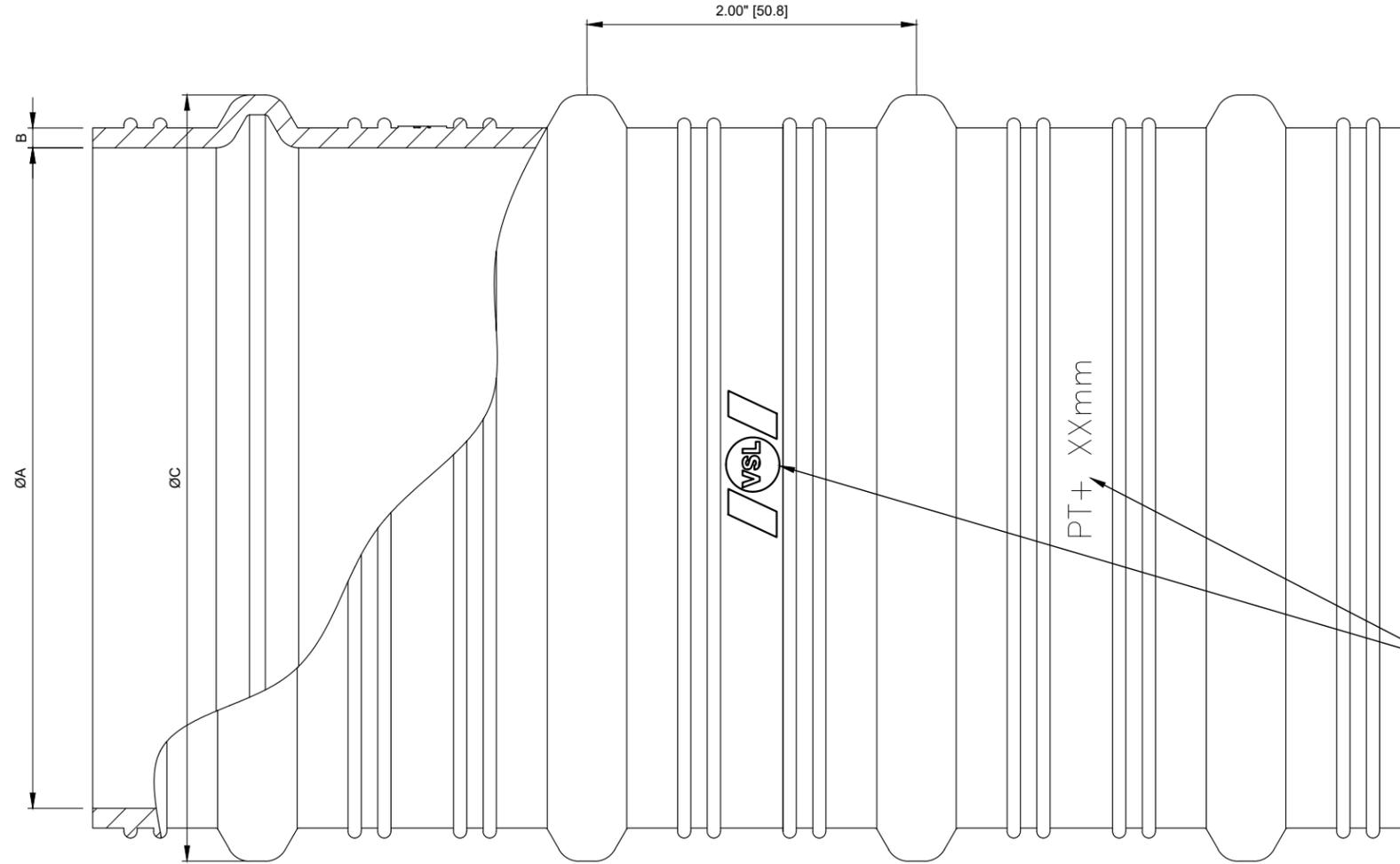
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CDL

ELECTRONIC FILE LOCATION: I:\VSL\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Grouting Accessories



**3D VIEW**



**SIDE VIEW**

**MOLDED NOTES:**  
 VSL LOGO, REPEAT EVERY 6'-0"  
 REPLACE "XX" WITH ACTUAL DUCT SIZE  
 (48, 59, 76, 85, 100, 115, 130, 150)

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 - DUCT SIZE  
 - DATE OR BATCH CODE

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| DUCT TYPE | ØA - DUCT INNER DIAMETER, INCHES (MM) | B - WALL THICKNESS NOMINAL, INCHES (MM) | ØC - DUCT MAJOR DIAMETER NOM., INCHES (MM) | MATERIAL                           | INVENTORY # |
|-----------|---------------------------------------|---|--|------------------------------------|-------------|
| 76MM      | 2.99 (76)                             | 0.12 (3.05)                             | 3.58 (91)                                  | WHITE POLYPROPYLENE PER ASTM D4101 | 02DT0426    |

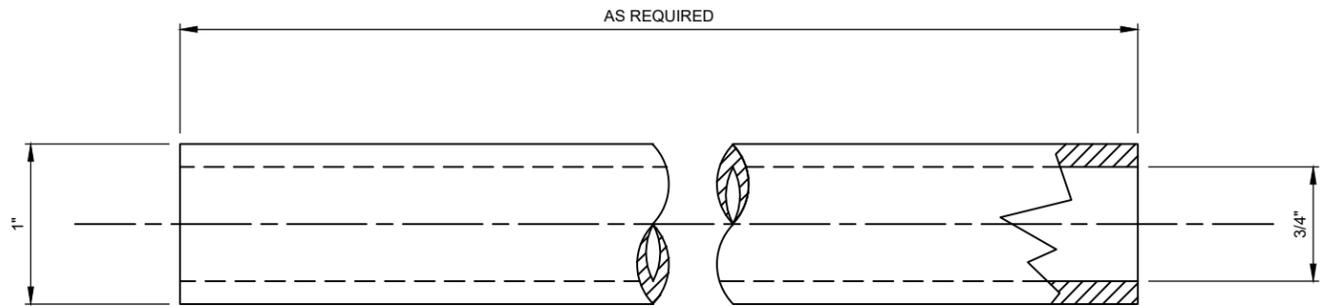
|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|    | DESCRIPTION               | BY     | CHK       |
|    |                           |        | DATE      |

**structural TECHNOLOGIES**  
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 PHONE: (410) 850-7000  
 structuraltechnologies.com

STRUCTURAL TECHNOLOGIES, LLC  
 10150 OLD COLUMBIA RD  
 COLUMBIA, MD 21046  
 CORPORATE OFFICE

|                             |               |
|-----------------------------|---------------|
| <b>SYSTEM DRAWING</b>       |               |
| VSL 76MM PT-PLUS ROUND DUCT |               |
| PROJECT NO:<br>SYSTEM       | SCALE:<br>NTS |
| SHEET NO:<br><b>C684B</b>   |               |

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

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| DESCRIPTION      | MATERIAL                  | INVENTORY # |
|------------------|---------------------------|-------------|
| 3/4" SMOOTH HOSE | HDPE BLACK PER ASTM D3350 | 02DT01901   |

PROJECT INFORMATION:

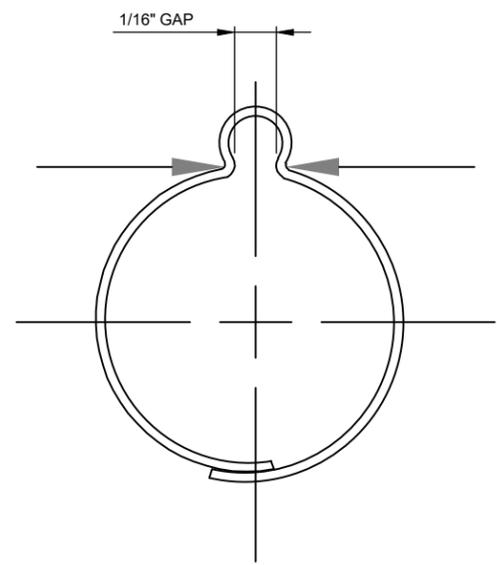
|             |                  |
|-------------|------------------|
| PROJECT NO: | SYSTEM           |
| SHEET NO:   | NTS              |
| TITLE:      | 3/4" SMOOTH HOSE |

|    |                           |
|----|---------------------------|
| NO | APPROVED FOR CONSTRUCTION |
|----|---------------------------|

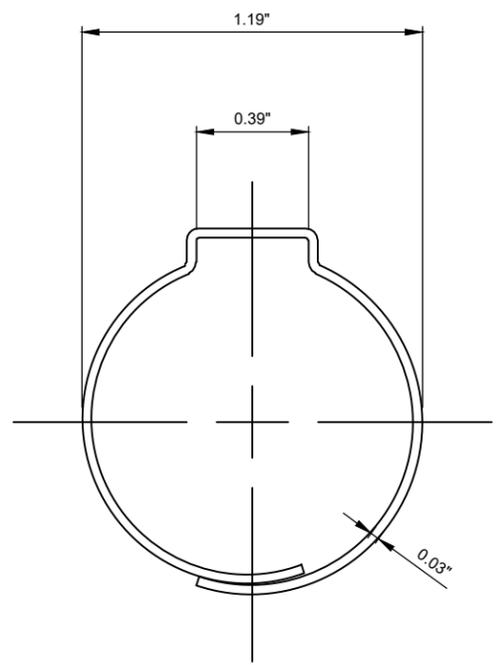
|             |     |           |
|-------------|-----|-----------|
| CDL         | ZX  | 29JAN2020 |
| BY          | CHK | DATE      |
| DESCRIPTION |     |           |

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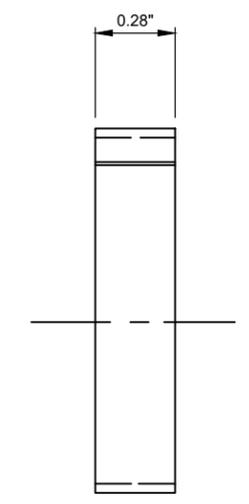
ELECTRONIC FILE LOCATION: I:\SVI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



**INSTALLED**  
**[AFTER CRIMPING]**



**OPEN**  
**[AS SUPPLIED]**



**SIDE VIEW**

**INSTALLATION INSTRUCTIONS:**

1. SLIDE BAND OVER HOSE AND ALIGN OVER BARBS ON FITTING
2. CRIMP EAR ON BAND WITH PLIERS USING EITHER DIAGONAL CUTTERS OR END NIPPERS

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| DESCRIPTION             | MATERIAL                          | INVENTORY # |
|-------------------------|-----------------------------------|-------------|
| 3/4" ONE EAR BAND CLAMP | 316 STAINLESS STEEL PER ASTM A240 | 02DT01905   |

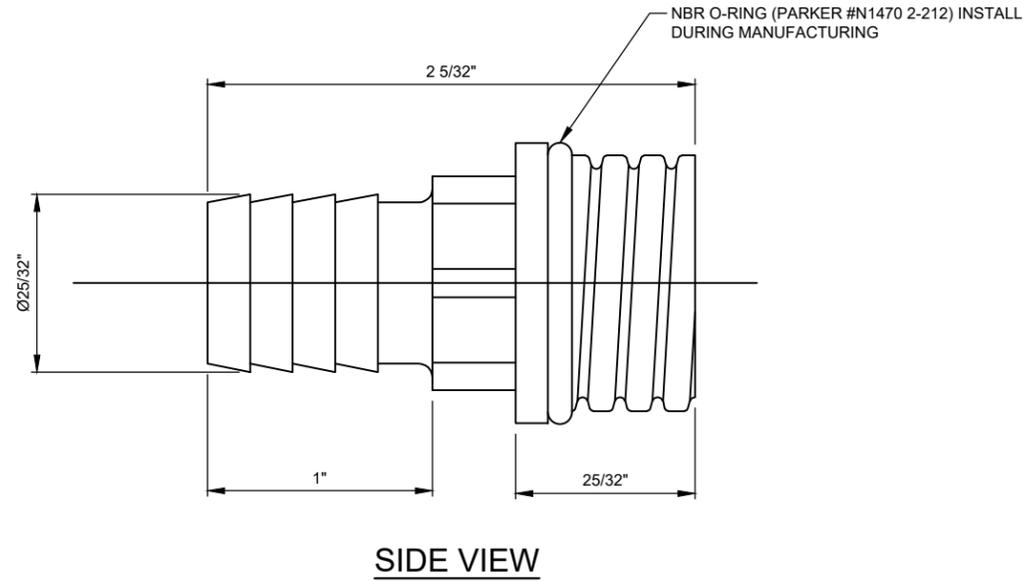
PROJECT INFORMATION:

|             |                         |
|-------------|-------------------------|
| PROJECT NO: | SYSTEM                  |
| SHEET NO:   | NTS                     |
| TITLE:      | 3/4" ONE EAR BAND CLAMP |

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|                           |           |
|---------------------------|-----------|
| APPROVED FOR CONSTRUCTION | NO        |
| DESCRIPTION               | BY        |
|                           | CDL ZX    |
|                           | CHK       |
|                           | DATE      |
|                           | 29JAN2020 |

ELECTRONIC FILE LOCATION: I:\SVI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



**SIDE VIEW**

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

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| DESCRIPTION                    | MATERIAL                           | INVENTORY # |
|--------------------------------|------------------------------------|-------------|
| 3/4" HOSE BARB TO 23MM FITTING | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT01903   |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:  
3/4" HOSE BARB TO 23MM FITTING

PROJECT NO:  
SYSTEM

SCALE:  
NTS

SHEET NO:

C692

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

CDL ZX

29JAN2020

DATE

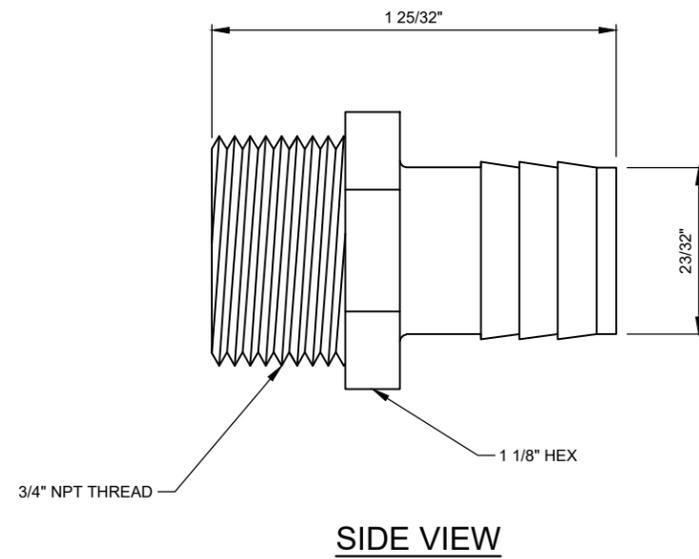
BY

CHK

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 structuraltechnologies.com

ELECTRONIC FILE LOCATION: I:\SVS\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



**SIDE VIEW**

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| DESCRIPTION                        | MATERIAL                           | INVENTORY # |
|------------------------------------|------------------------------------|-------------|
| 3/4" HOSE BARB TO 3/4" NPT FITTING | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT01908   |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:  
**3/4" HOSE BARB TO 3/4" NPT FITTING**

PROJECT NO:  
**SYSTEM**

SHEET NO:

SCALE:  
**NTS**

**C694**

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

BY

CDL ZX

CHK

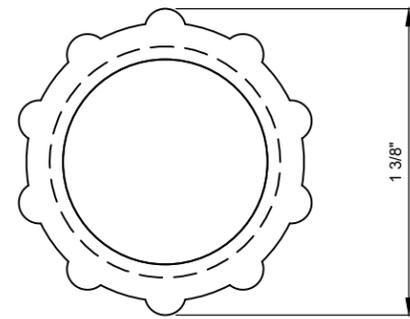
DATE

29JAN2020

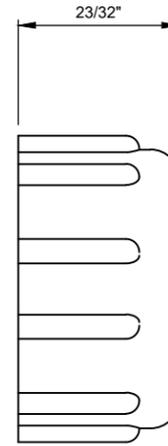
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ELECTRONIC FILE LOCATION: I:\VSI\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Grouting Accessories



TOP VIEW



SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

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| DESCRIPTION             | MATERIAL                           | INVENTORY # |
|-------------------------|------------------------------------|-------------|
| RIBBED CAP W/ 3/4" FNPT | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT01912   |

PROJECT INFORMATION:

SYSTEM DRAWING

RIBBED CAP W/ 3/4" FNPT

PROJECT NO:  
SYSTEM

SCALE:  
NTS

SHEET NO:

C701

NO

APPROVED FOR CONSTRUCTION

CDL ZX

BY

CHK

DESCRIPTION

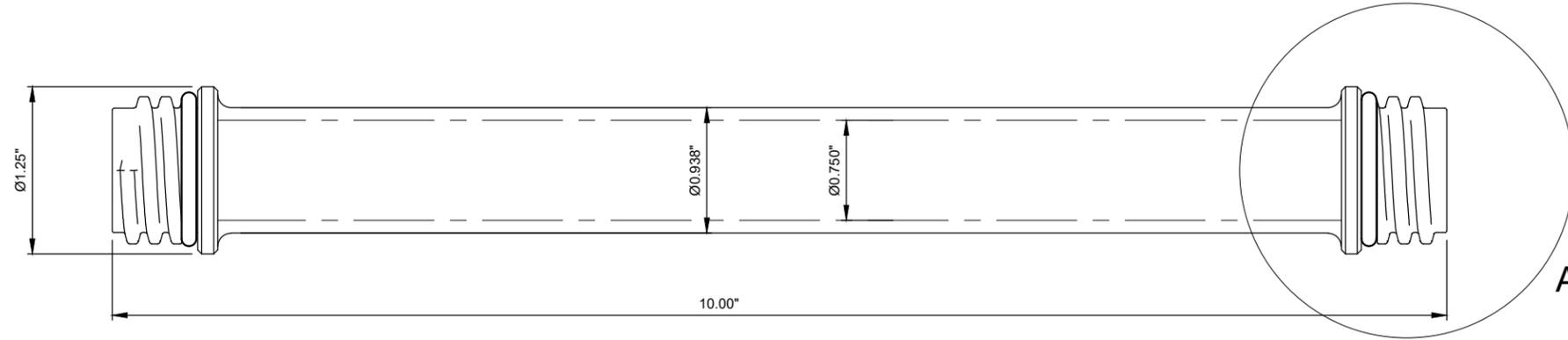
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29JAN2020

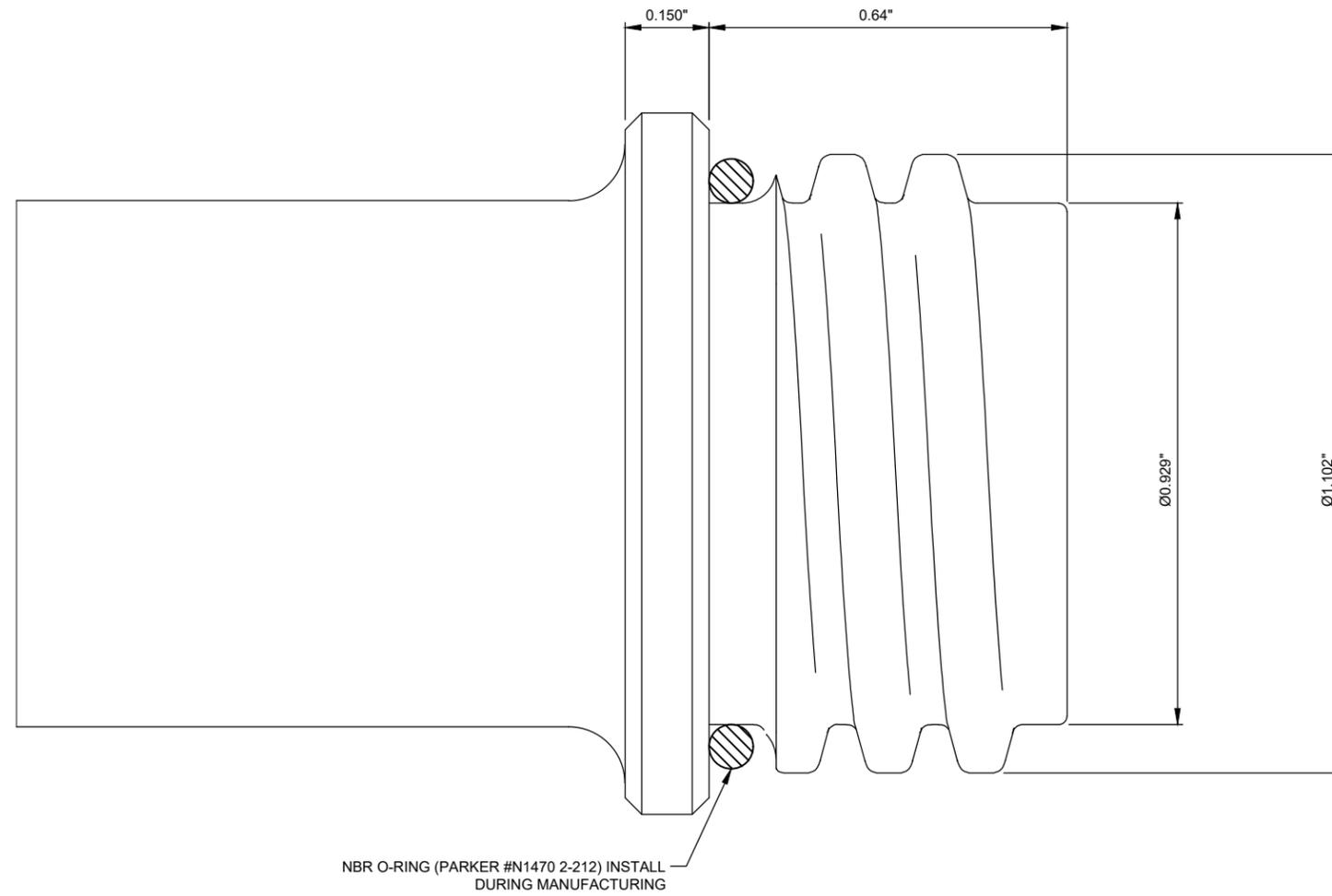
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ELECTRONIC FILE LOCATION: I:\SVI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Grouting Accessories



**SIDE VIEW**



**DETAIL A**

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

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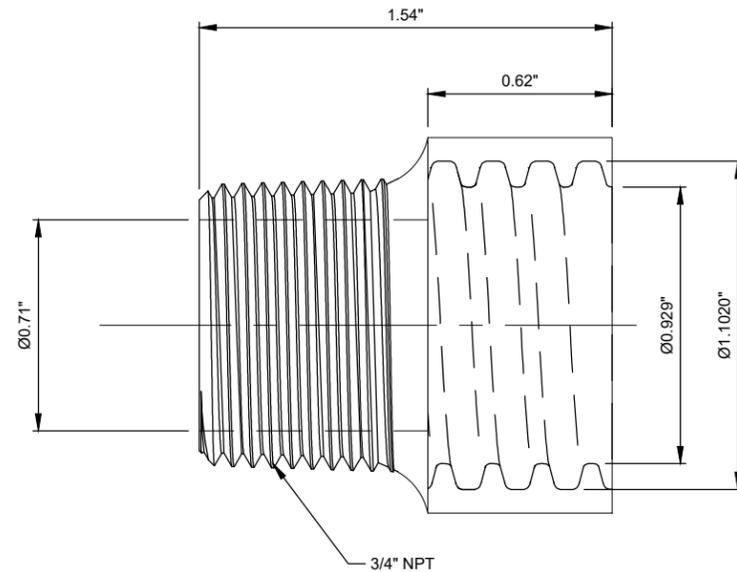
| DESCRIPTION                   | MATERIAL                           | INVENTORY # |
|-------------------------------|------------------------------------|-------------|
| BEARING PLATE GROUT EXTENSION | WHITE POLYPROPYLENE PER ASTM D4101 | 02DT0318    |

|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|    | DESCRIPTION               | BY     | DATE      |

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 PHONE: (410) 850-7000 structuraltechnologies.com

|                      |                         |
|----------------------|-------------------------|
| PROJECT INFORMATION: | SYSTEM DRAWINGS         |
| TITLE:               | 23MM BP GROUT EXTENSION |
| PROJECT NO:          | SYSTEM                  |
| SCALE:               | NTS                     |
| SHEET NO:            | C714                    |

ELECTRONIC FILE LOCATION: I:\SVI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



**SECTION VIEW**

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

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| DESCRIPTION                    | MATERIAL                           | INVENTORY # |
|--------------------------------|------------------------------------|-------------|
| BR PLATE BUSHING 3/4" NPT 23MM | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT0316    |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:  
**BR PLATE BUSHING 3/4" NPT 23MM**

PROJECT NO:  
**SYSTEM**

SHEET NO:

SCALE:  
**NTS**

**C715**

NO

APPROVED FOR CONSTRUCTION

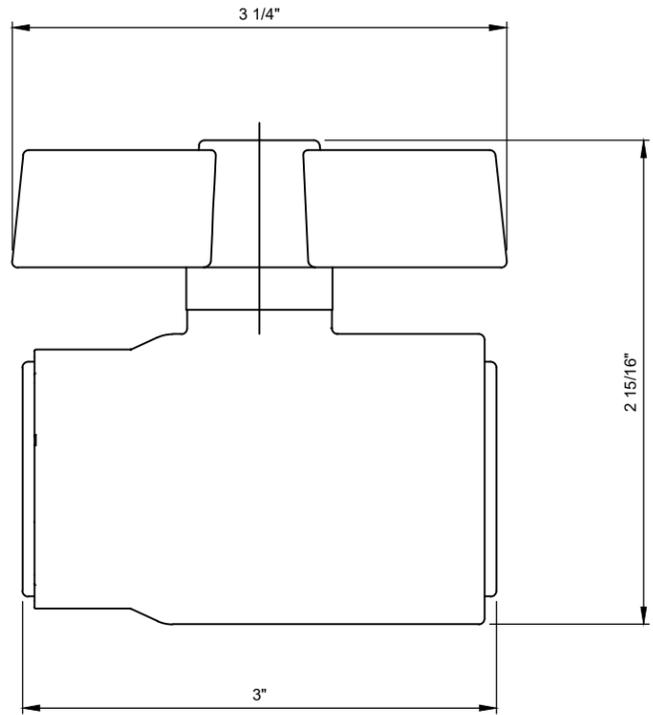
BY  
CDL ZX

DATE  
29JAN2020

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 PHONE: (410) 850-7000  
 structuraltechnologies.com

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960 THIS IS A TEMPORARY ITEM

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| DESCRIPTION                          | MATERIAL         | INVENTORY # |
|--------------------------------------|------------------|-------------|
| PVC 1/4 TURN BALL VALVE W/ 3/4" FNPT | WHITE SCH 80 PVC | 02DT01916   |

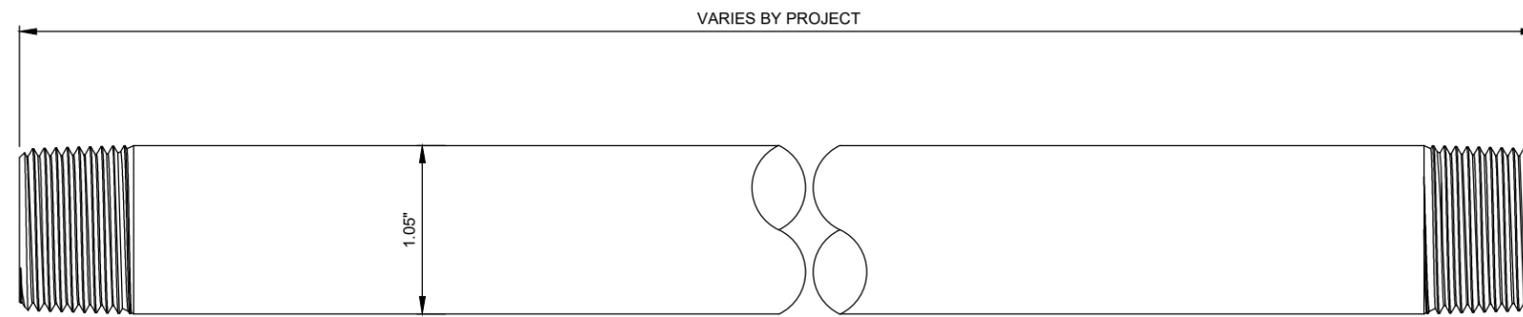
PROJECT INFORMATION:

|             |                                      |
|-------------|--------------------------------------|
| PROJECT NO: | SYSTEM                               |
| SHEET NO:   | C720                                 |
| TITLE:      | PVC 1/4 TURN BALL VALVE W/ 3/4" FNPT |

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 STRUCTURAL TECHNOLOGIES, LLC 10150 OLD COLUMBIA RD COLUMBIA, MD 21046  
 PHONE: (410) 850-7000 structuraltechnologies.com

|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
| NO | DESCRIPTION               | BY     | CHK       |
|    |                           |        | DATE      |

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

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| DESCRIPTION        | MATERIAL                                  |
|--------------------|---|
| 3/4" NPT PP NIPPLE | SCH 80 BLACK POLYPROPYLENE PER ASTM D4101 |

PROJECT INFORMATION:

SYSTEM DRAWING

3/4" NPT PP NIPPLE

PROJECT NO:  
SYSTEM

SCALE:  
NTS

SHEET NO:

C723

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

CDL ZX

BY

CHK

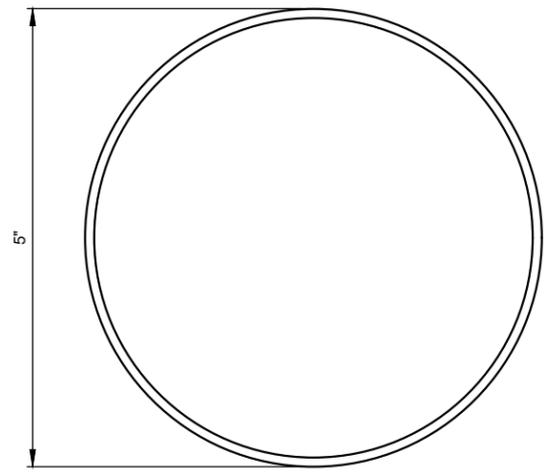
DATE

29JAN2020

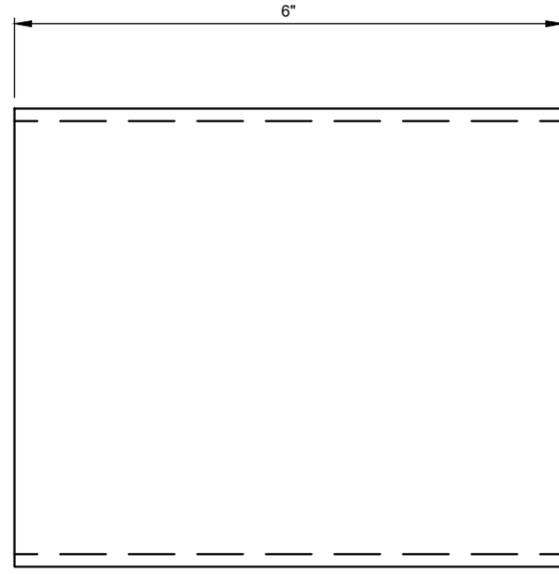
**structural TECHNOLOGIES**

Dallas, TX / Washington DC / Denver, CO / Pompano Beach, FL  
 STRUCTURAL TECHNOLOGIES, LLC 10150 OLD COLUMBIA RD  
 CORPORATE OFFICE COLUMBIA, MD 21046  
 PHONE: (410) 850-7000  
 structuraltechnologies.com

ELECTRONIC FILE LOCATION: I:\VSI\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\EC 6-12 Grouded System



END VIEW



SIDE VIEW

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| DESCRIPTION                              | MATERIAL                           | INVENTORY # |
|--|------------------------------------|-------------|
| CANUSA PLA-90-YE x 6" HEAT SHRINK SLEEVE | POLYOLEFIN PER TABLE 960 2.2.1.8-1 | 02DT0505    |

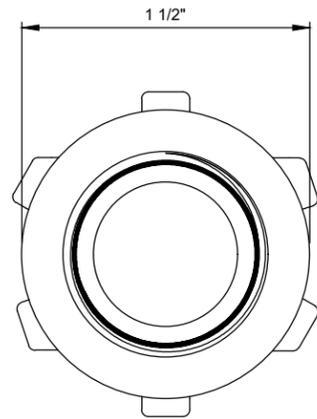
PROJECT INFORMATION:

|             |                                      |
|-------------|--------------------------------------|
| PROJECT NO: | SYSTEM                               |
| SHEET NO:   | NTS                                  |
| TITLE:      | PLA-90-YE 90MMx6" HEAT SHRINK SLEEVE |

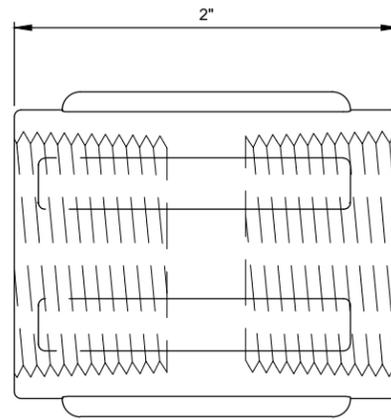
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|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|    | DESCRIPTION               | BY     | DATE      |

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



END VIEW



SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

| DESCRIPTION             | MATERIAL                                  | INVENTORY # |
|-------------------------|---|-------------|
| 3/4" NPT PP F/F COUPLER | SCH 80 BLACK POLYPROPYLENE PER ASTM D4101 | 02DT01931   |

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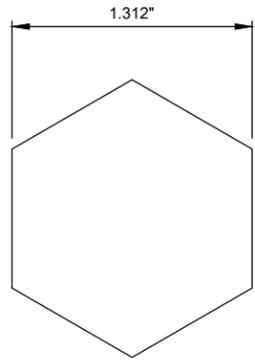
PROJECT INFORMATION:

|             |                         |
|-------------|-------------------------|
| PROJECT NO: | SYSTEM                  |
| TITLE:      | 3/4" NPT PP F/F COUPLER |
| SHEET NO:   | C775                    |

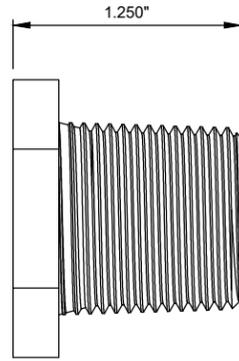
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 STRUCTURAL TECHNOLOGIES, LLC 10150 OLD COLUMBIA RD  
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|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|    | DESCRIPTION               | BY     | CHK       |
|    |                           |        | DATE      |

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



END VIEW



SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

| DESCRIPTION      | MATERIAL                  | INVENTORY # |
|------------------|---------------------------|-------------|
| 3/4" NPT PE PLUG | BLACK HDPE PER ASTM D3350 | 02DT01913   |

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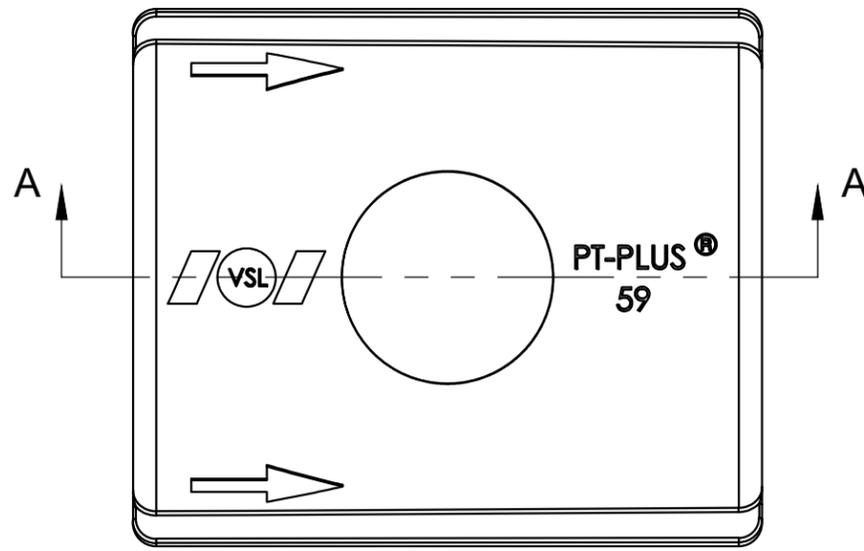
PROJECT INFORMATION:

|             |                  |
|-------------|------------------|
| PROJECT NO: | SYSTEM           |
| TITLE:      | 3/4" NPT PE PLUG |
| SHEET NO:   | C787             |

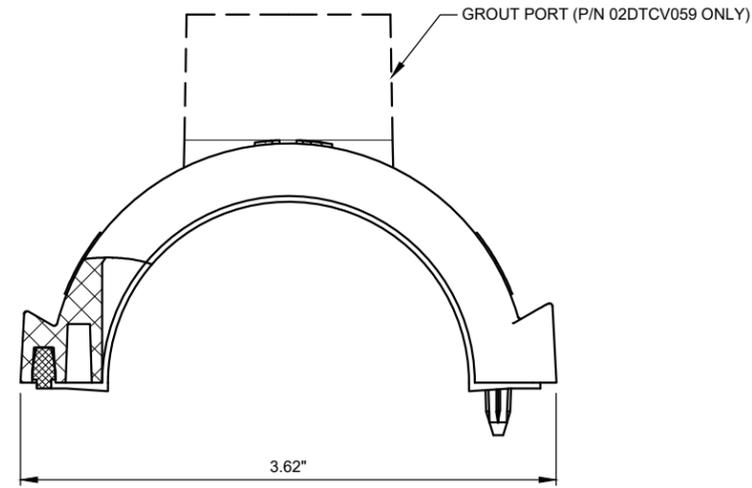
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|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|    | DESCRIPTION               | BY     | CHK       |
|    |                           |        | DATE      |

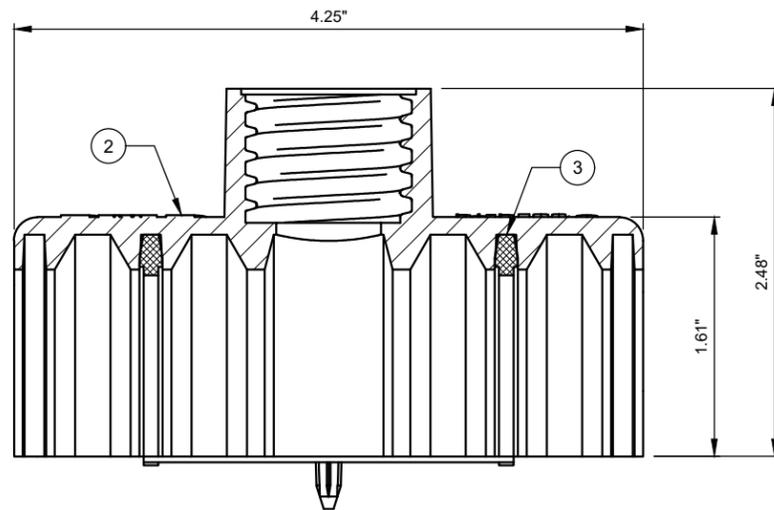




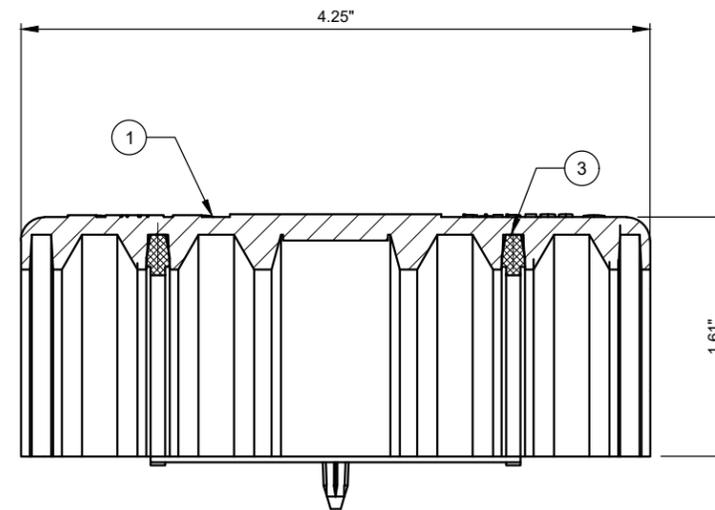
TOP VIEW



SIDE VIEW



HALF SHELL W/ VENT  
SECTION A-A



HALF SHELL W/O VENT  
SECTION A-A

NOTES:

1. MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960.
2. USE TWO HALF-SHELLS W/O VENT (INV. #02DTCH0059) FOR STANDARD DUCT COUPLING.
3. USE ONE HALF-SHELL W/O VENT (INV. #02DTCH0059) AND ONE HALF-SHELL W/ VENT (INV. #02DTCV059) FOR DUCT COUPLING WHERE A GROUT VENT IS NEEDED.

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ELECTRONIC FILE LOCATION: I:\VSL\_System Drawings\Work In Progress Drawings\Florida DOT Test 2017\EG 6-7 Grouted System

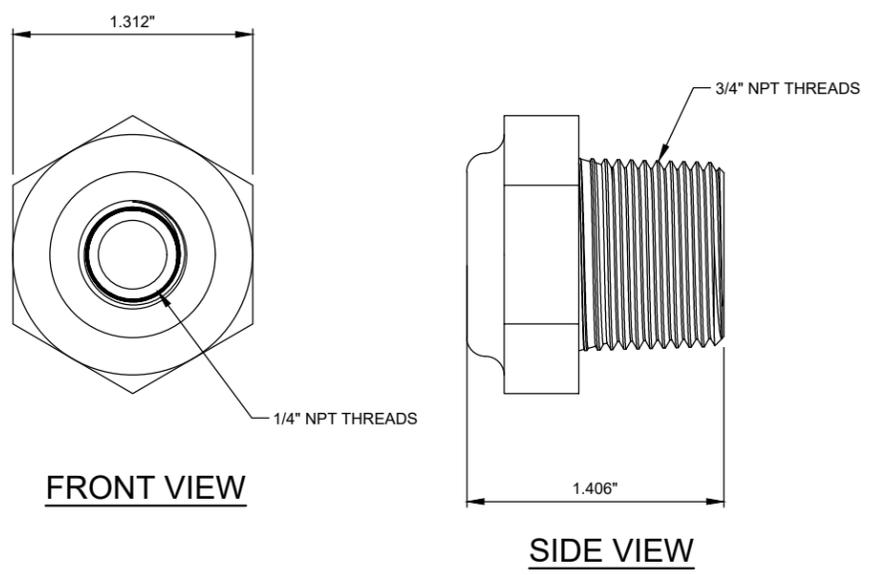
| ITEM | DESCRIPTION                                  | MATERIAL                                | INVENTORY # |
|------|--|---|-------------|
| 1    | 59MM PT-PLUS DUCT COUPLER HALF SHELL         | BLACK POLYPROPYLENE PER ASTM D4101      | 02DTCH059   |
| 2    | 59MM PT-PLUS DUCT COUPLER HALF SHELL W/ VENT | BLACK POLYPROPYLENE PER ASTM D4101      | 02DTCV059   |
| 3    | SEAL   | SANTOPRENE PER FDOT 960 TABLE 2.2.1.7-2 | INCLUDED    |

|                           |        |           |
|---------------------------|--------|-----------|
| APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
| DESCRIPTION               | BY     | CHK       |
| NO                        |        | DATE      |

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 PHONE: (410) 850-7000  
 structuraltechnologies.com

|                      |   |
|----------------------|---|
| PROJECT INFORMATION: | SYSTEM DRAWING  |
| TITLE:               | 59MM PT-PLUS DUCT COUPLER HALF SHELL, VENTED & NON-VENTED |
| PROJECT NO:          | SYSTEM  |
| SCALE:               | NTS   |
| SHEET NO:            | C816  |

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.75 External Grouted Bar System



NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960.

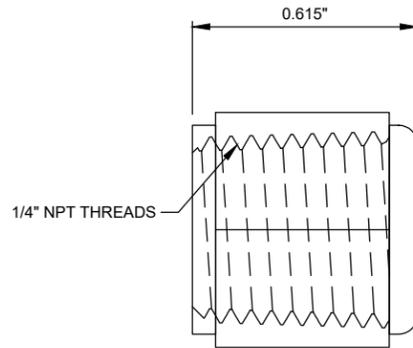
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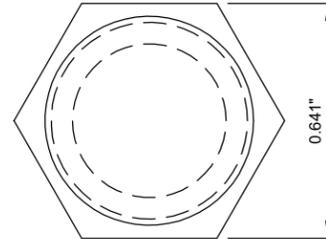
| DESCRIPTION                  | MATERIAL         | INVENTORY |
|------------------------------|------------------|-----------|
| 1/4" NPT TO 3/4" NPT BUSHING | SCH 80 WHITE PVC | 02DT01935 |

|   |  |   |                           |        |           |
|---|--|---|---------------------------|--------|-----------|
| <p><b>structural TECHNOLOGIES</b></p> <p>Dallas, TX / Washington DC / Denver, CO / Pompano Beach, FL</p> <p>STRUCTURAL TECHNOLOGIES, LLC 10150 OLD COLUMBIA RD COLUMBIA, MD 21046</p> <p>PHONE: (410) 850-7000 structuraltechnologies.com</p> |  | NO  | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|   |  | NO  | DESCRIPTION               | BY     | CHK       |
| <p>PROJECT INFORMATION:</p> <p><b>SYSTEM DRAWING</b></p> <p><b>1/4" NPT TO 3/4" NPT PVC BUSHING</b></p>   |  | <p>PROJECT NO: SYSTEM</p> <p>SHEET NO: C857</p> |                           |        |           |

ELECTRONIC FILE LOCATION: I:\SVS\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.75 External Grouted Bar System



SIDE VIEW



FRONT VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960.

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| DESCRIPTION             | MATERIAL                           | INVENTORY |
|-------------------------|------------------------------------|-----------|
| 1/4" NPT FEMALE HEX CAP | BLACK POLYPROPYLENE PER ASTM D4101 | 02DT01907 |

PROJECT INFORMATION:

SYSTEM DRAWING

1/4" NPT FEMALE HEX CAP

PROJECT NO:  
SYSTEM

SHEET NO:

SCALE:  
NTS

C858

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

BY

CHK

CDL ZX

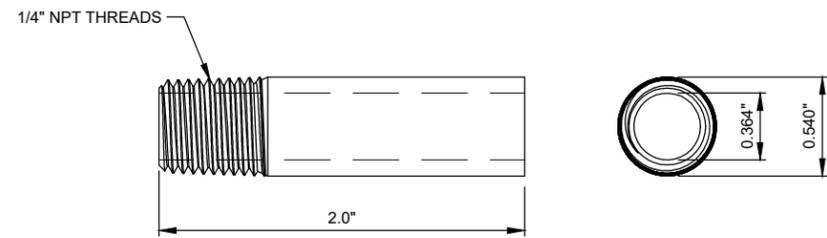
DATE

29JAN2020

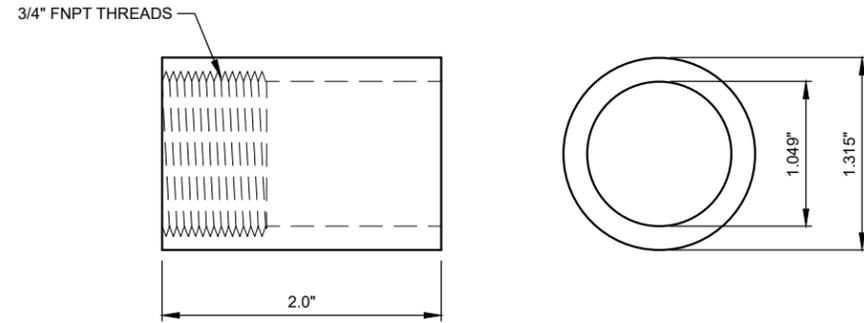
**structural TECHNOLOGIES**

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 STRUCTURAL TECHNOLOGIES, LLC 10150 OLD COLUMBIA RD  
 CORPORATE OFFICE COLUMBIA, MD 21046  
 PHONE: (410) 850-7000  
 structuraltechnologies.com

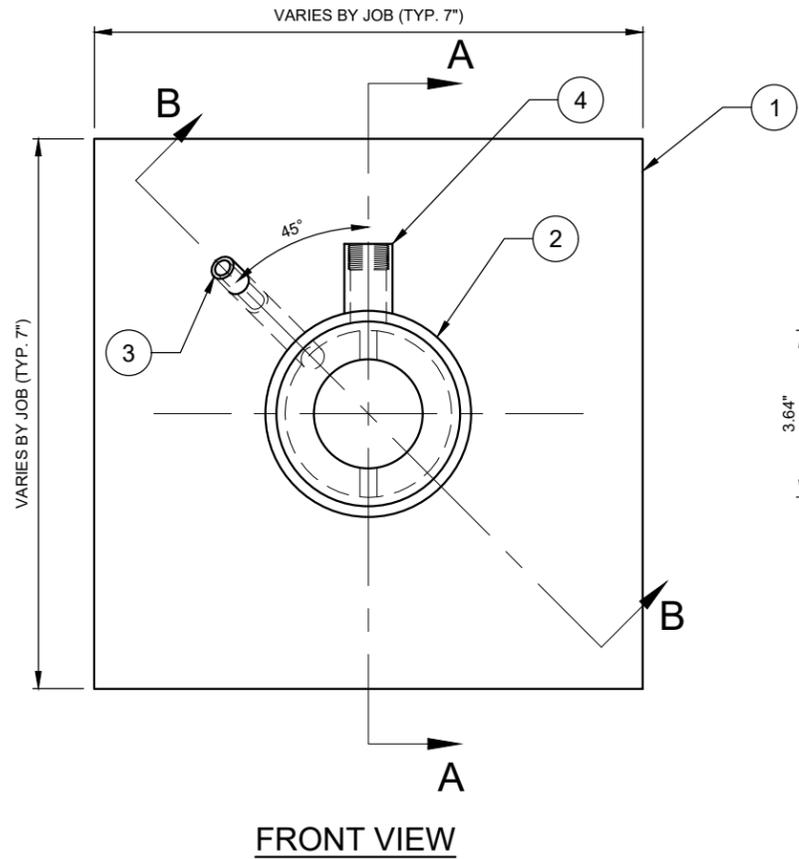
ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



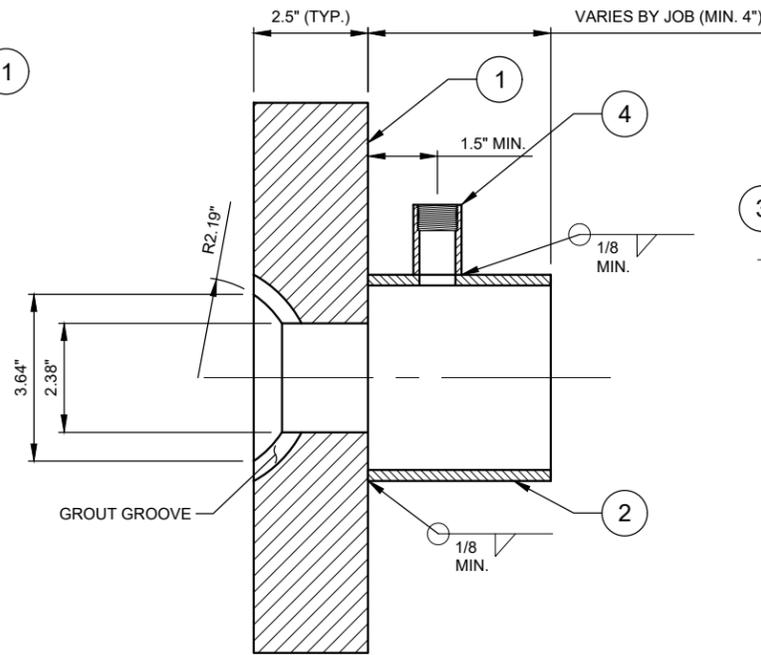
③ 1/4" SCH. 40 X 2" LONG FRONT INSPECTION PORT



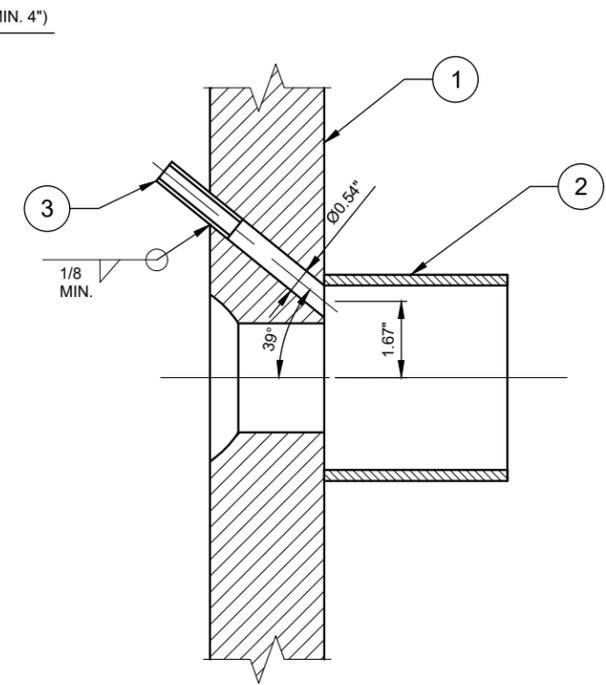
④ 1" SCH. 40 X 2" LONG GROUT PORT



FRONT VIEW



SECTION A-A



SECTION B-B

**MATERIALS**  
PROVIDE MILL CERTS

**GALVANIZING**  
HOT DIP GALVANIZE PER ASTM A123

**WELDING**  
WELD PER AWS D1.1 E70XX ELECTRODES

**NOTE**  
INSPECTION PORT OPTIONAL FOR VERTICAL TENDONS

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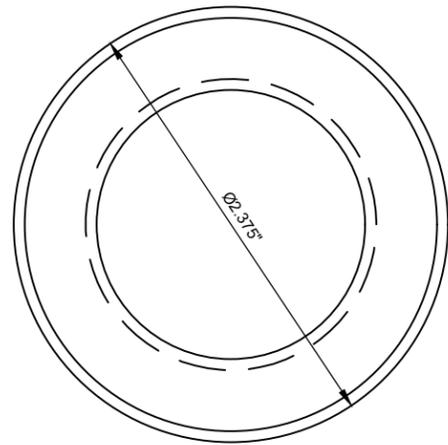
| ITEM | QTY | DESCRIPTION   | MATERIAL   | INVENTORY #  |
|------|-----|---|--|--------------|
| 1    | 1   | STEEL BEARING PLATE W/ 3/8" GROUT GROOVE GALVANIZED PER ASTM A123 | ASTM A-36-01, AASHTO M183, ASTM A-53, ASTM A-512 | JOB SPECIFIC |
| 2    | 1   | 3" SCH. 40 TRUMPET (MIN. 4" LONG)                                 | GALVANIZED STEEL                                 | JOB SPECIFIC |
| 3    | 1   | 1/4" SCH. 40 X 2" LONG FRONT INSPECTION PORT                      | GALVANIZED STEEL                                 | JOB SPECIFIC |
| 4    | 1   | 1" SCH. 40 X 2" LONG GROUT PORT                                   | GALVANIZED STEEL                                 | JOB SPECIFIC |

|                           |        |           |
|---------------------------|--------|-----------|
| APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
| DESCRIPTION               | BY     | CHK       |
| NO                        |        | DATE      |

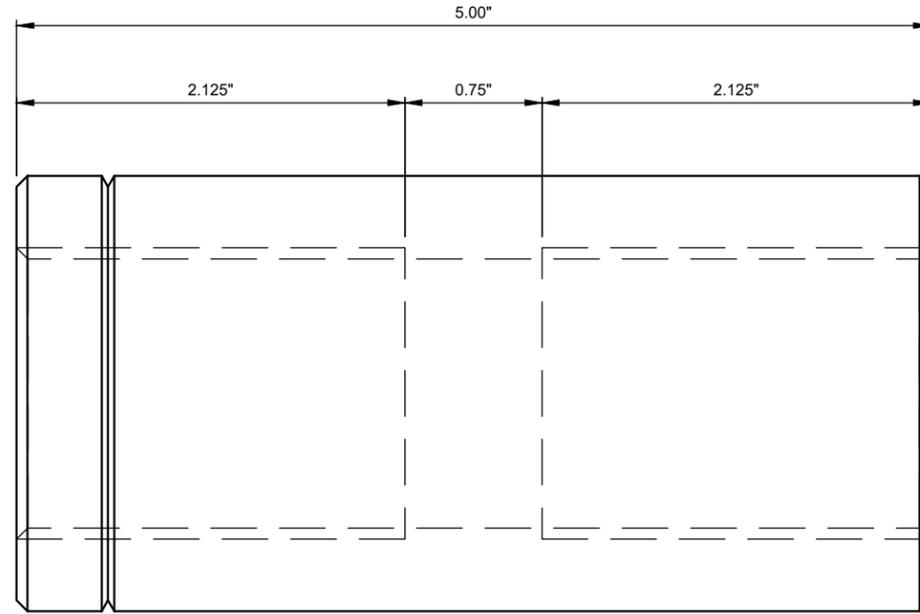
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 STRUTURAL TECHNOLOGIES, LLC 10150 OLD COLUMBIA RD COLUMBIA, MD 21046  
 PHONE: (410) 850-7000 structuraltechnologies.com

|                      |   |
|----------------------|---|
| PROJECT INFORMATION: | SYSTEM DRAWING  |
| TITLE:               | 1.375" PT BAR BEARING PLATE WELDMENT W/ 3" PIPE FABRICATION DETAILS |
| PROJECT NO:          | SYSTEM  |
| SCALE:               | NTS   |
| SHEET NO:            | C868  |

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



FRONT VIEW



SIDE VIEW

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| DESCRIPTION                   | MATERIAL              | INVENTORY # |
|-------------------------------|-----------------------|-------------|
| WMS 1 3/8" STOP-TYPE COUPLING | ASTM A29, GRADE C1045 | R72-11      |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE: WMS 1 3/8" STOP-TYPE COUPLING

PROJECT NO: SYSTEM

SCALE: NTS

SHEET NO:

C885

NO

APPROVED FOR CONSTRUCTION

CDL ZX

BY

CHK

DESCRIPTION

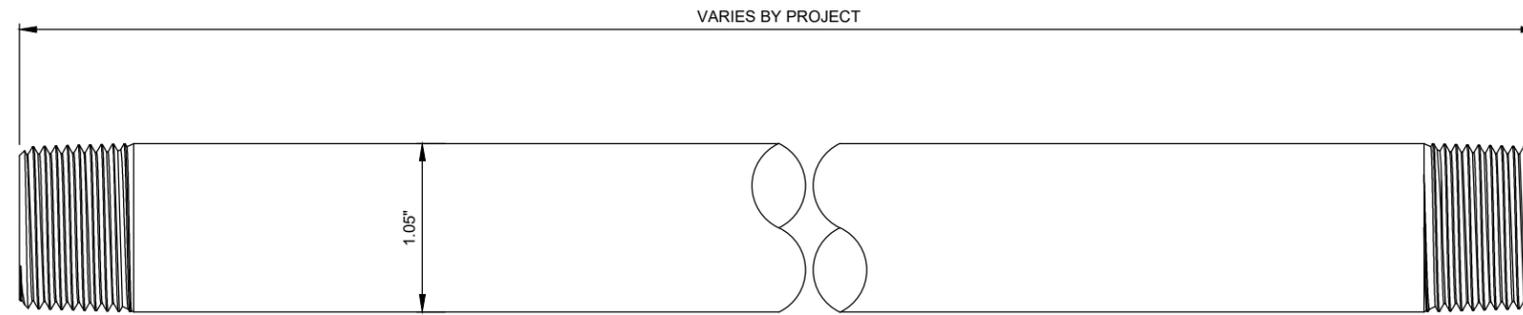
DATE

29JAN2020

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 PHONE: (410) 850-7000  
 structuraltechnologies.com

ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\Crouching Accessories



SIDE VIEW

| DESCRIPTION         | MATERIAL         |
|---------------------|------------------|
| 3/4" NPT PVC NIPPLE | SCH 80 WHITE PVC |

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PROJECT INFORMATION:

SYSTEM DRAWING

3/4" NPT PVC NIPPLE

PROJECT NO:  
SYSTEM

SCALE:  
NTS

SHEET NO:  
C887

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

BY

CDL ZX

CHK

DATE

29JAN2020

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

BY

CDL ZX

CHK

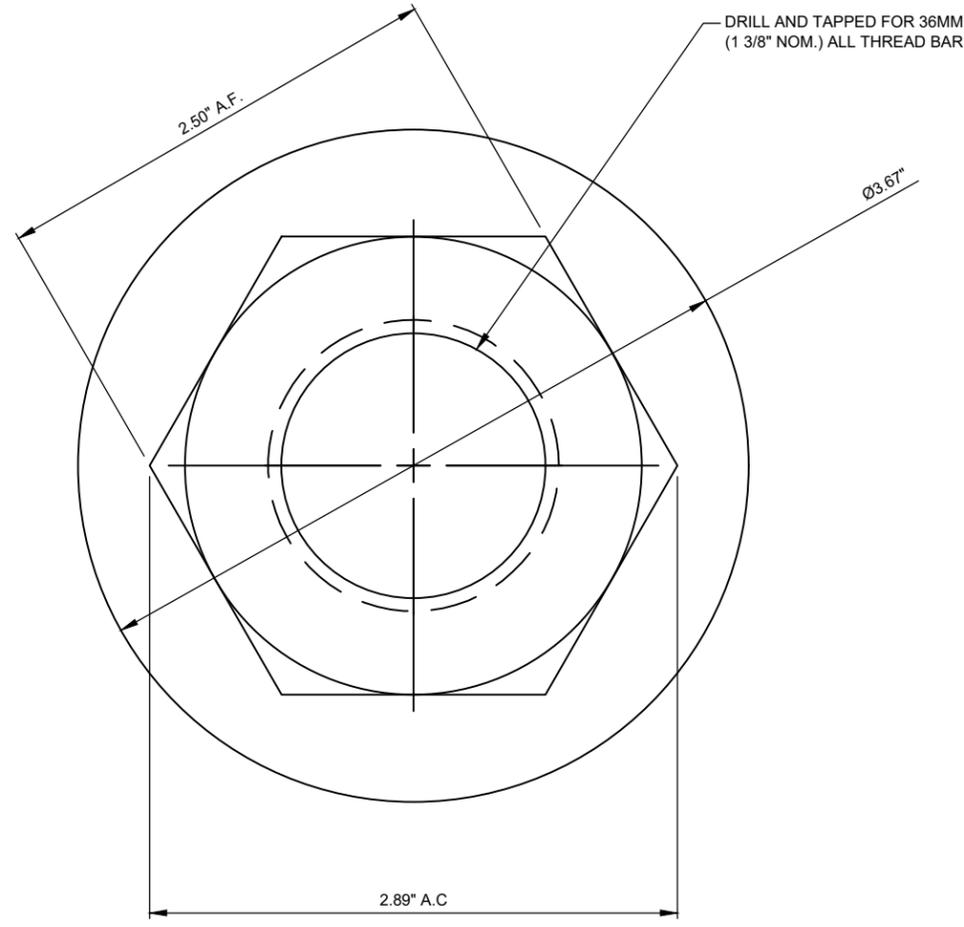
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29JAN2020

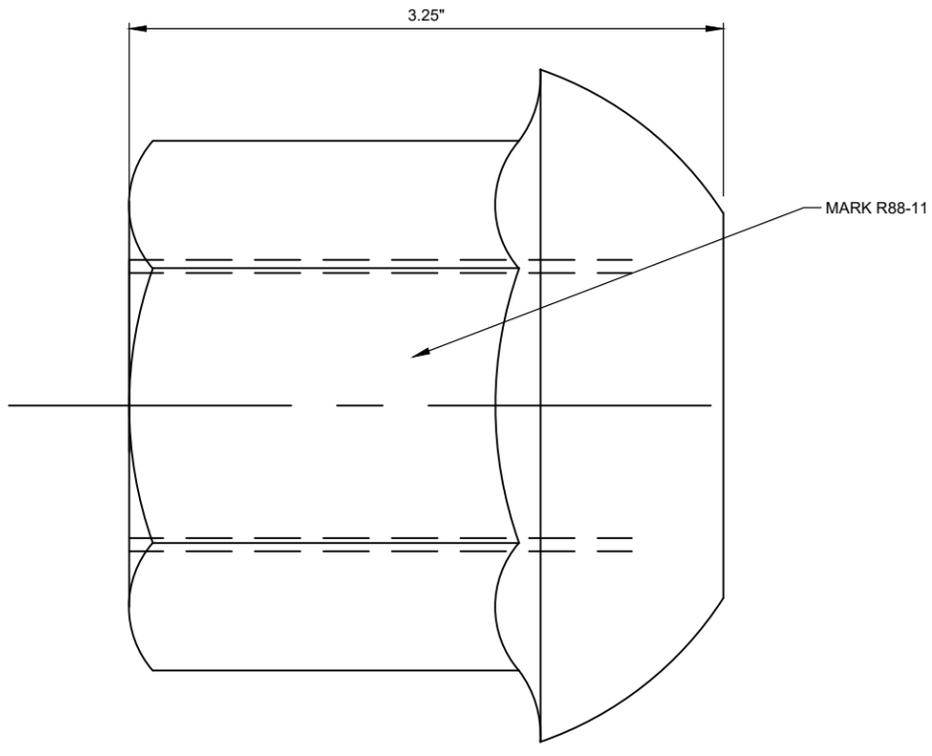
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 CORPORATE OFFICE COLUMBIA, MD 21046  
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ELECTRONIC FILE LOCATION: I:\SVI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



**FRONT VIEW**



**SIDE VIEW**

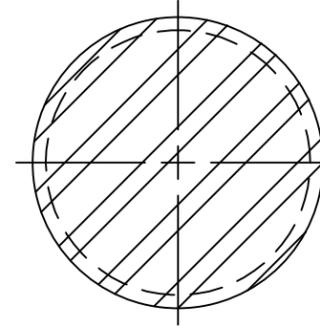
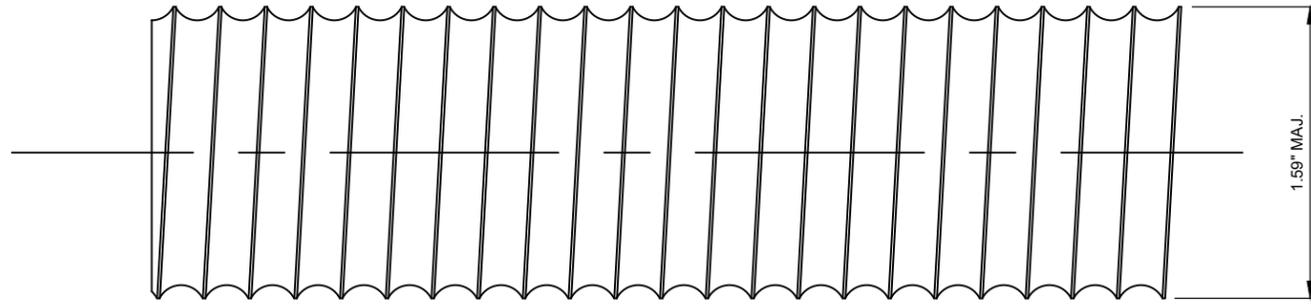
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| DESCRIPTION                         | MATERIAL                             | INVENTORY # |
|-------------------------------------|--------------------------------------|-------------|
| WMS 1-3/8" (36MM) SPHERICAL HEX NUT | DUCTILE IRON 100-70-03 PER ASTM A536 | R88-11      |

|  |  |                           |        |           |
|--|--|---------------------------|--------|-----------|
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|  |  | NO                        | BY     | CHK       |
| <p>PROJECT INFORMATION:</p> <p>SYSTEM DRAWING</p> <p>TITLE: WMS 1-3/8" (36MM) SPHERICAL HEX NUT</p>  |  | DESCRIPTION               |        |           |
| <p>PROJECT NO: SYSTEM</p> <p>SHEET NO: C888</p>  |  |                           |        |           |

ELECTRONIC FILE LOCATION: I:\SVS\System Drawings\Work In Progress Drawings\Florida DOT\_Test 2017\1.375 Internal Grouted Bar System



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| DESCRIPTION                                      | MATERIAL                                  | INVENTORY #  |
|--|---|--------------|
| WMS 1-3/8" (36MM) 150 KSI TYPE II ALL-THREAD-BAR | STEEL PER ASTM A-722 TYPE II, AASHTO M275 | R71-11-03600 |

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE: WMS 1-3/8" (36MM) 150 KSI ALL-THREAD-BAR

PROJECT NO: SYSTEM

SCALE: NTS

SHEET NO:

C890

NO

APPROVED FOR CONSTRUCTION

DESCRIPTION

CDL ZX

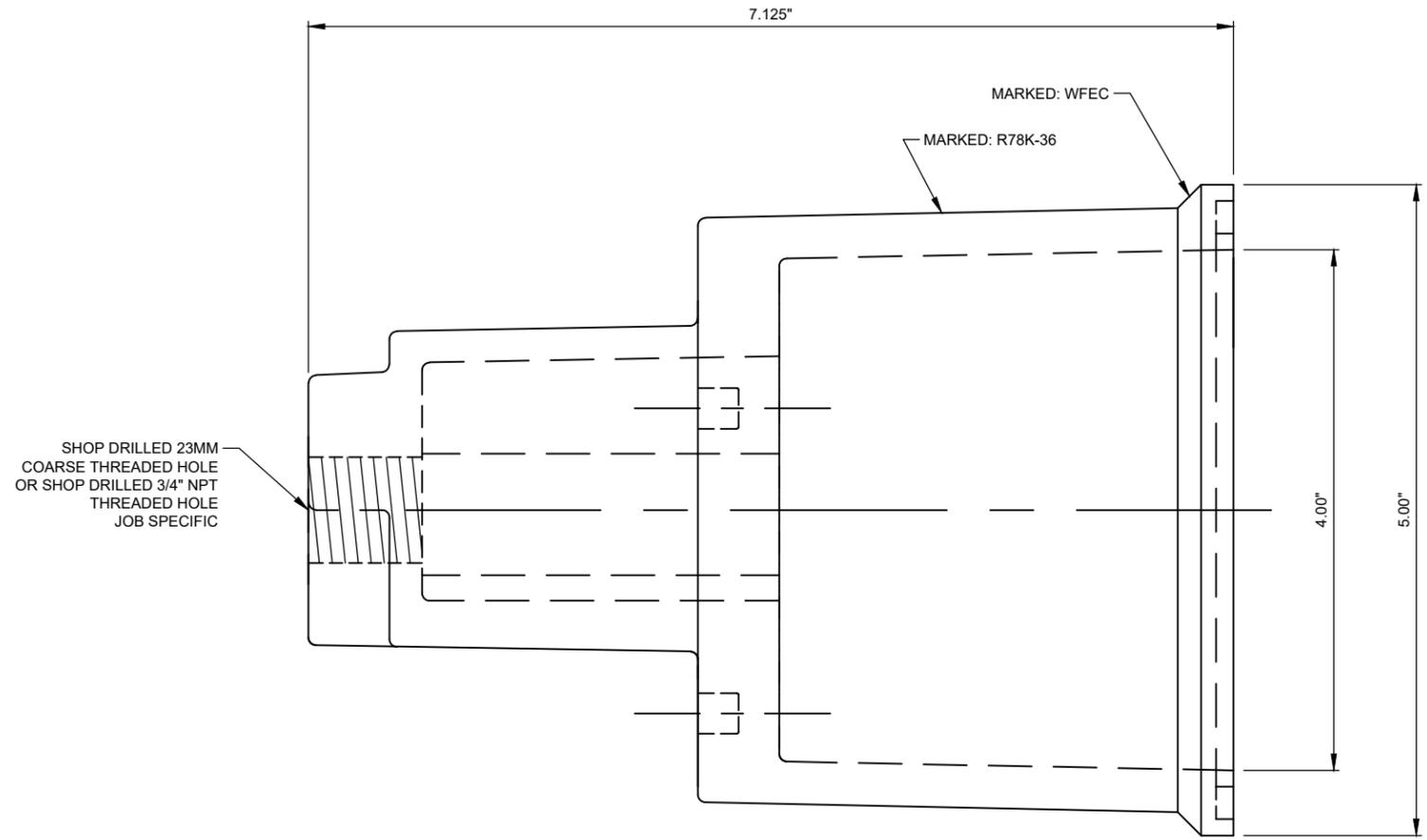
29JAN2020

DATE

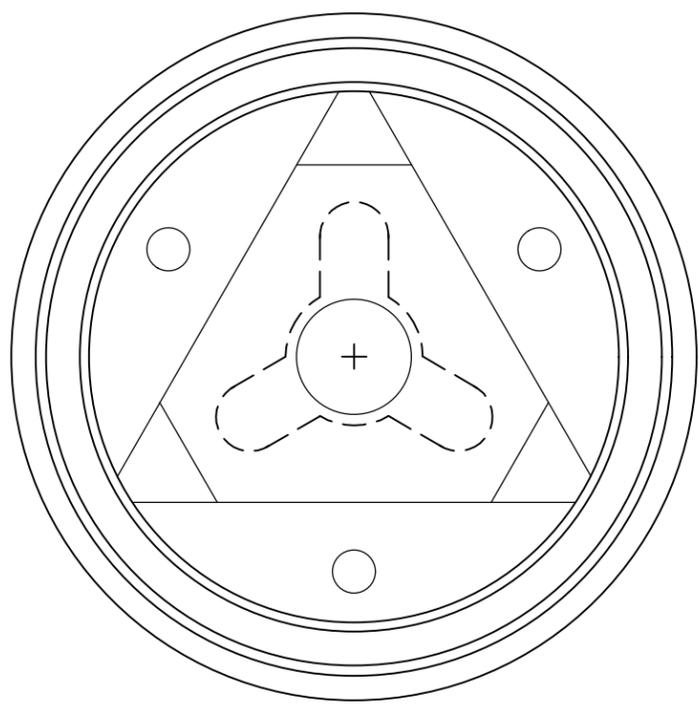
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ELECTRONIC FILE LOCATION: I:\SVI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



SIDE VIEW



TOP VIEW

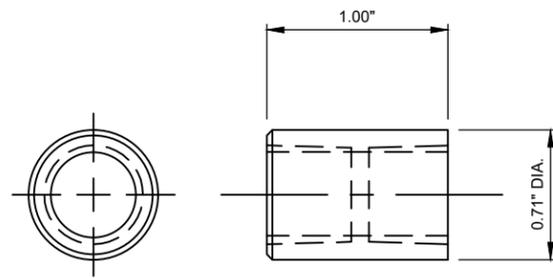
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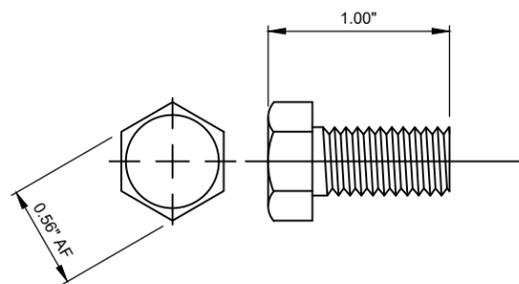
| DESCRIPTION                  | MATERIAL                      | INVENTORY # |
|------------------------------|-------------------------------|-------------|
| WMS. NYLON REINFORCE END CAP | NYLON PER ASTM D-4066, D-5989 | R78K-36     |

|  |  |                           |        |           |
|--|--|---------------------------|--------|-----------|
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|  |  | NO                        | BY     | CHK       |
| <p>PROJECT INFORMATION:</p> <p>SYSTEM DRAWING</p> <p>WMS. NYLON REINFORCE END CAP</p>  |  | DESCRIPTION               |        |           |
| <p>PROJECT NO: SYSTEM</p> <p>SHEET NO: C891</p>  |  |                           |        |           |

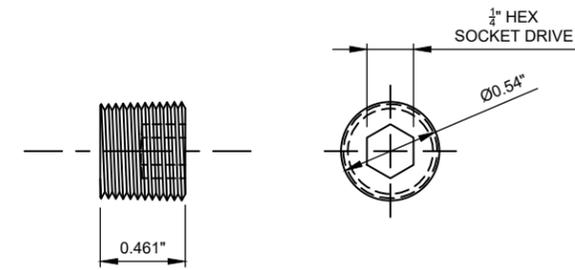
ELECTRONIC FILE LOCATION: I:\S1\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



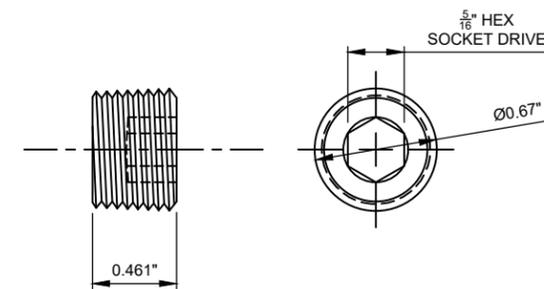
| DESCRIPTION                                  | MATERIAL                          | INVENTORY # |
|--|-----------------------------------|-------------|
| 1/4" NPT SS316 PIPE COUPLING, 150 PSI RATED. | 316 STAINLESS STEEL PER ASTM A460 | -           |



| DESCRIPTION                                  | MATERIAL                          | INVENTORY # |
|--|-----------------------------------|-------------|
| 3/8"-16UNC SS316 PIPE HEX SCREW, DE-AIR PLUG | 316 STAINLESS STEEL PER ASTM A460 | -           |



| DESCRIPTION   | MATERIAL                          | INVENTORY # |
|---|-----------------------------------|-------------|
| 1/4" NPT SS316 PIPE HEX SOCKET PLUG, 150 PSI RATED. | 316 STAINLESS STEEL PER ASTM A590 | -           |



| DESCRIPTION                                  | MATERIAL                          | INVENTORY # |
|--|-----------------------------------|-------------|
| 3/8" NPT SS316 PIPE COUPLING, 150 PSI RATED. | 316 STAINLESS STEEL PER ASTM A590 | -           |

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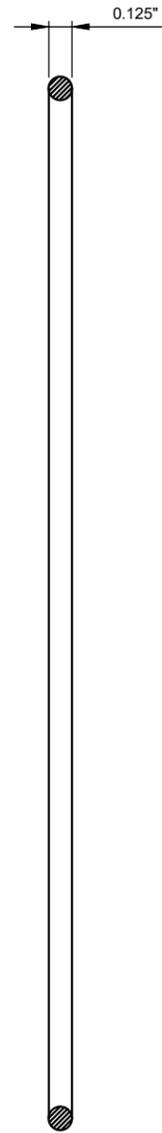
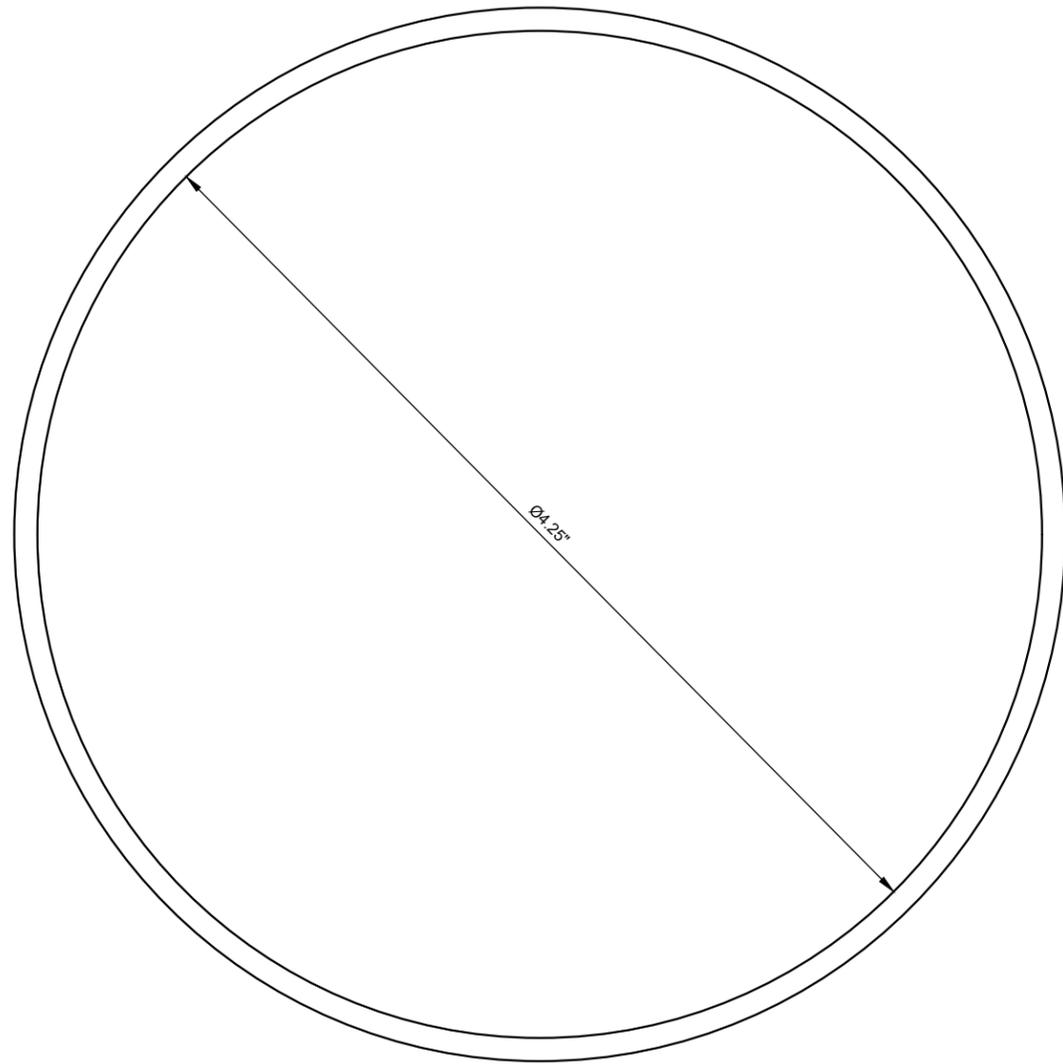
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|---------------------------|--------|-----------|
| APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
| DESCRIPTION               | BY     | CHK       |
| NO                        |        | DATE      |

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 CORPORATE OFFICE COLUMBIA, MD 21046  
 PHONE: (410) 850-7000  
 structuraltechnologies.com

|                      |                |                       |
|----------------------|----------------|-----------------------|
| PROJECT INFORMATION: | SYSTEM DRAWING | WMS STANDARD FITTINGS |
| PROJECT NO: SYSTEM   | SCALE: NTS     | TITLE: C893           |
| SHEET NO:            |                |                       |

ELECTRONIC FILE LOCATION: I:\SVI\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\1.375 Internal Grouted Bar System



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| DESCRIPTION                     | SIZE               | MATERIAL                                 | INVENTORY #               |
|---------------------------------|--------------------|--|---------------------------|
| NYLON REINFORCED END CAP O-RING | 4.25"X4.50"X0.125" | BUNA-N 70 D PER FDOT 960 TABLE 2.2.1.7-1 | INCLUDED W/ CAP (R78K-36) |

PROJECT INFORMATION:

|             |                                 |
|-------------|---------------------------------|
| PROJECT NO: | SYSTEM                          |
| TITLE:      | NYLON REINFORCED END CAP O-RING |
| SHEET NO:   | C894                            |

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|    |                           |        |           |
|----|---------------------------|--------|-----------|
| NO | APPROVED FOR CONSTRUCTION | CDL ZX | 29JAN2020 |
|    | DESCRIPTION               | BY     | CHK       |
|    |                           |        | DATE      |