Installation Procedures (Installation Procedure is General, Follow the Project Specific Requirements and the Foot Specifications):

1. Pre-assemble duct segment into the bearing plate with heat shrink.
2. Lightly grease anchor cap bolts. Use mounting holes in bearing plate to mount bearing plate assembly to form. Secure bearing plate assembly with anchor cap bolts. Use care not to damage threads.
3. Install and secure spiral.
4. Affix threaded connections. Seal all temporary connections with BONDIT/GRANITE GUM (by others), and seal all permanent connections with Bonduit or similar (by others).
5. Secure duct supports at max. Insert washers into trumpets.
6. Per foot specification section 462-2.1.2, a vacuum test is required prior to concrete placement.
7. Concrete placement occurs by others.
8. Install strand; leave sufficient strand for stressing equipment.
9. Install anchor heads; make sure wedge cavities are clear and rust free. Use wire brush to clean if necessary.
10. Only stress strands if concrete has reached required strength.
11. Elongation should be within A(±)2%.
12. After engineering approval, strand tails may be cut.
13. After formwork is removed, use mounting bolts to install anchor cap grouting.

System is now ready to air test.
15. Per the foot specification section 462-2.2, a second air pressure test is required after strand stressing and prior to grout injection.
16. Grout tendon per grout spec.

For vertical bearing plate grouting options, see sheet A302.

DUCT SEGMENT INSTALLATION
FORMING MATERIALS

FORM BULKHEAD
(INSIDE FORM)

(1) Ø1/2" NEOPRENE WASHER
  [INV. #02SC50001]

(2) Ø1/2" FLAT WASHER
  [INV. #02SC50002]

FORM PLAN VIEW

SPIDER CLIP DETAIL

SPIDER CLIP

FORM TOOL

SPIDER CLIP DETAIL

FORM ELEVATION VIEW

SECTION A-A

FORMING PREPARATION GUIDE

(INSIDE FORM)

(OUTSIDE FORM)

(INSIDE FORM)

(OUTSIDE FORM)

FORMING PREPARATION GUIDE

(INSIDE FORM)

(OUTSIDE FORM)

SECTION A-A

FORM ELEVATION VIEW

NOTES:

1. THE "OPEN" SIDE OF THE SPIDER CLIP IS MANUALLY "SNAPPED" ONTO EITHER THE HUB (SHOWN SHEET 4) OR THE FORM TOOL (SHOWN HERE).

2. THE "CLOSED" SIDE OF THE SPIDER CLIP IS "ENGAGED" WHEN THE MANDREL IS INSERTED THROUGH THE SPIDER CLIP FROM THE "OPEN" SIDE (SEE SHEET 2).

3. THE SPIDER CLIP IS USED TO:
   3.1. SECURE THE FORM TOOL TO THE HUB IN CASE OF A WET CAST (SEE SHEETS 1-3), AND
   3.2. SECURE THE HUB OF A MATCH-CAST SEGMENT TO THE HUB OF A PRE-CAST SEGMENT (SEE SHEET 4-6).

4. SPIDER CLIP SHOULD ALWAYS BE ORIENTED AS SHOWN WITH THE WIDE MANDREL RAMPS VERTICAL TO EACH OTHER.

FOR 59MM, SEE SHEET C817 [INV. #02SC05904]
FOR 76MM, SEE SHEET C818 [INV. #02SC07604]
FOR 100MM, SEE SHEET C819 [INV. #02SC10004]
FOR 130MM, SEE SHEET C820 [INV. #02SC13004]

FORM TOOL

FOR 59MM, SEE SHEET C672 [INV. #02SC05905]
FOR 76MM, SEE SHEET C651 [INV. #02SC07605]
FOR 100MM, SEE SHEET C645 [INV. #02SC10005]
FOR 130MM, SEE SHEET C661 [INV. #02SC13005]

NOTES:

1. PART NUMBERS SHOWN ARE FOR 3/8" THICK FORMWARD ONLY

2. ALTERNATE FORM TOOLS MAY BE USED BY CONTRACTOR ONLY IF THEY PERMIT ±6° SKEW ANGLE AND IF THEY POSITION THE RECESS FORMER HALF-WAY INSIDE THE FORM BEING CAST.
SEGMENTAL DUCT COUPLER INSTALLATION GUIDE

1. Bolt the appropriate form tool to the bulkhead with a spider clip installed in each form tool.
2. Position a recess former between the form tool and the hub.
3. (Optional) Ducts can be pre-assembled with hub seals and hubs to speed the forming time. Any silicone-based or oil-based lubricant or dishwashing detergent solution acceptable to the contractor and the local DOT may be used to assist with the assembly of the segmental duct coupler components.
4. Insert mandrel through the form tool, engaging the spider clip and securing the form tool to the hub, with a recess former sandwiched between.
5. Note: The spider clip may also be installed on the hub where the mandrel will be inserted from the opposite direction as shown. In such a case, the spider clip will be attached to the hub and will engage the form tool once the mandrel is inserted.
6. The wet cast is ready to pour.

MAX ARTICATION WITH BULKHEAD IS 6°

<table>
<thead>
<tr>
<th>Ø MANDREL</th>
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<tbody>
<tr>
<td>SCHR 40 PVC RECOMMENDED</td>
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<tr>
<td>FOR 59MM USE 1.90” OD MANDREL, 1 1/2” PVC OR SIMILAR</td>
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<tr>
<td>FOR 76MM USE 2.38” OD MANDREL, 2” PVC OR SIMILAR</td>
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<td>FOR 100MM USE 3.50” OD MANDREL, 3” PVC OR SIMILAR</td>
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<td>FOR 130MM USE 4.50” OD MANDREL, 4” PVC OR SIMILAR</td>
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<tr>
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<td>FOR 76MM, SEE SHEET C847 [INV. #02SC07601]</td>
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<tr>
<td>FOR 100MM, SEE SHEET C852 [INV. #02SC10001]</td>
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<tr>
<td>FOR 130MM, SEE SHEET C853 [INV. #02SC13001]</td>
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<td>FOR 130MM, SEE SHEET C854 [INV. #02SC13004]</td>
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<td>FOR 100MM, SEE SHEET C855 [INV. #02SC10002]</td>
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<td>FOR 130MM, SEE SHEET C856 [INV. #02SC13002]</td>
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<td>FOR 100MM, SEE SHEET C856 [INV. #02SC10001]</td>
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<td>FOR 130MM, SEE SHEET C857 [INV. #02SC13001]</td>
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<td>FOR 130MM, SEE SHEET C853 [INV. #02SC13006]</td>
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<td>FOR 130MM USE 4.50” OD MANDREL, 4” PVC OR SIMILAR</td>
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<td>FOR 100MM, SEE SHEET C855 [INV. #02SC10002]</td>
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<tr>
<td>FOR 130MM, SEE SHEET C856 [INV. #02SC13002]</td>
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<td>FOR 76MM, SEE SHEET C855 [INV. #02SC07601]</td>
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<td>FOR 100MM, SEE SHEET C852 [INV. #02SC10005]</td>
</tr>
<tr>
<td>FOR 130MM, SEE SHEET C853 [INV. #02SC13005]</td>
</tr>
</tbody>
</table>
7. AFTER THE CONCRETE IS POURED, DISASSEMBLE THE FORM IN THE FOLLOWING ORDER:
    7.1 REMOVE ALL MANDRELS
    7.2 STRIP THE BULKHEAD FORMWORK FROM THE SEGMENT FACE
    7.3 REMOVE ALL RECESS FORMERS. VISUALLY INSPECT. IF THERE ARE NOT SIGNIFICANT CUTS OR
        TEARS, RETAIN RECESS FORMER, OTHERWISE DISCARD.
    7.4 THERE IS NO NEED TO REMOVE THE FORM TOOLS FROM THE BULKHEAD. VISUALLY INSPECT
        THE SPIDER CLIPS. IF THERE ARE NO BROKEN OR MISSING "FEET", RETAIN SPIDER CLIP,
        OTHERWISE DISCARD.

FORM TOOL
FOR 59MM, SEE SHEET C672 [INV. #02SC05905]
FOR 76MM, SEE SHEET C651 [INV. #02SC07605]
FOR 100MM, SEE SHEET C645 [INV. #02SC10005]
FOR 130MM, SEE SHEET C661 [INV. #02SC13005]

SPIDER CLIP
FOR 59MM, SEE SHEET C617 [INV. #02SC05904]
FOR 76MM, SEE SHEET C619 [INV. #02SC07604]
FOR 100MM, SEE SHEET C620 [INV. #02SC10004]
FOR 130MM, SEE SHEET C622 [INV. #02SC13004]
SEGMENTAL DUCT COUPLER INSTALLATION GUIDE

(CONTINUED)

8. INSTALL THE SPIDER CLIP AS SHOWN.
9. ENSURE A RECESS FORMER IS POSITIONED BETWEEN THE HUBS.
10. SLIDE A MANDREL THROUGH THE LENGTH OF THE DUCT, ENGAGING THE SPIDER CLIP TO SECURE THE MATCH-CAST HUB TO THE PRE-CAST SEGMENT HUB.

RECESS FORMER
FOR 59MM, SEE SHEET C670 [INV. #02SC05907]
FOR 76MM, SEE SHEET C649 [INV. #02SC07607]
FOR 100MM, SEE SHEET C639 [INV. #02SC10007]
FOR 130MM, SEE SHEET C659 [INV. #02SC13007]

SPIDER CLIP
FOR 59MM, SEE SHEET C817 [INV. #02SC05904]
FOR 76MM, SEE SHEET C818 [INV. #02SC07604]
FOR 100MM, SEE SHEET C819 [INV. #02SC10004]
FOR 130MM, SEE SHEET C820 [INV. #02SC13004]

RECESS FORMER
FOR 59MM, SEE SHEET C670 [INV. #02SC05907]
FOR 76MM, SEE SHEET C649 [INV. #02SC07607]
FOR 100MM, SEE SHEET C639 [INV. #02SC10007]
FOR 130MM, SEE SHEET C659 [INV. #02SC13007]

SPIDER CLIP
FOR 59MM, SEE SHEET C817 [INV. #02SC05904]
FOR 76MM, SEE SHEET C818 [INV. #02SC07604]
FOR 100MM, SEE SHEET C819 [INV. #02SC10004]
FOR 130MM, SEE SHEET C820 [INV. #02SC13004]

MANDREL
12. Once the mandrel is inserted, the spider clip has locked the two hubs together, and the match cast segment can be poured.
13. TO SEPARATE THE MATCH-CAST SEGMENT FROM THE PRE-CAST SEGMENT, DISASSEMBLE THE FORM IN THE FOLLOWING STEPS:

13.1 REMOVE ALL MANDRELS
13.2 SEPARATE SEGMENTS
13.3 REMOVE ALL SPIDER CLIPS. VISUALLY INSPECT. IF THERE ARE NOT SIGNIFICANT CUTS OR TEARS, RETAIN RECESS FORMER, OTHERWISE DISCARD. IF THERE ARE NO BROKEN OR MISSING "FEET", RETAIN SPIDER CLIP, OTHERWISE DISCARD.
13.4 NOTE: THERE IS NO NEED TO REMOVE THE FORM TOOLS FROM THE BULKHEAD. VISUALLY INSPECT THE SPIDER CLIPS AS NOTED ABOVE.

14. INSTALL PROTECTIVE CAPS OVER DUCT OPENINGS
   FOR 59MM, SEE SHEET C673 [INV. #02SC05906]
   FOR 76MM, SEE SHEET C663 [INV. #02SC07606]
   FOR 100MM, SEE SHEET C662 [INV. #02SC10006]
   FOR 130MM, SEE SHEET C664 [INV. #02SC13006]

NOTE: FAILURE TO REMOVE MANDREL RESULTS IN SEVERE SPALLING OF BOTTOM SLABS.
SEGMENTAL DUCT COUPLER INSTALLATION GUIDE

(Continued)

Once the segments have been transported and are ready for erection:

15. Remove protective caps from duct openings.
16. Install face seals into one segment face only.
17. Apply segmental epoxy to segment faces as required. (Do not apply epoxy to face seal – steps 17 & 18 may be reversed at the discretion of the contractor.)
18. Bring segments together and secure with PT bar.
PRE-CAST SEGMENT 1

FINAL ELEVATION SECTION - VIEW OF SEGMENTAL DUCT COUPLER JOINT

PRE-CAST SEGMENT 2

COMPRESSED, INSTALLED FACE SEAL

1/16” - 1/8” SEGMENTAL EPOXY
ITEM | QTY | DESCRIPTION | MATERIAL | INVENTORY # | DWG # |
--- | --- | --- | --- | --- | --- |
1A | 1 | ECO 6-7 GROUT CAP 3/4" NPT HORIZ. PORT | ABS LUSTRAM 633 PER ASTM D4173 | 02GC60701V | C802 |
1B | 1 | ECO 6-7 GROUT CAP 3/4" NPT VERT. PORT | ABS LUSTRAM 633 PER ASTM D4173 | 02GC607101 | C760 |
2 | 1 | ECO 6-7 BEARING PLATE GALVANIZED PER ASTM A123 | IRON GR80-55-06 PER ASTM A536 | 02BP0036 | C552 |
3 | 1 | 1/2"-13 THREADED ROD X 5 1/2" (316L) STAINLESS PER ASTM F593 | W36003414D | A346 |
4 | 1 | 1/2" WASHER (316L) STAINLESS PER ASTM A240 | 02WX5014D | A346 |
5 | 1 | 1/2"-13 NUT (316L) STAINLESS PER ASTM A240 | 02WX5014D | A346 |
6 | 1 | 1/2" WASHER (316L) STAINLESS PER ASTM A240 | 02WX5014D | A346 |

1/2"-13 THREADED ROD  
1/2" WASHER  
1/2"-13 NUT  
CAP TO BEARING PLATE BOLTED ASSEMBLY
GROUT INJECTION/VENT CONFIGURATION USING CORRUGATED GROUT PORT

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

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

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<th>QTY</th>
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<th>MATERIAL</th>
<th>INVENTORY #</th>
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<tr>
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<td>-</td>
<td>SILicone GREASE</td>
<td>COMMERCIALy AVAILABLE</td>
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<tr>
<td>2</td>
<td>1</td>
<td>23MM GROUT HOSE CAP</td>
<td>HDPE BLACK PER ASTM D3350</td>
<td>02DT0314</td>
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<td>3</td>
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<td>23MM GROUT HOSE CAP</td>
<td>HDPE BLACK PER ASTM D3350</td>
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<td>4</td>
<td>1</td>
<td>3/4&quot; ONE EAR BAND CLAMP</td>
<td>(316L) STAINLESS PER ASTM A240</td>
<td>02DT01905</td>
<td>C690</td>
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<td>3/4&quot; HOSE BARB TO 3/4&quot; NPT FITTING</td>
<td>BLACK POLYPROPYLENE PER ASTM D4101</td>
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<td>C692</td>
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<td>BLACK POLYPROPYLENE PER ASTM D4101</td>
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23MM FEMALE CORRUGATED GROUT PORT

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

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<td>59MM DUCT SC - HUB</td>
<td>WHITE POLYPROPYLENE PER ASTM D4101</td>
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<td>SANTOPRENE PER FDOT TABLE 2.2.1.7-2</td>
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<td>DUCT WHT PP 59MM PT-PLUS</td>
<td>WHITE POLYPROPYLENE PER ASTM D4101</td>
<td>02DT0412</td>
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**SMALL SEGMENTAL DUCT COUPLER**

**DESCRIPTION**

- **LENGTH "L"**
- **DIAMETER "D1"**
- **DIAMETER "D2"**

**DIMENSIONS**

- **MIN."**
- **MAX."**

**ELEVATION VIEW**

**NOTES**

- **FUSION BUTT WELD USE INSPECTED & APPROVED FUSION WELDER**
- **USE INSPECTED & APPROVED FUSION WELDER**

**INSTRUCTIONS**

- **LENGTH "L"**
- **DIAMETER "D1"**
- **DIAMETER "D2"**

**SPECIFICATIONS**

- **59MM DUCT SC - TAPERED HUB**
- **59MM DUCT SC - HUB SEAL**
- **59MM DUCT SC - FACE SEAL**
- **DUCT WHT PP 59MM PT-PLUS**
ITEM | DESCRIPTION | MATERIAL | INVENTORY # | DWG # |
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<td>3/16&quot; PAN HEAD SCREW</td>
<td>(316L) STAINLESS</td>
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</table>

NOTE: ITEMS MARKED WITH A "T" ARE TEMPORARY AND ARE NOT A PERMANENT PART OF THE SYSTEM.
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.

ITEM | QTY | DESCRIPTION | MATERIAL |
-----|-----|-------------|----------|
1    | 2   | DUCT, WHT PP, 59 MM PT-PLUS | WHITE POLYPROPYLENE PER ASTM D4101 |

INVENTORY # | DWG # | 02DT0412 | C684A

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. Ensure both ducts are secured in coupler.
6. Finish installation of clips.

Elevation View

Detail A

Detail B

Note: Material meets or exceeds FDOT Specification 960.
0.6" DIA. MULTIWEDGES
TYPE 1.6G
ECI 6-7 BEARING PLATE

GALVANIZED PER ASTM A123

CAST IRON GR80-55-06 PER ASTM A536

02BP0036

3.64" 6.67" 0.39" 1.57" Ø3.53" Ø2.98" 3.27" 9.31" 8.51" 8.51" 0.98" 0.42"

LETTERING: DATE CODE, FOUNDRY MARK, AND HEAT # "VSL ECI 6-7"

SECTION A-A

DETAIL 1

BACK VIEW

23MM COARSE THREADED GROUT PORT

LETTERING: REVERSE SIDE. SEE DETAIL 1

1/2"-13 TAPPED HOLE (TYP. 4 PLACES)

HARDNESS TEST

A

A

23MM COARSE THREADED GROUT PORT

LETTERING: DATE CODE, FOUNDRY MARK, AND HEAT # "VSL ECI 6-7"

DETAIL 1

SECTION A-A

BACK VIEW

23MM COARSE THREADED GROUT PORT

LETTERING: REVERSE SIDE. SEE DETAIL 1

1/2"-13 TAPPED HOLE (TYP. 4 PLACES)

HARDNESS TEST

A

A

23MM COARSE THREADED GROUT PORT

LETTERING: DATE CODE, FOUNDRY MARK, AND HEAT # "VSL ECI 6-7"
**ECI 6-7 ANCHOR HEAD**

**MATERIAL**
- IRON GR 80-55-06 PER ASTM A536

**INVENTORY #**
- 02AH0036

**DATE CODE, FOUNDRY MARK, AND TYPE "VSL ECI 6-7" STAMPED THIS SURFACE. MUST BE RECESSED.**

**HARDNESS TEST**
- FRONT VIEW

**SECTION A-A**

**DESIGNER:**
- [Signature]

**APPROVED FOR CONSTRUCTION:**
- [Signature]

**DATE:** 29 JAN 2020

**PLOT DATE/TIME:** 2:17 PM 29Jan2020

**ELECTRONIC FILE LOCATION:**
- I:\VSL System Drawings\Work In Progress Drawings\Work In Progress Drawings\Florida DOT Test 2017\ECI 6-7 Flexible Filler Submittal

**FILE NAME:**
- C555 ECI 6-7 AH FDOT 02AH0036.DWG

**APPROVED FOR CONSTRUCTION**

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**DESIGNER:**
- [Name]
- [Title]

**CORPORATE OFFICE**
- 10150 Old Columbia Rd
- Columbia, MD 21046
- Phone: (410) 850-7000
- structuraltechnologies.com

**MATERIALS**
- [List of materials and specifications]

**INVENTORY NUMBER**
- [List of inventory numbers and descriptions]

**SPECIFICATIONS**
- [List of specifications and codes]

**NATIONAL TOLERANCE STANDARD**
- [Code or standard reference]
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
<th>INVENTORY #</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEARING PLATE GROUT PLUG 23MM</td>
<td>HDPE BLACK PER ASTM D3350</td>
<td>02DT0341</td>
</tr>
</tbody>
</table>

**NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960**
DESCRIPTION | MATERIAL | INVENTORY #
--- | --- | ---
23MM GROUT HOSE CAP | HDPE BLACK PER ASTM D3350 | 02DT0314

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960
DESCRIPTION | MATERIAL | INVENTORY #
--- | --- | ---
23MM GROUT HOSE | HDPE BLACK PER ASTM D3350 | 02DT0310

SIDE VIEW
59MM HUB SEAL

3D VIEW

TOP VIEW

SIDE VIEW

TEXT 0.32" PROUD
"VSL. SEG. COUPLER HUB SEAL 59MM"
ONE SIDE ONLY

51/64"

3 9/64"

"VSL SEG. COUPLER HUB SEAL 59MM"
ONE SIDE ONLY

SANTOPRENE PER FDOT 960 TABLE 2.2.1.7-2

025C05902
59MM RECESS FORMER

**3D VIEW**

**SIDE VIEW**

**TOP VIEW**

TEXT 0.032" PROUD
"VSL. SEG. COUPLER RECESS FORMER 59MM"
ONE SIDE ONLY

NOTE: THIS IS A TEMPORARY PART.
NOTE: THIS IS A TEMPORARY PART.
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
<th>INVENTORY #</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSL POST TENSIONING 0.6&quot; BARE STRAND</td>
<td>LOW RELAXATION STEEL, SEVEN WIRE STRAND PER ASTM A416, 270KSI</td>
<td>VA02SD0013</td>
</tr>
</tbody>
</table>
3/4" SMOOTH HOSE

C685

SIDE VIEW

AS REQUIRED

DESCRIPTION

MATERIAL

INVENTORY #

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

3/4" SMOOTH HOSE

H

DPE BLACK PER ASTM D3350

02DT01901

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960
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

DESCRIPTION

MATERIAL

INVENTORY #

3/4" ONE EAR BAND CLAMP

316 STAINLESS STEEL PER ASTM A240

02DT01905
3/4" HOSE BARB TO 23MM FITTING

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

DESCRIPTION

BLACK POLYPROPYLENE PER ASTM D4101

INVENTORY #

02DT01903

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960
3/4" HOSE BARB TO 3/4" NPT FITTING
BLACK POLYPROPYLENE PER ASTM D4101
NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

SIDE VIEW
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
<th>INVENTORY #</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIBBED CAP W/ 3/4&quot; FNPT</td>
<td>BLACK POLYPROPYLENE PER ASTM D4101</td>
<td>02DT01912</td>
</tr>
</tbody>
</table>

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960
NOTE:
1. THESE SPIRALS ARE TO BE IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND CONTRACT DRAWINGS
2. CONCRETE STRENGTH SHOWN IN SPIRAL NAME AS #XXX WHERE # = PSI

BEARING PLATE

TIE FIRST 1/2 TURNS @ BEARING PLATE SIDE OF SPIRAL TO ACHIEVE FULL DEVELOPMENT

APPROX. 11"
DESCRIPTION: BEARING PLATE GROUT EXTENSION

MATERIAL: WHITE POLYPROPYLENE PER ASTM D4101

INVENTORY #: 2DT0318

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

NBR O-RING (PARKER #N1470 2-212) INSTALL DURING MANUFACTURING
BR PLATE BUSHING 3/4" NPT 23MM

SECTION VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960
DESCRIPTION: PVC 1/4 TURN BALL VALVE W/ 3/4" FNPT

MATERIAL: WHITE SCH 80 PVC

INVENTORY #: 02DT01916

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 963

THIS IS A TEMPORARY ITEM

SIDE VIEW
3/4” NPT PP NIPPLE

VARES BY PROJECT

SIDE VIEW

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960

DESCRIPTION

MATERIAL

3/4” NPT PP NIPPLE

SCH 80 BLACK POLYPROPYLENE PER ASTM D4101

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960
DESCRIPTION | MATERIAL | INVENTORY #
--- | --- | ---
3/4" NPT P/F COUPLER | SCH 80 BLACK POLYPROPYLENE PER ASTM D4101 | 02DT01931

NOTE: MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960
DESCRIPTION: 59MM TAPERED HUB

MATERIAL: WHITE POLYPROPYLENE PER ASTM D4101

INVENTORY #: 02500910
DESCRIPTION | MATERIAL | INVENTORY #
--- | --- | ---
3/4" NPT PE PLUG | BLACK HDPE PER ASTM D3350 | 02D10913

NOTE: MATERIAL MEETS OR EXCEEDS FOOT SPECIFICATION 960
ECI 6-7 GROUT CAP W/ 3/4" VERTICAL PORT

ABS LUSTRAN 633 PER ASTM D4673

INVENTORY #

02GC60701

MANUFACTURING YEAR MARK

MANUFACTURING MONTH MARK

SECTION A-A

SECTION B-B

FRONT VIEW

4.17"

Ø1/8" THRU HOLE

SHOP DRILLED Ø3/4" NPT TAPPED HOLE

GATE RELIEF PER MOLDER

SEE DETAIL 1

DETAI L 1

4.17"

1.00"
DESCRIPTION | MATERIAL | INVENTORY #
--- | --- | ---
HEAT SHRINK SLEEVE CANUSA PLA-63-YE (6" LONG) | POLYOLEFIN PER FOOT | C791

NOTE: THE SHOP DRAWINGS ILLUSTRATE DETAILS OF THE STRUCTURAL TECHNOLOGIES, LLC POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES, LLC BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES, LLC TOOK NO PART IN THE PREPARATION OR REVIEW OF SUCH STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES, LLC DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES, LLC EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.
ECI 6-7 GROUT CAP O-RING

6.25"x6.50"x0.125" BUNA-N TO E PER FOOT SEE TABLE 2.2.1.7-1 02WX5013
ECI 6-7 Grout Cap W/ 3/4" Horizontal Port

ABS Lustran 633 Per ASTM D4673

02GC60701V

SECTION A-A

SECTION B-B

FRONT VIEW

MANUFACTURING
MONTH MARK

MANUFACTURING
YEAR MARK

SEE DETAIL 1

SECTION B-B

B

A

VS.

4.17"

0.30"

Ø8.23"

3.10"

0.11"

0.16"

4.17"

1.00"

SHOP DRILLED
Ø3/4" NPT
TAPPED HOLE

0.30"

0.30"
1. MATERIAL MEETS OR EXCEEDS FDOT SPECIFICATION 960.
2. USE TWO HALF-SHELLS W/O VENT (INV. #02DTCH059) FOR STANDARD DUCT COUPLING.
3. USE ONE HALF-SHELL W/O VENT (INV. #02DTCH059) AND ONE HALF-SHELL W/ VENT (INV. #02DTCV059) FOR DUCT COUPLING WHERE A GROUT VENT IS NEEDED.
DESCRIPTION: 59MM SPIDER CLIP

MATERIAL: HDPE PER ASTM D3350

INVENTORY #: 02SC05904

NOTE: THIS IS A TEMPORARY PART.
3/4" NPT PVC NIPPLE

VARIES BY PROJECT

SIDE VIEW

NOTE: THIS IS A TEMPORARY ITEM THAT MEETS OR EXCEEDS FDOT SPEC 960.