



**CAUTION:** WHEN PRESSURIZING GROUT CAPS, DO NOT STAND BEHIND CAPS!

**WARNING:** READ AND COMPLY WITH ALL APPLICABLE SAFETY AND OPERATING INSTRUCTIONS AND WARNINGS FOR MULTI-STRAND STRESSING BEFORE STARTING ANY WORK OR OPERATION.

APPROVED: Approval of drawings and/or procedures indicates concurrence with the information presented and does not relieve the Contractor of his responsibility for meeting all requirements of the Contract Documents. The contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication work of all submittals.

APPROVED AS NOTED

REVISE AND RESUBMIT

By: *John E. Kivner*

2/14/18

Stantec

- INSTALLATION PROCEDURE:**
- CUT THE DUCT BETWEEN THE RIBS. PUSH THE END INTO THE SOCKET AT THE CASTING.
  - HEAT SHRINK AS SHOWN.
  - ATTACH THE POCKET FORMER ON THE OTHER SIDE OF THE ANCHOR AND EXTEND THE BOLTS THROUGH THE BULKHEAD TO FIX THE ANCHOR. IF A DSI POCKET FORMER IS USED, SECURE IT TO THE ANCHOR USING THE HEX NUTS BEFORE COUPLING THE BOLTS AND STUDS. MAKE SURE THE GROOVE IN ANCHOR IS PROTECTED.
  - INSTALL 3/4" NPT PIPE AS SHOWN.
  - INSTALL STIRRUPS CENTERED TO THE ANCHOR AND SECURE.
  - INSTALL DUMMY STRANDS OR USE MANDREL TO ALIGN THE DUCT.
  - SUPPORT THE DUCT AT EVERY 2 FT.
  - INSTALL GROUT VENTS AS PER DETAIL IN THIS DRAWING.
  - AFTER CONCRETE IS POURED REMOVE ANY EXCESS CONCRETE SLURRY ON THE CASTING FACE.
  - ONCE PANELS ARE PLACED AND DUCT COUPLING IS COMPLETED AT TRANSVERSE JOINTS, INSTALL THE STRANDS PRIOR PLACING MORTAR IN TRANSVERSE JOINTS.
- STRESSING CAN PROCEED AFTER THE GROUT IN THE TRANSVERSE JOINTS HAS REACHED THE SPECIFIED STRENGTH**
- INSTALL THE WEDGE PLATE TO BE SEATED AND CENTERED AT THE FRONT OF THE CASTING.
  - STRESS TENDONS AS PER STRESSING SEQUENCE SHOWN IN DRAWINGS PT-2. IN EACH TENDON, THE INNER STRANDS TO BE STRESSED FIRST. SEE WEDGE PLATE DETAIL IN THIS DRAWING. THE STRESSING SHALL BE PERFORMED USING A 0.6" MONOSTRAND JACK.
  - THE ELONGATION SHOULD BE MEASURED AT 20% FORCE AND THEN AT 100% AND RECORDED.
  - CUT TAILS USING AN ABRASIVE SAW AFTER THE ENGINEER'S APPROVAL.
- GROUTING OPERATIONS:**
- INSTALL GROUT CAPS WITH O-RINGS. DRILL 1/2" HOLE IN PORT BEING USED-CAUTION-RECOMMEND USING HOLE SAW BIT OR SPADE BIT (BY OTHERS), BE CAREFUL TO PREVENT DAMAGE TO THREADS OR CAP. THIS PORT IS USED FOR VENTING.
  - ATTACH 1/2" NPT PIPE NIPPLE TO CAP AS SHOWN.
  - ATTACH 3/4" NPT PIPE NIPPLE WITH VALVE TO ANCHOR PORT AS SHOWN.
  - GROUT USING 3/4" NPT PIPE NIPPLE ATTACHED TO ANCHOR CAN START.
  - AFTER GROUT IS HARDENED REMOVE PIPE NIPPLE AND INSERT PLUG.
  - CUT GROUT TUBE AT VENTS AND FILL RECESS WITH EPOXY GROUT (BY OTHERS).

MATERIAL LIST		
PART NO.	DESCRIPTION	MATERIAL SPECIFICATION
301606	0.6" STRAND CAL-WRAP DOMESTIC	270 KSI LOW-RELAXATION STRAND PER ASTM A416
68 04 2548	4-0.6" FMA ANCHOR GALV.	DUCTILE IRON, 80-55-08 ASTM A536, GALVANIZED PER ASTM A153
68 04 2534	4-0.6" FMA WEDGE PLATE	DUCTILE IRON, 80-55-06 ASTM A536
68 04 2538	4-0.6" TRUMPET F/FLAT COUPLING	UNFILLED POLYETHYLENE MEETING THE REQUIREMENTS OF ASTM D4976
68 00 0536	3-PART WEDGE FOR 0.6" STRAND	AISI-C12L14 HEAT TREATED
68 04 2539	4-0.6" PLASTIC GROUT CAP	NYLON 6, 20% GLASS FILLED
ANS	GROUT CAP GASKET	BUNA RUBBER
68 04 2630	4-0.6" POCKET FORMER SEAL	CLOSED CELL NEOPRENE BLEND
68 04 2640	4-0.6" POCKET FORMER	POLYPROPYLENE
U00220200	2-3/8" (59mm) CORR. PP DUCT	PPEX3
U00220204	2-3/8" (59mm) DUCT COUPLER	HDPE
00 00 8535	21mm GROUT SADDLE	HDPE, WHITE

MATERIAL LIST		
PART NO.	DESCRIPTION	MATERIAL SPECIFICATION
00 00 874	3/4" NPT PIPE NIPPLE, 6" LONG	SCH 40 BLACK WELDED STEEL
00 00 847	3/4" BT PLUG	NYLON 6, YELLOW
00 00 834	3/4" NPT BALL VALVE	PVC
00 00 831	21mm GROUT VALVE	PLASTIC
00 00 674	1/2" NPT PIPE NIPPLE, 6" LONG	SCH 40 BLACK WELDED STEEL
00 00 634	1/2" NPT BALL VALVE	PVC
00 00 647	1/2" BT PLUG	NYLON 6, YELLOW
00 00 789	3/8"-16UNC CARRIAGE BOLT 4-1/2" LG.	316L STAINLESS STEEL
00 00 774	NARROW WASHERS FOR 3/8"-UNC BOLTS	316L STAINLESS STEEL
00 00 776	3/8"-16UNC COUPLER, 1.75" LONG	ZINC PLATED
00 00 777	(2) 3/8"-16UNC HEX NUTS	316L STAINLESS STEEL
00 00 801	21mm GROUT TUBE	HDPE
U00034055	HEAT SHRINK PLA-55-450-YE	AS PER SPECIFICATION

OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION

CONTRACTOR: CONSTRUCTIVE SERVICES, INC.

PROJECT: BRIDGE 68 ON VT ROUTE 14, TOWN OF EAST MONTPELIER

4-0.6" FLAT ANCHORAGE SYSTEM ASSEMBLY DRAWING

DATE: 12/18/17 DWG: SD CHK: EZ APP: EZ

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0	12/19/17	FOR APPROVAL	SD	EZ	J118030
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