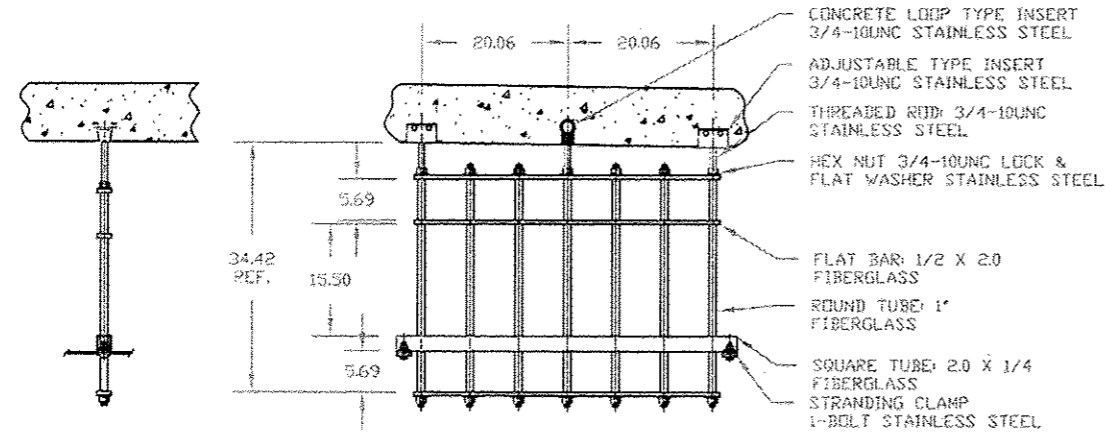
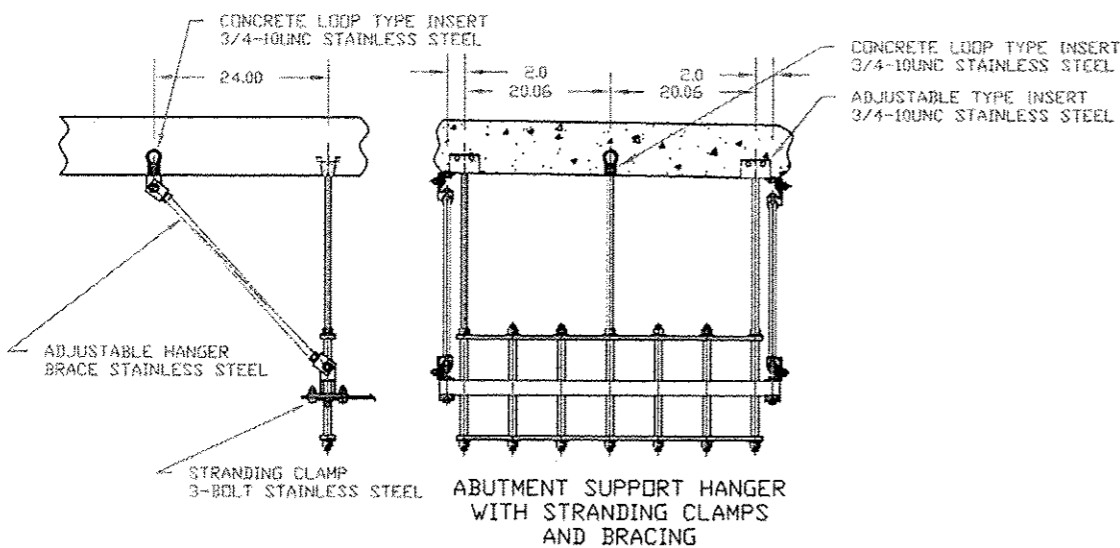


This drawing is the property of Condux International, Inc. and the information thereon is to be treated as confidential. It is not to be used, copied or disclosed to outside parties without our written consent.

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	L.O	ADDENDUM 1	07/19/2013	BRIAN



STANDARD SUPPORT HANGER WITH STRANDING CLAMPS



ABUTMENT SUPPORT HANGER WITH STRANDING CLAMPS AND BRACING

Condux International, Inc. Support hanger meet the following specifications
 Fiberglass items
 Flat Bar: 1/2 x 2.0
 Round Tube: 1.0" O.D. .105 wall
 Square Tube: 2 x 2 x 1/4
 Fiberglass reinforced with polyester resin with surface veil for better weathering, resin shall contain u.v. inhibitor. Fiberglass is made with continuous strand mat and uni-directional roving.
 Gray in color
 Tensile Strength (ASTM D 638) 30,000 PSI
 Tensile Modulus (ASTM D 638) 2.3E6 PSI
 Flexural Strength (ASTM D 790) 30,000 PSI
 Flexural Modulus (ASTM D 790) 2.3E6 PSI
 Compressive Strength (ASTM D 695) 20,000 PSI
 Compressive Modulus 1.4E6 PSI
 Yield shear strength 2000 PSI
 Barcol hardness 50
 Dielectric strength (ASTM D 149) 200 VPM Min.

Stainless steel Hardware Items
 Threaded Rod
 Threaded rod meets (ASTM/ASME B1.1) (ASTM A307 Grade A) (Tensile Strength 60,000 PSI)
 Hexnut
 Hexnut meets (ANSI/ASME B18.2.2) Material: 316 Stainless steel (ASTM F594)
 Flatwasher
 Flatwasher meets (ANSI/ASME B18.22.1) Material: 316 stainless steel (ASTM F436)
 Lockwasher
 Lockwasher meets (ANSI/ASME B18.21.1) Material: 316 Stainless steel (ASTM F436)
 Stranding Items
 Stranding Clamps (1-Bolt & 3-Bolt)
 Material: 1/4 x 1.5 (316 Stainless Steel)
 Stranding Wire
 Cable: 1/4" Dia (7 X 19 Steel Aircraft)
 304 Stainless Steel
 Bracing
 Adjustable hanger attachment brackets
 Material: angle 2.5 x 2.5 x .25 (316 Stainless steel)

FOR INFORMATION ONLY
 WORK TO BE PERFORMED BY OTHERS
 WITH THE EXCEPTION OF PLACEMENT
 OF INSERTS INTO SUPERSTRUCTURE

NOTE
 NO PART OF THE CONDUIT SUPPORT HANGER
 CAN EXTEND BELOW THE BRIDGE DECK
 (W36X182) BEAMS
 EXTENDED RODS MAY NEED TO BE ALTERED

CURRENT BILL OF MATERIAL

ITEM NO.	PART NO.	DESCRIPTION	QTY	UNIT
1	26125F3S24	ABUTMENT CONDUIT SUPPORT HANGER 2 HIGH X 6 WIDE FIBERGLASS AND STAINLESS STEEL, OPENING FOR TWELVE 5' FGL DUCTS THREADED RODS THREE # 3/4-10UNC X 40.00 LONG	4	EA.
2	TBA	STANDARD CONDUIT SUPPORT HANGER 2 HIGH X 6 WIDE FIBERGLASS AND STAINLESS STEEL, OPENING FOR TWELVE 5' FGL DUCTS THREADED RODS THREE # 3/4-10UNC X 40.00 LONG	46	EA.
3	08610236	HANGER BRACE ADJUSTABLE: 3/8 INCH STAINLESS STEEL	12	EA.
4	08409990	CONCRETE INSERT: 3/4-10 LOOP TYPE, STAINLESS STEEL	56	EA.
5	08558900	CONCRETE INSERT SETTING PLUG: 3/4-10	56	EA.
6	TBA	CONCRETE INSERT ADJUSTABLE: 3/4-10 STAINLESS STEEL	100	EA.
7	08408950	STRANDING WIRE: 1/4 X 300 FT., STAINLESS STEEL	2	EA.
8	08409404	GUY STRAND CLAMP 3-BOLT, STAINLESS STEEL	12	EA.
9	08409504	GUY STRAND CLAMP 1-BOLT, STAINLESS STEEL	08	EA.
10	08460053	CONDUIT FIBERGLASS: 5' IPS, MW (5.57 O.D. X .096 WALL) MEETING NEMA TC-14A	6240	FT.
11	08460153	CONDUIT STOP COUPLING 5' IPS MW	108	EA.
12	08460453	CONDUIT EXPANSION JOINT O-RING TYPE: 5' IPS MW	48	EA.
13	08460953	CONDUIT SPLIT STOP RING: 5' IPS MW	48	EA.
14	08461553	CONDUIT ADAPTER: 5' IPS MW TO 5' GRC	48	EA.
15	TBA	CONDUIT SWEEP: 5' IPS MW 22.50 DEGREE X 36" RADIUS	48	EA.
16	08463402	CONDUIT EPOXY ADHESIVE CARTRIDGE	60	EA.
17	02288990	CONDUIT EPOXY ADHESIVE GUN	1	EA.

General Construction, Hanger and Conduit Notes

- 1.0 Recommended spacing between Support is 10 foot.
- 2.0 Support Hanger Material shall be manufactured using 316 stainless steel and fiberglass components.
- 3.0 Conduit is 5 inch Fiberglass with minimum wall thickness of .096 inch meeting NEMA TC-14A Specs.
- 4.0 Conduit joints shall be positive locking adhesive bonded bell and spigot.
- 5.0 Conduit expansion joints shall be sliding sleeve with provision for 8 inch of travel.
- 6.0 Bridge abutments must have a block out or be sleeved to allow the fiberglass conduit to pass through. After conduit is placed through abutment seal up opening with state approved sealant.
- 7.0 Place concrete inserts for future support system. Hangers will be installed at a later date.
- 8.0 Conduit support hangers weight 2850 LBS total
 Fiberglass conduit weight 7820 LBS total
 cable weight weight 45,611 LBS total

Grand total being placed on the bridge is 56281 LBS. OR 199.00 LBS/FT.

DRAWING APPROVAL
 I APPROVE THIS DRAWING FOR MANUFACTURING
 DATE: _____

Note:
 ALL MEASUREMENTS ARE IN INCHES UNLESS NOTED OTHERWISE

CONDUIT SUPPORT HANGER DETAIL AND BILL OF MATERIALS FOR THE CONDUIT RUN BETWEEN GIRDERS 5 & 6 and 7 & 8		CONDEX INTERNATIONAL, INC. MANKATO MN PH. 800-533-2077		
WEIGHT: 0.0 LBS EA		Project: ComEd	Morgan Street Bridge at I-290/Congress Parkway (circle interchange) Cook County Illinois	
QUOTE NO. 3985211287	SCALE 1/2	DATE: 06-06-2013	SHEET: CONDUX 3 OF 3	REV 1.0