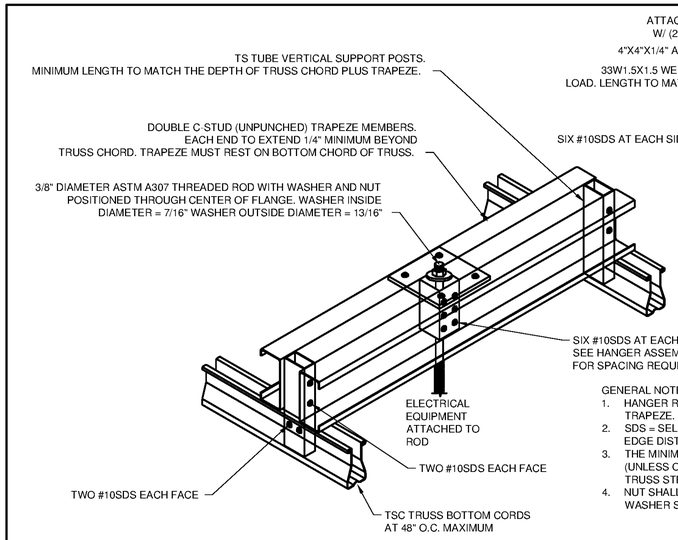
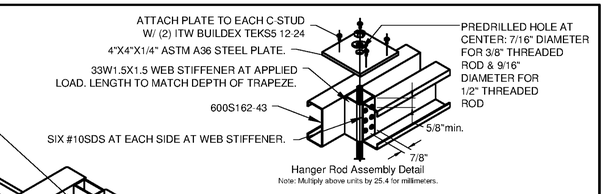
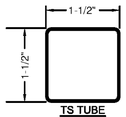




Hanger Rod Assembly Detail

Note: Multiply above units by 25.4 for millimeters.

GENERAL NOTES:
1. HANGER ROD ASSEMBLY MAY BE PLACED ANYWHERE ALONG THE TRAPEZE.
2. SDS = SELF DRILLING TAPPING SCREW. SCREW SPACING, END AND EDGE DISTANCE IS 9/16" MIN.
3. THE MINIMUM YIELD STRENGTHS OF MATERIALS ARE AS FOLLOWS (UNLESS OTHERWISE NOTED): TUBE STEEL SUPPORT POSTS = 45KSI, TRUSS STEEL CHORDS AND TRAPEZE = 55KSI.
4. NUT SHALL BE GRADE A, HEX CONFORMING TO ASTM A563 AND WASHER SHALL CONFORM TO ASTM F436.

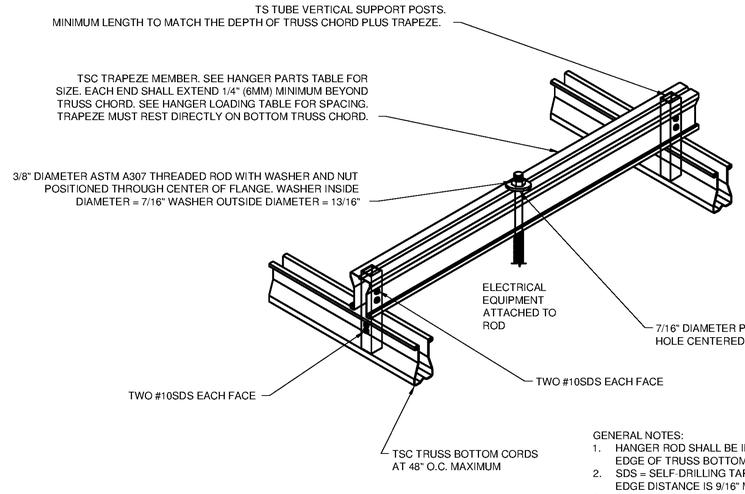


TS TUBE

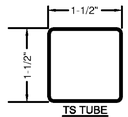
SECTION NAME	GAUGE	DESIGN THICKNESS (in)	F_y (ksi)	F_u (ksi)	FULL SECTION PROPERTIES					FULLY BRACED ALLOWABLES			
					A_g (in²)	I_x (in⁴)	S_x (in³)	I_y (in⁴)	S_y (in³)	T_a (lbs.)	P_a (lbs.)	Max (in-lbs.)	Wt (lbs./ft.)
TS TUBE	20	0.0350	45	55	0.1998	0.0705	0.0939	0.0705	0.0939	5,385	4,711	2,451	0.680

HANGER ROD CONNECTION TO CFS TRUSS DETAIL

NO SCALE



GENERAL NOTES:
1. HANGER ROD SHALL BE INSTALLED AT A MINIMUM OF 6" FROM INSIDE EDGE OF TRUSS BOTTOM CHORD.
2. SDS = SELF-DRILLING TAPPING SCREW. SCREW SPACING, END AND EDGE DISTANCE IS 9/16" MIN.
3. THE MINIMUM YIELD STRENGTHS OF MATERIALS ARE AS FOLLOWS (UNLESS OTHERWISE NOTED): TUBE STEEL SUPPORT POSTS = 45KSI, TRUSS STEEL CHORDS AND TRAPEZE = 55KSI.
4. NUT SHALL BE GRADE A, HEX CONFORMING TO ASTM A563 AND WASHER SHALL CONFORM TO ASTM F436.

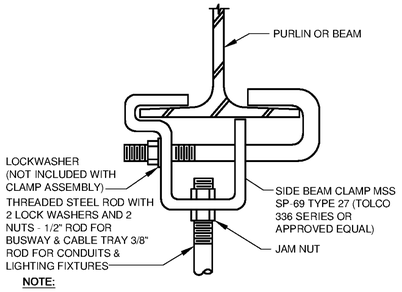


TS TUBE

SECTION NAME	GAUGE	DESIGN THICKNESS (in)	F_y (ksi)	F_u (ksi)	FULL SECTION PROPERTIES					FULLY BRACED ALLOWABLES			
					A_g (in²)	I_x (in⁴)	S_x (in³)	I_y (in⁴)	S_y (in³)	T_a (lbs.)	P_a (lbs.)	Max (in-lbs.)	Wt (lbs./ft.)
TS TUBE	20	0.0350	45	55	0.1998	0.0705	0.0939	0.0705	0.0939	5,385	4,711	2,451	0.680

HANGER ROD CONNECTION TO CFS TRUSS DETAIL

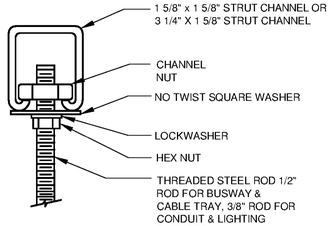
NO SCALE



NOTE:
1. MSS SP-69: REFERENCE MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY INC. STANDARD PRACTICE SP-69 2002 EDITION

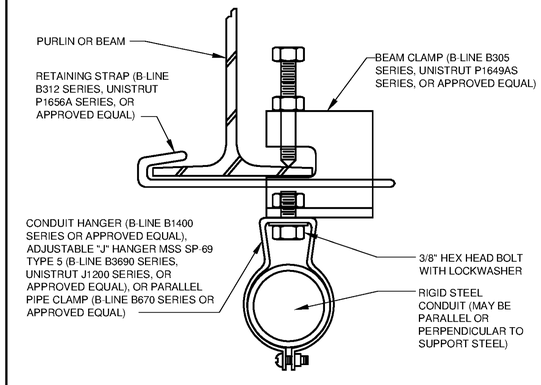
HANGER ROD CONNECTION TO BEAM CLAMP DETAIL

NO SCALE



HANGER ROD CONNECTION TO STRUT CHANNEL DETAIL

NO SCALE

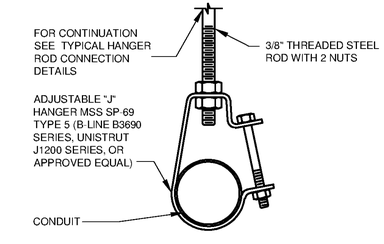


NOTE:

SIDE BEAM CLAMP, INVERTED TOP BEAM CLAMP, OR J-BOLT TYPE BEAM CLAMP (WITH LOCKWASHER UNDER NUT INSTEAD OF BOLT HEAD) MAY BE SUBSTITUTED FOR BEAM CLAMP WITH RETAINING STRAP (SEE TYPICAL HANGER ROD CONNECTION DETAILS - SIMILAR.)

BEAM CLAMP AND CONDUIT HANGER DETAIL

NO SCALE



NOTES:
1. MSS SP-69: REFERENCE MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY INC. STANDARD PRACTICE SP-69 2002 EDITION

CONDUIT HANGER DETAIL

NO SCALE

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PHONE: (256) 424-4077 FAX: (256) 424-4097

BID SET

ALABAMA LICENSED No. 21939 PROFESSIONAL ENGINEER TIMOTHY A. CALZARETTA

MARK	DATE	DESCRIPTION	BY

HUNTSVILLE UTILITIES
SOUTHEAST WATER TREATMENT PLANT

ELECTRICAL DETAILS

Project No.:	200-11740-10003
Designed By:	CSW
Drawn By:	TAC
Checked By:	DAB

E-9509

Copyright: Tetra Tech

Bar Measures 1 inch

10/17/2014 11:05:57 AM P:\IER\11740\200-11740-10003\CAD\SHEETFILES\TREATMENT PLANT\WTP E-9509 ELECTRICAL DETAILS.DWG - CALZARETTA, TIMOTHY