

DATE PLOTTED January 31, 2013

S:\JOBS\MISSOURI\51687-Contech-Wentzville.MO-Wentzville High School-90x27+8ft.SW Galv.&Painted Truss\Drawings\51687 ASD12.dwg

GENERAL NOTES:

- DESIGN SPECIFICATION:
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION (2002), WITH ALL INTERIM SPECIFICATIONS IN EFFECT.
- MATERIAL:
ALL SUPERSTRUCTURE STEEL SHALL BE ASTM A709, GRADE 50 (A572), UNLESS NOTED OTHERWISE. TRUSS MEMBERS, PLATES, HANDRAIL AND GUARDRAIL BLOCKOUTS ARE TO BE PAINTED WITH A TWO COAT SYSTEM. ALL OTHER STEEL GALVANIZED AFTER FABRICATION, UNLESS NOTED OTHERWISE. ALL FASTENERS, UNLESS NOTED OTHERWISE SHALL BE 3/8"Ø HIGH STRENGTH BOLTS, ASTM A325 TYPE 1 (GALV) WITH ASTM A563 GRADE DH OR DH3 NUT AND ONE F436 WASHER PER BOLT. FASTENERS SHALL BE FURNISHED WITH ROTATIONAL CAPACITY TEST.

FLOOR BEAMS, STRINGERS, BOTTOM CHORD GUSSET PLATES, BOTTOM CHORDS FLOOR BEAM END PLATES & DIAGONALS SHALL MEET TOUGHNESS TESTING CRITERIA FOR: NFC ZONE 2 CVN (15 FT-LBS @ 40°F)
- CONSTRUCTION/FABRICATION:
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION (2002), DIVISION II, WITH ALL INTERIM SPECIFICATIONS IN EFFECT.
- WELDING:
ALL WELDING SHALL BE IN ACCORDANCE WITH AASHTO/AWS D1.5 BRIDGE WELDING CODE AND THE AASHTO FRACTURE CONTROL, WHERE APPLICABLE.

NON-DESTRUCTIVE TESTS OF ALL WELDS SHALL BE PERFORMED AS FOLLOWS:
FILLET WELDS - VISUAL INSPECTION - 100%
FILLET WELDS - MAGNETIC PARTICAL TESTING - 10% MIN PER AWS D1.5
- FLOORING:
SIP FORMS TO BE 20 GA WHEELING CORRUGATED WITH MINIMUM G165 GALVANIZED COATING.
- ANCHOR BOLTS:
THE ANCHOR BOLTS SHALL EITHER BE CAST-IN-PLACE DURING THE ABUTMENT CONSTRUCTION OR DRILLED AND ANCHORED TO THE ABUTMENTS AFTER THE BRIDGE IS ERECTED. THE ANCHOR BOLTS ARE TO BE ANCHORED USING EPCON A7 FAST CURING ACRYLIC ADHESIVE OR EQUAL. EPCON A7 IS A PRODUCT OF ITW RED HEAD, 2171 EXECUTIVE DRIVE, ADISSON, IL 60101, PHONE:603-350-0370. THE ACRYLIC ADHESIVE IS FURTHER DESCRIBED AS A TWO COMPONENT METHYL METHACRYLATE ADHESIVE, NON-SAG PASTE, MOISTURE INSENSITIVE WHEN CURED, DARK GREY IN COLOR. MEETS ASTM C881-90, TYPE IV, GRADE 3, CLASS A,B AND C WITH THE EXCEPTION OF GEL TIME AND EPOXY CONTENT.
- PROFILE GRADE:
SLOPE IS ASSUMED TO BE 0%. MEMBERS AND BEARING PLATES ARE FABRICATED TO FIT UP ACCURATELY UP TO A GRADE OF 1.5%. IF PROFILE GRADE EXCEEDS 1.5%, THE FABRICATOR SHALL BE NOTIFIED.
- BOLT LENGTHS:
THE LENGTH OF BOLTS IN THESE PLANS HAS BEEN DESIGNED TO PROVIDE A FULLY TENSIONED BOLT WITH 1 HARDENED WASHER AND A THREAD STICK-THROUGH OF BETWEEN 1 AND 3 THREADS, BASED ON THE THEORETICAL SECTION PROPERTIES OF THE JOINED MEMBERS. THREAD STICK THROUGH OF A FULLY TENSIONED BOLT WITH MORE THAN 3 THREADS IS PERMITTED AND MAY OCCUR BECAUSE OF THINNER MEMBERS THAT ARE WITHIN ACCEPTABLE MILL TOLERANCES. THE MINIMUM STICK THROUGH SHALL NOT BE LESS THAN 0 THREADS (FLUSH).

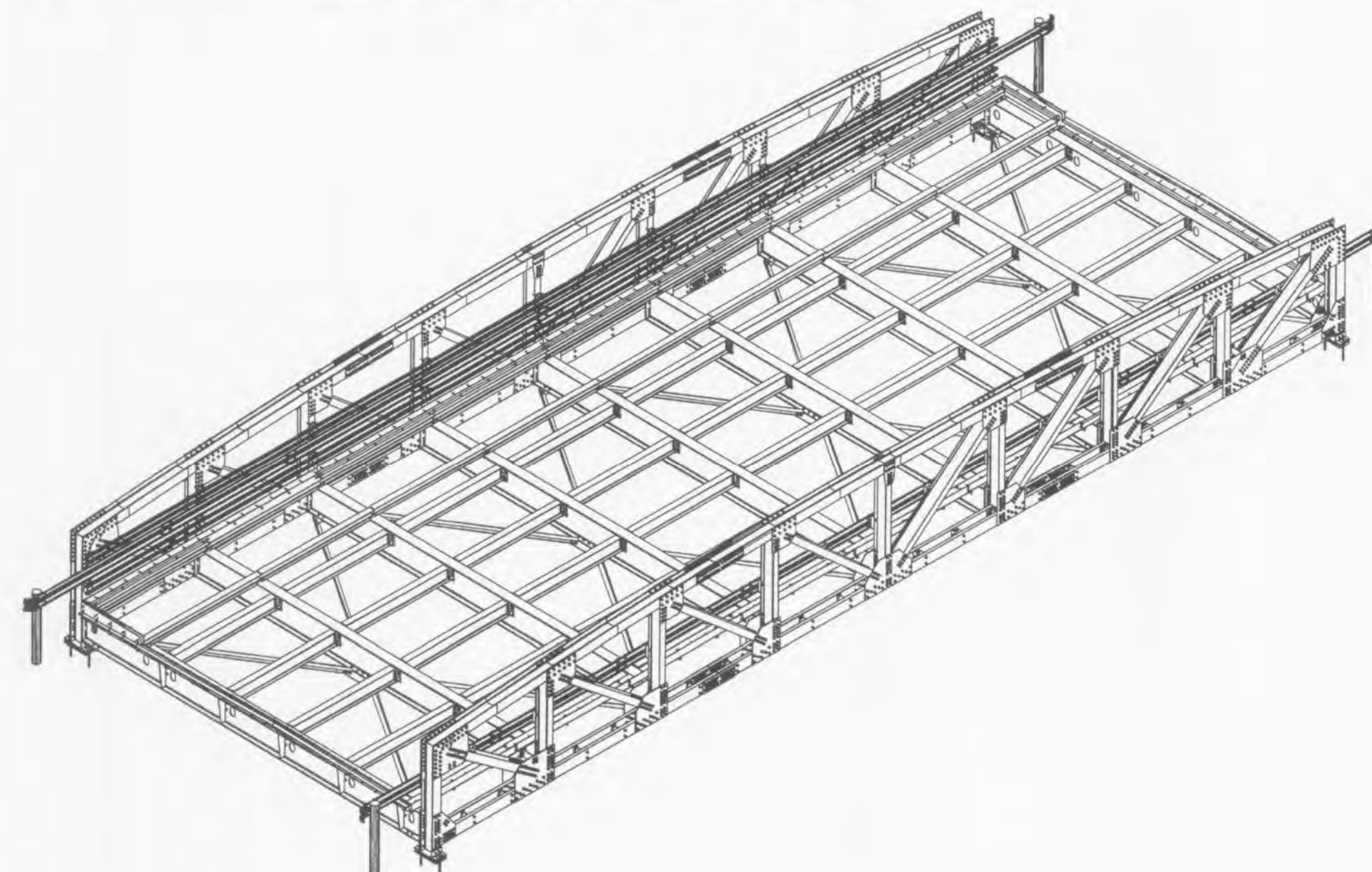
ANY CHANGES TO THE INSTALLED BOLT LENGTHS CALLED FOR IN THESE SHOP DRAWINGS SHALL BE REPORTED TO THE ENGINEERING DEPARTMENT TO BE RECORDED AS AN "AS-BUILT" CONDITION.

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE FIELD BOLTS IN ACCORDANCE WITH THESE DRAWINGS. INCORRECTLY INSTALLED BOLTS BY THE CONTRACTOR WILL RESULT IN CHANGED QUANTITIES FROM THOSE INTENDED. THE CONTRACTOR'S INSTALLATION IS SUBJECT TO FIELD REVIEW BY A U.S. BRIDGE REPRESENTATIVE BEFORE ANY CLAIM FOR ADDITIONAL BOLT QUANTITIES OR DELAYS WILL BE CONSIDERED.

SHOP NOTES:

- "REF" INDICATES DIMENSION HAS BEEN TRANSPOSED FROM THE CONTRACT DOCUMENTS (CD'S).
- "CHK" INDICATES DIMENSION IS TO BE USED TO CHECK FABRICATED MEMBER AFTER LAYOUT.
- "HOLD" INDICATES DIMENSION HAS GOVERNING PRIORITY OVER OTHER DIMENSIONS.
- STAMPING LOCATIONS AND BOLT HOLE SIZES ARE SHOWN WITH A BOX SURROUNDING THE TEXT.
- NATURAL OR MILL CAMBER SHALL BE ORIENTED UP ON ALL MEMBERS UNLESS NOTED OTHERWISE.
- lower case PIECE MARKS INDICATE INDIVIDUAL PIECES.
- UPPER CASE PIECE MARKS INDICATE SHIPPABLE ASSEMBLIES.
- ALL FASTENERS INCLUDE 1 BOLT, 1 NUT & 1 WASHER UNLESS NOTED OTHERWISE.
- GUSSET PLATE MARKINGS AT VISIBLE PLACE ON OUTSIDE OF CONNECTION.
- 1/2" DIAMETER HOLES SHALL BE DRILLED IN PLAIN MATERIAL THAT IS TO BE GALVANIZED. BURNING BY TORCH IS PROHIBITED. TWO HOLES MINIMUM SHALL BE SYMMETRICALLY LOCATED ALONG A USUAL GAGE LINE OF THE SHAPE OR PLATE AND NO CLOSER THAN 2" TO ANY FREE EDGE.
- TEMPORARY BOLTS FOR SHIPPING (TEMP BOLTS) SHALL BE ZINC PLATED AND INCLUDE 1 FLAT WASHER + 1 LOCK WASHER + 1 NUT INSTALLED IN SAME SIDE AND FASTENED SNUG TIGHT; 3 MIN. PER CONNECTION. TEMPORARY BOLTS ARE NOT QUANTIFIED IN THESE PLANS.

WENTZVILLE HIGH SCHOOL WENTZVILLE, MISSOURI



ILLUSTRATIVE VIEW OF PROJECT

PAINT:
MEMBER REQUIRING PAINT:
TRUSS SUPERSTRUCTURE, HAND RAILS & GUARDRAIL BLOCKOUTS
(TOTAL SURFACE AREA = 5706 FT²)

ALL PAINTED STEEL TO BE BLAST CLEANED TO SSPC10, NEAR WHITE FINISH PRIOR TO APPLYING PAINT.

THE PAINT SYSTEM TO BE A TWO COAT PAINT SYSTEM.

PRIMER COAT - SHERWIN WILLIAMS MACROPOXY 646 FAST CURE EPOXY 5-10 MILS

FINAL COAT - SHERWIN WILLIAMS ACROLON 218 HIGH SOLIDS 3-6 MILS

FINAL COLOR - SHERWIN WILLIAMS HUNTER GREEN

TRUSS SHOE REACTION:	
TRUSS ON ROADWAY SIDE:	
DEAD LOAD	140.2K
LIVE LOAD (HS20)	87.1K
IMPACT	20.3K
LIVE LOAD (PEDESTRIAN)	1.8K
LONGITUDINAL FORCE	4.4K
TRANSVERSE WIND LOAD	13.5K
TRUSS ON SIDEWALK SIDE:	
DEAD LOAD	140.2K
LIVE LOAD (HS20)	62.2K
IMPACT	15.0K
LIVE LOAD (PEDESTRIAN)	14.9K
LONGITUDINAL FORCE	3.2K
TRANSVERSE WIND LOAD	13.5K

PROJECT DESIGN CRITERIA:	
SPAN:	90'-0" C/C BEARINGS
ROADWAY WIDTH:	27'-0"
SIDEWALK:	6'-0"
SKEW:	N/A
DESIGN LIVE LOAD:	HS20
EXPANSION:	NA
CONNECTIONS:	FIELD BOLTED & SHOP WELDED
DESIGN LOADS:	
STEEL FLOOR & CONC. FILL	15 PSF
8" CONC. ROADWAY DECK	100 PSF
8" CONC. SIDEWALK DECK	100 PSF
FUTURE WEARING SURFACE	35 PSF

INDEX OF SHEETS		
SERIES #	NO. OF SHTS	DESCRIPTION
1	1	TITLE SHEET
2	1	CONSTRUCTION PLANS/FRAMING
3a-3b	2	CONSTRUCTION PLANS/TRANSVERSE SECTIONS
4a-4b	2	CONSTRUCTION PLANS/ABUTMENTS
5a-5b	2	CONSTRUCTION PLANS/FIELD ASSEMBLY
6a-6b	2	CONSTRUCTION PLANS/FLOORING PLAN
7	1	CONSTRUCTION PLANS/RAILING LAYOUT
8a-8b	2	BILL OF MATERIALS
9a-9h	8	SHOP DETAILS/TRUSS ASSEMBLY
10a-10e	5	SHOP DETAILS/SHOP ASSEMBLY
11a-11h	8	SHOP DETAILS/PROFILES
12a-12e	5	SHOP DETAILS/PLATES
13	1	SHOP DETAILS/RAILING
	40	

FOR REVIEW
NOT FOR FABRICATION
1/31/13



SYMBOLS & ABBREVIATIONS	
ES: EACH SIDE	NS: NEAR SIDE
EQ: EQUAL	FS: FAR SIDE
CL: CENTERLINE	WP: WORK POINT
REF: REFERENCE	GA: GAUGE
CHK: CHECK	ID: INSIDE DIAMETER
O/D: OUT TO OUT	OD: OUTSIDE DIAMETER
C/C: CENTER TO CENTER	BRG: BEARING
F/F: FACE TO FACE	TYP: TYPICAL
DIA/Ø: DIAMETER	UNO: UNLESS NOTED OTHERWISE
R: RADIUS	ABUT: ABUTMENT
	T&B: TOP & BOTTOM

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SUBMITTAL LOG		DATE	NO:	DATE:	REVISIONS:	BY:
INITIAL SUBMITTAL		1/31/13	▲			
RESUBMITTAL NO.		-	▲			
CUSTOMER APPROVAL		-	▲			
SHOP REVIEW		-	▲			
PRE FAB MTG		-	▲			
APPROVED FOR FAB		-	▲			

DESIGN: SAF DRAW: JEC REVIEW: DLM CHECK: CJG

WENTZVILLE HIGH SCHOOL
WENTZVILLE, MISSOURI

David Morgan
1/31/13
STATE OF MISSOURI
DAVID LEE MORGAN
REGISTERED PROFESSIONAL ENGINEER

TITLE SHEET	USB JOB# 51687	SHEET 1	40 TOTAL
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