

A. OVERVIEW

- THIS PLAN DEPICTS ERECTION OF THE GIRDER ASSEMBLIES FOR WARREN BR# 013-4(32) IN THE CASTING BED AREA LOCATED APPROXIMATELY 2 MILES NORTH OF THE PROJECT.
- 1 CRANE WILL BE USED FOR THE ERECTION. A HTT 8690 LINK BELT 90 TON HYDRAULIC CRANE W/ 39,500 # COUNTERWEIGHT AND BOOM SET AT 70 FT WILL BE SET-UP PARALLEL AND TO THE EAST OF THE CASTING BED WITH THE CRANE PIN LOCATED 13.98 FT TO THE EAST OF G8 BEAM CENTERLINE AND 40.74 FT NORTH OF BEGIN BEARING CENTERLINE FOR GIRDER G8. BEAMS WILL BE DELIVERED TO THE EAST SIDE OF THE CRANE.
- RIGGING FOR ALL GIRDER ASSEMBLIES WILL BE THE SAME. RIGGING FOR EACH ASSEMBLY SHALL CONSIST OF 2 SETS (1 SET AT EACH END OF THE BEAM) TO INCLUDE TWO CLAMPCO F25 GIRDER CLAPS CONNECTED TO 1" DIA X 30' LONG ONE PART EYE AND EYE, SINGLE LET, MECHANICAL SPLICE WIRE ROPE SLINGS WITH 25 TON SCREW PIN SHACKLES. THESE WILL BE GATHERED AND CONNECTED TO THE MAIN BLOCK OF THE CRANE.

B. MAINTENANCE AND PROTECTION OF TRAFFIC

- CASTING BEDS ARE LOCATED APPROXIMATELY TWO MILES NORTH OF THE PROJECT SITE ADJACENT TO AND OUTSIDE HIGHWAY BOUNDARIES.
- GIRDER ASSEMBLY TRANSPORT TRUCKS WILL BE GUIDED INTO THE STAGING AREA OFF OF RT 100 USING FLAG PERSONS.
- A PRELIFT MEETING WILL BE HELD BY LUCK BROS. SAFETY OFFICER GARY MORROW PRIOR TO THE START OF THE ERECTION PROCEDURE.

C. OVERHEAD ELECTRICAL LINE HAZARDS

- ALL LIFTING OPERATIONS WILL OBSERVE OSHA REQUIREMENTS REGARDING PROXIMITY TO ENERGIZED ELECTRICAL LINES

D. MISCELLANEOUS NOTES:

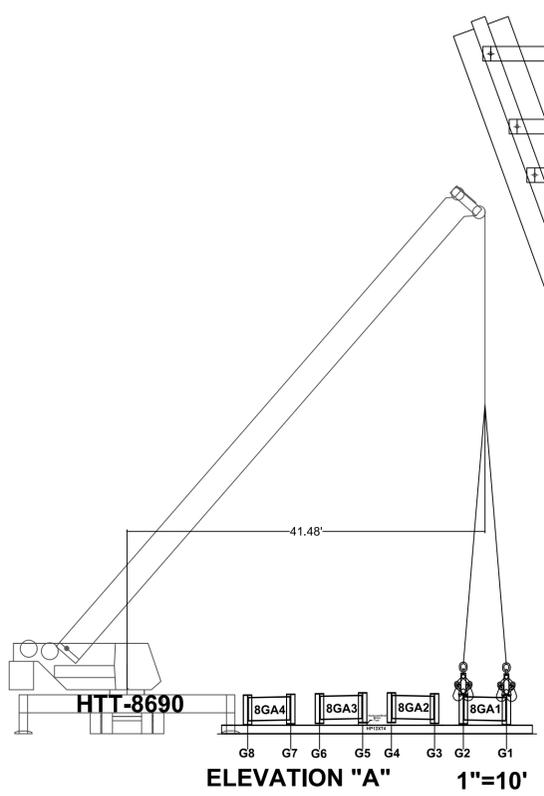
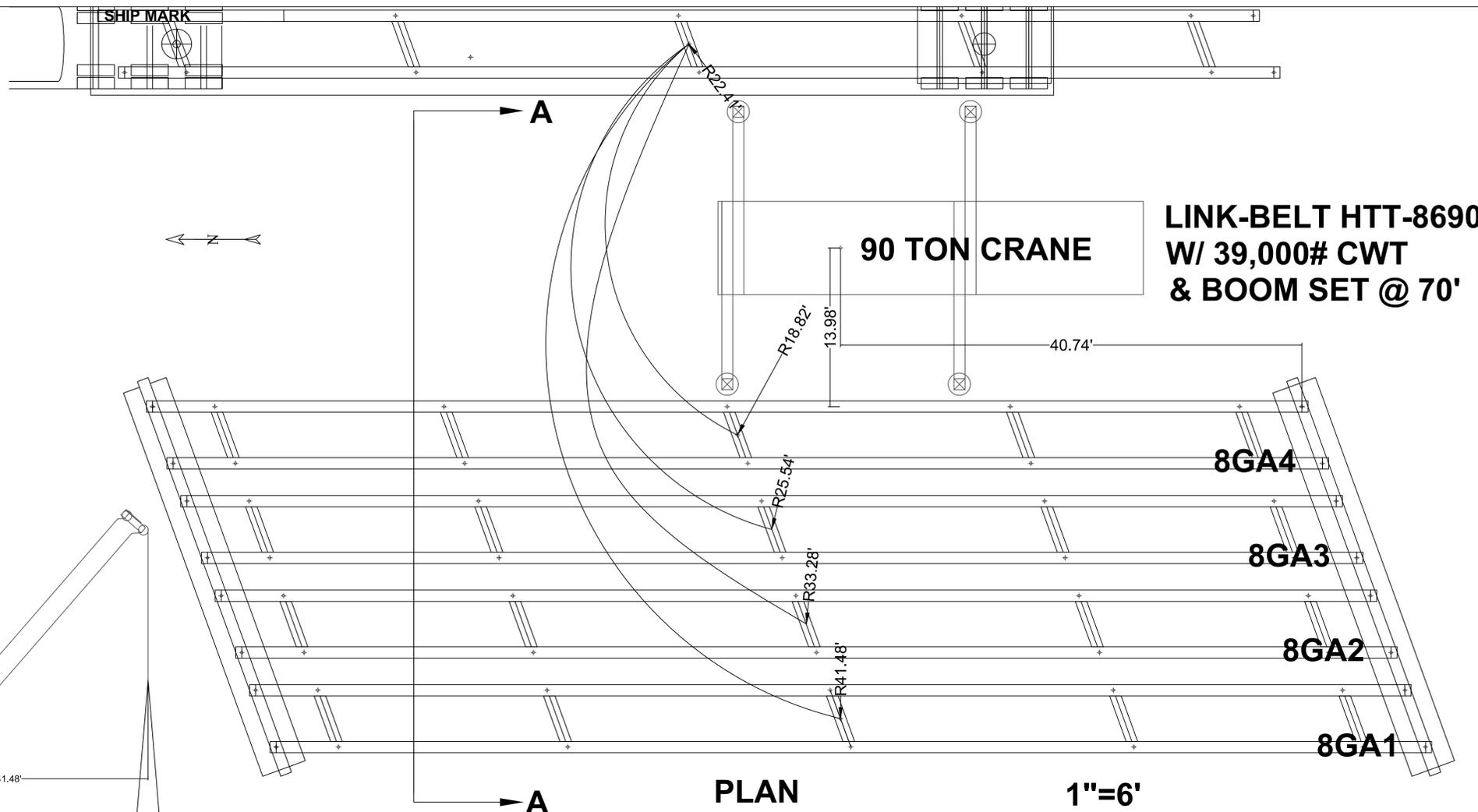
- ALL WORK WILL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS
- DON DROLLETTE, THE CONTRACTOR'S M&P PERSON WILL HAVE THE RESPONSIBILITY TO ASSURE THAT ALL CONDITIONS OF THE MUTCD AND PROJECT SPECIFICATIONS ARE MAINTAINED DURING THE ERECTION PROCEDURE.
- ALL PERSONNEL WILL WEAR APPROPRIATE PROTECTION EQUIPMENT.
- ALL PERSONNEL WILL BE TIED OFF WITH FULL SAFETY GEAR PER LATEST OSHA STANDARDS AT ANY POINT OF EXPOSURE DURING THE ERECTION PROCEDURE
- AFTER ERECTION OF THE STRUCTURE, ANY TEMPORARY WALKWAY FOR WORKERS WILL HAVE OSHA APPROVED HANDRAILS. SUCH WALKWAYS WILL BE CLOSED TO THE GENERAL PUBLIC.
- ALL RIGGING (SHACKLES, SLINGS AND CLAMPS) SHALL BE OF AN APPROPRIATE RATING FOR THE PICKS BEING MADE.
- BEFORE HOISTING OPERATIONS, ONE PERSON SHALL BE APPOINTED "GROUND DIRECTOR" AND ONLY HE SHALL BE RESPONSIBLE FOR OVERALL DIRECTION AND COMMUNICATION WITH THE CRANE OPERATORS. ALL EMPLOYEES SHALL BE MADE AWARE THAT THIS PERSON IS DON DROLLETTE OF LUCK BROS..
- THE GROUND DIRECTOR WILL HOLD SAFETY MEETINGS AT EVERY POINT OF A NEW ITEM OF WORK DURING THE ERECTION PROCEDURE.

E. REQUIRED NOTES:

- NO CRANE SHALL BE OPERATED IN A MANNER THAT WILL EXCEED ITS RATED CAPACITY AT A RADIUS AS SHOWN BY THE MANUFACTURER
- THE TABLE OR CHART PREPARED BY THE CRANE MANUFACTURER TO DESCRIBE THE MAXIMUM LIFT AT ALL CONDITIONS OF LOADING SHALL BE POSTED IN THE CRANE CAB IN CLEAR VIEW OF THE OPERATOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE WEIGHT OF EACH LIFT AND FOR INSURING THE STABILITY OF EACH MEMBER DURING ALL PHASES OF ERECTION.
- MPT SHALL BE PROVIDED BY THE CONTRACTOR UNDER THE DIRECTION OF THE EIC.

F. ERECTION SEQUENCE

- The first assembly to be erected will be 8GA1. Guide lines will be attached at each end of assembly for maintaining control of the beam during the actual lift. Delivery truck will be directed to the unloading stationing shown on the plan. Lift rigging will be attached to the assembly from the crane. Under direct control of the ground director, the crane operator will be directed to assume control of the beam. Ground director will order restraining chain and binders removed from transport truck/trailer.
- The Ground Director will order the crane to lift the beam clear of the transport trailer. Load will be leveled and balanced before proceeding. Deliver tractor will be dispatched. Ground Director will order the lift and then swing the beam counterclockwise to its intended position above pre-positioned bearings located on the temporary casting bed abutments. Ground director will order beam to be rested on its bearing locations. After verification beam's correct placement and stabilization, assembly will be lowered completely and Ground Director will order release of the crane.
- Remaining 3 girder assemblies 8GA2, 8GA3 & 8GA4 will be erected using same procedure described above.



LIFT CHART

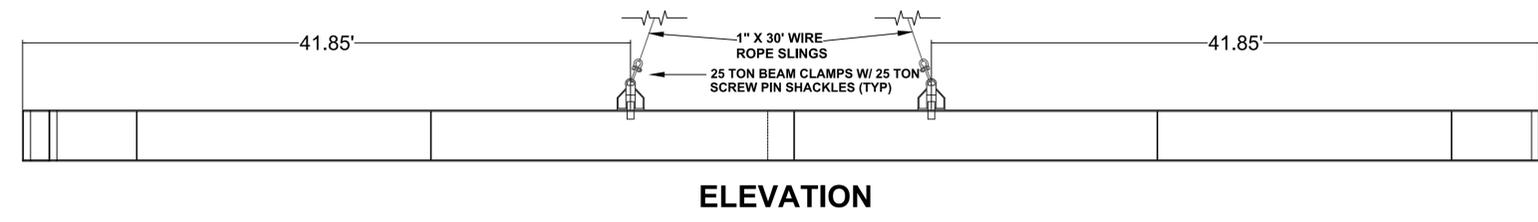
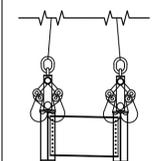
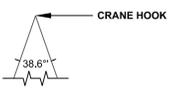
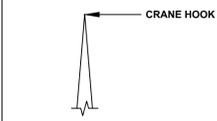
Girder Assembly #	Assembly Weight *	Rigged Mass** Picked by Crane (lbs)	Pick Radius South Crane	Set Radius South Crane (ft)	South Crane Capacity at Max. Radius	South Crane Factor of Safety at Maximum Rad.**
8GA1	34,824	40,824	22.4	>20	70,300	1.72
8GA2	34,823	40,823	22.4	>30	63,600	1.56
8GA3	34,823	40,823	22.4	>35	51,400	1.26
8GA4	34,824	40,824	22.4	>42	41,680	1.02

* Ref. Casco Bay Steel drawing 8 for assembly weights
 ** Includes allowance for rigging (girder clamps, slings, shackles & hook block) (6000#)

CRANE LOAD RATINGS - LINK-BELT HTT 8690 W/ 39,500# COUNTERWGT - 360 DEG. ROTATION

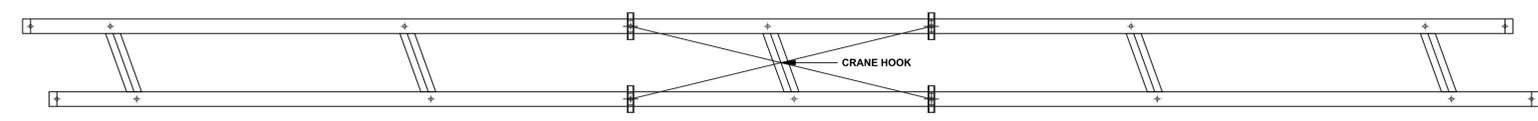
Radius (FT)	Lifting Capacities (#) per Boom Length (LF)										
	38.0	50.0	60.0	70.0	76.5/80	90.0	100.0	110.0	120.0	130.0	140.0
8	180,000										
9.0	167,600										
10.0	143,600	152,100	117,900	89,700.0							
12.0	123,700	138,700	108,800	85,000.0	86,100						
15.0	91,300	122,600	106,500	78,800.0	78,400	57,700					
20.0	71,000	93,500	93,800	70,300.0	76,500	56,200	49,100	42,500			
25.0	57,200	73,300	73,800	63,600.0	73,300	55,300	45,800	42,500	33,700	29,700	
30.0		59,600	60,100	58,100.0	61,100	54,500	45,200	38,300	31,200	29,400	24,400
35.0		49,700	50,300	51,400.0	51,200	50,900	42,500	35,500	30,900	29,100	24,100
40.0		42,200	43,700	44,000.0	43,800	43,400	38,200	33,400	30,600	28,800	24,000
45.0			37,900	38,200.0	38,100	37,700	34,600	30,300	29,900	28,600	23,800
50.0			32,400	32,700.0	32,500	32,000	31,500	27,900	27,800	26,800	23,700
55.0				28,200.0	28,000	27,600	27,300	25,600	25,600	24,800	23,600
60.0				24,600.0	24,500	24,100	24,100	23,600	24,300	23,000	22,100
65.0				21,500	21,500	21,300	21,100	21,400	21,600	21,300	20,600
70.0				19,900	19,900	19,700	19,500	19,500	19,100	19,200	19,200
75.0				17,700	17,700	17,500	17,400	17,000	17,000	17,000	17,400
80.0				16,000	16,000	15,800	15,600	15,900	15,900	15,600	15,600
85.0				14,800	14,800	14,600	14,400	14,800	14,400	14,400	14,100
90.0				13,800	13,700	13,400	13,000	13,000	13,000	12,700	12,700
95.0					12,500	12,300	11,900	11,900	11,600	11,600	
100.0						11,500	11,200	10,900	10,600	10,600	
105.0							10,200	9,900	9,600	9,600	
110.0								9,000	8,900	8,900	
115.0									8,300	8,000	
120.0										7,500	7,300
125.0											6,600
130.0											

This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads and on tires do not exceed 75% of the tipping loads.



SECTION

ELEVATION



PLAN RIGGING DETAILS 1"=6'

No.	Date	Description
Revisions		



Contractor: Luck Bros., Inc.
 73 Trade Rd.
 Plattsburgh, NY 12901

Erecting Contractor: Luck Bros., Inc.
 73 Trade Rd.
 Plattsburgh, NY 12901

Steel Fabricator: Casco Bay Steel Structures Inc.
 1 Wallace Ave.
 S. Portland ME 04106

Project: Warren BR# 013-4(32)

BRIDGE NO. 166

Designed by: DFB
 Date: 05/05/2014

Drawn by: DFB
 Scale: AS NOTED

Checked by: TL
 Drawing No.: EP-1

Approved by: TL

STEEL ERECTION @ CASTING BEDS