



**ERECTION DIAGRAM**

FOR  $\theta = 70^\circ$  TO  $90^\circ$

**ERECTION DIAGRAM**

FOR  $\theta < 70^\circ$

SERVICE BEAM REACTIONS (KIPS)			
BEAM SPAN ( $\epsilon$ BRG - $\epsilon$ BRG) (FT)	DC	DW	LL+I
20	13	2	103
30	19	3	107
40	25	3	111
50	31	4	115
60	37	4	120

THIS TABLE IS FOR INFORMATION ONLY AND SHOULD NOT BE INCLUDED ON THE FINAL DESIGN DRAWINGS

DC DENOTES SERVICE DEAD LOADS DUE TO BEAM SELF WEIGHT, DECK WEIGHT, & DIAPHRAGMS

DW DENOTES SERVICE BEAM REACTION DUE TO FUTURE WEARING SURFACE

LL+I DENOTES SERVICE LIVE LOAD PLUS IMPACT REACTION PER LANE

"S" = BEAM SPAN ( $\epsilon$  BRG -  $\epsilon$  BRG)

**FOR INFORMATION ONLY:**

THE DESIGN OF THESE STRUCTURES IS BASED ON 1.2 TIMES THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION HL-93 LOADING WITH THE EXCEPTION THAT THE DESIGN TANDEM PORTION OF THE HL-93 LOAD DEFINITION SHALL BE REPLACED BY A SINGLE 60 KIP AXLE LOAD BEFORE APPLICATION OF THIS 1.2 FACTOR. THE RESULTING LOAD IS DESIGNATED HL-93 MOD. LIVE LOAD PLUS DYNAMIC LOAD ALLOWANCE DEFLECTION DOES NOT EXCEED 1/800 OF SPAN LENGTH.

PLACE DIAPHRAGMS PARALLEL TO REF LINES.

NO INTERMEDIATE DIAPHRAGMS REQUIRED FOR 20' SPANS.

"A" & "B" ARE MEASURED FROM BRIDGE CONST  $\epsilon$  TO ADJACENT BEAM  $\epsilon$ .

THE ABOVE NOTES ARE FOR INFORMATION ONLY AND SHOULD NOT BE INCLUDED ON THIS SHEET.

**NOTES:**

FIELD CONNECTIONS SHALL BE BOLTED WITH  $3/4"$   $\emptyset$  HIGH STRENGTH BOLTS (EXCEPT AS NOTED).

ALL HOLES SHALL BE  $13/16"$   $\emptyset$  FOR  $3/4"$   $\emptyset$  H.S. BOLTS.

SHEAR DEVELOPERS SHALL BE  $3/4"$  DIAMETER STUDS.

THE BEAMS SHALL BE CAMBERED WITH ORDINATES AS SHOWN ON THE CAMBER DIAGRAM. HEATING IS TO BE USED, IF NECESSARY, TO PROVIDE THE CAMBER WITHIN THE TOLERANCE SPECIFIED IN THE AWS SPECIFICATIONS. THE CAMBER SHOWN IS TO BE MEASURED WITH THE BEAM LYING ON IT'S SIDE.

ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED ACCORDING TO THE STANDARD SPECIFICATIONS.

STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270, GRADE 50, OR AASHTO M270, GRADE 50W. AASHTO M270, GRADE 36, STEEL MAY BE USED IN LIEU OF THESE STEELS FOR THE DIAPHRAGMS (EXCEPT CONNECTION PLATES).

FIELD CONNECTIONS SHALL BE BOLTED WITH  $3/4"$  HIGH-STRENGTH BOLTS (EXCEPT AS NOTED).

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								NO SCALE	DATE: 05/09/18	CS:	STRUCTURAL STEEL DETAILS	DRAWING	SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION		DESIGN UNIT:	JN:		ROLLED STEEL BEAM	STEEL	SECT
									TSC:				001	