deflection due to girder & diaphragm weights

deflections due to concrete deadload (slab) and superimposed dead loads

typo; should be 0.9

the girder self weight deflections are broken out separately because the contractor only uses the concrete and superimposed deadload deflections to set the haunch heights.

Total camber at each point equals girder deflections plus the concrete deflections plus the superimposed dead load deflections

haunch thickness = top of slab elevation -slab thickness-field measured top of steel elevation + concrete and superimposed deadload deflections

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PRI. ROUTE DIST. NO.	STATE	JOB PIECE NO.	BRIDGE NO.	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

DEFLECTION SCHEDULE - GIRDERS 1 - 6

	BEAM AND DIAPHRAGM DEFLECTION						SLAB, HAUNCH, S.I.P. STEEL DECK FORMS AND TRAFFIC RAIL DEFLECTION ②					
SPAN	CL. BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5	CL. BRG.	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5
1	0.00"	0.02"	0.03"	0.04"	0.05"	0.06"	0.00"	0.06"	0.12"	0.16"	0.19"	0.20"

DEFLECTION SCHEDULE - GIRDERS 1 - 6

	BEAM AND DIAPHRAGM DEFLECTION									
SPAN	CL. BRG.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
2 & 6	0.00"	0.14"	0.25"	0.33"	0.37"	0.37"	0.32"	0.25"	0.15"	0.06"
3 & 5	0.00"	0.02"	0.00"	0.03"	0.05"	0.07"	0.07"	0.05"	0.02"	0.00"
4	0.00"	0.03"	0.08"	0.13"	0.17"	0.18"	SYM. ABOUT ℄ BRIDGE			

DEFLECTION SCHEDULE - GIRDERS 2 - 5

	BEAM AND DIAPHRAGM DEFLECTION									
SPAN	CL. BRG.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
2 & 6	0.00"	0.14"	0.25"	0.34"	0.38"	0.38"	0.33"	0.25"	0.15"	0.06"
3 & 5	0.00"	0.02"	0.00"	0.03"	0.05"	0.07"	0.07"	0.05"	0.03"	0.00"
4	0.00"	0.03"	0.08"	0.13"	0.17"	0.18"	SYM. ABOUT ℄ BRIDGE			

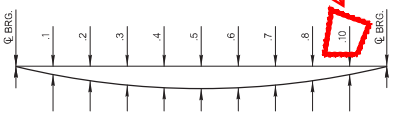
DEFLECTION SCHEDULE - GIRDERS 1 - 6

	DECK SLAB, HAUNCH, S.I.P. STEEL DECK FORMS AND TRAFFIC RAIL DEFLECTION ②									
SPAN	CL. BRG.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
2 & 6	0.00"	0.33"	0.61"	0.81"	0.90"	0.89"	0.78"	0.59"	0.36"	0.15"
3 & 5	0.00"	0.03"	0.01"	0.09"	0.16"	0.20"	0.20"	0.14"	0.07"	0.01"
4	0.00"	0.08"	0.21"	0.35"	0.45"	0.49"	SYM. ABOUT ℄ BRIDGE			

DERS 1 - 6

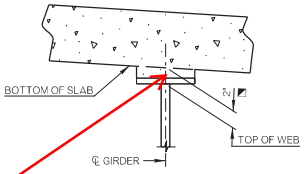
ND TRAFFIC RAIL DEFLECTION

5	0.6	0.7	0.8	0.9
3"	0.99"	0.75"	0.46"	0.19"
5"	0.24"	0.18"	0.09"	0.01"
1"	SYM. ABOUT ℄ BRIDGE			



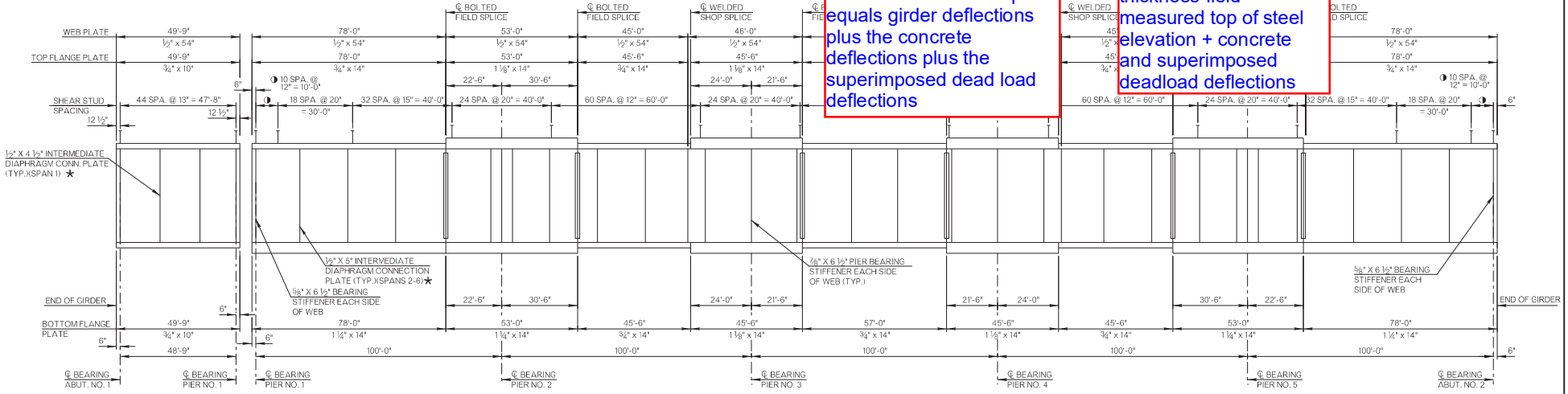
DEAD LOAD DEFLECTION DIAGRAM

② THE DEAD LOAD DEFLECTION SHOWN AT THE TENTH POINTS ARE THE DEFLECTIONS DUE TO DECK SLAB + HAUNCH + SIP STEEL DECK FORM ALLOWANCE + CONCRETE TRAFFIC RAIL. IT DOES NOT INCLUDE THE BEAM WEIGHT, DIAPHRAGMS OR FUTURE WEARING SURFACE.



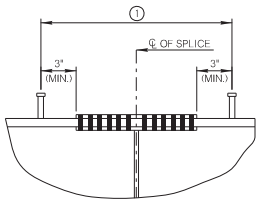
THEORETICAL SLAB HAUNCH

◥ DIMENSION (BOTTOM OF SLAB TO TOP OF WEB) MAY VARY IF GIRDER CAMBER AFTER ERECTION DIFFERS FROM PLAN CAMBER BY MORE AD LOAD DEFLECTION DUE TO WEIGHT OF L. NO PAYMENT WILL BE MADE FOR ADDITIONAL RETE REQUIRED FOR VARIABLE HAUNCHING.



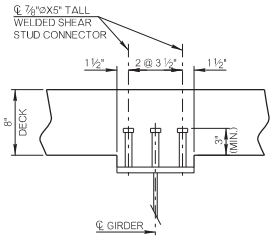
GIRDER ELEVATION

SUMMARY OF STRUCTURAL STEEL QUANTITIES	
ITEM	LBS.
AASHTO M270 GRADE 50W	
GIRDERS	602,700
TYPICAL WEB STIFFENER PLATE	9,910
BEARING STIFFENERS	6,710
SPLICE PLATES	16,080
FILL PLATES	1,620
INTERMEDIATE CROSS FRAMES	31,700
END CROSS FRAMES	10,870
TOTAL AASHTO M270 GRADE 50W	679,590
WELDED SHEAR STUD CONNECTORS	7,650

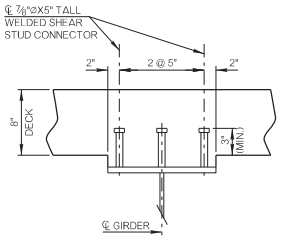


CLEARANCE AT SPLICE PLATE

① SHEAR CONNECTORS IN SPLICE PLATE REGION SHALL BE ADJUSTED BY FABRICATOR TO EACH SIDE OF CENTERLINE OF SPLICE.



10" FLANGE SHEAR STUD CONNECTOR DETAIL
(SPAN 1)



14" FLANGE SHEAR STUD CONNECTOR DETAIL
(SPANS 2-6)

★ CONNECTION PLATES ARE ATTACHED ON BOTH SIDES OF THE WEB. OMIT CONNECTION PLATES ON EXTERIOR FACES OF GIRDERS 1 & 6.

REFER TO FRAMING PLAN ON SUPERSTRUCTURE DETAILS FOR DIAPHRAGM CONNECTION PLATE SPACING.

LOCHNER			OKLAHOMA DEPARTMENT OF TRANSPORTATION
DESIGN	JCG	1/15	GIRDER DETAILS
DRAWN	JTC	1/15	
CHECKED	PRY	1/16	STATE JOB NO. 29667(04) SHEET NO. B015
FILE NAME	Girder		GARVIN COUNTY US-77

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