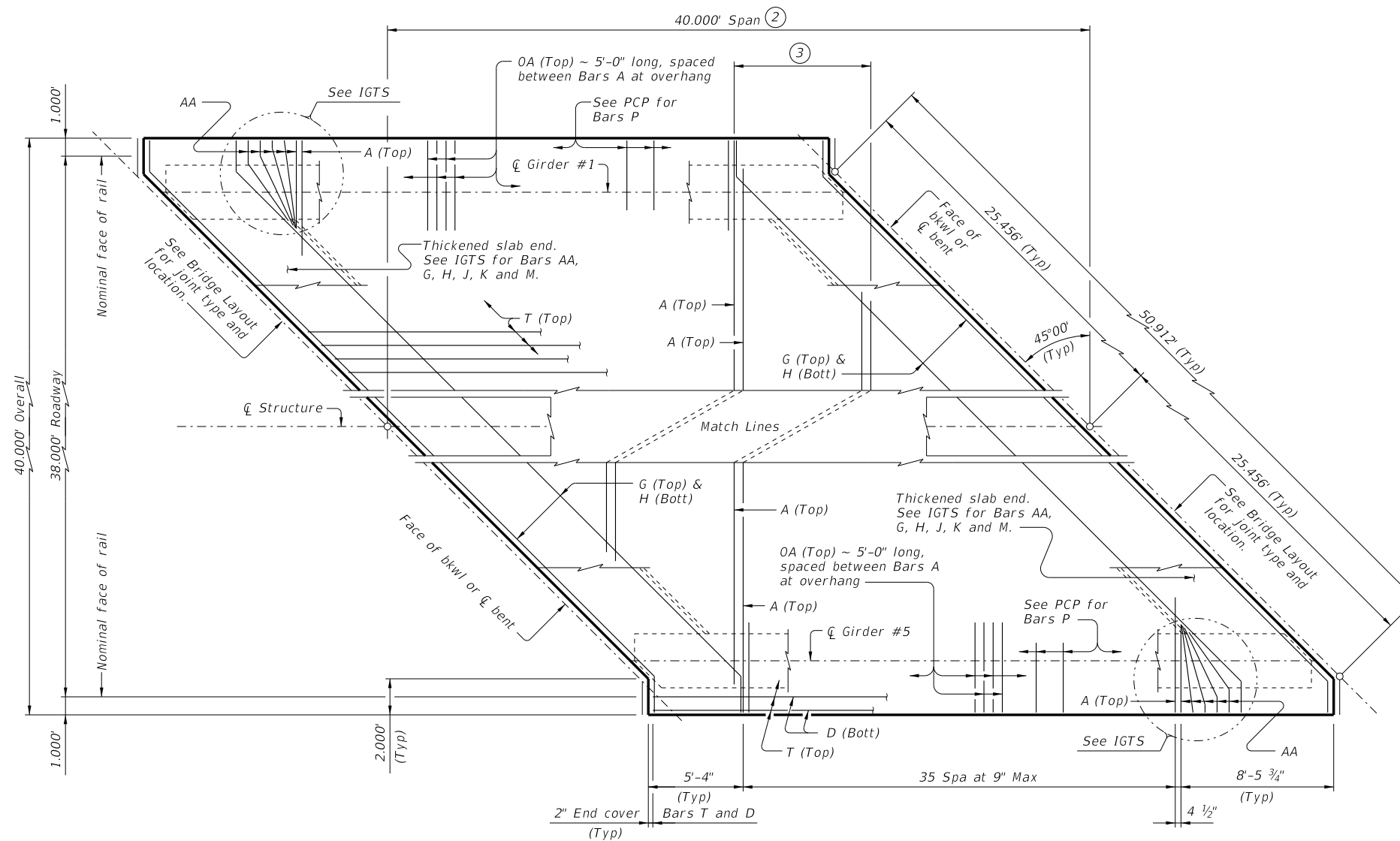


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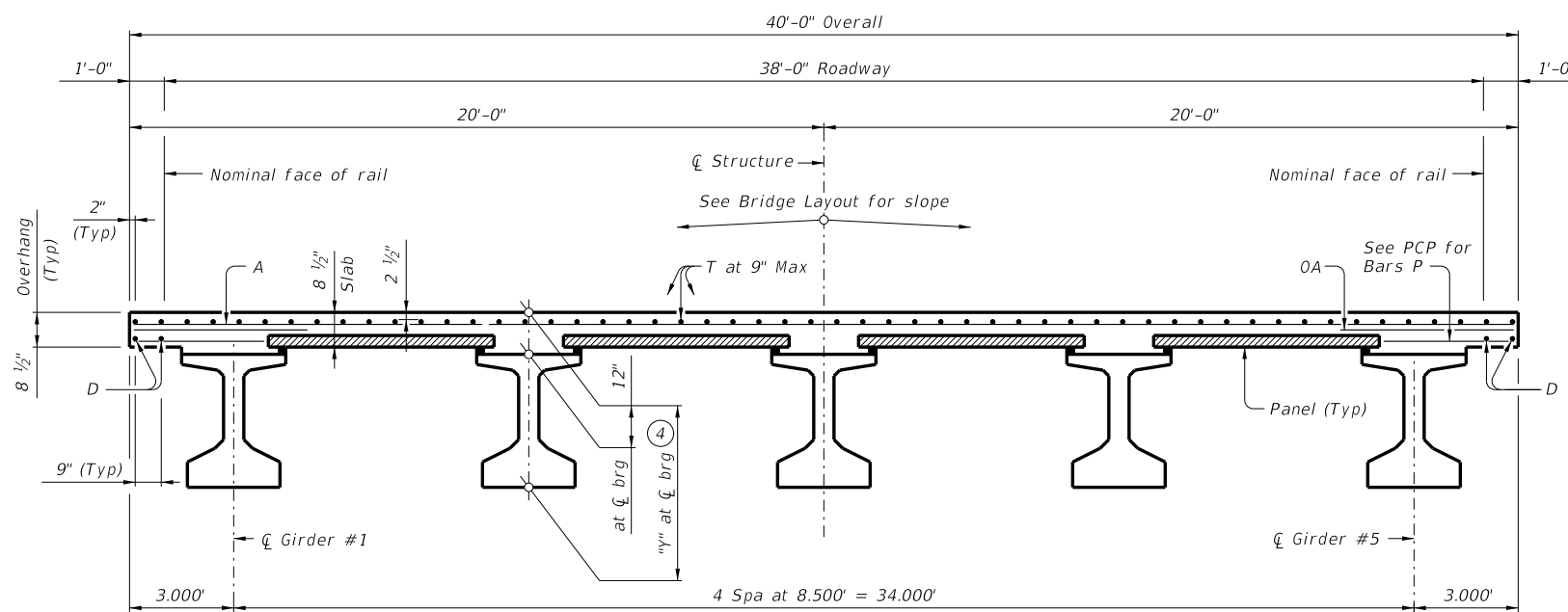
**BAR TABLE**

BAR	SIZE
A	#4
AA	#5
D	#4
G	#4
H	#4
J	#4
K	#4
M	#4
OA	#5
P	#4
T	#4



**PLAN ~ 40' SPAN**

- ① If multi-span units (with slab continuous over interior bents) are indicated on the Bridge Layout, see standard IGCS for adjustment to slab reinforcement and quantities.
- ② Span lengths for prestressed concrete I-Girder type: Type Tx28 for spans lengths 40.000' thru 70.000'. Type Tx34 for spans lengths 40.000' thru 80.000'. Type Tx40 for spans lengths 40.000' thru 95.000'. Type Tx46 for spans lengths 40.000' thru 105.000'. Type Tx54 for spans lengths 40.000' thru 125.000'. See appropriate "Plan Detail" for span length.
- ③ Bars A (Top) at 9" Max Spacing.
- ④ "Y" value shown is based on theoretical girder camber, dead load deflection from an 8 1/2" concrete slab, a constant roadway grade, and using precast panels (PCP). The Contractor will adjust this value as necessary for any roadway vertical curve.



**TYPICAL TRANSVERSE SECTION**

(Showing girder type Tx46)

TABLE OF SECTION DEPTHS	
GIRDER TYPE	"Y" AT CL BRG (4)
	Ft/In
Tx28	3'-4"
Tx34	3'-10"
Tx40	4'-4"
Tx46	4'-10"
Tx54	5'-6"

HL93 LOADING

SHEET 1 OF 3



**PRESTRESSED CONCRETE I-GIRDER SPANS (TYPE Tx28 THRU Tx54) 38' ROADWAY 45° SKEW**

**SIG-38-45**

FILE: IG-SIG3845-23.dgn	DN: JMH	CK: NRN	DW: JTR	CK: TAR
©TxDOT August 2017	CONT	SECT	JOB	HIGHWAY
REVISIONS				
10-19: Increased "X" and "Y" Values.	DIST		COUNTY	SHEET NO.
01-23: Removed PCP(O) reference.				

DATE: FILE:

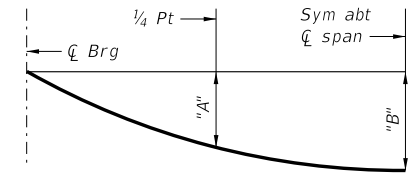


**TABLE OF DEAD LOAD DEFLECTIONS**

TYPE T <sub>x</sub> 28 GIRDERS			TYPE T <sub>x</sub> 34 GIRDERS			TYPE T <sub>x</sub> 40 GIRDERS			TYPE T <sub>x</sub> 46 GIRDERS			TYPE T <sub>x</sub> 54 GIRDERS		
SPAN LENGTH	"A"	"B"	SPAN LENGTH	"A"	"B"	SPAN LENGTH	"A"	"B"	SPAN LENGTH	"A"	"B"	SPAN LENGTH	"A"	"B"
Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft
40	0.009	0.013	40	0.006	0.008	40	0.004	0.005	40	0.003	0.004	40	0.001	0.002
45	0.016	0.022	45	0.009	0.013	45	0.006	0.009	45	0.004	0.006	45	0.003	0.004
50	0.024	0.034	50	0.014	0.020	50	0.009	0.013	50	0.006	0.009	50	0.004	0.006
55	0.036	0.051	55	0.021	0.030	55	0.014	0.020	55	0.009	0.013	55	0.006	0.009
60	0.052	0.073	60	0.031	0.043	60	0.020	0.028	60	0.014	0.019	60	0.009	0.013
65	0.072	0.101	65	0.043	0.060	65	0.028	0.040	65	0.019	0.027	65	0.013	0.018
70	0.098	0.137	70	0.058	0.082	70	0.038	0.054	70	0.026	0.037	70	0.017	0.024
			75	0.078	0.109	75	0.051	0.071	75	0.035	0.049	75	0.023	0.032
			80	0.101	0.142	80	0.066	0.093	80	0.045	0.063	80	0.030	0.042
						85	0.085	0.119	85	0.058	0.081	85	0.038	0.054
						90	0.107	0.150	90	0.073	0.103	90	0.048	0.068
						95	0.134	0.188	95	0.091	0.128	95	0.061	0.085
									100	0.113	0.158	100	0.074	0.104
									105	0.137	0.192	105	0.090	0.127
									110			110	0.110	0.154
									115			115	0.131	0.184
									120			120	0.156	0.219
									125			125	0.184	0.259

**TABLE OF ESTIMATED QUANTITIES**

SPAN LENGTH	REINF CONCRETE SLAB	Prestressed Concrete Girders			TOTAL REINF STEEL <sup>(6)</sup>
		ABUT TO INT BT <sup>(5)</sup>	INT BT TO INT BT <sup>(5)</sup>	ABUT TO ABUT <sup>(5)</sup>	
Ft	SF	LF	LF	LF	Lb
40	1,600	196.98	197.50	196.46	3,680
45	1,800	221.98	222.50	221.46	4,140
50	2,000	246.98	247.50	246.46	4,600
55	2,200	271.98	272.50	271.46	5,060
60	2,400	296.98	297.50	296.46	5,520
65	2,600	321.98	322.50	321.46	5,980
70	2,800	346.98	347.50	346.46	6,440
75	3,000	371.98	372.50	371.46	6,900
80	3,200	396.98	397.50	396.46	7,360
85	3,400	421.98	422.50	421.46	7,820
90	3,600	446.98	447.50	446.46	8,280
95	3,800	471.98	472.50	471.46	8,740
100	4,000	496.98	497.50	496.46	9,200
105	4,200	521.98	522.50	521.46	9,660
110	4,400	546.98	547.50	546.46	10,120
115	4,600	571.98	572.50	571.46	10,580
120	4,800	596.98	597.50	596.46	11,040
125	5,000	621.98	622.50	621.46	11,500



**DEAD LOAD DEFLECTION DIAGRAM**

Calculated deflections shown are due to the concrete slab on interior girders only ( $E_c = 5000$  ksi). Adjust values as required for exterior girders and if optional slab forming is used. These values may require field verification.

- Fabricator will adjust lengths for girder slopes as required.
- Reinforcing steel weight is calculated using an approximate factor of 2.3 lbs/SF.

**MATERIAL NOTES:**

**GENERAL NOTES:**

See This standard does not support the use of transition bents.

Cover dimensions are clear dimensions, unless noted otherwise.

<p><b>Texas Department of Transportation</b></p>	<p><b>Bridge Division Standard</b></p>
<p><b>PRESTRESSED CONCRETE I-GIRDER SPANS (TYPE T<sub>x</sub>28 THRU T<sub>x</sub>54) 38' ROADWAY 45° SKEW</b></p>	
<p><b>SIG-38-45</b></p>	
FILE:	DN: JMH CK: NRN DW: JTR CK: TAR
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REVISIONS	
DIST	COUNTY SHEET NO.

DATE:  
FILE: