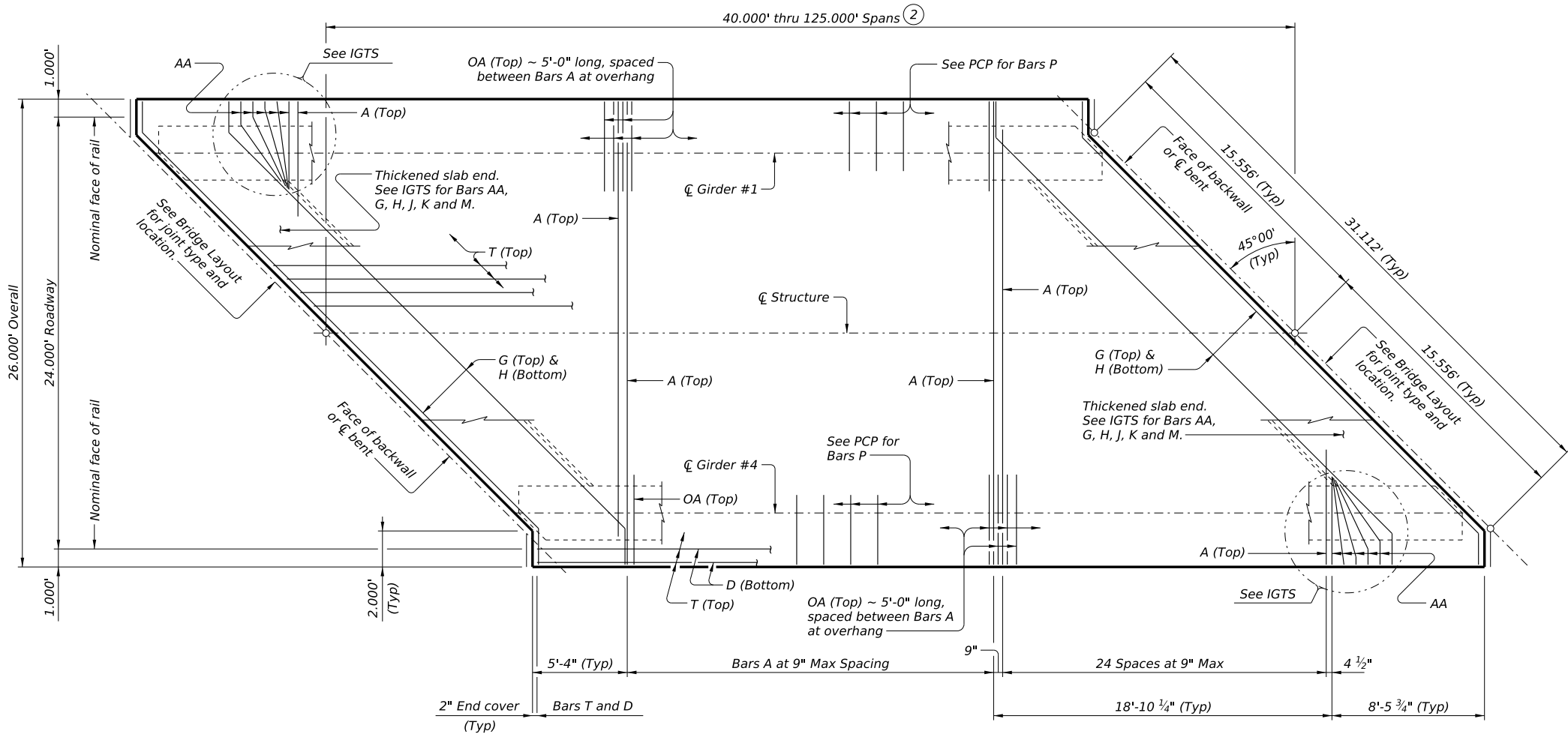


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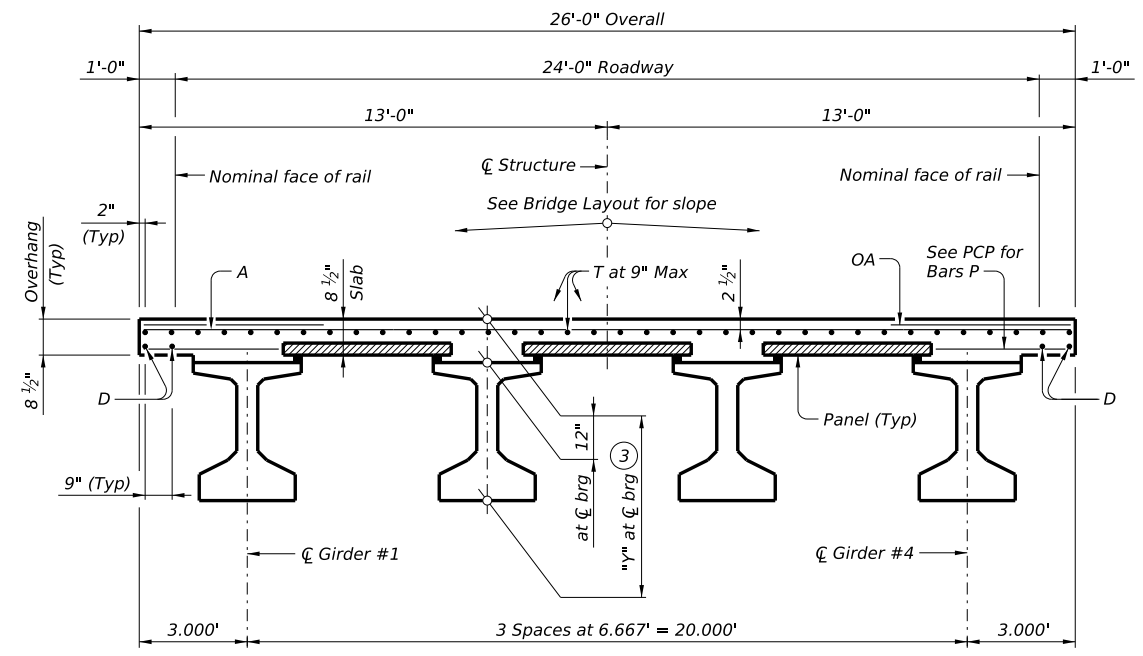
BAR TABLE

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



- 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 75,000'.
 Type Tx34 for spans lengths 40,000' thru 85,000'.
 Type Tx40 for spans lengths 40,000' thru 100,000'.
 Type Tx46 for spans lengths 40,000' thru 115,000'.
 Type Tx54 for spans lengths 40,000' thru 125,000'.
- ③ "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.

PLAN ①



TYPICAL TRANSVERSE SECTION

(Showing girder type Tx46)

TABLE OF SECTION DEPTHS	
GIRDER TYPE	"Y" AT C_{BRG} (3)
Tx28	3'-4"
Tx34	3'-10"
Tx40	4'-4"
Tx46	4'-10"
Tx54	5'-6"

HL93 LOADING SHEET 1 OF 2



PRESTRESSED CONCRETE I-GIRDER SPANS (TYPE Tx28 THRU Tx54) 24' ROADWAY 45° SKEW

SIG-24-45

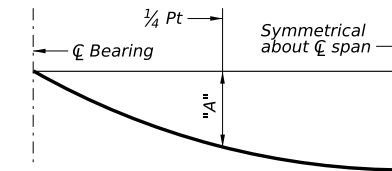
FILE: IG-SIG2445-24.dgn	DN: JMH	CK: NRN	DW: JTR	CK: TAR
© TxDOT August 2017	CONT	SECT	JOB	HIGHWAY
REVISIONS				
10-19: Increased "X" and "Y" values				
01-23: Removed PCP(D) reference				
11-24: Flipped top mat				
DIST	COUNTY	SHEET NO.		

DATE: FILE:

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TABLE OF DEAD LOAD DEFLECTIONS

TYPE Tx28 GIRDERS			TYPE Tx34 GIRDERS			TYPE Tx40 GIRDERS			TYPE Tx46 GIRDERS			TYPE Tx54 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	0.007	0.010	40	0.004	0.006	40	0.003	0.004	40	0.002	0.003	40	0.001	0.002
45	0.012	0.017	45	0.007	0.010	45	0.005	0.007	45	0.004	0.005	45	0.002	0.003
50	0.019	0.027	50	0.011	0.016	50	0.007	0.010	50	0.005	0.007	50	0.004	0.005
55	0.028	0.040	55	0.017	0.024	55	0.011	0.016	55	0.008	0.011	55	0.005	0.007
60	0.041	0.057	60	0.024	0.034	60	0.016	0.022	60	0.011	0.015	60	0.007	0.010
65	0.056	0.079	65	0.033	0.047	65	0.022	0.031	65	0.015	0.021	65	0.010	0.014
70	0.077	0.108	70	0.046	0.064	70	0.030	0.042	70	0.021	0.029	70	0.014	0.019
75	0.102	0.143	75	0.061	0.085	75	0.040	0.056	75	0.027	0.038	75	0.018	0.025
			80	0.079	0.111	80	0.052	0.073	80	0.036	0.050	80	0.024	0.033
			85	0.102	0.143	85	0.066	0.093	85	0.046	0.064	85	0.030	0.042
						90	0.084	0.118	90	0.057	0.080	90	0.038	0.053
						95	0.105	0.147	95	0.071	0.100	95	0.047	0.066
						100	0.130	0.182	100	0.088	0.124	100	0.058	0.082
									105	0.108	0.151	105	0.071	0.100
									110	0.130	0.182	110	0.086	0.121
									115	0.156	0.219	115	0.103	0.144
									120	0.123	0.172	120	0.123	0.172
									125	0.145	0.203	125	0.145	0.203



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.

TABLE OF ESTIMATED QUANTITIES

SPAN LENGTH	REINF CONCRETE SLAB	Prestressed Concrete Girders			TOTAL REINF STEEL (5)
		ABUT TO INT BT (4)	INT BT TO INT BT (4)	ABUT TO ABUT (4)	
Ft	SF	LF	LF	LF	Lb
40	1,040	157.59	158.00	157.17	2,392
45	1,170	177.59	178.00	177.17	2,691
50	1,300	197.59	198.00	197.17	2,990
55	1,430	217.59	218.00	217.17	3,289
60	1,560	237.59	238.00	237.17	3,588
65	1,690	257.59	258.00	257.17	3,887
70	1,820	277.59	278.00	277.17	4,186
75	1,950	297.59	298.00	297.17	4,485
80	2,080	317.59	318.00	317.17	4,784
85	2,210	337.59	338.00	337.17	5,083
90	2,340	357.59	358.00	357.17	5,382
95	2,470	377.59	378.00	377.17	5,681
100	2,600	397.59	398.00	397.17	5,980
105	2,730	417.59	418.00	417.17	6,279
110	2,860	437.59	438.00	437.17	6,578
115	2,990	457.59	458.00	457.17	6,877
120	3,120	477.59	478.00	477.17	7,176
125	3,250	497.59	498.00	497.17	7,475

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

MATERIAL NOTES:

Provide Class 5 concrete ($f'_c = 4,000$ psi).
 Provide Class 5 (HPC) concrete if shown elsewhere in the plans.
 Provide Grade 60 reinforcing steel.
 Provide bar laps, where required, as follows:
 Uncoated ~ #4 = 1'-7"
 Epoxy coated ~ #4 = 2'-5"
 Deformed welded wire reinforcement (WWR) (ASTM A1064) of equal size and spacing may be substituted for Bars A, AA, D, OA, P or T unless noted otherwise.

GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications.
 Multi-span units, with slab continuous over interior bents, may be formed with the details shown on this sheet and the I-Girder Continuous Slab Detail (IGCS) standard.
 See I-Girder Thickened Slab End Details (IGTS) standard for details and quantity adjustments.
 See Prestressed Concrete Panels (PCP) standard and Prestressed Concrete Panel Fabrication Details (PCP-FAB) standard for panel details not shown.
 See I-Girder Miscellaneous Slab Details (IGMS) standard for miscellaneous details.
 See applicable rail details for rail anchorage in slab.
 See Permanent Metal Deck Forms (PMDf) standard for details and quantity adjustments if this option is used.
 This standard is drawn showing right forward skew, see Bridge Layout for actual skew direction.
 This standard does not support the use of transition bents.

Cover dimensions are clear dimensions, unless noted otherwise.

HL93 LOADING

SHEET 2 OF 2



PRESTRESSED CONCRETE I-GIRDER SPANS (TYPE Tx28 THRU Tx54) 24' ROADWAY 45° SKEW

SIG-24-45

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©TxDOT August 2017	CONT	SECT	JOB	HIGHWAY
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