DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act." No warranty of any kind is made by TXDOT for any purpose what TXDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

## BAR TABLE

BAR	SIZE
Α	#4
D	#4
G	#4
Н	#4
J	#4
М	#4
OA	#5
Р	#4
Т	#4

- 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 "Y" value shown is based on theoretical girder camber, dead load deflection from an 8 ½" concrete slab, a constant roadway grade, and using precast panels (PCP). The Contractor will adjust this value as necessary for any roadway vertical curve.

HL93 LOADING

SHEET 1 OF 2



Texas Department of Transportation

PRESTRESSED CONCRETE I-GIRDER SPANS (TYPE Tx62)

40' ROADWAY

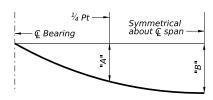
15° SKEW

SIG-62-40-15

FILE: IG-SIG624015-24.dgn	DN: JMH		CK: ASB	DW:	JTR		CK: TAR
©TxDOT August 2017	CONT	SECT	JOB			HIG	HWAY
REVISIONS 10-19: Increased "X" and "Y" values							
01-23: Removed PCP(O) reference 11-24: Filipped top mat	DIST	COUNTY				SHEET NO.	

## TABLE OF **DEAD LOAD DEFLECTIONS**

TYPE Tx62 GIRDERS						
SPAN LENGTH	"A"	"B"				
Ft	Ft	Ft				
60	0.006	0.009				
65	0.009	0.012				
70	0.012	0.017				
75	0.016	0.022				
80	0.021	0.029				
85	0.026	0.037				
90	0.033	0.046				
95	0.041	0.058				
100	0.051	0.071				
105	0.062	0.087				
110	0.075	0.105				
115	0.090	0.126				
120	0.107	0.150				
125	0.126	0.177				
130	0.148	0.208				



## **DEAD LOAD DEFLECTION DIAGRAM**

Calculated deflections shown are due to the concrete slab on interior girders only (Ec = 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**

L				•				
Γ			Prestress					
	SPAN LENGTH	REINF CONCRETE SLAB	ABUT TO 3 INT BT	INT BT TO 3 INT BT	ABUT TO 3 ABUT	TOTAL REINF STEEL 4		
	Ft	SF	LF	LF	LF	Lb		
	60	2,520	297.46	297.50	297.41	5,796		
ĺ	65	2,730	322.46	322.50	322.41	6,279		
I	70	2,940	347.46	347.50	347.41	6,762		
I	<i>75</i>	3,150	372.46	372.50	372.41	7,245		
I	80	3,360	397.46	397.50	397.41	7,728		
	85	3,570	422.46	422.50	422.41	8,211		
	90	3,780	447.46	447.50	447.41	8,694		
	95	3,990	472.46	472.50	472.41	9,177		
	100	4,200	497.46	497.50	497.41	9,660		
	105	4,410	522.46	522.50	522.41	10,143		
	110	4,620	547.46	547.50	547.41	10,626		
	115	4,830	572.46	572.50	572.41	11,109		
	120	5,040	597.46	597.50	597.41	11,592		
ĺ	125	5,250	622.46	622.50	622.41	12,075		
	130	5,460	647.46	647.50	647.41	12,558		

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

#### **MATERIAL NOTES:**

Provide Class S concrete (fc = 4,000 psi). Provide Class S (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, 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

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

Texas Department of Transportation

PRESTRESSED CONCRETE I-GIRDER SPANS (TYPE Tx62)

40' ROADWAY

15° SKEW

SIG-62-40-15

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©TxD0T	August 2017	CONT	SECT	JOB		HIGHWAY		
10.10	REVISIONS : Increased "X" and "Y" values : Removed PCP(0) reference : Flipped top mat							
01-23:		DIST	COUNTY				SHEET NO.	