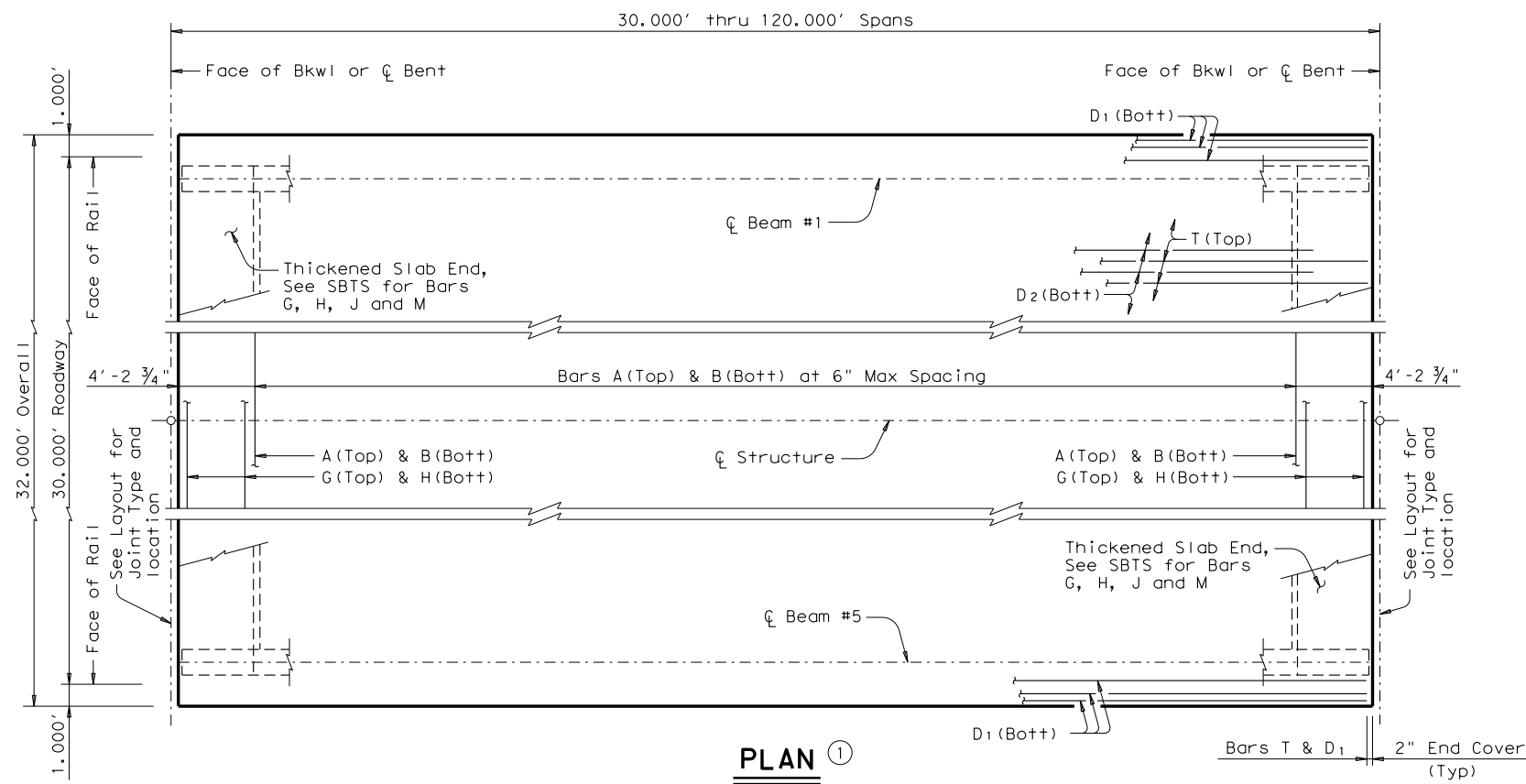


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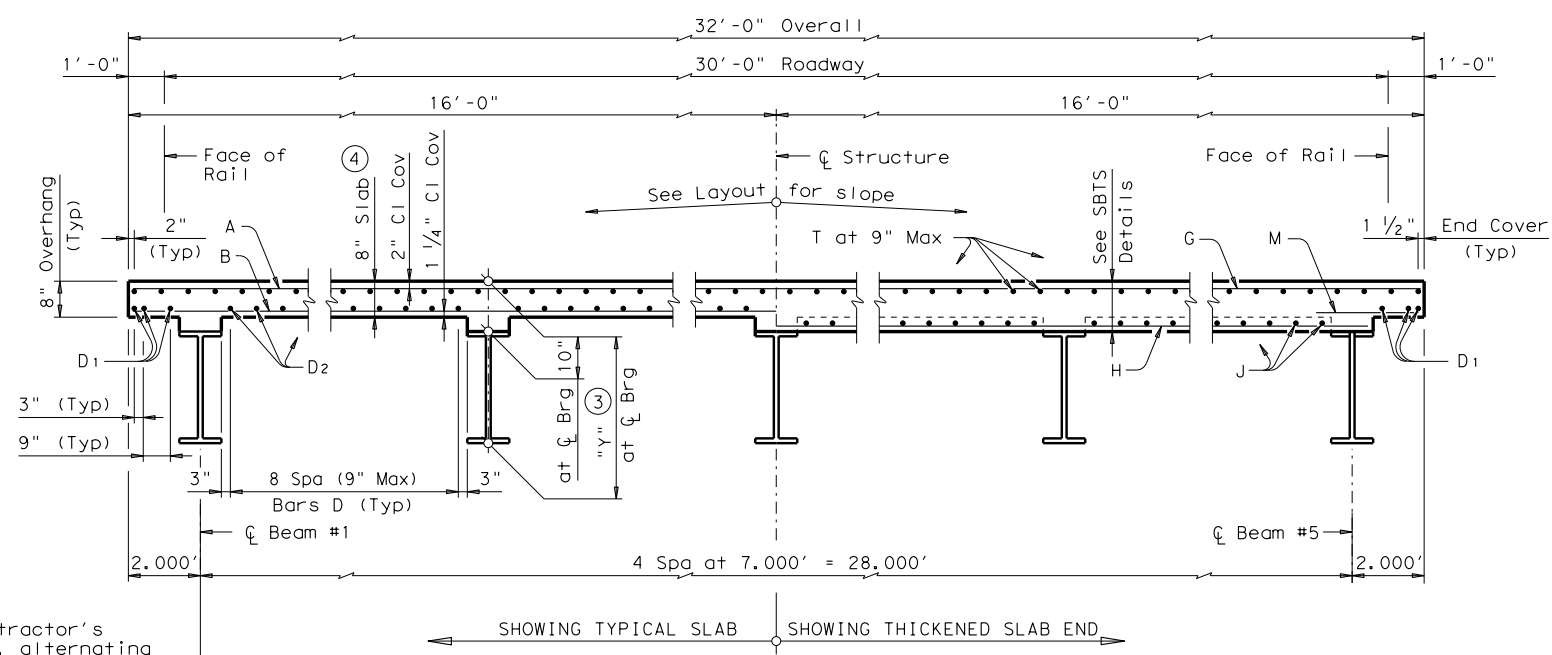


**PLAN 1**

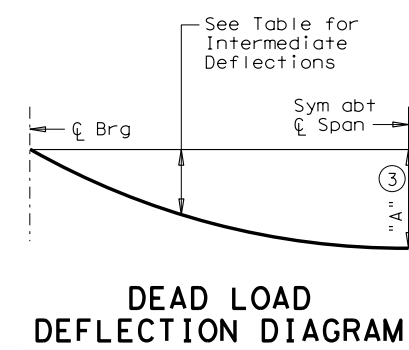
BAR TABLE	
Bar	Size
A	#5
B	#5
D	#5
G	#5
H	#5
J	#5
M	#5
T	#4

TABLE OF ESTIMATED QUANTITIES <sup>⑤</sup>			
Span Length	Reinf Concrete Slab	Class "S" Concrete	Total Reinf Steel <sup>②</sup>
			Lb
Ft	SF	CY	Lb
30	960	25.7	6,240
35	1,120	29.8	7,280
40	1,280	33.9	8,320
45	1,440	38.1	9,360
50	1,600	42.2	10,400
55	1,760	46.3	11,440
60	1,920	50.4	12,480
65	2,080	54.6	13,520
70	2,240	58.7	14,560
75	2,400	62.8	15,600
80	2,560	67.0	16,640
85	2,720	71.1	17,680
90	2,880	75.2	18,720
95	3,040	79.4	19,760
100	3,200	83.5	20,800
105	3,360	87.6	21,840
110	3,520	91.8	22,880
115	3,680	95.9	23,920
120	3,840	100.0	24,960

- ① If multi-span units (with slab continuous over interior bents) are indicated on the Bridge Layout, see standard SBSC for adjustment to slab reinforcement and quantities.
- ② Reinforcing steel weight is calculated using an approximate factor of 6.5 Lbs/SF.
- ③ See standard SBSD-30 for "A" and "Y" values. Increase "Y" value as necessary for sag roadway vertical curves.
- ④ Tolerance on slab thickness is +1", -0" regardless of forming system used or any other tolerances shown elsewhere.
- ⑤ See standard SBSD-30 for Structural Steel (Rolled Beam) estimated quantities.



**TYPICAL TRANSVERSE SECTION**



**DEAD LOAD DEFLECTION DIAGRAM**

TABLE OF DEFLECTIONS <sup>③</sup>	
Location	Deflection
C Brg	0.0
0.1 Span	0.31 x "A"
0.2 Span	0.59 x "A"
0.3 Span	0.81 x "A"
0.4 Span	0.95 x "A"
C Span	"A"

**GENERAL NOTES:**

Designed according to AASHTO LRFD Specifications. Multi-span units, with slab continuous over interior bents, may be built with the details shown on this sheet and standard SBSC. See standard SBTS for Thickened Slab End Details and quantity adjustments. See standards PCP or PMDF for details and quantity adjustments if either of these options are used. See standard SBMS for miscellaneous details. All reinforcing shall be Grade 60. Concrete compressive strength  $f'c = 4,000$  psi. Bar laps, where required, shall be as follows:  
 Uncoated ~ #4 = 1'-5"  
 ~ #5 = 1'-9"  
 Epoxy Coated ~ #4 = 2'-1"  
 ~ #5 = 2'-7"  
 This standard does not support the use of Transition Bents.

HL93 LOADING SHEET 1 OF 2



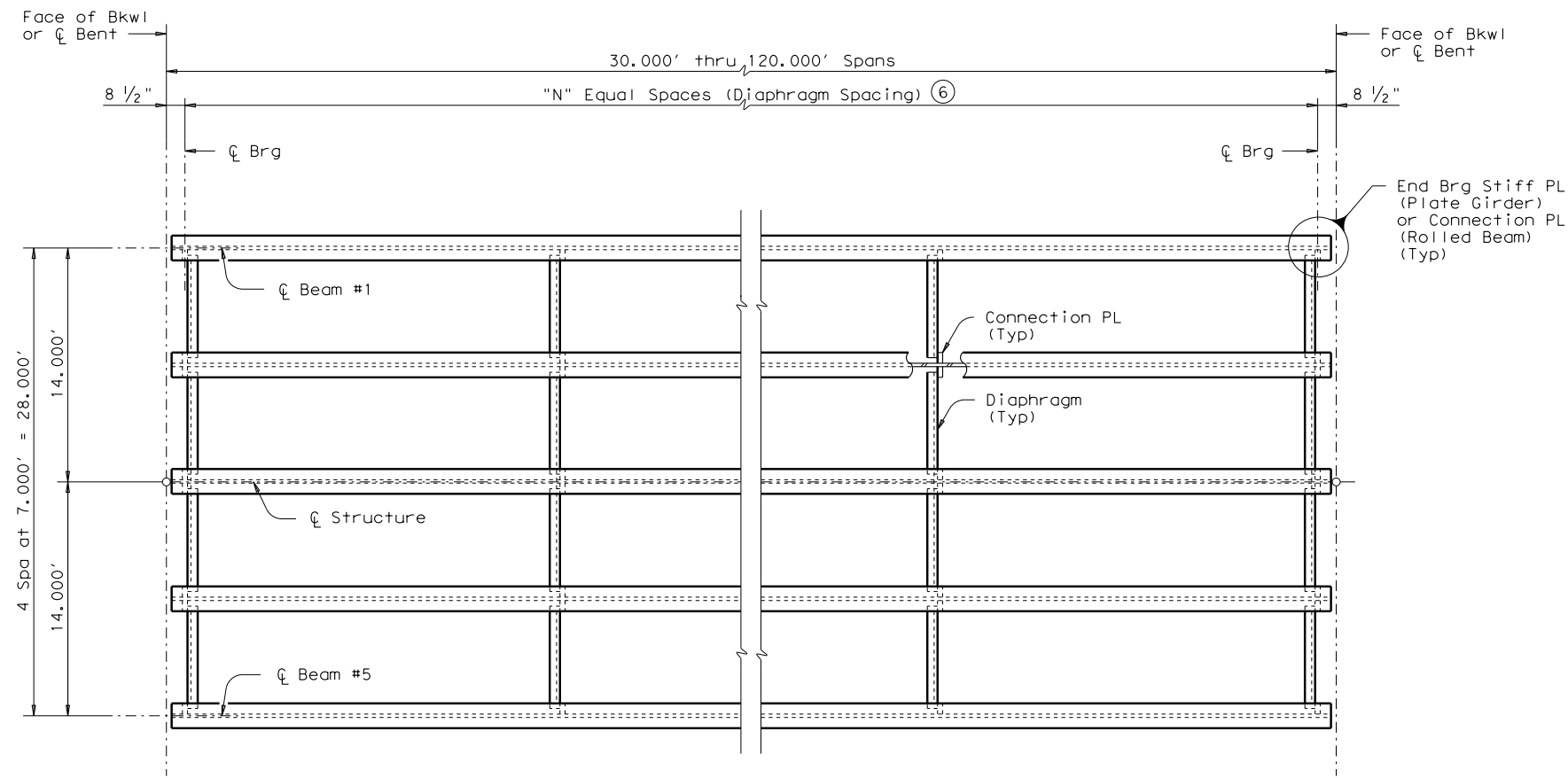
**STEEL BEAM SPANS 30' ROADWAY**

**SSB-30**

FILE: sbstd32.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
CONT: August 2004	SECT:	JOB:	HIGHWAY:	
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**FRAMING PLAN**

**FABRICATION NOTES**

**GENERAL:**

See Layout for beam type. See standard sheet SBSB-30 for beam size.  
 For unpainted structures, use A709 Grade 50W for all steel. For painted structures, use any of the following steels: A709 Grades 50, 50S, or 50W.  
 All dimensions in Framing Plan and Beam Elevation are measured horizontally.  
 See standard SBMD for details not shown.

**ROLLED BEAMS:**

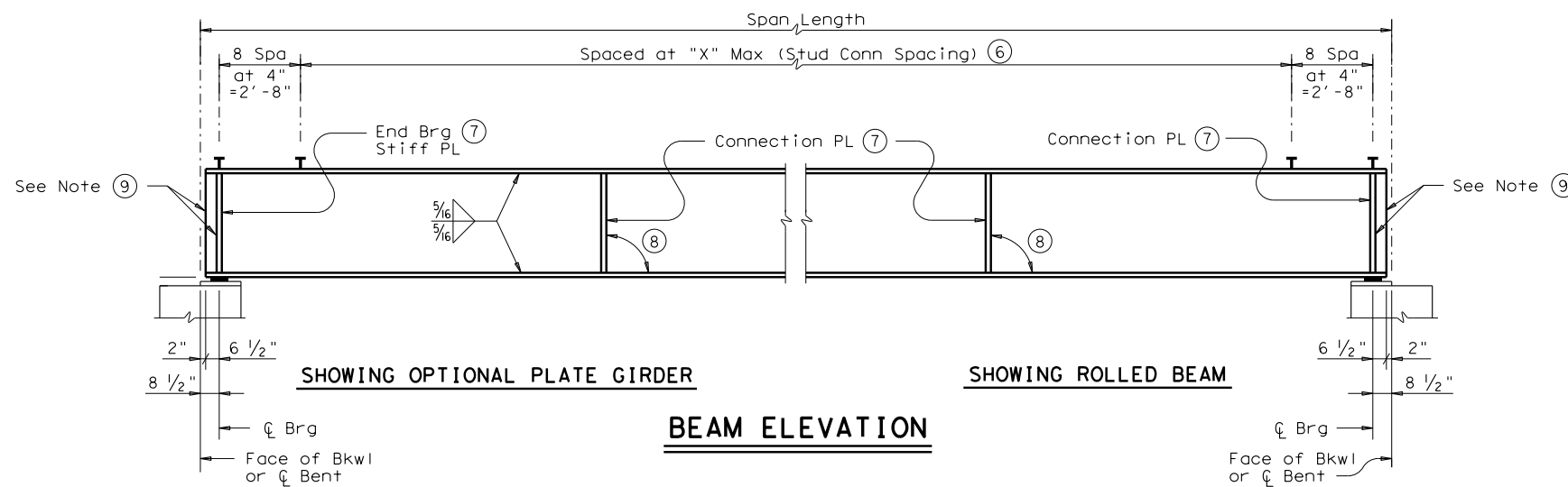
Beam bottom flanges and webs are classified as tension components and are subject to the impact testing requirements of Item 442, "Metal for Structures".  
 One optional beam splice is permissible for beam lengths in excess of 60'. Do not locate the optional splice within 0.10L of either side of the centerline of span where L is the span length between centers of bearing. Optional beam splices must be made by full penetration groove welds.  
 Camber beams for total dead load deflection. Camber tolerance for beams is shown in CAMBER TOLERANCE TABLE.  
 Produce camber using heat, pressure, or a combination of heat and pressure.

**OPTIONAL PLATE GIRDERS:**

Girder bottom flanges and webs are classified as tension components and are subject to the impact testing requirements of Item 442, "Metal for Structures".  
 Camber girders for total dead load deflection and any crest roadway vertical curves. Camber tolerance is shown in CAMBER TOLERANCE TABLE.

- ⑥ See standard SBSB-30 for "N" and "X" values.
- ⑦ See standard SBMD for connection plate and bearing stiffener sizes and connection details.
- ⑧ Connection plates at intermediate locations may be plumb or square to the beam.
- ⑨ Beam ends, bearing stiffeners, and connection plates at end bearings must be plumb after all dead loads are applied (Tolerance = +/- 1/8" per foot of beam depth)
- ⑩ Use one-half the values shown when a sag roadway vertical curve is on the span.

CAMBER TOLERANCE TABLE ⑩	
Pt	Tolerance
0.1	+ 9/16", -0"
0.2	+ 1", -0"
0.3	+ 1 1/4", -0"
0.4	+ 1 7/16", -0"
0.5	+ 1 1/2", -0"



**BEAM ELEVATION**

HL93 LOADING SHEET 2 OF 2



**STEEL BEAM SPANS  
30' ROADWAY**

**SSB-30**

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