

ZONE 1 NO ICE 100 M.P.H. WIND

TRUSS DETAILS

3/8" Dia. H.S. Bolts
Spans 40' Thru 75'

SPAN	40'	45'	50'	55'	60'	65'	70'	75'
W x D = WIDTH x DEPTH	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5
CHORD - ②, Unless Otherwise Shown	L 3 x 3 x 3/16 [3]	L 3 x 3 x 1/4 [4]	L 3 x 3 x 1/4 [4]	L 3 1/2 x 3 1/2 x 3/16 [6]	L 3 1/2 x 3 1/2 x 3/16 [8]	L 3 1/2 x 3 1/2 x 3/16 [8]	L 3 1/2 x 3 1/2 x 3/16 [9]	L 4 x 4 x 3/16 [10]
DEAD LOAD DIAGONAL - ③	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]
WIND LOAD DIAGONAL - ③	L 3 x 3 x 3/16 [3]	L 3 x 3 x 3/16 [3]	L 3 x 3 x 3/16 [3]	L 3 x 2 1/2 x 1/4 [4]	L 3 x 2 1/2 x 1/4 [3]	L 3 x 3 x 1/4 [3]	L 3 x 3 x 1/4 [4]	L 3 x 3 x 1/4 [4]
DEAD LOAD VERTICAL - ③	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]	L 2 x 2 x 3/16 [2]
WIND LOAD STRUT - ③	L 2 x 2 x 3/16 [1]	L 2 x 2 x 3/16 [1]	L 2 x 2 x 3/16 [1]	L 2 x 2 x 3/16 [1]	L 2 x 2 x 3/16 [1]	L 2 x 2 x 3/16 [1]	L 2 x 2 x 3/16 [1]	L 2 x 2 x 3/16 [1]
TOTAL DEFL. & TRUSS D.L.	DEFL=0.14" L=42 lb/ft	DEFL=0.15" L=47 lb/ft	DEFL=0.22" L=47 lb/ft	DEFL=0.25" L=59 lb/ft	DEFL=0.35" L=59 lb/ft	DEFL=0.46" L=60 lb/ft	DEFL=0.61" L=60 lb/ft	DEFL=0.80" L=64 lb/ft

TOWER DETAILS

S = COLUMN SPACING	6.0'	6.0'	6.0'	6.0'	6.5'	6.5'	6.5'	6.5'
TOWER HEIGHT								
25'	W 12 x 26 (54.9)	W 12 x 26 (60.7)	W 14 x 30 (66.4)	W 14 x 30 (72.5)	W 14 x 34 (74.6)	W 14 x 34 (79.9)	W 14 x 34 (85.3)	W 16 x 36 (90.6)
26'	W 12 x 26 (57.4)	W 12 x 26 (63.4)	W 14 x 30 (69.6)	W 14 x 30 (75.7)	W 14 x 34 (77.9)	W 14 x 34 (83.5)	W 14 x 34 (89.1)	W 16 x 36 (94.6)
27'	W 12 x 26 (59.9)	W 14 x 30 (66.2)	W 14 x 30 (72.6)	W 14 x 34 (78.5)	W 14 x 34 (81.3)	W 14 x 34 (87.1)	W 16 x 36 (92.7)	W 16 x 36 (98.7)
28'	W 12 x 26 (62.5)	W 14 x 30 (69.0)	W 14 x 34 (75.5)	W 14 x 34 (82.0)	W 14 x 34 (84.7)	W 16 x 36 (90.6)	W 16 x 36 (96.6)	W 16 x 40 (102.4)
29'	W 14 x 30 (65.1)	W 14 x 30 (71.8)	W 14 x 34 (78.5)	W 14 x 34 (85.3)	W 16 x 36 (88.0)	W 16 x 36 (94.2)	W 16 x 40 (100.1)	W 16 x 40 (106.5)
30'	W 14 x 30 (67.7)	W 14 x 34 (74.6)	W 14 x 34 (81.6)	W 14 x 34 (88.6)	W 16 x 36 (91.5)	W 16 x 36 (97.9)	W 16 x 40 (104.0)	W 16 x 40 (110.6)
31'	W 14 x 30 (70.3)	W 14 x 34 (77.5)	W 14 x 34 (84.7)	W 16 x 36 (91.7)	W 16 x 36 (95.0)	W 16 x 40 (101.3)	W 16 x 40 (108.0)	W 18 x 46 (114.6)
32'	W 14 x 34 (75.6)	W 14 x 34 (80.3)	W 16 x 36 (87.6)	W 16 x 36 (95.1)	W 16 x 40 (98.2)	W 16 x 40 (105.0)	W 18 x 46 (111.8)	W 18 x 46 (118.8)
33'	W 14 x 34 (76.9)	W 14 x 34 (83.2)	W 16 x 36 (90.7)	W 16 x 36 (98.4)	W 16 x 40 (101.7)	W 16 x 40 (108.8)	W 18 x 46 (115.8)	W 18 x 46 (123.0)
34'	W 14 x 34 (78.3)	W 16 x 36 (85.9)	W 16 x 36 (93.8)	W 16 x 40 (101.4)	W 16 x 40 (105.3)	W 18 x 46 (112.4)	W 18 x 46 (119.7)	W 18 x 50 (127.0)
35'	W 14 x 34 (81.0)	W 16 x 36 (88.9)	W 16 x 36 (97.0)	W 16 x 40 (104.8)	W 16 x 40 (108.8)	W 18 x 46 (116.2)	W 18 x 46 (123.8)	W 18 x 50 (131.2)
36'	W 16 x 36 (83.5)	W 16 x 36 (91.8)	W 16 x 40 (99.8)	W 16 x 40 (108.2)	W 18 x 46 (112.4)	W 18 x 46 (120.0)	W 18 x 50 (127.6)	W 18 x 50 (135.5)
37'	W 16 x 36 (86.2)	W 16 x 36 (94.8)	W 16 x 40 (103.0)	W 18 x 46 (108.6)	W 18 x 46 (115.9)	W 18 x 46 (123.8)	W 18 x 50 (131.6)	W 18 x 55 (139.8)
38'	W 16 x 36 (89.0)	W 16 x 40 (97.0)	W 16 x 40 (106.2)	W 18 x 46 (112.0)	W 18 x 46 (119.6)	W 18 x 50 (127.5)	W 18 x 50 (135.7)	W 18 x 55 (144.0)
39'	W 16 x 36 (91.8)	W 16 x 40 (100.0)	W 18 x 46 (109.2)	W 18 x 46 (115.4)	W 18 x 46 (123.3)	W 18 x 50 (131.4)	W 18 x 55 (139.8)	W 21 x 57 (148.4)
40'	W 16 x 40 (93.7)	W 16 x 40 (103.0)	W 18 x 46 (112.5)	W 18 x 46 (125.3)	W 18 x 50 (126.7)	W 18 x 50 (135.3)	W 18 x 55 (143.9)	W 21 x 57 (152.3)
42'	W 16 x 40 (99.4)	W 18 x 46 (109.3)	W 18 x 46 (119.0)	W 18 x 50 (136.1)	W 18 x 50 (134.1)	W 18 x 55 (143.1)	W 21 x 57 (151.8)	W 21 x 57 (161.0)
45'	W 18 x 46 (108.1)	W 18 x 46 (118.5)	W 18 x 55 (137.1)	W 18 x 55 (147.6)	W 21 x 57 (145.4)	W 21 x 57 (155.1)	W 21 x 57 (164.4)	W 21 x 62 (174.3)

TOWER HEIGHT = $\frac{HL + HR}{2}$

COLUMN SIZE & UPLIFT (kips)

ZONE 1 NO ICE 100 M.P.H. WIND

TRUSS DETAILS

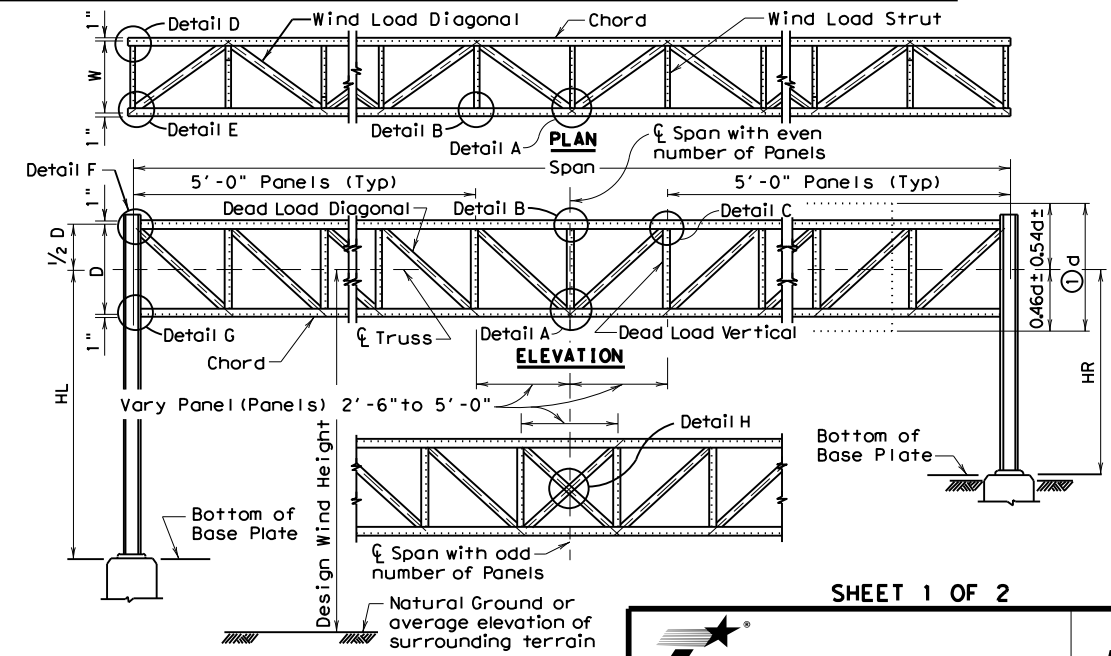
SPAN	80'	85'	90'	95'
W x D = WIDTH x DEPTH	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5	4.5 x 4.5
CHORD - ②, Unless Otherwise Shown	L 3 1/2 x 3 1/2 x 3/8 [7]	L 4 x 4 x 3/8 [9]	L 4 x 4 x 3/8 [9]	L 4 x 4 x 3/8 [10]
DEAD LOAD DIAGONAL - ③	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]
WIND LOAD DIAGONAL - ③	L 3 x 3 x 1/4 [3]	L 3 x 3 x 1/4 [3]	L 3 1/2 x 3 1/2 x 1/4 [3]	L 3 1/2 x 3 1/2 x 1/4 [3]
DEAD LOAD VERTICAL - ③	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]
WIND LOAD STRUT - ③	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]
TOTAL DEFL. & TRUSS D.L.	DEFL=0.86" L=70 lb/ft	DEFL=0.99" L=76 lb/ft	DEFL=1.24" L=78 lb/ft	DEFL=1.40" L=86 lb/ft

TOWER DETAILS

S = COLUMN SPACING	7.0'	7.0'	7.0'	7.0'
TOWER HEIGHT				
25'	W 16 x 36 (88.8)	W 16 x 36 (93.8)	W 16 x 40 (98.6)	W 16 x 40 (103.8)
26'	W 16 x 36 (92.7)	W 16 x 40 (97.6)	W 16 x 40 (102.9)	W 16 x 40 (108.3)
27'	W 16 x 40 (96.4)	W 16 x 40 (101.8)	W 16 x 40 (107.3)	W 18 x 46 (112.7)
28'	W 16 x 40 (100.3)	W 16 x 40 (105.9)	W 18 x 46 (111.5)	W 18 x 46 (117.3)
29'	W 16 x 40 (104.3)	W 18 x 46 (110.0)	W 18 x 46 (115.9)	W 18 x 46 (121.9)
30'	W 18 x 46 (108.2)	W 18 x 46 (114.2)	W 18 x 46 (120.4)	W 18 x 46 (126.5)
31'	W 18 x 46 (112.3)	W 18 x 46 (118.5)	W 18 x 46 (124.8)	W 18 x 50 (131.0)
32'	W 18 x 46 (116.3)	W 18 x 50 (122.6)	W 18 x 50 (129.1)	W 18 x 50 (135.7)
33'	W 18 x 46 (120.4)	W 18 x 50 (126.8)	W 18 x 50 (133.6)	W 18 x 50 (140.4)
34'	W 18 x 50 (124.3)	W 18 x 50 (131.2)	W 18 x 50 (138.1)	W 18 x 55 (145.0)
35'	W 18 x 50 (128.5)	W 18 x 50 (135.5)	W 18 x 55 (142.6)	W 18 x 55 (149.5)
36'	W 18 x 50 (132.6)	W 18 x 55 (139.8)	W 18 x 55 (147.1)	W 21 x 57 (154.2)
37'	W 18 x 55 (136.8)	W 18 x 55 (144.0)	W 21 x 57 (151.4)	W 21 x 57 (159.0)
38'	W 18 x 55 (140.9)	W 21 x 57 (148.2)	W 21 x 57 (156.0)	W 21 x 57 (163.8)
39'	W 21 x 57 (144.7)	W 21 x 57 (152.6)	W 21 x 57 (160.6)	W 21 x 62 (168.4)
40'	W 21 x 57 (149.0)	W 21 x 57 (157.0)	W 21 x 57 (165.2)	W 21 x 62 (173.2)
42'	W 21 x 57 (157.5)	W 21 x 62 (165.7)	W 21 x 62 (174.3)	W 21 x 62 (183.0)
45'	W 21 x 62 (170.2)	W 21 x 62 (179.2)	W 21 x 68 (188.7)	W 21 x 68 (198.1)

COLUMN SIZE & UPLIFT (kips)

TOWER HEIGHT = $\frac{HL + HR}{2}$



SHEET 1 OF 2

Texas Department of Transportation
 Traffic Safety Division Standard

HIGH LEVEL OVERHEAD SIGN BRIDGE DETAILS
HOSB-Z1(1)-21

FILE: hosb-z1-21.dgn	DN:	CK:	DW:	CK:
© TxDOT November 2007	CONT	SECT	JOB	HIGHWAY
8-08 8-21	DIST	COUNTY	SHEET NO.	

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 whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

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 whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: _____
 FILE: _____

ZONE 1 NO ICE 100 M.P.H. WIND

		TRUSS DETAILS							
		← 3/4" Dia. H.S. Bolts Spans 76' Thru 155' →							
SPAN		100'	105'	110'	115'	120'	125'	130'	135'
W x D = WIDTH x DEPTH		5.0 x 5.0		5.0 x 5.0		5.0 x 5.0		5.0 x 5.0	
CHORD - ②, Unless Otherwise Shown		L 5 x 5 x 3/8 [11]	L 4 x 4 x 1/2 [12]	L 5 x 5 x 1/16 [13]	L 5 x 5 x 1/16 [14]	L 5 x 5 x 1/2 [16]	L 5 x 5 x 1/2 [16]	L 6 x 6 x 1/2 [19]	L 6 x 6 x 3/16 [21]
DEAD LOAD DIAGONAL - ③		L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 3 x 3/16 [2]	L 3 x 2 x 1/4 [2]	L 3 x 2 1/2 x 1/4 [3]
WIND LOAD DIAGONAL - ③		L 3 1/2 x 3 1/2 x 1/4 [3]	L 3 1/2 x 3 1/2 x 1/4 [3]	L 3 1/2 x 3 1/2 x 1/4 [3]	L 4 x 4 x 1/4 [4]	L 4 x 4 x 1/4 [4]	L 4 x 4 x 1/4 [4]	L 4 x 3 1/2 x 5/16 [4]	L 4 x 3 1/2 x 5/16 [4]
DEAD LOAD VERTICAL - ③		L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 x 3/16 [2]	L 3 x 2 1/2 x 3/16 [2]	L 3 x 2 1/2 x 3/16 [2]	L 3 x 2 1/2 x 3/16 [2]	L 3 x 2 1/2 x 3/16 [2]
WIND LOAD STRUT - ③		L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]
TOTAL DEFL. & TRUSS D.L.		DEFL=1.42" L=92 lb/ft	DEFL=1.59" L=95 lb/ft	DEFL=1.88" L=101 lb/ft	DEFL=2.24" L=104 lb/ft	DEFL=2.32" L=112 lb/ft	DEFL=2.70" L=114 lb/ft	DEFL=3.10" L=133 lb/ft	DEFL=3.03" L=143 lb/ft
		TOWER DETAILS							
S = COLUMN SPACING		7.5'		7.5'		7.5'		7.5'	
TOWER HEIGHT		7.5'		7.5'		7.5'		7.5'	
25'		W 16 x 40 (101.0)	W 16 x 40 (105.6)	W 18 x 46 (110.4)	W 18 x 46 (115.3)	W 18 x 46 (119.6)	W 18 x 46 (124.3)	W 18 x 50 (132.7)	W 18 x 50 (137.8)
26'		W 16 x 40 (105.5)	W 18 x 46 (110.2)	W 18 x 46 (115.3)	W 18 x 46 (120.3)	W 18 x 46 (124.8)	W 18 x 50 (129.6)	W 18 x 50 (138.6)	W 18 x 55 (143.9)
27'		W 18 x 46 (109.8)	W 18 x 46 (114.9)	W 18 x 46 (120.1)	W 18 x 46 (125.3)	W 18 x 50 (129.9)	W 18 x 50 (135.0)	W 18 x 55 (144.3)	W 18 x 55 (149.9)
28'		W 18 x 46 (114.2)	W 18 x 46 (119.5)	W 18 x 50 (124.9)	W 18 x 50 (130.2)	W 18 x 50 (135.1)	W 18 x 50 (140.4)	W 18 x 55 (150.2)	W 18 x 55 (156.0)
29'		W 18 x 46 (118.7)	W 18 x 50 (124.1)	W 18 x 50 (129.7)	W 18 x 50 (135.3)	W 18 x 55 (140.4)	W 18 x 55 (145.8)	W 21 x 57 (156.2)	W 21 x 57 (162.0)
30'		W 18 x 50 (123.1)	W 18 x 50 (128.8)	W 18 x 50 (134.6)	W 18 x 55 (140.4)	W 18 x 55 (145.5)	W 18 x 55 (151.2)	W 21 x 57 (162.1)	W 21 x 57 (168.3)
31'		W 18 x 50 (127.6)	W 18 x 50 (133.5)	W 18 x 55 (139.4)	W 18 x 55 (145.4)	W 21 x 57 (150.6)	W 21 x 57 (156.6)	W 21 x 57 (162.2)	W 21 x 62 (174.4)
32'		W 18 x 50 (132.2)	W 18 x 55 (138.3)	W 18 x 55 (144.3)	W 21 x 57 (150.3)	W 21 x 57 (156.0)	W 21 x 57 (162.1)	W 21 x 62 (174.1)	W 21 x 62 (180.6)
33'		W 18 x 55 (136.8)	W 18 x 55 (142.7)	W 21 x 57 (149.0)	W 21 x 57 (155.4)	W 21 x 57 (161.3)	W 21 x 57 (167.6)	W 21 x 62 (180.2)	W 21 x 62 (186.9)
34'		W 18 x 55 (141.0)	W 21 x 57 (147.4)	W 21 x 57 (154.0)	W 21 x 57 (160.6)	W 21 x 57 (166.7)	W 21 x 62 (173.0)	W 21 x 62 (186.3)	W 21 x 68 (193.1)
35'		W 21 x 57 (145.6)	W 21 x 57 (152.3)	W 21 x 57 (159.0)	W 21 x 57 (165.8)	W 21 x 62 (171.9)	W 21 x 62 (178.6)	W 21 x 68 (192.2)	W 21 x 68 (199.4)
36'		W 21 x 57 (150.2)	W 21 x 57 (157.1)	W 21 x 57 (164.0)	W 21 x 62 (170.8)	W 21 x 62 (177.3)	W 21 x 62 (184.2)	W 21 x 68 (198.4)	W 21 x 68 (205.8)
37'		W 21 x 57 (154.9)	W 21 x 57 (161.9)	W 21 x 62 (168.9)	W 21 x 62 (176.0)	W 21 x 62 (182.7)	W 21 x 68 (189.6)	W 21 x 68 (204.6)	W 24 x 68 (212.2)
38'		W 21 x 62 (159.5)	W 21 x 62 (166.6)	W 21 x 62 (173.9)	W 21 x 62 (182.3)	W 21 x 68 (187.9)	W 21 x 68 (195.2)	W 24 x 68 (210.8)	W 24 x 68 (218.7)
39'		W 21 x 62 (164.0)	W 21 x 62 (171.5)	W 21 x 62 (179.0)	W 21 x 68 (186.3)	W 21 x 68 (193.3)	W 21 x 68 (200.8)	W 24 x 68 (217.1)	W 24 x 76 (224.8)
40'		W 21 x 62 (168.7)	W 21 x 62 (176.4)	W 21 x 68 (188.9)	W 21 x 68 (191.6)	W 21 x 68 (198.8)	W 24 x 68 (206.5)	W 24 x 76 (223.5)	W 24 x 76 (231.3)
42'		W 21 x 68 (177.9)	W 21 x 68 (185.9)	W 21 x 68 (194.1)	W 24 x 68 (212.9)	W 24 x 68 (209.8)	W 24 x 68 (217.9)	W 24 x 76 (236.2)	W 24 x 76 (244.3)
45'		W 21 x 68 (192.3)	W 24 x 68 (200.1)	W 24 x 68 (209.6)	W 24 x 76 (218.3)	W 24 x 76 (237.6)	W 24 x 76 (234.8)	W 27 x 84 (253.9)	W 27 x 84 (263.0)

$$\text{Tower Height} = \frac{HL + HR}{2}$$

COLUMN SIZE & UPLIFT (kips)

ZONE 1 NO ICE 100 M.P.H. WIND

		TRUSS DETAILS			
		← 3/4" Dia. H.S. Bolts Spans 76' Thru 155' →			
SPAN		140'	145'	150'	155'
W x D = WIDTH x DEPTH		5.5 x 5.5		5.5 x 5.5	
CHORD - ②, Unless Otherwise Shown		L 6 x 6 x 3/8 [21]	L 6 x 6 x 3/8 [22]	L 6 x 6 x 3/8 [23]	L 6 x 6 x 3/8 [25]
DEAD LOAD DIAGONAL - ③		L 3 x 2 1/2 x 1/4 [3]	L 3 x 2 1/2 x 1/4 [3]	L 3 x 2 1/2 x 1/4 [3]	L 3 x 3 x 1/4 [3]
WIND LOAD DIAGONAL - ③		L 4 x 3 1/2 x 3/16 [4]	L 4 x 3 1/2 x 3/16 [4]	L 4 x 3 1/2 x 3/16 [4]	L 4 x 3 1/2 x 3/16 [4]
DEAD LOAD VERTICAL - ③		L 3 x 3 x 3/16 [2]	L 3 x 3 x 3/16 [2]	L 3 x 2 1/2 x 1/4 [2]	L 3 x 2 1/2 x 1/4 [2]
WIND LOAD STRUT - ③		L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]	L 2 1/2 x 2 1/2 x 3/16 [1]
TOTAL DEFL. & TRUSS D.L.		DEFL=2.99" L=147 lb/ft	DEFL=3.41" L=147 lb/ft	DEFL=3.86" L=151 lb/ft	DEFL=4.15" L=162 lb/ft
		TOWER DETAILS			
S = COLUMN SPACING		7.5'		7.5'	
TOWER HEIGHT		7.5'		7.5'	
25'		W 18 x 55 (143.1)	W 18 x 55 (147.9)	W 21 x 57 (152.9)	W 21 x 57 (157.7)
26'		W 18 x 55 (148.9)	W 18 x 55 (154.4)	W 21 x 57 (159.7)	W 21 x 57 (164.6)
27'		W 18 x 55 (155.3)	W 21 x 57 (160.8)	W 21 x 57 (166.4)	W 21 x 57 (171.6)
28'		W 21 x 57 (161.5)	W 21 x 57 (167.4)	W 21 x 62 (173.1)	W 21 x 62 (178.5)
29'		W 21 x 57 (167.9)	W 21 x 62 (173.9)	W 21 x 62 (179.9)	W 21 x 62 (185.5)
30'		W 21 x 62 (174.2)	W 21 x 62 (180.5)	W 21 x 62 (186.8)	W 21 x 62 (192.6)
31'		W 21 x 62 (180.7)	W 21 x 62 (187.2)	W 21 x 68 (193.5)	W 21 x 68 (199.5)
32'		W 21 x 62 (187.2)	W 21 x 68 (193.7)	W 21 x 68 (200.4)	W 21 x 68 (206.7)
33'		W 21 x 68 (193.5)	W 21 x 68 (200.4)	W 21 x 68 (207.4)	W 24 x 68 (213.8)
34'		W 21 x 68 (200.0)	W 24 x 68 (207.2)	W 24 x 68 (214.4)	W 24 x 68 (221.0)
35'		W 21 x 68 (206.6)	W 24 x 68 (214.0)	W 24 x 68 (221.4)	W 24 x 68 (228.3)
36'		W 24 x 68 (213.2)	W 24 x 68 (220.8)	W 24 x 76 (228.2)	W 24 x 76 (235.2)
37'		W 24 x 68 (219.9)	W 24 x 76 (227.4)	W 24 x 76 (235.2)	W 24 x 76 (242.5)
38'		W 24 x 76 (226.2)	W 24 x 76 (234.2)	W 24 x 76 (242.3)	W 24 x 76 (249.8)
39'		W 24 x 76 (232.9)	W 24 x 76 (241.1)	W 24 x 76 (249.4)	W 27 x 84 (256.9)
40'		W 24 x 76 (239.6)	W 24 x 76 (248.0)	W 27 x 84 (256.2)	W 27 x 84 (264.2)
42'		W 27 x 84 (252.7)	W 27 x 84 (261.6)	W 27 x 84 (270.5)	W 27 x 84 (279.0)
45'		W 27 x 84 (273.2)	W 27 x 94 (282.7)	W 27 x 94 (292.3)	W 27 x 94 (300.9)

COLUMN SIZE & UPLIFT (kips)

KEY TO TRUSS AND TOWER DETAILS

Truss members are all angles.
 Truss columns are all wide flange shapes.
 W 10 x 26 (44.2) — 44.2 kips Uplift at base plate
 — 26 Pounds per foot.
 — 10" Nominal size
 — Wide Flange

DEFL = 0.12" = inches Deflection due to dead load of truss, walkway, signs and lights.
 DL = 42 lb/ft = pounds per foot dead load of truss members only; does not include walkway, signs, and lights.

NOTE: Details on these sheets are for Design Wind Heights between 30 feet and 50 feet.

GENERAL NOTES

- Design conforms to AASHTO 1994 Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals and Interim Revisions thereto.
- For overhead sign bridges with different tower heights, average the height of the two towers and use the tabulated height nearest the calculated average. For average heights falling midway between the two tabulated heights use the larger height.
- For truss lengths falling between those shown in the tables use the sizes called for in the next longer span.
- Overhead sign bridges are designed for the equivalent area of a 10 foot deep sign panel over 75 percent of the span length, located as necessary to produce maximum stress. Design includes 3 pounds per square foot for sign panel, 20 pounds per linear foot for lights, and 50 pounds per linear foot for walkway, all placed as specified for the design sign panel.
- Refer to "Overhead Sign Bridge Truss Details" for details called out in plan and elevation views.
- The number of High Strength Bolts required in truss connection or splice are indicated in brackets, e.g. [3], after the member size.

SHEET 2 OF 2

Texas Department of Transportation		Traffic Safety Division Standard	
<h2 style="margin: 0;">HIGH LEVEL OVERHEAD SIGN BRIDGE DETAILS</h2> <h3 style="margin: 0;">HOSB-Z1 (2) -21</h3>			
FILE: hosb-z1-21.dgn	DN:	CK:	DW:
© TxDOT November 2007	CONT	SECT	JOB
8-08	DIST	COUNTY	SHEET NO.