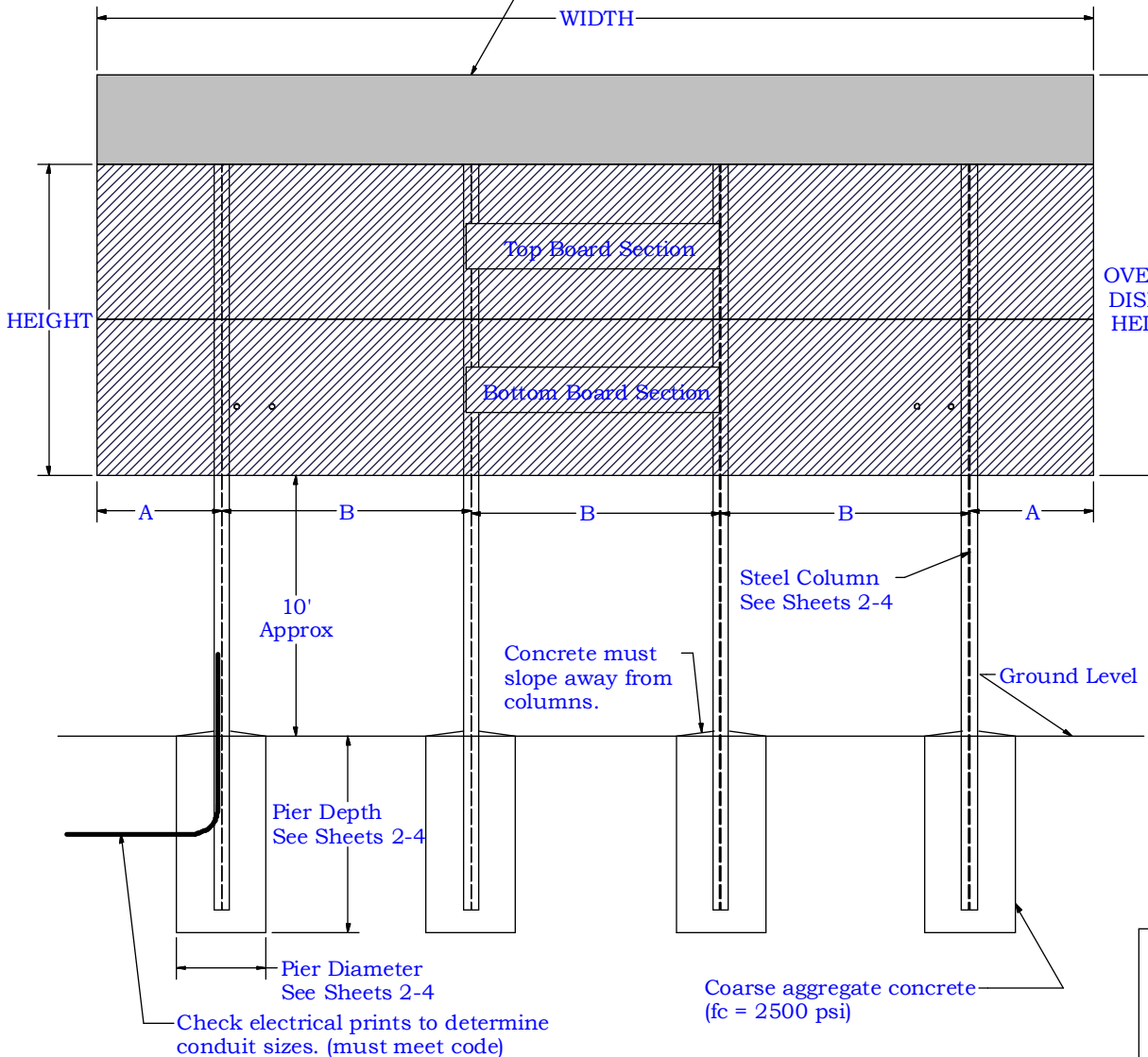



DIMENSIONS AND SPECIFICATIONS						
Model	WIDTH	HEIGHT	WEIGHT	WEIGHT W/ETN	DIM "A"	DIM "B"
3604	30'	10' 3/16"	630 lbs	692 lbs	3'	8'
3620	32'	8' 3/16"	760 lbs	822 lbs	4'	8'
3657	32'	10' 3/16"	890 lbs	952 lbs	4'	8'
3688	32'	8' 3/16"	N/A	930 lbs	4'	8'
1603	36'	9' 3/16"	930 lbs	992 lbs	3'	10'
3616	36'	10' 3/16"	1020 lbs	1220 lbs	3'	10'
7616	36'	10' 3/16"	1020 lbs	1220 lbs	3'	10'

Additional display area consisting of signs, arches, message centers or video above or below the scoreboard. (see sheets 2-4) for column and pier sizing)



- General Notes:
1. Column steel to be grade A992 (50 ksi steel minimum).
 2. Bracing steel to be ASTM A500 Grade B minimum (see note 1 on sheets 4-6).
 3. Minimum bolt grade: A307
 4. All welds to conform to AWS standards
 5. The dimensions in the charts on sheets 4-6 are calculated using the requirements specified in IBC 2009, and the Manual of Steel Construction (13th Edition). Soil lateral bearing pressure is considered to be 150 psf/f.
 6. The weights of signs to be calculated using 4.3 lb/sq. ft of sign area.
 7. The weights of Nevco message centers to be calculated using 8.5 lb/sq ft.
 8. The weights of Nevco video displays to be calculated using 9.5 lbs/sq. ft.
 9. The weights of Nevco arches to be calculated using 7.7 lbs/sq. ft.

Important. Read before installation.
 This is not an engineered drawing. It is intended for representational purposes only. The dimensions called out on this drawing are intended to be used as a guide only, and are not intended to be suitable for all conditions. Adding signs or other components around the scoreboard beyond the scope of this drawing or increasing the display height from the ground will affect the installation requirements. Nevco recommends that you consult a professional engineer or architect familiar with the area before attempting installation. They can verify that the selected mounting beams or posts along with the brackets, screws, and other hardware items provided by others or Nevco are adequate for your local soil conditions, wind loads and other local codes. If procedures are used that are not covered in this drawing, careful analysis of the installation is urged.

Outdoor Scoreboard Installation 4 Column Multi-Section		 Nevco, Inc. Greenville, Illinois 62246
Drawn WHP	Date 10/29/13	Sheet 1 of 7

90 MPH WIND ZONES

Exposure C
30 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Colu	Braced Column
10	2' (3')	10'6" (9')	30'6" (29')	W10 x 33	W10 x 22
12	2' (3')	11' (9'6")	33' (31'6")	W10 x 39	W10 x 26
14	2' (3')	12' (10')	36' (34')	W14 x 43	W12 x 30
16	2' (3')	13' (11')	39' (37')	W10 x 49	W14 x 30
18	2' (3')	14' (11'6")	42' (39'6")	W12 x 53	W14 x 34
20	2' (3')	15'6" (12')	45'6" (42')	W10 x 60	W16 x 36
22	2' (3')	16'6" (13')	48'6" (45')	W12 x 65	W16 x 40
25	2' (3')	18'6" (14'6")	53'6" (49'6")	W12 x 79	W14 x 48
30	2' (3')	21'6" (16'6")	61'6" (56'6")	W12 x 96	W18 x 55
35	3' (4')	20' (16'6")	65' (61'6")	W14 x 120	W21 x 68
40	3' (4')	22' (18'6")	72' (68'6")	W14 x 145	W24 x 76

Exposure B
30 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column
10	2' (3')	9' (7'6")	29' (27'6")	W12 x 26	W8 x 21
12	2' (3')	9'6" (8'6")	31'6" (30'6")	W10 x 33	W10 x 22
14	2' (3')	10'6" (9')	34'6" (33')	W10 x 33	W14 x 22
16	2' (3')	11' (9'6")	37' (35'6")	W10 x 39	W12 x 26
18	2' (3')	11'6" (10')	39'6" (38')	W10 x 45	W12 x 30
20	2' (3')	12'6" (10'6")	42'6" (40'6")	W10 x 49	W12 x 30
22	2' (3')	13'6" (11')	45'6" (43')	W12 x 53	W14 x 34
25	2' (3')	15' (12')	50' (47')	W12 x 65	W16 x 36
30	2' (3')	17' (13'6")	57' (53'6")	W12 x 79	W21 x 44
35	3' (4')	16' (13'6")	61' (58'6")	W12 x 106	W18 x 55
40	3' (4')	18' (15'6")	68' (65'6")	W12 x 120	W21 x 62

Exposure C
32 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 90mph Wind Load)

Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	10' (8'6")	28' (26'6")	W8 x 28	W10 x 22
10	2' (3')	11' (9'6")	31' (29'6")	W10 x 33	W10 x 26
12	2' (3')	11'6" (10')	33'6" (32')	W10 x 39	W12 x 26
14	2' (3')	12'6" (10'6")	36'6" (34'6")	W10 x 45	W12 x 30
16	2' (3')	14' (11'6")	40' (37'6")	W10 x 49	W14 x 34
18	2' (3')	15'6" (12')	43'6" (40')	W10 x 60	W16 x 36
20	2' (3')	16'6" (13')	46'6" (43')	W12 x 65	W16 x 40
22	2' (3')	18' (14')	50' (46')	W12 x 72	W21 x 44
25	2' (3')	20' (15'6")	55' (50'6")	W12 x 79	W18 x 50
30	3' (4')	18' (15')	58' (55')	W24 x 104	W21 x 55
35	3' (4')	21'6" (18')	66'6" (63')	W14 x 132	W24 x 68
40	3' (4')	24' (20')	74' (70')	W14 x 159	W24 x 84

Exposure B
32 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 90mph Wind Load)

Display Height	Pier Dia	Pier Depth	Col. Len.	Unbraced Column	Braced Column *
8	2' (3')	8'6" (7'6")	26'6" (25'6")	W8 x 24	W8 x 18
10	2' (3')	9'6" (8')	29'6" (28')	W8 x 28	W8 x 21
12	2' (3')	10' (8'6")	32' (30'6")	W10 x 33	W10 x 22
14	2' (3')	11' (9'6")	35' (33'6")	W10 x 39	W10 x 26
16	2' (3')	11'6" (10')	37'6" (36')	W14 x 43	W12 x 26
18	2' (3')	12'6" (10'6")	40'6" (38'6")	W10 x 49	W12 x 30
20	2' (3')	13'6" (11')	43'6" (41')	W12 x 53	W14 x 34
22	2' (3')	14'6" (11'6")	46'6" (43'6")	W10 x 60	W18 x 35
25	2' (3')	16' (12'6")	51' (47'6")	W12 x 65	W16 x 40
30	3' (4')	14'6" (12'6")	54'6" (52'6")	W12 x 87	W16 x 50
35	3' (4')	17'6" (14'6")	62'6" (59'6")	W12 x 106	W21 x 55
40	3' (4')	19'6" (16'6")	69'6" (66'6")	W14 x 120	W21 x 68

Exposure C
36 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 90mph Wind Load)

Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2'	10'6"	28'6"	W12 x 30	W14 x 22
10	2'	11'6"	31'6"	W14 x 38	W12 x 26
12	2' (3')	12'6" (11')	34'6" (33')	W14 x 43	W12 x 30
14	2' (3')	14' (11'6")	38' (35'6")	W10 x 49	W14 x 34
16	2' (3')	15'6" (12')	41'6" (38')	W12 x 53	W16 x 36
18	2' (3')	17' (13'6")	45' (41'6")	W14 x 61	W16 x 40
20	2' (3')	19' (14'6")	49' (44'6")	W12 x 72	W14 x 48
22	3' (4')	16' (13'6")	48' (45'6")	W12 x 79	W18 x 50
25	3' (4')	17'6" (14'6")	52'6" (49'6")	W12 x 96	W21 x 55
30	3' (4')	20'6" (17')	60'6" (57')	W14 x 109	W21 x 68
35	3' (4')	23' (19'6")	68' (64'6")	W14 x 145	W24 x 76
40	3' (4')	27'6" (23')	77'6" (73')	W14 x 176	W24 x 94

Exposure B
36 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 90mph Wind Load)

Display Height	Pier Dia	Pier Depth	Col Len	Unbraced Column	Braced Column *
8	2'	9'	27'	W8 x 24	W8 x 21
10	2'	10'	30'	W10 x 33	W10 x 22
12	2' (3')	11' (9'6")	33' (31'6")	W10 x 33	W10 x 26
14	2' (3')	11'6" (10')	35'6" (34')	W10 x 39	W12 x 26
16	2' (3')	12'6" (10'6")	38'6" (36'6")	W14 x 48	W12 x 30
18	2' (3')	13'6" (11'6")	41'6" (39'6")	W12 x 53	W14 x 34
20	2' (3')	15' (12')	45' (42')	W10 x 60	W16 x 36
22	3' (4')	12'6" (11'6")	44'6" (43'6")	W12 x 65	W16 x 40
25	3' (4')	14' (12')	49' (47')	W12 x 72	W21 x 44
30	3' (4')	16'6" (14')	56'6" (54')	W12 x 96	W18 x 55
35	3' (4')	19' (16')	64' (61')	W14 x 109	W21 x 62
40	3' (4')	22' (18'6")	72' (68'6")	W14 x 145	W24 x 76

Chart Notes:

- * Requires that braces be placed every 10' interval from ground level that spans all columns. See detail on sheet 5.
- Wind loading figured at **Exposure "C" - Open terrain** with scattered obstructions having heights generally less than 30 feet. This category includes flat open country, grasslands, and all water surfaces in hurricane prone areas.
- Wind loading figured at **Exposure "B" - Urban and suburban areas**, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. These areas prevail in the upwind direction for a distance of 2600 feet or 20 times the structure height, whichever is greater.

Outdoor Scoreboard
Installation
4 Column
Multi-Section



Neveco, Inc.
Greenville, Illinois 62246

Drawing No. **241-0365**

Drawn **WHP** Date **10/29/13**

Sheet **2** of **7**

130 MPH WIND ZONES

Rev **A**

Exposure C 30 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Colu	Braced Column *
10	2' (3')	14'6" (11'6")	34'6" (31'6")	W14 x 43	W14 x 34
12	2' (3')	16'6" (13)	38'6" (35')	W12 x 53	W16 x 36
14	2' (3')	18'6" (14'6")	42'6" (38'6")	W14 x 61	W21 x 44
16	2' (3')	21' (16')	47' (42')	W16 x 67	W16 x 50
18	2' (3')	23' (17'6")	51' (45'6")	W18 x 76	W18 x 55
20	2' (3')	24'6" (19)	54'6" (49')	W12 x 96	W21 x 55
22	3' (4')	20'6" (17')	52'6" (49')	W21 x 101	W21 x 62
25	3' (4')	22'6" (19)	57'6" (54')	W24 x 117	W24 x 68
30	3' (4')	26'6" (22)	66'6" (62')	W14 x 145	W24 x 84
35	3' (4')	31'6" (26)	76'6" (71')	W18 x 192	W24 x 104
40	3' (4')	35'6" (29'6")	85'6" (79'6")	W14 x 233	W24 x 131

Exposure B 30 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
10	2' (3')	11'6" (10)	31'6" (30)	W10 x 39	W12 x 26
12	2' (3')	13' (11')	35' (33')	W14 x 43	W12 x 30
14	2' (3')	14'6" (11'6")	38'6" (35'6")	W10 x 49	W14 x 34
16	2' (3')	16'6" (12'6")	42'6" (38'6")	W10 x 60	W16 x 40
18	2' (3')	18' (14')	46' (42')	W12 x 65	W21 x 44
20	2' (3')	19'6" (15)	49'6" (45')	W12 x 72	W16 x 50
22	3' (4')	16'6" (13'6")	48'6" (45'6")	W12 x 79	W18 x 50
25	3' (4')	18' (15')	53' (50')	W12 x 96	W21 x 55
30	3' (4')	21' (17'6")	61' (57'6")	W14 x 120	W21 x 68
35	3' (4')	25'6" (21)	70'6" (66')	W18 x 158	W24 x 84
40	3' (4')	28'6" (24)	78'6" (74')	W18 x 192	W21 x 101

Exposure C 32 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	13'6" (11)	31'6" (29)	W12 x 40	W14 x 30
10	2' (3')	15'6" (12)	35'6" (32)	W14 x 48	W18 x 35
12	2' (3')	18' (14)	40' (36')	W10 x 60	W16 x 40
14	2' (3')	20' (15'6")	44' (39'6")	W12 x 65	W14 x 48
16	2' (3')	22' (17)	48' (43')	W14 x 74	W18 x 50
18	2' (3')	25' (19)	53' (47')	W18 x 86	W21 x 55
20	2' (3')	27' (20'6")	57' (50'6")	W18 x 97	W21 x 62
22	3' (4')	22' (18'6")	54' (50'6")	W21 x 101	W21 x 68
25	3' (4')	24'6" (20'6")	59'6" (55'6")	W18 x 130	W24 x 76
30	3' (4')	28'6" (23'6")	68'6" (63'6")	W14 x 159	W24 x 94
35	3' (4')	34'6" (28'6")	79'6" (73'6")	W21 x 201	W24 x 117
40	3' (4')	39' (32)	89' (82)	W14 x 257	W24 x 146

Exposure B 32 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col. Len.	Unbraced Column	Braced Column *
8	2' (3')	11' (9'6")	29' (27'6")	W10 x 33	W10 x 26
10	2' (3')	12'6" (10'6")	32'6" (30'6")	W10 x 39	W12 x 30
12	2' (3')	14' (11'6")	36' (33'6")	W12 x 45	W14 x 34
14	2' (3')	15'6" (12')	39'6" (36')	W12 x 53	W16 x 36
16	2' (3')	17'6" (13'6")	43'6" (39'6")	W14 x 61	W16 x 40
18	2' (3')	19'6" (15')	47'6" (43')	W14 x 68	W16 x 50
20	2' (3')	21' (16'6")	51' (46'6")	W18 x 76	W18 x 50
22	3' (4')	17'6" (14'6")	49'6" (46'6")	W12 x 87	W21 x 55
25	3' (4')	19'6" (16'6")	54'6" (51'6")	W21 x 101	W21 x 62
30	3' (4')	23' (19')	63' (59')	W24 x 131	W18 x 76
35	3' (4')	27'6" (23')	72'6" (68')	W18 x 175	W24 x 94
40	3' (4')	31' (26')	81' (76')	W21 x 201	W24 x 104

Exposure C 36 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	15'6" (12)	33'6" (30)	W14 x 43	W14 x 34
10	3' (4')	13'6" (12)	33'6" (32)	W12 x 53	W16 x 40
12	3' (4')	15'6" (13)	37'6" (35)	W14 x 61	W14 x 48
14	3' (4')	17'6" (14'6")	41'6" (38'6")	W12 x 72	W18 x 55
16	3' (4')	19'6" (16)	45'6" (42)	W18 x 86	W21 x 55
18	3' (4')	21'6" (17'6")	49'6" (45'6")	W18 x 97	W21 x 62
20	3' (4')	23'6" (19'6")	53'6" (49'6")	W21 x 101	W24 x 68
22	3' (4')	25'6" (21)	57'6" (53)	W24 x 117	W24 x 76
25	3' (4')	28' (23'6")	63' (58'6")	W18 x 143	W24 x 94
30	3' (4')	33' (27')	73' (67')	W24 x 176	W24 x 104
35	3' (4')	37'6" (31)	82'6" (76)	W14 x 233	W24 x 131
40	3' (4')	44'6" (36'6")	94'6" (86'6")	W18 x 283	W24 x 176

Exposure B 36 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Len	Unbraced Column	Braced Column *
8	2' (3')	12' (10'6")	30' (28'6")	W16 x 36	W12 x 26
10	3' (4')	11'6" (10)	31'6" (30)	W14 x 43	W14 x 30
12	3' (4')	12'6" (11')	34'6" (33)	W12 x 53	W16 x 36
14	3' (4')	14' (12')	38' (36')	W14 x 61	W16 x 40
16	3' (4')	15'6" (13')	41'6" (39)	W12 x 65	W16 x 50
18	3' (4')	17' (14')	45' (42')	W18 x 76	W18 x 50
20	3' (4')	18'6" (15'6")	48'6" (45'6")	W18 x 86	W21 x 55
22	3' (4')	20' (16'6")	52' (48'6")	W16 x 100	W21 x 62
25	3' (4')	22'6" (18'6")	57'6" (53'6")	W14 x 109	W24 x 68
30	3' (4')	26' (21'6")	66' (61'6")	W14 x 145	W24 x 84
35	3' (4')	30' (25')	75' (70')	W14 x 176	W21 x 101
40	3' (4')	35'6" (29'6")	85'6" (79'6")	W14 x 233	W24 x 131

Chart Notes:

- * Requires that braces be placed every 10' interval from ground level that spans all columns. See detail on sheet 5.
- Wind loading figured at **Exposure "C" - Open terrain** with scattered obstructions having heights generally less than 30 feet. This category includes flat open country, grasslands, and all water surfaces in hurricane prone areas.
- Wind loading figured at **Exposure "B" - Urban and suburban areas**, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. These areas prevail in the upwind direction for a distance of 2600 feet or 20 times the structure height, whichever is greater.

Outdoor Scoreboard Installation 4 Column Multi-Section	<p style="font-size: small; margin-top: 5px;"> Nevco, Inc. Greenville, Illinois 62246 </p>
Drawing No. 241-0365	
Drawn WHP Date 10/29/13	Sheet 3 of 7

150 MPH WIND ZONES

Rev A

**Exposure C
30 FEET WIDE INSTALLATIONS**

**Exposure B
30 FEET WIDE INSTALLATIONS**

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column
10	2' (3')	17'6" (13'6")	37'6" (33'6")	W12 x 53	W14 x 30
12	3' (4')	15'6" (13')	37'6" (35')	W14 x 61	W18 x 35
14	3' (4')	17' (14'6")	41' (38'6")	W16 x 67	W16 x 40
16	3' (4')	19'6" (16')	45'6" (42')	W18 x 86	W16 x 50
18	3' (4')	21' (17'6")	49' (45'6")	W18 x 97	W18 x 50
20	3' (4')	23' (19')	53' (49')	W21 x 101	W21 x 55
22	3' (4')	24'6" (20'6")	56'6" (52'6")	W24 x 117	W21 x 62
25	3' (4')	27'6" (22'6")	62'6" (57'6")	W18 x 143	W21 x 68
30	3' (4')	32' (26'6")	72' (66'6")	W14 x 176	W24 x 84
35	3' (4')	38'6" (31'6")	83'6" (76'6")	W14 x 233	W24 x 104
40	3' (4')	43'6" (35'6")	93'6" (85'6")	W14 x 283	W24 x 117

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column
10	2' (3')	13'6" (11')	33'6" (31')	W12 x 40	W16 x 40
12	3' (4')	12' (11')	34' (33')	W10 x 49	W21 x 44
14	3' (4')	13'6" (11'6")	37'6" (35'6")	W10 x 60	W18 x 50
16	3' (4')	15' (12'6")	41' (38'6")	W12 x 65	W21 x 55
18	3' (4')	16'6" (14')	44'6" (42')	W18 x 76	W21 x 62
20	3' (4')	18' (15')	48' (45')	W18 x 86	W24 x 68
22	3' (4')	19'6" (16'6")	51'6" (48'6")	W18 x 97	W24 x 76
25	3' (4')	21'6" (18')	56'6" (53')	W14 x 109	W24 x 84
30	3' (4')	25'6" (21')	65'6" (61')	W14 x 145	W24 x 104
35	3' (4')	30'6" (25'6")	75'6" (70'6")	W21 x 182	W24 x 131
40	3' (4')	34'6" (28'6")	84'6" (78'6")	W14 x 233	W24 x 162

**Exposure C
32 FEET WIDE INSTALLATIONS**

**Exposure B
32 FEET WIDE INSTALLATIONS**

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	16'6" (12'6")	34'6" (30'6")	W14 x 48	W18 x 35
10	2' (3')	19' (14'6")	39' (34'6")	W10 x 60	W14 x 43
12	2' (3')	21'6" (16'6")	43'6" (38'6")	W12 x 65	W16 x 50
14	2' (3')	24'6" (18'6")	48'6" (42'6")	W18 x 76	W18 x 55
16	2' (3')	27' (20'6")	53' (46'6")	W18 x 86	W21 x 62
18	3' (4')	23' (19')	51' (47')	W21 x 101	W21 x 68
20	3' (4')	25' (20'6")	55' (50'6")	W24 x 104	W24 x 76
22	3' (4')	27' (22')	59' (54')	W21 x 122	W24 x 84
25	3' (4')	30' (24'6")	65' (59'6")	W24 x 146	W24 x 94
30	3' (4')	34'6" (28'6")	74'6" (68'6")	W21 x 182	W24 x 117
35	3' (4')	42' (34'6")	87' (79'6")	W14 x 257	W24 x 146
40	3' (4')	47'6" (38'6")	97'6" (88'6")	W14 x 311	W24 x 192

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col. Len.	Unbraced Column	Braced Column *
8	2' (3')	12'6" (10'6")	30'6" (28'6")	W10 x 39	W12 x 30
10	2' (3')	14'6" (11'6")	34'6" (31'6")	W14 x 43	W14 x 34
12	2' (3')	17' (13')	39' (35')	W12 x 53	W16 x 40
14	2' (3')	19' (14'6")	43' (38'6")	W14 x 61	W21 x 44
16	2' (3')	21' (16')	47' (42')	W16 x 67	W18 x 50
18	3' (4')	18' (15')	46' (43')	W18 x 86	W18 x 55
20	3' (4')	19'6" (16')	49'6" (46')	W12 x 96	W21 x 62
22	3' (4')	21' (17'6")	53' (49'6")	W21 x 101	W21 x 68
25	3' (4')	23'6" (19'6")	58'6" (54'6")	W24 x 117	W24 x 68
30	3' (4')	27'6" (23')	67'6" (63')	W18 x 158	W24 x 94
35	3' (4')	33' (27'6")	78' (72'6")	W21 x 201	W24 x 117
40	3' (4')	37'6" (31')	87'6" (81')	W14 x 257	W24 x 131

**Exposure C
36 FEET WIDE INSTALLATIONS**


**Exposure B
36 FEET WIDE INSTALLATIONS**

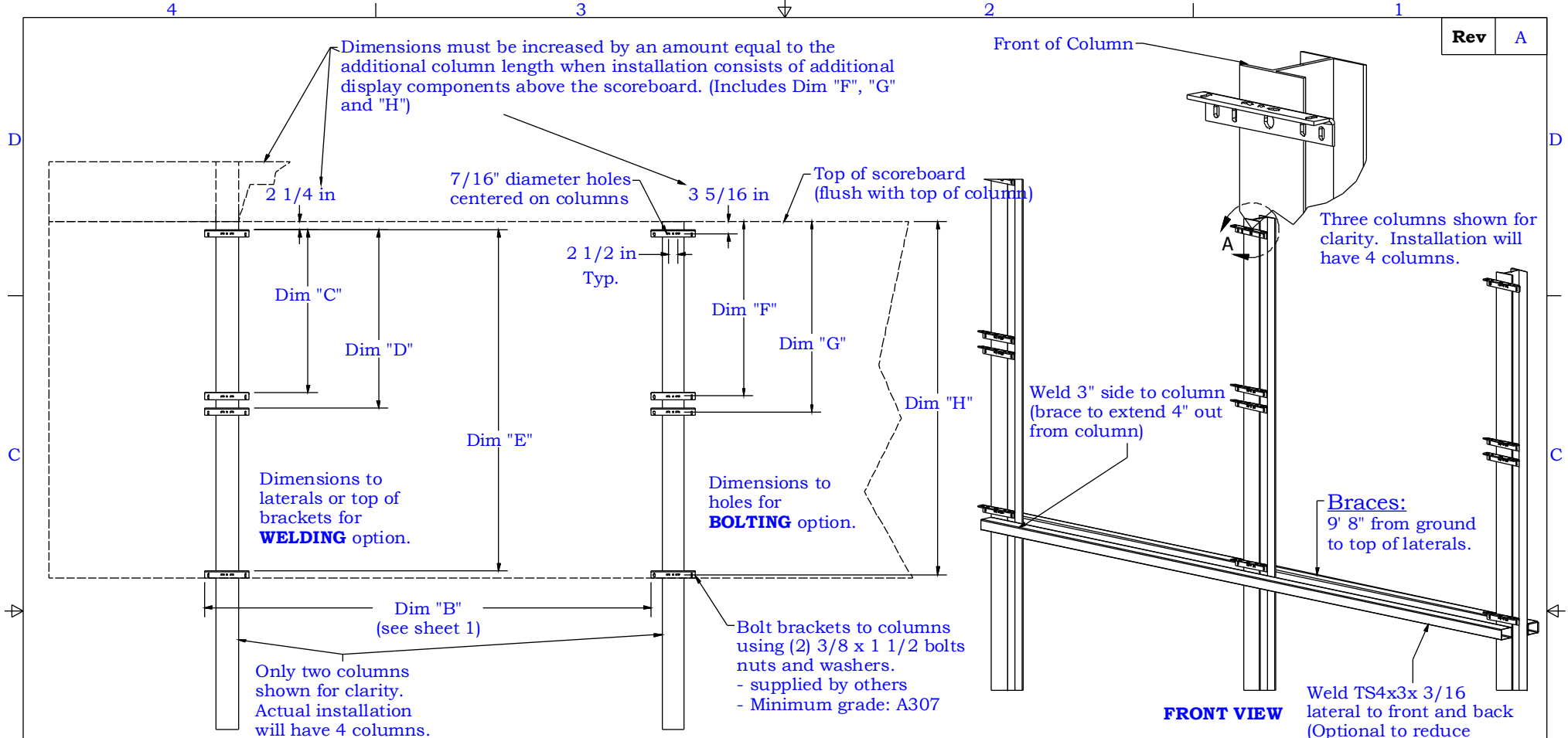
Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	18'6" (14')	36'6" (32')	W12 x 53	W16 x 40
10	3' (4')	16'6" (13'6")	36'6" (33'6")	W14 x 61	W16 x 50
12	3' (4')	19' (15'6")	41' (37'6")	W14 x 74	W18 x 55
14	3' (4')	21' (17'6")	45' (41'6")	W18 x 86	W21 x 62
16	3' (4')	23'6" (19'6")	49'6" (45'6")	W18 x 97	W21 x 68
18	3' (4')	26' (21')	54' (49')	W21 x 101	W24 x 76
20	3' (4')	28'6" (23'6")	58'6" (53'6")	W24 x 117	W24 x 84
22	3' (4')	31' (25'6")	63' (57'6")	W24 x 146	W24 x 94
25	3' (4')	34'6" (28')	69'6" (63')	W24 x 162	W24 x 104
30	3' (4')	40' (33')	80' (73')	W24 x 207	W24 x 131
35	3' (4')	46' (37'6")	91' (82'6")	W18 x 283	W24 x 176
40	3' (4')	55' (44'6")	105' (94'6")	W14 x 370	W18 x 283

Column and Pier Requirements (Based on ASCE 7-05)					
Display Height	Pier Dia	Pier Depth	Col Len	Unbraced Column	Braced Column *
8	2' (3')	14'6" (11'6")	32'6" (29'6")	W12 x 40	W14 x 34
10	3' (4')	13' (11'6")	33' (31'6")	W12 x 53	W16 x 36
12	3' (4')	14'6" (12'6")	36'6" (34'6")	W14 x 61	W21 x 44
14	3' (4')	16'6" (14')	40'6" (38')	W16 x 67	W18 x 50
16	3' (4')	18'6" (15')	44'6" (41')	W18 x 76	W18 x 55
18	3' (4')	20' (16'6")	48' (44'6")	W18 x 86	W21 x 62
20	3' (4')	22'6" (18'6")	52'6" (48'6")	W21 x 101	W21 x 68
22	3' (4')	24' (20')	56' (52')	W21 x 111	W18 x 76
25	3' (4')	27' (22'6")	62' (57'6")	W24 x 131	W24 x 84
30	3' (4')	31'6" (26')	71'6" (66')	W18 x 175	W24 x 104
35	3' (4')	36'6" (30')	81'6" (75')	W14 x 233	W24 x 131
40	3' (4')	43'6" (35'6")	93'6" (85'6")	W14 x 283	W24 x 162

Chart Notes:

- * Requires that braces be placed every 10' interval from ground level that spans all columns. See detail on sheet 5.
- Wind loading figured at **Exposure "C" - Open terrain** with scattered obstructions having heights generally less than 30 feet. This category includes flat open country, grasslands, and all water surfaces in hurricane prone areas.
- Wind loading figured at **Exposure "B" - Urban and suburban areas**, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. These areas prevail in the upwind direction for a distance of 2600 feet or 20 times the structure height, whichever is greater.

Outdoor Scoreboard Installation 4 Column Multi-Section		 Neveco, Inc. Greenville, Illinois 62246
Drawn WHP	Date 10/29/13	
		Sheet 4 of 7




Model #	WELDING DIMENSIONS			BOLTING DIMENSIONS		
	Dim "C"	Dim "D"	* Dim "E"	Dim "F"	Dim "G"	Dim "H"
1603	43 7/8"	48 1/8"	103 15/16"	47 5/32"	51 7/16"	107 1/4"
3620, 7620, 3688	43 7/8"	48 1/8"	91 15/16"	47 5/32"	51 7/16"	95 1/4"
3604, 3616 3657, 7616	55 7/8"	60 1/8"	115 15/16"	59 5/32"	63 7/16"	119 1/4"

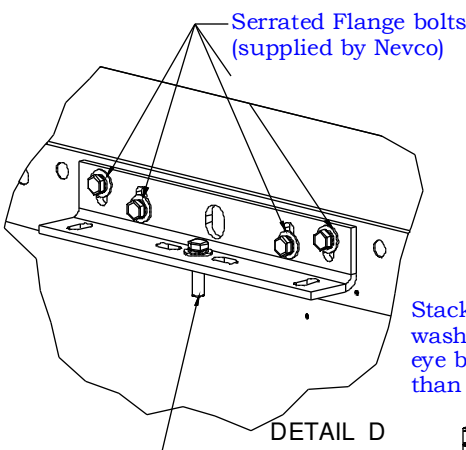
HARDWARE SUPPLIED BY OTHERS	
Description	Quantity
3/8 x 1 1/2 Bolt	32
3/8 Flat Washer	64
3/8 Lock Washer	32
3/8 Nut	32
3/8-16 eye bolts (see sheet 6)	2

- Required Hand Tools:**
1. Phillips head screw driver/drill with phillips driver.
 2. 9/16" wrench
 3. Ratchet wrench and 9/16" socket
 4. Level
 5. Tape measure

NOTE: Minimum bolt grade is A307

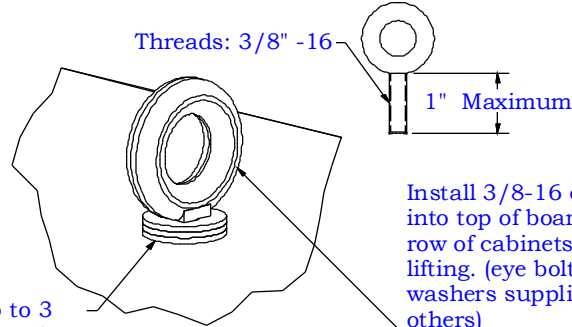
- Notes:**
- 1) If welding brackets to columns, weld around full contact surface of brackets.
 - 2) **FOR HIGH WIND AREAS:** For installations in wind zones higher than 150 mph, brackets must be welded to columns.
 - 3) Dimensions above should be taken from the top of the **SHORTEST** column, marked and leveled across to other column.
 - 4) Brackets shipped in separate container.

Outdoor Scoreboard Installation 4 Column Multi-Section		 NEVCO Nevco, Inc. Greenville, Illinois 62246
Drawing No. 241-0365		
Drawn: WHP	Date: 10/29/13	Sheet 5 of 7



Serrated Flange bolts (supplied by Nevco)

DETAIL D

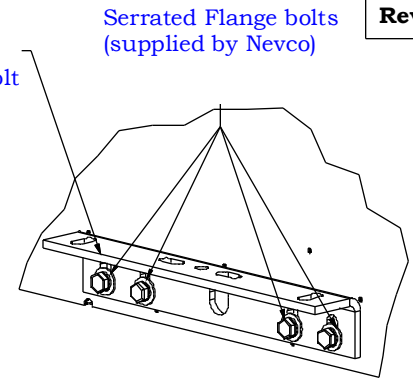


Threads: 3/8" -16
1" Maximum

DETAIL E

Stack up to 3 washers under eye bolt if longer than 1".

Install 3/8-16 eye bolts into top of board (lower row of cabinets 1st) for lifting. (eye bolts and washers supplied by others)

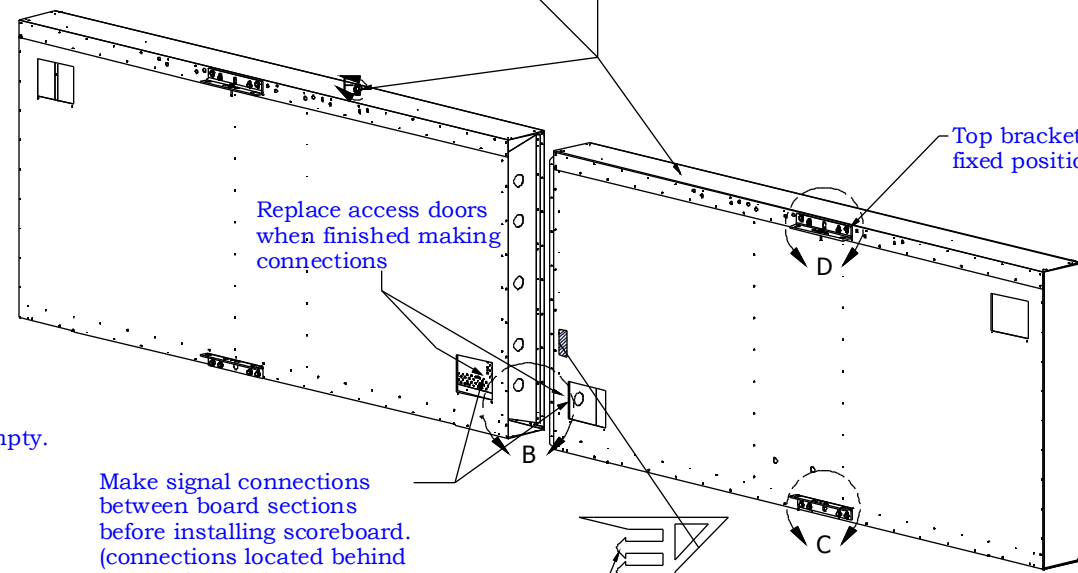


Serrated Flange bolts (supplied by Nevco)

DETAIL C

Slide bottom bracket up and tighten one bolt to hold in place

Install 3/8 x 1 1/4 bolt and nut (no washer) in center hole of top brackets. These will serve as hangers during installation. (supplied by Nevco)



Replace access doors when finished making connections

Top brackets are fixed position.

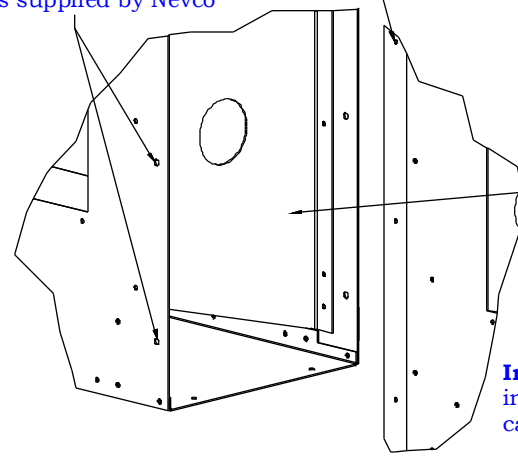
WARNING:
Do not leave any screw locations empty.

Screw sections together front and back using screws supplied by Nevco

Make signal connections between board sections before installing scoreboard. (connections located behind access doors with "SPICE ENCLOSURE" label)

Secure connections to hangers located inside cabinets.

CABLE HANGER



DETAIL B

Insert extended flange into mating section (make sure both flanges of male end go to inside of female end)

Important: Screw sections together prior to installing board onto columns. (Upper row of cabinets and lower row of cabinets do not connect)

- Notes:
- 1) Signal connections from lower row of cabinets to upper row should be made after both rows have been installed on columns. (see sheet 7 for details)
 - 2) Make sure all bracket bolts are tight before installing scoreboard.

Outdoor Scoreboard
Installation
4 Column
Multi-Section



Nevco, Inc.
Greenville, Illinois 62246

Drawing No. 241-0365

Drawn WHP Date 10/29/13

Sheet 6 of 7

Remove eye bolts from first row and install on second row

Spreader bar preferred for lifting (see installation instructions for more details)

Note: Details below show only two columns for clarity. Actual installation will have 4 columns.

Make power/signal connection between upper and lower rows of cabinets after board has been installed.
 - connections located behind access doors)
 - Pull cables from lower section into upper section (connections must be made and permanently located in upper section)

CABLE HANGER

Secure connections to hangers located inside cabinets.

Tighten all bracket bolts on first row before installing second row.

WARNING:
 Do not lift scoreboards with any other additional weight attached such as laterals or other structural components

Install top row and tighten all bracket bolts.

STEP ONE
 Install First Row

STEP TWO
 Install Second Row

Bolt installed in top brackets of each row will serve as hanger.

Scoreboard

Column

Hanging Detail

2 bolts required per bracket set.

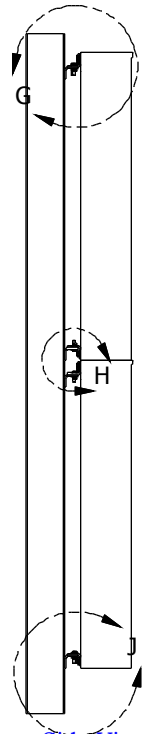
DETAIL G

DETAIL H


Column
 Scoreboard Bottom

DETAIL J

Bolt brackets together using bolts, nuts, washers and lock washers supplied by Nevco. (3/8 x 1 3/4 bolts)



Side View
 Scoreboard Installation

Outdoor Scoreboard Installation 4 Column Multi-Section		 NEVCO Nevco, Inc. Greenville, Illinois 62246
Drawn WHP	Date 10/29/13	
		Sheet 7 of 7