


DIMENSIONS AND SPECIFICATIONS						
Model	WIDTH	HEIGHT	WEIGHT	WEIGHT w/ETN	DIM "A"	DIM "B"
1604	28'	8' 3/16"	650	712	4'	10'
1606	24'	8' 3/16"	570	632	4'	8'
3615						
3617						
3618						
3619						
7630						
7631	24'	8' 3/16"	N/A	740	4'	8'
7632						
7605*	24'	10' 6 9/32"	730	792	4'	8'
7615*						
7625*						
7685	24'	8' 3/16"	N/A	740	4'	8'

- 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 3 Column Multi-Section		 Nevco, Inc. Greenville, Illinois 62246	
Drawing No. 241-0358		Sheet 1 of 8	
Drawn DBB	Date 10/28/13	Sheet 1 of 8	

90 MPH WIND ZONES

Rev A

Exposure C

24 FEET WIDE INSTALLATIONS

Exposure B

24 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 90mph Wind Load)						Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 90mph Wind Load)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Dia	Pier Depth	Col. Len.	Unbraced Column	Braced Column *
8'	2' [3']	9' 6" [8' 6"]	27' [26']	W12 x 26	W8 x 21	8'	2' [3']	8' 6" [7']	26' [24' 6"]	W8 x 24	W8 x 18
10'	2' [3']	10' 6" [9']	30' [28' 6"]	W10 x 33	W14 x 22	10'	2' [3']	9' [8']	28' 6" [27' 6"]	W12 x 26	W8 x 21
12'	2' [3']	11' 6" [10']	33' [31' 6"]	W10 x 39	W12 x 26	12'	2' [3']	10' [8' 6"]	31' 6" [30']	W10 x 33	W10 x 22
14'	2' [3']	12' [10' 6"]	36' [33' 6"]	W14 x 43	W12 x 30	14'	2' [3']	10' 6" [9']	34' [32' 6"]	W8 x 35	W10 x 26
16'	2' [3']	13' 6" [11']	39' [36' 6"]	W10 x 49	W14 x 34	16'	2' [3']	11' [9' 6"]	36' 6" [35']	W14 x 43	W12 x 26
18'	2' [3']	14' 6" [12']	42' [39' 6"]	W12 x 53	W18 x 35	18'	2' [3']	12' [10' 6"]	39' 6" [38']	W14 x 48	W12 x 30
20'	2' [3']	16' [12' 6"]	45' 6" [42']	W14 x 61	W16 x 40	20'	2' [3']	13' [11']	42' 6" [40' 6"]	W10 x 49	W14 x 30
22'	2' (3')	14' (11')	46' (43')	W12 x 65	W14 x 43	22'	2' (3')	14' (11')	46' (43')	W10 x 60	W14 x 34
25'	3' (4')	12'6" (10'6")	47'6" (45'6")	W12 x 79	W18 x 50	25'	3' (4')	12'6" (10'6")	47'6" (45'6")	W12 x 65	W16 x 40
30'	3' (4')	14'6" (12'6")	54'6" (52'6")	W24 x 104	W21 x 55	30'	3' (4')	14'6" (12'6")	54'6" (52'6")	W12 x 87	W16 x 50
35'	3' (4')	16'6" (14')	61'6" (59')	W14 x 120	W21 x 68	35'	3' (4')	16'6" (14')	61'6" (59')	W12 x 106	W21 x 55
40'	3' (4')	19' (16')	69' (66')	W14 x 145	W24 x 76	40'	3' (4')	19' (16')	69' (66')	W14 x 120	W21 x 62

Exposure C

28 FEET WIDE INSTALLATIONS


Exposure B

28 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 90mph Wind Load)						Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 90mph Wind Load)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	10' (8'6")	27'6" (26')	W8 x 28	W10 x 22	8	2' (3')	8'6" (7'6")	26' (25')	W8 x 24	W8 x 18
10	2' (3')	11' (9'6")	30'6" (29')	W10 x 33	W10 x 26	10	2' (3')	9'6" (8')	29' (27'6")	W8 x 28	W8 x 21
12	2' (3')	12' (10')	33'6" (31'6")	W10 x 39	W12 x 26	12	2' (3')	10'6" (9')	32' (30'6")	W10 x 33	W14 x 22
14	2' (3')	13' (11')	36'6" (34'6")	W10 x 45	W14 x 30	14	2' (3')	11' (9'6")	34'6" (33')	W10 x 39	W10 x 26
16	2' (3')	14'6" (11'6")	40' (37')	W12 x 53	W14 x 34	16	2' (3')	12' (10')	37'6" (35'6")	W10 x 45	W12 x 30
18	2' (3')	16' (12'6")	43'6" (40')	W10 x 60	W16 x 40	18	2' (3')	12'6" (11')	40' (38'6")	W10 x 49	W14 x 30
20	2' (3')	17' (13'6")	46'6" (43')	W12 x 65	W14 x 43	20	2' (3')	14' (11'6")	43'6" (41')	W12 x 53	W14 x 34
22	2' (3')	18'6" (14'6")	50'6" (46'6")	W12 x 72	W14 x 48	22	2' (3')	15' (11'6")	47' (43'6")	W10 x 60	W16 x 36
25	3' (4')	16' (13'6")	51' (48'6")	W12 x 87	W18 x 50	25	3' (4')	13' (11')	48' (46')	W12 x 72	W16 x 40
30	3' (4')	19'6" (16'6")	59'6" (56'6")	W14 x 109	W21 x 62	30	3' (4')	15'6" (13')	55'6" (53')	W12 x 96	W18 x 55
35	3' (4')	22' (18'6")	67' (63'6")	W14 x 132	W24 x 68	35	3' (4')	18' (15')	63' (60')	W14 x 109	W21 x 62
40	3' (4')	25' (21')	75' (71')	W14 x 159	W24 x 84	40	3' (4')	20'6" (17')	70'6" (67')	W14 x 132	W21 x 68

Chart Notes:

- * Requires that braces be placed approximately 10' from ground level that spans both columns. See detail on sheet 5. If display height is taller than 10', braces must be installed at each 10' increment in display height.
- 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 3 Column Multi-Section		 Nevco, Inc. Greenville, Illinois 62246	
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130 MPH WIND ZONES

Rev A

Exposure C

24 FEET WIDE INSTALLATIONS

Exposure B

24 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 130mph Wind Load)						Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)					
Display Height	Pier Dia	Pier Depth	Col Len	Unbraced Column	Braced Column *	Display Height	Pier Dia	Pier Depth	Col. Len.	Unbraced Column	Braced Column *
8	2' (3')	13' (11')	31' (29')	W10 x 39	W12 x 30	8	2' (3')	11' (9'6")	29' (27'6")	W10 x 33	W10 x 26
10	2' (3')	15' (12')	35' (32')	W14 x 48	W14 x 34	10	2' (3')	12' (10'6")	32' (30'6")	W10 x 39	W12 x 26
12	2' (3')	17'6" (13'6")	39'6" (35'6")	W12 x 53	W16 x 40	12	2' (3')	13'6" (11')	35'6" (33')	W10 x 45	W14 x 30
14	3' (4')	15' (12'6")	39' (36'6")	W14 x 61	W21 x 44	14	3' (4')	12' (11')	36' (35')	W12 x 53	W18 x 35
16	3' (4')	16'6" (14')	42'6" (40')	W12 x 72	W18 x 50	16	3' (4')	13' (11'6")	39' (37'6")	W14 x 61	W16 x 40
18	3' (4')	18' (15')	46' (43')	W18 x 86	W21 x 55	18	3' (4')	14'6" (12')	42'6" (40')	W12 x 65	W21 x 44
20	3' (4')	19'6" (16'6")	49'6" (46'6")	W12 x 96	W21 x 62	20	3' (4')	15'6" (13')	45'6" (43')	W14 x 74	W16 x 50
22	3' (4')	21' (17'6")	53' (49'6")	W21 x 101	W21 x 68	22	3' (4')	17' (14')	49' (46')	W18 x 86	W18 x 55
25	3' (4')	24'6" (20'6")	59'6" (55'6")	W21 x 122	W24 x 76	25	3' (4')	19'6" (16'6")	54'6" (51'6")	W21 x 101	W21 x 62
30	3' (4')	28'6" (24')	68'6" (64')	W14 x 159	W24 x 94	30	3' (4')	23' (19')	63' (59')	W24 x 131	W18 x 76
35	3' (4')	33' (27')	78' (72')	W21 x 201	W24 x 104	35	3' (4')	26'6" (22')	71'6" (67')	W14 x 159	W24 x 94
40	3' (4')	37' (30'6")	87' (80'6")	W18 x 234	W24 x 131	40	3' (4')	30' (25')	80' (75')	W14 x 193	W24 x 104

Exposure C

28 FEET WIDE INSTALLATIONS

Exposure B

28 FEET WIDE INSTALLATIONS

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 130mph Wind Load)						Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)					
Display Height	Pier Dia	Pier Depth	Col Len	Unbraced Column	Braced Column *	Display Height	Pier Dia	Pier Depth	Col Len	Unbraced Column	Braced Column *
8	2' (3')	14' (11'6")	32' (29'6")	W12 x 40	W14 x 30	8	2' (3')	11'6" (10')	29'6" (28')	W10 x 33	W12 x 26
10	2' (3')	16'6" (12'6")	36'6" (32'6")	W14 x 48	W16 x 36	10	2' (3')	12'6" (11')	32'6" (31')	W12 x 40	W12 x 30
12	2' (3')	18'6" (14'6")	40'6" (36'6")	W14 x 61	W14 x 43	12	2' (3')	14'6" (11'6")	36'6" (33'6")	W14 x 48	W14 x 34
14	3' (4')	16' (13'6")	40' (37'6")	W12 x 65	W16 x 50	14	3' (4')	12'6" (11')	36'6" (35')	W12 x 53	W16 x 36
16	3' (4')	18' (15')	44' (41')	W18 x 76	W18 x 55	16	3' (4')	14' (12')	40' (38')	W14 x 61	W21 x 44
18	3' (4')	19'6" (16'6")	47'6" (44'6")	W18 x 86	W21 x 62	18	3' (4')	15'6" (13')	43'6" (41')	W12 x 72	W16 x 50
20	3' (4')	21'6" (17'6")	51'6" (47'6")	W21 x 101	W21 x 68	20	3' (4')	17' (14')	47' (44')	W12 x 79	W18 x 55
22	3' (4')	23' (19')	55' (51')	W24 x 104	W24 x 68	22	3' (4')	18'6" (15'6")	50'6" (47'6")	W12 x 96	W21 x 55
25	3' (4')	25'6" (21')	60'6" (56')	W18 x 130	W24 x 76	25	3' (4')	20'6" (17')	55'6" (52')	W24 x 104	W21 x 62
30	3' (4')	31' (26')	71' (66')	W18 x 175	W24 x 103	30	3' (4')	25' (20'6")	65' (60'6")	W18 x 143	W24 x 76
35	3' (4')	36' (29'6")	81' (74'6")	W14 x 233	W24 x 131	35	3' (4')	28'6" (24')	73'6" (69')	W18 x 175	W21 x 101
40	3' (4')	40'6" (33'6")	90'6" (83'6")	W18 x 258	W24 x 146	40	3' (4')	32'6" (27')	82'6" (77')	W14 x 211	W24 x 117

Chart Notes:

1. * Requires that braces be placed approximately 10' from ground level that spans both columns. See detail on sheet 5. If display height is taller than 10', braces must be installed at each 10' increment in display height.
2. 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.
3. 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 3 Column Multi-Section	<p style="font-size: small; margin-top: 5px;"> Nevco, Inc. Greenville, Illinois 62246 </p>
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4

3

2

1

Exposure C

24 FEET WIDE INSTALLATIONS

150 MPH WIND ZONES

Exposure B

24 FEET WIDE INSTALLATIONS

Rev	A
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D

D

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 150mph Wind Load)					
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	2' (3')	18'6" (14')	38'6" (34')	W12 x 53	W16 x 40
12	2' (3')	21' (16')	43' (38')	W14 x 61	W16 x 50
14	2' (3')	24' (18')	48' (42')	W14 x 74	W18 x 55
16	2' (3')	26'6" (20')	52'6" (46')	W18 x 86	W21 x 62
18	2' (3')	29' (22')	57' (50')	W18 x 97	W21 x 68
20	2' (3')	31'6" (23'6")	61'6" (53'6")	W21 x 101	W24 x 68
22	3' (4')	25'6" (21')	57'6" (53')	W24 x 117	W24 x 76
25	3' (4')	29'6" (24'6")	64'6" (59'6")	W24 x 146	W24 x 94
30	3' (4')	35' (28'6")	75' (68'6")	W18 x 192	W24 x 117
35	3' (4')	40' (33')	85' (78')	W18 x 234	W24 x 146
40	3' (4')	45' (37')	95' (87')	W18 x 283	W24 x 176

Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 150mph Wind Load)					
Display Height	Pier Dia	Pier Depth	Col. Length.	Unbraced Column	Braced Column *
8	2' (3')	12' (10'6")	30' (28'6")	W14 x 38	W12 x 30
10	2' (3')	14' (11'6")	34' (31'6")	W14 x 43	W14 x 34
12	2' (3')	16' (12'6")	38' (34'6")	W12 x 53	W16 x 36
14	2' (3')	18'6" (14')	42'6" (38')	W14 x 61	W21 x 44
16	2' (3')	20'6" (15'6")	46'6" (41'6")	W16 x 67	W16 x 50
18	2' (3')	22'6" (17')	50'6" (45')	W18 x 76	W18 x 55
20	2' (3')	24'6" (18'6")	54'6" (48'6")	W18 x 86	W21 x 55
22	3' (4')	20' (17')	52' (49')	W21 x 101	W21 x 62
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')	32' (26'6")	77' (71'6")	W18 x 192	W24 x 104
40	3' (4')	36' (29'6")	86' (79'6")	W14 x 233	W24 x 131

C

C

Exposure C

28 FEET WIDE INSTALLATIONS

Exposure B

28 FEET WIDE INSTALLATIONS

D

D

Column and Pier Requirements (Based on ASCE 7-05 Exposure C for 150mph Wind Load)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	17' (13')	35' (31')	W14 x 48	W16 x 36
10	2' (3')	19'6" (15')	39'6" (35')	W14 x 61	W21 x 44
12	2' (3')	22'6" (17')	44'6" (39')	W16 x 67	W18 x 50
14	2' (3')	25'6" (19'6")	49'6" (43'6")	W18 x 76	W21 x 55
16	2' (3')	28'6" (21'6")	54'6" (47'6")	W18 x 97	W21 x 62
18	2' (3')	31'6" (24')	59'6" (52')	W21 x 101	W24 x 68
20	2' (3')	34' (26')	64' (56')	W21 x 111	W24 x 76
22	3' (4')	28' (23')	60' (55')	W24 x 131	W24 x 84
25	3' (4')	31' (25'6")	66' (60'6")	W18 x 158	W21 x 101
30	3' (4')	38' (31')	78' (71')	W21 x 201	W24 x 131
35	3' (4')	44' (36')	89' (81')	W18 x 258	W24 x 162
40	3' (4')	49'6" (40'6")	99'6" (90'6")	W18 x 311	W24 x 192

Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 150mph Wind Load)					
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
8	2' (3')	13' (11')	31' (29')	W10 x 39	W12 x 30
10	2' (3')	15'6" (12')	35'6" (32')	W14 x 48	W14 x 34
12	2' (3')	17'6" (13'6")	39'6" (35'6")	W12 x 53	W16 x 40
14	2' (3')	19'6" (15')	43'6" (39')	W14 x 61	W21 x 44
16	2' (3')	22' (17')	48' (43')	W14 x 74	W18 x 50
18	2' (3')	24'6" (18'6")	52'6" (46'6")	W18 x 86	W21 x 55
20	2' (3')	26'6" (20'6")	56'6" (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")	W21 x 122	W24 x 76
30	3' (4')	30' (25')	70' (65')	W24 x 162	W21 x 101
35	3' (4')	34'6" (28'6")	79'6" (73'6")	W21 x 201	W24 x 117
40	3' (4')	39' (32'6")	89' (82'6")	W14 x 257	W24 x 146

B


B

Chart Notes:

- * Requires that braces be placed approximately 10' from ground level that spans both columns. See detail on sheet 5. If display height is taller than 10', braces must be installed at each 10' increment in display height.
- 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.

A

A

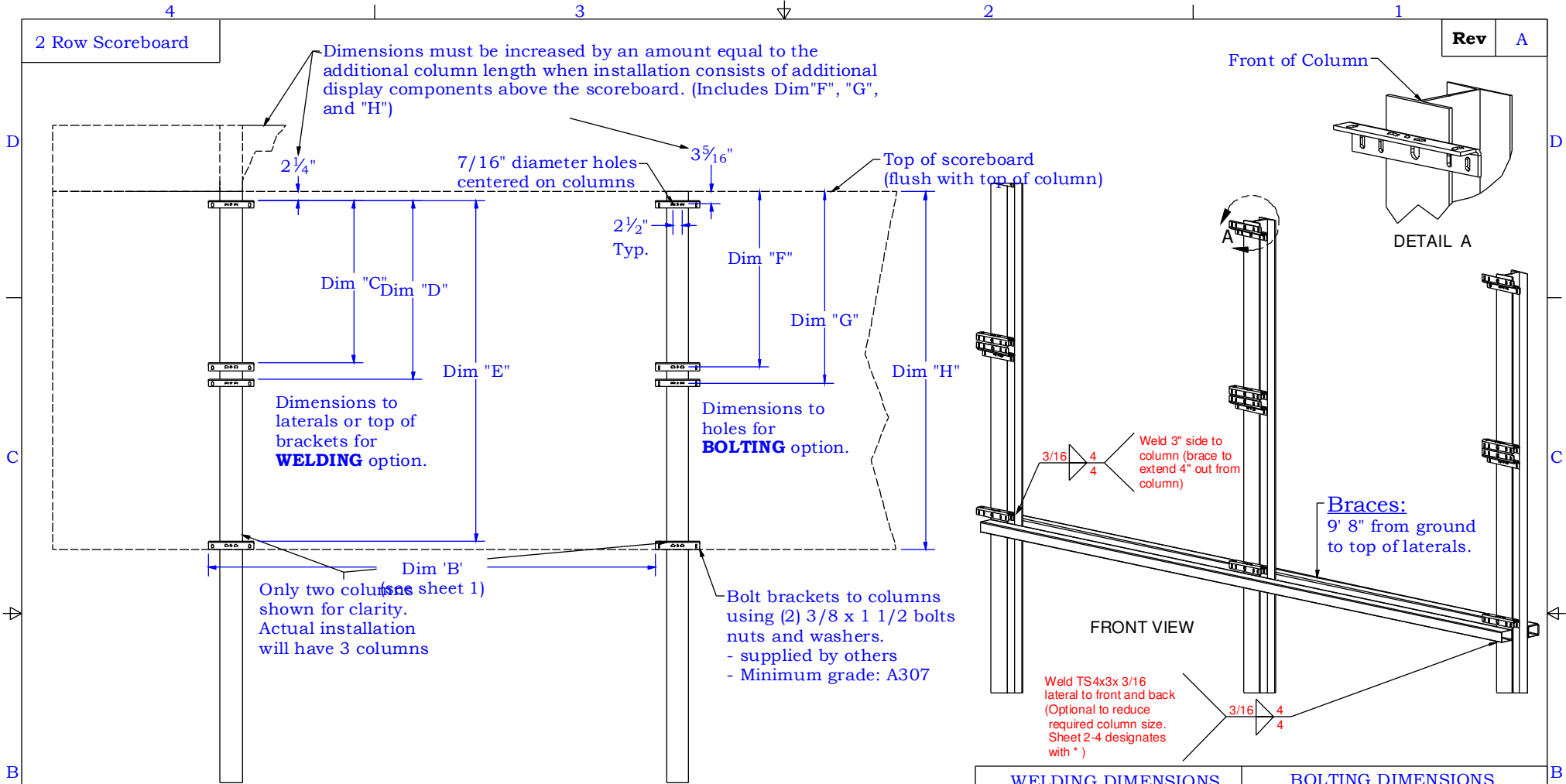
Outdoor Scoreboard Installation 3 Column Multi-Section		 NEVCO Nevco, Inc. Greenville, Illinois 62246				
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4

3

2

1



NOTE: Minimum bolt grade is A307 (not required if welding brackets to columns)

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

HARDWARE SUPPLIED BY OTHERS	
Description	Quantity
3/8 x 1 1/2 Bolt	24
3/8 Flat Washer	48
3/8 Lock Washer	24
3/8 Nut	24
3/8-16 eye bolts (see sheet 6)	2

Notes:

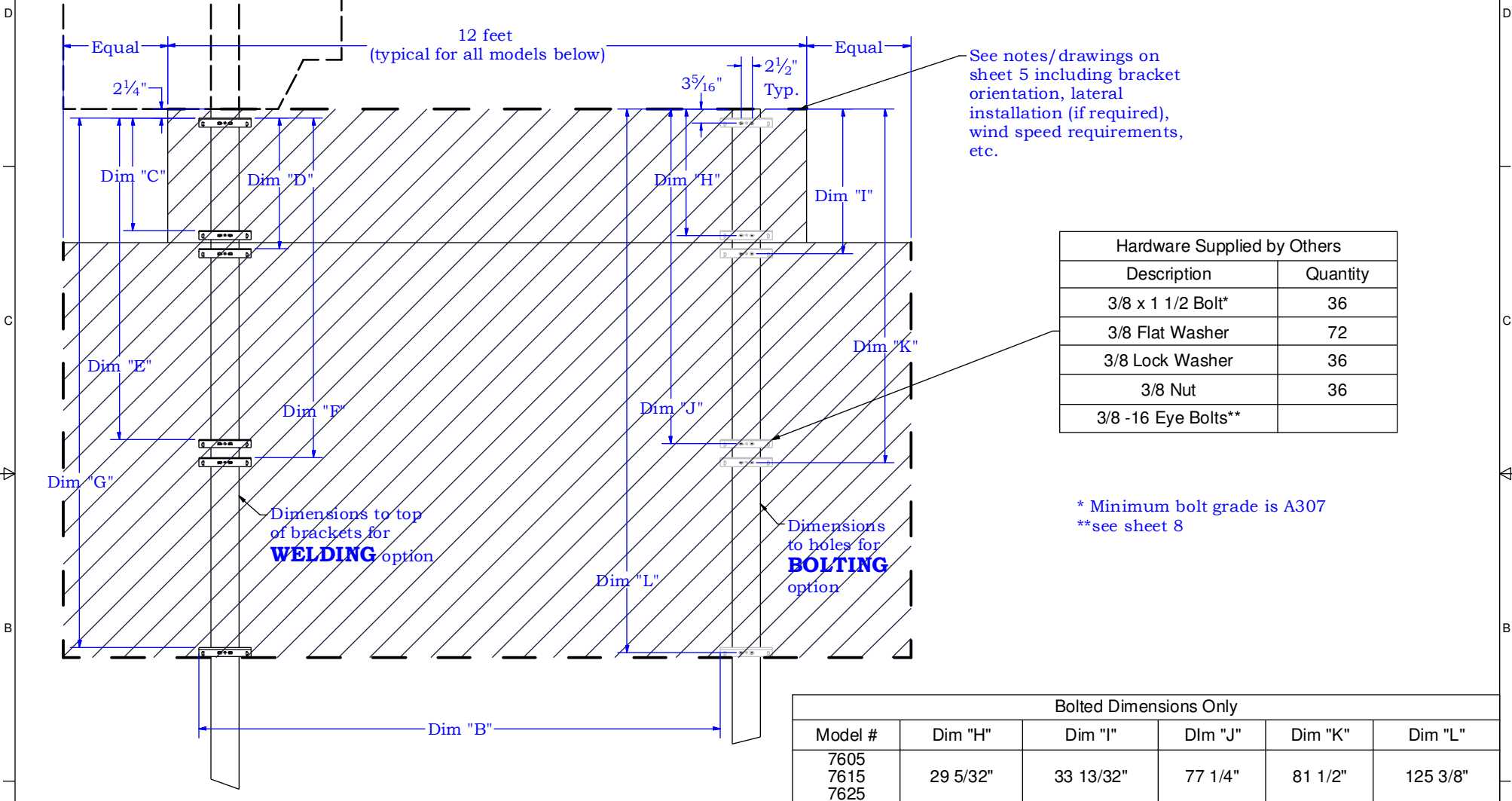
- 1) If welding brackets to columns, According to IBC standards, all welds are to be performed by AWS certified welder. The city in which the display is installed may waive this standard. Contact local officials if necessary.
- 2) **FOR HIGH WIND AREAS:** For installations in wind zones higher than 150 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.

Model #	WELDING DIMENSIONS			BOLTING DIMENSIONS		
	Dim "C"	Dim "D"	* Dim "E"	Dim "F"	Dim "G"	Dim "H"
1604	43 7/8"	48 1/8"	91 15/16"	47 5/32"	51 7/16"	95 1/4"
1606						
3615						
3617						
3618						
3619						
3685						
7630						
7631						
7632						
7685						

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3 Row Scoreboard

Dimensions must be increased by an amount equal to the additional column length when installation consists of additional display components above the scoreboard. (Includes dimensions for welded or bolted option.)




See notes/drawings on sheet 5 including bracket orientation, lateral installation (if required), wind speed requirements, etc.

Hardware Supplied by Others	
Description	Quantity
3/8 x 1 1/2 Bolt*	36
3/8 Flat Washer	72
3/8 Lock Washer	36
3/8 Nut	36
3/8 -16 Eye Bolts**	

* Minimum bolt grade is A307
 **see sheet 8

Bolted Dimensions Only					
Model #	Dim "H"	Dim "I"	Dim "J"	Dim "K"	Dim "L"
7605	29 5/32"	33 13/32"	77 1/4"	81 1/2"	125 3/8"
7615					
7625					

Welding Dimensions Only					
Model #	Dim "C"	Dim "D"	Dim "E"	Dim "F"	Dim "G"
7605					
7615	25 7/8"	30 3/32"	73 15/16"	78 3/16"	122 1/16"
7625					

Outdoor Scoreboard Installation 3 Column Multi-Section		 Nevco, Inc. Greenville, Illinois 62246	
Drawn DBB	Date 10/28/13	Sheet 6	of 8

Serrated Flange bolts (supplied by Nevco)

Threads: 3/8" -16

1" Maximum

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

Serrated Flange bolts (supplied by Nevco)

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

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

DETAIL E

DETAIL D

DETAIL C

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.

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

Secure connections to hangers located inside cabinets.

CABLE HANGER

Screw sections together front and back using screws supplied by Nevco

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.

DETAIL B

Outdoor Scoreboard
Installation
3 Column
Multi-Section



Nevco, Inc.
Greenville, Illinois 62246

Drawing No. 241-0358

Drawn DBB Date 10/28/13

Sheet of 7 8

Note: Details below show only two columns for clarity. Actual installation will have 3 columns.

Remove eye bolts from first row and install on second row

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

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)

Tighten all bracket bolts on first row before installation of 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.

Secure connections to hangers located inside cabinets.

CABLE HANGER

STEP ONE
Install First Row

STEP TWO
Install Second Row

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

2 Bolts required per bracket set

Detail F

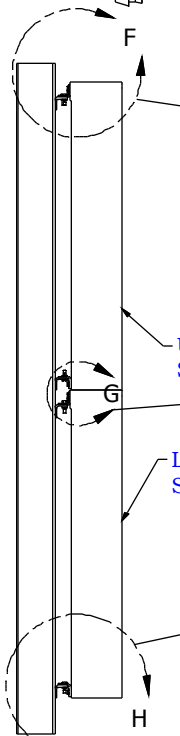
Detail G

Hanging Detail

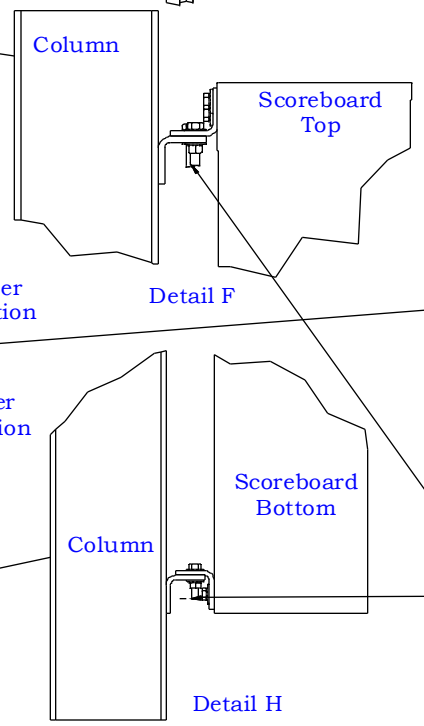
Bolt brackets together using bolts, nuts, washers and lock washers supplied by Nevco. (3/8 x 1 3/4 bolts)

D
C
B
A

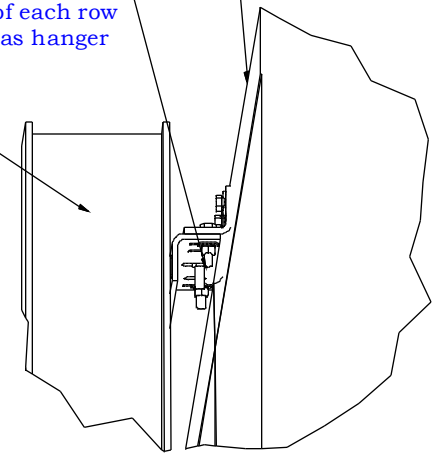
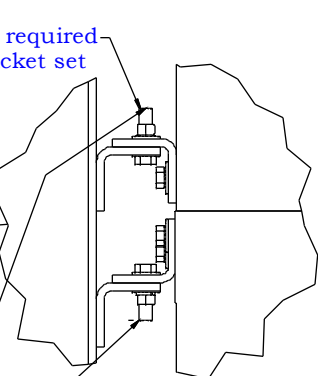
D
C
B
A




Side View
Scoreboard Installation



Detail H



Outdoor Scoreboard Installation 3 Column Multi-Section		 Nevco, Inc. Greenville, Illinois 62246	
Drawn	DBB	Date	10/28/13
		Sheet	8 of 8

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Sheet	8 of 8

4

3

2

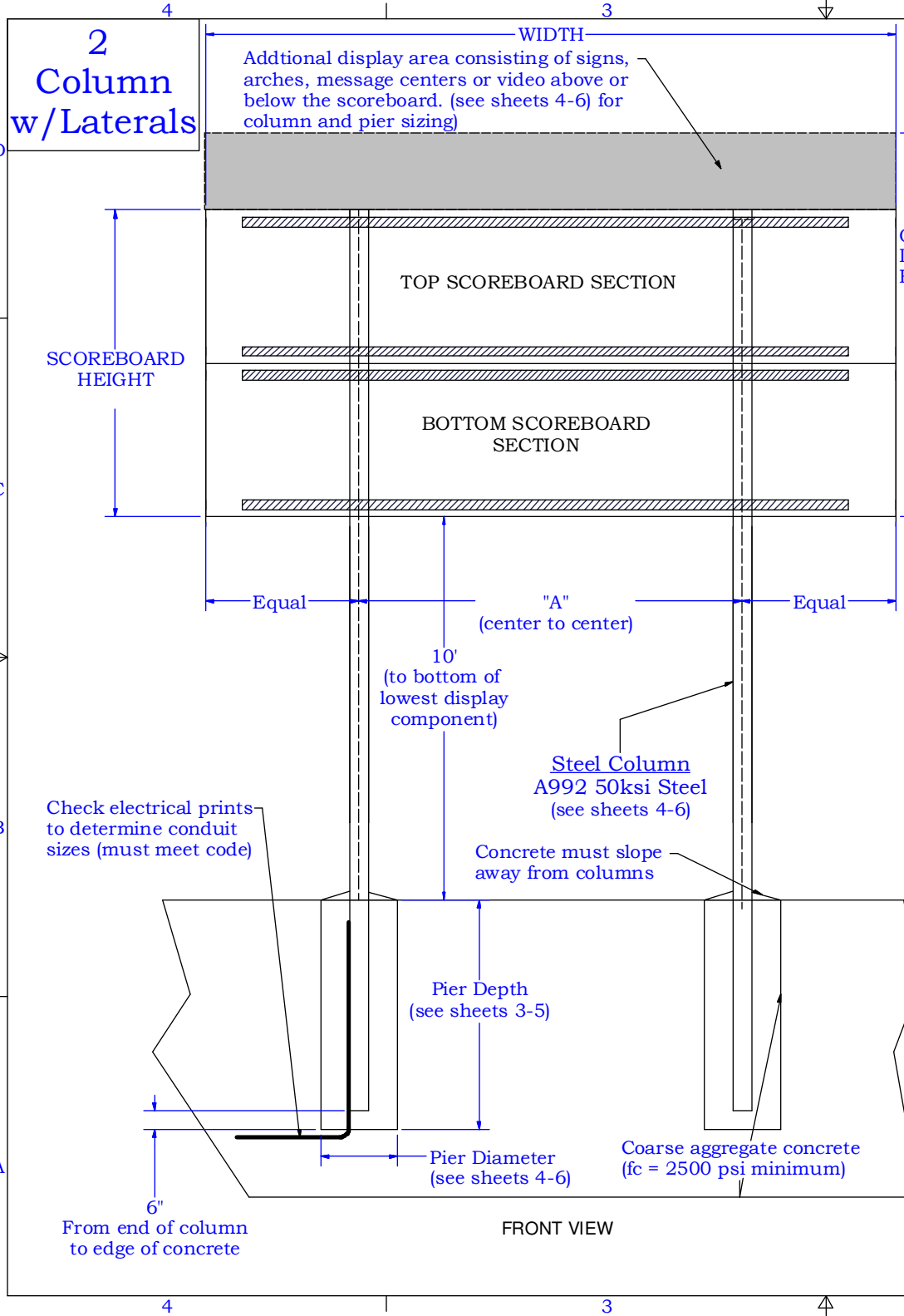
1

4

3

2

1




SCOREBOARD DIMENSIONS AND SPECIFICATIONS						
MODEL	WIDTH	HEIGHT	WEIGHT	WEIGHT W/ETN	Max "A"	Min "A"
1604	28'	8' 3/16"	650	712	22'	14'
1606, 3615, 3617, 3618, 3619, 7630, 7631, 7632	24'	8' 3/16"	570	632	20'	13'
3685, 7685	24'	8' 3/16"	N/A	740	20'	13'
7605, 7615, 7625	24'	10' 6 9/32"	730	792	20'	13'
8601, 8602	24'	8' 3/16"	970	1032	20'	13'

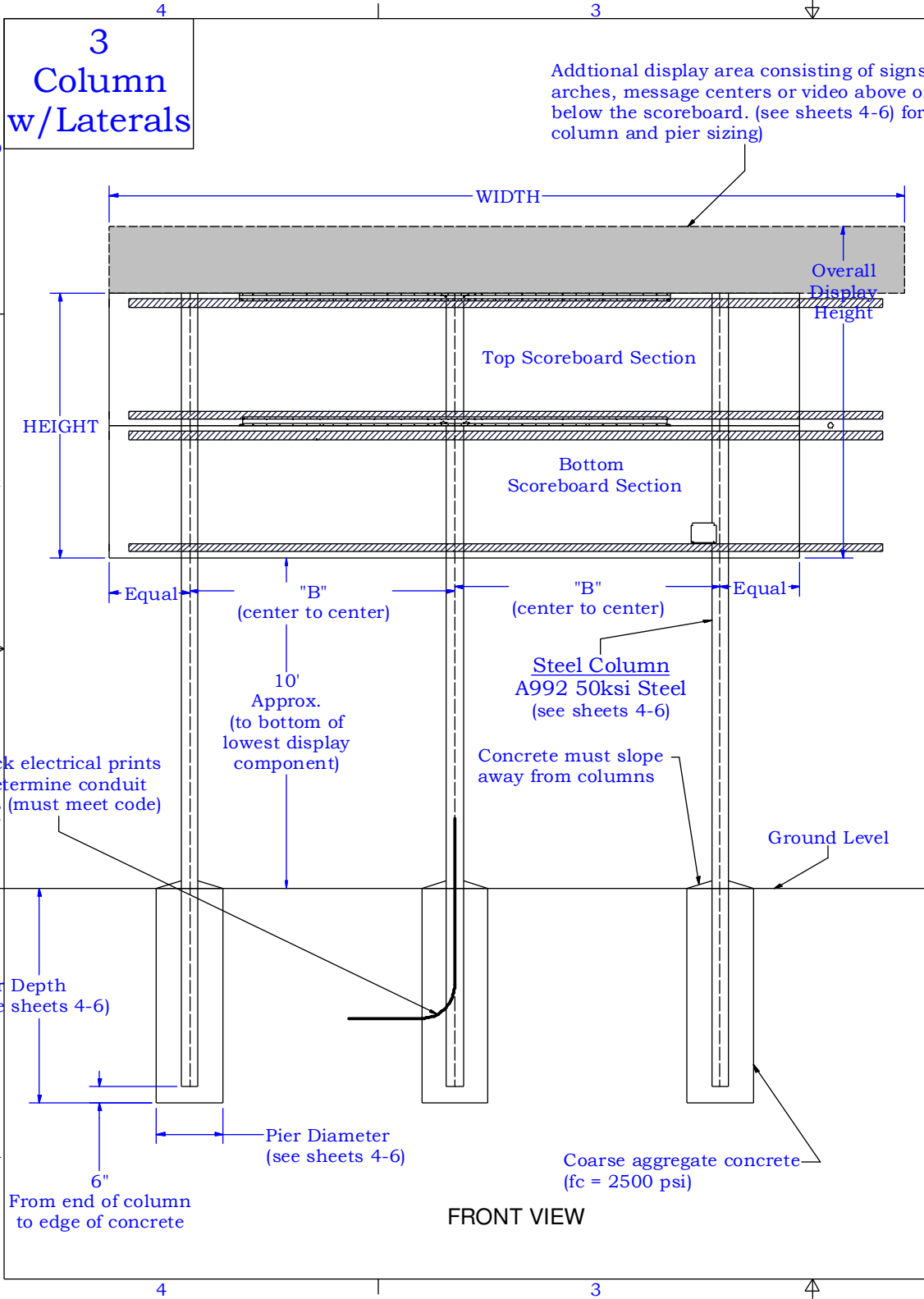
General Notes:

1. Column steel to be grade A992 (50 ksi steel minimum).
2. Laterals and 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 2/3 Column With Laterals		 <p>NEVCO</p> <p>Nevco, Inc. Greenville, Illinois 62246</p>			
			Drawing No. 241-0360		
Drawn	DBB	Date	11/12/13	Sheet	of 1 9




SCOREBOARD DIMENSIONS AND SPECIFICATIONS						
Model	WIDTH	HEIGHT	WEIGHT	WEIGHT W/ETN	MAX "B"	MIN "B"
1603	36'	9' 3/16"	930	992	17'	12'
3616, 7616	36'	10' 3/16"	1020	1220	17'	12'
3657	32'	10' 3/16"	890	952	15'	11'
3688	32'	8' 3/16"	N/A	930	15'	11'
3620, 7620	32'	8' 3/16"	760	822	15'	11'

General Notes:

1. Column steel to be grade A992 (50 ksi steel minimum).
2. Laterals and 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 2/3 Column With Laterals		 NEVCO Nevco, Inc. Greenville, Illinois 62246
Drawing No. 241-0360		
Drawn DBB	Date 11/12/13	Sheet 2 of 9

LATERAL REQUIREMENTS						
Model	90mph Lateral	130mph Lateral	150mph Lateral	# Laterals Req.	Lateral Length	Bracing Laterals
1603, 3616, 7616	TS 3 x 3 x 1/8	TS 3.5 x 3.5 x 3/16	TS 3.5 x 3.5 x 1/4	4	31' 6"	TS 4 x 3 x 3/16
3657, 3688	TS 2.25 x 2.25 x 1/4	TS 3 x 3 x 3/16	TS 3 x 3 x 1/4	4	25' 6"	TS 4 x 3 x 3/16
3620, 7620	TS 2.25 x 2.25 x 3/16	TS 3 x 3 x 1/8	TS 3 x 3 x 3/16	4	25' 6"	TS 4 x 3 x 3/16
1604	TS 2.5 x 2.5 x 3/16	TS 3 x 3 x 1/8	TS 3 x 3 x 3/16	4	21' 6"	TS 4 x 3 x 3/16
7605, 7615, 7625	TS 2.5 x 2.5 x 1/4	TS 3.5 x 3.5 x 3/16	TS 3.5 x 3.5 x 1/4	6	17' 6"	TS 4 x 3 x 3/16
1606, 3615, 3617 3618, 3619, 3685, 7630, 7631, 7632, 7685, 8601, 8602	TS 2.5 x 2.5 x 3/16	TS 3 x 3 x 3/16	TS 3.5 x 3.5 x 3/16	4	17' 6"	TS 4 x 3 x 3/16

- Notes:
- 1) Lateral material to be ASTM A500 Grade B minimum.
 - 2) Quantity of laterals in the chart above includes the quantity required to mount the scoreboard only and does not include bracing laterals. (See detail on sheet 7 to determine required amount of bracing laterals).
 - 3) Additional display components such as signs, message centers or video displays will require additional laterals. See separate installation print for details.

Outdoor Scoreboard Installation 2/3 Column With Laterals		 NEVCO Nevco, Inc. Greenville, Illinois 62246					
			Drawing No. 241-0360				
Drawn	DBB	Date	11/12/13	Sheet	of	3	9

90 MPH WIND ZONES

Rev A

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

Display Height	Pier Dia	Pier Depth	Col Length	Column *
8	2' (3')	9'6" (7'6")	27'6" (25'6")	W14 x 22
10	2' (3')	11' (9')	31' (29')	W12 x 26
12	2' (3')	13' (10')	35' (32')	W12 x 30
14	2' (3')	14'6" (11'6")	38'6" (35'6")	W14 x 34
16	2' (3')	16' (12'6")	42' (38'6")	W16 x 36
18	2' (3')	17'6" (13'6")	45'6" (41'6")	W14 x 43
20	2' (3')	19' (14'6")	49' (44'6")	W14 x 48
22	2' (3')	20'6" (16')	52'6" (48')	W18 x 50
25	3' (4')	18'6" (15'6")	53'6" (50'6")	W21 x 55
30	3' (4')	21'6" (18')	61'6" (58')	W24 x 68
35	3' (4')	24'6" (20'6")	69'6" (65'6")	W24 x 84
40	3' (4')	27'6" (23')	77'6" (73')	W24 x 94

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	11' (9'6")	29' (27'6")	W10 x 26
10	2' (3')	12'6" (10'6")	32'6" (30'6")	W12 x 30
12	2' (3')	14' (11'6")	36' (33'6")	W14 x 34
14	2' (3')	15'6" (12')	39'6" (36')	W16 x 36
16	2' (3')	17'6" (13'6")	43'6" (39'6")	W16 x 40
18	2' (3')	19'6" (15')	47'6" (43')	W14 x 48
20	2' (3')	21' (16')	51' (46')	W18 x 50
22	2' (3')	22'6" (17'6")	54'6" (49'6")	W18 x 55
25	3' (4')	19'6" (16')	54'6" (51')	W21 x 62
30	3' (4')	23'6" (19'6")	63'6" (59'6")	W24 x 76
35	3' (4')	27' (22'6")	72' (67'6")	W24 x 94
40	3' (4')	30'6" (25'6")	80'6" (75'6")	W24 x 104

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	10' (8'6")	28' (26'6")	W10 x 22
10	2' (3')	11' (9'6")	31' (29'6")	W10 x 26
12	2' (3')	11'6" (10')	33'6" (32')	W12 x 26
14	2' (3')	12'6" (11')	36'6" (35')	W12 x 30
16	2' (3')	14' (11'6")	40' (37'6")	W14 x 34
18	2' (3')	15'6" (12')	43'6" (40')	W16 x 36
20	2' (3')	17' (13')	47' (43')	W16 x 40
22	3' (4')	14' (12')	46' (44')	W21 x 44
25	3' (4')	15'6" (13')	50'6" (48')	W18 x 50
30	3' (4')	18' (15'6")	58' (55'6")	W21 x 62
35	3' (4')	21'6" (18')	66'6" (63')	W24 x 68
40	3' (4')	24'6" (20'6")	74'6" (70'6")	W24 x 84

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

Display Height	Pier Dia	Pier Depth	Col. Length	Column*
9	2' (3')	11' (9'6")	30' (28'6")	W10 x 26
10	2' (3')	11'6" (10')	31'6" (30')	W12 x 26
11	2' (3')	12' (10'6")	33' (31'6")	W12 x 26
12	2' (3')	12'6" (10'6")	34'6" (32'6")	W12 x 30
13	2' (3')	13'6" (11')	36'6" (34')	W14 x 30
14	2' (3')	14' (11'6")	38' (35'6")	W14 x 34
15	2' (3')	15' (12')	40' (37')	W18 x 35
20	3' (4')	14'6" (12'6")	44'6" (42'6")	W14 x 48
25	3' (4')	17'6" (14'6")	52'6" (49'6")	W21 x 55
30	3' (4')	20'6" (17')	60'6" (57')	W21 x 68
35	3' (4')	23' (19'6")	68' (64'6")	W24 x 76
40	3' (4')	27'6" (23')	77'6" (73')	W24 x 94

Chart Notes:

- * It is required that 4x3x3/16 steel tubing be welded to back of columns 10' from the ground and every 10' to the top of the column for bracing. (See detail on sheet 7)
- 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.

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	7'6" (6')	25'6" (24')	W8 x 21
10	2' (3')	9' (7')	29' (27')	W10 x 22
12	2' (3')	10' (8')	32' (30')	W10 x 26
14	2' (3')	11'6" (9')	35'6" (33')	W12 x 26
16	2' (3')	12'6" (10')	38'6" (36')	W14 x 30
18	2' (3')	14' (11')	42' (39')	W14 x 34
20	2' (3')	15' (12')	45' (42')	W16 x 36
22	2' (3')	16'6" (12'6")	48'6" (44'6")	W16 x 40
25	3' (4')	14'6" (12'6")	49'6" (47'6")	W16 x 50
30	3' (4')	17' (14'6")	57' (54'6")	W21 x 55
35	3' (4')	20' (16'6")	65' (61'6")	W21 x 68
40	3' (4')	22'6" (18'6")	72'6" (68'6")	W24 x 76

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	9'6" (8'6")	27'6" (26'6")	W10 x 22
10	2' (3')	10'6" (9')	30'6" (29')	W10 x 26
12	2' (3')	11'6" (10')	33'6" (32')	W12 x 26
14	2' (3')	12'6" (10'6")	36'6" (34'6")	W12 x 30
16	2' (3')	14' (11'6")	40' (37'6")	W14 x 34
18	2' (3')	15'6" (12')	43'6" (40')	W16 x 36
20	2' (3')	16'6" (13')	46'6" (43')	W16 x 40
22	2' (3')	18' (14')	50' (46')	W21 x 44
25	3' (4')	15'6" (13')	50'6" (48')	W18 x 50
30	3' (4')	19' (16')	59' (56')	W21 x 62
35	3' (4')	22' (18')	67' (63')	W24 x 68
40	3' (4')	24'6" (20'6")	74'6" (70'6")	W24 x 84

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	8'6" (7'6")	26'6" (25'6")	W8 x 18
10	2' (3')	9'6" (8')	29'6" (28')	W8 x 21
12	2' (3')	10' (8'6")	32' (30'6")	W10 x 22
14	2' (3')	11' (9'6")	35' (33'6")	W10 x 26
16	2' (3')	11'6" (10')	37'6" (36')	W12 x 26
18	2' (3')	12'6" (10'6")	40'6" (38'6")	W12 x 30
20	2' (3')	13'6" (11')	43'6" (41')	W14 x 34
22	3' (4')	11'6" (10'6")	43'6" (42'6")	W18 x 35
25	3' (4')	12'6" (11'6")	47'6" (46'6")	W16 x 40
30	3' (4')	14'6" (12'6")	54'6" (52'6")	W16 x 50
35	3' (4')	17'6" (15')	62'6" (60')	W21 x 55
40	3' (4')	20' (16'6")	70' (66'6")	W21 x 68

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
2' (3')	9'6" (8')	9'6" (8')	28'6" (27')	W8 x 21
2' (3')	10' (8'6")	10' (8'6")	30' (28'6")	W10 x 22
2' (3')	10'6" (9')	10'6" (9')	31'6" (30')	W14 x 22
2' (3')	11' (9'6")	11' (9'6")	33' (31'6")	W10 x 26
2' (3')	11' (9'6")	11' (9'6")	34' (32'6")	W12 x 26
2' (3')	11'6" (10')	11'6" (10')	35'6" (34')	W12 x 26
2' (3')	12' (10'6")	12' (10'6")	37' (35'6")	W12 x 30
3' (4')	12' (10'6")	12' (10'6")	42' (40'6")	W16 x 36
3' (4')	14' (12')	14' (12')	49' (47')	W21 x 44
3' (4')	16'6" (14')	16'6" (14')	56'6" (54')	W18 x 55
3' (4')	19' (16')	19' (16')	64' (61')	W21 x 62
3' (4')	22' (18'6")	22' (18'6")	72' (68'6")	W24 x 76

Outdoor Scoreboard Installation
2/3 Column With Laterals



Nevco, Inc.
Greenville, Illinois 62246

Drawing No. 241-0360

Drawn DBB Date 11/12/13

Sheet of 4 9

130 MPH WIND ZONES

Rev **A**

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

Display Height	Pier Dia	Pier Depth	Col Length	Column *
8	2' (3')	15'6" (12')	33'6" (30')	W14 x 34
10	2' (3')	18' (14')	38' (34')	W16 x 40
12	2' (3')	20'6" (15'6")	42'6" (37'6")	W16 x 50
14	3' (4')	18' (15')	42' (39')	W18 x 55
16	3' (4')	20' (16'6")	46' (42'6")	W21 x 55
18	3' (4')	21'6" (18')	49'6" (46')	W21 x 68
20	3' (4')	23'6" (19'6")	53'6" (49'6")	W24 x 68
22	3' (4')	25'6" (21')	57'6" (53')	W24 x 76
25	3' (4')	29'6" (24'6")	64'6" (59'6")	W24 x 94
30	3' (4')	34'6" (28'6")	74'6" (68'6")	W24 x 117
35	3' (4')	40' (32'6")	85' (77'6")	W24 x 146
40	3' (4')	45' (37')	95' (87')	W24 x 176

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	17' (13')	35' (31')	W16 x 36
10	2' (3')	20' (15')	40' (35')	W21 x 44
12	2' (3')	22'6" (17'6")	44'6" (39'6")	W18 x 50
14	3' (4')	19'6" (16')	43'6" (40')	W21 x 55
16	3' (4')	22' (18')	48' (44')	W21 x 68
18	3' (4')	24' (20')	52' (48')	W24 x 68
20	3' (4')	26' (21'6")	56' (51'6")	W24 x 76
22	3' (4')	28'6" (23'6")	60'6" (55'6")	W24 x 84
25	3' (4')	31'6" (26')	66'6" (61')	W21 x 101
30	3' (4')	38'6" (31'6")	78'6" (71'6")	W24 x 131
35	3' (4')	44'6" (36'6")	89'6" (81'6")	W24 x 162
40	3' (4')	50' (41')	100' (91')	W24 x 192

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	13'6" (11')	31'6" (29')	W14 x 30
10	2' (3')	16' (12')	36' (32')	W18 x 35
12	2' (3')	18' (14')	40' (36')	W16 x 40
14	3' (4')	15'6" (13')	39'6" (37')	W16 x 50
16	3' (4')	17' (14'6")	43' (40'6")	W18 x 55
18	3' (4')	19' (16')	47' (44')	W21 x 55
20	3' (4')	21' (17'6")	51' (47'6")	W21 x 62
22	3' (4')	22'6" (18'6")	54'6" (50'6")	W24 x 68
25	3' (4')	25' (20'6")	60' (55'6")	W24 x 76
30	3' (4')	29' (24')	69' (64')	W24 x 94
35	3' (4')	35' (29')	80' (74')	W24 x 117
40	3' (4')	39'6" (32'6")	89'6" (82'6")	W24 x 146

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

Display Height	Pier Dia	Pier Depth	Col. Length	Column*
9	2' (3')	16'6" (12'6")	35'6" (31'6")	W16 x 36
10	2' (3')	17'6" (13'6")	37'6" (33'6")	W16 x 40
11	2' (3')	19' (14'6")	40' (35'6")	W14 x 43
12	3' (4')	15'6" (13')	37'6" (35')	W21 x 44
13	3' (4')	16'6" (13'6")	39'6" (36'6")	W16 x 50
14	3' (4')	17'6" (14'6")	41'6" (38'6")	W18 x 55
15	3' (4')	18'6" (15')	43'6" (40')	W18 x 55
20	3' (4')	23'6" (19'6")	53'6" (49'6")	W24 x 68
25	3' (4')	28' (23')	63' (58')	W24 x 94
30	3' (4')	33' (27')	73' (67')	W24 x 104
35	3' (4')	37'6" (31')	82'6" (76')	W24 x 131
40	3' (4')	44'6" (36'6")	94'6" (86'6")	W24 x 176

Chart Notes:

1. * It is required that 4x3x3/16 steel tubing be welded to back of columns 10' from the ground and every 10' to the top of the column for bracing. (See detail on sheet 7)
2. 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.
3. 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.

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	12' (10'6")	30' (28'6")	W12 x 26
10	2' (3')	14' (11'6")	34' (31'6")	W14 x 34
12	2' (3')	16' (12'6")	38' (34'6")	W16 x 36
14	3' (4')	14' (12')	38' (36')	W14 x 43
16	3' (4')	15'6" (13')	41'6" (39')	W16 x 50
18	3' (4')	17' (14')	45' (42')	W18 x 55
20	3' (4')	18'6" (15'6")	48'6" (45'6")	W21 x 55
22	3' (4')	20' (16'6")	52' (48'6")	W21 x 62
25	3' (4')	23'6" (19'6")	58'6" (54'6")	W24 x 68
30	3' (4')	27'6" (22'6")	67'6" (62'6")	W24 x 94
35	3' (4')	31'6" (26')	76'6" (71')	W24 x 104
40	3' (4')	36' (29'6")	86' (79'6")	W24 x 131

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	13' (11')	31' (29')	W12 x 30
10	2' (3')	15'6" (12')	35'6" (32')	W14 x 34
12	2' (3')	17'6" (13'6")	39'6" (35'6")	W16 x 40
14	3' (4')	15' (12'6")	39' (36'6")	W14 x 48
16	3' (4')	17' (14'6")	43' (40'6")	W18 x 55
18	3' (4')	19' (15'6")	47' (43'6")	W21 x 55
20	3' (4')	20'6" (17')	50'6" (47')	W21 x 62
22	3' (4')	22' (18'6")	54' (50'6")	W21 x 68
25	3' (4')	25' (20'6")	60' (55'6")	W24 x 76
30	3' (4')	30'6" (25')	70'6" (65')	W21 x 101
35	3' (4')	35' (29')	80' (74')	W24 x 117
40	3' (4')	40' (33')	90' (83')	W24 x 146

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	11'6" (9'6")	29'6" (27'6")	W10 x 26
10	2' (3')	12'6" (10'6")	32'6" (30'6")	W12 x 30
12	2' (3')	14' (11'6")	36' (33'6")	W14 x 34
14	3' (4')	12'6" (11')	36'6" (35')	W16 x 36
16	3' (4')	13'6" (12')	39'6" (38')	W16 x 40
18	3' (4')	15' (12'6")	43' (40'6")	W16 x 50
20	3' (4')	16'6" (14')	46'6" (44')	W18 x 50
22	3' (4')	18' (15')	50' (47')	W21 x 55
25	3' (4')	20' (16'6")	55' (51'6")	W21 x 62
30	3' (4')	23' (19'6")	63' (59'6")	W24 x 76
35	3' (4')	28' (23')	73' (68')	W24 x 94
40	3' (4')	31'6" (26')	81'6" (76')	W24 x 104

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

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
9	2' (3')	13' (11')	32' (30')	W12 x 30
10	2' (3')	13'6" (11'6")	33'6" (31'6")	W14 x 30
11	2' (3')	15' (12')	36' (33')	W14 x 34
12	3' (4')	12' (11')	34' (33')	W16 x 36
13	3' (4')	13' (11'6")	36' (34'6")	W16 x 40
14	3' (4')	13'6" (12')	37'6" (36')	W16 x 40
15	3' (4')	14'6" (12')	39'6" (37')	W21 x 44
20	3' (4')	18'6" (15'6")	48'6" (45'6")	W21 x 55
25	3' (4')	22' (18'6")	57' (53'6")	W24 x 68
30	3' (4')	26' (21'6")	66' (61'6")	W24 x 84
35	3' (4')	30' (25')	75' (70')	W21 x 101
40	3' (4')	35'6" (29'6")	85'6" (79'6")	W24 x 131

Outdoor Scoreboard
Installation
2/3 Column With
Laterals



Neveco, Inc.
Greenville, Illinois 62246

Drawing No. 241-0360

Drawn DBB Date 11/12/13

Sheet of
5 9

150 MPH WIND ZONES

Rev A

24' Wide Installs (Exposure C - 2 Col)
 28' Wide Installs (Exposure C - 2 Col)
 32' Wide Installs (Exposure C - 3 Col)
 36' Wide Installs (Exposure B - 3 Col)

24' Wide Installs (Exposure B - 2 Col)
 28' Wide Installs (Exposure B - 2 Col)
 32' Wide Installs (Exposure B - 3 Col)
 36' Wide Installs (Exposure B - 3 Col)

Column and Pier Requirements (Based on ASCE 7-05)				
Display Height	Pier Dia	Pier Depth	Col Length	Column *
8	2' (3')	18'6" (14')	36'6" (32')	W16 x 40
10	2' (3')	22' (16'6")	42' (36'6")	W16 x 50
12	2' (3')	25' (19')	47' (41')	W18 x 55
14	2' (3')	28'6" (21'6")	52'6" (45'6")	W21 x 62
16	2' (3')	32' (24')	58' (50')	W24 x 68
18	2' (3')	35' (26')	63' (54')	W24 x 76
20	2' (3')	38' (28'6")	68' (58'6")	W24 x 84
22	3' (4')	31' (25'6")	63' (57'6")	W24 x 94
25	3' (4')	36' (29'6")	71' (64'6")	W24 x 117
30	3' (4')	42'6" (34'6")	82'6" (74'6")	W24 x 146
35	3' (4')	48'6" (40')	93'6" (85')	W24 x 176
40	3' (4')	55' (45')	105' (95')	W18 x 283

Column and Pier Requirements (Based on ASCE 7-05)				
Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	20'6" (15'6")	38'6" (33'6")	W21 x 44
10	2' (3')	24' (18'6")	44' (38'6")	W18 x 55
12	2' (3')	28' (21')	50' (43')	W21 x 62
14	2' (3')	31'6" (23'6")	55'6" (47'6")	W21 x 68
16	2' (3')	35'6" (26'6")	61'6" (52'6")	W24 x 76
18	2' (3')	39' (29')	67' (57')	W24 x 84
20	2' (3')	42'6" (32')	72'6" (62')	W24 x 94
22	3' (4')	34'6" (28')	66'6" (60')	W24 x 104
25	3' (4')	38'6" (31'6")	73'6" (66'6")	W24 x 117
30	3' (4')	47'6" (38'6")	87'6" (78'6")	W24 x 162
35	3' (4')	54'6" (44'6")	99'6" (89'6")	W24 x 207
40	3' (4')	62' (50')	112' (100')	W18 x 311

Column and Pier Requirements (Based on ASCE 7-05)				
Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	16'6" (12'6")	34'6" (30'6")	W16 x 36
10	2' (3')	19' (14'6")	39' (34'6")	W14 x 43
12	2' (3')	22' (16'6")	44' (38'6")	W18 x 50
14	2' (3')	24'6" (19')	48'6" (43')	W21 x 55
16	3' (4')	21' (17')	47' (43')	W21 x 62
18	3' (4')	23' (19')	51' (47')	W24 x 68
20	3' (4')	25' (21')	55' (51')	W24 x 76
22	3' (4')	27' (22'6")	59' (54'6")	W24 x 84
25	3' (4')	30'6" (25')	65'6" (60')	W24 x 94
30	3' (4')	35'6" (29')	75'6" (69')	W24 x 117
35	3' (4')	42'6" (35')	87'6" (80')	W24 x 162
40	3' (4')	48' (39'6")	98' (89'6")	W24 x 192

Column and Pier Requirements (Based on ASCE 7-05)				
Display Height	Pier Dia	Pier Depth	Col. Length	Column*
9	2' (3')	20' (15')	39' (34')	W21 x 44
10	2' (3')	21'6" (16'6")	41'6" (36'6")	W16 x 50
11	2' (3')	23' (17'6")	44' (38'6")	W18 x 50
12	2' (3')	24'6" (18'6")	46'6" (40'6")	W18 x 55
13	3' (4')	20' (16'6")	43' (39'6")	W21 x 55
14	3' (4')	21' (17'6")	45' (41'6")	W21 x 62
15	3' (4')	22' (18'6")	47' (43'6")	W21 x 62
20	3' (4')	28'6" (23'6")	58'6" (53'6")	W24 x 84
25	3' (4')	34' (28')	69' (63')	W24 x 104
30	3' (4')	40' (32'6")	80' (72'6")	W24 x 131
35	3' (4')	46' (37'6")	91' (82'6")	W24 x 162
40	3' (4')	54'6" (44'6")	104'6" (94'6")	W18 x 283

Column and Pier Requirements (Based on ASCE 7-05)				
Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	14'6" (11'6")	32'6" (29'6")	W14 x 34
10	2' (3')	17' (13')	37' (33')	W16 x 36
12	2' (3')	19'6" (15')	41'6" (37')	W21 x 44
14	2' (3')	22' (17')	46' (41')	W18 x 50
16	2' (3')	24'6" (18'6")	50'6" (44'6")	W21 x 55
18	2' (3')	27' (20'6")	55' (48'6")	W21 x 62
20	2' (3')	29'6" (22'6")	59'6" (52'6")	W21 x 68
22	3' (4')	24' (20')	56' (52')	W18 x 76
25	3' (4')	28' (23'6")	63' (58'6")	W24 x 94
30	3' (4')	33' (27'6")	73' (67'6")	W24 x 104
35	3' (4')	38'6" (31'6")	83'6" (76'6")	W24 x 131
40	3' (4')	43'6" (36')	93'6" (86')	W24 x 162


Column and Pier Requirements (Based on ASCE 7-05)				
Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	13' (11')	31' (29')	W12 x 30
10	2' (3')	15'6" (12')	35'6" (32')	W14 x 34
12	2' (3')	17'6" (13'6")	39'6" (35'6")	W16 x 40
14	3' (4')	15' (12'6")	39' (36'6")	W14 x 48
16	3' (4')	17' (14'6")	43' (40'6")	W18 x 55
18	3' (4')	19' (15'6")	47' (43'6")	W21 x 55
20	3' (4')	20'6" (17')	50'6" (47')	W21 x 62
22	3' (4')	22' (18'6")	54' (50'6")	W21 x 68
25	3' (4')	25' (20'6")	60' (55'6")	W24 x 76
30	3' (4')	30'6" (25')	70'6" (65')	W21 x 101
35	3' (4')	35' (29')	80' (74')	W24 x 117
40	3' (4')	40' (33')	90' (83')	W24 x 146

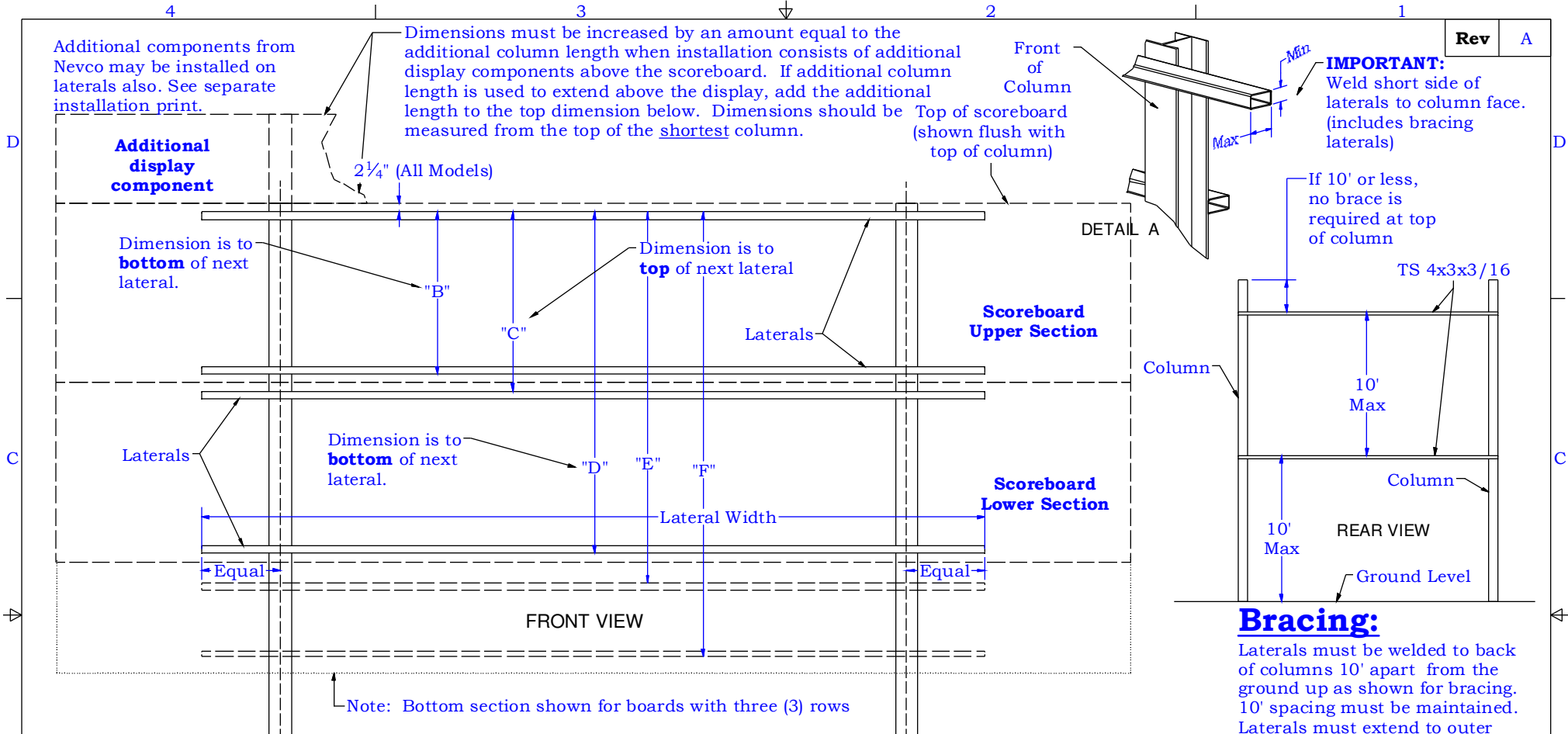
Column and Pier Requirements (Based on ASCE 7-05 Exposure B 90mph Wind)				
Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	13' (11')	31' (29')	W12 x 30
10	2' (3')	15' (12')	35' (32')	W14 x 34
12	2' (3')	17' (13')	39' (35')	W16 x 40
14	2' (3')	19' (14'6")	43' (38'6")	W21 x 44
16	3' (4')	16'6" (13'6")	42'6" (39'6")	W18 x 50
18	3' (4')	18' (15')	46' (43')	W21 x 55
20	3' (4')	20' (16'6")	50' (46'6")	W21 x 62
22	3' (4')	21'6" (18')	53'6" (50')	W21 x 68
25	3' (4')	24' (20')	59' (55')	W24 x 76
30	3' (4')	28' (23')	68' (63')	W24 x 94
35	3' (4')	34' (28')	79' (73')	W24 x 117
40	3' (4')	38'6" (31'6")	88'6" (81'6")	W24 x 146

Column and Pier Requirements (Based on ASCE 7-05)				
Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
9	2' (3')	15'6" (12')	34'6" (31')	W14 x 34
10	2' (3')	16'6" (12'6")	36'6" (32'6")	W16 x 36
11	2' (3')	18' (13'6")	39' (34'6")	W16 x 40
12	2' (3')	19' (14'6")	41' (36'6")	W21 x 44
13	3' (4')	15'6" (13')	38'6" (36')	W14 x 48
14	3' (4')	16'6" (13'6")	40'6" (37'6")	W18 x 50
15	3' (4')	17'6" (14'6")	42'6" (39'6")	W18 x 55
20	3' (4')	22' (18'6")	52' (48'6")	W21 x 68
25	3' (4')	27' (22')	62' (57')	W24 x 84
30	3' (4')	31'6" (26')	71'6" (66')	W24 x 103
35	3' (4')	36' (30')	81' (75')	W24 x 131
40	3' (4')	43' (35'6")	93' (85'6")	W24 x 162

Chart Notes:

- * It is required that 4x3x3/16 steel tubing be welded to back of columns 10' from the ground and every 10' to the top of the column for bracing. (See detail on sheet 7)
- 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 2/3 Column With Laterals		 Nevco, Inc. Greenville, Illinois 62246			
Drawn	DBB		Date	11/12/13	Drawing No.
				Sheet	of 9
				6	9



Rev A

Lateral and Hardware Requirements for 3 row Boards(hardware supplied by others)									
Model Number	Dim "B"	C	D	E	F	Lateral Width	3/8 Washers	3/8 Lock	3/8 Nuts
7605,7615, 7625	25 7/8	30 1/16	73 15/16	78 3/16	122	17'6"	72	36	36

Lateral and Hardware Requirements for 2 row Boards(hardware supplied by others)							
Model #	Dim "B"	Dim "C"	Dim "D"	Lateral Width	3/8 Washers	3/8 Lock Washers	3/8 Nuts
3616, 7616	55 3/4"	60 1/8"	115 7/8"	31' 6"	64	32	32
1603	43 3/4"	48 1/8"	103 7/8"	31' 6"	64	32	32
3657	55 3/4"	60 1/8"	115 7/8"	25' 6"	64	32	32
3620, 7620, 3688	43 3/4"	48 1/8"	91 7/8"	25' 6"	64	32	32
1604	43 3/4"	48 1/8"	91 7/8"	21' 6"	48	24	24
1606, 3615, 3617 3618, 3619, 3685, 7630, 7631, 7632, 7685	43 3/4"	48 1/8"	91 7/8"	17' 6"	48	24	24
8601, 8602	43 3/4"	48 1/8"	91 7/8"	17' 6"	48	24	24

Hardware Notes:

- 1) Minimum bolt grade: A307.
- 2) Hardware above is not required if welding brackets to laterals.
- 3) **Consider lateral size when choosing bolt length.**

Required Hand Tools:

1. Drill with phillips driver.
2. 9/16" wrench
3. Ratchet wrench and 9/16" socket
4. Level
5. Tape measure

General Notes:

- 1) See sheet 3 for lateral size requirements.
- 2) Center and weld Laterals to front face of columns (weld around full perimeter of contact surface with 3/16 fillet).
- 3) Dimensions above should be taken from the top of the **SHORTEST** column, marked and leveled across to other column.
- 4) Mounting Brackets shipped in separate container.

Outdoor Scoreboard Installation 2/3 Column With Laterals		 Nevco, Inc. Greenville, Illinois 62246	
Drawing No. 241-0360		Sheet of 9	
Drawn DBB	Date 11/12/13		

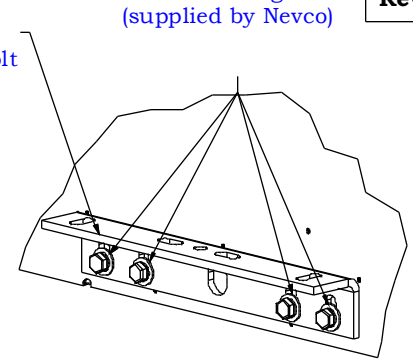
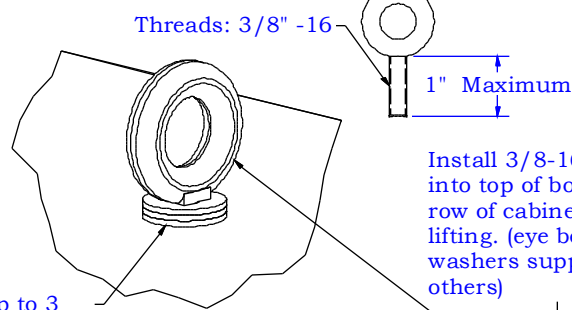
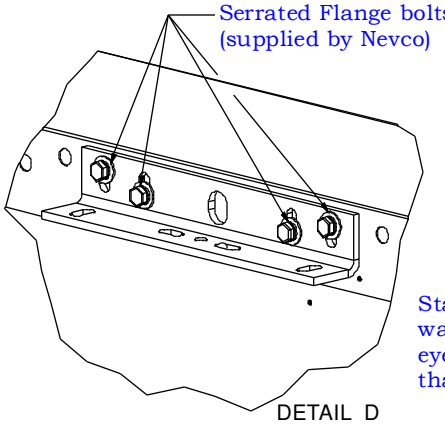
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Rev	A
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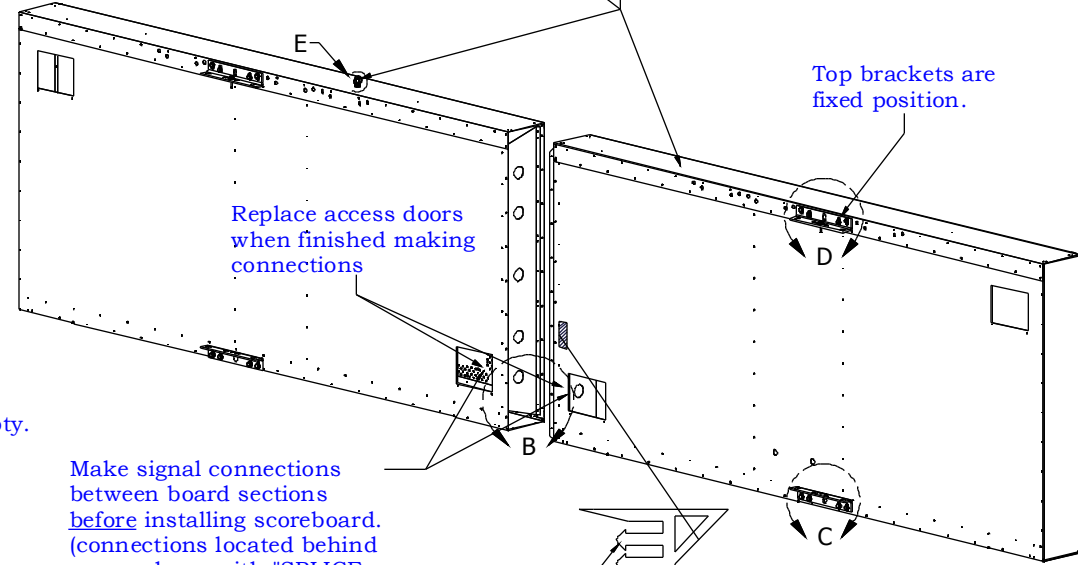


Stack up to 3 washers under eye bolt if longer than 1"

DETAIL E

DETAIL D

DETAIL C



WARNING:
Do not leave any screw locations empty.

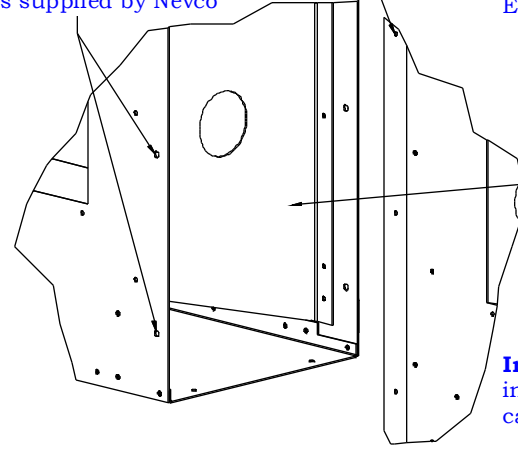
Screw sections together front and back using screws supplied by Nevco

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


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 8 for details)
 - 2) Make sure all bracket bolts are tight before installing scoreboard.



DETAIL B

Outdoor Scoreboard Installation 2/3 Column With Laterals		 Nevco, Inc. Greenville, Illinois 62246
Drawn DBB	Date 11/12/13	
		Sheet of 8 9

4

3

2

1

Remove eye bolts from first row and install on second row

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

Make power/signal connections between upper and lower rows of cabinets after board has been installed.

- connections located behind access doors labeled "splice enclosure"
- Pull cables from lower section into upper section (connections must be made and perminately located in upper section)

CABLE HANGER

(2) 3/8 bolts required to bolt bracket to lateral.

DETAIL I

WARNING:

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

Step 1
Install Bottom Row

Step 2
Install Top Row

Column

Upper Section

Upper Section

DETAIL F

Column

Upper Section

Lower Section

DETAIL G

Column

Lower Section

DETAIL H

Weld (3/16 fillet) or Bolt brackets to laterals using 3/8 bolts, nuts, washers and lock washers supplied by others. (bolt length to be determined by installer; See lateral size required on sheets 3-5)

Outdoor Scoreboard Installation
2/3 Column With Laterals



Nevco, Inc.
Greenville, Illinois 62246

Drawing No. 241-0360

Drawn DBB

Date 11/12/13

Sheet 9 of 9