

**STATEMENT OF WORK  
FOR CONSTRUCTION SOLICITATION**

**DATE: 8/19/2015**

**PROJECT TITLE: NAPS Track and Field Throwing Area**  
**PROJECT LOCATION: Prichard Field, Coddington Point**  
**Naval Station Newport, Newport, RI**

**PART I - PROJECT SCOPE AND GENERAL INFORMATION:**

- 1.1 GENERAL INTENTION: It is the declared and acknowledged intention and meaning to obtain Design and Construction services for a complete and ready to use product.
- 1.2 GENERAL DESCRIPTION: Provide all labor, materials, transportation, equipment, supplies and supervision to provide improvements to Prichard Field as described herein, complete and ready for use.
- 1.3 LOCATION: The work shall be located at Prichard Field, in the Coddington Point area of Naval Station Newport, as shown on the attached Site Plan.
- 1.4 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK: The Contractor shall commence work under the contract within 15 calendar days after the date of contract award. The Contractor shall complete the work as expeditiously as possible, but not later than 240 calendar days after contract award. The time stated for completion shall include final clean-up of the premises. The Contractor shall set up a meeting with the Contracting Officer or representative prior to the start of work. The Contractor shall schedule his work no less than 48 hours in advance with the Contracting Officer.
- 1.5 PAYMENT: The Contractor is required to use Wide Area Workflow (WAWF) for invoicing. Final invoice shall be accompanied by Contractor's Release.
- 1.6 OSHA/EPA REGULATIONS: During performance of all work under this contract, the Contractor shall strictly adhere to regulations of the Environmental Protection Agency (EPA) and the Occupational Safety and Health Agency (OSHA NFPA 70), as well as all applicable State and Local requirements, Newport NAVSTA regulations, and the Army Corps of Engineers Safety and Health Requirements Manual EM-385.
- 1.7 ATTACHMENTS ACCOMPANYING SPECIFICATIONS:
  - a. Track & Field Throwing Area, Prichard Field- Site Plan 8/4/2015
  - b. Track & Field Throwing Area, Prichard Field- Photos (Navy-supplied equipment)
  - c. Track & Field Throwing Area, Prichard Field- Scoreboard Installation Instructions
  - d. NAVAL STATION NEWPORT- Soil Management Plan 6/3/2010
- 1.8 EXAMINATION OF THE PREMISES: Bidders are expected to visit the site of work to make a survey of the conditions to be encountered which may affect the cost of the performance of the work. Failure to familiarize with the conditions shall not relieve the Contractor from the responsibility for full completion of the work. The Contractor is required to contact the Facilities

Support Contracts Office at 401-841-2047 prior to commencement and upon completion of work. Work shall be performed during normal hours Monday through Friday 0700-1530 excluding federal holidays. Work performed outside of normal hours requires the approval of the Contracting Officer's Representative. Submit requests for approval a minimum of 5 working days in advance. Utility outages shall be performed during off hours unless directed otherwise.

## **PART II - TECHNICAL REQUIREMENTS:**

### 2.1 DETAILED REQUIREMENTS:

#### Background:

The Naval Academy Preparatory School (NAPS) is the Navy's fourth oldest school. The mission of NAPS is to prepare midshipman for success at the U.S. Naval Academy. As part of the program, NAPS offers a varsity athletic program that competes against other preparatory schools, junior colleges and college junior varsity teams.

#### Scope:

Provide design and construction services in accordance with this statement of work. See attached Site Plan for layout. The project objective is to add throwing events and an electronic scoreboard at Prichard Field.

Throwing Events shall include Shot Put, Hammer Throw, and Javelin Throw:

1. Provide Shot Put Throw area, located west of the baseball fence line, orientated with throwing direction toward the northeast quadrant. Throwing area to include concrete shot put circle and toe board for use with level pad. Government shall supply all sports-related equipment. Contractor shall provide design services, layout, construction materials, landscaping materials, equipment, and labor for a complete and ready-to-use product.
2. Provide a Hammer Throw area, located directly behind the shot put circle, with the same throwing orientation. Throwing area to include installation of concrete hammer throw circle and cage, including cage frame, main net, toe board and accessories. Cage posts are to be embedded in concrete foundation. Government shall supply all sports-related equipment. Contractor shall provide design services, layout, construction materials, landscaping materials, equipment, and labor for a complete and ready-to-use product.
3. Provide a Javelin Throw area starting just outside of the existing field, extending toward the first base foul line. Orient the throwing direction toward the northeast quadrant. Throwing area shall include a turf runway. Government shall supply all sports-related equipment. Contractor shall provide design services, layout, construction materials, landscaping materials, equipment, and labor for a complete and ready-to-use product.

Fill and grade area surrounding the shot put and hammer throwing circles and javelin runway (approximately 2,250 sq. ft. in area). Obtain grade level with the throwing fields. Loam and seed disturbed areas.

Project scope shall include installation of a scoreboard, to be supplied by the Navy. The scoreboard shall be solar-powered and wireless, so no conduit or wires are required underground.

The location for the scoreboard shall be in the southwest corner of the baseball field facing home plate (refer to Site Plan). Navy will supply scoreboard with solar power device. Contractor shall provide design/engineering services, layout, excavation, concrete, steel columns, miscellaneous construction materials, landscaping materials, equipment, and labor for a complete and ready-to-use installation. Loam and seed areas disturbed by excavation. Refer to attached Nevco Scoreboard Installation Instructions.

Prior to commencing field construction, the Contractor shall provide two copies of all proposed plans and specifications for review and approval by the Navy. Installation of scoreboard shall require submission and approval of plan and calculations prepared and stamped by a registered design professional. Designs shall comply with applicable Uniform Facility Criteria (UFC), including UFC 1-200-01, GENERAL BUILDING REQUIREMENTS, and UFC 4-750-02N, DESIGN: OUTDOOR SPORTS AND RECREATION FACILITIES (with Appendix A, MIL-HDBK 1037/3).

Coordinate and schedule work with tenant to minimize impact on tenant's routine use and planned activities at Prichard Field. Contractor shall coordinate work with Contracting Officer prior to the start of construction.

Excavation and soil management shall comply with Naval Station Newport's Soil Management Plan, attached. Arsenic containing soil at Prichard field was recently covered with six inches of clean fill. All soil below six inches shall be considered a hazardous material.

### **PART III – SUPPLEMENTAL REQUIREMENTS:**

#### **3.1 REFERENCES:**

All work shall comply with the following codes and standards:

1. Unified Facilities Criteria (UFC): 1-200-01, GENERAL BUILDING REQUIREMENTS.
2. Unified Facilities Criteria (UFC): 4-750-02N, DESIGN: OUTDOOR SPORTS AND RECREATION FACILITIES (with Appendix A, MIL-HDBK 1037/3).

#### **3.2 SECURITY AND IDENTIFICATION BADGING:**

All contractor employees and sub-contractors on the job site must be U.S. citizens. A list of individuals requiring access to the job site will be provided to NAVSTA Newport, RI. prior to the start of the installation.

Obtain access to the installation by participating in the Navy Commercial Access Control System (NCACS) or by obtaining passes each day from the Base Pass and Identification Office. Costs for obtaining passes through the NCACS are the responsibility of the Contractor. One-day passes, issued through the Base Pass and Identification Office will be furnished without charge. Furnish a completed EMPLOYMENT ELIGIBILITY VERIFICATION (DHS FORM I-9) form for all personnel requesting badges. This form is available at <http://www.uscis.gov/portal/site/uscis> by

searching or selecting Employment Verification (Form I-9). Contractor shall immediately report instances of lost or stolen badges to the Contracting Officer.

- a. NCACS Program: NCACS is a voluntary program in which Contractor personnel who enroll, and are approved, are subsequently granted access to the installation for a period up to one year, or the length of the SECTION 01 14 00 contract, whichever is less, and are not required to obtain a new pass from the Base Pass and Identification Office for each visit. The Government performs background screening and credentialing. Throughout the year the Contractor employee must continue to meet background screening standards. Periodic background screenings are conducted to verify continued NCACS participation and installation access privileges. Under the NCACS program, no commercial vehicle inspection is required, other than for Random Anti-Terrorism Measures (RAM) or in the case of an elevation of Force Protection Conditions (FPCON). Information on costs and requirements to participate and enroll in NCACS is available at <http://www.rapidgate.com/vendors/how-to-enroll> or by calling 1-877-727-4342. Contractors should be aware that the costs incurred to obtain NCACS credentials, or costs related to any means of access to a Navy Installation, are not reimbursable. Any time invested, or price(s) paid, for obtaining NCACS credentials will not be compensated in any way or approved as a direct cost of any contract with the Department of the Navy.
- b. One-Day Passes: Participation in the NCACS is not mandatory, and if the Contractor chooses to not participate, the Contractor's personnel will have to obtain daily passes, be subject to daily mandatory vehicle inspection, and will have limited access to the installation. The Government will not be responsible for any cost or lost time associated with obtaining daily passes or added vehicle inspections incurred by non-participants in the NCACS.

### 3.3 SHOP DRAWINGS AND SUBMITTALS:

- a. Prior to starting work, the Contractor shall provide a minimum of 2 copies of all submittals for approval purposes for all materials to be used on this project (project specifications may require the provision of additional submittal copies). Partial submittals will not be acceptable and will be returned without review. Submittals shall be from the manufacturer and complete with manufacturers name, catalog number, specifications, and any other information necessary to approve the materials. Material Safety Data Sheets (MSDS) shall be submitted along with product data for any potentially hazardous materials such as paints, adhesives, sealants, cleaners, gypsum board compound, flux materials, etc. Use low VOC materials wherever possible. No hazardous materials shall be brought on to government property without approved MSDS. The Contractor shall maintain a copy of all MSDS at the job site at all times.
- b. Pre-construction submittals shall include the following:
  - i. Accident Prevention Plan (APP) at least 10 days in advance of starting work, following Appendix A of EM-385-1-1. The plan shall incorporate all aspects of the project and include applicable Plans and Activity Hazard Analyses (AHAs) as required in Appendix A. Work may not begin until approval of the APP.
  - ii. Environmental Protection Plan

- iii. Schedule
- iv. Schedule of Values

#### 3.4 GENERAL REQUIREMENTS:

- a. Before beginning any excavation, Contractor will follow National and Navy Dig Safe requirements. Navy Dig Safe POC, Fran Furtado (401) 841-1355.
- b. Extreme care shall be exercised to avoid damaging government or personal property, damaged or destroyed objects will be repaired or replaced, at the Contracting Officers' approval at no expense to the government.
- c. Any road closures will be coordinated through the Navy road closure process set forth by the NAVFAC Newport Facilities Engineering and Acquisition Division.
- d. The Contractor shall be responsible for proper disposal of all items to be removed from government property, and clean up all dust and debris generated at the construction sites on a daily basis. For specific direction, contact Naval Station Newport's Environmental Division at (401) 841-7561. The Contractor shall comply with NAVSTA waste recycling and green procurement policies.
- e. During the performance of this contract, contractor shall strictly adhere to environmental protection agency regulations (EPA), the federal occupational safety and health regulations (OSHA), EM 385-1-1, as well as all applicable state and local requirements.
- f. Contractor parking is available on site.
- g. Contractor to provide preferred space for lay down area for Government approval.
- h. Soil and sediment erosion controls are necessary unless excess soil is to be piled.
- i. For exterior work, or work which involves closing a building's entrance, the Contractor shall install and maintain temporary chain link construction fencing set into moveable concrete blocks, meeting the requirements of EM-385-1-1, around the entire work area unless otherwise indicated. Fencing shall be installed to prevent unauthorized personnel from entering the work zone or any unsafe area. The fence shall be equipped with signage as required by EM-385-1-1. Provide gates where necessary for access by emergency personnel or to allow personnel to escape during an emergency. Temporary chain link fencing shall remain in place and maintained for the duration of the project.
- j. The Contractor shall take necessary precautions to ensure any roof or other building opening exposed to the weather are monitored and protected. Take immediate actions necessary to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday. Ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.
- k. When a warning of gale force winds is issued, take precautions to minimize danger to persons, and protect the work and nearby Government property. Precautions shall include, but are not limited to, closing openings; removing or securing loose materials,

tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the work when storms of lesser intensity pose a threat to the work or any nearby Government property. During severe weather the Contractor will be required to take any additional actions as required by the Contracting Officer or representative. Any work required to protect against inclement weather or high winds shall be at the Contractor's expense.

## Contract Minimum Safety Requirements

The Contractor shall provide a Site Safety & Health Officer (SSHO) whose primary duty and responsibility is to prepare and enforce the Contractor's safety program on this contract. For contracts \$200,000/year or less or contracts of minimal safety risk, the SSHO shall have satisfactory experience in preparing and enforcing safety programs on contracts of similar size and complexity in the past, and **the SSHO must have completed the OSHA 10-hour construction safety class or equivalent within the last three years**. The SSHO may be the same person as the project manager but shall have fulfilled the pre-requisite qualification and experience.

For contracts greater than \$200,000/year but less than \$2M/year or contracts of medium safety risk the SSHO shall have completed three years of satisfactory experience in preparing and enforcing safety programs on contracts of similar size and complexity in the past, and shall have completed the OSHA 30-hour construction safety class or equivalent within the last three years. The SSHO may be the same person as the project manager but shall have fulfilled the pre-requisite qualification and experience.

### EM 385-1-1 Minimum Requirements Extracted from Appendix A

#### **10. RISK MANAGEMENT PROCESSES.**

Detailed project-specific hazards and controls shall be provided by an Activity Hazard Analysis (see attached) for each major phase/activity of work.

#### **11. ABBREVIATED APP for LIMITED-SCOPE SERVICE, SUPPLY AND R&D CONTRACTS.**

If service, supply and R&D contracts with limited scopes are awarded, the contractor may submit an abbreviated Accident Prevention Plan. This APP shall address the following areas **at a minimum**. If other areas of the EM 385-1-1 are pertinent to the contract, the contractor must assure these areas are addressed as well.

- a. Title, signature, and phone number of the plan preparer.
- b. Background Information to include: Contractor; Contract number; Project name; Brief project description, description of work to be performed, and location (map); The project description shall provide a means to evaluate the work being done (see AHA requirements in 01.A.13) and associated hazards involved. Contractor's APP shall address the identified hazards involved and the control measures to be taken.
- c. Statement of Safety and Health Policy detailing their commitment to providing a safe and healthful workplace for all employees.
- d. Responsibilities and Lines of Authorities – to include a statement of the employer's ultimate responsibility for the implementation of his SOH program; Identification and accountability of personnel responsible for safety at all levels to include designated site safety and health officer (SSHO) and associated qualifications. The District SOHO will review the qualifications for acceptance.
- e. Training - new hire SOH orientation training at the time of initial hire of each new employee and any periodic retraining/recertification requirements.
- f. Procedures for job site inspections - assignment of responsibilities and frequency.

g. Procedures for reporting man-hours worked and reporting and investigating any accidents as soon as possible but not more than 24 hours afterwards to the Contracting Officer/Representative (CO/COR). An accident that results in a fatal injury, permanent partial or permanent total disability shall be immediately reported to the Contracting Officer.

h. Emergency Planning. Employees working alone shall be provided an effective means of emergency communication. This may be cellular phone, two-way radio or other acceptable means. The selected means of communication must be readily available and must be in working condition.

i. Drinking Water provisions, toilet and washing facilities.

j. First Aid and CPR training (at least two employees on each shift shall be qualified/certified to administer first aid and CPR) and provision of first aid kit (types/size).

k. Personal Protective Equipment.

(1) **WORK CLOTHING - Minimum Requirements.** Employees shall wear clothing suitable for the weather however minimum requirements for work shall be short-sleeve shirt, long pants (excessively long or baggy pants are prohibited) and leather work shoes. If analysis determines that safety-toed (or other protective) footwear is necessary (i.e., mowing, weedeating, chain saw use, etc), they shall be worn.

(2) **Eye and Face Protection.** Eye and face protection shall be worn as determined by an analysis of the operations being performed **HOWEVER**, all involved in chain saw use, chipping, stump grinding, pruning operations, grass mowing, weedeating and blowing operations shall be provided safety eyewear (Z87.1) as a minimum.

(3) **Hearing Protection.** Hearing protection must be worn by all those exposed to high noise activities (to include grass mowing and trimming, chainsaw operations, tree chipping, stump grinding and pruning).

(4) **Head Protection.** Hard hats shall comply with ANSI Z89.1 and shall be worn by all workers when a head hazard exists. At a minimum, hard hats shall be worn when performing activities identified in (2) above.

(5) **High Visibility Apparel** shall comply with ANSI/ISEA 107, Class 2 requirements at a minimum and shall be worn by all workers exposed to vehicular or equipment traffic.

(6) **Protective Leg chaps** shall be worn by all chainsaw operators.

(7) **Gloves** of the proper type shall be worn by persons involved in activities that expose the hands to cuts, abrasions, punctures, burns and chemical irritants.

(8) If work is being performed around water and drowning is a hazard, PFDs must be provided and worn as appropriate.

l. **Machine Guards and safety devices.** Lawn maintenance equipment must have appropriate guards and safety devices in place and operational.

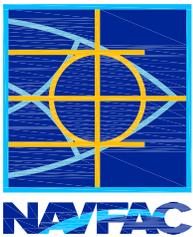
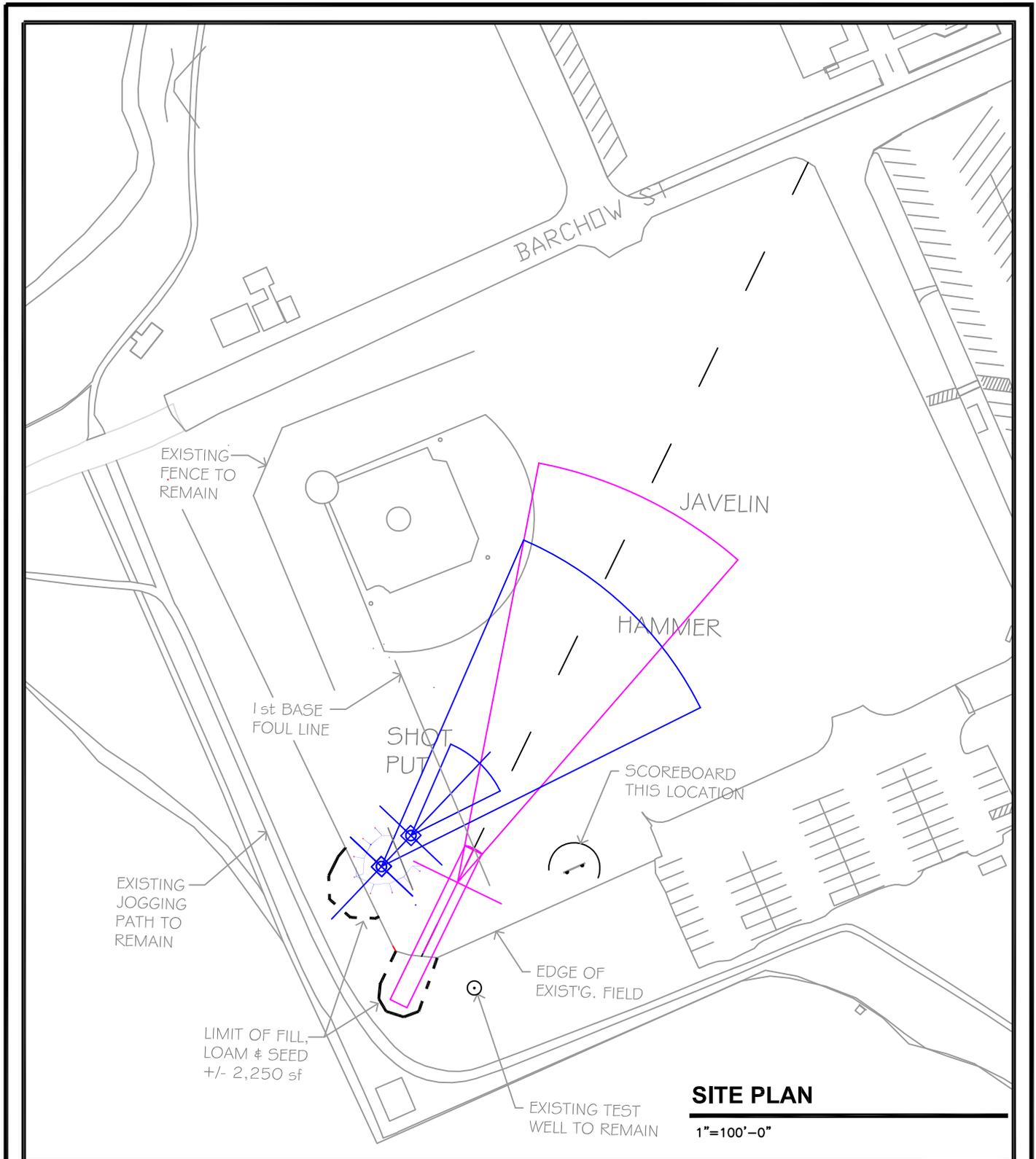
m. Hazardous Substances. When any hazardous substances are procured, used, stored or disposed, a hazard communication program must be in effect and MSDSs shall be available at the worksite. Employees shall have received training in hazardous substances being used. When the eyes or body of any person may be exposed to corrosives, irritants or toxic chemicals, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within 10 seconds of the worksite.

n. Traffic control shall be accomplished in accordance with DOT's MUTCD.

o. Control of Hazardous Energy (Lockout/Tagout). Before an employee performs any servicing or maintenance on any equipment where the unexpected energizing or startup of the equipment could occur, procedures must be in place to ensure adequate control of this energy.

p. Driving, working on (i.e., working with equipment/mowers) while on slopes, working from/in boats/skiffs, etc shall also be considered and dealt with accordingly.

q. Fall Protection – full text as required by the EM385-1-1.



**TRACK & FIELD THROWING EVENT ADDITION  
NAVAL ACADEMY PREPARATORY SCHOOL**

**PRICHARD FIELD  
NAVAL STATION NEWPORT, NEWPORT, RI**



03 JUNE 2014  
REV. 04 AUG 2015

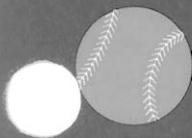
SHT. No. 1 OF 1



Shot Put and Hammer Throw 'circles' supplied by Navy.



Tubes comprising cage to be embedded in concrete and installed at Hammer Throw circle.



BASEBALL & SOFTBALL

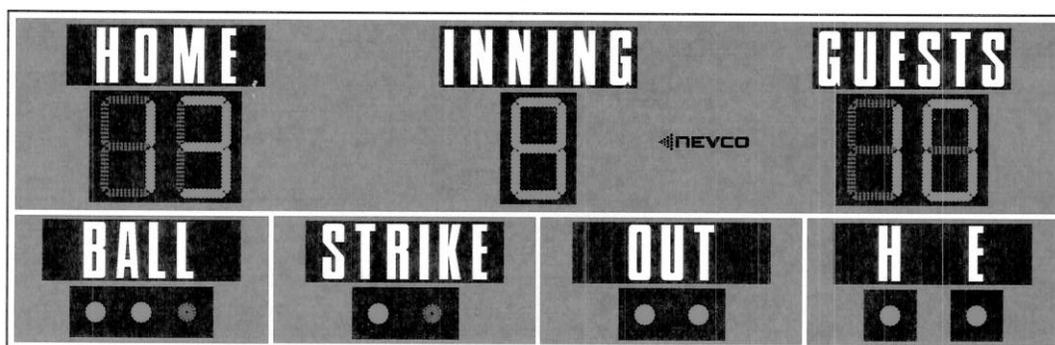
SCOREBOARDS

# MODEL 1600

**Size:** 16' x 5' x 8" (4.88 x 1.52 x .20 meters)

**Approximate hanging weight:** 260 lbs. (118 kg) **With ETNs:** 315 lbs. (143 kg)

**Digit Size:** 18" **Digit Color:** High Intensity Red or Amber



### Smaller scoreboard designed for combination Baseball/Softball facilities.

- Designed to withstand wind load speed zones exceeding 150 mph.
- Operate wired or wireless.
- Electronic Team Names (ETNs) available in place of Home and Guest caption plates.
- Includes Hit and Error Indicators.
- Large digits easily seen from long distances.
- White outline striping separates features for greatest readability.
- Bright, long lasting, energy efficient LEDs.
- Gasketed digits reduces water intake.
- Flexible mounting. Can mount directly to columns OR on laterals for complex or retro-fit installations.
- Flush sign mounting.



Combine your scoreboard with a Nevco message center or available accessories such as 9605 for timed games or Pitch Speed/Pitch Count add-ons to create a complete scoring and display system. Team/Sponsor signs also available.



MAXIMIZE YOUR IMPACT

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[WWW.NEVCO.COM](http://WWW.NEVCO.COM)

U.S. & CANADA: 800-851-4040 INTERNATIONAL: 618-664-0360  
FAX: 618-664-0398 E-MAIL: [INFO@NEVCO.COM](mailto:INFO@NEVCO.COM)

# INTEGRATED DISPLAY AND SCORING SOLUTIONS



## Model 1600 (Outdoor) Baseball/Softball Scoreboard

### SCOREBOARD/CONTROL OPERATING FEATURES

MODEL 1600	MPC(W)-4/5/6	MPCW-7	MPCX WIRELESS Not available with ETNs
<b>TEAM SCORES</b> 18" High Intensity Red or Amber LED Digits	Displays 0-99	Displays 0-99	Displays 0-99
<b>INNING</b> 18" High Intensity Red or Amber LED Digits	Displays 0-9	Displays 0-9	Displays 0-9
<b>INDICATORS</b> 3" diameter High Intensity Red or Amber LED cluster	THREE FOR BALL TWO FOR STRIKE TWO FOR OUT ONE FOR HIT ONE FOR ERROR	THREE FOR BALL TWO FOR STRIKE TWO FOR OUT ONE FOR HIT ONE FOR ERROR	THREE FOR BALL TWO FOR STRIKE TWO FOR OUT ONE FOR HIT ONE FOR ERROR
<b>PITCH COUNT</b>	N/A	Supported. Integrates with PCD display. Controlled by hand-held switches.	Supported. Integrates with PCD display. Requires Pitch Count MPCX control.
<b>PITCH TIMER</b>	N/A	Supported. Integrates with 9520 display. Controlled by hand-held switches.	Supported. Integrates with 9520 display. Requires SCD/DGT MPCX control.

In addition to the standard 15 colors, Nevco can match any PMS color. Please contact your local Display and Scoring Consultant for pricing information.



**AGENCY APPROVAL:** UL/CUL listed, FCC, CE, INDUSTRY CANADA.

**SCOREBOARD:** Size 16'L x 5'H x 8"D (4.88 x 1.52 x .20 meters), constructed of aluminum. Scoreboard has 1" white outline striping. Hanging weight approximately 260 lbs. (118 kg) or 315 lbs. (143 kg) with ETNs.

**CAPTIONS:** HOME, GUESTS, INNING, BALL, STRIKE, OUT, H, E, white letters 10" high. (HOME and GUESTS are omitted when ordered with ETNs.)

**LED UNITS:** Seven-bar segmented digits with protective aluminum cover.

**POWER WITH ETNS:** 120 VAC, 1.7 Amps, 50/60 Hz. / 240 VAC, 0.9 Amps, 50/60 Hz. Requires earth ground.

**POWER WITHOUT ETNS:** 120 VAC, .8 Amps, 50/60 Hz. / 240 VAC, 0.4 Amps, 50/60 Hz. Requires earth ground.

**BUILT-IN LIGHTNING PROTECTION:** All models feature fiber-optic isolation circuitry providing additional protection against lightning strikes.

**GUARANTEE:** TO VIEW OR RECEIVE THE MOST RECENT COPY OF OUR GUARANTEE, PLEASE VISIT: [WWW.NEVCO.COM/INFO/GUARANTEE.PHP](http://WWW.NEVCO.COM/INFO/GUARANTEE.PHP)  
**U.S. SERVICE:** 1-800-851-4040. **INTERNATIONAL SERVICE:** 1-618-664-0360. **CANADA SERVICE:** 1-800-461-8550.

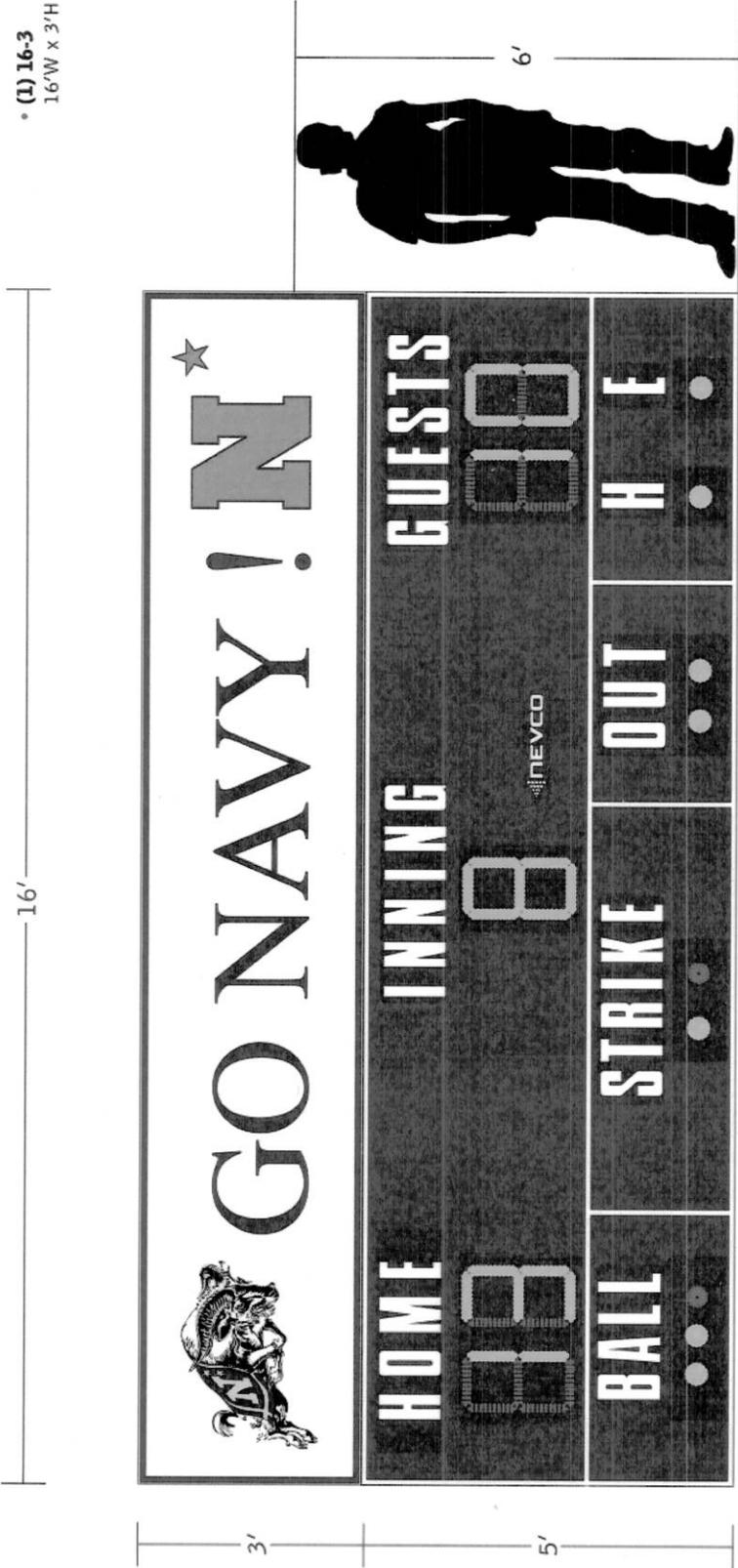


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U.S. & CANADA: 800-851-4040 INTERNATIONAL: 618-664-0360  
 FAX: 618-664-0398 E-MAIL: [INFO@NEVCO.COM](mailto:INFO@NEVCO.COM)

**PROOF INCLUDES:**

- Model 1600  
16'x5'x8"  
Color: #141 Navy Blue  
Digit Color: Amber
- (1) 16-3  
16'W x 3'H Non-Illuminated Sign



This rendering is for conceptual purposes only. It may not be to exact scale or specifications and should not be used for installation purposes. Every effort has been made to make it as accurate as possible. Beams and or pillars are for illustration only. Engineering specifications may require changes in quantity, size and or shape.

1 Row Scoreboards (See Sheet 5 for bracket dimensions)				
Model	Width	Height	Weight	Weight w/E/TN
1650	8'	3' 3/32"	90	N/A
1610, 1620	10'	4' 3/32"	130	N/A
1625	10'	5' 3/32"	160	N/A
1632, 3602	12'	5' 3/32"	180	235
9652	9'	4' 3/32"	110	N/A

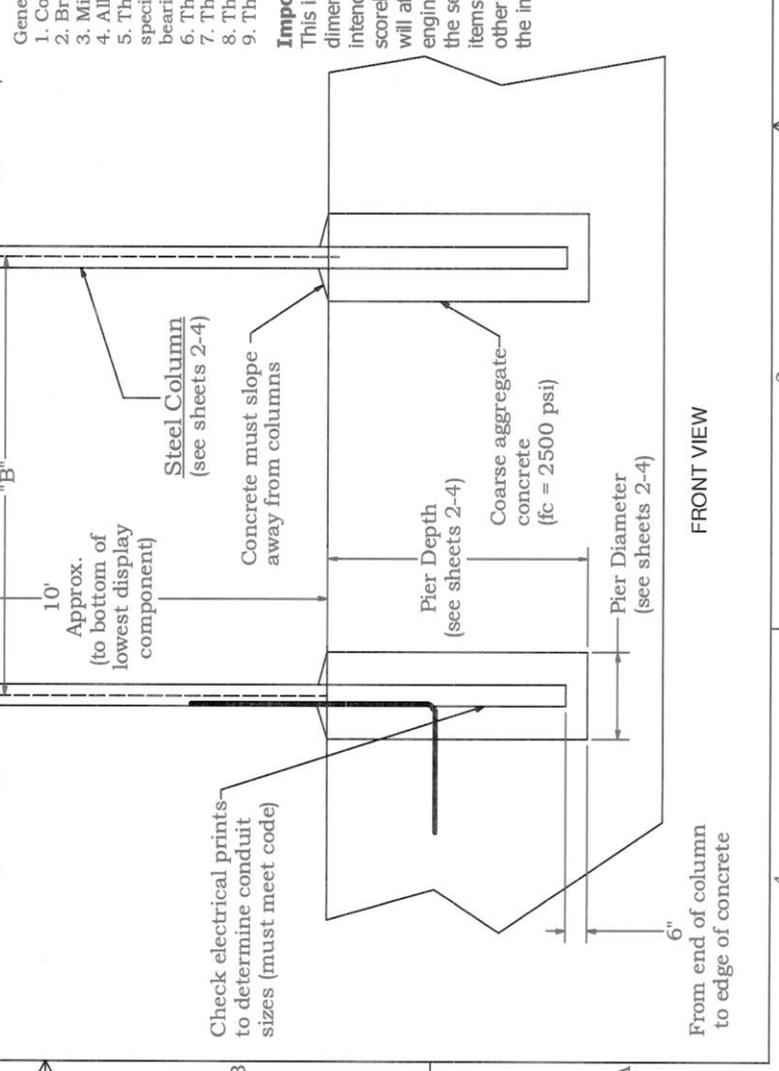
  

2 Row Scoreboards (See Sheet 6 for bracket dimensions)				
Model	Width	Height	Weight	Weight w/E/TN
9660	10'	6' 3/16"	200	N/A
5625	12'	8' 3/16"	290	N/A
1600, 3655	16'	5' 3/16"	260	315
1635	16'	6' 3/16"	290	345
1608, 5634	18'	6' 3/16"	320	375
1630, 1640	18'	8' 3/16"	420	482
3600, 3614	18'	9' 3/16"	460	522
3634, 3656	18'	8' 3/16"	N/A	590
5635	18'	8' 3/16"	N/A	590
3680	18'	8' 3/16"	N/A	590

3 Row Scoreboards (See Sheet 7 for bracket dimensions)				
Model	Width	Height	Weight	Weight w/E/TN
1615	16'	7' 9/32"	350	405
7680	18'	10' 6.5/8"	N/A	710
7604, 7614	18'	10' 6.9/32"	530	592
7624	18'	10' 6.9/32"	530	592
9650	16'	10' 3/16"	490	N/A

Overall Display Height				
Model	Width	Height	Weight	Weight w/E/TN
1650	8'	3' 3/32"	90	N/A
1610, 1620	10'	4' 3/32"	130	N/A
1625	10'	5' 3/32"	160	N/A
1632, 3602	12'	5' 3/32"	180	235
9652	9'	4' 3/32"	110	N/A



General Notes:

- Column steel to be grade A992 (50 ksi steel minimum).
- Bracing steel to be ASTM A500 Grade B minimum (see note 2 on sheets 2-4).
- Minimum bolt grade: A307
- All welds to conform to AWS standards
- The dimensions in the charts on sheets 2-4 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/ft.
- The weights of signs to be calculated using 4.3 lb/sq. ft. of sign area.
- The weights of Nevco message centers to be calculated using 8.5 lb/sq. ft.
- The weights of Nevco video displays to be calculated using 9.5 lbs/sq. ft.
- 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.

**NEVCO**  
Nevco, Inc.  
Greenville, Illinois 62246

Outdoor Scoreboard  
Installation  
2 Column

Drawn DBB

Date 10/25/2013

Sheet 1 of 9

Drawing No. 241-0347

D ZONES		EXPOSURE B (See note 4)				A	
Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B 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 Col	Braced Column *	Display Height	Pier Dia.
6	2'	10'	256"	W8 x 24	W10 x 22	6	2'
8	2'	11'	286"	W10 x 33	W10 x 26	8	2'
9	2'	11'6"	30"	W10 x 33	W12 x 26	9	2'
10	2'	12'	316"	W10 x 39	W12 x 26	10	2'
10.5	2'(3)	12'6"(10'6")	32'6"(30'6")	W10 x 39	W12 x 30	10.5	2'(3)
12	2'(3)	13'6"(11')	35'(32'6")	W10 x 45	W14 x 30	12	2'(3)
14	2'(3)	15'(12)	38'6"(35'6")	W10 x 45	W18 x 35	14	2'(3)
16	2'(3)	16'6"(13)	42'(38'6")	W10 x 60	W18 x 35	16	2'(3)
18	2'(3)	18'6"(14)	46'6"(42)	W12 x 60	W16 x 40	18	2'(3)
20	2'(3)	20'6"(16)	50'6"(46)	W12 x 65	W21 x 44	20	2'(3)
22	2'(3)	22'6"(17'6")	54'6"(49'6")	W18 x 66	W18 x 50	22	2'(3)
25	2'(3)	25'(19'6")	60'(54'6")	W18 x 66	W18 x 55	25	2'(3)
30	3'(4)	22'6"(19)	62'6"(59)	W24 x 101	W24 x 68	30	3'(4)
35	3'(4)	26'(22)	71'(67)	W14 x 159	W24 x 94	35	3'(4)
40	3'(4)	29'6"(24'6")	79'6"(74'6")	W18 x 182	W24 x 103	40	3'(4)
Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)
Display Height	Pier Diameter	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Diameter
5	2'	9'	23'6"	W8 x 21	W8 x 18	5	2'
6	2'	9'6"	25'	W8 x 24	W8 x 21	6	2'
7	2'	10'	26'6"	W12 x 26	W10 x 22	7	2'
8	2'	10'6"	28'	W12 x 30	W14 x 22	8	2'
10	2'	11'6"	31'	W14 x 38	W12 x 26	10	2'
12	2'(3)	12'6"(10'6")	34'(32)	W14 x 43	W12 x 30	12	2'(3)
14	2'(3)	14'(11'6")	37'6"(35)	W10 x 49	W14 x 34	14	2'(3)
16	2'(3)	15'6"(12)	41'(37'6")	W12 x 53	W16 x 36	16	2'(3)
Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)
Display Height	Pier Diameter	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Diameter
5	2'	8'	22'6"	W8 x 21	W10 x 17	5	2'
8	2'	9'6"	27'	W12 x 26	W8 x 21	8	2'
10	2'	10'6"	30'	W10 x 33	W14 x 22	10	2'
12	2'(3)	11'(9'6")	33'(31'6")	W10 x 39	W12 x 26	12	2'(3)
15	2'(3)	13'(11')	38'(36)	W14 x 48	W14 x 30	15	2'(3)
Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B 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 Length	Unbraced Column	Braced Column *	Display Height	Pier Dia
4	2'	7'	20'6"	W8 x 18	W12 x 14	4	2'
5	2'	7'6"	22'	W8 x 18	W8 x 15	5	2'
6	2'	8'	23'6"	W8 x 21	W8 x 18	6	2'
8	2'	9'	26'6"	W8 x 24	W8 x 21	8	2'
10	2'	10'	29'6"	W8 x 28	W10 x 22	10	2'
12	2'	10'6"	32'6"	W10 x 33	W10 x 26	12	2'
15	2'	12'	37'	W14 x 43	W12 x 26	15	2'
Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)	Column and Pier Requirements (Based on ASCE 7-05 Exposure B 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 Length	Unbraced Column	Braced Column *	Display Height	Pier Dia
3	2'	6'	18'6"	W10 x 15	W8 x 13	3	2'
6	2'	7'6"	23'	W8 x 21	W10 x 17	6	2'
8	2'	8'6"	26'	W8 x 24	W8 x 18	8	2'
10	2'	9'	28'6"	W8 x 28	W8 x 21	10	2'
12	2'	10'	32'	W10 x 33	W8 x 21	12	2'
15	2'	11'	36'	W10 x 39	W10 x 22	15	2'

D ZONES		EXPOSURE C (See note 3)				130 MPI	
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 C for 130MPH Wind Load)	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 C for 130MPH Wind Load)	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 C for 130MPH Wind Load)	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 C for 130MPH Wind Load)
Display Height	Pier Dia	Pier Depth	Col Len	Unbraced Column	Braced Column *	Display Height	Pier Dia
6	2'	11'6"	27'	W12 x 30	W10 x 26	6	2'
8	2'(3)	13'(11')	30'6"(28'6")	W10 x 39	W12 x 30	8	2'(3)
9	2'(3)	14'(11'6")	32'9"(30)	W12 x 40	W14 x 30	9	2'(3)
10	2'(3)	15'6"(12)	36'(31'6")	W14 x 48	W14 x 35	10	2'(3)
10.5	2'(3)	16'(12)	36'(32)	W14 x 48	W18 x 38	10.5	2'(3)
12	2'(3)	17'6"(13'6")	39'(35)	W12 x 53	W12 x 44	12	2'(3)
14	2'(3)	19'6"(15)	43'(38'6")	W14 x 61	W21 x 44	14	2'(3)
16	2'(3)	21'6"(16'6")	47'(42)	W12 x 72	W18 x 50	16	2'(3)
18	2'(3)	23'6"(18)	51'6"(46)	W18 x 86	W18 x 55	18	2'(3)
20	2'(3)	26'6"(20)	56'6"(50)	W18 x 97	W18 x 55	20	2'(3)
22	2'(3)	28'6"(22)	60'6"(54)	W21 x 102	W21 x 68	22	2'(3)
25	2'(3)	32'(24'6")	67'(59'6")	W14 x 159	W24 x 74	25	2'(3)
30	3'(4)	28'6"(23'6")	68'6"(63'6")	W14 x 159	W24 x 94	30	3'(4)
35	3'(4)	32'6"(27)	77'6"(72)	W18 x 193	W24 x 104	35	3'(4)
40	3'(4)	37'(30'6")	87'(80'6")	W14 x 234	W24 x 131	40	3'(4)
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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Dia
5	2'	10'	24'6"	W10 x 26	W10 x 22	5	2'
6	2'	11'	26'6"	W10 x 30	W10 x 26	6	2'
7	2'	11'6"	28'	W10 x 33	W12 x 26	7	2'
8	2'	12'	29'6"	W14 x 38	W12 x 26	8	2'
10	2'(3)	14'(11'6")	33'6"(31)	W14 x 43	W14 x 34	10	2'(3)
12	2'(3)	16'(12'6")	37'6"(34)	W12 x 53	W16 x 36	12	2'(3)
14	2'(3)	18'(14)	41'6"(37'6")	W14 x 61	W16 x 40	14	2'(3)
16	2'(3)	20'(15)	45'6"(40'6")	W12 x 65	W16 x 50	16	2'(3)
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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Dia
5	2'	9'6"	24'	W8 x 24	W8 x 21	5	2'
8	2'	11'	28'6"	W10 x 33	W10 x 26	8	2'
10	2'	12'	31'6"	W10 x 39	W12 x 26	10	2'
12	2'(3)	13'6"(11')	35'(32'6")	W14 x 43	W14 x 30	12	2'(3)
15	2'(3)	16'(12'6")	41'(37'6")	W12 x 53	W16 x 36	15	2'(3)
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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Dia
4	2'	8'	21'6"	W8 x 21	W8 x 18	4	2'
5	2'	9'	23'6"	W10 x 22	W8 x 18	5	2'
6	2'	9'6"	25'	W8 x 24	W8 x 21	6	2'
8	2'	10'6"	28'	W12 x 30	W10 x 22	8	2'
10	2'	11'6"	31'	W10 x 33	W12 x 26	10	2'
12	2'	12'6"	34'6"	W12 x 40	W12 x 26	12	2'
15	2'	14'6"	39'6"	W10 x 49	W14 x 34	15	2'
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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)	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 C for 130mph Wind Load)
Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *	Display Height	Pier Dia
3	2'	7'	19'6"	W8 x 18	W10 x 15	3	2'
6	2'	9'	24'6"	W10 x 22	W8 x 18	6	2'
8	2'	9'6"	27'	W10 x 26	W10 x 22	8	2'
10	2'	10'6"	30'	W10 x 33	W10 x 26	10	2'
12	2'	11'6"	33'6"	W10 x 39	W12 x 26	12	2'
15	2'	13'	38'	W14 x 48	W14 x 30	15	2'

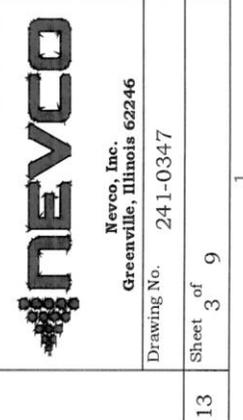
9' WIDE INSTALLS Exposure B

Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 130mph Wind Load)

Display Height	Pier Dia	Pier Depth	Col Length	Unbraced Column	Braced Column *
4'	2'	7'6"	21'	W8 x 13	W8 x 13

**Chart Notes:**

- If the display height is between chart values shown above, use the next highest value.
- \* Requires that braces be placed approximately 10' from ground level that spans both columns. See detail on sheet 5. If installation is taller than 20', place braces on 10' spacing.
- 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.

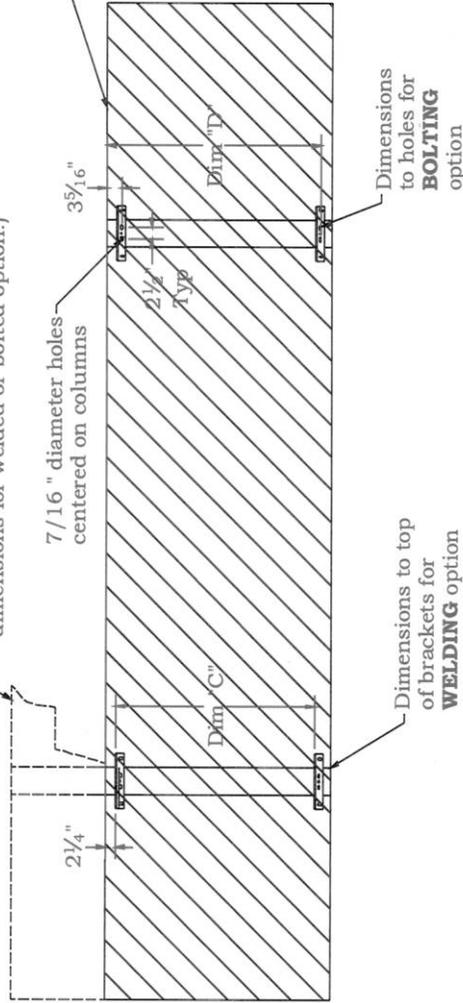


Outdoor Scoreboard Installation  
2 Column

Drawn DBB Date 10/25/2013 Sheet 3 of 9

1 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 sheets 8,9 including bracket orientation, lateral installation (if required), wind speed requirements, etc.

Scoreboard	Scoreboard Height	Dim "C" (Welded)	Dim "D" (Bolted)
1650	3' 3/32"	31 7/8"	35 5/32"
1610			
1620	4' 3/32"	43 7/8"	47 5/32"
3650			
9652			
1625	5' 3/32"	55 7/8"	59 5/32"
1632			
3602			

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

\* Minimum bolt grade is A307  
 \*\*see sheet 8



Neveco, Inc.  
 Greenville, Illinois 62246

Drawing No. 241-0347

Outdoor Scoreboard  
 Installation  
 2 Column

Drawn DBB Date 10/25/2013 Sheet of 5 9

# Solar Powered Outdoor Scoreboard Installation

Drawn: MMK Date: 7/5/12

**Solar Panel Connection Detail**

Included 25ft extension cables with connectors (Run to Electrical Enclosure)

Negative Solar Panel Terminal

Positive Solar Panel Terminal



**2" Diameter Pipe**  
 6ft long  
 (provided by installer)

2" U-Bolts (supplied)

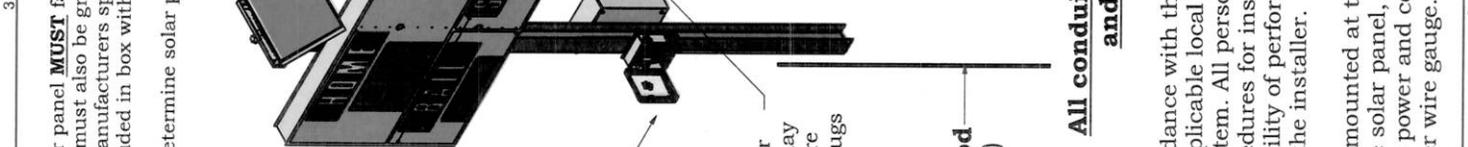
**Solar Panel Mounting Detail**



**Front Interior View**  
 (Scoreboard face removed for clarity)

Solar panel **MUST** face directly south and must also be grounded according to manufacturers specifications included in box with panel.

To determine solar panel angle see page 4.



**Wire Connections**  
 Black to Line  
 White to Neutral  
 Green to Ground

**Coax Scoreboard Signal**  
 (from wired control or wireless receiver)

**Inverter/Receiver Box**  
 (Mount to front of column to ensure clear line of sight to control location)

**Inverter must be turned off when not in use!**  
 Mount enclosure so that it is accessible to the user

Cover to Power Enclosure typically opposite Power and Coax Signal holes. Alternate hole locations may be selected by installer. Check new location before drilling. If a new location is used, leave plastic plugs in holes in back of scoreboard.

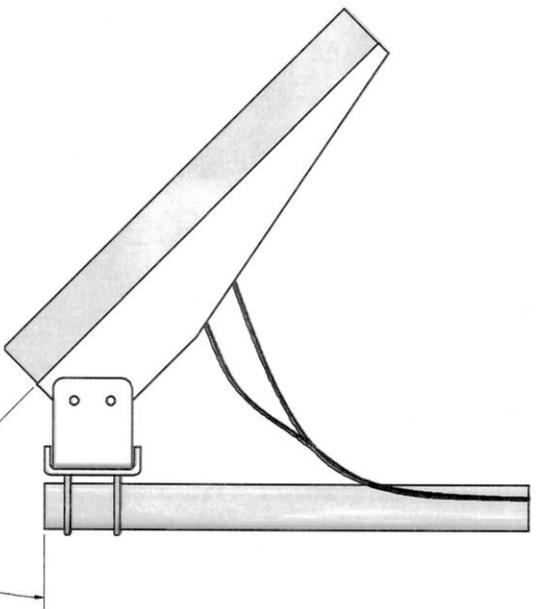
**System Ground Rod**  
 (provided by installer)

**All conduit and connectors must be raintight and are provided by the installer**

**Important. Read before installation.**  
 This system is intended to be installed in accordance with the requirements of Article 600 & 690 of the National Electrical Code and/or other applicable local codes. This includes proper grounding and bonding of the sign & power system. All personnel who work with electrical connections must be educated in the safe procedures for installing and repairing electrical connections before they are given the responsibility of performing such tasks. All conduit and fittings must be rain tight and are supplied by the installer.

\* Installation Note: If the solar panel cannot be mounted at the scoreboard due to the risk of potential damage or poor sun coverage then the solar panel, receiver enclosure, and battery enclosure may all be located remotely. The A/C power and coax outputs to the scoreboard may then be extended 500' or more with a larger wire gauge.

City	Lat N°	City	Lat N°	City	Lat N°
Albany, N.Y.	42	Hot Springs, Ark.	34	Providence, R.I.	41
Albuquerque, N.M.	35	Houston, Tex.	29	Quebec, Que., Can.	46
Annamillo, Tex.	35	Idaho Falls, Idaho	43	Raleigh, N.C.	35
Anchorage, Alaska	61	Indianapolis, Ind.	39	Reno, Nev.	39
Atlanta, Ga.	33	Jackson, Miss.	32	Richfield, Utah	38
Austin, Tex.	30	Jacksonville, Fla.	30	Richmond, Va.	37
Baker, Ore.	44	Juneau, Alaska	58	Roanoke, Va.	37
Baltimore, Md.	39	Kansas City, Mo.	38	Sacramento, Calif.	38
Bangor, Maine	44	Key West, Fla.	24	St. John, N.B., Can.	45
Birmingham, Ala.	33	Kingston, Ont., Can.	44	St. Louis, Mo.	38
Bismarck, N.D.	46	Klamath Falls, Ore.	42	Salt Lake City, Utah	40
Boston, Mass.	42	Knoxville, Tenn.	36	San Antonio, Tex.	29
Buffalo, N.Y.	42	Las Vegas, Nev.	36	San Diego, Calif.	32
Calgary, Alta., Can.	51	Lewiston, Idaho	46	San Francisco, Calif.	37
Carlsbad, N.M.	32	Lincoln, Neb.	40	San Jose, Calif.	37
Charleston, S.C.	32	London, Ont., Can.	43	San Juan, P.R.	18
Charleston, W. Va.	38	Long Beach, Calif.	33	Santa Fe, N.M.	35
Charlotte, N.C.	35	Los Angeles, Calif.	34	Savannah, Ga.	32
Cheyenne, Wyo.	41	Louisville, Ky.	38	Seattle, Wash.	47
Chicago, Ill.	41	Manchester, N.H.	43	Shreveport, La.	32
Cincinnati, Ohio	39	Memphis, Tenn.	35	Sioux Falls, S.D.	43
Cleveland, Ohio	41	Miami, Fla.	25	Sitka, Alaska	57
Columbia, S.C.	34	Milwaukee, Wis.	43	Spokane, Wash.	47
Columbus, Ohio	40	Minneapolis, Minn.	44	Springfield, Ill.	39
Dallas, Tex.	32	Mobile, Ala.	30	Springfield, Mass.	42
Denver, Colo.	39	Montgomery, Ala.	32	Springfield, Mo.	37
Des Moines, Iowa	41	Montpelier, Vt.	44	Syracuse, N.Y.	43
Detroit, Mich.	42	Montreal, Que., Can.	45	Tampa, Fla.	27
Dubuque, Iowa	42	Nashville, Tenn.	36	Toledo, Ohio	41
Duluth, Minn.	46	Nelson, B.C., Can.	49	Toronto, Ont., Can.	43
Eastport, Maine	44	Newark, N.J.	40	Tulsa, Okla.	36
Edmonton, Alb., Can.	53	New Haven, Conn.	41	Vancouver, B.C., Can.	49
El Centro, Calif.	32	New Orleans, La.	29	Victoria, B.C., Can.	48
El Paso, Tex.	31	New York, N.Y.	40	Virginia Beach, Va.	36
Eugene, Ore.	44	Nome, Alaska	64	Washington, D.C.	38
Fargo, N.D.	46	Oakland, Calif.	37	Wichita, Kan.	37
Flagstaff, Ariz.	35	Oklahoma City, Okla.	35	Wilmington, N.C.	34
Fort Worth, Tex.	32	Omaha, Neb.	41	Winnipeg, Man., Can.	49
Fresno, Calif.	36	Ottawa, Ont., Can.	45		
Grand Junction, Colo.	39	Philadelphia, Pa.	39		
Grand Rapids, Mich.	42	Phoenix, Ariz.	33		
Havre, Mont.	48	Pierre, S.D.	44		
Helena, Mont.	46	Pittsburgh, Pa.	40		
Honolulu, Hawaii	21	Portland, Maine	43		
		Portland, Ore.	45		



To set the angle of your solar panel find your city or a city close to yours in the table.

If the system will be primarily used in the summer months then set the panel angle at your listed latitude + 15° for optimum charging.

If the system will be primarily used in the fall/winter months then set the panel angle at your listed latitude - 15° for optimum charging.

If the system is used all year then set the panel angle at your listed latitude for all year average charging (if the panel cannot be adjusted for each season).

For example, a summer time system in St. Louis, MO (Latitude of 38°) would be set to approximately 53° of tilt for optimum charging.

## Solar Powered Outdoor Scoreboard Installation

Neveco, Inc.  
Greenville, Illinois 62246

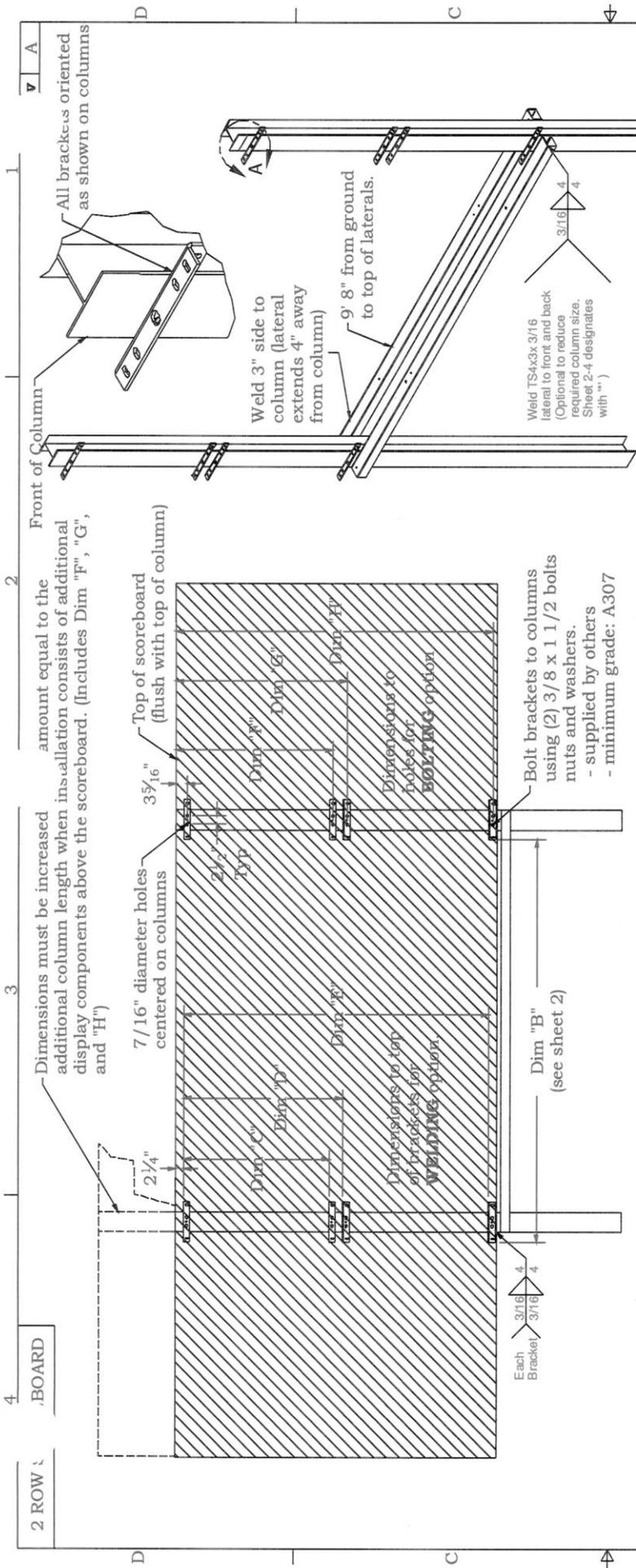
Drawing No. **275-5160**

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Drawn **MMK**

Date **7/5/12**

Sheet **4 of 4**



Model #	Scoreboard Height	WELDING DIMENSIONS				BOLTING DIMENSIONS			
		Dim "C"	Dim "D"	Dim "E"	Dim "F"	Dim "G"	Dim "H"	Dim "I"	
9660	6' 3/16"	19 7/8"	24 1/8"	67 15/16"	23 5/32"	27 7/16"	71 1/4"	71 1/4"	
5625	8' 3/16"	43 7/8"	48 1/8"	91 15/16"	47 5/32"	51 7/16"	95 1/4"	95 1/4"	
1600	5' 3/16"	31 7/8"	36 1/8"	55 15/16"	35 5/32"	39 7/16"	59 1/4"	59 1/4"	
3655	6' 3/16"	19 7/8"	24 1/8"	67 15/16"	23 5/32"	27 7/16"	71 1/4"	71 1/4"	
1608	6' 3/16"	31 7/8"	36 1/8"	67 15/16"	35 5/32"	39 7/16"	71 1/4"	71 1/4"	
1635	6' 3/16"	43 7/8"	48 1/8"	67 15/16"	47 5/32"	51 7/16"	95 1/4"	95 1/4"	
5634	6' 3/16"	43 7/8"	48 1/8"	67 15/16"	47 5/32"	51 7/16"	107 1/4"	107 1/4"	
1630									
3600									
3614									
3634									
3656									
3680									
5635									
3625	9' 3/16"	43 7/8"	48 1/8"	103 15/16"	47 5/32"	51 7/16"	107 1/4"	107 1/4"	

**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

**FRONT VIEW**

NOTE: Minimum bolt grade is A307  
 \* Hardware not needed if installer uses welding option.

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



Neveco, Inc.  
 Greenville, Illinois 62246

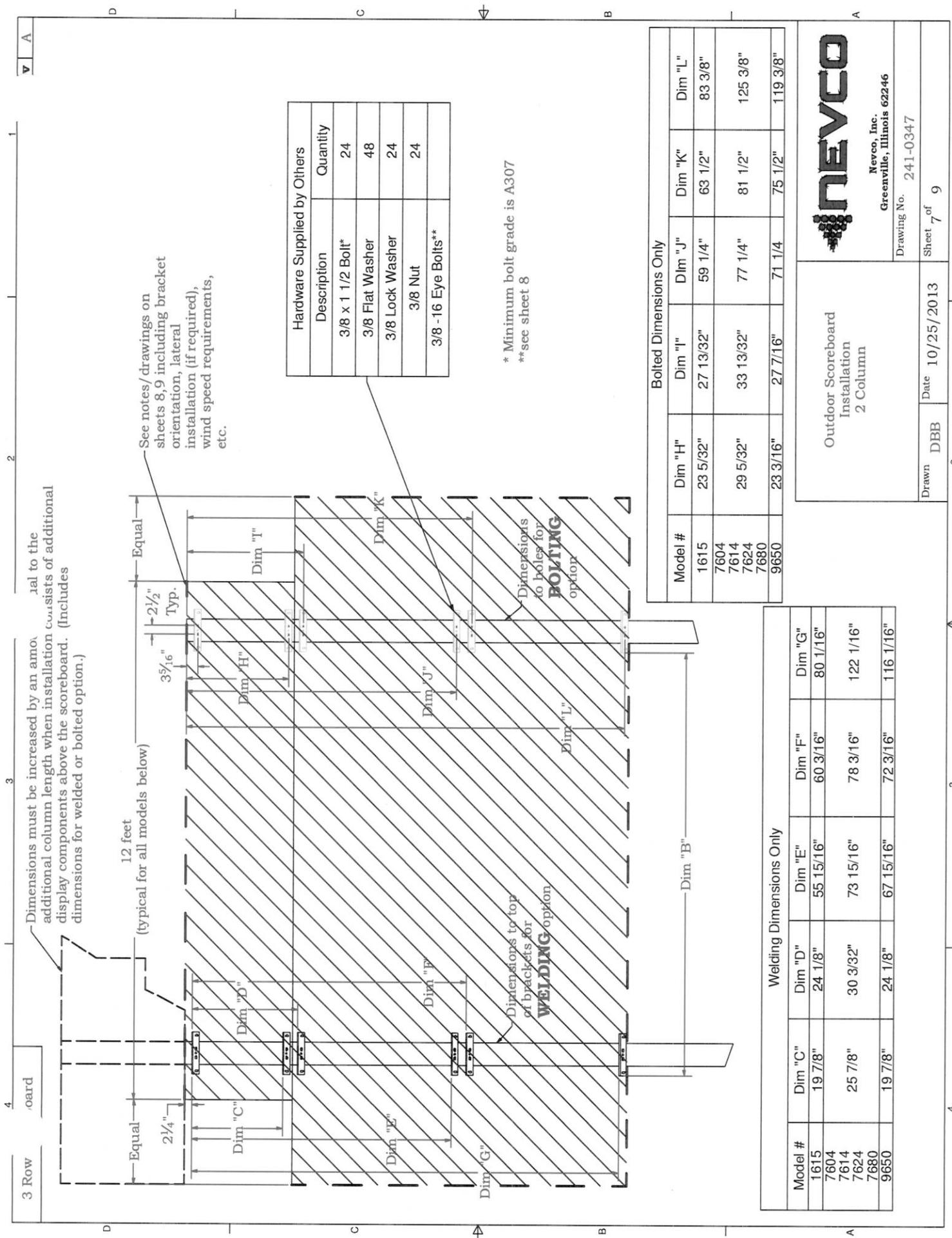
Outdoor Scoreboard Installation  
 2 Column

Drawing No. 241-0347

Sheet of 6 9

Drawn DBB Date 10/25/2013

Sheet of 6 9



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.)

12 feet  
(typical for all models below)

See notes/drawings on sheets 8,9 including bracket orientation, lateral installation (if required), wind speed requirements, etc.

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**	

\* Minimum bolt grade is A307  
\*\*see sheet 8

Bolted Dimensions Only					
Model #	Dim "H"	Dim "I"	Dim "J"	Dim "K"	Dim "L"
1615	23 5/32"	27 13/32"	59 1/4"	63 1/2"	83 3/8"
7604					
7614	29 5/32"	33 13/32"	77 1/4"	81 1/2"	125 3/8"
7624					
7680					
9650	23 3/16"	27 7/16"	71 1/4"	75 1/2"	119 3/8"

Welding Dimensions Only					
Model #	Dim "C"	Dim "D"	Dim "E"	Dim "F"	Dim "G"
1615	19 7/8"	24 1/8"	55 15/16"	60 3/16"	80 1/16"
7604					
7614	25 7/8"	30 3/32"	73 15/16"	78 3/16"	122 1/16"
7624					
7680	19 7/8"	24 1/8"	67 15/16"	72 3/16"	116 1/16"

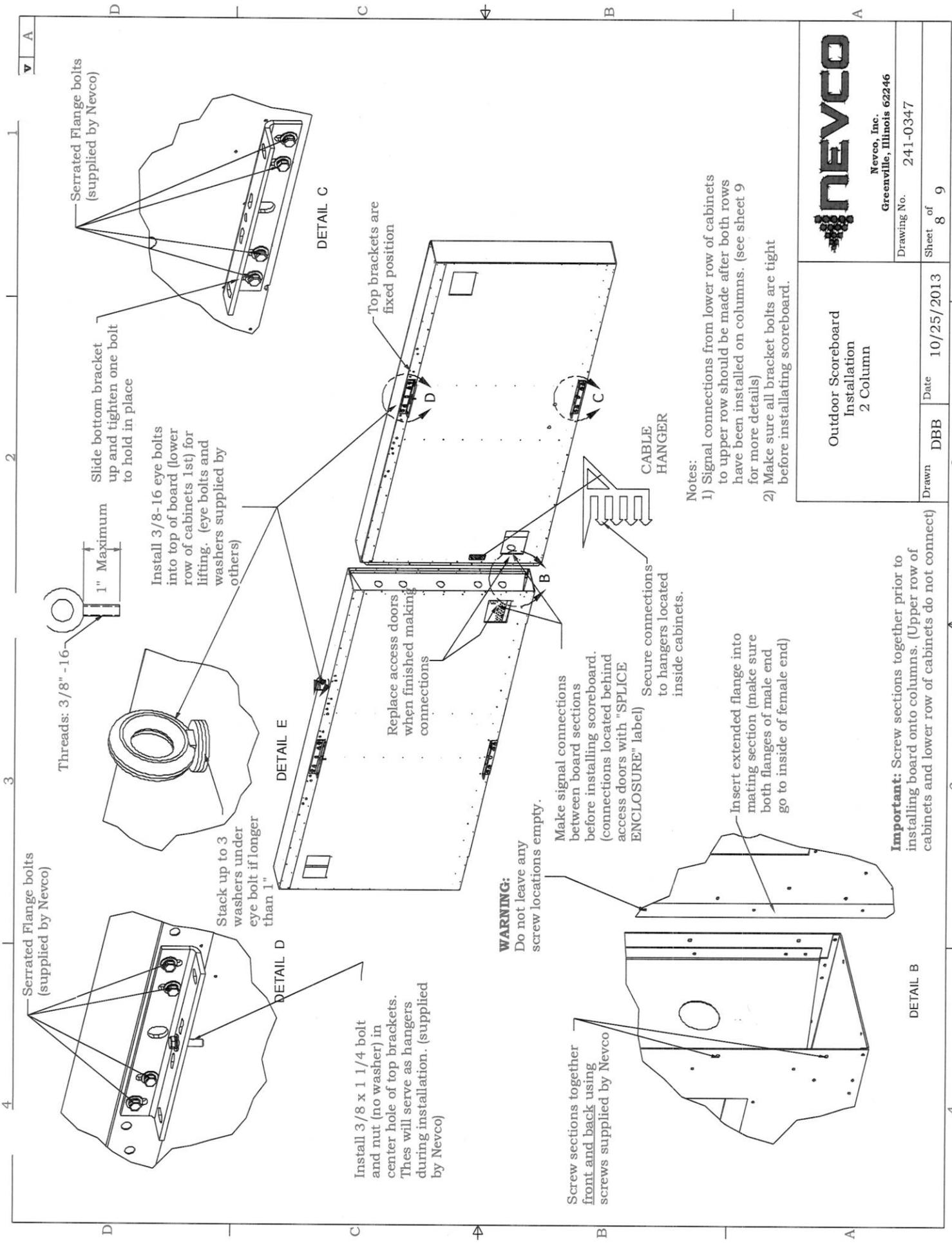
Outdoor Scoreboard  
Installation  
2 Column



Neveco, Inc.  
Greenville, Illinois 62246

Drawing No. 241-0347

Drawn DBB Date 10/25/2013 Sheet 7 of 9



Serrated Flange bolts (supplied by Nevco)

Serrated Flange bolts (supplied by Nevco)

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

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"

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

**WARNING:**  
Do not leave any screw locations empty.

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.

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

Screw sections together front and back using screws supplied by Nevco

**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 9 for more details)  
2) Make sure all bracket bolts are tight before installing scoreboard.

**Outdoor Scoreboard Installation  
2 Column**



Nevco, Inc.  
Greenville, Illinois 62246  
Drawing No. 241-0347

**Drawn DBB**    **Date 10/25/2013**    **Sheet of 8 9**



## **Soil Management Plan Naval Station Newport, Newport, RI**

This Soil Management Plan (SMP) has been prepared to establish procedures that will be followed should future construction, demolition or maintenance activities at the Naval Station Newport (NAVSTA) require the need to manage disturbed or excavated soil. The plan cannot be used to manage soils on Navy Installation Restoration (IR) sites, soils with known contamination, such as PCBs, asbestos, or mercury, soils regulated by the State of RI with contamination other than arsenic, and on property leased to private entities (e.g. privatized Housing).

### *Background*

The property, located in Newport, RI, was established in 1869 with the construction of a torpedo station. The Navy War College was added in 1884 and the site was used for sailor training and housing and fueling facilities during World War II. Post WWII the property footprint and training activities were reduced while research and development efforts were increased. The soils on the property were found to contain arsenic that exceeds regulatory levels during a property-wide site investigation that included the collection and analysis of more than 1000 soil samples. These soils must be removed and disposed of, or covered with Department (i.e. State of Rhode Island Department of Environmental Management) approved engineered controls, consisting of building foundations, asphalt pavement, and landscaping and environmental land use controls (ELUR) in order to prevent direct exposure to regulated soils.

### *Applicable Area*

This SMP, and affiliated ELUR (when applicable), restricts the property to industrial or commercial usage, and pertains to the entire property. See attached site figure.

### *Soil Management*

The direct exposure pathway is the primary concern at the site. Individuals engaged in activities at the site may be exposed through incidental ingestion, dermal contact, or inhalation of entrained soil particles if proper precautions are not taken. Therefore, the following procedures will be followed to minimize the potential of exposure.

During site work, the appropriate precautions will be taken to restrict unauthorized access to the property.

During all site/earth work, dust suppression (i.e. watering) techniques must be employed at all times. In the event that an unexpected observation or situation arises during site work, such activities will immediately stop (such as olfactory or visual evidence of waste material or contamination, PCB contamination or asbestos debris disposal). Workers will not attempt to handle the situation themselves but will contact the appropriate authority for further direction.

1 / 2010

If excess soil is generated /excavated from the property, the soil is to remain on-site for analytical testing, to be performed by an environmental professional, in order to determine the appropriate disposal and/or management options. The soil must be placed on and covered with polyethylene/plastic sheeting during the entire duration of its staging and secured with appropriate controls to limit the loss of the cover and protect against storm-water and/or wind erosion (i.e. hay bales, silt fencing, rocks, etc).

Excavated soils will be staged and temporarily stored in a designated area of the property. Within reason, the storage location will be selected to limit the unauthorized access to the materials (i.e. away from public roadways/walkways). No soil will be stockpiled on-site for greater than 60 days without prior Department approval.

Soils excavated from the site may not be re-used as fill on residential property. Excavated fill material shall not be re-used as fill on commercial or industrial properties unless it meets the Department's Method 1 Residential Direct Exposure Criteria for all constituents listed in Table 1 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations).

Excavated soil to be reused on non-Navy commercial or industrial properties must be sampled and analyzed, by a qualified environmental professional, at a frequency of one sample per 500 tons for all constituents in Table 1. Copies of the laboratory analysis results shall be maintained by the site owner and included in the annual inspection report for the site, or the closure report if applicable. In the event that the soil does not meet any of these criteria, the material must be properly managed and disposed of off site at a licensed facility.

Site soils, which are to be disposed of off-site (and not reused off-site), must be done so at a licensed facility in accordance with all local, state, and federal laws. Copies of the material shipping records associated with the disposal of the material shall be maintained by the site owner and included in the annual inspection report for the site.

Best soil management practices should be employed at all times and regulated soils should be segregated into separate piles (or cells or containers) as appropriate based upon the results of analytical testing, when multiple reuse options are planned (i.e. reuse on-site, reuse at a Department approved industrial/commercial property, or disposal at a Department approved licensed facility).

All non-disposable equipment used during the soil disturbance activities will be properly decontaminated as appropriate prior to removal from the site. All disposable equipment used during the soil disturbance activities will be properly containerized and disposed of following completion of the work. All vehicles utilized during the work shall be properly decontaminated as appropriate prior to leaving the site.

At the completion of site work, all exposed soils that remain on the site (i.e. have not been removed to licensed disposal facility) are required to be recapped with Department approved engineered controls (i.e. 2 feet of clean fill or equivalent; building foundations; 4 inches of pavement/concrete underlain with 6 inches of clean fill; and/or 1 foot of clean

fill underlain with a geotextile liner) consistent or better than the site surface conditions prior to the work that took place. These measures must also be consistent with the Department approved ELUR recorded on the property. Any clean fill material brought on site is required to meet the Department's Method 1 Residential Direct Exposure Criteria or be designated by an Environmental Professional as Non-Jurisdictional under the Remediation Regulations. The Annual Inspection Report for the site, or Closure Report if applicable, should include either analytical sampling results from the fill demonstrating compliance or alternatively include written certification by an Environmental Professional that the fill is not jurisdictional.

#### *Worker Health and Safety*

To ensure the health and safety of on-site workers, persons involved in the excavation and handling of the material on site are required to wear a minimum of Level D personal protection equipment, including gloves, work boots and eye protection. Workers are also required to wash their hands with soap and water prior to eating, drinking, smoking, or leaving the site.

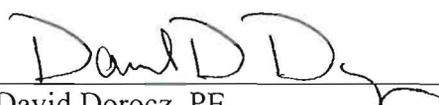
#### *Department Approval*

In accordance with the Departments' requirements, no soil at the property is to be disturbed after an engineering control has been implemented in any manner without prior written permission of the Department's Office of Waste Management, except for minor inspections, maintenance, and landscaping activities that do not disturb the contaminated soil that is left in place.

As part of the notification process, the Navy shall publish a notice, annually in the *Newport Daily News* that indicates that soil contain arsenic above the Department's Method 1 Direct Exposure Criteria, that soil work is planned on the property, and that individuals will be notified if work is to be done adjacent to privately-owned property.

In addition, the Navy will prepare an annual report to be submitted to the Department that summarizes construction work done on the property were soil was removed and inspections of sites on the property were soils with arsenic have been left in place and land use restrictions have been applied.

For soil that is removed, the report will identify the location, quantity, and ultimate destination. For sites with land use restrictions the inspections will include the location of the site and certification that the engineering controls remain in place.

  
David Dorocz, PE  
Environmental Division Director  
Naval Station Newport

  
Leo Hellsted, PE  
Chief of Office of Waste Management  
Department of Environmental Management  
6-3-10

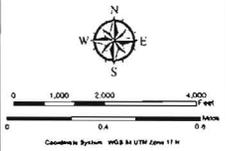
NAVSTA Newport

Commander Navy Region  
Mid-Atlantic GeoReadiness  
Center

Legend

- Gates
- Base Boundary
- Existing Structures
- Ammunition Storage Area
- Fence Line
- Runway
- Taxiway
- Helipad
- Apron
- Shoulder Overrun
- Aircraft Parking Area
- Railroad
- Golf Course
- Playground
- Swimming Pool
- Athletic Court
- Athletic Field
- Existing Piers
- Drydock

Print Date: 10 Oct, 2007



GeoReadiness Center

AM-OSM And-Atlantic  
Norfolk, Va 23511  
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