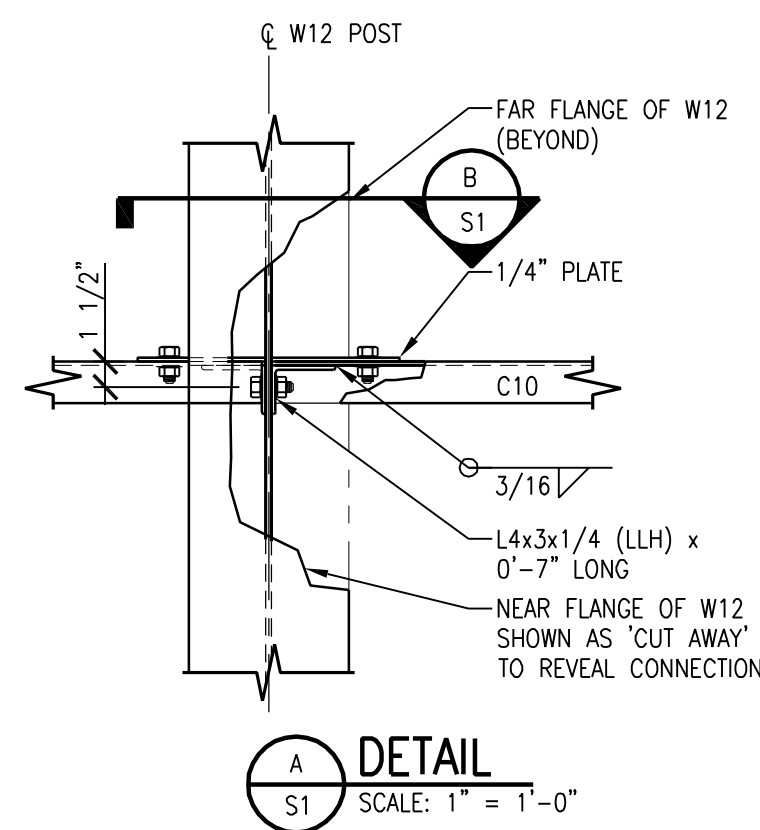
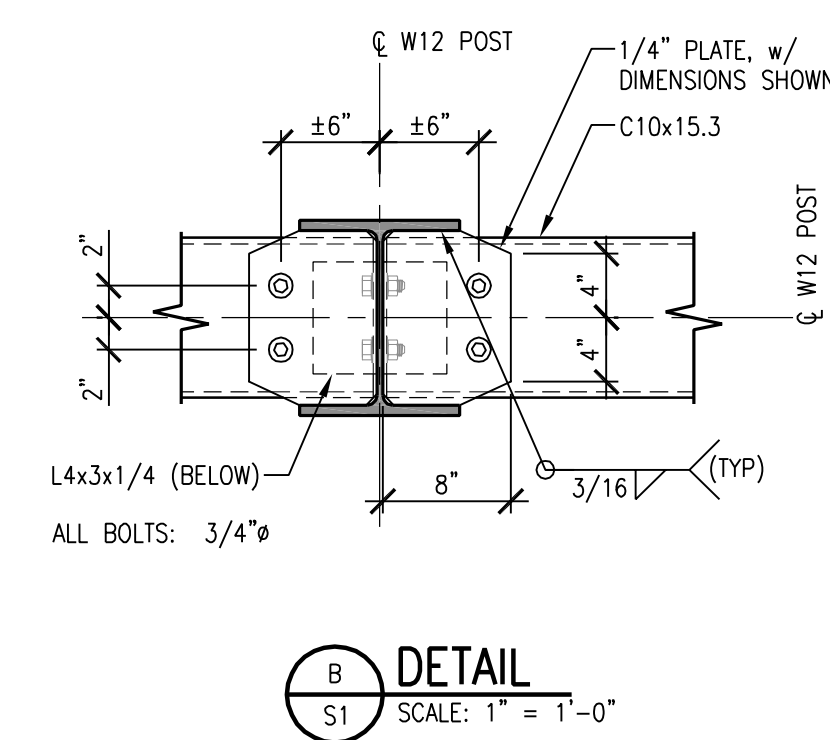


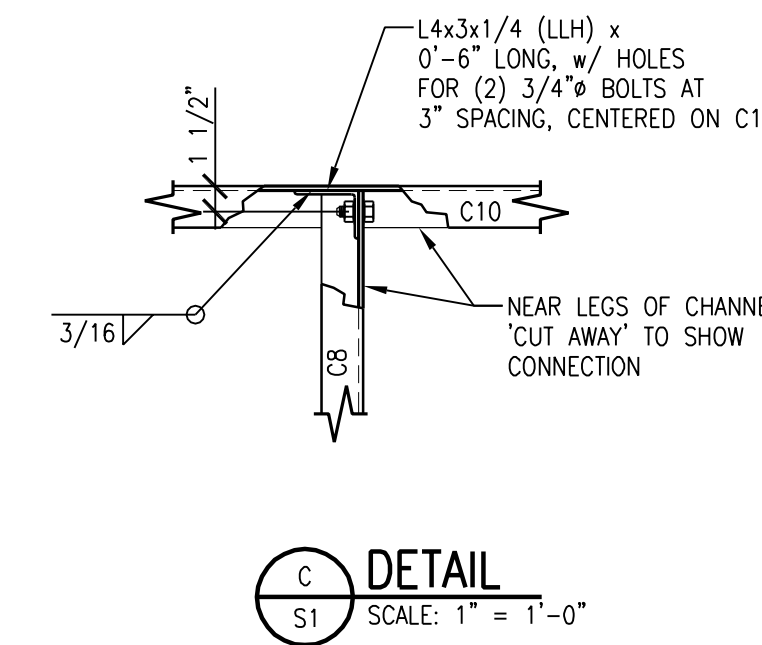
**SCOREBOARD REAR ELEVATION**  
SCALE: 1/4" = 1'-0"



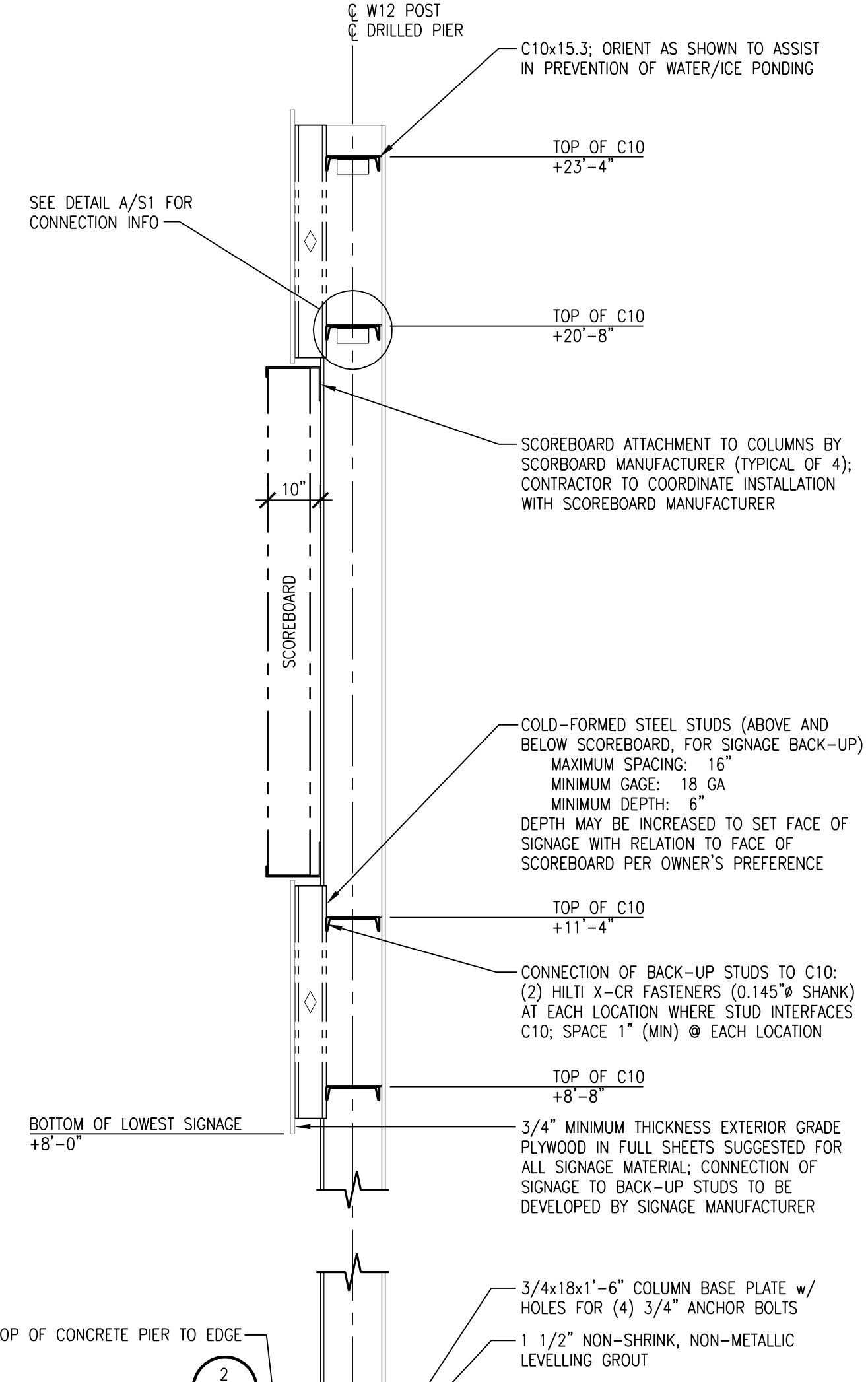
**DETAIL A**  
SCALE: 1" = 1'-0"



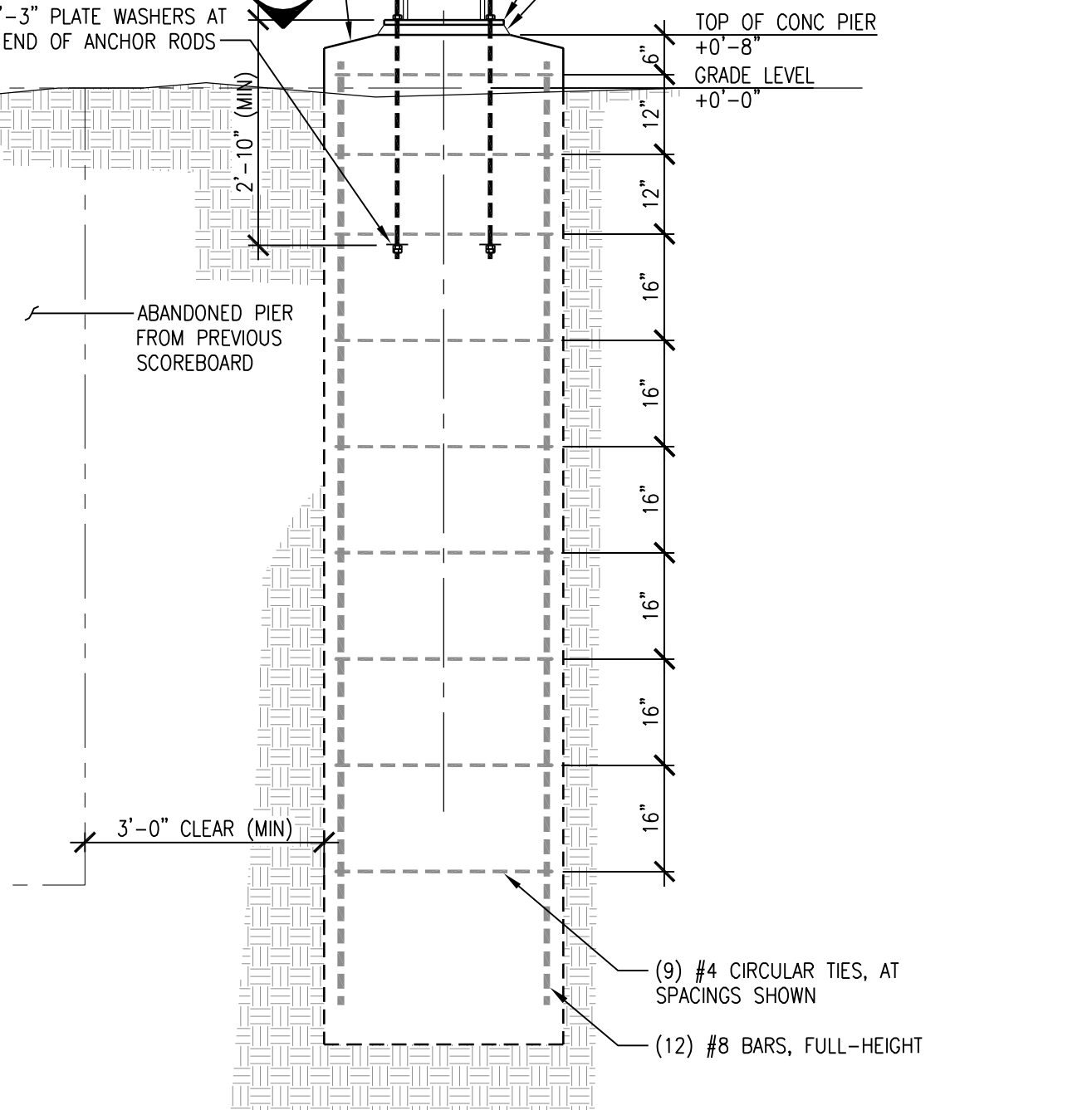
**DETAIL B**  
SCALE: 1" = 1'-0"



**DETAIL C**  
SCALE: 1" = 1'-0"



**SECTION 1**  
SCALE: 1/2" = 1'-0"



**SECTION 2**  
SCALE: 1/2" = 1'-0"

**STRUCTURAL GENERAL NOTES:**

1. STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC) - 2006

2. DESIGN LOADS  
A. DEAD LOADS:  
SCOREBOARD SUPPORT STRUCTURE 1200 LBS (MAX) SELF-WEIGHT

B. WIND LOAD (FOR FREE-STANDING, SOLID SIGN):  
BASIC WIND SPEED 90 MPH (EXCEPT AS NOTED)  
WIND EXPOSURE CATEGORY C  
WIND LOAD IMPORTANCE FACTOR (Iw) 1.0  
TOPOGRAPHIC FACTOR (Kzt) 1.05  
WIND DIRECTIONALITY FACTOR (Kd) 0.85  
VELOCITY PRESSURE EXPOSURE COEFFICIENT (Kh) 0.62  
RESULTANT VELOCITY PRESSURE (qh): 11.5 PSF  
GUST EFFECT FACTOR (G) 0.95  
FORCE COEFFICIENT (Cf) 1.62  
RESULTANT DESIGN WIND FORCE (F): 7.36 KIP (USE 7.5 KIPS)

C. ATMOSPHERIC ICING:  
NOMINAL ICE THICKNESS (ti) 0.75  
ICE IMPORTANCE FACTOR (Ii) 0.80  
HEIGHT FACTOR (Iz) 0.95  
TOPOGRAPHIC FACTOR (Kzt) 1.05  
DESIGN ICE THICKNESS (Iid) 1.16"  
WIND SPEED FOR ICING CONDITION ON SIGN (Vc) 30 MPH  
RESULTANT VELOCITY PRESSURE (qi): 2.0 PSF (CALCULATED) (USE 10.0 PSF, RECD MIN)  
RESULTANT DESIGN WIND FORCE (Fi): 4.03 KIP

D. SEISMIC: NOT APPLICABLE FOR THIS STRUCTURE

3. CONTRACTOR'S NOTES:

A. BEFORE ORDERING, FABRICATING, OR ERECTING ANY MATERIAL, SURVEY AND TAKE MEASUREMENTS TO VERIFY THAT IN PLACE WORK HAS BEEN BUILT ACCORDING TO THE CONTRACT DOCUMENTS AND IS WITHIN ACCEPTABLE TOLERANCES. NOTIFY THE A/E AND OWNER REPRESENTATIVES OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.  
B. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH SCOREBOARD MANUFACTURER WITH REGARD TO SCOREBOARD INSTALLATION.  
C. TEMPORARY BRACING OR SHORING REQUIRED AND SAFETY DURING CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.  
D. PRIOR TO EXCAVATION, ALL BURIED UTILITY LINES AND STRUCTURES SHALL BE LOCATED.  
E. DO NOT SCALE DRAWINGS.  
F. DEVIATIONS FROM THE STRUCTURAL DRAWINGS BY THE CONTRACTOR OR ANY SUB-CONTRACTORS SHALL BE CLEARLY NOTED AND IDENTIFIED ON THE SHOP DRAWINGS ALONG WITH AN EXPLANATION FOR THE DEVIATION.

4. FOUNDATION

A. THE DRILLED PIER FOUNDATIONS ARE DESIGNED USING AN ALLOWABLE END BEARING PRESSURE OF 2.0 KSF AND AN ALLOWABLE LATERAL BEARING PRESSURE ON THE SOILS OF 300 PSF AT 48" BELOW FINISHED GRADE AND 2000 PSF (MAXIMUM) AT THE BOTTOM OF THE DRILLED PIER.  
B. DESIGN OF DRILLED PIERS ASSUMES NO EXPANSIVE OR OTHERWISE DELETERIOUS SOILS ARE EXPOSED IN THE EXCAVATION PROCESS.  
C. CONTRACTOR SHALL PROVIDE AS AN ADD/ALTERNATE THE COSTS FOR INSPECTIONS AND/OR TESTING OF THE SOILS/EXCAVATIONS TO MEET THE REQUIREMENTS OF PARTS "A" AND "B" ABOVE. GC SHALL COORDINATE WITH OWNER UPON THEIR CONSIDERATION OF THE COSTS PRIOR TO PROCEEDING WITH INSPECTIONS AND/OR TESTING. IF INSPECTIONS/TESTING IS PERFORMED, NOTIFY IMMEDIATELY THE A/E IF UNSUITABLE CONDITIONS ARE FOUND, AS FURTHER ENGINEERING ATTENTION MAY BE REQUIRED.

5. CONCRETE  
A. SHALL CONFORM TO THE FOLLOWING PUBLICATIONS AND COMMENTARIES:  
1. ACI 301-05: SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS  
2. ACI 305R-99: RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING  
3. ACI 308R-88: RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING  
4. ACI 315-99: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT  
5. ACI 318-05: BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

B. CEMENTITIOUS MATERIALS (UNO) SHALL CONSIST OF CEMENT (ASTM C150, TYPE II); & EITHER FLYASH (ASTM C618, TYPE C OR TYPE F); 25% MAX OR GGBFS (ASTM C999, GRADE 100 : MIN); 50% MAX.  
C. ALL REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.  
D. CONCRETE FOR DRILLED PIERS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF NO LESS THAN 3500 PSI. AIR-ENTRAIN AT A RATE OF LESS THAN 3%. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.55. SLUMP SHALL BE 3" TO 5", BASED ON WATER ONLY. PLASTICIZERS, AT THE CONTRACTOR'S OPTION, MAY BE USED TO INCREASE THE SLUMP. HOWEVER, IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE PROPER CONCRETE STRENGTH, UNIT WEIGHT, AND AIR CONTENT AND THAT PLASTICIZERS DO NOT OTHERWISE COMPROMISE THE INTEGRITY OF THE CONCRETE MIX. THE W/C NOTED ASSUMES CONCRETE PRODUCTION FACILITY HAS TEST RECORDS TO ESTABLISH THE STANDARD DEVIATION NOTED IN CHAPTER 5 OF ACI 318 SUCH THAT THE PROPER STRENGTH WILL BE ACHIEVED. WHERE STANDARD DEVIATIONS CAN NOT BE ESTABLISHED, CONC MIX DESIGN SHALL COMPLY WITH THE APPROPRIATE SECTIONS IN CHAPTER 5 OF ACI 318.

E. CONCRETE IN THIS APPLICATION NEED ONLY REACH A COMPRESSIVE STRENGTH OF 2000 PSI PRIOR TO COMMENCING STEEL ERECTION. IN LIEU OF CONDUCTING TESTS TO DETERMINE COMPRESSIVE STRENGTH, ALLOW CONCRETE TO CURE NO LESS THAN 3 DAYS PRIOR TO STEEL ERECTION.

6. STRUCTURAL STEEL  
A. ALL DETAILING, FABRICATION, AND ERECTION (INCLUDING SHOP AND FIELD CONNECTIONS) OF ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE 9TH EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN JUNE 1, 1989". THE CODE OF STANDARD PRACTICE HAS BEEN MODIFIED AS NOTED BELOW.  
B. STRUCTURAL STEEL "W" SHAPES, SHALL CONFORM TO ASTM A992, GRADE 50.  
C. STRUCTURAL STEEL CHANNELS SHALL CONFORM TO ASTM A36, GRADE 36.  
D. STRUCTURAL STEEL PLATES AND ANGLES SHALL CONFORM TO ASTM A36, GRADE 36.

E. ALL STRUCTURAL STEEL SHALL BE SHOP PRIMED (ONE COAT) WITH THE FABRICATOR'S STANDARD PRIMER.  
F. ARTICLE 4.2 APPROVAL OF THE CODE OF STANDARD PRACTICE HAS BEEN MODIFIED IN THAT THE TIME FOR SHOP DRAWING REVIEW SHALL CONFORM TO THE CONTRACT SPECIFICATIONS BUT SHALL BE NO LESS THAN TWO WEEKS (10 BUSINESS DAYS) IN WBCM'S OFFICE. IN ADDITION, UNLESS NOTED OTHERWISE, CORRECTED SHOP DRAWINGS SHALL NOT BE RETURNED.

7. CONNECTIONS

A. CONNECTIONS, EXCEPT FOR THOSE COMPLETELY DESIGNED AND SHOWN ON THE CONTRACT DRAWINGS, SHALL BE DEVELOPED BY THE CONTRACTOR.  
B. SHOP CONNECTIONS SHALL BE HIGH STRENGTH BOLTED OR WELDED.  
C. FIELD CONNECTIONS SHALL BE HIGH STRENGTH BOLTED UNLESS WELDING IS SPECIFIED ON THE CONTRACT DRAWINGS OR UNLESS SPECIFICALLY APPROVED.  
D. ALL STRUCTURAL BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A 325-N HIGH STRENGTH BOLTS (UNO). USE 3/4" DIAMETER BOLTS (MINIMUM). HOLE DIAMETER SHALL BE 1/16" LARGER THAN THE BOLT DIAMETER (UNO).  
E. ALL WELDING SHALL CONFORM TO THE 1998 EDITION OF THE AMERICAN WELDING SOCIETY REQUIREMENTS FOR STRUCTURAL WELDING CODE - STEEL: AWS D1.1. ALL WELDED CONNECTIONS SHALL USE E70 ELECTRODES. MINIMUM FILLET WELD SHALL BE 3/16" (UNO). FIELD WELDS SHALL UTILIZE SHIELDED METAL ARC WELDING PROCESS AND E7018 ELECTRODES AND PROCESS.

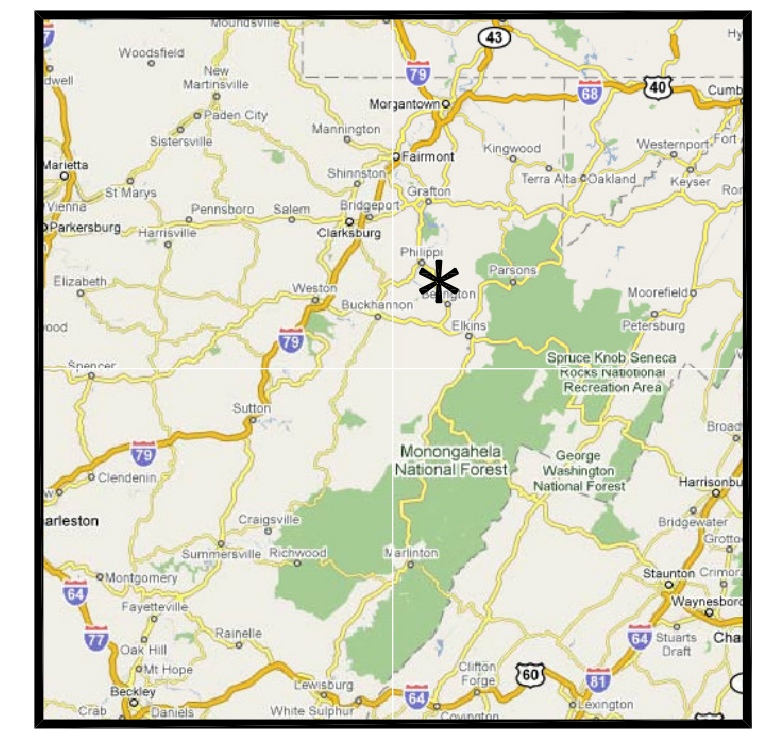
F. ANCHOR BOLTS SHALL CONFORM TO ASTM F 1554, GRADE 36.  
G. NOT USED

8. COLD FORMED (CFS) METAL FRAMING:

A. ALL METAL FRAMING SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE'S "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS".  
B. METAL FRAMING SIZES NOTED IN THE CONTRACT DOCUMENTS ARE MINIMUMS, BASED ON "C" SHAPE SOLID STUDS AS MANUFACTURED BY DIETRICH INDUSTRIES, INC. FINAL SIZES (DEPTHS) MUST BE COORDINATED WITH OWNER.  
C. ALL METAL FRAMING AND ACCESSORIES SHALL BE GALVANIZED CONFORMING TO ASTM A 1003/ASTM A 924, C60.  
D. ALL METAL FRAMING SHALL BE SAW CUT, SQUARE, AND TRUE. CUTTING OF METAL FRAMING WITH A TORCH IS NOT PERMITTED.  
E. SHOP DRAWING/CALCULATION SUBMITTAL IS NOT REQUIRED UNLESS DEVIATIONS TO THE CONTRACT DOCUMENTS ARE MADE, IN WHICH CASE A SUBMITTAL SEALED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WEST VIRGINIA IS REQUIRED SHOWING ADEQUACY ONLY FOR ITEMS INVOLVED IN DEVIATIONS.

9. PAINT

A. ALL STEEL, INCLUDING CONNECTION HARDWARE AND WELDS, SHALL BE PAINTED WITH A MINIMUM OF TWO (2) COATS OF SHERWIN WILLIAMS INDUSTRIAL ENAMEL - MEDIUM OIL/ALKYD ALL-PURPOSE, UNO. COLOR BLACK, UNLESS OTHERWISE INDICATED BY OWNER.



STATE



CITY PROJECT LOCATION MAPS



CAMPUS

ISSUED FOR CONSTRUCTION

PROJECT	PHILIP BARBOUR HIGH SCHOOL ATHLETIC COMPLEX			
	SCOREBOARD SUPPORT STRUCTURE			
	CLIENT	BARBOUR COUNTY SCHOOLS	PHILIPPI, WEST VIRGINIA	
DWG. NO.	S1		PROJECT NO.	20090143.0300

WHITNEY BAILEY COX & MAGNANI, LLC  
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ISSUES & REVISIONS	
NO.	DESCRIPTION

DATE	DATE	DATE
7/30/09		