

**GENERAL FOOTING ARRANGEMENT**  
SCALE: 3/16"=1'-0"

**GENERAL NOTES:**

1. THE EQUIPMENT LOADS WERE PROVIDED BY MERTZ, ALBANY, GA. BECAUSE THE LOADS HAVE NOT BEEN VERIFIED BY THE ENGINEER, THE ENGINEER DOES NOT ASSUME ANY RESPONSIBILITY TO THEIR ACCURACY.
2. ANY DIMENSION OTHER THAN PURELY STRUCTURAL DIMENSIONS SHOWN ON THESE DRAWINGS MUST BE VERIFIED WITH DIMENSIONS PROVIDED ON SITE DRAWINGS AND DRAWINGS PROVIDED BY THE EQUIPMENT SUPPLIER. ANY DISCREPANCIES MUST BE REPORTED IN WRITING TO THE ENGINEER. THESE DRAWINGS SHOULD NOT BE SCALED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD.
3. ALL CODES, MANUALS, STANDARDS AND SPECIFICATIONS REFERRED TO SHALL BE THE LATEST EDITION INCLUDING ALL REVISIONS AND ADDENDA.
4. UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE DRAWINGS, NO PROVISION HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS TO PROVIDE ALL NECESSARY BRACING AND SHORING REQUIRED FOR STRESSES AND INSTABILITY OCCURRING DURING CONSTRUCTION. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR ALL SUCH MEASURES.
5. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY BRACING, SHORING, SHEET PILING OR OTHER TEMPORARY SUPPORTS TO SAFEGUARD ALL EXISTING OR ADJACENT STRUCTURES AFFECTED BY THIS WORK.
6. FOUNDATIONS HAVE BEEN SIZED TO BE PLACED ON SOILS CAPABLE OF SUSTAINING MINIMUM 2,000 POUNDS PER SQUARE FOOT.

**SITE PREPARATION NOTES:**

SITE SHALL BE PREPARED ACCORDING TO GEOTECHNICAL EVALUATION PREPARED BY UNIVERSAL ENGINEERING SERVICES, INC., UES REPORT NO. 534655 DATED JANUARY 10, 2007.

**EXCAVATION NOTE:**

THE CONTRACTOR SHALL PROTECT EXCAVATIONS BY SHORING, BRACING, SHEET PILING OR OTHER ACCEPTABLE METHODS REQUIRED TO PREVENT CAVE-INS OR LOOSE SOIL FROM FALLING INTO EXCAVATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE, TEMPORARY EXCAVATIONS AND SHOULD SHORE, SLOPE, OR BENCH THE SIDES OF THE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF BOTH THE EXCAVATION SIDES AND BOTTOM. THE CONTRACTOR'S RESPONSIBLE PERSON, AS DEFINED IN 29 CFR PART 1926, SHOULD EVALUATE THE SOIL EXPOSED IN THE EXCAVATIONS AS PART OF THE CONTRACTOR'S SAFETY PROCEDURES. IN NO CASE SHOULD SLOPE HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH, INCLUDING UTILITY TRENCH EXCAVATION DEPTH EXCEED THOSE SPECIFIED IN ALL LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS. THIS ENGINEER IS PROVIDING THIS INFORMATION SOLELY AS A SERVICE TO THE CLIENT AND DOES NOT ASSUME RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY OR THE CONTRACTOR'S OR OTHER PARTY'S COMPLIANCE WITH LOCAL, STATE, AND FEDERAL SAFETY OR OTHER REGULATIONS.

**REINFORCED CONCRETE NOTES:**

1. CONCRETE MATERIALS, MIXING, PREPARATION, TRANSPORTATION, HANDLING, CURING, FORMWORK, HOT AND COLD WEATHER PROCEDURES SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 318 (LATEST EDITION).
2. REINFORCING STEEL, UNLESS SPECIFICALLY NOTED OTHERWISE SHALL BE FORMED BARS CONFORMING TO ASTM A615, WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI. REINFORCING SHALL BE BENT, PLACED AND SUPPORTED TO CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI 315 (LATEST EDITION), UNLESS NOTED OTHERWISE. MINIMUM LAP FOR CONTINUOUS REINFORCING BARS TO BE 30 DIAMETERS OR 12" UNLESS NOTED OTHERWISE.
3. STRUCTURAL CONCRETE WILL BE POURED WITHIN THE FOLLOWING TOLERANCES:  
 VARIATION FROM PLUMB:  
 IN 10'-0".....+1/4"  
 VARIATION IN CROSS SECTIONAL DIMENSIONS:  
 COLUMNS AND BEAMS.....+1/2"-1/4"  
 SLABS AND WALLS.....+1/4"-0"  
 VARIATIONS IN FOOTINGS AND PILE CAPS:  
 PLAN DIMENSIONS.....+2"-1/2"  
 THICKNESS.....-0"
4. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 4,000 PSI. SLUMPS SHALL BE CONSISTENT AT 4" +/- 1" UNLESS NOTES OTHERWISE. GREATER SLUMPS ARE NOT ACCEPTABLE. FOR "READY MIX" CONCRETE, THE MAXIMUM TIME PERMITTED BETWEEN ADDING MIX WATER AND DEPOSITING CONCRETE IN FORMS IS 90 MINUTES. GREATER TIME SPANS ARE NOT ACCEPTABLE. PROVIDE AN APPROVED WATER REDUCING ADMIXTURE IN ALL CONCRETE, CONFORMING TO ASTM C260. ADMIXTURES SHALL CONFORM TO ASTM C494, AND BE USED IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
5. INSERTS, FRAME-OUTS, SLEEVES, BRACKETS, CONDUITS AND FASTENING DEVICES SHALL BE INSTALLED AS REQUIRED BY THE DRAWINGS IN A MANNER THAT WILL NOT IMPAIR THE STRUCTURAL STRENGTH OF THE SYSTEM, BE SO INSTALLED THAT THEY WILL NOT REQUIRE CUTTING, BENDING OR DISPLACEMENT OF THE REINFORCING OTHER THAN SHOWN ON THE TYPICAL DETAILS. ELECTRICAL CONDUITS SHALL NOT BE PLACED BELOW THE BOTTOM OR ABOVE THE TOP REINFORCING. SHALL NOT PASS THROUGH THROUGH A COLUMN, SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN 1/3 OF THE SLAB THICKNESS OR WALL OR BEAM IN WHICH IT IS EMBEDDED, SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTER, UNLESS APPROVED, AND HAVE A MINIMUM COVER OF 1" OPENINGS AND DRIVEN FASTENERS REQUIRED IN CONCRETE AFTER THE CONCRETE IS PLACED SHALL BE APPROVED BY THE ENGINEER BEFORE PROCEEDING.
6. MAXIMUM WATER TO CEMENT RATIOS SHALL BE AS FOLLOWS:  
 4,000 PSI = .44 NON-AIR ENTRAINED

**DESIGN DATA:**

OCCUPANCY CLASSIFICATION	F
EXPOSURE	C
ENCLOSURE CLASSIFICATION	NOT APPLICABLE
CONSTRUCTION TYPE	TYPE II
WIND SPEED (3 SEC GUSTS)	130 MPH
IMPORTANCE FACTOR	1.00

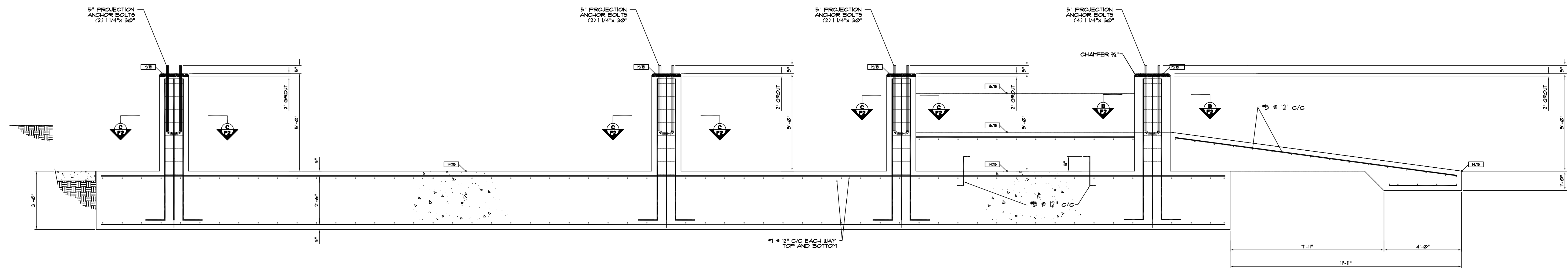
**CODES:**

2004 FLORIDA BUILDING CODE, INCLUDING 2005 SUPPLEMENTS  
 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-99)  
 AISC MANUAL OF STEEL CONSTRUCTION, LOAD & RESISTANCE FACTOR DESIGN  
 SECOND EDITION  
 AISC STANDARD 1-02, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

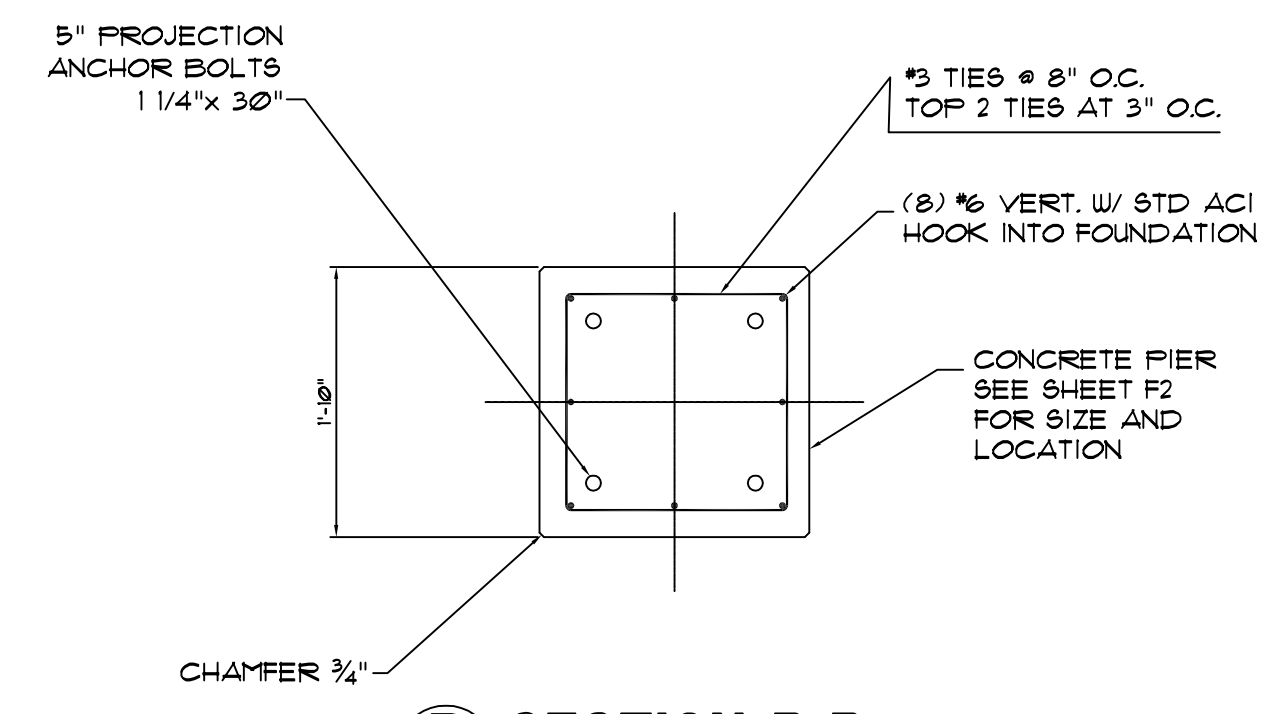
**LOADS PER PIER**

	PLANT	MATERIAL	WIND	SHEAR
PIER #1	-12K	-102K	+/-88.4K	14.1K
PIER #2	-20K	-180K	+/-137.8K	19.5K
PIER #3	-23K	-178K	+/-103.3K	17.2K
PIER #4	-13K	-88K	+/-34.4K	7.5K

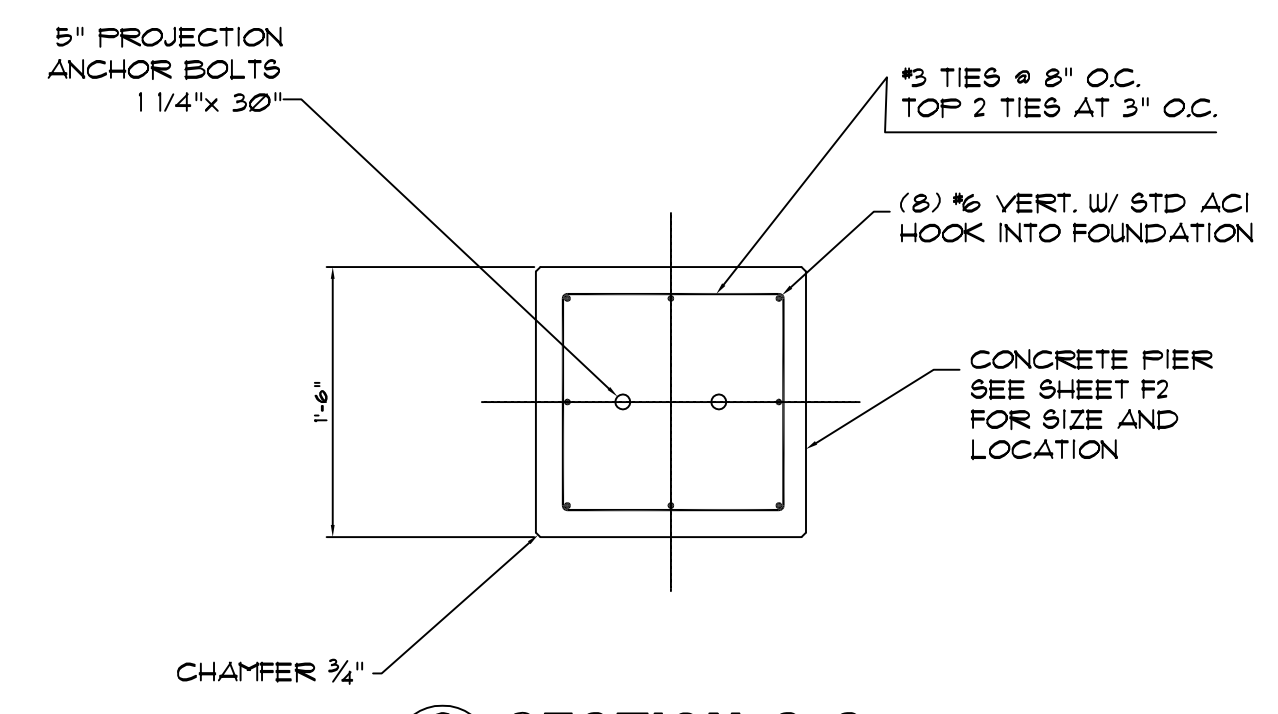
**FOUNDATION LOADS PROVIDED BY PLANT MANUFACTURER**



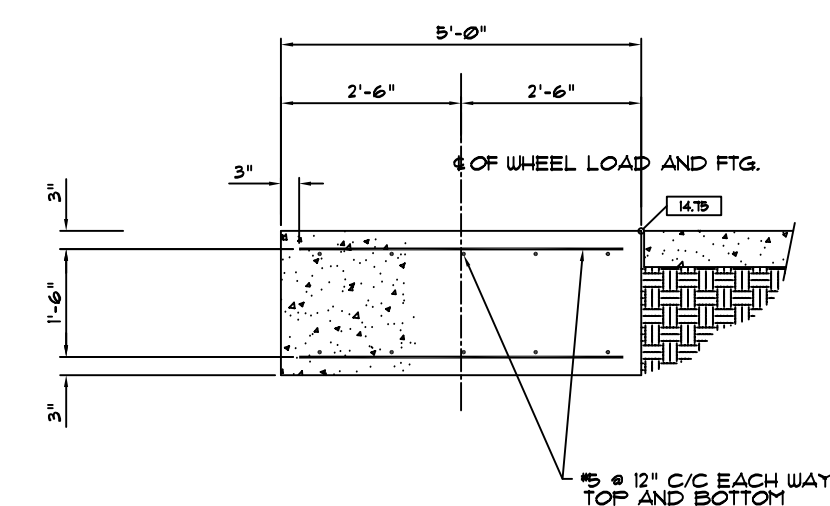
**A** SECTION A-A  
**F2** SCALE: 3/8"=1'-0"



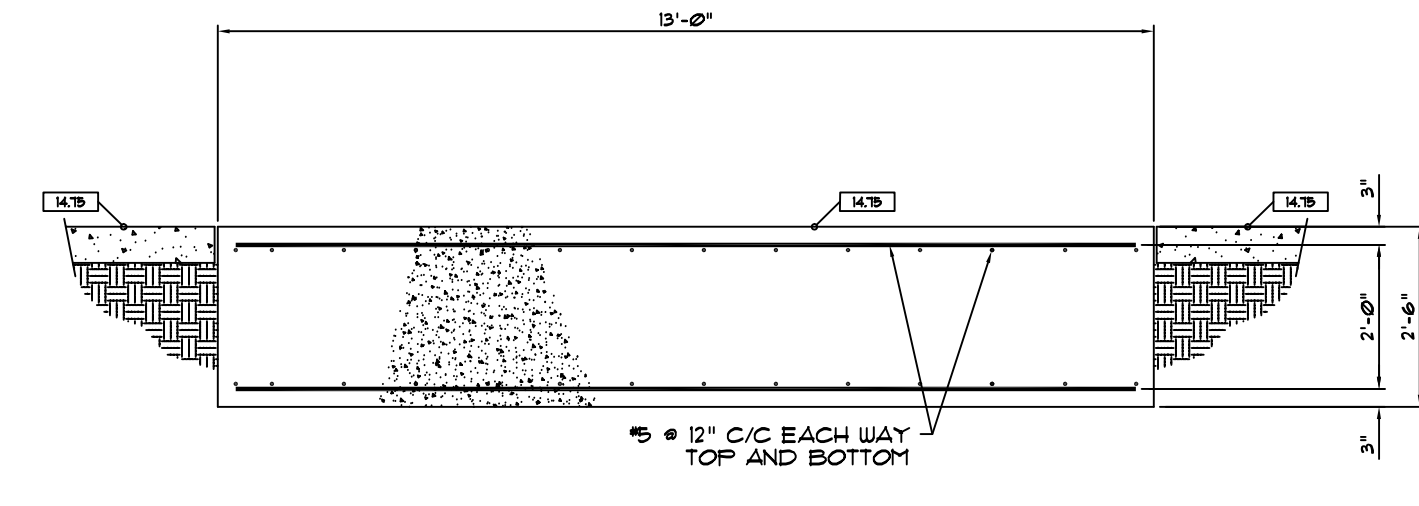
**B** SECTION B-B  
**F2** SCALE: NT5



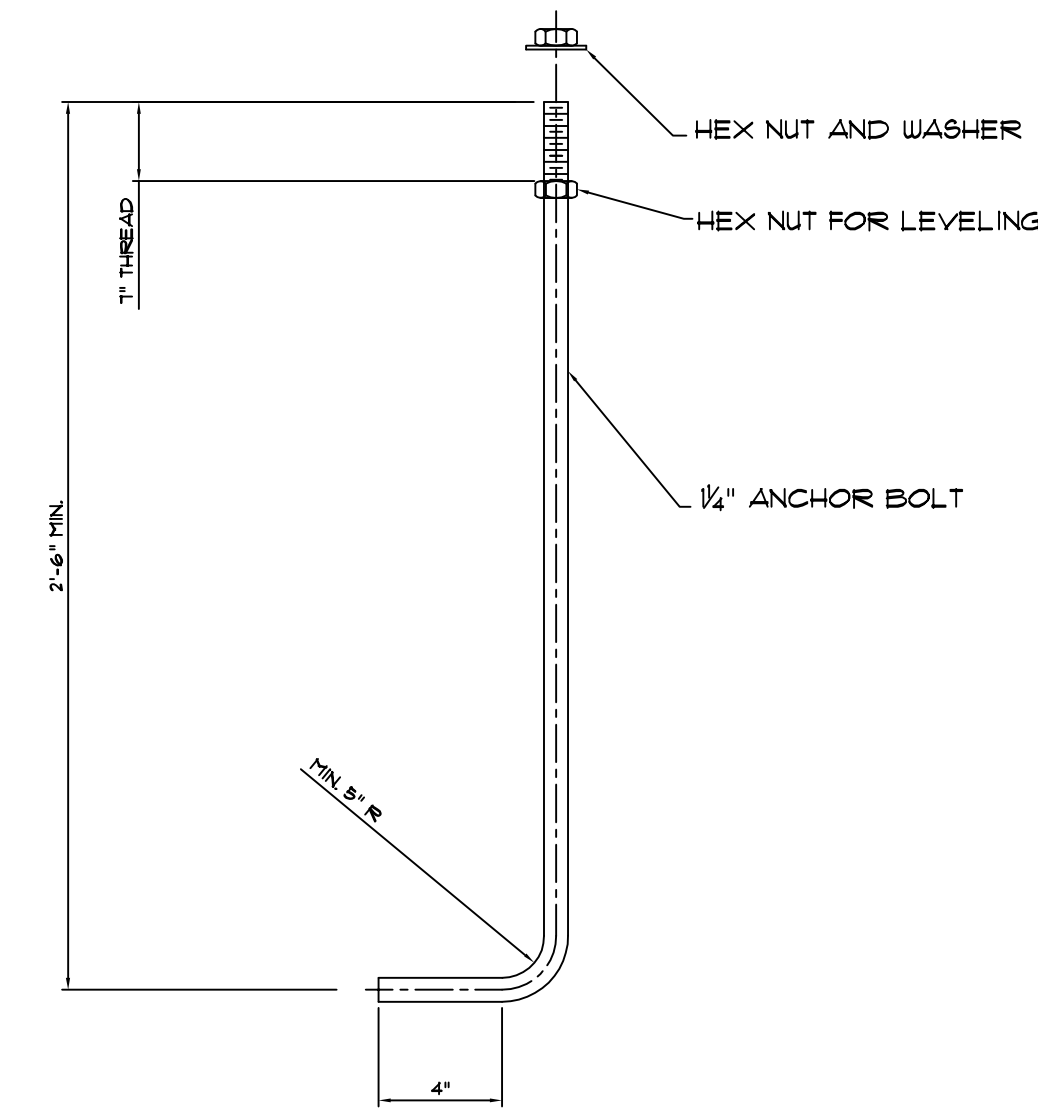
**C** SECTION C-C  
**F2** SCALE: NT5



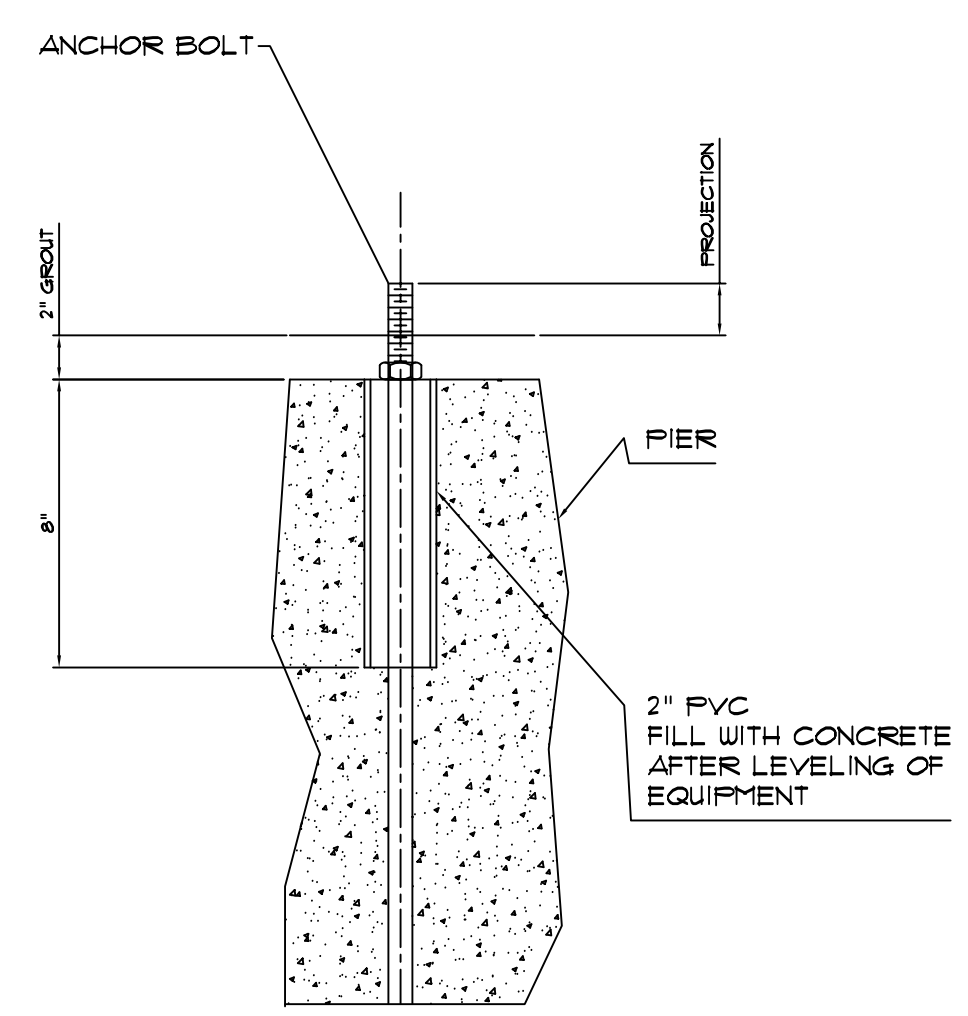
**D** SECTION D-D  
**F1** SCALE: 3/8"=1'-0"



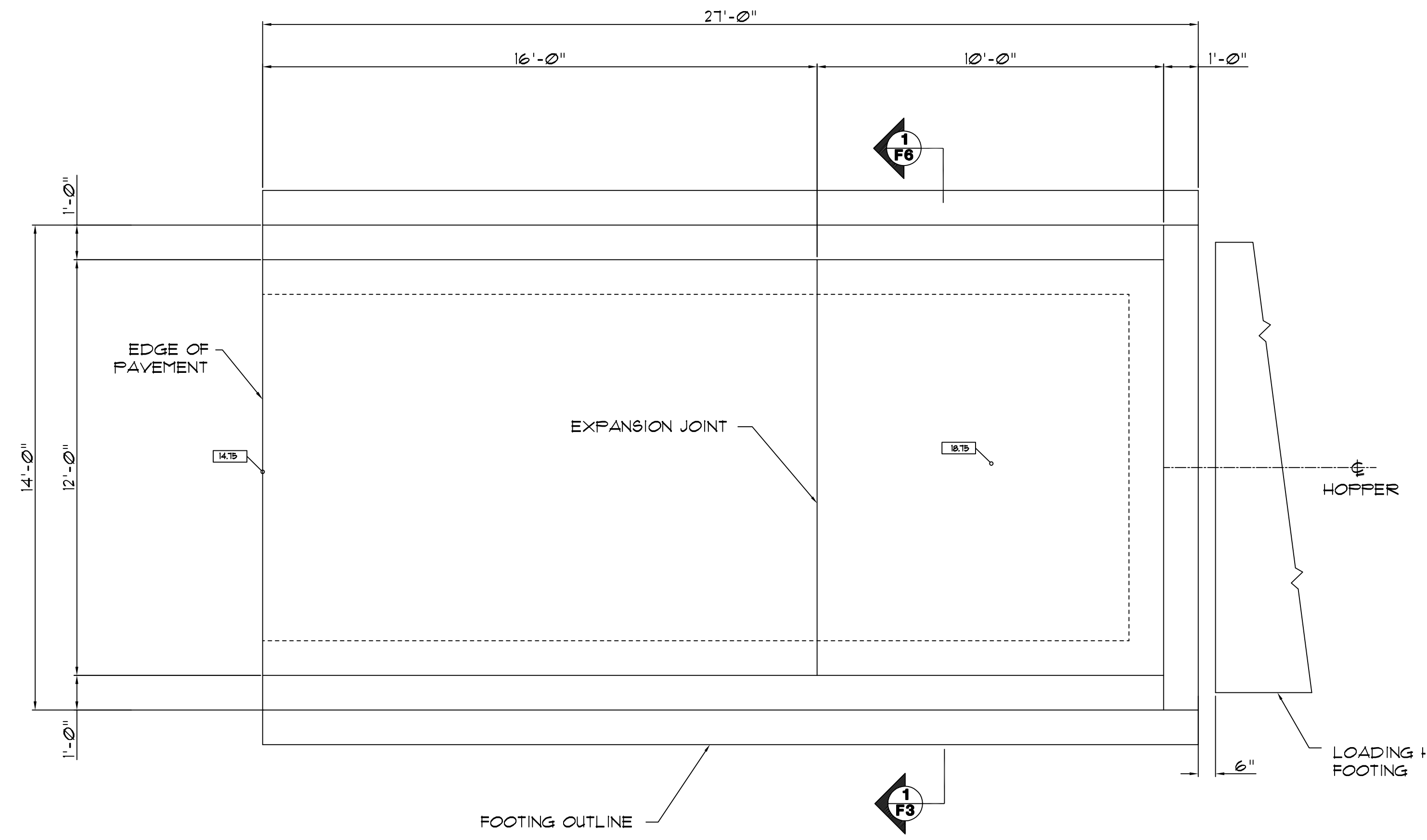
**E** SECTION E-E  
**F1** SCALE: 3/8"=1'-0"



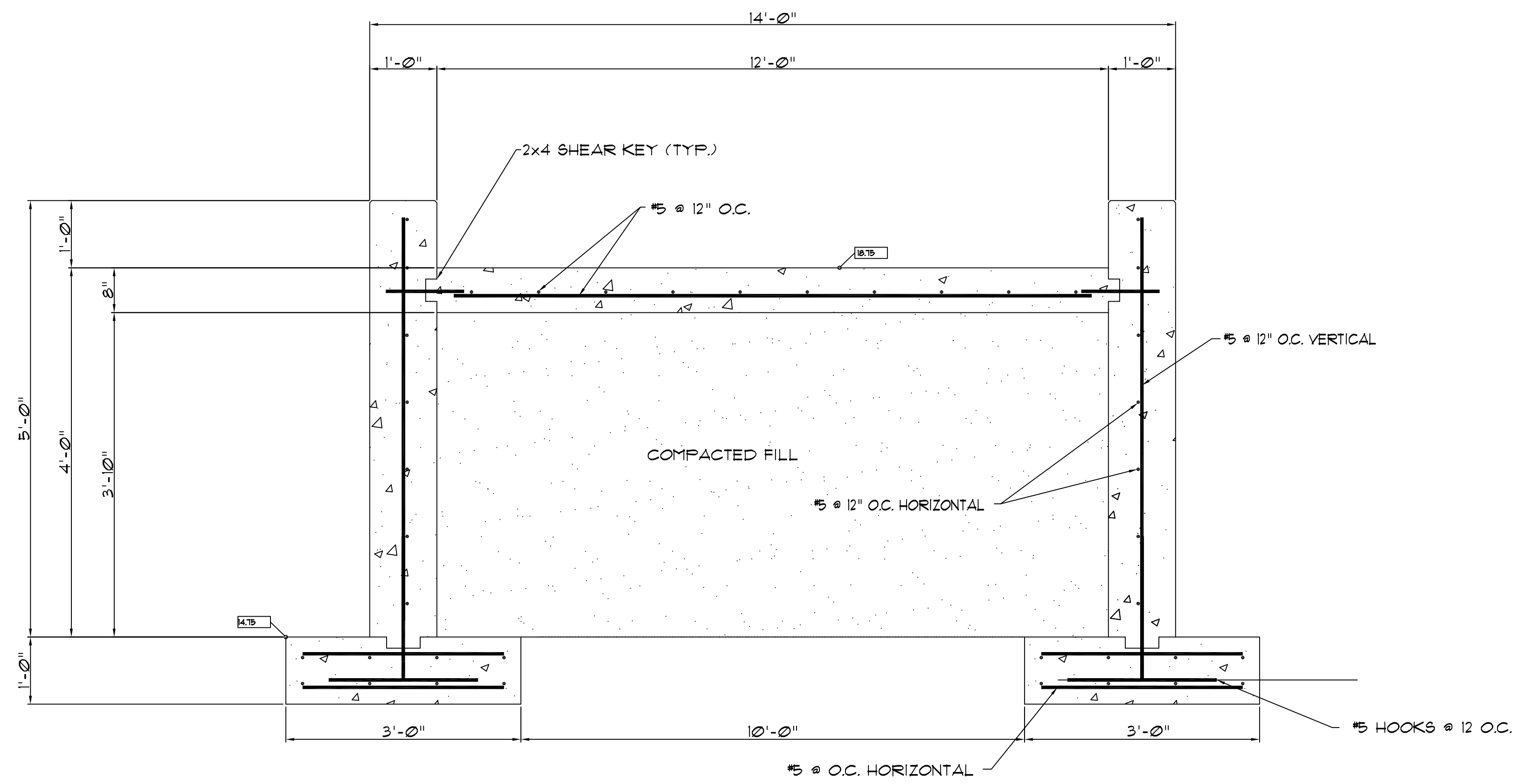
ANCHOR BOLT DETAIL - 20 REQ'D  
 SCALE: NT5



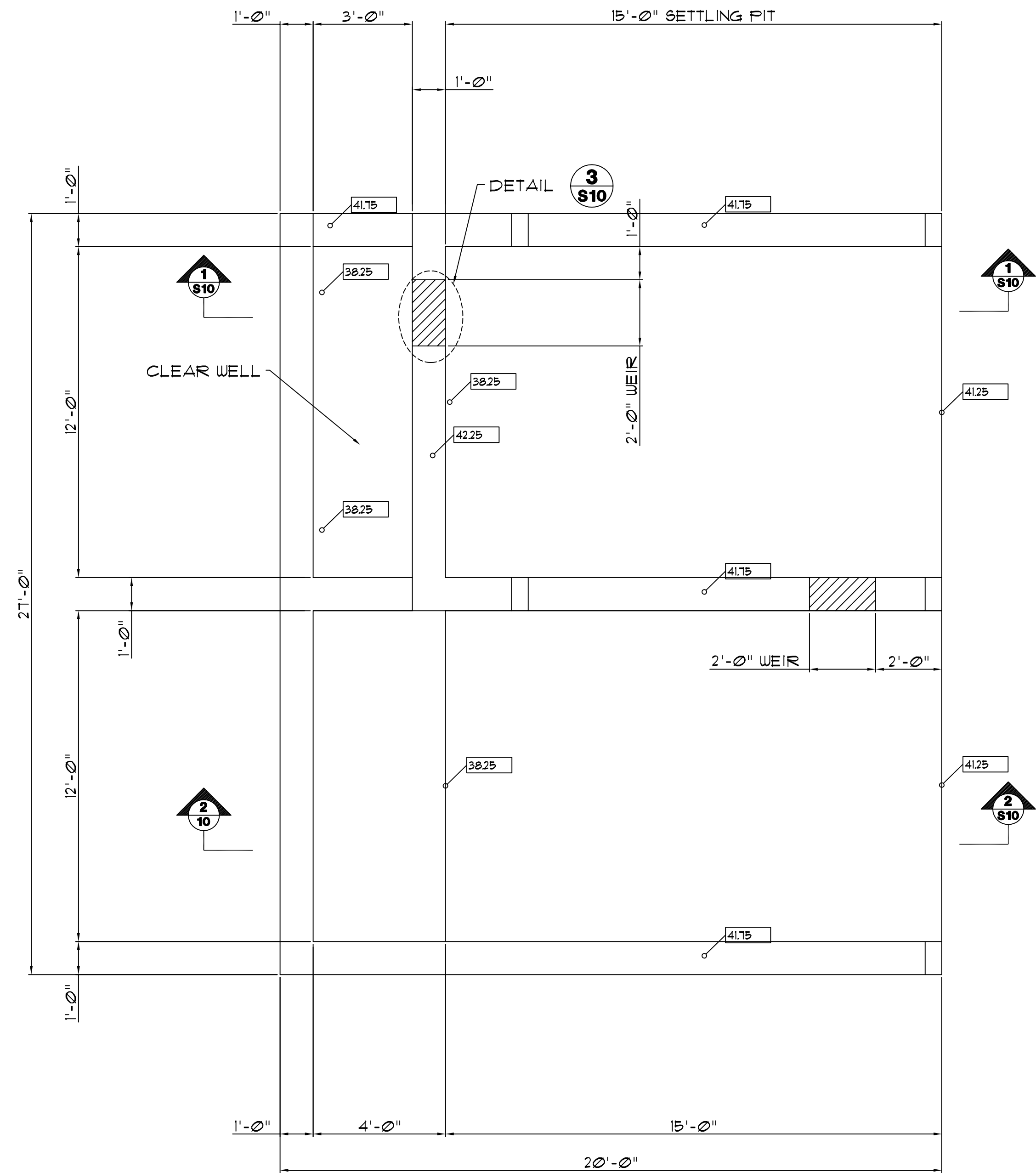
ANCHOR BOLT MOUNTING DETAIL  
 SCALE: NT5



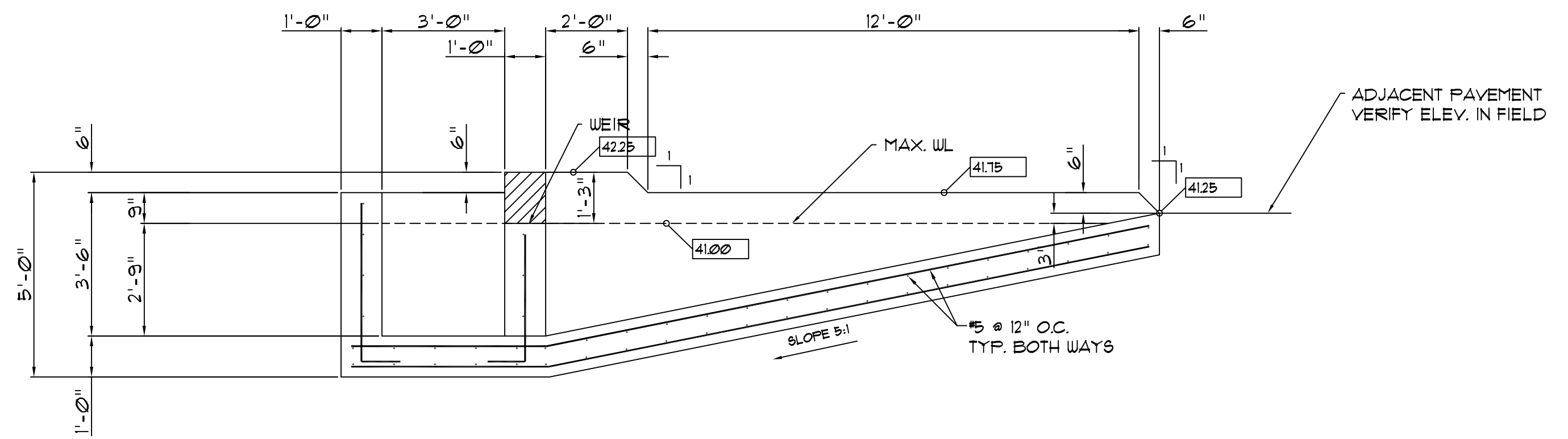
**D4** **S2** **LOADING RAMP PLAN**  
SCALE: 3/8"=1'-0"



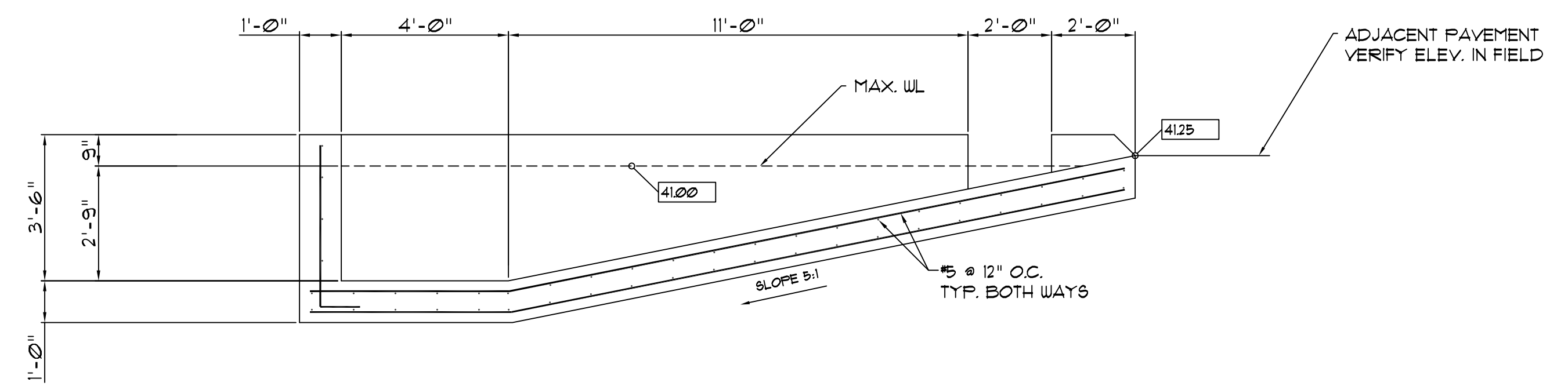
**1** **F3** **SECTION 1-1**  
SCALE: 3/4"=1'-0"



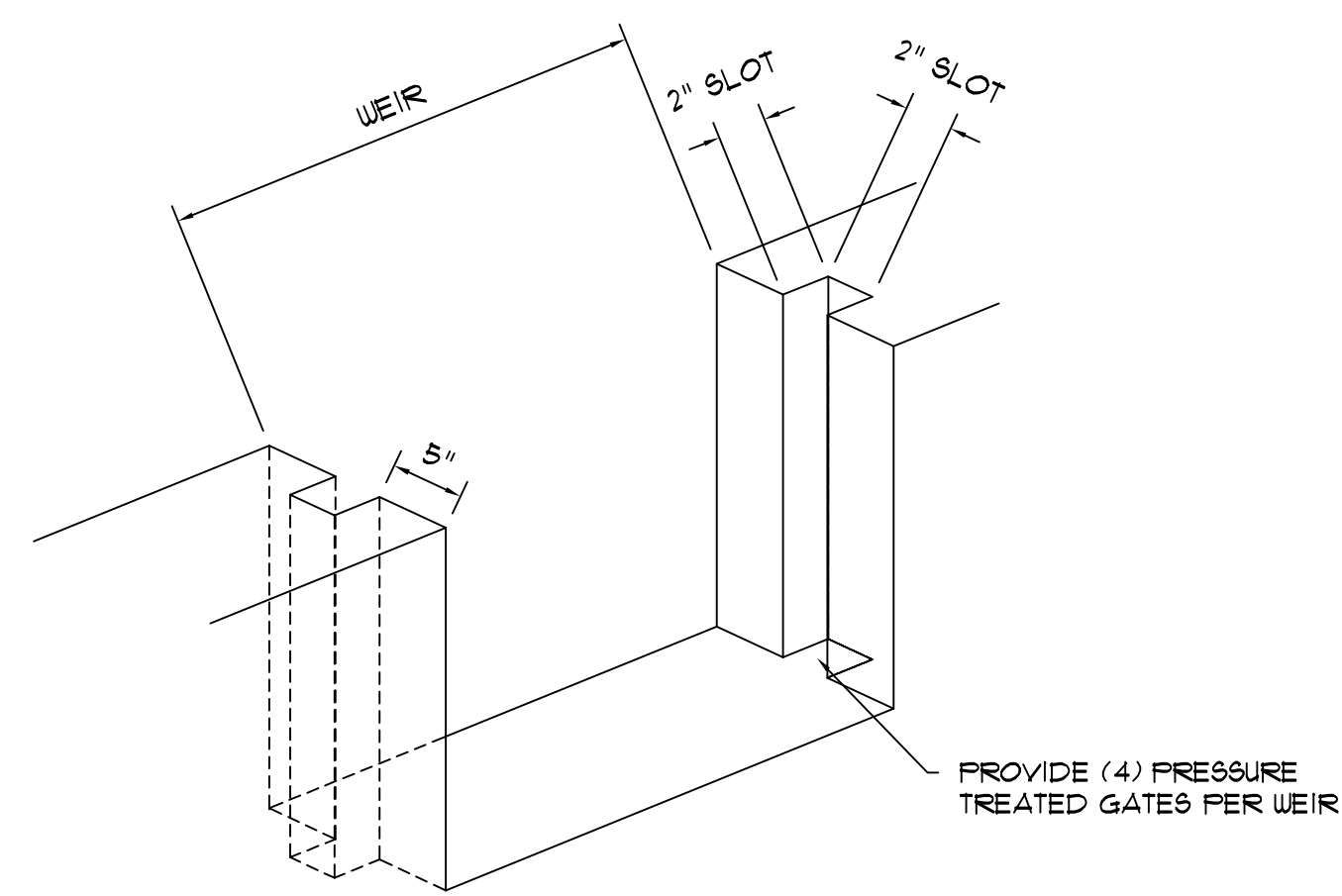
RECYCLING PIT PLAN  
SCALE: 3/8"=1"



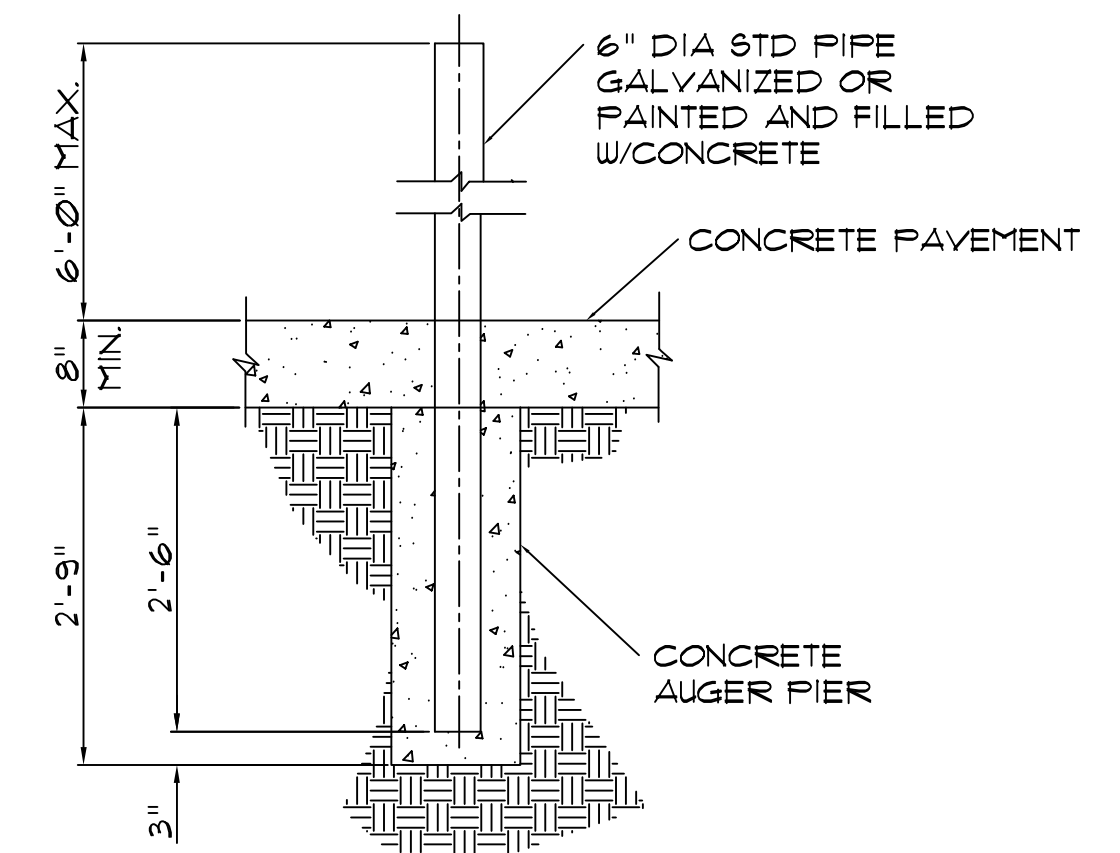
1 CROSS SECTION 1-1  
SCALE: 3/8"=1"



2 CROSS SECTION 2-2  
SCALE: 3/8"=1"

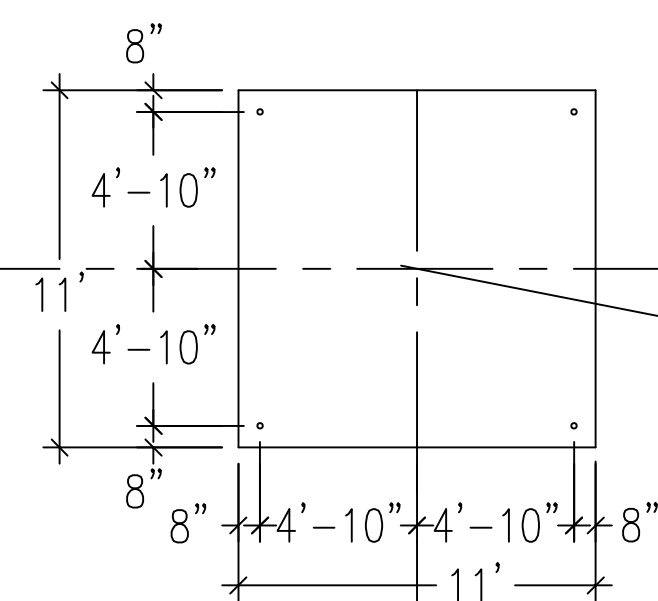


3 WEIR DETAIL  
NT.S.



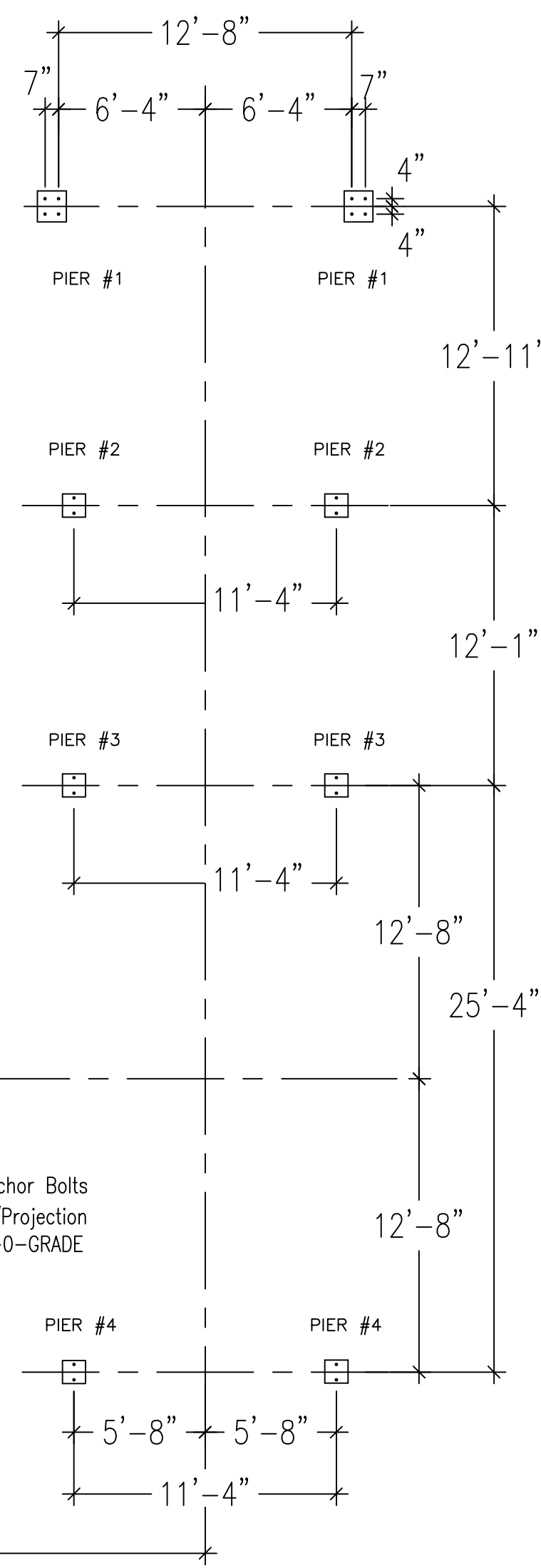
BOLLARD DETAIL  
NO SCALE

(8) 3/4" X 12" Anchor Bolts  
3" Projection  
TOP OF SLAB 6" ABOVE -0-GRADE



R53'-10<sup>3</sup>/<sub>16</sub>"

(20) 1 1/4" X 24" Anchor Bolts  
5" Projection  
TOP OF PIER 4'-5" ABOVE -0-GRADE



LOADS PER PIER

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PIER #3	-23K	-178K	+/-103.3K	17.2K
PIER #4	-13K	-88K	+/-34.4K	7.5K

100' RADIAL STACKER

20°

173 tons

73'-6<sup>1</sup>/<sub>4</sub>"

