

STRUCTURAL NOTES

GENERAL

ALL DESIGN, CONSTRUCTION, AND INSPECTION SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE (2006).

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE AND WITH THE FINAL DRAWINGS FOR THE PREFABRICATED TOWER.

ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE PROCEEDING WITH ANY WORK INVOLVED.

CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION WITHIN AND ADJACENT TO THE JOB SITE.

TEMPORARY SHORING AND BRACING SHALL BE PROVIDED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED INCLUDING WIND. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE COMPLETE.

DURING AND AFTER CONSTRUCTION THE CONTRACTOR AND/OR OWNER SHALL KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN LOADS.

THE GENERAL CONTRACTOR SHALL HAVE SHOP DRAWINGS REVIEWED BY THE OWNER PRIOR TO THE FABRICATION OR ERECTION FOR THE FOLLOWING ITEMS: REINFORCING STEEL, STRUCTURAL STEEL AND PREFABRICATED TOWER STRUCTURE.

ALL DETAILS, SECTIONS, AND NOTES ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS UNLESS NOTED OR SHOWN OTHERWISE.

OBSERVATION VISITS TO THE JOB SITE BY FIELD REPRESENTATIVES OF THE ENGINEER SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.

SIZES, LOCATIONS, AND ANCHORAGES OF EQUIPMENT SHALL BE VERIFIED IN THE FIELD WITH EQUIPMENT MANUFACTURERS (SUPPLIERS) PRIOR TO PLACING CONCRETE OR FABRICATING STEEL.

FOOTINGS

ALL FOOTINGS SHALL BEAR 24" MINIMUM INTO ORIGINAL UNDISTURBED EARTH OR ON ENGINEERED FILL COMPACTED TO 98% OF STANDARD DENSITY BASED ON ASTM D698. SUCH FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 6" IN DEPTH AFTER COMPACTION AND SHALL EXTEND DOWN TO IN-SITU GRANULAR SOILS.

FOOTING ELEVATIONS SHOWN ON PLAN ARE TOP OF FOOTINGS AND ARE MINIMUM DEPTH. DIFFERENT OR UNUSUAL CONDITIONS SHALL BE REPORTED TO THE OWNER.

NO FOOTINGS SHALL BE PLACED IN WATER OR ON FROZEN GROUND.

ANY SOIL CONDITION ENCOUNTERED DURING EXCAVATION THAT IS CONTRARY TO THE CONDITIONS USED FOR DESIGN OF FOOTINGS AS OUTLINED IN THE SOILS REPORT BY CHRISTIAN TESTING LAB (DATED JUNE 5, 2009), OR ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE PROCEEDING.

THE SITE SHALL BE UNDERCUT, PREPARED AND HAVE COMPACTED STRUCTURAL FILL PLACED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT. THE CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT FROM THE OWNER BEFORE BIDDING.

IN FOOTINGS, UNLESS OTHERWISE SHOWN, PROVIDE CORNER BARS AT ALL CORNERS SAME AS HORIZONTAL REINFORCEMENT.

ALL FOOTING EXCAVATIONS SHALL BE EXAMINED BY A GEOTECHNICAL ENGINEER FOR VERIFICATION OF ADEQUATE BEARING CONDITIONS BEFORE PLACING CONCRETE.

CONCRETE

CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS:
ALL CONCRETE.....3000 PSI

A STATEMENT OF MIX DESIGN FOR ALL CONCRETE SHALL BE SUBMITTED TO AND REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO COMMENCING WORK. CONCRETE MIX SHALL HAVE A MINIMUM OF 4% AIR ENTRAINMENT, U.N.O.

ALL CONCRETE WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.

DOWEL VERTICAL BARS 36 DIAMETERS INTO STRUCTURE ABOVE AND FOOTINGS BELOW. PROVIDE 90 DEG. HOOK WHERE 36 DIAMETER IS NOT POSSIBLE.

BEFORE CONCRETE IS POURED CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, ETC. RELATIVE TO WORK.

ALL SLABS ON GRADE SHALL BE PLACED IN WITH A MAXIMUM WIDTH OF 20' BETWEEN CONTROL OR CONSTRUCTION JOINTS; REFER TO DRAWINGS. UNLESS OTHERWISE NOTED, SLABS ON GRADE SHALL BE 4" THICK AND SHALL BE REINFORCED WITH 6 x 6 W2.1 x W2.1 WELDED WIRE FABRIC.

PROVIDE A #3 NOSING BAR IN ALL CONCRETE STAIR TREADS.

ALL REINFORCING BARS SHALL BE CONTINUOUS THRU JOINTS AND EACH CONSTRUCTION JOINT SHALL BE KEYED.

WHERE EXTERIOR SLABS ON GRADE ABUT WALLS OR COLUMNS PROVIDE 3/8" PREFORMED EXPANSION JOINT FILLER WITH SEALANT.

REINFORCING STEEL

ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI DETAILING MANUAL 315-92 AND ACI STANDARD 318-95.

REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. LAP ONE MESH TIE.

ALL REINFORCEMENT SHALL BE SECURELY TIED AND HELD IN PLACE.

REINFORCING BARS THAT ARE TO BE WELDED, INCLUDING DEFORMED BAR ANCHORS (D.B.A.) SHALL BE OF A WELDABLE GRADE AND SHALL BE WELDED IN ACCORDANCE WITH THE A.W.S. RECOMMENDATIONS.

ALL CONTINUOUS REINFORCEMENT SHALL TERMINATE WITH A 90 DEG. TURN OR A SEPARATE CORNER BAR. ALL SPLICES SHALL LAP A MINIMUM OF 36 BAR DIAMETERS (12" MINIMUM) IN CONCRETE, AND 48 DIAMETERS IN MASONRY.

WHERE THE LENGTH OF A BAR IS GIVEN AND IT IS TO BE HOOKED, THE HOOK SHALL BE IN ADDITION TO THE LENGTH GIVEN, UNLESS SHOWN OTHERWISE.

COVER TO MAIN REINFORCEMENT FROM ADJACENT SURFACES SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE:

- A. UNFORMED SURFACES IN CONTACT WITH GROUND OR EXPOSED TO THE WEATHER (BOTTOM OF FOOTINGS). 3 INCHES
- B. SLABS ON GRADE 2 INCHES
- C. FORMED SURFACES IN CONTACT WITH THE GROUND OR EXPOSED TO THE WEATHER (GRADE BMS, WALLS, ETC.), BEAMS AND COLUMNS. 2 INCHES

STRUCTURAL DESIGN LOADS USED FOR FOUNDATION DESIGN:

SEISMIC: PER THE 2006 IBC I=1.0

WIND: BASIC WIND SPEED = 100 MPH, EXPOSURE "B".

SOILS: NET ALLOWABLE SOIL PRESSURE = 2000 PSF.

ROOF: LL = 20 PSF

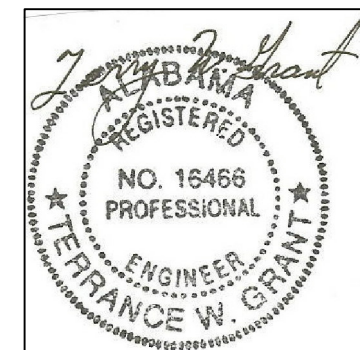
FLOORS: LL = 100 PSF (FOR FOUNDATION DESIGN BUT SEE TOWER MANUFACTURER FOR

WEIGHT OF TOWER STRUCTURE: ACTUAL RATING OF TOWER FLOORS)

8 X40 CONTAINERS 14,000 LBS EACH (2 AT FIRST LEVEL)

8 X20 CONTAINERS 9000 LBS EACH (3 STACKED)

THE LATERAL LOAD DESIGN IS BASED ON A STRUCTURE THAT IS APPROX. 32 FEET TALL WITH A MAXIMUM VERTICAL PROJECTED AREA OF 1280 SQUARE FEET. THE FOUNDATION DIMENSIONS ARE BASED ON A DRAWING PROVIDED BY THE TOWER FABRICATOR AND SHOULD BE VERIFIED PRIOR TO BEGINNING THE WORK.



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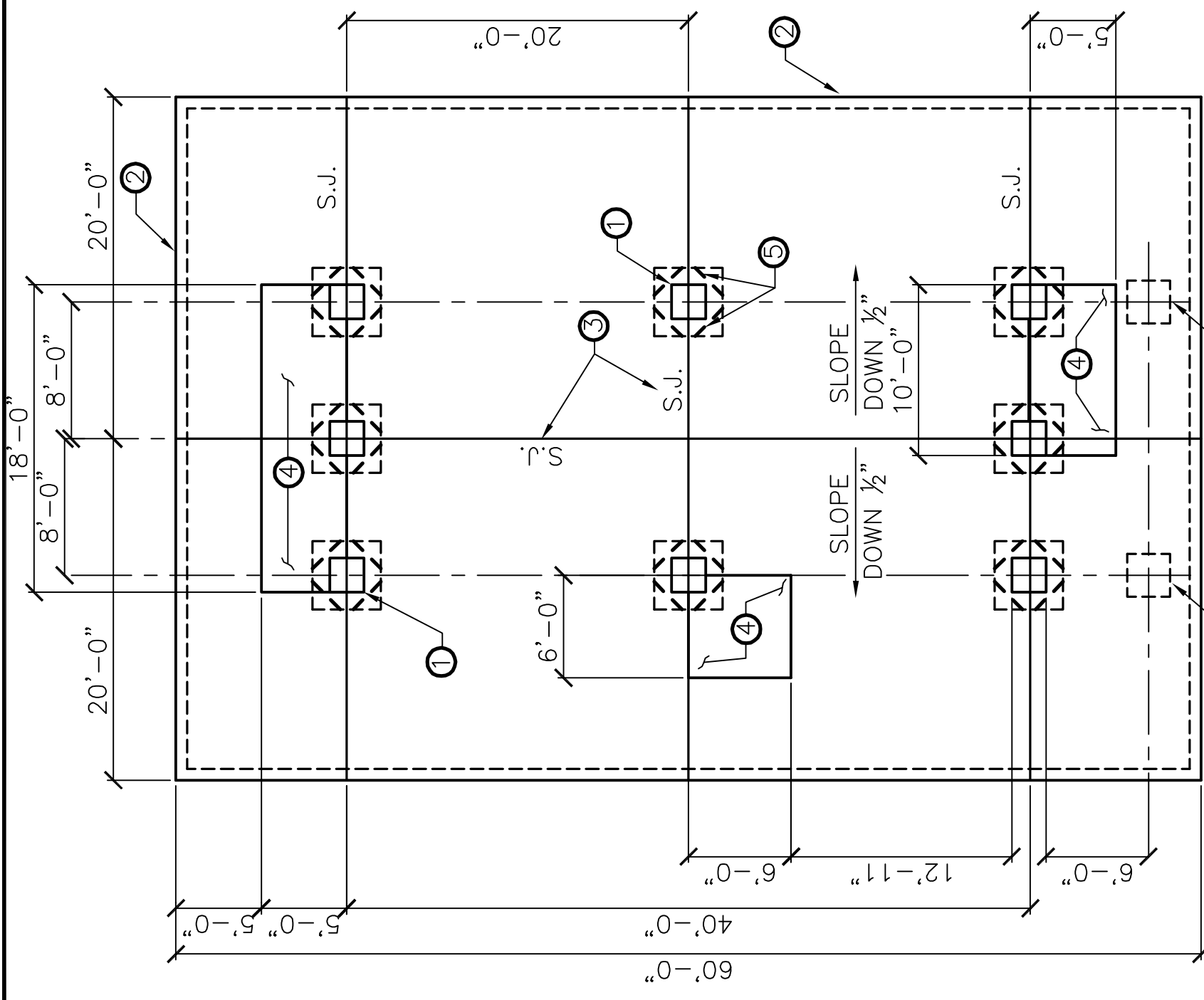
Project Title
FIRE TRAINING TOWER FOUNDATION

CITY OF PRATTVILLE
 PRATTVILLE, ALABAMA

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Sheet Title
GENERAL STRUCTURAL NOTES

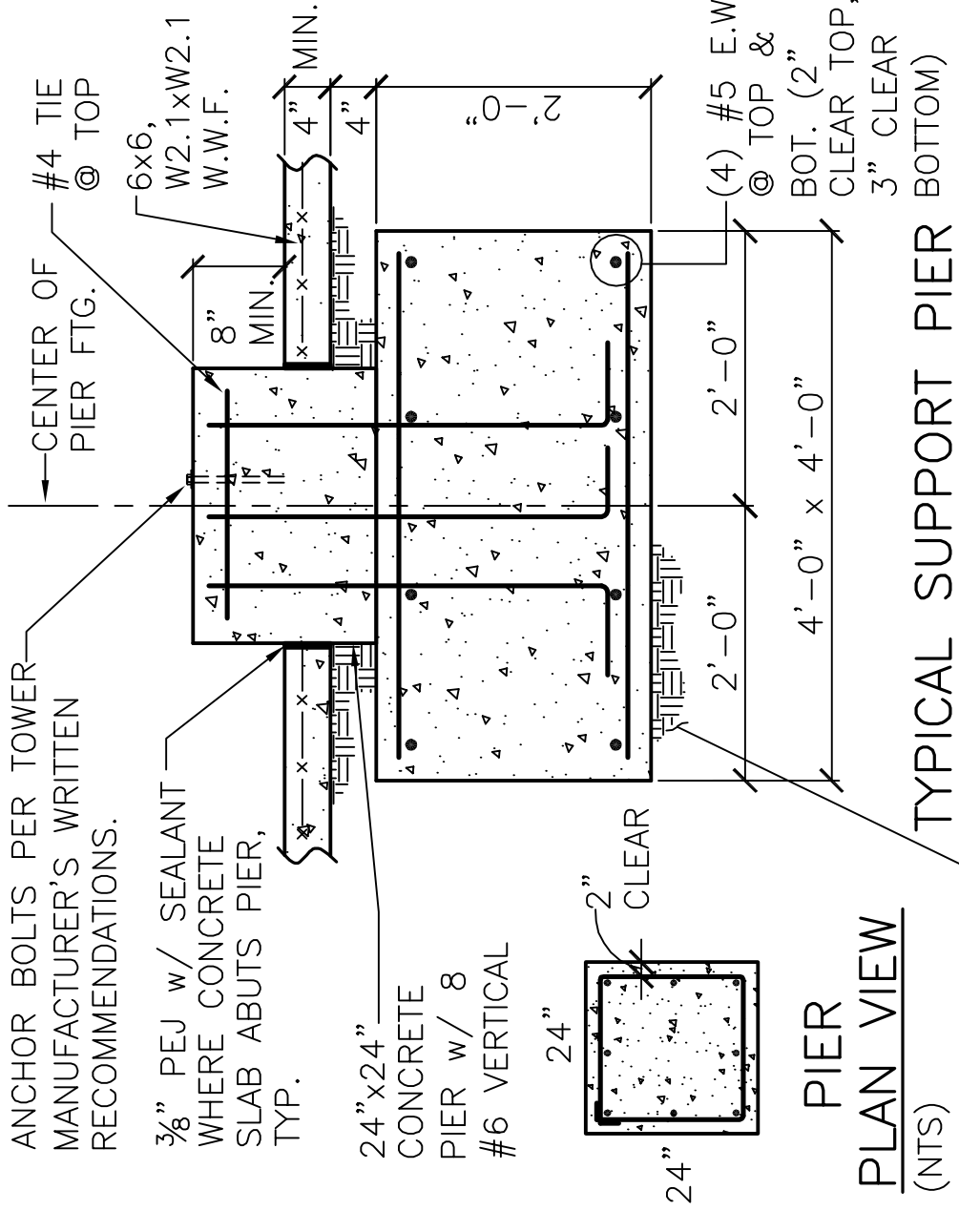
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2'-6" x 2'-6" x 1'-0" THICKENED SLAB, CENTERED UNDER STAIR POST. REINF w/ (3) #5 E.W. @ BOT. ANCHOR STAIR POST BASE TO CONCRETE PER MANUFACTURER'S RECOMMENDATION.

FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



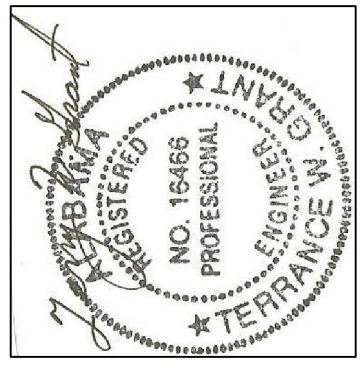
PIER PLAN VIEW (NTS) & FOOTING DETAIL

VERIFY FIRM, STABLE BEARING

SCALE: 3/4" = 1'-0"

NOTES:

- ① 24"x24" CONCRETE PIER W/ TOP 8" ABOVE CONCRETE SLAB. SEE TYPICAL DETAIL THIS SHEET.
- ② 8" WIDE x 12" MINIMUM DEEP PERIMETER TURNDOWN w/ (2) #4 CONTINUOUS.
- ③ SAW JOINTS SHALL BE 1/3 OF SLAB DEPTH AND SHALL BE PLACED AS SOON AS POSSIBLE AFTER POURING.
- ④ CONCRETE DOOR STOOP, 8"± THICK. COORDINATE TOP ELEVATION w/ TOWER DOORS. REINFORCE w/ 6x6, W2.1 x W2.1 W.W.F., 2" CLEAR FROM TOP.
- ⑤ PROVIDE (2) #4 x 3'-0" LONG REBAR IN SLAB @ RE-ENTRANT CORNERS AROUND PIERS TO CONTROL CRACKING @ CORNERS OF PIERS.



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CITY OF PRATTVILLE
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