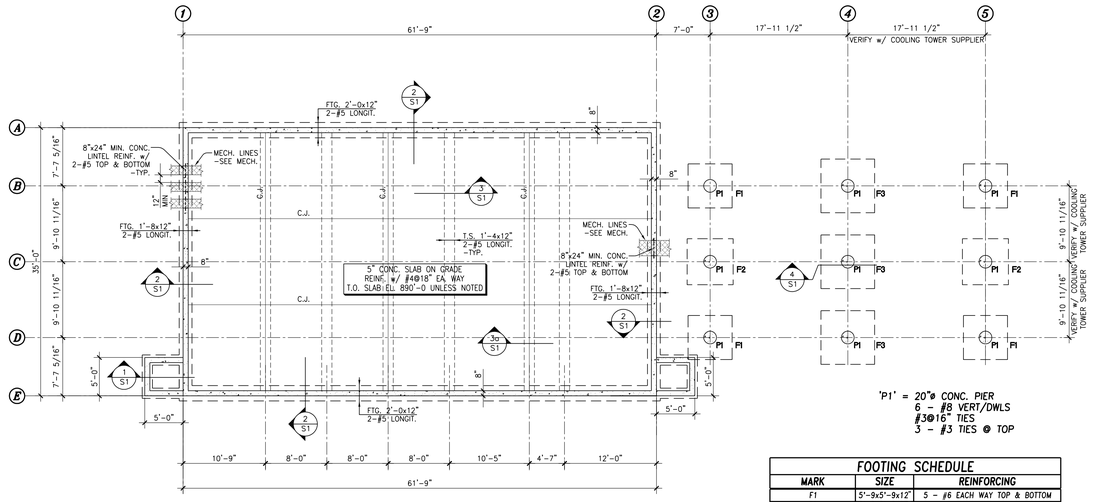


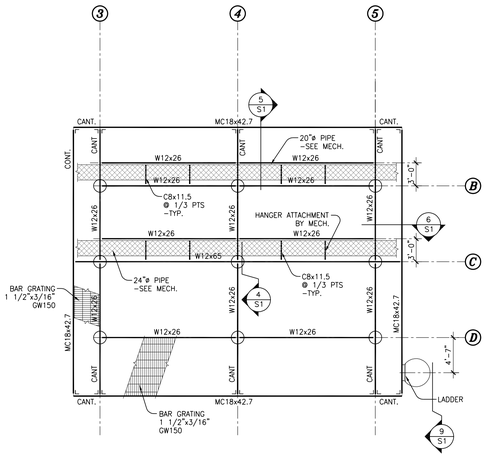
'P1' = 20"ø CONC. PIER
6 - #8 VERT/DWLS
#3@16" TIES
3 - #3 TIES @ TOP

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F1	5'-9x5'-9x12"	5 - #6 EACH WAY TOP & BOTTOM
F2	6'-0x6'-0x12"	6 - #6 EACH WAY TOP & BOTTOM
F3	7'-0x7'-0x12"	6 - #6 EACH WAY TOP & BOTTOM

FOUNDATION PLAN

SCALE: 1/8"=1'-0

NOTE:
1). T.O. FTG. EL. 885'-0 @ BUILDING, EL. 884'-0 @ BLDG. TOWER
2). FOUNDATION CONTRACTOR VERIFY STOOP LOCATIONS w/ MECHANICAL PRE-ENGINEERED STRUCTURE SUPPLIER/CONTRACTOR
3). TOP OF STEEL EL. 902.00 U.N.O.
4). VERIFY COOLING TOWER LOCATION WITH CIVIL/MECH. PLANS



PLATFORM FRAMING PLAN

SCALE: 1/8"=1'-0

GENERAL STRUCTURAL NOTES

1. Design Codes Used:
   IBC 2012
   ACI Concrete Code
   AISC Code-ASD

2. Design Live Loads:
   Roof Snow Load: Pf = 42 PSF + Drift (Balanced)
   Unbalanced snow load as per ASCE 7-10 Section 7
   Pg = 50 PSF
   Ce = 1.0
   Is = 1.2
   Ct = 1.0
   Live Load:
   Mechanical: 150 PSF/Unit Weight
   Platform: 60 PSF
   Wind: 120 MPH Basic Wind Speed
   Wind Exposure B
   Internal Pressure Coefficient ±0.18

3. Design Stresses Used:
   Concrete
   - Slabs on Grade: 3000 PSI @ 28 days
   - Footings and Foundation Walls: 3000 PSI @ 28 days
   - Exterior exposed: 4500 PSI @ 28 days (air entrained)
   Steel
   - W Shapes: Fy = 50 KSI (ASTM A992)
   - Angles, Channels, Bars: Fy = 36 KSI (ASTM A36)
   Reinforcing Steel: 60 KSI (ASTM A615-60)
   Soil Bearing Pressure: 2000 PSF Strip
   2400 PSF Pad

4. CONCRETE COVERAGE for reinforcing shall be as follows:
   Footings: 3 inches
   Columns and Piers: 1 1/2 inches
   Slabs on Grade: midheight for a single layer
   Walls: 1 1/2 inches @ exterior
   3/4 inch @ interior
   Structural Slabs: 3/4 inch unless noted
   PROVIDE BAR SUPPORTS AND SPACERS in accordance with the ACI Detailing Manual.

5. REINFORCING STEEL to be bent and placed in accordance with ACI code. All splices to be 38 db for #6 bar or smaller, 48db for #7 bar and larger.

6. FOOTINGS to rest on undisturbed soil or engineered backfill. All walls and piers to center on footing unless otherwise noted. All footing elevations are given to the top of footings. -See Soils Report for Site Recommendations.

7. ALL FOUNDATION WALLS to be laterally supported before backfilling. Vertical construction joints to be keyed.

8. OPENINGS in concrete FOUNDATION WALLS shall be reinforced with 2-#5 bars each side, extending 2'-0 past the face of the opening unless otherwise noted.

9. FOUNDATIONS SHALL BE BUILT from approved, fully dimensioned shop drawings coordinated with construction documents and field conditions. Foundation shop drawings shall consist of the anchor bolt setting plan, concrete mix design, and concrete reinforcement plan with wall & pier dimensions. All subsequent shop drawings shall be coordinated with approved foundation shop drawings.

10. SHOP DRAWINGS
    a. Submit four copies of the following shop drawings to the architect for review prior to fabrication (one copy to be retained by the Architect, one copy to be retained by the Engineer):
       1. CONCRETE REINFORCING and mix designs for each class of concrete.
       2. STRUCTURAL STEEL
       3. PRE-ENGINEERED STRUCTURE
    b. The contractor shall review and accept full responsibility for dimensional correctness. All shop drawings must bear the approval stamp of the contractor (to include initials, date and disposition), prior to review by the Architect or Engineer. The Engineer will return all shop drawings, unreviewed, that do not bear the approval stamp of the contractor.

11. PORTLAND CEMENT to be ASTM C150, Type 1 & 1A.

12. CONCRETE to be in accordance with ACI 301. Maximum shale content shall not exceed 0.5% for exposed concrete.

13. CONTROL AND CONSTRUCTION JOINTS to be located as shown on the plan or at contractors option - not to exceed 15'-0 o.c.

14. ALL STRUCTURAL STEEL to be fabricated and erected in accordance with the AISC Code. Connections not detailed are to be designed in accordance with the AISC detailing for steel construction. Shop connections to be welded. Field connections to be double clip angle connection bolted with 3/4" diameter high strength bolts (ASTM A325).
    WHEN REACTIONS for structural members are not given on the plan, connections shall be designed by fabricator to support one-half the total uniform load capacity shown in the maximum uniform load tables in the current steel construction manual, for the given beam, span, and grade of steel specified.

15. Provide 60 lineal feet of L 3 1/2x3 1/2x5/16 to be used at the Architect/Engineers discretion, or for mechanical lintels through existing walls.

16. SEE MECHANICAL, ELECTRICAL & CIVIL DRAWINGS for all openings and inserts not shown on the plan. All opening sizes and locations to be verified with mechanical and electrical contractors.

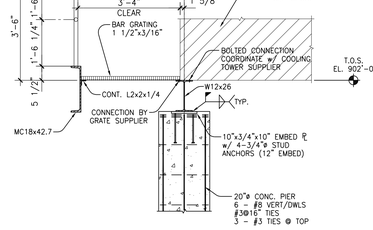
17. IF DIMENSIONAL DISCREPANCIES occur between the field and the project dimension, or between the Civil, Mechanical, and Structural plans, verify correct dimensions with the Engineers/Building Supplier before they are used for construction.

18. Submit Pre-engineered Building Calculations and Anchor Bolt Plan to Foundation Engineer prior to construction for review and possible revision to the Foundation Plan.

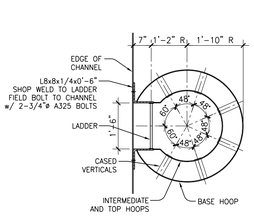
19. Contractor shall verify all wall sizes, and overall dimensions to be correct for the pre-engineered building system actually supplied.

20. Verify stoop locations and sizes with Civil/Building Supplier drawings. Section 1/S1 is generic. See plan for correct footing elevations at the various stoop locations. Exterior landing and stairs/railings by Building Supplier.

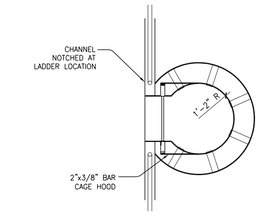
21. NOTE: All exterior steel connections and bolts to be Grade G90 galvanized steel.



6 / S1 SECTION
SCALE: 1/2" = 1'-0

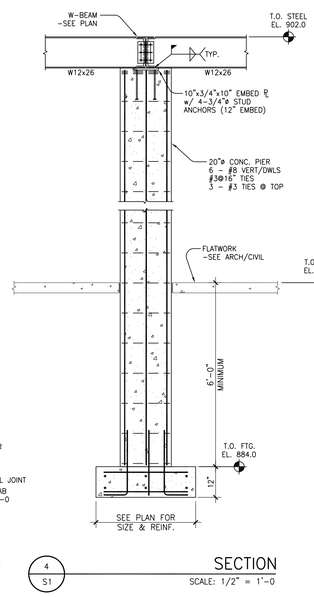


7 / S1 SECTION AT CAGED LADDER
SCALE: 1/2" = 1'-0

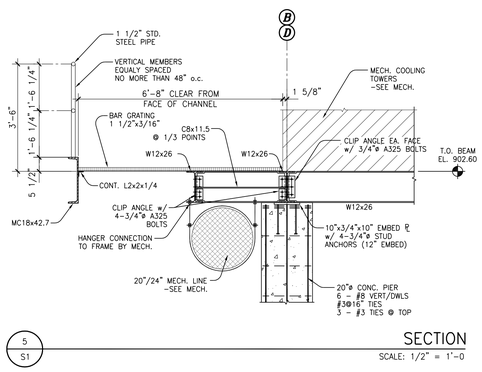


8 / S1 PLAN AT TOP CAGED LADDER
SCALE: 1/2" = 1'-0

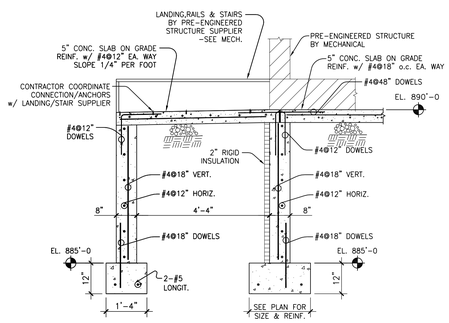
9 / S1 CAGED ROOF LADDER
SCALE: 1/2" = 1'-0



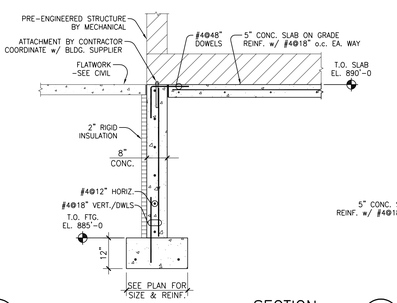
4 / S1 SECTION
SCALE: 1/2" = 1'-0



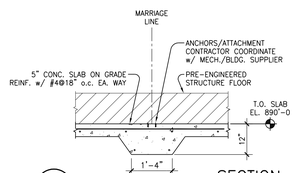
5 / S1 SECTION
SCALE: 1/2" = 1'-0



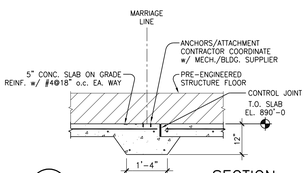
1 / S1 SECTION
SCALE: 1/2" = 1'-0



2 / S1 SECTION
SCALE: 1/2" = 1'-0



3 / S1 SECTION
SCALE: 1/2" = 1'-0



3a / S1 SECTION
SCALE: 1/2" = 1'-0

NOTE: VERIFY STOOP SIZE w/ BUILDING SUPPLIERS LANDINGS/RAILS

Dept. of Veterans Affairs
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TELEPHONE (701) 235-5588 FAX (701) 235-5594

REGISTERED PROFESSIONAL ENGINEER
STEVEN S. VONDAL
PE - 6694
DATE: 12-18-15
NORTH DAKOTA

Revisions	Date

Drawing Title	FOUNDATION PLAN
Project Title	REPLACE CENTRAL CHILLER PLANT
Date	DECEMBER 18, 2015
Scale	AS SHOWN
VA Project No.	437-14-111
Contract No.	VA263-P-1217 VA263-C-
Designed By	SV
Checked By	SV
Drawn By	WW
Building No.	56
AutoCAD File Name	14145.dwg
Location	FARGO VA HEALTH CARE SYSTEM FARGO, ND
Drawing No.	S1
Dwg.	9 of 26

Department of Veterans Affairs