GENERAL STRUCTURAL NOTES

I. Spectral Response Coefficients: Sd1 = 0.085

E. Method of Analysis: Equivalent Lateral Force Method

D. Importance Factor: Is = 1.0

C. Importance Factor: Iw = 1.0

B. Flat Roof Load: Pf = 25 psf (min.) + snow drift

Roof Structure

4. Construction materials shall be spread out if placed on framed floors or roofs so as not to exceed

3. Filled excavations or buried structures such as cesspools, cisterns, existing foundations, etc., or

2. All reinforcing steel shall be detailed and placed in conformance with the latest editions of ACI

1. Structural steel construction shall conform with the latest AISC 303 "Code of Standard Practice for

Reinforcing Steel

11. All footings shall be designed to conform to or exceed the requirements of the National Design

10. Welding of reinforcing shall be according to AWS D1.4. No tack welding of reinforcing bars shall

9. Reinforcing bar hooks shall be standard ACI hooks unless noted otherwise.

8. Beams, columns and braces shall not be spliced without prior approval of Structural Engineer.

7. Anchor bolts and plain threaded rods and anchors shall be ASTM A36 or A307, Grade A.

6. Bolts, anchor bolts, expansion bolts, etc., shall be installed with steel washers.

5. Anchor bolts, expansion bolts, etc., shall be installed with steel washers.

4. Structural steel shall be designed and erected in conformance with the latest editions of AISC 303 and

3. All reinforcing steel, including welded wire fabric in slabs on grade, shall be accurately placed

2. All reinforcing steel shall be detailed and placed in conformance with the latest editions of ACI

1. Structural steel construction shall conform with the latest AISC 303 "Code of Standard Practice for

Steel Roof Deck

A. Type 3NL; 3" deep, 32" wide sheets, 20 gage galvanized steel, with a minimum yield stress of

B. Type UB 10, 12, 14, 16, 20, 24, 32, 30 angle, etc., plain or galvanized, with a minimum yield stress

C. Galvanized deck. Steel deck shall have a current ICC approval.

D. Stress Design and Plastic Design”, including commentary, and applicable provisions of AWS D1.1

E. suspended slabs 3/4"

F. columns (to ties) 1 1/2"

G. walls 3 1/4"

H. expanded metal Joists 1 1/2"

Steel Joists

A. Steel joists shall be structural A36 steel.

B. Welded plates shall be galvanized steel.

C. Steel joists shall be fabricated to match the dimensions and tolerances shown on the shop drawings.

D. All mill welds shall be made to conform to AWS D1.1, "Structural Welding Code - Steel".

E. Steel joists shall be designed and fabricated in compliance with AWS D1.1, "Structural Welding Code - Steel".

F. All mill welds shall be made to conform to AWS D1.1, "Structural Welding Code - Steel".

G. Steel joists shall be fabricated to match the dimensions and tolerances shown on the shop drawings.

H. All mill welds shall be made to conform to AWS D1.1, "Structural Welding Code - Steel".

S2.10 SECTIONS

1. Structural steel shall be as follows:

2. Structural steel shall be as follows:

3. Structural steel shall be as follows:

4. Structural steel shall be as follows:

5. Structural steel shall be as follows:

6. Structural steel shall be as follows:

7. Structural steel shall be as follows:

8. Structural steel shall be as follows:

9. Structural steel shall be as follows:

10. Structural steel shall be as follows:

11. Structural steel shall be as follows:

12. Structural steel shall be as follows:

S4.00 CONSTRUCTION
T.O.C EL. AT ELEVATOR PIT = 105'-0"
108' - 2"
108' - 2"
108' - 2"
108' - 2"
108' - 2"
11' - 0 3/4"
9' - 7 3/4"
9' - 10"
17' - 0 3/4"
4.7
10' - 10 5/8"
20' - 0"
12" O.C. (TYP. OF 3)
5' - 0"
20' - 0"
5.8
6' - 7 3/4"
1' Ø OPENING
3' - 8 1/2"
6" C.I.P. CONC. WALL
13' - 4 1/4"
108' - 2"
TOP OF PIER EL.
105' - 0"
108' - 2"
108' - 2"
108' - 2"
108' - 2"
108' - 2"
3. Saw cut shall be made soon enough to prevent cracking, but not so soon as to cause spalling of the concrete slab reinforcing at reentrant corners.

Typical slab on grade joints:
- 1/2" = 1'-0"
- 3/4" = 1'-0"

Reentrant corners with 1 1/2" clear top cover while sawing. Saw cut depths see schedule.

Schedule:
- Panels bounded by joints shall have a maximum length-to-width ratio of 1.5:1.

Indicated on plan or between slab pours.

Where control joints are not provided at reentrant corners, provide (2) #4 x 4'-0" at manufacturer's specifications.

Anchor to slab according to equipment with manufacturer.

Note: Coordinate size of equipment - coordinate with other disciplines.

4. Saw cut shall be made soon enough to prevent cracking, but not so soon as to cause spalling of the concrete slab reinforcing at reentrant corners.

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- 1/2" = 1'-0"
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Note: Coordinate size of equipment - coordinate with other disciplines.

6. Saw cut shall be made soon enough to prevent cracking, but not so soon as to cause spalling of the concrete slab reinforcing at reentrant corners.

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Anchor to slab according to equipment with manufacturer.

Note: Coordinate size of equipment - coordinate with other disciplines.

7. Saw cut shall be made soon enough to prevent cracking, but not so soon as to cause spalling of the concrete slab reinforcing at reentrant corners.

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Schedule:
- Panels bounded by joints shall have a maximum length-to-width ratio of 1.5:1.

Indicated on plan or between slab pours.

Where control joints are not provided at reentrant corners, provide (2) #4 x 4'-0" at manufacturer's specifications.

Anchor to slab according to equipment with manufacturer.

Note: Coordinate size of equipment - coordinate with other disciplines.
1. Anchor rods shall be ASTM F1554 GR. 36 UN. O.
2. Provide leveling nuts and clamping nuts at top of all anchor rods.
3. Provide adequate rod length to ensure full engagement of top nut.

- Oversized holes for embedded end of anchor rod.
- Typical column base plate detail.
- Typical elevator rail (by others).
- Typical rail support (by others).
- Typical column base plate detail.
- Typical W beam to HSS col (3-sided).
- Typical W beam to HSS col (2-sided).
- Typical W beam to HSS col (1-sided).
- Typical steel beam to girders connection.
- Typical steel beam to steel beam moment connection.
- Typical steel beam to girder connection.
- Steel beam to steel column connection at steel column.
- Typical steel beam to girder connection at steel column.
- Typical steel beam connection at ext. steel columns.
- Typical steel beam connection at ext. steel columns.
- Typical column splice plate & double studs at girders.
- Typical mansard beam connection at girder.
- Roof deck support at ext. wall.
- Typical embed plate at elevator rail support.
- Typical steel beam pocket at concrete wall.
- Shear stud plan layout.
- Typical shear studs on steel beam.
- Shear stud multiple line details.
1. STEEL DECK SHALL BE CONNECTED TO FRAME PER TYPICAL ROOF OPENING FRAME.

2. STEEL DECK SHALL BE CONNECTED TO ROOF FRAME PER W.W.F.

3. PROVIDE TYPICAL FRAME BELOW PERIMETER OF BASE AT ALL SUPPORTS.

4. PROVIDE FULL WIDTH STEEL DECK SHEETS ADJACENT AND PARALLEL TO WALLS, PERIMETER MEMBERS, OR SPAN SUPPORTS AND BE ABUTTING OR LAPPED 2" MINIMUM.

5. STEEL DECK SHALL BEAR 2" MIN AT ALL SUPPORTS.

6. SEE GENERAL STRUCTURAL NOTES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7. FOR ANY OPENING WHICH CUTS MORE THAN TWO WEBS, FRAME OPENING WITH AN OPENING WHICH CUTS ONE WEB (4" MAXIMUM DIMENSION PERPENDICULAR TO SHEET) AND FOR ANY OPENING WHICH CUTS TWO OR MORE WEBS, USE TYPICAL WELDS AT EACH SHEET.

8. STEEL DECK SHEET 36" STD SHEET WIDTH FOR CANTILEVERED DECK.

9. STEEL DECK SHEET 36" STD SHEET WIDTH FOR FLOOR DECK.

10. STEEL DECK AT TOP OF ICF WALL...