

DESIGN LOADS

Roof Live Load: 20 psf
Ceiling Live Load: 10 psf
Floor Live Load: N/A
Roof Snow Load: N/A
Flood Design Data: N/A

Basic Wind Speed: 85 mph

Exposure: B

Importance Factor: 1.15

Seismic Design Category: D

SITE CLASS: D

Importance Factor: 1.25

$S_1 = 0.31$

$S_s = 0.82$

$SDS = 0.64$

$SDI = 0.37$

Bearing Wall System: 7

$V = C_s * W$

$C_s = .16$

$R = 5$

Equivalent Lateral Force Analysis

GENERAL NOTES

1. Verify all dimensions on the structural sheet with the architectural plans.
2. Report any discrepancies to the architect and engineer immediately and prior to resumption of work.
3. UNO = Unless Noted Otherwise.

STRUCTURAL STEEL

1. Rolled shapes and plates shall conform to ASTM A-36 unless noted. Tubes shall be ASTM A500 Grade B. Pipes shall be ASTM A53 Grade B. Identification procedures shall conform to ASTM A-6.
2. Welding shall conform to AWS D1.1 and shall use either the shielded or submerged arc methods. Electrodes used for welding to A-36 steel shall be E70XX. Electrodes for welding to A-572 (Grade 50) steel shall be E70XX low hydrogen type. Welders shall be certified.
3. All connections shown on plans are typical. Steel fabricator to detail those connections not specifically shown and shall submit shop drawings for review by the engineer of record, and approval by the D.S.A.
4. Steel fabricator to verify all dimensions with the architectural and structural drawings.
5. All welding to be continuously inspected by AWS certified inspector.
6. All fabrication shall be done in a shop of approved fabricator.
7. All bolt holes shall be 1/16" larger than bolt unless noted.

MASONRY

1. All concrete block shall conform to ASTM C90, Grade N. Fill all cells with grout.
2. Grout shall develop 2000 psi in 28 days. Mortar shall be type "S".
3. All reinforcing steel shall be ASTM A-615 Grade 60 (#3 may be Grade 40) Splices in reinforcing steel shall be minimum 48 bar diameters unless noted.
4. All isolated bolts embedded in masonry shall be grouted solidly in place with not less than 1" of grout surrounding bolt. Titen HD anchors shall be separated from masonry head joints as required by ICC ESR-1056.
5. Vertical bolts set on top of the wall shall be set on center line of wall UNO.
6. All wood plates bolted on top of masonry walls shall be set on a mortar bed to provide uniform bearing.

SPECIAL INSPECTIONS REQUIRED

- A. Structural Steel per CBC 1704.3 and Table 1704.3
- B. Concrete Design $f'c = 2500$ psi, No Special Inspection Required.
- C. Structural Masonry (Level I) per CBC 1704.5.2 and CBC Table 1704.5.1
 1. Type S Mortar, 2000 psi Solid Grout, Rebar $F_y = 60$ ksi
 2. Placement of Anchor Bolts for Seismic Ties @ Ceiling (Detail T1)
 3. Placement of rebar, especially in wall ends and corners.
- D. Post-installed concrete anchors per CBC 1704.13 and ICC Evaluation Report ESR-2508.
- E. Placement of Ceiling Joist Ties (Detail T1)
- F. Diaphragm placement and nailing.

REINFORCED CONCRETE

1. Use approved precast concrete Dobbies to support footing steel off the ground.
2. All concrete $f'c = 3000$ psi (Slab-on-grade can have $f'c = 2500$ psi).
3. Anchor bolts and dowels shall be securely held in place before concrete is poured.
4. All reinforcing steel shall be ASTM A-615 Grade 60 (#3 may be Grade 40) Splices in reinforcing steel shall lap as follows:
 - #3 thru #5 = 30*Diam., #6 & #7 = 40*Diam., #8 & #9 = 52*Diam., #10 and #11 = 66*Diam., Column bars = 30*diam. UNO.Horizontal splices shall be staggered. At splices and laps for beams, bars shall be separated 2 1/2" oc min, but in no case shall the separation be less than 1 1/2" clr. (Column bars may be in contact and wall bars be wired together at splices). Lap splice W.W.F. one cross bar +2".
5. The clear distance between parallel bars shall not be less than 1 1/2" UNO.
6. Reinforcing steel shall have a protected concrete cover as follows: UNO
 - Wall Steel Below Grade: On dirt side poured against dirt = 3"
On dirt side when formed = 2"
 - Wall Steel Above Grade: In all cases = 1 1/2"
 - Other items:
 - Footing Pads = 3"
 - Slabs (L.W. Conc.) = 3/4"
 - Slabs (Hard Rock Conc.) = 1"
 - Joists (sides, tops & soffits) = 1"
 - Columns (to main steel) = 2"
 - Beam Girders (sides, top & soffit) = 2"
7. All slabs on earth shall have "quick-joint" installed to provide approximately 15 foot squares UNO. Where concrete pours are stopped, the joint shall be formed as a construction joint.

FOUNDATION NOTES:

1. Soil Design Bearing Value = 1500 psf, Footings to extend 18" Min. below adjacent grade.
2. All footings are to bear in firm native soil or approved engineered fill.

WOOD FRAMING NOTES:

1. All framing lumber shall be grade marked Douglas Fir-Larch.
2. Sill plates shall be pressure treated Douglas Fir UNO.
3. Bearing Sill Plates bolted to concrete w/ 5/8"x 10" Anchor Bolts @ 48" oc UNO.
4. Studs shall be spaced 16" oc UNO & the size shown on the plans & Sections.
5. Bolts fastened to wood shall be fitted with standard cut washers.
6. Holes for bolts shall be bored 1/32" to 1/16" larger than nominal bolt diameter.
7. Joist hanger and steel straps and connectors are by Simpson Strong-Tie company. Substitutions by other manufacturer's should be approved prior to use and any documentation required for the substitutions shall be submitted for review.
8. Refer to CBC Table 2304.9.1 for minimum nailing schedule.

NEW HOLDING
CELL PROJECT

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REV 11/10

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SHEET TITLE:

SHEET #:

SI