

Jefferson Office Park

Office Building Type 1

1030 Johnson Road

Golden, Colorado 80219

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1030 Johnson Road
Golden, Colorado 80219

CODE ANALYSIS

Regulatory Agencies: City of Golden Planning & Development Department, 303.384.8097
Steve Glueck, Planning & Development Director, 303.384.8095
City of Golden Building Department, 303.384.8151
Gerard George, Chief Building Official, 303.384.8147
City of Golden Fire Department, 303.384.8094
Jerry Stricker, Fire Marshal, 303.384.8094
City of Golden Engineering Department, 303.384.8151
Vince Auriemma, City Engineer, 303.384.8156

Applicable Codes: International Building Code, 2006 Edition
Accessible and Usable Buildings and Facilities, ICC/ANSI A117.1-2003
ADA Accessibility Guidelines for Buildings and Facilities
International Fire Code, 2006 Edition
International Energy Conservation Code, 2006 Edition
International Mechanical Code, 2003 Edition
International Plumbing Code, 2003 Edition
International Fuel Gas Code, 2006 Edition
National Electrical Code, 2005 Edition

Project Type: New three story office building
Address: 1030 Johnson Road, Golden, CO 80401

Legal Description: A PORTION OF LOT 1, BLOCK 1, GOLDEN DEVELOPMENT SITE SUBDIVISION, AS RECORDED IN THE RECORDS OF JEFFERSON COUNTY, COLORADO IN BOOK 98 AT PAGE 47, RECEPTION NO. 88093385, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 1; THENCE NORTH 89 DEGREES 58 MINUTES 30 SECONDS EAST ALONG THE SOUTH LINE OF SAID LOT 1, A DISTANCE OF 419.55 FEET TO THE SOUTHEAST CORNER OF SAID LOT 1; THENCE NORTHERLY ALONG THE EAST LINE OF SAID LOT 1, THE FOLLOWING TWO (2) COURSES:

- 1) NORTH 01 DEGREES 03 MINUTES 30 SECONDS EAST, 391.39 FEET;
- 2) THENCE NORTH 00 DEGREES 04 MINUTES 14 SECONDS EAST, 172.68 FEET, MORE OR LESS, TO A POINT FROM WHICH THE NORTHEAST CORNER OF SAID LOT 1 BEARS NORTH 00 DEGREES 04 MINUTES 14 SECONDS EAST, 552.06 FEET;

THENCE NORTH 89 DEGREES 39 MINUTES 15 SECONDS WEST BEING PARALLEL WITH THE NORTH LINE OF SAID LOT 1 A DISTANCE OF 557.34 FEET; THENCE SOUTH 63 DEGREES 38 MINUTES 50 SECONDS WEST (RADIAL LINE), 169.22 FEET TO THE WEST LINE OF SAID LOT 1; THENCE SOUTHEASTERLY ALONG SAID WEST LINE, THE FOLLOWING TWO (2) COURSES:

- 1) SOUTHEASTERLY ALONG A CURVE TO THE LEFT, THE TANGENT OF WHICH BEARS SOUTH 26 DEGREES 21 MINUTES 10 SECONDS EAST, HAVING A RADIUS OF 450.00 FEET, A CENTRAL ANGLE OF 21 DEGREES 40 MINUTES 03 SECONDS, FOR A DISTANCE OF 170.18 FEET TO A POINT OF REVERSE CURVE;
- 2) THENCE SOUTHEASTERLY ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 550.00 FEET, A CENTRAL ANGLE OF 42 DEGREES 40 MINUTES 45 SECONDS FOR A DISTANCE OF 408.89 FEET TO THE POINT OF BEGINNING, COUNTY OF JEFFERSON, STATE OF COLORADO.

Zoning Designation: PUD
Occupancy Group: Business Group B
Site Area: 64,830 sq. ft. or 7.03 acres
Construction Type: V-B (Sprinkled)
Location on Site: North: 90.60' from N property line
East: 363.36' from E property line, 135.00' from future bldg.
South: 355.06' from S property line (W. 10th Ave.), 39.00' from future bldg.
West: 115.06' from E property line (Johnson Rd.)

Allowable Floor Area: w/o Area Modifications (per Table 503):
Business Group B, Type V-B Construction
2 stories w/ maximum height of 40'
9,000 sq. ft. per story
18,000 sq. ft. total building area

w/ Area Modifications:
Frontage increase (per Sec. 506.2):
If = (F/P - 0.25) W/30
F = 418'-8" or 418.67', P = 418'-8" or 418.67', W > 30'
If = (418.67/418.67 - 0.25) 30'/30' = 0.75
Automatic sprinkler system increase (per Sec. 504.2):
3 stories w/ maximum height of 60'
Automatic sprinkler system increase (per Sec. 506.3):
Allowable area increase per story of 200% (Is = 2)
Allowable area per story w/o automatic sprinkler system increase:
At = 9,000 sq. ft., If = .75
Aa = At + (At x If)
Aa = 9,000 sq. ft. + (9,000 sq. ft. x .75)
Aa = 9,000 sq. ft. + 6,750 sq. ft.
Aa = 15,750 sq. ft. per story
Allowable floor area w/o automatic sprinkler system increase:
Aa = 15,750 sq. ft. per story
15,750 sq. ft. x 3 = 47,250 sq. ft. total building area
Allowable area per story w/ automatic sprinkler system increase:
At = 9,000 sq. ft., If = .75, Is = 2
Aa = At + (At x If) + (At x Is)
Aa = 9,000 sq. ft. + (9,000 sq. ft. x .75) + (9,000 sq. ft. x 2)
Aa = 9,000 sq. ft. + 6,750 sq. ft. + 18,000 sq. ft.
Aa = 33,750 sq. ft. per story
Allowable floor area w/ automatic sprinkler system increase:
Aa = 33,750 sq. ft. per story
33,750 sq. ft. x 3 = 101,250 sq. ft. total building area

Actual Floor Area: First Floor 10,030 sq. ft.
Second Floor 10,030 sq. ft.
Third Floor 10,030 sq. ft.
Total Actual Floor Area 30,090 sq. ft.

Occupant Load: Third Floor: Business Group B
Occupant load factor — Business areas per Table 1004.1.1 = 100 gross sq. ft./occupant
Floor area = 10,030 gross sq. ft.
10,030 gross sq. ft. / (1 occupant/100 gross sq. ft.) = 100.3 occupants, use 100 occupants
Second Floor: Business Group B
Occupant load factor — Business areas per Table 1004.1.1 = 100 gross sq. ft./occupant
Floor area = 10,030 gross sq. ft.
10,030 gross sq. ft. / (1 occupant/100 gross sq. ft.) = 100.3 occupants, use 100 occupants
First Floor: Business Group B
Occupant load factor - Business areas per Table 1004.1.1 = 100 sq.ft./occupant
Tenant Space 100 floor area = 4,023 gross sq. ft. = 4,023 gross sq. ft. / (1 occupant/100 gross sq. ft.) = 40.23 occupants, use 40 occupants
Tenant Space 180 floor area = 4,102 gross sq. ft. = 4,102 gross sq. ft. / (1 occupant/100 gross sq. ft.) = 41.02 occupants, use 41 occupants
Accessory Area floor area = 1,905 gross sq. ft. = 1,905 gross sq. ft. / (1 occupant/100 gross sq. ft.) = 19.05 occupants, use 19 occupants
Total first floor occupants = 100 occupants
Total Building: 300 occupants

Exit Width Required: Third Floor: Business Group B
Egress width per occupant served w/ sprinkler system per Table 1005.1 = 0.2 in./occupant (Stairway)
100 occupants x 0.2 in./occupant = 20'
Second Floor: Business Group B
Egress width per occupant served w/ sprinkler system per Table 1005.1 = 0.2 in./occupant (Stairway)
100 occupants x 0.2 in./occupant = 20'
First Floor: Business Group B
Egress width per occupant served w/ sprinkler system per Table 1005.1 = 0.15 in./occupant (Other egress components)
200 occupants from second and third floors and 100 occupants from first floor = 300 occupants
300 occupants x 0.15 in./occupant = 45'

Exits Required: Third Floor: Business Group B
2 exits required where occupant load exceeds 49 for Business Group B occupancy per Table 1015.1 and less than 500 per Table 1019.1
Third floor occupant load = 100 occupants
49 occ. < 100 occ. < 500 occ. = 2 exits required
Second Floor: Business Group B
2 exits required where occupant load exceeds 49 for Business Group B occupancy per Table 1015.1 and less than 500 per Table 1019.1
Second floor occupant load = 100 occupants
49 occ. < 100 occ. < 500 occ. = 2 exits required
First Floor: Business Group B
Tenant Space 100
1 exit permitted when occupant load is less than 49 for Business Group B occupancy per Table 1015.1
Tenant Space 180
1 exit permitted when occupant load is less than 49 for Business Group B occupancy per Table 1015.1
Tenant Space 100 occupant load = 40
40 occ. < 49 occ. = 1 exit required
1 exit permitted when occupant load is less than 49 for Business Group B occupancy per Table 1015.1
Tenant Space 180 occupant load = 41
41 occ. < 49 occ. = 1 exit required
Accessory Area
2 exits required where occupant load exceeds 49 for Business Group B occupancy per Table 1015.1 and less than 500 per Table 1019.1
Accessory Area occupant load = 300
49 occ. 300 occ. < 500 occ. = 2 exits required

Exits Provided: Third Floor: Business Group B
2 exits provided, total exit width provided = 72'
Second Floor: Business Group B
2 exits provided, total exit width provided = 72'
First Floor: Business Group B
Tenant Space 100
5 exits provided, total exit width provided = 288'
Tenant Space 180
5 exits provided, total exit width provided = 288'
Accessory Area
2 exits provided, total exit width provided = 108'

Plumbing Fixtures: (Business Class.)
First Floor: Male: 100 occupants/2 = 50 males
Water Closets: 1/25 for first 50 males
1 water closet and 1 urinal provided
Lavatories: 1/40 for first 80 males
2 lavatories provided
Female: 100 occupants/2 = 50 females
Water Closets: 1/25 for first 50 females
2 water closets provided
Lavatories: 1/40 for first 80 males
2 lavatories provided
Drinking Fountains: 1/100 occupants
2 drinking fountains provided (1 accessible)
Service Sinks: 1 required
1 mop sink provided
Second Floor: Same as First Floor
Third Floor: Same as First Floor

General Notes

1. Prior to starting construction, the General Contractor shall obtain all permits required by regulatory authorities. No construction or fabrication of any item shall begin until the General Contractor has received all documentation from regulatory authorities. Failure of the General Contractor to follow this procedure shall cause the General Contractor to assume full responsibility for subsequent modifications of work mandated by regulatory authorities.
2. The General Contractor shall be responsible for providing all materials and workmanship in accordance with all Federal, State and Local codes, laws, ordinances and regulations applicable to this project.
3. Do not scale any drawings. The Contractor shall verify all dimensions prior to the start of construction and notify the Architect of any discrepancies so that the design may be reevaluated.
4. Dimensions shall be to either the centerline of a column; edge or face of steel stud framing; face of concrete or masonry wall; extent of a finish, location of or clearance required for a fixture; centerline of exposed tee ceiling grid or light fixture; edge of door, door light or aluminum storefront framing; floor, roof or parapet line; top or bottom of doors, windows and pilasters unless noted otherwise.
5. The General Contractor shall coordinate the work to be completed by all trades.
6. The General Contractor shall verify the location of all utilities, connect the secondary utility lines from the building to the primary service location, unless directed otherwise by the utility having jurisdiction. The General Contractor shall be responsible for all fees related to such work.
7. The General Contractor shall maintain a clean construction site and remove all construction debris from the site. The Contractor shall provide dumpsters, or other means of trash disposal, on site as needed for the timely removal of trash and debris.
8. Refer to Wall Types for specific wall construction.
9. Refer to the Door and Window Schedules for general door, hardware and window specifications. Refer to Finish Schedule for general floor, wall and ceiling finish specifications.
10. Fire alarm and sprinkler systems, security systems, or other similar systems, and any engineering required for these systems, if required by the governing jurisdiction or Building Owner, shall be the responsibility of and be coordinated by the General Contractor.
11. The General Contractor shall be responsible for and coordinate the building communication and cable service requirements with the Building Owner.
12. The General Contractor shall provide fire extinguishers in recessed cabinets, of the type and in the locations required by the Fire Protection District and selected by the Architect.
13. The General Contractor shall coordinate and provide a complete and finished project as shown on the Architectural, Structural, Mechanical, Plumbing and Electrical drawings.
14. THE AMERICANS WITH DISABILITIES ACT: The Americans with Disabilities Act (ADA) requires the removal of architectural barriers in existing and new facilities where such removal is "readily achievable". The Building Owner acknowledges that the definition of "readily achievable" as contained in the ADA is flexible and subject to interpretation on a case-by-case basis. The requirements of the ADA will therefore be subject to various and possible contradictory interpretations. The Architect shall use reasonable professional efforts and judgment to interpret and incorporate applicable ADA requirements, and advise the Building Owner regarding modifications to the Building Owner's facility space that may be required in order to comply with the ADA. Such interpretation and advice shall be based upon what is known about the ADA at the time that professional service is rendered. The Architect however, cannot and does not warrant or guarantee that the Building Owner's facility will fully comply with interpretations of the ADA requirements rendered by regulatory authorities or court decisions.

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job JOP
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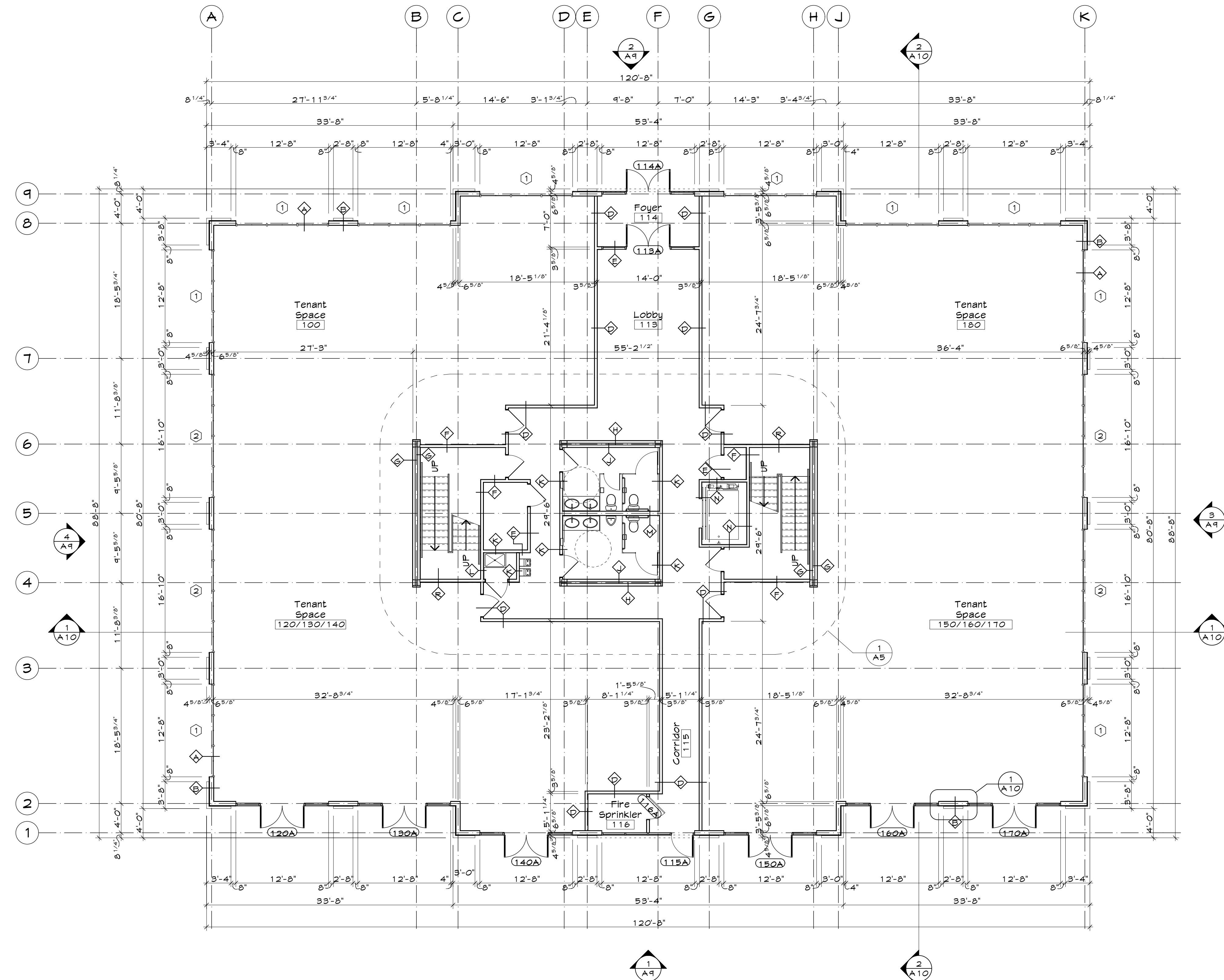
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Wall Types

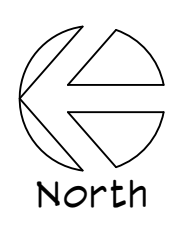
- ⊠ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with acrylic elastomeric finish coat over acrylic primer coat over 3/8" thick factory mixed cementitious one-coat stucco with acrylic polymer admixture over 2.5 lb./sq. yd. self-furring diamond mesh metal lath over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. For window assembly refer to Window Schedule and Window Types on sheet A10.
- ⊠ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with 4" nom. brick veneer plaster over 7/8" air space over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- ⊠ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with acrylic elastomeric finish coat over fiberglass reinforcing mesh embedded in 1/16" — 3/32" thick acrylic polymer modified cementitious base coat over 2" thick expanded polystyrene insulation (EPS) adhered with above base coat to 3/8" thick factory mixed cementitious one-coat stucco with acrylic polymer admixture over 2.5 lb./sq. yd. self-furring diamond mesh metal lath over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Back wrap all EPS shapes with fiberglass reinforcing mesh. Do not lap mesh over one-coat stucco. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- ⊠ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish common area side of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Corridor side of wall below ceiling height with Level 5 finish. Finish tenant side of wall with 5/8" type "x" gypsum board to underside of floor or roof deck at time of tenant finish.
- ⊠ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Corridor side of wall below ceiling height with Level 5 finish. Finish gypsum board on Electrical Eqpt. Room side of wall with Level 2 finish.
- ⊠ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish. Finish gypsum board on Electrical Eqpt. Room side of wall with Level 2 finish.
- ⊠ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, diagonal brace or roof deck above with slip joint at top of wall. Finish face of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Stair side of wall below ceiling height with Level 5 finish. Finish gypsum board on Mech. Shaft side of wall with Level 1 finish.
- ⊠ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam or diagonal brace above with slip joint at top of wall. Finish face of wall with 5/8" type "x" gypsum board to underside of beam or roof deck above. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- ⊠ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam or diagonal brace above with slip joint at top of wall. Finish face of wall with 5/8" type "x" moisture resistant gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height with Level 5 finish. Finish gypsum board behind tile wainscot with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- ⊠ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of wall with 5/8" type "x" moisture resistant gypsum board to underside of beam, floor or roof deck above. Finish face of corridor side of walls with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate toilet room side of wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Janitor side of wall behind fiberglass reinforced plastic panels (FRP) in Janitor Closet with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- ⊠ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Janitor Closet side of wall with 5/8" type "x" moisture resistant gypsum board to underside of beam, floor or roof deck above. Finish face of Stair side of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Stair side of wall with Level 5 finish. Finish gypsum board on Janitor side of wall behind fiberglass reinforced plastic panels with Level 2 finish.
- ⊠ Interior wall from 6" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" moisture resistant gypsum board to underside of floor or roof deck above. Insulate wall with 2 layers 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height with Level 5 finish. Finish gypsum board behind tile wainscot with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- ⊠ Interior wall of 1-hour fire resistive construction from 4" x 25 ga. (18 mils) steel CH or CT studs at 24" o.c. to underside of beam above with slip joint at top of wall. Finish face of Elevator side of wall with 1" gypsum board liner panels to underside of beam above. Finish face of Corridor, Communications and Elevator Eqpt. Room side of wall with 5/8" type "x" gypsum board to underside of beams above. Finish face of Stair side of wall with 5/8" type "x" gypsum board. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Corridor and Stair side of wall with Level 5 finish. Finish gypsum board on Communications and Elevator Eqpt. Room side of wall with Level 2 finish.
- ⊠ Interior wall of 1-hour fire resistive construction from 4" x 25 ga. (18 mils) steel CH or CT studs at 24" o.c. to underside of beam or roof deck above with slip joint at top of wall. Finish face of Mech. Shaft side of wall with 1" gypsum board liner panels to underside of beam or roof deck above. Finish face of Tenant side of wall with 5/8" type "x" gypsum board to underside of beam or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Tenant side of wall with Level 5 finish.
- ⊠ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Stair side of wall with 5/8" type "x" gypsum board to underside of roof deck above. Finish face of Tenant side of wall with 2 layers 5/8" type "x" gypsum board to underside of floor or roof beam above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.



First Floor Plan

Gross Floor Area - 10,013 sq ft

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



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Jefferson Office Park
Office Building Type 1
1030 Johnson Road
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job	JOP
drawn	DRF
checked	JFH
issued for	9/15/08 Bid and Plan Review

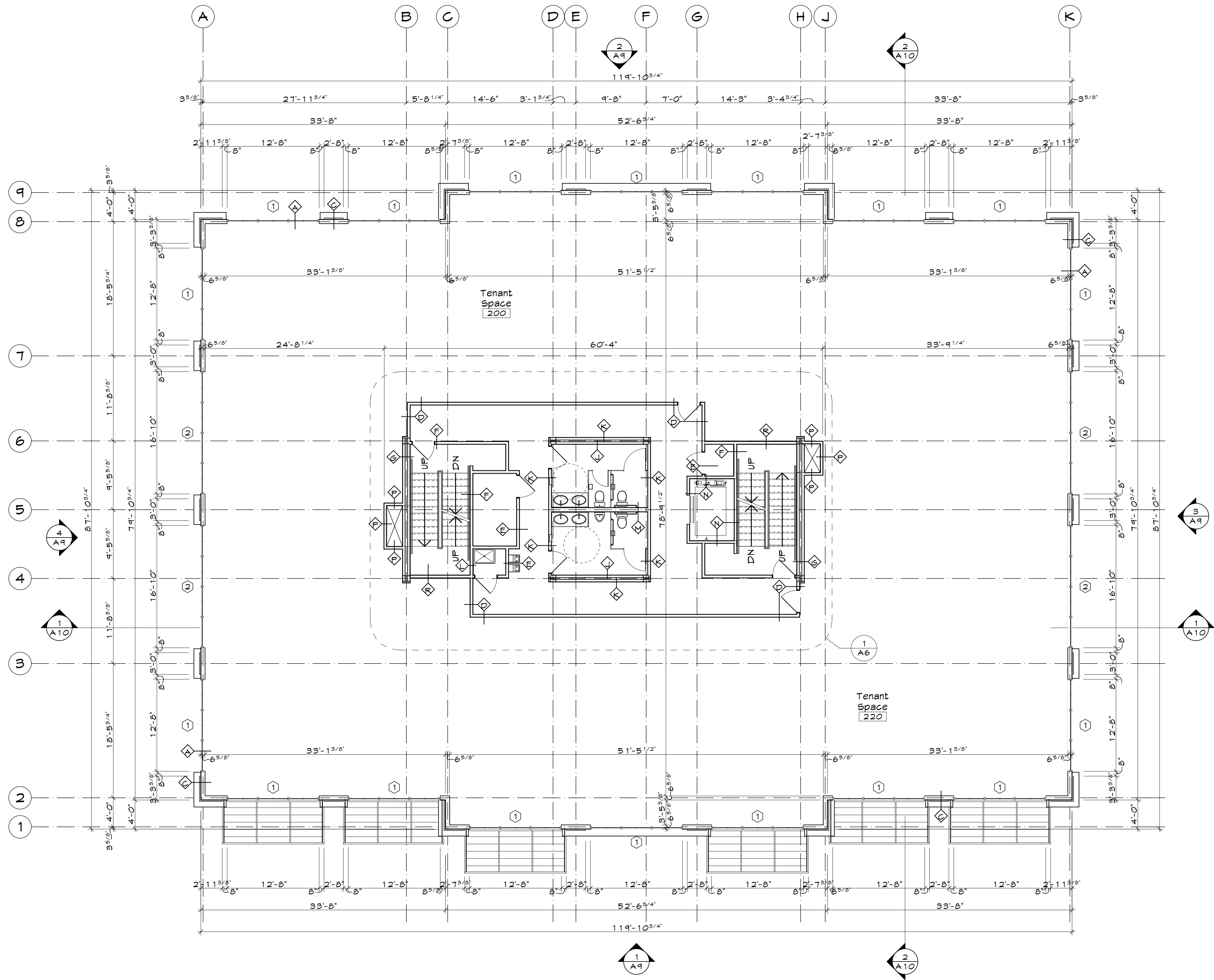
revision

sheet

A1

Wall Types

- Ⓐ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with acrylic elastomeric finish coat over acrylic primer coat over 3/8" thick factory mixed cementitious one-coat stucco with acrylic polymer admixture over 2.5 lb./sq. yd. self-furring diamond mesh metal lath over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. For window assembly refer to Window Schedule and Window Types on sheet A10.
- Ⓑ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with 4" nom. brick veneer plaster over 7/8" air space over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- Ⓒ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with acrylic elastomeric finish coat over fiberglass reinforcing mesh embedded in 1/16" — 3/32" thick acrylic polymer modified cementitious base coat over 2" thick expanded polystyrene insulation (EPS) adhered with above base coat to 3/8" thick factory mixed cementitious one-coat stucco with acrylic polymer admixture over 2.5 lb. sq. yd. self-furring diamond mesh metal lath over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Back wrap all EPS shapes with fiberglass reinforcing mesh. Do not lap mesh over one-coat stucco. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- Ⓓ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish common area side of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Corridor side of wall below ceiling height with Level 5 finish. Finish gypsum board on Electrical Eqpt. Room side of wall with Level 2 finish.
- Ⓔ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Electrical Eqpt. Room side of wall with Level 2 finish.
- Ⓕ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish. Finish gypsum board on Electrical Eqpt. Room side of wall with Level 2 finish.
- Ⓖ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, diagonal brace or roof deck above with slip joint at top of wall. Finish face of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Tenant side of wall below ceiling height with Level 5 finish. Finish gypsum board on Mech. Shaft side of wall with Level 1 finish.
- Ⓗ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam or diagonal brace above with slip joint at top of wall. Finish face of wall with 5/8" type "x" gypsum board to underside of beam or roof deck above. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- Ⓙ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam or diagonal brace above with slip joint at top of wall. Finish face of wall with 5/8" type "x" moisture resistant gypsum board to underside of floor or roof deck above. Insulate Toilet Room side of wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height with Level 5 finish. Finish gypsum board behind tile wainscot with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- Ⓚ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Toilet Room and Janitor Closet side of walls with 5/8" type "x" moisture resistant gypsum board to underside of beam, floor or roof deck above. Finish face of corridor side of walls with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate toilet room side of wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height in Toilet Rooms with Level 5 finish. Finish gypsum board behind tile wainscot in Toilet Rooms and behind fiberglass reinforced plastic panels (FRP) in Janitor Closet with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- Ⓛ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Janitor Closet side of wall with 5/8" type "x" moisture resistant gypsum board to underside of beam, floor or roof deck above. Finish face of Stair side of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Stair side of wall with Level 5 finish. Finish gypsum board on Janitor side of wall behind fiberglass reinforced plastic panels with Level 2 finish.
- Ⓜ Interior wall from 6" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" moisture resistant gypsum board to underside of floor or roof deck above. Insulate wall with 2 layers 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height with Level 5 finish. Finish gypsum board behind tile wainscot with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- Ⓝ Interior wall of 1-hour fire resistive construction from 4" x 25 ga. (18 mils) steel CH or CT studs at 24" o.c. to underside of beam above with slip joint at top of wall. Finish face of Elevator side of wall with 1" gypsum board liner panels to underside of beam above. Finish face of Corridor, Communications and Elevator Eqpt. Room side of wall with 5/8" type "x" gypsum board to underside of beams above. Finish face of Stair side of wall with 5/8" type "x" gypsum board. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Corridor and Stair side of wall with Level 5 finish. Finish gypsum board on Communications and Elevator Eqpt. Room side of wall with Level 2 finish.
- Ⓟ Interior wall of 1-hour fire resistive construction from 4" x 25 ga. (18 mils) steel CH or CT studs at 24" o.c. to underside of beam or roof deck above with slip joint at top of wall. Finish face of Mech. Shaft side of wall with 1" gypsum board liner panels to underside of beam or roof deck above. Finish face of Tenant side of wall with 5/8" type "x" gypsum board to underside of beam or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Tenant side of wall with Level 5 finish.
- Ⓡ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Stair side of wall with 5/8" type "x" gypsum board to underside of roof deck above. Finish face of Tenant side of wall with 2 layers 5/8" type "x" gypsum board to underside of floor or roof beam above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.



Second Floor Plan

Ground Floor Area - 10,013 sq ft

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



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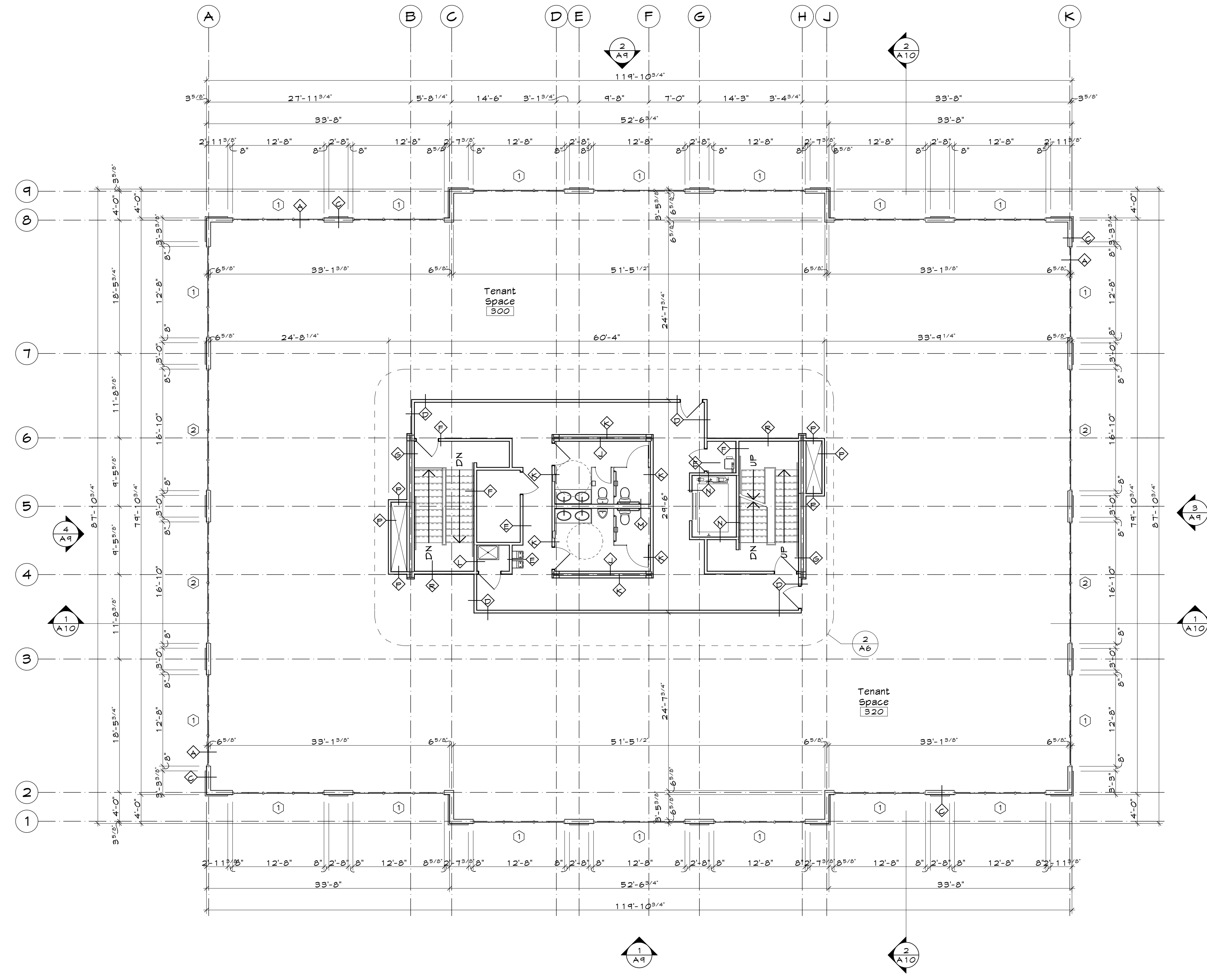
Jefferson Office Park
Office Building Type 1
1030 Johnson Road
Golden, Colorado 80219

job	JOP
drawn	DRF
checked	JFH
issued for	9/15/08 Bid and Plan Review
revision	
sheet	

A2

Wall Types

- ◊ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with acrylic elastomeric finish coat over acrylic primer coat over 3/8" thick factory mixed cementitious one-coat stucco with acrylic polymer admixture over 2.5 lb./sq. yd. self-furring diamond mesh metal lath over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. For window assembly refer to Window Schedule and Window Types on sheet A10.
- ◊ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with 4" nom. brick veneer plaster over 7/8" air space over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- ◊ Exterior curtain wall from 6" x 16 ga. (54 mils) steel studs at 16" o.c. Finish exterior face of wall with acrylic elastomeric finish coat over fiberglass reinforcing mesh embedded in 1/16" — 3/32" thick acrylic polymer modified cementitious base coat over 2" thick expanded polystyrene insulation (EPS) adhered with above base coat to 3/8" thick factory mixed cementitious one-coat stucco with acrylic polymer admixture over 2.5 lb./sq. yd. self-furring diamond mesh metal lath over Tyvek CommercialWrap D over 5/8" exterior grade gypsum board sheathing. Back wrap all EPS shapes with fiberglass reinforcing mesh. Do not lap mesh over one-coat stucco. Insulate wall with R-19 FSK-faced flame spread 25 fiberglass insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Finish interior face of wall with 5/8" type "x" gypsum board to above ceiling height at time of tenant finish. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- ◊ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish common area side of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Corridor side of wall below ceiling height with Level 5 finish. Finish tenant side of wall with 5/8" type "x" gypsum board to underside of floor or roof deck at time of tenant finish.
- ◊ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Electrical Eqpt. Room side of wall with Level 2 finish.
- ◊ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish. Finish gypsum board on Electrical Eqpt. Room side of wall with Level 2 finish.
- ◊ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, diagonal brace or roof deck above with slip joint at top of wall. Finish face of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Insulate tenant side of wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Stair side of wall below ceiling height with Level 5 finish. Finish gypsum board on Mech. Shaft side of wall with Level 1 finish.
- ◊ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam or diagonal brace above with slip joint at top of wall. Finish face of wall with 5/8" type "x" gypsum board to underside of floor or roof deck above. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.
- ◊ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam or diagonal brace above with slip joint at top of wall. Finish face of wall with 5/8" type "x" moisture resistant gypsum board to underside of floor or roof deck above. Insulate Toilet Room side of wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height with Level 5 finish. Finish gypsum board behind tile wainscot with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- ◊ Interior wall from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Toilet Room and Janitor Closet side of walls with 5/8" type "x" moisture resistant gypsum board to underside of beam, floor or roof deck above. Finish face of corridor side of walls with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate toilet room side of wall with 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height in Toilet Rooms with Level 5 finish. Finish gypsum board behind tile wainscot in Toilet Rooms and behind fiberglass reinforced plastic panels (FRP) in Janitor Closet with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- ◊ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Janitor Closet side of wall with 5/8" type "x" moisture resistant gypsum board to underside of beam, floor or roof deck above. Finish face of Stair side of wall with 5/8" type "x" gypsum board to underside of beam, floor or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Stair side of wall with Level 5 finish. Finish gypsum board on Janitor side of wall behind fiberglass reinforced plastic panels with Level 2 finish.
- ◊ Interior wall from 6" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of floor or roof deck above with slip joint at top of wall. Finish both faces of wall with 5/8" type "x" moisture resistant gypsum board to underside of floor or roof deck above. Insulate wall with 2 layers 3-1/2" sound attenuation batt insulation. Fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board above tile wainscot and below ceiling height with Level 5 finish. Finish gypsum board behind tile wainscot with Level 2 finish. Refer to Toilet Room Elevations on sheet A5.
- ◊ Interior wall of 1-hour fire resistive construction from 4" x 25 ga. (18 mils) steel CH or CT studs at 24" o.c. to underside of beam above with slip joint at top of wall. Finish face of Elevator side of wall with 1" gypsum board liner panels to underside of beam above. Finish face of Corridor, Communications and Elevator Eqpt. Room side of wall with 5/8" type "x" gypsum board to underside of beams above. Finish face of Stair side of wall with 5/8" type "x" gypsum board. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Corridor and Stair side of wall with Level 5 finish. Finish gypsum board on Communications and Elevator Eqpt. Room side of wall with Level 2 finish.
- ◊ Interior wall of 1-hour fire resistive construction from 4" x 25 ga. (18 mils) steel CH or CT studs at 24" o.c. to underside of beam or roof deck above with slip joint at top of wall. Finish face of Mech. Shaft side of wall with 1" gypsum board liner panels to underside of beam or roof deck above. Finish face of Tenant side of wall with 5/8" type "x" gypsum board to underside of beam or roof deck above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board on Tenant side of wall with Level 5 finish.
- ◊ Interior wall of 1-hour fire resistive construction from 3-5/8" x 25 ga. (18 mils) steel studs at 16" o.c. to underside of beam, floor or roof deck above with slip joint at top of wall. Finish face of Stair side of wall with 5/8" type "x" gypsum board to underside of roof deck above. Finish face of Tenant side of wall with 2 layers 5/8" type "x" gypsum board to underside of floor or roof beam above. Insulate wall with 3-1/2" sound attenuation batt insulation. Through wall penetrations and recessed fixtures shall be installed to maintain the fire resistive rating of the wall per Section 712, 2006 IBC. Where permitted fill holes at duplexes, switches and other voids with expanding foam sealant that complies with Sec. 2603, 2006 IBC. Provide fireblocking and draftstopping where required per Sec. 717, 2006 IBC. Finish gypsum board below ceiling height with Level 5 finish.



Third Floor Plan

Ground Floor Area - 10,013 sq ft Scale: 1/8" = 1'-0"

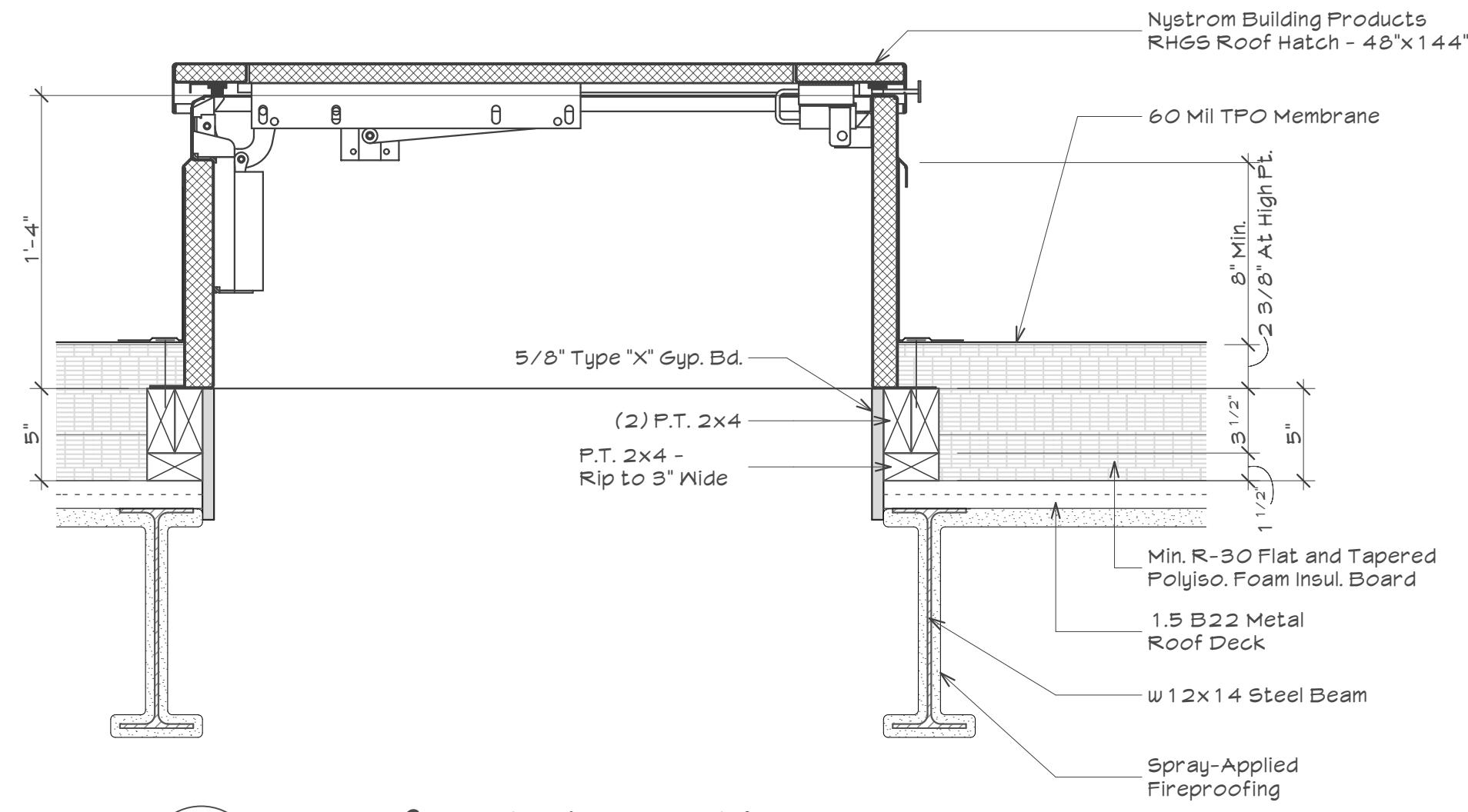


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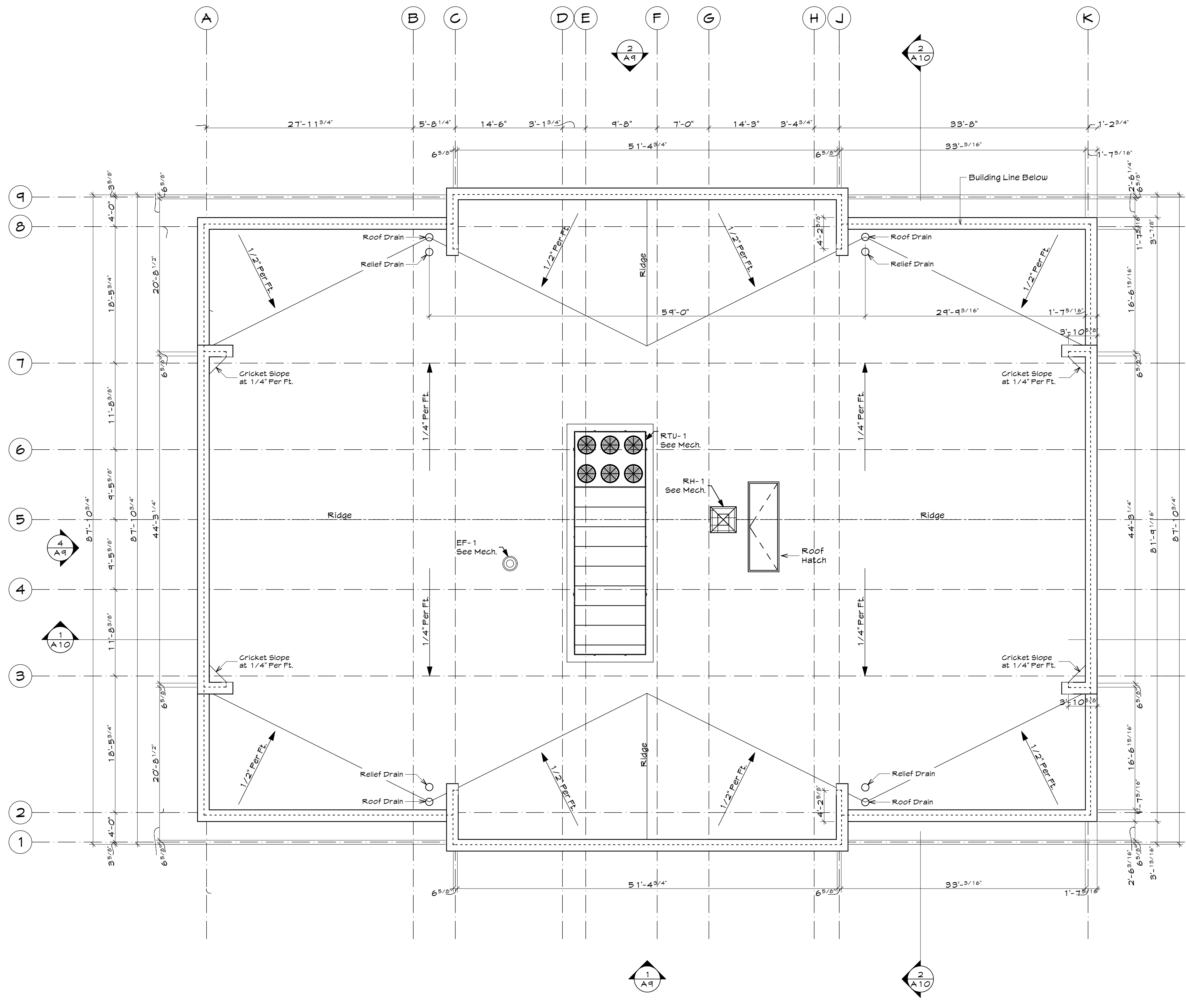
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A3



1 Roof Hatch Section

Not To Scale



Roof Plan

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

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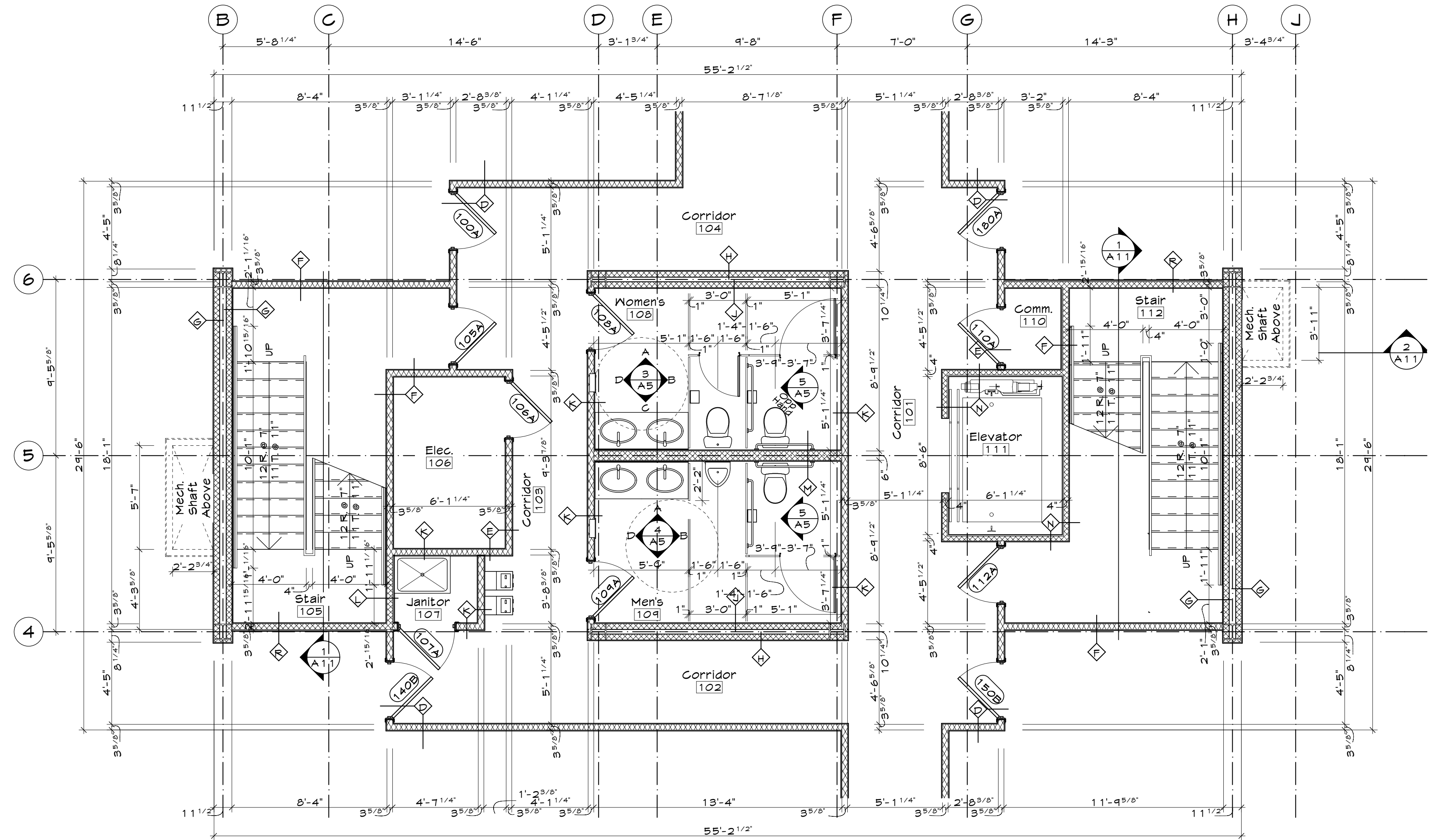
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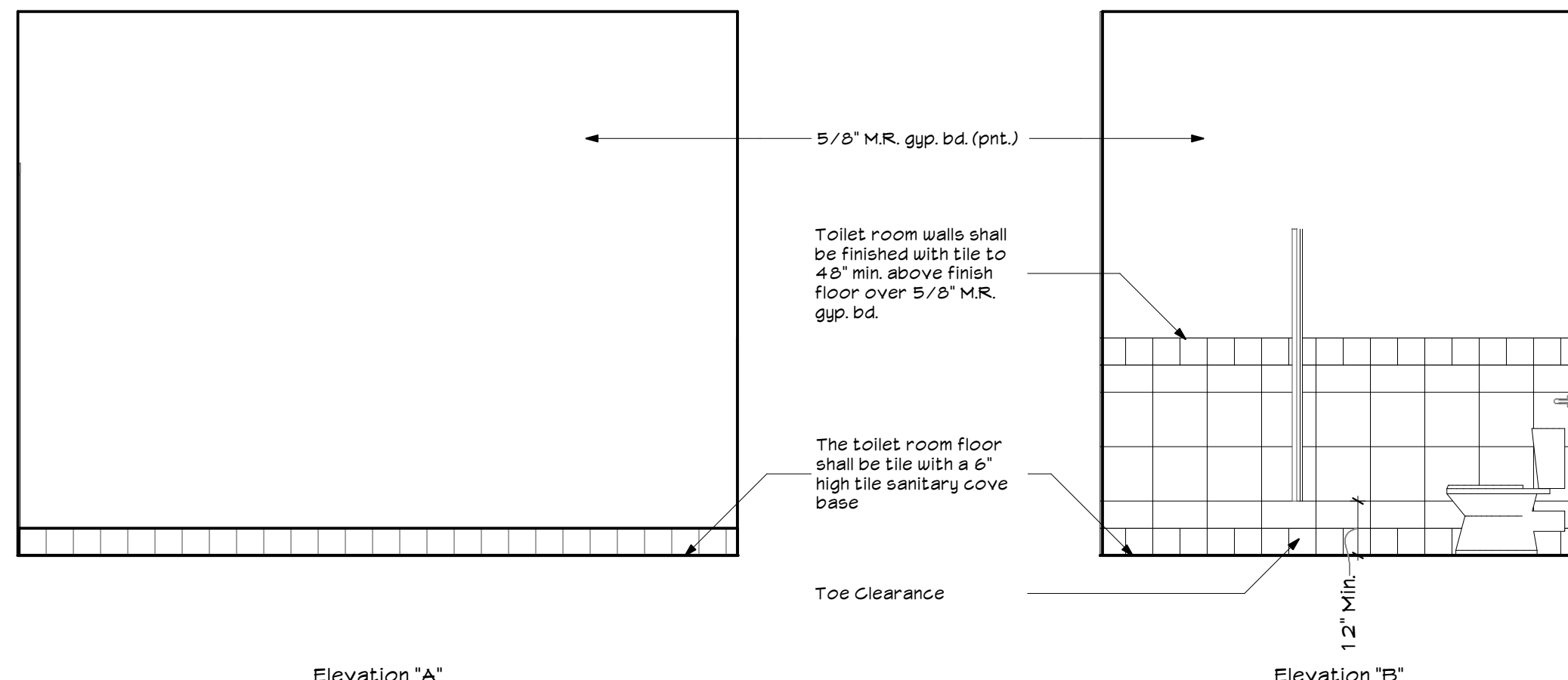
A4

Toilet Room Accessories

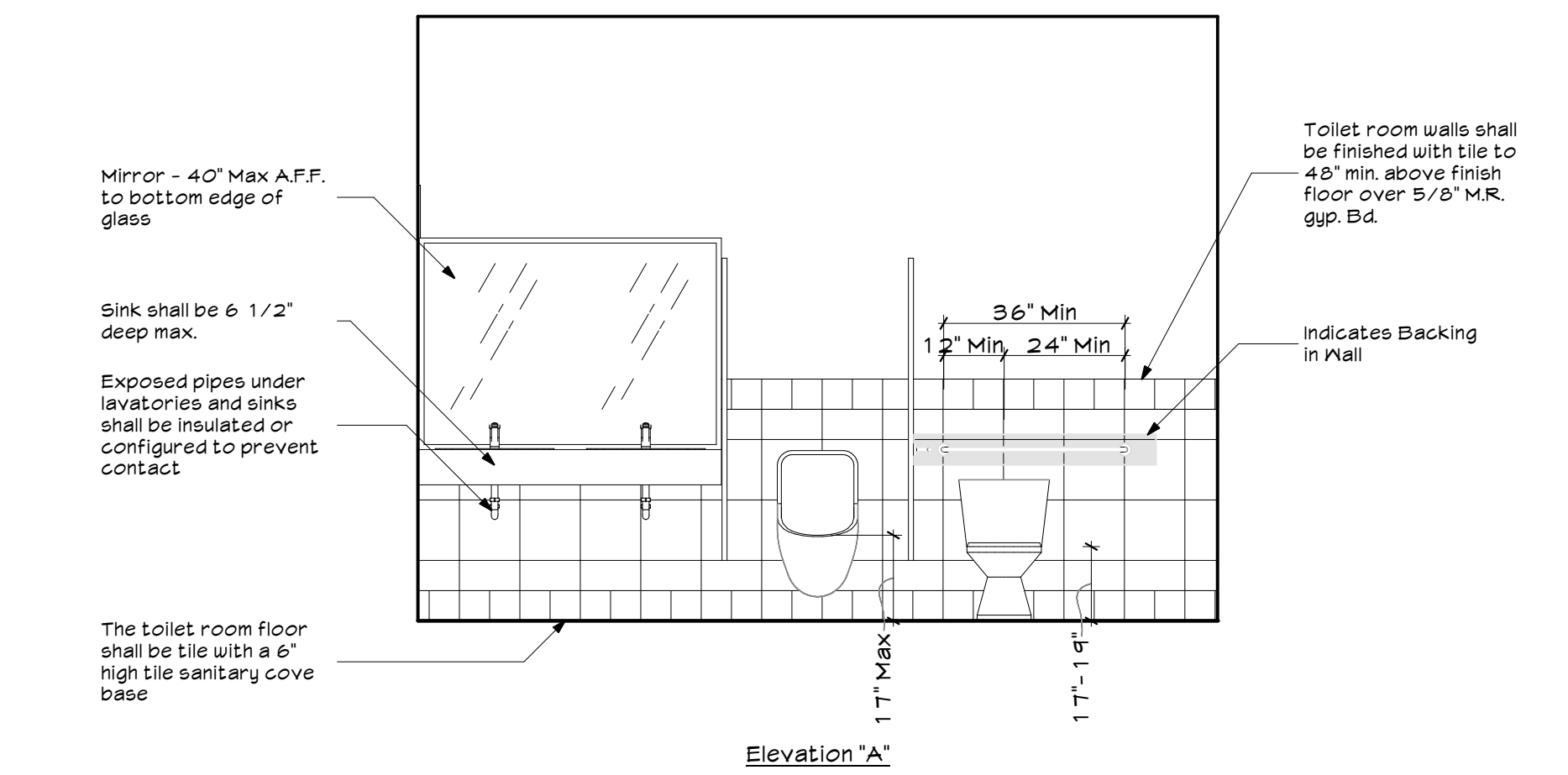
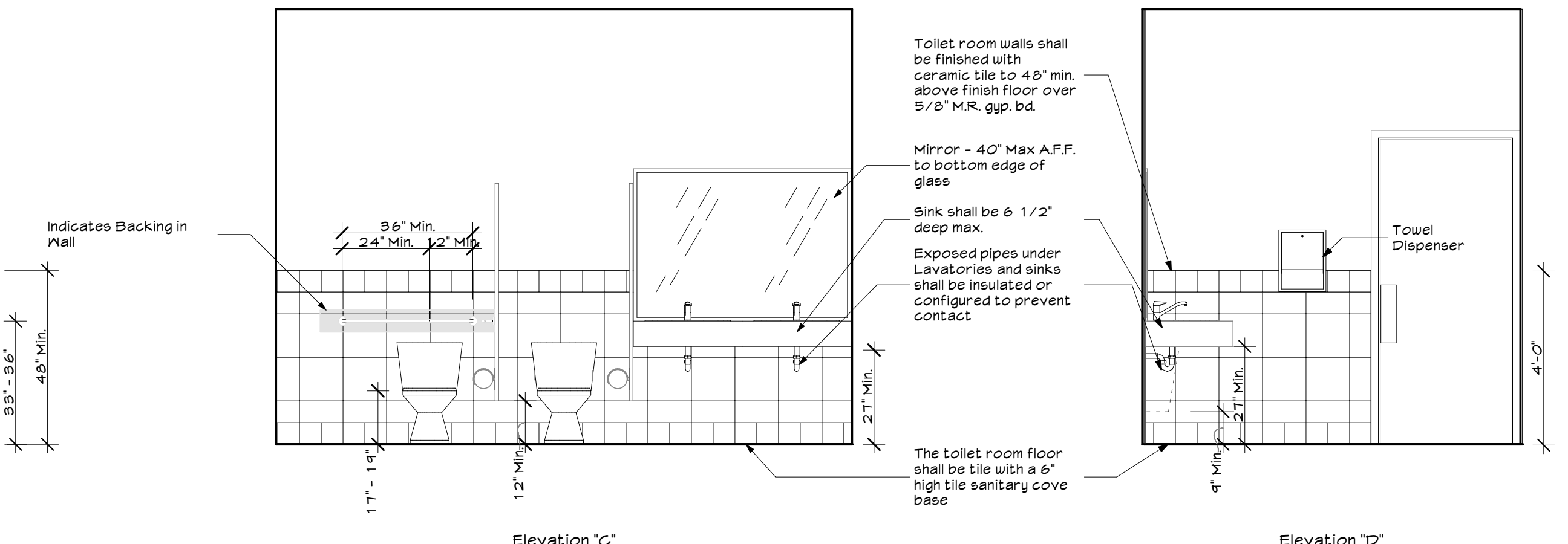
Soap Dispensers	4 required per floor (2 each in Men's and Women's) AS 0332 Lavatory Mounted Soap Dispenser
Towel Dispensers	2 required per floor (1 each in Men's and Women's) AS 0469 Paper Towel Dispenser and Waste Receptacle
Napkin Vendor	1 required per floor (1 each in Women's) AS 0464-50 Recessed Dual Sanitary Napkin/Tampon Vendor
Napkin Disposals	1 required per floor (1 each in Women's) AS 0472-1 Partition Mounted Dual Access Sanitary Napkin Disposal
Toilet Paper Holders	3 required per floor (1 each in Men's and 2 each in Women's) AS 0030 Surface Mounted Dual Roll Toilet Paper Dispenser
Grab Bars	2 required per floor (1 each in Men's and Women's) AS 3201-36 Grab Bar with Concealed Mounting Flange 2 required per floor (1 each in Men's and Women's) AS 3201-42 Grab Bar with Concealed Mounting Flange 2 required per floor (1 each in Men's and Women's) AS 3201-18 Grab Bar with Concealed Mounting Flange
Changing Stations	2 required per floor (1 each in Men's and Women's) AS 9012 Horizontal Baby-Changing Station
Mirrors	2 required per floor (1 each in Men's and Women's) AS 0600-A 60"W. x 48"H. Angle Frame Mirror
Toilet Partitions	1 compartment and 1 urinal screen with 56" high pilaster required per floor in Men's, and 2 compartments required per floor in Women's Mills Baked Enamel Series 400 - Sentinel Floor-Mounted Overhead Braced Restroom Partitions, color to be selected by Architect from standard colors
Notes:	<ol style="list-style-type: none"> All accessory model numbers are American Specialties, Inc. except the toilet partitions. Submit 3 copies of submittals and shop drawings, including details and color samples to Architect for approval. Provide necessary backing where required for all accessories and use stainless steel vandal-resistant fasteners at all accessories with exposed fasteners.



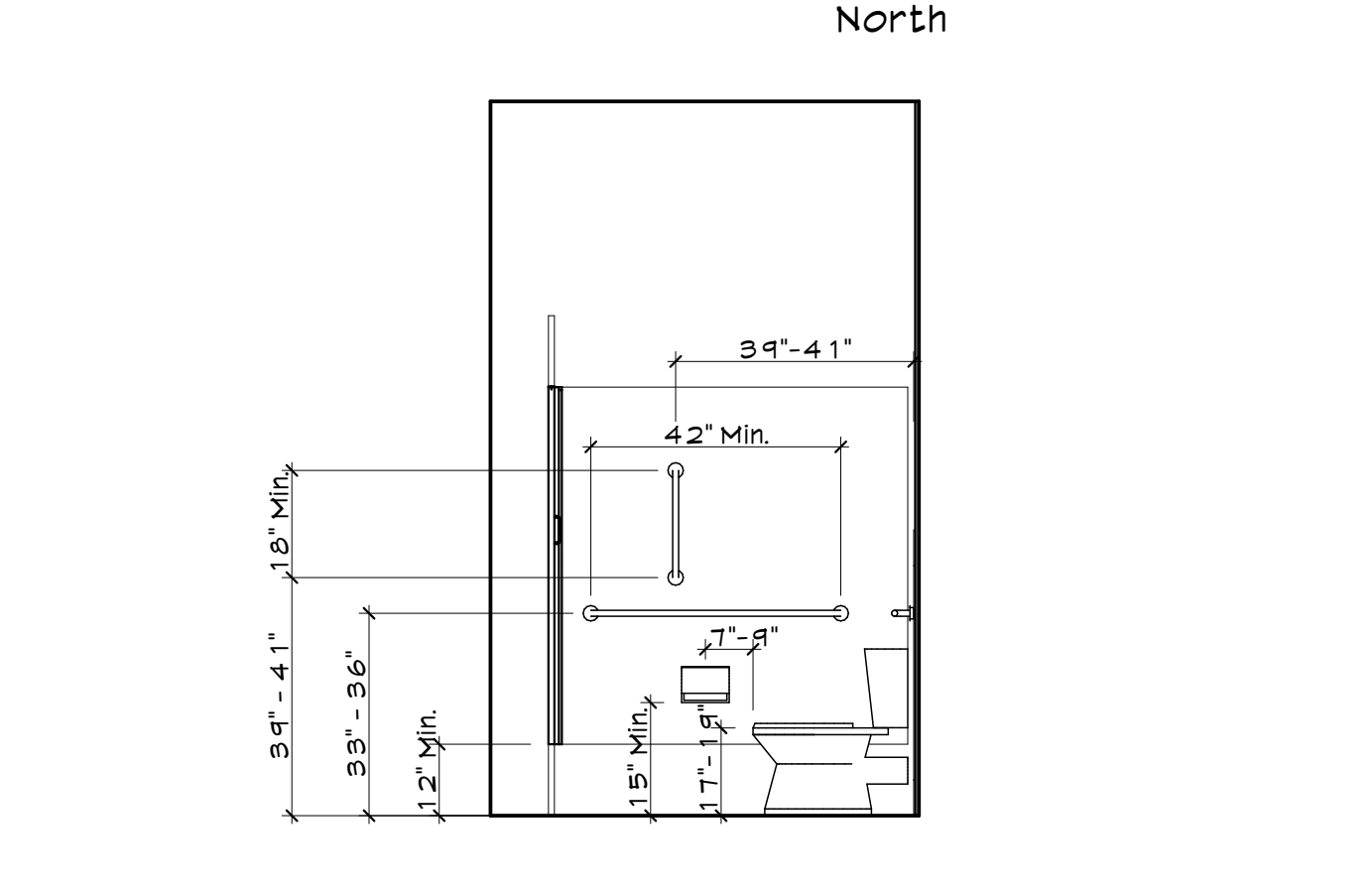
1 First Floor Core Plan



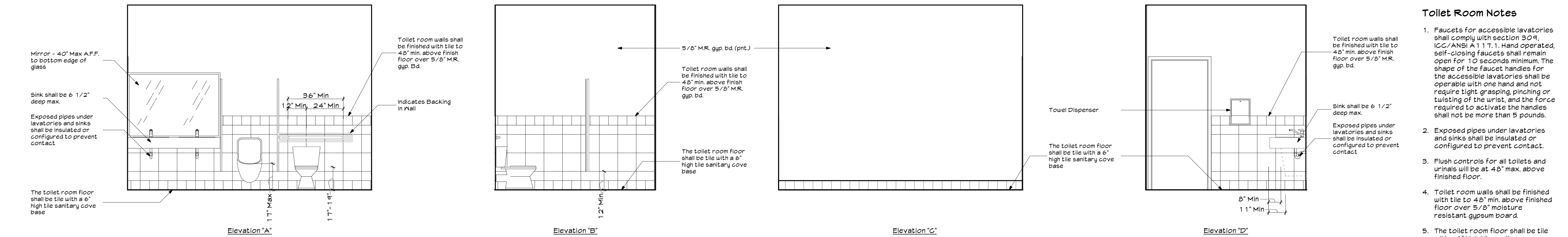
3 Women's Toilet Room Elevations



4 Men's Toilet Room Elevations



5 Toilet Stall Elevation



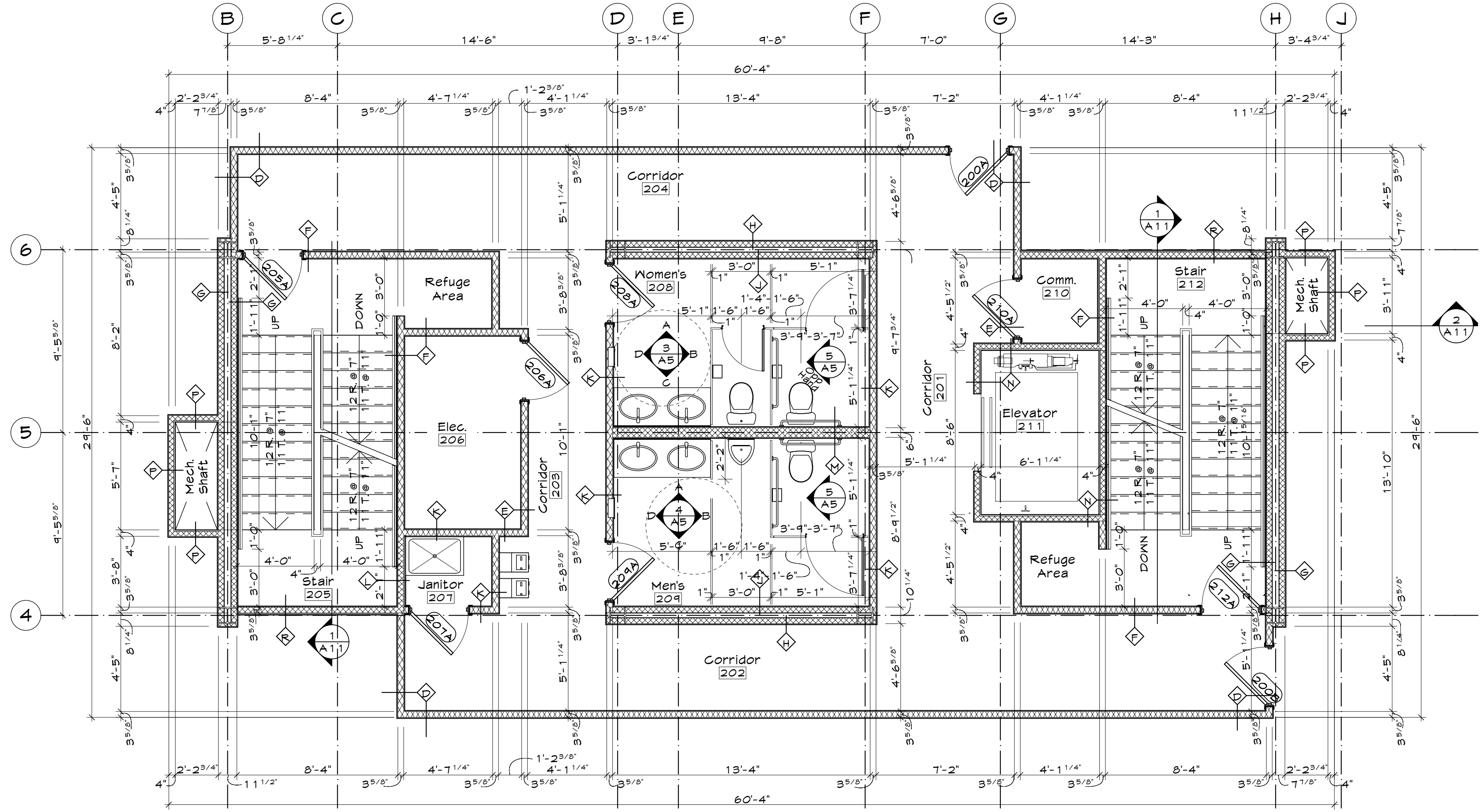
- Toilet Room Notes**
- Faucets for accessible lavatories shall comply with section 309, ICC/ANSI A117.1. Hand operated, self-closing faucets shall remain open for 10 seconds minimum. The shape of the faucet handles for the accessible lavatories shall be operable with one hand and not require tight grasping, pinching or twisting of the wrist, and the force required to activate the handles shall not be more than 5 pounds.
 - Exposed pipes under lavatories and sinks shall be insulated or configured to prevent contact.
 - Flush controls for all toilets and urinals will be at 48" max. above finished floor.
 - Toilet room walls shall be finished with tile to 48" min. above finished floor over 5/8" moisture resistant gypsum board.
 - The toilet room floor shall be tile with a 6" high tile sanitary cove base.
 - Indicates backing for toilet accessories.

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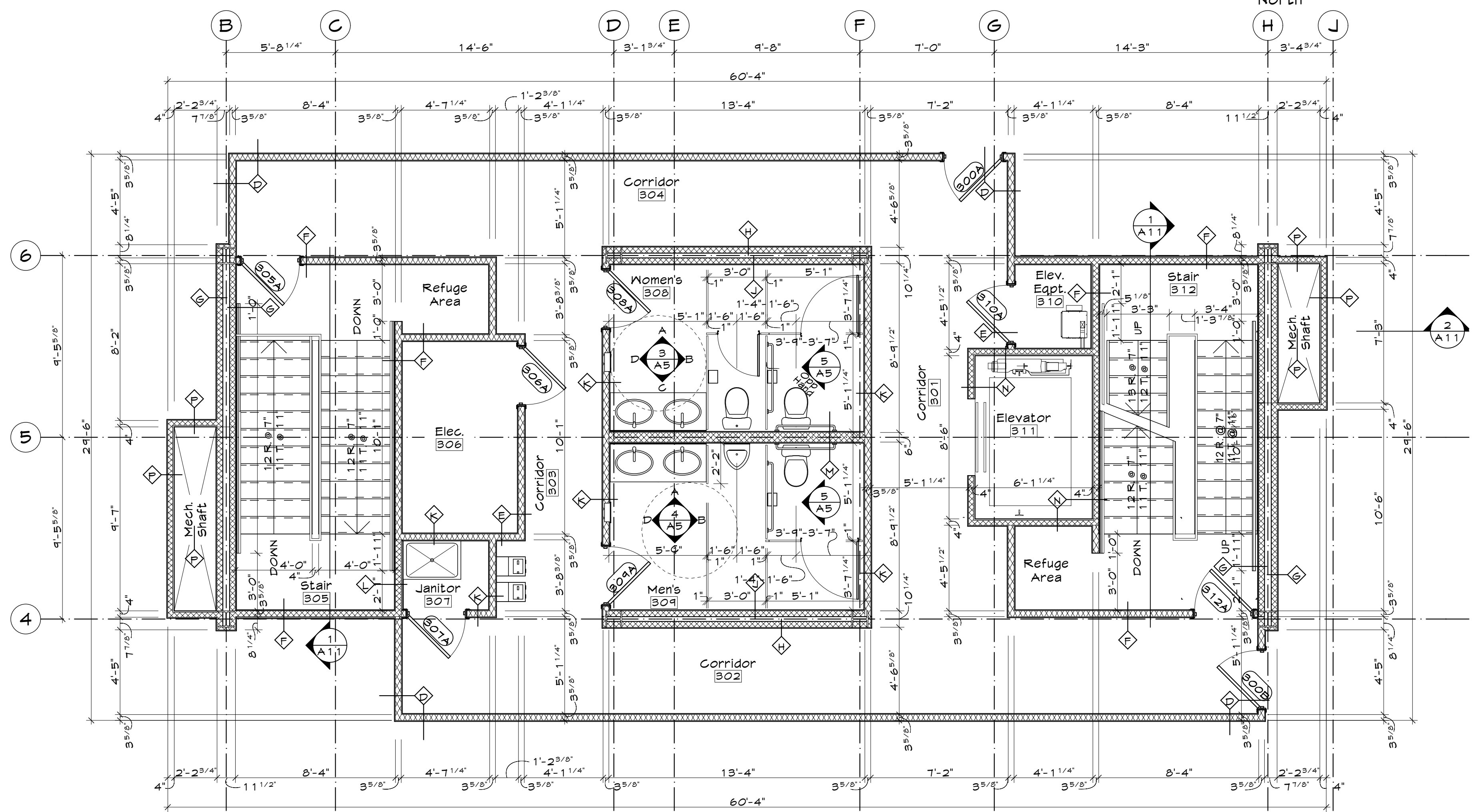
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A5



1 Second Floor Core Plan

Scale: 1/4" = 1'-0"
North



2 Third Floor Core Plan

Scale: 1/4" = 1'-0"
North

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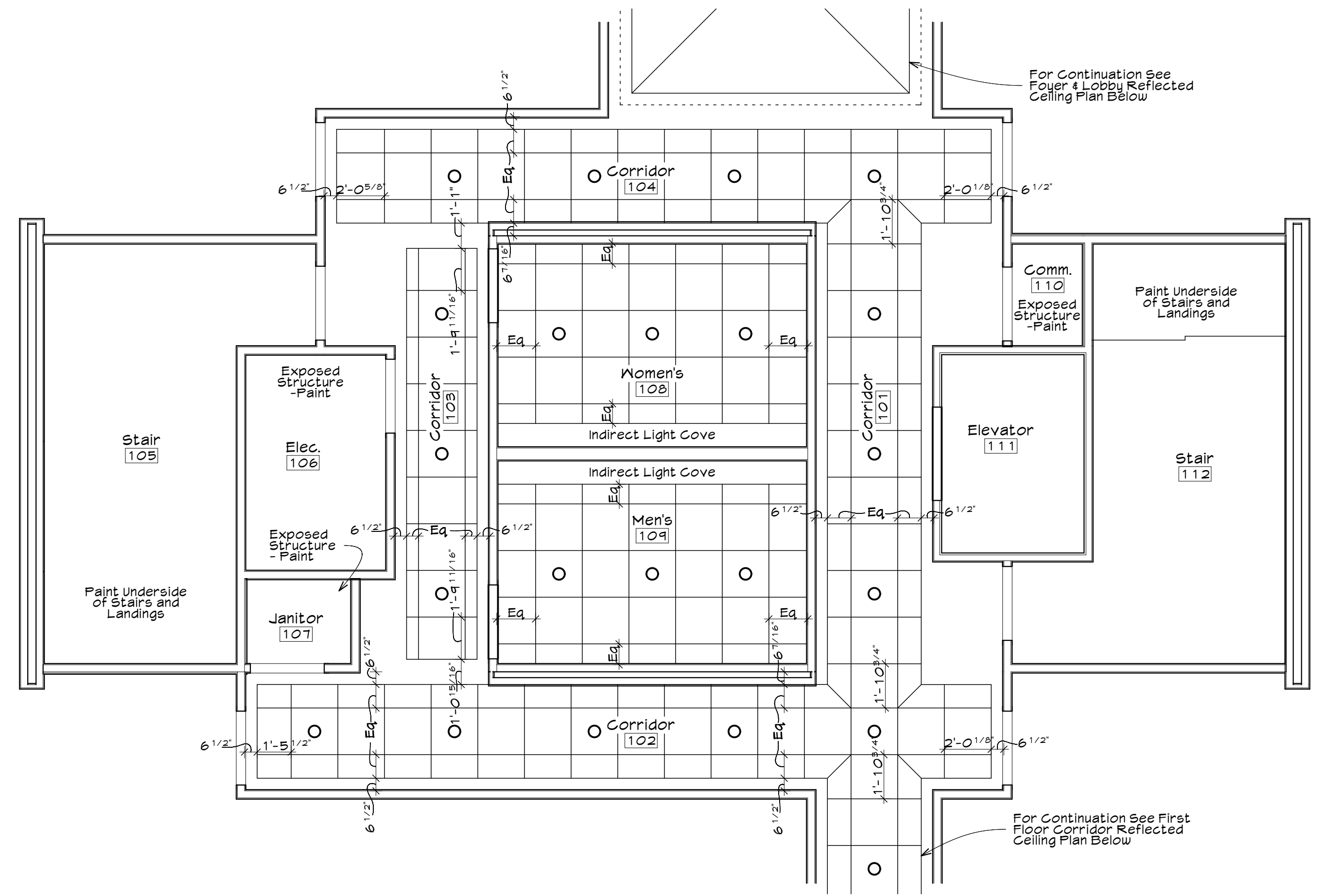
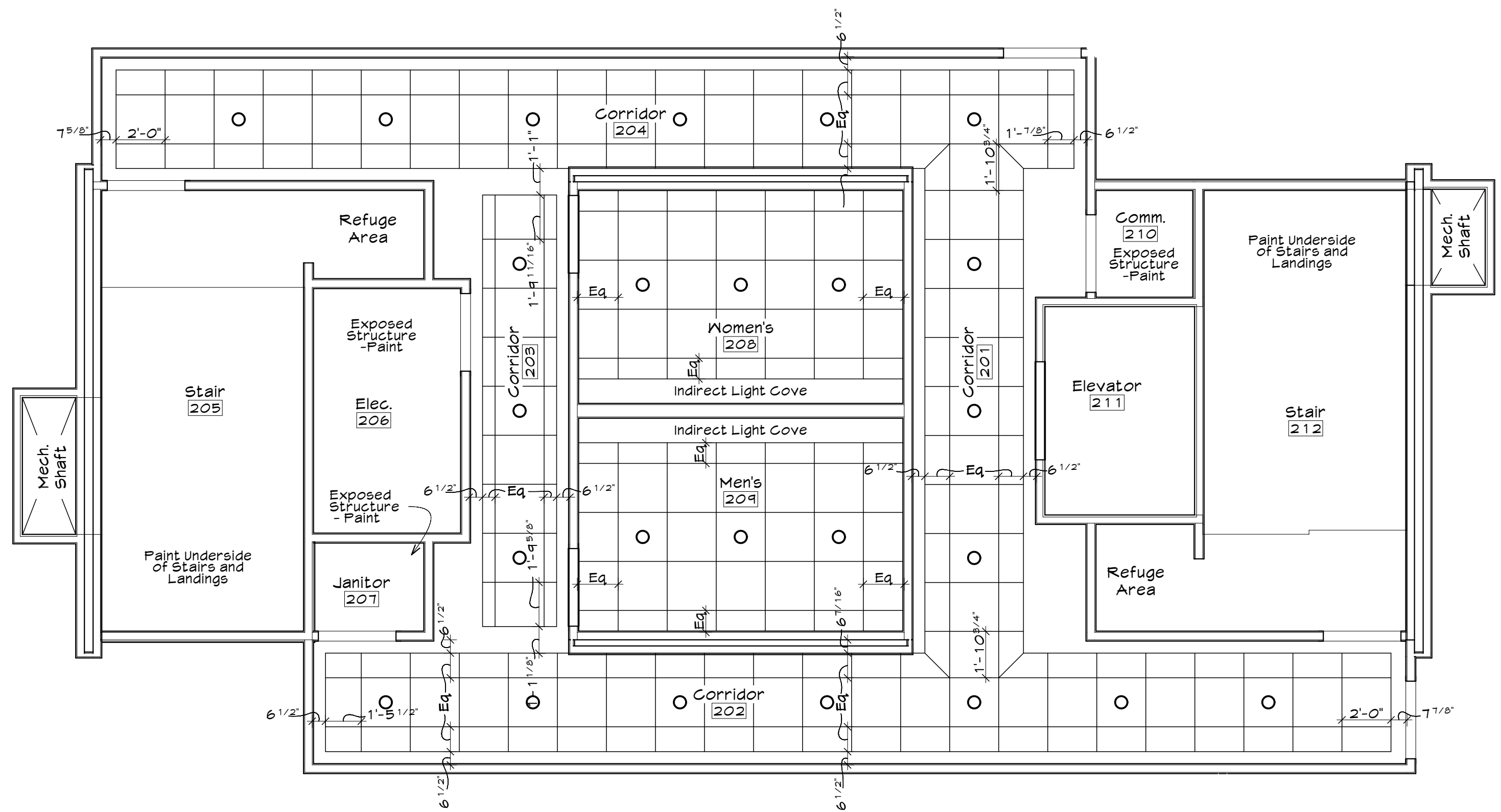
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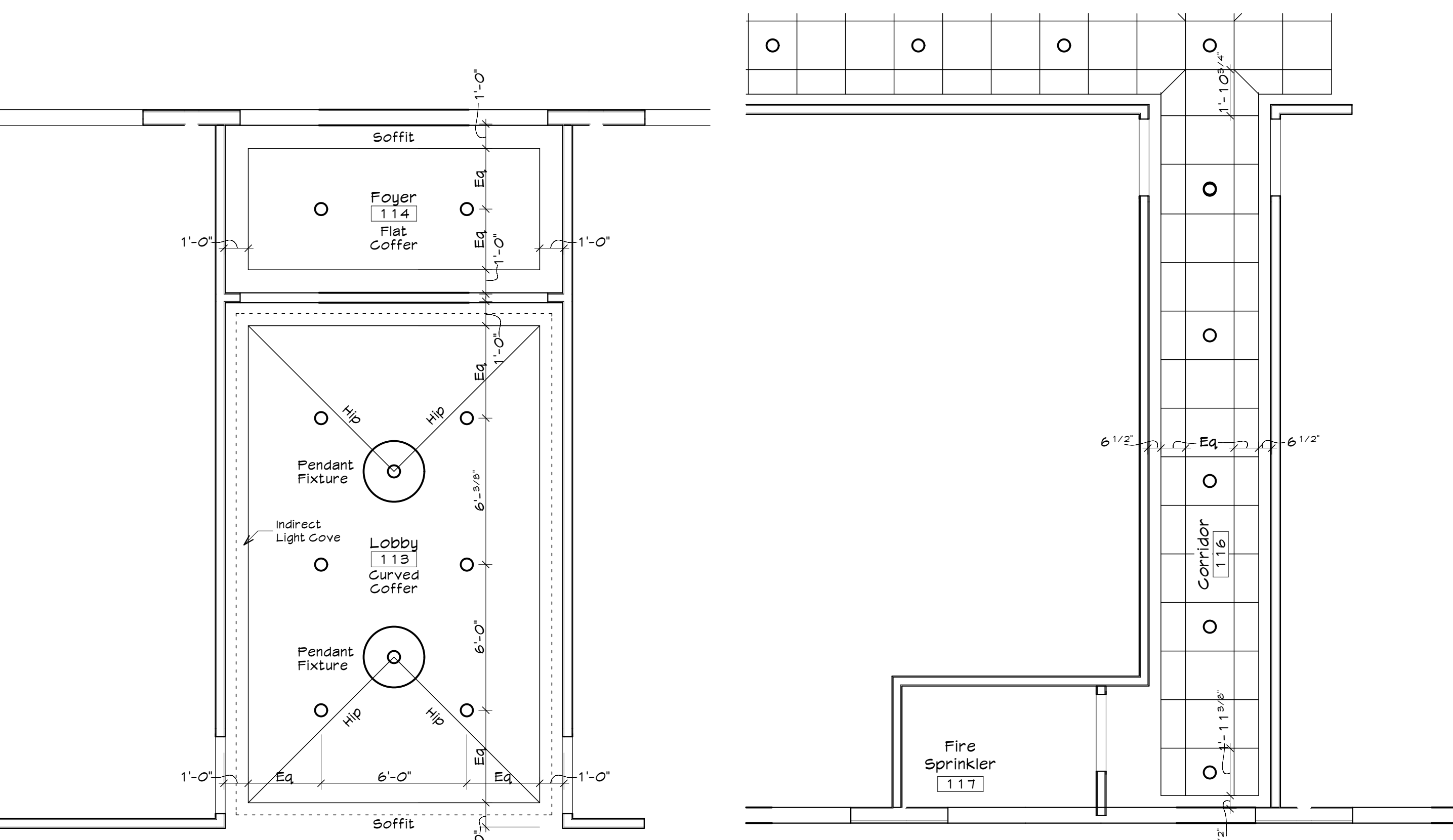
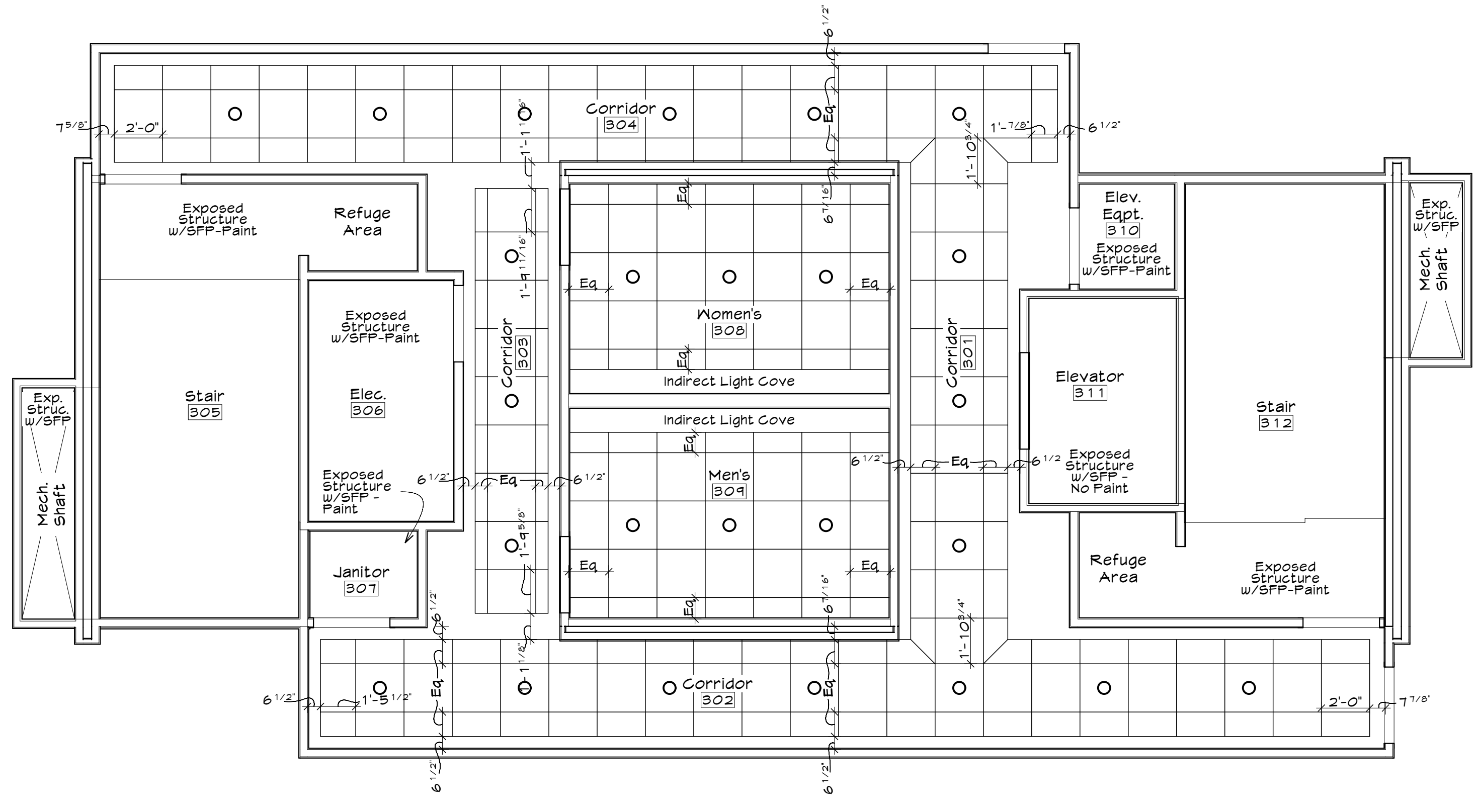
A6

of
Office Bay 1105-1106.dwg Saved on 8/20/08
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2 Second Floor Core Reflected Ceiling Plan
 Scale: 1/4" = 1'-0"
 North

1 First Floor Core Reflected Ceiling Plan
 Scale: 1/4" = 1'-0"
 North



3 Third Floor Core Reflected Ceiling Plan
 Scale: 1/4" = 1'-0"
 North

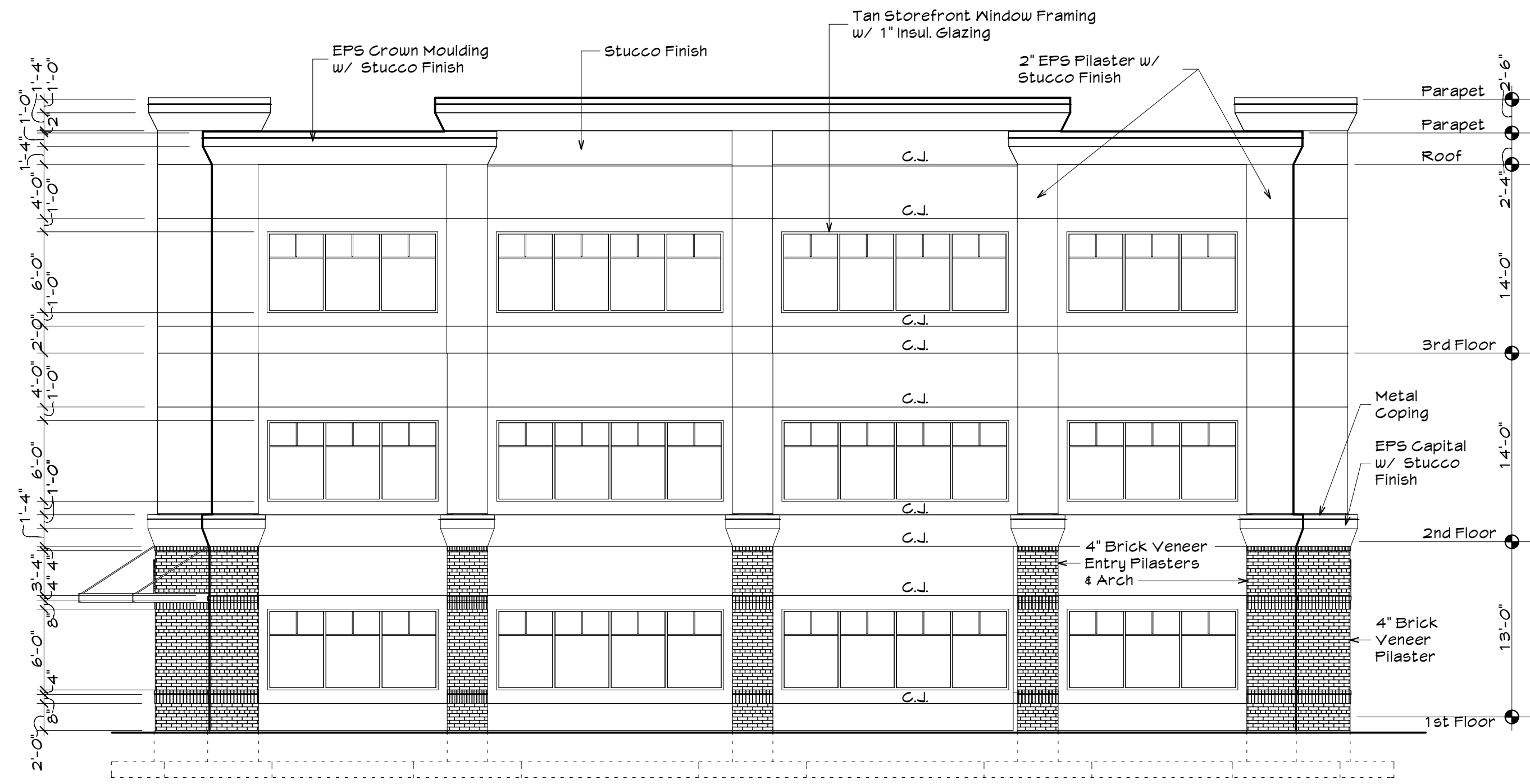
4 Foyer & Lobby Reflected Ceiling Plan
 Scale: 1/4" = 1'-0"

5 First Floor Corridor Reflected Ceiling Plan
 Scale: 1/4" = 1'-0"

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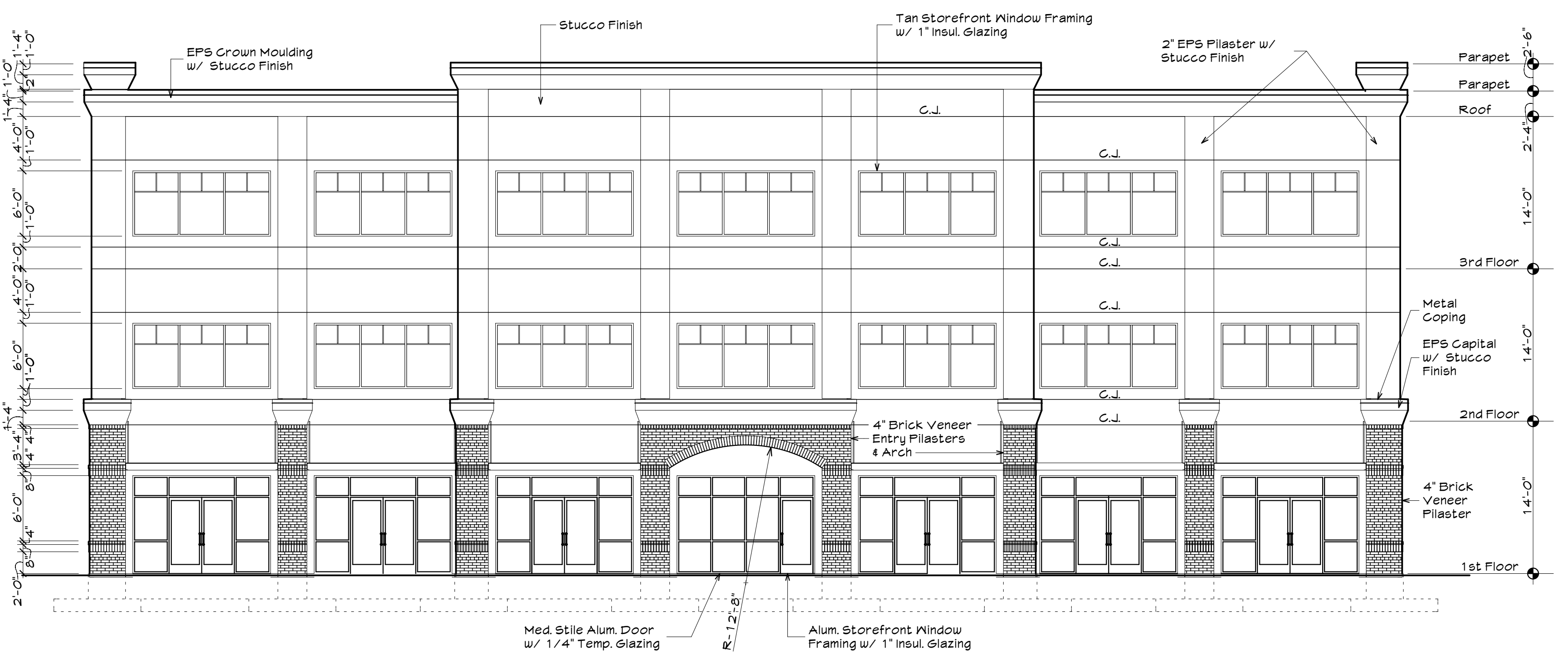
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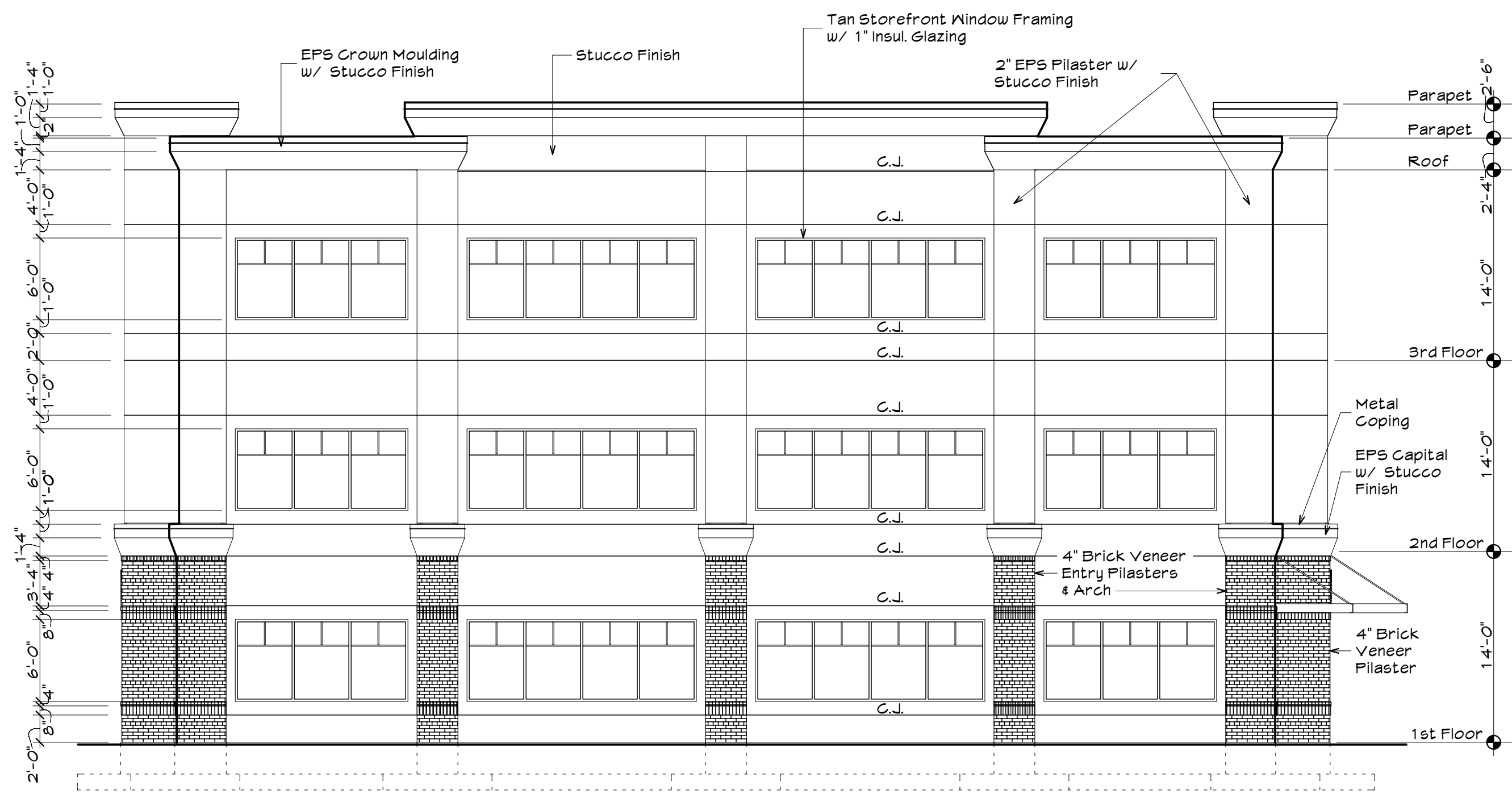
3 South Elevation

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



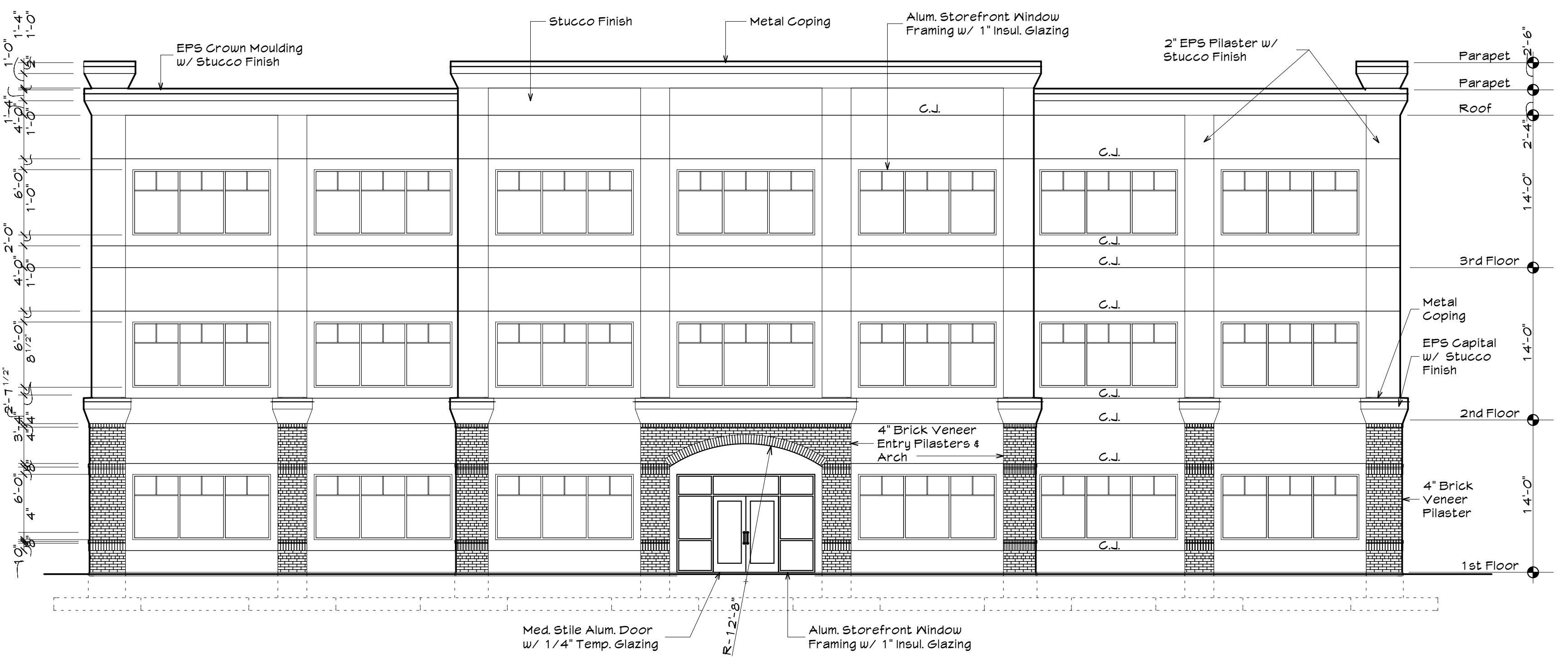
1 West Elevation

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



4 North Elevation

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



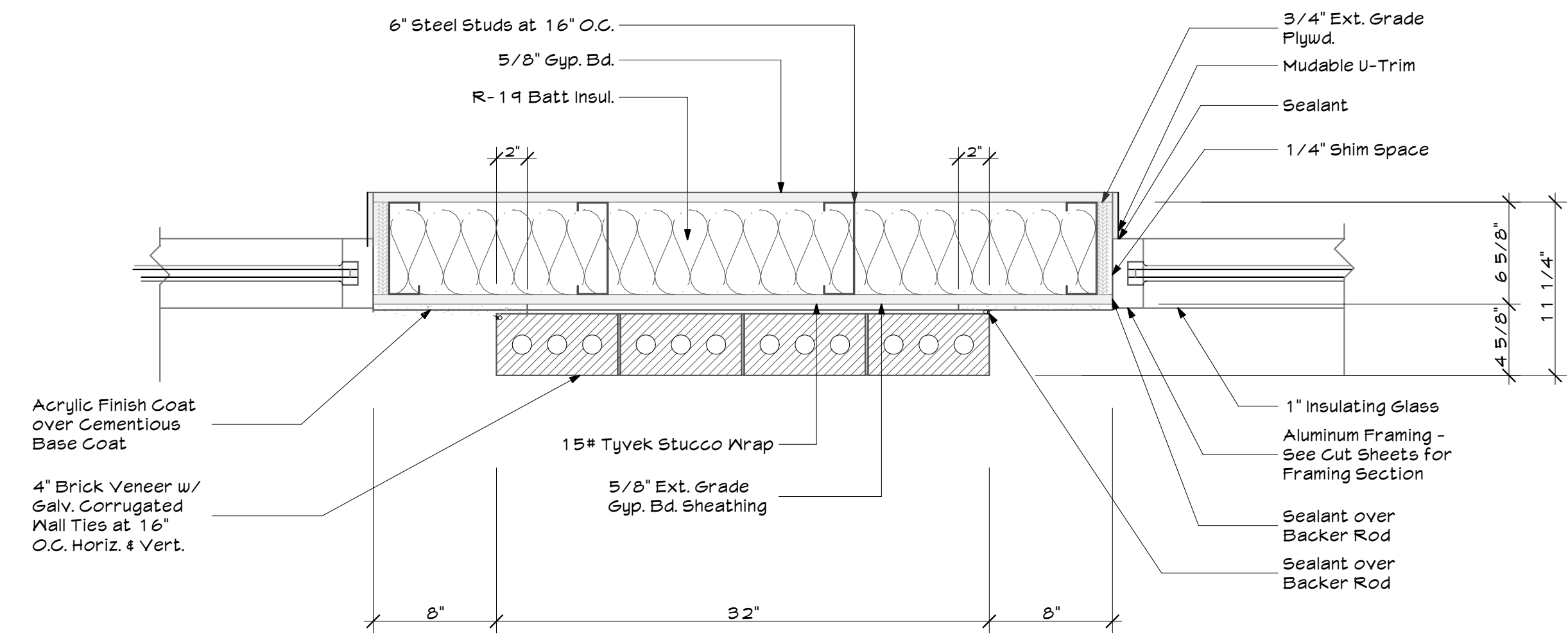
2 East Elevation

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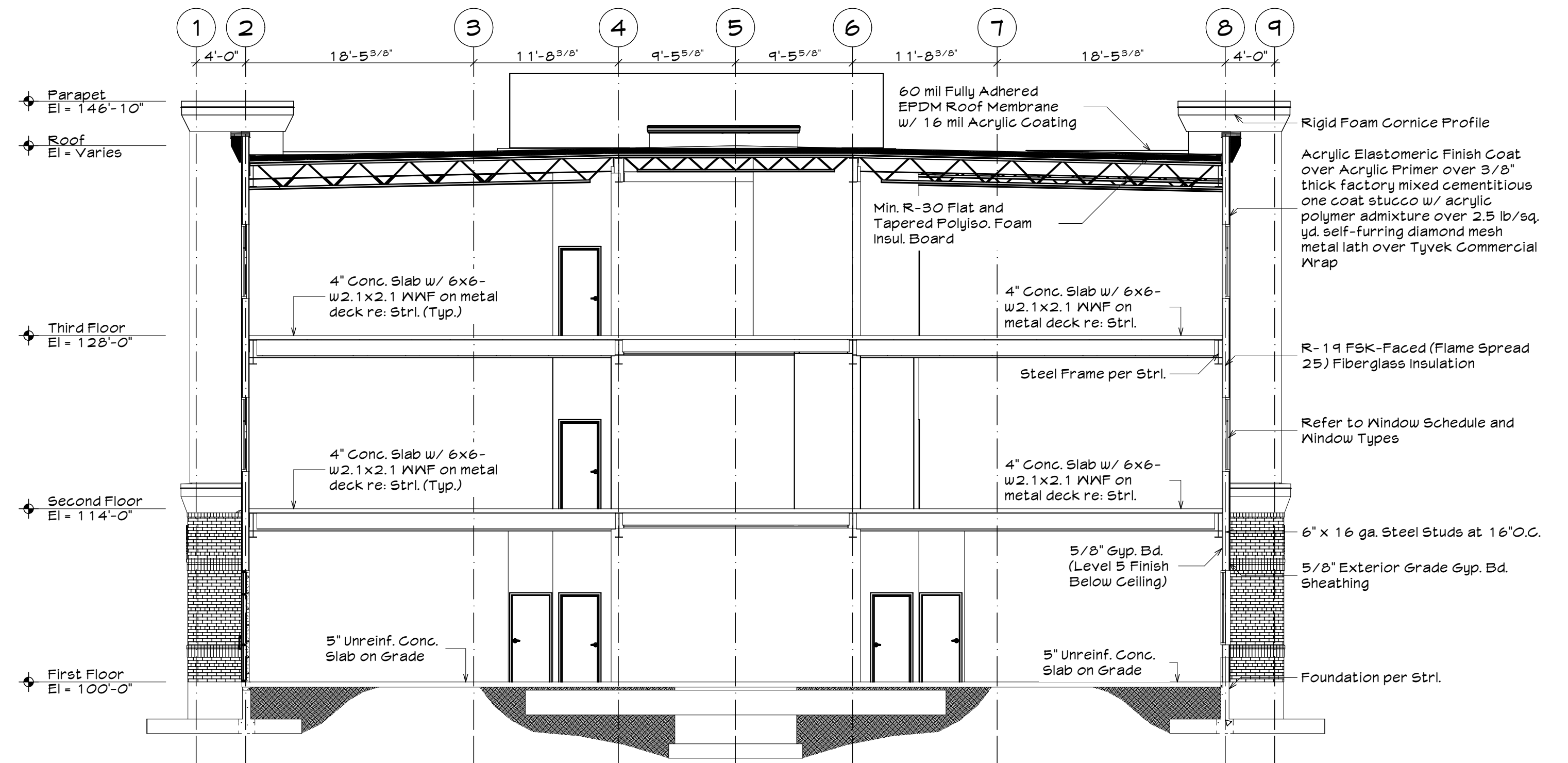
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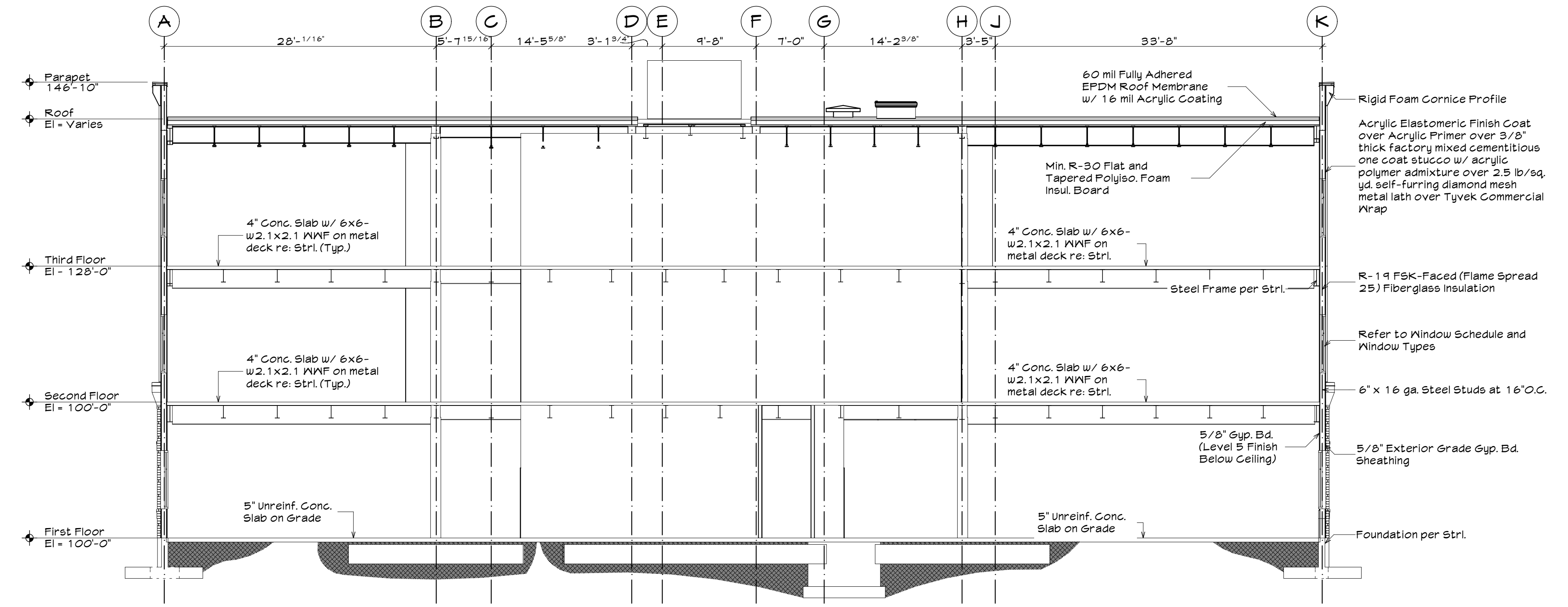
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1 Pilaster Detail
Plan View
Scale: 1 1/2" = 1'-0"



2 Building Section
Scale: 1/8" = 1'-0"

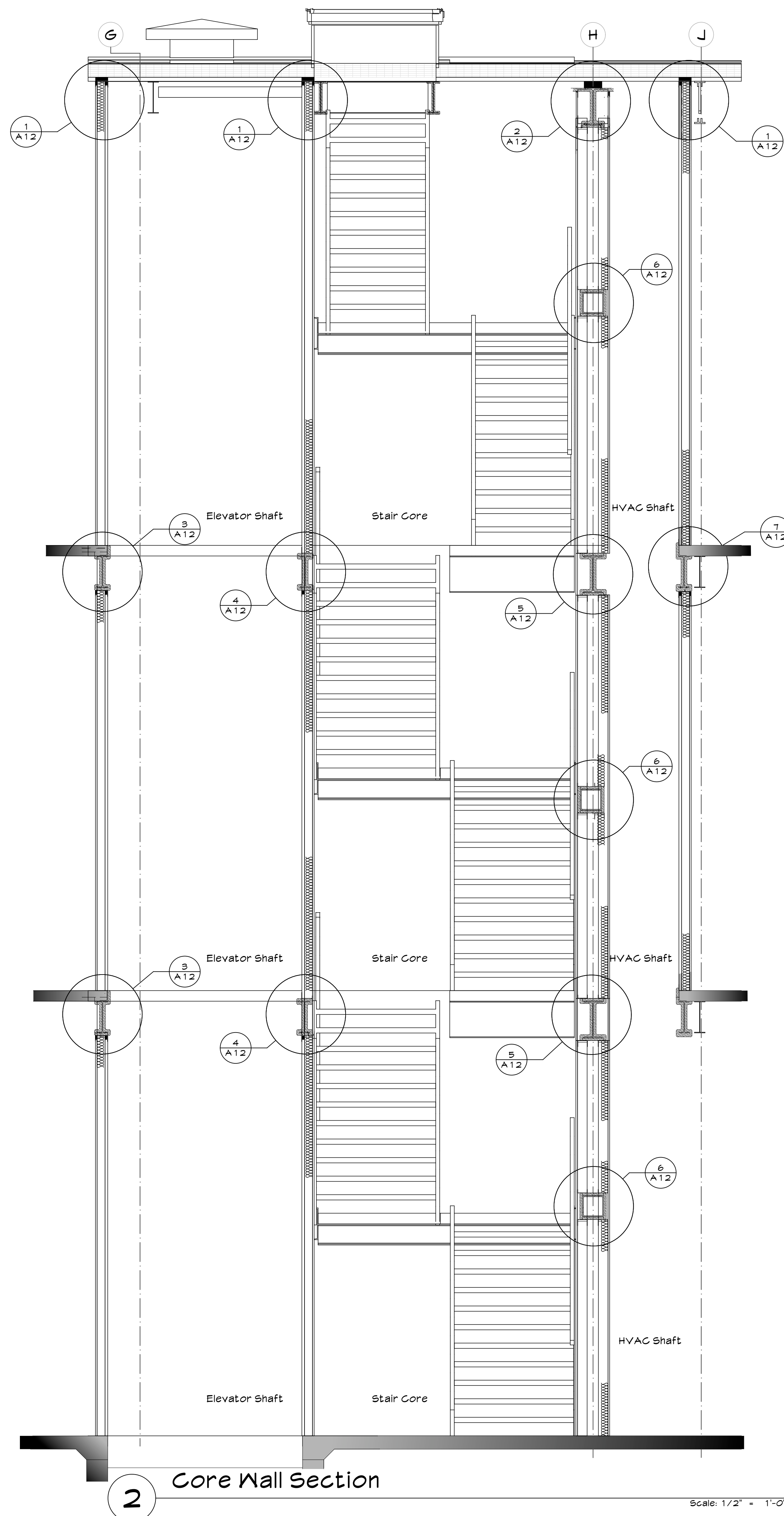


1 Building Section
Scale: 1/8" = 1'-0"

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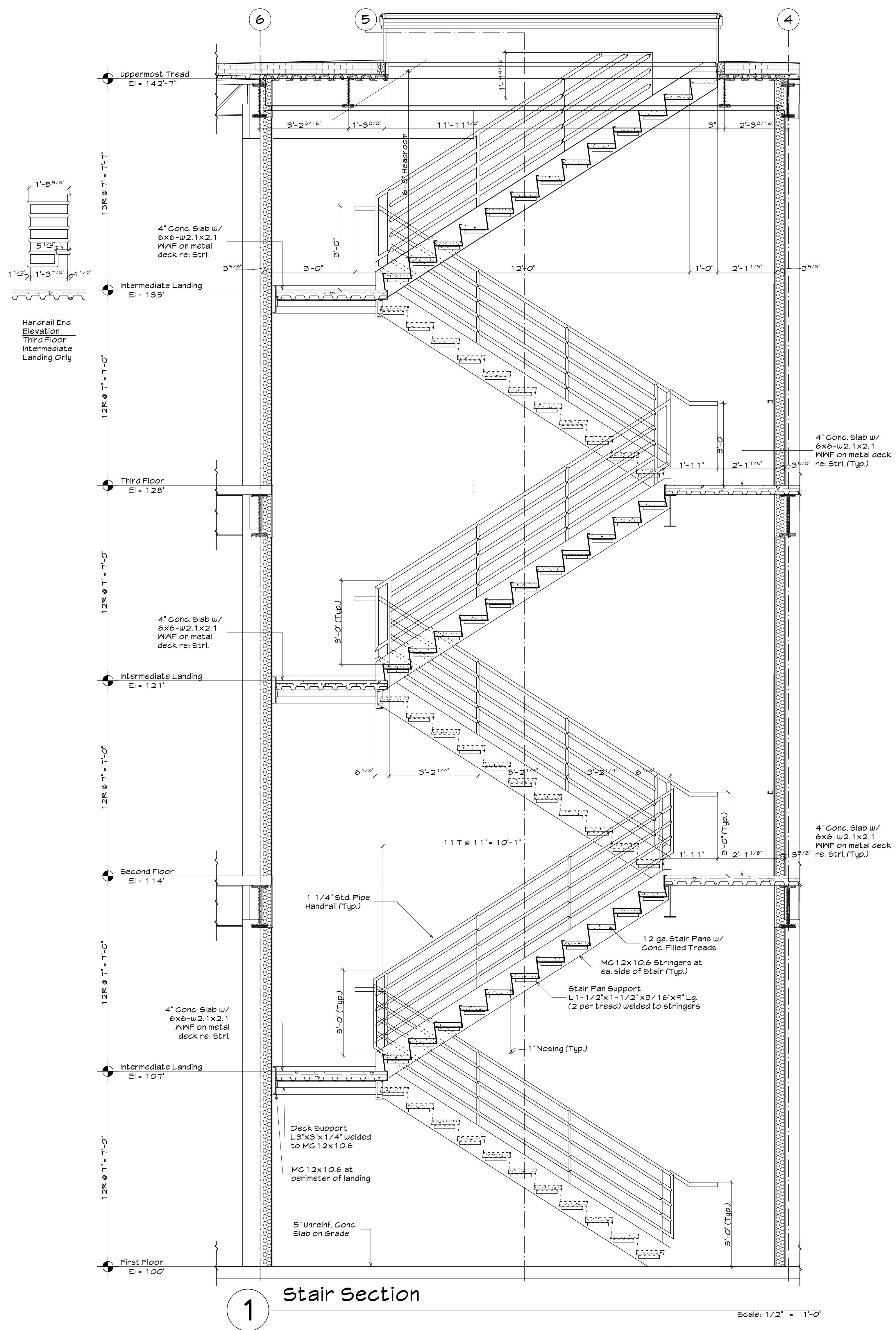
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2 Core Wall Section

Scale: 1/2" = 1'-0"



1 Stair Section

Scale: 1/2" = 1'-0"

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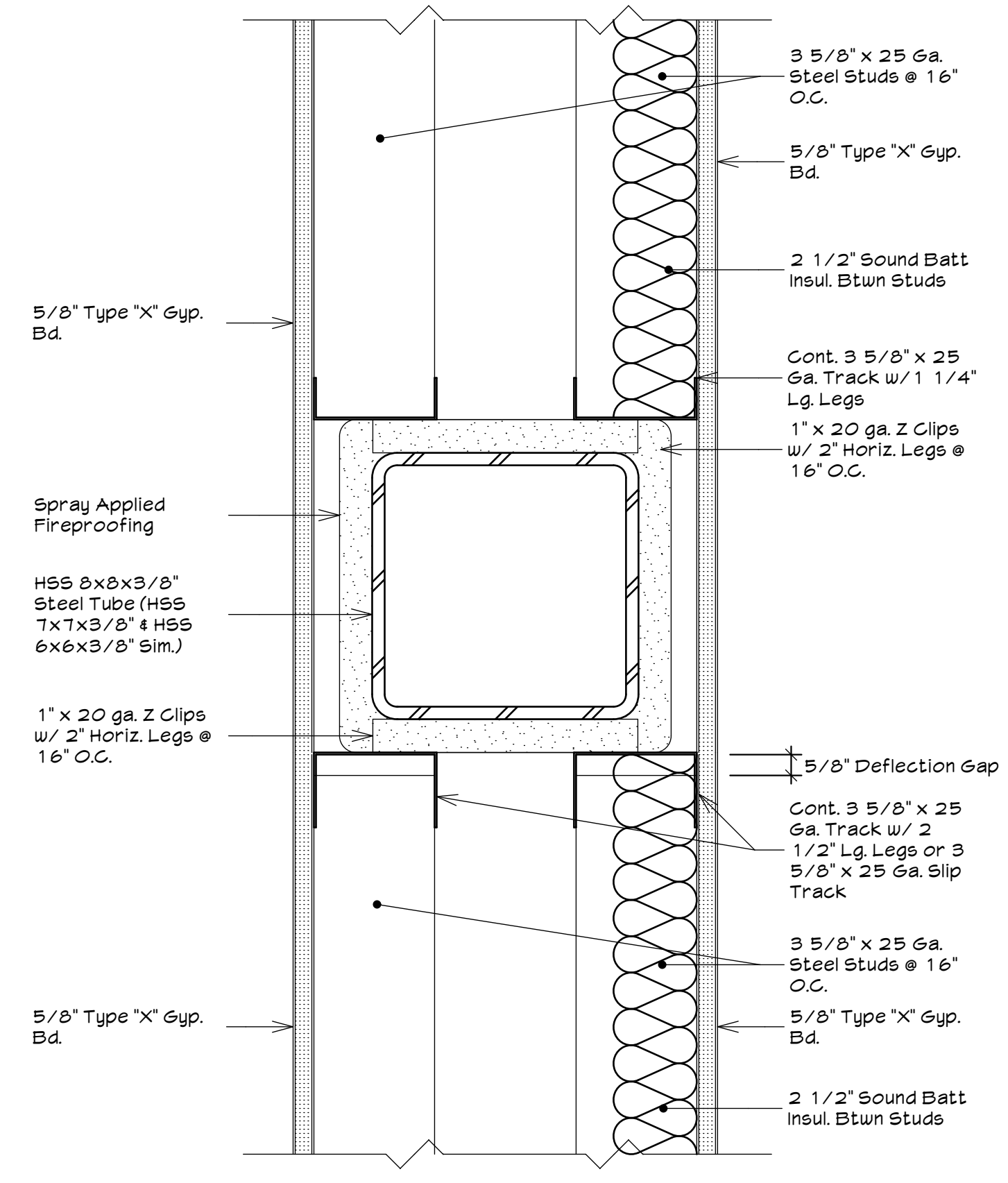
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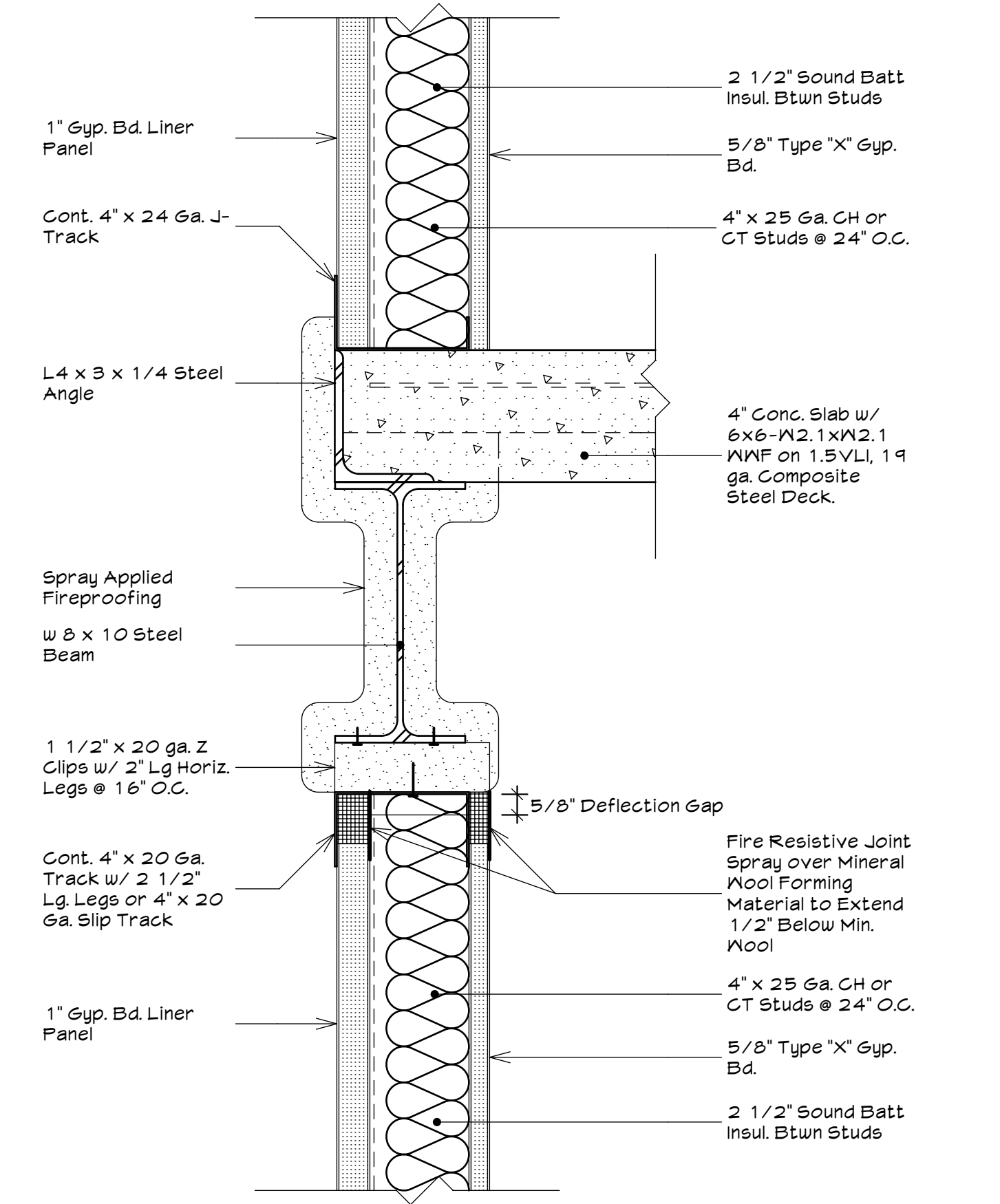
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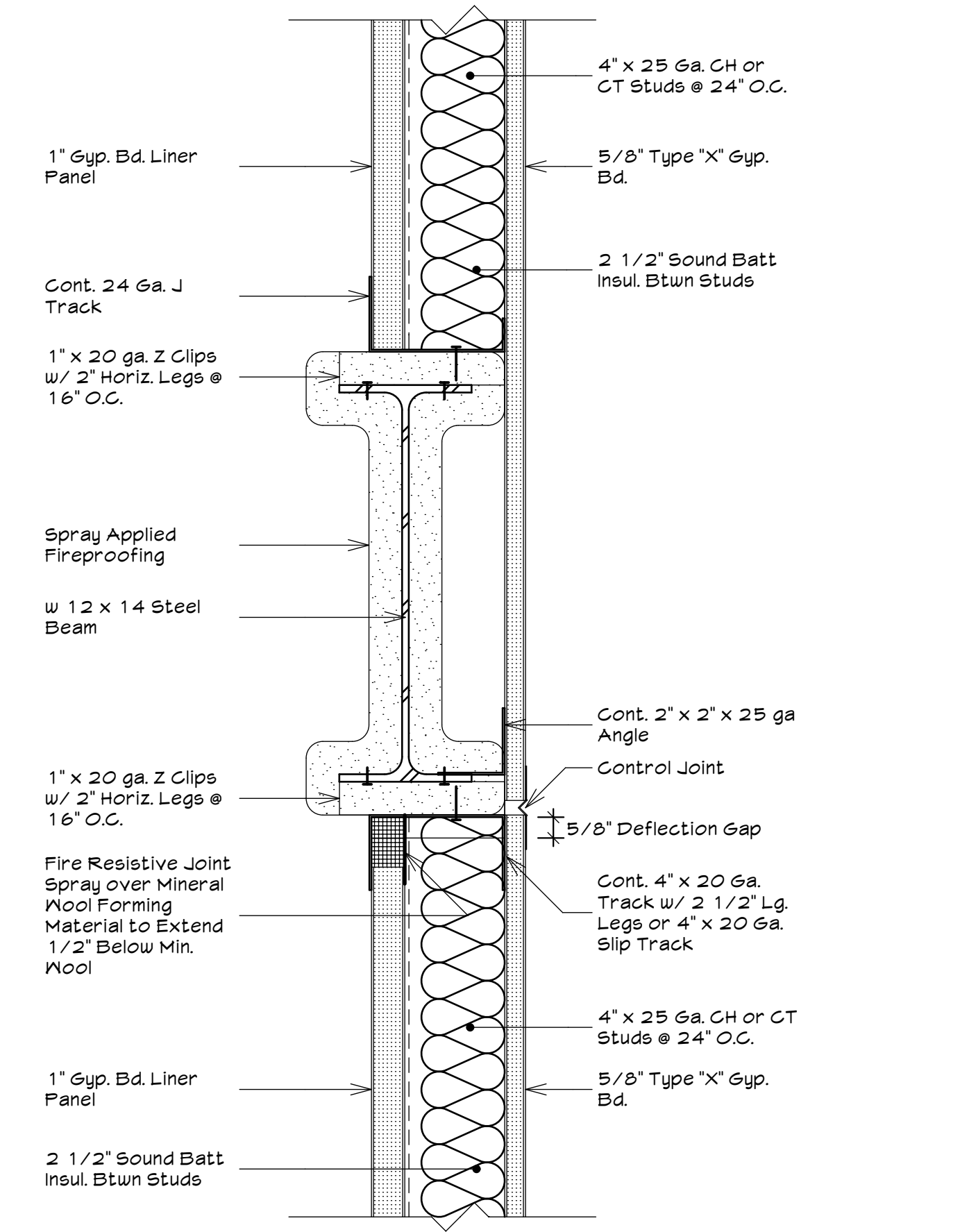
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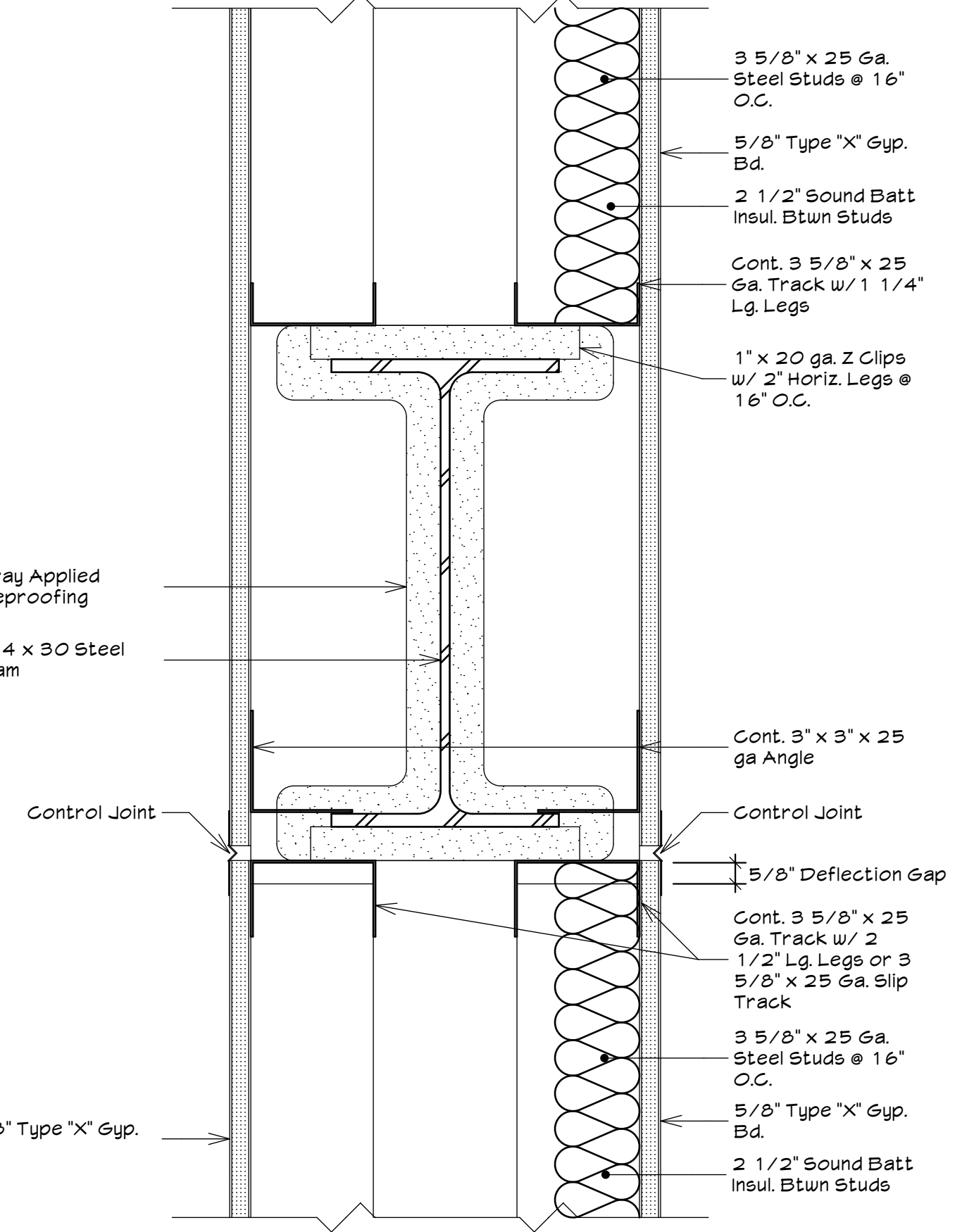
6 Building Frame 2 & 4 Diagonal Brace Detail
Scale: 3" = 1'-0"



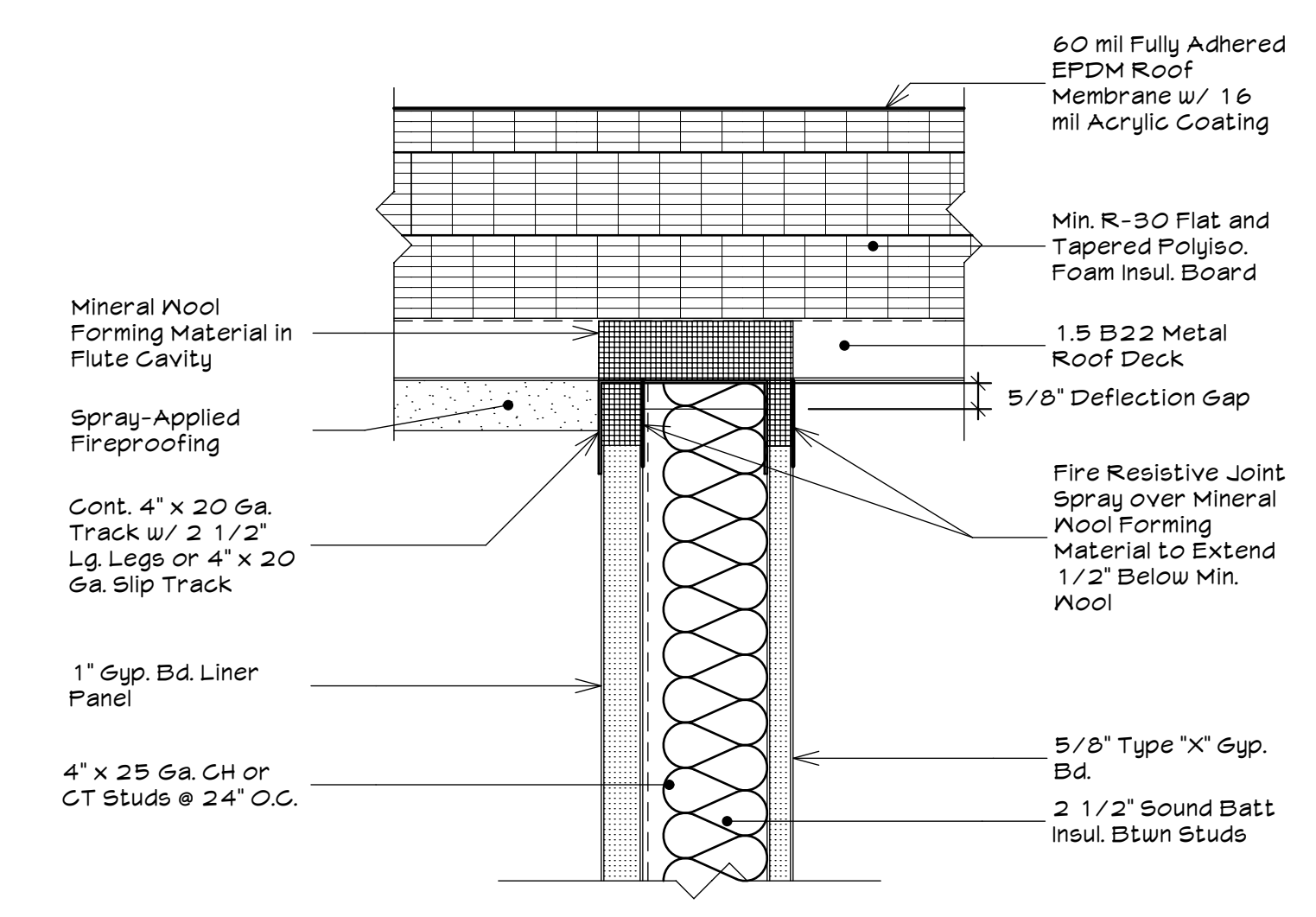
7 Shaft Wall/Floor Beam Detail (1)
Scale: 3" = 1'-0"



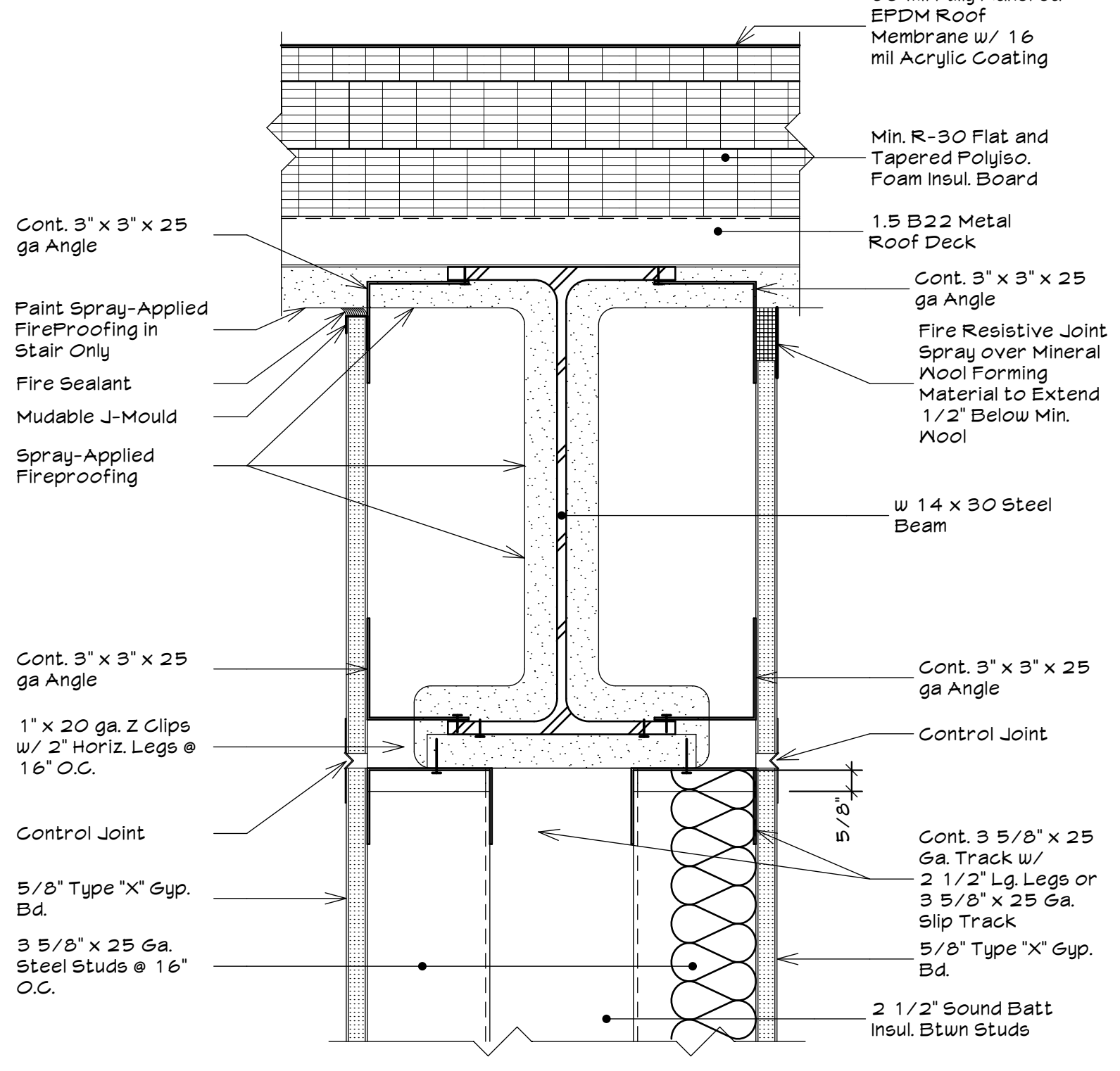
4 Shaft Wall/Floor Beam Detail
Scale: 3" = 1'-0"



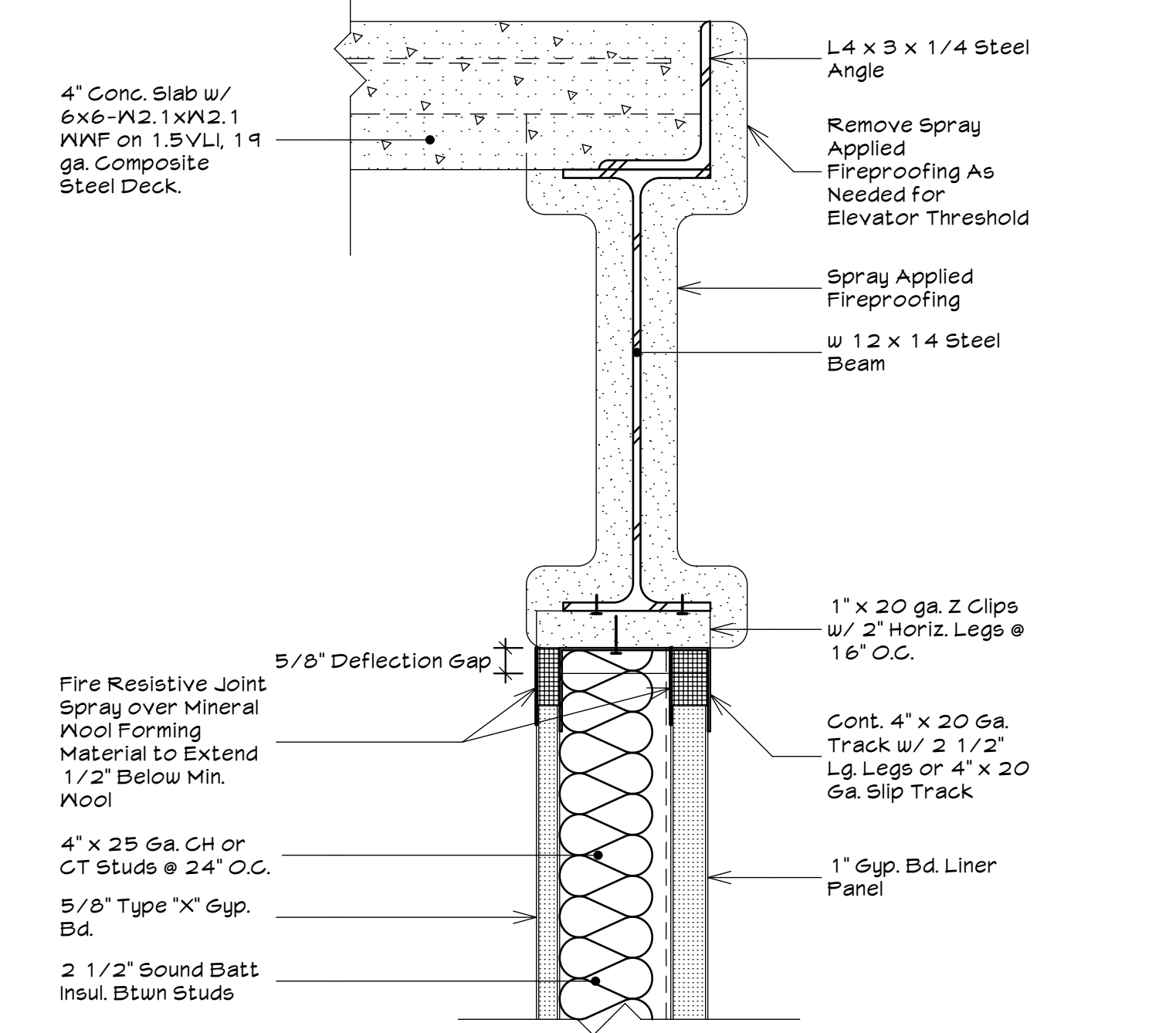
5 Building Frame 2 & 4 Floor Beam Detail
Scale: 3" = 1'-0"



1 Shaft Wall Detail @ Mechanical Shaft
1-Hr. Fire Resistive Construction
Scale: 3" = 1'-0"



2 Building Frame 2 & 4 Roof Beam Detail
Scale: 3" = 1'-0"

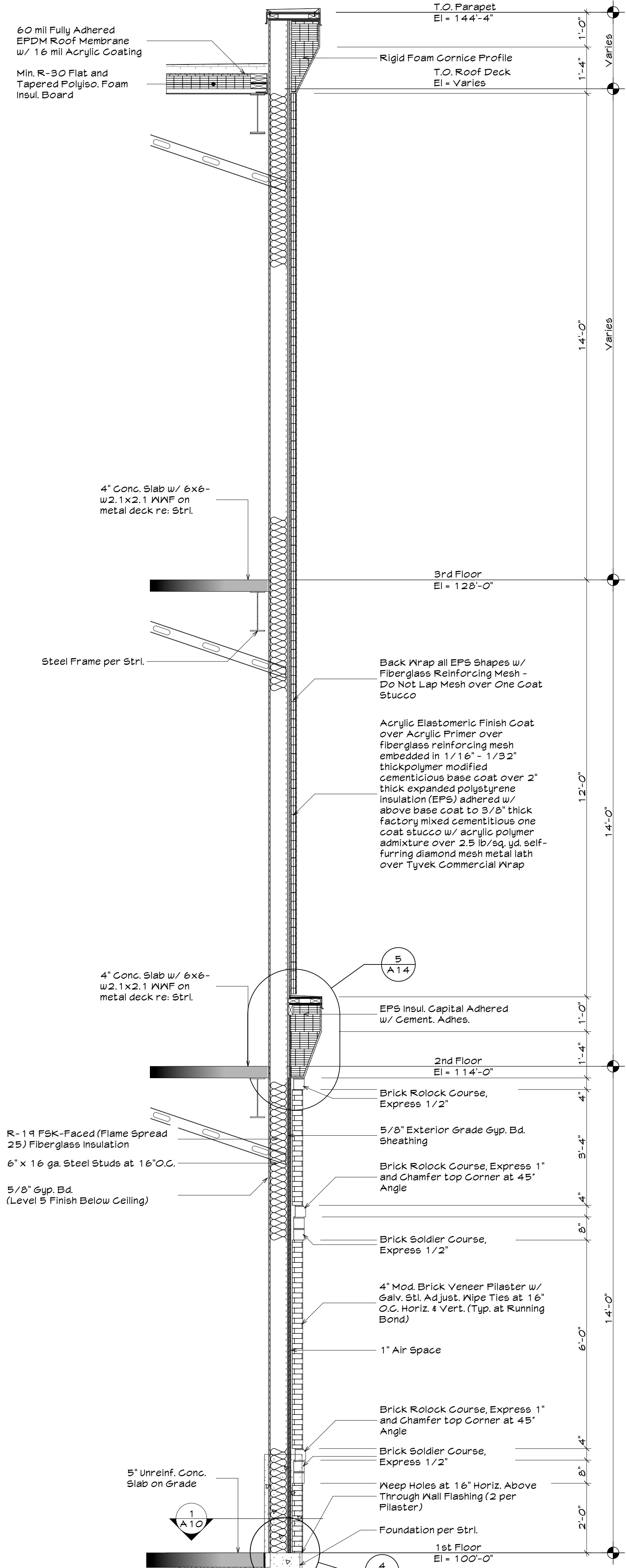


3 Shaft Wall/Floor Beam Detail
Scale: 3" = 1'-0"

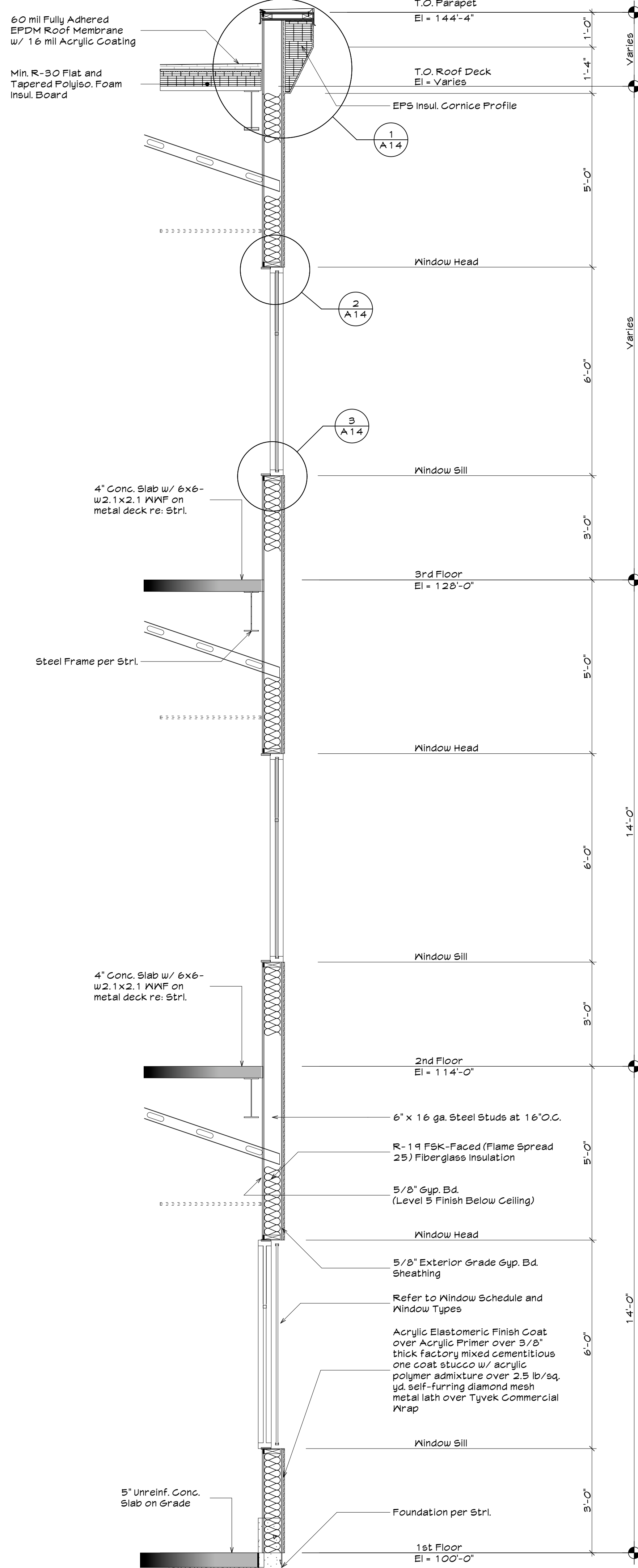
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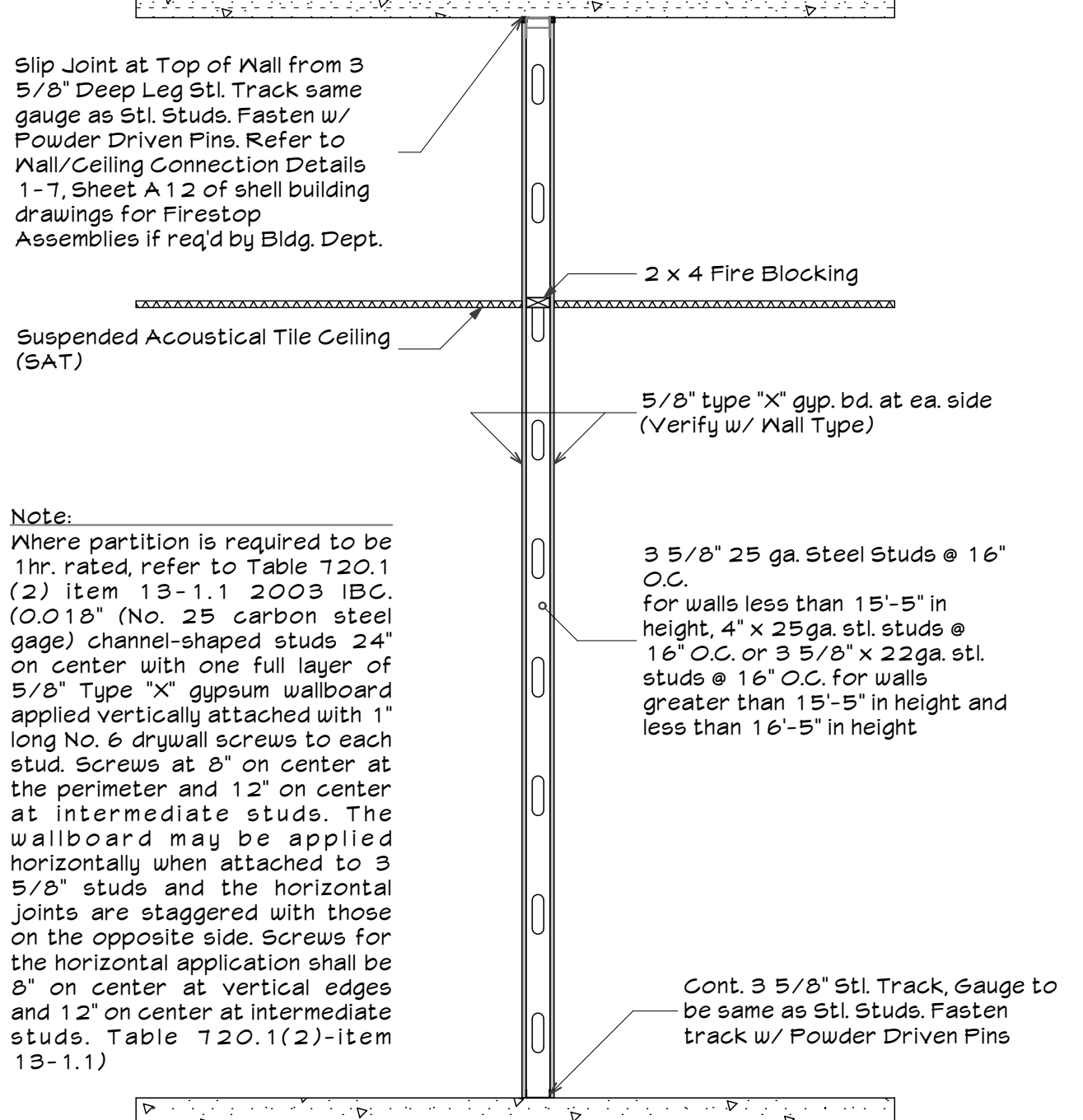
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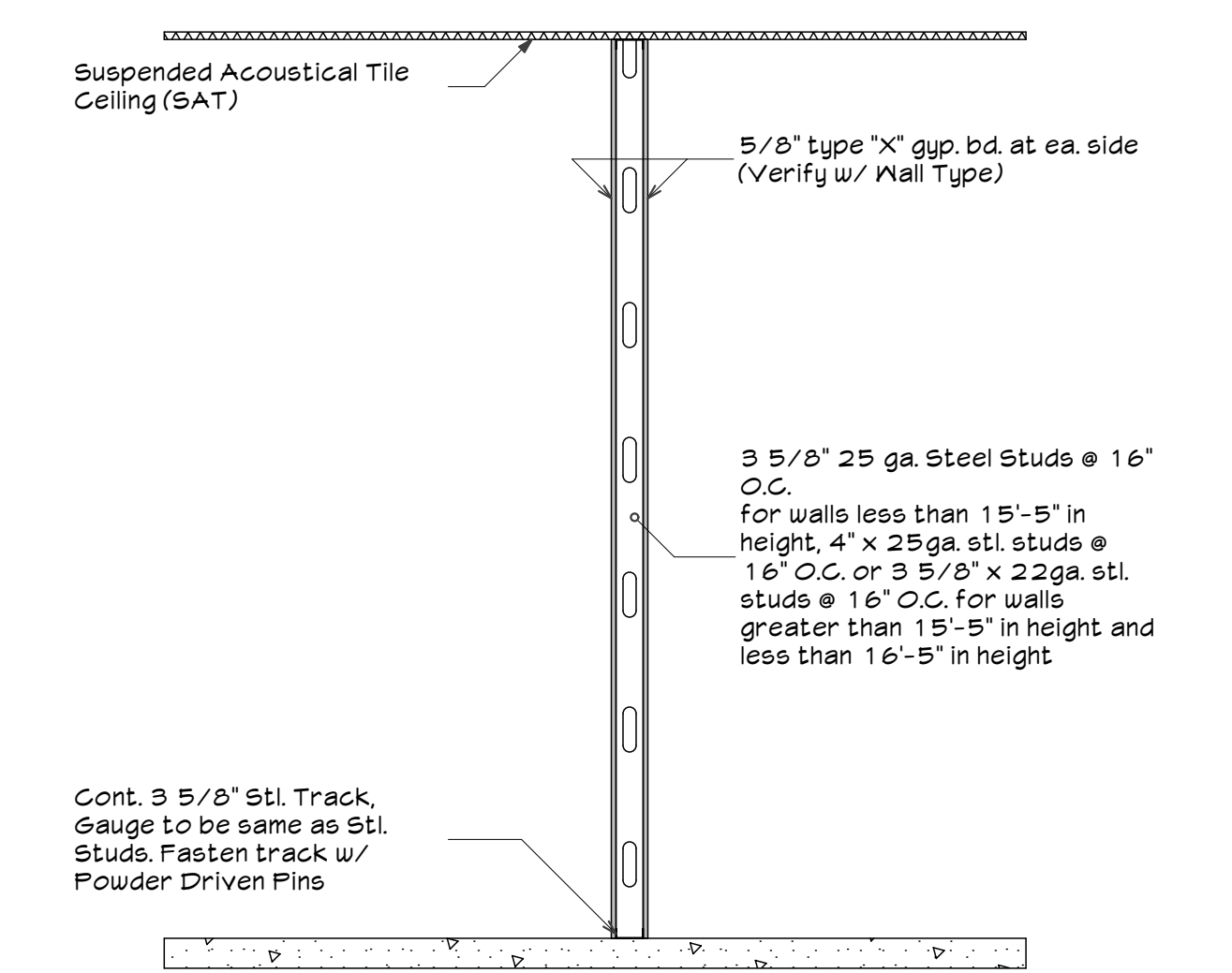
5 Wall Section
Wall Types "B" & "C"
Scale: 1/2" = 1'-0"



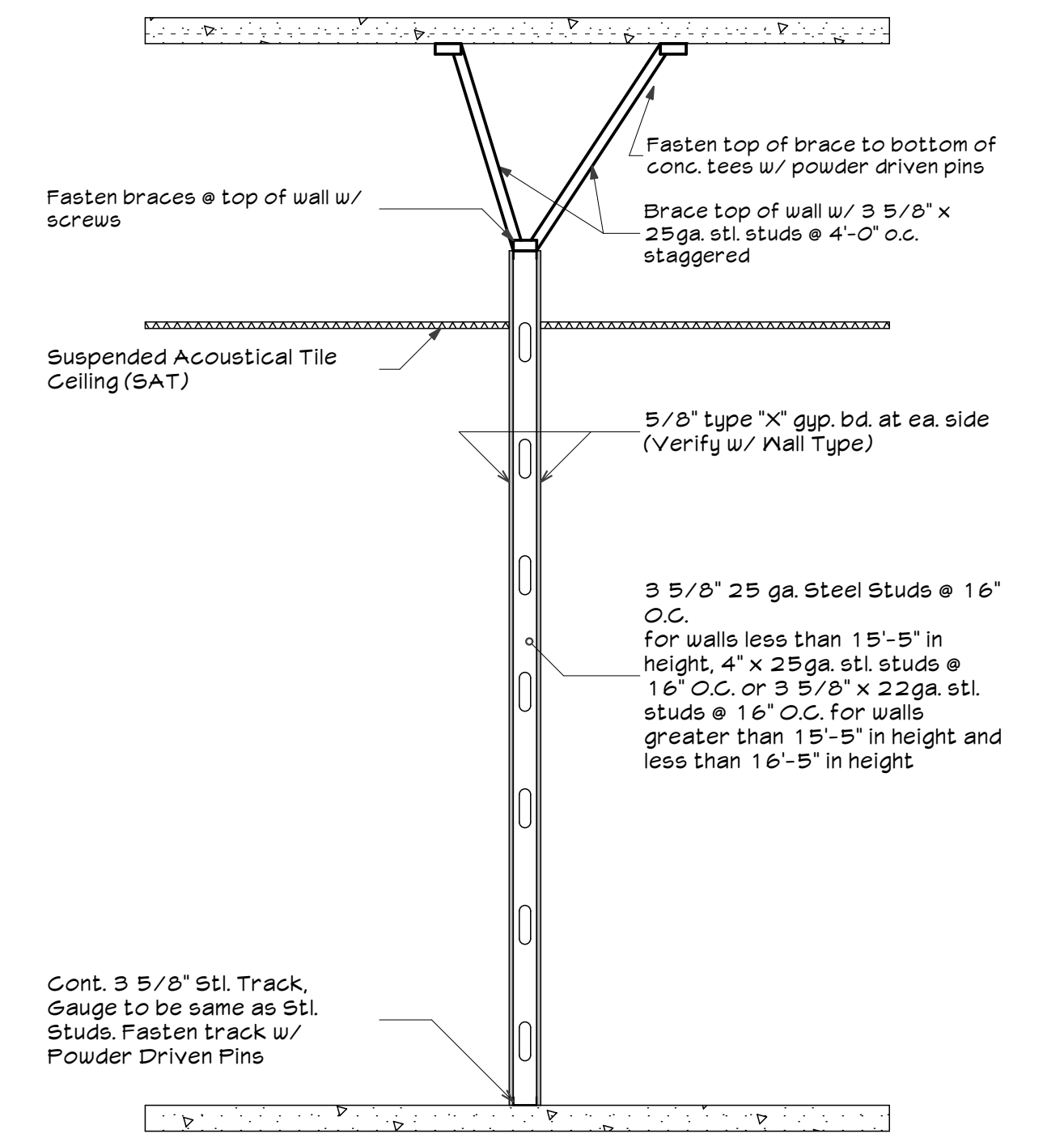
4 Wall Section
Wall Type "A"
Scale: 1/2" = 1'-0"



1 Typical Wall Section
Scale: 1/2" = 1'-0"



2 Typical Wall Section
Scale: 1/2" = 1'-0"



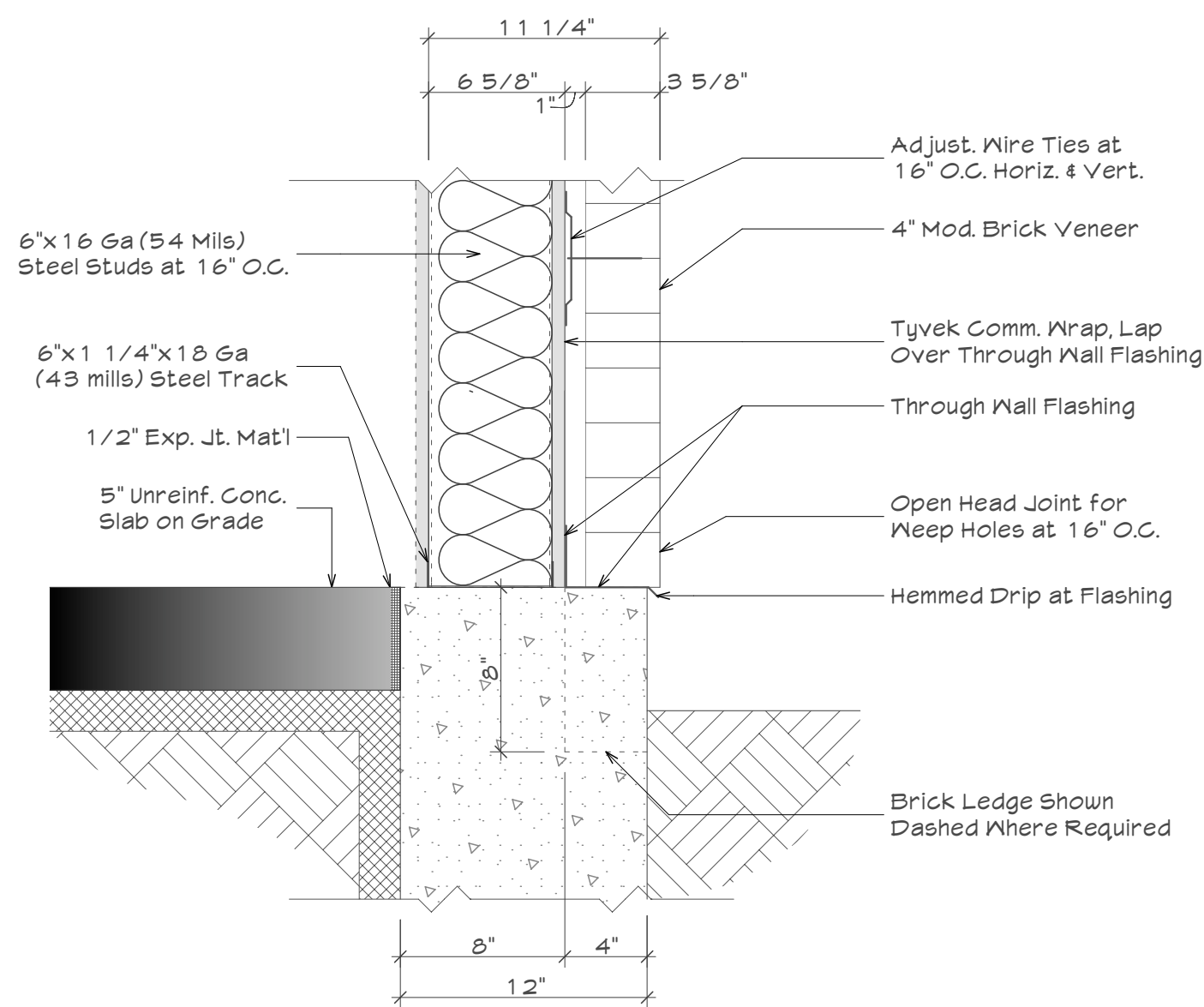
3 Typical Wall Section
Scale: 1/2" = 1'-0"

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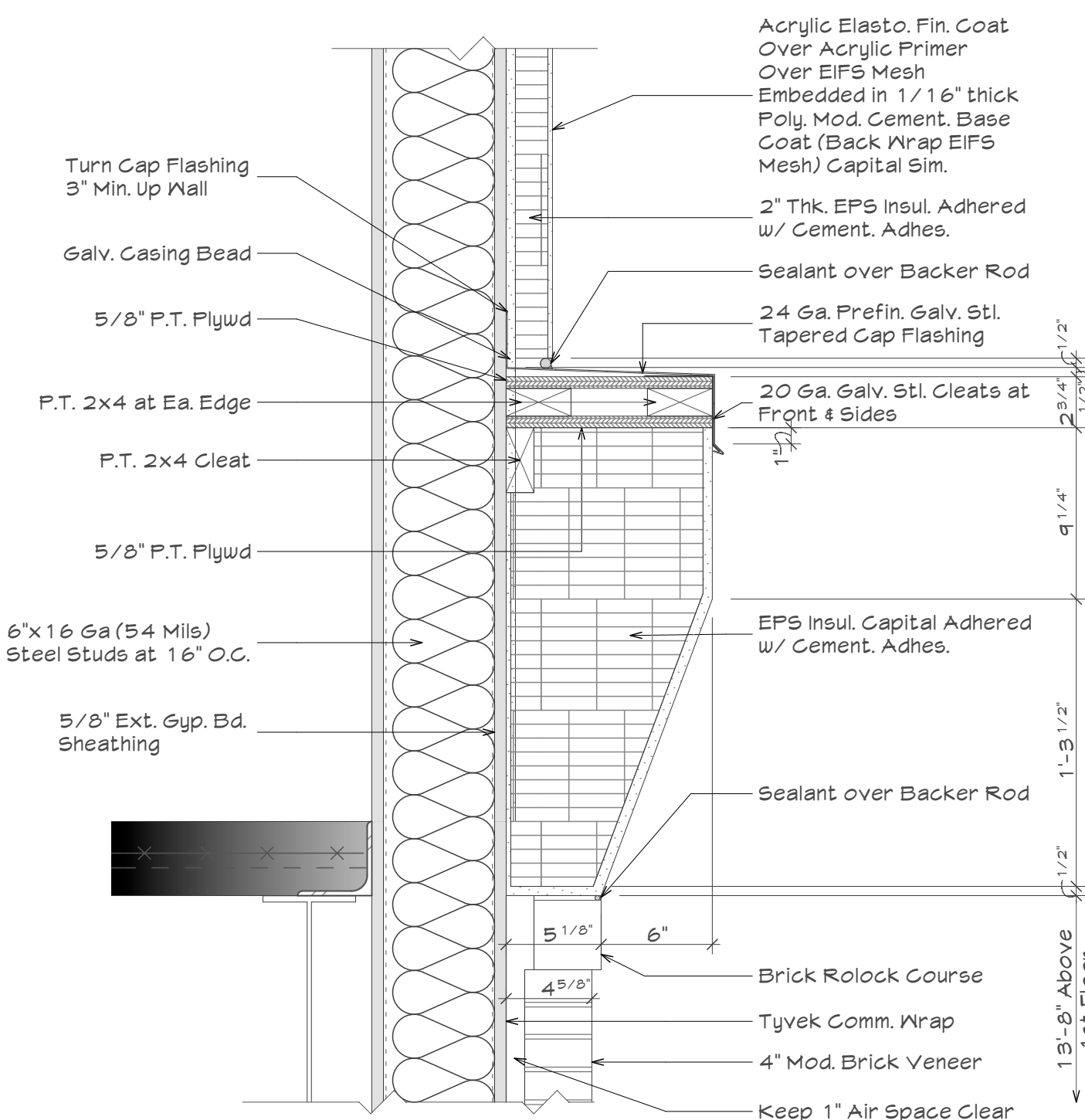
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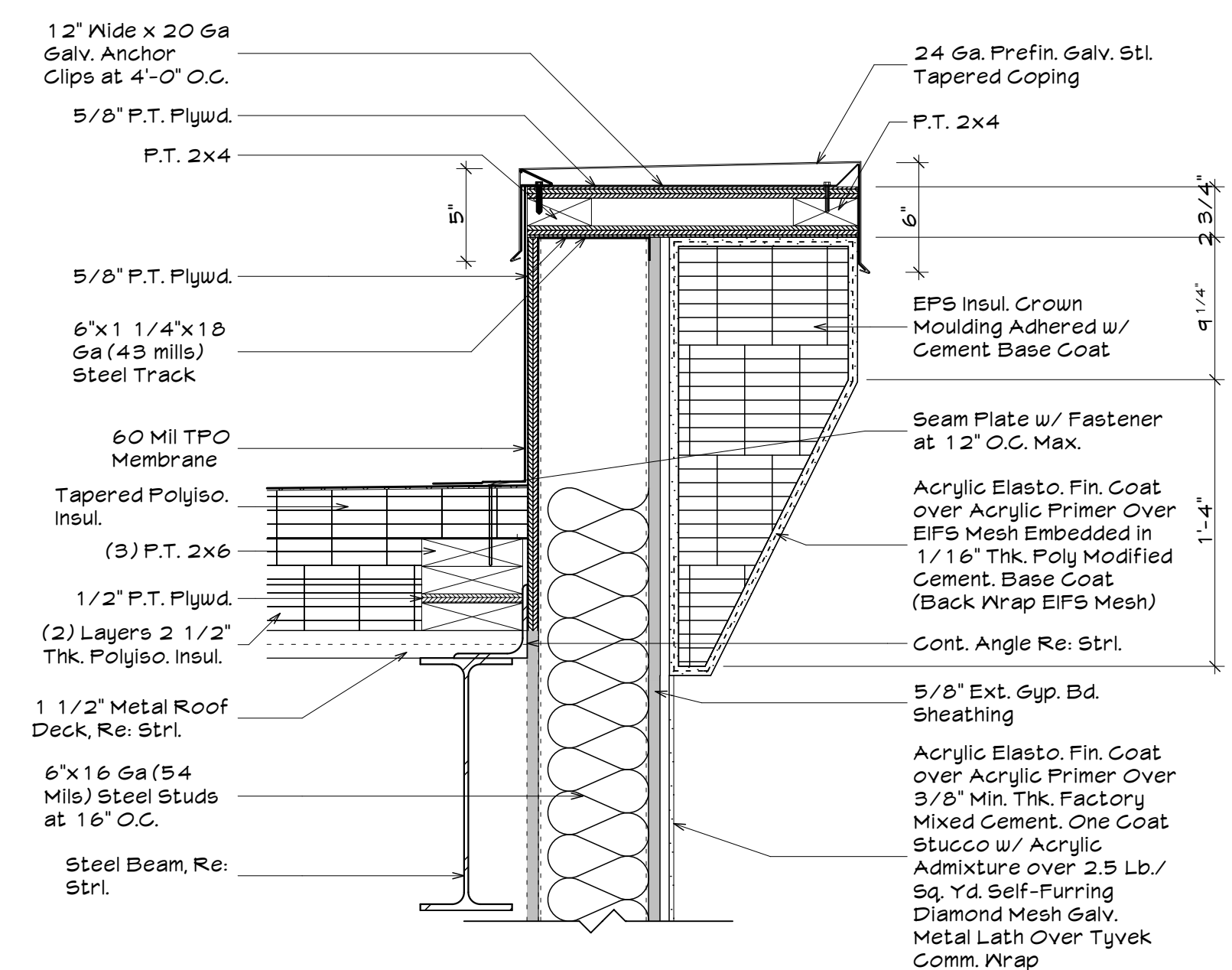
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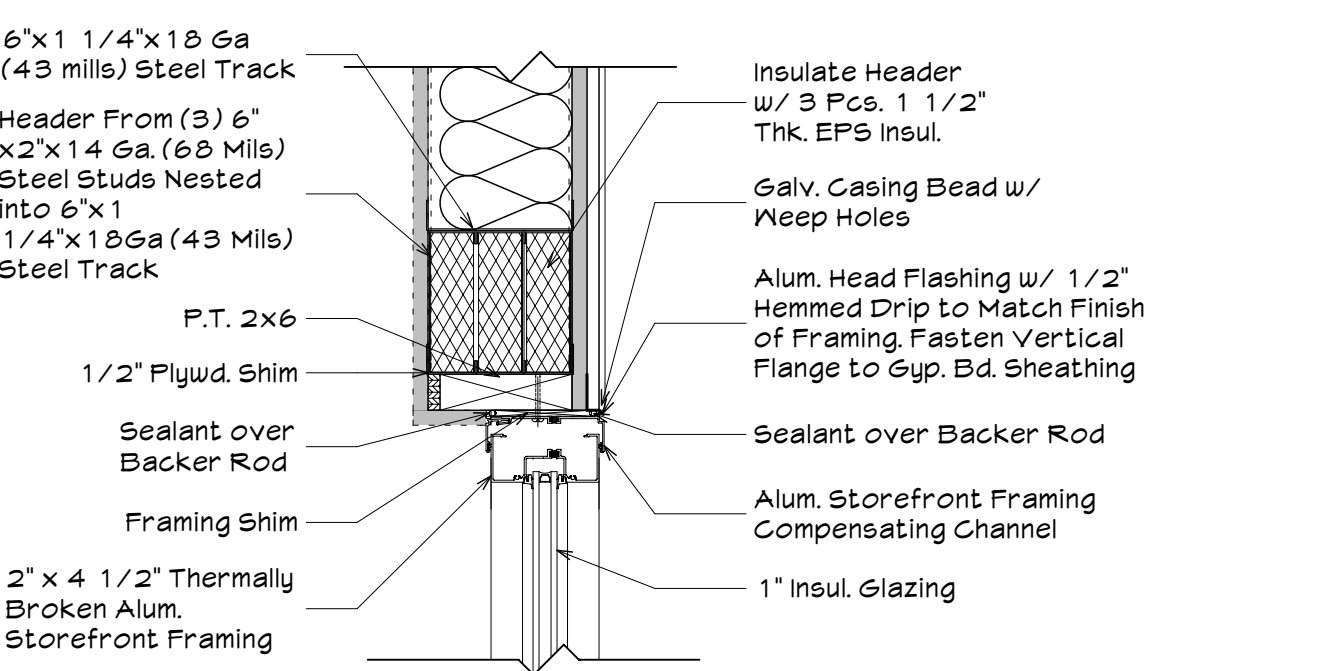
4 Pilaster Detail (1) Scale: 1 1/2" = 1'-0"



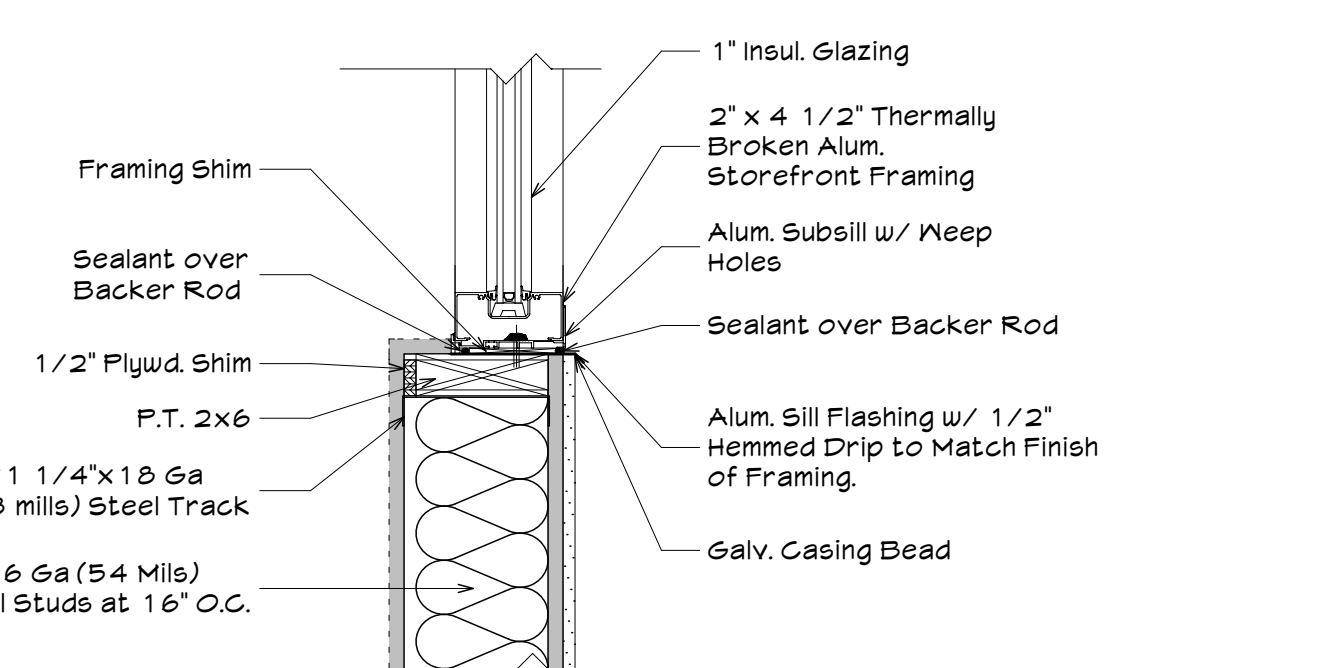
5 Wall Capital Detail Scale: 1 1/2" = 1'-0"



1 Parapet Detail Scale: 1 1/2" = 1'-0"



2 Window Head Detail Scale: 1 1/2" = 1'-0"



3 Window Sill Detail Scale: 1 1/2" = 1'-0"

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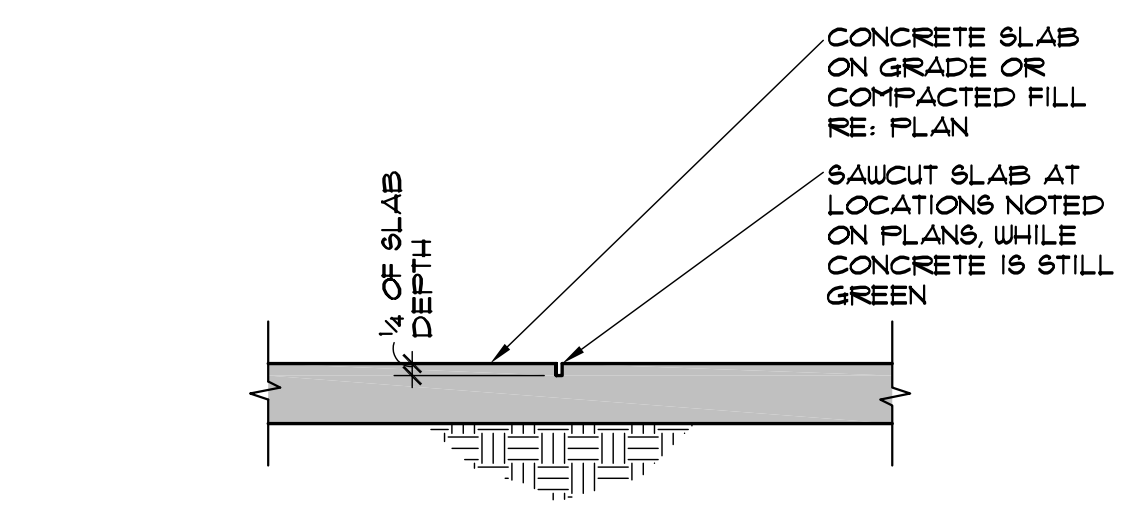
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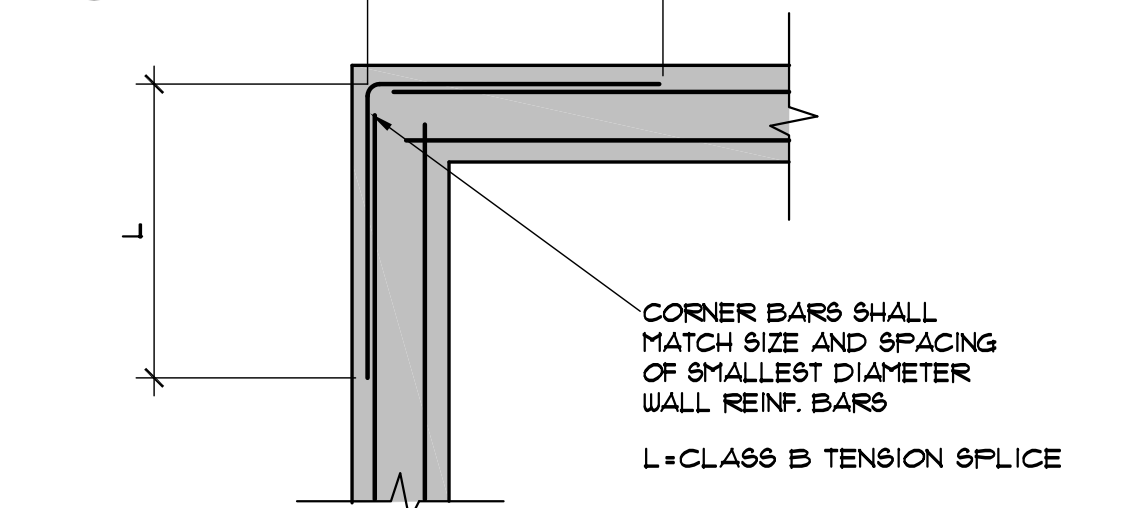
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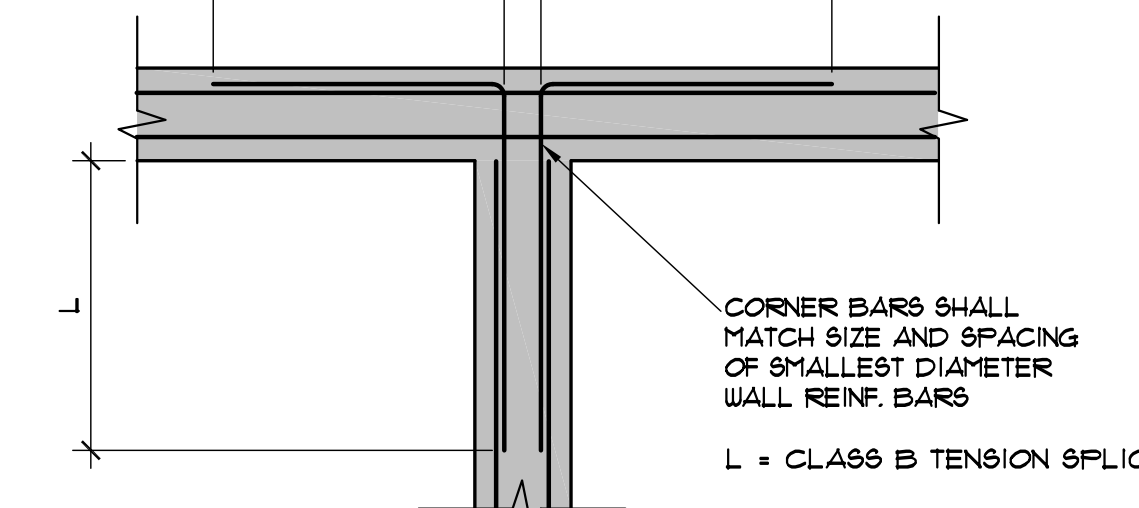
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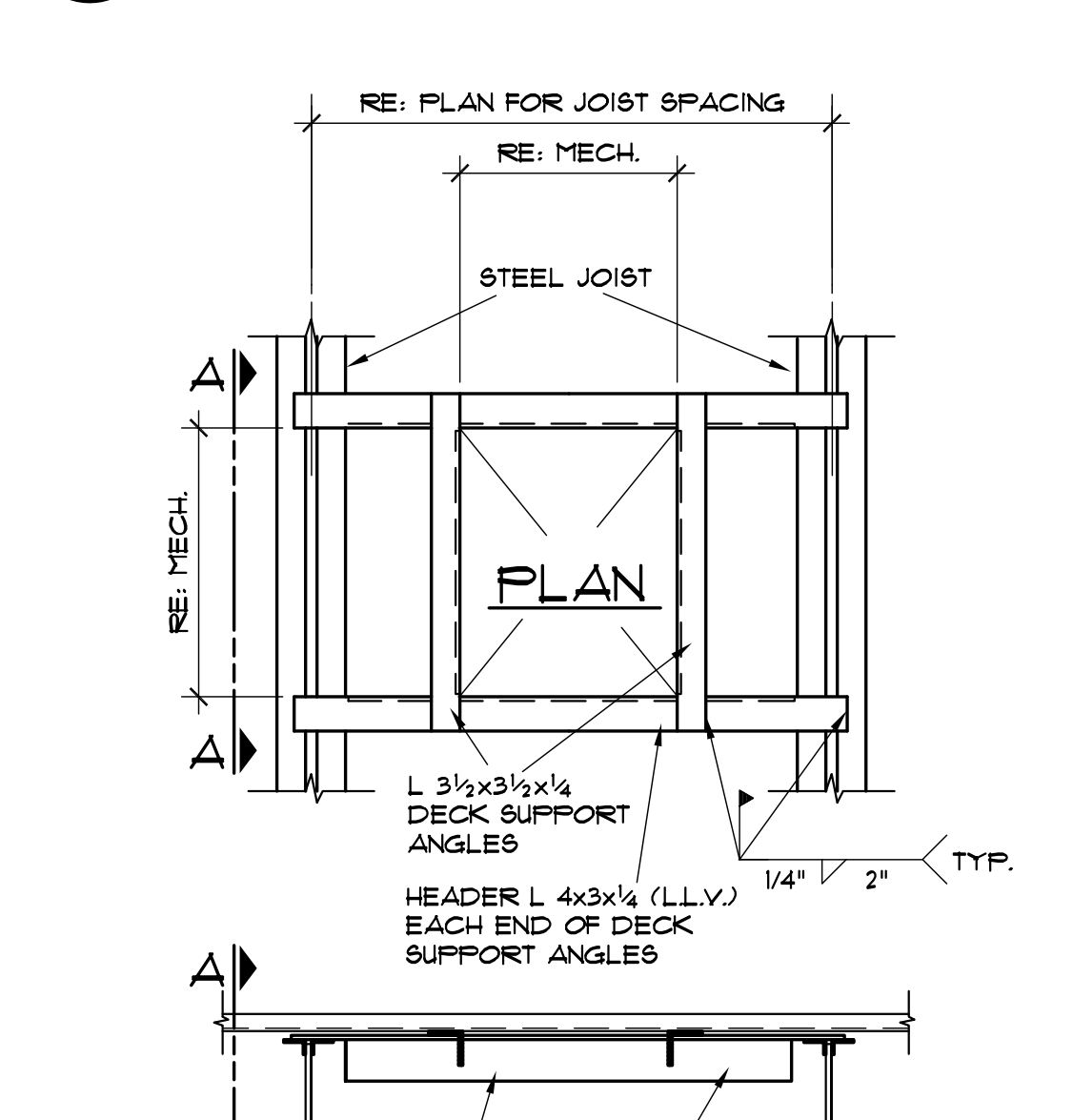
1 TYP. SLAB CONTROL JOINT (C.J.)
3/4" x 1'-0"



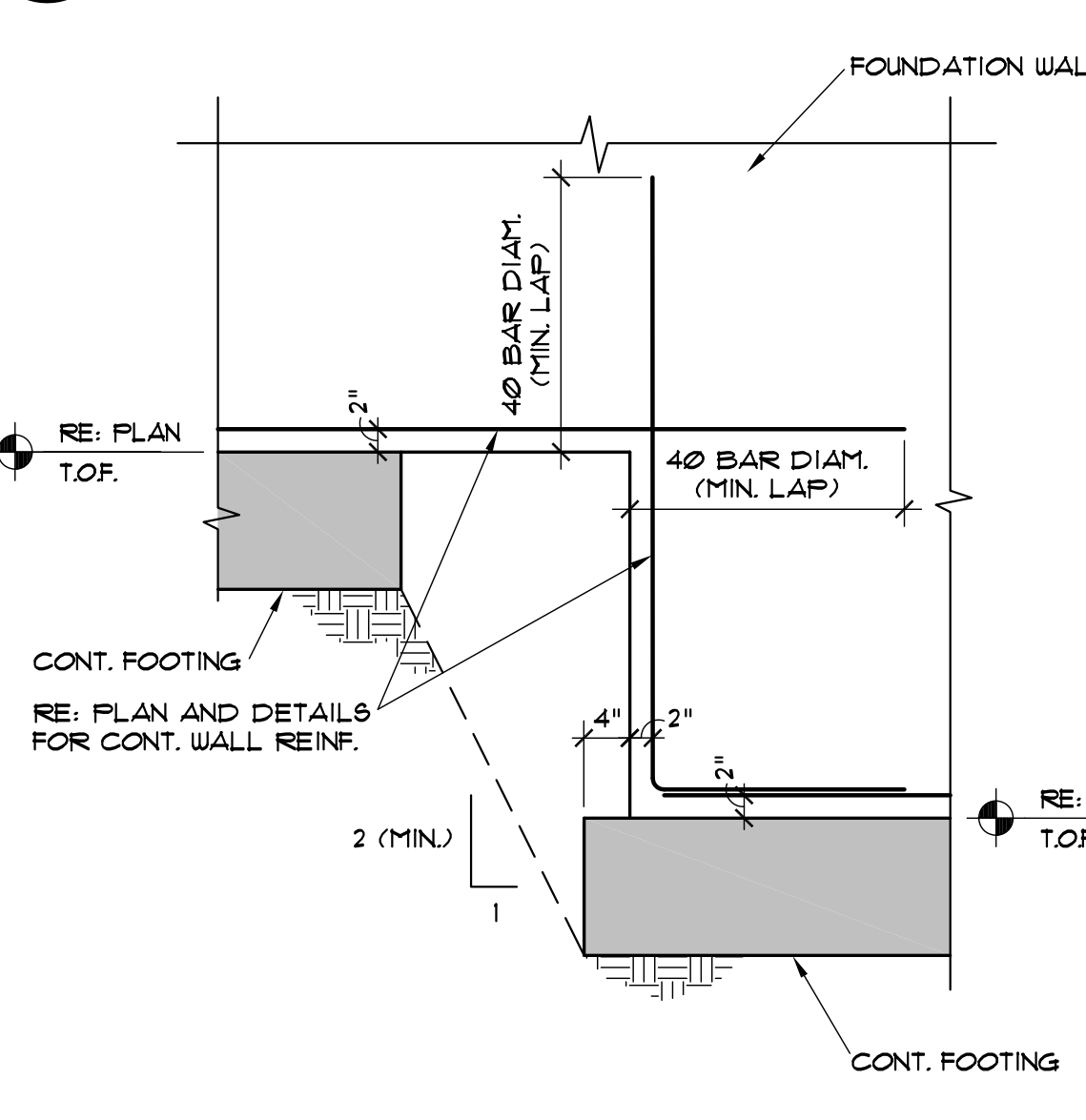
2 TYP. SLAB CONSTRUCTION JOINT
3/4" x 1'-0"



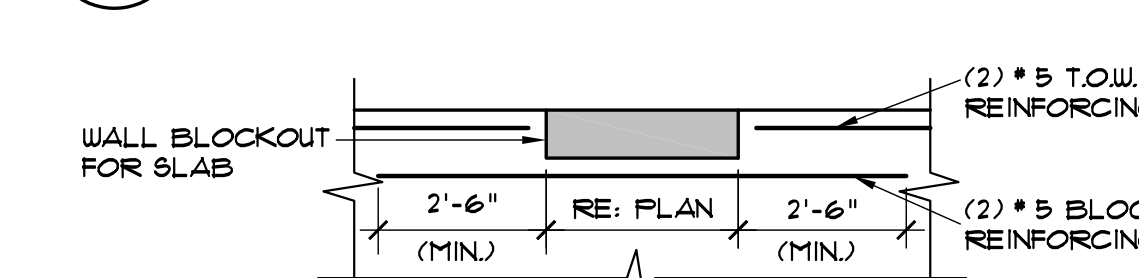
3 TYP. CORNER REINFORCING
3/4" x 1'-0"



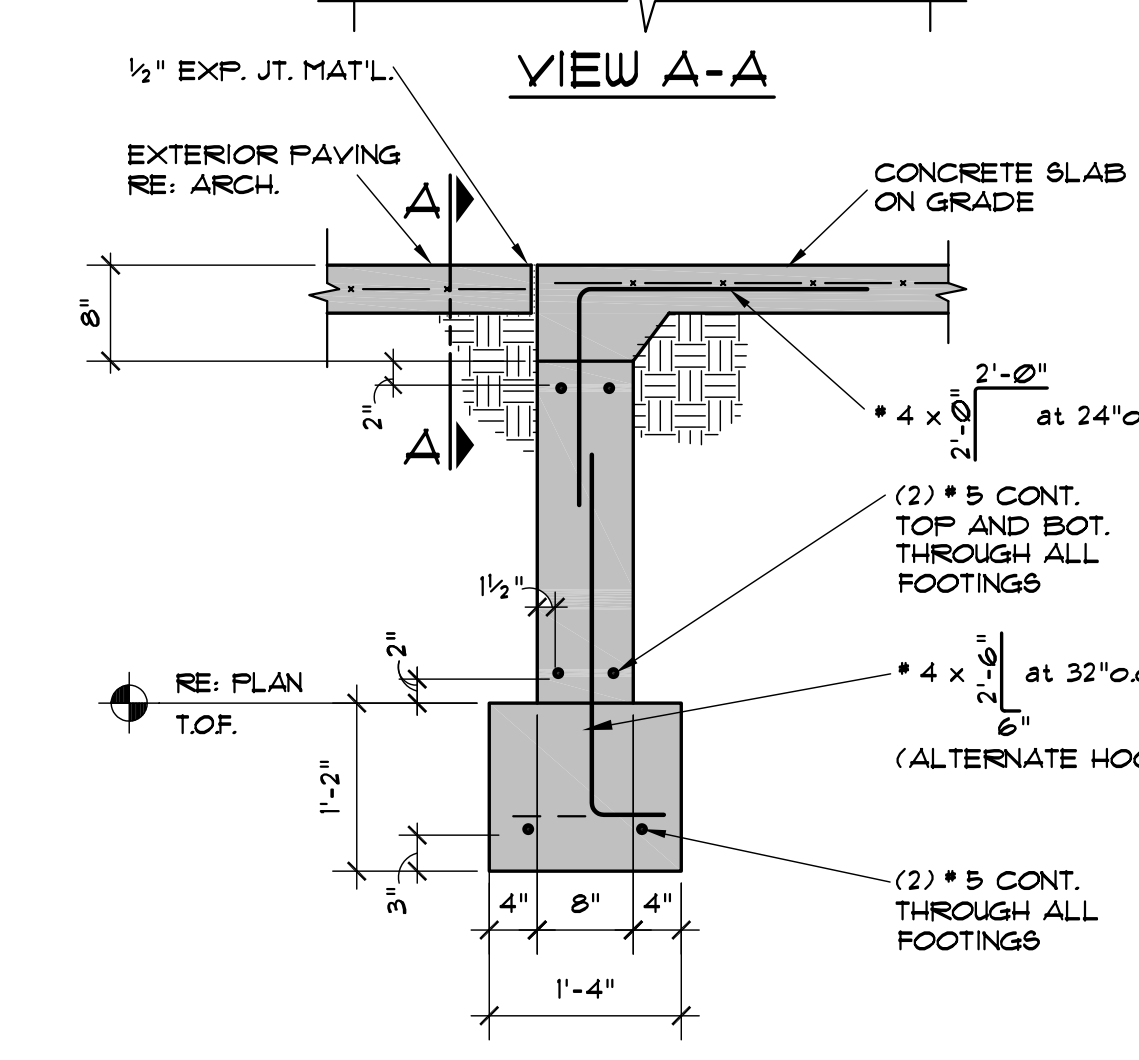
4 TYP. INTERSECTION REINFORCING
3/4" x 1'-0"



5 TYP. FOOTING STEP DETAIL
3/4" x 1'-0"



6 TYP. OPENING FRAMING DETAIL
3/4" x 1'-0"



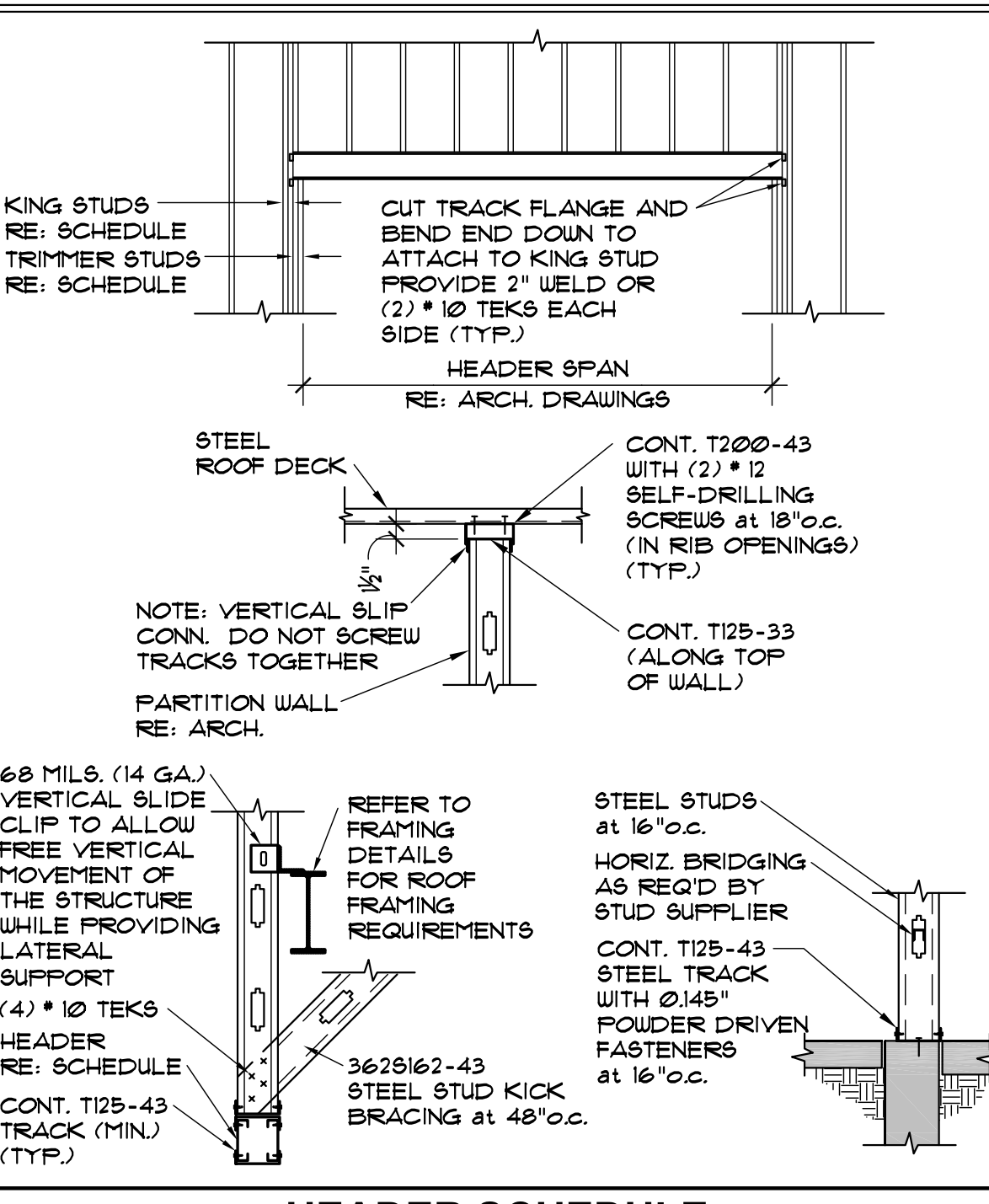
7 TYP. SLAB OVER DETAIL
3/4" x 1'-0"

SPECIAL INSPECTIONS AND TESTING

TYPE OF WORK OR SYSTEM	PERFORM TO I.B.C. SECTION	COMMENTS
1. PRE-FABRICATED COMPONENTS	I104.2	
2. STEEL CONSTRUCTION	I104.3, Table I104.3	
3. CONCRETE CONSTRUCTION	I104.4, Table I104.4	
4. MASONRY CONSTRUCTION	I104.5, Table I104.5.1 I104.5, Table I104.5.3	LEVEL 1
5. SOILS	I104.1	

NOTES: 1. THE PROJECT OWNER SHALL EMPLOY APPROVED INDEPENDENT SPECIAL INSPECTORS TO PROVIDE INSPECTIONS OF THE ITEMS LISTED.
2. REFER TO CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE FOR SPECIAL INSPECTION AND TESTING REQUIREMENTS.
3. ALL SPECIAL INSPECTION REPORTS MUST BE SUBMITTED TO THE PROJECT ARCHITECT AND THE ENGINEER OF RECORD FOR REVIEW.

**COLD-FORMED STEEL FRAMING
TYPICAL CURTAINWALL FRAMING**

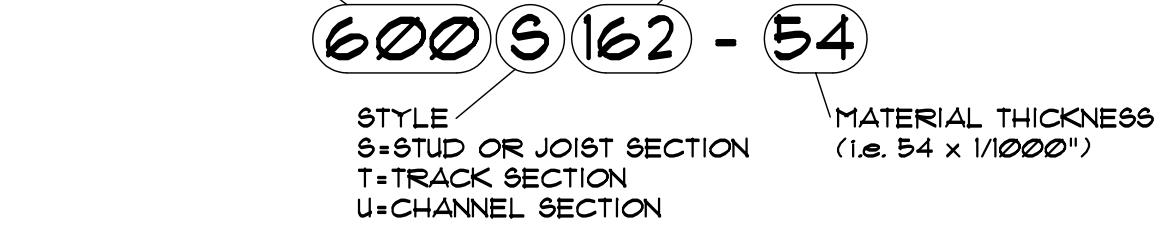


HEADER SCHEDULE

SPAN	HEADER SIZE (SSMA DESIGNATION)	TRIMMER STUDS	KING STUDS	BRACING REQUIRED
12'-0" TO 16'-0"	(3) 600S120-68 (50 ksi)	TWO	TWO	YES
16'-0" TO 11'-0"	(3) 1200S120-68 (50 ksi)	TWO	THREE	YES

NOTES: 1. HEADER SIZES ABOVE ARE TO BE USED UNLESS NOTED ON PLAN OTHERWISE.
2. PROVIDE WEB STIFFENERS AT BEARING LOCATIONS.
3. ALL HEADER SECTIONS ARE TO BE UNFINISHED.
4. PROVIDE A MINIMUM 1" BEARING LENGTH FOR WEB CRIPPLING.
5. USE 600S162-91 STUDS FOR KING STUDS.

SSMA DESIGNATION



MINIMUM ALLOWABLE SECTIONS

STUD DEPTH	SSMA DESIGNATION	STUD DEPTH	SSMA DESIGNATION
3 5/8"	362S162-43	8"	800S162-43
4"	400S162-43	10"	1000S162-54 (50 ksi)
6"	600S162-43	12"	1200S162-54 (50 ksi)

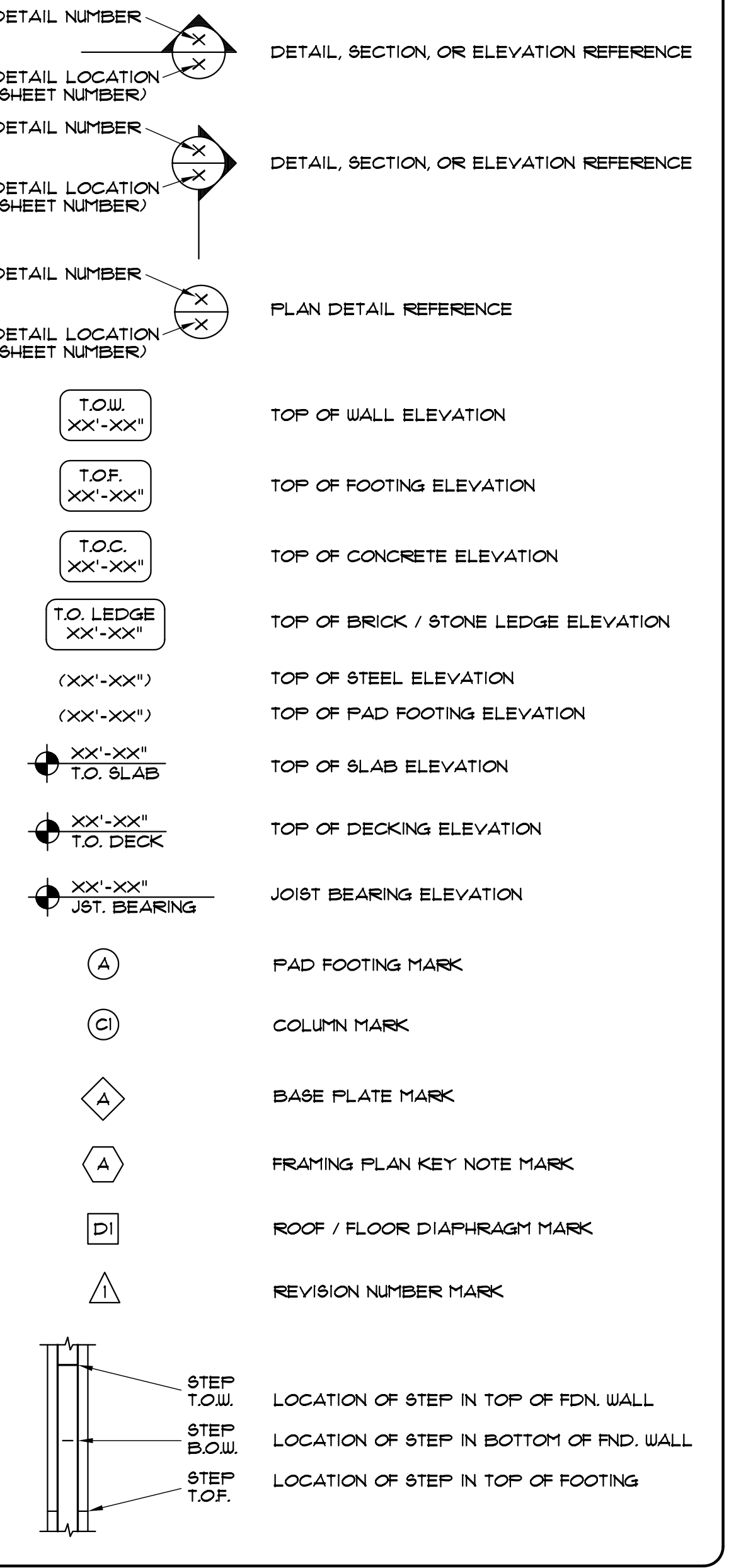
GENERAL NOTES cont.

- Field Observations:
 - The contractor shall inform the Structural Engineer at least 48 hours prior to casting any concrete so as to allow the Structural Engineer the opportunity to review the placement of reinforcement and embedments.
 - Contact Neuhjahr & Gorman, Inc. 1-303-377-2732.
- Construction:
 - These drawings do not include necessary components for construction safety. All temporary bracing and shoring shall be designed and provided by others.
- Coordination:
 - All dimensions on structural drawings shall be checked against architectural drawings and any discrepancies shall be brought to the attention of the architect immediately. Refer to mechanical, electrical and architectural drawings for openings not shown on structural drawings.
 - Shop drawings shall be prepared by the fabricator. Copying of these construction documents for use as shop drawings will not be permitted.

GENERAL NOTES

- These general notes apply to all structural drawings and supplement the project specifications which shall be referred to for additional requirements. This project is designed in accordance with the 2006 International Building Code, International Building Code.
- Live Loads Used in design:
 - Roof:
 - Snow 30 psf (not reduced) or special provisions per Section 7 of ASCE 7
 - Ground Snow (Pg) 25 psf
 - Flat Roof Snow (P_f) 30 psf
 - Snow Exposure Factor (Ce) 1.0
 - Snow Load Importance Factor (I_s) 1.0
 - Thermal Factor (C_t) 1.0
 - Floors:
 - Office 50 psf+20 psf partitions
 - Stairs & First Floor Corridors 100 psf
 - Wind:
 - Basic Wind Speed 116 mph (3-second gust) Exposure 'C'
 - Importance Factor (I_w) 1.0
 - Internal Pressure Coefficient (GC_{pi}) 0.18
 - Components & Cladding Design Wind Pressure 52 psf
 - Design Category 'B'
 - Importance Factor (I_e) 1.0
 - Mapped Spectral Response Accelerations: S_s 0.20g S₁ 0.06g
 - Site Class 'D'
 - Spectral Response Coefficients: S_{ds} 0.212g S_{d1} 0.1g
 - Seismic:
 - Basic Seismic-Force-Resisting System (s): a.) Bearing Wall System Type "c"
 - Design Base Shear (V) 206K
 - Seismic Response Coefficient (C_s) 0.05
 - Response Modification Factor (R) 4.5
- Concrete:
 - Concrete has been designed and shall be constructed in accordance with the American Concrete Institute "Building Code Requirements for Structural Concrete (A.C.I. 318-02) and (A.C.I. 301-99) "Specifications for Structural Concrete." Section 1.3 "Inspection" of A.C.I. 318-02 is deleted in its entirety, see "Field Observations" paragraph of these general notes. All concrete shall be of stone aggregate, unless noted otherwise. Minimum 28-day compressive strength shall be 4000 psi.
 - Slab on grade 4000 psi
 - Raised Slabs on form deck 4000 psi
 - All other concrete 4000 psi
 See specifications for additional durability requirements.
 - Reinforcing is to be new billet steel A.S.T.M. A615, grade 60, bars to be bent or welded in the field shall be grade 40. Provide corner bars to match all horizontal reinforcing in cast-in-place walls. Provide not less than 2-#5 around all sides of all openings in concrete and extend 2'-0" past edges of openings. No splices of reinforcement are permitted except as detailed or authorized by Structural Engineer. Where permitted, use contact lap splices. 40 bar diameters minimum. Welded wire fabric shall be in accordance with A.S.T.M. A185. Lap (1) full mesh—minimum at splices. No welding of reinforcement permitted unless detailed.
 - Placing of Reinforcement: Provide chairs, bolsters, additional reinforcement, and accessories necessary to support reinforcement at position shown on drawings. Support of reinforcement on form ties, wood, brick, or other unacceptable material, will not be permitted. Form ties are to be used for bar supports only when the clear dimensions shown on the details can be maintained.
 - The following minimum concrete cover over reinforcing shall be provided unless detailed otherwise:
 - Concrete cast against and permanently exposed to earth 3 in.
 - Concrete exposed to earth or weather
 - #6 bars and larger 2 in.
 - #5 bars and smaller 1-1/2 in.
 - Concrete not exposed to earth or weather 3/4 in.
- Steel:
 - Structural steel, including cast in angles, plates or other sections shall be detailed and erected in accordance with the American Institute of Steel Construction (A.I.S.C.) Specifications and Code of Standard Practice. ASTM designation and minimum yield strength shall be as follows:
 - Pipe A53, 35 ksi
 - HSS Round A500-B, 42 ksi
 - HSS Square or Rectangle A500-B, 46 ksi
 - Wide Flange Shapes and Tees A992, 50 ksi
 - S, M, and HP Shapes, Tees, and Channels A572, 50 ksi
 - Angles, Plates and All Others A36, 36 ksi
 - Connections:
 - Use standard framed beam connections meeting requirements of "Manual of Steel Construction" Ninth Edition. Use 3/4" diameter minimum A325N bolts (or welded equivalent).
 - Minimum welds per A.I.S.C. Specification, not less than 3/16" fillet, continuous, using E70XX electrodes, unless noted otherwise. Welding of rebar anchors or plates shall be done to develop 1.5 times the yield strength of the reinforcing bar.
- Open Web Steel Joists and Joist Girders:
 - Design, fabrication and erection shall be in conformance with the specifications of the Steel Joist Institute.
- Steel Deck:
 - Steel deck shall be erected in accordance with manufacturer's suggested specifications.
 - Steel roof deck shall be 1 1/2", Type B, wide rib. Provide Vulcraft 1.5B or approved equivalent.
 - Deck panels are to be 36" wide and continuous over a minimum of 3 spans.
 - Weld deck to all supports as indicated in the metal deck schedule. Deck must be capable of withstanding diaphragm shears listed in the schedule. Submit test data from deck manufacturer for deck selected to substantiate that deck will meet or exceed required diaphragm shear and stiffness requirements.
 - Form deck with nested side laps allowing screwed side seam connection.
 - Provide 3 1/2" x 3 1/2" x 1/4" angle framing around openings larger than 6"
 - Deck for concrete form shall be Vulcraft 1.5 VU galvanized composite deck or approved equivalent. Refer to manufacturers recommendations for support attachment.
- Steel Studs and Joists:
 - All products shall be manufactured according to the Steel Stud Manufacturers Association (S.S.M.A.) specifications, or approved equivalent.
 - Refer to the schedule on the plans for minimum section properties.
- Foundations:
 - The structure shall be founded on spread footings placed on undisturbed natural soils or compacted fill with a maximum allowable bearing pressure of 2000 psf.
 - Provide 3" void above or below all non-bearing partitions on slabs on grade.
 - Refer to soil report #07-3736, dated 09-24-07, prepared by GROUND Engineering Consultants, Inc., Englewood, Colorado for other pertinent soils information. The contractor shall be fully versed with all aspects of the soil report prior to the start of construction.
 - Retaining walls were designed using the following values:
 - Coef. of fricti 0.3
 - Lateral earth pressu 42 p.c.f.
 - Passive pressu 442 p.c.f.

SYMBOLS



ABBREVIATIONS

(TYP.)	TYPICAL CONDITION	A.B.	ANCHOR BOLT
(SIM.)	SIMILAR CONDITION	CMU	CONCRETE MASONRY UNIT
(UNO.)	UNLESS NOTED OTHERWISE	DIA.	DIAMETER
(OH.)	OPPOSITE HAND CONDITION	F.D.	FLOOR DRAIN
C.J.	CONTROL JOINT	EXT.	EXTERIOR
GA.	GAGE	STD.	STANDARD
O.C.	ON CENTER	W.W.F.	WELDED WIRE FABRIC
H.A.S.	HEADED ANCHOR STUD	CL.	CENTERLINE
P.D.F.	POWDER DRIVEN FASTNER		

ANCHOR BOLT SCHEDULE

ANCHOR BOLT		HEADED BOLT		EXPANSION BOLT	
DIAMETER	EMBEDMENT	DIAMETER	EMBEDMENT	DIAMETER	EMBEDMENT
1/2"	7"	1/2"	7"	1/2"	3 1/2"
5/8"	9"	5/8"	9"	5/8"	4"
3/4"	1'-0"	3/4"	1'-0"	3/4"	5"
1 1/8"	1'-3"	1 1/8"	1'-3"	1 1/8"	6"
1"	1'-6"	1"	1'-6"	1"	6"

Haezebrouck & Associates, P.C.
Architects
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Highlands Ranch, Colorado 80126-2681
303.470.7872 FAX 303.470.7874
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Jefferson Office Park
Office Building Type 1
1030 Johnson Road
Golden, Colorado 80219

job 207131
drawn JAC
checked SGN
issued for

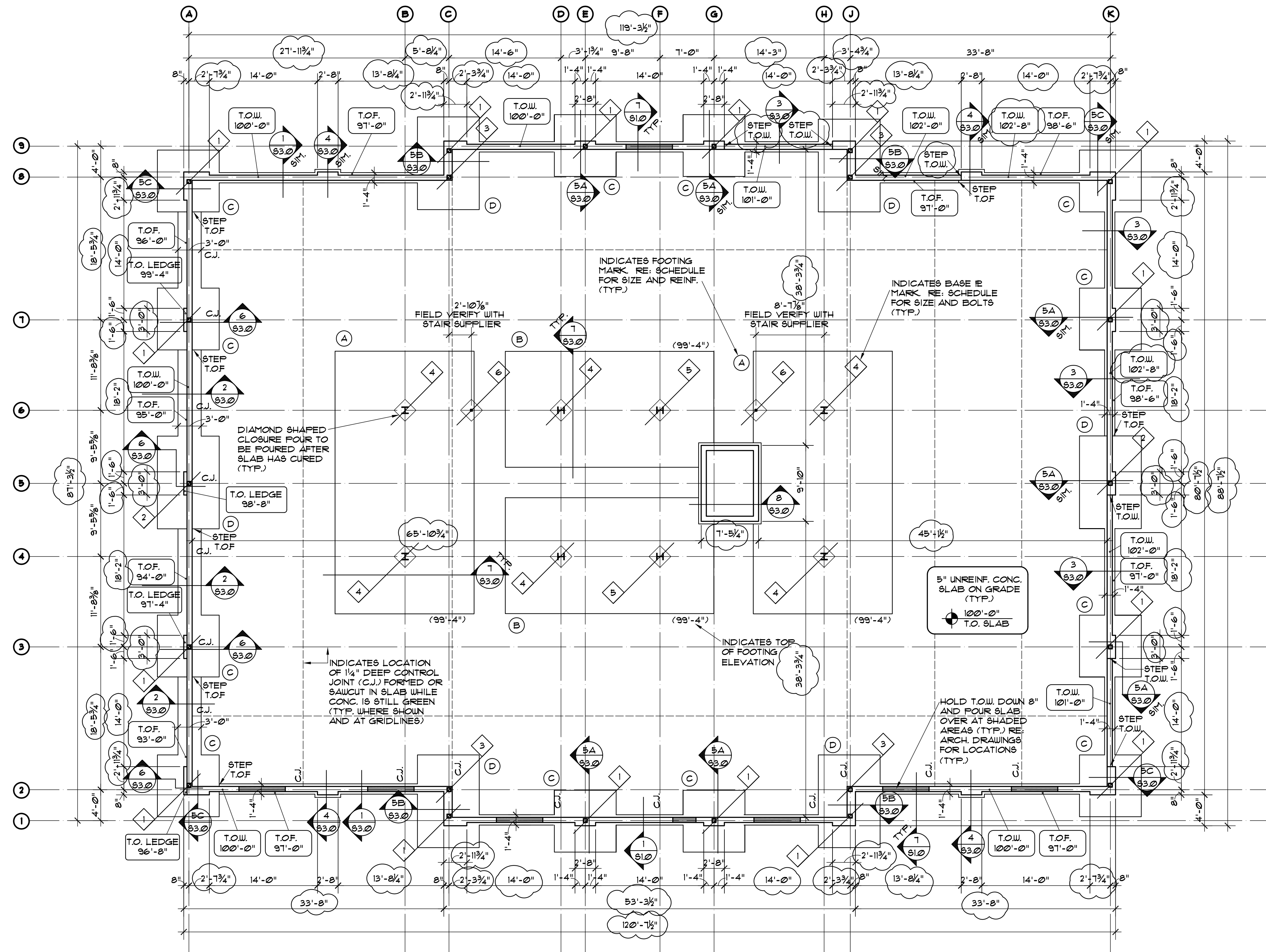
7/21/08 -- For Bid
11/21/08 -- Bldg. Dept. Comments
5/08/09 -- For Construction

revision

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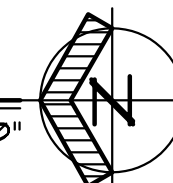
NEUJHAHR AND GORMAN, INC
CONSULTING STRUCTURAL ENGINEERS
SUITE 200
88 SHEETS STREET
DENVER, COLORADO 80206
(303) 377-2732
FAX NO. 207131
PROJ. ENG. Stamp Neuhjahr

S1.0

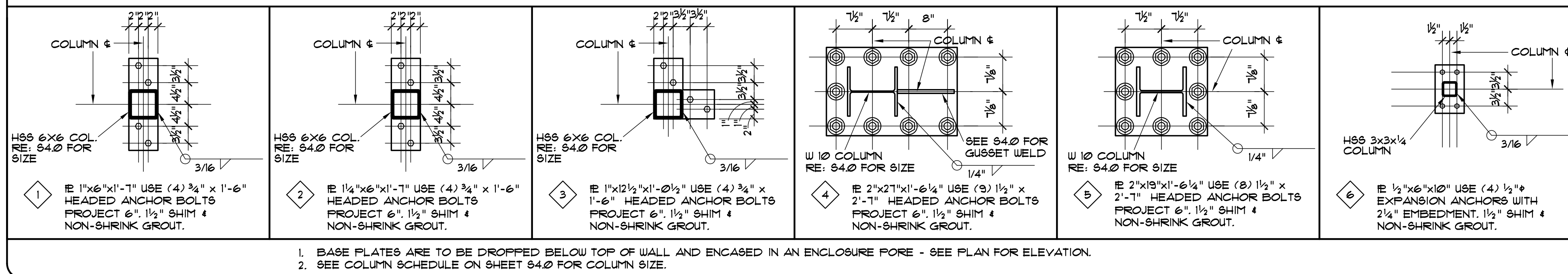


FOUNDATION PLAN

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



BASE PLATE SCHEDULE

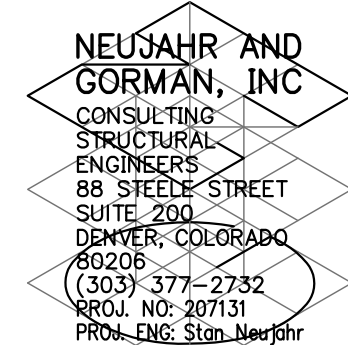


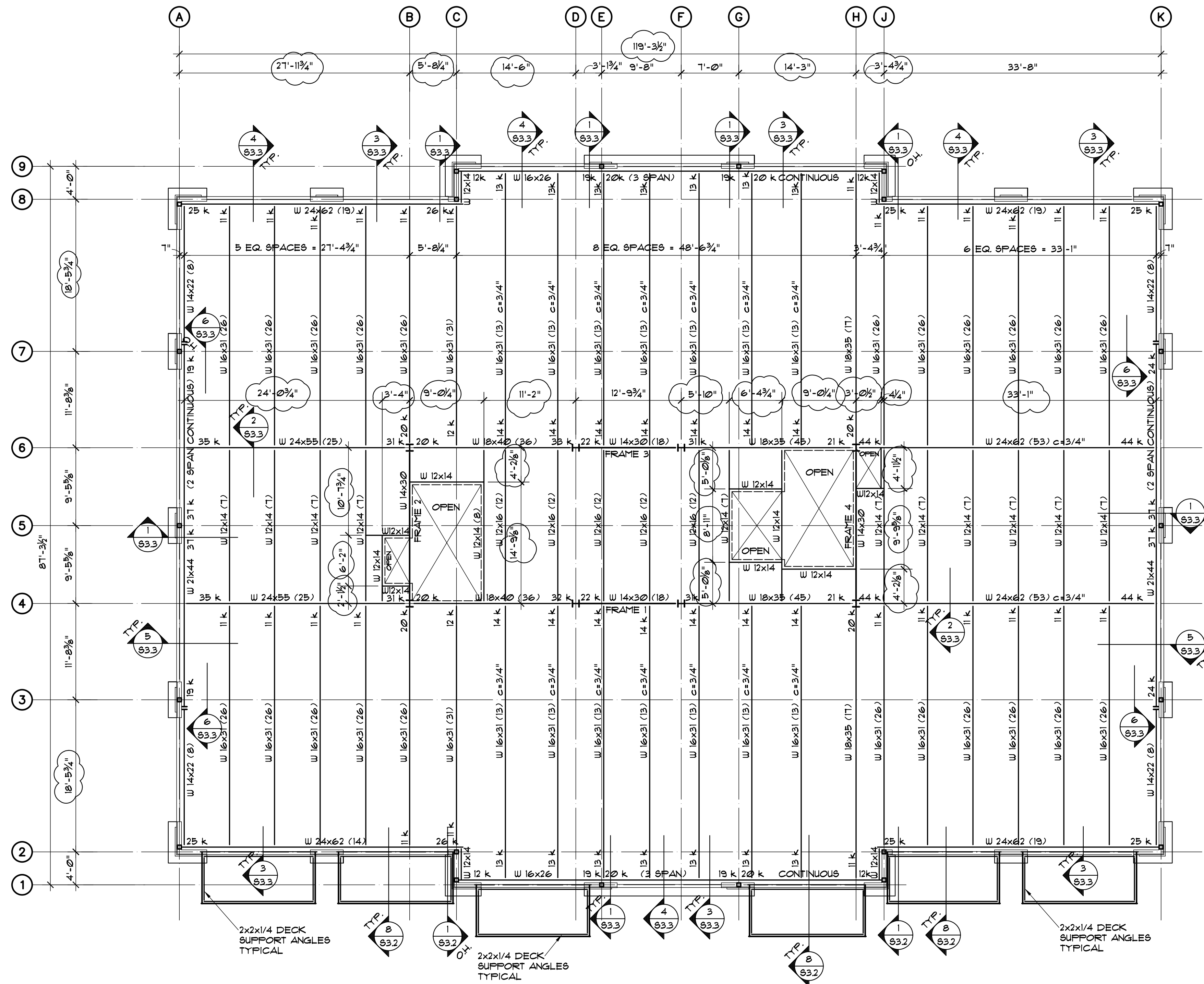
PAD FOOTING SCHEDULE

MARK	FOOTING SIZE	REINFORCING
A	18'-0" x 34'-0" x 2'-4"	* 8 at 11" o.c. EACH WAY TOP AND BOTTOM
B	15'-0" x 27'-0" x 2'-4"	* 7 at 12" o.c. EACH WAY TOP AND BOTTOM
C	8'-0" x 8'-0" x 1'-2"	* 5 at 12" o.c. EACH WAY BOTTOM ONLY
D	8'-0" x 12'-6" x 1'-2"	(*) * 7 EACH WAY BOTTOM ONLY

NOTES: 1. PAD FOOTINGS ARE TO BE CENTERED BELOW COLUMN CENTERLINES (UNO.).
2. PROVIDE 3" CLEAR DISTANCE FROM BOTTOM OF FOOTING TO REINFORCING.
3. REFER TO PLAN FOR TOP OF FOOTING ELEVATIONS.

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checked	SGN
issued for	
7/21/08	Bid
5/08/09	Construction
5/21/09	Revision Δ
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5/21/09	Δ Dimension Revisions
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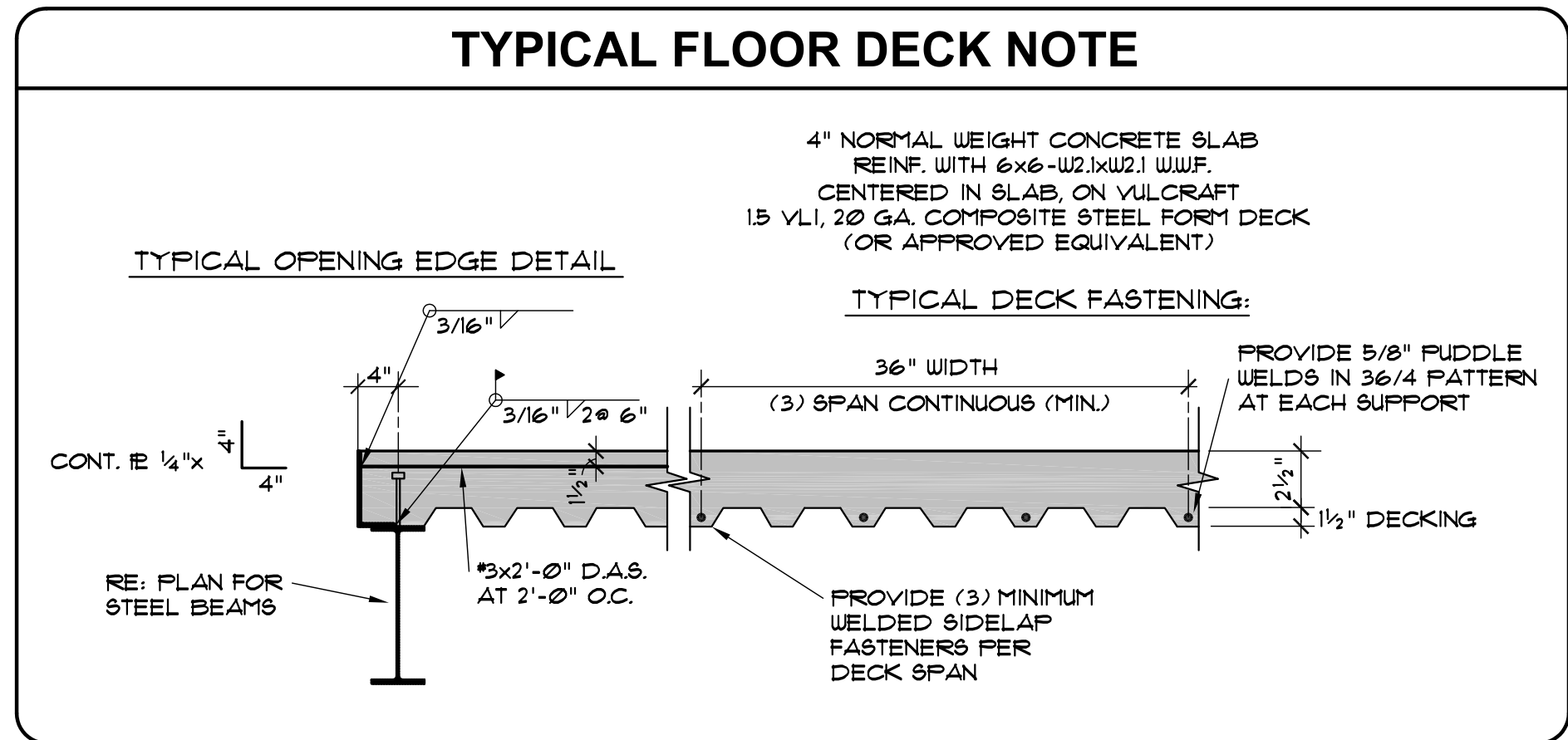
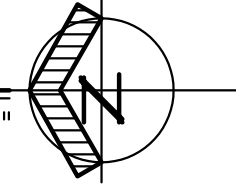




SECOND LEVEL FRAMING PLAN

T.O. STEEL = 13'-8" UNO.

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



- NOTES:
1. FINISH FLOOR ELEVATION = 114'-0"
 2. BEAMS INDICATED THIS:
 3. BOTH ENDS OF THE BEAM WILL HAVE THE SAME REACTION UNLESS NOTED OTHERWISE
 4. MINIMUM DESIGN LOAD FOR ANY CONNECTION IS 10K IN SHEAR
 5. REFER TO SHEET 031 FOR TYP. BEAM-TO-BEAM CONNECTIONS AND TYP. BEAM-TO-COLUMN CONNECTIONS
- | DESIGNATION | SPACED SHEAR STUDS | NO. OF EVENLY SPACED SHEAR STUDS | CAMBER | C=3/4" | BEAM FACTORED END REACTION (KIPS) | END REACTION (KIPS) |
|-------------|--------------------|----------------------------------|--------|--------|-----------------------------------|---------------------|
| W 12x14 | (8) | | | | | 2K |

Jefferson Office Park

Office Building Type 1
1030 Johnson Road
Golden, Colorado 80219

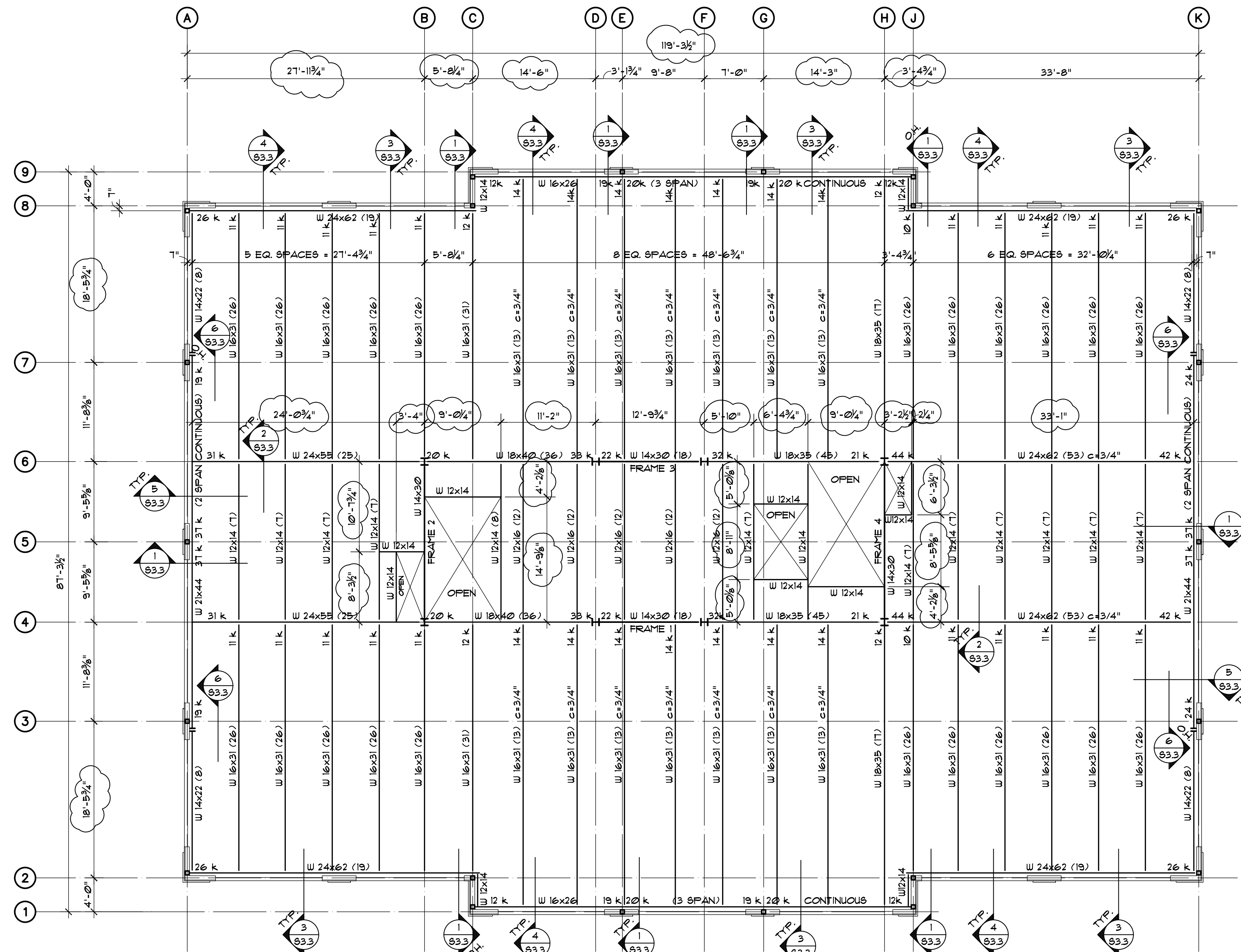
Haezebrouck & Associates, P.C.
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5/22/09	Δ Dimension Revisions

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S2.1

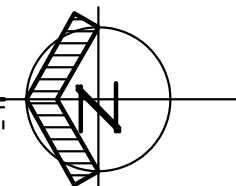


- NOTES:
1. FINISH FLOOR ELEVATION = 128'-0"
 2. BEAMS INDICATED THIS AISC SHAPE NO. OF EVENLY SPACED SHEAR STUDS CAMBER BEAM FACTORED END REACTION (KIPS)
 3. BOTH ENDS OF THE BEAM WILL HAVE THE SAME REACTION UNLESS NOTED OTHERWISE
 4. MINIMUM DESIGN LOAD FOR ANY CONNECTION IS 10K IN SHEAR
 5. REFER TO SHEET 831 FOR TYP. BEAM-TO-BEAM CONNECTIONS AND TYP. BEAM-TO-COLUMN CONNECTIONS

THIRD LEVEL FRAMING PLAN

T.O. STEEL = 121'-8" UNO.

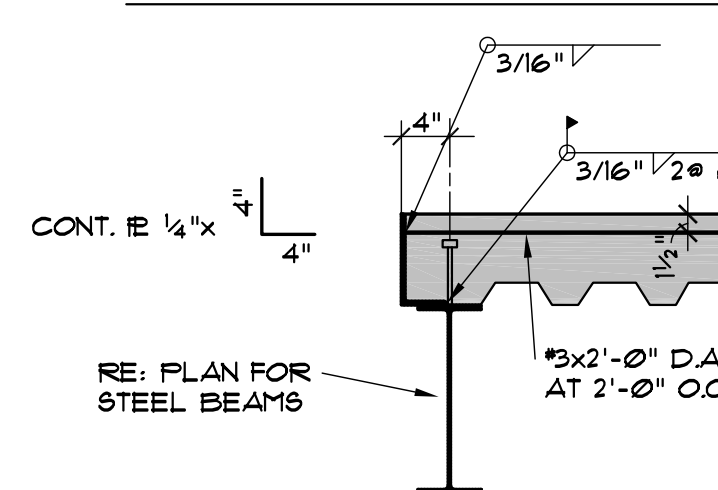
SCALE: 1/8"=1'-0"



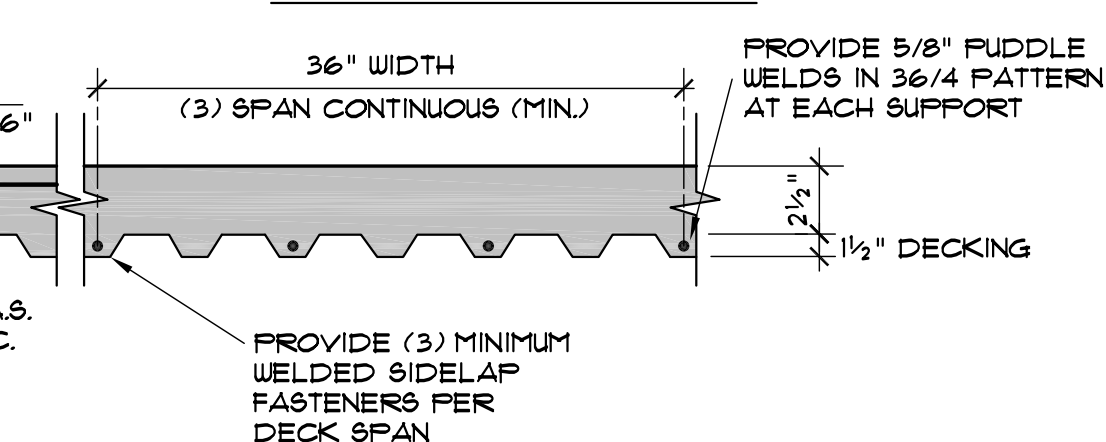
TYPICAL FLOOR DECK NOTE

4" NORMAL WEIGHT CONCRETE SLAB
 REINF. WITH 6x6-W2.1xU2.1 UWF.
 CENTERED IN SLAB, ON VULCRAFT
 15 VL1, 20 GA. COMPOSITE STEEL FORM DECK
 (OR APPROVED EQUIVALENT)

TYPICAL OPENING EDGE DETAIL



TYPICAL DECK FASTENING:



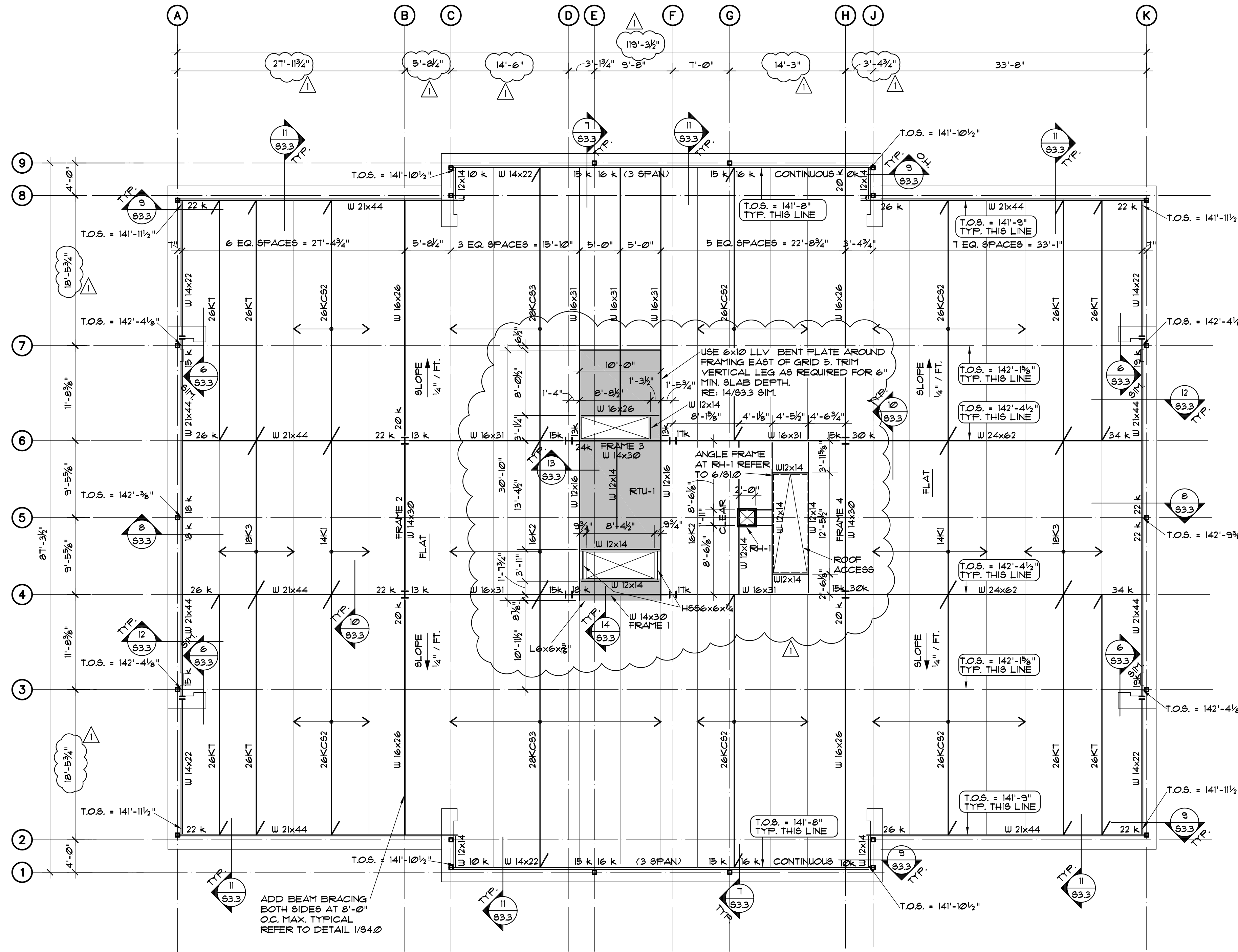
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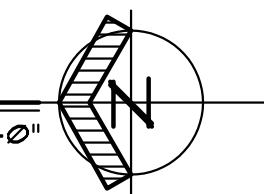
S2.2



ROOF FRAMING PLAN

T.O. STEEL = 141'-8" AT LOW POINT (SEE PLAN)

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



STEEL ROOF DECK NOTE

DECK AS MANUFACTURED BY VULCRAFT
 (OR APPROVED EQUIVALENT).
 DECK TYPE: 135, 20 GA. GALVANIZED
 TOTAL DEPTH: 1 1/2"
 SUPPORT FASTENERS: 3/8" PUDDLE WELDS
 SUPPORT FASTENER LAYOUT PATTERN: 36/5
 SIDE LAP FASTENERS: (8) #10 TEK SCREWS
 EVENLY SPACE SIDELAPS BETWEEN SUPPORTS

- NOTES:
1. FINISH FLOOR ELEVATION = VARIES
 2. BOTH ENDS OF THE BEAM WILL HAVE THE SAME REACTION UNLESS NOTED OTHERWISE
 3. MINIMUM DESIGN LOAD FOR ANY BEAM CONNECTION IS 10K IN SHEAR
 4. REFER TO SHEET 831 FOR TYP. BEAM-TO-BEAM CONNECTIONS AND TYP. BEAM-TO-COLUMN CONNECTIONS

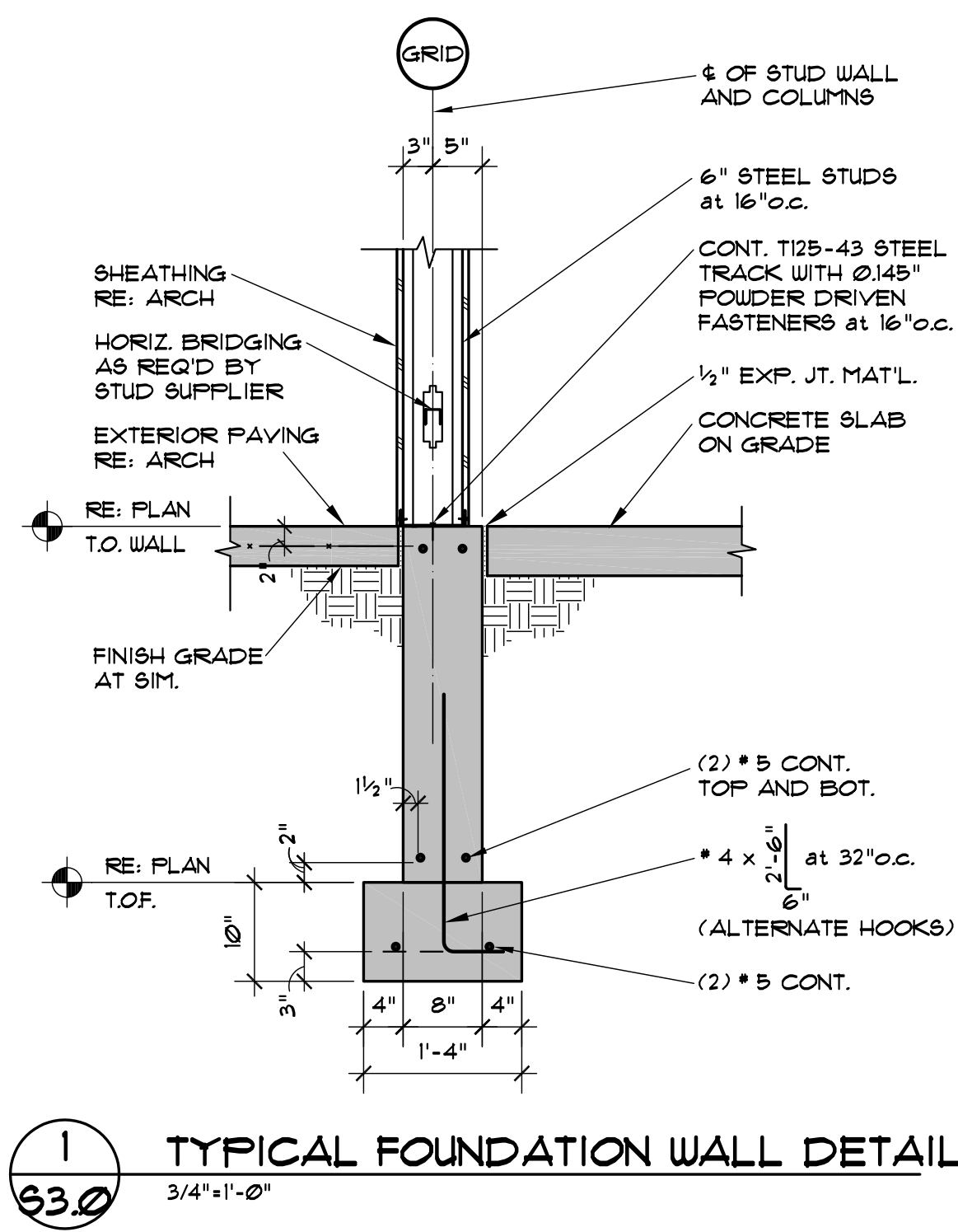
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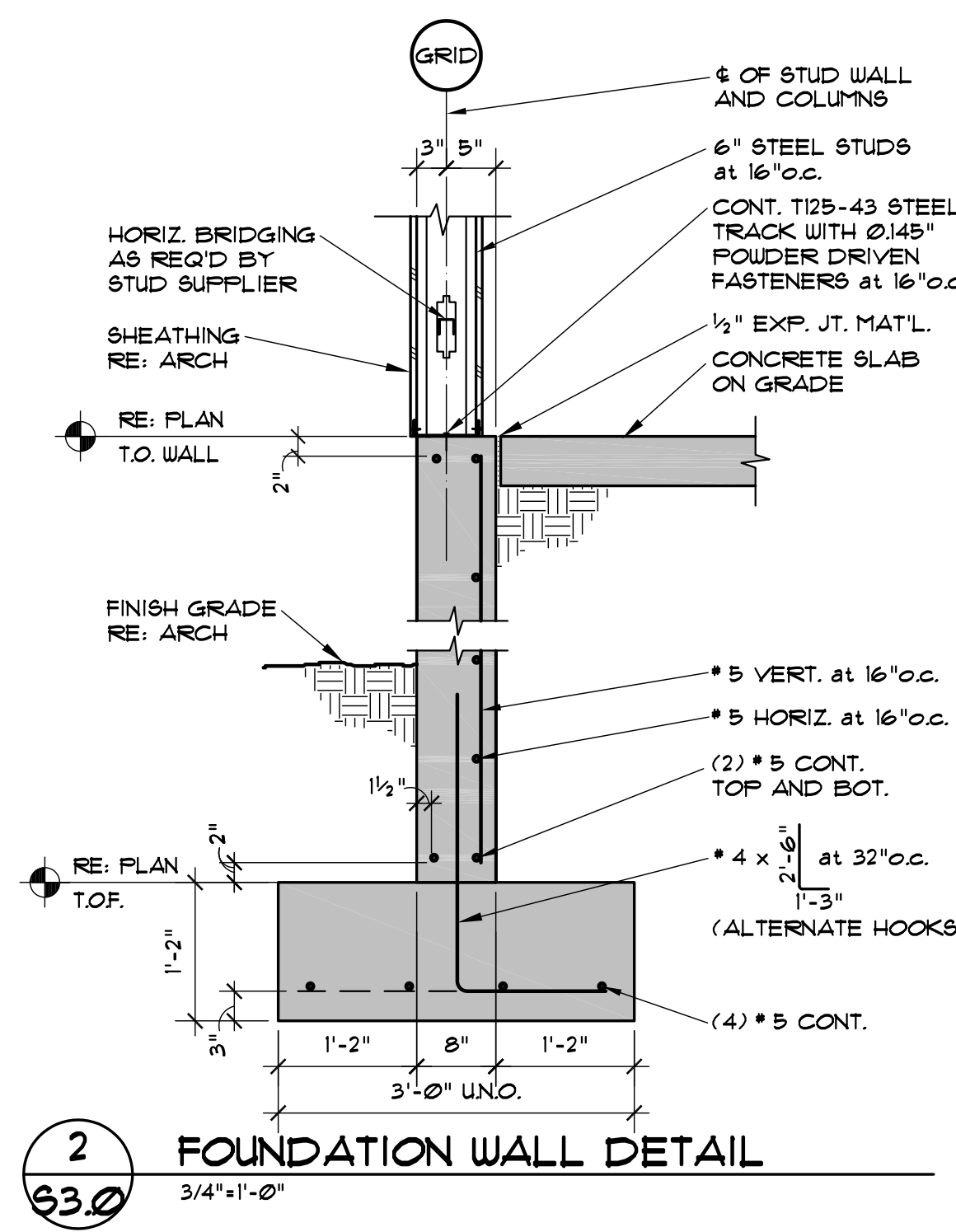
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S2.3

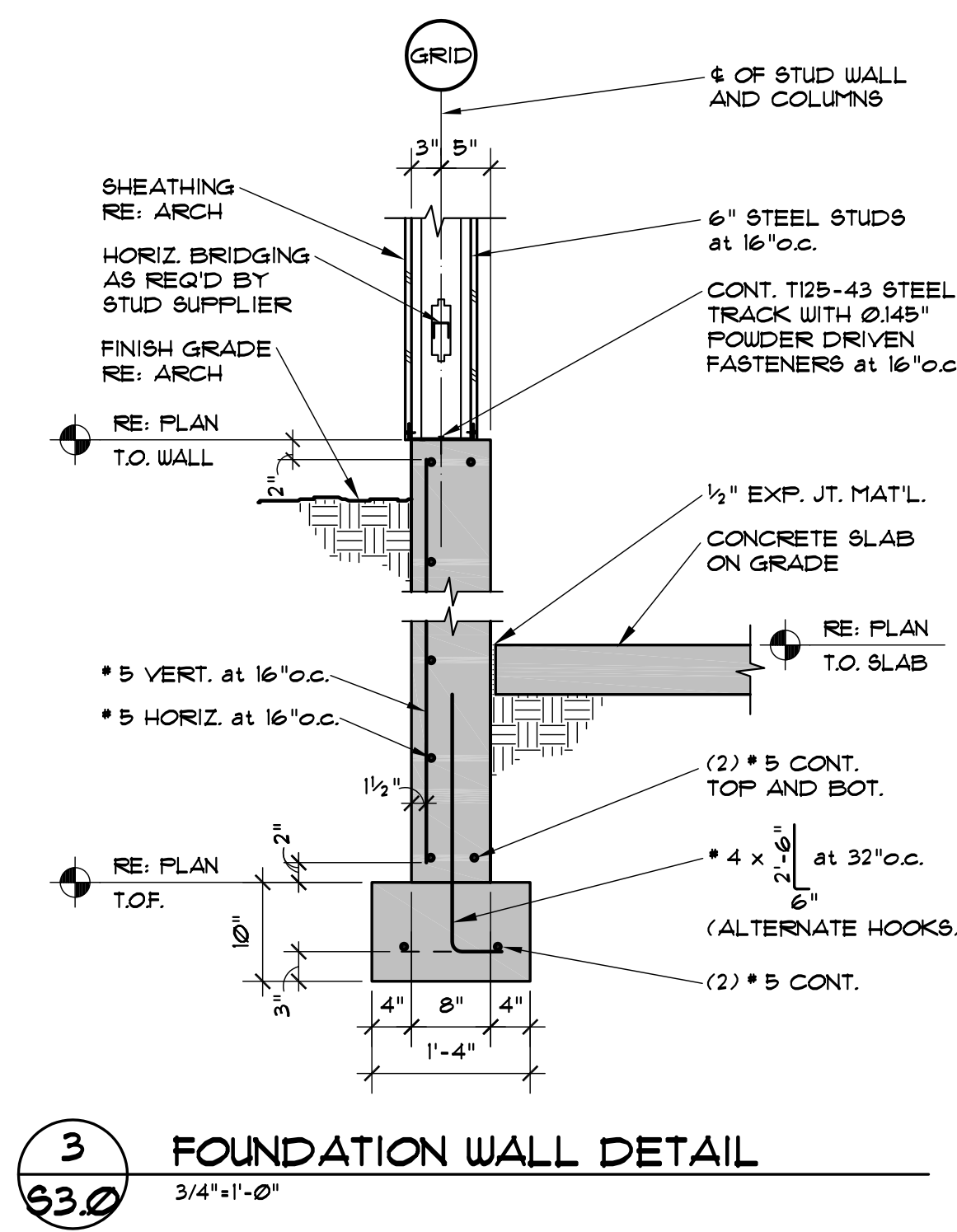




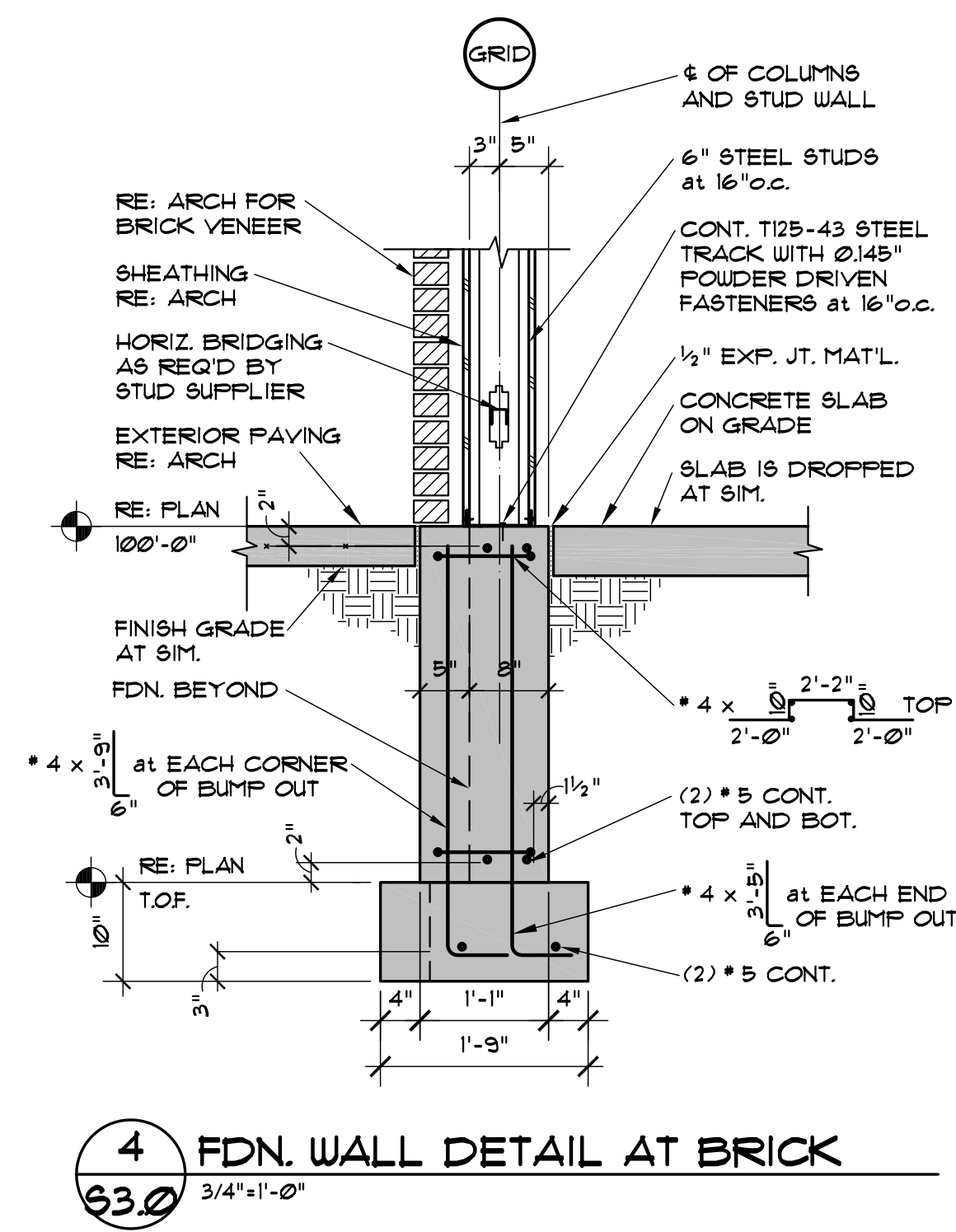
1 TYPICAL FOUNDATION WALL DETAIL
63.0 3/4" x 1'-0"



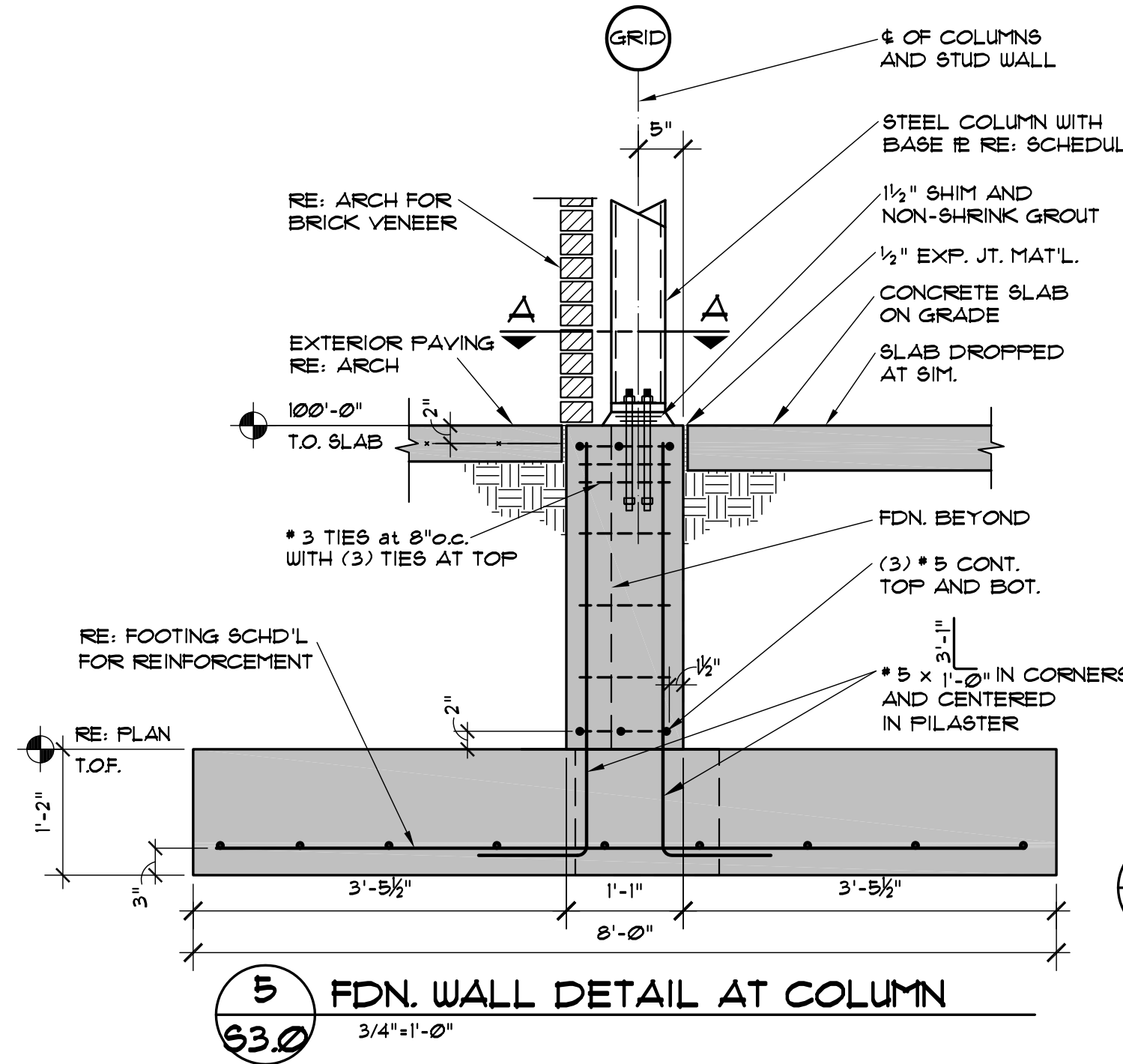
2 FOUNDATION WALL DETAIL
63.0 3/4" x 1'-0"



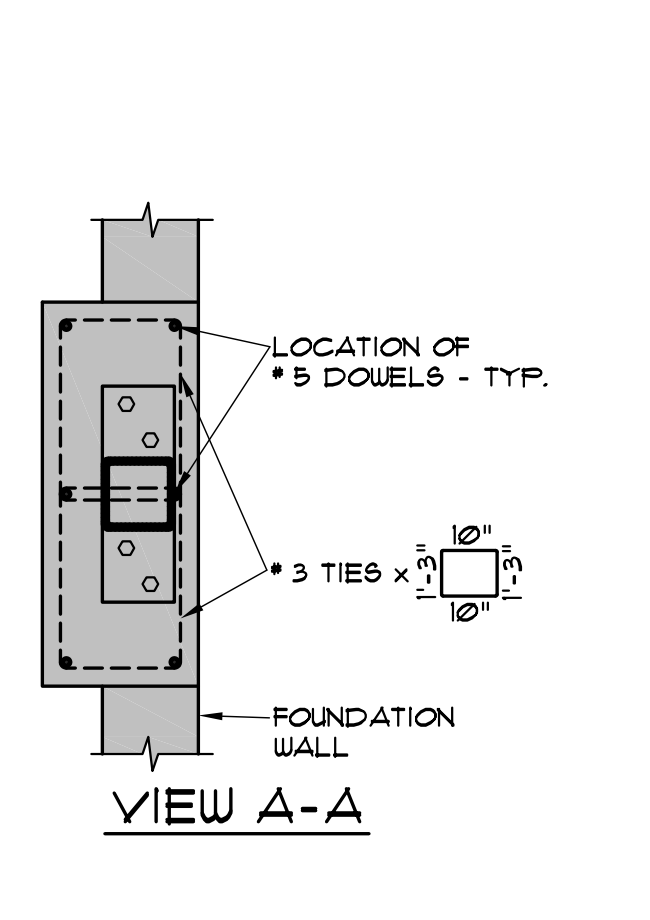
3 FOUNDATION WALL DETAIL
63.0 3/4" x 1'-0"



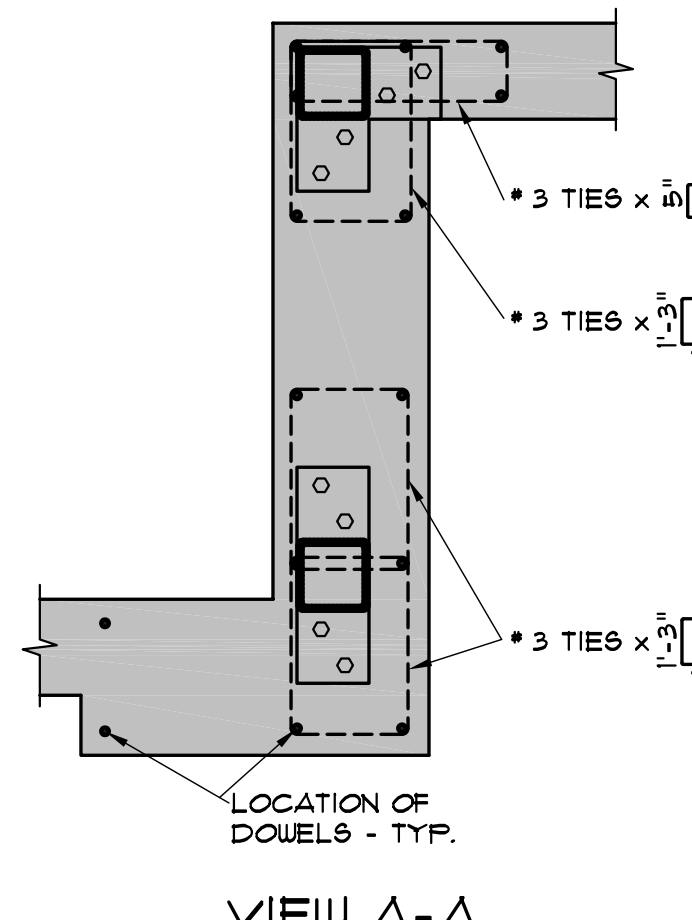
4 FDN. WALL DETAIL AT BRICK
63.0 3/4" x 1'-0"



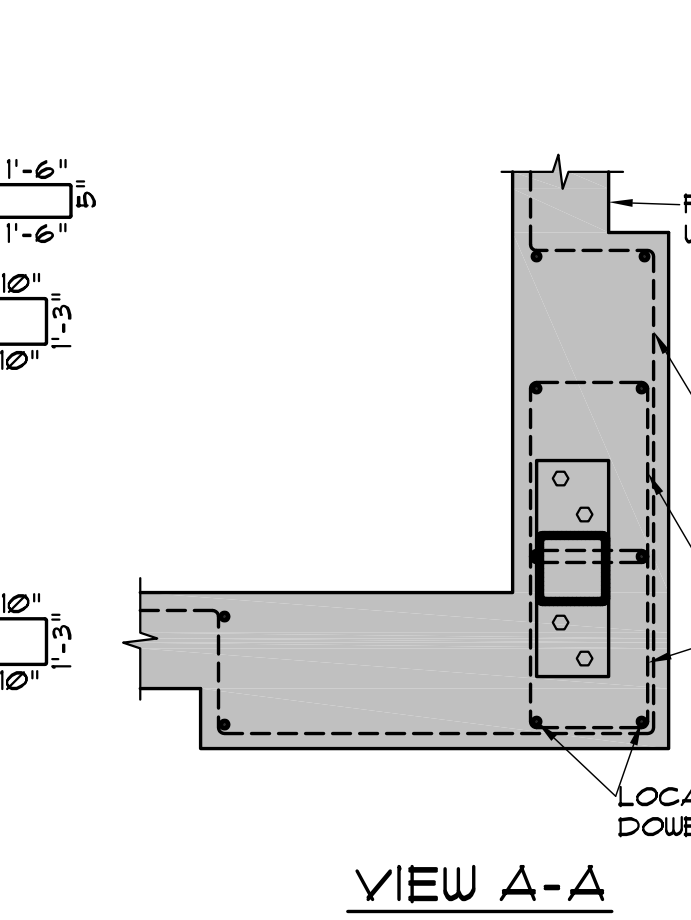
5 FDN. WALL DETAIL AT COLUMN
63.0 3/4" x 1'-0"



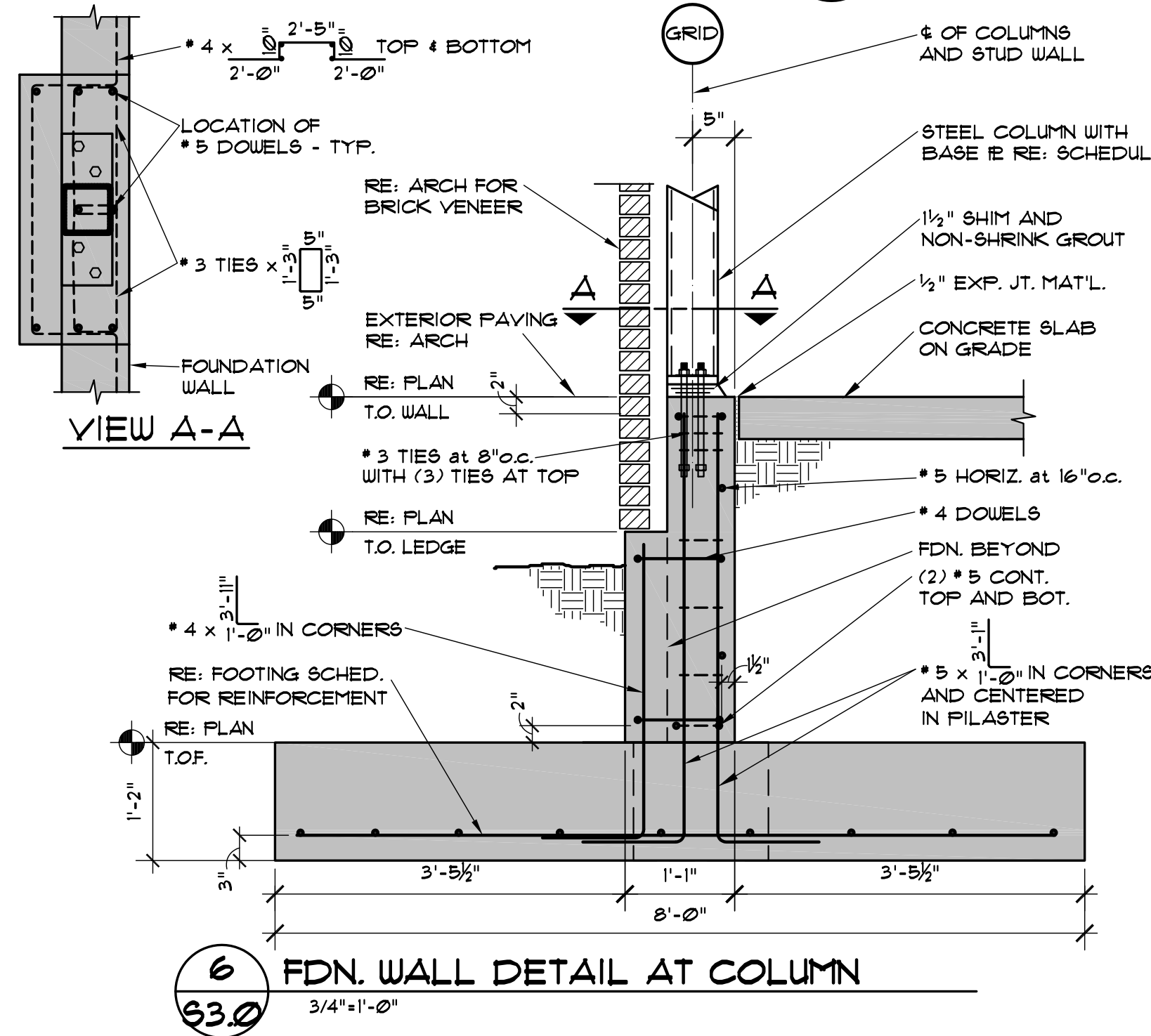
5A FDN. WALL DETAIL
63.0 3/4" x 1'-0"



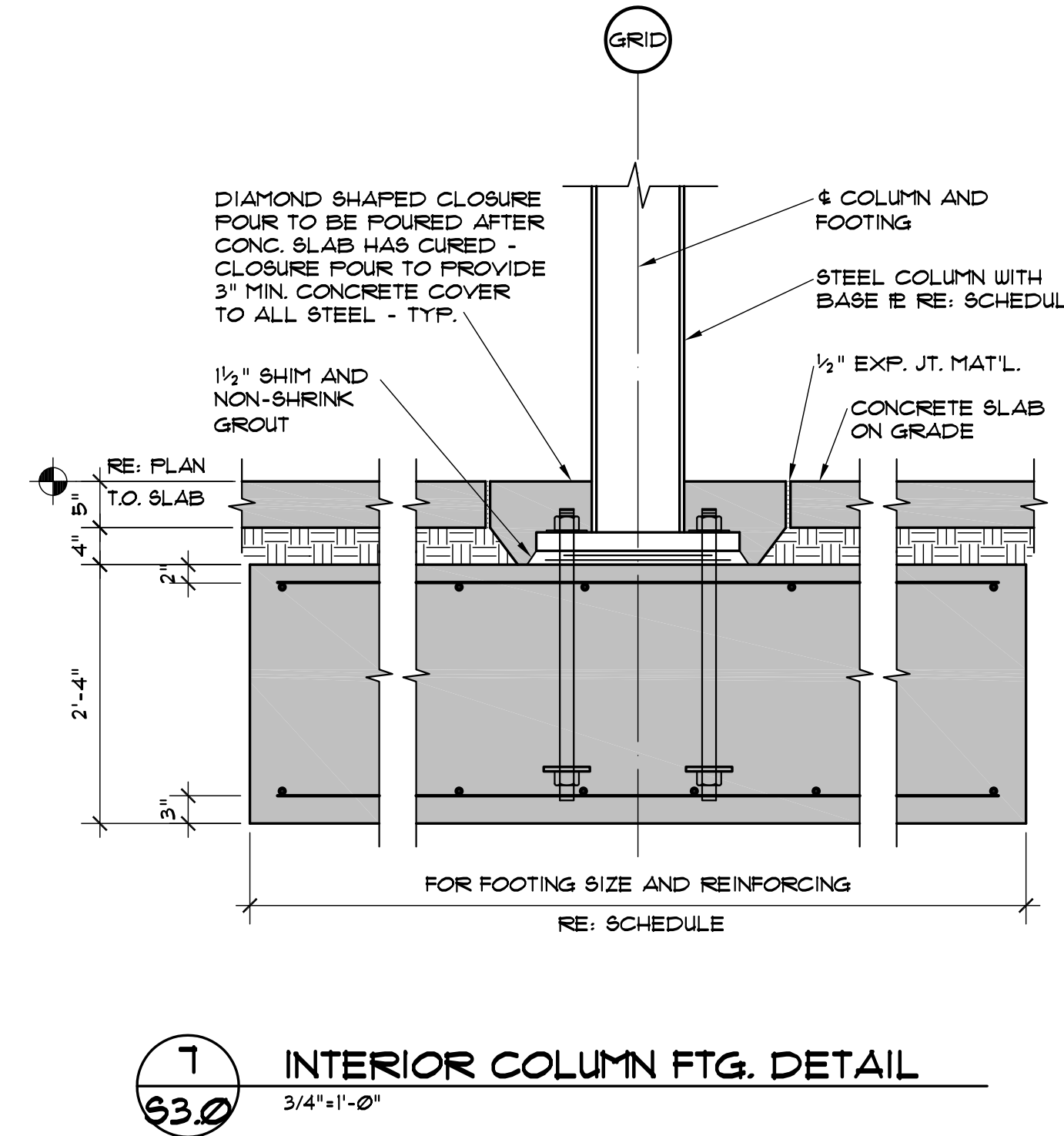
5B FDN. WALL DETAIL
63.0 3/4" x 1'-0"



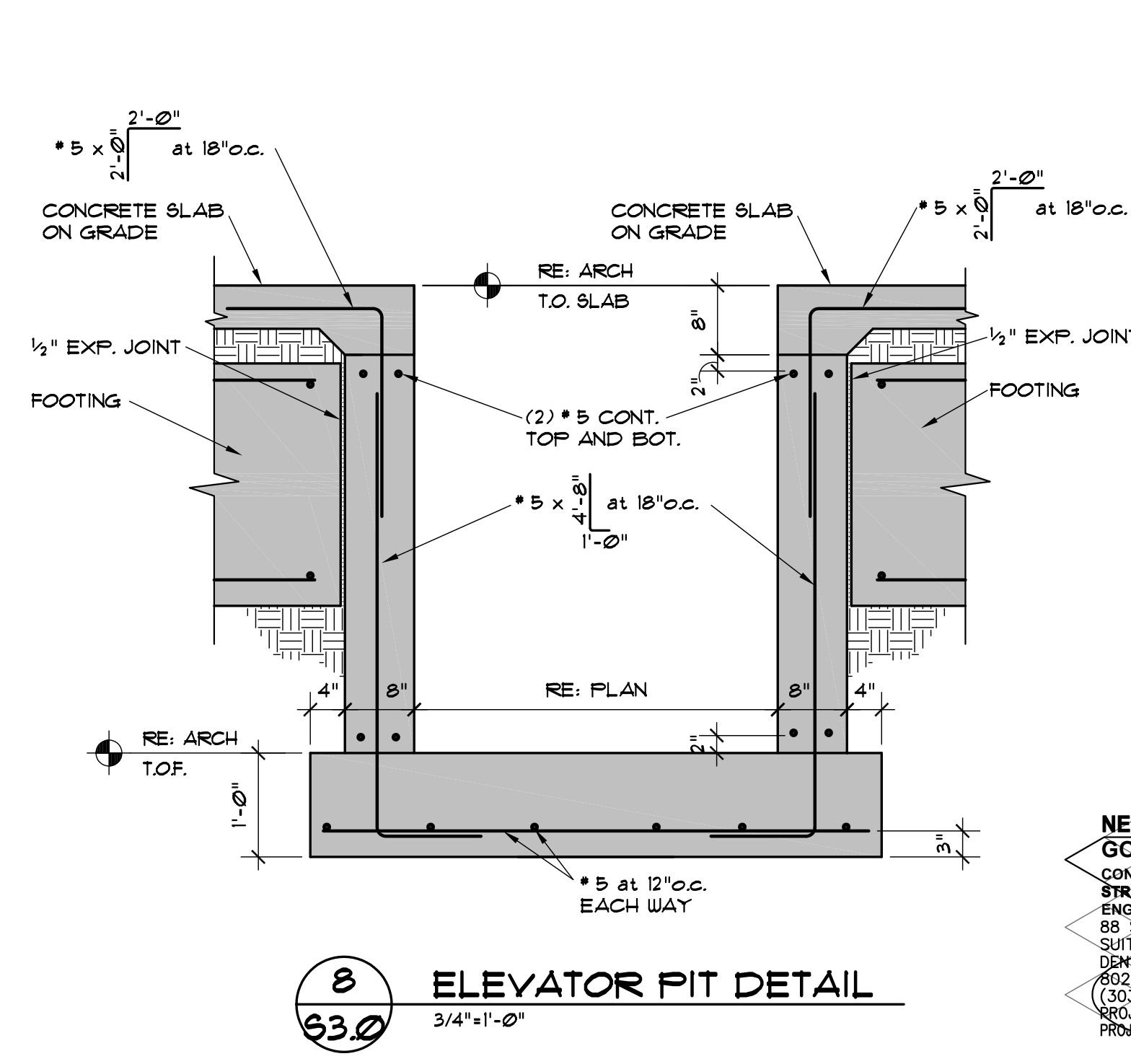
5C FDN. WALL DETAIL
63.0 3/4" x 1'-0"



6 FDN. WALL DETAIL AT COLUMN
63.0 3/4" x 1'-0"

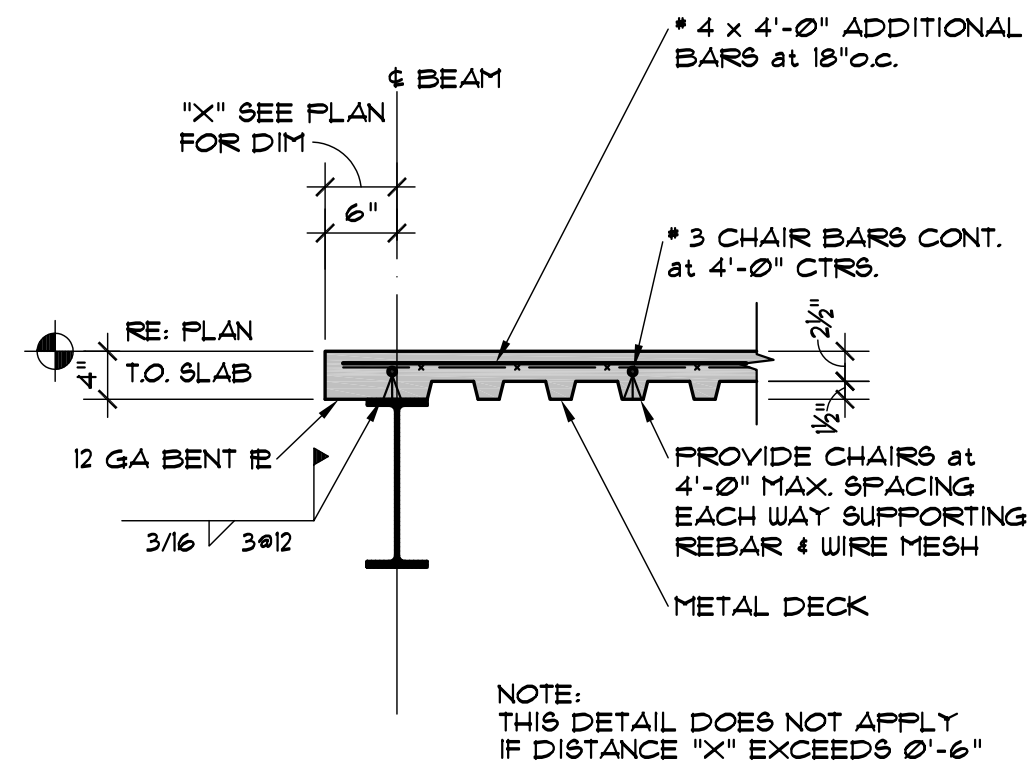


7 INTERIOR COLUMN FTG. DETAIL
63.0 3/4" x 1'-0"

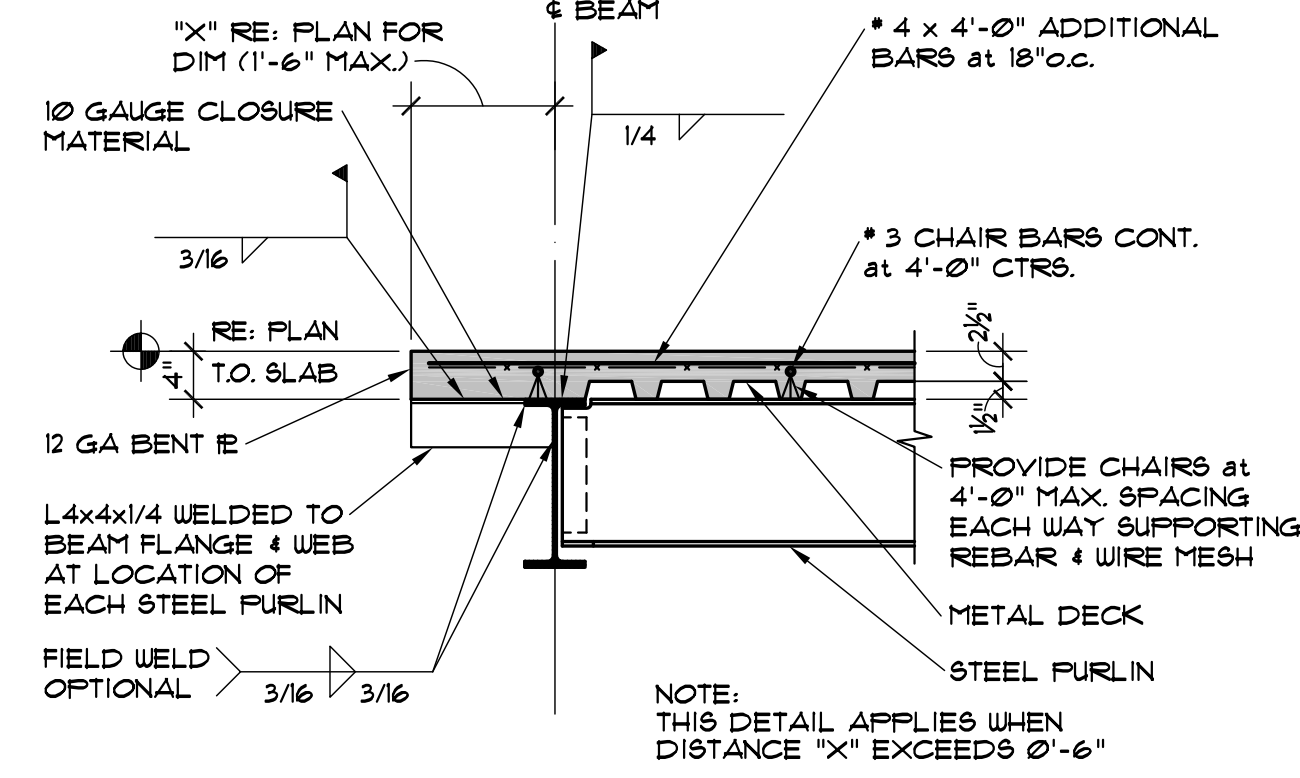


8 ELEVATOR PIT DETAIL
63.0 3/4" x 1'-0"

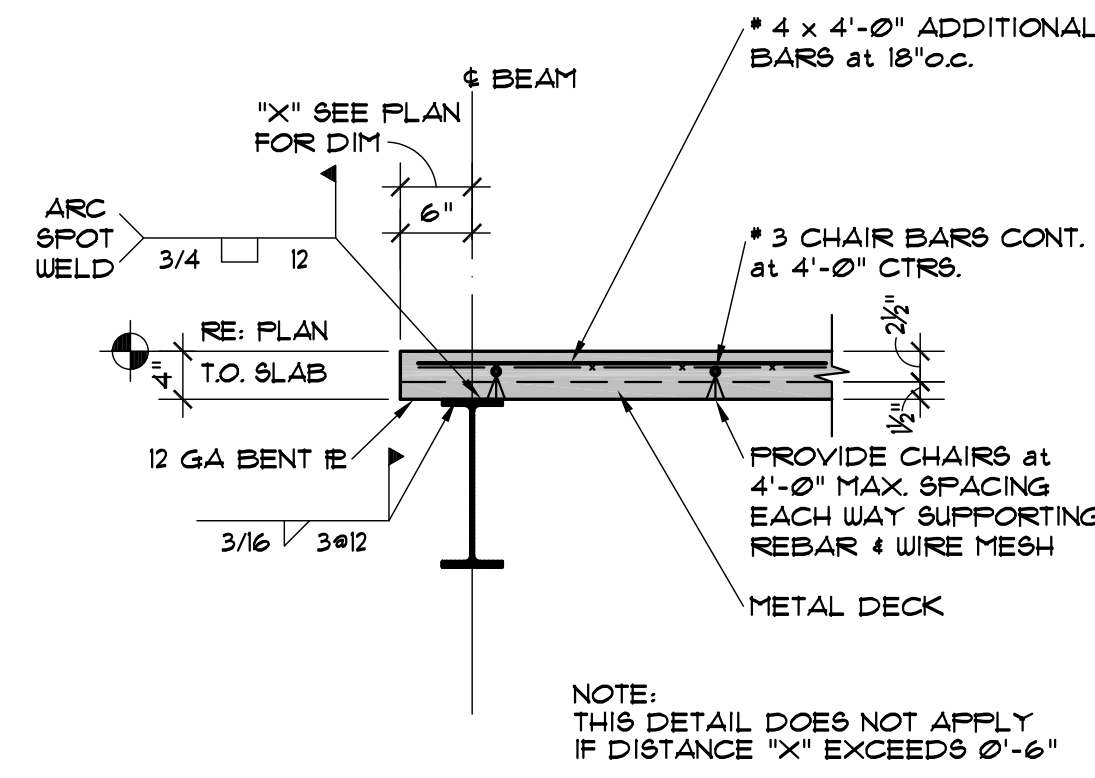
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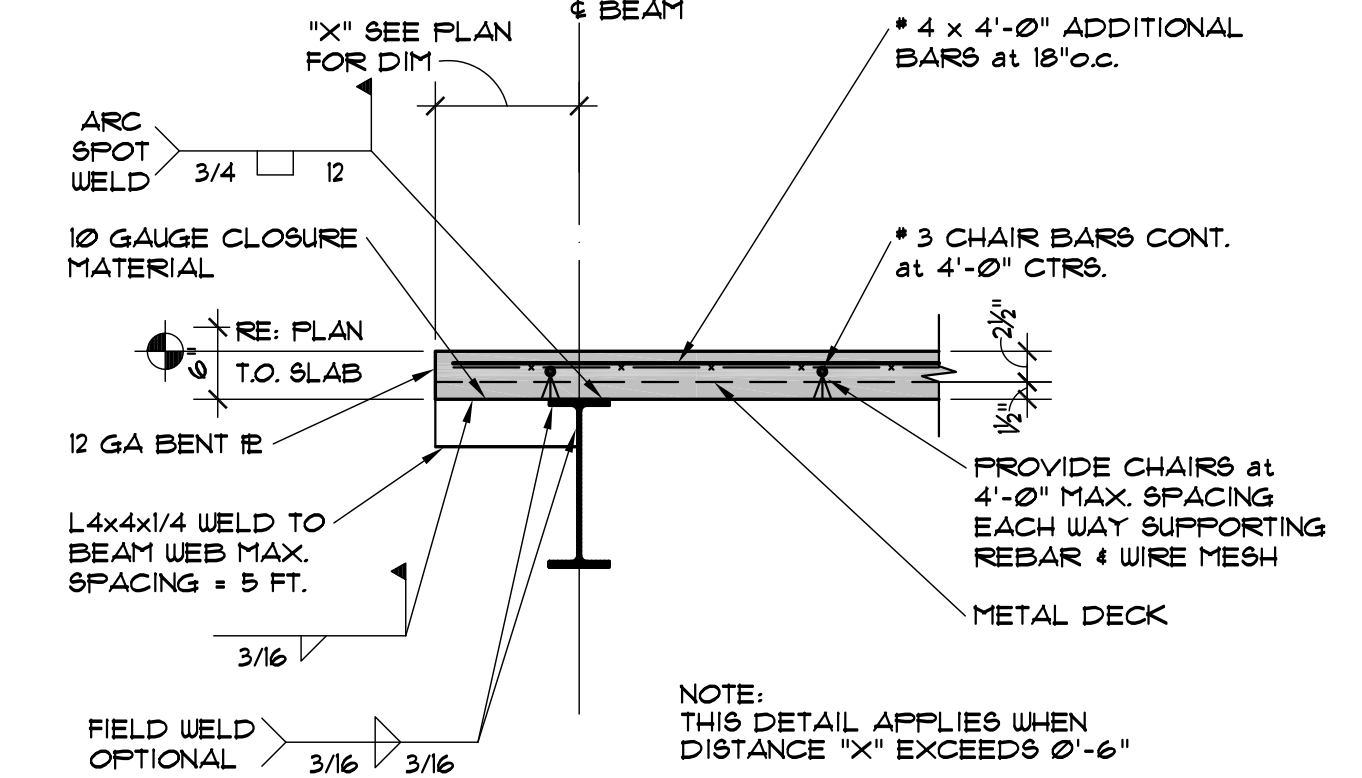
1 TYP. COMPOSITE METAL DECK CLOSURE
 3/4"x1'-0"



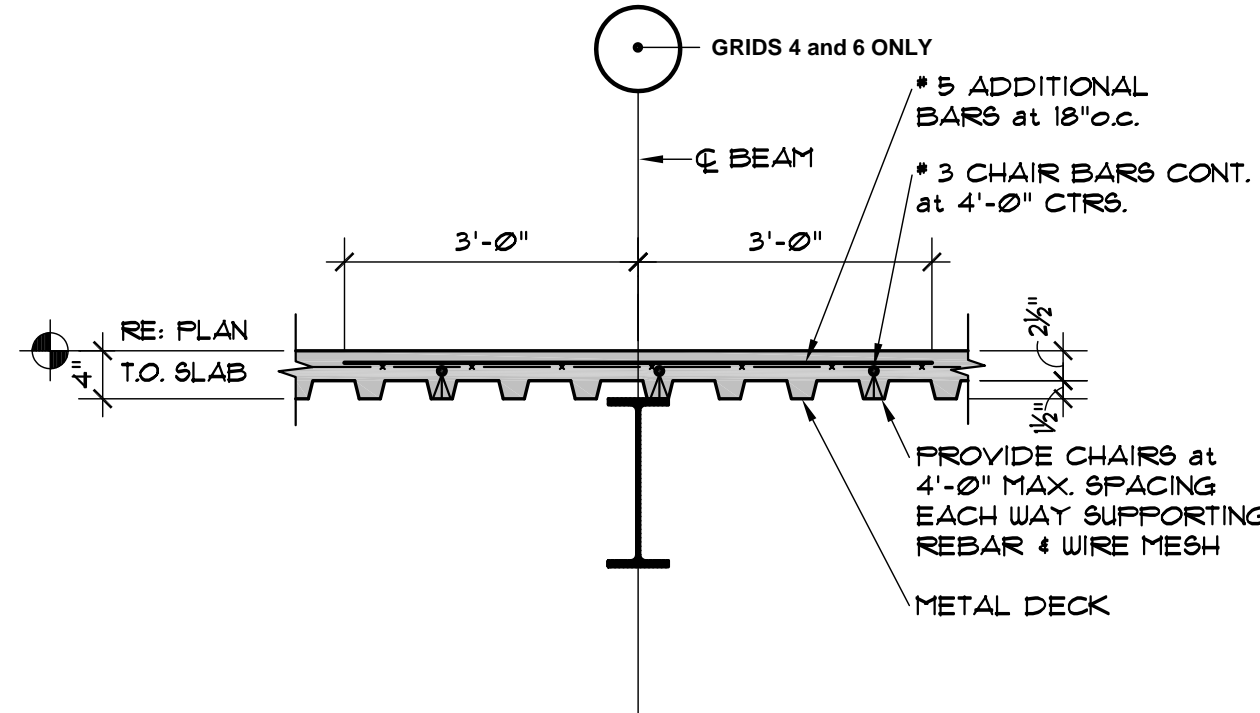
2 TYP. COMPOSITE METAL DECK CLOSURE
 DECK SPAN PARALLEL TO BEAM
 3/4"x1'-0"



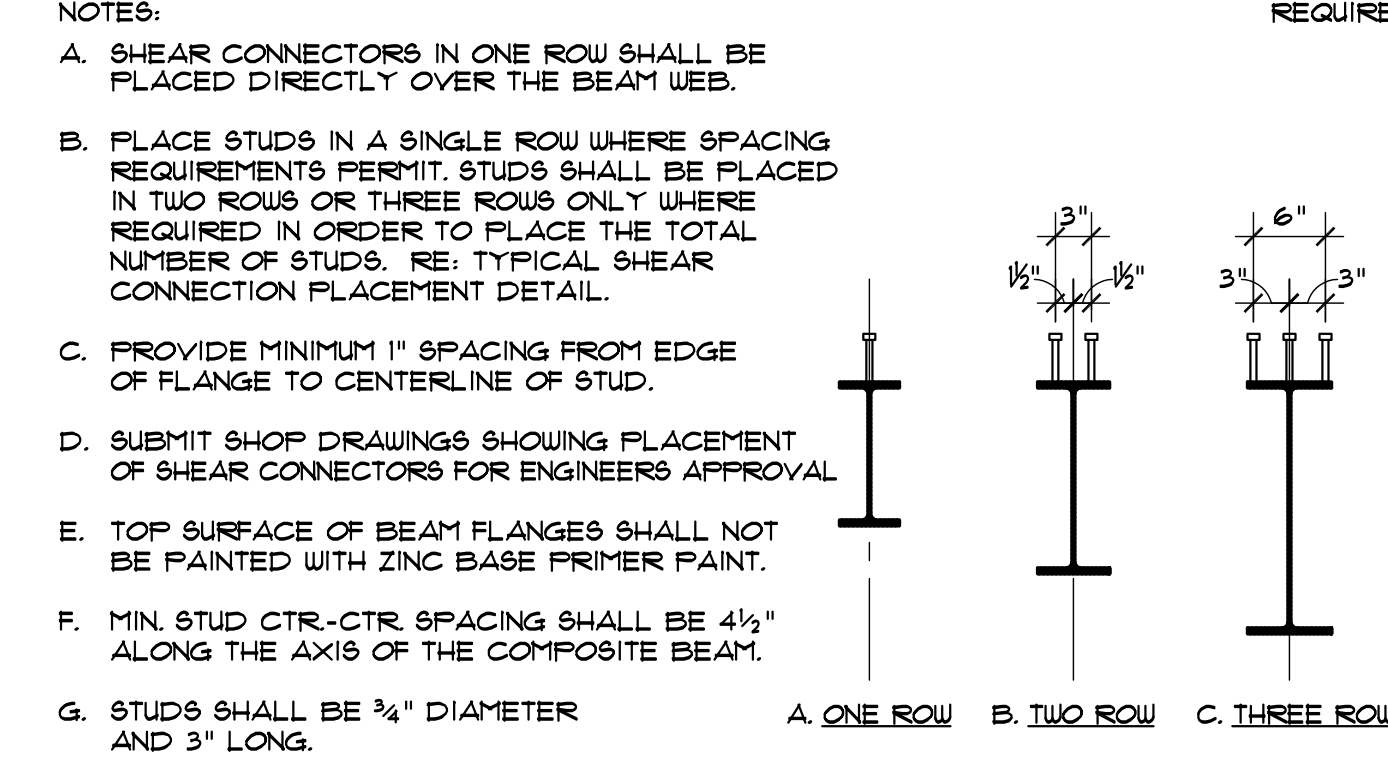
3 TYP. COMPOSITE METAL DECK CLOSURE FOR
 SLAB EDGE - DECK SPAN TRANSVERSE TO BEAM
 3/4"x1'-0"



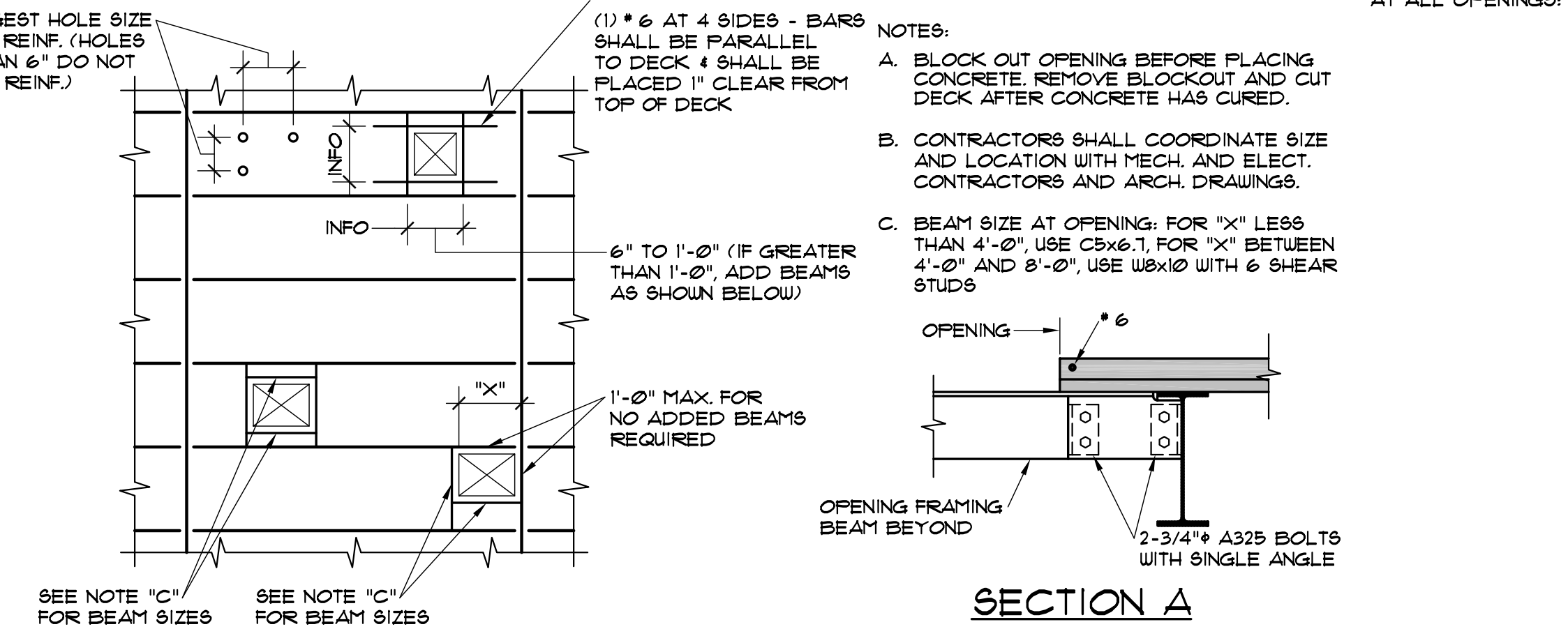
4 TYP. COMPOSITE METAL DECK CLOSURE
 DECK SPAN TRANSVERSE TO BEAM
 3/4"x1'-0"



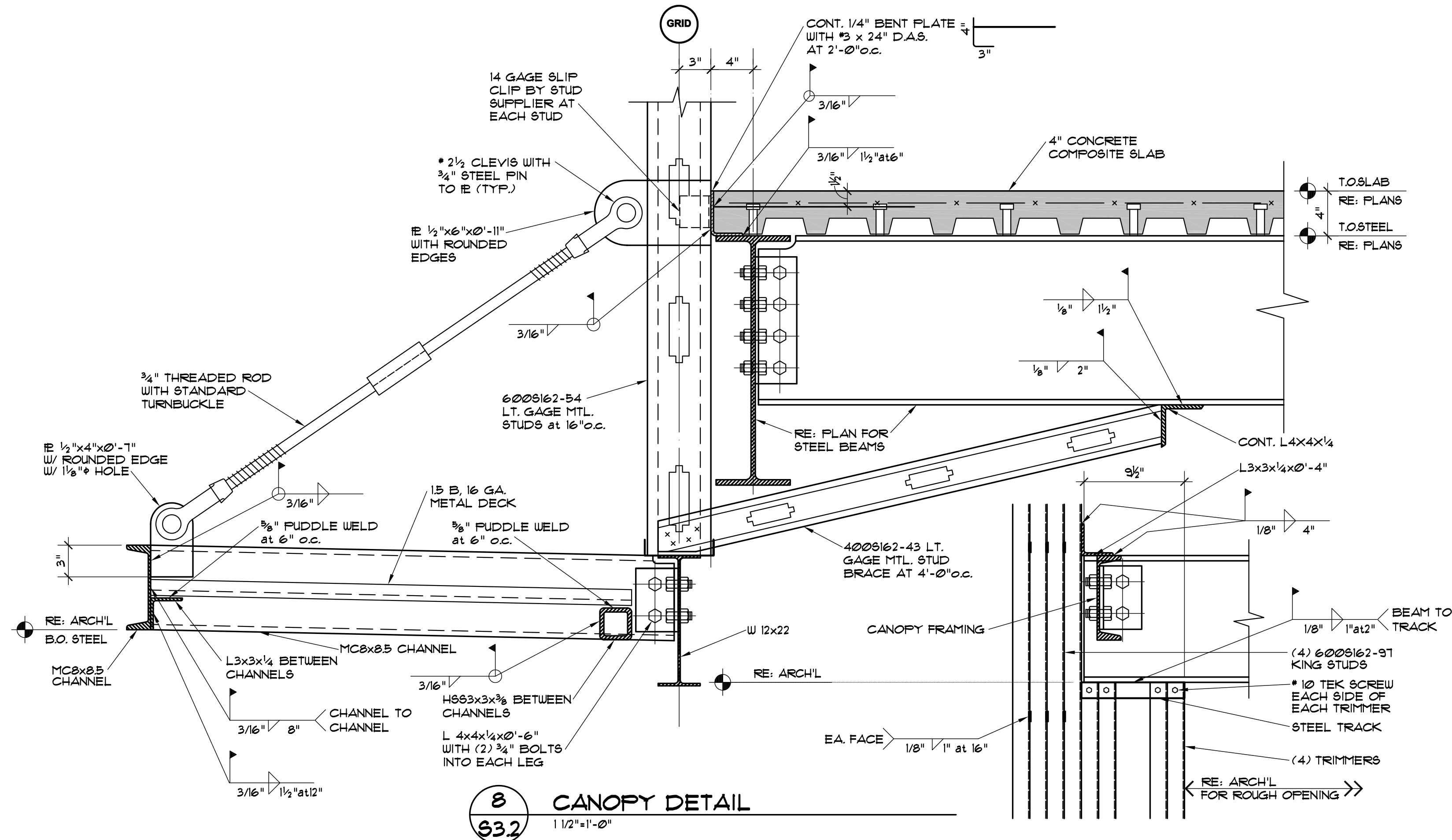
5 TYP. COMPOSITE SLAB ADDITIONAL REINF.
 3/4"x1'-0"



6 TYP. SHEAR CONN. SPACING CRITERIA
 3/4"x1'-0"

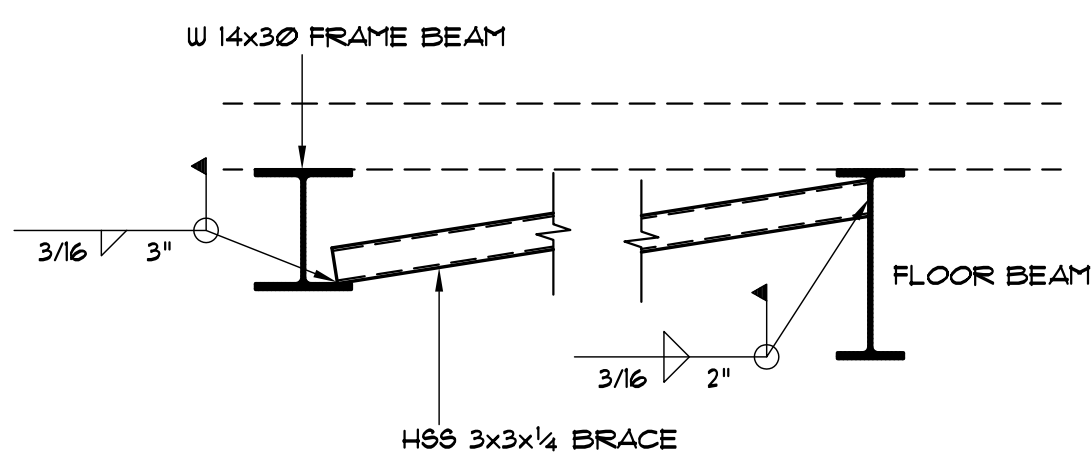
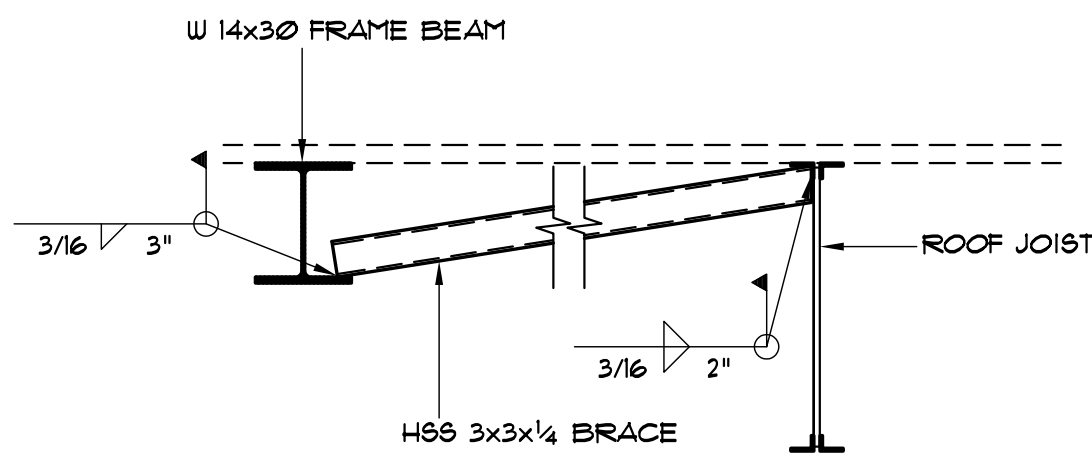


7 TYP. COMPOSITE METAL DECK OPENINGS DETAIL
 3/4"x1'-0"

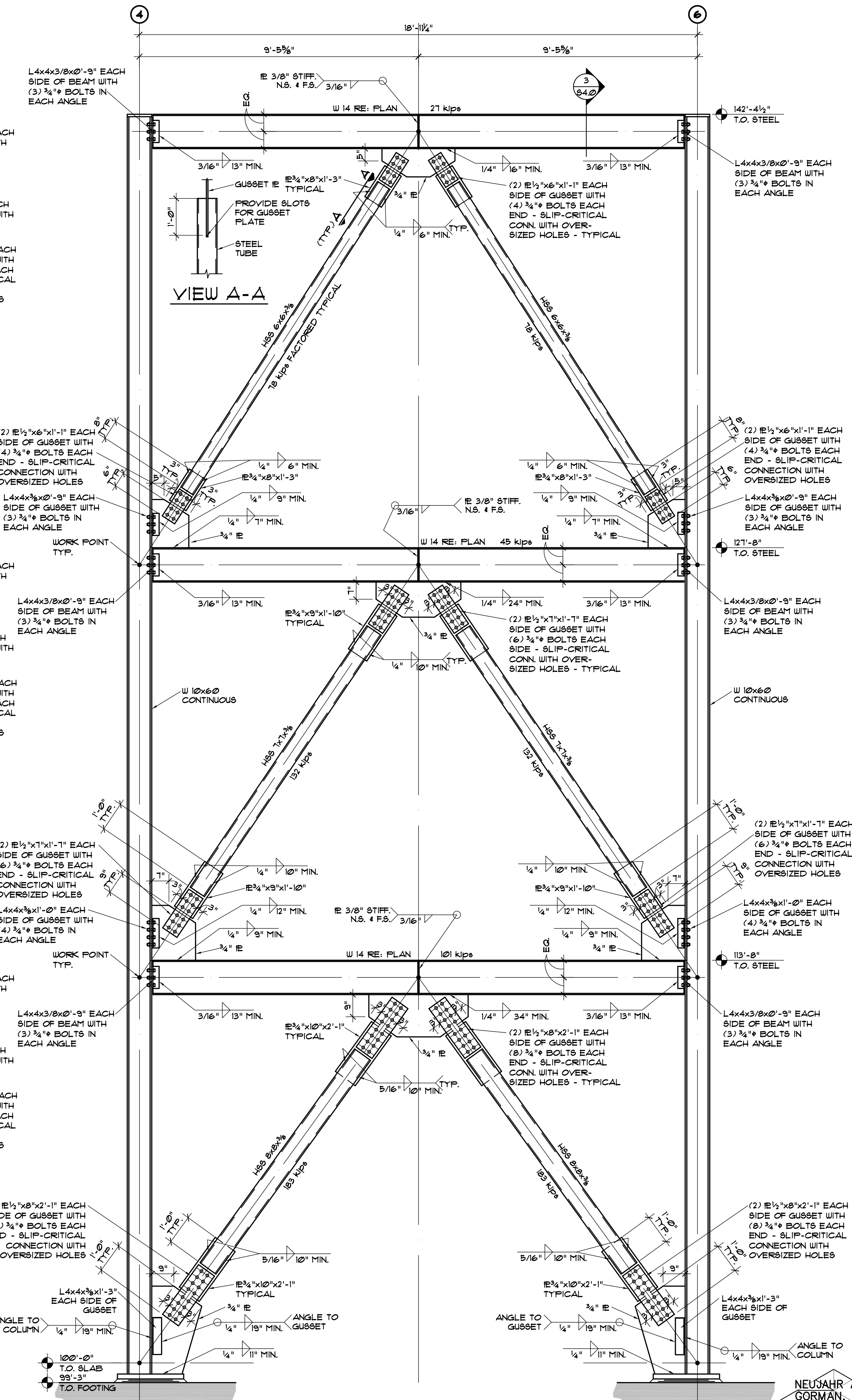
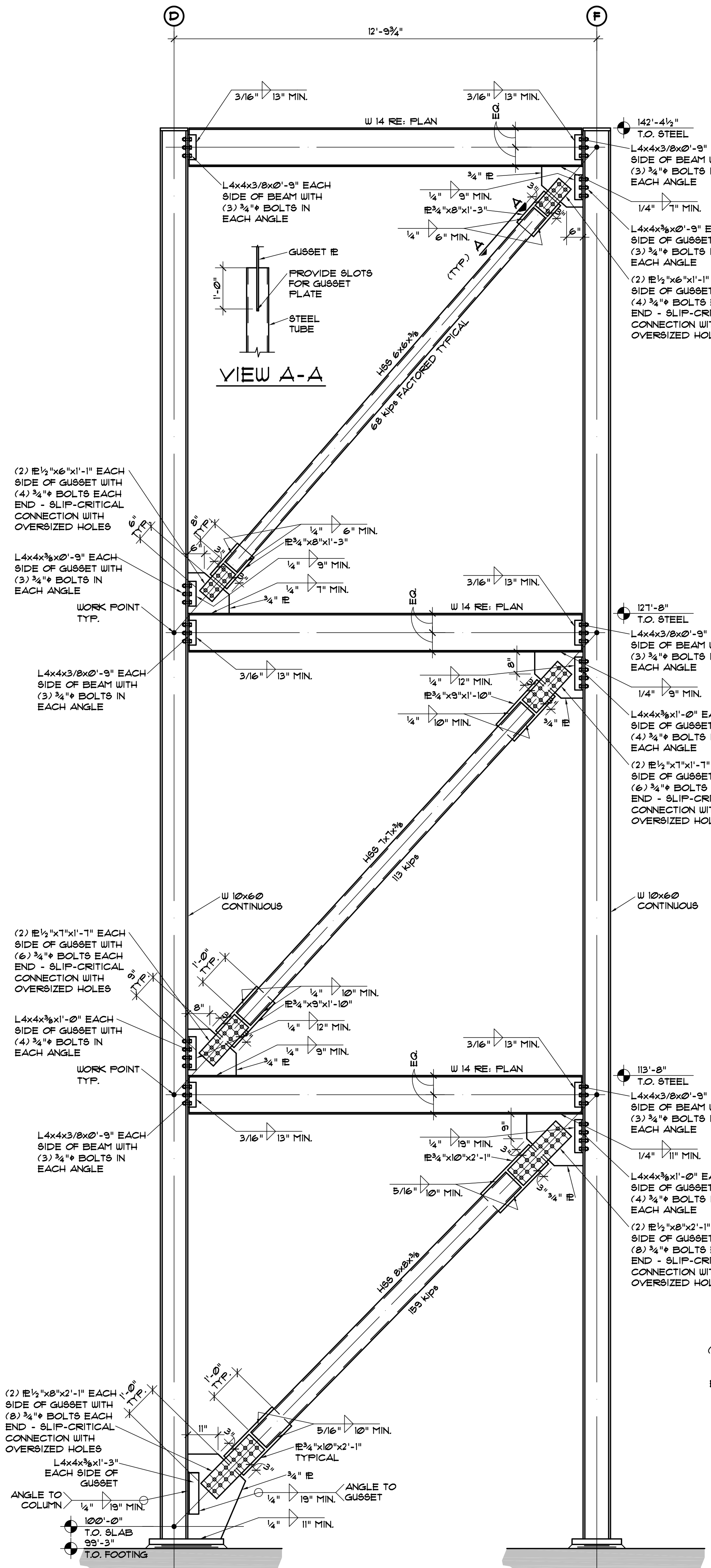


8 CANOPY DETAIL
 1 1/2"x1'-0"

COLUMN SCHEDULE				
	C - 1, 9	A - 2, 3, 7, 8	C - 2, 8	A - 5
RE: PLAN FOR BEAM DEPTH	J - 1, 9	K - 2, 3, 7, 8	J - 2, 8	K - 5
RE: PLAN T.O. STEEL				
ROOF				
LEVEL 3	HSS 6x6x1/4	HSS 6x6x5/16	HSS 6x6x3/8	HSS 6x6x5/8
LEVEL 2	HSS 6x6x1/4	HSS 6x6x5/16	HSS 6x6x3/8	HSS 6x6x5/8
LEVEL 1	HSS 6x6x1/4	HSS 6x6x5/16	HSS 6x6x3/8	HSS 6x6x5/8
T.O. FOUND.				



3 FRAME FLANGE BRACE
3/4"x1'-0"



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S4.0

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AIR DEVICE SCHEDULE								
SYMBOL	TYPE	TITUS MODEL	FRAME	MATERIAL	FINISH	DAMPER TYPE	ACCESSORIES	REMARKS
CD-1	CEILING DIFFUSER	TDC	LAY-IN	STEEL	BAKED WHITE ENAMEL	NONE	SQUARE TO ROUND ADAPTER	REMOVABLE CORE; BLANK-OFF BAFFLES WHERE SHOWN 4-WAY PATTERN UNLESS OTHERWISE SHOWN
CD-2	CEILING DIFFUSER	TDC	FLANGE	STEEL	BAKED WHITE ENAMEL	OPPOSED BLADE	SQUARE TO ROUND ADAPTER	REMOVABLE CORE; BLANK-OFF BAFFLES WHERE SHOWN 4-WAY PATTERN UNLESS OTHERWISE SHOWN
CG-1	CEILING GRILLE	50F	LAY-IN	ALUMINUM	BAKED WHITE ENAMEL	NONE	---	1/2" x 1/2" x 1/2" GRID
CR-1	CEILING REGISTER	50F	FLANGE	ALUMINUM	BAKED WHITE ENAMEL	OPPOSED BLADE	---	1/2" x 1/2" x 1/2" GRID
SR-1	SIDEWALL REGISTER	272RL	FLANGE	STEEL	BAKED WHITE ENAMEL	OPPOSED BLADE	---	ADJUSTABLE DOUBLE DEFLECTION BARS HORIZONTAL FACE BARS

EXHAUST FAN SCHEDULE														
SYMBOL	FAN TYPE	SERVICE	MFR	MODEL	WHEEL DIA IN	CFM @ 5300'	SP IN WC @ SL	APPROX RPM	SONES	MIN HP	ELEC	DRIVE TYPE	DAMPER TYPE	REMARKS
EF-1	ROOF CENTRIFUGAL	TOILET EXH.	ACME	PV150	15	1,440	1.0	1,261	12.0	3/4	460V-3Ø	BELT	BACKDRAFT	

VARIABLE AIR VOLUME UNIT SCHEDULE																
SYMBOL	MFR	MODEL	INLET SIZE	UNIT TYPE		MAX PRIMARY CFM @ 5300'	MAX HEATING CFM @ 5300'	MIN PRIMARY CFM @ 5300'	DISCHARGE NC @ 1.0" SP	RADIATED NC @ 1.0" SP	FAN DATA				HEATING COIL DATA	
				SHUT-OFF	FAN POWERED						CFM @ 5300'	ESP IN WC @ SL	HP	ELEC	KW	ELEC
VAV-1	TRANE	VCEF-8	8"Ø	Y	---	700	280	---	24	25	---	---	---	---	---	---
FPB-1	TRANE	VPEF-08	8"Ø	---	Y	800	525	200	27	35	925	0.5	1/3	277V-1Ø	6.0	480V-3Ø

ELECTRIC CABINET UNIT HEATER								
SYMBOL	MFR	MODEL	ARRANGEMENT	RECESS DEPTH IN	KW	CFM @ 5300'	FAN MOTOR WATTS	ELEC
ECH-1	TRANE	FFJB04	VERTICAL CABINET	---	6.0	380	104 WATTS	277V-1Ø

PACKAGED ROOFTOP HEATING AND COOLING UNIT SCHEDULE																									
SYMBOL	MFR	MODEL	SUPPLY FAN DATA					RETURN/EXHAUST FAN DATA					COIL DATA				NO COMPR	ELEC	MCA/MOCP AMPS	EER	FILTER DATA		APPROX ROOF CURB DIM	APPROX OPER WT LB	
			CFM TOTAL @ 5300'	MIN CFM @ 5300'	ESP IN WC @ SL	APPROX RPM	MIN FAN HP	CFM @ 5300'	ESP IN WC @ SL	APPROX RPM	MIN FAN HP	COIL SERVICE	FACE AREA SQ FT	MBH IN/T @ SL	COIL OUTPUT @ 5300'	MBH COOL @ SL					TYPE	AREA SQ FT			EFF %
RTU-1	TRANE	SFHF-75	27,000	6,000	2.75	1,096	40	27,000	0.7	749	15	HEATING	---	670.0	439.4	---	6	480V-3Ø	221.13/250.0	9.4	PANEL	44.0	65	22'-4" x 10'-0"	12,500
												COOLING	43.1	---	802.6										

1. COOLING COIL CAPACITY BASED ON ARI STANDARD CONDITIONS: 80 FDB/67 FMB, 95 F AMBIENT AT CONDENSER.
2. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE LOSSES FOR UNIT CASING, FILTERS, OR COILS.
3. BURNER SHALL BE DESIGNED TO FIRE ON NATURAL GAS, 6" WC, 870 BTU/CF.
4. PROVIDE UNIT WITH SUPPLY AND RETURN AIR DUCT SMOKE DETECTORS

HVAC LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF HVAC DRAWINGS

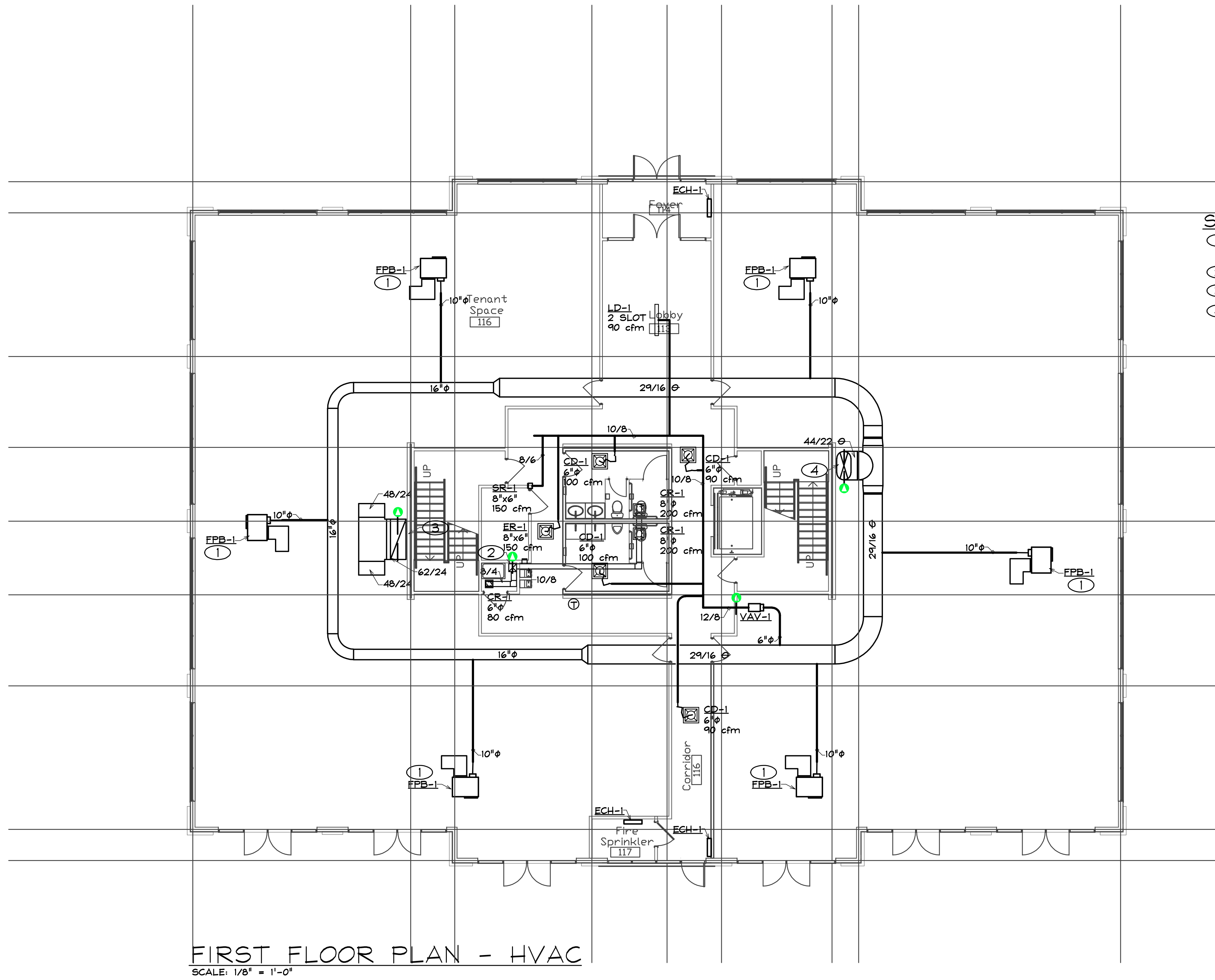
PIPING		PIPING SYMBOLS		PIPING SYMBOLS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
HS	HOT WATER SUPPLY		CONCENTRIC REDUCER		BUTTERFLY VALVE
HR	HOT WATER RETURN		ECCENTRIC REDUCER		BALL VALVE
CHS	CHILLED WATER SUPPLY		EXPANSION JOINT		HOSE END DRAIN VALVE
CHR	CHILLED WATER RETURN		FLEXIBLE CONNECTOR		STRAINER
CS	CONDENSER SUPPLY		PIPE ANCHOR		STRAINER WITH BLOW-OFF VALVE
CR	CONDENSER RETURN		ALIGNMENT GUIDE		UNION
LPS	LOW PRESSURE STEAM		FLOW MEASURING DEVICE		PRESSURE GAUGE
LPC	LOW PRESSURE CONDENSATE		PLUG VALVE		THERMOMETER
HPS	HIGH PRESSURE STEAM		AUTOMATIC 2-WAY TEMPERATURE CONTROL VALVE		SAFETY RELIEF VALVE
HPC	HIGH PRESSURE CONDENSATE		AUTOMATIC 3-WAY TEMPERATURE CONTROL VALVE		PUMP
PC	PUMPED CONDENSATE		PRESSURE REDUCING VALVE		THERMOSTATIC STEAM TRAP
D	EQUIPMENT DRAIN		PRESSURE AND TEMPERATURE TAP VALVE		FLOAT & THERMOSTATIC STEAM TRAP
RL	REFRIGERANT LIQUID		SHUT-OFF VALVE		INVERTED BUCKET STEAM TRAP
RS	REFRIGERANT SUCTON		GLOBE VALVE		MANUAL AIR VENT
RHG	REFRIGERANT HOT GAS		CHECK VALVE		
FOG	FUEL OIL SUPPLY				
FOR	FUEL OIL RETURN				
FOV	FUEL OIL VENT				
PIPING SYMBOLS		PIPING SYMBOLS		PIPING SYMBOLS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DIRECTION OF FLOW		DOUBLE LINE DUCTWORK		SINGLE LINE DUCTWORK
	INDICATES PIPE SLOPE DOWN		RECTANGULAR SUPPLY AIR DUCT UP		RECTANGULAR SUPPLY AIR DUCT DOWN
	PIPING CAP OR PLUG		RECT RETURN/EXH AIR DUCT UP		RECT RETURN/EXH AIR DUCT DOWN
	PIPING UP		RECT RETURN/EXH AIR DUCT DOWN		ROUND DUCT UP
	PIPING DOWN		ROUND DUCT UP		ROUND DUCT DOWN
	BOTTOM OF PIPE CONN.		ROUND DUCT DOWN		BRANCH DUCT 45° TAKE-OFF
GENERAL		DOUBLE LINE DUCTWORK		SINGLE LINE DUCTWORK	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	REFERENCE BUBBLE # SECTION LETTER OR DETAIL NUMBER # REFERENCE DRAWING NUMBER		RECTANGULAR SUPPLY AIR DUCT UP		RECTANGULAR SUPPLY AIR DUCT DOWN
	EQUIPMENT DESIGNATION		RECT RETURN/EXH AIR DUCT UP		RECT RETURN/EXH AIR DUCT DOWN
	EXISTING TO BE REMOVED		RECT RETURN/EXH AIR DUCT DOWN		ROUND DUCT UP
	UNDERCUT DOOR		ROUND DUCT DOWN		ROUND DUCT DOWN
	CONNECT NEW TO EXISTING		ROUND DUCT DOWN		BRANCH DUCT 45° TAKE-OFF
CONTROL DEVICES AND DAMPERS		DOUBLE LINE DUCTWORK		SINGLE LINE DUCTWORK	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	HUMIDISTAT		RECTANGULAR SUPPLY AIR DUCT UP		RECTANGULAR SUPPLY AIR DUCT DOWN
	PRESSURE SENSOR		RECT RETURN/EXH AIR DUCT UP		RECT RETURN/EXH AIR DUCT DOWN
	SENSOR		RECT RETURN/EXH AIR DUCT DOWN		ROUND DUCT UP
	WALL MOUNTED THERMOSTAT		ROUND DUCT DOWN		ROUND DUCT DOWN
	UNIT MOUNTED THERMOSTAT		ROUND DUCT DOWN		BRANCH DUCT 45° TAKE-OFF
	SWITCH (* INDICATES EQ.)		RECTANGULAR DUCT ELBOW WITH TURNING VANES		RECTANGULAR DUCT ELBOW WITH TURNING VANES
	FIRE DAMPER		RADIUS ELBOW RECTANGULAR/ROUND DUCT		RADIUS ELBOW RECTANGULAR/ROUND DUCT
	COMBINATION FIRE AND SMOKE DAMPER		DUCT TRANSITION		DUCT TRANSITION
	MANUAL VOLUME DAMPER W/LOCKING QUADRANT		FLEX CONNECTION		CONICAL SPIN-IN FITTING
	MOTORIZED DAMPER		MANUAL VOLUME DAMPER W/LOCKING QUADRANT		CONICAL SPIN-IN FITTING W/DAMPER
			FLEXIBLE DUCT		FLEXIBLE DUCT
ABBREVIATIONS					
AF	ABOVE FINISHED FLOOR	ELEV	ELEVATION	NC	NOT IN CONTRACT
AP	ACCESS PANEL	GC	GENERAL CONTRACTOR	NO	NORMALLY OPEN
C	COMMON	MC	MECHANICAL CONTRACTOR	NTS	NOT TO SCALE
(E)	EXISTING	(N)	NEW	OA	OUTSIDE AIR
EC	ELECTRICAL CONTRACTOR	NC	NORMALLY CLOSED	PRV	PRESSURE REDUCING VALVE
				RA	RETURN AIR
				SA	SUPPLY AIR
				SRV	SAFETY RELIEF VALVE
				TCC	TEMPERATURE CONTROL CONTRACTOR
				TYP	TYPICAL

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Job **JOP/MCD805**
 drawn **PFM**
 checked **PFM**
 issued for **7/21/08 FOR BID**

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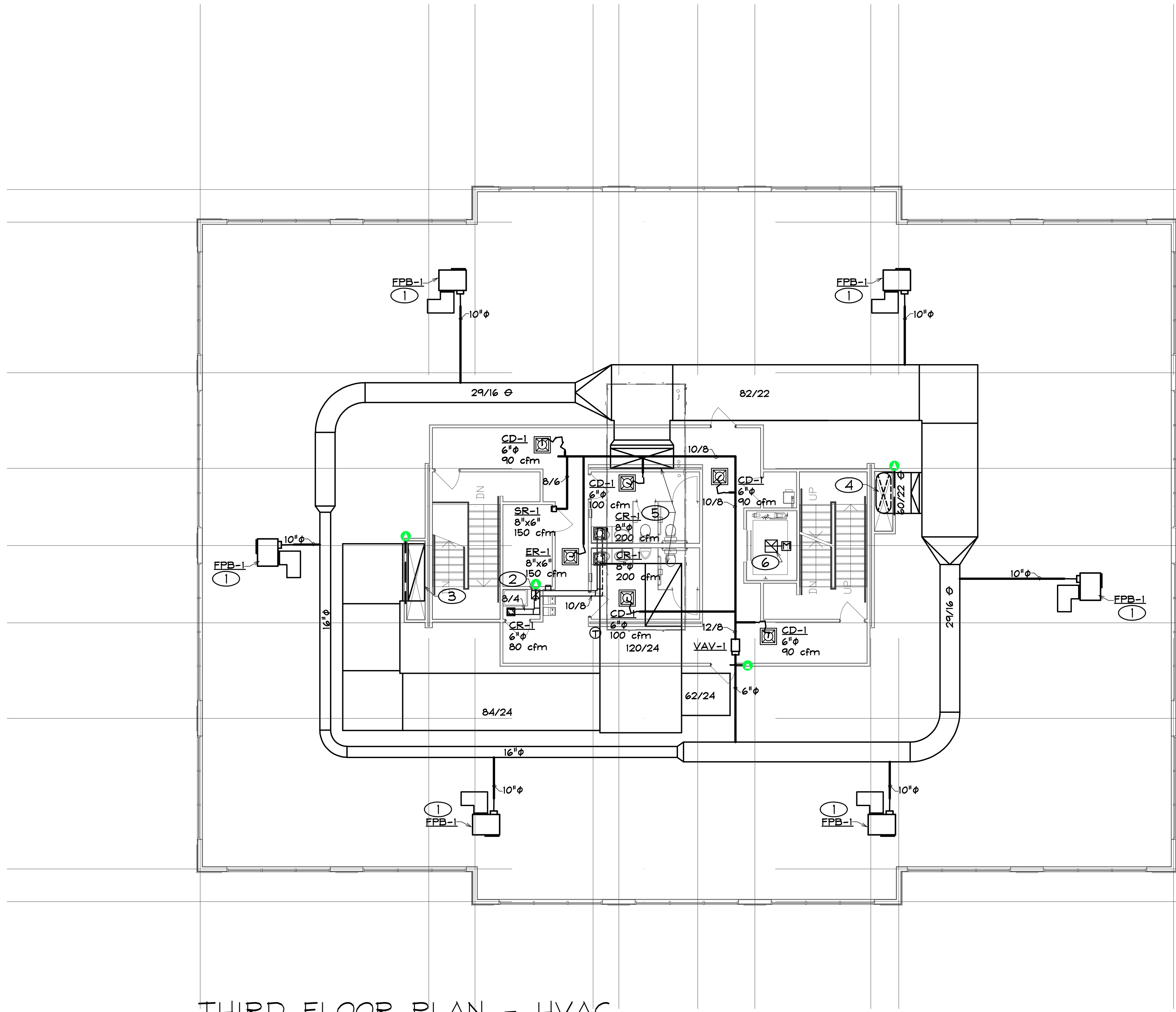
FIRST FLOOR PLAN - HVAC
SCALE: 1/8" = 1'-0"

- SHEET NOTES**
- ① PROVIDE 'L' SHAPED RETURN AIR DUCT FULL SIZE OF RETURN CONNECTION LINED WITH 1/2" THICK DUCT LINER
 - ② 10/14 EXHAUST UP TO FLOOR ABOVE
 - ③ 62/24 RETURN UP TO FLOOR ABOVE
 - ④ 44/20 φ UP TO FLOOR ABOVE

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SHEET NOTES

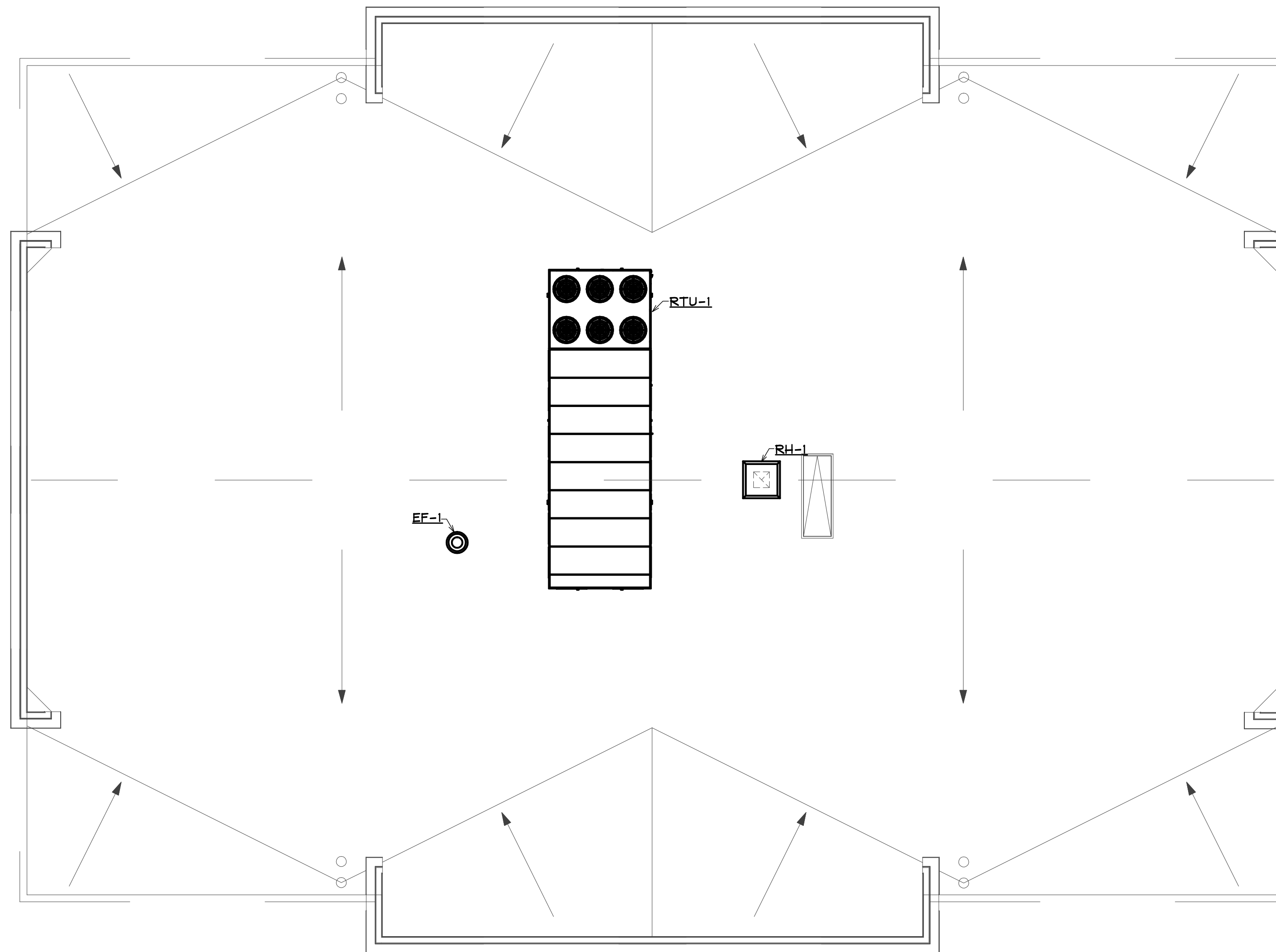
- ① PROVIDE 'L' SHAPED RETURN AIR DUCT FULL SIZE OF RETURN CONNECTION LINED WITH 1/2" THICK DUCT LINER
- ② 14/14 EXHAUST UP FROM BELOW, UP TO CONNECTION AT EXHAUST FAN ON ROOF
- ③ 84/24 RETURN DOWN IN SHAFT FOR FLOOR BELOW
- ④ 60/0 Ø SUPPLY DOWN IN SHAFT TO FLOOR BELOW
- ⑤ SUPPLY AND RETURN DUCTS UP TO CONNECTION AT ROOFTOP UNIT FULL SIZE OF UNIT CONNECTION
- ⑥ 20/20 VENT UP TO ROOF HOOD, PROVIDE MOTORIZED DAMPER INTERLOCKED WITH FIRE ALARM SYSTEM PER DIRECTION OF FIRE MARSHALL

THIRD FLOOR PLAN - HVAC
SCALE: 1/8" = 1'-0"

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ROOF FLOOR PLAN - HVAC
 SCALE: 1/8" = 1'-0"

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PLUMBING FIXTURE SCHEDULE																			
KEY	DESCRIPTION	MANUF	MODEL	CONNECTIONS				REMARKS	KEY	DESCRIPTION	MANUF	MODEL	CONNECTIONS				REMARKS		
				TRAP	W	V	CV						H/TH	TRAP	W	V		CV	H/TH
ENC-1	ELEC. WATER COOLER SUPPORT CARRIER	HAWES J.R. SMITH	HNUACP8L 830	1 1/4"	2"	2"	1/2"	--	2,3	UR-1	WALL HUNG URINAL FLUSH VALVE SUPPORT CARRIER	KOHLER J.R. SMITH	K-4915 INTIGRAL 637	INT.	2"	2"	3/4"	--	2
L-1	UNDERMOUNT LAVATORY FAUCET STRAINER/OFFSET TAILPIECE	KOHLER KOHLER	K-2210-N K-10950-4 K-13885	1 1/4"	2"	2"	1/2"	1/2"	2	WC-1	FLR. MTD. WATER CLOSET FLUSH VALVE SEAT	KOHLER KOHLER	K-3439-T PRESSURE-LITE K-4670-C	INT.	4"	2"	1/2"	--	2
MSB-1	MOP BASIN FAUCET HOSE & HOSE BRACKET	FIAT CHICAGO FIAT	TSB-100 897 832-AA	3"	3"	2"	1/2"	1/2"	6	WC-2	FLR. MTD. WATER CLOSET FLUSH VALVE SEAT	KOHLER SLOAN KOHLER	K-3531 110-1.6-YBYC K-4670-C	INT.	4"	2"	1/2"	--	--

NOTES:

- REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHT ELEVATIONS OF ALL PLUMBING FIXTURES PRIOR TO INSTALLATION.
- PROVIDE ALL FIXTURES WITH CHROME PLATED CAST BRASS, ADJUSTABLE 'P' TRAPS WITH CLEANOUT PLUGS, TUBING OUTLETS AND WALL FLANGES UNLESS FIXTURE IS FURNISHED WITH AN INTEGRAL TRAP OR IS PROVIDED ONE AS A STANDARD ACCESSORY.
- PROVIDE ALL FIXTURES WITH CHROME PLATED SUPPLIES WITH ANGLE OR STRAIGHT PATTERN LOOSE KEY STOPS UNLESS FIXTURE IS FURNISHED WITH INTEGRAL STOPS OR STOPS ARE PROVIDED AS STANDARD ACCESSORIES.
- ALL FLUSH VALVES SHALL BE SLOAN 'REGAL' MODELS WITH A.D.A. COMPLIANT HANDLES.
- ALL EXPOSED PIPING SHALL BE POLISHED CHROME.
- COORDINATE ALL CASEWORK MOUNTED FIXTURES WITH BASE CABINET DIMENSIONS PRIOR TO ORDERING FIXTURES. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY IF A CONFLICT EXISTS.
- PROVIDE ALL FLUSH VALVES W/A.D.A. COMPLIANT HANDLES. ACCESSIBLE WATER CLOSETS SHALL BE OPERABLE FROM THE WIDE SIDE OF THE STALL.

REMARKS:

- FURNISH COMPLETE WITH BACK PANEL AND VANDAL RESISTANT BOTTOM PLATE.
- FIXTURE DESIGNATED TO BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (A.D.A.).
- REFRIGERATION SYSTEM CHARGED WITH R-134A REFRIGERANT.
- FAUCET COMPLETE W/ RIGID GOOSENECK SPOUT, 3/4" VP AERATOR & 3/17 WRIST BLADE HANDLES. INSULATE TRAP AND WATER SUPPLIES.
- EXTEND CHROME PLATED TAILPIECE TO PLASTER TRAP.
- FAUCET TO HAVE ROUGH CHROME FINISH AND SHALL BE MOUNTED 3'-6" A.F.F. PROVIDE MSG 2424 S.S. WALL GUARD AND VANDAL-PROOF DRAIN.
- FAUCET LEDGE SHALL BE PUNCHED FOR SINGLE HOLE FAUCET SPECIFIED.
- PROVIDE CHROME PLATED TAILPIECE EXTENSION AND TURN DOWN TO ALLOW FOR KNEE-SPACE CLEARANCE.
- INSTALL DISPOSER IN RIGHT-HAND COMPARTMENT AND DRAIN STRAINER IN LEFT-HAND COMPARTMENT.
- SINGLE COMPT. 18 GA. TPE 304 S.S. W/ FAUCET LEDGE PUNCHING AND DRAIN OPENING AS DETAILED ON SHEET P3.1.
- ROUGH-IN AND CONNECT TO SINK BASIN FURNISHED AND INSTALLED BY CASEWORK SUPPLIER.
- 6'-0" HEAD HEIGHT, 10'-0" HIGH CEILING, TOP SUPPLY & VENT, 2.5 GPM, METER-MATIC SINGLE TEMP SUPPLY, DOME GRATE DRAIN, UNIT SHUT-OFF, CIRCULAR SOAP TRAY, SUPPLY COVER WITH CEILING ANCHOR PLATE.
- SAME AS SH-1 W/ ACCESSIBLE SHOWER STATION INCLUDING LEVER HANDLE DIVERTER VALVE MOUNTED @ 48" A.F.F., FLEX-SHOWER WITH VACUUM BREAKER AND QUICK DISCONNECT AND COL. MTD. STAINLESS STEEL GRAB BAR. CONTROL VALVE SAME AS FOR SH-1, ALL VALVES MTD. @ 40" A.F.F. ACCESS. STATION ALSO TO INCLUDE STANDARD SHOWER AS CALLED FOR AT SH-1.
- 5'-6" HEAD HEIGHT, TOP SUPPLY, 2.5 GPM, METER-MATIC SINGLE TEMP. SUPPLY, LOCKABLE UNIVERSAL BALL JOINT HEAD, RECESSED SOAP DISH AND INDIVIDUAL STOPS.
- SAME AS SH-2 W/ ACCESSIBLE SHOWER STATION INCLUDING LEVER HANDLE DIVERTER VALVE MTD. @ 48" A.F.F., FLEX-SHOWER WITH VACUUM BREAKER AND QUICK DISCONNECT, LESS STAINLESS STEEL GRAB BAR. CONTROL VALVE SAME AS FOR SH-2, MTD. AT 40" A.F.F. STATION ALSO TO INCLUDE STANDARD SHOWER AS CALLED FOR AT SH-2.
- 5'-6" HEAD HEIGHT, TOP SUPPLY, 2.5 GPM, SAFETY-TROL PRESSURE BAL. VLV., LOCKABLE UNIVERSAL BALL JOINT HEAD, RECESSED SOAP DISH AND INDIVIDUAL CHECK STOPS. LEVER HANDLED CONTROL AND DIVERTER VALVES MTD. 48" A.F.F. (MAX.). FLEX. SHOWER WITH VACUUM BREAKER AND QUICK DISCONNECT.
- COORDINATE FLUSH VALVE ROUGH-IN ELEVATION WITH GRAB BAR MOUNTING HEIGHT PRIOR TO INSTALLATION.
- PROVIDE CHICAGO FAUCET MODEL 560-048K.KRBF DUAL PURPOSE MIXING 'Y' ASSEMBLY.

PLUMBING EQUIPMENT SCHEDULE		
KEY	DESCRIPTION	BASIS OF DESIGN
SCO-1	GRADE CLEANOUT 2-WAY	SAME AS SCO-1, PROVIDE TYLER PIPE #5460 SERIES 2-WAY CLEANOUT AND #5626 45 DEGREE OFFSETS. (2) COVERS REQUIRED.
FD-1	FLOOR DRAIN	JAY R. SMITH FIG 2010-A-U-PB, DUCO C.I. BODY AND FLASHING COLLAR W/ POLISHED BRONZE, ROUND STRAINER AND VANDAL PROOF SCREWS.
BFP-1	REDUCED PRESSURE BACKFLOW PREVENTER	FEBCO MODEL 825YD INLET AND OUTLET AS NOTED ON PLANS, COMPLETE W/ FULL PORTED BALL VALVES, BALL VALVE TEST COCKS W/ CAPS, BRONZE BODY CONSTRUCTION, W/ BRONZE & STAINLESS STEEL TRIM AND AGD-Y AIR GAP DRAIN. EXTEND DRAIN TO FLOOR DRAIN.
WH-1	WALL HYDRANT	WOODFORD MODEL B65 SERIES BOX TYPE, AUTOMATIC DRAINING FREEZE-LESS W/ INTEGRAL VACUUM BREAKER, POLISHED BRASS FINISH 3/4" MPT UNION ELBOW INLET, 3/4" HOSE THREAD NOZZLE, LOOSE TEE KEY.
AD-1	AREA DRAIN	JAY R. SMITH FIG 2475, DUCO C.I. BODY AND FLASHING COLLAR W/ HINGED, HEAVY DUTY CAST IRON GRATE AND SLOTTED SEDIMENT BUCKET.

TOTAL CONNECTED GAS LOAD SCHEDULE				
EQUIPMENT	QTY	INPUT EACH (BTUH)	INPUT TOTAL (BTUH)	REMARKS
RTU-1	1	670,000	670,000	----
TOTAL CONNECTED LOAD =			670,000	----

GAS DELIVERY PRESSURE = 6"wc
TOTAL DEVELOPED LENGTH = 160ft.

DOMESTIC WATER HEATER SCHEDULE								
SYMBOL	MFR	MODEL	STORAGE TANK GAL	INLET WATER TEMP F	OUTLET WATER TEMP F	RECOVERY RATE GPH	ELEMENT KW	ELEC
ENH-1, 2 & 3	BRADFORD WHITE	LD-20L3-3	20	40	120	23	4.5	480V-3φ

PLUMBING LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF PLUMBING DRAWINGS

PLUMBING PIPING		PIPING SYMBOLS		PIPING SYMBOLS	
SYMBOL	ABBDESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CH	DOMESTIC COLD WATER	WALL HYDRANT	WALL HYDRANT	⊗	GATE VALVE WITH CURB BOX
HW	DOMESTIC HOT WATER	HOSE BIBB	HOSE BIBB	M	WATER METER
HW-C	DOMESTIC HOT WATER CIRCULATING	YARD HYDRANT	YARD HYDRANT	M	GAS METER
HW-180°	DOMESTIC HOT WATER AT TEMP. SHOWN	BALANCING VALVE/ FLOW MEASURING DEVICE	BALANCING VALVE/ FLOW MEASURING DEVICE	←	THRUST BLOCK
W	SOIL OR WASTE	BALL VALVE	BALL VALVE	⊗	MANHOLE
BD	BUILDING DRAIN	OS&Y GATE VALVE	OS&Y GATE VALVE	⊗	CATCH BASIN
BD	BUILDING DRAIN	SHUT-OFF VALVE	SHUT-OFF VALVE	⊗	FLOOR SINK
V	SANITARY VENT	GLOBE VALVE	GLOBE VALVE	⊗	ROOF DRAIN
SD	STORM DRAIN ABOVE FLOOR	CHECK VALVE	CHECK VALVE	⊗	OVERFLOW DRAIN
SD	STORM DRAIN BELOW FLOOR	BUTTERFLY VALVE	BUTTERFLY VALVE	⊗	FLOOR CLEANOUT
OD	OVERFLOW DRAIN ABOVE FLOOR	FLOW SWITCH	FLOW SWITCH		
OD	OVERFLOW DRAIN BELOW FLOOR	SOLENOID VALVE	SOLENOID VALVE		
SS	STORM SEWER	PRESSURE REDUCING VALVE	PRESSURE REDUCING VALVE		
AW	ACID WASTE ABV. FLOOR	GAS VALVE	GAS VALVE		
AW	ACID WASTE BEL. FLOOR	MIXING VALVE	MIXING VALVE		
AV	ACID VENT	REDUCED PRESSURE BACKFLOW PREVENTER	REDUCED PRESSURE BACKFLOW PREVENTER		
GW	GREASE WASTE	ATMOSPHERIC VACUUM BREAKER	ATMOSPHERIC VACUUM BREAKER		
SOD	SEDIMENT & OIL DRAIN	WATER HAMMER ARRESTER	WATER HAMMER ARRESTER		
G	NATURAL GAS	RELIEF VALVE	RELIEF VALVE		
MPG	MEDIUM PRESSURE	STRAINER	STRAINER		
LPG	PROPANE GAS	STRAINER WITH BLOW-OFF VALVE	STRAINER WITH BLOW-OFF VALVE		
CA	COMPRESSED AIR	UNION	UNION		
T	TEMPERED WATER	PRESSURE GAUGE	PRESSURE GAUGE		
TR	TEMPERED WATER CIRCULATION	THERMOMETER	THERMOMETER		
FD	FOOTING DRAIN				
IW	INDIRECT WASTE				
PD	PUMP DISCHARGE LINE				
FM	FORCE MAIN				
LI	LAWN IRRIGATION				

PLUMBING PIPING SYMBOLS	
SYMBOL	DESCRIPTION
→	ARROW IN LINE INDICATES DIRECTION OF FLOW
→	INDICATES PIPE SLOPE DOWN
XXXXXX	REMOVE EXISTING
○	BOTTOM PIPE CONNECTION
○	PIPING UP
○	PIPING DOWN
○	FIXTURE OR DRAIN TRAP
○	PIPING CAP OR PLUG
○	PUMP

FIRE PROTECTION PIPING		FIRE PROTECTION SYMBOLS		FIRE PROTECTION SYMBOLS	
SYMBOL	ABBDESCRIPTION	SYMBOL	DESCRIPTION	SYMBOLS AND DESCRIPTIONS	SYMBOLS AND DESCRIPTIONS
F	FIRE SPRINKLER	○	EXISTING SPRINKLER HEAD	△	ANGLE VALVE W/ DRAIN
A/S	AUTO. SPRINKLER LINE	○	UPRIGHT SPRINKLER HEAD	△	PUMP TEST HEADER
DSP	DRY STANDPIPE	○	PENDANT SPRINKLER HEAD	△	SECTIONAL VALVE W/ DRAIN
WSP	WET STANDPIPE	○	DRY PENDANT SPRINKLER HEAD	△	FIRE HOSE/VALVE CABINET
CSP	COMBINED STANDPIPE	○	REMOVE EXISTING SPRINKLER HEAD	△	FIRE HOSE/VALVE CABINET
FDC	FIRE DEPT. CONNECTION	○	REMOVE & RELOCATE EXISTING SPRINKLER HEAD	△	FIRE HOSE/VALVE CABINET
D	DRAIN	○	NEW LOCATION EXISTING SPRINKLER HEAD	△	FIRE HOSE/VALVE CABINET
PIV	POST INDICATOR VALVE	○		△	FIRE HOSE/VALVE CABINET

ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	(E)	EXISTING
AFG	ABOVE FINISHED GRADE	EC	ELECTRICAL CONTRACTOR
ALP	ALARM PANEL	EL	ELEVATION
AP	ACCESS PANEL	FCO	FLOOR CLEAN OUT
BFP	BACKFLOW PREVENTER	FPC	FIRE PROT. CONTRACTOR
CB	CATCH BASIN	GC	GENERAL CONTRACTOR
CD	CENTERLINE	IE	INVERT ELEVATION
DNZ	DOWNSPOUT NOZZLE	KEC	KIT. EQ. CONTRACTOR
LCO	LINE CLEAN OUT	MC	MECHANICAL CONTRACTOR
MH	MANHOLE	NI	NORMALLY CLOSED
(N)	NORMALLY OPEN	NIC	NOT IN CONTRACT
NO	NORMALLY OPEN	NO	NORMALLY OPEN
NTS	NOT TO SCALE	WCO	WALL CLEAN OUT
PRV	PRESSURE REDUCING VALVE	VTR	VENT THROUGH ROOF
POC	POINT OF CONNECTION		
PSCO	PUBLIC SERVICE COMPANY		
SCO	SURFACE CLEAN OUT		
SRV	SAFETY RELIEF VALVE		
THV	THERMOSTATIC MIXING VALVE		
TYP	TYPICAL		

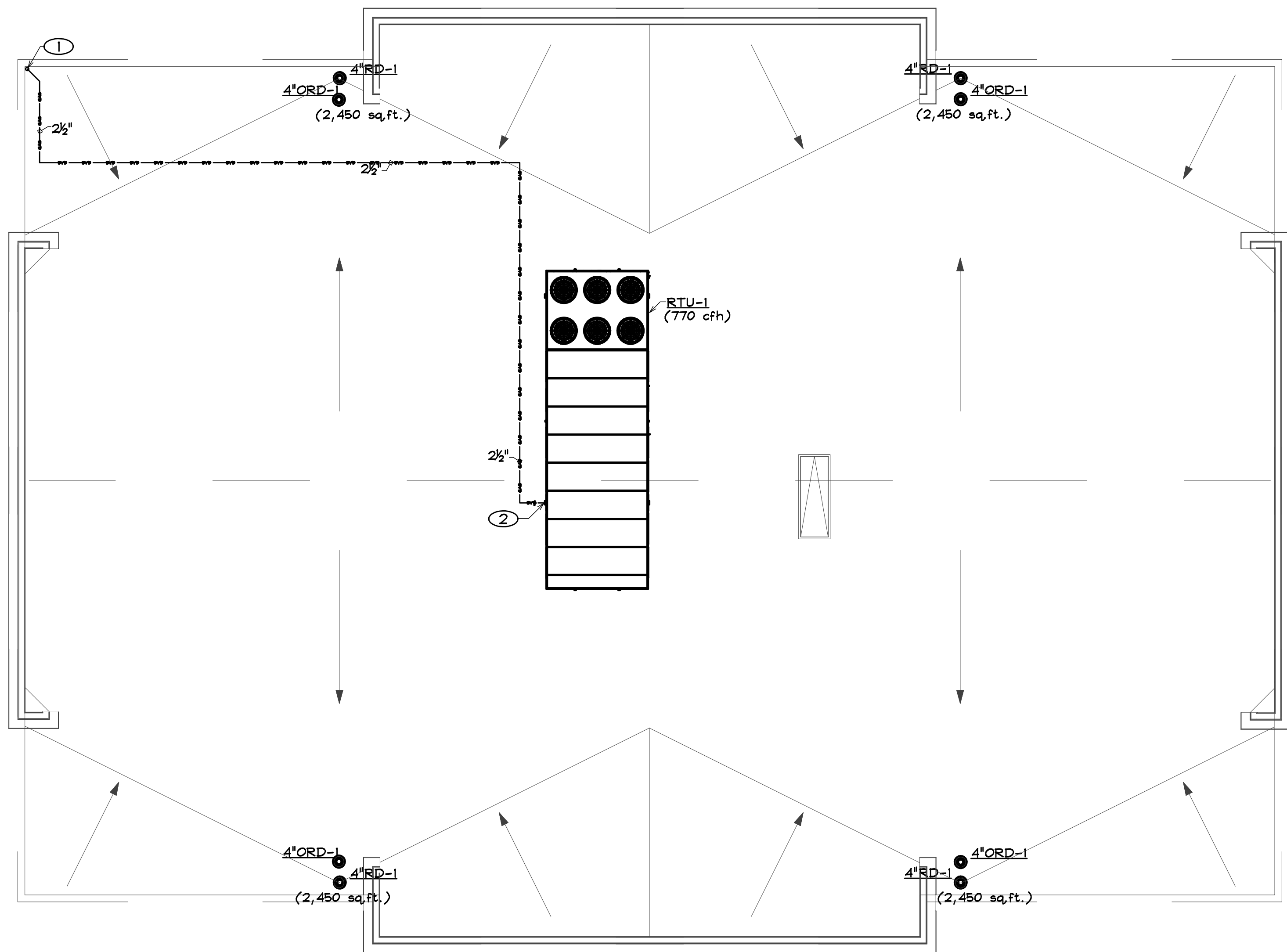
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Jefferson Office Park
Office Building Type 1
1030 Johnson Road
Golden, Colorado 80219

Job **JOP/MCD805**
drawn **PFM**
checked **PFM**
issued for **7/21/08 FOR BID**

revision

sheet



SHEET NOTES

- ① 2 1/2" GAS UP THROUGH ROOF FROM BELOW
- ② 2 1/2" GAS CONNECTION TO ROOFTOP UNIT, PROVIDE SHUT-OFF VALVE, UNION AND MINIMUM 6" DEEP DIRT LEG

ROOF FLOOR PLAN - PLUMBING
SCALE: 1/8" = 1'-0"

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LEGEND
NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT

DEVICES

- ⊕ SINGLE RECEPT - 125V, 15A/20A AS REQUIRED
- ⊕ DUPLEX RECEPT - 125V, 15A/20A AS REQUIRED
- ⊕ FOURPLEX RECEPT - 125V, 15A/20A AS REQUIRED
- ⊕ HALF-SWITCHED RECEPT - 125V, 15A/20A AS REQD
- ⊕ SPECIAL PURPOSE RECEPT - V AND A AS REQUIRED
- ⊕ FUSH FLOOR OUTLET (DEVICE AS INDICATED)
- ⊕ CLOCK RECEPTACLE
- P12— FLUSHMOLD - # INDICATES RECEPTACLE SPACING O.C.
- P1— WIREMOLD - AS SPECIFIED ON PLAN
- POWER POLE
- S SINGLE POLE SWITCH
- S₂ TWO POLE SWITCH
- S₃ 3-MAY SWITCH
- S₄ 4-MAY SWITCH
- S_F SWITCH WITH PILOT LIGHT
- S_K KEY OPERATED SWITCH
- D_S DIMMER SWITCH - INMATTAGE AS REQUIRED
- S_M MECHANICAL TIME SWITCH
- S_V LOW VOLTAGE SWITCH
- S_V VARIABLE SPEED MOTOR CONTROL SWITCH
- S₂₀ CIRCUIT-BREAKER SWITCH - 20A 1P
- ⊕ OCCUPANCY SENSOR - CEILING MOUNTED
- ⊕ OCCUPANCY SENSOR - WALL MOUNTED
- S_{LO} LOW VOLTAGE AUTOMATIC CONTROL SWITCH
- S_{TO} THERMAL OVERLOAD SWITCH
- PUSH BUTTON
- EMERGENCY POWER SHUNT TRIP
- BELL, CHIME, OR BUZZER
- TIME SWITCH - TORK
- PHOTOCELL
- ⊕ SWITCH AND RECEPTACLE GANGED TOGETHER
- △ DATA OUTLET
- △ FLUSH FLOOR MOUNTED TELEPHONE OUTLET
- ▲ TELEPHONE OUTLET
- ▲ COMBINATION TELEPHONE/DATA OUTLET
- TELEPHONE TERMINAL BOARD
- TELEPHONE TERMINAL CABINET
- ⌵ CABLE/TV OUTLET
- ⊕ HOOD CONNECTION
- ⊕ THERMOSTAT
- ⊕ DAMPER MOTOR

POWER DISTRIBUTION

- SWITCHBOARD OR EQUIPMENT ENCLOSURE
- ELECTRICAL PANEL
- ~ SWITCH AND FUSE
- ~ PULLOUT FUSED DISCONNECT
- CIRCUIT BREAKER
- NORMALLY OPEN/NORMALLY CLOSED CONTACT
- OVERLOAD RELAY
- [TVS] TRANSIENT VOLTAGE SURGE SUPPRESSER
- NF□ NON-FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- ⊕ MAGNETIC STARTER OR CONTACTOR
- ⊕ COMBINATION STARTER
- ⊕ ELECTRIC METER - UTILITY METER U.O.N.
- CURRENT TRANSFORMER
- MOTOR
- TRANSFER SWITCH
- GENERATOR
- J/B or ⊕ JUNCTION BOX
- CIRCUIT RUN CONCEALED IN WALL OR CEILING
- CIRCUIT RUN IN OR UNDER FLOOR OR IN EARTH
- CIRCUIT RUN SURFACE MOUNTED
- CONDUIT UP, CONDUIT DOWN
- CONDUIT STUB - GAP IF UNDERGROUND
- FLEXIBLE CONNECTION TO EQUIPMENT
- HOMERUN - ARROWS INDICATE # OF PHASE COND.
- ⊕ GROUNDING ELECTRODE
- PAD MOUNTED TRANSFORMER
- ⊕ TRANSFORMER
- ⌵ OVERHEAD SERVICE ENTRANCE

DESIGNATIONS

- (X) MECHANICAL EQUIPMENT
- △ REVISION TAG
- ◇ DETAIL NOTE
- XXXX KITCHEN EQUIPMENT

LIGHTING

- RECESSED FLUORESCENT
- SURFACE FLUORESCENT
- FLUORESCENT STRIP LIGHT
- LIGHT - TYPE INDICATED ON SCHEDULE
- LIGHT - TYPE INDICATED ON SCHEDULE
- △ TRACK LIGHT
- SURFACE OR PENDANT MOUNTED FIXTURE
- ⊕ RECESSED MALL MASHER
- ⊕ WALL MOUNTED FIXTURE
- ⊕ KEYLESS PORCELAIN LAMP HOLDER - 150W
- ⊕ BATTERY PACK EMERGENCY LIGHT
- ⊕ BATTERY PACK EXIT LIGHT
- ⊕ BATTERY PACK EXIT/EM COMBINATION LIGHT
- ⊕ INDICATES NON-SWITCHED NIGHT LIGHT
- EM INDICATES INTEGRAL EMERGENCY POWER BATTERY
- UPPERCASE LETTER ADJACENT TO FIXT. INDICATES FIXTURE TYPE
- LOWERCASE LETTER ADJACENT TO FIXT. INDICATES CONTROL

FIRE ALARM & DETECTION

- SMOKE DETECTOR
- HEAT DETECTOR (IF-FIXED TEMP, R-RATE-OF-RISE)
- SINGLE STATION SMOKE DETECTOR WITH SOUNDER
- SINGLE STATION SMOKE DET. WITH HORN & STROBE
- BEAM DETECTOR TRANSMITTER
- BEAM DETECTOR RECEIVER
- DUCT DETECTOR
- MOTOR OPERATED FIRE/SMOKE DAMPER
- FLOW SWITCH
- TAMPER SWITCH
- PRESSURE SWITCH
- MAGNETIC DOOR HOLDER
- MANUAL PULLSTATION
- SPEAKER AND STROBE
- SPEAKER
- HORN AND STROBE
- HORN
- STROBE
- MINI-HORN AND STROBE
- MINI-HORN
- REMOTE INDICATING LIGHT
- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL
- ELEVATOR RECALL SUPERVISORY PANEL
- BOOSTER POWER SUPPLY
- END-OF-LINE RESISTOR
- REMOTE TEST SWITCH
- OPEN/CLOSE/AUTOMATIC SWITCH

ABBREVIATIONS

- AC ABOVE COUNTER
- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- AFI/AFCI ARC-FAULT CIRCUIT INTERRUPTER
- AIC AMPERE INTERRUPTING CAPACITY (MINIMUM RATINGS)
- CD CORD DROP
- CLG CEILING MOUNTED
- E(E) EXISTING
- FLR FLOOR MOUNTED
- G/6ND GROUND
- GFV/GFCI GROUND-FAULT CIRCUIT INTERRUPTER
- IG ISOLATED GROUND
- ISC AVAILABLE FAULT CURRENT (RMS SYMMETRICAL)
- LET LET-THROUGH FAULT CURRENT (RMS SYMMETRICAL)
- N(N) NEW
- O.C. ON CENTER
- R/(R) RELOCATE
- TL TYMST-LOCK
- UC UNDER COUNTER
- UON UNLESS OTHERWISE NOTED
- WP WEATHER PROOF

ELECTRICAL NOTES

GENERAL REQUIREMENTS

REFERENCE THE SPECIFICATION BOOK, PREPARED FOR THIS PROJECT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL FITTINGS, JUNCTION BOXES, ETC. REQUIRED. PROVIDE ALL REQUIRED EQUIPMENT, CONDUIT, FITTINGS, WIRING, BOXES, ETC. FOR A COMPLETE AND OPERATIONAL INSTALLATION.

WORK AND EQUIPMENT SHALL COMPLY WITH STATE AND LOCALLY ADOPTED CODES AND STANDARDS, INCLUDING THE NATIONAL ELECTRICAL CODE (NEC), INTERNATIONAL CODES (I-CODES), AND LOCAL AMENDMENTS.

ANYTHING DRAWN OR SPECIFIED SHALL NOT BE CONSTRUED TO CONFLICT WITH STATE AND LOCALLY ADOPTED CODES AND STANDARDS, INCLUDING THE NATIONAL ELECTRICAL CODE, WHICH GOVERNS THE INSTALLATION OF ANY ELECTRICAL WORK. ITEMS SHALL NOT BE INSTALLED IN CONFLICT WITH THE NEC. RESOLVE ANY AND ALL CONFLICTS PRIOR INSTALLATION.

BECOME THOROUGHLY ACQUAINTED WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. EXAMINE ALL SERVICES, EQUIPMENT, AND EXISTING CONDITIONS, WHICH THIS WORK IS IN ANY WAY DEPENDENT UPON, AND BRING ANY DISCREPANCIES OR OMISSIONS FOUND IN THE DRAWINGS TO THE ELECTRICAL ENGINEER'S ATTENTION PRIOR TO SUBMITTING BID.

THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE ARCHITECT OR ENGINEER SHALL HAVE THE RIGHT TO ADJUST THE LOCATION OF OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED AND WITHOUT ADDITIONAL COST.

PROVIDE DRAWINGS TO LOCAL BUILDING AUTHORITY AND OBTAIN A PERMIT PRIOR TO STARTING ANY WORK.

NOTIFY ELECTRICAL ENGINEER OF ANY CHANGES REQUESTED BY THE LOCAL BUILDING AUTHORITY IMMEDIATELY AND PRIOR TO STARTING WORK.

VERIFY AND COMPLY WITH UTILITY COMPANY REQUIREMENTS, PROVIDE METERING, CONNECTION CABINETS, CT CABINETS, AND TRANSFORMER AND CONNECTION CABINET PADS PER LOCAL UTILITY COMPANY REQUIREMENTS.

PROVIDE A REDLINED AS-BUILT SET OF ELECTRICAL DRAWINGS TO OWNER UPON COMPLETION OF WORK.

ELECTRICAL WORK SHOWN LIGHT OR MARKED "E" IS EXISTING, SHOWN DARK IS NEW, AND SHOWN DASHED IS EXISTING TO BE REMOVED OR RELOCATED UNLESS OTHERWISE INDICATED. DASHING MAY ALSO INDICATE UNDER FLOOR OR UNDER GROUND CONDUIT. IF UNCLEAR, CONTACT ELECTRICAL ENGINEER FOR CLARIFICATION.

EQUIPMENT, WIRING, AND DEVICES SHOWN ARE NEW.

REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL NOTES.

INSTALL EQUIPMENT AND DEVICES PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. NOTIFY ELECTRICAL ENGINEER PRIOR TO INSTALLING EQUIPMENT AND DEVICES IF MANUFACTURER'S INSTALLATION INSTRUCTIONS CONFLICT WITH ELECTRICAL INFORMATION ON THESE DRAWINGS.

ELECTRICALLY OPERATED EQUIPMENT SHOWN ON PLANS AND NOT CIRCUITED ON THE ELECTRICAL PLANS WILL REQUIRE ELECTRICAL SERVICE. CONTACT ELECTRICAL ENGINEER FOR CONNECTION REQUIREMENTS AND CLARIFICATION PRIOR TO BID. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE BID.

SUBMITTALS AND SUBSTITUTIONS

PROVIDE PRODUCT DATA SHEETS AND SHOP DRAWINGS FOR EQUIPMENT, FIXTURES, AND DEVICES TO ELECTRICAL ENGINEER PRIOR TO PURCHASING. REVIEW, STAMP AND INITIAL ALL ELECTRICAL SUBMITTALS AND SHOP DRAWINGS CERTIFYING THAT THE SUBMITTALS HAVE BEEN REVIEWED PRIOR TO SUBMITTING TO ELECTRICAL ENGINEER FOR REVIEW.

EQUIPMENT AND FIXTURES SPECIFIED REPRESENT REQUIRED QUALITY AND PERFORMANCE.

PROVIDE PRODUCT DATA SHEETS AND SHOP DRAWING OF PROPOSED SUBSTITUTIONS TO SPECIFIED EQUIPMENT TO ELECTRICAL ENGINEER FOR REVIEW. ELECTRICAL ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF SUBSTITUTIONS TO SPECIFIED EQUIPMENT. REVIEW, STAMP AND INITIAL ALL ELECTRICAL SUBMITTALS AND SHOP DRAWINGS CERTIFYING THAT SUBMITTALS HAVE BEEN REVIEWED PRIOR TO SUBMITTING TO ELECTRICAL ENGINEER FOR REVIEW.

REQUESTS FOR MODIFICATIONS TO THE CONTRACT (CHANGE ORDERS)

REQUESTS BY CONTRACTOR FOR ADDITION OR REDUCTION TO THE CONTRACT AMOUNT SHALL BE ACCOMPANIED BY THE FOLLOWING FOR EVALUATION BY THE OWNER AND ENGINEER:

1. ORIGIN AND DATE OF CLAIM
2. QUANTITIES OF PRODUCTS, LABOR, AND EQUIPMENT
3. DOLLAR AMOUNT OF TAXES, OVERHEAD, AND PROFIT
4. JUSTIFICATION FOR ANY CHANGE IN CONTRACT TIME
5. CREDIT AMOUNT FOR DELETIONS (WITH DOCUMENTATION)
6. DATES AND TIMES OF WORK PERFORMED, AND BY WHOM
7. TIME SCHEDULES AND RATES PAID
8. INVOICES AND RECEIPTS FOR PRODUCTS AND EQUIPMENT

SUBMIT ALL DOCUMENTATION TO ENGINEER AND OWNER AND OBTAIN WRITTEN APPROVAL PRIOR TO STARTING ANY WORK THAT AFFECTS THE CONTRACT AMOUNT OR COMPLETION DATE.

COORDINATION

THE ELECTRICAL DRAWINGS ARE ONLY ONE PART OF A COMPLETE SET OF CONSTRUCTION DOCUMENTS. EXAMINE THE ARCHITECTURAL, MECHANICAL, PLUMBING, AND CIVIL DRAWINGS PRIOR SUBMITTING BID AND STARTING WORK TO DETERMINE THE FULL EXTENT OF ELECTRICAL WORK REQUIRED.

OBTAIN AND REVIEW SHOP DRAWINGS, PRODUCT DATA, MANUFACTURER'S WIRING DIAGRAMS AND MANUFACTURER'S INSTRUCTIONS FOR EQUIPMENT PROVIDED BY OTHERS.

THE FINAL LOCATION OF EQUIPMENT SHALL BE COORDINATED IN THE FIELD, PRIOR TO ROUGH-IN, TO MEET APPLICABLE LOCATION, HEIGHT AND CLEARANCE REQUIREMENTS.

WIRING AND CONDUIT

NEW WIRING SHALL BE THHN/THWN-2, 75°C INSULATED COPPER UNLESS OTHERWISE NOTED. ALUMINUM CONDUCTORS SHALL BE XHHW-2, 75°C INSULATED COMPACT STRAND.

THE CONDUCTORS FOR 15A AND 20A BRANCH CIRCUITS SHALL BE #12 THHN/THWN-2, 75°C INSULATED COPPER. 15A BRANCH CIRCUITS IN DWELLING UNITS MAY BE #14 THHN/THWN-2, 75°C INSULATED COPPER.

BRANCH-CIRCUIT CONDUCTORS GREATER THAN 20A SHALL BE AS INDICATED ON PLANS OR REQUIRED PER CODE.

CONDUCTOR INSULATION SHALL BE COLOR CODED AS FOLLOWS:
200/120V, 3Φ: PHASE A - BLACK; PHASE B - RED; PHASE C - BLUE
480/277V, 3Φ: PHASE A - BROWN; PHASE B - ORANGE; PHASE C - YELLOW

20 AMPERE BRANCH CIRCUIT HOMERUNS OVER 75' SHALL BE #10AWG CU AND OVER 150' SHALL BE #8AWG CU.

THE MAXIMUM NUMBER OF CONDUCTORS IN A CONDUIT FOR A 3Φ SYSTEM SHALL BE THREE (AΦ, BΦ, CΦ), NOT INCLUDING NEUTRAL AND EQUIPMENT GROUNDING CONDUCTORS, UNLESS OTHERWISE INDICATED. CONDUIT SIZE SHALL BE BASED UPON NEC CHAPTER 9 AND ANNEX C, MORE THAN 3 CURRENT-CARRYING CONDUCTORS MAY BE INSTALLED IN A RACEWAY IF THE APPROPRIATE AMPACITY DERATING FACTORS ARE APPLIED.

PROVIDE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR WITH ALL FEEDERS

MECHANICAL EQUIPMENT

REFERENCE MECHANICAL DRAWINGS FOR EXACT LOCATION AND REQUIREMENTS OF MECHANICAL EQUIPMENT.

ELECTRICALLY OPERATED EQUIPMENT SHOWN ON THE MECHANICAL PLANS AND NOT SHOWN ON THE ELECTRICAL PLANS WILL REQUIRE ELECTRICAL SERVICE. CONTACT ELECTRICAL ENGINEER FOR CONNECTION REQUIREMENTS PRIOR TO BID. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE BID.

VERIFY MECHANICAL EQUIPMENT NAMEPLATE DATA (VOLTAGE, PHASE, FLA, MCA, MCOFP, ETC.) PRIOR TO ROUGH-IN. NOTIFY ELECTRICAL ENGINEER IN WRITING OF ANY DISCREPANCIES WITH THESE DRAWINGS IMMEDIATELY AND PRIOR TO COMMENCING ANY FURTHER WORK.

MECHANICAL CONTRACTOR SHALL PROVIDE STARTERS FOR MECHANICAL EQUIPMENT.

MECHANICAL CONTRACTOR

MECHANICAL CONTRACTOR SHALL PROVIDE CONDUIT, WIRE, AND DEVICES FOR MECHANICAL EQUIPMENT CONTROLS, UNLESS OTHERWISE INDICATED ON THE ELECTRICAL DRAWINGS.

ELECTRICAL CONTRACTOR SHALL PROVIDE MECHANICAL EQUIPMENT CONTROL WIRING, CONDUIT, AND DEVICES IF INDICATED ON THE ELECTRICAL DRAWINGS. NOTIFY ELECTRICAL ENGINEER IN WRITING OF ANY DISCREPANCIES WITH THESE DRAWINGS IMMEDIATELY AND PRIOR TO COMMENCING ANY FURTHER WORK.

REFERENCE MECHANICAL DRAWINGS FOR LOCATIONS OF FIRE SMOKE DAMPERS AND CONTROL REQUIREMENTS OF MECHANICAL EQUIPMENT. PROVIDE 120V TO FIRE SMOKE DAMPERS AND PROVIDE EITHER DUCT OR SMOKE DETECTORS AS REQUIRED. CONNECT DETECTORS TO FIRE ALARM SYSTEM IF APPLICABLE. MECHANICAL (RETURN AIR) UNITS OVER 200CFM REQUIRE A SMOKE DETECTOR TO SHUT UNIT OFF UPON ACTIVATION OF SMOKE DETECTOR. CONNECT DETECTORS TO FIRE ALARM SYSTEM IF APPLICABLE.

TELEPHONE, DATA, AND CABLE OUTLETS

PROVIDE A 4"x4" JUNCTION BOX WITH PLASTER RING AND A 3/4" CONDUIT WITH PULL STRING TO NEAREST ACCESSIBLE CEILING SPACE FOR EACH WALL MOUNTED PHONE, DATA, AND CABLE OUTLET.

PROVIDE A FLUSH FLOOR BOX WITH PLASTER RING AND A 3/4" CONDUIT WITH PULL STRING TO NEAREST ACCESSIBLE CEILING SPACE FOR EACH FLOOR MOUNTED PHONE, DATA, AND CABLE OUTLET.

KITCHEN REQUIREMENTS

REFERENCE ARCHITECTURAL AND KITCHEN EQUIPMENT DRAWINGS FOR EXACT LOCATION AND REQUIREMENTS OF KITCHEN EQUIPMENT. VERIFY KITCHEN EQUIPMENT NAMEPLATE DATA (VOLTAGE, PHASE, FLA, MCA, MCOFP, ETC.) PRIOR TO ROUGH-IN.

PROVIDE 60V RECEPTACLES FOR 125V, 15A AND 20A RECEPTACLES IN KITCHENS. NOTIFY ELECTRICAL ENGINEER OF ANY DISCREPANCIES WITH THESE DRAWINGS.

LIGHTING

PROVIDE LIGHT FIXTURES AND INDICATED ON LIGHTING PLAN OR FIXTURE SCHEDULE.

REFERENCE ARCHITECTURAL DRAWINGS FOR LUMINAIRE SCHEDULE. NOTIFY ELECTRICAL ENGINEER OF ANY DISCREPANCIES WITH THESE DRAWINGS.

THE MOUNTING HEIGHT FOR LIGHT FIXTURES SHALL BE AS INDICATED ON THE FIXTURE SCHEDULE. ARCHITECTURAL ELEVATIONS OR AS SHOWN BELOW, UNLESS OTHERWISE NOTED. MATCH MOUNTING HEIGHT OF EXISTING LIGHT FIXTURES IF APPLICABLE.

EXIT LIGHTS (WALL MTD) 2' ABOVE DOOR FRAME (TO BOTTOM)
EXIT LIGHTS @ 7'-6" AFF TO BOTTOM
EMERGENCY LIGHTS @ 7'-6" AFF

PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH LIGHTING CIRCUIT AND SWITCH-LEG.

PROVIDE ONE SAMPLE OF EACH LIGHT FIXTURE FOR REVIEW BY THE ARCHITECT, ELECTRICAL ENGINEER AND OWNER OR OWNER'S REPRESENTATIVE PRIOR TO ORDERING THE LIGHT FIXTURES.

ELECTRIC UTILITY COMPANY

SUBMIT ELECTRICAL DRAWINGS AND SERVICE APPLICATION TO ELECTRIC UTILITY COMPANY PRIOR TO STARTING ANY WORK.

COORDINATE WITH THE ELECTRIC UTILITY COMPANY TO ARRANGE FOR PERMANENT AND TEMPORARY ELECTRICAL SERVICE TO BE PROVIDED TO THE SITE AS REQUIRED.

OBTAIN WRITTEN APPROVAL FROM THE LOCAL ELECTRIC UTILITY COMPANY INDICATING THAT THE SERVICE DESIGN IS ACCEPTABLE. PROVIDE LETTER TO ELECTRICAL ENGINEER PRIOR TO PURCHASING ANY ELECTRICAL SERVICE EQUIPMENT OR STARTING ANY WORK ON THE ELECTRICAL SERVICE. NOTIFY ELECTRICAL ENGINEER IMMEDIATELY OF ANY DESIGN CHANGES REQUIRED BY THE UTILITY COMPANY.

TELEPHONE SERVICE

PROVIDE CONDUIT AS REQUIRED BY THE LOCAL TELEPHONE COMPANY FROM THE TELEPHONE PEDESTAL TO BUILDING. COORDINATE THE LOCATION OF THE PEDESTAL AND THE SIZE OF THE CONDUIT REQUIRED WITH THE TELEPHONE COMPANY.

FIRE/SPRINKLER ALARM AND DETECTION SYSTEM

FIRE ALARM AND DETECTION SYSTEM IS DESIGN/BUILD BY THE ELECTRICAL CONTRACTOR. FIRE ALARM AND DETECTION SYSTEM SHALL BE DESIGNED BY A LICENSED FIRE PROTECTION ENGINEER. FIRE ALARM AND DETECTION SYSTEM SHOP DRAWINGS SHALL BE PREPARED BY THE SYSTEM SUPPLIER AND SIGNED AND SEALED BY A COLORADO LICENSED PROFESSIONAL ENGINEER. SHOP DRAWINGS SHALL INCLUDE DEVICE LOCATIONS, WIRING DIAGRAM, EQUIPMENT SPECIFICATIONS, BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, SEQUENCE OF OPERATION AND OTHER DETAILS REQUIRED BY THE LOCAL BUILDING DEPARTMENT, IFG AND NFPA T2 WITH LOCAL AMENDMENTS. THE SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE IBC, IFG, NFPA T2 AND LOCAL CODES AND ORDINANCES. SHOP DRAWINGS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND FIRE DEPARTMENT AS A DEFERRED SUBMITTAL. SHOP DRAWINGS SHALL BE APPROVED PRIOR TO PURCHASING ANY EQUIPMENT OR STARTING ANY WORK.

PROVIDE CONDUIT AS REQUIRED BY THE LOCAL TELEPHONE COMPANY FROM THE PEDESTAL AND THE SIZE OF THE CONDUIT REQUIRED WITH THE TELEPHONE COMPANY.

OBTAIN WRITTEN APPROVAL FROM THE LOCAL ELECTRIC UTILITY COMPANY INDICATING THAT THE SERVICE DESIGN IS ACCEPTABLE. PROVIDE LETTER TO ELECTRICAL ENGINEER PRIOR TO PURCHASING ANY ELECTRICAL SERVICE EQUIPMENT OR STARTING ANY WORK ON THE ELECTRICAL SERVICE. NOTIFY ELECTRICAL ENGINEER IMMEDIATELY OF ANY DESIGN CHANGES REQUIRED BY THE UTILITY COMPANY.

DISTRIBUTION EQUIPMENT

PROVIDE DISTRIBUTION PANELS, DISCONNECTS, CONTACTORS, ETC. OF VOLTAGE, AMPERAGE, PHASE, AND SHORT CIRCUIT RATINGS AS INDICATED ON PLANS.

FUSES SPECIFIED ARE AS MANUFACTURED BY BUSSMANN. THE SAME CLASS OF FUSE AS MANUFACTURED BY LITTELFUSE AND GUILD-SHANNITT MAY BE SUBSTITUTED.

ENCLOSURES FOR EQUIPMENT AND DEVICES SHALL BE SUITABLE FOR THE INSTALLED LOCATION.

GENERAL REQUIREMENTS

INCREASE CONDUIT SIZE AS REQUIRED TO ACCOMMODATE EQUIPMENT GROUNDING CONDUCTOR.

CONDUIT SHALL BE CONCEALED IN WALLS, FLOOR OR CEILINGS IN FINISHED AREAS UNLESS OTHERWISE INDICATED.

THE TYPE OF CONDUIT SHALL BE AS FOLLOWS FOR ALL FEEDERS AND BRANCH CIRCUITS, UNLESS OTHERWISE SPECIFIED OR REQUIRED. REFERENCE THE NEC FOR ADDITIONAL APPLICATION REQUIREMENTS.

APPLICATION

IN CONCRETE OR MASONRY OUTDOORS (ABOVE GRADE) BRANCH CIRCUITS (EXPOSED) BRANCH CIRCUITS (CONCEALED) SUPPLY TO DISTRIBUTION PANELS UNDERGROUND

TYPE OF CONDUIT

EMT, 60C OR PVC
EMT OR 60C
EMT OR 60C
MC CABLE OR EMT
EMT OR 60C
PVC SCHED. 40 OR 80 AS REQD

FINAL CONNECTIONS TO MECHANICAL OR VIBRATING EQUIPMENT, SUCH AS MOTORS AND TRANSFORMERS, SHALL BE MADE WITH FLEXIBLE METAL CONDUIT. FINAL CONNECTIONS TO LIGHT FIXTURES SHALL BE MADE WITH FLEXIBLE METAL CONDUIT WITH A MAXIMUM LENGTH OF 6'.

PROVIDE PVC COATED 60C FOR ELBOWS IN PVC CONDUIT RUNS.

ALL CONDUITS AND CABLES PASSING THROUGH RATED WALLS, FLOORS OR CEILINGS SHALL BE FIRE STOPPED WITH APPROVED FIRE BARRIER CAULK. INSTALL CAULK PER MANUFACTURER'S INSTRUCTIONS AND MAINTAIN THE RATINGS OF THE WALL, FLOOR OR CEILING BEING PENETRATED.

DEVICES

PROVIDE HEAVY-DUTY GRADE SWITCHES AND RECEPTACLES.

PROVIDE DEVICES AS INDICATED BELOW. DEVICE AND FACEPLATE COLOR SHALL BE AS SPECIFIED BY THE ARCHITECT OR TO MATCH EXISTING.

DEVICE	MANUFACTURER	MODEL NUMBER
15A RECEPTACLE (125V)	HUBBELL	HBL262 (COLOR)
20A RECEPTACLE (125V)	HUBBELL	HBL562 (COLOR)
20A 60 RECEPTACLE (125V)	HUBBELL	G5962 (COLOR)
15A CLOCK RECEPT (125V)	HUBBELL	HBL295
1-POLE SWITCH	HUBBELL	HBL1221 (COLOR)
3-MAY SWITCH	HUBBELL	HBL1223 (COLOR)
4-MAY SWITCH	HUBBELL	HBL1224 (COLOR)
WALL OCCUPANCY SENSOR	MATT STOPPER	DPH-100
CLG OCCUPANCY SENSOR	MATT STOPPER	WTULTRASONIC WITH B2100
INCANDESCENT DIMMER	LUTRON	NOVA SERIES
FLUORESCENT DIMMER	LUTRON	NOVA SERIES

PROVIDE HUBBELL RECEPTACLES WITH THE APPROPRIATE NEMA CONFIGURATION FOR RECEPTACLES SHOWN ON THE ELECTRICAL PLAN.

PROVIDE WIRING DEVICES AS MANUFACTURED BY HUBBELL, PASS AND SEYMOUR, LEVITON, MATT STOPPER, LUTRON OR ACCEPTABLE EQUAL.

COORDINATE MOUNTING HEIGHTS OF SWITCHES, RECEPTACLES, PHONE OUTLETS, DATA OUTLETS, TV OUTLETS, AND LIGHT FIXTURES WITH ARCHITECTURAL DRAWINGS.

THE MOUNTING HEIGHT FOR DEVICES SHALL BE AS INDICATED BELOW, UNLESS OTHERWISE NOTED. MOUNTING HEIGHTS ARE TO CENTER OF DEVICE, UNLESS OTHERWISE NOTED. MATCH MOUNTING HEIGHT OF EXISTING DEVICES IF APPLICABLE.

GENERAL RECEPTACLES (COMMERCIAL) @ 18" AFF
ABOVE COUNTER RECEPTACLES AND SWITCHES @ 2" ABOVE COUNTER OR BACKSPASH TO BOTTOM OF DEVICE (COORDINATE WITH ARCHITECT)

LIGHT SWITCHES @ 48" AFF
TELEPHONE OUTLETS @ 18" AFF
CLOCK OUTLETS @ 7'-6" AFF
TV OUTLETS (COMMERCIAL) @ 18" AFF
DATA/PHONE OUTLETS (COMMERCIAL) @ 18" AFF

PROVIDE "IN-USE" WEATHERPROOF COVER FOR EXTERIOR RECEPTACLES. COMPLY WITH ADA STANDARDS FOR MOUNTING HEIGHTS AND LOCATIONS.

DEVICES IN THE SAME LOCATION AND AT THE SAME MOUNTING HEIGHT SHALL BE MOUNTED UNDER A COMMON WALL PLATE.

PROVIDE 3/4" DEEP LOAD CENTERS FOR PANELS INSTALLED IN 4" STUD WALLS. PROVIDE PANELBOARDS FOR ALL OTHER INSTALLATIONS, UNLESS OTHERWISE NOTED.

PROVIDE A 3/4" FROM PANEL ENCLOSURES TO NEAREST ACCESSIBLE CEILING SPACE FOR EACH (3) SPARE BREAKERS AND SPACES IN PANELBOARDS AND LOAD CENTERS THAT ARE RECESSED IN A WALL.

PROVIDE PANELS AND SWITCHBOARDS BUSSED TO ACCOMMODATE BREAKERS OR SWITCHES IN ALL AVAILABLE SPACES.

PROVIDE DISTRIBUTION EQUIPMENT AS MANUFACTURED BY AMERICAN MIDWEST POWER, SQUARE D, CUTLER-HAMMER, SIEMENS, ERICKSON ELECTRIC, GE OR METRON.

THE MOUNTING HEIGHT FOR DISTRIBUTION EQUIPMENT SHALL BE AS INDICATED BELOW, UNLESS OTHERWISE NOTED.

MECHANICAL CONTRACTOR

MECHANICAL CONTRACTOR SHALL PROVIDE CONDUIT, WIRE, AND DEVICES FOR MECHANICAL EQUIPMENT CONTROLS, UNLESS OTHERWISE INDICATED ON THE ELECTRICAL DRAWINGS.

ELECTRICAL CONTRACTOR SHALL PROVIDE MECHANICAL EQUIPMENT CONTROL WIRING, CONDUIT, AND DEVICES IF INDICATED ON THE ELECTRICAL DRAWINGS. NOTIFY ELECTRICAL ENGINEER IN WRITING OF ANY DISCREPANCIES WITH THESE DRAWINGS IMMEDIATELY AND PRIOR TO COMMENCING ANY FURTHER WORK.

REFERENCE MECHANICAL DRAWINGS FOR LOCATIONS OF FIRE SMOKE DAMPERS AND CONTROL REQUIREMENTS OF MECHANICAL EQUIPMENT. PROVIDE 120V TO FIRE SMOKE DAMPERS AND PROVIDE EITHER DUCT OR SMOKE DETECTORS AS REQUIRED. CONNECT DETECTORS TO FIRE ALARM SYSTEM IF APPLICABLE. MECHANICAL (RETURN AIR) UNITS OVER 200CFM REQUIRE A SMOKE DETECTOR TO SHUT UNIT OFF UPON ACTIVATION OF SMOKE DETECTOR. CONNECT DETECTORS TO FIRE ALARM SYSTEM IF APPLICABLE.

TELEPHONE, DATA, AND CABLE OUTLETS

PROVIDE A 4"x4" JUNCTION BOX WITH PLASTER RING AND A 3/4" CONDUIT WITH PULL STRING TO NEAREST ACCESSIBLE CEILING SPACE FOR EACH WALL MOUNTED PHONE, DATA, AND CABLE OUTLET.

PROVIDE A FLUSH FLOOR BOX WITH PLASTER RING AND A 3/4" CONDUIT WITH PULL STRING TO NEAREST ACCESSIBLE CEILING SPACE FOR EACH FLOOR MOUNTED PHONE, DATA, AND CABLE OUTLET.

KITCHEN REQUIREMENTS

REFERENCE ARCHITECTURAL AND KITCHEN EQUIPMENT DRAWINGS FOR EXACT LOCATION AND REQUIREMENTS OF KITCHEN EQUIPMENT. VERIFY KITCHEN EQUIPMENT NAMEPLATE DATA (VOLTAGE, PHASE, FLA, MCA, MCOFP, ETC.) PRIOR TO ROUGH-IN.

PROVIDE 60V RECEPTACLES FOR 125V, 15A AND 20A RECEPTACLES IN KITCHENS. NOTIFY ELECTRICAL ENGINEER OF ANY DISCREPANCIES WITH THESE DRAWINGS.

THE MOUNTING HEIGHT FOR LIGHT FIXTURES SHALL BE AS INDICATED ON THE FIXTURE SCHEDULE. ARCHITECTURAL ELEVATIONS OR AS SHOWN BELOW, UNLESS OTHERWISE NOTED. MATCH MOUNTING HEIGHT OF EXISTING LIGHT FIXTURES IF APPLICABLE.

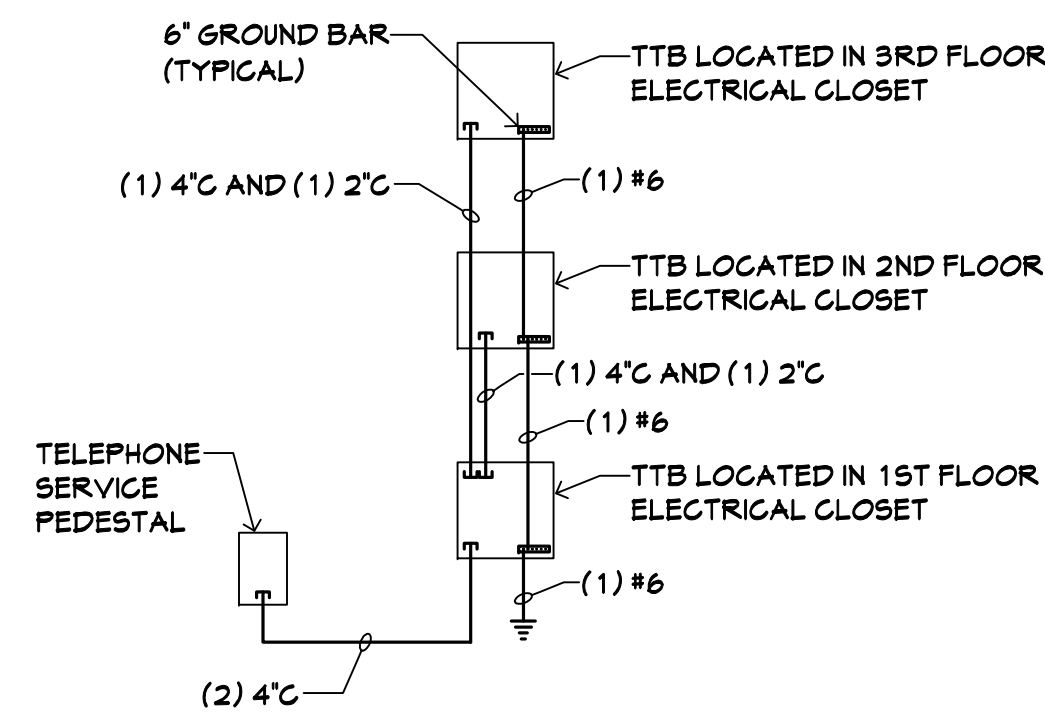
EXIT LIGHTS (WALL MTD) 2' ABOVE DOOR FRAME (TO BOTTOM)
EXIT LIGHTS @ 7'-6" AFF TO BOTTOM
EMERGENCY LIGHTS @ 7'-6" AFF

PROVIDE A

LIGHTING FIXTURE SCHEDULE							
DESCRIPTION OF LUMINAIRE				LUMINAIRE SPECIFICATION			
ID	DESCRIPTION	FINISH	MOUNTING INFO	MANUFACTURER	CATALOG NUMBER	LAMP(S)	VOLTAGE
A	RECESSED FLUORESCENT DOWNLIGHT	CLEAR ALZAK	RECESSED	DELRAY	H623.A30.2E	26W TT	277
A-EM	RECESSED FLUORESCENT DOWNLIGHT WITH EMERGENCY BATTERY PACK	CLEAR ALZAK	RECESSED	DELRAY	H623.A30.2EEM	26W TT	277
B	4' STRIP FLUORESCENT	WHITE	SURFACE/CHAIN	COLUMBIA	C54-232-EU	(2) F32T8	277
C	PENDANT LIGHT	PER ARCHITECT	PENDANT TO 8' (VERIFY WITH ARCHITECT)	TERON LIGHTING	MONP36-277E-MAL-BN-35K (VERIFY PENDANT LENGTH WITH ARCHITECT)	(6) 39W FT	277
D	VANITY LIGHT	WHITE	ABOVE MIRROR	OXYGEN	2-5106-24	(2) F20T5	277
F	4' WALL FLUORESCENT	WHITE	1' AFF (VERIFY WITH ARCHITECT)	COLUMBIA	W4-232-EU	(2) F32T8	277
F-EM	4' WALL MOUNTED FLUORESCENT WITH EMERGENCY BATTERY PACK	WHITE	1' AFF (VERIFY WITH ARCHITECT)	COLUMBIA	W4-232-EU-EL	(2) F32T8	277

EXTERIOR LIGHTING FIXTURE SCHEDULE							
DESCRIPTION OF LUMINAIRE				LUMINAIRE SPECIFICATION			
ID	DESCRIPTION	FINISH	MOUNTING INFO	MANUFACTURER	CATALOG NUMBER	LAMP(S)	VOLTAGE
AA	POLE MOUNTED FULL CUTOFF METAL HALIDE ARE LIGHT WITH TYPE IV DISTRIBUTION AND HOUSE SIDE SHIELD	DARK BRONZE	25' POLE	KIM LIGHTING	1AET4/400PMH/DB-P/H5	(1) 400W PMH	277
BB	WALL MOUNTED FULL CUTOFF METAL HALIDE WALL WASHER	DARK BRONZE	WALL @ +40' AFF	KIM LIGHTING	WC18DG/150PMH/DB-P	(1) 150W PMH	277
CC	WALL MOUNTED FULL CUTOFF METAL HALIDE NARROW WALL WASHER	DARK BRONZE	WALL @ +12' AFF	KIM LIGHTING	WC14DG/50PMH/DB-P	(1) 50W PMH	277

EXIT AND EMERGENCY LIGHTING FIXTURE SCHEDULE							
DESCRIPTION OF LUMINAIRE				LUMINAIRE SPECIFICATION			
SYMBOL	DESCRIPTION	FINISH	MOUNTING INFO	MANUFACTURER	CATALOG NUMBER	LAMP(S)	VOLTAGE
⊕	EXIT LIGHT (UNIVERSAL)	WHITE	SEE PLAN	EXITRONIX	6VEXUBPMBMH (ADD "R" IF POWERING REMOTE HEADS)	INCLUDED	120/277
⊕	EXIT/EM LIGHT (UNIVERSAL)	WHITE	SEE PLAN	EXITRONIX	6VEX-U-BP-MB-WH-EL-90	INCLUDED	120/277
⊕	EMERGENCY LIGHT	WHITE	SEE PLAN	EXITRONIX	LL50H-12-50	INCLUDED	120/277
⊕	REMOTE EM HEADS	WHITE	SEE PLAN	EXITRONIX	(2) P4D 4 (1) WP2-WP	INCLUDED	120/277

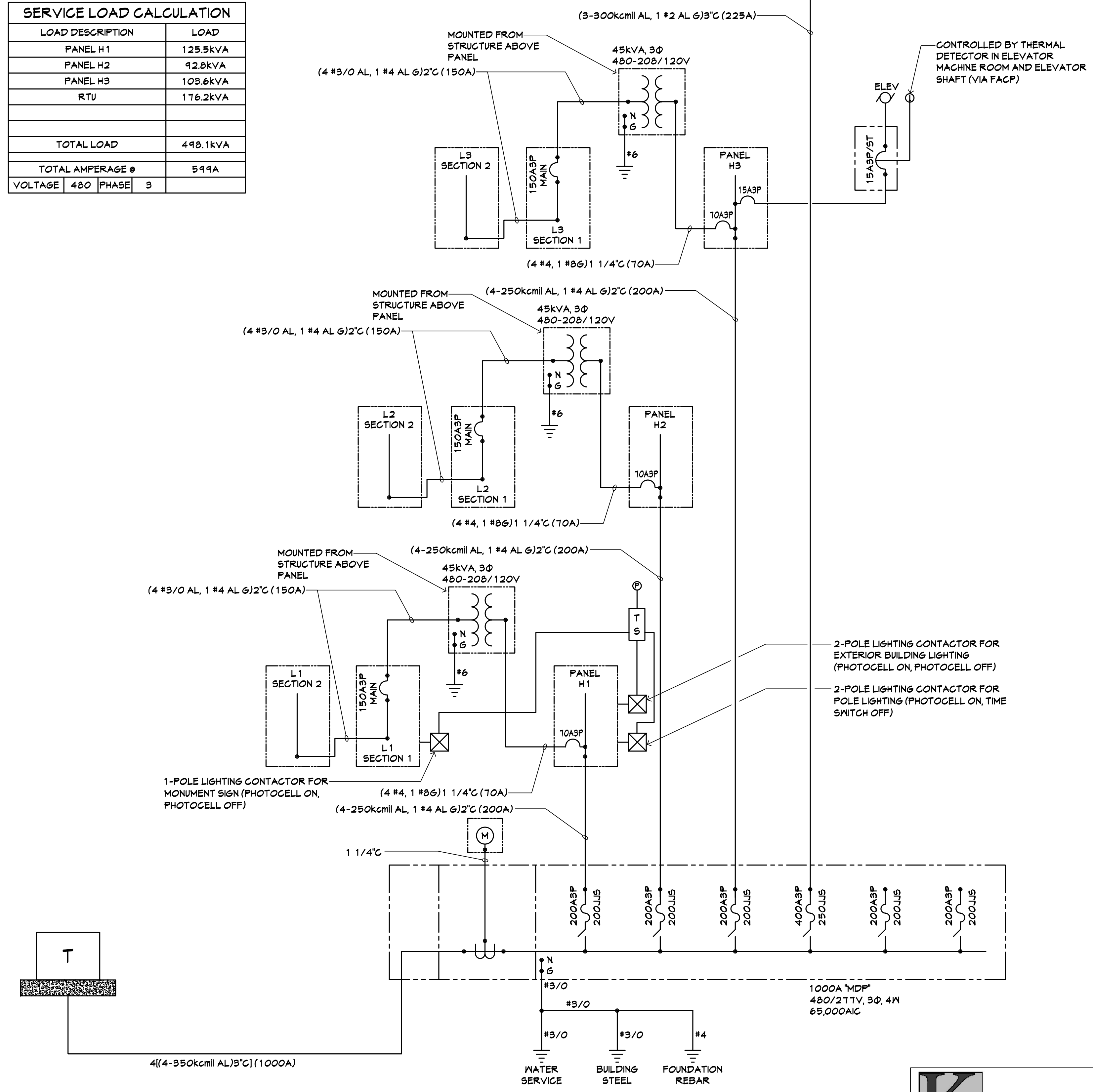


1 TELEPHONE RISER DIAGRAM
NOT TO SCALE

FAULT CURRENT CALCULATIONS (END OF CONDUCTOR)							
LOCATION DESCRIPTION	STARTING ISC	DISTANCE	PHASE MULTIPLIER	VOLTAGE	# OF CONDUCTOR SETS	C VALUE	ISC END
⊕ 1000A "MDP"	47,500	100	1.73	480	4	16,812	37,861
⊕ PANELS "H1"	37,861	10	1.73	480	1	12,122	34,090
⊕ PANEL "H2"	37,861	20	1.73	480	1	12,122	30,403
⊕ PANEL "H3"	37,861	30	1.73	480	1	12,122	28,303

FAULT CURRENT CALCULATIONS (TRANSFORMER SECONDARY)					
LOCATION DESCRIPTION	TRANSFORMER KVA	%Z	SECONDARY VOLTAGE	PHASE	ISC AT SECONDARY
⊕ SECONDARY OF 45KVA XFMR	45	2.9	208	1.73	4,312

SERVICE LOAD CALCULATION		
LOAD DESCRIPTION	LOAD	
PANEL H1	125.5KVA	
PANEL H2	92.8KVA	
PANEL H3	103.6KVA	
RTU	176.2KVA	
TOTAL LOAD	498.1KVA	
TOTAL AMPERAGE @	599A	
VOLTAGE	480	PHASE 3



2 ONE-LINE DIAGRAM
NOT TO SCALE

- NOTES:
- NEW WIRING SHALL BE THHN/THWN INSULATED COPPER UNLESS OTHERWISE NOTED.

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1543 East Sunset Ridge Road
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Jefferson Office Park
Office Building Type 1
1030 Johnson Road
Golden, Colorado 80219

job JCP
drawn BEK
checked DMK
issued for
7-21-08 PERMIT/BID/CONSTRUCTION
12-8-08 REVISED

revision

KAZIN
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Est. 1984
Executive Park DTC
5031 S. Ulster St., Suite 160, Denver, Colorado 80237-4316
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Project Number: 08080 © 2008

E3

of

PANEL NAME	H1	NOTES (USED AS INDICATED ON SCHEDULE)																	
PANEL TYPE	1																		
VOLTAGE	480 / 277	2																	
PHASE	3 WIRE	4																	
PANEL SIZE	200 AMPS	4																	
MAIN BREAKER	NLO	6																	
MINIMUM/AMC BREAKERS	85,000 FULLY RATED	6																	
PANEL NOTES																			
NOTE	DESCRIPTION	REC	LTS	MTR	MISC	KIT	BKR	#	Φ	#	BKR	KIT	MISC	MTR	LTS	REC	DESCRIPTION	NOTE	
	LIGHTING	1758	20	1	A	2	20										1930	EXTERIOR LIGHTING	
	LIGHTING	1440	20	3	B	4	20										2100	EXTERIOR LIGHTING	
	LIGHTING	384	20	6	C	6	30										6200	EXCH-1	
	LIGHTING	384	20	7	A	8	30										6200	EXCH-1	
	LIGHTING	384	20	7	A	8	30										6200	EXCH-1	
	PPB-1		20	9	B	10	30										6200	EXCH-1	
	PPB-1		20	11	C	12	15.3										1900	EVH-1	
	PPB-1		20	13	A	14	-										1900	EVH-1	
	PPB-1		20	15	B	16	-										1900	EVH-1	
	PPB-1		20	17	C	18	15.3										2800	PPB-1	
	PPB-1		20	19	A	20	-										2800	PPB-1	
	PPB-1		20	21	B	22	-										2800	PPB-1	
	PPB-1		20	23	C	24	15.3										2800	PPB-1	
	PPB-1		20	25	A	26	-										2800	PPB-1	
	PPB-1		20	27	B	28	-										2800	PPB-1	
	PPB-1		20	29	C	30	15.3										2800	PPB-1	
	PPB-1		20	31	A	32	-										2800	PPB-1	
	PPB-1		20	33	B	34	-										2800	PPB-1	
	PPB-1		20	35	C	36	15.3										2800	PPB-1	
	PPB-1		20	37	A	38	-										2800	PPB-1	
	PPB-1		20	39	B	40	-										2800	PPB-1	
	PPB-1		20	41	C	42	20										2800	PPB-1	
	SPARE		19000															SPARE	
	480V/AFMR		19000															SPARE	
		0.0	9.3	0.0	58.8	0.0								0.0	80.3	0.0	3.9	0.0	
	TOTAL (KVA)																		
RECEPT < 10KVA	CONN. LOAD (KVA)																		
RECEPT > 10KVA	0.0																		
LIGHTING	13.3																		
LARGEST MOTOR	0.0																		
MISCELLANEOUS	108.9																		
KITCHEN EQUIPMENT	0.0																		
SHOW WINDOW LIGHTING	0.0																		
TRACK LIGHTING	0.0																		
EXISTING PEAK DEMAND	0.0																		
ADDITIONAL LOADS	0.0																		
TOTAL	122.2																		
PHASE A	40.9 KVA																		
PHASE B	38.8 KVA																		
PHASE C	42.6 KVA																		
TOTAL KVA	122.5 KVA																		
TOTAL AMPS	135.0 AMPS																		
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PANEL NAME	L1	NOTES (USED AS INDICATED ON SCHEDULE)																	
PANEL TYPE	1																		
VOLTAGE	208 / 120	2																	
PHASE	3 WIRE	4																	
PANEL SIZE	200 AMPS	4																	
MAIN BREAKER	NLO	6																	
MINIMUM/AMC BREAKERS	10,000 FULLY RATED	6																	
PANEL NOTES																			
NOTE	DESCRIPTION	REC	LTS	MTR	MISC	KIT	BKR	#	Φ	#	BKR	KIT	MISC	MTR	LTS	REC	DESCRIPTION	NOTE	
	RECEPT	360	20	1	A	2	20										1000	1200	EXTERIOR SIGN
	RECEPT	360	20	3	B	4	20												
	RECEPT	1080	20	6	C	6	20												
	RECEPT	180	20	7	A	8	20												
	RECEPT	420	20	7	A	8	20												
	RECEPT	420	20	11	C	12	20												
	RECEPT	540	20	13	A	14	20												
	RECEPT	540	20	15	B	16	20												
	RECEPT	540	20	17	C	18	20												
	TELEPHONE BOARD	360	20	19	A	20	20												
	SPARE		20	21	B	22	20												
	SPARE		20	23	C	24	20												
	SPARE		20	25	A	26	20												
	SPARE		20	27	B	28	20												
	SPARE		20	29	C	30	20												
	SPARE		20	31	A	32	20												
	SPARE		20	33	B	34	20												
	SPARE		20	35	C	36	20												
	SPARE		20	37	A	38	20												
	SPARE		20	39	B	40	20												
	SPARE		20	41	C	42	20												
		3.4	0.0	0.0	0.0	0.0								0.0	1.0	0.0	1.2	0.0	
	TOTAL (KVA)																		
RECEPT < 10KVA	CONN. LOAD (KVA)																		
RECEPT > 10KVA	0.0																		
LIGHTING	1.2																		
LARGEST MOTOR	0.0																		
MISCELLANEOUS	1.0																		
KITCHEN EQUIPMENT	0.0																		
SHOW WINDOW LIGHTING	0.0																		
TRACK LIGHTING	0.0																		
EXISTING PEAK DEMAND	0.0																		
ADDITIONAL LOADS	0.0																		
TOTAL	5.6																		
PHASE A	2.1 KVA																		
PHASE B	1.9 KVA																		
PHASE C	1.6 KVA																		
TOTAL KVA	5.6 KVA																		
TOTAL AMPS	16.4 AMPS																		
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PANEL NAME	L1A	NOTES (USED AS INDICATED ON SCHEDULE)																	
PANEL TYPE	1																		
VOLTAGE	208 / 120	2																	
PHASE	3 WIRE	4																	
PANEL SIZE	200 AMPS	4																	
MAIN BREAKER	NLO	6																	
MINIMUM/AMC BREAKERS	10,000 FULLY RATED	6																	
PANEL NOTES																			
NOTE	DESCRIPTION	REC	LTS	MTR	MISC	KIT	BKR	#	Φ	#	BKR	KIT	MISC	MTR	LTS	REC	DESCRIPTION	NOTE	
	SPARE		20	1	A	2	20												
	SPARE		20	3	B	4	20												
	SPARE		20	5	C	6	20												
	SPARE		20	7	A	8	20												
	SPARE		20	9	B	10	20												
	SPARE		20	11	C														

