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General Notes

General.....

1. Structural elements are non-self supporting and require interaction with other elements for stability and resistance to lateral forces, framing and walls shall be temporarily braced by the contractor until permanent bracing, floor and roof decks, and walls have been installed and connections between these elements have been made.

2. The size and location of equipment pads and penetrations throughout the structure for mechanical, electrical, and plumbing work shall be verified by the contractor. Penetrations shall be subject to approval by the structural engineer. Re: mechanical, electrical, and plumbing drawings for opening locations not shown on the structural drawings.

3. For miscellaneous concentrated loads applied to the steel joists, refer to joist manufacturer shop drawings typical joist reinforcing diagram. Do not modify joists without obtaining permission from the engineer of record and the joist manufacturer.

Division 2 - Foundations.....

1. Footing designs are based on a net allowable soil bearing pressure of 2000 PSF.

2. Contractor shall read the soils report and become thoroughly familiar with site and subgrade information given therein. The contractor shall be responsible for determining exact quantities of cut and fill for estimating and construction.

3. Foundation walls shall have adequate temporary bracing installed by the contractor before backfill is placed against them. Temporary bracing shall not be removed until walls permanently braced.

4. Drawings contain details for both concrete stemwalls and masonry to the top of the footing. Contractor shall use the most economical solution for the site specific conditions.

Division 3 - Concrete.....

1. Concrete shall have a minimum compressive strength (F'c) at 28 days of:

- A. Concrete for building floor slabs and foundations, 3,000 PSI.
B. All other concrete, 4,000 PSI.
Re: specifications for mix requirements.

2. A. Reinforcing steel shall have a minimum yield strength (Fy) of 60 KSI.
B. Reinforcing bars shall be spliced per Concrete Reinforcing Bar Lap Schedule.

3. "C.J." indicates saw cut joint or doweled construction joint in slab. Re: specifications for accepted saw cut methods. Slab pours shall be separated by a doweled construction joint.

4. Saw cut/Construction joints shall be located as shown on plans or as directed by the structural engineer.

5. Fill void beneath all column base plates with 5,000 PSI, non-shrink, non-metallic grout.

Division 4 - Masonry.....

1. Masonry requires special inspection. Re: specifications.

2. Minimum compressive strength of masonry (F'm) established in accordance with the unit strength method shall be 1,500 PSI.

3. Masonry units shall have a net area compressive strength of 1,900 PSI.

4. Mortar shall be type "S" mortar. Masonry cement shall not be used for mortar.

5. Grout shall have a minimum compressive strength of 2,000 PSI at 28 days.

6. Reinforcing bars shall be spliced per the masonry reinforcing bar lap schedule.

7. Solid grout all cells that contain vertical reinforcing and all bond beams, typ.

Division 5 - Structural steel.....

1. Structural steel shall meet the following minimum yield strengths:

Table with columns: Yield, Bar Size, W-shape beams, Other steel shapes, bars and plates, Structural steel tubing, Structural steel pipe, Anchor bolts, Headed stud anchors, Deformed bar anchors.

2. Bolts for steel beam and column connections shall be 3/4" diameter ASTM A325 high-strength bolts installed snug tight, unless noted otherwise.

3. Electrodes for welding shall be 70 KSI, low hydrogen.

4. Provide double nuts and double washers for steel column anchor bolts to allow for adjustment in base plate elevation.

5. Before authorizing steel erection, the contractor shall ensure that the concrete in the foundation has attained 75% of minimum compressive strength (F'c) on the basis of the ASTM standard test of field cured samples at seven days per OSHA requirements.

6. Anchor rods (bolts) shall not be repaired, replaced, or field modified without approval of project structural engineer of record per OSHA requirements.

Division 9 - Light gage steel framing.....

1. Do not weld 20 gage and lighter framing, unless specifically called for in plans and details.

Design Parameters.....

1. Building code 2009 IBC

2. Live load
Roof (Reducible for tributary area) 20 PSF
Floor 100 PSF
Stairs 100 PSF

3. Snow loads
A. Ground snow load, Pg 60 PSF
B. Roof snow load, Pp 42 PSF + drift per IBC
C. Snow exposure factor, Ce 1.0
D. Importance factor, Is 1.0
E. Thermal factor, Ct 1.0

4. Wind loads
A. Basic wind speed, V 100 MPH
B. Importance factor, Iw 1.0
C. Exposure classification C
D. Design wind pressure on primary structure (windward + leeward) 13.0 PSF
E. Design wind pressure on exterior walls
End zones 23.1 PSF
Interior zones 20.8 PSF
F. Design net uplift pressure on roof joists (components)
Corner zones 21.7 PSF
Edge zones 16.1 PSF
Interior zones 10 PSF
(Edge zone defined as 10'-0" width at perimeter of building.)

5. Seismic loads
A. Mapped spectral response acceleration (Short period, 0.2s), Sa 0.31B
B. Mapped spectral response acceleration (Long period, 1.0s), S1 0.07B
C. Design spectral response acceleration (Short period, 0.2s), Sa 0.32B
D. Design spectral response acceleration (Long period, 1.0s), S1 0.124
E. Seismic use group II
F. Seismic design category C
G. Assumed site class D
H. Basic structural system (Load bearing wall system)
I. Seismic resisting system (Intermediate reinforced masonry shear walls)
J. Response modification factor, R 3.5
K. System overstrength factor, Om 2.5
L. Deflection amplification factor, Cd 2.25
M. Analysis procedure (Equivalent lateral force)

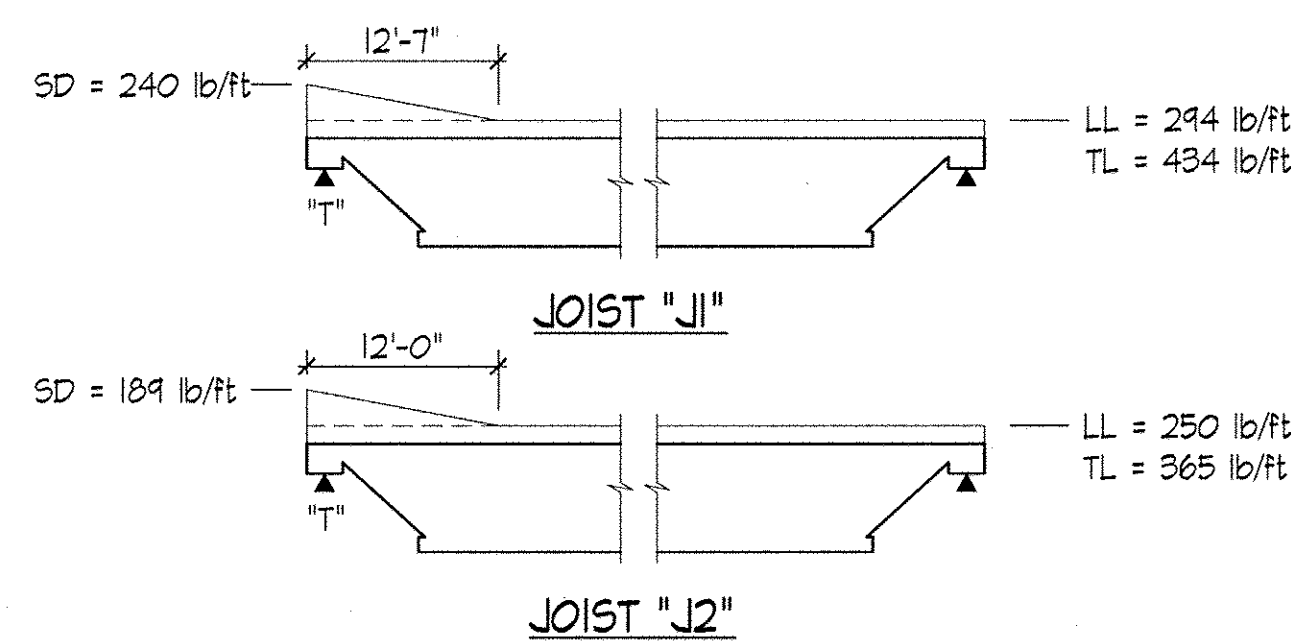
Special Inspections.....

Provide special inspections for the following items per section 1704 of the 2009 IBC and section 01410 of the project specifications. The approved independent testing agency's individual special inspector shall demonstrate competence for inspection of the particular type of construction or operation requiring special inspection. The special inspector shall bring non-conforming items to the immediate attention of the contractor and note all such items in the reports. Any unresolved item about to be covered by the work shall be brought to the owner's construction manager's attention immediately. The special inspector shall furnish reports, tests, and inspections directly to the building official, engineer of record, and the owner's and contractor's construction manager. The special inspector shall submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications. The contractor is responsible for notifying the special inspection agency regarding individual inspections for items listed on the schedule and as noted on the building department approved plans. Adequate notice and access to approved plans shall be provided so that the special inspector has time to become familiar with the project.

- 1. Earthwork (per section 1704.1)
A. Site preparation
B. During fill placement
C. Evaluation of in-place density
2. Concrete (per section 1704.4 and table 1704.4)
A. Inspection of reinforcing steel placement.
B. During sampling of fresh concrete and placing of reinforced concrete
C. Verify use of required design mix
D. During concrete curing for maintenance of specified curing temperature and technique.
3. During placement of anchor bolts in concrete or masonry.
4. Masonry (per section 1704.5 and table 1704.5.2)
A. During the preparation and taking of any required prisms or test specimens.
B. At the start of laying masonry units.
C. Inspection of reinforcing steel placement.
D. During all grouting operations.
5. Shop fabrication of steel members (per section 1704.2)
6. Steel material identification markings and conformance to ASTM standards per table 1704.3.
7. For all structural field welding per AWS D1.1, except as follows (Per section 1704.3 and table 1704.3):
The special inspector need not be continuously present during welding of the following items, provided the materials, qualifications of welding procedures and welders are verified prior to the start of work, periodic inspections are made of work in progress, and a visual inspection of all welds is made prior to completion. Welding Inspector shall be qualified per AWS D1.1:
A. Single-pass fillet welds not exceeding 5/16" size.
B. Floor and roof deck welding.
C. Welded studs when used for structural diaphragm or composite systems.
D. Welded sheet steel for cold-formed framing members such as studs and joists.
E. Welding of stairs and railing systems.
8. Periodic inspection of all high strength bolt installations and verification that identification marks for high strength bolts, nuts and washers conform to applicable ASTM standards (Per section 1704.3.3 and table 1704.3)
9. Periodic inspection of steel frame joint details for compliance with approved construction documents (Per section 1704.3.2)
10. Metal deck diaphragm connections and connections to supporting steel frame members.
11. During the installation of all epoxy or adhesive anchors.

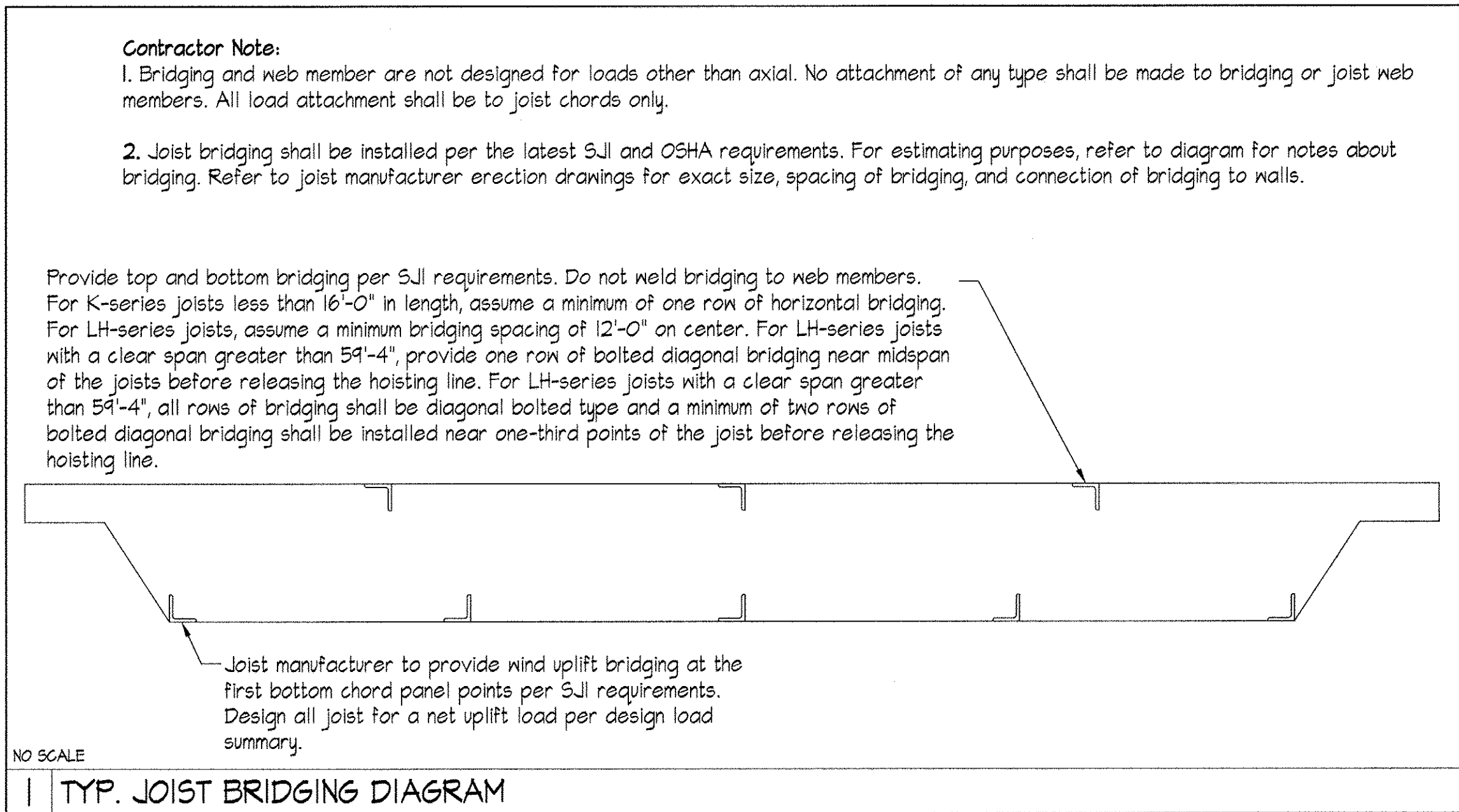
Concrete Reinforcing Bar Lap Schedule table with columns: Bar Size, Lap, Top, Other.

Masonry Reinforcing Bar Lap Schedule table with columns: Bar Size, Lap.



- Notes:
1. Mechanical loads not identified, reference plans.
2. "T" Designates bearing end indicated on plans.
3. "SD" Indicates Snow Drift only.

JOIST LOADING DIAGRAMS SCALE: N.T.S.



Vertical sidebar containing: REVISIONS table, AutoZone Store No. 3879, 1207 FOREST AVE, PORTLAND ME 04103, GENERAL NOTES, P.F. PAUL J. FORD & COMPANY, KEVIN P. BAUMAN 8030, 04/21/2016, CUSTOM, SO.