Blackwell
Structural Engineers

2018.08.17

Weber County
2380 Washington Boulevard, Suite 240
Ogden, Utah 84401

Attn: Craig Browne, Building Official

Re: Eisenberg - SFD – Plan Review Comments

Dear Craig Browne:

The following is in response to the Structural Comments provided by Mike Molyneux, of WC^3, project # 218-525-076 and Weber County Project # HSR 2018-01. Numbering of responses follows the formatting of the report issued.

Structural Drawings

S1. The design drawing requirements of AISC 341 A4 have been reviewed and we believe are included on the drawings. Connection details 11, 18 and 19 on drawing S-202 have been modified to meet the requirements of AISC 341 A4.2.

S2. Sheet S001:

A. Design has been performed according to AISC 360-10 and AISC 341-10. General notes have been corrected.

B. Note 3 in '310000 Foundations' has been corrected to reflect geotechnical report.

S3. Sheet S003:

A. Typical detail 0301 has been updated to reflect standard values of concrete strength.

S4. Sheet S004:

A. Typical detail 0603 has been updated to imperial units.

B. Typical detail 0604 has been updated and the reference to the Canadian code has been removed.

S5. Sheet S100:

A. The text has been adjusted to be legible.

S6. Sheet S101:

A. Note 4 below the member schedules on all plans regarding fasteners in preservative treated wood has been corrected to reference IBC 2304.10.5.1.

B. These columns are from above and supported on beam 1B7. The columns are present to support 2B7 and 2B8 on level 3 as well as 3B19 and 3B20 at level 4. The columns are included in the column schedule on drawing S-105. The plan has been updated and bubbled with "CA" to denote that there are columns above.

C. Beam 1B6 is not part of the special moment frame SFRS at grid C. However, it is an SFRS chord used to resolve the lateral forces at the building base elevation as defined in ASCE7 11.2.

D. Beam 1B5 is a chord in the SFRS to resolve the lateral forces at the building base elevation as defined in ASCE7 11.2. Therefore, the base potion of wall in question is not a shear wall. Shear wall chord forces from above are resolved via the hold downs at the footing level. It should be noted that this wall will be sheathed to maintain wall thickness.

S7. Sheet S200:

A. For clarity and ease of drawing use wood framing elements have been removed from this drawing as the focus is on the steel special moment frame details. The shear walls are integrated with the diaphragms and various beams at level 3 and level 4 as per the framing details (for example see sections on drawing S-300) but simply not relevant to this drawing and therefore are not drawn. A note has been added to drawings S-200 and S-201 stating the omissions for clarity.

S8. Sheet S203:

A. See response above to S6D.

S9. Sheet S300:

A. Blocking and tension device have been designed and are shown now shown on details S-300/4A and S-300/4B.

B. The PSL Plus ledgers are used as chords. The ledger entry in the members schedule on drawings S-101 and S-102 have been updated to indicate this.

S10. Sheet S301:

A. Where applicable, the members have been modified to Parallam PSL Plus material. A sillgasket has also been added for extra moisture protection. Changes have been bubbled on the on drawings S-101, S-102, S-300, and S-400.

S11. Sheet S401:

A. This beam is 3B18 which is supported on the cantilevered beams 3B16 and 3B17 at grids 1 and 5. The stud wall below is not required to support this built up beam. Note that on drawing S-205 there were some erroneous beam labels and they have been corrected.

B. The horizontal force component of the sloped studs is resolved via a Simpson LUS joist hanger on flat at the floor level. This is shown in section 1/S-401. The vertical forces from the studs is carried by 3B18.

C. In this detail the threaded rods are beyond the section cut and are shown on detail 2. The intent of this detail is to show the locally discontinuous web pack out where the guard verticals are connected to the beam with a knife plate.

S12. Structural Calculations:

A. Several calculations were completed in metric and it has been reviewed and verified that the design and units are equivalent. The information was converted appropriately and transfer to the drawings.

If any additional information is required, please do not hesitate to contact Blackwell Structural Engineers.

Best regards,

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