



908 WEST GORDON AVE. SUITE #3  
LAYTON, UT 84041  
(801) 547-8133

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March 19, 2018

FIRST REVIEW  
WC<sup>3</sup> Project #: 218-525-012

Weber County  
Building Inspection Department  
2380 Washington Boulevard, Suite 240  
Ogden, Utah 84401  
Phone: (801) 399-8374

Attention: Craig Browne, Building Official

Subject: Meehan SFD – Plan Review Comments

Mr. Browne:

West Coast Code Consultants, Inc. (WC<sup>3</sup>) has completed the first review of the proposed Meehan SFD project located in Eden, UT. This review was based upon the following:

1. Architectural drawings by Lloyd Architects.
2. Civil drawings dated 2/20/2018 by Talisman Civil Consultants, sealed and signed by Ryan W Cathey, Professional Engineer.
3. Structural drawings and calculations by Calder Richards Consulting Engineers.
4. Geotechnical investigation report (#01628-008) dated 9/16/2014 by Intermountain GeoEnvironmental Services, Inc., sealed and signed by David A Glass, Professional Engineer.

The 2015 International Codes and 2014 NEC, as adopted by the State of Utah, were used as the basis of our review. Specific comments regarding this project are enclosed with this cover letter. If you have any questions regarding this review, please contact me.

Sincerely,

Mike Molyneux, P.E.

Attachment: Comments



## **Plan Review Comments**

**Project Name:** Meehan SFD

**Code Review by:** Josh Goodman

**Location(s):** 7914 East Heartwood Drive, Eden, UT

**Structural by:** Joe Bingham

**Checked By:** DeAnn Wilde

### **SQUARE FOOTAGE SUMMARY:**

<b>Main Level</b>	<b>Upper Level</b>	<b>Finished Basement</b>	<b>Unfinished Basement</b>	<b>Deck(s)</b>	<b>Covered Deck(s)</b>	<b>Garage</b>	<b>Carport</b>
856 - ft <sup>2</sup>	730 - ft <sup>2</sup>	-	-	509 - ft <sup>2</sup>	1,061 - ft <sup>2</sup>	-	-

### **GENERAL INFORMATION:**

The submitted documents for the above-mentioned project, as outlined in the cover letter, have been reviewed. The following comments address areas of concern, non-compliance with the governing code, potential errors, or omissions in the proposed design. The appropriate design professional must address each comment below and submit a written response in addition to revised plans and calculations if necessary. **Please cloud any revisions made to the construction drawings and provide the date of the latest revision on each revised sheet.**

### **CODE REVIEW COMMENTS:**

A1. Sheet A100: Please address the following:

A. The only entry door to the lower level is at the master bedroom. Should Window W1 located at the mud room be identified as a door?

A2. Sheet A303: Please address the following:

A. General Note 3 on Sheet A303 indicates to return final grade to natural grade. Based on IRC R401.3, lots shall be graded to drain surface water away from the foundation walls. The grade shall fall a minimum of 6 inches within the first 10 feet. This is only a concern on the north-east side of the dwelling. Please note this information on the footing/foundation sheet of the plans.

A3. Per R310.1, every sleeping room and basements are required to have emergency escape and rescue openings with a net clear opening of not less than 5.7 square feet. The clear height shall not be less than 24 inches and the net clear width shall not be less than 20 inches. According to Sheet A100 and A600, the windows in bedrooms 1 through 3 appear to be fixed and therefore do not meet this requirement. Please make necessary corrections to the plans to show the required window sizes.

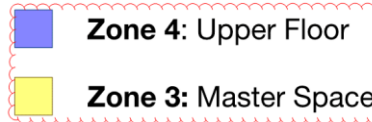
A4. Per R308.4, please clearly indicate on the plans the requirements for safety glazing and where it is to be provided, i.e., all shower compartments, sliding glass doors, windows adjacent to doors, and other hazardous areas.

A5. Sheet A100 notes that the mud room and the mechanical room have "low ceiling" heights. Per IRC305.1, the ceiling height cannot be less than 7'. Please update the plans to reflect this and show ceiling heights for all the rooms.



#### **MECHANICAL REVIEW COMMENTS:**

- M1. Page 4 of Heliocentric design appears to show Zone 4 on the plans as the master space, and Zone 3 as the upper floor. For purposes of accurate report generation, it appears this is a graphic representation only, but should be corrected to concur with other aspects of the report.



- M2. Please provide cut sheets for the range and hood. Please be aware that if the range is a commercial range, a Type I hood will be required.
- M3. Provide a cut sheet for the ceiling hung fireplace. Provide details for mounting in high seismic areas.

#### **PLUMBING REVIEW COMMENTS:**

- P1. Per G2413, provide a gas line schematic identifying the BTU rating for all gas fueled appliances, size, and length of main and all branch lines. If propane is to be used, show on the site plan the location of the propane tank. Also, show the location of the propane line into the structure.
- A. Clarify whether all identified gas-fired equipment is appropriate for use with propane.
- P2. Per G2419.4, note on the plans sediment traps will be provided on the downstream side of the shutoff valve.
- P3. Per P2903.5, please note on the plans water hammer arrestors are required at quick-closing valves, i.e., dishwashers & clothes washers.

#### **ELECTRICAL REVIEW COMMENTS:**

- E1. Per E3902.10, please specify on the plans the electric radiant heating system for the bathroom(s) and kitchen must have ground-fault circuit protection.

#### **ENERGY REVIEW COMMENTS:**

- N1. Page 4 of Heliocentric design appears to show Zone 4 on the plans as the master space, and Zone 3 as the upper floor. For purposes of accurate report generation, it appears this is a graphic representation only, but should be corrected to concur with other aspects of the report.
- N2. It appears the sheet with roofing details is missing. Please provide the referenced sheet A500. The information on this sheet must corroborate the information provided on the Heliocentric Energy Compliance sheet.
- N3. Per IECC R401.3, please note on the plans a permanent certificate shall be completed and located in an approved location which lists the predominant R-values of the insulation installed in the ceiling/roof, walls, foundation and ducts outside conditioned spaces, and U-factors for fenestration.

#### **STRUCTURAL COMMENTS:**

##### **General:**



- S1. The structural sheets have not been sealed, signed, or dated by the engineer of record. Please review R156-22-601 of the Utah Administrative Code for seal requirements.

**Structural Drawings:**

- S2. The structural drawings are marked as a “progress set not for construction.” Please provide a final set of plans that are intended to be used for construction. **Additional comments may be made upon review.**

**Structural Calculations:**

- S3. Structural calculations were not provided for review. Please provide. **Additional comments may be made upon review.**
- S4. Please confirm that a percentage of the snow was considered in the seismic weight of the structure as required by Sections 1605.3.1 and 1605.3.2 of the Utah Amended Code.
- S5. The notes indicate that 2500 psi concrete was used in the calculations to avoid special inspection of footings. Please confirm that this was the case.
- S6. Please address any structural irregularities that might exist as defined by Tables 12.3-1 and 12.3-2 of ASCE 7-10.

If you have any questions regarding the above comments, please contact Mike Molyneux at mikem@wc-3.com or by phone at (801) 547-8133.

**[END]**