



908 WEST GORDON AVE. SUITE #201
LAYTON, UT 84041
(801) 547-8133

August 22, 2016

SECOND REVIEW
WC³ Project #: 216-525-043

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

Attention: Craig Browne, Building Official

Subject: Geary SFD – Plan Review Comments

Mr. Browne:

West Coast Code Consultants (WC³) has completed the second review of the above mentioned project. Responses, plan revisions and supplemental information were submitted electronically to WC³ on 08/15/2016. These responses and revisions were provided in regards to our initial plan review comments which were dated 08/02/2016. While several items have been addressed there are still some items that require further clarification. These items are included in the comments attached to this cover letter. If you have any questions in regards to this project please do not hesitate to contact me.

Sincerely,

Mike Molyneux, P.E.

Attachment: Comments



Plan Review Comments – No. 2

Project Name: Geary SFD

Code Review by: Mike Molyneux

Location(s): 8343 East Summit Pass, Summit, UT

Structural by: Mike Molyneux

Checked by: Joe Bingham

OCCUPANCY & BUILDING SUMMARY:

Type of Construction	Use Group(s)	Occupant Load	Risk Category	Square Footage	Building Height	Sprinklers
V-B	R-3	-	II	6,142 ft ²	2-story	Yes

GENERAL INFORMATION:

The responses and revisions provided for the above noted project have been checked. These responses and revisions were made in reference to comments made by WC³ dated 08/02/2016. The following items require correction, clarification, or additional details before they can be approved. The appropriate design professional must address each comment below and submit a written response in addition to revised plans, specifications and calculations as necessary. **Please cloud any revisions made to the construction drawings and provide the date of the latest revision on each revised sheet.**

Normal font: initial plan review comments

PC2: second plan review comments

CODE REVIEW COMMENTS:

All code review comments have been resolved.

STRUCTURAL COMMENTS:

Structural Drawings:

S1. Sheet S101: Please address the following...

- A. The geotechnical report states the need for all concrete which is to come into contact with soil is to meet the ACI requirements for “Moderate” sulfate exposure. In accordance with Table 4.3.1 of ACI 318-11, this requires a minimum $f'_c=4,000$ psi, maximum w/c=0.5, and Type II cement.

PC2: Sheet S101 has not been provided in the revised plans. Please address.

- B. The basic seismic force resisting system is listed as special concrete shear walls. It appears from the drawings and calculations that wood-framed shear walls and moment frames are to be used as well. Please list the wood shear walls and appropriate type of moment frame on the plans.

- I. If ordinary moment frames are to be used the calculations may be effected due to the lower response modification factor. Please address.

PC2: Ordinary moment frames are allowed, but the appropriate response modification factor must be applied per Section 12.2.3.3 of ASCE 7-10. Please verify that the appropriate R value



has been applied for concrete shear wall and ordinary moment frames as applicable (R=5 and R=3-1/2, respectively).

- S2. Sheet S102: The “special inspection” portion of sheet S102 does not meet the requirements for a “Statement of Special Inspections” as required by IBC 1704.2.3 and defined in IBC 1704.3.
- A. The elements requiring special inspection/testing are required to be noted (e.g. concrete footing, foundations, etc.)
 - B. The extent of inspections/testing to be provided and their frequency (e.g. inspection of reinforcing steel - periodic, inspection of anchors cast in concrete – periodic)

Please list the special inspection requirements for steel construction on the plans.

PC2: Sheet S102 has not been provided in the revised plans. Please address.

- S3. Sheet S202: Please address the following...
- A. List the reduction factors due to fire retardant treatment considered in the design on the plans. Each product has their own factors and the appropriate product should be considered.

PC2: Revised general structural notes have not been provided in the responses.

- B. Please clarify how the deck between gridlines 1 through 2 and D through E is being supported.

PC2: Provide calculations for the anchorage per Chapter 17 of ACI 318-14, steel column, and the full-height pins to resist the uplift forces. In addition, the steel column supporting the cantilever has not been specified on the plans.

C. Resolved.

D. Resolved.

S4. Resolved.

S5. Resolved.

S6. Resolved.

S7. Resolved.

Structural Calculations:

S8. Resolved.

S9. Resolved.

S10. Resolved.

S11. Resolved.

S12. Resolved.

- S13. Verify that the wood beam calculations consider the appropriate reduction for fire retardant treatment. This will also apply to stud calculations.

- A. Be aware that LVL/microlams are not allowed to be fire retardant treated as testing has not been provided. LVL's in exterior walls should be removed and provided with a solid sawn option.

PC2: The exterior walls have LVL beams shown in multiple locations. LVL beams are not allowed to be fire treated. Please address.



S14. Provide details and calculations for the anchorage of the W12x50 steel column at the moment frame. Verify that the anchorage calculations meet the requirements of Appendix D of ACI 318-11.

PC2: Anchorage calculations have not been provided in accordance with Chapter 17 of ACI 318-14.

S15. Resolved.

PC2: The steel beam design for the third level master bedroom is showing that the deflection limit is exceeded. Please address.

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]