



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

October 22, 2019

THIRD REVIEW
WC³ Project #: 219-525-088
Weber County

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

Attention: Craig Browne Building Official

Subject: SMHG LLC - Pioneer Cabin – Plan Review Comments 3rd Review

Mr. Browne:

West Coast Code Consultants, Inc. (WC³) has completed the third review of the proposed SMHG LLC - Pioneer Cabin project located in Eden, UT. This review was based upon the following:

1. Architectural drawings dated 10/15/2019 by MacKay-Lyons Sweetapple, Architects, sealed and signed by Steven N. Warr, Licensed Architect.
2. Structural drawings dated 10/16/2019 by Ensign Engineering, sealed and signed by Alex Hawkins, Professional Engineer.
3. Electrical drawings by MacKay-Lyons Sweetapple, Architects.

The 2018 International Codes and 2017 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.
Senior Plan Review Engineer

Attachment: Comments



Plan Review Comments

Project Name: SMHG LLC - Pioneer Cabin

Code Review by: George Williams

Location(s): 7860 East Horizon Run, Eden, UT

Structural by: Daniel Mooney

OCCUPANCY & BUILDING SUMMARY:

Type of Construction	Use Group(s)	Occupant Load	Risk Category	Square Footage	Building Height	Sprinklers
III-B	A-3	+/- 93*	II	3,456 ft ²	3-story, 38-feet	YES

* - Items noted with an asterisk may change as a result of the plan review comments.

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 08/26/19, and 08/05/19. 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

PC3: third plan review comments

CODE REVIEW COMMENTS:

PC3: WC³ does not agree with the note below and does not accept this position. Nothing in the note has been documented or submitted for review. The review team is concerned about there being three different architectural firms involved in this project: MacKay-Lyons Sweetapple, Steven Warr Architects, and AE Urbia. Additionally, Mr. Craig Browne is no longer the Weber County Building Official and his acceptance of this non-accessible design is no longer relevant. An ICC Code Opinion is not binding. The accessibility provisions of the 2018 IBC, and the referenced ICC A117.1-2009 standard provide no language exempting this common use facility from the accessibility provisions of the code. The plan needs to show accessible maneuvering clearances at all doors. All restrooms must be accessible. Five percent of the lockers must be accessible. An accessible bench must be provided in the locker room. An accessible shower must be provided. A clear floor space must be provided adjacent to one of each type of exercise equipment provided. The drinking fountain must be accessible, etc. There may be justification for aspects of the accessible route to the building not complying with the code but the building itself must comply. Please address as part of the next submittal.



ADA NON-COMPLIANCE - IN A LETTER FROM JAMES WILLIAMS OF AE URBIA, AN ICC CODE OPINION WAS REQUESTED TO ELIMINATE THE NEED FOR THIS BUILDING TO MEET THE ADA REQUIREMENTS OF IBC 2018 CHAPTER 11. THIS OPINION WAS BASED ON THE LOCATION OF THE BUILDING BEING ON THE SKI RUN, IT FUNCTIONS AS A SKI LOCKER FOR SKI IN AND OUT, AND IT'S USE IS LIMITED TO THE SURROUNDING RESIDENCES IN THE DEVELOPMENT. IN AN EMAIL DATED 8/29/2018 FROM DON GUERRA, REPRESENTING POWDER MOUNTAIN, A FOLLOW UP REQUEST WAS MADE OF CRAIG BROWNE THE CHIEF BUILDING OFFICIAL OF WEBER COUNTY. IN THIS EMAIL CRAIG BROWNE AGREED WITH THE CODE OPINION AND ALLOWED THE BUILDING TO NOT MEET THE REQUIREMENTS FOR ADA AND CHAPTER 11 OF THE IBC, IF THE BUILDING IS ONLY AVAILABLE TO THE HOME OWNERS.

- A1. – A2. Resolved.
- A3. Please provide a code analysis, including applicable codes, occupancy classification(s), type of construction, allowable area, etc. This must provide basic code information as outlined in the table above.
- PC3: Provide a listed design for the proposed 2-hr. fire-rated exterior walls. This must come from the manufacturer.**
- A4. – A6. Resolved.
- A7. Sheet 2.1: Please address the following:
- A. – D. Resolved.
- E. The areas not highlighted in green will also require a 1 hr. rated floor/ceiling assembly. The provided plans provide no information regarding the method in which the 1 hr. rated fire barrier will be constructed. Please provide listed assemblies for the walls, and the proposed floor/ceiling assembly.
- PC3: Please revise the requirements of IBC 1011.7.3. The walls and ceiling of the lower level mechanical room must be 1-hr. fire-rated. Please provide listed assemblies for this application.**
- F. Resolved.
- A8. – A9. Resolved.

MECHANICAL REVIEW COMMENTS:

- M1. Please provide mechanical plans. Commercial buildings require full mechanical plans designed per the IMC. Generally, this would be completed by a professional engineer. As per Weber County mechanical plans stamped by a licensed architect will be permitted; however, they must contain sufficient information regarding all proposed equipment, method of sizing (see below), proposed duct work, general mechanical notes, etc. Plans must comply with the IBC regarding floor to floor penetrations, and all provisions of the IMC.
- PC3: No response provided. Please address.**
- M2. Provide heating and cooling load calculations in accordance with ASHRAE/ACCA Standard 183. This is required per Section 312 of the IMC.
- PC3: No response provided. Please address.**



PLUMBING REVIEW COMMENTS:

- P1. *Please provide mechanical plans. Commercial buildings require full plumbing plans designed per the IPC. Generally, this would be completed by a professional engineer. As per Weber County plumbing plans stamped by a licensed architect will be permitted; however, they must contain sufficient information regarding all proposed fixtures, routing and sizing of all drain waste and vent, size and material of all water lines, general plumbing notes, etc.*

PC3: No response provided. Please address.

ELECTRICAL REVIEW COMMENTS:

- E1. *Please provide mechanical plans. Commercial buildings require full electrical plans designed per the NEC. Generally, this would be completed by a professional engineer. As per Weber County plumbing plans stamped by a licensed architect will be permitted; however, they must contain sufficient information regarding all proposed panels, service, conductors, panel schedules, outlet spacing, general electrical notes, etc.*

PC3: No response provided. Please address.

ENERGY REVIEW COMMENTS:

PC3: No response provided to any of the energy comments. Please address. Be aware you are proceeding at your own risk, as energy related modifications may be time-consuming to the construction schedule and costly once footings and foundations are in-place.

- N1. *Sheet S0: Please address the following:*

A. *Additional Notes reference the residential provisions of the IECC/IRC. The building must comply with the commercial provisions of the IECC. Make all necessary corrections.*

- N2. *The insulation values listed on the plans do not appear to meet the prescriptive requirements of IECC C402.1.3. Please modify the thermal envelope insulation to match what is shown in Tables C402.1.3 and C402.1.4 of the IECC or provide a total building performance analysis in accordance with IECC C407 (e.g. COMcheck) to show compliance. The proposed walls do not comply with the table.*

A. *Mass walls (lowest level concrete walls) require R-11.5 continuous insulation.*

B. *Below grade walls (portions of lowest level) require R-7.5 continuous insulation.*

C. *Wood framed walls require R-13 batts, with R-7.5 continuous insulation, or R-20 batts with R-3.8 continuous insulation.*

D. *The proposed attic insulation complies.*

E. *For slab insulation to be counted in the design of the envelope, it must extend to the top of the slab-on-grade, as noted in IECC C402.2.5. Please address.*

- N3. *Please indicate the maximum U-factor and SHGC for all windows and glazed openings in accordance with IECC C402.4.3.*

- N4. *Please provide heating and cooling load calculations for the sizing of the mechanical equipment in accordance with the requirements of IECC C403.2.1.*



- N5. *Please list on the plans the efficiencies for the HVAC equipment. IECC C403.2.3 lists the minimum efficiency requirements for HVAC equipment.*
- N6. *Per IECC 404.5.1, the maximum distance of pipe from the hot water source to the lavatory cannot exceed 6 feet maximum for 1/4" lines, 2 feet for 1/2" lines and only 6" for 3/4" lines. It appears either instantaneous water heaters, shorter lengths or other design alternatives are necessary. Please Note: This applies to public lavatories only, see table for non-public fixtures.*
- N7. *Provide occupancy sensors as required by IECC C405.2.1.*
- N8. *IECC C405.2.3 requires independent daylight responsive (photo-sensor) controls be provided for luminaires within day light zones. Please address.*
- N9. *Please provide a lighting power analysis for the interior lighting (i.e. COMcheck), in accordance with IECC C405.4.*
- N10. *Please clarify how the exterior lighting for this project will be controlled. Verify lighting controls will meet the requirements of IECC C405.2.5.*
- N11. *Please provide a lighting power analysis for the exterior lighting (i.e. COMcheck), in accordance with IECC C405.5.1.*
- N12. *IECC C406.1 requires in addition to meeting the standard requirements of the IECC, an additional efficiency package option must be selected. One of the packages must be selected for the project. Please indicate which method is being used and show conformance with the applicable section:*
- A. *Efficient HVAC performance (increased efficiencies for HVAC equipment) per IECC C406.2.*
 - B. *Efficient lighting performance (more stringent power density limitations for lighting) per IECC C406.3.*
 - C. *Onsite supply of renewable energy, per IECC C406.5.*

STRUCTURAL COMMENTS:

Structural comments have been resolved.

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]