



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

October 31, 2016

FIRST REVIEW
WC³ Project #: 216-525-067

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

Attention: Craig Browne, Building Official

Subject: Summit Powder Mtn Bldg 4 – Footing & Foundation Only – Plan Review Comments

Mr. Browne:

West Coast Code Consultants, Inc. (WC³) has completed the first review (Footing & Foundation Only) of the proposed Summit Powder Mtn Bldg 4 project located in Eden, UT. This review was based upon the following:

1. Architectural drawings by MacKay-Lyons Sweetapple, sealed and signed by Brian MacKay-Lyons, Licensed Architect.
2. Civil drawings dated 9/12/2016 by NV5, sealed and signed by Ryan W Cathey, Professional Engineer.
3. Structural drawings and calculations by Blackwell, sealed and signed by Michael F Sullaway, Professional Structural Engineer.
4. Mechanical drawings by Mechanical Systems & Service, Inc.
5. Electrical drawings dated 8/1/2016 by Salmon Electrical Contractors, sealed and signed by Douglas Max Stewart, 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 in regards to this project are enclosed with this cover letter. If you have any questions in regards to this review please do not hesitate to contact me.

Sincerely,

Alexa P. Neilson, Plans Examiner
Attachment: Comments



Plan Review Comments

Project Name: Summit Powder Mtn Bldg 4

Code Review by: Alexa Nielsen

Location(s): 7760 East Horizon Bldg 4, Eden, UT

Structural by: Joe Bingham

Checked by: George Williams

OCCUPANCY & BUILDING SUMMARY:

Type of Construction	Use Group(s)	Occupant Load	Risk Category	Square Footage	Building Height	Sprinklers
V-B*	R-3*	N/A*	II*	3,289 ft ²	2-story, 26-feet	Yes NFPA-13R*

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

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:

This building has been requested to be completed under a Phased Permit, as indicated by Weber County. A detailed scope of work outlining exactly what portion of work is being proposed such as site work, underground work (electrical, mechanical, plumbing), footings, foundation walls, P.T. slab, etc.) needs to be provided.

- A1. Because a phased approval is being sought for this project, the owner must submit a letter to the building official stating that they understand that they will be proceeding at their own risk in accordance with IBC 107.3.3. Please include a detailed scope of work outlining exactly what portions of the work will be included in this permit, such as site work, utilities, underground plumbing, etc.
- A2. Sheet 1.02: Please address the following:
 - A. Please clearly identify the Building or Buildings to be built under this permit, as this sheet does not make it clear. Identify with bold line work, hatching or leader arrows the specific building associated with this permit. Otherwise it is assumed this permit is for a single building (Bldg. 4) as indicated in the permit application.
 - B. Please provide information on the Parking Facilities provided to this project. Please clarify the location of such parking, the number of parking stalls provided, and the number of accessible and van accessible parking stalls in compliance with IBC Section 1106.1 and 1106.5. **This is applicable if common buildings and or spaces are provided.**
 - I. If more than one parking facility is provided on the site, which is what appears to be the case, the number of parking stalls required to be provided to be accessible shall be calculated separately for each parking facility.



- C. Please provide the following Details and Information concerning the accessible parking provided:
- I. Please identify the number and location of accessible parking stalls.
 - II. Please identify the location of the van accessible parking. Per IBC 1106.5 at least one (1) van accessible stall shall be provided for every 6 or fraction of 6 parking stalls.
 - III. Please ensure that all accessible parking is dispersed to be near all accessible entrances, in compliance with IBC 1106.6.
 - IV. Please indicate the width of the accessible and van accessible parking stalls per Section 502.2 of ICC A117.1-09. Car parking spaces shall be 8 feet minimum in width and van parking shall be a minimum of 11 feet. (Van parking is also permitted to be 8 feet wide where adjoining an 8 foot wide access aisle.)
 - V. Section 502.4 of ICC A117.1 requires that an access aisle be provided adjacent to all accessible parking stalls. (Two parking stalls shall be permitted to share the same access aisle.) Please address the following:
 - a. The access aisle shall not overlap the vehicular way and shall be located on an accessible route.
 - b. The minimum width of the access aisle is 5 feet.
 - c. The access aisle is required to be marked to discourage parking in them
 - VI. Provide signage as required by IBC 1111.1 and Section 502.7 of ICC A117.1-09 for the accessible parking. Signs shall be located a minimum of 60 inches above the surface of the parking.
 - a. In addition to the International Symbol of Accessibility, stalls for vans shall be marked "Van Accessible".
- A3. Sheet A100: Please address the following:
- A. Please provide complete construction details and information for the boardwalks provided, as not information on the construction of such boardwalks has been provided.
 - I. Please provide complete details on what appears to be stairs within the boardwalk, in compliance with Section 1011.
 - a. Please provide information on the stair treads and risers.
 - b. Handrails provided.
 - c. Stairway landings.
 - II. Please provide complete information and details on any ramps provided, in compliance with Section 1012.
 - a. Ramp slope and cross slope.
 - b. Vertical Rise
 - c. Landings for the ramps
 - d. Length of the ramp.
 - e. Any changes in direction.
- A4. Sheet A101: Please address the following:



A. Chapter 6 – Construction Type:

- I. Please clarify the two different Occupancies listed on the table shown. As it shows both an R-2 and R-3.

Table 601		Table 601			
Occupancy	Type	Fire-Rating per Occupancy*		R2	
R3	VB	Type:		VB	

B. Chapter 5 – Building Heights and Areas:

Please revise the Allowable Area Calculations, as it appears that the 2012 IBC was used for the calculations. Please revise to reflect the 2015 IBC Standard.

- I. Please clarify the construction type, as it is shown as I-A and V-A, but was indicated to be V-B. Please address.

IA, VA	IA, VA	IA/ VA
H ₁	S ₁	A ₁

- II. Please note, per Table 506.2 of the 2015 IBC, the allowable area for an R-3 Occupancy with V-B construction is unlimited.
- a. Please clarify where the value of 7,000 sf was found.
- III. Please note that per Table 504.3 of the 2015 IBC, the allowable height of an R-3, Non-sprinklered building is 50 feet.
- a. Please clarify where the value of 55 feet was found.
- b. Please note that the allowable height of a building with an NFPA-13R system is 60 feet.
- IV. Please clarify the S-2 Occupancy, as it is listed that the building(s) are single occupancy buildings.

S2 OCCUPANCY - AREA CALCULATION AS SHOWN ON THE LOWER LEVEL PARKING GARAGE

- V. Please clarify the listing for the R-1 Occupancy, as both R-2 and R-3 are indicated above in other sections.

R1OCCUPANCY -

- VI. Please note that per Table 506.2 of the 2015 IBC, the allowable are of a V-B, R-2 Occupancy with an NFPA-13R sprinkler system is 7,000 sf.

UNLIMITED	Table 503: Type V-B, Group R2 NFPA 13R
0.30	Sec. 506.2 See calculation below
UNLIMITED	Sec. 506.3 Fully Sprinkled: 200% for Multi-Story Building / 300% for Single Story

- a. Please revise the area calculations to reflect the correct Construction Type, per Chapter 6 of the 2015 IBC.
- b. Please revise the allowable area calculations to reflect the correct Use Group, in compliance with Chapter 3 of the 2015 IBC.



- c. Please note, per 2015 IBC Section 506, there is no sprinkler increase with an NFPA-13R system. Please remove this increase from the calculations.
 - i. If the sprinkler increase is desired, an NFPA-13 system must be provided for the building.
- VII. Please graphically indicate the areas used for frontage, in compliance with IBC Section 506.3.
 - a. It appears that a frontage increase is not needed. Please remove this calculation from the allowable building calculations.
- VIII. Chapter 7 – Fire-Resistance Rated Construction:
 - a. Please revise the 718 Concealed Spaces notes, as an NFPA-13R system appears to be provided to the building.
 - i. Draftstopping, in compliance with Section 718.3.2, will be required in floors, as the exception does not comply.
 - ii. Draftstopping, in compliance with Section 718.4, will be required in the attic, as the exception does not comply.

718.3 Draftstopping in floors:

718.3.3: Exception- Not required if building equipped throughout with an NFPA 13 automatic sprinkler system

718.4 Draftstopping in attics:

718.4.3: Exception- Not required if building equipped throughout with an NFPA 13 automatic sprinkler system

NFPA 13R

903.3.1.2 NFPA 13R sprinkler systems:

MECHANICAL REVIEW COMMENTS:

M1. Not a part of this phase.

PLUMBING REVIEW COMMENTS:

P1. Not a part of this phase.

ELECTRICAL REVIEW COMMENTS:

E1. Please clarify whether this review includes site utilities. Some electrical drawings have been provided; however, they don't appear to be related to the individual buildings. Is the intent of this review to include an electrical review of what has been provided?

ENERGY REVIEW COMMENTS:

N1. Not a part of this phase.



STRUCTURAL COMMENTS:

General:

- S1. Because a footing/foundation only permit is sought at this time only those items associated with the foundation have been reviewed. Once the design and drawings are complete the project will need to be submitted for a complete review of the entire structural system.
- S2. Because a phased approval is being sought for this project, the owner must submit a letter to the building official stating that they understand that they will be proceeding at their own risk in accordance with IBC 107.3.3.
- S3. A soils report was not provided for this project. Because the project is located within Seismic Design Category 'D', a soils report must be provided complying with the requirements of IBC 1803.6. Prior to submitting the report, please ensure that all construction documents accurately represent the requirements of the soils report so as to avoid any future delays in obtaining a building permit.

Structural Drawings:

- S4. The plans must provide a "Statement of Special Inspections" per IBC 1704.2.3 and as defined in IBC 1704.3. Not only should this list all special inspection and structural testing items that are required by the IBC, but detail the extent and frequency of the inspections/tests. Please address.
- S5. Sheet S-100: Footing FTG1 does not meet the minimum reinforcement requirements of Section 24.4.3 of ACI 318-14).
- S6. Sheet S-400: Please address the following:
 - A. Please review the lateral tie requirements for the pier shown in detail 1. Vertical bars should be tied in such a fashion as to ensure the maximum distance between laterally tied bars is less than or equal to 6-inches (see ACI 318-14 Section 25.7.2.3).
 - B. Please confirm the footing reinforcing shown in Detail 4. The bars depicted in the detail do not appear to match what is specified in the foundation schedule.

Structural Calculations:

- S7. The roof snow load is listed as 192 psf. Please confirm that a percentage of the snow was considered in the seismic weight of the structure as required by Section 1605.3.1 and 1605.3.2 of the Utah Amended Code.
- S8. Concrete calculations and anchorage calculations were done per ACI 318-11. Please confirm that ACI 318-14 requirements have been met.

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

[END]