

Construction Progresses on Pikes Peak Summit Complex

-Guy Priel

Now that winter has arrived on “America’s Mountain,” Pikes Peak, GE Johnson construction crews have been working on the interior of the new Pikes Peak Summit House Complex. Work was completed on the exterior in November to allow for the work to progress. Part of the process involved closing all exterior openings and installing the roof.

Because of the severe weather conditions, which includes extremely high winds and sub-zero conditions, the work location is unique, which required workers to take extra precautions to ensure that all small openings and cracks are sealed. The overall goal is to prevent wind from blowing snow into the interior of the structure.

Propane heaters have been installed to keep the interior warm. The bottom floor, which houses the mechanical operations, is kept warm with one heater. Other heaters are keeping the second floor warm, where the administrative offices, kitchen and dining room will be located.

Structural window testing was completed in September and passed the stringent requirements for the summit’s extreme conditions. The construction company has also finished a second revision of the exterior envelope to coordinate final details of windows, waterproofing, steel-plate sills and shutter design. The foundations are complete and the walls were placed in October.

The precast panels are 14 inches thick with eight inches of geo-foam insulation in the center. Insulation is also sprayed into the ceilings. The amount of insulation has an R40 rating, which is extremely high for commercial construction projects, which normally have R18 in the walls and R32 in the ceiling.

The PermaTrak concrete boardwalk system for the central area has been completed and handrail supports will be installed in the spring. Structural steel for the building frame and roof was installed in November.

The structural steel is 90 percent complete, but the roof decking and grand staircase will be installed in the spring.

Temporary window assemblies have been installed, which will facilitate building the mechanical and electrical rooms.

Before the end of the month, crews will complete installation of roof slabs, interior slab and temporary window assemblies, which will help build the mechanical and electrical rooms.

Now that the building has been sealed against the weather, interior finishes, such as office space, the kitchen and dining hall can proceed throughout the winter.

Heat systems are scheduled to be installed in January 2020. This will help prepare the building for significant developments over the course of the year.

The existing Summit House remains open throughout the construction.

Once completed, the 33,000 square foot building will live in balance with the summit’s unique environment. Nearly 750,000 people visit the summit each year, contributing \$30 million to the local economy.

The facility is designed to comply with the Americans with Disabilities Act standards, ensuring that the center will be accessible to all citizens, regardless of age or disability. It will contain an indoor dining facility, an outdoor dining terrace and an expanded gift shop.

Finding the perfect balance between a dynamic building that presents a clear destination to visitors and a minimalist structure deferential to the Peak and its majestic views was critical to the design of the new Pikes Peak Summit House.

A one-story form seemingly carved from the southeast side of the Peak, the new Summit House offers unobstructed views to the east. Reminiscent of the crags and rock formations found above the tree line, the design uses shade, shadows and fragmentation to coalesce into the Peak. Clad in material similar to Pikes Peak granite, the modern hue seamlessly blends into the mountainside. Viewed from below, it is one with the mountain, yet as one arrives at the Peak, the modest entry pavilion is a clear destination.

Upon approach to the summit, visitors take in the expansive and pristine views, just as Zebulon Pike, scientist Edwin James and Native Americans experienced over 200 years ago. The only indication that this peak has been touched by man is the glass-enclosed pavilion capped with weathering steel emerging from grade. Sited to frame the view of Mt. Rosa, the location from where Pike viewed the Peak in 1806, the pavilion's lobby will provide a sheltered area to view the surrounding landscape, while affording access to the main level of the Summit House below. Accentuating the relationship between the two landforms, the angle from Pikes Peak to Mt. Rosa will be reflected in the downward tip of the lobby walls. That same angle will be mirrored in the upward slope of the roof acknowledging the expansive views to the east. To the left and right, rooftop terraces will become an extension of the summit, blending with the tundra and bringing visitors closer to the edge to experience 180 degrees of the same unobstructed and undisturbed views that Katharine Lee Bates beheld as she penned the lyrics to "America the Beautiful". An extended platform to the north will provide optimal views of the ruins of the original 1873 Summit House and embraces the relationship with the cog.

Inside, visitors will be taken aback by the boundless sky and perfectly framed views of Mt. Rosa. Stairs to the main level will appear to fold down out of the mountain as visitors descend to the main floor to access exhibits, dining, a gift shop and restrooms. Warm, rustic colors fortified by the ceiling's beetle kill pine will uniquely tie the interior to the region. Those arriving via cog (once it reopens in 2021) will be given the choice to explore the Peak, interpret the ruins, or enter the Summit House via the main level. Providing access to these multiple destinations will naturally disperse the crowds, resulting in a more enjoyable individual experience.

Captivating, but also functional, the building is sited to take advantage of the unique environmental conditions present on the top of Pikes Peak. Nestled into the mountain, exposure to the harsh winds will be minimized, while the mass of the building will provide sheltered outdoor areas from which to enjoy the views. The orientation of the building to the south takes full advantage of the enhanced solar gain at altitude, including daylight harvesting and the incorporation of photovoltaics to generate electricity. In addition, the thermal mass of the building's stone cladding helps capture and radiate heat generated by the sun to the interior of the building. Other sustainable features include composting toilets and low flow fixtures to conserve water.