

Salt Lake County

Road Fleet Management Service Building

US SPEC PRODUCTS

US SPEC Products: Dense Top LR, Permalith, HP Sealer

Contractor: Ascent Construction

Date of Completion: December 2014

The new Salt Lake County Road Fleet Management Service Building (R.F.M.S.B.) located in Midvale, Utah opened its doors December 1st, 2014. Mayor Ben McAdams emphasized the importance of the new building. He said, “when disaster strikes... these [fleet] vehicles will be put to use ... repairing traffic signals, picking up tree limbs, providing services crucial to restoring safety to residents”. The old building was quickly losing space to service the fleet’s vehicles and heavy machinery; the solution was a new service building. Construction on the R.F.M.S.B. started in April 2013. The new \$7.8 million building includes several offices and a much larger work space measuring twice the size of a football field with a 31-foot roof.

Every aspect of the building needed to be both durable and functional. It was designed and built to withstand an earthquake or threat of other natural disasters to ensure county vehicles and heavy equipment can respond effectively. The exterior was built using concrete masonry units and steel roof supports. These durable materials will stand up to Wyoming’s tough winter months. Salt Lake County received approximately 58-inches of annual snowfall totaling above the national average. During these months plows and sanders will be busy. There is now plenty of room for county vehicles to be serviced and stay in peak condition. The exterior also includes numerous windows.

Though aesthetically pleasing, the windows also serve as an important design choice. They will decrease the dependence on fluorescent bulbs by taking advantage of natural light as well as enhance the shop’s floor, a highlight of the new building.

The new shop floor not only needs to stand up to the demands of working on vehicles and heavy equipment but to also enhance the natural light filtered in from the new windows. The engineer,

Maintenance Design Group (MDG) wanted to use a complete flooring system which included a quartz hardener, surface hardener and surface sealer. All three products used were manufactured by US SPEC. MDG was familiar with US SPEC flooring products and have specified them on other maintenance shop projects. MDG specializes in maintenance facilities. They turn facility design challenges into opportunities to provide safe, efficient, sustainable and operable facilities.

US SPEC Dense Top LR, a light-reflective, quartz hardener was used first to improve the surface wearing of the shop’s floor. When properly applied, concrete floors treated with Dense Top LR will exhibit double the wear resistance of an untreated concrete floor. This makes Dense Top LR ideal for maintenance shop floors that experience constant heavy traffic. The product produces a white, light-reflective surface making the whole shop brighter improving visibility of tools of the shop floor, accelerating work time.

US SPEC Permalith was applied next. Permalith is a sealer, hardener and densifier. The product was sprayed on top of the Dense Top LR with a low pressure sprayer. MDG liked that it is self-penetrating and did not need to worked into the surface with a broom. Once dry, Permalith will not scratch, peel or show tire marks. It remains clean and bright with the high level of vehicle and heavy equipment traffic.

To complete the shop floor a final layer of protection was added. US SPEC HP Sealer is a water-based sealer ideal for new-age concrete surfaces. This final step was important to protect the beautiful light-reflective floor from oil and other automotive chemicals. Ascent Construction, the contractor, was happy with the ease of application of all three US SPEC products used, allowing work to continue at a fast pace.

The Salt Lake County R.F.M.S.B. was built to LEED specifications. It is slated to receive the U.S. Green Building Council’s LEED Gold Certification standard.

