

## **Executive Summary**

### **Technical Analysis 1 – Prefabrication of Interior Wall Panels**

This analysis explored utilizing on-site prefabrication of the interior panels with plumbing rough-in within a temporary enclosure. Although this process could potentially save 12.7 days of field installation time, it incurred expenses of roughly \$84,000 after general conditions savings were accounted for. In addition, the added quality control risks were too much of an issue and could result in higher costs associated with the process.

### **Technical Analysis 2 – Installation of Solar Panels (Electrical and Structural Breadths)**

This evaluation concluded that installing solar panels on the south facing roof top of Silverado had financial benefits without requiring structural design changes. The 6.2 year payback proved that the endeavor would be worthwhile the coordination efforts needed to phase installation of necessary electrical distribution components and equipment into the schedule. Potential issues can stem from the roof penetrations, but since the roofer warranty would remain valid then these repairs can be handled without any additional costs.

### **Technical Analysis 3 – SIPS for the Resident Rooms**

Implementing SIPS for the electrical, mechanical, and fire protection rough-in also was deemed a cost effective due because of the 14 day reduction in schedule and resulting \$31,000 saved in general conditions costs. Although there is extra coordination efforts needed to plan this process, these meetings are necessary to avoid field issues between subcontractors working in the same spaces.

### **Technical Analysis 4 – Re-Sequencing of the Project Schedule**

Although \$105,000 of the winter conditions fund could be saved by postponing slab installation until mid-March, the 43 days of lost time required excessive labor and equipment expenses. After performing a cost benefit analysis, this process would add a little under \$10,000 to the project budget in addition to increased quality control risks. Thus, the original sequencing was the most appropriate fit for Silverado.