



Project overview

To prepare for future renovations, the State of Wyoming undertook a scoping study that included building systems, infrastructure and lighting. Vertical Access was tasked with the investigation of the dome's interior and exterior conditions, with special concern for damage caused by a hail storm in 2011. Vertical Access worked closely with the State of Wyoming Office of Construction Management to determine the least invasive access approach, as no systems were in place to access the dome exterior.

Building description

The Wyoming State Capitol was designed by David W. Gibbs, an architect from Toledo, Ohio. Constructed in several stages between 1886 and 1917, the building contains Wyoming's House and Senate chambers. The dome and lantern roof are clad in gilded copper panels, while the drum below comprises cast iron panels and galvanized sheet metal. Sheet lead is used for the high relief ornament.

Challenges

- Evaluate access methods for conducting a 100% hands-on survey of the drum, dome and lantern exterior.
- Assess the condition of paint coatings and identify prior painting campaigns.
- Determine the types of building materials used at various locations.

Solutions

- Used lightweight industrial rope access rigging to perform the conditions survey and avoided the use of a costly and potentially landscape-damaging mobile crane with suspended work platform.
- Performed paint adhesion tests and removed paint samples, identifying locations that did not date to original construction.
- Mapped cladding materials by location, identifying cast iron, galvanized sheet steel, copper and sheet lead.

Building owner

The State of Wyoming

In collaboration with

- HDR Architecture
- Preservation Design Partnership
- Robert Silman Associates
- GB Geotechnics

Photos by Vertical Access