DISTRICT 4

EMPOWER | INNOVATION | CHAMPIONS

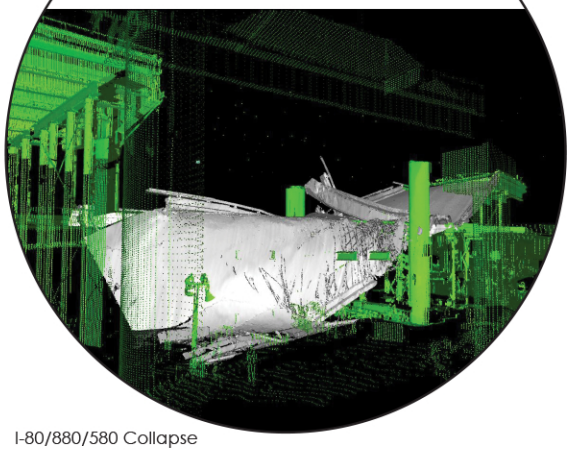
2014 INNOVATION FAIR

DIVISION OF RIGHT OF WAY & LAND SURVEYS

The Promise and Future of LiDAR

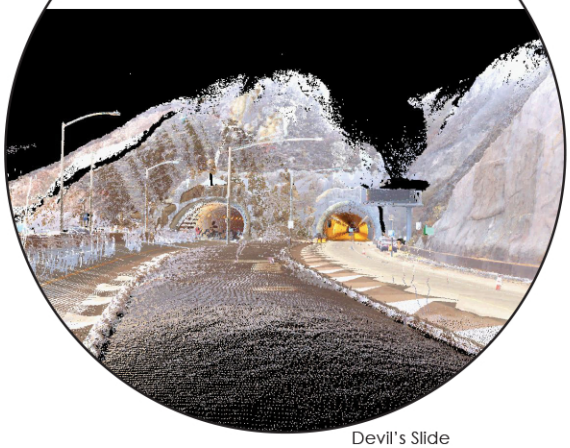
A key benefit of LiDAR technology is that a single dataset can be used for all of these applications and more.

Emergencies



I-80/880/580 Collapse

Design & Construction



Devil's Slide

Historic Building Preservation

San Francisco Palace of Fine Arts

Maintenance & Operations

Contra Costa I-80

DISTRICT 4

EMPOWER | INNOVATION | CHAMPIONS

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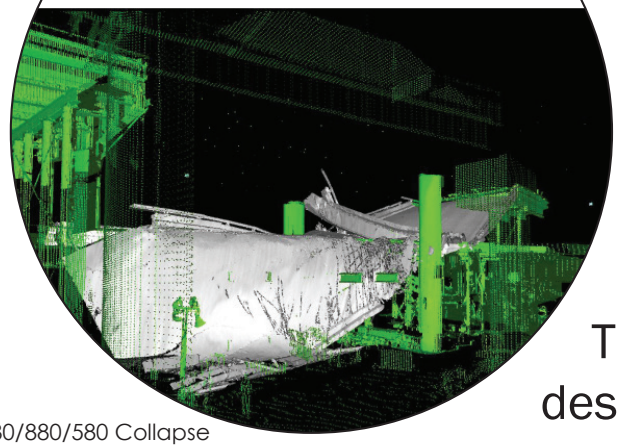
DIVISION OF RIGHT OF WAY & LAND SURVEYS

Deputy District Director: Mark L. Weaver
Number of Division Employees: 179
Contact Person: Nelson Aguilar

The Promise and Future of LiDAR

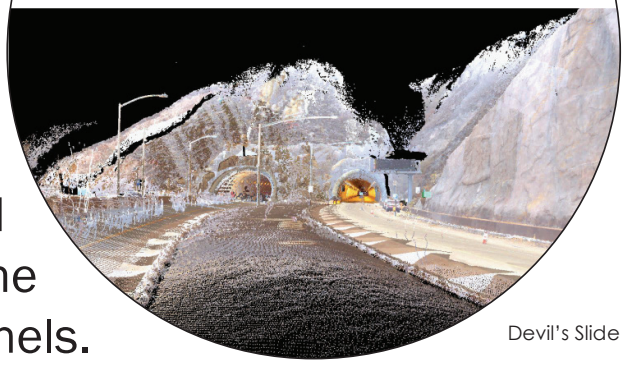
Emergencies



80/880/580 Collapse

The key benefits of collecting LiDAR data is that it can be used for a variety of applications . As seen here, a 3D model of the MacArthur maze provides a picture of the existing conditions that existed prior to construction. The data was used to expedite the design and construction of the repair.

Design and Construction

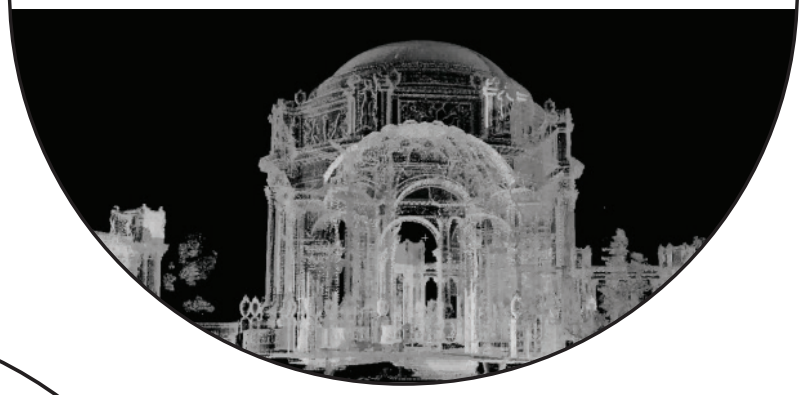


Devil's Slide

The 3D model produced using LiDAR data for the Devil's Slide project provided an accurate post contruction as-built of the tunnels. The model shows a unique perspective from the ground and gives a view inside the new tunnels.

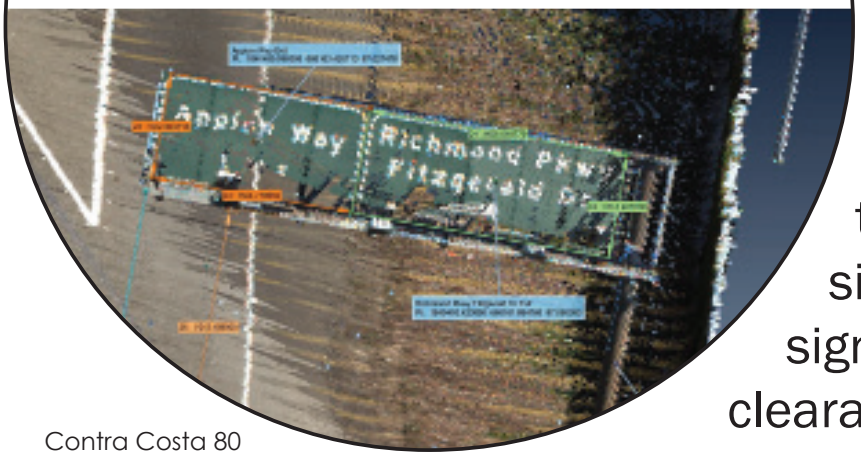
Historic Building Preservation

LiDAR was used to scan the San Francisco Palace of Fine Arts as a baseline to monitor that the integrity of the building would not be affected during contruction. The level of detail in the scan provides a real inside look at the Palace.



San Francisico Palace of Fine Arts

Maintenance and Operations



Contra Costa 80

Moving into the future of LiDAR, the possibilities are endless. This image shows the use of LiDAR data to collect overhead signs and extract sign size and vertical clearance to the roadway.