

LOOP
1604

151
TEXAS

LOOP 1604 WESTERN EXTENSION

ALTERNATIVE DELIVERY PROGRAM

DEVELOPER: Williams Brothers Construction CO., Inc



SUCCESS STORY



ENVIRONMENTAL MITIGATION

DB Contractor was proactive in evaluating the karst features, which were a major risk to the project, providing diligent reporting, resolution, and mitigation of the karst features that were discovered.



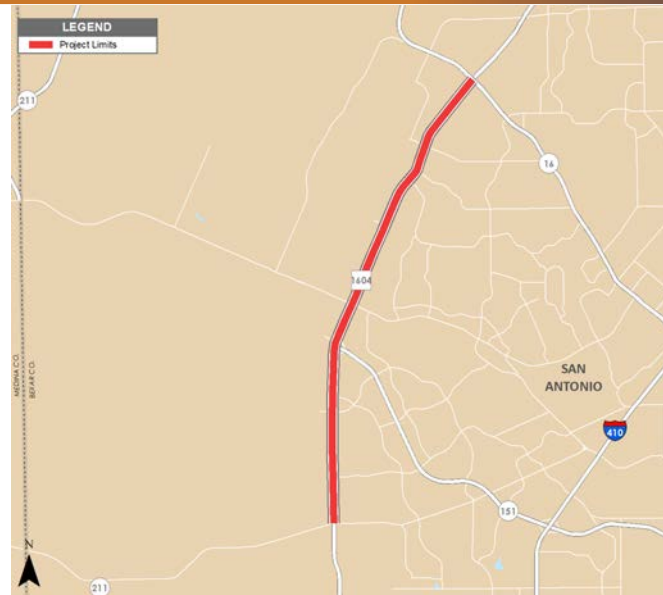
STAKEHOLDER COLLABORATION

DB Contractor constructed an additional turn lane at an intersection to improve access to a development, neighborhood and a school, which was a result of a coordinated effort between the city, TxDOT, the DB Contractor and a local developer.



DESIGN-BUILD FLEXIBILITY

The flexibility of the design-build delivery method enabled the DB Contractor to adjust it's sequence of design and construction operations to accommodate the unknown site conditions that were encountered.



PROJECT DESCRIPTION

FROM: FM 471 (Culebra Road) TO: SH 16 (Bandera Road)

- Reconstruction and upgrade of Loop 1604 to a four-lane expressway section.
- New mainline overpasses at Shaenfield Road, New Guilbeau Road and Braun Road.
- Improvements to the Loop 1604 and SH 151 interchange, including a south to east direct connector.

LANE
MILES:

67

TOTAL CONTRACT
VALUE

\$121 million



Signalized Intersection Improvements at Loop 1604

DESIGN-BUILD EFFICIENCIES

- Collaboration between TxDOT and the DB Contractor facilitated:
 - Proactive investigation of Karst features and utility relocations.
 - Timely resolution of issues such as differing site conditions, environmental mitigation, utility relocation challenges, and incorrect existing ROW survey control.
- Effective use of utility management strategies helped overcome the challenging utility work for the project:
 - DB Contractor provided a Utility Coordinator full time from the beginning of the project.
 - DB Contractor used a proprietary tracking method to monitor all utility relocations.

PROJECT DETAIL HIGHLIGHTS

- The project consisted of a 4.7 mile stretch of San Antonio's 95.6-mile outer loop.
- Williams Brothers was selected as the DB Contractor and was responsible for the reconstruction and upgrades to Loop 1604 from a mostly 4-lane divided roadway with at-grade signalized intersections, to a 4-lane expressway section, extending continuous frontage roads.
- The project included 4 new mainline overpasses, 2-lane frontage roads with bridges at Helotes Creek, city street connections; and auxiliary lanes between entrance and exit ramps.
- DB Contractor's work was further expanded to include Option Work: a new direct connector from Loop 1604 to SH 151.

Loop 1604 and SH 151 Interchange

LESSONS LEARNED

- Cost and schedule risk sharing between TxDOT and the DB Contractor of the environmental mitigation issues, such as the Karst features, was found to provide added value.
- DB Contractor acquisition of DB Contractor-designated ROW was a significant value-added feature because the DB Contractor was very proactive in locating and resolving issues such as ROW needed for easements and design changes.

VALUE

- Upgrades to Loop 1604 facility improved safety and mobility, enhanced system continuity and fostered economic development.
- Reuse of existing asphalt was utilized in lieu of full depth reconstruction, reducing the need to remove and reconstruct the existing pavement, saving time and money, and reducing impacts to the traveling public.
- Expedited completion of the project spurred economic development in the Greater San Antonio area by offering improved accessibility, mobility, and air quality improvements sooner in a rapidly growing community.

