

US 36 Express Lanes



Americas

Transport

The US 36 Express Lanes Project completes improvements to US 36 in Colorado, a congested two-lane highway connecting the rapidly growing cities of Boulder, Louisville, Broomfield, Westminster, Denver and communities in between.

The Project promotes multimodal transportation strategies that increase travel choices and efficiency for all modes—including general and express lanes, bus rapid transit, bicycling and walking—while reducing emissions and resource use. Now complete, residents have more options for cleaner, safer and less congested travel.

Project facts

Location Multiple Locations, Colorado, USA	Client Colorado High Performance Transportation Enterprise	Value (NPV) US\$200 million
Consortium Plenary Roads Denver (PRD)	Plenary Americas' role Project sponsor Equity investor Financial arranger	Builder Ames Construction, Inc./Granite Construction Company Joint Venture
Lead Engineer HDR Engineering, Inc.	Operations & Maintenance Plenary Americas Webber	Tolling Plenary Americas
Financial services Goldman Sachs	Financial close date February 2014	Completion date January 2016
Contract terms 50 years, DBFOM	Awards <ul style="list-style-type: none"> • Best Use of Technology Innovation, 2017 AASHTO America's Transportation Awards • Service Project Award, 2017 National Public-Private Partnerships Awards • Project of the Year, 2016 American Road and Transportation Builders Association • Metro Vision Award, 2015 Denver Regional Council of Governments 	Project website www.coloradodot.info www.plenaryroadsdenver.com

To fit local needs, the Colorado Department of Transportation Enterprise (CDOT) split delivery of the project into two phases. The first phase was procured as a design-build contract, which began initial construction work along the corridor. The second phase was procured as a P3, with Plenary Roads Denver selected as concessionaire to cover design, build, and finance of the Phase 2 construction work.

With construction now complete, Plenary has begun operations and maintenance. In addition, Plenary operates and maintains the existing I-25 Express Lanes segment connecting US 36 to downtown Denver.

The operating and maintenance contract is for 50 years which commenced following construction completion in early 2016. The partnership between Plenary and CDOT will see the delivery of an efficient, well-maintained multimodal transportation corridor 20 years sooner than originally planned.



Design features

The scope of work includes:

- The addition of an express lane in each direction of the US 36, for use by Bus Rapid Transit (BRT), High Occupancy Vehicles (HOV) and tolled vehicles;
- Reconstruction of all existing pavement on US 36 and the widening of the highway to accommodate 12 foot inside and outside shoulders;
- Improvements to the BRT system, including new electronic display signage at stations and bus priority improvements at ramps;
- The installation of a separated commuter bike path along the entire corridor;
- The installation of Intelligent Transportation Systems (ITS) for tolling, transit, traveller information and incident management; and
- improvements to corridor RTD stations, including new canopies with enhanced weather protection.

Innovations

The Project involved the construction of one express lane in each direction along the US 36 median and the Bus Rapid Transit system runs within the managed lane.

As part of the concession agreement Plenary was required to guarantee minimum travel speeds for buses within the express lane. Toll rates have been prominently displayed along the corridor to inform users of the cost and allow them to make a decision whether or not to enter the express lane. Initially tolls will be based on “time-of-day” pricing. In later years when congestion has increased, tolling will be “fully dynamic” with pricing based on real-time expected time savings.

PRD also employed a sophisticated arrangement to finance Phase 2 of the Project, consisting of four tranches of debt on two liens in addition to the Sponsor’s equity. As part of this financing package, PRD has assumed HPTE’s existing obligations from the project’s first phase, a \$54 million TIFIA loan (TIFIA 1), and issued approximately \$20 million of additional parity PABs. PRD has also entered into a new \$60 million TIFIA loan (TIFIA 2). Finally, PRD issued approximately \$20 million of Subordinate debt and is contributing additional equity into the project.

Local economic impacts

The Corridor diagonally bisects the northwest Denver metropolitan area, carrying between 80,000 and 120,000 trips per day. The Corridor is economically diverse: approximately 17 per cent of Denver metro region’s business and employment—more than 26,000 businesses and 200,000 jobs—are located along the Corridor.

With US 36 currently operating at 90 per cent capacity, the addition of express lanes and improved BRT stops give commuters significantly improved transit options while also alleviating congestion on the existing general lanes.



That means less time and money lost to traffic congestion.

The project helped provide economic stimulus by creating and supporting thousands of jobs for the local Area. At the peak of construction there was 1200 workers on site daily.