

US 69 Pre-Planning Analysis

Executive Summary

Purpose of US 69 Pre-Planning Analysis

The purpose of the US 69 Pre-Planning Analysis conducted by the City of Overland Park is to assist the partner agencies of the Kansas Department of Transportation (KDOT) and the Kansas Turnpike Authority (KTA) to answer two primary questions for the US 69 corridor: 1.) How much gross toll revenue can express toll lanes generate and 2.) Are the revenues from express toll lanes able to support construction, maintenance, and/or operations of the US 69 corridor?

The partner agencies discussed desired objectives with potential US 69 express toll lane implementation and developed the following objectives in order of priority:

1. Corridor safety
2. Trip reliability
3. Corridor sustainability
4. Mobility
5. Revenue generation
6. Promotion of transit and/or multi-occupant trips
7. Technology

Background

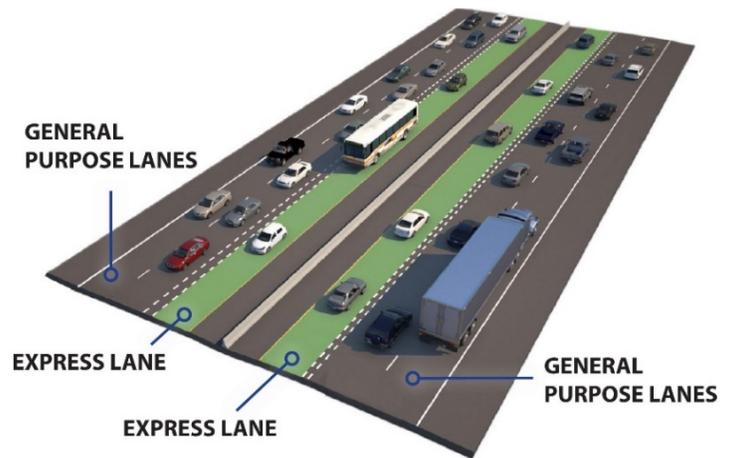
In 2016 the City of Overland Park, in coordination with KDOT, initiated the US 69 Corridor Study. The US 69 Corridor Study, completed in June 2018, recommended expanding the US 69 mainline from two to three through lanes in each direction from 179th St. to 103rd St. along with a number of other improvements.

The US 69 Corridor Study did not consider all potential improvement strategies that could be employed, nor did it include all preparatory activities necessary to advance improvements to construction. In the 2019 legislative session, the Kansas Legislature passed, and Governor Laura Kelly signed into law, HB2369. HB2369 grants additional authority to KDOT to use tolling on a limited basis. With the additional authority provided to KDOT through HB2369, the City of

Overland Park initiated this pre-planning analysis to better understand the range of potential revenue generation from express toll lanes on US 69.

Express Toll Lane Concept

This study considered the incorporation of express toll lanes into the configurations previously developed with the US 69 Corridor Study. The image below illustrates conceptually the addition of express toll lanes into the US 69 corridor.



Two Improvement Scenarios were considered as part of this analysis.

- Scenario 1 – Add one express toll lane in each direction from 103rd St. to 179th St.
- Scenario 2 – Add one express toll lane in each direction from 103rd St. to 151st St.

Capital cost estimates were developed for the two improvement scenarios for toll-free and express toll lane configurations. Estimates for both toll-free and express toll lane configurations assume the existing general purpose lanes are reconstructed within the limits of each Improvement Scenario. Scenario 1 represents a full-build scenario where the ultimate improvements are constructed from 103rd St to 179th St. Scenario 2 represents a partial-build scenario within the anticipated limits of an initial construction project from 103rd St. to 151st St.

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The total Capital Cost (2025 Dollars) for both Improvement Scenarios under tolled and toll-free conditions are shown in the table below.

Capital Cost Estimates (2025 Dollars)

	Scenario 1 Full Build	Scenario 2 Partial Build
Toll-Free	\$547M	\$258M
Express Toll Lanes	\$565M	\$299M

Processing of toll transactions, collection of toll revenues, maintenance, and periodic replacement of the roadside toll systems all have costs above those of a toll-free facility. Estimates of these costs over a 30-year period are shown below for the two improvement scenarios:

- Scenario 1 = \$266M
- Scenario 2 = \$192M

US 69 Traffic and Revenue

Toll traffic, gross revenue, and net revenue estimates were developed for the two improvement scenarios.

Revenue Comparison (30-Years, 2025 – 2055)

	Scenario 1 Full Build	Scenario 2 Partial Build
Gross Revenue	\$504M	\$435M
Toll and Roadway Operations and Maintenance and Replacement Reserves	-\$266M	-\$192M
Net Revenue	\$238M	\$243M

Source: HNTB

Net revenue calculations show that both Scenarios 1 and 2 are anticipated to have positive net revenue over the assumed 30-year period and can support ongoing costs for operations, maintenance, and replacement reserves. Scenario 2 is expected to produce slightly higher net revenue despite generating lower anticipated gross revenue.

Conclusions

This pre-planning analysis, conducted at a sketch-planning level, yields the following answers to the partner agencies' two primary questions:

- **How much gross toll revenue can express toll lanes generate?** The US 69 corridor express toll lanes can generate approximately \$504M (Scenario 1) and \$435M (Scenario 2) gross toll revenue between 2025 and 2055.
- **Are the revenues from express toll lanes able to support construction, maintenance, and/or operations of the US 69 corridor?** Yes, anticipated revenues from express toll lanes are able to support toll system and roadway operations, maintenance and replacement reserves. In addition, Scenario 2 could pay for a portion of the project's capital costs with toll revenue financing.

Results from this pre-planning analysis yield the following additional conclusions:

1. Express toll lanes are feasible from an engineering perspective.
2. Both Improvement Scenarios 1 and 2 are net revenue positive and likely can fully support ongoing O&M.
3. Scenario 2 has higher anticipated net revenues. Scenario 2 is a more viable initial express toll lane project.
4. While net revenues are positive over a 30-year period, net revenues in the first 10 years of operation are anticipated to be low.
5. Several factors indicate that the overall financial results may be more favorable with further study.

In summary, the results from the pre-planning analysis are positive and warrant additional study.