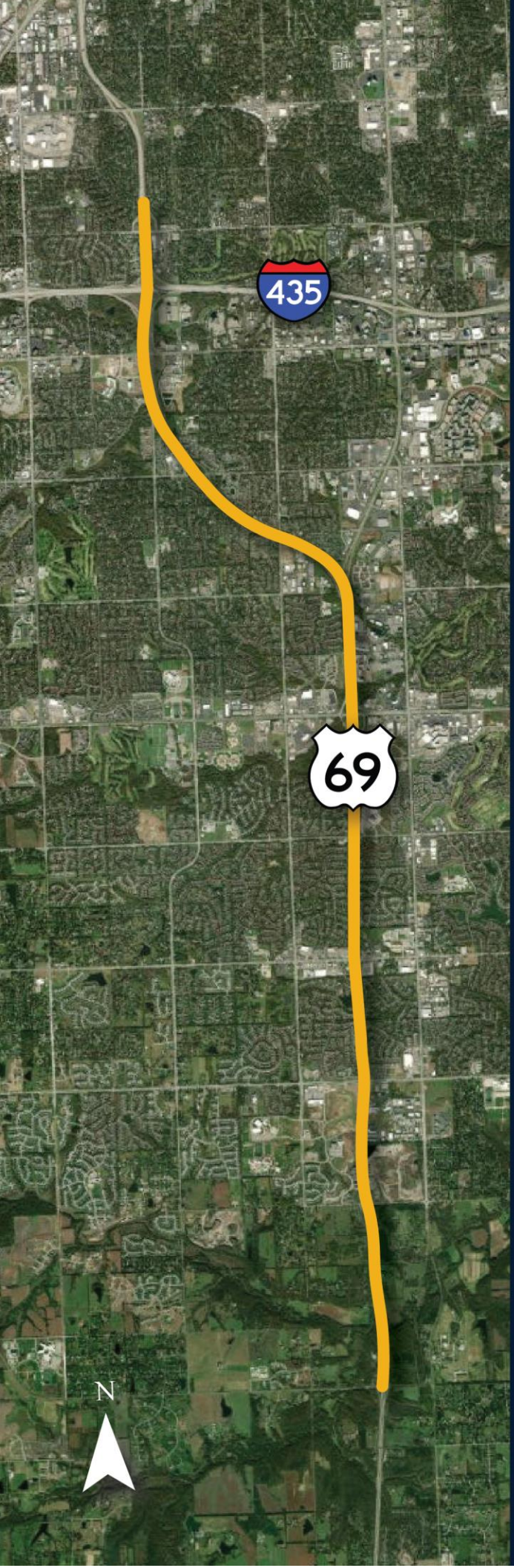


69 EXPRESS

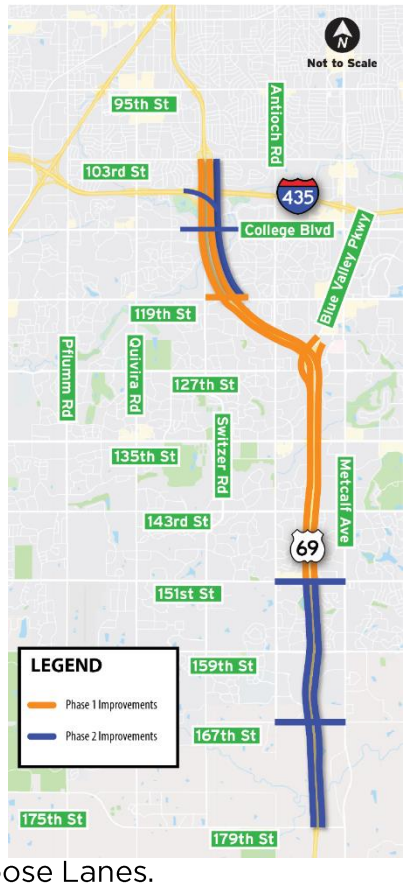
U.S. 69 Modernization & Expansion Project

U.S. 69 Express Toll Lanes Funding & Feasibility Report

DRAFT

June 2021

Project Overview



The U.S. 69 Modernization and Expansion Project is determining how best to address growing safety and congestion issues along the U.S. 69 Corridor.

One option being considered would widen U.S. 69 to six lanes from near 103rd Street to 179th Street with the third lane in each direction added as an Express Toll Lane (ETL). This option could provide additional long-term safety, traffic flow and trip time reliability benefits. This report forecasts gross and net revenue, analyzes the potential of a toll revenue financing and evaluates funding contributions.

ETLs have proven to be effective at reducing congestion and improving travel time reliability. ETLs enable drivers to choose if they want to pay a toll to drive in the express lanes to achieve more reliable travel times. To do this, a variable toll rate system will be used where the toll rate changes with traffic volumes to keep the toll lanes flowing smoothly while also improving traffic flow in the toll-free, General Purpose Lanes.

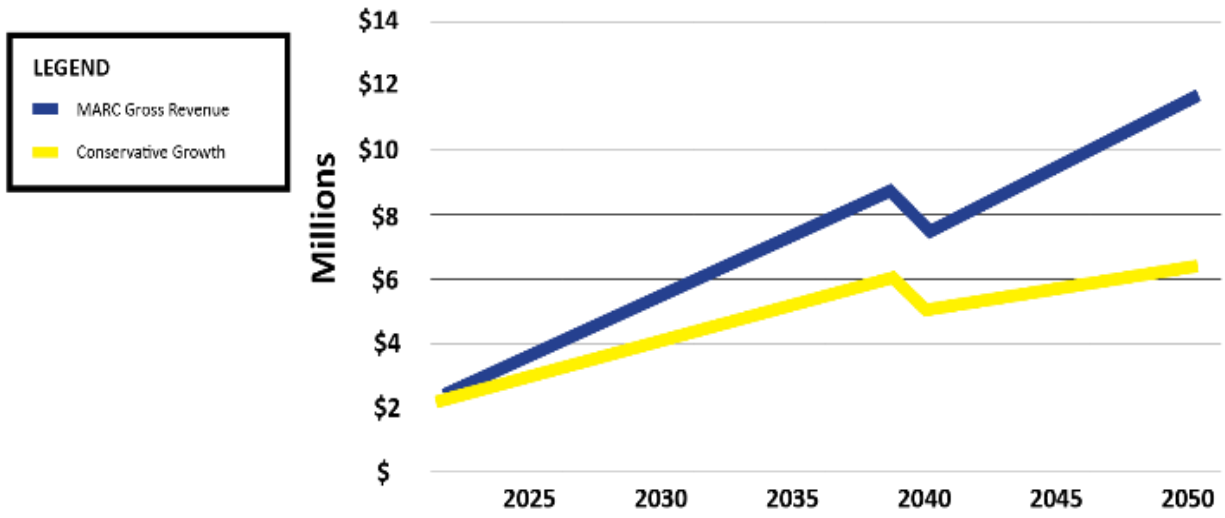
Traffic and Revenue Summary

Traffic and revenue analysis was performed for the corridor to model traffic and forecast the gross revenue potential of the express lanes. The Level-2 study analyzed Phase 1 and 2 with input from the Mid America Region Council (MARC) travel demand model, local surveys and updated demographic data.

Annual gross revenue forecasts (*see Figure 1*) were developed based on the MARC forecast and also included an independent forecast with a lower growth rate. The forecasts project positive gross revenue in every year, with $2 million in the opening year, and show steady annual growth as usage and congestion build over time.

For the Phase 1 forecast (north of 151st Street to just north of 103rd Street), revenue is projected to decrease in 2040 as expansion of complementary routes are assumed to be improved and opened on Metcalf Avenue and Antioch Road. For the Phase 2 forecast, the toll revenue reflects both segments operating together beginning in 2040. The following figure presents the gross revenue forecast from the two revenue forecasts of Phase 1.

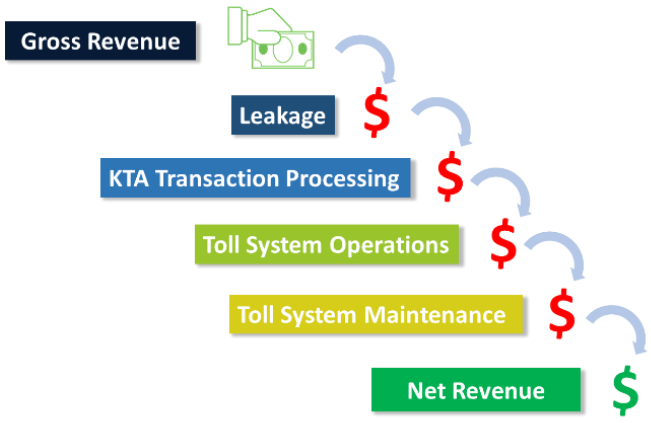
Figure 1: Annual Gross Revenue



Net Revenue Analysis

Net revenue is an important metric to evaluate a toll facility's ability to pay select operations, maintenance and lifecycle costs. For this project, KDOT will maintain all roadway elements of the general-purpose lanes and the express lanes while toll revenue will be used to pay for operations and maintenance (O&M) and lifecycle costs associated with toll collection.

Figure 2: Cash Flow Waterfall



As the "cash flow waterfall" figure illustrates (*see Figure 2*), net revenue for 69 Express is defined by subtracting the toll-related costs of the ETL lanes from the gross revenue. Descriptions of each of the cost components for the net revenue analysis are as follows:

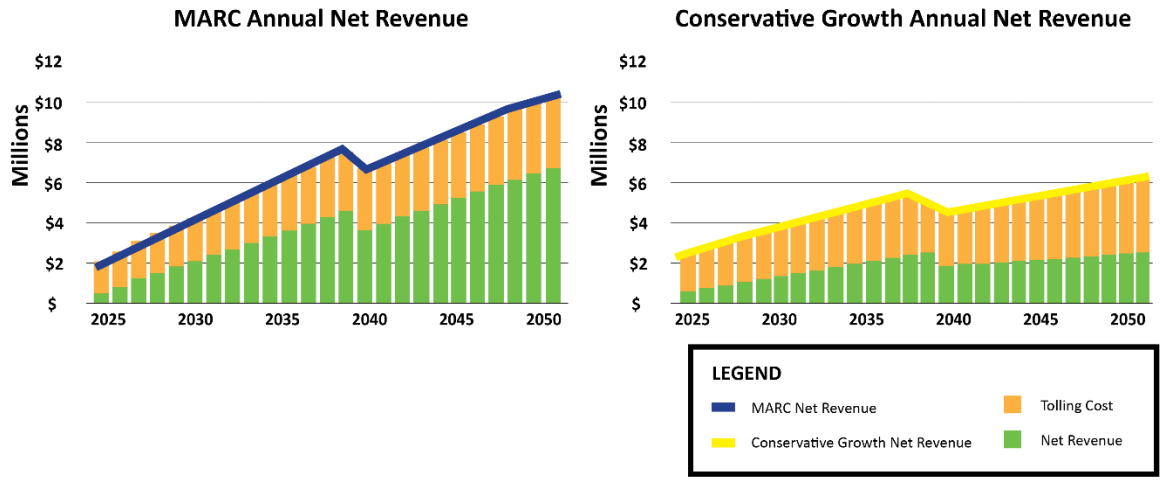
- Leakage: estimates of the amount of the two types of uncollectable toll revenue. Technical leakage is typically in the 1-3% range and accounts for instances where the vehicle cannot be accurately identified (i.e. poor image quality or obscured license plate). Uncollectable revenue can be in the 10-15% range dependent upon toll policies and transponder

penetration rates (i.e. inaccurate address data for invoices, refusal to pay invoices or infrequent out-of-state trips).

- KTA Transaction Processing: estimates of the pass-through cost of the Kansas Turnpike Authority (KTA) to process toll transactions and collect toll revenue on KDOT's behalf. A Roadside Toll Collection System (RTCS) will be installed in the toll lanes to identify and bundle vehicle trips. This information will be transmitted to KTA to leverage their existing back office's ability to collect revenue from transponder and video (post-pay based on license plate recognition) customers. KDOT will use toll revenue to reimburse KTA for providing this service (at no expense or risk to KTA's existing revenues or operations).
- Toll System Operations and Maintenance (O&M): estimates of the costs of operating the RTCS and preparing toll transactions. RTCS O&M expenditures are primarily maintenance related services including preventative, predictive and emergency repairs to the toll equipment. Annual O&M costs are allocated for these services based on the actual number of toll zones and toll lanes.
- Net Revenue: the amount of revenue remaining after satisfying all toll-related cost obligations. Net revenue can be used for any authorized and legal purpose (legislation currently requires all toll revenue to remain on the corridor). Note: the lifecycle replacement costs of the RTCS every 7-10 years was evaluated to be repaid with net revenue (after O&M) as the base case but was also separately evaluated as part of the O&M cost component (before net revenue calculations).

Net revenue for the ETL lanes is positive every year for both growth forecast scenarios (*see Figure 3*), meaning gross revenue can pay for all toll-related leakage, processing and O&M costs (RTCS replacement would be reimbursed with net revenue).

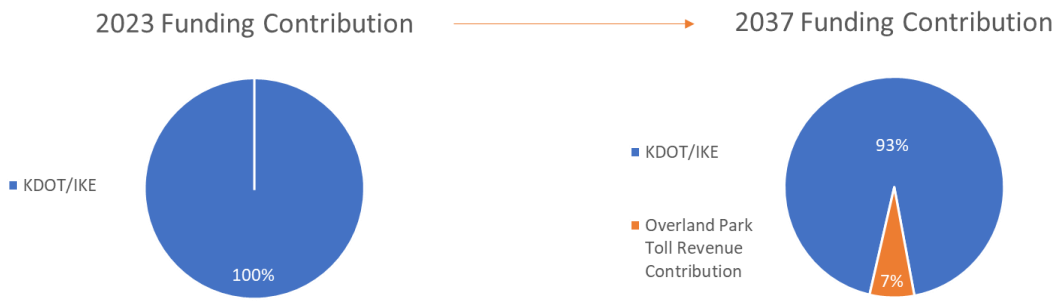
Figure 3: Phase 1 Net Revenue Summary (No RTCS Lifecycle Costs)



Funding Plan

KDOT's State Highway Fund and the IKE Program are the primary funding sources for 69 Express. If a local contribution is provided by Overland Park, 69 Express could be prioritized for early implementation in the IKE Program. KDOT has offered the City of Overland Park upfront and annual contribution options. A third option allows Overland Park to utilize net toll revenue to provide the local contribution until the commitment is repaid. Under this option, KDOT will fund 100% of initial project costs and will be repaid from Overland Park's $20 million local contribution by approximately 2037 based on actual toll revenue receipts (*see Figure 5*).

Figure 5: Funding Sources



Since KDOT is initially covering Overland Park's upfront contribution and is accepting toll revenue risk, inflation of 2.5% is applied to arrive at an equivalent present value of $20 million. Based on the current revenue forecast, toll revenues will repay KDOT $26.1 million through 2037 based on the MARC model growth assumptions or $27.5 million through 2042 based on the conservative growth forecast (*see Figure 6*). Using toll revenues as the source of repayment is a viable option for generating Overland Park's local contribution and would forego the need for Overland Park to make the contribution using general fund or tax revenues.

Figure 6: Toll Revenue Repayment of Local Contribution