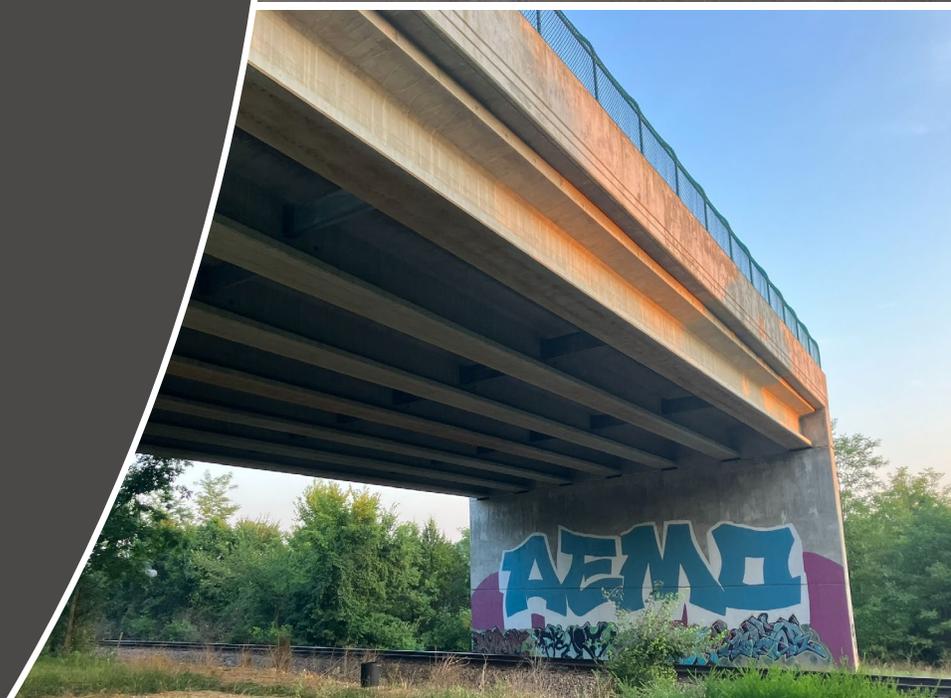




Plantside Drive Drive Extention Study

Item No. 5-80003
Jefferson County, Kentucky

FEBRUARY 2025



EXECUTIVE SUMMARY

The Kentucky Transportation Cabinet (KYTC), in collaboration with Louisville Metro Government and Kentuckiana Regional Planning and Development Agency (KIPDA), performed the Plantside Drive Extension Study to identify and evaluate potential concepts to improve connectivity between Rehl Road (CR 1006H) and Taylorsville Road (KY 155) in Louisville.

Numerous studies have evaluated the need for an alternative north-south connection inside the Gene Snyder Freeway (I-265) to address current and future traffic needs in this growing area of Jefferson County. Plantside Drive (CS 1001H) currently has a southern terminus at Rehl Road, but additional development is planned south of Rehl Road. In 2018, a bridge over the Norfolk Southern railroad was constructed with funding from Louisville Metro Council in anticipation that Plantside Drive would be extended in the future. This study evaluated the feasibility of conceptual routes both using and not using that bridge to improve north-south connectivity.

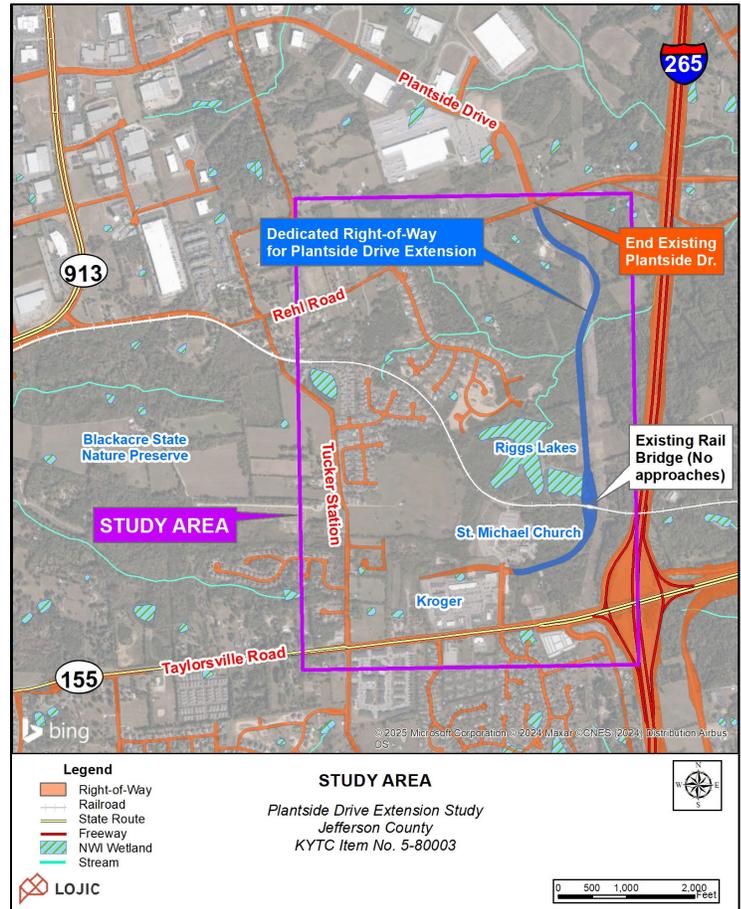


Figure ES-1: Study Area

The project is listed in *Kentucky's FY 2024 – 2030 Enacted Highway Plan* as KYTC Item Number 5-80003.00. Study goals and objectives include the following:

- Investigate the benefit of a new connection to the traveling public at large.
- Assess viability / feasibility of conceptual alternatives.
- Perform Red flag analyses of environmental, structural, and utility / right-of-way hurdles which may be encountered, as well as potential mitigation requirements.
- Engage local stakeholders on the facts, benefits, and challenges of the potential project.
- Estimate the realistic cost to complete, as well as potential schedule.

Previous studies such as the 2007 *Taylorsville Road Area / Urton Lane Study* and the 2009 *Rehl Road / I-265 Interchange Feasibility Study* have evaluated the need for transportation improvements in the study area. The extension of Plantside Drive from Tucker Station Road has been implemented in phases over many years, with the most recent segment connecting to Rehl Road opening to traffic in 2021.

DRAFT PROJECT PURPOSE AND NEED STATEMENT

Although this is a planning study, the project team developed a Draft Purpose and Need Statement to guide the development and evaluation of potential improvement concepts. The Draft Purpose and Need Statement is as follows:

Development along Bluegrass Parkway, Tucker Station Road, and existing Plantside Drive has increased traffic demand on all routes connecting to the interstate system in eastern Jefferson County, and trucks currently use roadways not designed to accommodate larger vehicles. The Purpose of the Plantside Drive Extension is to provide an alternative connection from already developed and developing areas to Taylorsville Road and I-265.

FUTURE CONDITIONS

A significant number of developments are planned or anticipated in the study area, and the project team considered each of these in assessing demand for future travel. Traffic forecasts were developed for the year 2050 based on output from the updated KIPDA Travel Demand Model. “Build” forecasts were developed to determine the traffic impacts of the proposed Plantside Drive extension concepts between Rehl Road and Taylorsville Road. Based on results from the model, a new connection could serve up to 8,000 vehicles per day (VPD) in 2050.

Extending Plantside Drive to provide a new connection to Taylorsville Road will reduce future traffic demand on the existing roadways in the study area and provide a route that is more suitable to accommodate heavy trucks. Rehl Road and Tucker Station demand is expected to be reduced by 29 percent and 36 percent, respectively, with an extension of Plantside Drive. Taylorsville Road demand west of the study area is expected to be reduced by about 13 percent.

CONCEPT DEVELOPMENT

As previously discussed, a bridge was constructed over the Norfolk Southern railroad in preparation of this extension. The bridge was built to accommodate four twelve-foot lanes of vehicular traffic with bicycle lanes and sidewalks. Initial concepts to extend Plantside Drive south of Rehl Road were developed based on past planning efforts combined with input from the project team, evaluation of existing conditions, travel demand



Figure ES-2: Existing Bridge over the Norfolk Southern Railroad



Figure ES-3: Conceptual Three-Lane Typical Section With Shared-Use Path and Sidewalk

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model analyses, and field reconnaissance. While the bridge was constructed to accommodate four travel lanes and bicycle lanes, future demand does not warrant four lanes and the intent for the corridor to serve heavy trucks would make bicycle lanes less than desirable. Therefore, the project team recommended a three-lane section with a separate shared-use path.

Two conceptual alignments were developed. Concept 1 would extend Plantside Drive from Rehl Road to Taylorsville Road utilizing the already designated right-of-way providing a three-lane cross section to the north, crossing the existing bridge, and widening to a five-lane cross section as the extension approaches Taylorsville Road via a widened Stone Lakes Drive. A curve is included south of Rehl Road with the alignment passing through the LG&E transmission line easement to minimize encroachment onto developable land. Concept 2 maintains all design aspects of the first except for removing the horizontal curve immediately south of Rehl Road.

In the initial stages of this planning study, the idea of connecting Plantside Drive to Tucker Station Road was evaluated. While only preliminary analysis of this concept was conducted as a part of this study, it was not carried forward because it did not provide a travel benefit and would directly impact the Tyler Settlement Historic District. For these reasons, a connection to Tucker Station Road was determined to not be feasible to be included as a part of this project.

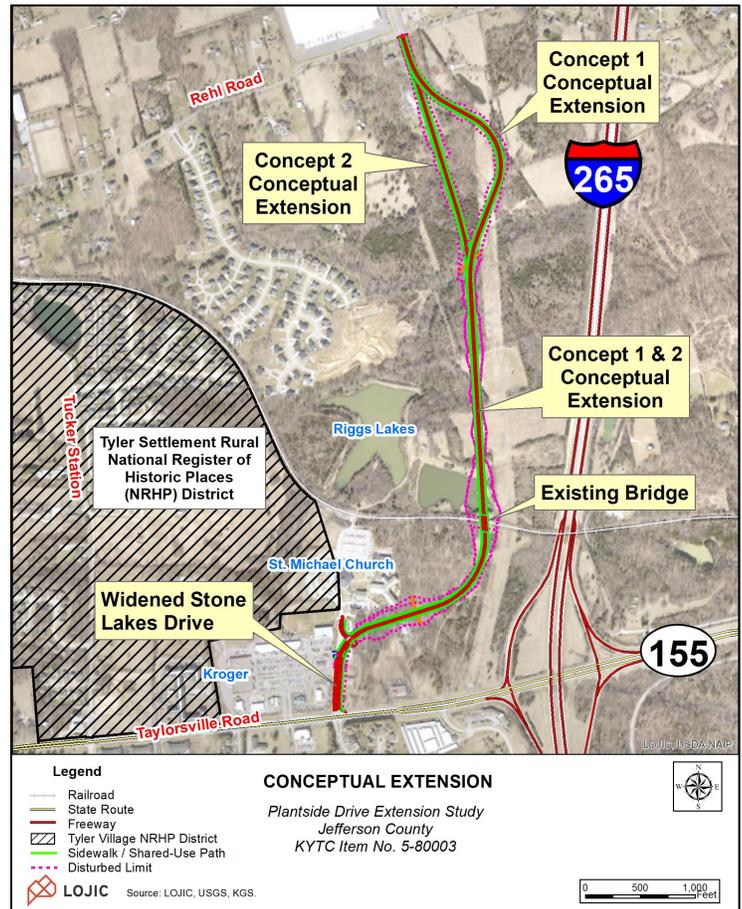


Figure ES-4: Plantside Drive Extension Concept

CONCLUSIONS

The goal of the Plantside Extension Study was to determine the feasibility of providing a new connection between already developed and developing areas to Taylorsville Road and I-265 in eastern Jefferson County. This investigation included examining traffic pattern impacts on the surrounding roadway network, identifying benefits of the extension to the commuting public, determining constraints, and updating the cost estimates needed to complete the project.

Table ES-1 provides a summary of the estimated costs by phase and the estimated project delivery timeline for each phase assuming funding is available. The right-of-way for Concept 1 has been mostly donated to Louisville Metro. Additional right-of-way acquisitions or donations would be necessary for Concept 2 to be constructed.

Table ES-1: Cost Estimate (in 2024 Dollars) and Approximate Phase Duration (Predicated on Funding Availability)

Project Phase	Approximate Phase Duration (Predicated on Funding Availability)	Concept 1	Concept 2
Design (Preliminary and Final) and Environmental	~2 Years	\$1,790,000	\$1,790,000
Right-of-Way*	~2 Years	\$200,000	\$200,000
Utilities*		\$800,000	\$800,000
Construction	~2 Years	\$24,700,000	\$24,000,000
Total	Approximately 6 Years	\$27,490,000	\$26,790,000

*Right of Way and Utility estimates were derived from funding allocated in FY 2024 Highway Plan.

Extending Plantside Drive from Rehl Road to Taylorsville Road by tying into Stone Lakes Drive would reduce large truck traffic on routes not designed to accommodate large vehicles and maintain adequate access / operations at existing intersections and businesses. This study confirmed utilizing the existing bridge over the railroad as a part of the alignment extension is feasible.

The next step following this study for any potential improvements would be Phase 1 Design (Preliminary Engineering and Environmental Analysis), should Louisville Metro wish to proceed with the project. Although funding has been allocated in the *2024-2030 Enacted Highway Plan* as a State Priority Project (SPP), there is not enough funding identified to complete the project. Funding is also necessary to advance a concept to the design phase as this phase was not included in the *2024-2030 Enacted Highway Plan*.