

Final Project Proposal

Background

In 2016, the Arkansas Department of Transportation (ARDOT) announced a project targeted at widening an 8.3 mile segment of Highway 10, an arterial road in west Little Rock. According to ARDOT, Highway 10 is one of the most heavily congested roadways in the state with traffic volumes expected to grow through 2035. The goal of this project is to reduce congestion and improve safety along Highway 10 by widening the road from five lanes to seven.

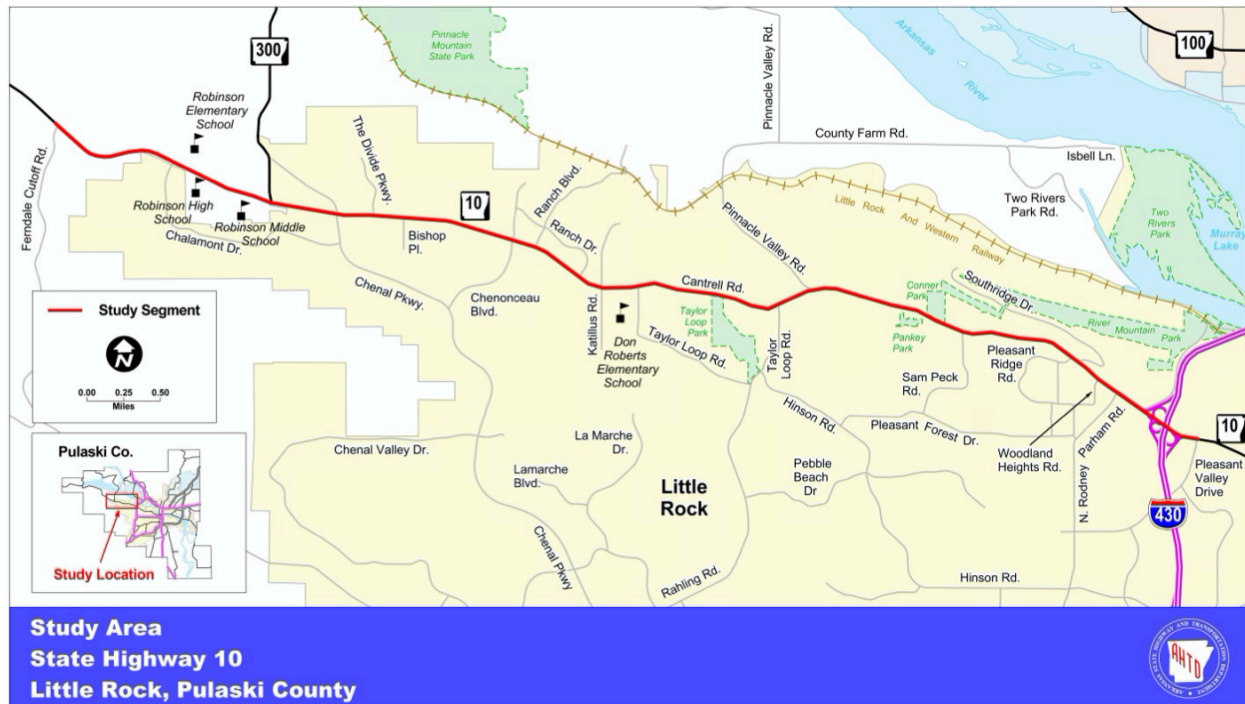


Figure 1: 2013 Highway 10 Improvement Study Area – the final project area extends from State Highway 300 to Interstate 430, Arkansas State Highway and Transportation Department

Question and context

My analysis will be related to this project and attempt to answer the question, “how will widening Highway 10 impact the people who live adjacent to the project area?” This question is important in part because Highway 10 goes directly through Pankey - a small, historic community that was founded over a century ago. Several residents of Pankey have spoken up against the project at public meetings, stating that the widened road will cut into their property

and directly harm their community.¹ ARDOT has responded to them by suggesting that they move elsewhere and offering to cover the cost of hiring professional movers.²

This question is also important because ARDOT has not thoroughly examined any potential impacts that the project may have on west Little Rock residents. In every plan and report, Highway 10 is treated as part of a larger road network that's immune to any external forces – there is no real analysis of how this project will impact the quality of life for residents. The quality of life factors that were considered were all directly related to transportation, such as reducing congestion, increasing connectedness of retail districts, and expanding bicycle networks.³ The project lacks information about people. What if expanding the roadway completely alters the demographic composition of the community? What if, despite declines in congestion-related emissions, expanding the roadway attracts new development that generates even more construction-related emissions and displaces existing residents?



Answering the question, “how will widening Highway 10 impact the people who live adjacent to the project area?” will be relevant to leaders in the Pankey community and residents of west Little Rock at large. This analysis will offer deeper insight into potential quality of life impacts, providing community leaders with supportive data and potentially encouraging ARDOT to find a better compromise.

Strategy

My overall strategy for answering this question is to complete a comparative analysis and forecast certain quality of life variables. I will start approaching the problem by collecting baseline information about the study area – land use/zoning maps, demographic data, etc., to better understand current conditions. Then, I will try to locate any local or regional plans that offer some insight into what the study area is expected to look like in the future, and collect information about historic conditions.

Ideally, I would then like to find a comparable transportation project that has already been completed and compare trends between it and Highway 10. If they are not included in any existing plans, I would also like to compare growth trends in the project area with those at the state and national level to gain a better understanding of how realistic the growth projections included in the ARDOT reports are. With regard to the comparable project, I would like to measure and compare trends for certain variables. I am particularly interested in looking at population, housing, and economic trends – so, I would be interested in comparing and forecasting property values and sales, demographic characteristics, and household incomes over time.



Target Audience

¹ “Deadline for public comment on Highway 10 ARDOT project is Monday,” KARK, December 2, 2019, <https://www.kark.com/news/top-stories/pankey-community-holds-meeting-with-ardot-to-discuss-highway-10-construction-plans/>.


² This was said during a public meeting hosted by ARDOT on November 17, 2019.

³ “Highway 10 TIGER Grant Application,” Arkansas State Highway and Transportation Department, 2016, http://www.arkansashighways.com/tiger/T2016/Hwy_10/TIGER%20hwy%2010%20-%20%20FINAL.pdf.


There are several parties who have a stake in learning from my answers to the question that I posed. From this analysis, the Arkansas Department of Transportation could gain a deeper understanding of what “quality of life” means and learn about some of the far-reaching impacts of their projects. Pankey community leaders could also glean information from this analysis that could help support their position in the civic engagement process, and potentially encourage ARDOT to formally include them in the decision making process. The answers found through this analysis would also give residents of west Little Rock at large a better understanding of what their neighborhood could and should look like in the future, and inspire them to take action now to advocate for that future or work toward creating a better one.

The neighborhoods included in the study area are fairly fragmented and have little coordination, so taking an opportunity to imagine what a collective future could look like for the broader community could empower residents and encourage them to participate in planning and political processes more often.


Limitations or assistance



One major limitation for analysis that I’m encountering is the ongoing pandemic. I’m not quite sure how to approach it or include it in my forecasts. It’s difficult to know whether the shift in trends that have emerged in the last year will continue long into the future, or whether they will return to their pre-pandemic rate with time. I wonder, now that people are commuting less, how that has impacted traffic along Highway 10. Has the pandemic alleviated a lot of the issues that were identified in 2013? Will the pandemic alter growth projections and, if so, how? There seems to be so much uncertainty at this time and I worry that my forecasts will be inaccurate. Still, I think that doing an analysis and developing forecasts from historic and existing trends will be beneficial for the community and ARDOT.



Another big limitation for my work is that I am unable to collect any new data – I cannot go to the study area and observe residents or collect responses from a survey. While I am generally familiar with the study area, I have not lived there since the Highway 10 expansion project kicked off, and I am unfamiliar with how the project has changed people’s habits or how the neighborhood has changed since ARDOT started some of its initial research. That being said, I do think there is sufficient information available online to conduct a new and meaningful analysis.



As I start to work on my project and do more background research and data analysis, I think many of the questions that I have right now will be answered. If any other questions do come up, I will be sure to let Andrew (and the class) know how they can support me in my work, or help me identify ways to access those resources that will help.