ARDOT Job 061632

HIGHWAY 5 WIDENING:

HWY. 183 – PULASKI CO. LINE (WIDENING) (BRYANT) (S)

Environmental Assessment

May 2024

U.S. Department of Transportation
Federal Highway Administration

Arkansas Department of Transportation

Hwy. 183 – Pulaski Co. Line (Widening) (Bryant) (S)

F.A.P. STPC- 9061(15)

Environmental Assessment

Submitted pursuant to:
The National Environmental Policy Act (NEPA)
42 U.S.C. §4322(2)(c) and 23 C.F.R. §771

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Submitted by:

FEDERAL HIGHWAY ADMINISTRATION

and

ARKANSAS DEPARTMENT OF TRANSPORTATION

May 13, 2024
Date of Approval

U.S. Department of Transportation
Federal Highway Administration

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In compliance with the National Environmental Policy Act, this Environmental Assessment (EA) describes the project to widen Highway 5 from Highway 183 to Alexander Road near the Pulaski/Saline County line. The analysis did not identify any significant adverse environmental impacts and identified the Build Alternative as the Preferred Alternative.

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This EA is also available for review online at:

http://www.ardot.gov/

Arkansas Department of Transportation

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Chapter 1 – Purpose and Need

What's in Chapter 1?

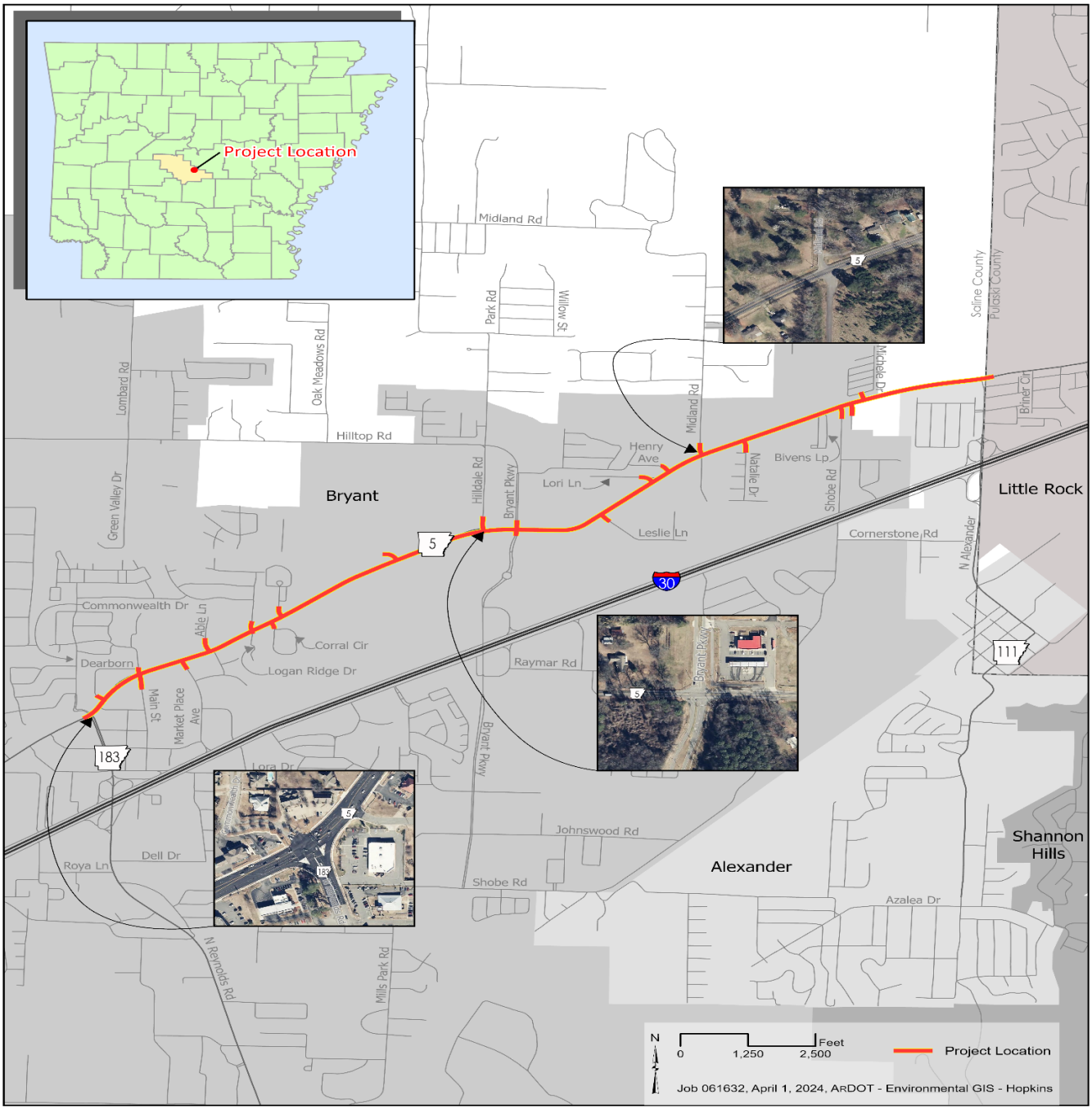
Chapter 1 explains the purpose of the project, why improvements to Highway 5 are needed, and who is leading the project.

1.1 What is the Highway 5 widening project?

The Arkansas Department of Transportation (ARDOT) *Highway 5 Corridor Improvement Study (2017*) evaluated the need for improvements to approximately seven miles of Highway 5 between Interstate 30 (I-30) in Benton, through the City of Bryant to the Pulaski/Saline County line at Alexander Road. This study recommended four travel lanes for Highway 5 along with appropriate multimodal accommodations. ARDOT job 061335 was completed in 2023 and improved Highway 5 from Alcoa Road to Highway 183. Construction of ARDOT Job 061508 is underway and will improve Highway 5 from to Alcoa Road to I-30. The proposed ARDOT Job 061632 will complete the recommended Highway 5 improvements. The Project Area can be seen in Figure 1. The *Highway 5 Corridor Improvement Study (2017)* can be found in Appendix A.

The proposed project length is approximately 3.3 miles and will widen Highway 5 to five lanes consisting of two travel lanes in each direction with a two-way left turn lane (TWLTL) from Highway 183 to the Pulaski County line. In addition, the project will construct a sidepath on the north side of the roadway and a sidewalk on the south side.

Figure 1 – Project Area



1.2 What are the current conditions on Highway 5?

Highway 5 consists of two, 11' paved travel lanes with 2' paved shoulders with no pedestrian paths between Highway 183 and the Pulaski County line. The posted speed along this segment varies from 45 to 50 miles per hour (mph).

Current traffic data reports the average daily traffic (ADT) along Highway 5 within the project limits is 14,000 vehicles per day (vpd) in 2024 and is expected to reach 17,000 vpd by 2044. The average truck percentage along Highway 5 is 1%. Although this percentage varies during the day and by location, truck traffic has minimal effect on peak hour traffic conditions.

1.3 Why does Highway 5 need to be widened?

Highway 5 is a parallel arterial to I-30, providing access to employment and commerce in Saline County, Pulaski County, and the greater central Arkansas region, and serves as the primary alternate highway route for I-30 during periods of congestion. The project is almost entirely within Bryant, a fast-growing suburb of Little Rock. According to the U.S. Census Bureau (U.S. Census Bureau, 2020), the State of Arkansas experienced a population increase of 3% between 2010 and 2020. During that same period, Bryant's population increased 24% from 16,688 to 20,663 (Table 1**)**. This rapid growth has created economic opportunity for the community, but also the need for improved transportation infrastructure.

Table 1 – Historic and Current Populations

Jurisdiction	2010	2020	% Increase
Bryant	16,688	20,663	24%
Saline County	107,118	123,416	15%
Arkansas	2,915,918	3,011,524	3%

*Data taken from official U.S. Census Bureau

The *Highway 5 Corridor Improvement Study (2017*) concludes that anticipated traffic growth is expected to result in unacceptable traffic operations at multiple signalized intersections on Highway 5 between Highway 183 and Pulaski County line during the future year morning and afternoon peak periods. With no improvements to Highway 5, traffic flow between signalized intersections would worsen as volumes exceed capacity and driveway densities increase in currently underdeveloped areas.

Traffic Analysis

Historical traffic data was used to estimate future traffic volumes within the project limits. According to the *Highway 5 Corridor Improvement Study (2017)*, truck volumes on the Interstate 30 main lanes within the study area are among some of the highest in the state. Currently, volumes on I-30 begin at approximately 70,000 vpd in the Benton area and increase to over 90,000 vpd near the Pulaski County Line. The corridor volume, which includes Highway 5, Interstate 30, and the frontage roads, ranges from approximately 90,000 vpd to 120,000 vpd. The average truck percentage ranges from 20-25 percent on the Interstate 30 main lanes. Traffic volumes on Highway 5 increase significantly during the evening peak period when vehicles divert from Interstate 30 to avoid congestion. The growth trend is expected to continue for some time into the future due to the abundant desirable land for development and the reasonable commuting distance to major employment centers.

Traffic volumes were projected to the year 2036 using growth trends in the corridor and the Central Arkansas Regional Transportation Study (CARTS) Regional Travel Demand Model. At the time this model assumed the completion of the Bryant Parkway extension north of Highway 5 to connect to Hilltop Road. A signal at the Bryant Parkway and Highway 5 intersection was assumed for study purposes. This intersection and extension are now complete.

Traffic operations along Highway 5 were analyzed in the *Highway 5 Corridor Improvement Study (2017)* using 2016 and projected 2036 traffic data to describe it in terms of level of service (LOS). LOS is a qualitative measure of how well a corridor is functioning based on such service measures as speed, travel time, freedom to maneuver and delay. For purposes of this Environmental Assessment (EA), the LOS measurements have been described on a scale from "excellent" descending to "very poor", with "fair" or greater considered acceptable in an area such as Bryant.

The Highway 5 corridor traffic operations were analyzed at major intersections along the corridor using a traffic analysis software package Synchro (Version 8). The results of this analysis during both the morning and afternoon peaks are documented in **Table 2**.

LOS Ratings take into account road and traffic conditions that affect traffic flow, such as:

- Traffic volume and speed
- Shoulder and lane width
- Percent of the daily traffic that consists of trucks, buses, or recreational vehicles
- Passing opportunities
- Number of traffic signals
- Terrain

Table 2 – Levels of Service at Intersections (No-Action)

Intersection	Synchro			
	2016		2036	
	AM	PM	AM	PM
Highway 183	Good	Very Poor	Very Poor	Very Poor
Bryant Parkway	N/A	N/A	Good	Very Poor
Midland Road	N/A	N/A	Very Good	Very Poor
Alexander Road	Very Good	Very Good	Very Good	Good

A review of forecast traffic conditions indicated that unacceptable traffic operations will occur at most signalized intersections on Highway 5 during the afternoon peak, as well as at Highway 183 during the morning peak. Traffic flow between signalized intersections would worsen as volumes approach or exceed capacity at more intersections and as driveway densities increase in currently underdeveloped areas. This issue will further worsen the congestion between Highway 183 and Bryant Parkway as residential development progresses.

Despite an increase in traffic volumes from continual population growth in the surrounding area, the Highway 5 widening would improve the majority of intersections along Highway 5 to acceptable levels currently, up to the year 2036 as seen in **Table 3**. The Alexander Road intersection is the only intersection that will remain unchanged and will remain within acceptable levels.

Table 3 – Levels of Service at Intersections (With Widening)

Intersection	Synchro			
	2016		2036	
	AM	PM	AM	PM
Highway 183	Very Good	Good	Good	Fair
Bryant Parkway	N/A	N/A	Good	Fair
Midland Road	N/A	N/A	Very Good	Good
Alexander Road	Very Good	Very Good	Very Good	Good

Safety Analysis

A recent crash analysis was conducted for Highway 5 within the project limits using 2018 through 2022 crash data and can be seen in **Figure 2**. Crash rates, computed as the number of crashes per million vehicle miles (mvm) traveled per year for total crashes and per 100 mvm per year for fatal (K) and serious injury (A) crashes, are shown in **Table 4**. The average KA crash rate between 2018 and 2022 exceeded the statewide average.

Table 4 – Crash Rates (2018 - 2022)

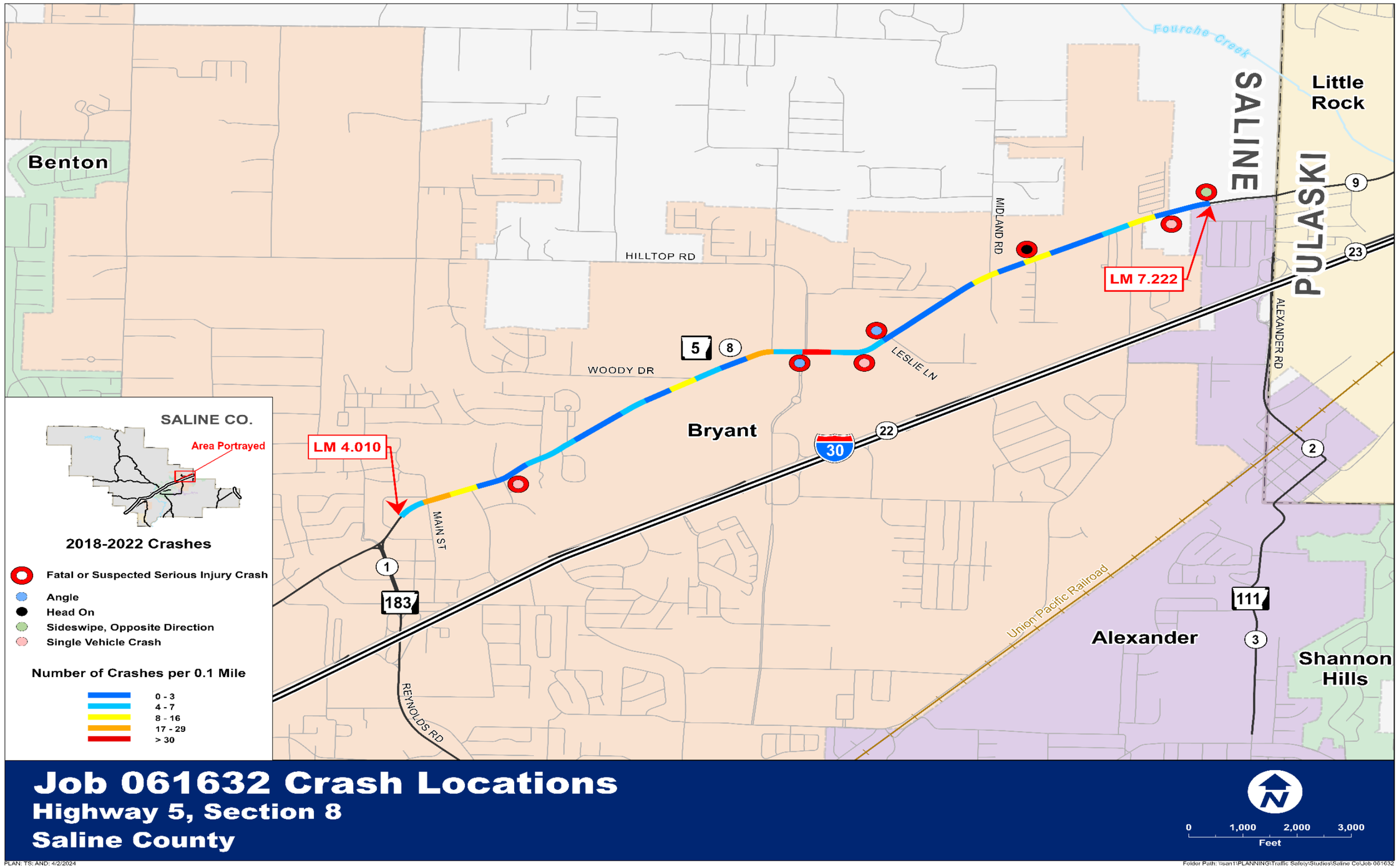
Segment	Type of Roadway (Length)	Average ADT	Number of Crashes Per Year		Crash Rate		Statewide Average Crash Rate	
			Total	KA	Total	KA	Total	KA
Hwy 183 to Alexander Road (County Line)	Urban Two-Lane Undivided (3.2 Miles)	11,500	53	2	4	11	3	10

The study area consists of two 11' travel lanes and 2' paved shoulders throughout. The distribution of crash types in the study area is shown in **Table 5**.

Table 5 – Crashes by Type (2018 - 2022)

Segment	Rear End	Angle	Single Vehicle	Sideswipe Same Direction	Sideswipe Opp. Direction	Head On	Other
Hwy 183 to Alexander Road (County Line)	103	101	41	5	8	7	0

Figure 2 – Highway 5 Crash Locations (2018-2022)



1.4 What is the purpose of this project?

The project is needed to alleviate congestion and improve safety on Highway 5, as well as increase the resiliency of the highway network. The *Highway 5 Corridor Improvement Study (2017)*, identified needed capacity improvements, particularly at the Highway 183 and Bryant Parkway intersections to alleviate heavy congestion during morning and evening commutes. The Highway 183 intersection was partially improved under ARDOT Job 061335, but the benefits of this job will not be fully realized until Highway 5 is widened to the east. The project will also provide extra capacity, including turn lanes, at Bryant Parkway. Further, traffic operations will be improved by constructing additional travel lanes and a TWLTL.

The project intends to improve safety for both motorists and pedestrians. In evaluating the improvements to motor vehicle safety, a review of crash data from 2018 to 2022 revealed that the total crash rate within the project area was 30% higher than the statewide average for similar highways. The *Highway 5 Corridor Improvement Study (2017)* notes that the vertical and horizontal alignments at several locations limit sight distance, which contributes to various crash types. The project will modernize the geometric design of Highway 5 to improve safety. While pedestrians are present along the corridor, few locations have sidewalks and there is not a connective pedestrian infrastructure. The previous Highway 5 corridor improvement jobs have constructed a connective pedestrian infrastructure, and this project will be the completion of this effort.

Highway 5 serves as a relief route for Interstate 30 during weather interruptions, crashes, and other incidents that impact traffic flow on Interstate 30. An example of this was in 2019 when Interstate 30 experienced a closure near the project area due to flooding, leaving Highway 5 as the only practicable alternative route for regional traffic. Completing the planned improvements to Highway 5 will address the need for enhanced resiliency of the regional transportation system.

1.5 What is the purpose of this Environmental Assessment?

This EA is being prepared under the *National Environmental Policy Act* (NEPA) to:

- Explain the proposed action's purpose and need.

- Describe the alternatives considered for implementing the proposed action.
- Evaluate the social, economic, and environmental effects of the alternatives.
- Inform and receive feedback from the public and decision makers about the environmental effects of the proposed alternatives.
- Determine whether effects are significant and require an Environmental Impact Statement or if the project effects can be sufficiently documented through an EA and a Finding of No Significant Impacts (FONSI).

What is NEPA?

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the potential environmental consequences for their actions, document the analysis, and provide a public involvement process prior to project implementation. Federal agencies are subject to NEPA as part of their decision-making process, as part of their own projects, by providing funding to other organizations or agencies, through regulatory or permitting processes, or through the involvement of their resources or property.

1.6 Who is leading the proposed project?

This project is led by a partnership between the Federal Highway Administration (FHWA) and ARDOT. FHWA is involved because it is funding a portion of the project and has the primary responsibility for the content and accuracy of this NEPA document.

The project is also being funded through state funds allocated by ARDOT. ARDOT is responsible for administering and maintaining the state highway system, which includes Highway 5 and associated structures. For this reason, ARDOT is a co-lead agency with FHWA.

A **Finding of No Significant Impact (FONSI)** presents the reasons why an action will not have significant environmental effects and therefore does not require preparing an Environmental Impact Statement. Based on analyses and project feedback received to date, ARDOT anticipates preparing a FONSI for this project.

Chapter 2 –Alternative Development

What's in Chapter 2?

Chapter 2 identifies the project limits and briefly describes how the alternatives were developed for this EA.

2.1 What are the project limits and how were they chosen?

Highway 5 east of the Pulaski County line (eastern project terminus) currently consist of two travel lanes in each direction and a TWLTL with sidewalks and bike lanes on each side of the roadway. This cross section continues east until the general vicinity of Otter Creek Parkway in Little Rock. In satisfying the recommended improvements in the *Highway 5 Corridor Improvement Study (2017)*, the previous two Highway 5 improvement projects (western project terminus) were constructed to mirror this cross section. This proposed project would connect these highway sections, thereby completing the Highway 5 corridor improvements. Project completion will provide Highway 5 with complete, safe, and efficient multi-modal accommodations.

2.2 What intersection improvements are proposed?

Intersection improvements are included in this project and will be as they will be designed to align with the new Highway 5 lane additions. Multiple intersections along the route may have modifications to their geometry and lane configurations to improve accessibility and site distance. These intersections could also include upgrades such as traffic signals. Particular attention will include Bryant Parkway and Midland Road as these intersections currently and are projected to experience increasing congestion with surrounding growth. Bryant Parkway is currently the only signalized intersection along the project route and improvements are planned that could include additional turn lanes.

2.3 How has the public been involved?

An initial Public Involvement (PI) meeting was held during the planning study phase on December 14, 2010, at First Pentecostal Church in Bryant. Public input on the improvement needs along the Highway 5 corridor were discussed. Ninety-nine people were in attendance. Twenty-seven comment forms were received, and one set of comments was submitted by e-mail. In total eighty-nine percent of the respondents replied that they feel there is a need to widen Highway 5 through the

study area and eighty-five percent agreed the project would have beneficial impacts to their property and/or community.

A Virtual Public Involvement (VPI) meeting was conducted in July 2021 for the 061632 project and was well attended. A total of fifty-four participants, seven hundred thirty-eight website views, and seventy-seven comments were received. The proposed project generated a wide range of comments and ideas.

An additional PI meeting was held in-person on November 30, 2023, for the proposed project at the First Baptist Church of Bryant. This meeting was necessary as enough time had passed since the 2021 VPI and the addition of the sidepath into the design warranted another PI meeting. A total of one hundred and thirty-nine people were in attendance, five hundred and eighty viewed the website, and forty-five comments were received. Of the forty-five comments received, twenty respondents agreed while three disagreed there is a need for the project. When asked what impacts the proposed project will have, fifty-five percent responded beneficial while forty-five percent responded adverse. The comment most respondents included was the need to add turning lanes, roundabouts, or traffic signals at several intersections along Highway 5 including Bryant Parkway, Market Place Avenue, Main Street, Lowery Lane, and Midland Road. The VPI and PI Synopsis reports are located in **Appendix B**.

A Location and Design Public Hearing will be held once final plans have been approved and the EA is ready for public review.

2.4 How have tribal governments been involved?

Section 106 of the *National Historic Preservation Act* requires federal agencies to consult with tribes where projects could affect tribal areas with historical or cultural significance. FHWA initiated coordination with the Caddo Nation, the United Keetoowah Band of Cherokee Indians in Oklahoma, the Osage Nation, Quapaw Nation, the Shawnee Tribe, Mississippi Band of Choctaw Indians, Tunica-Biloxi Tribe of Louisiana, Inc., and the Choctaw Nation of Oklahoma since these tribes have an active cultural interest in the area. If requested, a final Phase I archeological survey for the proposed project would be provided. The Tribal Historic Preservation Officer for each tribe was given the opportunity to comment on the proposed project. At this time, only the Quapaw Nation and the Osage Nation have responded to the project notification.

2.5 What alternatives were evaluated for this project?

Two alternatives were considered for this project: The No Action Alternative and one Build Alternative.

No Action Alternative

The No Action Alternative would not provide changes to the existing roadway network and would still require routine maintenance to be completed. The No Action Alternative does not meet the project's purpose and need of improving current and forecasted traffic flow, correcting safety concerns, and improving the resiliency of the regional transportation system by serving as an adequate relief route for I-30. Considering these limitations, the No Action Alternative will be considered in this Environmental Assessment as a baseline comparison of impacts against Build Alternative.

Why would you consider a No Action Alternative?

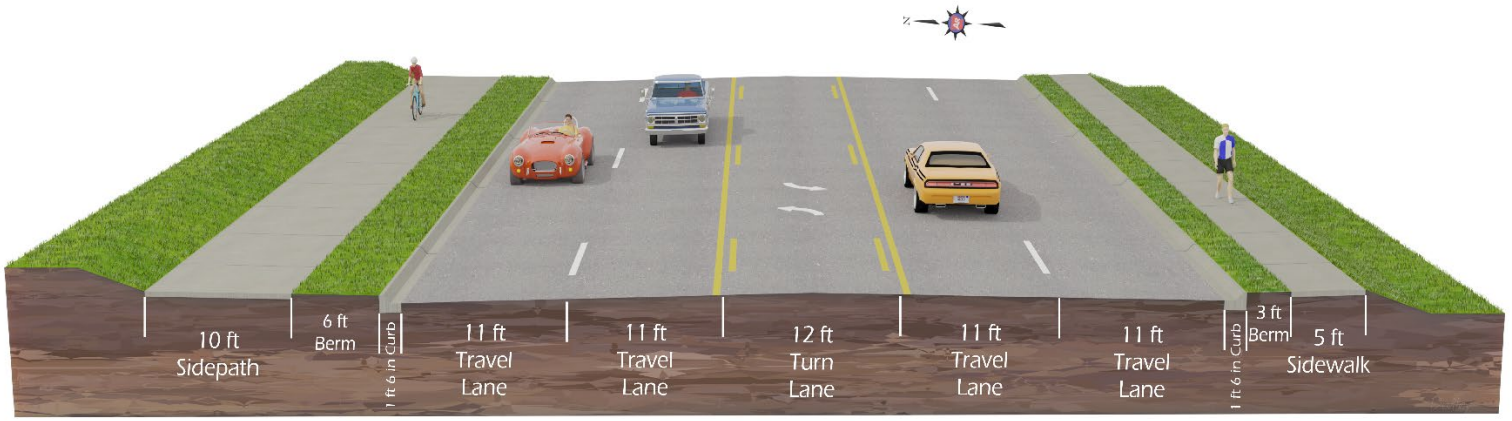
The National Environmental Policy Act (NEPA) requires decision makers to consider a "no action" alternative in all NEPA studies. This alternative usually does not meet the project's purpose and need, but is used to compare the beneficial and adverse impacts of "action" alternatives and determine their significance.

Build Alternative

The Build Alternative would provide one type of cross-section along Highway 5 **Figure 3**. This would consist of four 11' travel lanes, a 12' TWLTL, with curb and gutter. In addition, a 3' grass berm and 5' sidewalk would be installed on the south side of the highway and a 6' grass berm and a 10' sidepath would be installed along the north side of Highway 5. Pedestrians and cyclist could use the sidepath concurrently while at a safe distance from motorist on the highway. Design speed for the job is 45 mph throughout, giving a consistent speed to a route which currently fluctuates between 40 – 50 mph. Left-turning vehicles would be in the TWLTL and outside the traveled way, reducing delay and chances for crashes. Minor realignments at several locations would improve both horizontal and vertical geometrics, while others would reduce construction impacts to the businesses located along the route.

The Build Alternative would increase highway capacity, improve safety, reduce delays, and provide greater connectivity to an area experiencing exceptional population growth. Additionally, this improvement will enhance resiliency of the regional transportation system by providing a robust relief route for I-30.

Figure 3 – Typical Cross Section – Build Alternative



Job 061632
Typical Section

ARDOT - Environmental GIS - Dudley - October 12, 2023

Chapter 3 – Project Impacts

What's in Chapter 3?

Chapter 3 identifies impacts that are expected as a result of the proposed project. Only elements that would be affected by the project are discussed. The impact areas discussed in Chapter 3 are summarized in Table 10 at the end of the Chapter 4.

3.1 How would the project affect traffic and safety?

How would traffic patterns and volumes on Highway 5 and intersecting roads change with the project?

Normal traffic patterns would not change with the construction of the Build Alternative. Widening Highway 5 may result in land use changes as development continues along the corridor, but forecasted traffic growth considers future growth in the project area.

The No Action Alternative would result in increasingly congested traffic flows and higher crash rates as traffic volumes increase over the 20-year study period.

How would the project affect safety?

The Build Alternative would result in improved safety with the widening of travel lanes, introduction of a TWLTL, intersection improvements along the route, geometric changes, and providing one consistent design speed.

The Build Alternative would also address the existing safety concerns for pedestrians as many attempt to traverse the corridor without pedestrian infrastructure. The construction of the sidepath and sidewalks separated from the road by grass berms would provide improved safety for cyclist and pedestrians.

The No Action Alternative would not address any of the safety hazards such as reducing the crash rates at intersections and providing pedestrians travel infrastructure.

How much traffic congestion would be caused by construction?

While Highway 5 traffic would likely experience minor delays during the construction of the Build Alternative, traffic would be maintained in both directions during construction. Because the Build Alternative involves construction of additional lanes, traffic can be shifted to either side of the highway throughout construction.

The No Action Alternative would only involve periodic highway maintenance and not result in any major traffic delays.

3.2 How much would the proposed project cost?

Total project cost is estimated at $75.5 million. A Build Alternative cost breakdown can be seen in **Table 6**. The No Action Alternative would not result in any construction and would only involve routine maintenance.

Table 6 – Build Alternative Estimated Cost

Project Task	Estimated Amount
Construction	$52.4 million
ROW	$18.5 million
Utility	$4.6 million
Total	**$75.5 million**

*ROW cost includes acquisition and relocation

3.3 How would economic and social conditions in the surrounding areas be affected?

Based on a conceptual stage relocation study, the Build Alternative would require a total of 26 relocations. These relocations consist of five residential owners, four residential tenants, seven business tenants, and ten business landlord owners. The conceptual stage relocation study is provided in **Appendix C**. The study determined suitable locations could be found for all relocations. Estimated right of way costs can be found in **Table 6**.

The No Action Alternative would not require any relocations.

The geographic area considered for analysis of existing social and economic conditions consist of the City of Bryant. The relocation of these

What is a relocation?

Relocations occur when a residence, business, or non-profit is impacted severely enough by a proposed project that they cannot continue to live or do business at their current location. This is usually due to the proposed right of way limits requiring acquisition of a structure (house or business), taking most of a business's parking, or severing access to the property.

businesses would negatively affect the local economy due to permanent and/or temporary loss of jobs and income, but wouldn't negatively affect the overall economic conditions of the City of Bryant.

According to the U.S. Census Bureau, there has been a 24% population increase in Bryant from 2010 to 2020. This population growth is well above the state average of 3% for the same time period. To maintain adequate traffic flow and safety with this exceptional population growth, there is a need for an improved highway. This highway improvement would increase volume capacity while making intersections safer which will facilitate accessibility of businesses, communities, and services. This would have direct positive impacts to the social environment by providing the community with enhanced circulation and accessibility for local citizens and travelers alike.

3.4 Would the project impact any environmental justice populations?

Environmental justice refers to social equity in bearing the burden of adverse environmental impacts. In the past, minorities and low-income populations have experienced disproportionate impacts caused by the construction of transportation projects. In response to this concern, an Executive Order (E.O.) 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations was issued by President Bill Clinton in 1994. Among other things, it directed that: "Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations" (E.O. 12898). Projects involving a federal action (funding, permit, or land) must comply with E.O. 12898. FHWA Order 6640.23A is a FHWA directive establishing policies and procedures for the FHWA to use in complying with E.O. 12898. Compliance with FHWA Order 6640.23A is a key element in the environmental justice strategy adopted by FHWA to implement E.O. 12898 and can be achieved within the framework of existing laws, regulations, and guidance.

What is Environmental Justice and Title VI?

An Environmental Justice evaluation determines whether low-income or minority populations would suffer disproportionately high and adverse effects from an action. Title VI of the Civil Rights Act of 1964 (Title VI) prohibits discrimination on the basis of race, color, sex, national origin, religion or disability under any program or activity receiving Federal financial assistance.

The environmental justice evaluation determines whether low-income or minority populations would suffer disproportionately high and adverse effects of an action. Low income is defined based on the Department of Health and Human Services (DHHS) 2024 poverty guidelines, which is $31,200 for a family of four (4). Data gathered from

the U.S. Census Bureau (2022) found that 7.8 percent of the population of the City of Bryant lives below the poverty level. The median household income in the city of Bryant stands at $76,282 which is higher than the Poverty guidelines published by the DHHS.

The No-Action Alternative consists of no improvements being made to the existing Highway 5 while sustaining routine maintenance. There would be no impacts to residents, tenants, and business owners. It would not sever any subdivisions, disrupt community services or facilities, nor impact environmental justice or Title VI populations.

The Conceptual Stage Relocation Study **Appendix C** did not identify any Title VI or environmental justice populations being impacted or relocated; however, field observations and relocation interviews revealed that there are minority and/or low-income populations residing within the project area being impacted. EJ Screen Data also revealed a high number of EJ/Title VI populations in the area. Elderly populations are protected under the umbrella of Title VI. Of the twenty-six proposed relocatees, five relocatees are of the EJ/Title VI populations. While some impacts will affect EJ/Title VI populations, the proportion of that population impacted does not exceed the relative proportion of EJ/Title VI population within the project area (**Tables 7 & 8**). Based on the above discussion, no disproportionately high and adverse effects to EJ/Title VI populations or other special consideration groups are anticipated in accordance with the provisions of EO 12898 and FHWA Order 6640.23A. No further EJ analysis is required.

Table 7 - Environmental Justice & Title VI Relocation Impacts

Potential Relocation Populations	Number of Potential Relocations	EJ Proportion of Relocations
Total Relocations	26	
Environmental Justice	4	15%
Elderly	1	4%
Non-Environmental Justice	21	81%

Input from the community and relocatees was obtained at public meetings and relocation interviews. Individual meetings were held with all potentially affected property owners/tenants to inform them of the right of way processes. These meetings were conducted to support

ARDOT and NEPA public involvement goals. Adequate replacement housing will be made available to all displaced persons in accordance with the Uniform Relocation and Real Property Acquisition Policy Act.

Table 8 - Environmental Justice Screening Data

Demographics	Project Corridor	Saline County	City of Bryant
Minority Populations (EJ)	42%	14%	24%
Low-Income Populations (EJ)	53%	10%	8%
Elderly Population	8%	19%	14%

3.5 Would the project have community impacts?

Community impacts are defined as consequences of public or private actions that alter a community's facilities, services, cohesion, character, stability, or public safety. To assess community impacts an inventory of resources, such as emergency services, nursing homes, places of worship, etc. were gathered as an indicator of community interactions and connections. An overview of the types of community facilities in the project area are provided below along with the approximate number of each type of facility.

- Churches/Places of Worship – Five places of worship are located within the project area. None will be impacted by the Build Alternative.
- Nursing/Retirement Homes – Three nursing homes/rehabilitation centers are located within the project area. None will be impacted by the Build Alternative.
- School – One school is located within the project area. None will be impacted by the Build Alternative.

No community impacts would be impacted by the No-Action Alternative.

3.6 How would the project affect how land is used in the area?

The project is located mostly within the Tertiary Uplands of the South Central Plains Ecoregion. This rolling plain region is dominated by commercial pine plantations that have replaced the once abundant native oak-hickory-pine forest. It is underlain by poorly-consolidated Tertiary sand silt, and gravel; although it lacks the Cretaceous often calcareous rocks of the similar ecoregions surrounding it. Waters tend

to be stained by organic vegetation, thus lowering water clarity. Most streams have sandy substrate with a forest canopy, but many may not flow during the summer or fall; however, some spring-fed perennial streams do occur (Ecoregions of Arkansas, 2004).

The existing land use in the project area was evaluated using on-site visual evaluation and satellite imagery. It was determined current land use along the project consists primarily of commercial businesses and residential housing with small remaining sections of undeveloped forest land along the route. This area is experiencing dramatic growth and any remaining undeveloped land would most likely be converted into either commercial development or a residential subdivision. This is especially true with the Bryant Parkway connection of I-30 to Highway 5 and Bryant Parkway's continued connection to additional housing development north of the project corridor. The total project would require approximately 30.3 acres of new ROW and 7.7 acres of temporary construction easement.

The No Action Alternative would not result in any land use impacts in and around the project area. Although the No Action Alternative would not encourage additional development, development is continuing at a rapid pace in and around the project area. Right of way acreages and relocation counts are based on the latest design plans, and both are subject to change if design alterations occur as a result of comments received at the Location and Design Public Hearing.

3.7 How would the project affect cultural resources?

Section 106 of the *National Historic Preservation Act* requires agencies to consider the effects of federal actions to cultural resources. In compliance with Section 106 requirements, ARDOT cultural resource specialists consulted with the State Historic Preservation Officer (SHPO) and Native American tribes.

Prior to the archeological surveys, FHWA initiated consultation with the appropriate Native American tribes.

Photographic documentation, detailed description, and a history of 27 properties along the project corridor were submitted in an Architectural Resources Survey (ARS) to the SHPO with their eligibility recommendations for inclusion in the National Register of Historic Places (NRHP). The SHPO concurred that one property was listed in the NRHP, and the remaining properties were not eligible for the NRHP.

What is a historic property?

Cultural resources include elements of the built environment (buildings, structures, or objects) or evidence of past human activity (archeological sites). Those that are listed on or eligible for inclusion in the National Register of Historic Places are defined as historic properties.

During the archeological survey, two previously recorded sites were revisited, and three new sites were identified. Three sites are historic era cemeteries that ARDOT recommended avoidance and no impacts will occur. One site was previously destroyed by commercial construction, and one site was recommended not eligible for inclusion in the NRHP. ARDOT's report determined that no impact would occur to the NRHP listed property and avoidance of a historic marker would occur during construction; thus, no historic properties would be affected by this project. The SHPO reviewed the report and concurred that there will be no adverse effect to historic properties as a result of the Build Alternative.

The No Action Alternative would have no adverse effects to cultural resources.

A **decibel** (abbreviated as dBA for human hearing perception) is the unit used to measure the loudness of sounds. Some common sounds and their dBA levels include:

Whisper – 15

Normal conversation – 60

Noisy restaurant – 80

Chainsaw – 110

3.8 Would the project affect noise levels?

The proposed improvements meet the FHWA noise regulation and ARDOT noise policy criteria for projects requiring a noise study. Noise level predictions using the FHWA Traffic Noise Model 2.5 software indicated that approximately 31 noise sensitive receptors would experience noise impacts of 66 decibels (dBA) or higher under the Build Alternative. Approximately 17 of these receptors were also predicted to experience noise impacts under both existing and No Action conditions, indicating that Build Alternative construction would result in approximately 14 additional noise impacts. Except for a subdivision near the western project termini, noise barrier construction would not be feasible from an engineering perspective due to the need for driveway and intersection access along the project corridor. A detailed noise analysis will be completed for the subdivision. **Appendix D** provides the noise assessment report prepared for the proposed project.

Noise sensitive receptors include residences and public places that have a special sensitivity to noise, such as schools, churches, and parks.

Highway construction typically increases noise levels. These increases would be temporary and minor and not constitute noise impacts as defined by FHWA noise regulation and ARDOT noise policy.

The No Action Alternative would not result in noise level changes.

3.9 How would the project area's visual quality be affected?

Increased roadway widths and the addition of sidepaths and sidewalks with the Build Alternative would alter the appearance of the existing roadway for travelers along the road and for residents and businesses (referred to as project "neighbors"). The realignment of intersections, as

well as the removal of existing businesses, some residences, and some trees and other vegetation would alter visual resources along the project corridor. Existing residences and commercial buildings would be in closer proximity to the roadway.

Project visual resources would not detract from the area's overall existing visual character. Local planning and development guidelines would be taken into consideration to ensure compatibility. For these reasons, overall visual quality impacts are likely to be beneficial, particularly for travelers. Impacts may also be beneficial for business neighbors, which may benefit from increased visibility to travelers. However, impacts may be adverse for residential neighbors for whom views of the roadway would become more prominent.

Project construction would result in some vegetation clearing and the short-term presence of construction vehicles and equipment, temporarily altering the area's visual character. Impacts in roadside cleared areas would be minor and short-term until new vegetation becomes established.

Adverse impacts to overall visual quality are not expected as a result of the Build Alternative or No-Action Alternative. A visual impact assessment technical memorandum (including a scoping questionnaire and visual impact definitions) are provided in **Appendix E**.

Visual resources include features such as roadway elements like cross sections and construction materials; buildings and other manmade structures; and vegetation.

Project viewers include **travelers** (drivers, bicyclists, and pedestrians) with views *from* the road and **neighbors** with views *to* the road.

Visual quality impacts are determined by predicting viewer responses to changes in the project area's visual resources.

3.10 Would any hazardous materials be created or affected?

A visual assessment and database search were performed to determine if any hazardous materials were located in the project area. Three underground storage tanks (USTs) were identified at Circle K located at 7701 Highway 5. Design plans indicate that the building and canopy will not be impacted the under Build Alternative. This location was formerly the Brooks BP fuel station that had all five of its USTs removed. Additionally, multiple USTs were identify at the second Circle K fuel station at the corner of Highway 5 and Alexander Road. The design will not impact the canopy or USTs. The pumps, fuel lines, and tanks at these fuel stations will not be impacted by the Build Alternative.

The No Action Alternative would not impact any hazardous materials sites. Neither of the alternatives would involve the creation of hazardous materials.

What are hazardous materials?

A hazardous material is any item or chemical that can cause harm to people, plants, or animals when released into the environment.

If hazardous materials are identified, observed or accidentally uncovered by any ARDOT personnel, contracting company(s), or state regulating agency, it would be ARDOT's responsibility to determine the type, size and extent of contamination. ARDOT would identify the type of contaminant, develop a remediation plan and coordinate disposal methods to be employed for the particular type of contamination. All remediation work would be conducted in conformance with the Arkansas Department of Energy and Environment (ADEE), Environmental Protection Agency (EPA), and Occupational Safety and Health Administration (OSHA) regulations.

An asbestos survey by a certified asbestos inspector will be conducted on each building identified for demolition. If the survey detects the presence of any asbestos-containing materials, plans will be developed for the safe removal of these materials prior to demolition. All asbestos abatement work will conducted in accordance with ADEE, EPA, and OSHA asbestos abatement regulations.

3.11 Would any important farmland be impacted by the project?

The Build Alternative would not impact any important farmland as the project is within city limits; therefore, no proposed ROW qualifies as Important Farmland.

The No Action Alternative would not impact any Important Farmland.

What is Important Farmland?

Important Farmland consist of Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance as defined by the Natural Resources Conservation Service

3.12 How would surface water resources, such as streams, be affected?

This Build Alternative will impact three separate jurisdictional tributaries of Crooked Creek. Total stream impacts would be approximately 720 linear feet. Since total impacts to waters of the United States will be less than 0.1 acre, construction should be allowed under the terms of a Section 404 Nationwide Permit 14 for Linear Transportation Projects as defined in Federal Register 86 (245): 73522-73583. A pre-construction notification is not required.

There are no Wild & Scenic rivers, High Quality Waterbodies, nor Outstanding Resource Waters identified within the project area. A review of Section 303(d) impaired waters determined no impaired waters or any assigned a Total Maximum Daily Load lie within the project area. No impacts are anticipated under the Build Alternative.

Land disturbance associated with construction of the Build Alternative would increase the potential for stormwater to mingle with exposed soil

What is a tributary?

Tributary means a river, stream, or similar naturally occurring surface water channel that contributes surface water flow to a navigable water in a typical year either directly or through one or more of these

and discharge sediment laden runoff to leave the construction site and/or enter the adjacent streams. Minimization of water quality impacts would be attained through multiple means. All activities would comply with any required permits such as a Clean Water Act (CWA) Section 402 NPDES permit issued by the ADEE for the discharge of stormwater related to construction activities. Construction and extension of culverts would temporarily increase turbidity in the waterbodies and would require a Short Term Activity Authorization issued by ADEE. Avoidance and minimization efforts would include adhering to the Stormwater Pollution Prevention Plan Special Provision (SP). Best management practices to reduce exposed soils and the migration of sediment off the job site will be utilized such as perimeter control, check dams, and inlet protection. The *ARDOT 2016 Erosion and Sediment Control Design and Construction Manual* outlines many of the various Best Management Practices used to prevent erosion and control sediment.

The No Action Alternative will result in no impacts to streams or water resources in the project area.

3.13 Would any wetlands be impacted by the project?

There are no wetlands within the project area; therefore, neither the No Action Alternative nor Build Alternative will impact any wetlands.

3.14 Would any protected species be impacted by the project?

The official species lists obtained through the US Fish and Wildlife Service's (USFWS) Information for Planning and Consultation identified the following species as potentially occurring within the project area: Northern long-eared bat (*Myotis septentrionalis*), Tricolored Bat (*Perimyotis subflavus*), Eastern Black Rail (*Laterallus jamicensis*), Piping Plover (*Charadrius melodus*), Rufa Red Knot (*Calidris canutus rufa*) Alligator Snapping Turtle (*Macrochelys temminckii*) and monarch butterfly (*Danaus plexippus*) as federally listed species potentially occurring within the project area. Due to a lack of habitat and distance to known occurrences of the listed species, it has been determined that the proposed project will have "no effect" on the federally listed species.

What is the difference between threatened and endangered species?

An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. Endangered species receive the highest level of protection. A threatened species is one that is likely to become endangered in the near future.

The Alligator Snapping Turtle is currently a proposed threatened species; the Tricolored Bat is a proposed endangered species, and the Monarch Butterfly is a candidate species; however, the proposed project will not jeopardize the continued existence of these species.

The No Action Alternative would not affect endangered species.

A record check of the Arkansas Natural Heritage Commission (ANHC) database of sensitive species indicated that no tracked species are known to occur within the project area. The ANHC tracks federally designated threatened or endangered species, as well as those that are considered sensitive species within Arkansas.

The Build Alternative will involve changes to existing structures such as culverts where migratory birds frequently nest. To reduce impacts on any migratory birds that may be present in the project area at the time of construction, a Nesting Sites of Migratory Birds Special Provision will be included in the project contract.

The No Action Alternative will not impact any migratory bird habitat.

3.15 Will public/private wellheads be impacted?

There are no public water supply sources, neither wells nor surface water supplies, in the project area; therefore, no impacts to public drinking water supplies will occur under the Build Alternative.

If any permanent impacts to private drinking water sources occur due to this project, the ARDOT will take appropriate action to mitigate these impacts. Impacts to private water sources due to contractor neglect or misconduct are the responsibility of the contractor.

The No Action Alternative would not affect any public or private wellheads nor water supplies.

3.16 Will floodplain impacts be affected by the project?

The project was reviewed to identify any encroachments into special flood hazard areas (SFHA's), also known as the 100-year floodplain, as shown on the Flood Insurance Rate Maps issued by the Federal Emergency Management Agency. The Build Alternative will impact a minor amount of SFHA Zone AE with TCE for the construction of driveways. The project will be designed not to increase the flood risk to adjacent properties than existed before construction of the project.

The No Action Alternative would not affect any floodplains or SFHA's within the project area.

What is a floodplain?

Floodplains are land areas that become covered by water in a flood event. 100-year floodplains are areas that would be covered by a flood event that has a 1% chance of occurring (or being exceeded) each year, also known as a 100-year flood. This is the floodplain commonly used for insurance and regulatory purposes.

3.17 Air Quality

The purpose of this project is to alleviate congestion and improve safety, as well as increase the resiliency of the highway network by widening

Highway 5, improving intersections, and providing pedestrian mobility. The Build Alternative has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special mobile source air toxic (MSAT) concerns. As such, this Build Alternative will not result in significant changes to traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the No Action Alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES3 model forecasts a combined reduction of over 76 percent in the total annual emissions rate for the priority MSAT from 2020 to 2060, while vehicle miles of travel are projected to increase by 31 percent (FHWA, 2023). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

Neither alternative is anticipated to have significant air quality impacts.

3.18 Would there be any climate change or greenhouse gas impacts?

The scientific community has established that the rising global atmospheric greenhouse gas concentrations are substantially affecting Earth's climate, and the dramatic increases in greenhouse gas concentrations since 1750 have been caused by human activities, including the use of fossil fuels (IPCC, 2021). Greenhouse gases trap heat in the atmosphere, referred to as a "greenhouse effect" because of the similarity to heat-trapping methods of a greenhouse. These gases include carbon dioxide, methane, nitrous oxide, and fluorinated gases such as hydrofluorocarbons. Carbon dioxide emissions and 28 percent of overall greenhouse gas emissions can be attributed to transportation, the vast majority of which is due to motor vehicle emissions (EPA, 2021).

Carbon dioxide equivalency is a unit of measure used to compare emissions of greenhouse gases. The EPA calculations for carbon dioxide equivalency were generated using the existing and forecasted traffic volumes, as seen in **Table 9**. Vehicle congestion could not be accounted for in the EPA calculator only the vpd, but there would be additional carbon dioxide emissions generated in 2044 due to congestion.

Traffic volumes are projected to increase slightly with the Build Alternative. The current traffic volume for 2024 is 14,000 vpd and that is estimated to grow to 17,000 vpd for 2044. Even with increased traffic volumes, additional travel lanes would greatly decrease congestion, thus the Build Alternative would decrease the greenhouse gas emissions.

Table 9 – Carbon Dioxide Equivalency (2024 & 2044)

Year	Avg. Daily Traffic	Fossil Fuels Consumed	Carbon Dioxide Equivalency	Forest Required to Offset Carbon Dioxide Emissions
2024	14,000 vpd	741,100 gal	6,607 metric tons	7,702 acres
2044	17,000 vpd	528,411 gal	7,994 metric tons	9,344 acres

(EPA Greenhouse Gas Equivalencies Calculator)

Traffic volumes are expected to increase in the project area as Saline County continues to see population growth. The No Action Alternative would likely lead to increased congestion and travel times which would increase greenhouse gas emissions from motor vehicles attributable to Highway 5 (TAMU, 2021).

Neither alternative would result in significant contributions to greenhouse gas emissions or climate change.

3.19 Would the project have any indirect effects?

Indirect effects are reasonably foreseeable effects that may be caused by the project, but would occur in the future or outside of the project area.

Encroachment-Alteration Effects

Encroachment-alteration effects are physical, chemical, or biological changes in the environment that occur as a result of the project, but are removed in time or distance from the direct effects. Impacts to water quality that occur as a result of the project, but are then distributed off-site as water moves downstream beyond the project area, are the primary encroachment-alteration effect for this project. These impacts are discussed in **Section 3.12.**

Induced-Growth Effects

Changes in the pattern of land use, growth patterns, population density, or growth rate due to the construction of a highway project also may occur, and the resulting induced development can impact sensitive

resources. This is another type of indirect effect that is categorized as induced-growth effects.

As previously mentioned, there are few remaining areas of undisturbed forest. The Build Alternative will accelerate the development of these areas with the improved roadway providing a better corridor for travelers and an appealing area for commercial businesses.

The No Action Alternative involves no work other than regular maintenance and would not result in any indirect effects other than worsening traffic flow and safety concerns as traffic volumes increase over the 20-year planning period.

Neither the No Action Alternative nor the Build Alternative is expected to result in significant indirect impacts on any natural, cultural, or social resources.

3.20 Would the project have any cumulative impacts?

Cumulative impacts result from the total effects of a proposed project when added to other past, present, and reasonably foreseeable future projects or actions. Cumulative impacts include the direct and indirect impacts of a project together with the reasonable foreseeable future actions of others: e.g., other federal, state, and local governments, non-governmental organizations, and private entities. The direct impacts that result from an action may be undetectable but can add to other disturbances and eventually lead to a measurable environmental change. Cumulative effects are studied so that the public, decision makers, and project proponents take the time to consider the "big picture" effects a project could have on the community and environment. For any given resource, a cumulative impact would only potentially exist if the resource were also directly or indirectly impacted by the proposed project.

ARDOT jobs in the area include the recent improvements to Highway 5 adjacent to the proposed project. These would include ARDOT job 061335 from Highway 183 to Alcoa Road that was recently completed and ARDOT job 061508 that is under construction from Alcoa Road to I-30.

Subdivisions have recently been constructed or expanded at Lombard Road; Oak Glenn Subdivision; Creekside Drive; Stoney Brook Drive; and Logan Ridge Drive. Two Circle K fuel stations were recently constructed along Highway 5 with Aria Oil fuel station currently under construction.

The Parkway Elementary School; a sports training facility; storage units; and Marketplace Commercial Development with numerous businesses have recently been constructed on Highway 5. A pediatric therapy center named The Farm and Landmark Lifestyles, an assisted living center, are under construction on Highway 5.

There are planned developments for Diamond Estates Subdivision north of Highway 5 along the east of Midland Road. In addition, across the highway from this subdivision Stone Luxury Living Subdivision is planned to be constructed.

Water Resources

The nearby ARDOT projects west of the proposed Highway 5 project are listed above. These recent construction projects combined with the Build Alternative, would impact up to 1,241 linear feet of streams in the area. Other projects by local government and private developers could further impact streams in the area.

The No Action Alternative would not result in any cumulative effects.

Threatened and Endangered Species

The continued loss and fracturing of habitats in the project area due to ongoing construction could impact threatened and endangered species. Much of the area that has been developed over the last six years, described above, was undeveloped pastureland and forest.

Any mitigation previously offered for suitable habitat that was converted to highway ROW attributed to former ARDOT projects helped offset the impacts to some endangered species that were likely impacted by those construction projects. The Build Alternative will require no habitat mitigation for threatened and endangered species.

Any mitigation offered for suitable habitat that was and would be converted to highway ROW attributed to the ARDOT projects, including the Build Alternative, would help offset the impacts to some endangered species that were likely to be impacted by construction in the area.

Land Use

The Highway 5 Build Alternative would require 30.3 acres of new ROW. The two other Highway 5 projects to the west have converted approximately 34.3 acres of undeveloped land to highway ROW.

Recent private developments have concerted approximately 175 acres. The two proposed developments would convert more development land to medium to high density residential areas.

While the city of Bryant continues to experience substantial growth, there is still areas of undeveloped land in the area and much of the development continues to occur independent of the Highway 5 improvement projects. Reasonably foreseeable significant cumulative impacts to land use are not anticipated.

Chapter 4 – Recommendations

What's in Chapter 4?

Chapter 4 contains the results and conclusions of this Environmental Assessment.

4.1 What are the results of this EA?

The environmental analysis of the proposed project did not identify any significant impacts to the natural, cultural, or social environment as a result of either alternative. A summary of the impacts associated with the alternatives can be found in **Table 10**. The Build Alternative has been identified as the Preferred Alternative because it meets the project's purpose and need while minimizing impacts to the natural, cultural, and social environment.

4.2 Is the NEPA process finished?

After this EA is signed by the FHWA and approved for public dissemination, a Location and Design Public Hearing will be held.

After a review of comments received from citizens, public officials, and public agencies, a FONSI document will be prepared by the ARDOT and submitted to the FHWA. Approval of the FONSI by the FHWA will identify the Selected Alternative and conclude the NEPA process.

Table 10 – Alternative Impact Summary

Resource Category	No Action Alternative	Build Alternative
Engineering		
ROW Required	0 acre	30.3 acres
Construction Cost	$0	$52.4 million
ROW Cost*	$0	$18.5 million
Utility Relocation Cost	$0	$4.6 million
Total Cost	$0	$75.5 million
Relocations		
Total Relocations	0	26
Natural Resources		
Streams	0 linear feet	720 linear feet
Floodplains	0 acre	0.2 acre
Noise Impacts		
Noise Sensitive Receptors	17	31
Visual Impacts		
Corridor Visual Impacts	None	Minor
Greenhouse Gas Emissions		
Emissions Change	Increase	Decrease
Pedestrian & Bicyclist Impacts		
Pedestrian/Bicyclists Infrastructure	None	Improvements

*ROW cost includes acquisition and relocation

Reference Pages

Acronyms

ADEE	Arkansas Department of Energy and Environment
ADT	Average Daily Traffic
ANHC	Arkansas Natural Heritage Commission
ARDOT	Arkansas Department of Transportation
ARS	Architectural Resources Survey
CWA	Clean Water Act
EA	Environmental Assessment
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
KA	Killed in Accident
LEP	Limited English Proficiency
LOS	Level of Service
MPH	Miles Per Hour
MSAT	Mobile Source Air Toxic
MVM	Million Vehicle Miles
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PI	Public Involvement
ROW	Right of Way

SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Officer
SP	Special Provision
TCE	Temporary Construction Easement
TWLTL	Two-Way Left Turn Lane
UST	Underground Storage Tank
USFWS	United States Fish and Wildlife Service
VPI	Virtual Public Involvement
VPD	Vehicles Per Day

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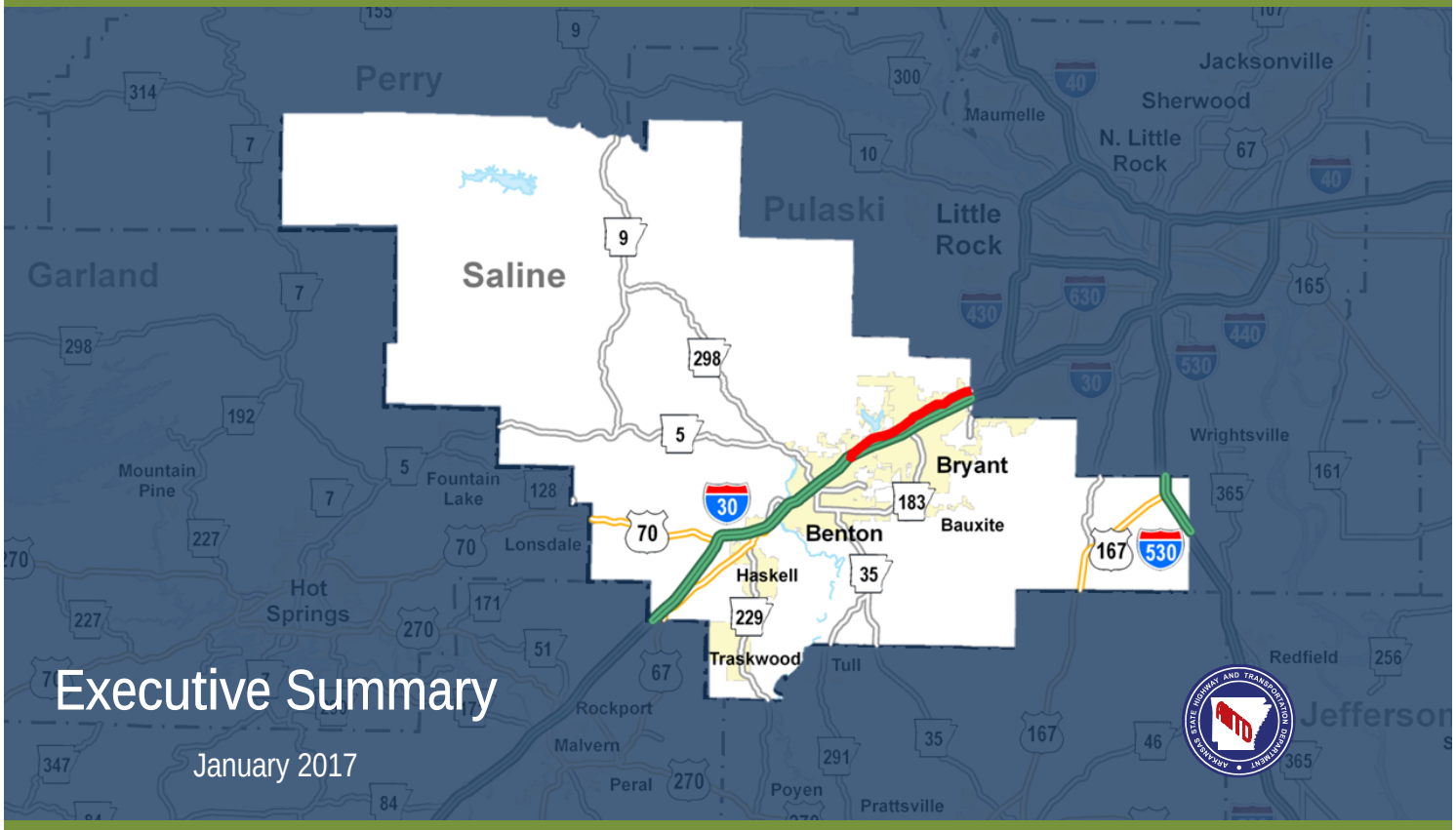
Appendix A: 2017 Highway 5 Corridor Improvement Study

HIGHWAY 5 CORRIDOR IMPROVEMENT STUDY

BENTON (INTERSTATE 30) - PULASKI COUNTY LINE
SALINE COUNTY



Executive Summary

January 2017

HIGHWAY 5 CORRIDOR IMPROVEMENT STUDY

BENTON (INTERSTATE 30) - PULASKI COUNTY LINE
SALINE COUNTY

EXECUTIVE SUMMARY

Prepared by the Transportation Planning and Policy Division
Arkansas State Highway and Transportation Department
In cooperation with the Federal Highway Administration

This report was funded in part by the Federal Highway Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

INTRODUCTION

At the request of local officials, the Arkansas State Highway Commission passed Minute Order 2009-120, which authorized a study of needed improvements to approximately seven miles of Highway 5. The study limits are between Interstate 30 in Benton to the Pulaski/Saline County Line at Alexander Road in the City of Bryant, as shown in Figure ES-1.

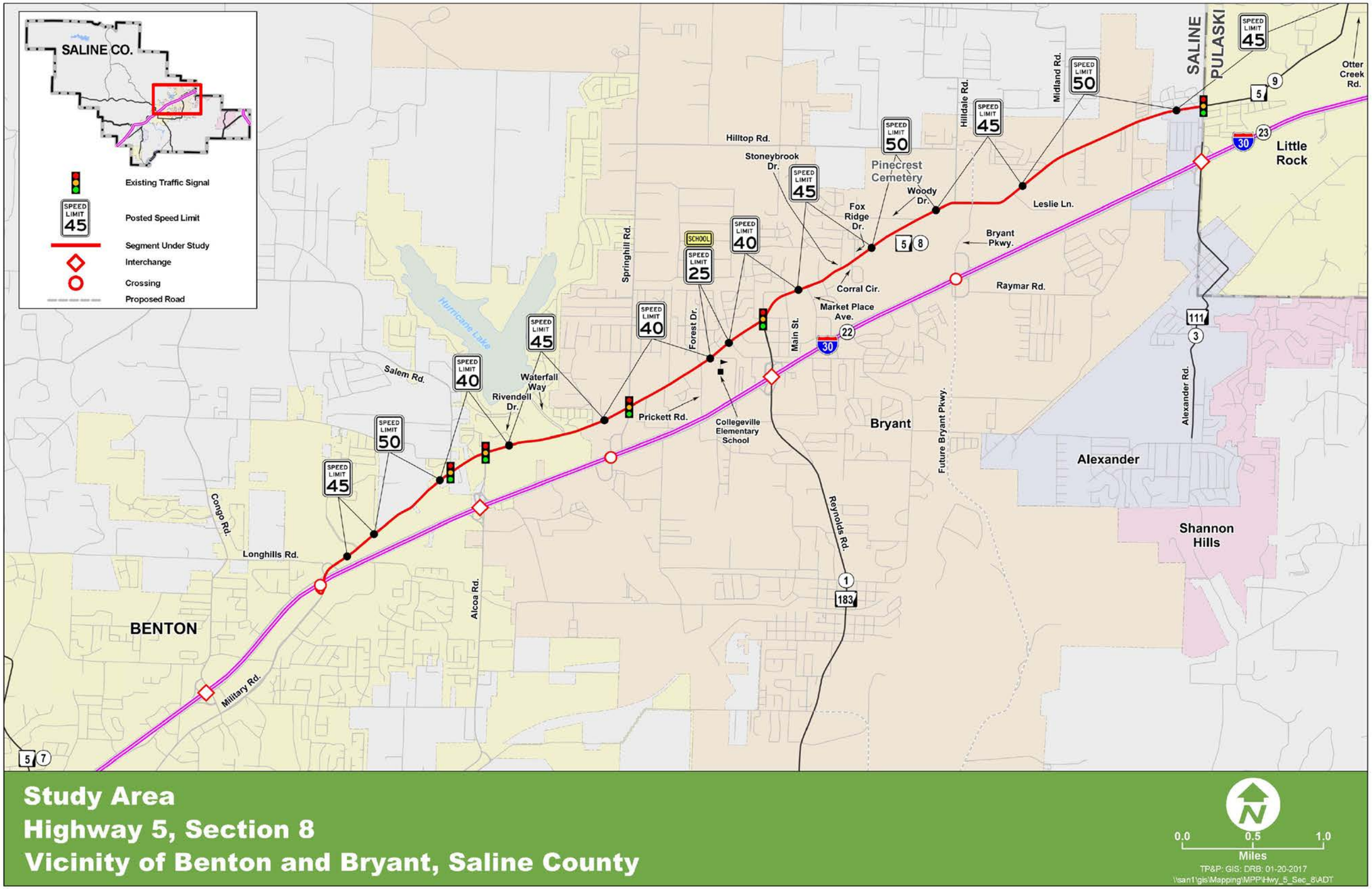
PURPOSE AND NEED

The purpose of this study is to identify needed improvements to Highway 5 to relieve traffic congestion and enhance safety for all roadway users. The study also considers typical roadway cross-sections and construction phasing for developing future improvement projects in the corridor.

EXISTING CONDITIONS

Highway 5 is a parallel arterial to Interstate 30. Highway 5 provides access to employment and commerce in Saline County, Pulaski County, and the greater central Arkansas region. It also serves as an alternate route for Interstate 30 during periods of congestion. Highway 5 consists of two 10-foot travel lanes with 4-foot paved shoulders between Interstate 30 and Springhill Road, and two 11-foot travel lanes with 4-foot paved shoulders between Springhill Road and Alexander Road. The signalized intersections along the corridor include left-turn lanes.

Figure ES-1 – Corridor Study Limits



TRAFFIC ANALYSIS

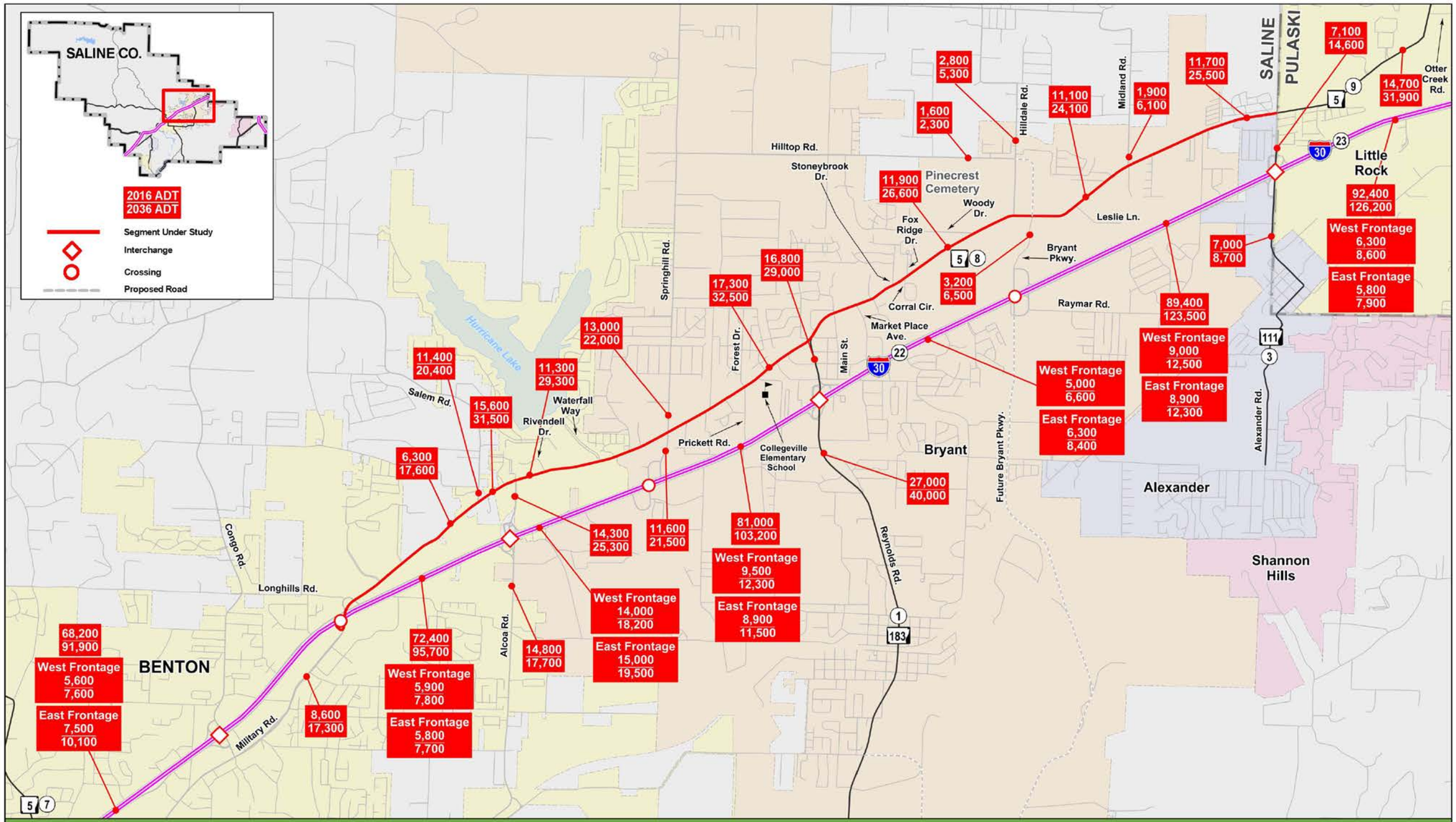
The current average daily traffic (ADT) along Highway 5 ranges from 6,300 vehicles per day (vpd) southwest of Salem Road to 17,300 vpd near Highway 183. Traffic volumes were projected to the year 2036 using historic growth trends and the Central Arkansas Regional Transportation Study (CARTS) Regional Travel Demand Model. Figure ES-2 shows the existing and forecast daily traffic volumes along Highway 5 and other roadways in the study area. The portion of Highway 5 that has the highest ADT is between Springhill Road and Highway 183. The growth trend is expected to continue for some time into the future due to the abundant desirable land for development and the reasonable commuting distance to major employment centers.

Traffic operations along Highway 5 were analyzed at major intersections through the corridor using a traffic analysis software package - Synchro (Version 8). The results of this analysis during both the morning and afternoon peaks are documented in Table ES-1. For future year analyses, signals at select major intersections were assumed.

Table ES-1 – Levels of Service at Signalized Intersections (No-Build)

Intersection	2016		2036	
	AM	PM	AM	PM
Salem Road	C	B	F	D
Alcoa Road	B	D	D	F
Waterfall Way	N/A	N/A	B	C
Springhill Road	D	E	E	F
Prickett Road/Forest Drive	N/A	N/A	A	F
Highway 183	C	F	F	F
Bryant Parkway	N/A	N/A	C	F
Midland Road	N/A	N/A	B	F
Alexander Road	B	B	B	C

Figure ES-2 – Estimated Average Daily Traffic (ADT)



The analysis indicated that unacceptable traffic operations will occur at most signalized intersections on Highway 5 during the afternoon peak, as well as at three signalized intersections during the morning peak. Traffic flow between signalized intersections would worsen as volumes exceed capacity and driveway densities in currently underdeveloped areas increase. The segments between Salem Road and Alcoa Road and between Highway 183 and Bryant Parkway are especially susceptible to service degradation if access is not managed in a reasonable manner.

SAFETY ANALYSIS

The corridor was divided into three distinct sections for the safety analysis. These sections were as follows:

1. Interstate 30 to west of Springhill Road
2. West of Springhill Road to Main Street (Bryant)
3. Main Street (Bryant) to Alexander Road (County Line)

Crash data for 2010 through 2014 were used to calculate crash rates as shown in Table ES-2. Crash rates are computed as the number of crashes per million vehicle miles (mvm) traveled for total crashes and per 100 mvm for fatal (K) and serious injury (A) crashes. The average KA crash rate for all sections between 2010 and 2014 exceeded the statewide average.

Most crashes of all severities were rear-end or angle crashes, which is common under congested traffic conditions. This is particularly common when a median or a two-way left-turn lane is not provided. Figure ES-3 shows all crashes during the 2010-2014 study period. Crash clustering is evident around the intersections and in the Springhill Road to Highway 183 section, which is the portion of the corridor with the highest traffic volumes.

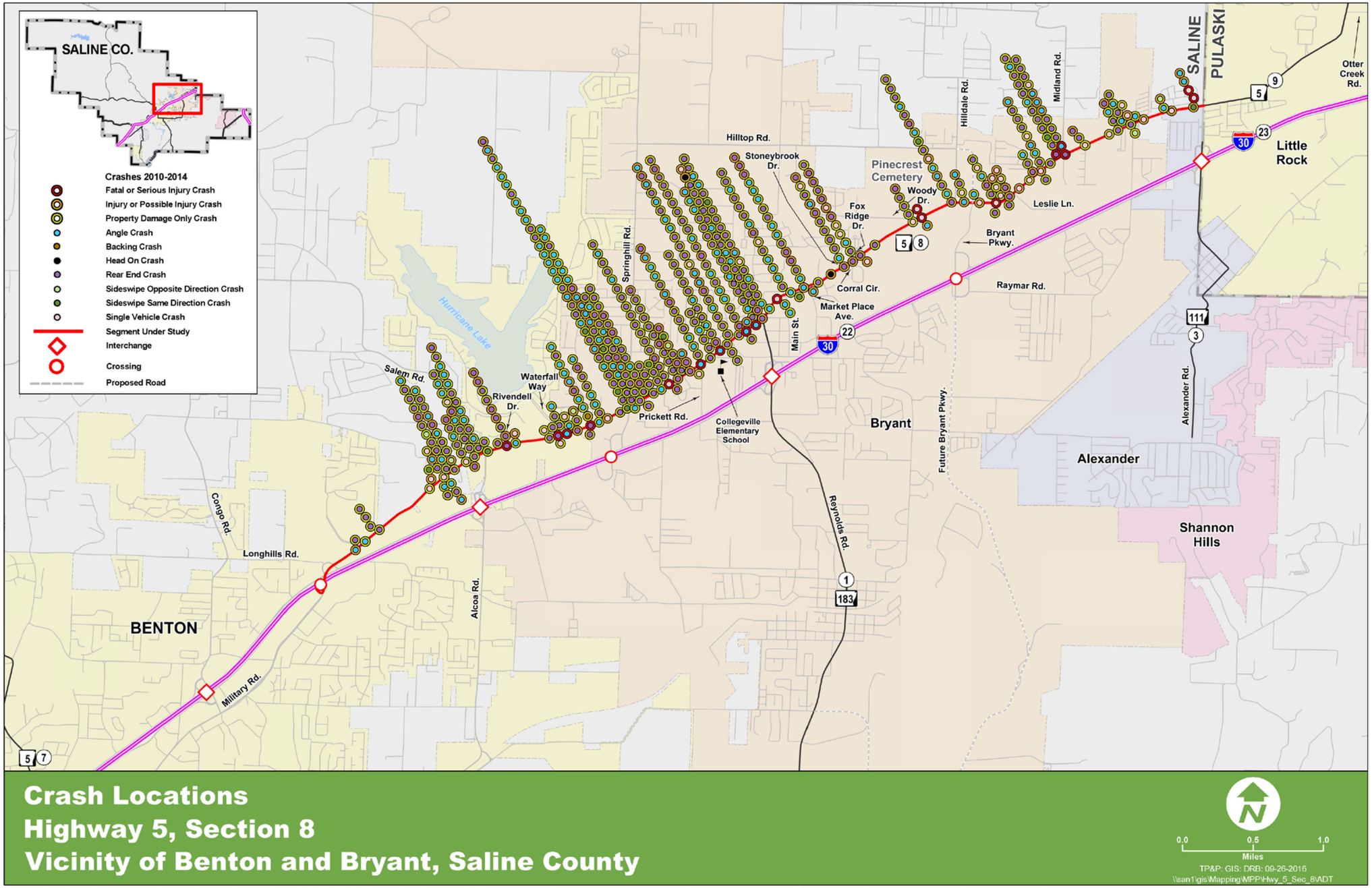
There are several locations along Highway 5 where sight distance is less than optimal due to roadway geometry, making it difficult for turning vehicles to judge appropriate gaps. Such locations include the curvature near Hilldale Road and Stoneybrook Drive.

Table ES-2 – Crash Rates (2010-2014)

Segment	Route/ Section/ Log Mile	Type of Roadway (Length)	Year	Weighted ADT	Number of Crashes(KA)	Crash Rate* (KA)**	Statewide Average Crash Rate*(KA)**
Interstate 30 to West of Springhill Road	Highway 5 Section 8 LM 0.42-2.54	Urban Two-Lane Undivided (2.12 Miles)	2010	8,800	22(0)	3.23(0.00)	2.90(8.93)
			2011	8,600	26(3)	3.91(45.08)	2.81(9.94)
			2012	8,700	26(0)	3.86(0.00)	2.78(11.43)
			2013	8,600	19(0)	2.86(0.00)	2.34(12.47)
			2014	9,500	24(1)	3.26(13.60)	2.37(11.53)
			Avg.	8,800	23.40(0.80)	3.42(11.74)	2.64(10.86)
West of Springhill Road to Main Street (Bryant)	Highway 5 Section 8 LM 2.54-4.13	Urban Two-Lane Undivided (1.59 Miles)	2010	12,800	46(1)	6.19(13.46)	2.90(8.93)
			2011	13,500	51(1)	6.51(12.76)	2.81(9.94)
			2012	14,300	69(1)	8.31(12.05)	2.78(11.43)
			2013	12,800	69(2)	9.29(26.92)	2.34(12.47)
			2014	13,700	46(1)	5.79(12.58)	2.37(11.53)
			Avg.	13,400	56.20(1.20)	7.22(15.56)	2.64(10.86)
Main Street (Bryant) to Alexander Road (County Line)	Highway 5 Section 8 LM 4.13-7.45	Urban Two-Lane Undivided (3.32 Miles)	2010	10,100	20(0)	1.63(0.00)	2.90(8.93)
			2011	10,300	27(0)	2.16(0.00)	2.81(9.94)
			2012	10,300	43(2)	3.45(16.02)	2.78(11.43)
			2013	10,000	31(2)	2.56(16.50)	2.34(12.47)
			2014	10,200	35(4)	2.83(32.36)	2.37(11.53)
			Avg.	10,200	31.20(1.60)	2.53(12.98)	2.64(10.86)

* Crash rates are expressed in per million vehicle miles traveled (MVM).
** KA crash rates are expressed in per 100 MVM.

Figure ES-3 – Highway 5 Study Corridor Crashes (2010-2014)



OTHER CONSIDERATIONS

Metropolitan Transportation Plan

The 2040 Metropolitan Transportation Plan (MTP) - Imagine Central Arkansas, was adopted in December 2014 by Metroplan, the designated metropolitan planning organization (MPO) responsible for long-range transportation planning for central Arkansas. Highway 5 is on the Regional Arterial Network, and improvements to the segment between Alcoa Road and Highway 183 are on the Financially Constrained Project List.

Regional Arterial Network

Metroplan has identified the Regional Arterial Network (RAN) since 1999 as a set of regionally significant non-freeway roads that emphasized connectivity and mobility. Highway 5 was identified as one of the RAN corridors to connect communities like Benton, Bryant, and Little Rock with an emphasis on higher mobility. In addition to serving local traffic, this route serves as an alternate route when Interstate 30 is disrupted due to congestion, incidents, weather, or other causes.

Bicycles and Pedestrians

The Central Arkansas Regional Transportation Study Regional Bikeways and Bike Plans map has designated Highway 5 as a Regional Bicycle Connector, providing a connection between the local bicycle trails in Little Rock, Bryant and Benton. Therefore, according to the Department's Bike and Pedestrian Policy, cyclist and pedestrian accommodations on this corridor will be constructed.

ENVIRONMENTAL CONSIDERATIONS

A cursory environmental review was conducted to identify any environmental constraints or conditions that warrant consideration in the planning or design process. The preliminary analysis indicated that there are cemeteries, National Register of Historic Places, wetlands, streams, and underground storage tanks that should be avoided during design.

DESCRIPTION OF ALTERNATIVES

Much of the Highway 5 corridor is semi-rural with homes and businesses generally set back from the highway, thus limiting potential widening conflicts. However, there are segments that are commercialized with numerous buildings relatively close to the highway. The segment of Highway 5 through Bryant, particularly between Springhill Road and Highway 183, is highly developed and will present widening challenges. The highway between Salem Road and Alcoa Road, primarily in Benton, is also developed with businesses close to the existing highway.

NO-BUILD ALTERNATIVE

This alternative would retain the existing two through lanes on Highway 5 from Interstate 30 in Benton to Pulaski County. As traffic volumes increase, excessive queueing and near gridlock conditions would occur as a result. Additionally, Highway 5 would serve poorly as an alternate route when travel on Interstate 30 is disrupted.

ALTERNATIVE 1 - FOUR LANES WITH A RAISED MEDIAN

Alternative 1 would widen the existing highway to four 11-foot through lanes with a 15-foot raised median. A 5-foot sidewalk with a 3-foot setback and a 4-foot bicycle lane on each side would be provided. This alternative would also provide periodic median breaks designed to accommodate U-turn movements. Combined with proper access management, this alternative would enhance mobility, safety, and proper land development along the corridor.

ALTERNATIVE 2 - FOUR LANES WITH A FLUSH MEDIAN (CONTINUOUS, TWO-WAY, LEFT TURN LANE)

Alternative 2 would widen the existing highway to four 11-foot through lanes with a 12-foot continuous, two-way, left turn lane. Similar to Alternative 1, a 5-foot sidewalk with a 3-foot setback and a 4-foot bicycle lane on each side would be provided. A four-lane highway with a flushed median allows direct left-turn access to adjacent land while removing left-turn vehicles from the travel lane.

INTERSECTION IMPROVEMENTS

In addition to widening Highway 5, Table ES-3 shows the intersection improvements for Alternative 1 and Alternative 2.

Table ES-3 – Intersection Improvements

Intersection	Improvements
Salem Road*	Two-lane left turn bay for southbound (SB) Salem Road to northbound (NB) Highway 5 movement
Alcoa Road	Two-lane right turn bay for NB Highway 5 to SB Alcoa Road movement
Springhill Road	Four lanes on Springhill Road; two-lane left turn bays for NB Springhill Road to SB Highway 5 and SB Springhill Road to NB Highway 5 movements; designated right turn bay for SB Highway 5 to NB Springhill Road movement
Highway 183	Two-lane left turn bays for NB Highway 183 to SB Highway 5 and SB Highway 5 to SB Highway 183 movements
*Proposed improvements should be reinvestigated if direct connection between Salem Road and the Interstate 30 frontage road is constructed.	

The Highway 183 intersection would benefit with a designated right turn bay for the northbound Highway 5 to southbound Highway 183 movement. However, physical constraints may prevent the necessary future expansion.

ACCESS MANAGEMENT

An access management plan should be strongly considered in conjunction with any improvements. Bryant has identified Highway 5 as one of four arterials in the area that the Bryant Planning Commission deemed appropriate for consideration of access management plans. The *Benton Master Street Plan* authorizes the City to adopt and implement individual access management plans for arterial roadways in conjunction with roadway improvements.

COST ESTIMATE

The total estimated cost for Alternative 1 is $55.2 million (in 2016 dollars), of which $41.8 million is the construction cost. The total estimated cost for Alternative 2 is $57.4 million (in 2016 dollars), of which $43.5 million is the construction cost. The total estimated costs include preliminary and construction engineering, right of way, and utilities.

ANALYSIS OF ALTERNATIVES

Traffic operations at intersections along the Highway 5 corridor under the build alternatives (Alternatives 1 and 2) and the No-Build Alternative were evaluated. The results of this analysis are shown in Table ES-4. At the planning level, the two build alternatives will operate very similarly, and both alternatives have superior operations compared to the No-Build alternative. Both build alternatives would provide a safer corridor for pedestrians and cyclists than the existing highway, which generally has no sidewalks and narrow shoulders.

Table ES-4 – Levels of Service at Signalized Intersections (Build)

Intersection	No-Build Alternative				Build (Alternatives 1 and 2)			
	2016		2036		2016		2036	
	AM	PM	AM	PM	AM	PM	AM	PM
Salem Road	C	B	F	D	B	B	C	D
Alcoa Road	B	D	D	F	B	C	D	D
Waterfall Way	N/A	N/A	B	C	N/A	N/A	B	B
Springhill Road	D	E	E	F	B	C	C	D
Prickett Road/Forest Drive	N/A	N/A	A	F	N/A	N/A	B	B
Highway 183	C	F	F	F	B	C	C	D
Bryant Parkway	N/A	N/A	C	F	N/A	N/A	C	D
Midland Road	N/A	N/A	B	F	N/A	N/A	B	C
Alexander Road	B	B	B	C	B	B	B	C

CONCLUSIONS

Highway 5 is an important arterial in Saline and Pulaski Counties. In addition to serving local traffic, Highway 5 also functions as an important alternate route for Interstate 30. Highway 5 has also been designated as a future regional bicycle connector. This study was conducted to identify needed improvements to Highway 5 between Benton and Bryant that would relieve traffic congestion and enhance safety for all users.

An analysis of traffic operations indicated that two signalized intersections (Springhill Road and Highway 183) currently operate at an unacceptable level of service during peak hours. Anticipated traffic growth will result in additional congestion in the future. Frequent turns from through travel lanes result in stop-and-go conditions. A safety analysis identified the fatal and serious injury crash rates for all segments of the study area exceeded the statewide average. This analysis also indicated reduced sight distance due to poor geometry in the vicinity of Hilldale Road and Stoneybrook Drive.

The No-Build Alternative would not meet the needs of the study area and would not address existing and worsening congestion and safety issues throughout the corridor. Either build alternative would provide acceptable operations on typical days, improve safety performance, and improve the functionality of Highway 5 to serve as a relief route for Interstate 30. Both build alternatives would also provide improved accommodations for pedestrians and cyclists. According to the Transportation Research Board's Access Management Manual (2nd Edition), the implementation of raised medians and access control produces a safer corridor. Regardless of the alternative chosen, a long term access management plan for the corridor should be considered.

CONSTRUCTION PHASING

Due to the limited funding available for the many transportation needs statewide, corridor improvements should be prioritized and then scheduled based on available funding. The most pressing need is the commercialized portion of the corridor in Bryant. The 2016-2020 Statewide Transportation Improvement Program (STIP) provides $12.6 million in funding to improve the segment between Alcoa Road and Highway 183. The STIP also provides $5.3 million in funding to improve Highway 5 between Interstate 30 and Alcoa Road. Other capacity improvements (with geometric improvements where applicable) between Highway 183 and Bryant Parkway and between Bryant Parkway and Alexander Road should be scheduled

as priorities warrant and funds become available. Table ES-5 summarizes the costs for each phase in 2016 dollars. Figure ES-4 illustrates the phase locations.

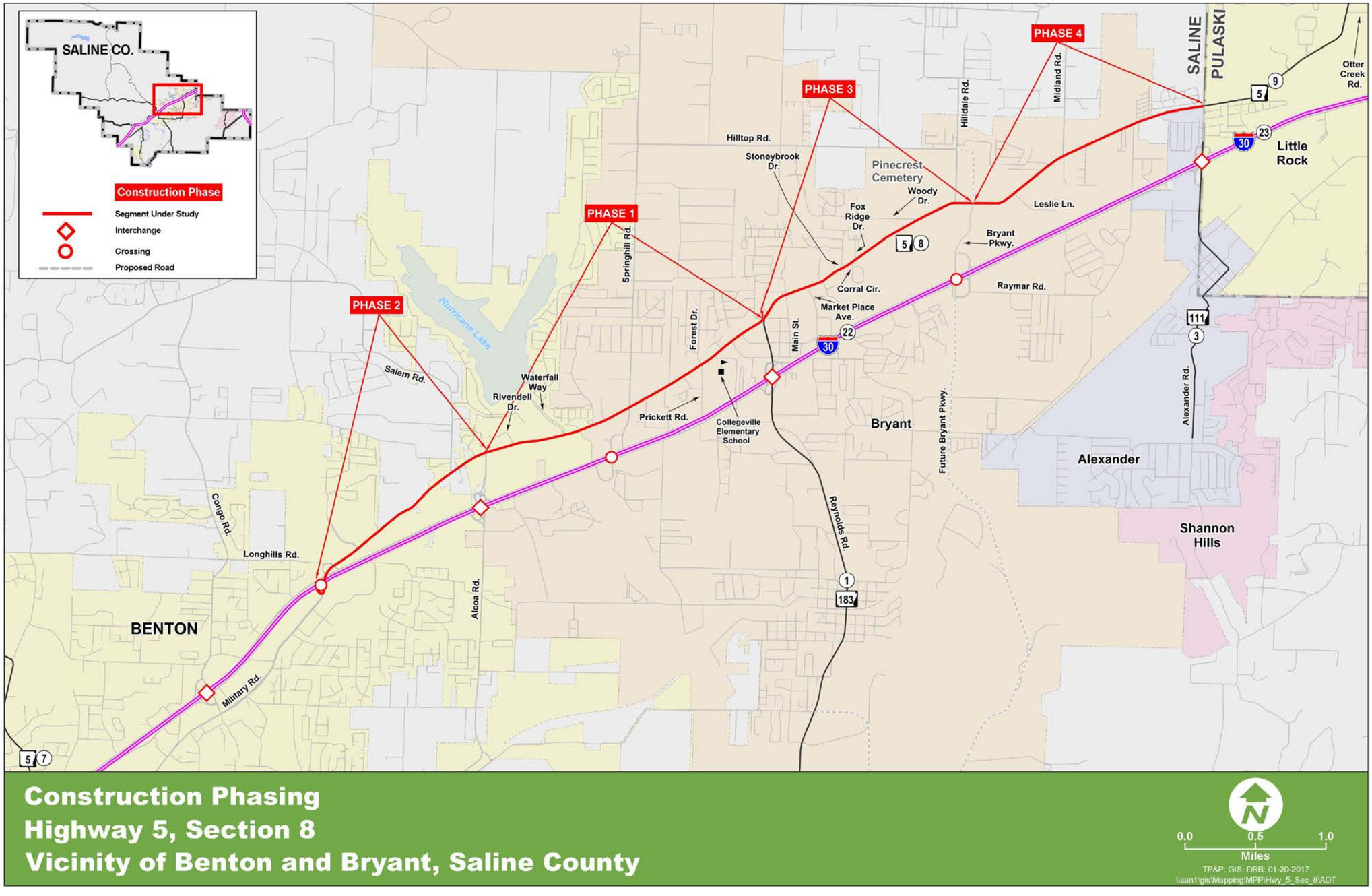
Table ES-5 – Phasing Cost Summary

Phase	Job	Termini	Length (miles)	Construction Cost* (millions)	Total Cost* (millions)
1	061335	Alcoa Road - Highway 183	2.22	$14.9	$19.7
2	061508	Interstate 30 - Alcoa Road	1.25	$7.7	$10.1
3	-	Highway 183 - Bryant Parkway	1.76	$10.7	$14.1
4	-	Bryant Parkway - Alexander Road	1.82	$10.2	$13.5

*All costs are based on Alternative 2.

Due to the high cost associated with widening, cost sharing arrangements with local jurisdictions should be explored. At a minimum, possible removal of highways from the State Highway System should be considered.

Figure ES-4 – Recommended Phasing



HIGHWAY 5 CORRIDOR IMPROVEMENT STUDY

BENTON (INTERSTATE 30) - PULASKI COUNTY LINE
SALINE COUNTY

Appendix B: Public Involvement Meeting Synopsis Reports

Citizen Comment Summary, December 14, 2010

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CITIZEN COMMENT SUMMARY

1. **How many days in a typical week do you use Highway 5 between the Highway 5 crossover bridge at Interstate 30 and the Pulaski County line?**

0 0 1 0 2 2 3 2 4 1 5 3 6 3 7 14 Uncertain 1

2. **Do you use Highway 5 between the Highway 5 crossover bridge at Interstate 30 and the Pulaski County line for your daily commute or other daily activities?**

Yes 21 No 3

If so, please check where you enter and exit Highway 5 in the morning and evening.

Enter Hwy 5	Exit Hwy 5	Location
AM 6 PM 1	AM 1 PM 5	West of Alcoa Rd.
AM 2 PM 2	AM 2 PM 2	Alcoa Rd.
AM 4 PM 2	AM 1 PM 3	Between Alcoa Rd. & Springhill Rd.
AM 3 PM 3	AM 4 PM 3	Springhill Rd.
AM 3 PM 3	AM 3 PM 3	Between Springhill Rd. & Prickett Rd./Andrew Dr.
AM 1 PM 0	AM 0 PM 0	Prickett Rd./Andrew Dr.
AM 1 PM 1	AM 1 PM 2	Between Prickett Rd./Andrew Dr. & Hwy. 183 (Reynolds Rd.)
AM 4 PM 2	AM 3 PM 4	Highway 183 (Reynolds Rd.)
AM 1 PM 0	AM 0 PM 1	Between Hwy. 183 (Reynolds Rd.) & Hilldale Rd.
AM 1 PM 0	AM 0 PM 1	Hilldale Rd.
AM 3 PM 2	AM 2 PM 3	Between Hilldale Rd. & Alexander Rd.
AM 2 PM 2	AM 2 PM 1	Alexander Rd.
AM 1 PM 2	AM 2 PM 1	East of Alexander Rd.

3. **What times of the day do you typically travel on the Highway 5 corridor?**

Before 6:00 AM 2
6:00 to 8:30 AM 19
8:30 AM to Noon 9
Noon to 3:30 PM 7
3:30 to 6:30PM 21
After 6:30 PM 6

4. **Do you experience stop and go traffic when traveling on the Highway 5? If so, please describe when and where.**

Yes 26 No 1

Collegeville Elementary

- In front of Collegeville before and after school. School bus stops after school.
- Anywhere between Springhill and Reynolds Rd
- Collegeville Elem

- Between Reynolds and Springhill, because of Collegeville Elem
- 8am and 3:30pm at Andrew Dr

Alexander Road (County Line)
- County Line (Alexander Rd)
- 4pm-6:30pm; stopping at County Line on Hwy 5
- Otter Creek area, Alexander turn off
- Rush hour traffic at County Line Rd intersection. There needs to be a traffic light.
- County line-left turn-people coming from LR
- County line and Hwy 5
- Hwy 5 and County Line Road needs a traffic light.

Hwy 183 (Reynolds Road)
- Hwy 5 and Reynolds
- Reynolds and Hwy 5
- I always run into heavy stop and go traffic at Hwy 5 and 183.

Hilldale Road
- Hwy 5 and Hilldale Rd needs a traffic light.

Springhill Road
- Before Springhill Rd
- Bottlenecks tend to build up at the Springhill intersection.
- When I ride my bicycle to work or on errands, I experience no delays. In my car, Hwy 5 and Springhill sucks
- Especially after work; after 5 pm on Hwy 5 awaiting my turn onto Springhill Rd. Often stops backed up to Henson.

Salem Road
- Salem Rd and Highway 5 (worst)

Alcoa Road
- Alcoa and Hwy 5

Between Highway 183 (Reynolds Road) and Springhill
- Between Walgreens and Springhill Rd
- Several times between Springhill Rd and Reynolds Rd
- 30% of the time, 4-6pm when the sun blinds drivers going west on Hwy 5 to Springhill Rd, about 3 min delay
- 3919 Hwy 5 North, Monday thru Friday, AM and PM

Between Salem Road and Alcoa Road
- Between Salem rd and Alcoa Rd

Other
- If traffic is heavy (not always) I do not use Hwy 5 in the afternoon due to congestion
- At Hurricane Creek Trailer Park
- I-30 and Bryant, 7:30am and 8:30pm

- I can't get to my driveway at rush hour. People are nice and let us out. I schedule appointments around rush hour times, if possible.
- Infrequently
- At stop lights and making left turn lanes into business driveways. Most times of the day especially during peak hours

5. Do you feel there is a need to widen Highway 5 from the Highway 5 crossover bridge at Interstate 30 extending eastward toward the Pulaski County line? Comment (optional)

Yes 24 No 3

- But not to 5 lanes all the way. Bike lanes or shoulders are required by law
- Widening would make it safer. Would like to see a center median like we have on part of Reynolds.
- There are so many cars that cause traffic congestion.
- Traffic has become horrendous on Hwy 5 in this region.
- That or build another road from LR to Saline Co; Iron Mt railway? We know widening Hwy 5 will hurt businesses. Is there not another route?
- Can't grow until you do.
- There are several accidents frequently occurring due to there not being a turn lane and all the heavy traffic. Going through Bryant.
- From Reynolds to Alcoa is very congested.
- Only past the Bryant main business district.
- It mostly needs to be widened from Springhill to Reynolds as that is where most of the traffic seems to be.
- From at the crossover bridge until Reynolds Rd, beyond that, no. It's a beautiful area that is rarely congested.
- I think traffic would flow much smoother with a turn lane.
- The traffic is heavy between 7-9 am and 3-6 pm.
- Rural county residences need this to avoid using I-30 for local access to businesses.

6. Are there any times of day that you avoid traveling on Highway 5? If so, when?

Yes 16 No 11

Yes Respondent's Comments

Morning

- try to leave work early so as to not be in the heaviest traffic

Afternoon

- late afternoon because of congestion
- 5-6pm daily
- 5pm-6:30pm - workers coming out of LR, but I-30 is the same way.
- 4:30-6:00pm
- Mainly during the times school is letting out at Collegeville Elementary.

Both

- Often take the access road between Reynolds and Springhill, 7am and 4pm.
- 6:30am-8:30am; 4:30pm-6:30pm
- 7am-9am and then 3pm-6pm
- Avoid rush hour if possible.
- 7am-8am and 4:15pm-5:30pm
- Rush hour
- Morning and afternoon rush hour
- 4pm-6pm
- Peak hours

No Respondent's Comments

- On my bicycle there isn't any time I avoid hwy 5. In my car I avoid in the evening
- either avoid hwy 5 or I-30, at the right time of day, they are equally bad
- I live at 8310 Hwy 5 North, no real problem except speeders
- can't avoid it
- however, rush hour does cause significant traffic jams along hwy 5

7. At which intersections with local roadways do you experience the greatest delay? Try to be as specific as possible in identifying the location (e.g., Salem Rd. & Hwy. 5).

Highway 5 Intersection	# of Mentions
I-430	2
Alexander Road (County Line)	7
Highway 183 (Reynolds Road)	3
Prickett Road	2
Springhill Road	8
Alcoa Road	3
Salem Road	4
Personal driveway	2

Others (1 mention each)

Otter Creek
Hilldale Road
Stoneybrook Drive
Henson Place
Walgreens driveway
Hurricane Creek Trailer Park
Hurricane Estates

8. Do or would you use a parallel route such as Highway 5 instead of using the Interstate 30? If so, please describe your reason.

Yes 20 No 5

I-30 Congestion

- There are many times when going SB on 430 that I will get off on Hwy 5 to go to Bryant, but there is a big bottleneck in Otter Creek where it goes from 4 lanes to 2.
- 30 is a mess but traffic backups on 430 is worse
- If there is an accident on I-30 and traffic is stopped, I will use Hwy 5. Plus, merging onto I-30 westbound from I-430 is always congested with I-430 traffic stopping
- Always travel hwy 5. I hate the interstate. It backs up worse than Hwy 5
- I use it because of high traffic volume or wrecks on the Interstate
- To avoid heavy thru traffic on I-30 and semi trucks
- AM and PM traffic on I-30 diverts to Hwy 5. I now avoid both and travel Congo to Lawson Rd

I-30 Heavy Traffic/Trucks

- Every time I drive 30, I am concerned about the semi trucks. I would absolutely use hwy 5 if traffic moved faster

I-30 too Fast

- 30 traffic is still 70 mph, that's too fast.

Hwy 5 More Convenient

- More convenient to OC from my neighborhood Forest Cove. Also my children's school is on Hwy 5.
- Convenience
- Short trips

Hwy 5 More Pleasant

- Sometimes take Hwy 5 because it is more pleasant than driving on the interstate but can be slower.
- Easier driving

Bicyclist

- I use Hwy 5 for my commute because it's the only bicycle route to LR.
- Often use a bike for transportation/recreation.

9. How many days per month do you experience delay due to an incident on Interstate 30, East or West Bound (either a stalled vehicle or a crash)?

# Days A Month	# Responses
0	2
1-5	11
5-10	2
10-15	6
15-20	0
20-25	1
25-30	0
30+	0

10. With regards to the entire corridor study, do you feel that the proposed project to widen Highway 5 would have any impact (Beneficial or Adverse) on your property and/or community (economic, environmental, social, etc.)? Please explain.

# Responses	
1	No
23	Yes
4	Both Yes & No
1	Maybe

Comments by 5 Adverse Impact Respondents

- My house is approximately 75 ft from Hwy 5 on north side, 4009 Hwy 5 N, all water and telephone lines are in my front yard.
- It would depend on which side of Hwy 5 the property was taken for the widening. My house is close to the highway.
- Kill my plants, more noise, destroy my home
- Take away our yard
- Without a traffic light at Stoneybrook, it would be impossible to turn left from Stoneybrook.

Comments by 23 Beneficial Impact Respondents

- Widening Hwy 5 with bike lanes would make Benton/Bryant more bike friendly and make it even easier/safer to bike to LR.
- I am pleased to see plans to incorporate bicycle lanes into this project. I use highway as a cyclist and would use it more if lanes (or better shoulder) was there.
- There desperately needs to be a middle turning lane to keep from impeding traffic.
- Traffic comes to a standstill constantly in Saline County along Highway 5. It would increase traffic flow and make business ease of access better.
- Only if it takes some of my property.
- I believe it would help the flow as growth continues.
- No doubt it would improve safety and help with traffic flow. It could encourage growth economically too.
- I would get in and out of my driveway without feeling I'm going to get hit.
- It would greatly help the traffic flow and reduce commute times.
- To widen the highway and add sidewalks between Springhill and Reynolds Road would be a huge benefit. It is often terribly clogged, also dangerous for children walking home from Collegeville Elementary.
- Traffic flow or lack thereof is a problem and will continue to increase.
- It would ease traffic flow, especially if there are more turn lanes.

11. With regards to the entire corridor study, do you have a suggestion that could improve the Highway 5 Corridor Study, or a project to improve Highway 5 that would help in better serving the needs of your community?

# Responses	
5	No
15	Yes

- A traffic light at Andrew/Prickett and Hwy 5 is badly needed.
- Temporary right turn on 5 to Salem Road, also at other 5 intersections until 5 widening is done.
- Stoplight at Alexander Road and Hwy 5.
- Just the middle turning lane and a light at the Hurricane Creek Trailer Park.
- Bike lanes, sidewalks, pave up to the walk button at lights.
- Sharrows. Properly designed shoulders. Bridges with shoulders. Street sweeping the bridges.
- Take the property from both sides of the highway.
- The culvert under Hwy 5 by the Pentecostal church (by Prickett Road) desperately needs to be replaced. The capacity of the culvert is too small resulting in upstream flooding. A few houses at the entrance of Forest Drive have been flooded due to the backup of headwater.
- Ask public to use I-30 and service roads more, very little traffic on service roads.
- I would greatly prefer 3 lanes at this time. If needed in 10 years or so, they could expand to 5 lanes at that time.
- From Reynolds to Springhill, have a center turn lane.
- When there is a wreck on 30, if Hwy 5 was 4 lanes or even 3 lanes, traffic would move faster.
- Please give serious consideration to some areas widened on Hwy 5. Collegeville school area, Springhill and Hwy 5, and then look to other outer roads to be improved.
- Widen it, with turning lane.
- Widen Hwy 5 as soon as possible.
- Certain zones desperately need this improvement.

12. Please make additional comments here.

- Since they have extended Springhill to 30, there has not been a problem with backlog on Hwy 5 and Springhill. I live on 5 approximately 400 yards from Springhill Road. The red light and sun cause the most problem between 4-6pm. Approximately a 3 minute delay.
- FHWA/AASHTO guidelines on bicycles and rumble strips attached. Federal Guidelines require properly designed bicycle accommodation. Bicycles are legal users of the public roads! The roads are for people to use in various ways. Be a real transportation department!
- Whatever is done, PLEASE make accommodations for cyclists when designing shoulders and placing rumble strips. Arkansas's highway department is negligent in this regard. Please improve. (attached federal guidelines and rumble strip policy)
- I ride a bike on this road as part of my commute to work from Salem Rd to Springhill Rd. Do not put rumble strips on the shoulder unless the shoulder is wide enough to still bike. Would like to see Bryant become more pedestrian/bike friendly.
- Thank you for anything you may be able to do to rectify this situation!
- We are going to keep growing so look to linking Raymar over to Hwy 5 an past that to Hilldale. etc. Think further over and outside the current traffic patterns. Think to the future.
- I live on Hwy 5. I'm impacted every day. Would like to know how much notice will be given before our location is worked upon. Have many questions. When we talk face to face with your people so my many questions will be answered. I just don't know who to direct them to. You or the city. I hope you can help me out.
- I think a bike lane would be very positive
- I'm glad to see AHTD is going to make this project happen. It is well overdue.

- If there was a turning lane at county line on Hwy 5 it would really help those trying to get down 5. If there was a turning lane all the way down 5, it would help us homeowners to get in and out. There has been so many wrecks of people at Leslie Lane and the big hill and curve from Leslie to Pine Crest.
- Sidewalks and bike lanes are very needed in this area. When walking my kids to school a couple of times I have literally feared for our lives. I hope there is some way to preserve the beauty of the Collegeville stretch of Hwy 5. It is historic-seeming and almost never backed up with traffic.
- Not included in this study but can we get 2 lanes from 430 to 30? Take a look at congestion westbound every afternoon. Why only one lane?
- Current speed limit at Fox Ridge and Stoneybrook area needs reduced to 35 mph. Raymar overpass needs connected to Hwy 5
- We currently experience issues with flooding in the Northridge subdivision just off of Hwy 5. I am highly concerned that road construction along 5 will cause additional flooding to my home.
- Get her done!
- Provide adequate street lighting when widening 5. Also sun glare is very difficult on 5 westbound during rush hour and is a concern for motorists, especially pedestrian and bike safety. Final design should express this concern.
- I am sorry that I won't be able to attend the meeting tonight as my son has a program at school and as a parent, he comes first. All that I have to say is this, I would love to see Hwy 5 widened to a 4/5 lane. I live directly off Hwy 5 in Bryant and it is consistently backed up. I don't even try to turn left out of my subdivision because the traffic is so bad. I suggest a red light coming out of Forest Cove subdivision as this is a much used intersection (even though most people now don't dare try to turn left, although we would love to have that convenience). That is also the corner for Larry's Pizza which is also well used. Please take into account all of us who live in this area as you are beginning this project and please make plans to disrupt our lives as little as possible and also take into account the many problems we have had with flooding in the past few years as a result of the massive growth in the area. The water has nowhere to go. We don't need to make it worse.

VIRTUAL PUBLIC INVOLVEMENT SYNOPSIS

Job 061632
Hwy. 183 – Pulaski Co. Line (Widening) (Bryant) (Hwy. 5)
Saline County
Thursday, July 8, 2021

A Phase II "Live" Virtual Public Involvement (VPI) meeting for the proposed widening of Highway 5 from Highway 183 to the Pulaski County line in Bryant was held on Thursday, July 8, 2021. Project information was made available on the ARDOT's website from July 2, 2021 through July 23, 2021. Efforts to involve minorities and the public in the meeting included:

- Display advertisement placed in the *Arkansas Democrat Gazette* on Sunday, June 27, 2021 and Sunday, July 4, 2021. Placed also in *The Saline Courier* on Wednesday, June 30, 2021.
- Public Service Announcement ran on KOKY 102.1 FM from Tuesday, July 6, 2021 through Thursday, July 8, 2021 and on La Zeta 106.3 FM from Saturday, July 3, 2021 through Thursday, July 8, 2021.
- Letters were mailed to Public Officials on June 25, 2021.
- Flyers mailed to citizens.

The following information and links were available on the ARDOT website:

- Short video presentation about the project
- Public meeting notice
- Project location map
- Project design plans
- Online comment form
- Interactive project map
- Frequently asked questions with answers

Copies of the public meeting notice, VPI exhibit, and comment form are attached.

Table 1 describes the results of the public participation at the meeting.

TABLE 1

Public Participation	Totals
Online registration of attendance at Phase II VPI (Citizen/Public Officials)	48/6
Number of website viewers (English/Spanish)	706/32
Online Comments Received	**77**

ARDOT staff reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is random and is not intended to reflect importance or numerical values. Some of the comments were combined and/or paraphrased to simplify the synopsis process.

An analysis of the responses received as a result of the public survey is shown in Table 2.

TABLE 2

Survey Results	Totals
Feels there is a need for the proposed widening of Hwy. 5	61
Does not feel there is a need for the proposed widening of Hwy. 5	16
Property limitations to the project	1
Knowledge of cultural resources in the project area	23
Knowledge of environmental constraints in the project area	3
Has a suggestion for the proposed project so it better serves the needs of the community	64
Do you feel the proposed project will have a beneficial impact?	56
Do you feel the proposed project will have an adverse impact?	13
Did not indicate if the proposed project will have an impact?	8

A listing of general comments concerning the proposed project follows:

- Would like the traffic light installation at Bryant Parkway and Highway 5 to be expedited before the current scheduled date of construction for 061632 because it is a very dangerous intersection. Citizens feel strongly about this intersection and have suggested at least a temporary signal be installed until this job begins to save lives. There were 60 out of 77 comments received requesting immediate action at this intersection.
- Please avoid impacts to the Center of Arkansas monument.
- This section of Highway 5 needs more lighting to encourage bicycling and pedestrian use.
- This project will be beneficial, but may also have negative impacts to some landowners.

- The bike lane should be moved off of the highway with a wider sidewalk instead, separated by a curb so that bicyclist and pedestrians can both use the sidewalk. Citizen believes the highway is too busy for bicyclist.
- Try to avoid any impacts to the numerous cemeteries along this section of Highway 5.
- The curve near Hallmark and Century 21 buildings should remain in place as it adds aesthetics to the area.
- This highway widening is very much needed due to the increasing volume and will add another route to relieve I-30 traffic.
- Construction will cause negative safety to drivers as Hilldale Road construction has already increased risk to drivers at Bryant Parkway and Highway 5 intersection.
- Homes in the Oak Glen neighborhood already flood and this construction may cause more flooding.
- The widening will be a beneficial improvement especially with the addition of a turn lane for safety and congestion reasons.
- The property acquisitions due to this project will have a negative impact in the area.
- Replace the proposed bike lanes with multi-use paths.
- An entrance should be installed at the Big Red gas station so drivers will stop making u-turns on Highway 5 to enter.
- This construction should only start once other construction projects on Highway 5 are completed to reduce congestion.
- Widening of Highway 5 will have a negative impact on businesses and residences short and long term.
- This project will allow more business to move in the area.
- This project should continue to widen Highway 5 up to North Reynolds Road.

Attachments:

Public Meeting Notice
VPI Exhibit
Blank Comment Form

DN:JG:sw

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

You're invited!

WEBEX "LIVE" VIRTUAL PUBLIC INVOLVEMENT MEETING

WHAT: "Live" Virtual Public Involvement Meeting to discuss the proposed widening of Hwy. 5 from Hwy. 183 to the Pulaski County line in Bryant, AR (Saline County).

WHEN: **Thursday, July 8, 2021 from 5:30 to 6:30 p.m. Citizens will have an opportunity to ask questions and make comments.**

Due to the COVID-19 restrictions, we are unable to conduct a public Involvement meeting in the traditional sense (no in-person meeting).

Purpose

The Arkansas Department of Transportation (ARDOT) will conduct a "Live" WebEx virtual public involvement meeting to discuss the proposed widening of Hwy. 5 from Hwy. 183 to the Pulaski County line in Bryant, AR (Saline County).

Project staff will give a brief presentation regarding the project. The public is invited to listen, view meeting materials and participate by asking questions and making comments with the appropriate ARDOT staff. The online website will be available for viewing from Thursday, July 1, 2021 through Friday, July 23, 2021. Comments will be accepted until 4:30 p.m. on Friday, July 23, 2021.

Link To Virtual Meeting: https://www.ardot.gov/publicmeetings

In order to access the virtual public meeting, visit the link above. At the website location, simply scroll down to view the virtual public meeting of your interest. Once the Public Meeting is selected, you will be able to view the virtual public meeting website. This website will provide project materials and handouts that would have been shown at the in-person meeting. A separate link will provide a Spanish version of the presentation. There will also be an option to send online comment forms to ARDOT's staff, or you can print the form and mail it to, P.O. Box 2261, Little Rock, AR 72203-2261. If you do not have internet access, please contact Karla Sims at 501-569-2000 to ask questions about the project and how to access project information or email at karla.sims@ardot.gov.

Virtual Web Link:

Visit: https://www.ardot.gov/publicmeetings

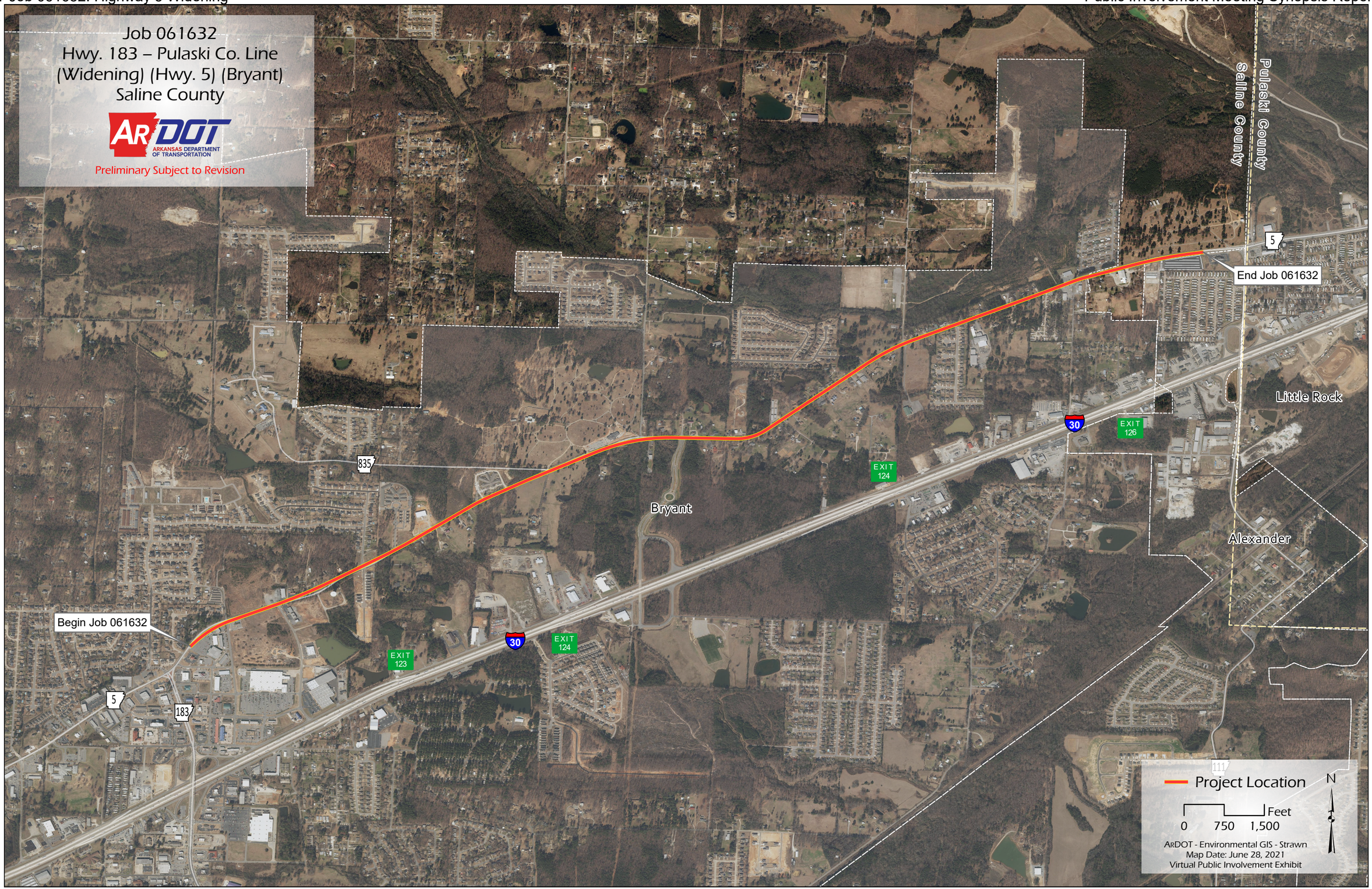
- **At the website location, select the public meeting of your interest.**

Thursday, July 8, 2021
5:30 p.m. to 6:30 p.m.

Special Accommodations: Anyone needing project information or special accommodations under the Americans with Disabilities Act (ADA) is encouraged to write to Ruby Jordan-Johnson, P.O. Box 2261, Little Rock, AR 72203-2261, call (501)569-2379, fax (501)569-2009 or email environmentalpimeetings@ardot.gov. Hearing or speech impaired, please contact the Arkansas Relay System at (Voice/TTY 711). Requests should be made at least four days prior to the public meeting.

Notice of Nondiscrimination
The Arkansas Department of Transportation (ARDOT) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, the Department does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in the Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. McFadden EEO/DBE Officer (ADA/504/Title VI Coordinator), P. 0. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: joanna.mcfadden@ardot.gov **Free language assistance for Limited English Proficient individuals is available upon request.**

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.


Job 061632
Hwy. 183 – Pulaski Co. Line
(Widening) (Hwy. 5) (Bryant)
Saline County
ARDOT
ARKANSAS DEPARTMENT OF TRANSPORTATION
Preliminary Subject to Revision
Saline County
Pulaski County
Little Rock
Alexander
Bryant
End Job 061632
Begin Job 061632
EXIT 123
EXIT 124
EXIT 124
EXIT 126
30
5
183
835
111
Project Location
0 750 1,500 Feet
N
ARDOT - Environmental GIS - Strawn
Map Date: June 28, 2021
Virtual Public Involvement Exhibit

ARKANSAS DEPARTMENT OF TRANSPORTATION (ARDOT)
CITIZEN COMMENT FORM

ARDOT JOB 061632
HWY. 183 – PULASKI CO. LINE (WIDENING) (BRYANT) (HWY. 5)
SALINE COUNTY

LOCATION:
ONLINE "LIVE" WEBEX VIRTUAL PUBLIC INVOLVEMENT MEETING
THURSDAY, JULY 8 2021 @ 5:30 P.M.

Make your comments on this form and mail it by 4:30 p.m. on Friday, July 23, 2021 to: Arkansas Department of Transportation, Environmental Division, P.O. Box 2261, Little Rock, AR, 72203-2261. Email: **environmentalpimeetings@ardot.gov**.

Yes No

☐ ☐ Do you feel there is a need for the proposed widening of Hwy. 5 from Hwy. 183 to the Pulaski County line in Bryant, AR? Comment (optional)

_____

_____

_____

Do you feel that the proposed project will have any impacts?

(☐ Beneficial or ☐ Adverse) on your property and/or community (economic, environmental, social, etc.)? Please explain. _____

_____

_____

_____

☐ ☐ Do you have a suggestion that would make this proposed project better serve the needs of the community?_____

_____

_____

_____

_____

☐ ☐ Does your home or property offer any limitations to the project, such as septic systems, that the Department needs to consider in its design?

_____

_____

(Continue on Back)

Yes	No	
☐	☐	Do you know of any historical sites, family cemeteries, or archaeological sites in the project area? Please note and discuss with staff. _____
☐	☐	Do you know of any environmental constraints, such as endangered species, hazardous waste sites, existing or former landfills, or parks and public lands in the vicinity of the project? Please note and discuss with ARDOT staff. _____

It is often necessary for the ARDOT to contact property owners along potential routes. If you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you.

Name: _____ (*Please Print*)

Address: _____ Phone: (_____) _____--

_____

E-mail:_____

Please make additional comments here._____

For additional information, please visit our website at https://www.ardot.gov/publicmeetings

At the website location, select the public meeting of your interest.

ARDOT ARKANSAS DEPARTMENT OF TRANSPORTATION

IDRIVE ARKANSAS

PUBLIC INVOLVEMENT SYNOPSIS

ARDOT JOB #061632
Highway 183 to Pulaski Co. Line (Hwy. 5)
Highway 5 Widening
Saline County

PUBLIC MEETING
Thursday, November 30, 2023
First Baptist Church of Bryant (Fellowship Hall)
6715 Hwy. 5
Bryant, Arkansas

PUBLIC COMMENT PERIOD
November 17, 2023 - December 15, 2023

PUBLIC INVOLVEMENT SNAPSHOT

- **1 PUBLIC MEETING**
- **580 WEBSITE VISITORS**
- **139 ATTENDEES**
- **45 COMMENTS RECEIVED**

PUBLIC MEETINGS AND COMMENT PERIODS

The Arkansas Department of Transportation (ARDOT) conducted a public involvement meeting to discuss the proposed widening of Highway 5 between N. Reynolds Road (Highway 183) and N. Alexander Road (Pulaski County Line) in Saline County.

A public officials meeting was held Thursday, November 30, from 2:30 – 3:30 p.m. at First Baptist Church of Bryant (Fellowship Hall), 6715 Hwy. 5 in Bryant, Arkansas. This was an open house meeting with no formal presentations. The meeting consisted of elected officials visiting the different exhibits and stations and talking with project team members.

A public meeting was held Thursday, November 30, from 4:00 – 7:00 p.m. at First Baptist Church of Bryant (Fellowship Hall), 6715 Hwy. 5 in Bryant, Arkansas. This was an open house meeting with no formal presentations. The meeting consisted of members of the public visiting the different exhibits and stations and talking with project team members.

METHODS OF OUTREACH

Special efforts to involve the public in the meetings included the following:

- **Initial phone calls** to local and surrounding public officials (November 3, 2023)
- **Letters with project location map and notice flyer mailed and emailed** to public officials (November 13, 2023)
- **Letters with notice flyer and project location map mailed and emailed** to local churches (November 13, 2023)
- **Notice flyer and project location map emailed** to individuals interested in the project (November 13, 2023)
- **News release** published (November 13, 2023)
- **Postcards mailed** to 19,038 property owners (2-mile radius around study area) and stakeholders (November 15, 2023)
- **Display ads** placed in two newspapers
  - Arkansas Democrat Gazette (November 19 and November 26, 2023)
  - Saline Courier (November 18 and November 25, 2023)
- **Flyers and project location maps hand-delivered** to properties adjacent to the project route and public locations (gas stations, grocery stores, etc.) along Highway 5 (November 20, 2023)
- **Public Service Announcements (PSA)** ran on Power 92 92.3 FM (November 27-30, 2023)
- Multiple rounds of outreach through **various websites and social media platforms**

MATERIALS AND RESOURCES

The following materials were available for review and comment at the public meeting. All materials were also available on the project website. Copies of the handouts, exhibits, and video slides are attached.

- **Two identical roll plots** on aerial photography showing the Hwy. 5 Widening at a scale of 1" = 50'
- **Why Are We Having This Meeting? Exhibit Board** explaining the purpose of the meeting and methods for public comment
- **Project Overview Board** showing a quick summary of the highlights of the project
- **Typical Section Exhibit Board** showing a detailed cross section depiction of the project's main components
- **What's Next? Exhibit Board** explaining the process after the public meeting
- **A 5-minute repeating video with voiceover** that provided a project overview (introductory presentation video)
- **Interactive Project Map with the ability to comment** available on two laptops/large computer screens
- **ARDOT Right-of-Way Procedures for Acquisition Report**
- **Exhibit boards** with QR codes to view electronic versions of the sign-in sheet, project website, and comment form
- **Handouts** for the public included a comment form, a summary sheet, and small-scale map showing the location of the project.

PUBLIC MEETINGS & PROJECT WEBSITES

Table 1 describes the results of the participation at the public officials meeting, at the in-person public involvement meeting, and on the project websites.

Table 1 - Results of Participation	
Public Participation	**Totals**
Public Officials Meeting Attendees (non-staff)	13
In-Person Public Meeting Attendees (non-staff)	94
Staff Present at Meeting	32
Attendees who Signed Website Register (English/Spanish)	15/0
Unique Visitors to the Website (English/Spanish)	562/18
Comment forms received (English/Spanish)	24/0
Letters/emails received - no comment form (English/Spanish)	4/0
Interactive Map/Roll Plot Comments	7/10
Project Website, English (November 13 – December 15)	**Totals**
Visits to the Website (Sessions)	862
Number of Website Pages Viewed (Pageviews)	1,884
Percent of Total Users Interacting with Mobile Devices/Tablets	47%
Clicked Hyperlinks on Website	500
Project Website, Spanish (November 13 – December 15)	**Totals**
Visits to the Website (Sessions)	32
Number of Website Pages Viewed (Pageviews)	167
Percent of Total Users Interacting with Mobile Devices/Tablets	0%

PARTICIPATION AT A GLANCE

139
Public Meeting Attendees

15
Online Registrations

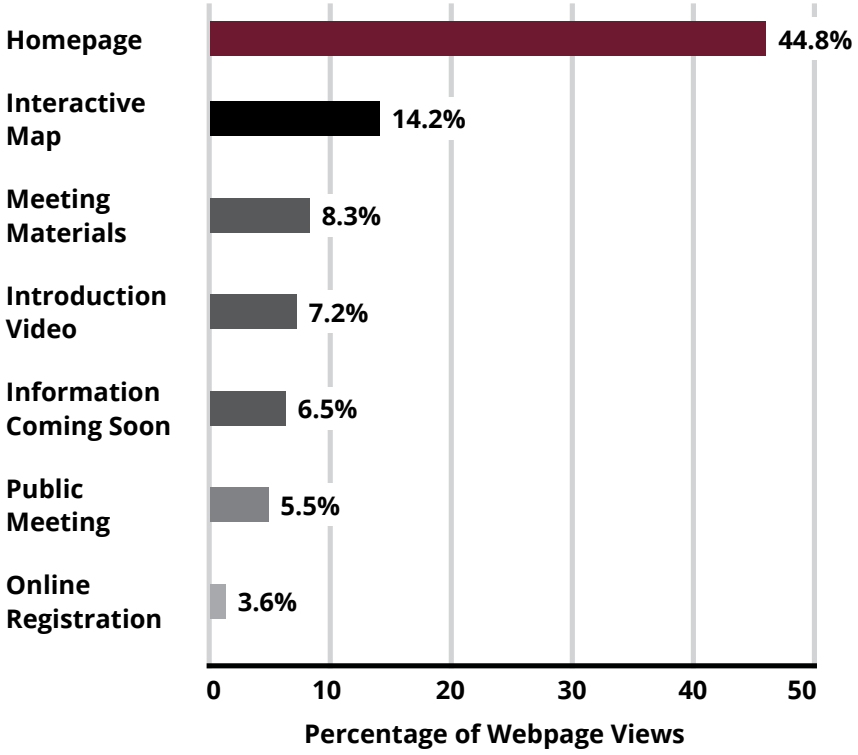
45
Comments Received

580
Unique Visitors to the two Websites

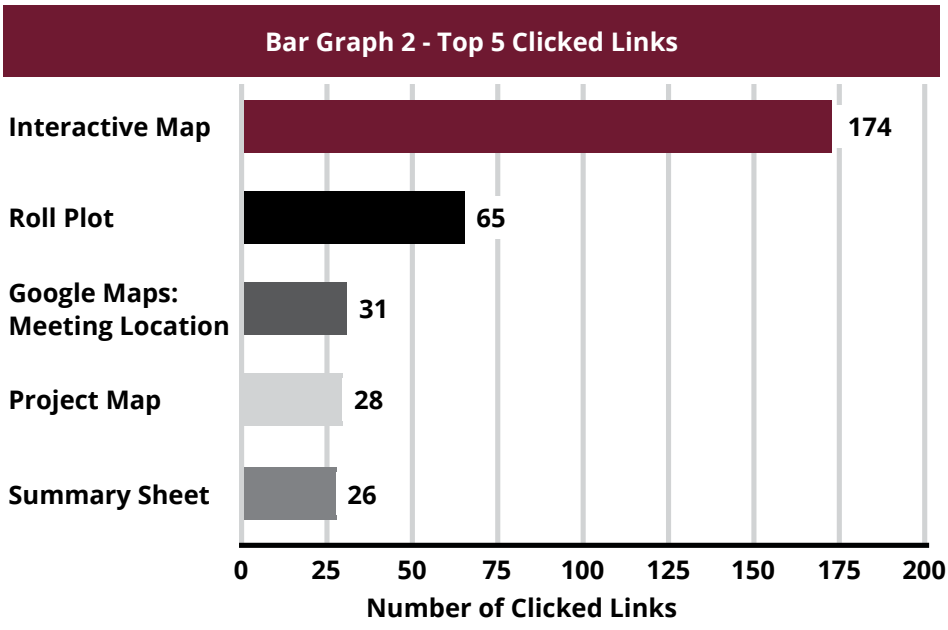
500
Clicked Links (English Website)

PUBLIC MEETINGS & PROJECT WEBSITES

Bar Graph 1 describes the top seven page views on the English website and corresponding percentage based on each individual website page.



Bar Graph 2 describes the top five clicked links on the English website.



WEBSITES AT A GLANCE

2,051
Pageviews

9+
Hours Visitors Engaged with the Site

580
Unique Visitors

892
Sessions

66
Peak Site Traffic in One Day
November 14, 2023

10
Comment Forms Submitted Online

PUBLIC COMMENTS

Garver staff reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is random and is not intended to reflect importance. Some of the comments were combined and/or paraphrased to simplify the synopsis process.

Comment Summary

- Twenty indicated a need for the project; three indicated no need for the project
- Twenty-eight comments made suggestions to add turning lanes, roundabouts, or traffic signals on Highway 5 at several intersections including Bryant Parkway, Market Place Avenue, Main Street, Lowery Lane, and Midland Road.
- Eleven comments stated approval of the project due to safety/traffic flow improvements.
- Ten comments noted a concern of personal property loss or impacts.
- Six comments stated concerns of impacts to historical areas or cemeteries.
- Four comments noted concerns of access to Highway 5 coming out of several neighborhoods, including Hunter's Crossing.
- Three comments suggested a raised median instead of a painted median.
- One comment noted a concern of promoting more commercial development and increase in traffic numbers.
- One comment stated a concern of a large crack in the road north of the Stoneybrook neighborhood on the right side of the Highway.
- One comment suggested signage at the Bryant Parkway intersection to inform drivers.
- One comment was concerned of the project overlapping with the I-30 project in Benton.
- One comment noted a concern of future noise impacts from increased traffic.
- One comment had school traffic concerns.
- One comment suggested to lower the speed limit.
- One comment suggested to add a left turn lane on the island next to the gas station at Snooks Lane.

COMMENTS AT A GLANCE

45
Comments received during the public comment period, which ran from November 17, 2023 through December 15, 2023

10
Online Comment Forms

14
Paper Comment Forms

4
Letters/Emails/Phone Calls

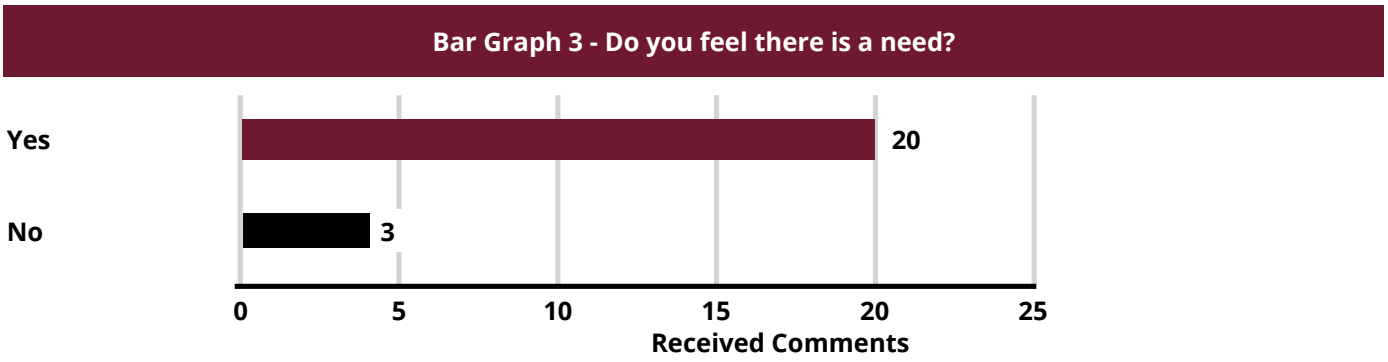
7
Interactive Map Comments

10
Roll Plot Comments

PUBLIC COMMENTS

Is There a Need?

Bar Graph 3 shows the responses to the comment form question, "Do you feel there is a need for the proposed widening of Highway 5 between N. Reynolds Road (Highway 183) and N. Alexander Road (Pulaski Co. Line) in Bryant, Arkansas?"



The following is a list of comments regarding the question, "Do you feel there is a need for the proposed widening of Highway 5 between N. Reynolds Road (Highway 183) and N. Alexander Road (Pulaski Co. Line) in Bryant, Arkansas?"

Yes

- Twelve comments stated approval of the project due to safety/traffic flow improvements.
- Four comments suggested turning lanes or traffic at the Bryant Parkway intersection as well as Midland Road.
- One comment noted no need for the project because it would be promoting commercial developments and eliminating historical and landscaping elements.
- One comment suggested widening Woody Drive.
- One comment noted there is a need because Bryant is growing too fast with different business buildings.

No

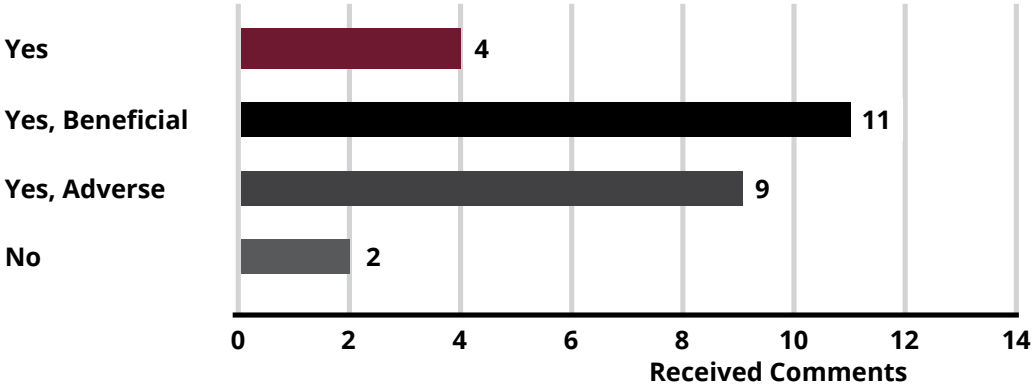
- No comments given.

PUBLIC COMMENTS

Will it Have Impacts?

Bar Graph 4 shows the responses to the comment form question, "Do you feel that the proposed project will have any impacts (Beneficial or Adverse) on your property and or community (economic, environmental, social, etc)?"

Bar Graph 4 - Do you feel the proposed project will have impacts?



The following is a list of comments regarding the question, "Do you feel that the proposed project will have any impacts (Beneficial or Adverse) on your property and or community (economic, environmental, social, etc)?"

Yes

- One comment stated the previous survey indicates 20 feet of their parking lot will be taken and that they would need a fence (wood) and double gate reinstalled along with a new concrete drive.
- One comment stated that accommodations need to be made for the "Center of Arkansas" monument.
- One comment noted a concern for traffic and accidents as well as loud cars racing down the highway.

Yes, Beneficial

- Seven comments stated that the widening will help traffic flow and safety.
- One comment noted water runoff issues will be helped.

Yes, Adverse

- Five comments were concerned about property removal.
- Two comments noted a concern for increased in traffic and safety.
- One comment stated a concern for unnecessary removal of landscaping and historical sites.
- One comment noted the difficulty in driving out of the Hunter's Crossing neighborhood during the project.

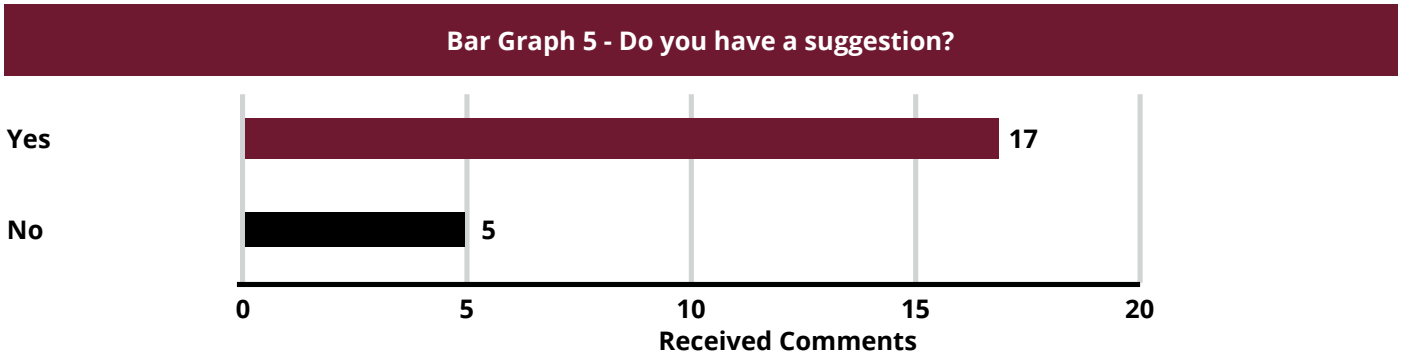
No

- No comments given.

PUBLIC COMMENTS

Have a Suggestion?

Bar Graph 5 shows the responses to the comment form question, "Do you have a suggestion that would make this proposed project better serve the needs of the community?"



The following is a list of comments regarding the question, "Do you have a suggestion that would make this proposed project better serve the needs of the community?"

Yes

- Five comments suggested traffic signals or turning lanes at Bryant Parkway, Market Place Avenue, Main Street, and Lowery Lane.
- Two comments suggested a raised median instead of a painted median.
- Two comments noted a concern of the Soccer Complex on Midland Road and the heavy traffic trying to turn left.
- One comment made a suggestion of a roundabout at Bryant Parkway.
- One comment noted a need for a larger road on Midland for the townhouses being built behind the Dollar General.
- One comment was concerned about their property being taken.
- One comment suggested widening Woody Drive.
- One comment suggested saving taxpayer dollars by placing a ten-foot sidewalk on one side and none on the other side.
- One comment suggested lowering the speed limit to limit noise, make it safer, and make sure the turning lanes are not for passing.
- One comment suggested to get the project done quickly.

No

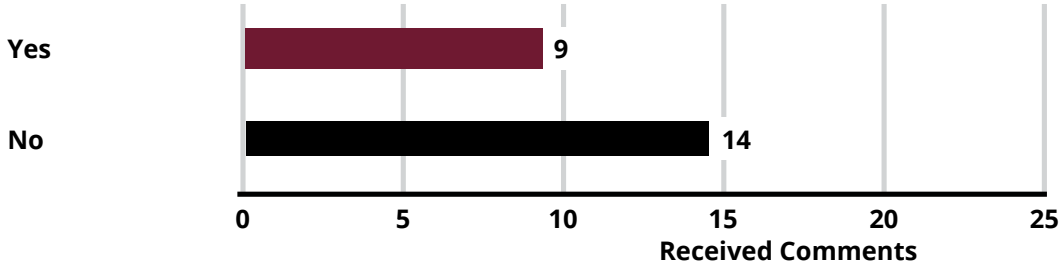
- No comments given.

PUBLIC COMMENTS

Historical Sites, Family Cemeteries, or Archaeological Sites?

Bar Graph 6 shows the responses to the comment form question, "Do you know of any historical sites, family cemeteries, or archaeological sites in the project area?"

Bar Graph 6 - Knowledge of historical sites, family cemeteries, or archaeological sites.



The following is a list of comments regarding the question, "Do you know of any historical sites, family cemeteries, or archaeological sites in the project area?"

Yes

- Two comments mentioned the Andrew Hunter Woods - Dearborn house and that it is on the historical registry in Washington D.C.
- Two comments mentioned accommodations need to be made for the "Center of Arkansas" monument.
- One comment mentioned a World War Two quonset in their back yard.

No

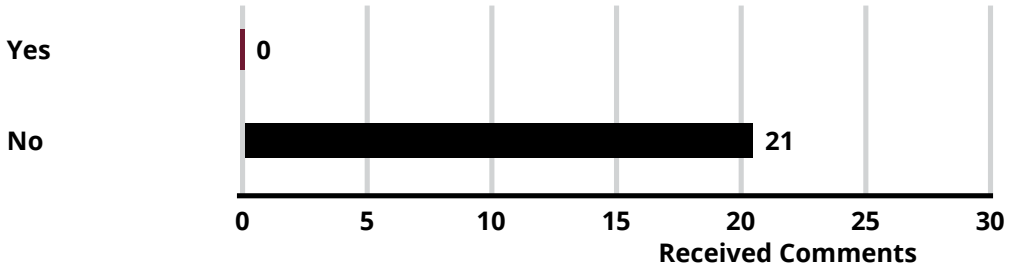
- No comments given.

PUBLIC COMMENTS

Environmental Constraints?

Bar Graph 7 shows the responses to the comment form question, "Do you know of any environmental constraints, such as endangered species, hazardous waste sites, or existing or former landfills, in the vicinity of the project?"

Bar Graph 7 - Do you know of any environmental constraints?



The following is a list of comments regarding the question, "Do you know of any environmental constraints, such as endangered species, hazardous waste sites, or existing or former landfills, in the vicinity of the project?"

No

- No comments given.

Additional Comments

The following is a list of additional comments at the bottom of the comment form

- One comment suggested a 4-lane section with a raised median instead of a 5-lane section with painted median.
- One comment stated the expansion will serve the area well as the city continues to expand and build.
- One comment stated the plan seems unfinished and silly; suggested an acceleration lane with the slip ramp.
- One comment mentioned their business, Marketplace Veterinary Clinic, would be affected by the widening.
- One comment stated that if the project takes part of the property of their church, they want to be reimbursed.
- One comment noted they were not happy about additional traffic right behind their home of 27 years.
- One comment stated they are looking forward to getting the project finished.
- One comment noted a concern of loss of personal property in their driveway and backyard driveway.
- One comment asked for a blacktop extension in front of 3808 Able Lane to the second driveway.
- One comment suggested that Woody Drive be widened as well because of three-foot drops offs on both sides.
- One comment mentioned that several accidents have occurred from cars turning into Hunter's Crossing.
- One comment noted a concern about loss of property asked the road be east of their property line-pins.

PUBLIC COMMENTS

Letter/Email/Phone Call Comments

The following is a list of comments submitted in ways other than a comment form.

- Two comments suggested putting a traffic light at Midland Road and/or Bryant Parkway.
- One comment noted a concern of a large crack in the road north of Stoneybrook that is getting bigger.
- One comment suggested resurfacing the north and south I-30 service roads before doing Highway 5 work, provide right-turn lanes at Bryant Parkway, and build a roundabout at Bryant Parkway.
- One comment approved of a turning lane on Highway 5 and noted a concern for losing more of the wooded line on the highway and asked to replace some of the growth in the area.
- One comment asked for project information because they could not attend the public meeting.

Roll Plot and Interactive Map Comments

The following is a list of comments submitted on maps.

- Two comments asked to add turning lanes at Bryant Parkway.
- One comment mentioned the town homes being built across from the Dollar General.
- One comment stated that Midland Road has a lot of traffic and congestion.
- One comment asked to review the ROW line at Lowery Lane (noted they were promised it would be moved).
- One comment noted increased water run off on Able Lane for 3808.
- One comment stated there was an existing pre-cast RCB near Corral Circle.
- One comment asked to accommodate access to the “Center of Arkansas” monument.
- One comment asked to verify off-site flow (c value) and flooding issues at the corner of Corral Circle.
- One comment indicated there is an unmarked gas station on the North Alexander Road intersection.
- One comment recommend a traffic light at the intersection of Market Place Avenue and Highway 5.
- One comment suggested a traffic light at the intersection of Main Street and Highway 5.
- One comment asked if a modification can be made to allow left turns out of the gas station at Snooks Lane.
- One comment requested to move their existing driveway west to help the driveway grade.
- One comment asked if there is any way to do an easement so they can still have their driveway or not bring the ROW so close to their house.
- One comment stated the new ROW will remove their existing fence, double gate, and concrete drive. Approximately 3,000 square feet of their parking lot will be taken. The fence, gate, and drive will need to be replaced by ARDOT, and ARDOT will need to purchase their land.

SUMMARY OF ATTACHMENTS

Attachments (three separate PDF documents contain the following):

Highway183toPulaskiCoLine_Hwy5_SynopsisAttachments_Outreach

- Public Meeting Outreach
- Outreach Materials
- Screenshots of Public Meeting Website
- Website Analytics Report

Highway183toPulaskiCoLine_Hwy5_SynopsisAttachments_MeetingMaterials

- Public Meeting Materials
- Copies of Meeting Sign-In Sheets
- Small-Scale Copies of Meeting Materials
- Meeting Pictures

Highway183toPulaskiCoLine_Hwy5_SynopsisAttachments_Translations

- Outreach Materials (Spanish)
- Screenshots of Public Meeting Website (Spanish)
- Website Analytics Report (Spanish)
- Small-Scale Copies of Meeting Materials (Spanish)

Highway183toPulaskiCoLine_Hwy5_PublicComments

- Copies of Comments Forms

Appendix C: Conceptual Stage Relocation Study

Conceptual Stage Relocation Study, Inventory and Cost Estimate

The Arkansas Department of Transportation

Job Number 061632
Hwy. 183 – Pulaski Co. Line (Bryant) (Widening) (S)
Saline County

Prepared for the Environmental Division
By Volkert, Inc. - CMGC Team
for the Right of Way Division

Finalized on February 26, 2024

WEAVER BAILEY

Volkert, Inc.
2102 Riverfront, Suite 100
Little Rock, AR 72202
501-917-7510
www.volkert.com

February 26, 2024

TO: John Fleming, Division Head, Environmental

THROUGH: Kevin T. White, P.E., Division Head, Right of Way

FROM: James F. Braden, ROW Project Manager, Volkert, Inc.

SUBJECT: Job 061632
Hwy. 183 – Pulaski Co. Line (Widening) (Bryant) (S) Saline County
CONCEPTIUAL STAGE RELOCATION STATEMENT - CMGC TEAM

GENERAL STATEMENT OF RELOCATION PROCEDURE

Persons displaced as a direct result of acquisition for the proposed project will be eligible for relocation assistance in accordance with Public Law 91-646, Uniform Relocation Assistance Act of 1970. The Relocation Program provides advisory assistance and payments to minimize the adverse impact and hardship of displacement upon such persons. No lawful occupant shall be required to move without receiving a minimum of 90 days advance written notice. All displaced persons; residential, business, farm, nonprofit organization, and personal property relocatees are eligible for reimbursement for actual reasonable moving costs.

Construction of the project will not begin until decent, safe and sanitary replacement housing is in place and offered to all affected persons. It is ARDOT's Policy that adequate replacement housing will be made available, built if necessary, before any person is required to move from their dwelling. All replacement housing must be fair housing and offered to all affected persons regardless of race, color, religion, sex or national origin.

There are two basic types of residential relocation payments: (1) Replacement Housing payments and (2) Moving Expense payments. Replacement Housing payments are made to qualified owners and tenants. An owner may receive a payment of up to $31,000.00 for the increased cost of a comparable replacement dwelling. The amount of this payment is determined by a study of available replacement housing on the private market. Owners may also be eligible for payments to compensate them for the increased interest cost for a new mortgage and the incidental expenses incurred in connection with the purchase of a replacement dwelling. A tenant may receive a rental subsidy payment of up to $7,200.00. Tenants may elect to receive a down payment rather than a rental subsidy to enable them to purchase a replacement dwelling. Replacement housing payments are made in addition to moving expense payments.

Businesses, farms and nonprofit organizations are eligible for reestablishment payments, not to exceed $50,000.00. Reestablishment expense payments are made in addition to moving expense payments. A business, farm or nonprofit organization may be eligible for a fixed payment in lieu of the moving costs and reestablishment costs if relocation cannot be accomplished without a substantial loss of existing patronage. The fixed payment will be computed in accordance with the Uniform Relocation Act and cannot exceed $40,000.00.

If the displaced person is not satisfied with the amounts offered as relocation payments, they will be provided a form to assist in filing a formal appeal. A hearing will be arranged at a time and place convenient for the displaced person, and the facts of the case will be promptly and carefully reviewed.

Relocation services will be provided until all persons are relocated or their relocation eligibility expires. Consultant's Office will have listings of available replacement housing and commercial properties. Information is also maintained concerning other Federal and State Programs offering assistance to displaced persons.

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Based on preliminary construction plans, aerial photographs, and on-site project reviews, it is estimated that the subject project could cause the following displacements and costs:

	Proposed Project:	
5	Residential Owners	$ 340,000.00
4	Residential Tenants	$ 140,000.00
7	Businesses	$ 402,000.00
10	Landlord Businesses	$ 530,000.00
65	Personal Properties	$ 108,000.00
	TOTAL	$1,520,000.00

The general characteristics of the displacees to be relocated are listed on the Conceptual Stage Inventory Record forms in the back of this report. The general characteristics have been determined by a visual inspection of the potential displacement locations by Relocation Coordinators. The Relocation Coordinators utilize area demographic data, visual inspections, past experiences and knowledge in making this determination.

An available housing inventory has been compiled and it indicates there are at least twenty-four comparable replacement dwellings available for sale and fourteen comparable replacement dwellings available for rent within a reasonable proximity of the project area. At least twenty commercial properties are currently for sale or for lease in the project area. A breakdown of the available properties is as follows:

Residential (For Sale)	*Number Of Units*
$100,000 - $149,999	1
$150,000 - $199,999	9
$200,000 - $250,000	6
$250,001 and up *Total*	8
	24

Residential (Monthly Rent)	
$501 - $1,000	1
$1,001 - $1,500	9
$1,501 and up	4
Total	**14**

Commercial Properties (For Sale)	
$ 0.00 - $ 200,000	1
$ 200,001 - $ 400,000	3
$ 400,001 - $ 600,000	2
$ 600,001 - $ 800,000	1
$ 800,001 - $1,000,000	0
$1,000,000 and up	0
Total	**7**

Commercial Properties (For Lease, Annual $)	
$50,001 - $ 75,000	2
$20,001 - $ 30,000	6
$30,001 - $ 40,000	1
$40,001 - $ 50,000	0
$50,001 - $ 75,000	2
$75,001 - $ 125,000	2
Total	**13**

Seven Residential and Seven Commercial Vacant Land and Lot Listings are also included in the following inventory. The properties are located in Bryant and Benton and provide additional replacement property options for constructing improvements.

This is a highway improvement and widening project for Highway 5 in Bryant, AR. The units contained in the housing inventory are in Bryant, Benton, Alexander and Saline County. The dwellings and number of dwellings are comparable and adequate to provide replacement housing for the families displaced on the project. The housing market should not be detrimentally affected and there should be no problems with insufficient housing at this time. In the event housing cannot be found or can be found but not within the displacees' economic means at the time of displacement, Section 206 of Public Law 91-646 (Housing of Last Resort) will be utilized to its fullest and practical extent.

The replacement property inventory was compiled from data obtained from real estate companies, web sites, individual property owners for the subject area. The dwellings contained in the inventory have been determined to be comparable and decent, safe and sanitary. The locations of the comparable dwellings are not less desirable in regard to public utilities and public and commercial facilities, are reasonably accessible to the displacees' places of employment, adequate to accommodate the displaced persons, and in neighborhoods which are not subject to unreasonable adverse environmental factors. It has also been determined that the available housing is within the financial means of the displaced persons and is fair housing open to all persons regardless of race, color, sex, religion or national origin consistent with the requirements of 49 CFR, Subpart A, Section 24.2 and Title VIII of the Civil Rights Act of 1968.

A commercial property inventory indicates there are at least seven properties available in the subject area at this time to purchase and at least thirteen properties available for lease. The businesses displaced on the project may not be able to relocate in the immediate area of their displacement resulting in termination of the operation. However, in order to assist the displaced businesses in relocating, the State will explore all possible sources of funding or other resources that may be available to businesses. Sources that will be considered include: State and Local entities, the Department of Housing and Urban Development, the Economic Development Commission, the Small Business Administration and other Federal Agencies. Emphasis will be given in providing relocation advisory services to the businesses. Appropriate measures will be taken to ensure that each entity displaced is fully aware of their benefits, entitlements, courses of action that are open to it, and any special provisions designed to encourage businesses to relocate within the same community.

All displacees will be offered relocation assistance under provisions in the applicable FHWA regulations. At the time of displacement another inventory of available housing in the subject area will be obtained and an analysis of the market made to ensure that there are dwellings adequate to meet the needs of all displaced persons. Also, special relocation advisory services and assistance will be administered commensurate with displaced person's needs, when necessary. Examples of these include, but are not limited to, Housing of Last Resort as previously mentioned and consultation with local officials, social and federal agencies and community groups.

The business displacements may include an office where there are workers that may be independent contractors. Independent contractors may or may not be considered individual businesses for the purposes of the Uniform Act, depending on certain criteria. The actual number of eligible businesses will be determined through the relocation interview process and the application of 49 CFR 24.305(b). There are several residential dwellings in close proximity to the proposed right of way and some vacant structures to be acquired on the route. In the event that additional persons are determined to be displaced, they will be afforded all the rights and entitlements described above.

At least two displaced businesses may require additional time to relocate their operation due to the nature of the business and operations. At least one displaced retail business has a third party operating agreement that includes requirements for the business location, floor plan and retail square footage space for the store. At least one displaced business includes multiple displaced personal property occupants.

Final design plans and individual property inspections may reveal additional displaced persons. Examples could include design restrictions to construct a replacement access drive or lack of residual property to repair or replace acquired septic systems. The current available residential replacement properties for sale and for rent indicate an adequate supply for additional residential displaced households.

There are no other unusual conditions involved with this project.

Type Relocation	Number	Residential Property Values or Rental Rates	Number in Household (Range)	Employees Affected (Range)	Length of Occupancy (Range)	Minority Households	Elderly Households	Low Income Households
Residential Owners	5	$110,000 to $150,000	1 to 4	N/A	2 to 30	0	0	N/A
Residential Tenants	4	$1,000 to $1,350 per Month	1 to 5	N/A	1 to 8	0	0	N/A
Businesses	7			1 to 30	1 to 25			
Landlord Businesses	10			1 to 4				
Nonprofit Organizations	0							
Personal Properties	68				1 Month to 25 years	N/A	N./A	
Totals	94	N/A	N/A	N/A	N/A	0	0	N/A

RELO #	RELO TYPE	Street #	Street Name	Unit #	IMP. VAL	IMP. RENT	Family Size or # Employees	Occ Length	Eld? Y/N/U	Min? Y/N/U	Low Inc? Y/N/U	DSS? Y/N/U
1	Business	5928	Hwy.5 N.			$6,000	5 to 10					
2	LL Business	5928	Hwy.5 N.		$750,000		2					
3	Business	3507	Main St.	1		$3,500	30					
4	Business	3507	Main St.	2		$3,000	4 to 6					
5	LL Business	3507	Main St.		$650,000		4					
6	Business	6309	Hwy.5 N.			$2,000	4					
7	LL Business	6309	Hwy.5 N.		$225,000		1					
8	Personal Property	6700	Hwy.5 N.									
9	Busniess	8017	Hwy. 5 N.			$3,000	1 to 3					
10	LL Business	8017	Hwy. 5 N.		$250,000		1					
11	20 Personal Properties	8017	Hwy. 5 N.									
12	Res Owner	8201	Hwy.5 N.		$150,000		2	20	N	N	N	Y
13	Res Owner	8301	Hwy.5 N.		$135,000		2	30	N	N	N	Y
14	Res Tenant	8311	Hwy.5 N.			$ 1,150.00	4	4	N	N	N	Y
15	LL Business	8311	Hwy.5 N.		$135,000		1					
16	Res Owner	8317	Hwy.5 N.		$145,000		4	15	N	N	N	Y

Appendix D: Noise Assessment Report

NOISE ASSESSMENT REPORT

SCREENING LEVEL ANALYSIS

ARDOT JOB 061632

HWY. 183 – PULASKI CO. LINE (WIDENING) (BRYANT) (S)

Fundamentals of Sound and Noise

Noise is defined as unwanted or undesirable sound. The three basic parameters of how noise affects people are summarized below.

Intensity is determined by the level of sound expressed in units of decibels (dB). A 3 dB change in sound level is barely perceptible to most people in a common outdoor setting. However, a 5 dB increase presents a noticeable change and a 10 dB sound level increase is perceived to be twice as loud. Outdoor conversation at normal levels at a distance of 3 feet becomes difficult when the sound level exceeds the mid-60 dBA range.

Frequency is related to the tone or pitch of the sound. The amplification or attenuation of different frequencies of sound to correspond to the way the human ear "hears" these frequencies is referred to as "A-weighting." The A-weighted sound level in decibels is expressed as dBA.

Variation with time occurs because most noise fluctuates from moment to moment. A single level called the equivalent sound level (Leq) is used to compensate for this fluctuation. The Leq is a steady sound level containing the same amount of sound energy as the actual time-varying sound evaluated over the same time period. The L_{eq} averages the louder and quieter moments but gives more weight to the louder moments.

For highway noise assessment purposes, Leq is typically evaluated over the worst 1-hour period and written as Leq(h). The Leq(h) commonly describes sound levels at locations of outdoor human use and activity and reflects the conditions that will typically produce the worst traffic noise (e.g., the highest traffic volumes traveling at the highest possible speeds).

Noise Impact and Abatement Criteria

Traffic noise impacts are determined by comparing design year Leq(h) values to: (1) a set of Noise Abatement Criteria (NAC) for different land use categories; and (2) existing Leq(h) values. A noise impact occurs when design year (future build) levels approach or exceed the NAC value or a substantial increase in noise occurs. A substantial increase is defined as 10 dBA or greater than existing noise levels.

A *noise sensitive receptor* (receptor) is defined as a representative location of a noise sensitive area for various land uses. Most receptors associated with highway traffic noise analysis are categorized as NAC Activity Category B (residential) and C (e.g., schools and daycare centers, places of worship, parks, hospitals). Since the NAC threshold for Activity Categories B and C is 67 dBA, the approach level is 66 dBA.

For screening level noise analysis (screening analysis) purposes, the ARDOT *Policy on Highway Traffic Noise Abatement* requires determining noise levels within 4 decibels of the NAC. The screening analysis threshold for Activity Categories B and C is 63 dBA.

Consideration of noise abatement measures is required when the NAC threshold is approached or exceeded, when a substantial increase is predicted, and/or when receptors are identified within the screening analysis threshold. Noise barriers (e.g., walls or berms) are the most common noise abatement measures.

Screening Level Noise Analysis

A screening level noise analysis (screening analysis) may be performed for projects that are unlikely to cause noise impacts and/or where noise abatement measures are likely to be unfeasible for acoustical or engineering reasons. Factors common to these types of projects include low traffic volumes, slower speeds, the presence of few or no receptors, and the need for roadway access points (e.g., driveways, intersections, Main Street scenarios, etc.).

Screening analysis results represent a worst-case scenario with higher sound levels than would be expected in detailed modeling and may be used to determine the need for detailed analysis if noise impacts are likely and the placement of noise barriers is feasible. It may also be used for projects that lack receptors to assess impacts on undeveloped land.

The FHWA Traffic Noise Model Version 2.5 (TNM) software program is used to predict existing and future Leq(h) traffic noise levels. The TNM straight line model uses the existing year and design year traffic and roadway information. Receivers (discrete points modeled in the TNM program) are incrementally placed away from the roadway centerline to determine the distance to which impacts extend. The model assumes that the roadway and receivers were located at the same elevation with no intervening barriers such as topography or dense vegetation.

Project Evaluation and Screening Analysis Results

Activity Category B, C, and D receptors were identified in the project corridor. However, noise abatement measures were determined to not be feasible for the majority of the proposed project corridor because established land uses require driveways and intersecting roadways. A screening analysis was therefore considered appropriate as the initial noise assessment for this project.

TNM modeling was completed using the existing year 2024 and design year 2044 (future build) traffic and roadway information. The no build alternative was also modeled. Receivers were extended from the centerline of Hwy. 5 to distances correlating to approximately 66 dBA for existing, no build, and future build conditions to determine potential impacts, and to 63 dBA for future build conditions to determine receptors within the 63 dBA screening analysis threshold. The tenth value was used for rounding the decibel levels (e.g., 63.3 dBA reported as 63 dBA). The model calculation tables and input data are attached.

Approximately 31 receptors were predicted to experience noise impacts under future build conditions at a distance of 100 feet. Of these receptors, approximately 17 were predicted to experience noise impacts under the existing and no build alternatives at a distance of 90 feet. While not impacted by noise, approximately 37 receptors were predicted to experience noise levels within the 63 dBA screening analysis threshold at a distance of 175 feet under future build conditions. The predicted noise impact and screening analysis threshold distances and receptors are shown on the attached figures.

As previously noted, access points such as driveways and intersections are needed along most of the project corridor. For engineering reasons, it would not be possible to construct an effective noise barrier accommodating these access points. However, the East Ridge Subdivision was identified as a noise-impacted location for which a noise barrier could preliminarily be considered. A detailed noise analysis will be completed for this location.

Project construction operations typically increase noise levels. These increases would be temporary and have minimal to minor adverse effects on land uses and activities in the project area. Local ordinances may prohibit construction activities or restrict noise levels or high noise levels between certain time periods (e.g., nighttime and/or weekend work). Other temporary construction noise reduction measures may also be considered.

Planning Information for Local Officials

ARDOT encourages local communities and developers to practice noise compatibility planning. As presented in **Table 1** noise level predictions for future build conditions were made at incremental distances. As previously described, exterior areas of Activity Category B (residential), C, and D would be impacted within a distance of approximately 100 feet from the centerline of Hwy. 5. These predictions do not represent noise levels at every location at a particular distance back from the roadway. Noise levels will vary with changes in terrain and other site conditions.

Table 1. Noise Levels for Compatibility Planning

Distance (ft)*	Leq(h), dBA**
100	66
175	63
200	62
300	59
400	55
500	52

* Perpendicular to centerline of Hwy. 5

** Rounded to tenth value

Table 2 presents the NAC. This information is included to inform local officials and planners of anticipated noise levels so that future development will be compatible. In compliance with federal guidelines, a copy of this screening analysis will be transmitted to Metroplan and the City of Bryant for land use planning purposes. A guidance document on noise compatible land use planning is available from the FHWA at the following link:

https://www.fhwa.dot.gov/ENVIRonment/noise/noise_compatible_planning/federal_approach/audible_landscape/al01.cfm

Table 2. Noise Abatement Criteria (NAC)

Activity Category	$L_{eq(h)}$ dBA	Evaluation Location	Activity Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B*	67	Exterior	Residential properties.
C*	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structure, radio stations, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structure, radio studios, recording studios, schools, and television studios.
E*	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D, or F.
F	–––	–––	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	–––	–––	Undeveloped lands that are not permitted.

***** Includes undeveloped lands permitted for this activity category.

RESULTS: SOUND LEVELS Job 061632

ARDOT
M.Pearson

4 January 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Job 061632
RUN: Existing 2024
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
25	1	1	0.0	72.3	66	72.3	10	Snd Lvl	72.3	0.0	8	-8.0
50	2	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
75	3	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
90	4	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
100	5	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
125	6	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
150	7	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
175	9	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
200	10	1	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
250	11	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
300	12	1	0.0	53.8	66	53.8	10	----	53.8	0.0	8	-8.0
400	13	1	0.0	50.5	66	50.5	10	----	50.5	0.0	8	-8.0
500	14	1	0.0	48.1	66	48.1	10	----	48.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	13	0.0	0.0	0.0
All Impacted	4	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

RESULTS: SOUND LEVELS Job 061632

ARDOT
M.Pearson

19 March 2024
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Job 061632
RUN: No Build 2044
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
50	1	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
75	2	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
90	3	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
125	4	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
150	5	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
175	6	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
200	7	1	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
250	9	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
300	10	1	0.0	53.8	66	53.8	10	----	53.8	0.0	8	-8.0
400	11	1	0.0	50.5	66	50.5	10	----	50.5	0.0	8	-8.0
500	14	1	0.0	48.1	66	48.1	10	----	48.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	11	0.0	0.0	0.0
All Impacted	3	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

RESULTS: SOUND LEVELS Job 061632

ARDOT
M.Pearson

26 February 2024
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Job 061632
RUN: Proposed 2044
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
75	1	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
100	2	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
125	3	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
150	4	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
175	5	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
200	6	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
225	7	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0
250	9	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
300	10	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
400	11	1	0.0	55.2	66	55.2	10	----	55.2	0.0	8	-8.0
500	14	1	0.0	52.2	66	52.2	10	----	52.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	11	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

NOISE DATA WORKSHEET

Job No: 061632

Job Name: Hwy. 183-Pulaski Co. Line (Widening) (Bryant)

Roadway Reference: Hwy. 5

County: Saline

Design Year: **2044**

Year(s) To Be Modeled: **2024** **2044**

Roadway Cross-Sections:

2 11' lanes	2 4' shoulder	total width = 30'
2024	**EXISTING**	

Note: DHV = (ADT)(K)
DDHV = (ADT)(K)(D)
K - Percent of ADT occuring in design hour
D - Directional Distribution

Operating Speed: 45 **Kfactor** **11%**

Traffic Data:

YEAR	ADT	%TRUCK	DHV	CARS	MT	HT	CARS/2	MT/2	HT/2
					10%	90%			
				0	0	0	0	0	0
2024	14,000	1%	1540	1525	2	14	762	1	7

NOISE DATA WORKSHEET

Job No: 061632

Job Name: Hwy. 183-Pulaski Co. Line (Widening) (Bryant)

Roadway Reference: Hwy. 5

County: Saline

Design Year: **2044**

Year(s) To Be Modeled: **2024** **2044**

Roadway Cross-Sections:

2 11' lanes	2 4' shoulder	total width = 30'
2024	**NO BUILD**	

Note: DHV = (ADT)(K)
DDHV = (ADT)(K)(D)
K - Percent of ADT occuring in design hour
D - Directional Distribution

Operating Speed: 45 **Kfactor** **11%**

Traffic Data:

YEAR	ADT	%TRUCK	DHV	CARS	MT	HT	CARS/2	MT/2	HT/2
					10%	**90%**			
				0	0	0	0	0	0
2044	17,000	1%	1870	1851	2	17	926	1	8

NOISE DATA WORKSHEET

Job No: 061632

Job Name: Hwy. 183-Pulaski Co. Line (Widening) (Bryant)

Roadway Reference: Hwy. 5

County: Saline

Design Year: **2044**

Year(s) To Be Modeled: **2024** **2044**

Roadway Cross-Sections: 66' face-to-face

2044 **PROPOSED**

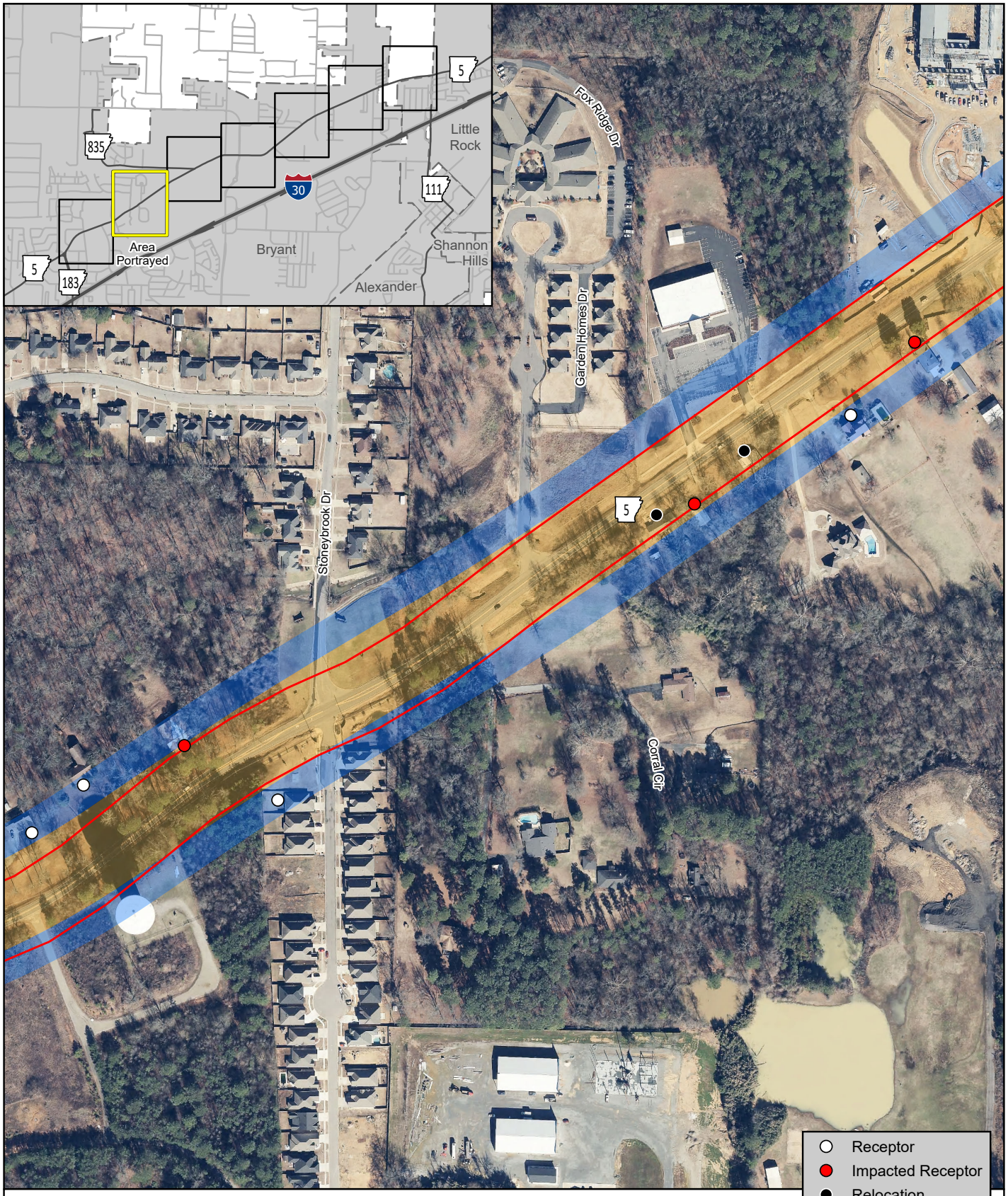
Note: DHV = (ADT)(K)
DDHV = (ADT)(K)(D)
K - Percent of ADT occuring in design hour
D - Directional Distribution

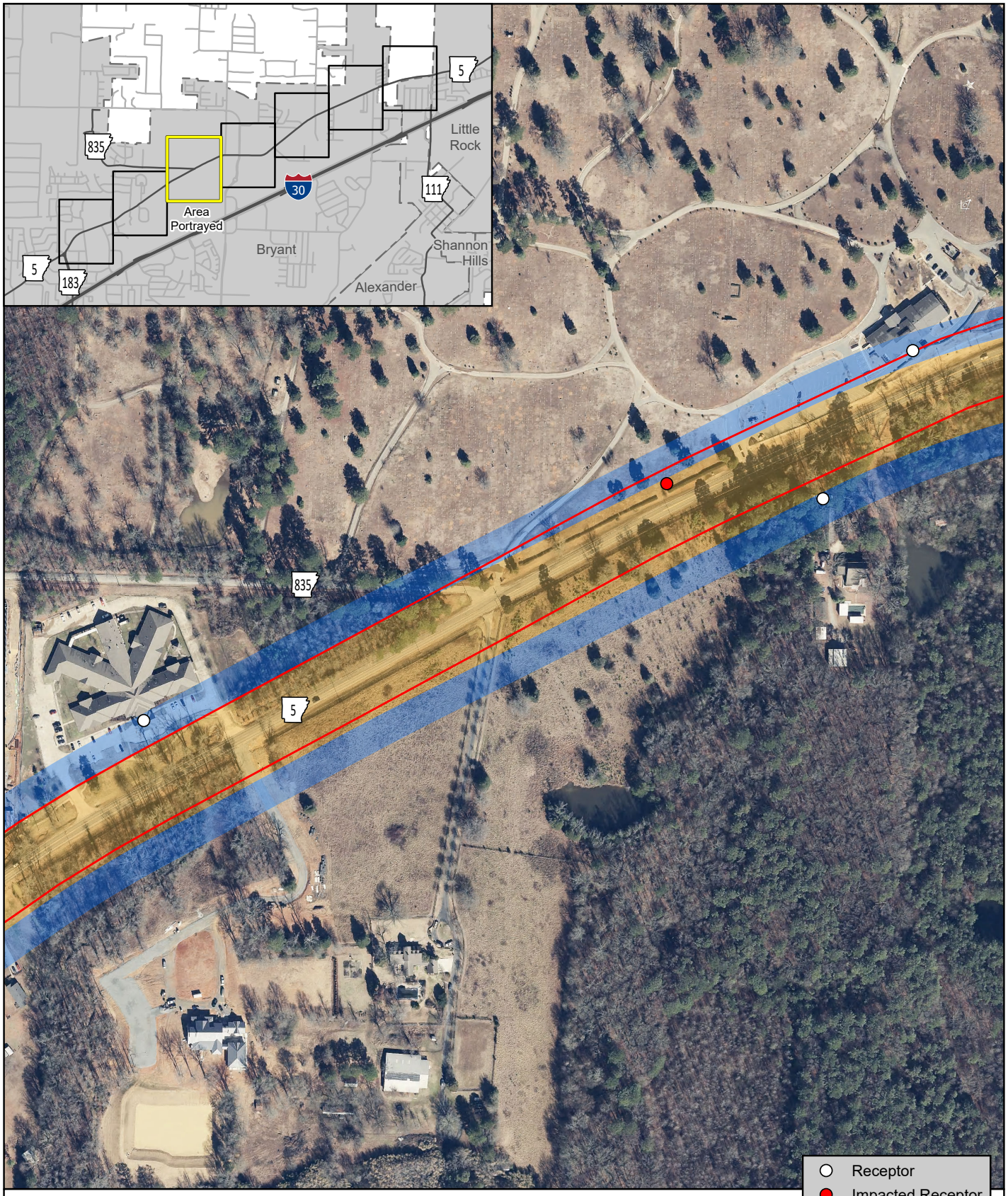
Operating Speed: 45 **Kfactor** **11%**

Traffic Data:

YEAR	ADT	%TRUCK	DHV	CARS	MT	HT	CARS/2	MT/2	HT/2
					10%	90%			
				0	0	0	0	0	0
2044	17,000	1%	1870	1851	2	17	926	1	8

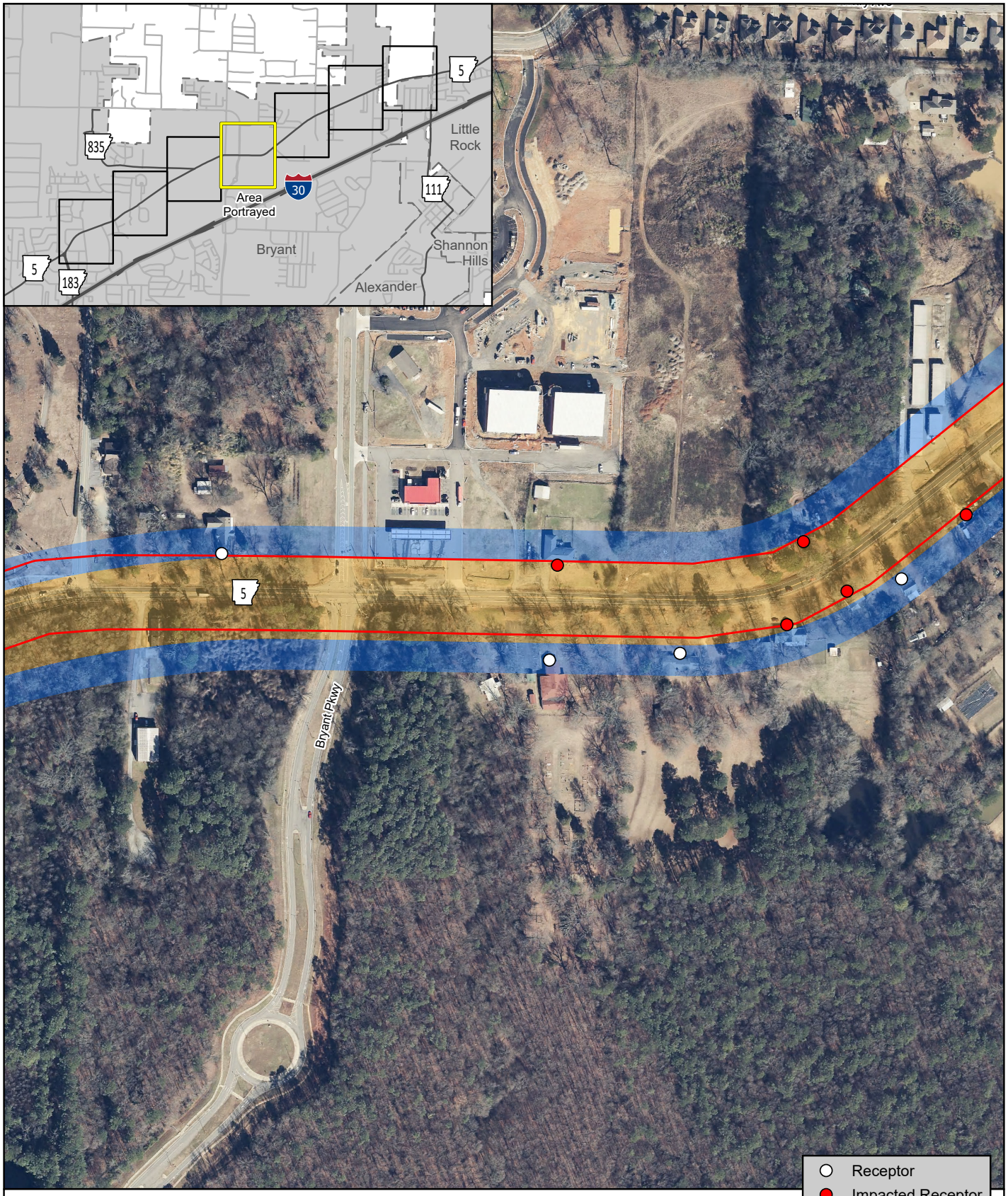

Area Portrayed
Little Rock
Bryant
Shannon Hills
Alexander
835
30
111
5
183
Able Ln
Lowery Ln
Dearborn Cir
Main St
Market Place Ave
Harvest Dr
Horizon Ave
Broadway Ave
Receptor
Impacted Receptor
Relocation
90 ft - No Build
100 ft - Proposed
175 ft - Proposed
N
0 150 300
Feet
Job 061632
ARDOT - Environmental GIS - Strawn
March 18, 2024
Noise Level Distances
Page 1 of 7
Photography: ADOP 2023

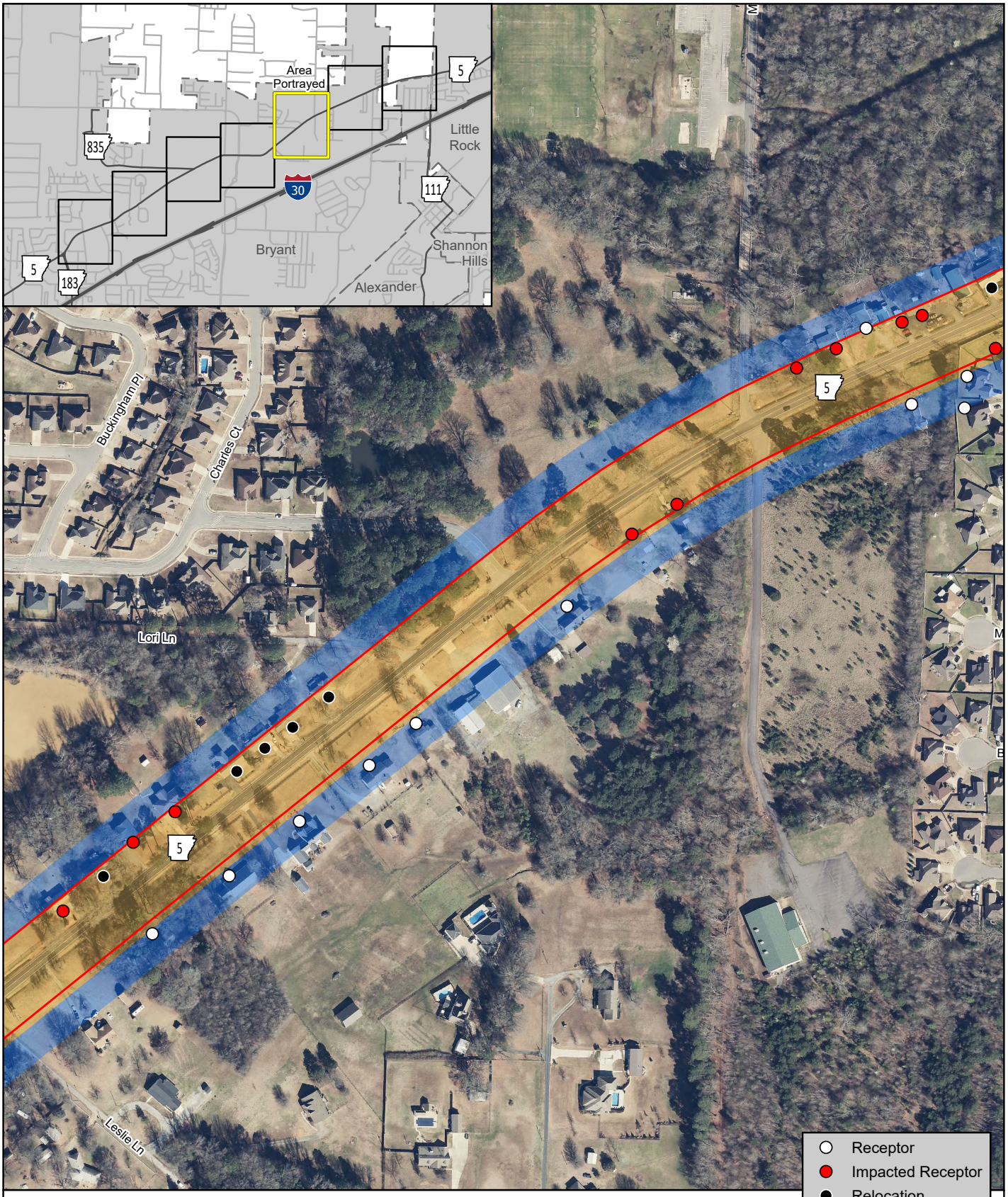

Little Rock
Bryant
Shannon Hills
Alexander
Area Portrayed
835
30
111
5
183
Fox Ridge Dr
Garden Homes Dr
Stoneybrook Dr
Corral Cir
Receptor
Impacted Receptor
Relocation
90 ft - No Build
100 ft - Proposed
175 ft - Proposed
N
0 150 300
Feet
Job 061632
ARDOT - Environmental GIS - Strawn
March 18, 2024
Noise Level Distances
Page 2 of 7
Photography: ADOP 2023



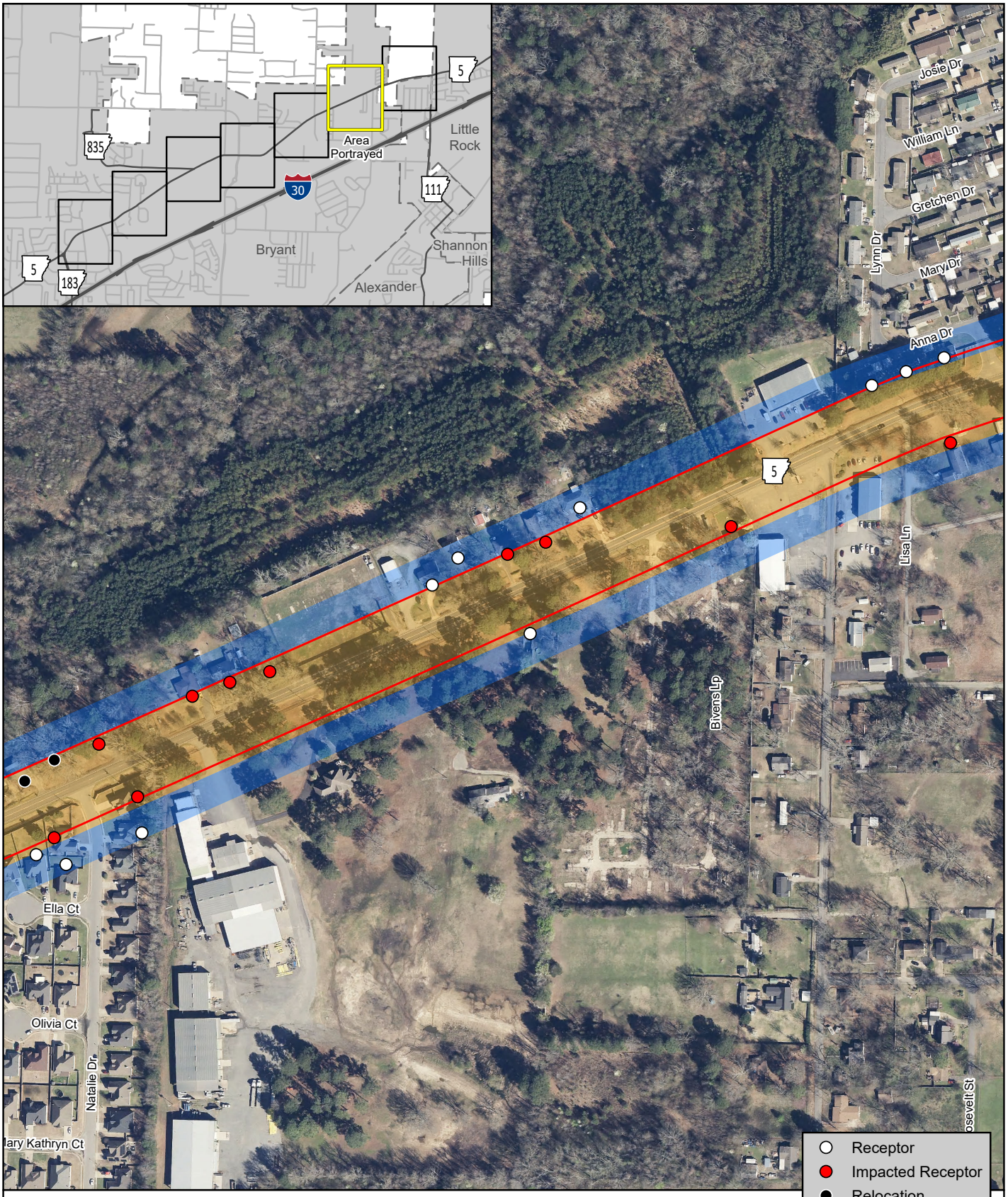
Job 061632
ARDOT - Environmental GIS - Strawn
March 18, 2024

Noise Level Distances
Page 3 of 7


5
Little Rock
835
30
111
Area Portrayed
Bryant
Shannon Hills
5
183
Alexander
5
Bryant Pkwy
Receptor
Impacted Receptor
90 ft - No Build
100 ft - Proposed
175 ft - Proposed
N
0
150
300
Feet
Job 061632
ARDOT - Environmental GIS - Strawn
March 18, 2024
Noise Level Distances
Page 4 of 7
Photography: ADOP 2023



Noise Level Distances
Page 5 of 7


Area Portrayed
Little Rock
Bryant
Shannon Hills
Alexander
835
30
111
5
183
Josie Dr
William Ln
Gretchen Dr
Lynn Dr
Mary Dr
Anna Dr
Lisa Ln
Bivens Lp
Ella Ct
Olivia Ct
Natalie Dr
Receptor
Impacted Receptor
Relocation
90 ft - No Build
100 ft - Proposed
175 ft - Proposed
N
0 150 300
Feet
Job 061632
ARDOT - Environmental GIS - Strawn
March 18, 2024
Noise Level Distances
Page 6 of 7
Photography: ADOP 2023


Area Portrayed
5
Little Rock
835
30
111
Bryant
Shannon Hills
Alexander
5
183
Michele Dr
5
Aliza Dr
Red Gate Dr
Stephanie Dr
Alexander Hwy
Jan Dr
111
Aaron Dr
Ashley Dr
Sarah Dr
Stacy Dr
Kelly Dr
Don Dr
N
0
150
300
Feet
Job 061632
ARDOT - Environmental GIS - Strawn
March 18, 2024
Noise Level Distances
Page 7 of 7
Receptor
90 ft - No Build
100 ft - Proposed
175 ft - Proposed
Photography: ADOP 2023

Appendix E: Visual Impact Assessment

ARKANSAS DEPARTMENT OF TRANSPORTATION
ArDOT.gov | IDriveArkansas.com | Scott E. Bennett, P.E., Director
10324 Interstate 30 | P.O. Box 2261 | Little Rock, AR 72203-2261 | Phone: 501.569.2000

INTEROFFICE MEMORANDUM

January 30, 2024

TO: Project File

FROM: Katie Rose, Environmental Impact Analyst, Environmental Division

SUBJECT: Job Number 061632
FAP Number
Hwy. 183 – Pulaski Co. Line (Widening) (Bryant) (S)
Saline County
Visual Impact Assessment Technical Memorandum

Purpose of this Memorandum

The purpose of this Visual Impact Assessment (VIA) Memorandum (memo) is to evaluate potential visual impacts associated with the Highway (Hwy.) 5 widening project between Hwy. 183 and the Pulaski County Line. The VIA was prepared using guidance outlined in the *Guidelines for the Visual Impact Assessment of Highway Projects* published by the Federal Highway Administration (FHWA) in January 2015.

Visual Impact Assessment

The VIA Scoping Questionnaire was completed. As shown in Attachment 1, the response to each question typically has a value between 0 and 3 resulting in an overall score of 14. Consistent with FHWA guidelines, a score of 10 to 14 recommends the preparation of a brief visual impact assessment in memo format. This memo documents the recommended level of assessment.

Visual resource and VIA definitions for the concepts and terms used in the remainder of this memo are provided in Attachment 2. The visual impacts described are associated with Alternative 1; no impacts are anticipated under the No Action Alternative.

Proposed project viewers are categorized as either neighbors or travelers. Neighbors include residents and business occupants. Travelers include users of the project corridor and adjacent roadways.

Existing Visual Character

The build alternative's project corridor extends approximately 3.2 miles from Hwy. 183 east to the Pulaski County line. It would involve widening existing Hwy. 5 from two to five lanes with curb and gutter, a 5' wide sidewalk with a 3' wide berm on the north side, and a 10' wide shared use path with a 6' wide berm on the south side. The road will run mostly on existing alignment. The following are exceptions where the road will be realigned on new location

- The start of the job west of Main St. the road will be moved south on new location until it realigns between Main St. and Market Place Ave., resulting in 2 tenant business buildings being relocated.
- The road will move onto new alignment north of the existing road starting at Market Place Ave. and continuing until Foxridge Dr.
- The intersection of Hwy. 5 and Woody Drive will be realigned, with Woody Dr. moving onto new location west of its current intersection.
- Hwy. 5 will then move onto new alignment to the south of the current road beginning at the intersection with Woody Dr. and continuing until the intersection with Bryant Pkwy.
- The intersection of Lori Ln. with Hwy. 5 will be realigned to the west of its existing location.

The project study area is moderately hilly. Elevations range from approximately 338 to 454 feet above mean sea level. Long distance views are uncommon due to a combination of hills and curves and the screening effect of wooded areas. These wooded areas consist primarily of pine and hardwood forest and are dense at some locations.

The existing segments of the corridor lack medians, curbs and gutters, and sidewalks. Throughout the corridor, many of the residences feature trees, grassy lawns, and other landscaping elements. Additionally, several neighboring structures afford partial or complete views of the roadway and are in turn visible to travelers.

There are two large cemeteries along the project. The Forest Hills cemetery currently has a view of Hwy. 5 and the road will be widened away from the cemetery so the view is unlikely to be impacted. The Pinecrest Memorial Park has a hedge currently separating the cemetery from Hwy. 5. If the hedge were to be

removed, the view of the road from the cemetery will become more prominent. On current plans, the hedge appears to be outside of the proposed right of way and should remain in place, limiting the visual impacts on this location.

Permanent Impacts

The widening and realignment of the road and the addition of sidewalks will mean several residences and businesses will be in closer proximity to the highway. This could be seen as an adverse visual impact for the affected residences, while increased visual exposure for businesses could be seen as beneficial.

The relocations associated with this project will remove visual resources that were present before. However, the proposed roadway cross section and materials are typical of transportation improvements in the Bryant area. Visual resources uncommon in the area would not be introduced, and landforms would not be noticeably altered. Local planning and development guidelines would be taken into consideration during final design to ensure visual compatibility of the proposed project. In addition to meeting the city's "Walk Bike Drive Master Transportation Plan" adopted March 28, 2017, the proposed bike lanes and sidewalks and grassy bermed areas would also enhance the corridor's appearance. Based on the factors described above, the visual resources of these facilities are predicted to be beneficial to the existing overall visual character of the corridor. Overall visual quality is therefore predicted to be enhanced for the majority of business neighbors and for travelers.

Based on predicted viewer exposure and sensitivity, permanent adverse impacts would be minor and localized for residents for whom exposure will increased. These residents are located along the length of the Hwy 5 corridor in the project area. However, some of this residential area has been rezoned as commercial, and the new business occupants of the area may benefit from the increased exposure.

Temporary Impacts

Project construction would result in the short-term presence of construction vehicles and equipment, grading and excavation, and vegetation clearing throughout the project area. The areas where construction and grading would remove existing natural vegetation would be viewable by travelers and site-specific neighbors. Grading and excavation activities and the presence of construction vehicles and equipment would result in a temporary change in the visual character of the project corridor. These activities would be short-term. Impacts in roadside cleared areas would be short/medium-term until new vegetation becomes

established. These temporary visual impacts would be minor and not expected to result in an adverse response by typical viewers.

Avoidance, Minimization and/or Mitigation Measures

The proposed project's visual resources (e.g, a shared use path and sidewalks) would complement the visual character desired by the community as expressed in the city's "Walk Bike Drive Master Transportation Plan." Impacts to existing vegetation within the project area would be minimized through revegetation efforts as part of the process to ensure that biological resources are not adversely affected.

Attachments

1. VIA Scoping Questionnaire
2. VIA Definitions