

**FEDERAL HIGHWAY ADMINISTRATION**

**FINDING OF NO SIGNIFICANT IMPACT**

FOR

STATE PROJECT NO. H.001271

FEDERAL AID PROJECT NO. H.001271

CANE RIVER BRIDGE AT CHURCH STREET ROUTE LA 1-X

LA 1-X

NATCHITOCHE PARISH, LOUISIANA

The Federal Highway Administration (FHWA) has determined the Selected Alternative will not have any significant impact on the environment. This Finding of No Significant Impact (FONSI) is based on the Environmental Assessment (EA) which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. The EA was approved by FHWA on October 22, 2019. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the EA.

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Federal Highway Administration  
Louisiana Division

## FINDING OF NO SIGNIFICANT IMPACT REPORT



The Louisiana Department of Transportation and Development (LADOTD), in cooperation with the Federal Highway Administration (FHWA), proposes to replace the Cane River Bridge at Church Street in Natchitoches Parish, Louisiana. The study area is located entirely within Natchitoches Parish and the jurisdictional limits of the City of Natchitoches. The City of Natchitoches is a community of approximately 18,000 citizens located one hour southeast of the City of Shreveport and one-hour northwest of the City of Alexandria.

### BACKGROUND

The Cane River Bridge is located on Louisiana Highway 1-X (known locally as Church Street) over Cane River between LA 6 (Front Street) and LA 1224 (Williams Avenue). The Natchitoches Bridge Taskforce was developed in 2013 to determine a range of alternatives and present a selected alternative to LADOTD, while ensuring that the needs and concerns of all local stakeholders were considered in the development and implementation of the bridge replacement project. The taskforce is comprised of representatives from the City and Parish of Natchitoches, Natchitoches Historic District Commission, National Park Service, the Natchitoches Genealogy and Historical Association, Cane River National Heritage Area, and LADOTD.

In February of 2015, LADOTD initiated the Phase 1 Environmental Stage for the proposed replacement of Cane River Bridge.

The study of the alternatives developed in this EA and the associated environmental impacts were evaluated according to the National Environmental Policy Act (NEPA), the LADOTD's Stage 1 Planning/Environmental Manual of Standard Practice, and the FHWA's Guidance for Preparing and Processing Environmental and Section 4(f) Documents.

### PROJECT PURPOSE AND NEED

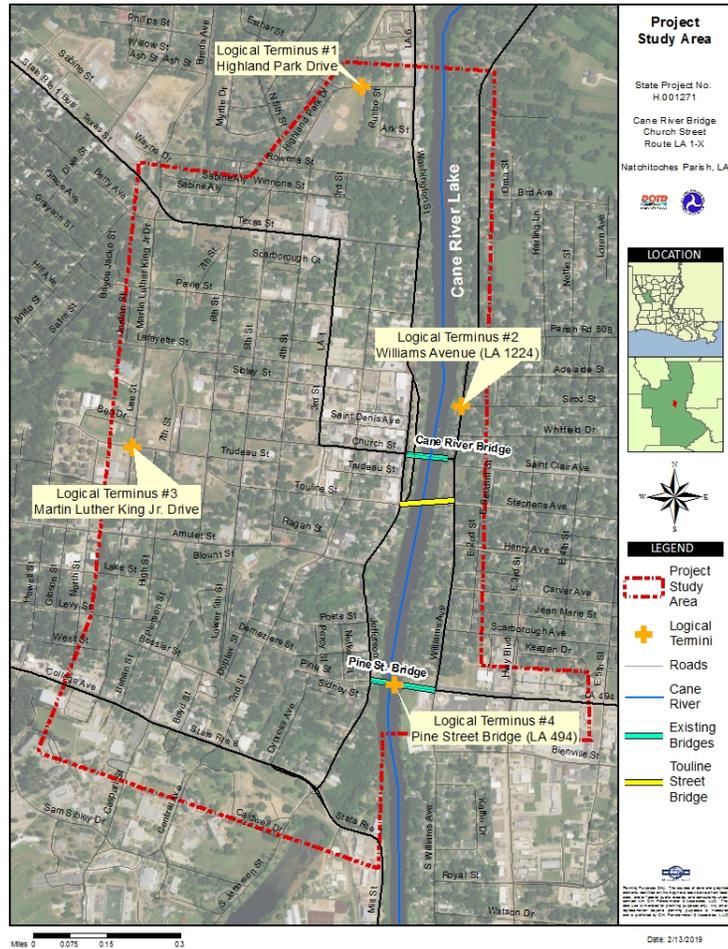
The Cane River Bridge at Church Street provides a vital transportation connection to the historical commercial downtown areas of Natchitoches along the west bank of the Cane River Lake and to the historical residential areas along the east bank of the lake. This project is needed to maintain connectivity between the east and west bank of the Cane River Lake for both pedestrian and vehicular traffic, to provide a bridge that meets current design guidelines and is not weight-limited for use (structural deficiencies) and to improve traffic function between the bridge and adjacent intersections (functional deficiencies). The purpose of the project is to address the structural and functional deficiencies of the existing Cane River Bridge at Church Street and adjacent intersections by providing a new three-lane bridge, left-turn lanes at intersections, improved sidewalks, improve the intersection geometry of Church Street/St. Clair Avenue/Williams Avenue, and minimize traffic congestion near the project area.

### PROJECT DESCRIPTION

LADOTD and FHWA proposes to replace the existing Cane River Bridge at Church Street with a skewed bridge, terminating on the east bank of the Cane River Lake directly in line with St. Clair Avenue, eliminating the existing offset intersection. The replacement bridge consists of two 12-ft. wide travel lanes, a 12-ft. wide center turning lane, 4-ft. wide outside shoulders, and two 6-ft. wide sidewalks with barriers. Additionally, the project proposes a temporary bridge at Touline Street to be installed prior to the removal of the existing Cane River Bridge. The temporary bridge will span from the west side of the Cane River Lake at the intersection of Touline Street/Front Street across to the east side near the

intersection of Stephens Avenue/Williams Avenue. The temporary bridge is to provide two 12-ft. bi-directional lanes allowing two-way traffic to be maintained across the Cane River Lake throughout the entire construction process.

### STUDY AREA AND LOGICAL TERMINI



FHWA defines logical termini for project development as (1) rational end points for a transportation improvement; and (2) rational end points for a review of the environmental impacts. The environmental impact review frequently covers a broader geographic area than the strict limits of the transportation improvements. In the past, the most common termini have been points of major traffic generation, especially intersecting roadways. This is due to the fact that, in most cases, traffic generators determine the size and type of facility being proposed.

The logical termini for the proposed project were identified as Highland Park Drive to the north, Williams Avenue to the east, Martin Luther King Jr. Drive to the west, and the Pine Street Bridge to the south. The Study Area included the logical termini and the area that may be impacted by the direct and indirect impacts of the proposed project (Figure 1).

### ALTERNATIVES DEVELOPMENT

The following three alternatives were developed during Stage 0:

- Construction of a new bridge at Church Street aligned with St. Clair Avenue (i.e. skewed bridge alignment), utilizing either:
  - Phased construction maintaining traffic along the same alignment, or
  - Construction of a detour bridge at Highland Park Drive.
- Construction of a new bridge at Church Street maintaining the same alignment with a detour bridge at Highland Park Drive.

A review of all alternatives developed during the Stage 0 process, through the Natchitoches Bridge Taskforce, and any other suggested alternatives were performed to refine the proposed alternatives. The

criteria used in the screening process were based on the purpose and need for the project. Alternatives that met the project purpose and need were carried forward in the Stage 1 NEPA analysis.

Additional alternatives were developed to address structural and functional deficiencies (related to the capacity and traffic movement through the existing intersection of Church Street/St. Clair Avenue/Williams Avenue), the alternatives that were determined to be reasonable included versions of the three-lane (two through lanes and one center turning lane) bridge. Numerous configurations were evaluated including temporary bridges being placed in various locations along the Cane River. As such, the following are the six conceptual alternatives considered:

- **Concept 1** – Replace the Cane River Bridge on a skewed alignment utilizing staged construction;
- **Concept 1A** – Replace the Cane River Bridge on a skewed alignment with a temporary bridge located at Highland Park Drive;
- **Concept 1B** – Replace the Cane River Bridge on a skewed alignment with a temporary bridge located at Touline Street– designated **Alternative 1** for purposes of this study;
- **Concept 2** – Replace the Cane River Bridge on the same alignment utilizing staged construction;
- **Concept 2A** – Replace the Cane River Bridge on the same alignment with a temporary bridge located at Highland Park Drive;
- **Concept 2B** – Replace the Cane River Bridge on the same alignment with a temporary bridge located at Touline Street– designated **Alternative 2** for purposes of this study.

As a result of public input at the first public meeting (December 7, 2017), Concepts 1 and 2 were eliminated from further consideration due to concerns of direct impacts to existing development, increased construction times, context sensitivity, and cost. Concept 1A and 2A were also eliminated from further consideration as both concepts would reroute traffic to Highland Park Drive, located in the east Natchitoches community and would have direct impacts on residential areas.

Two new alternatives were developed based upon public input as follows:

- **Alternative 3** – Remove and replace the existing Cane River Bridge on a skewed alignment, without utilizing staged construction nor a temporary bridge (detour on existing network).  
**Alternative 4** – Remove and replace the existing Cane River Bridge on the same alignment, without utilizing staged construction nor a temporary bridge (detour on existing network).

Below are the build alternatives which moved forward for analysis , plus the No-Build Alternative, to be considered for the proposed action. These were presented at the second public meeting (November 1, 2018):

- **Alternative 1** – Replace the Cane River Bridge on a skewed alignment with a temporary bridge located at Touline Street.
- **Alternative 2** – Replace the Cane River Bridge on the same alignment with a temporary bridge located at Touline Street.
- **Alternative 3** – Remove and replace the existing Cane River Bridge on a skewed alignment, without utilizing staged construction nor a temporary bridge.
- **Alternative 4** – Remove and replace the existing Cane River Bridge on the same alignment, without utilizing staged construction nor a temporary bridge.

### Resource Impact Analysis

Alternatives were evaluated with respect to the environmental and engineering factors and effects are summarized in Table 1.

**Table 1: Alternatives Evaluation Matrix**

Evaluation Measure	Units	No-Build	1 Skewed Replacement Bridge + Temporary Bridge	2 Same Alignment Replacement Bridge + Temporary Bridge	3 Skewed Replacement Bridge + No Temporary Bridge	4 Same Alignment Replacement Bridge + No Temporary Bridge
<b>Physical Resources</b>						
Residential Relocations	Each	0	0	0	0	0
Business Relocations	Each	0	0	0	0	0
Community/Other Relocations	Each	0	0	0	0	0
ROW Acquisition	Acres	0	0.33	0.25	0.33	0.25
Temporary Construction Servitude Acquisition	Acres	0	0.44	0.44	0	0
Total ROW and Temporary Servitude Acquisition	Acres	0	0.77	0.69	0.33	0.25
Residential Receivers (Category B) Design Year Noise Impacts <sup>a</sup>	Each	26	26	26	26	26
Residential Receivers Design Year Increase > 10 dBA <sup>a</sup>	Each	0	0	0	0	0
Recreational (Category C) Design Year Noise Impacts <sup>a</sup>	Each	1	1	1	1	1
Commercial (Category E) Design Year Impacts <sup>a</sup>	Each	8	8	8	8	8
Total Number of Impacted Receivers <sup>a</sup>	Each	35	35	35	35	35
<b>Cultural and Recreational Resources</b>						
Natchitoches NRHP District/Historic Landmark District (Direct Impacts)	Each	0	0 <sup>b</sup>	0 <sup>b</sup>	0 <sup>b</sup>	0 <sup>b</sup>
Natchitoches NRHP District/Historic Landmark District (Indirect Impacts)	Each	0	Temporary Impacts to Viewshed	Temporary Impacts to Viewshed	0	0
NRHP-Eligible Standing Structures (Direct Impacts)	Each	0	0 <sup>b</sup>	0 <sup>b</sup>	0 <sup>b</sup>	0 <sup>b</sup>
NRHP-Eligible Standing Structures (Indirect Impacts)	Each	0	Temporary Impacts to Viewshed	Temporary Impacts to Viewshed	0	0
NRHP-Eligible Archaeological Sites (Direct Impacts)	Each	0	0	0	0	0
NRHP-Eligible Archaeological Sites (Indirect Impacts)	Each	0	0	0	0	0
6(f) Lands	Each	0	0	0	0	0
Permanent Impacts to 4(f) Lands	Acres	0	0.11	0.12	0.11	0.12
Temporary Impacts to 4(f) Lands	Acres	0	0.16	0.16	0	0
<b>Natural and Environmental Resources</b>						

Evaluation Measure	Units	No-Build	1 Skewed Replacement Bridge + Temporary Bridge	2 Same Alignment Replacement Bridge + Temporary Bridge	3 Skewed Replacement Bridge + No Temporary Bridge	4 Same Alignment Replacement Bridge + No Temporary Bridge
Wetlands	Acres	0	0	0	0	0
Scenic Streams	Each	0	0	0	0	0
Waterbody Crossings	Each	0	2	2	1	1
Permanent Impacts to Other Waters of the U.S.	Acres	0	0.55	0.53	0.55	0.53
Temporary Impacts to Other Waters of the U.S.	Acres	0	0.50	0.50	0	0
Total Impacts to Other Waters of the U.S.	Acres	0	1.05	1.03	0.55	0.53
Trees	Each	0	16	20	8	12
Sole Source Aquifer Impacts	Acres	0	0	0	0	0
Protected Species	Each	0	0	0	0	0
Prime and Unique Farmland	Acres	0	0	0	0	0
Coastal Res./Essential Fish Habitat	Each	0	0	0	0	0
Water Wells <sup>c</sup>	Each	0	0	0	0	0
Recognized Environmental Concerns (REC)	Each	0	0	0	0	0
Oil and Gas Wells <sup>c</sup>	Each	0	0	0	0	0

### Preliminary Cost Analysis

Preliminary cost analysis for the alternatives includes construction, engineering and surveying, and right-of-way. The estimate for each alternative is presented in Table 2.

**Table 2: Alternative Cost Estimate Evaluation**

Phase	Alternative 1 Skewed Replacement Bridge + Temporary Bridge	Alternative 2 Same Alignment Replacement Bridge + Temporary Bridge	Alternative 3 Skewed Replacement Bridge + No Temporary Bridge	Alternative 4 Same Alignment Replacement Bridge + No Temporary Bridge
Construction*	\$9,683,372	\$9,585,583	\$6,718,310	\$6,620,527
Engineering (10%)	\$968,337	\$958,558	\$671,831	\$662,053
Right-of-Way	\$757,317	\$683,606	\$454,586	\$383,251
<b>Project Totals</b>	<b>\$11,409,026</b>	<b>\$11,227,747</b>	<b>\$7,844,727</b>	<b>\$7,665,831</b>

\* Construction costs include 20% contingency and have been rounded.

### SELECTED ALTERNATIVE

There is one recreational resource that exists along the project corridor—the Rue Beauport Riverfront Park. The Rue Beauport Riverfront Park is approximately 4.63 acres and is located adjacent to and underneath the existing Cane River Bridge on the west bank of the Cane River Lake. A Programmatic Section 4(f) Net Benefit Evaluation was developed which summarizes the unavoidable impacts to the Rue Beauport Riverfront property as a result of proposed reconstruction of the Cane River Bridge.

A letter dated September 12, 2019 was sent to the City of Natchitoches outlining the proposed action, impacts to the Section 4(f) property, the description of alternatives and findings, and details on the mitigation and measures to minimize harm. Mayor Lee Posey, Mayor of the City of Natchitoches,

concluded with the net benefit finding on October 8, 2018. The FHWA determined that this project meets the applicability criteria, and that the findings in the programmatic evaluation result in a clear net benefit to the Section 4(f) property. FHWA also determined that the project complies with the Minimization and Mitigation Plan and the coordination and public involvement efforts have been successfully completed. FHWA approved the Section 4(f) findings on October 15, 2019. The Programmatic Section 4(f) Net Benefit Evaluation document was released for public review at the same time as the Environmental Assessment. This document is contained within *Appendix K*.

The final selection of the Selected Alternative for this project was determined following the Section 4(f) process. A Programmatic Net Benefit Determination was applied for both Alternative 1 and Alternative 3. Both alternatives best met the purpose and need of the project and have similar permanent impacts. Though additional temporary impacts occur for Alternative 1, it minimizes traffic congestion near the project area when compared to Alternative 3. The Selected Alternative was selected for implementation due to its inherent reliability on maintaining traffic and reducing congestion throughout the construction process. After consideration of traffic operations and coordination with local officials, sufficient information exists to identify Alternative 1 as the Selected Alternative. Alternative 1 meets the established purpose and need of the project, and it addresses public input and stays within required NEPA, FHWA, LADOTD, and AASHTO guidelines. Alternative 1 was presented as the Selected Alternative to the public at the December 10, 2019 Public Hearing.

The Selected Alternative proposes to replace the existing Cane River Bridge at Church Street on a 6° skewed alignment, as well as the installation of a temporary detour bridge at Touline Street. The replacement bridge will be skewed so that the eastern end of the bridge directly aligns with St. Clair Avenue, eliminating the existing offset intersection layout. The bridge typical section will consist of two, 12-ft. wide travel lanes, a 12-ft. wide center turning lane, 4-ft. wide outside shoulders, and 6-ft. wide sidewalks with barriers. The temporary bridge will span from the west side of the Cane River Lake at Touline Street across to the east side near Stephens Avenue. The temporary bridge provides two 12-ft. lanes and allows two-way traffic to be maintained across the Cane River Lake throughout the entire construction process. The temporary bridge is slightly offset near Stephens Avenue as to not directly impact an existing sewer lift station. The Selected Alternative proposes to realign the existing intersection of Church Street/St. Clair Avenue/Williams Avenue by skewing the replacement bridge to align with St. Clair Avenue. This intersection would also be upgraded to a fully signalized intersection, eliminating the stop-controlled intersection along St. Clair Avenue. This alternative also includes upgrading the signal timing at the intersection of Church Street/Front Street as well as utilizing a new detection system. Upgrading the signal timing and realigning the intersection will eliminate the undesirable geometric intersection configuration and improve the overall functionality of the corridor. To transition the proposed replacement bridge to the adjacent roadways, existing pavement will be removed and replaced. Sidewalks along and adjacent to the corridor is also proposed.

In summary, Alternative 1, which was presented as the Selected Alternative to the public at the December 10, 2019 Public Hearing:

- Satisfies the Purpose and Need for the project
- Maintains traffic and emergency services access throughout the construction process
- Reduces congestion and improves queuing along the bridge
- Improves the intersection geometry of Church Street/St. Clair Avenue/Williams Avenue
- Provides an overall enhancement, or “net benefit” to the Rue Beauport Riverfront Park following construction

- Improves accessibility and traffic flow in the area by providing a dedicated center turn-lane
- Ensures two lanes of travel to be open throughout the entire duration of construction, which minimizes impacts to traffic
- Addresses public input
- Meets required state and federal guidelines

The identification of the Selected Alternative as presented at the Public Hearing addressed the stated purpose and need and satisfied the objectives of NEPA. Impacts from the Selected Alternative were avoided where possible and minimized to the greatest extent practicable. Detailed information regarding traffic analysis, alternatives development, and impact evaluation is available in the EA.

### **SUMMARY OF PERMITS, MITIGATION, AND COMMITMENTS**

The Louisiana Department of Transportation and Development (LADOTD) will implement the following permits, mitigation measures, and commitments to ensure that adverse environmental impacts associated with the project are avoided or minimized to the extent practicable.

#### **Permits and Certifications**

The following permits and certifications are required for the proposed project:

- A Jurisdictional Determination (JD) from the US Army Corps of Engineers (USACE) to confirm the presence/absence of jurisdictional wetlands and other waters will be required.
- A Water Quality Certification (WQC) under Section 401 of the Clean Water Act will be required if the project is processed by the USACE as an individual permit. A WQC is required for any dredge or fill activities that may occur in the Cane River Lake. The WQC will be obtained in conjunction with the USACE Section 404/10 permit process.
- A Louisiana Pollutant Discharge Elimination System (LPDES) Permit and Storm Water Pollution Prevention Plan (SWPPP) will be required. The contractor will be required to implement and maintain Best Management Practices (BMP) to reduce and/or eliminate any potential impacts to surface water quality in the immediate area due to discharges associated with construction activities.
- A Department of the Army Permit under Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) will be required by the USACE for the installation of the bridge across the Cane River Lake, which is classified as a navigable waterway.
- The Natchitoches Levee and Drainage District requires a permit for any work within 1,500-ft. of a federal flood control structure, such as a levee.
- The proposed project may qualify for a Nationwide Permit 14 (NWP-14) for Linear Transportation Projects from the US Army Corps of Engineers (USACE). To qualify for the NWP-14 permit, the project impacts are limited to a maximum of 0.5-acres of loss in non-tidal waters. If the project does not qualify for the NWP-14 permit, then the permit may be processed as an individual permit.

#### **Commitments and Mitigation Measures**

The following conditions will need to be met by LADOTD prior to construction of the proposed project:

##### SHPO

1. Design plans for the proposed bridge must be submitted to SHPO by the LADOTD environmental section for review and comment as early as 30% preliminary plans. SHPO will respond within 30

days and must concur that the proposed bridge design will not adversely affect the Natchitoches National Register Historic District.

2. Landscape plans must be submitted to SHPO by the LADOTD environmental section for review and comment. This includes details on any trees that will be removed/replaced, as well as any new landscaping. SHPO must concur that the landscape plans will not adversely affect the Natchitoches National Register Historic District. LADOTD shall follow EDSM No: I.1.1.21 *Treatment of Significant Trees in LADOTD ROW*. As outlined in our policy, the design section shall indicate significant trees on the plans, *and if practical*, the engineer shall implement a context sensitive design to accommodate the trees. The policy further states that any issues arising during construction shall be managed by the District Roadside Coordinator, J'Rel West.
3. The following stipulations must be met if any brick pavers are disturbed along Front Street:
  - All bricks removed from the project area during construction must be carefully removed by hand to minimize breakage
  - All recoverable, structurally sound bricks removed from the project area will be reused as paving material for the current project
  - All recoverable, structurally sound bricks removed from the project area will be manually cleaned, handled, and stacked to minimize breakage
  - New custom bricks must be used to replace any damaged bricks. These must be, to the extent possible, identical in size, shape, color to the existing brick pavers.

The construction contractor will relay the new street surface to replicate the existing brick pattern, including the diamond shaped pattern at intersections where it occurs.

#### Nakatosh HOA

The following conditions will need to be met by LADOTD at intervals prior, during, and after construction of the proposed project:

Construction of the project will include provisions to follow vibration monitoring procedures in accordance with the 2016 Louisiana Standard Specifications for Roads and Bridges Vibration Monitoring Section 804.12. The procedures for the Construction Site Survey shall be in accordance with the 2016 Louisiana Standard Specifications for Roads and Bridges Construction Site Survey 804.11.

The vibration monitoring specifications require the contractor to:

- “Acquire baseline vibration data for a period of at least 24 hours prior to beginning construction activities.”
- “Provide seismic monitoring of vibrations during pile driving and other heavy equipment operations in areas subjected to such operations as specified on the plans.” Notes will be included in the plans to require vibration monitoring during heavy equipment operations.

All available construction monitoring data and reports will be made available to the public through the project webpage associated with the “MyDOTD” service. ([http://wwwapps.dotd.la.gov/administration/public\\_info/projects/home.aspx?key=131](http://wwwapps.dotd.la.gov/administration/public_info/projects/home.aspx?key=131)). The vibration monitoring data will be provided at each interval requested. A summary report will be provided at the completion of construction.

The prior notice of baseline measurement activity and photos will be required by the contractor to contact owners via certified mail with return receipts. If you shall have immediate concerns during construction

about perceived excessive vibrations related to construction activities, please contact the LADOTD District 08 office.

Natchitoches Historic District Commission

The following conditions will need to be met by LADOTD prior to construction of the proposed project:

LADOTD design team will closely review the commitments made in the Environmental Assessment document and will be in contact with the Natchitoches Historic District Commission throughout the design process of the Cane River Bridge project. Contacts for the Commission are Sharon Gahagan (sharontg@yahoo.com) and Juanita Fowler (jfowler@NatchitochesLA.gov).

- SHPO and the Natchitoches Historic District Commission will be participants in the design process as listed above.

<b>ACTIVITIES FOLLOWING EA APPROVAL</b>
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The EA Report was approved by FHWA on October 22, 2019. The EA was distributed to agencies and local officials on November 5, 2019. Copies were made available to the public in local libraries, the local LADOTD District office, City of Natchitoches, and online. An open house Public Hearing was held on December 10, 2019. The hearing was held as an informal open house with a station format including a short presentation on the project and project exhibits for proposed alternatives and typical sections. The purpose of the Public Hearing was to present an overview of the project, alternatives studied, the Selected Alternative, and impacts from the project. A total of 11 public comments were received regarding the project during the comment period. The Public Hearing Transcript, including a summary of comments and responses, is provided in *Appendix L*.