Mississippi Valley Division,
Regional Planning and Environment Division South

MISSISSIPPI RIVER, BATON ROUGE TO THE GULF OF MEXICO, MISSISSIPPI RIVER-GULF OUTLET, LOUISIANA, NEW INDUSTRIAL CANAL LOCK AND CONNECTING CHANNELS PROJECT

Draft Transportation Mitigation Program

MAY 2025

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Document Purpose: To Identify measures that would be implemented to mitigate for the direct, indirect, temporary, and permanent transportation related impacts resulting from the construction and implementation of the IHNC Lock Replacement Recommended Plan.

SECTION 1
Introduction

1.1 INTRODUCTION

The Inner Harbor Navigation Canal lock has been in service since 1923. The lock is undersized to meet the demands of waterborne traffic. A larger, more efficient lock is required to meet increased traffic and larger vessels demands. The recommended plan (RP), as identified in the main report, is to replace the existing Industrial Canal Lock, also referred to as the Inner Harbor Navigation Canal or IHNC Lock, with a 900ft.L x 110ft.W x -22ft. North American Vertical Datum (NAVD88). The depth of the replacement lock is designed to accommodate shallow-draft vessels plying the Gulf Intracoastal Waterway (GIWW) safely and efficiently, along with a limited number of deep-draft vessels currently using the IHNC that would be required to light load for navigating the new sill depth of 22 feet safely.

In 2007, in recognition of the potential impacts the construction of the new lock north of Claiborne Avenue would have on traffic, Congress authorized the development and maintenance of a Transportation Mitigation Program (TMP). This TMP identifies appropriate measures to reduce the burden felt by Orleans and St. Bernard Parish residents both during the construction of a new lock as well as once the lock is in place. This authority came after an earlier Congressional authorization (1996), which directed the Secretary (of the Army) implement a comprehensive community impact mitigation plan, as described in the evaluation report of the New Orleans District Engineer dated August 1995, to the maximum extent practicable, provides mitigation or compensation, or both, for the direct and indirect social and cultural impacts to the neighborhoods adjacent to the project area.

The Transportation Mitigation Program and Community Impact Mitigation Plan are features of the lock replacement project. These plans would invest in the community to build new features or implement programs to address new and long-standing community needs and bolster quality of life in the neighborhoods and communities that will experience impacts of the lock replacement project. The scale of the mitigation features will be appropriate to the scale of the impact. Impacts and mitigation will be paired and site-specific where applicable. Indirect impacts would be addressed by alternatives that provide resources across the region.

1.2 IHNC LOCK RECOMMENDED PLAN DESCRIPTION

The Inner Harbor Navigation Canal (IHNC) Lock Replacement project aims to replace the aging lock to improve navigation vessel transit times while ensuring environmental

sustainability and economic viability. The current IHNC Lock, over 100 years old, falls short in elevation and requires additional measures during high river stages, posing challenges to the existing Flood Risk Management system.

The proposed project will introduce new levee and floodwall segments, along with a modern IHNC Lock structure and gates, maintaining flood risk reduction in the area as described in Chapter 4 of the report. By relocating the IHNC Lock north of Claiborne Avenue, the length of the Flood Risk Management system along the Mississippi River will be increased, and new flood risk reduction features will be constructed to Mississippi River Levee (MRL) standards. These features will be designed to accommodate future hydraulic conditions and consider potential riverine and hurricane storm surge stages.

Additionally, the project is expected to reduce costs and manpower efforts related to flood fighting at the existing lock, leading to a marked improvement in the reliability of the levee system. Without the new lock in place, to ensure adequate elevation for the gates and manage flood fight operations, an estimated cost of $50K per event is projected.

Located in Orleans Parish, New Orleans, the existing IHNC Lock serves as a crucial navigation artery, linking the Mississippi River, Gulf Intracoastal Waterway (GIWW), and Lake Pontchartrain. This area is densely populated and highly developed, with adjacent neighborhoods that include two nationally designated historic districts: Holy Cross and Bywater, shown in Figure 1-1.

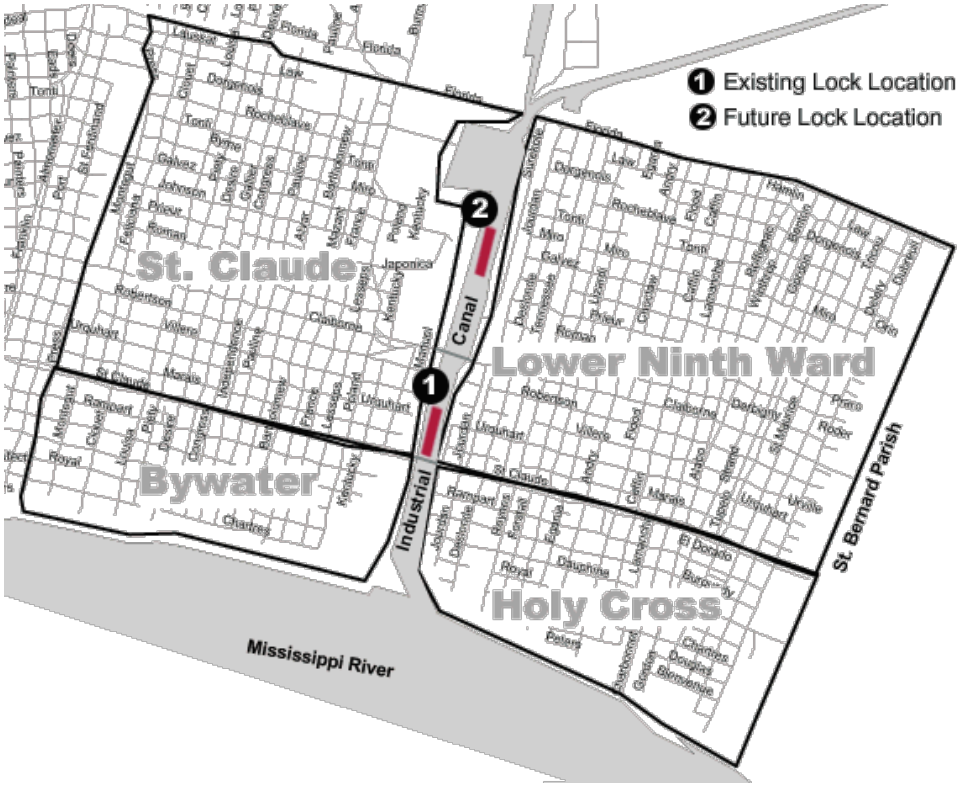

Figure 3-1. Neighborhoods Adjacent to the existing and proposed IHNC Lock

The new lock would be located approximately 2,400 ft north of the existing lock, and north of Claiborne Avenue Bridge. Figure 1-1. Below shows the location of the proposed new lock.

Figure 1-4. Location of the Existing and (Proposed) Future Lock

On the southwest side of the project, the new floodwall will connect with the existing wall to the west of the current IHNC Lock. It will then extend eastward to link with the new lock. From this point, the new lock will join a floodwall on the northwest side of the project.

On the southeast side, the new levee floodwall will integrate with the existing Mississippi River levee wall, located east of the IHNC Lock. It will continue to the new lock tie-in wall on the east side. Additionally, the new floodwall segments beneath the St. Claude and North Claiborne Ave bridges will connect to the new levees on the east side. The proposed lock will be a concrete cast-in-place lock with sector gates, a pile foundation, and side port culvert filling and emptying system. The dimensions of the new lock chamber for the

recommended plan (RP) will be 900 ft long by 110 ft wide. It will be a shallow draft lock with a sill elevation of (-) 22.0 ft.

The location of the proposed lock was primarily chosen because of its ease of access and the few to no obstructions located near the open channel.

The physical features associated with the construction of the new lock structure are:

1. Chamber Concrete Monoliths/Pile Foundation
2. Sector Gate Monoliths/Pile Foundation
3. Steel Sector Gates
4. Fixed Concrete Guide walls.
5. Floating Concrete Guide walls
6. End Cell Dolphins
7. Cofferdam
8. Floodwalls
9. Levee
10. Maintenance Bulkheads
11. Maintenance Bulkhead Storage Platform
12. Culvert Roller Gates
13. Culvert Bulkheads
14. Lock Support Facility Buildings
15. Demolition of the Existing Lock and USCG Facilities
16. Utility Relocations

Other major project features include:

- Replacement of the St. Claude Avenue Bridge
- Permanent Mooring Cells
- Construction of a Bypass Navigation Channel near the new lock
- Construction of a Temporary Demolition Bypass Channel near the existing lock

The full recommended plan project description is in Chapter 4 of the main report.

1.3 TRANSPORTATION MITIGATION PROGRAM AUTHORITY

The Transportation Mitigation Program (TMP) was Authorized by Congress in 2007, section 5083, subsection 2. The subsection directs the Corps of Engineers to develop and maintain a transportation mitigation program in coordination with St. Bernard Parish, Orleans Parish, the Old Arabi Neighborhood Association, and other interested parties.

1.4 EXISTING CONDITION

Currently, the existing IHNC lock processes between 10.8 and 15 million tons of commodities per year (2018-2022). Various commodities transit the canal including petroleum products such as refined oil and crude oil, agricultural products like grains and fertilizers, industrial chemicals and plastics, coal, and construction materials such as cement. This canal plays a crucial role in supporting both local and national supply chains for these essential goods. An average of 5,000 tows carries these commodities each year. Due to the current lock size, these tows frequently trip (break into smaller tow units) through the lock, making over 8,000 trips yearly.

The arrival of vessels on the water dictates the need for bridge openings. The arrivals are unpredictable, sporadic, and do not adhere to a schedule other than that bridge openings are not allowed during the morning and evening curfews. The curfews are 6:30 AM to 8:30 AM and 3:30 PM to 5:45 PM to correspond with the times that vehicular traffic is at its highest on St. Claude, Claiborne, and Florida. The bridges are not intended to open during these times. Only the operators (LADOTD and the Port of New Orleans) have any influence outside of curfews. This is limited to the time between consecutive bridge openings and/or whether simultaneous closings occur versus only one bridge being opened at a time.

The duration of the bridge openings depends on factors such as water levels, vessel tonnage, weather conditions, and the efficiency of the vessel pilot. With each trip through the lock, St. Claude, Claiborne, and Florida Avenue bridges could raise for vessels and close to roadway traffic. Currently, on average, St. Claude and Florida Avenue bridges are raised twenty-four times daily, and Claiborne is raised nearly five times daily.

1.4.1 Transportation Routes

From North to South, the three main roadways crossing the IHNC are Florida Avenue, Louisiana Highway 39 (known locally as Judge Perez Drive in St. Bernard Parish and North Claiborne Avenue in Orleans Parish), and Louisiana Highway 46 (which is St. Claude Avenue in the Orleans Parish project area and St. Bernard Highway, or East Judge Perez Drive, in upper St. Bernard Parish). Louisiana Highway 46 intersects with Louisiana Highway 47 (Paris Avenue) and Louisiana Highway 3238 in Chalmette.

The Florida Avenue Bridge is a vertical lift bridge that includes a rail line as well as two vehicle lanes and two pedestrian lanes. The current Florida Avenue bridge was completed in

2005. While the Louisiana State Department of Transportation and Development has identified a replacement bridge in its TIMED program planning effort, funding for that bridge is not expected. Therefore, a replacement bridge is not included in the USACE future without project assumptions. LA 39 (Claiborne Avenue) and LA 46 serve as evacuation routes from St. Bernard Parish through Orleans Parish. The Judge William Seeber Bridge is a four-lane (two in each direction) mid-rise vertical lift bridge built in 1957. There is no pedestrian or cyclist access on this bridge.

The St. Claude Avenue Bridge is a bascule bridge which was constructed in 1919. The historic structure has changed over time, with the original design constructed for both rail and vehicular traffic. The bridge is integrated into the existing IHNC Lock structure at the river side of the lock chamber. There is a pedestrian walkway on both the north and south sides of this bridge, however they are not ADA-compliant and only accessible by stairs on both ends.

1.5 COMMUNITY TRAFFIC CONCERNS

During the planning of the IHNC Lock Replacement, community members from the four neighborhoods and the broader study area of Orleans and St. Bernard Parishes have expressed concerns about traffic delays, pedestrian access across the IHNC, safety in the neighborhoods during and after construction, and the loss of access to green space and riverfront walking paths.

In January of 2024, on behalf of USACE, CDM Smith and their local subcontractor, Bright Moments, reached out to interested parties to gather their concerns and expectations regarding the impacts of the Lock Replacement. These concerns included traffic impacts, noise, business interruption, vibration, relocations, air quality, and community cohesion. This outreach effort was termed the “Community Opportunities Plan of Action” (COPA) and was conducted in two phases. Detailed documentation of the 2024 community engagement effort can be found in Appendix E: IHNC Community Opportunities Plan of Action Phase 1 and Phase 2 Report.

During Phase 1 of the COPA meetings, over 20 community stewards from the four neighborhoods adjacent to the lock shared their needs and vision for their communities. Key traffic-related themes that emerged included improving the walkability in these neighborhoods and supporting small businesses. Participants also emphasized the need for Americans with Disabilities Act (ADA)–compliant transportation options within the community and on the new bridge. They stressed the importance of easy access across the canal to better connect the Lower Ninth Ward into the Greater New Orleans area. The community

desired a bridge that accommodates all residents, including those without cars or with disabilities, and provides safe, user-friendly, and ADA-accessible transportation options. Safety and access were also emphasized as critical priorities during the COPA meetings.

As of early 2024, the Port of New Orleans is continuing to move forward with plans for construction of a $1.8 billion container terminal in St. Bernard Parish. Construction on the project is anticipated to begin in 2025, with the first ship wharf opening in 2028. , If permitted and constructed, the presence of a new container terminal in St. Bernard Parish would likely increase truck traffic between St. Bernard and New Orleans. A proposed road dedicated to connecting the interstate system to the new port facility may alleviate some of the traffic.

In the Lower Ninth Ward, maritime commerce has been active at what is now the Alabo Street Terminal since 1921. The Board of Commissioners of the Port of New Orleans (Port NOLA) purchased the property in the 1970s and construction on the shed and wharf began utilizing the facility in 1982. The Alabo Street Wharf, as it's currently known, has routinely conducted operations in both securing and moving a wide range of cargo. As of 2024, the facility has been used to move cargo like lumber, copper, and sugar. In partnership with Sunrise Foods International and Norfolk Southern, Port NOLA will soon begin revitalizing the Alabo Street Wharf Facility. It is anticipated that the facility will be a grain-handling facility where grain will be transported via barge (bulk vessels) to the existing warehouse and then loaded into rail cars. Facility upgrades for the project are anticipated to begin mid-October and Sunrise Foods International is anticipating receiving grain in late summer of 2025.

1.6 TRAFFIC MODELING

USACE and contractor Sapper Solutions with subcontractors Urban Systems, conducted a detailed traffic assessment to understand how bridge openings (St. Claude, Claiborne, and Florida Avenue Bridges) affect roadway traffic. This study looked at traffic during peak hours just outside of the morning (6:30-8:30AM) and evening curfews (3:30-5:45 PM), as well as midday traffic. The study involved collecting current traffic data and estimating future vehicle demands. The goal was to compare how vehicular traffic flows with and without the proposed local replacement for the 2040 and 2090 design years, which represents a 50-year planning period, to use in the Impact Analysis.

To assess traffic impacts, the data collection included seven-day, 24-hour traffic volume counts, traffic classification, peak period turning movement counts, and a bridge opening logs for all three bridges. Additionally, vehicle speeds, vehicle traffic times, field observations, and

traffic signal inventories were recorded. A Vissim microsimulation model was employed for its ability to capture detailed traffic behavior, evaluate road capacity, account for different types of transportation, test various scenarios, and provide clear visuals and results.

Table 1-1. Existing Conditions Bridge Opening Scenarios

Bridge	Scenario ID	Scenarios
Florida Avenue	Baseline	No openings
	1a	One opening within the hour
	3a	Two openings within the hour
Claiborne & St. Claude Avenue	Baseline	Base scenario – no openings
	1a	One (1) opening within the hour
	1c	One (1) opening within the hour (St Claude Bridge only)
	3a	Two (2) openings within the hour

Existing conditions modeling involved scenarios outlined in table 1-1, with zero, one and two bridge openings during four one-hour time periods daily: 8:30-9:30AM, 11:00AM-12:00PM, 2:30-3:30PM, and 5:45-6:45-PM for both the Florida and St. Claude/Claiborne models. The model used input parameters such as traffic volumes, lane geometry, signal phasing/timing, speed distributions and vehicle classification percentages. The output included metrics like traffic volumes, delays, queues, and travel times. Capacity analysis traditionally focuses on the peak fifteen minutes of each hour, reflecting the impact of bridge openings during those times.

Future, post-project construction conditions modeling was performed with the same Vissim microsimulation model and methodology as the existing conditions modeling. For future scenarios, the duration of bridge openings, the lag time between St. Claude and Claiborne, and the time between multiple openings within the hour were provided by USACE.

The traffic modeling report is available as Appendix F Traffic Modeling Report.

These existing conditions and future post-project scenarios modeled were selected to model the range of scenarios that could occur in real life, either with or without the new lock, based on current traffic levels. This includes the no-opening scenario, as well as runs 1a, 1b, 1c, 2, 3a, 3b, and 4. Scenarios 1b, 2, 3b, and 4 are only likely to occur with the new lock in place, since they reflect shorter lag times between Claiborne and St. Claude opening: 3 minutes vs. 15 minutes without the new lock (the old lock is between the bridges preventing

simultaneous openings of the two bridges). Scenarios 2 and 4 reflect double-transits of vessels and longer associated bridge opening times (10 minutes vs 7 minutes), since the new lock would be able to accommodate certain multi-vessel lockage of non-flagged vessels. Another goal of the modeling was to assess scenarios where future tonnage on the waterway increased over the period of analysis (50 years), and scenarios 5 and 6 were added to reflect more waterway traffic that could be accommodated with the new lock in place.

Table 1-2. Future (Post-Construction) Conditions Bridge Opening Scenarios

Bridge	Scenario ID	Scenarios
Florida Avenue	5b	Three openings within the hour
Claiborne & St. Claude Avenue	1b	One opening within the hour, decreased lag time
	2	Double Transit (2 vessels) with only one (1) opening within the hour
	3b	Two openings within the hour
	4	Two openings within the hour with double transit (2 vessels) for each

1.7 FUTURE WITH PROJECT CONDITIONS

The traffic analysis considered potential future changes in road traffic levels. It found that forecasts by the New Orleans Regional Planning Commission predicted either zero or negative growth on the roadways surrounding the IHNC lock.

The study also evaluated how traffic levels at the three bridges that might change due to the proposed Louisiana International Terminal (LIT). The LIT is a planned Port NOLA project on a 1,200-acre site in Violet, Louisiana. The potential increase in traffic on the North Claiborne Avenue Bridge from LIT truck traffic is smaller than typical traffic fluctuations, meaning that including LIT trucks in the model would not produce statistically significant data. Traffic crossing the North Claiborne Avenue Bridge may increase by approximately 2-5% in 2040 and 3-7% in 2090[1]. Based on LADOTD Traffic Engineering Process and Report guidelines, volume changes less than ten percent (10%) are considered normal fluctuations and insignificant[1].

Once a larger lock is constructed, most tows will need to make only one trip through the lock to move their barge loads through although a relatively small number will need to

make two trips through the lock to move their barge loads through, resulting in about 6,000 total lockages annually. The current lock is smaller and requires barge tows to be broken up and “trip” through the lock, resulting in 8500 lockages each year. The new lock relocation will sometimes allow two vessels to enter or exit the lock simultaneously, compared to the current condition single vessel limit. As a result, the St. Claude and Florida Avenue Bridges will need to raise 17 times per day on average (compared to the current average of 24), while the Claiborne Avenue Bridge would be raised nearly 8 times per day (compared to the current average of 5 times per day).

St. Claude and Florida will be raised less frequently because towboats will make fewer trips with the larger lock. The average total time that these bridges are in the raised position will decrease by about 85 and 35 minutes per day, respectively (from 179 minutes to 94 minutes for St. Claude and from 129 minutes to 94 minutes for Florida).

With the new lock installed, Claiborne Bridge will raise more frequently because the water levels underneath it will rise. The effects will be stronger in the spring when the Mississippi River’s water levels are higher. During high water seasons, the Claiborne bridge is expected to open around 12 times per day, which is about 35 additional minutes per day (from 32 minutes per day to 67 minutes per day).

SECTION 2

IHNC Lock Replacement Transportation Mitigation Program

2.1 TRAFFIC IMPACT AVOIDANCE/ANALYSIS

Impact avoidance refers to actions taken by the Corps that are designed to avoid adverse construction impacts and which represent prudent and innovative engineering design and construction practice. These actions are incorporated into the construction plan and are required because construction will take place in an urban environment. Included in the construction cost of the project, but not in the transportation mitigation plan are the following impact avoidance measures, listed by impact:

2.1.1 Traffic Congestion

The following measures identified in the construction plan will reduce traffic congestion:

a. **Replacement Bridge:** A replacement bridge will be constructed on St. Claude Avenue immediately north of the existing bridge. The new St. Claude Avenue Bridge will be built in phases and the existing bridge will remain open for traffic, except for any typical bridge closures that allow vessels to pass. To keep traffic moving in both directions, traffic will be reduced to one lane in both directions. In addition to maintaining vehicular traffic, at least one pedestrian walkway across the St. Claude Bridge will remain while construction occurs. While the new bridge will have a dedicated 6' pedestrian lane when completed, keeping at least one of the two pedestrian walkways on the current bridge will ensure that those residents without vehicle transportation will have access to both sides of the canal during the bridge construction and tie-in. If restriction of thru traffic is required for construction of tie-ins, closures will be minimized to nights and weekends during low traffic volume periods. Information regarding temporary closures during construction will be coordinated and communicated in advance with local media,

the Regional Transit Authority (RTA), Orleans and St. Bernard Parish Emergency Services Dispatchers, and other relevant parties. Additional details regarding traffic control will be developed with the Port of New Orleans, Louisiana Department of Transportation and Development (LA-DOTD), and the City of New Orleans during future detailed design.

b. **Bridge Design:** The new St. Claude Avenue bridge will be designed to support both bike and pedestrian traffic. It will be 70 feet wide with two 12-foot lanes for eastbound traffic and two 12-foot lanes for westbound traffic. There will be four-foot-wide shoulders on the outside and minimum one-foot shoulders on the inside. A 6-foot-wide pedestrian/bicycle lane is provided on the outside edge of the eastbound lanes, separated from traffic by a concrete barrier.

c. **Construction Site Location:** The construction site, located north of Claiborne Avenue, will be set up on the west side of the Industrial Canal, away from residential areas. Specific routes for construction-related traffic will be planned to help reduce congestion in nearby communities.

2.2 DIRECT MITIGATION (IMPACT MINIMIZATION)

Direct mitigation refers to actions taken by the Corps to minimize those adverse direct impacts which remain following the implementation of the normal procedures that are described in the previous section.

The following mitigation measures are intended to reduce traffic congestion, traffic delays, and impacts resulting from the construction of and use of the new lock and St. Claude Avenue Bridge. These measures would be implemented by or before the beginning of construction on the replacement lock:

a. **Traffic Control Plans:** During construction, temporary traffic control plans (TCPs) will be implemented to improve safety and minimize delays for road users. TCPs could include signage, detour routes and/or other traffic control measures designed to minimize delays and impacts on the surrounding residents and businesses. Multiple digital message boards will be placed on St. Claude, North Claiborne Avenue, North Robertson, and Florida Avenue to keep commuters informed about detours and construction-related congestion. Upon project completion, permanent message boards displaying real-time bridge opening and closing information should be installed at key locations to provide drivers with timely updates on the status of the three bridges, enabling them to choose the route with the shortest commute time.
b. **Traffic Signal Synchronization**: Before construction starts, traffic signals could be synchronized to improve traffic flow across the canal. Adaptive Signal Control

sensors, which can determine which lights should be red and which should be green, will be installed on traffic signals along corridors within the affected project area which will improve the movement of traffic during peak travel times. These sensors can work in conjunction with the real-time traffic monitoring systems.

c. **Street Resurfacing and Maintenance:** Local streets that will serve construction-related traffic should be assessed for resurfacing before the project begins. Detailed plans for this will be determined during future detailed design when detailed site plans are developed. Maintenance of these streets will be provided throughout the construction period.
d. **Parking and Transit for Project Workers:** Construction workers will utilize off-site parking and bus into the neighborhood to avoid traffic congestion within the neighborhood.
e. **Real-time traffic monitoring:** Traffic approaching and crossing the bridges should be monitored in real-time, including vehicle counts, speeds, traffic queues, transit schedules, and emergency vehicles. Permanent Intelligent Transportation System devices would be installed to provide data to the Regional Transportation Management Center (RTMC) located at 10 Veterans Blvd in New Orleans, where it can be monitored and adjustments to systems could be made.

   Installations would include the following:
   - Fiber communication
   - Wireless communication
   - In-pavement devices such as inductive loop detectors and magnetometers
   - Video and/or radar detection devices installed roadside
   - Advanced and/or Adaptive traffic signal control
   - Pre-emption systems to modify signal operations during bridge openings, emergency vehicles and/or transit
   - Road weather information systems (RWIS), both stationary and mobile, to collect, inform and predict road, weather, and surface conditions.
   - Additional technologies as they are developed such as Connected Vehicles, Autonomous Vehicles, and smart devices.

f. Disseminating data in real-time such as:
   - General traveler information, including traffic information, transit information (, real-time schedules), incident information and event information.

- Emergency traveler information, including alerts and advisories, and evacuation information.

g. Advanced Traveler Information Systems (ATIS) can assist with trip planning using various modes of surface transportation, route options and route guidance. These can include:
    - Permanent and/or temporary changeable message boards
    - Smartphone applications
    - 511 systems

2.3 GENERAL MITIGATION

Mitigation for indirect impacts involves actions taken by the Corps or a local project sponsor in collaboration with local government, community groups, and residents. These actions aim to address any negative effects that remain after implementing both impact avoidance procedures and direct impact reduction measures described above. Some of the measures involve coordination with other agencies and organizations. The measures would be implemented during design, construction, or following construction as needed.

The goal of indirect impact compensation is to make sure the transportation system and the reliant community can handle the effects of construction throughout the project. Traffic congestion and delays will occur because of the construction of the St. Claude Avenue replacement bridge. Although the direct impact mitigation measures identified in section 2.2. will help reduce these effects, some delays and impacts will still happen.

Additional measures that could reduce the residual impacts felt by residents and businesses as well as those who commute across the canal include:

a. **Lane Markings:** Keeping lane markings and striping clear is important for guiding drivers. The new lock and bridge are not expected to affect roadway safety or the study intersections. However, the intersection at Poland Ave and N Robertson St/Claiborne Ave is losing visibility and could benefit from the new pavement markings.
b. **Traffic Cameras:** Installing traffic cameras would enhance safety.
c. **Road Repairs:** After construction is complete, the roads will be resurfaced, repaired, and routinely maintained.
d. **Traffic Calming Measures:** After construction is complete, the roads will be addressed for calming measures including speed humps, chicanes, roundabouts, bulb-outs, narrowed roadways, clear speed limit signage, high-visibility crosswalks, traffic circles, raised crosswalks, bicycle lanes, traffic signal timing adjustments, landscape features, portable speed feedback signs, and community education campaigns.
e. **Crossing Guards and Traffic Control**: Crossing guards and traffic control officers could be stationed at schools and key intersections. As needed, during crucial periods

of construction if there are detour routes then this will be addressed and implemented during this time.

f. **Public Transit:** Stakeholders (during COPA engagement) have requested more public transit routes with better ADA accessibility. USACE will partner with local transportation authorities to add more transit options, including ADA-accessible options for commuters crossing the canal.

g. **Systems Engineering:** Before implementing any of these measures, a Systems Engineering exercise is recommended. The “Systems Engineering for Intelligent Transportation Systems” guide from the US Department of Transportation, dated January 2007, outlines the process, and is included in Appendix E of the Traffic Modeling Report (Appendix E). This approach aims to reduce risks of delays and extra costs, and to maximize the benefits to the community. The roadway network, movable bridges, and vessels on the IHNC are managed and maintained by various agencies, including the Louisiana Department of Transportation and Development, Port of New Orleans, City of New Orleans, St. Bernard Parish, New Orleans Regional Transit Authority, and the US Army Corps of Engineers.

SECTION 3
COORDINATION OF THE MITIGATION PROGRAM

3.1 PROGRAM FLEXIBILITY

For a large public works project that lasts several years, flexibility is important to address unexpected changes. The USACE team recognizes the continued need for flexibility through the construction phase of the project to best meet the needs of the community. To accommodate changing conditions, USACE is committed to allowing maximum flexibility within the scope of the authority and resources that are made available. It is intended that some of the programs initiated under the auspices of the mitigation plan of the project could continue to exist even after the project is completed, with funding coming from other sources outside of the project.

As conditions change, some parts of this plan might also change. With community support, some proposed items might be replaced with others. Coordination with local stakeholders will continue during the future detailed design and throughout construction. Features that require the cooperation of a non-federal interest would be implemented only after the execution of a legally binding agreement between the Government and a capable non-federal sponsor. The agreement will describe the project feature and the responsibilities of the Government and the non-federal sponsor in the execution and operation and maintenance of the feature. Any new mitigation features not currently planned will be evaluated to ensure they are policy compliant and will be funded from project contingencies. A written process for identifying and approving new features will be developed at a later date.

Funding sources will include the construction funds for the project and may include the partnership with non-federal entities.. This is particularly true of programs implemented under the plan previously discussed. Some of the items identified in this plan could change as conditions change. Given community support, some items might even be substituted for items currently proposed. All features that may be implemented will need to be identified before substantial completion of the primary features.

Coordination with local stakeholders will continue to occur during future detailed design and throughout the construction phase. Funding for mitigation features not currently identified could come from the total project construction cost if within the authorized limit. See section 5. IMPLEMENTATION for a description of a Partnering Agreement that will be used to achieve this continued coordination of the community impact mitigation plan. Features that require the

cooperation of a non-federal interest would be implemented only after the execution of a legally binding agreement between the Government and a capable non-Federal sponsor. The agreement will describe the project feature and the responsibilities of the Government and the non-federal sponsor in the execution and operation and maintenance of the feature.

SECTION 4
Mitigation Program Costs

4.1 MITIGATION PROGRAM COSTS

The authorized cost for the traffic mitigation program, which is included in the overall cost for the recommended plan, is $44,541,838 A breakdown by mitigation type is as follows:

Direct Impact Minimization	$21,982,500
Indirect Compensation of Impacts	$18,510,080
Future Scope Additions (10%)	$4,049,258
Total	$44,541,838

Coordination with city and Parish agencies/officials, as well as other organizations, helped determine the estimated costs for items where the Corps has limited experience. It was also important to consider that the community impact mitigation plan must be approved by HQUSACE before it can be put into action.

The actual costs and scope of each mitigation item may differ from what is shown, depending on the conditions at the time of project execution. A detailed cost breakdown by category can be found on page 24 of this appendix. A future design memorandum will be created, with the Partnering Agreement mentioned in Section 10. This memorandum will provide more details about the features of the mitigation program.

4.2 COST SHARING FRAMEWORK

The costs for mitigation features will be handled like other project construction costs for cost-sharing purposes. As currently provided by Sec. 1126of WRDA 2024, the costs will be split 75-25 between the Corps and the Inland Waterway Trust Fund. Prior to implementing a feature that will require operation and maintenance after the project is complete, the Government will enter into a partnership agreement with a capable non-federal entity who will have the responsibility for operating and maintaining the improvement once the project is substantially complete. The non-federal partner or partners will be identified during the future detailed design phase.

SECTION 5
Implementation

5.1 IMPLEMENTATION

The proposed Transportation Mitigation Program (TMP) will start before actual construction begins and will continue throughout the construction period. Pre-project mitigation efforts will begin after construction funding is approved.
The goal is to ensure that neighborhoods adjacent to the project construction area remain stable during the project. Elements of the mitigation program, such as the systems engineering exercise, will be carried out before construction starts.

Members of the New Orleans City Council, city agencies, local officials, representatives from St. Bernard Parish, as well as other interested parties will be invited to join in the planning. Meetings will be open to the public, and meeting minutes will be accessible. Details of the ongoing Community Opportunities Plan of Action will be finalized through ongoing coordination during the design and construction phases.

A Partnering Agreement will be established with any partnering entity. This agreement will include a commitment to work together for the benefit of local stakeholders in the implementation of the mitigation plan.

SECTION 6

Conclusions

6.1 CONCLUSIONS

The Transportation Mitigation Program (TMP) as authorized in WRDA 2007 is a critical component of the IHNC Lock Replacement Plan, designed specifically to address the transportation challenges posed by construction in a dense urban environment. While this approach differs from traditional Corps of Engineers environmental analysis and mitigation planning, it is essential due to the unique setting and the direct impact on local mobility. The TMP aligns with NEPA (PL 91-190), Section 122 of the River and Harbor Act of 1970 (PL 91-611).

The primary objective of the TMP is to minimize disruptions and mitigate transportation-related impacts on the surrounding community while ensuring safe and efficient mobility throughout the construction period. As part of this effort, the TMP will explore proven, cost-effective strategies that have successfully reduced traffic impacts in similar infrastructure projects. For example, the Federal Highway Administration's "Every Day Counts" (EDC) initiative promotes the use of innovative yet underutilized techniques to streamline project delivery, enhance safety, and improve mobility. While specific methodologies will be refined as the program develops, leveraging approaches like those championed under EDC could help optimize detour planning, reduce delays, and enhance connectivity for residents and businesses.

A key feature of this effort is the St. Claude Avenue Bridge replacement, which will incorporate modern, durable infrastructure solutions aimed at long-term benefits for both local commuters and commercial traffic. By integrating strategic, data-driven mitigation measures and considering best practices from national transportation programs, the IHNC TMP seeks not only to restore but to enhance the transportation network.

Summary Cost Estimates

2025 Transportation Mitigation Program

Direct Impact Mitigation	Cost

Traffic signals will be synchronized to facilitate traffic movement across the canal.	$8,832,500
Street Resurfacing	$500,000
Real-time traffic monitoring on the roadways approaching and crossing the bridges	$1,500,000
Traffic Crossing Guards	$300,000
Advanced Traveler Information Systems (ATIS)	$10,500,000
Comfort Stations at Bus Stops	$850,000
Subtotal Direct Impact Mitigation	*$21,982,500*
Indirect Impact Mitigation	**Cost**
Maintaining identification markings and striping	$350,000
Traffic Cameras	$920,000
Traffic Calming measures	$840,000
ADA Accessible Transportation	$1,800,000
Monitor sustainability of bus routes	$700,000
Systems Engineering Exercise	$10,000,000
Offsite parking for construction workers	$1,100,080
Continued Planning and Engagement with Orleans and St. Bernard Parish NFI's and the public	$300,000
Incident management	$2,500,000
Subtotal	*$18,510,080*
Future Scope Additions (10%)	$4,049,248
Total	$44,541,828