Final Report

BAINBRIDGE STREET ACCESS TO MSY JEFFERSON PARISH, LOUISIANA

STAGE 0 FEASIBILITY STUDY

April 2019

Prepared for:

Regional Planning Commission for

Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St. Tammany and Tangipahoa Parishes

Prepared by:

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RPC Task No. A-3.19: FY-19 UPWP
State Project No. H.972314.1
Meyer Engineers, Ltd. Project No. 20-1864
Engineer: Meyer Engineers, Ltd.
Traffic: ITS Regional, LLC

Volume I

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Appendices

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I. EXECUTIVE SUMMARY

Bainbridge Street is proposed to be the secondary access for the new airport terminal at the Louis Armstrong International Airport in Kenner, Louisiana. The Regional Planning Commission (RPC), with cooperation from Kenner, retained Meyer Engineers, Ltd., and traffic consultant, ITS Regional, LLC, for this Stage 0 Feasibility Study. A Project Management Committee (PMC) was formed to review data and conceptual ideas before deciding on the recommended alternative. Issues addressed included anticipated traffic needs, existing physical and operational deficiencies of the roadway, and Canal No. 19 in the center of the divided roadway.

The anticipated traffic needs were defined by the New Orleans Aviation Board and alternatives were developed for the Bainbridge Industrial District Improvements. A traffic study was conducted for the existing and future airport projected traffic. Based off of this traffic study and data gathered, recommendations include replacing the roadway, adding an additional right turn lane from north bound Bainbridge Street onto east bound Veterans Memorial Boulevard, and adding an additional left turn lane from west bound Veterans to south bound Bainbridge Street. Drainage recommendations for Canal No. 19 include relocating the earthen canal from the airport property to Canal No. 14, a dual 8' x 15' box culvert from Canal #14 to Veterans and replacing the box culvert under Veterans with a dual 8' x 7' box culvert. Recommendations also include street lights, utility replacement, traffic signals, sidewalk, and landscaping. See the Conceptual Plans in Volume II. The estimated total project cost for the Bainbridge Industrial District Improvements is $26,185,000.

Subtotals are provided for the Veterans intersection, Bainbridge roadway, and canal/box culvert work in order that construction can be phased appropriately and as funding dictates. (See Appendix A).

II. BACKGROUND

Meyer Engineers, Ltd., received authorization from the Regional Planning Commission to prepare a Stage 0 Feasibility Study for the Bainbridge Street Access to Louis Armstrong New Orleans International Airport. Bainbridge Street is planned to be the secondary access route for rental car shuttles, long term parking shuttles, employee shuttles, and service vehicles to access the airport via Veterans Memorial Boulevard. See Exhibit II-1 for the aerial view depicting these primary and secondary airport access routes.

The new terminal at the Louis Armstrong New Orleans International Airport began construction in January 2016 and is scheduled to open in fall 2019. The airport's initial primary connector road will tie into Loyola Drive and will be constructed on the east side of Aberdeen Street. This initial primary connector road started construction in January 2019 and will be built in two (2) segments:

a. Primary Connector Road - Segment A: Four-lane, divided road bracketed by sound walls from Veterans Memorial Boulevard and Loyola Drive to run alongside Aberdeen Street to the new terminal.

b. Primary Connector Road - Segment B:

   1. Improve the intersection of Veterans Memorial Boulevard and Loyola Drive.

   2. Improve the intersection of I-10 and Loyola Drive.

   3. Improve Loyola Drive south of I-10.

Ultimately a third segment will provide a more efficient means of access to the new airport terminal when the I-10/Loyola interchange improvements are in place. Construction of a flyover interchange access from I-10 should begin in the summer of 2019 and construction should be finished in the summer of 2023. See Exhibit II-1 for the aerial view showing the primary connector road phases.

Bainbridge Street is planned to be the secondary access road to the new airport terminal. The purpose of this feasibility study is to quantify the anticipated traffic that will use Bainbridge Street as a secondary access road and conceptually design the Bainbridge Industrial District improvements in order to accommodate the airport's access. See Figure 2.1 for a picture of Bainbridge Street looking north near the Veterans Memorial Boulevard intersection.

Figure 2.1: Bainbridge Street near Veterans Memorial Boulevard

The major issues that affected the conceptual design were the existing condition of the roadway and the earthen canal in the center of the roadway. Bainbridge Street is owned and maintained by the City of Kenner. The canal in the center of the roadway, Canal No. 19, is owned and maintained by Jefferson Parish. Bainbridge Street is predominantly in an industrial and commercial district. It was used to transport much of the fill and building materials to the new airport terminal construction site. Since Bainbridge Street was not designed to handle these extremely heavy loads and the great number of trips, the construction related traffic had a detrimental effect on the roadway causing extensive cracking. With the integrity of the roadway failing, the issue of canal stabilization became apparent. If the pavement section along Bainbridge Street fails, it will adversely affect Canal No. 19 at the center of the divided roadway. Therefore, the roadway and its canal in the center must be addressed as a whole. See Figure 2.2 for a picture of the existing roadway condition along Bainbridge Street.

Figure 2.2: Bainbridge Street - Existing Roadway Condition

III. MEETING MEMORANDUMS

- November 7, 2018: Kick-Off Meeting with the PMC
- November 14, 2018: Kick-Off Meeting with the PMC
- January 23, 2019: PMC Meeting
- February 15, 2019: PMC Meeting

A kick-off meeting was held with the RPC and the Project Management Committee on November 7, 2018 in order to introduce everyone to the purpose and need for the project and discuss design issues. An additional kick-off meeting was also held on November 14, 2018 with the RPC, PMC and the New Orleans Aviation Board to discuss the airport's anticipated needs. Following data gathering, traffic counting and field observations, the Project Management Committee met to analyze the data, review the findings and discuss the alternatives on January 23, 2019. Conceptual plans were developed. A Power Point presentation was given at a PMC meeting on February 15, 2019, which also included elected officials to represent their constituents. The alternatives considered and their probable construction costs were presented at this meeting. The PMC representatives gave their input for the alternatives considered and chose a recommended alternative. Meeting memorandums have been included with this feasibility study as Appendix B.

IV. EVALUATION

A. Project Management Committee/ Governmental Agency Input

The Regional Planning Commission (RPC) established a Project Management Committee (PMC) to guide planning, analysis, review findings, develop alternatives and make recommendations. It consisted of representatives from the Regional Planning Commission, Louisiana Department of Transportation and Development (DOTD), New Orleans Aviation Board, Kenner and Jefferson Parish. Discussions and meetings were held with representatives from each agency on the Project Management Committee including Kenner Public Works, Kenner Planning & Zoning, Jefferson Parish Public Works, Jefferson Parish Engineering Department and Jefferson Parish Administration. The following list outlines the representatives on the PMC.

PROJECT MANAGEMENT COMMITTEE
BAINBRIDGE STREET ACCESS TO MSY

Regional Planning Commission:

Jeffrey W. Roesel, AICP (Executive Director)
Tom Haysley (Responsible Charge)

Consultant Team:

Meyer Engineers, Ltd.:

David Dupré (Vice President)
Ann Theriot (Project Manager)

ITS Regional, LLC:

Carmelo Gutierrez (Owner/Manager)

New Orleans Aviation Board:

Kevin Dolliole (Director of Aviation)
Walter Krygowski (Deputy Director of Aviation – Operation & Maintenance)
James McCluskie (Deputy Director of Aviation – Planning, Development & Construction)

City of Kenner:

Tom Schreiner (Deputy CAO Public Works & Capital Projects)
Jimmy Dennis (Public Works Assistant Director)
Wendel Dufour (Planning Department Director)

Jefferson Parish:

Walter Brooks (Chief Operating Officer)
José Gonzalez (Public Works Director)
Mark Drewes (Engineering Director)

Louisiana Department of Transportation and Development:

Chris Morvant (District 02 District Engineer Administrator)
Ennis Johnson (District 02 Engineer)

B. Utility Data Collection

Data was compiled for the following utilities:

1. Jefferson Parish drainage and water systems
2. Kenner sewer system
3. Cox, Entergy, AT&T and Atmos Gas

See Exhibits IV-1 and IV-2 for the approximate locations of the utilities mentioned above. Before detailed design can begin, a

more accurate location of existing utilities should be accomplished, and utility companies should be contacted to determine if any upgrades are needed. At the time of this report, the utility companies were not aware of any planned or needed upgrades.

C. Crash Data Collection

A map depicting the fatal, severe and moderate injury crash locations for the project area was provided by the Regional Planning Commission for the time period from 2014 to 2016. A map showing the bike and pedestrian crashes for that same time period was also provided by the Regional Planning Commission. See Exhibits IV-3 and IV-4.

V. DESIGN CONSIDERATIONS

A. Traffic Analysis

A traffic analysis including traffic data collection and intersection analysis was completed for Bainbridge Street and the intersection of Veterans Memorial Boulevard for this feasibility study. The existing traffic conditions were gathered, and the anticipated traffic needs were provided by the New Orleans Aviation Board. Adding a left turn lane on west bound Veterans Memorial Boulevard to turn south bound on Bainbridge Street and adding a right turn lane on north bound Bainbridge Street to turn onto east bound Veterans Memorial Boulevard was also recommended. The traffic data and recommendations were discussed with the PMC at a meeting. Jefferson Parish Public Works administration recommended making both of these turning movements double turn lanes. The PMC agreed that a second turn lane should be added at both of these turning movements. Therefore, the preliminary cost to have two (2) turn lanes 200' long with a 125' taper from west bound Veterans Memorial Boulevard onto south bound Bainbridge Street and two (2) turn lanes 400' long with a 150' taper from north bound Bainbridge Street onto east bound Veterans Memorial Boulevard was considered in the alternatives presented in this feasibility study.

These improvements will provide a better level of service with the anticipated traffic that will be generated from the new airport terminal. The traffic analysis is included as Appendix C.

Analysis of Veterans Memorial Boulevard was also accomplished and is mentioned here since it ties into Bainbridge Street. As can be seen in Exhibit V-1, an additional vehicular travel lane is recommended along Veterans Memorial Boulevard from Dawson Street to Williams Boulevard. Adding a turn lane on west bound Veterans Memorial Boulevard at the existing Airport Road east of Bainbridge Street is also recommended.

B. Roadway Improvements on Bainbridge

Bainbridge Street roadway section alternatives were evaluated. The current deteriorating condition of Bainbridge Street and the increased traffic demand anticipated from the new airport terminal dictates the need for the reconstruction of the roadway and the stabilization of Canal No. 19 at the center of the roadway in order to minimize any future damage and potential roadway failure. The required roadway section was assumed to be nine inch (9") thick concrete on eighteen inch (18") thick sand base. This pavement section was used to calculate the preliminary cost of the roadway for the alternatives presented in this feasibility study. This pavement section should be analyzed during future development of the plans. The Bainbridge Street roadway is owned and maintained by the City of Kenner.

Since the existing utilities are relatively old, it is recommended that they be replaced when the road is reconstructed. Recommended roadway improvements include minor drainage (18" cross drains), sanitary sewer gravity line replacement, water line, decorative street lights, 5' wide sidewalks

on each side of the road, and landscaping in the median. See Exhibit V-1 for a conceptual layout of the roadway improvements and the associated work.

C. Canal No. 19

At the center of the Bainbridge corridor is an earthen canal, Canal No. 19, which is owned and maintained by Jefferson Parish. It is approximately forty-five feet (45') from top of bank to top of bank with a twenty-foot (20') wide canal bottom and two (2) to one (1) side slopes. The existing earthen canal from Veterans to Boeing Lane has a storage volume of 773,600 cubic feet. As per the Jefferson Parish Drainage Department, if the cross-sectional area of the canal were reduced, the water level during major storm events may rise due to reduced storage. Therefore, the storage volume of each alternative was evaluated and compared to the existing canal storage volume.

In March 2012, a study was completed by Shaw Coastal, Inc. to address drainage issues entitled "Drainage Improvements to Bainbridge Canal (Canal No. 19) (Between Veterans Memorial Boulevard and Canal No. 14). In Shaw's report, several U-channel sections were evaluated for a ten (10) year storm event, and the recommended canal section for Canal No. 19 was a thirty- two (32') wide U-channel with five-foot three inch (5'-3") high walls. Excerpts from this report have been included in this feasibility study as Appendix D.

During Meyer's analysis, there appeared to be a discrepancy in the drainage flow from the airport property. Per the Shaw Study, the 10-year flow from the airport property is 50 cubic feet per second (CFS). See Exhibit V-2. Per the airport's drainage calculation from 2015, the proposed flow into Canal #19 is 216 CFS. The flow from Canal #14 to Canal #19, per Shaw's study, is 320 CFS. It is unclear if the improvements at the airport affect this flow from Canal #14. All flows would need to be evaluated and verified during design. For the cost analysis in this report, Shaw's flow recommendations were used. Several alternatives were considered for this earthen canal. See Section 1 on Exhibit V-3 for the existing typical section for the four (4) lane divided roadway.

1. Box Culvert Under Veterans

At the intersection of Bainbridge Street and Veterans Memorial Boulevard, there is an existing fourteen-foot (14') wide by six-foot (6') tall box culvert. There are utility lines on both the upstream and downstream sides of Veterans Memorial Boulevard that cross Canal No. 19. Per Shaw's report, an upgrade to the box culvert under Veterans Memorial Boulevard was considered critical to providing the greatest benefit to mitigate drainage problems for this area. The drainage study completed by Shaw recommended replacing the existing box culvert in Canal No. 19 at Veterans Memorial Boulevard with two (2) eight-foot (8') wide by seven-foot (7') high box culverts.

The drainage study completed by Shaw recommended replacing the existing box culvert in Canal No. 19 at Veterans Memorial Boulevard with two (2) eight-foot (8') wide by seven-foot (7') high box culverts. The utilities on both sides would have to be adjusted and/or relocated as well. See Figure 5.1 for a picture of Bainbridge Street at Veterans Memorial Boulevard.

Figure 5.1- Bainbridge Street-existing box culvert at Veterans

The cost to reconstruct this intersection of Bainbridge Street and Veterans Memorial Boulevard with the double eight-foot (8') by seven-foot (7') box culverts with traffic signals, street lights, sidewalk, landscaping, art and signage was estimated and is shown in Appendix A.

2. Drainage Options: Veterans to Boeing Lane

In order to stabilize Canal No. 19, several different types of canal sections were considered including a U-channel section, a sheet pile wall section and box culverts. Meyer Engineers, Ltd. requested the recommended canal section for Canal No. 19 from the Jefferson Parish Drainage Department as per the Parish's latest drainage master plan. The Jefferson Parish Drainage Department administration stated that the recommended canal section should be a five-foot (5') by thirty-two-foot (32') U-channel or double eight-foot (8') by fifteen-foot (15') box culverts. The Jefferson Parish Drainage Department administration was strongly against reducing the canal section. Therefore, these canal sections were evaluated.

a. 5' x 32' U-Channel

From the Shaw report prepared in 2012, Shaw recommended a five-foot (5') by thirty-two-foot (32') U-channel. This option would increase the storage volume in the canal but would have to be closed in if road crossings or turn lanes were

added. Also, it was not very aesthetically pleasing for the secondary access to such an international venue as the airport. Therefore, this alternative was not recommended and deemed aesthetically unpleasing since Bainbridge would be the secondary access to an international venue such as the airport. Therefore, other alternatives for Bainbridge Street from Veterans Memorial Boulevard to Canal No. 14 were considered. See Section 2 on Exhibit V-3.

b. No Drainage Improvements

The option to reconstruct the roadway and do nothing to stabilize the canal was brought up for discussion at the PMC meeting. If Canal No. 19 were not stabilized, the PMC agreed that a reconstructed Bainbridge Street would probably fail within five (5) to ten (10) years. The PMC also agreed that this was an undesirable option and did not recommend reconstruction of Bainbridge Street without stabilizing Canal No. 19. The preliminary construction cost to reconstruct Bainbridge Street and replace the utilities was estimated and is presented in Appendix A. This cost does not include any work to stabilize Canal No. 19.

c. Dual 8' x 7' Box Culverts

Per the Shaw report, double eight-foot (8') by seven-foot (7') box culverts would handle the 10-year flow of 370 CFS. However, the storage capacity of Canal No. 19 would be less than its existing capacity and would be reduced to 383,600 cubic feet. Therefore dual 8' x 7' box culverts did not appear to be a viable option. See Section 3 on Exhibit V-3 for the proposed typical section for the double eight-foot (8') by seven-foot (7') box culverts.

d. Sheet Pile Wall

The alternative of a sheet pile wall section along Bainbridge Street was evaluated. It consisted of concrete capped sheet piles approximately forty feet (40') long with a concrete canal bottom and a guard rail along the edge of the roadway. The storage capacity of this proposed cross section would approximately match the existing canal capacity. The construction cost is approximately the same as the 5' x 32' U-Channel. Since there was no real cost savings and this option is not as aesthetically pleasing as the 5' x 32' U-Channel, the PMC agreed that this was not a viable option. See Section 1 on Exhibit V-4.

e. Dual 8' x 15' Box Culverts

Meyer Engineers, Ltd. evaluated double eight foot (8') deep by fifteen foot (15') wide box culverts along Bainbridge Street. The storage capacity of this proposed cross section would also exceed the existing canal capacity by providing a cross sectional volume of 822,000 cubic feet. See Section 2 on Exhibit V-4.

f. Earthen Canal Section- Canal No. 14 to the Airport Property

From Canal No. 14 to Boeing Lane, the roadway narrows down to a two (2) lane roadway with the earthen canal section shifted just to the east of Bainbridge Street. For this 1,300' long section of Bainbridge Street from Canal No. 14 to Boeing Lane, the recommended canal section is an earthen canal shifted east of the road. Jefferson Parish has a one hundred-foot (100') wide right-of-way adjacent to the roadway for the earthen canal. See Figure 5.2 for Bainbridge Street south of Canal No. 14.

Figure 5.2- Bainbridge Street south of Canal No. 14

The PMC agreed that the earthen canal section was the most cost-effective solution for this section of Bainbridge Street from Canal No. 14 to Boeing Lane. The preliminary cost to remove the existing timber retaining wall, sod, seed, fertilize, and provide excavation and embankment was estimated and is presented in Appendix A. See Section 3 on Exhibit V-4 for the proposed typical section for the two (2) lane roadway section from Canal No. 14 to Boeing Lane.

Since the recommendation is a two-lane road from Canal #14 to the airport property, there would be room to shift the earthen drainage canal away from the road. By shifting the canal, the canal bank and nearby roadway would be more stabilized. Also, if additional lanes were required in the future, the canal could still be closed in with box culverts.

D. Drainage Recommendations

In evaluating the options, the PMC recommended a dual 8' x 15' box culvert from Veterans to Canal #14 and an earthen canal from Canal #14 to the airport property.

The box culvert section exceeds the existing canal capacity and was the most aesthetically pleasing alternative for the secondary access to such an international venue as the airport. Also, the earthen canal section south of Canal #14 would minimize cost and allow for future traffic lanes.

VI. DOTD STAGE 0

The Stage 0 Preliminary Scope and Budget Checklist, and the Stage 0 Environmental Checklist were compiled with the information gathered and PMC coordination. These checklists are included in Appendix E.

VII. PRELIMINARY PROBABLE CONSTRUCTION COST, FUNDING AND COLLABORATION

Overall, the participating agencies on the Project Management Committee worked together in a positive way to evaluate the alternatives, agreed on the recommended roadway and drainage aspects of project, and considered incorporating this project within their programs. Each agency supported the recommended project as long as their particular requirements could be met, specifically providing a roadway along Bainbridge Street to address the anticipated traffic needs for a secondary airport access route as well as maintaining the existing storage capacity of Canal No. 19 with double eight-foot (8') by fifteen-foot (15') box culverts.

Based on the conceptual plans, the Preliminary Probable Construction Cost (PCC) is $26,185,000. It is provided as Appendix A. The PCC has been broken down into separate costs for Bainbridge/Veterans intersection, Bainbridge Street roadway\utility replacement, and double eight foot (8') x fifteen foot (15') box culverts\earthen canal section from Canal No. 14 to Boeing Lane. Subtotals are provided in order that construction can be phased appropriately and as funding dictates. Once constructed, Kenner will maintain the Bainbridge Street concrete roadway and Jefferson Parish will maintain Canal No. 19.

VIII. CONCEPTUAL PLANS

Using the traffic study, data gathered and input from the PMC meetings, conceptual plans were developed to show the recommended roadway section, roadway widening, canal sections and turn lanes. The Conceptual Plans are included as Volume 2 of this Stage 0 Feasibility Study.

project no. 20-1864
drawn AJS
checked CHD
date 04-22-2019
revised

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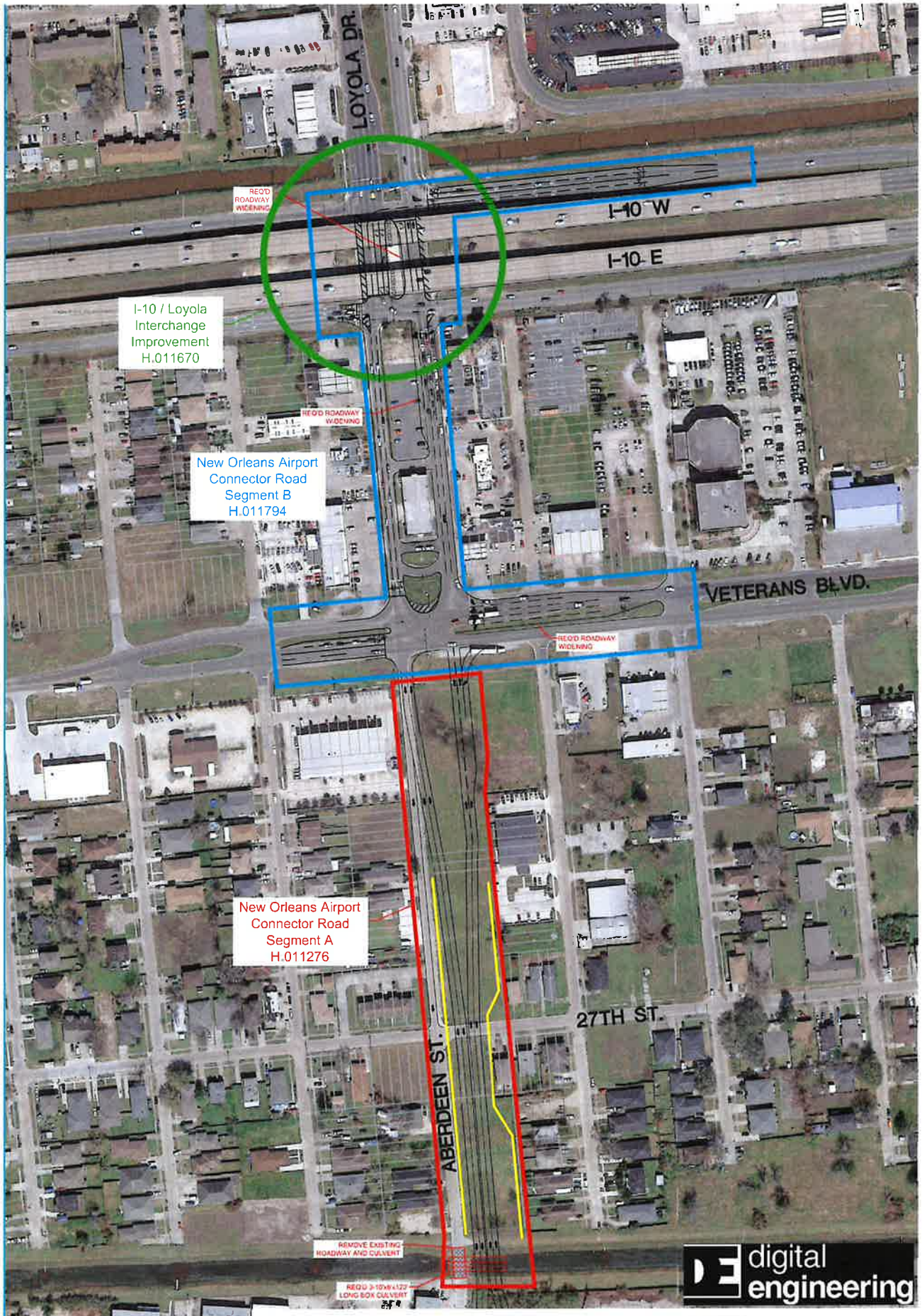
PRIMARY & SECONDARY AIRPORT ACCESS ROUTES

BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

exhibit
II-1
of ___ sheets



PRIMARY CONNECTOR ROAD PHASES

NORTH

N.T.S.

EXHIBIT: II-2

LEGEND:

- 18"CMP — DRAINAGE
- 8" T — WATER
- 8" — SEWER GRAVITY LINE
- 24" — SEWER FORCE MAIN
- SEWER LIFT STATION

NORTH

GRAPHIC SCALE

200 0 100 200

(IN FEET)
1 inch = 200 ft

PLOT 1=1

project no. 20-1864
drawn AJS
checked DHD
date 04-22-2019
revised

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Meyer Engineers, Ltd. ENGINEERS & ARCHITECTS

EXISTING DRAINAGE, WATER, & SEWER

BAINBRIDGE STREET ACCESS TO MSY
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STATE PROJECT NO. H.972314.1

sheet no.
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of ____ sheets

LEGEND:

- COX & ENTERGY OVERHEAD LINES ON POWER POLES
- EXISTING AT&T UNDERGROUND LINES
- 2" G — EXISTING 2" GAS MAIN

NORTH

GRAPHIC SCALE

200 0 100 200

(IN FEET)
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PLOT 1=1

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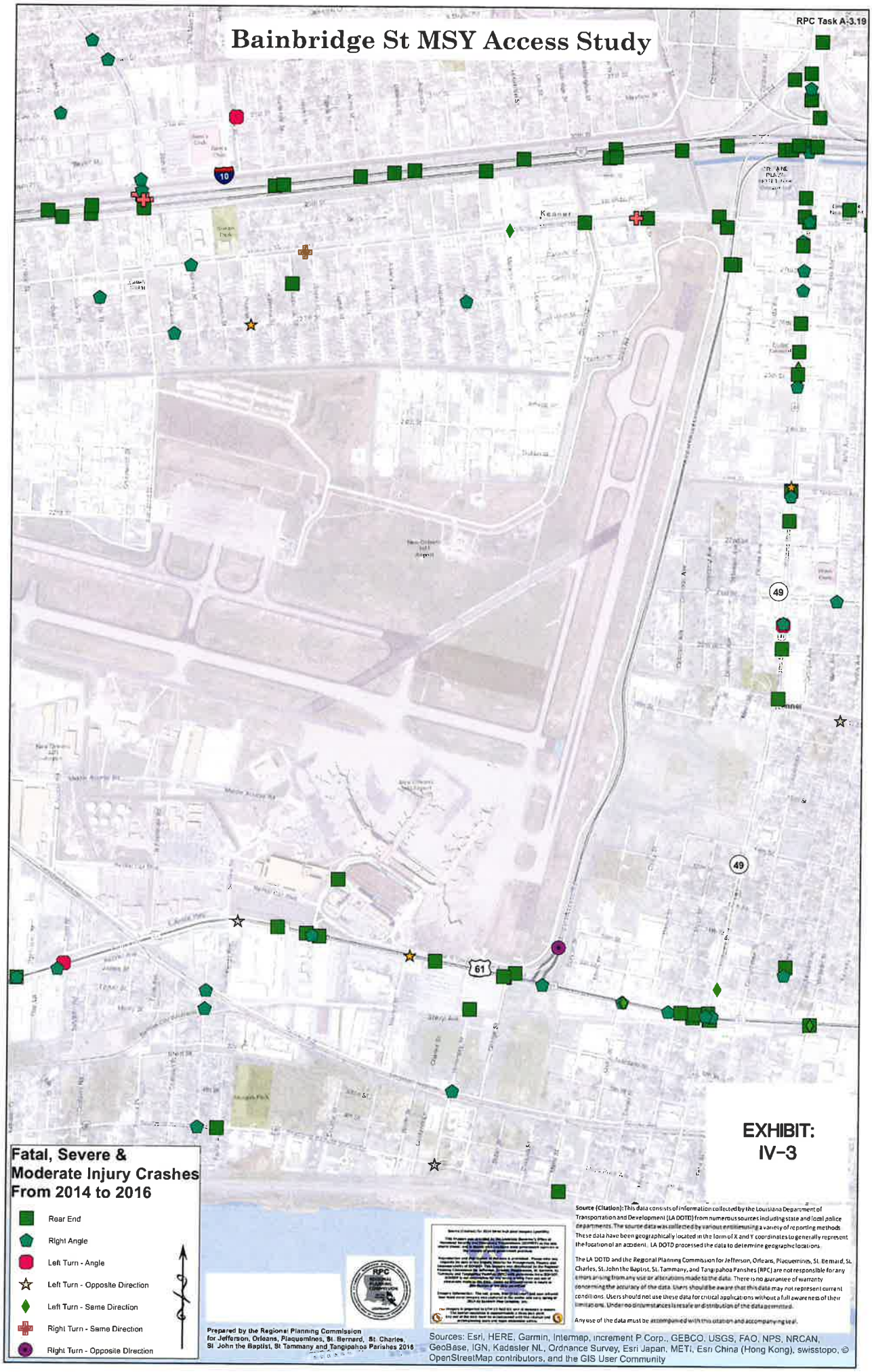
of ____ sheets

Bainbridge St MSY Access Study

RPC Task A-3.19



Fatal, Severe & Moderate Injury Crashes From 2014 to 2016

- Rear End
- Right Angle
- Left Turn - Angle
- Left Turn - Opposite Direction
- Left Turn - Same Direction
- Right Turn - Same Direction
- Right Turn - Opposite Direction

EXHIBIT: IV-3

Source (Citation): This data consists of information collected by the Louisiana Department of Transportation and Development (LA DOTD) from numerous sources including state and local police departments. The source data was collected by various entities using a variety of reporting methods. These data have been geographically located in the form of X and Y coordinates to generally represent the location of an accident. LA DOTD processed the data to determine geographic locations.

The LA DOTD and the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St. Tammany, and Tangipahoa Parishes (RPC) are not responsible for any errors arising from any use or alterations made to the data. There is no guarantee of warranty concerning the accuracy of the data. Users should be aware that this data may not represent current conditions. Users should not use these data for critical applications without a full awareness of their limitations. Under no circumstances is resale or distribution of the data permitted.

Any use of the data must be accompanied with this citation and accompanying legal.

Prepared by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St Tammany and Tangipahoa Parishes 2018

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

RPC Task A-3.19

Bainbridge St MSY Access Study

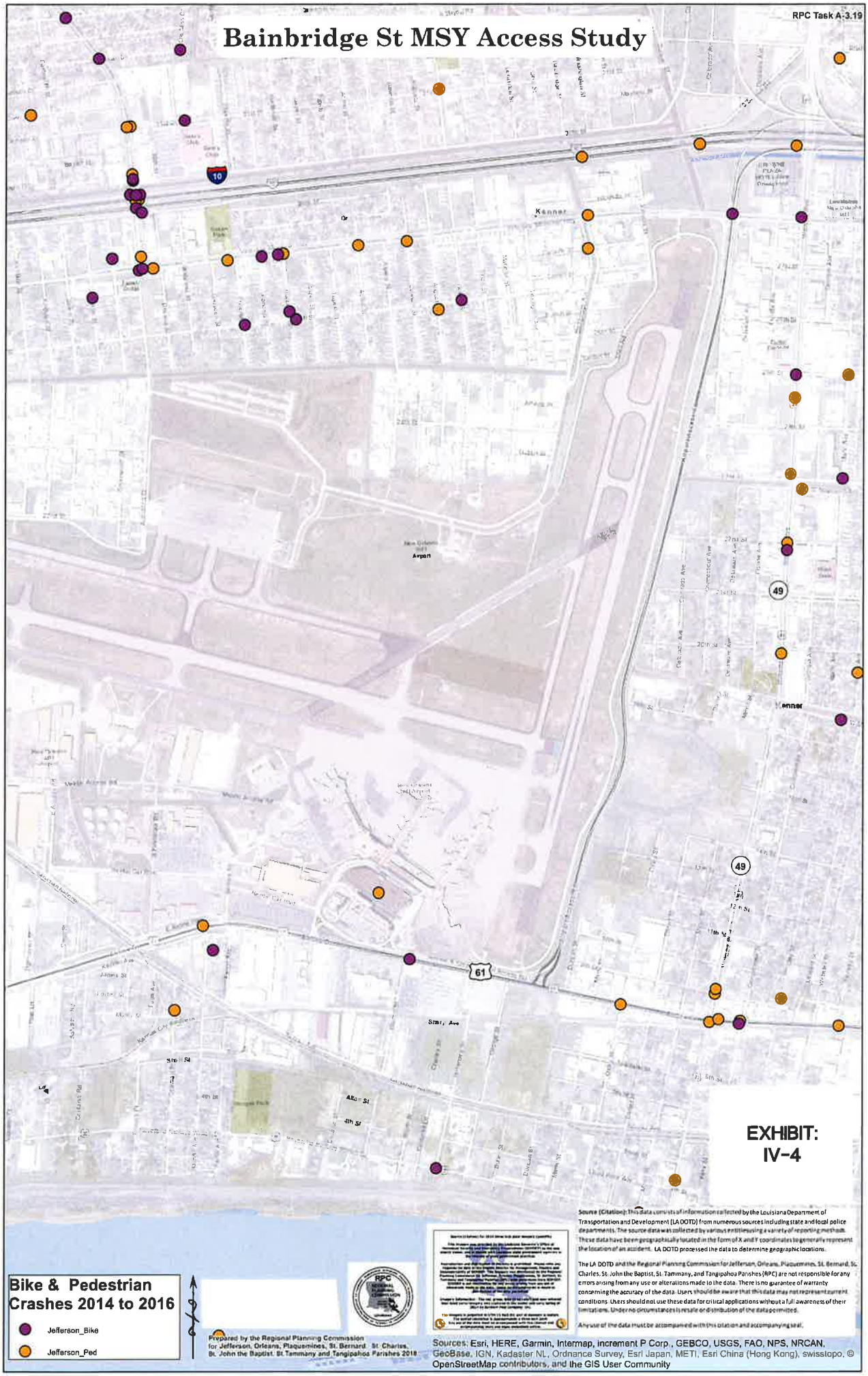


EXHIBIT: IV-4

Bike & Pedestrian Crashes 2014 to 2016

- Jefferson_Bike
- Jefferson_Ped

Prepared by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St. Tammany and Tangipahoa Parishes 2018

Source (Citation): This data consists of information collected by the Louisiana Department of Transportation and Development (LA DOTD) from numerous sources including state and local police departments. The source data was collected by various entities using a variety of reporting methods. These data have been geographically located in the form of X and Y coordinates to generally represent the location of an accident. LA DOTD processed the data to determine geographic locations.

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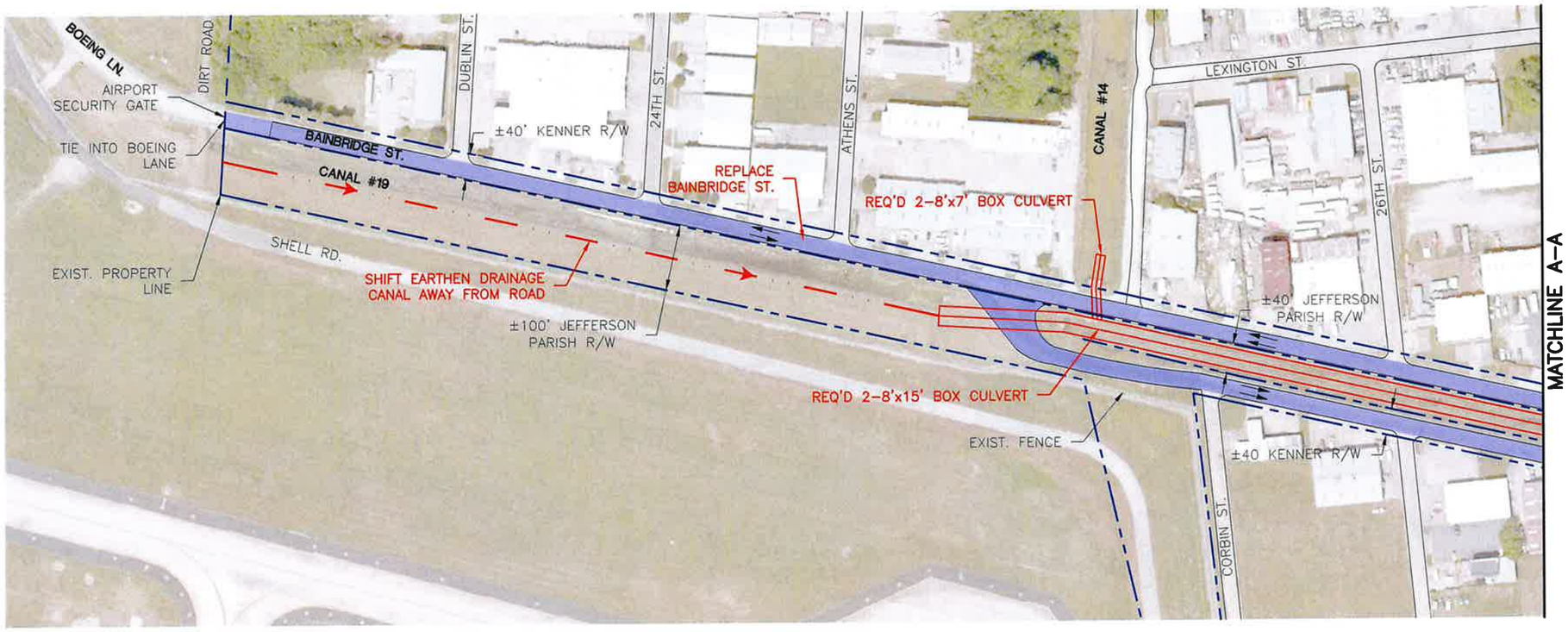

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GRAPHIC SCALE

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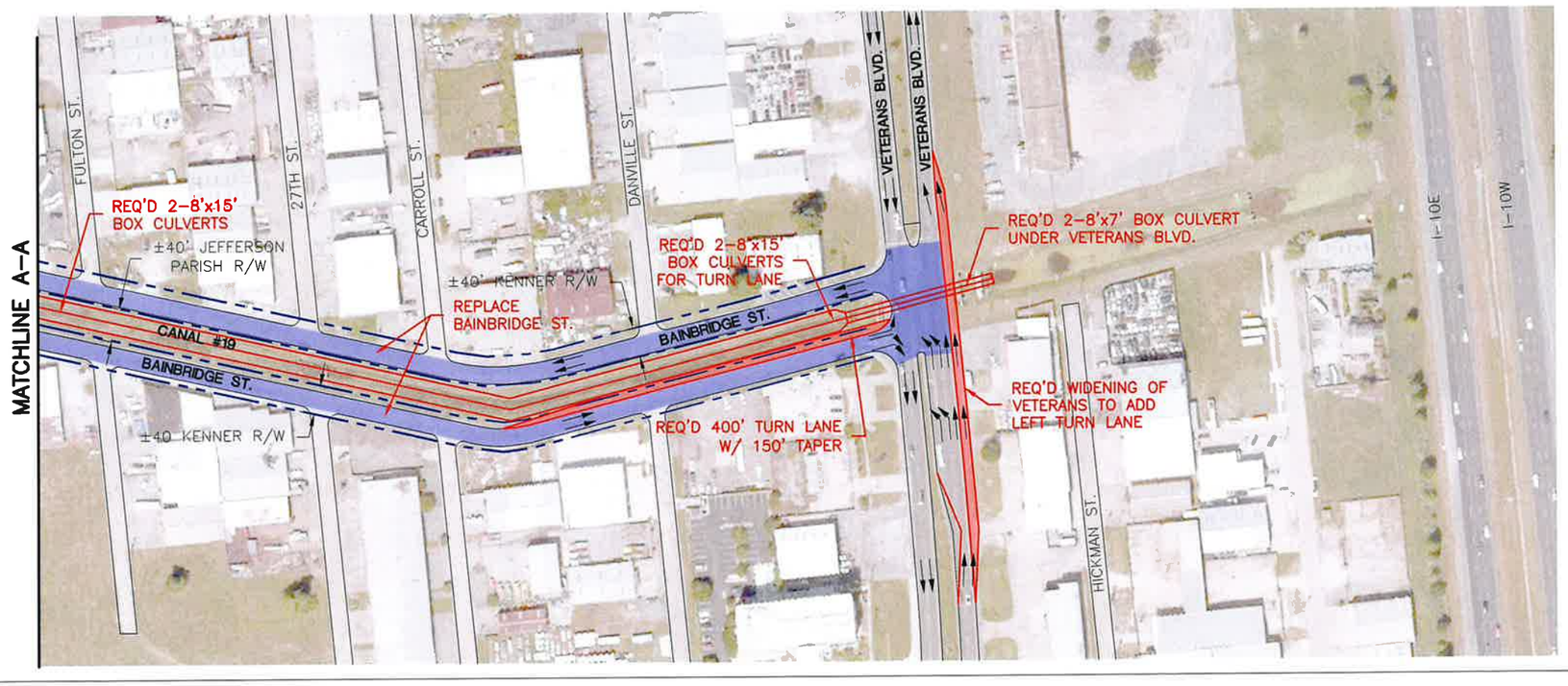
1 inch = 200 ft.



NOTE:
REQ'D SUBSURFACE DRAINAGE, SIDEWALKS, STREETLIGHTS, STREETSCAPING & LANDSCAPING ARE NOT SHOWN.

PLOT 1=1

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BAINBRIDGE STREET CONCEPTUAL ROADWAY IMPROVEMENTS

BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

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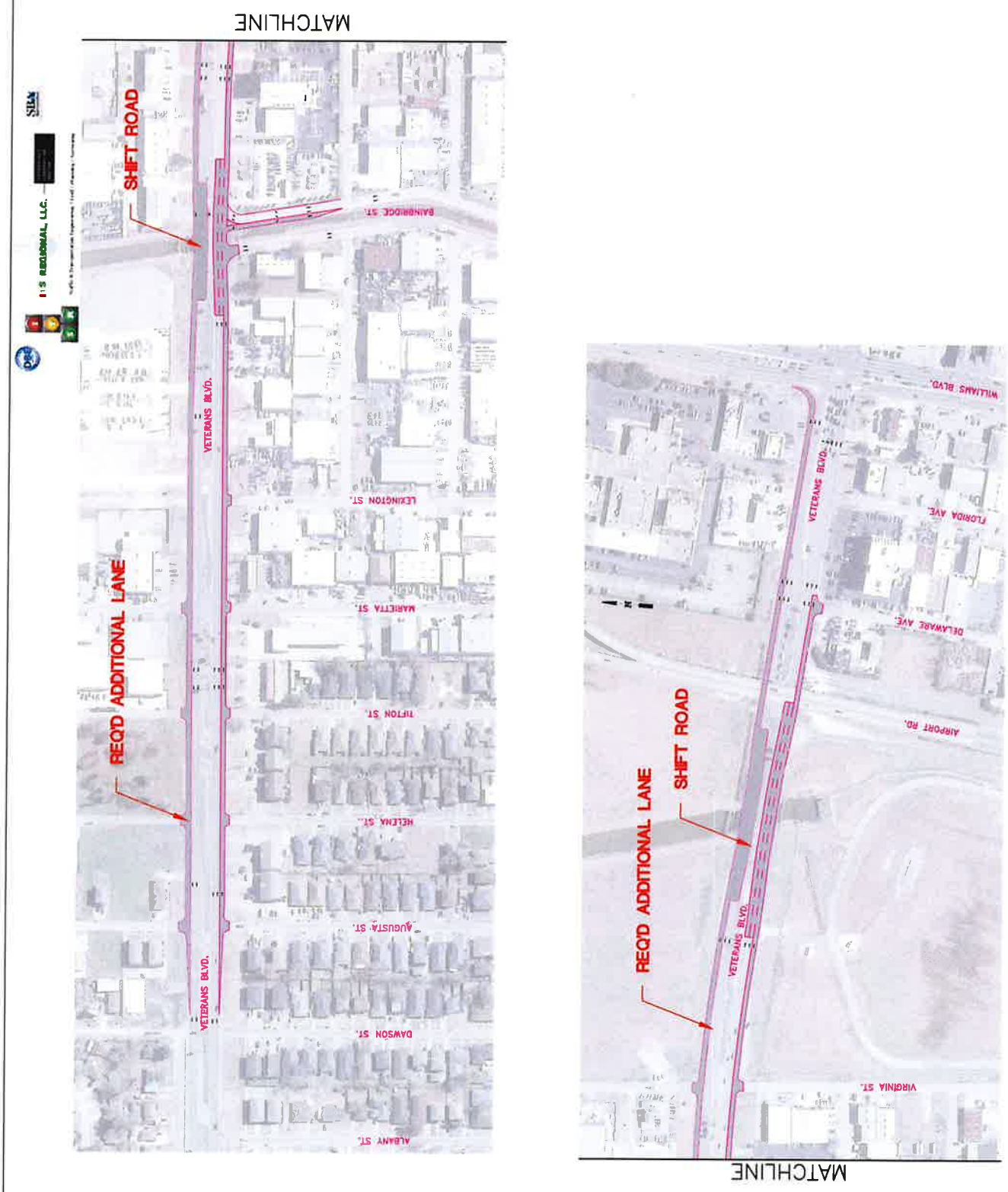

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(IN FEET)

1 inch = 400 ft.

NORTH

PLOT 1=1

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VETERANS MEMORIAL BLVD: DAWSON ST. TO WILLIAMS BLVD.

BAINBRIDGE STREET ACCESS TO MSY
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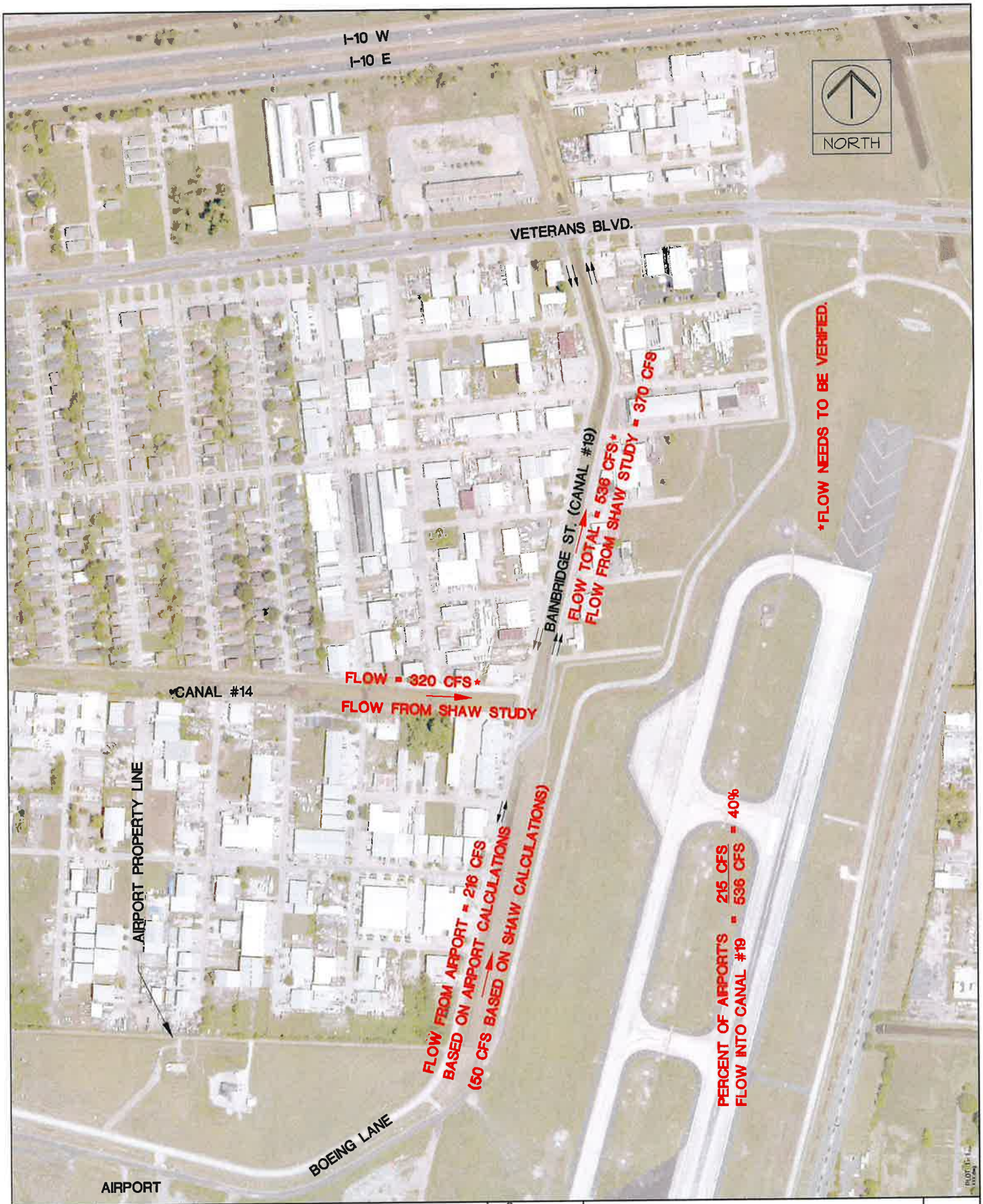

project no. 20-1864
drawn AS
checked DHD
date 04-22-2019
revised

Meyer Engineers, Ltd.
4937 Hearst Street . Suite 1B . Metairie, Louisiana 70001
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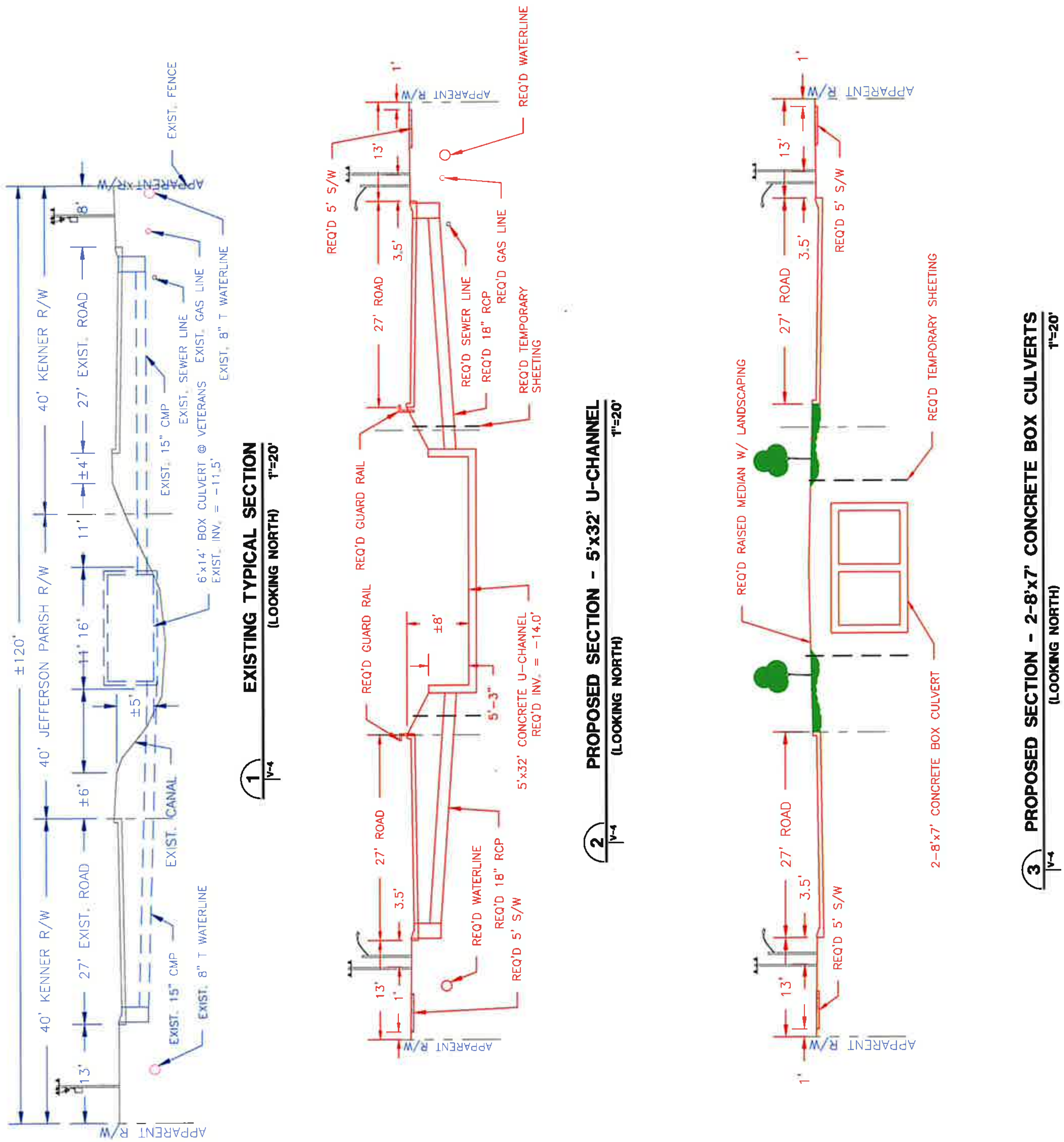
DRAINAGE FLOWS

BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

exhibit
V-3
of ___ sheets



project no.	20-1864
drawn	AJS
checked	DHD
date	04-22-2019
revised	

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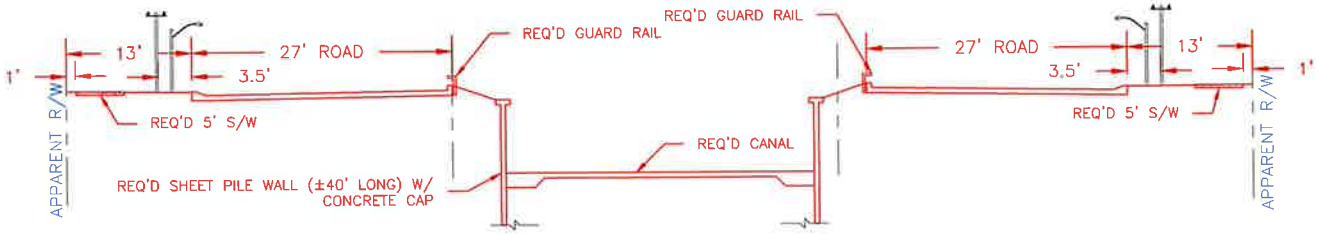
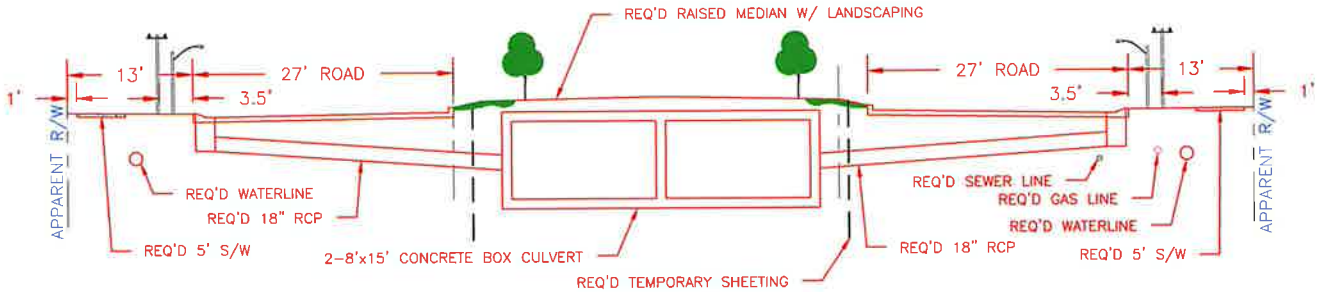
TYPICAL SECTIONS BETWEEN CANAL NO. 14 & VETERANS

BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

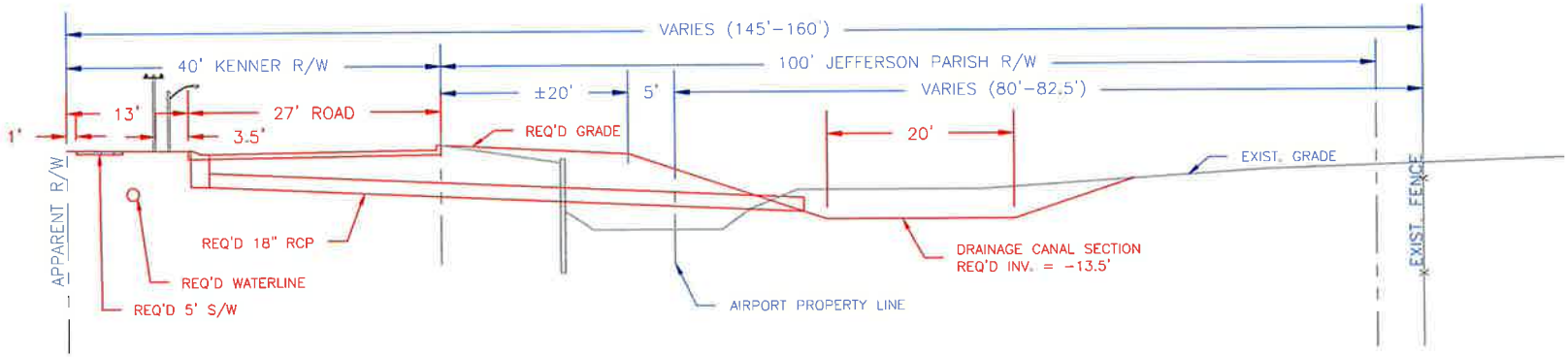
exhibit
V-4
of ___ sheets



1 V-5 PROPOSED SECTION - SHEET PILE WALL
(LOOKING NORTH) 1"=20'



2 V-5 PROPOSED SECTION - 2-8'x15' CONCRETE BOX CULVERT
(LOOKING NORTH) 1"=20'



3 V-5 PROPOSED SECTION - EARTHEN CANAL SECTION (SOUTH OF CANAL #14)
(LOOKING NORTH) 1"=20'

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project no. 15-1184
drawn AS
checked DMO
date 04/2/2019
revised

TYPICAL SECTIONS BETWEEN CANAL NO. 14 & VETERANS

BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

exhibit V-5 of ___ sheets

PLOT 1=1
XXX.dwg

APPENDIX A:

PRELIMINARY PROBABLE CONSTRUCTION COST

201864SPC

PRELIMINARY PROBABLE CONSTRUCTION COST
BAINBRIDGE STREET ACCESS TO MSY
A/E PROJECT NO. 20-1864 APRIL 22, 2019

PHASE I

VETERANS/BAINBRIDGE INTERSECTION					
DOUBLE 8'x7' BOX CULVERT	200	LF	@	$5,700	$1,140,000
DRAINAGE (INCIDENTAL)	1	LS	@	$80,000	$80,000
PAVEMENT REPLACEMENT INCLUDING TURN LANE (9" ASPHALT ON 18" BASE)	2,000	SY	@	$150	$300,000
CONCRETE CURB AND GUTTER	700	LF	@	$45	$31,500
MILL AND OVERLAY VETERANS NEAR WIDENING	2,100	SY	@	$50	$105,000
TRAFFIC SIGNAL	1	LS	@	$50,000	$50,000
STREET LIGHTS	6	EA	@	$9,000	$54,000
UTILITY CONFLICTS	1	LS	@	$80,000	$80,000
SIDEWALK (10' WIDE)	1,000	SY	@	$80	$80,000
LANDSCAPING, ART AND SIGN	1	LS	@	$400,000	$400,000
BAINBRIDGE ROAD TURN LANE (TO EAST BOUND VETERANS) INCLUDING BOX CULVERTS (VETERANS TO 500' SOUTH)					
TURN LANE 12' X 475' (400' + 150' TAPER)	650	SY	@	$150	$97,500
DOUBLE 8' X 15' BOX CULVERTS FOR TURN LANE	500	LF	@	$7,900	$3,950,000
LANDSCAPING IN MEDIAN	1	LS	@	$300,000	$300,000

SUBTOTAL - PHASE I **$6,668,000**

PHASE II

BAINBRIDGE ROAD AND UTILITY REPLACEMENT WITHOUT TURN LANES					
REMOVAL OF EXISTING ROADWAY (2,130' X 2) + 1,200'	16,000	SY	@	$20	$320,000
18" RCP (EVERY 150') W/CATCH BASIN	1,400	LF	@	$150	$210,000
SEWER LINE WITH MANHOLES	5,400	LF	@	$170	$918,000
WATER LINE W/FIRE HYDRANTS, VALVES, TIE-INS	5,400	LF	@	$140	$756,000
27' WIDE ROAD REPLACEMENT (9" CONCRETE ON 18" SAND)[(2,130' X 2) + 1,200']	16,000	SY	@	$150	$2,400,000
STREET LIGHTS DECORATIVE @ 150'	37	EA	@	$8,000	$296,000
SIDEWALK (5' WIDE)	3,000	SY	@	$80	$240,000
TOP SOIL	2,000	CY	@	$35	$70,000
SOD-SEEDING AND FERTILIZING	6,000	SY	@	$15	$90,000

SUBTOTAL - PHASE II **$5,300,000**

PHASE III

DOUBLE 8'x15' BOX CULVERTS (TURN LANE TO CANAL 14)					
EXCAVATION	20,000	CY	@	$33	$660,000
BEDDING MATERIAL	2,100	CY	@	$120	$252,000
GEOTEXTILE FABRIC	6,300	SY	@	$3	$18,900
EMBANKMENT	13,500	CY	@	$40	$540,000
CONCRETE HEADWALL	30	CY	@	$1,200	$36,000
DOUBLE 8'x15' BOX CULVERT	1,620	LF	@	$4,600	$7,452,000
TEMPORARY SHEETING	96,000	SF	@	$40	$3,840,000
DOUBLE 8' X 7'S TO CANAL #14	100	LF	@	$5,700	$570,000
EARTHEN DRAINAGE CANAL (CANAL 14 TO BOEING LANE) (1,300')					
EXCAVATION	10,200	CY	@	$33	$336,600
REMOVAL OF TIMBER RETAINING WALL	1,300	LF	@	$100	$130,000
SOD-SEEDING AND FERTILIZING	14,500	SY	@	$15	$217,500
EMBANKMENT	4,100	CY	@	$40	$164,000

SUBTOTAL - PHASE III **$14,217,000**

TOTAL PROJECT COSTS - ALL PHASES **$26,185,000**

NOTE: ALL PRICES INCLUDE A 40% CONTINGENCY FOR MOBILIZATION, CONSTRUCTION LAYOUT, TRAFFIC CONTROL, EROSION CONTROL, CONSTRUCTION CONTINGENCY, SURVEYING, GEOTECHNICAL, AND CONSTRUCTION ADMINISTRATION.

APPENDIX B:

PROJECT MANAGEMENT COMMITTEE

MEETING MEMORANDUMS

- **November 7, 2018 Kick-Off Meeting Memo**
- **November 14, 2018 Kick-Off Meeting Memo**
- **January 23, 2019 PMC Meeting Memo**
- **February 15, 2019 Meeting Memo**

PROJECT MANAGEMENT COMMITTEE

MEETING MEMORANDUM

November 7, 2018 Kick-Off Meeting Memo

MEYER ENGINEERS, LTD.

MEMORANDUM

PROJECT NO:	20-1864		
PROJECT NAME:	Bainbridge Street Access to MSY		
DATE:	11/07/2018	**BY:**	Ann Theriot
PHONE CALL:	☐	**MEETING:**	☒
NUMBER:		**LOCATION:**	Regional Planning Commission
FROM:		**ATTENDING:**	See Attached

COMMENTS: A kick-off meeting was held, the attached scope of work was distributed by Maulhardt, and the following was discussed:

1. Roesel – We need to determine type and quantity of existing and proposed airport traffic and find out what the airport plans on doing with Bainbridge access to airport. Airport, Kenner & RPC should all share in the cost of roadway improvements needed due to traffic impacts.
2. Gutierrez will set up traffic count machine this weekend per scope locations and times.
3. Gutierrez recommended to widen Veterans to Dawson with three (3) lanes each side by taking the shoulder and adding a curb based off Veterans traffic counts. There will be 340 left turns on Bainbridge from Veterans/Airport Access Road and 640 vehicles going straight on Veterans from Williams.
4. Roesel – Meyer to coordinate with Airport. Roesel to contact Walter Krygowski.
5. Gutierrez – Airport's Environmental Assessment had no improvements for Bainbridge or Veterans.
6. Roesel – Proposed land use changes from airport impacts, should be coordinated with Kenner. Schreiner will check with Wendel Dufour, Director of Kenner Planning and Zoning.

7. Gutierrez – 2039 – 1.5% growth was stated in the Environmental Assessment.
8. Gutierrez – Need 500' east and west of Bainbridge along Veterans for transition. Add a right turn lane on Veterans from the west to turn onto Bainbridge.
9. Breaux – If widen Bainbridge, box culverts in Canal No. 19 are recommended per the Jefferson Parish Drainage Master Plan. If not widen Bainbridge, slope stabilization in Canal No. 19 may be an option.
10. Dupre – Is there a desire to close in the canal for aesthetics? The committee did not think there was a desire to close the canal for aesthetics.
11. Roesel – Check drainage box culvert costs and confirm box culvert size with Jefferson Parish from Master Plan. Check if price was included to design a tie into Canal No. 14.
12. Breaux will check for any as-builts with Jefferson Parish.
13. Dennis will check for any as-builts with Kenner.
14. Dennis – Existing sewer force main on Bainbridge at 27th Street at lift station. Existing duct bank, gas and water lines on south side of Veterans crossing Canal No. 19.
15. Roesel – If proposed traffic dictates, the recommendation could be to continue double lanes along Bainbridge on both sides of Canal No. 19 south of Canal No. 14.
16. Dupre – Very preliminary cost estimate of project, including closing in the canal, is $34 Million.
17. Dupre asked DOTD's involvement. Roesel stated that DOTD was invited as an expert.
18. Dupre asked if we need construction coordination with Loyola construction. Roesel stated that there should be no concern because Loyola improvements will be many years after Bainbridge improvements.
19. Maulhardt – Next meeting will be held in about 1 month to present data collection.

DISTRIBUTION: RCM
DHD

F:\WORDPROC\20-1800\20-1864\20-1864.mem11072018.docx

REGIONAL PLANNING COMMISSION

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JOHN THE BAPTIST, ST. TAMMANY AND TANGIPAHOA PARISHES

Bainbridge St Access to MSY – November 7, 2018 – 10:00am

PLEASE PRINT

Name	Representing	Phone	E-mail
Alison Maulhardt	RPC	504 483 8533	amaulhardt@norpc.org
Armando Gutierrez	ITS Regional, LLC	888-9399	Gutierrez@itsregional.com
Ryan Breaux	Jefferson Parish Engineering	736-6514	rabreaux@jeffparish.net
Tom Schreiner	C.O.K	468-7515	tschreiner@kenner.la.us
Ann Theriot	Meyer Engineers, Ltd.	885-9892	atheriot@meyer-e-l.com
Dawn Dupre	" "	" "	DDUPRE@ " "
Sam Buckley	RPC	504-483-8119	sbuckley@norpc.org
Jimmy Dennis	C.O.K	504-234-3372	Jdennis@kenner.la.us
Jeff Roesel	RPC	504-483-9528	jroesel@norpc.org
Ennis Johnson	DOTD	504-437-3103	Ennis.Johnson@la.gov

Intermodal Access/ Impact Study
Bainbridge St. Access to Louis Armstrong New Orleans International Airport
Jefferson Parish, Louisiana
(RPC Task A-3.19; FY-19 UPWP)

Project Background:

The relocation of the Louis Armstrong New Orleans International Airport (LANOIA) terminal to the north side of the campus in Kenner, LA is anticipated to significantly increase traffic through several key intersections adjacent to the north side access roadway into the new terminal. Veterans Blvd (City of Kenner), Williams Blvd. (LA 49), and Loyola Drive (City of Kenner) are all expected to see significant near term traffic volume increases as LANOIA traffic uses these routes and other local and arterial streets to access the relocated terminal.

To help alleviate near term congestion in this part of Kenner, interim improvements are being made to Loyola and Veterans, and Aberdeen Street is being extended to serve the new airport terminal. In addition, Bainbridge Street, which is currently being used as a construction access road for the new terminal, is expected to carry a significant amount of LANOIA-related service vehicle traffic in the future. Bainbridge is functionally classified as a minor collector in the New Orleans UZA functional class network, and presently services small scale industrial, warehousing, and commercial land uses in Kenner. Bainbridge is a concrete four lane divided roadway for approximately 2,200 feet (roughly between its signalized intersection with Veterans Blvd and Canal 14), with a drainage canal in the median. From Canal 14 south to the LANOIA property (Boeing Lane) Bainbridge is a two lane undivided concrete roadway.

It is anticipated that Bainbridge will play a significant role in expediting access for LANOIA terminal bound service vehicles in the future, including shuttle buses for airport employees, consolidated rental car (CONRAC) access, and shuttle connections between the south-side garage (serving long-term parkers) and the new airport terminal. This is in addition to existing land uses already being served by the roadway. As such, Bainbridge Street will need to be improved to accommodate the changes anticipated for the roadway.

Project Purpose:

The purpose of this study is to develop, define, and analyze a range of feasible improvements to Bainbridge Street, between the LANOIA campus and Veterans Boulevard. Project will define and quantify LANOIA related traffic impacts on the roadway, as well as reasonably forecastable land use changes and corresponding trip generation patterns envisioned in the adjacent area controlled by the City of Kenner.

The need for the effort is that currently, by consensus of numerous stakeholders, Bainbridge Street lacks the physical and operational capacity to be used as an access roadway as envisioned by LANOIA or the City of Kenner. This study would help define existing physical and operating deficiencies of the roadway, provide information on planned improvements and changes in land uses that the roadway serves, and provide recommendations on requisite improvements to Bainbridge and cost estimates for same.

It is anticipated that 1) the City of Kenner will retain ownership and maintenance responsibilities for the roadway, and 2) Jefferson Parish will retain ownership and maintenance of the drainage canal in the median.

Task 1: PROJECT TIMELINE AND KICK-OFF MEETING

The Consultant will prepare a draft project schedule including major milestones, i.e., Project Management Committee (PMC) meetings, site visits, draft reviews, final report submissions. The timeline will be submitted at a project kick-off meeting that will include the consultant, all sub-consultants, Jefferson Parish Engineering, Jefferson Parish Traffic, and Kenner Department of Public Works, LANOIA representatives, and LADOTD District 02representatives. Other attendees will be invited as necessary. The kick-off meeting will take place within two (2) weeks of the Notice to Proceed.

Task 2: PROJECT MANAGEMENT COMMITTEE (PMC)

The Consultant will assist RPC in establishing and supporting the PMC to guide the technical work effort and to review the Consultant's work products. The PMC will include the agencies identified in Task 1 (see above), and other organizations as deemed appropriate. The Consultant will provide all necessary agendas, handouts and exhibits in advance of the PMC meetings for RPC review and approval and prepare summary minutes of the meetings.

The PMC will meet five times during the course of the study effort. In addition, the Consultant will, as necessary, conduct meetings with elected officials and other local leaders and organizations in the area to discuss the project's purpose and need and project-related opportunities and concerns. The Consultant will receive prior approval from RPC before initiating these contacts and prepare summary meeting minutes for review and discussion with the PMC.

Task 3: SITE INVESTIGATION AND DATA COLLECTION

Site visits will be conducted and data collected as necessary in order to gather and record information regarding the physical, engineering, land-use, and environmental features of the study area. Such data and information will include but may not be limited to local street intersection characteristics, adjacent drainage types and capacities, driveway access, utility locations and other on street information such as parking, sidewalks, traffic signals and signage, crash data, driveway conditions, etc.

The Consultant will coordinate with the LANOIA, the City of Kenner and Jefferson Parish, LADOTD, and RPC for the following information:

NOIA: Consultant will work with LANOIA to provide information related to Airport plans for the use of Bainbridge St. pertaining to a) identification of airport facilities that will be accessed by the roadway and planned phasing of those facilities; b) expected traffic volumes, temporal distributions, and vehicle types/classifications expected to use the roadway, c) planned additional facilities that could be accessed by Bainbridge either primarily or secondarily and corresponding traffic volume, vehicle type and temporal distribution of same.

City of Kenner: Consultant will work with City of Kenner to obtain design characteristics (i.e., as-built engineering drawings) of Bainbridge and adjacent rights of way related thereto, as available or appropriate. Consultant will work with Kenner Public works to determine other appropriate information, such as the location of adjacent utility rights of way, servitudes and easements, including but not limited to communications, water, sewer, drainage, natural gas, and electric.

Further, Consultant will work with City of Kenner Planning Department to ascertain planned land use changes in the area that could impact trip generation of the area immediately adjacent to Bainbridge. In addition, the City of Kenner is conducting a traffic study in the Veterans Blvd. corridor, and will make

data from that effort available to the Consultant team in order to help ascertain existing operating conditions of the roadway, particularly at its signalized intersection with Veterans Boulevard.

Jefferson Parish: Information related to physical infrastructure including drainage facilities that are currently in the median of Bainbridge (maintained by Jefferson Parish), rights of ways and easements, and other utility information as appropriate.

LADOTD: Consultant will obtain and make use of traffic data that have been collected as part of the I-10/ Loyola Access Modification Report, including traffic data collected/forecasted along Veterans Boulevard.

RPC: RPC will provide aerial photographic base and crash data for Bainbridge.

Traffic Data:

Consultant will collect bidirectional 24 hour traffic classification counts at five locations along the Bainbridge and Veterans Blvd. corridor, as follows:

1) Between Veterans Boulevard and 27th Street (both sides of Canal)
2) Between 27th St. and Canal 14 (both sides of Canal)
3) Two lane, two way section south of Canal 14
4) Veterans Blvd. immediately east of Bainbridge
5) Veterans Blvd. immediately west of Bainbridge

Consultant will undertake counts over a 48 hour period, normalized to a twenty four hour period. Counts will be accomplished over a Tuesday – Thursday timeframe, during a week that does not have a school holiday. Counts will not be undertaken between December 15, 2018 and January 7, 2019.

Turning Movement Counts:

Peak Hour Turning Movement Counts will be collected at the intersection of Veterans Blvd. and Bainbridge St. for weekday A.M. and P.M. Peak Hours. Peak hours will be discerned from the 48 hour traffic count mentioned above. Counts will be collected to insure the most accurate vehicular, pedestrian, and bicycle movement data acquisition.

All of the above inventory data will be developed in a format suitable for integration into RPC's GIS mapping system as applicable. Consultant will follow up with RPC personnel for specific requirements.

Task 4: CONCEPTUAL DEVELOPMENT

The Consultant will develop and evaluate concepts, based on agency and stakeholder input and data collected in Task 3, to improve capacity and operational efficiency of Bainbridge Street. Traditional capacity analysis and widening methodologies will be evaluated as well as new opportunities to provide access into and out of the area, particularly at the intersection of Bainbridge and Veterans. Working in coordination with the PMC, the Consultant will develop a large number of conceptual alternatives for "sifting" or evaluation purposes, including (but not limited to) the following:

1) Physical widening of Bainbridge (distance to be evaluated), up to and including reconstructing of entire roadway
2) Geometric/ Operational modification to the intersection of Bainbridge at Veterans Blvd. Modification entails proposed improvements to Veterans Blvd. to provide access to Bainbridge

3) Reconstruction of existing operational configuration (evaluate for adequacy) with potential improvements to the adjacent drainage canal to provide slope stability for the roadway due to projected heavy vehicle usage.
4) Reworking and defining local driveway access to the roadway
5) Other alternatives as developed in consultation with the PMC, including improved shuttle/ large vehicle access.
6) All alternatives and cross-sections thereto will incorporate drainage structure treatments as defined by Jefferson Parish in Task 3. This will include as assessment of concrete flume vs. box culvert, and structural stability of proposed roadway improvements on the median drainage structure.
7) Roadway lighting and potential streetscaping opportunities will be included, including bicycle/ pedestrian crossing of Bainbridge at Veterans Blvd.
8) Alternative scenarios will be developed in consultation with the PMC and presented to the PMC in draft form for review and comment prior to development of the detailed conceptual plan.

Task 5: EVALUATION CRITERIA

The Consultant will prepare a table of evaluation criteria to be included in the report for comparing and analyzing the effectiveness of the various conceptual alternatives, utilizing a fatal flaw method to compare and evaluate alternatives, including impacts to rights-of-way, utilities, number of potential conflict points, impact of airport operations, road stability, and costs.

Task 6: PMC REVIEW

At the appropriate time and following direction from RPC, the Consultant will organize and convene a PMC meeting to review the various alternatives and the results of the alternatives screening process. With the input and assistance from the PMC, the most promising of the alternatives (two or three) will be selected for further study and refinement.

Task 7: TYPICAL SECTIONS

The Consultant will prepare a conceptual plan for this smaller sub-set of promising alternatives (including typical roadway sections, identifying measures to enhance traffic safety and operations, and intersection geometrics. The Consultant will provide a conceptual plan of these alternatives on an aerial map with apparent right-of-way information in order to analyze basic feasibility and costs of alternatives. Evaluation of impacts on airport access, existing land use and utility infrastructure, and ability to manage future traffic volumes will be included as part of the refined concept development and analysis.

Task 8: DRAFT OPERATIONS ANALYSIS

Pending review and approval of this refined sub-set of alternatives (Task 6) by the PMC, Consultant will prepare a draft operations plan for the intersection of Bainbridge Street and Veterans Boulevard. This will include measures to insure the functionality and safety of the intersection as improvements to Bainbridge will be integrated into operations of Veterans Boulevard. This will also include a quantification of LANOIA generated traffic volumes, vehicle classifications, and temporal distribution of same, and their impacts to Bainbridge as a result of planned and/ or anticipated facilities changes at LANOIA in the near (1-5 years) and long (6 years or longer) term.

A HCM level of service analysis will also be performed on proposed intersection and roadway modifications to assess the impact of these proposed improvements during A.M and P.M. peak hour. Using Synchro Software (Version 7 or later), delay times (seconds per vehicles) and corresponding Level

of Service (LOS) designations will be calculated for each approach lane, as well as the overall intersection LOS.

Task 9: OPINION OF PROBABLE COST

The Consultant will develop a preliminary cost estimate for each proposed project concept, as agreed to in discussions with the RPC and PMC. The Consultant will develop quantities and unit cost estimates for each element of the conceptual design plan for the alternative(s) as well as estimated future design costs, recommended project phasing, and potential funding sources for project advancement and implementation.

Task 10: DRAFT REPORT

A draft of the report with all documentation described above will be submitted to the RPC, City of Kenner, Jefferson Parish, and LADOTD for review by, at the latest, 80% of project completion. The report will include a description of the various alternatives studied, the results of the screening process, and conceptual layouts of the most promising alternatives along with supporting documentation. The report will identify potential utilities, environmental constraints, or other issues that could influence the concept's feasibility, timing, and impact on the physical, natural, and human environment. DOTD's Stage 0 Environmental Checklist will be included in the draft report.

Task 11: FINAL DELIVERABLES

Following review and approval by the PMC of the draft submission, the Consultant will provide RPC with ten (10) bound copies of the Final Stage 0 Feasibility Study Report signed and sealed by a licensed professional engineer. A .pdf and editable text version (i.e MSWord) of the final report and supporting documents will also be provided to RPC on compact disc or other appropriate electronic storage media, with each bound copy. The CD/ electronic storage media will also include any GIS shapefiles, CAD files, or other accessory files and documentation created during the course of the study.

The Stage 0 Report will include completed Stage 0 checklists (ref. LA DOTD Program Development and Project Delivery System Manual, Chapter 4: Stage 0 Standard Operating Procedure, Checklist for Stage 0-Preliminary Scope and Budget Worksheet, and Stage 0 Environmental Checklist). Ten printed copies of the report and five disks in electronic format (pdf including all maps and visualizations) will be submitted by the Consultant to the RPC for distribution. All survey and engineering work will be submitted to the RPC in CAD and/or GIS format, consistent with industry best practices.

TIMELINE: Nine Months

BUDGET: $80,000

PROJECT MANAGEMENT COMMITTEE

MEETING MEMORANDUM

November 14, 2018 Kick-Off Meeting Memo

MEYER ENGINEERS, LTD.

MEMORANDUM

PROJECT NO:	20-1864		
PROJECT NAME:	Bainbridge Street Access to MSY		
DATE:	11/14/2018	**BY:**	Ann Theriot
PHONE CALL:	☐	**MEETING:**	☒
NUMBER:		**LOCATION:**	Regional Planning Commission
FROM:		**ATTENDING:**	See Attached

COMMENTS: At the RPC's request, we met with the Airport administration regarding the Bainbridge Street project, and the following was discussed:

1. Roesel stated that the airport's intended use and time frame for Bainbridge Street is required in order to complete the study of Bainbridge.
2. Dupre stated that existing traffic counts will be taken as well.
3. Dupre stated that a drainage study of Canal No. 19 was done by Shaw and it recommended replacing the box culvert at Veterans and putting a 32' wide x 5.25' high U channel if there are any slope maintenance issues from Veterans to Canal No. 14.
4. After seeing the scope for the first time during the meeting, Dolliole questioned the statements that Williams Blvd. could experience a significant increase in traffic due to the new terminal. Roesel stated that the adjacent area would experience impacts.
5. Dolliole also questioned the conclusory statement in the scope that Bainbridge lacked the physical and operational capacity to be used as an access roadway. He stated that this should be investigated as part of the study.
6. Krugowski stated that Bainbridge Street will have a restricted access gate and there will be three peak periods during the day for the following uses:

a. Shuttle bus service between the North Terminal to the economy parking garage (currently the long-term parking garage) at the South Terminal will be based on 5-minute headway to the North Terminal and 10-minute headway from the North Terminal.

b. Shuttle bus for employees will have 10-minute headways, with one peak starting at approximately 3am for employees arriving to work.

c. Shuttle bus (40' Eldorado for 20-25 passengers) for rental cars will have 5-minute headways.

7. Krygowski stated that the main airport entrance will be used by taxis, TNC, most concession deliveries and other shuttle service providers.

8. Dolliole indicated that Jose Gonzalez said at a prior regional group meeting about Bainbridge with Jefferson Parish, RPC, Kenner and Airport that Jose believed if the roadway work were done first, Canal No 19 could be an issue as the physical condition is more of a concern than the capacity of the canal.

9. Theriot asked if there are any future plans for expansion of the airport that should be considered for traffic or drainage of Canal No. 19. Dolliole stated that 3 – 5 gates could be added on the east side of the airport, but most of the growth would probably take place on the western side of the airport. Krygowski stated that the drainage for the North Terminal flows to the Airport's pump station on the western side. Dolliole indicated that the Airport is discussing future development of facilities for belly cargo and ground support equipment on the north side of the Airport. If future rail service is provided in the region as being discussed by the Southern Rail Commission, a train stop could be located on the south side of the Airport which could require shuttles to take passengers to the North Terminal.

10. Dupre asked if the airport was aware of an airport property line that looks like it falls within Canal No. 19 along the southern end of Bainbridge according to airport plans. Krygowski said it will need to be looked into but suggested that if it were the case it is possible that there could be a servitude.

11. Krygowski pointed out that based on the maps shown at the meeting it appears that the farthest business having direct access from Bainbridge is just south of Dublin Street.

12. Dolliole stated that he thinks the FAA may approve a request for the Airport to participate in the road improvements, but Airport participation for drainage improvements would not be approved. Theriot stated that maybe it should be presented that there are no improvements or betterments for the drainage. The drainage is only being done because it is needed for the road.

13. Roesel stated that the land use of this area will probably change. This projected information will be coordinated with the City of Kenner Planning & Zoning Department.

14. Maulhardt provided the attached ADT and crash data. If additional data is required, Maulhardt can provide it.

15. The Project Management Committee will continue to meet to discuss alternatives as the project progresses.

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Bainbridge St MSY Access Study – November 14, 2018 – 3:00pm

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Intermodal Access/ Impact Study
Bainbridge St. Access to Louis Armstrong New Orleans International Airport
Jefferson Parish, Louisiana
(RPC Task A-3.19; FY-19 UPWP)

Project Background:

The relocation of the Louis Armstrong New Orleans International Airport (LANOIA) terminal to the north side of the campus in Kenner, LA is anticipated to significantly increase traffic through several key intersections adjacent to the north side access roadway into the new terminal. Veterans Blvd (City of Kenner), Williams Blvd. (LA 49), and Loyola Drive (City of Kenner) are all expected to see significant near term traffic volume increases as LANOIA traffic uses these routes and other local and arterial streets to access the relocated terminal.

To help alleviate near term congestion in this part of Kenner, interim improvements are being made to Loyola and Veterans, and Aberdeen Street is being extended to serve the new airport terminal. In addition, Bainbridge Street, which is currently being used as a construction access road for the new terminal, is expected to carry a significant amount of LANOIA-related service vehicle traffic in the future. Bainbridge is functionally classified as a minor collector in the New Orleans UZA functional class network, and presently services small scale industrial, warehousing, and commercial land uses in Kenner. Bainbridge is a concrete four lane divided roadway for approximately 2,200 feet (roughly between its signalized intersection with Veterans Blvd and Canal 14), with a drainage canal in the median. From Canal 14 south to the LANOIA property (Boeing Lane) Bainbridge is a two lane undivided concrete roadway.

It is anticipated that Bainbridge will play a significant role in expediting access for LANOIA terminal bound service vehicles in the future, including shuttle buses for airport employees, consolidated rental car (CONRAC) access, and shuttle connections between the south-side garage (serving long-term parkers) and the new airport terminal. This is in addition to existing land uses already being served by the roadway. As such, Bainbridge Street will need to be improved to accommodate the changes anticipated for the roadway.

Project Purpose:

The purpose of this study is to develop, define, and analyze a range of feasible improvements to Bainbridge Street, between the LANOIA campus and Veterans Boulevard. Project will define and quantify LANOIA related traffic impacts on the roadway, as well as reasonably forecastable land use changes and corresponding trip generation patterns envisioned in the adjacent area controlled by the City of Kenner.

The need for the effort is that currently, by consensus of numerous stakeholders, Bainbridge Street lacks the physical and operational capacity to be used as an access roadway as envisioned by LANOIA or the City of Kenner. This study would help define existing physical and operating deficiencies of the roadway, provide information on planned improvements and changes in land uses that the roadway serves, and provide recommendations on requisite improvements to Bainbridge and cost estimates for same.

It is anticipated that 1) the City of Kenner will retain ownership and maintenance responsibilities for the roadway, and 2) Jefferson Parish will retain ownership and maintenance of the drainage canal in the median.

Task 1: PROJECT TIMELINE AND KICK-OFF MEETING

The Consultant will prepare a draft project schedule including major milestones, i.e., Project Management Committee (PMC) meetings, site visits, draft reviews, final report submissions. The timeline will be submitted at a project kick-off meeting that will include the consultant, all sub-consultants, Jefferson Parish Engineering, Jefferson Parish Traffic, and Kenner Department of Public Works, LANOIA representatives, and LADOTD District 02representatives. Other attendees will be invited as necessary. The kick-off meeting will take place within two (2) weeks of the Notice to Proceed.

Task 2: PROJECT MANAGEMENT COMMITTEE (PMC)

The Consultant will assist RPC in establishing and supporting the PMC to guide the technical work effort and to review the Consultant's work products. The PMC will include the agencies identified in Task 1 (see above), and other organizations as deemed appropriate. The Consultant will provide all necessary agendas, handouts and exhibits in advance of the PMC meetings for RPC review and approval and prepare summary minutes of the meetings.

The PMC will meet five times during the course of the study effort. In addition, the Consultant will, as necessary, conduct meetings with elected officials and other local leaders and organizations in the area to discuss the project's purpose and need and project-related opportunities and concerns. The Consultant will receive prior approval from RPC before initiating these contacts and prepare summary meeting minutes for review and discussion with the PMC.

Task 3: SITE INVESTIGATION AND DATA COLLECTION

Site visits will be conducted and data collected as necessary in order to gather and record information regarding the physical, engineering, land-use, and environmental features of the study area. Such data and information will include but may not be limited to local street intersection characteristics, adjacent drainage types and capacities, driveway access, utility locations and other on street information such as parking, sidewalks, traffic signals and signage, crash data, driveway conditions, etc.

The Consultant will coordinate with the LANOIA, the City of Kenner and Jefferson Parish, LADOTD, and RPC for the following information:

NOIA: Consultant will work with LANOIA to provide information related to Airport plans for the use of Bainbridge St. pertaining to a) identification of airport facilities that will be accessed by the roadway and planned phasing of those facilities; b) expected traffic volumes, temporal distributions, and vehicle types/classifications expected to use the roadway, c) planned additional facilities that could be accessed by Bainbridge either primarily or secondarily and corresponding traffic volume, vehicle type and temporal distribution of same.

City of Kenner: Consultant will work with City of Kenner to obtain design characteristics (i.e., as-built engineering drawings) of Bainbridge and adjacent rights of way related thereto, as available or appropriate. Consultant will work with Kenner Public works to determine other appropriate information, such as the location of adjacent utility rights of way, servitudes and easements, including but not limited to communications, water, sewer, drainage, natural gas, and electric.

Further, Consultant will work with City of Kenner Planning Department to ascertain planned land use changes in the area that could impact trip generation of the area immediately adjacent to Bainbridge. In addition, the City of Kenner is conducting a traffic study in the Veterans Blvd. corridor, and will make

data from that effort available to the Consultant team in order to help ascertain existing operating conditions of the roadway, particularly at its signalized intersection with Veterans Boulevard.

Jefferson Parish: Information related to physical infrastructure including drainage facilities that are currently in the median of Bainbridge (maintained by Jefferson Parish), rights of ways and easements, and other utility information as appropriate.

LADOTD: Consultant will obtain and make use of traffic data that have been collected as part of the I-10/ Loyola Access Modification Report, including traffic data collected/forecasted along Veterans Boulevard.

RPC: RPC will provide aerial photographic base and crash data for Bainbridge.

Traffic Data:

Consultant will collect bidirectional 24 hour traffic classification counts at five locations along the Bainbridge and Veterans Blvd. corridor, as follows:

1) Between Veterans Boulevard and 27th Street (both sides of Canal)
2) Between 27th St. and Canal 14 (both sides of Canal)
3) Two lane, two way section south of Canal 14
4) Veterans Blvd. immediately east of Bainbridge
5) Veterans Blvd. immediately west of Bainbridge

Consultant will undertake counts over a 48 hour period, normalized to a twenty four hour period. Counts will be accomplished over a Tuesday – Thursday timeframe, during a week that does not have a school holiday. Counts will not be undertaken between December 15, 2018 and January 7, 2019.

Turning Movement Counts:

Peak Hour Turning Movement Counts will be collected at the intersection of Veterans Blvd. and Bainbridge St. for weekday A.M. and P.M. Peak Hours. Peak hours will be discerned from the 48 hour traffic count mentioned above. Counts will be collected to insure the most accurate vehicular, pedestrian, and bicycle movement data acquisition.

All of the above inventory data will be developed in a format suitable for integration into RPC's GIS mapping system as applicable. Consultant will follow up with RPC personnel for specific requirements.

Task 4: CONCEPTUAL DEVELOPMENT

The Consultant will develop and evaluate concepts, based on agency and stakeholder input and data collected in Task 3, to improve capacity and operational efficiency of Bainbridge Street. Traditional capacity analysis and widening methodologies will be evaluated as well as new opportunities to provide access into and out of the area, particularly at the intersection of Bainbridge and Veterans. Working in coordination with the PMC, the Consultant will develop a large number of conceptual alternatives for "sifting" or evaluation purposes, including (but not limited to) the following:

1) Physical widening of Bainbridge (distance to be evaluated), up to and including reconstructing of entire roadway
2) Geometric/ Operational modification to the intersection of Bainbridge at Veterans Blvd. Modification entails proposed improvements to Veterans Blvd. to provide access to Bainbridge

3) Reconstruction of existing operational configuration (evaluate for adequacy) with potential improvements to the adjacent drainage canal to provide slope stability for the roadway due to projected heavy vehicle usage.
4) Reworking and defining local driveway access to the roadway
5) Other alternatives as developed in consultation with the PMC, including improved shuttle/ large vehicle access.
6) All alternatives and cross-sections thereto will incorporate drainage structure treatments as defined by Jefferson Parish in Task 3. This will include as assessment of concrete flume vs. box culvert, and structural stability of proposed roadway improvements on the median drainage structure.
7) Roadway lighting and potential streetscaping opportunities will be included, including bicycle/ pedestrian crossing of Bainbridge at Veterans Blvd.
8) Alternative scenarios will be developed in consultation with the PMC and presented to the PMC in draft form for review and comment prior to development of the detailed conceptual plan.

Task 5: EVALUATION CRITERIA

The Consultant will prepare a table of evaluation criteria to be included in the report for comparing and analyzing the effectiveness of the various conceptual alternatives, utilizing a fatal flaw method to compare and evaluate alternatives, including impacts to rights-of-way, utilities, number of potential conflict points, impact of airport operations, road stability, and costs.

Task 6: PMC REVIEW

At the appropriate time and following direction from RPC, the Consultant will organize and convene a PMC meeting to review the various alternatives and the results of the alternatives screening process. With the input and assistance from the PMC, the most promising of the alternatives (two or three) will be selected for further study and refinement.

Task 7: TYPICAL SECTIONS

The Consultant will prepare a conceptual plan for this smaller sub-set of promising alternatives (including typical roadway sections, identifying measures to enhance traffic safety and operations, and intersection geometrics. The Consultant will provide a conceptual plan of these alternatives on an aerial map with apparent right-of-way information in order to analyze basic feasibility and costs of alternatives. Evaluation of impacts on airport access, existing land use and utility infrastructure, and ability to manage future traffic volumes will be included as part of the refined concept development and analysis.

Task 8: DRAFT OPERATIONS ANALYSIS

Pending review and approval of this refined sub-set of alternatives (Task 6) by the PMC, Consultant will prepare a draft operations plan for the intersection of Bainbridge Street and Veterans Boulevard. This will include measures to insure the functionality and safety of the intersection as improvements to Bainbridge will be integrated into operations of Veterans Boulevard. This will also include a quantification of LANOIA generated traffic volumes, vehicle classifications, and temporal distribution of same, and their impacts to Bainbridge as a result of planned and/ or anticipated facilities changes at LANOIA in the near (1-5 years) and long (6 years or longer) term.

A HCM level of service analysis will also be performed on proposed intersection and roadway modifications to assess the impact of these proposed improvements during A.M and P.M. peak hour. Using Synchro Software (Version 7 or later), delay times (seconds per vehicles) and corresponding Level

of Service (LOS) designations will be calculated for each approach lane, as well as the overall intersection LOS.

Task 9: OPINION OF PROBABLE COST

The Consultant will develop a preliminary cost estimate for each proposed project concept, as agreed to in discussions with the RPC and PMC. The Consultant will develop quantities and unit cost estimates for each element of the conceptual design plan for the alternative(s) as well as estimated future design costs, recommended project phasing, and potential funding sources for project advancement and implementation.

Task 10: DRAFT REPORT

A draft of the report with all documentation described above will be submitted to the RPC, City of Kenner, Jefferson Parish, and LADOTD for review by, at the latest, 80% of project completion. The report will include a description of the various alternatives studied, the results of the screening process, and conceptual layouts of the most promising alternatives along with supporting documentation. The report will identify potential utilities, environmental constraints, or other issues that could influence the concept's feasibility, timing, and impact on the physical, natural, and human environment. DOTD's Stage 0 Environmental Checklist will be included in the draft report.

Task 11: FINAL DELIVERABLES

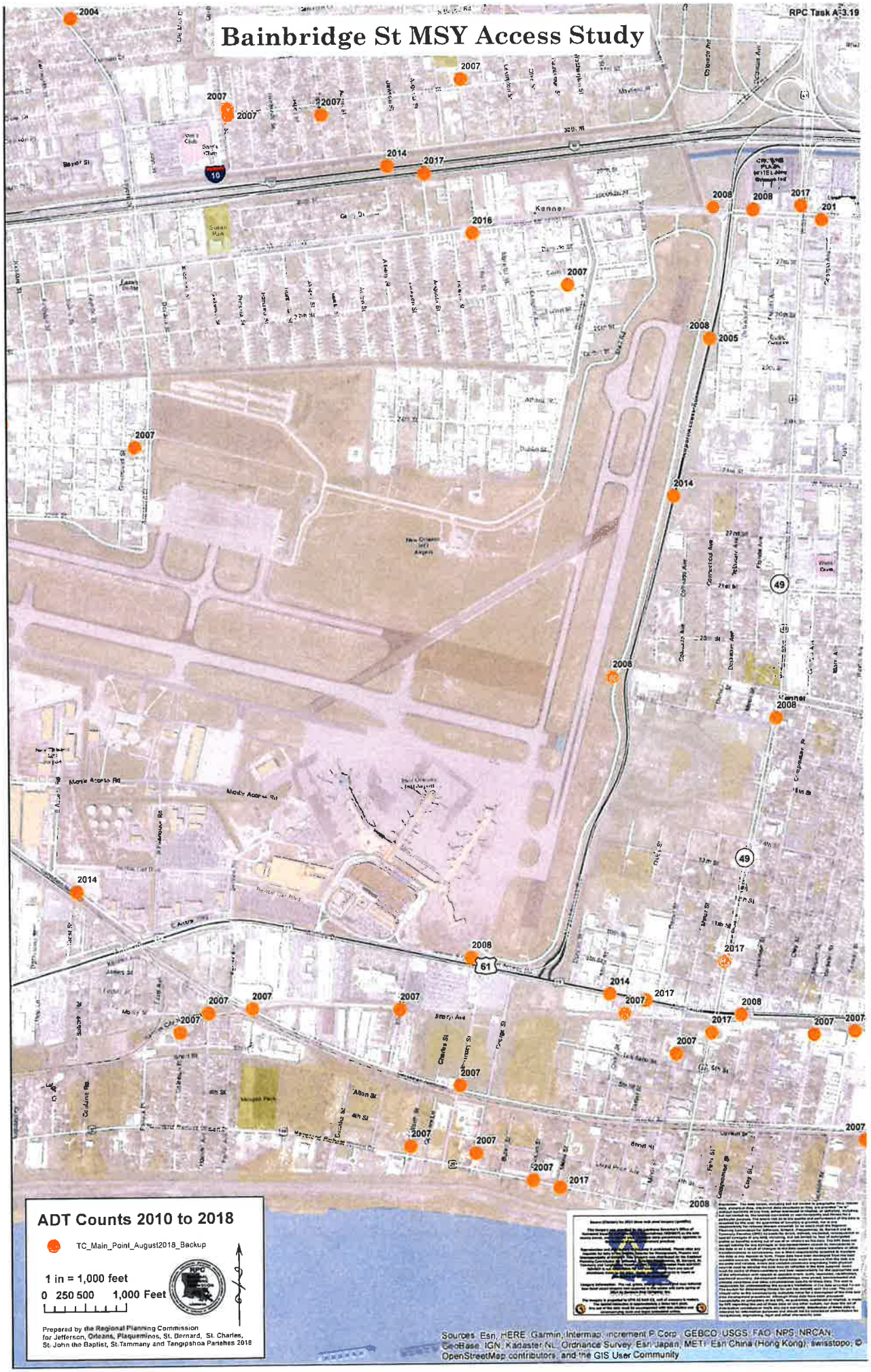
Following review and approval by the PMC of the draft submission, the Consultant will provide RPC with ten (10) bound copies of the Final Stage 0 Feasibility Study Report signed and sealed by a licensed professional engineer. A .pdf and editable text version (i.e MSWord) of the final report and supporting documents will also be provided to RPC on compact disc or other appropriate electronic storage media, with each bound copy. The CD/ electronic storage media will also include any GIS shapefiles, CAD files, or other accessory files and documentation created during the course of the study.

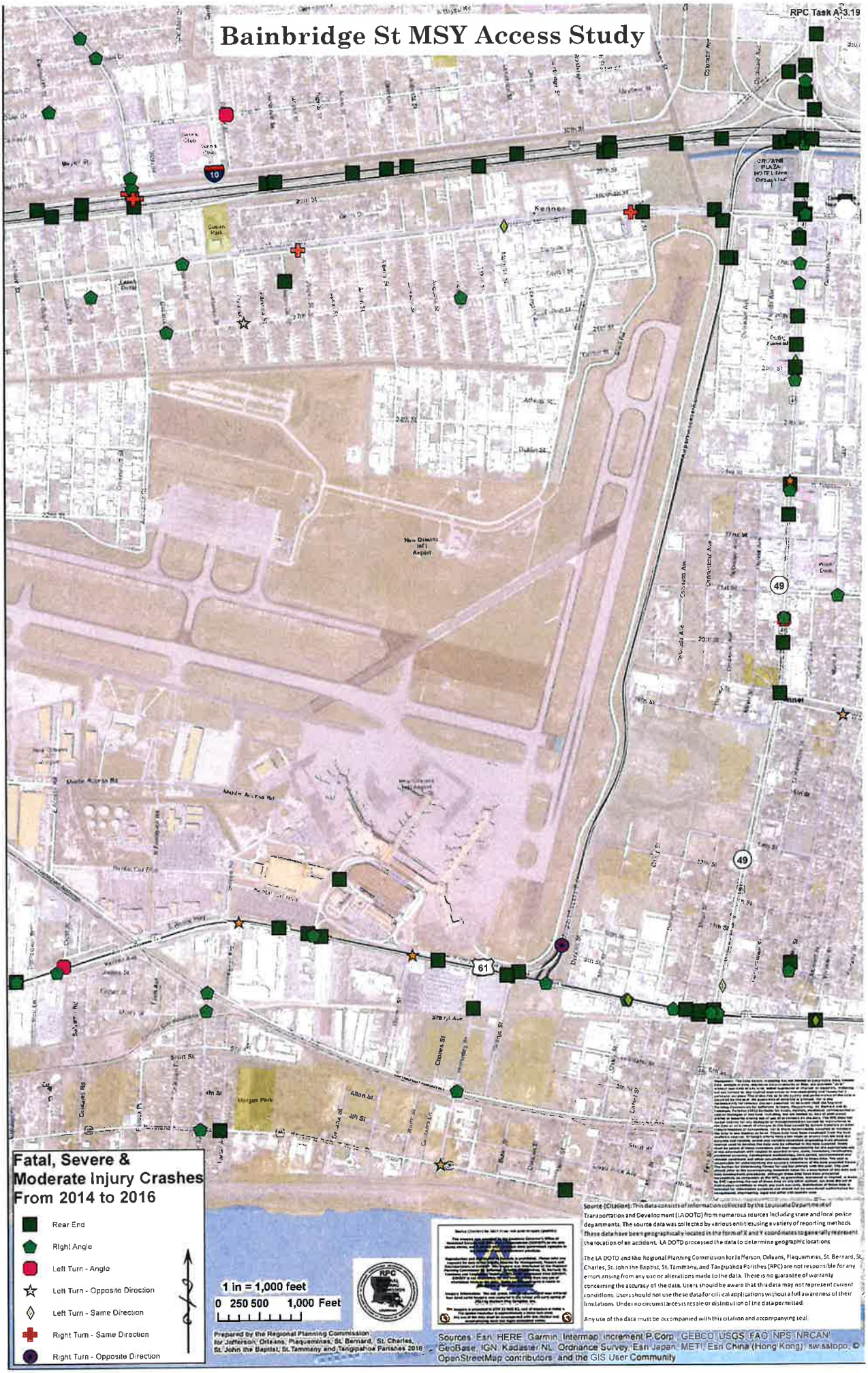
The Stage 0 Report will include completed Stage 0 checklists (ref. LA DOTD Program Development and Project Delivery System Manual, Chapter 4: Stage 0 Standard Operating Procedure, Checklist for Stage 0-Preliminary Scope and Budget Worksheet, and Stage 0 Environmental Checklist). Ten printed copies of the report and five disks in electronic format (pdf including all maps and visualizations) will be submitted by the Consultant to the RPC for distribution. All survey and engineering work will be submitted to the RPC in CAD and/or GIS format, consistent with industry best practices.

TIMELINE: Nine Months

BUDGET: $80,000


Bainbridge St MSY Access Study
Phoenix
Panama
30th
Jasper
Tupelo
29th
Hickman
Albany
Dawson
Augusta
Helena
Triton
Veterans
Bainbridge
Shell
Airport
Virginia
Danville
Carroll
27th
Fulton
26th
Corbin
Athens
24th
Dublin
23rd
Napoleon
Loyola
Bessemer
Decatur
Gadsden
Huntsville
Acron
Marietta
Aberdeen
Connecticut
Delaware
Florida
22nd
21st
20th
Colorado
California
Duncan
Maria
Oxley
Daniel
Minor
Williams
Firehouse
Airline
Crofton
Farrar
Kenner
Farm
Frontier
Hanson
Park
Warren
Sherly
Hollandey
George
Charles
Worth
6th
14th
13th
49
61
1 in = 750 feet
0 250500 1,000 Feet
RPC
Prepared by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St.Tammany and Tangipahoa Parishes 2018.
RPC Task A-3.19


Bainbridge St MSY Access Study
RPC Task A-3.19
ADT Counts 2010 to 2018
TC_Main_Point_August2018_Backup
1 in = 1,000 feet
0 250 500 1,000 Feet
Prepared by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St.Tammany and Tangipahoa Parishes 2018
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community


RPC Task A-3.19
Bainbridge St MSY Access Study
Fatal, Severe & Moderate Injury Crashes From 2014 to 2016
Rear End
Right Angle
Left Turn - Angle
Left Turn - Opposite Direction
Left Turn - Same Direction
Right Turn - Same Direction
Right Turn - Opposite Direction
1 in = 1,000 feet
0 250 500 1,000 Feet
Prepared by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St. Tammany and Tangipahoa Parishes 2016
Source (Citation): This data consists of information collected by the Louisiana Department of Transportation and Development (LA DOTD) from numerous sources including state and local police departments. The source data was collected by various entities using a variety of reporting methods. These data have been geographically located in the form of X and Y coordinates to generally represent the location of an accident. LA DOTD processed the data to determine geographic locations.
The LA DOTD and the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St. Tammany, and Tangipahoa Parishes (RPC) are not responsible for any errors arising from any use or alterations made to the data. There is no guarantee of warranty concerning the accuracy of the data. Users should be aware that this data may not represent current conditions. Users should not use these data for critical applications without a full awareness of their limitations. Under no circumstances is resale or distribution of the data permitted.
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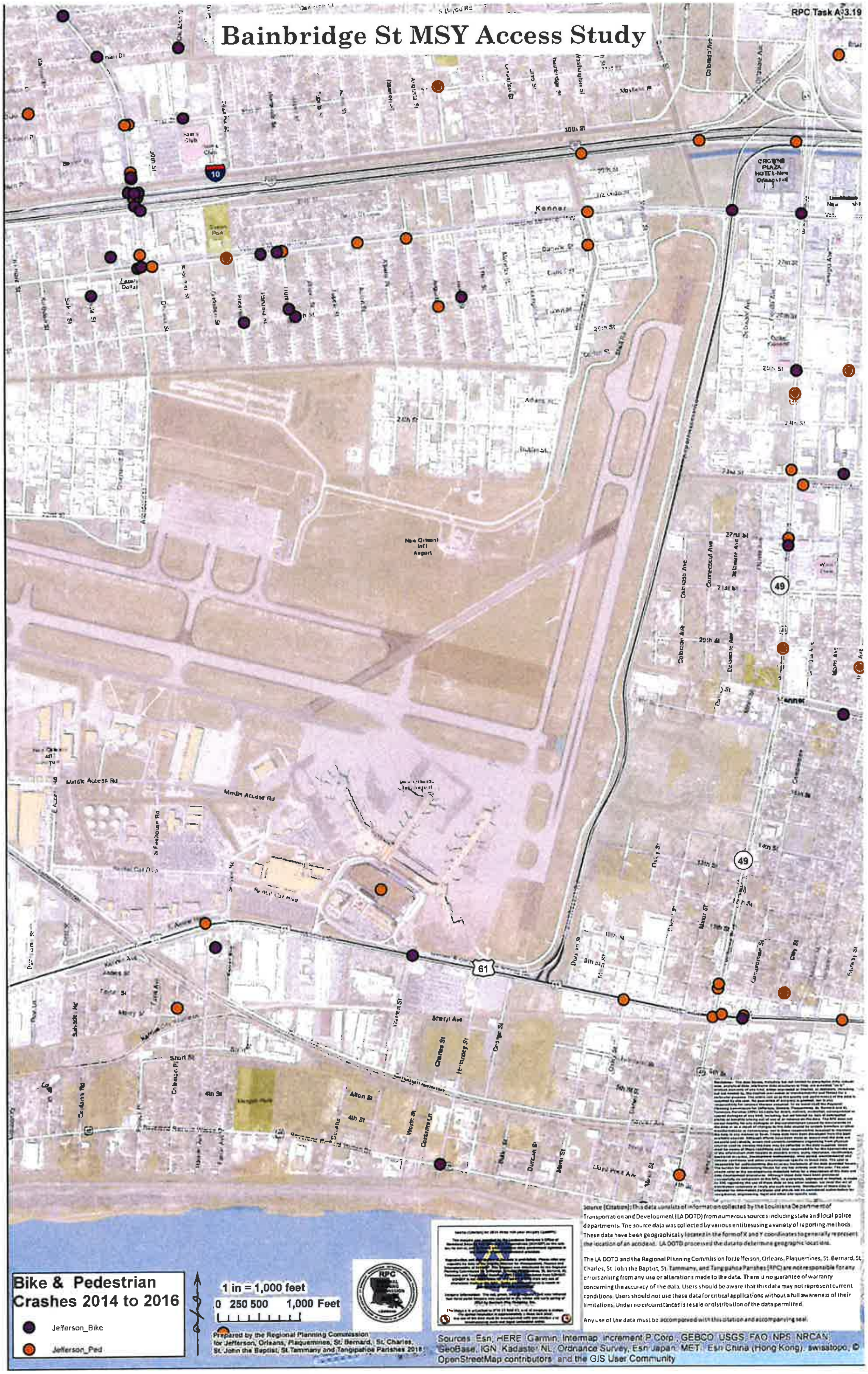
RPC Task A-3.19
Bainbridge St MSY Access Study
Bike & Pedestrian Crashes 2014 to 2016
Jefferson_Bike
Jefferson_Ped
1 in = 1,000 feet
0 250 500 1,000 Feet
Prepared by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St. Tammany and Tangipahoa Parishes 2018
Source (Citation): This data consists of information collected by the Louisiana Department of Transportation and Development (LA DOTD) from numerous sources including state and local police departments. The source data was collected by various entities using a variety of reporting methods. These data have been geographically located in the form of X and Y coordinates to generally represent the location of an accident. LA DOTD processed the data to determine geographic locations.
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Kenner
New Orleans Int'l Airport
Middle Access Rd
Crowne Plaza Hotel
Loyola Dr
Lloyd Hart Ave
Airline Dr

PROJECT MANAGEMENT COMMITTEE

MEETING MEMORANDUM

January 23, 2019 PMC Meeting Memo

MEYER ENGINEERS, LTD.

MEMORANDUM

PROJECT NO:	20-1864		
PROJECT NAME:	Bainbridge Street Access to MSY		
DATE:	1/23/2019	**BY:**	Ann Theriot
PHONE CALL:	☐	**MEETING:**	☒
NUMBER:		**LOCATION:**	Regional Planning Commis.
TO:		**ATTENDING:**	See attached sign-in sheet

COMMENTS: We held the 2nd PMC meeting, handed out the attached hand-outs, and the following was discussed:

1. Everyone introduced themselves since Tom Haysley is the new RPC project manager for this project.
2. Gutierrez discussed the existing traffic counts that were done recently. Krygowski asked about the construction traffic that may have been included in that count, but Gutierrez stated that only the peak hours were used.
3. Gutierrez discussed the traffic analysis using the traffic projections from the 2012 EA, which were projected for 2018. Krygowski thought that the traffic projections should be revised with their current planned traffic flow patterns. Gutierrez will send his traffic projections to Krygowski for his review and he will revise if needed.
4. Gutierrez recommended widening Veterans to 3 lanes from Williams to Dawson, but that is outside this scope of work. At the intersection of Bainbridge and Veterans, a left turn lane on Veterans is recommended to go south on Bainbridge.
5. Dupre' presented the drainage options from Shaw's report for Canal No. 19 along Bainbridge south of Veterans:
   a. 2- 8'x15' box culverts oversized to match open canal capacity (2- 8'x7' box culverts @ Veterans)

b. 5'x32' concrete U-channel

c. Sheet pile walls

McCluskie recommended that the advantages and disadvantages such as maintenance, aesthetics, etc. of each be taken into consideration not just considering cost.

6. Dennis suggested shifting Bainbridge roadway if possible because some of the power poles are very close behind the curb.
7. Dupre' stated that Jose' Gonzalez told him that the subsurface drainage along Bainbridge was undersized and needed to be upgraded to current standards. Roesel stated that RPC can participate in cost sharing the road but cannot participate in cost sharing drainage. McCluskie stated that the airport can participate in cost sharing the road but cannot cost share in the drainage either. Breaux suggested checking catch basin spacing.
8. Dupre' said one option is to shift the southern end of Canal No. 19 towards the east where the roadway is 1 lane in each direction. However, this may limit adding 2 lanes in the future. Roesel stated that would be a cost option. Gutierrez stated that keeping 1 lane in each direction along the southern end is adequate per his traffic analysis.
9. There is a 8" waterline along Bainbridge that should be replaced when the Bainbridge road work is done per Jefferson Parish.
10. Sewer system was reviewed by Veolia, and they had no comments to replace or upgrade any gravity sewer lines. Dennis recommended possibly upgrading the lift station at Bainbridge and 27th or at least moving it further from behind the curb.
11. Dupre' suggested replacing power poles with more aesthetically pleasing poles similar to what was done on 18th Street and English Turn. Everyone agreed that it would be too costly to bury the power lines.
12. Dufour stated that the future land use zoning along Bainbridge will be predominantly industrial per Kenner's Pattern for Progress dated 2015.

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DHD N:\Projects Active\20-1800\20-1864\Memo\20-1864 Bainbridge 1-23-19 PMC Mtg 2.docx

REGIONAL PLANNING COMMISSION

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JOHN THE BAPTIST, ST. TAMMANY AND TANGIPAHOA PARISHES

Bainbridge St MSY Access Study – January 23, 2019, 1:30 PM

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AGENDA
PROJECT MANAGEMENT COMMITTEE MEETING #2
BAINBRIDGE STREET ACCESS TO MSY
A/E PROJECT NO. 20-1864 JANUARY 23, 2019

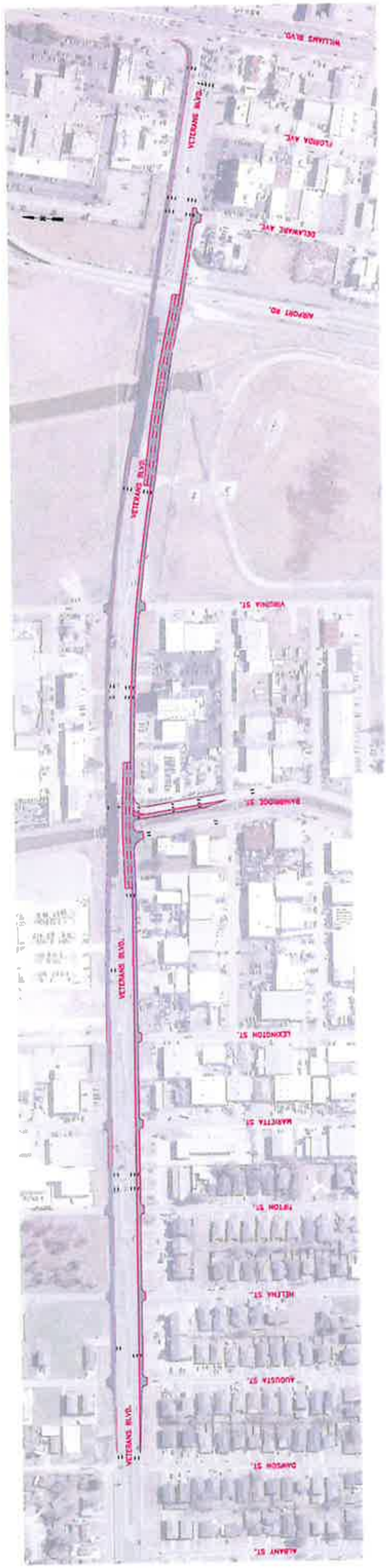
A. Traffic Data Collection
   1. RPC- ADT, crash data & growth rate
   2. NOAB- expected airport traffic use and volumes
   3. ITS- traffic count data
   4. ITS- turning movement count data
B. Conceptual Layout
   1. Drainage alternatives
      a. Shaw Coastal, Inc.- Canal No. 19 (Bainbridge) drainage improvements
      b. Jefferson Parish- Bainbridge right-of-way
   2. Typical sections
C. Miscellaneous Data Collection
   1. Utilities- drainage, water, Cox, Entergy, AT&T & Atmos gas
   2. Veolia- sewer lines & lift station
   3. Kenner Planning Dept.- existing and projected land use

TABLE 1 - 2018 EXISTING CONDITIONS LEVEL OF SERVICE					
INTERSECTION	TYPE OF CONTROL	APPROACH	MOVEMENT	2019 EXISTING	
				AM	PM
VETERANS BLVD AT BAINBRIDGE	SIGNALIZED	EB	EB TR	B (10.2)	A (9.6)
		OVERALL APPROACH LOS		B (10.2)	A (9.6)
		WB	WBL	D (54.4)	D (48.8)
			WBT	A (1.7)	A (3.3)
		OVERALL APPROACH LOS		B (14.1)	A (6.7)
		NB	NBL	D (49.5)	D (47.4)
		OVERALL APPROACH LOS		D (49.5)	D (47.4)
		OVERALL LOS		**B (12.2)**	**A (8.7)**
VETERANS BLVD AT AIRPORT RD	SIGNALIZED	EB	EB TR	B (14.6)	C (21.2)
		OVERALL APPROACH LOS		B (14.6)	C (21.2)
		WB	WBL	D (46.4)	D (52.3)
			WBT	A (3.1)	A (3.8)
		OVERALL APPROACH LOS		B (15.7)	B (17.4)
		NB	NBL	D (45.8)	E (55.2)
		OVERALL APPROACH LOS		D (45.8)	E (55.2)
		OVERALL LOS		**B (17.7)**	**C (23.3)**

TABLE 2 - 2019 PROJECTED CONDITIONS LEVEL OF SERVICE					
INTERSECTION	TYPE OF CONTROL	APPROACH	MOVEMENT	2019 PROJECTED	
				AM	PM
VETERANS BLVD AT BAINBRIDGE	SIGNALIZED	EB	EB TR	C (21.9)	C (28.9)
		OVERALL APPROACH LOS		C (21.9)	C (28.9)
		WB	WBL	E (72.3)	E (66.0)
			WBT	B (13.1)	A (0.5)
		OVERALL APPROACH LOS		C (30.8)	B (13.4)
		NB	NBL	D (40.9)	F (80.2)
		OVERALL APPROACH LOS		D (40.9)	F (80.2)
		OVERALL LOS		**C (26.1)**	**C (20.9)**
VETERANS BLVD AT AIRPORT RD	SIGNALIZED	EB	EB TR	A (0.5)	C (34.9)
		OVERALL APPROACH LOS		A (0.5)	C (34.9)
		WB	WBL	D (51.2)	F (167.5)
			WBT	A (4.3)	B (11.5)
		OVERALL APPROACH LOS		B (15.3)	D (46.3)
		NB	NBL	D (50.7)	F (132.7)
		OVERALL APPROACH LOS		D (50.7)	F (132.7)
		OVERALL LOS		**B (14.5)**	**E (63.6)**

TABLE 3 - 2049 PROJECTED CONDITIONS, EXISTING GEOMETRY LEVEL OF SERVICE					
INTERSECTION	TYPE OF CONTROL	APPROACH	MOVEMENT	2049 PROJECTED EXIST GEOMETRY	
				AM	PM
VETERANS BLVD AT BAINBRIDGE	SIGNALIZED	EB	EB TR	D (47.6)	F (86.1)
		OVERALL APPROACH LOS		D (47.6)	F (86.1)
		WB	WBL	F (105.7)	F (136.4)
			WBT	A (0.3)	A (0.3)
		OVERALL APPROACH LOS		C (31.7)	C (27.1)
		NB	NBL	E (73.1)	F (87.0)
		OVERALL APPROACH LOS		E (73.1)	F (87.0)
		OVERALL LOS		**D (41.1)**	**D (51.1)**
VETERANS BLVD AT AIRPORT RD	SIGNALIZED	EB	EB TR	B (15.1)	F (116.9)
		OVERALL APPROACH LOS		B (15.1)	F (116.9)
		WB	WBL	F (112.1)	F (290.9)
			WBT	A (6.1)	B (13.0)
		OVERALL APPROACH LOS		C (31.0)	E (74.9)
		NB	NBL	F (110.4)	F (364.7)
		OVERALL APPROACH LOS		F (110.4)	F (364.7)
		OVERALL LOS		**D (36.4)**	**F (164.2)**

TABLE 3 - 2049 PROJECTED CONDITIONS, IMPROVED GEOMETRY LEVEL OF SERVICE					
INTERSECTION	TYPE OF CONTROL	APPROACH	MOVEMENT	2049 PROJECTED IMPROVED GEOM	
				AM	PM
VETERANS BLVD AT BAINBRIDGE	SIGNALIZED	EB	EBR	C (20.4)	C (31.4)
		EB	EBT	B (18.4)	C (29.2)
		OVERALL APPROACH LOS		B (19.1)	C (30.0)
		WB	WBL	D (49.9)	E (65.3)
			WBT	A (8.5)	A (8.4)
		OVERALL APPROACH LOS		C (20.8)	B (19.6)
		NB	NBL	D (37.5)	E (59.2)
		NB	NBR	D (42.3)	F (238.0)
		OVERALL APPROACH LOS		D (41.3)	F (205.8)
		OVERALL LOS		**C (21.6)**	**D (45.9)**
VETERANS BLVD AT AIRPORT RD	SIGNALIZED	EB	EB TR	A (2.6)	C (26.7)
		OVERALL APPROACH LOS		A (2.6)	C (26.7)
		WB	WBL	E (55.5)	F (163.5)
			WBT	A (4.0)	A (9.4)
		OVERALL APPROACH LOS		B (16.1)	D (43.7)
		NB	NBL	D (46.5)	F (166.6)
		OVERALL APPROACH LOS		D (46.5)	F (166.6)
		OVERALL LOS		**B (15.1)**	**E (68.1)**


WILLIAMS BLVD.
VETERANS BLVD.
FLORIDA AVE.
DELAWARE AVE.
AIRPORT RD.
VETERANS BLVD.
VIRGINIA ST.
BAINBRIDGE ST.
VETERANS BLVD.
LEXINGTON ST.
MARIETTA ST.
TIFTON ST.
HELENA ST.
AUGUSTA ST.
VETERANS BLVD.
DAWSON ST.
ALBANY ST.

INDEX OF SHEETS	
1	TITLE SHEET
2-3a	TYPICAL SECTIONS
4	PROPOSED IMPROVEMENTS
5	EXIST. DRAINAGE, WATER, & SEWER
6	EXIST. CDX, ENTERGY, AT&T, & ATMOS UTILITIES

BAINBRIDGE STREET ACCESS TO MSY
KENNER, LOUISIANA
A/E PROJECT NO. 20-1864
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

LOCATION MAP

LAYOUT MAP

Meyer Engineers, Ltd.
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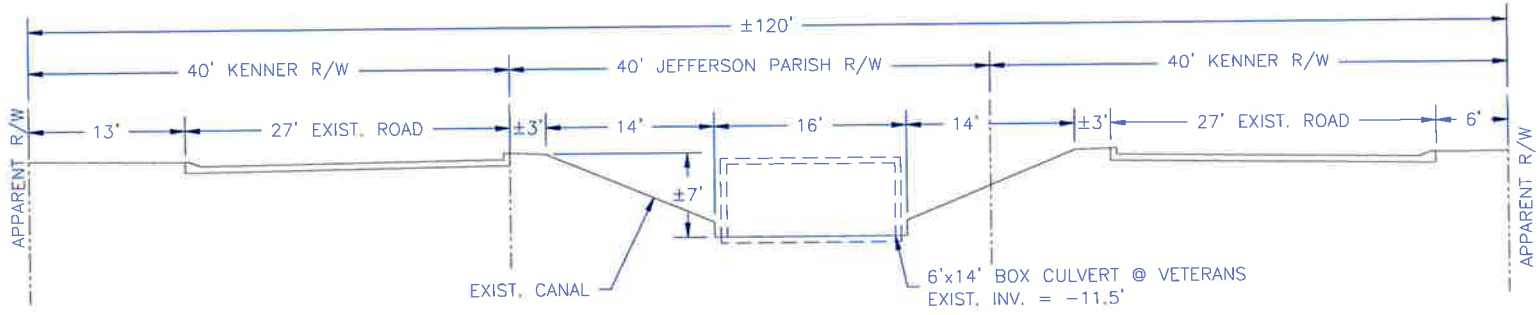
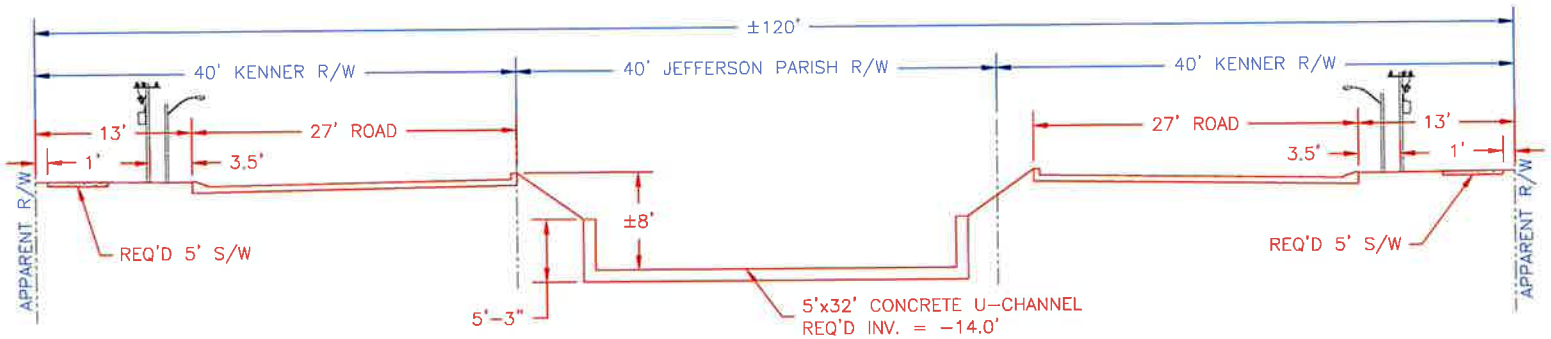
phone 504.885.9892 · fax 504-887-5056
website www.meyer-e-l.com

TITLE SHEET
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

sheet no. 1 of ____ sheets



1 EXISTING TYPICAL SECTION
(LOOKING NORTH) 1"=10'



2 PROPOSED TYPICAL SECTION - OPTION A: 5'x32' U-CHANNEL
(LOOKING NORTH) 1"=10'

project no 12-1184
drawn AR
checked DHD
date 01-21-2019
revised

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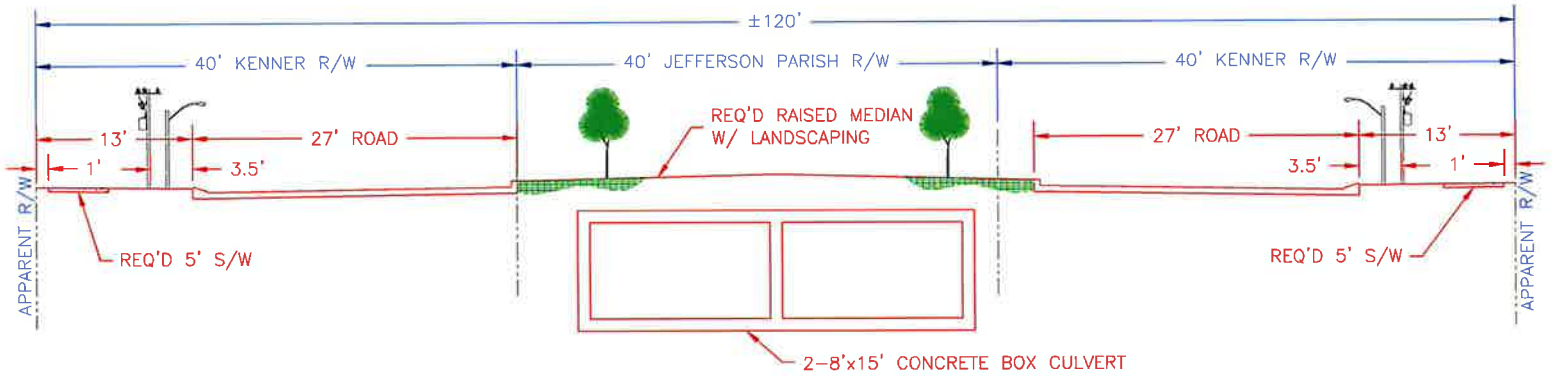
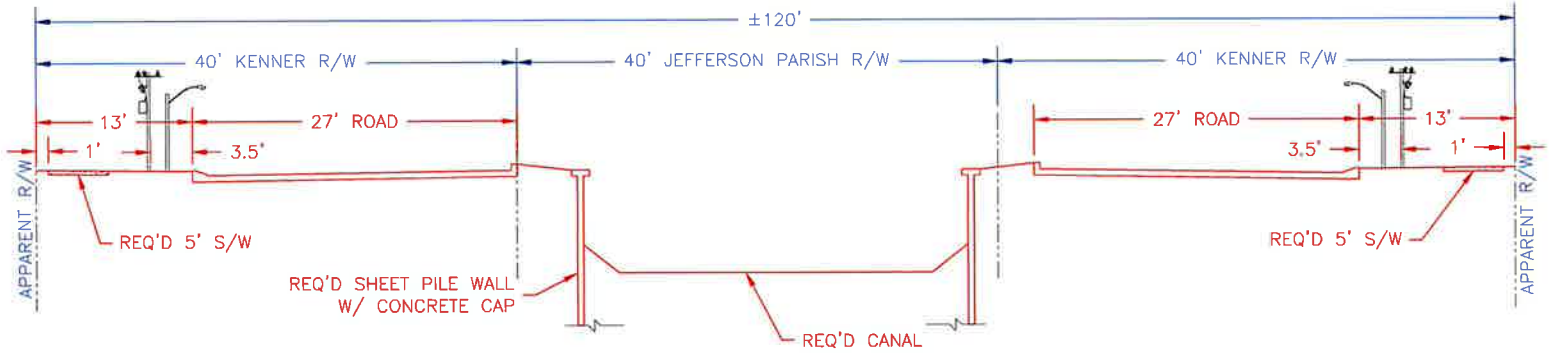
TYPICAL SECTIONS - BETWEEN CANAL #14 & VETERANS
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

sheet no 2
of ____ sheets

PLOT 1=1



1 PROPOSED TYPICAL SECTION - OPTION B: 2-8'x15' CONCRETE BOX CULVERT
(LOOKING NORTH) 1"=10'



2 PROPOSED TYPICAL SECTION - OPTION C: SHEET PILE WALL
(LOOKING NORTH) 1"=10'

PLOT 1=1

project no 20-184
drawn AR
checked DHD
date 8/31/2021
revised

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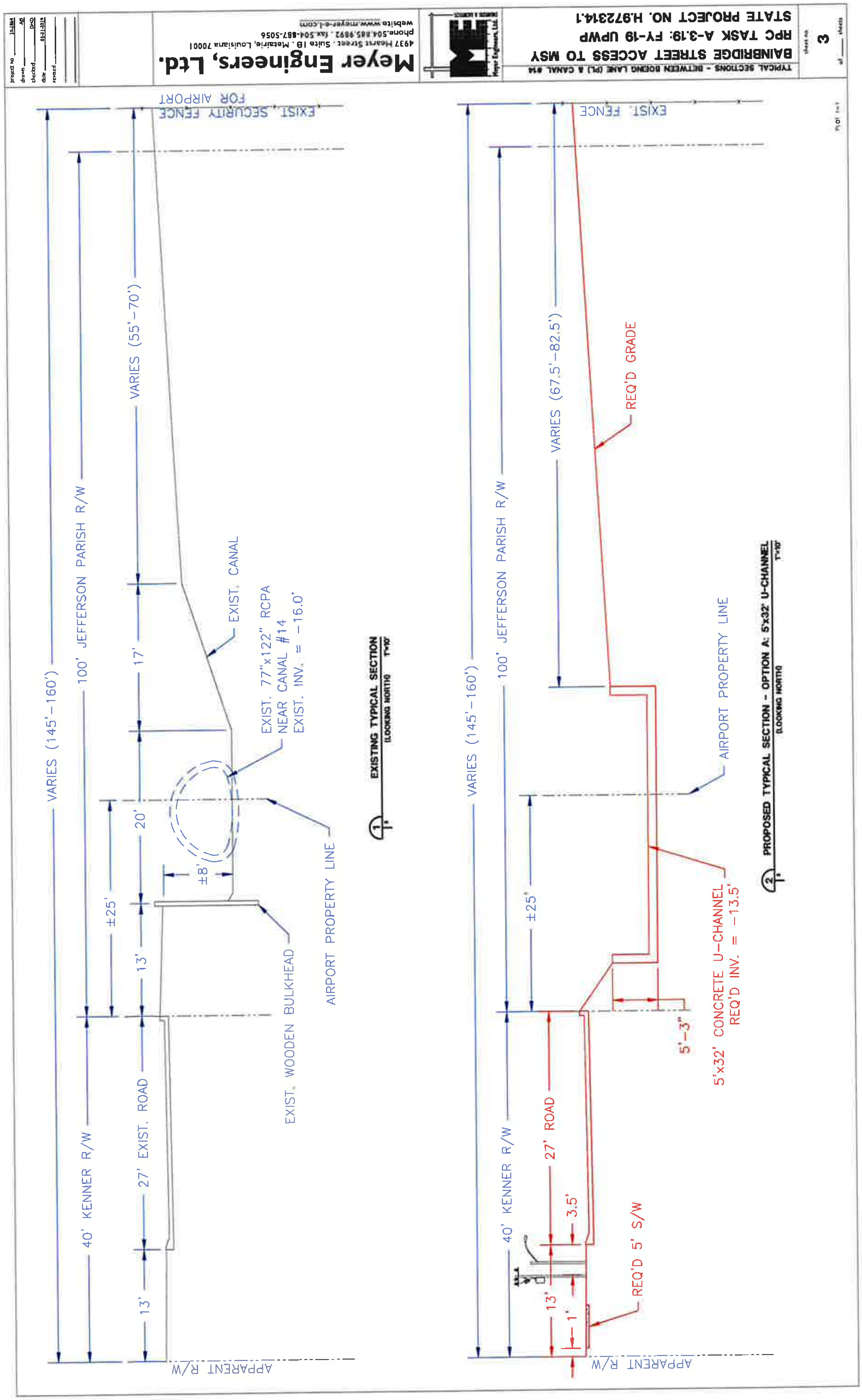
website:www.meyer-el.com

TYPICAL SECTIONS - BETWEEN CANAL #14 & VETERANS
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

sheet no
2a
of ____ sheets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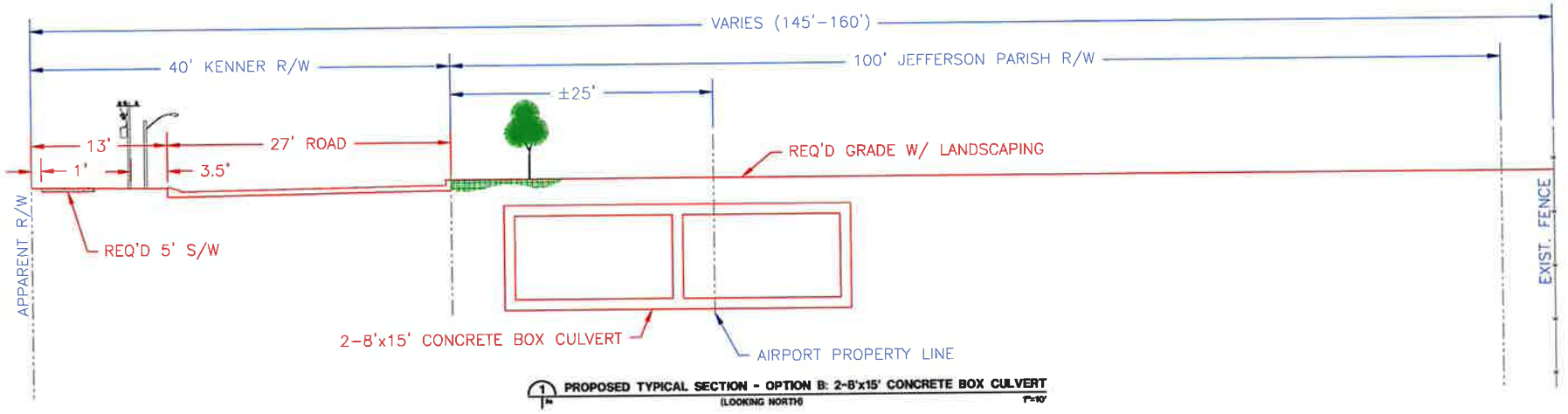
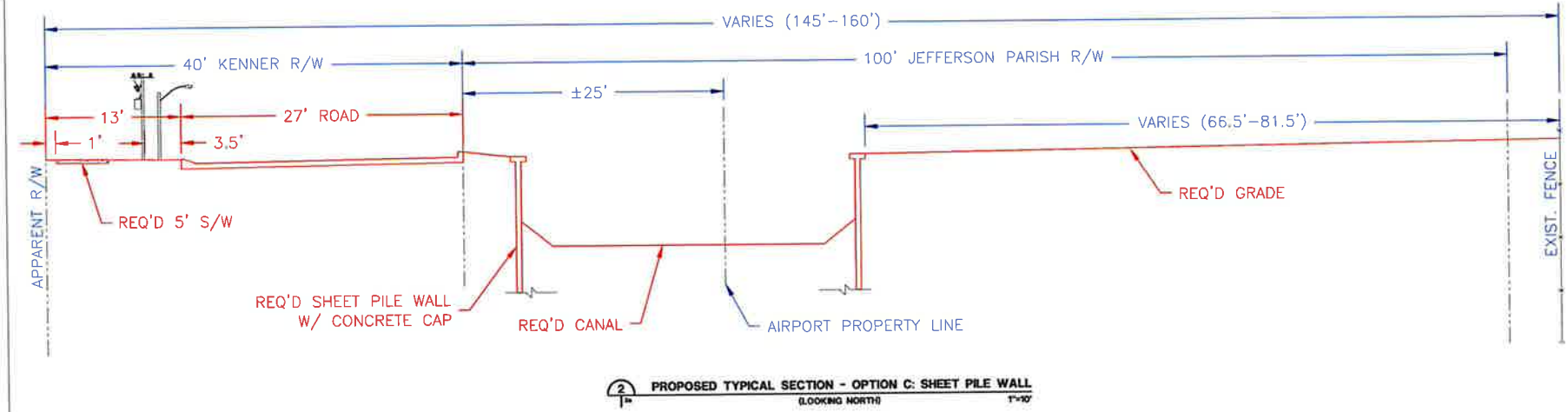
phone.504.885.9892 . fax.504-887-5056
website www.meyer-e.com
TYPICAL SECTIONS - BETWEEN BOEING LANE (PL) & CANAL #14
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1
3
EXIST. SECURITY FENCE FOR AIRPORT
VARIES (145'-160')
100' JEFFERSON PARISH R/W
40' KENNER R/W
VARIES (55'-70')
17'
20'
13'
27' EXIST. ROAD
±25'
±8'
EXIST. CANAL
EXIST. 77"x122" RCPA
NEAR CANAL #14
EXIST. INV. = -16.0'
EXIST. WOODEN BULKHEAD
AIRPORT PROPERTY LINE
APPARENT R/W
EXISTING TYPICAL SECTION
(LOOKING NORTH)
EXIST. FENCE
VARIES (67.5'-82.5')
REQ'D GRADE
27' ROAD
3.5'
1'
REQ'D 5' S/W
5'-3"
5'x32' CONCRETE U-CHANNEL
REQ'D INV. = -13.5'
PROPOSED TYPICAL SECTION - OPTION A: 5'x32' U-CHANNEL
(LOOKING NORTH)



1 PROPOSED TYPICAL SECTION - OPTION B: 2-8'x15' CONCRETE BOX CULVERT
(LOOKING NORTH) 1"=10'



2 PROPOSED TYPICAL SECTION - OPTION C: SHEET PILE WALL
(LOOKING NORTH) 1"=10'

project no 76-184
drawn AR
checked DHD
date 01-31-2019
revised

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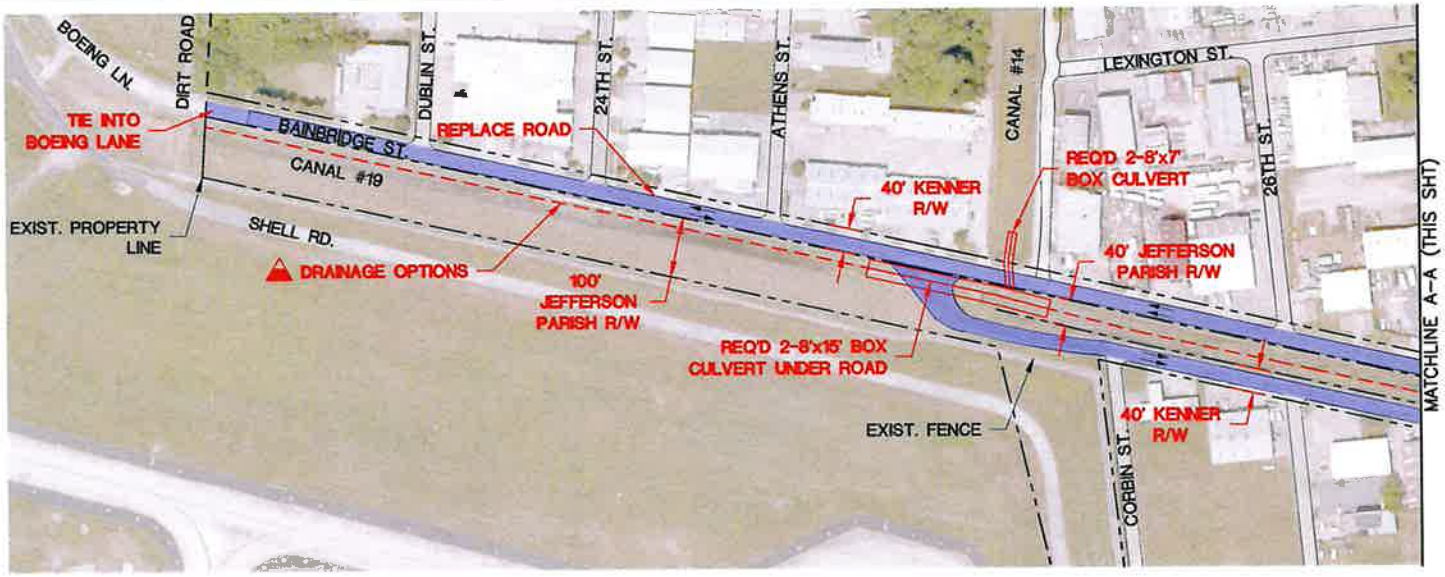
TYPICAL SECTIONS - BETWEEN BOEING LANE (PL) & CANAL #14
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

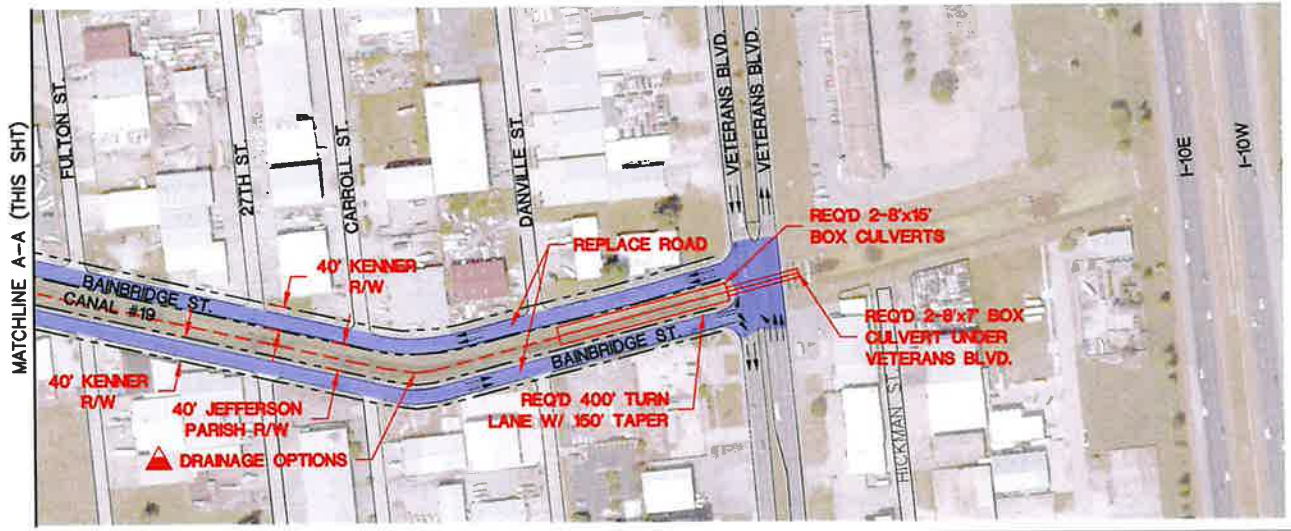
sheet no
3a
of ____ sheets



NOTE:
REQ'D SUBSURFACE DRAINAGE, SIDEWALKS, STREETLIGHTS, STREETSCAPING & LANDSCAPING ARE NOT SHOWN.

NORTH

GRAPHIC SCALE



DRAINAGE OPTIONS FOR CANAL #19 INCLUDE:

A. 5' x 32' CONCRETE U-CHANNEL
B. 2-8'x15' CONCRETE BOX CULVERTS
C. SHEET PILE WALL

project no. 10-164
drawn AS
checked DHD
date 01-21-2014
revised

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PROPOSED IMPROVEMENTS
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

sheet no. 4
of ____ sheets

EXISTING DRAINAGE, WATER & SEWER
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1
sheet no 5 of sheets
Meyer Engineers, Ltd.
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phone.504.885.9892, fax.504-887-5056
website.www.meyer-e-l.com
project no
drawn
checked
date
revised
LEGEND:
DRAINAGE
WATER
SEWER GRAVITY LINE
SEWER FORCE MAIN
SEWER LIFT STATION
NORTH
GRAPHIC SCALE
MATCHLINE A-A (THIS SHT)
I-10W
I-10E
VETERANS BLVD.
DANVILLE ST.
CARROLL ST.
FULTON ST.
BAINBRIDGE ST.
CANAL #19
L.S. NO 4345
GRAVITY SEWER SIPHON
MATCHLINE A-A (THIS SHT)
28TH ST.
LEXINGTON ST.
COHBIN ST.
CANAL #14
ATHENS ST.
24TH ST.
DUBLIN ST.
BAINBRIDGE ST.
CANAL #19
SHELL RD.
EXIST. PROPERTY LINE
DIRT ROAD
BOEING LN.

LEGEND:

- COX & ENTERGY OVERHEAD LINES ON POWER POLES
- EXISTING AT&T UNDERGROUND LINES
- EXISTING 2" GAS MAIN

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EXISTING COX, ENTERGY, AT&T, & ATMOS UTILITIES
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

sheet no. 6 of ___ sheets

PROJECT MANAGEMENT COMMITTEE

MEETING MEMORANDUM

February 15, 2019 Meeting Memo

MEYER ENGINEERS, LTD.

MEMORANDUM

PROJECT NO:	20-1864		
PROJECT NAME:	Bainbridge Street Access to MSY		
DATE:	2/15/2019	**BY:**	David Dupre
PHONE CALL:	☐	**MEETING:**	☒
NUMBER:		**LOCATION:**	Jefferson Parish Pres.'s office
TO:		**ATTENDING:**	See attached sign-in sheet

COMMENTS: We held the 3rd PMC meeting, and the following was discussed:

The Airport will provide Meyer the projected airport traffic counts.

Mr. Dupre presented the attached powerpoint presentation.

Kenner owns the road. Jefferson Parish owns the drainage.

Dupre noted that there was a discrepancy between the drainage flows from Jefferson Parish and the drainage calculations from the airport. This would need to be rectified during the design.

Mr. Drewes suggested changing Option E from 2 – 8'X 7' Box Culvert's north of Canal #14 to 2 – 8'X15' Box Culvert. This way if the canal would need to be closed in for the future, the 2 - 8'X7' Box Culverts north of Canal #14 would not have to be replaced.

Mr. Gutierrez suggested adding a second left turn lane on west bound Vets to south bound Bainbridge. The plan already included adding a second right turn lane from north bound Bainbridge to east bound Vets. Other than the turn lanes, Mr. Gutierrez thought the current number on lanes on Bainbridge is adequate to handle the traffic.

Mr. Gonzales thought an undesirable option, which was not listed, would be to replace the road without stabilizing the drainage canal. If the canal is not stabilized, the road may fail within 5-10 years. The cost of this option should be presented.

Mr. Brooks thinks it is important that we start with a shovel ready project before we begin to lobby Congress. It is important that there are some private funds available for this project (rental car companies, fees from other users, etc.).

Bainbridge is in Councilman's Spears district. Councilman Spears and Councilman Impastato could put up funds for preliminary design. Mr. Brooks thinks this could be a key to moving forward. A timeline for design, funding, and construction is needed. We will need an estimated cost for preliminary design.

RPC, the Airport, Jefferson Parish, and Kenner could commit to some form of match. This will need to be worked out prior to determining congressional funding requirements.

We should define the improvements as the Bainbridge Industrial District Improvements. These improvements will include road, drainage, traffic control, and industrial district beautification.

The general scope of the project will include:

- Replace Bainbridge Road including street lights and utilities.
- Add a second right turn lane from NB Bainbridge to EB Veterans.
- Add a second left turn lane from WB Veterans to SB Bainbridge.
- Replace the Veterans - Bainbridge intersection which would include traffic signals, sidewalks, landscaping and replacing the box culvert under Veterans with a dual 8'X 7' box culvert.
- Replace the canal from Veterans to Canal #14 with dual 8'X15' box culverts.
- South of Canal #14, shift the canal away from the road to help stabilize the roadway.

Mr. Dupre to revise this estimate and Meyer to submit the final report.

JEFFERSON PARISH

Office of the President

BAINBRIDGE STREET ACCESS TO MSY

Meeting

2/15/2019

Date

Michael S. Yenni
Parish President

Thank you for meeting with us today. So that our records are up to date on your contact information, please take a moment to fill out an entry.

NAME	ORGANIZATION	PHONE #	E-MAIL
Jose Gonzalez	J.P. Public W.	736-6783	[illegible]
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DAVID DUPRE	MEYER ENGINEERS	885-9892	DDUPRE@MEYER-E-L.COM
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Tom Haysley	RPC	483-8510	thaysley@norpc.org
JEFF ROESSEL	RPC	483-8528	jroessel@norpc.org
TOM SCHIEMER	COK	468-7515	tschiemer@kenner.la.us
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Mike Quigley	D4	736-6622	MQuigley@Jeffparish.net
Rick Meyer	MEL	885-9892	RMeyer@meyer-e-l.c
NELSON MATTHEWS JR	COUNCIL	364-2603	NMATTHEWS@JEFFPARISH.NET
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Jamie McCluskie	NOAB	487-0090	jamesm@flymsy.com
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DOMINICK IMPASTATO	JP Council D4	736 6622	dimpastato@jeffparish.net
WALT BROOKS	JP CAO	736-6300	WBROOKS@Jeffparish.net

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Office 504.364.2700 – Fax 504.364.2828
Email: MYenni@jeffparish.net Website: www.jeffparish.net

JEFFERSON PARISH

Office of the President

Michael S. Yenni
Parish President

Bainbridge Street Access to MSY
Meeting

2/15/19
Date

Thank you for meeting with us today. So that our records are up to date on your contact information, please take a moment to fill out an entry.

NAME	ORGANIZATION	PHONE #	E-MAIL
Brenda Patel	JP Council Aide - D4	736-6624	bpatel@jeffparish.net
CARMELO GUTIERREZ	ITS	888 9395	

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Office 504.736.6400 – Fax 504.736.6638
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Office 504.364.2700 – Fax 504.364.2828
Email: MYenni@jeffparish.net Website: www.jeffparish.net

INDEX OF SHEETS	
1	TITLE SHEET
2-3	TYPICAL SECTIONS
4	PROPOSED IMPROVEMENTS

BAINBRIDGE STREET ACCESS TO MSY
KENNER, LOUISIANA
A/E PROJECT NO. 20-1864
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

LOCATION MAP

LAYOUT MAP

Meyer Engineers, Ltd.
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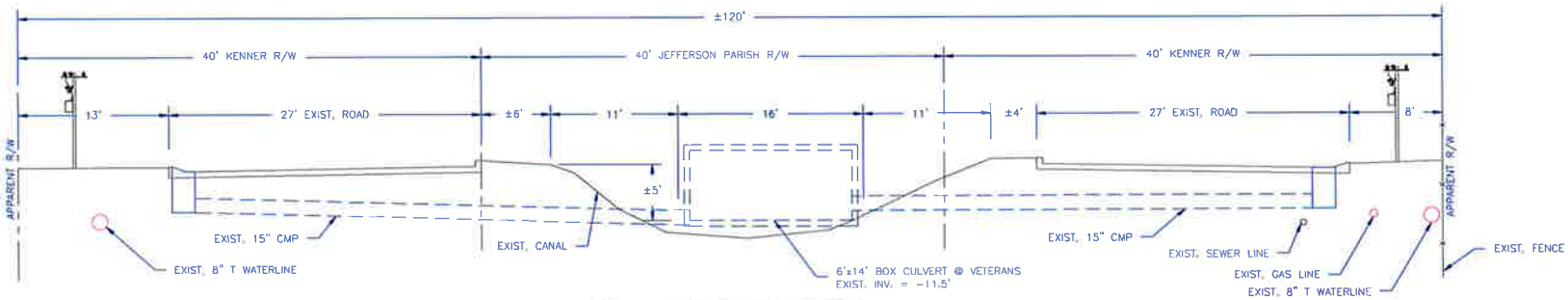
phone.504.885.9892 . fax.504-887-5056
website.www.meyer-eng.com

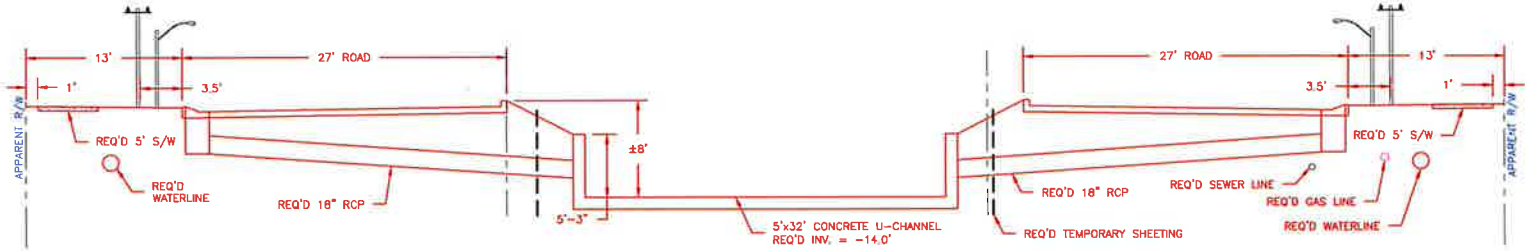
project no 20-1864
drawn AG
checked DMD
date 01-15-2019
revised

TITLE SHEET
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

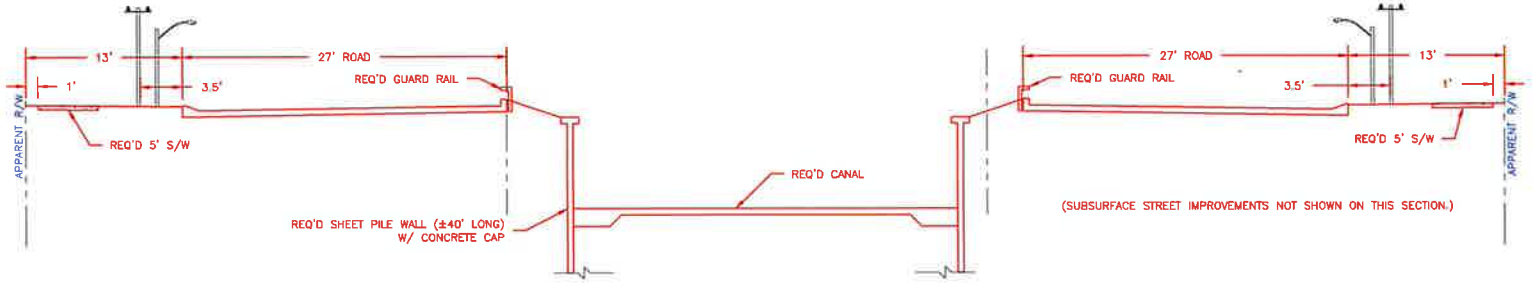
sheet no 1
of ____ sheets



1 EXISTING TYPICAL SECTION
(LOOKING NORTH) 1"=10'



2 PROPOSED SECTION - OPTION A: 5'x32' U-CHANNEL
(LOOKING NORTH) 1"=10'



3 PROPOSED SECTION - OPTION B: SHEET PILE WALL
(LOOKING NORTH) 1"=10'

PLOT 1=1

project no 78-1864
drawn AG
checked DMD
date 01-15-1998
revised

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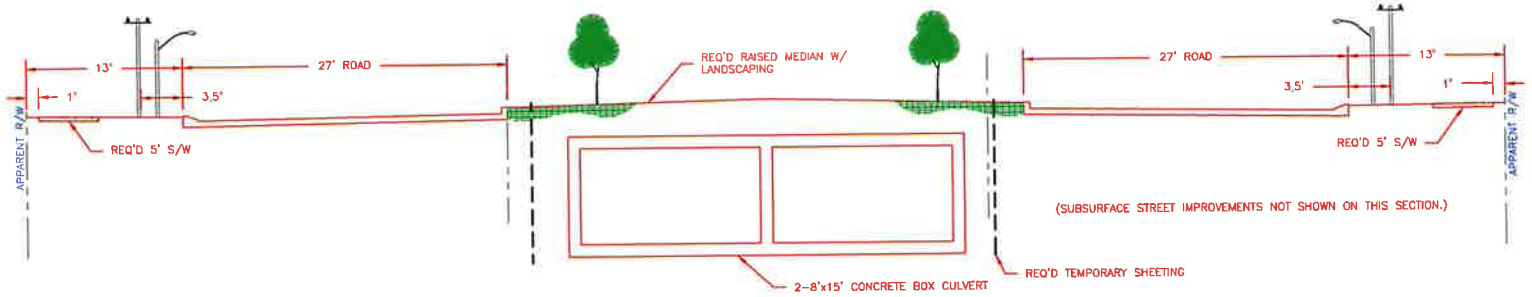
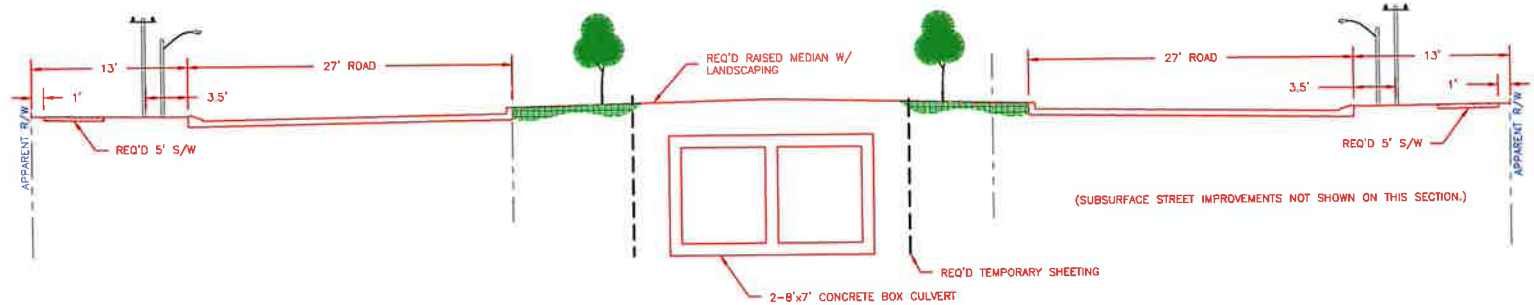
TYPICAL SECTIONS - BETWEEN CANAL 814 & VETERANS
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

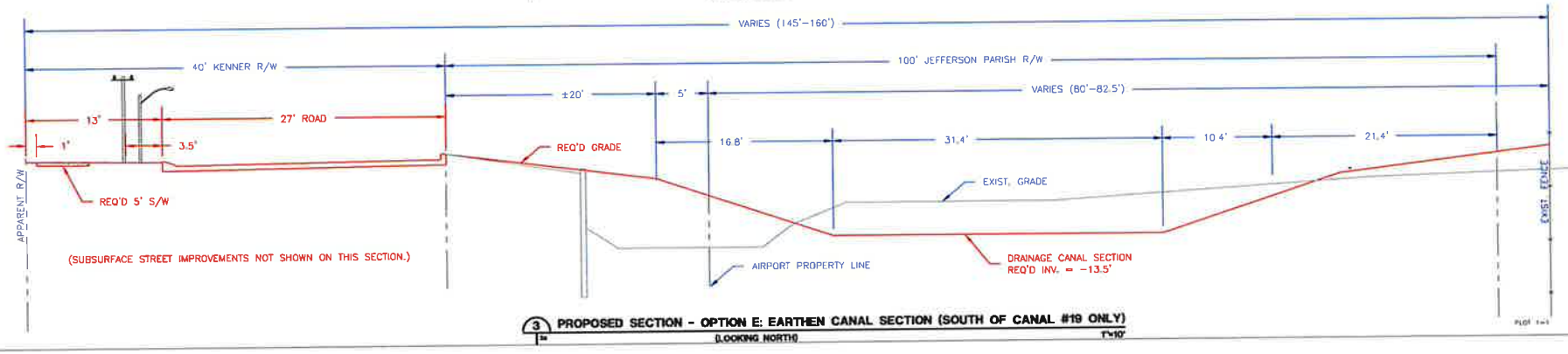
sheet no. 2
of ____ sheets



1 PROPOSED SECTION - OPTION C: 2-8'x15' CONCRETE BOX CULVERT
(LOOKING NORTH) 1"=10'



2 PROPOSED SECTION - OPTION D: 2-8'x7' CONCRETE BOX CULVERT
(LOOKING NORTH) 1"=10'



3 PROPOSED SECTION - OPTION E: EARTHEN CANAL SECTION (SOUTH OF CANAL #19 ONLY)
(LOOKING NORTH) 1"=10'

project no 16-184
drawn AB
checked DHD
date 01-15-2019
revised

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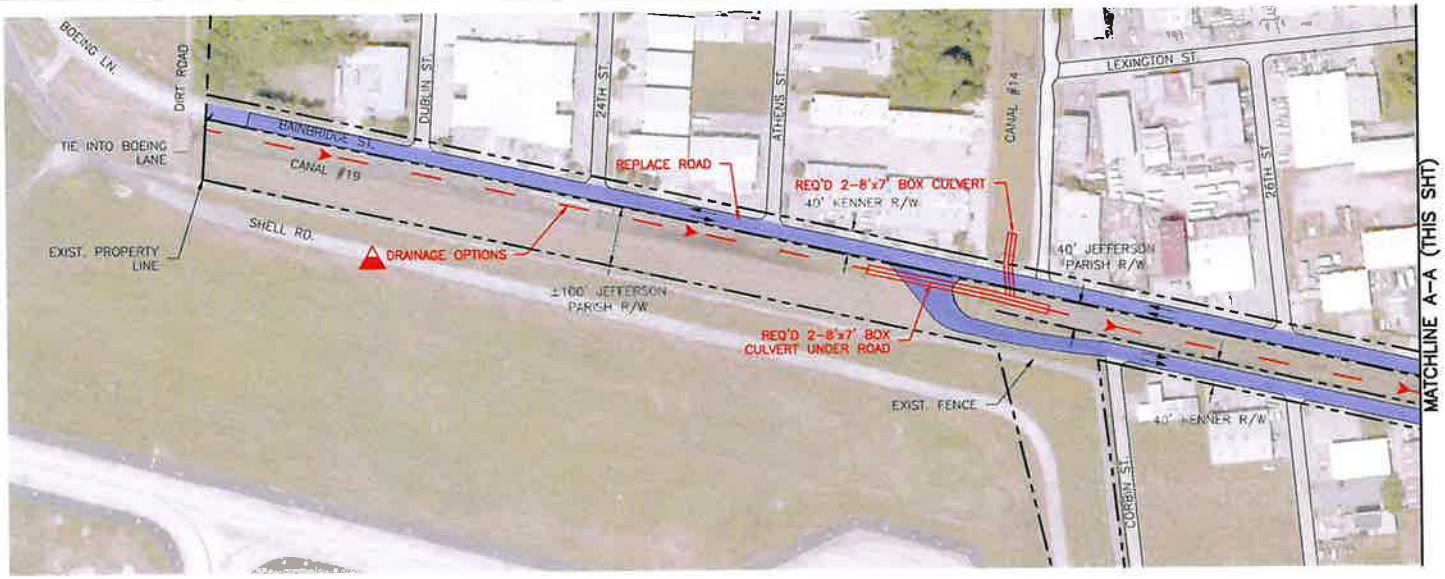
TYPICAL SECTIONS - BETWEEN CANAL #16 & VETERANS

BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

sheet no 3
of ____ sheets

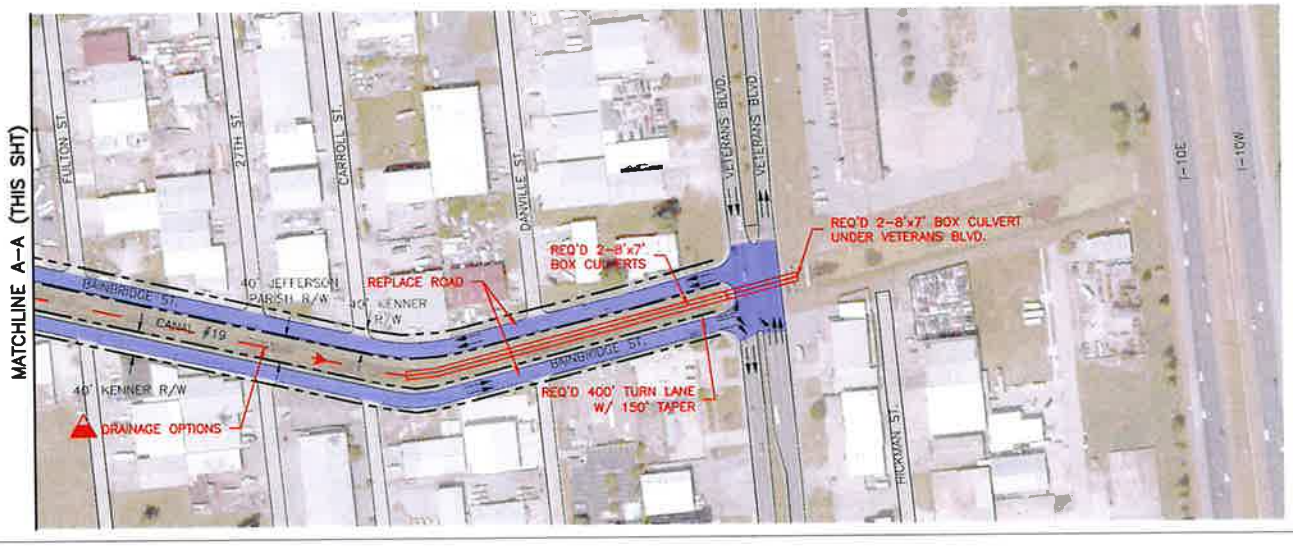


NORTH

GRAPHIC SCALE

200 0 100 200

(IN FEET)
1 inch = 200 ft.



NOTE:
REQ'D SUBSURFACE DRAINAGE, SIDEWALKS, STREETLIGHTS, STREETSCAPING & LANDSCAPING ARE NOT SHOWN.

DRAINAGE OPTIONS FOR CANAL #19 INCLUDE:

A. 5' x 32' CONCRETE U-CHANNEL
B. SHEET PILE WALL
C. DUAL – 8'x15' CONCRETE BOX CULVERTS
D. DUAL – 8'x7' CONCRETE BOX CULVERTS
E. EARTHEN CANAL SECTION (SOUTH OF CANAL #14 ONLY) AND DUAL 8'x7' CONCRETE BOX CULVERTS (FROM VETS TO CANAL #14)

PLOT 1=1

project no 23-186
drawn AS
checked DHD
date 01-15-2019
revised

Meyer Engineers, Ltd.
4917 Hearst Street, Suite 1B, Metairie, Louisiana 70001
phone 504.885.9892, fax 504-887-5956
website www.meyer-eng.com

PROPOSED IMPROVEMENTS
BAINBRIDGE STREET ACCESS TO MSY
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1

sheet no 4
of ____ sheets

201864MIS

CONSTRUCTION ESTIMATE FOR DRAINAGE OPTIONS
BAINBRIDGE STREET ACCESS TO MSY
A/E PROJECT NO. 20-1864 FEBRUARY 15, 2019

OPTION		STORAGE VOLUME IN CANAL (CUBIC FEET)	COMMENTS	CONSTRUCTION ESTIMATE (INCLUDES BAINBRIDGE STREET, VETERANS, AND DRAINAGE OPTIONS LISTED)
	EXISTING CANAL	773,600	-	-
A	**5' X 32' U-CHANNEL**	**917,000**	**VIABLE OPTION**	**$26,290,000**
B	SHEET PILE WALL	773,600	NOT AS AESTHETICALLY PLEASING AS U-CHANNEL	$26,050,000
C	**DUAL 8' X 15' BOX CULVERTS**	**822,000**	**AESTHETICALLY THE BEST SOLUTION**	**$32,050,000**
D	DUAL 8' X 7' BOX CULVERTS	383,600	REDUCES STORAGE TOO MUCH	$26,290,000
E	**EARTHEN CANAL SECTION (SOUTH OF CANAL #14), AND 8' X 7' BOX - (NORTH OF CANAL)**	**785,540**	**COST EFFICIENT, BUT LIMITS FUTURE WIDENING OF ROAD**	**$20,533,000**

201864SPC

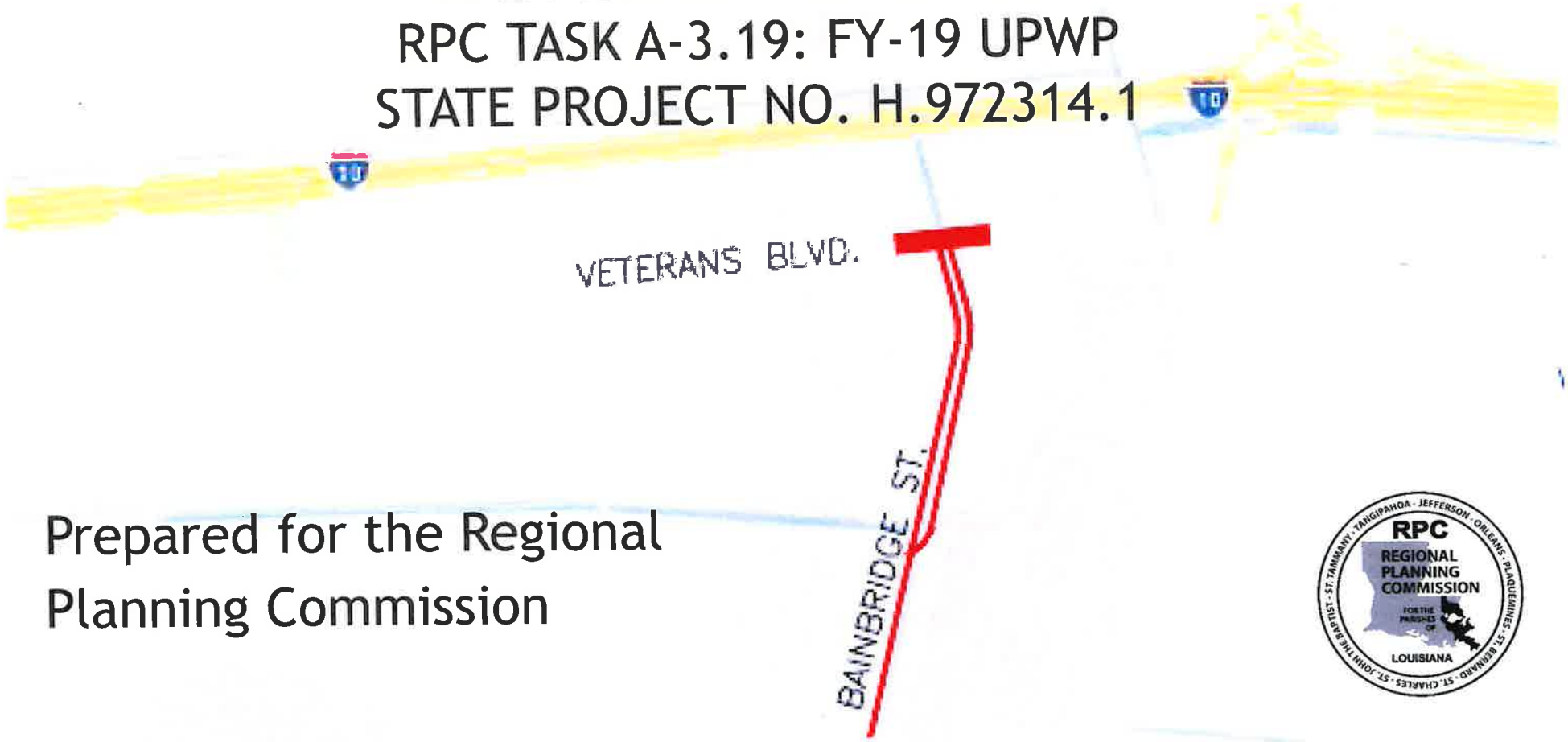
PROBABLE CONSTRUCTION COST
BAINBRIDGE STREET ACCESS TO MSY
A/E PROJECT NO. 20-1864 FEBRUARY 15, 2019

OPTION A:	**5' X 32' WIDE U-CHANNEL**			
	CONCRETE ROADWAY (2,130' X 2) + 1,200'	5,460 LF @	$1,000	$5,460,000
	VETERANS UPGRADE	1 LS @	$1,450,000	$1,450,000
	UCHANNEL (VETS TO BOEING LANE) (1,260' + 1,140')	2,400 LF @	$5,700	$13,680,000
	DUAL 8' X 7' BOX CULVERTS (TURN LANE (550') AND AT CANAL #14 (450')	1,000 LF @	$5,700	$5,700,000
	CONSTRUCTION TOTAL			**$26,290,000**
OPTION B:	**SHEET PILE WALL SECTION**			
	CONCRETE ROADWAY (2,130' X 2) + 1,200'	5,460 LF @	$1,000	$5,460,000
	VETERANS UPGRADE	1 LS @	$1,450,000	$1,450,000
	SHEET PILE (VETS TO BOEING LANE)	2,400 LF @	$5,600	$13,440,000
	DUAL 8' X 7' BOX CULVERTS (TURN LANE (550') AND AT CANAL #14 (450')	1,000 LF @	$5,700	$5,700,000
	CONSTRUCTION TOTAL			**$26,050,000**
OPTION C:	**DUAL 8X15 BOX CULVERTS**			
	CONCRETE ROADWAY (2,130' X 2) + 1,200'	5,460 LF @	$1,000	$5,460,000
	VETERANS UPGRADE	1 LS @	$1,450,000	$1,450,000
	DOUBLE 8'x15' BOX CULVERTS (VETS TO BOEING LANE)	2,400 LF @	$8,100	$19,440,000
	DUAL 8' X 7' BOX CULVERTS (TURN LANE (550') AND AT CANAL #14 (450')	1,000 LF @	$5,700	$5,700,000
	CONSTRUCTION TOTAL			**$32,050,000**
OPTION D:	**DUAL 8X7 BOX CULVERTS**			
	CONCRETE ROADWAY (2,130' X 2) + 1,200'	5,460 LF @	$1,000	$5,460,000
	VETERANS UPGRADE	1 LS @	$1,450,000	$1,450,000
	DOUBLE 8'x7' BOX CULVERTS (TURN LANE TO BOEING LANE)	2,400 LF @	$5,700	$13,680,000
	DUAL 8' X 7' BOX CULVERTS (TURN LANE (550') AND AT CANAL #14 (450')	1,000 LF @	$5,700	$5,700,000
	CONSTRUCTION TOTAL			**$26,290,000**
OPTION E:	**8x7 BOX CULVERTS WITH CANAL SOUTH OF CANAL #14**			
	CONCRETE ROADWAY (2,130' X 2) + 1,200'	5,460 LF @	$1,000	$5,460,000
	VETERANS UPGRADE	1 LS @	$1,450,000	$1,450,000
	DOUBLE 8'x7' BOX CULVERTS (TURN LANE TO CANAL 14)	1,260 LF @	$5,700	$7,182,000
	STORAGE AREA (CANAL 14 TO BOEING LANE)	1,140 LF @	$650	$741,000
	DUAL 8' X 7' BOX CULVERTS (TURN LANE (550') AND AT CANAL #14 (450')	1,000 LF @	$5,700	$5,700,000
	CONSTRUCTION TOTAL			**$20,533,000**

NOTE: ALL PRICES INCLUDE A 40% CONTINGENCY FOR MOBILIZATION, CONSTRUCTION LAYOUT, TRAFFIC CONTROL, EROSION CONTROL, AND CONSTRUCTION CONTINGENCY.

POWERPOINT PRESENTATION PRESENTED AT THE FEBRUARY 15, 2019 PMC MEETING

BAINBRIDGE STREET ACCESS TO MSY
KENNER, LOUISIANA
A/E PROJECT NO. 20-1864
RPC TASK A-3.19: FY-19 UPWP
STATE PROJECT NO. H.972314.1



Prepared for the Regional Planning Commission

Engineer: Meyer Engineers, Ltd.

Traffic Engineer: ITS REGIONAL, LLC.

February 15, 2019

Agenda

- Introductions
- Purpose of Study
- Existing Conditions
- Design Options of Improvements
- Construction Estimates For Options

Introductions

PURPOSE OF STUDY

- Define and quantify airport related traffic impacts
- Replace Bainbridge Street – (Need to stabilize canal which is costly)
- Develop options and conceptual plans
- Estimate cost of improvements and options
- Submit Stage 0 Feasibility Study to RPC and DOTD

Existing Conditions

PROJECT LOCATION AND TRAFFIC OVERVIEW

BAINBRIDGE STREET-EXISTING CONDITIONS

BAINBRIDGE ST. AT VETERANS BLVD. (EXISTING CONDITIONS)

BAINBRIDGE ST. AT CANAL #14 (EXISTING CONDITIONS)

BAINBRIDGE ST. AT VETERANS

BAINBRIDGE-LOOKING NORTH

BAINBRIDGE-LOOKING SOUTH

BAINBRIDGE-LOOKING SOUTH

BAINBRIDGE-LOOKING SOUTH

BAINBRIDGE-LOOKING SOUTH

BAINBRIDGE NEAR CANAL #14 CROSSOVER

BAINBRIDGE NEAR CROSSOVER- LOOKING SOUTH

BAINBRIDGE-NEAR BOEING LANE-LOOKING NORTH

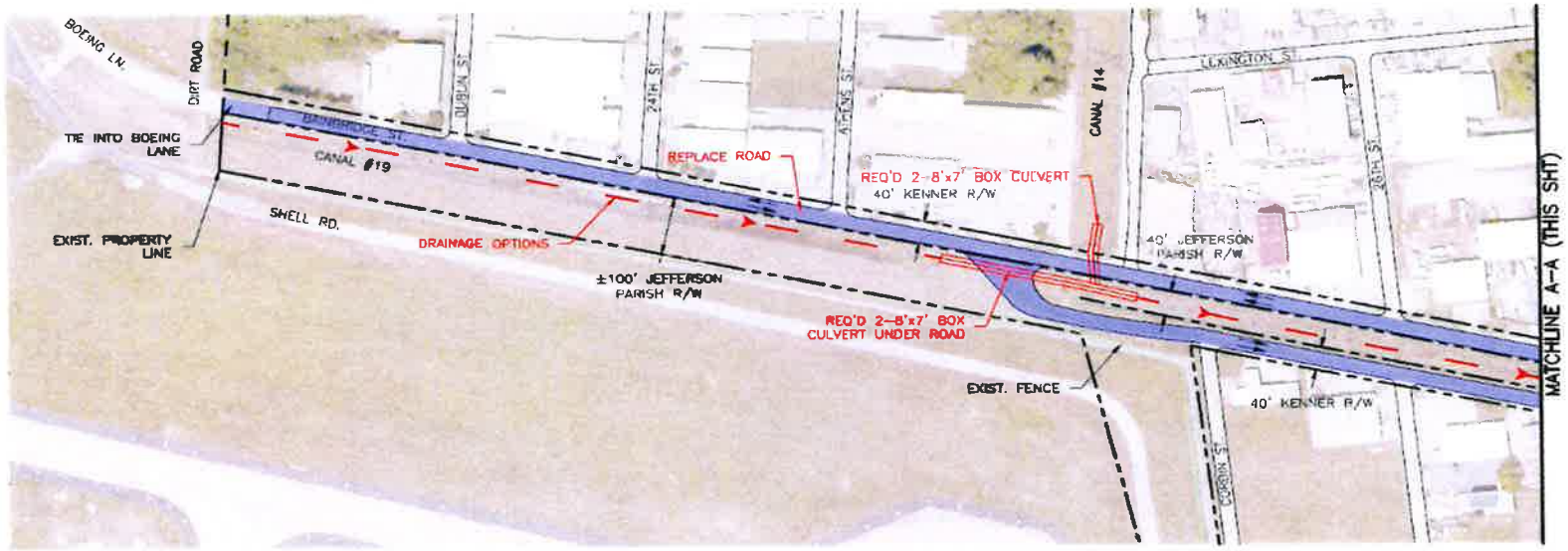
EXISTING TIMBER SHEET PILE WALL

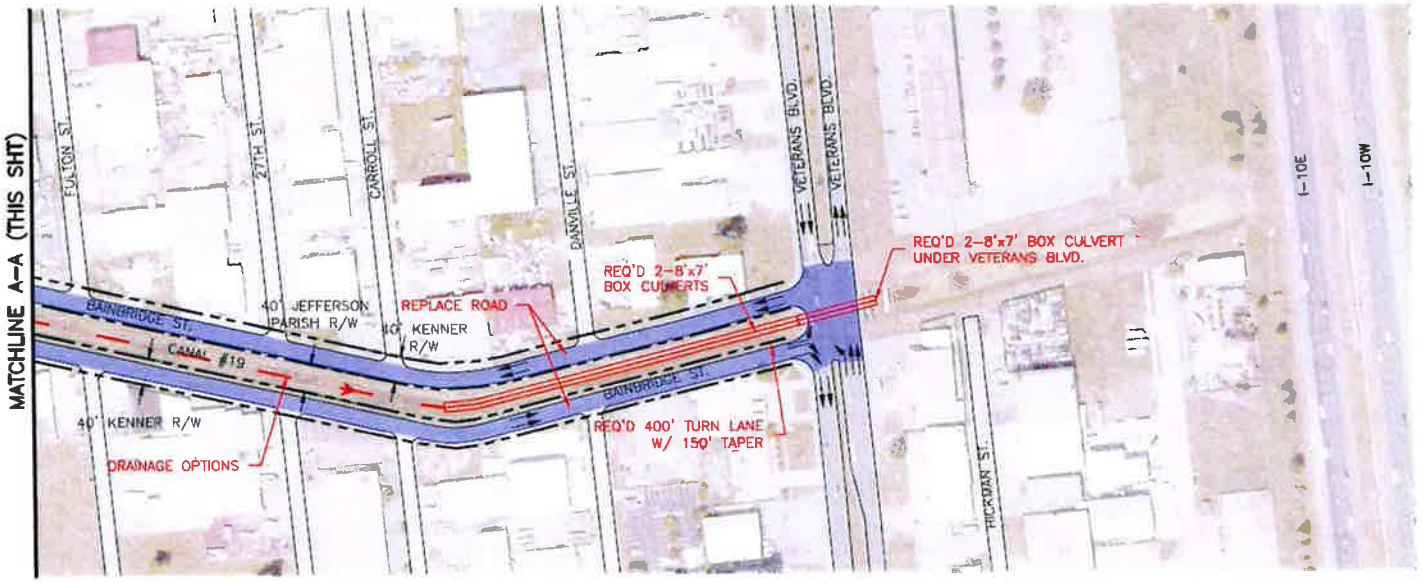
Design Options of Improvements

REPLACE BAINBRIDGE STREET

- PROBLEM:
  - CANAL #19 NEEDS TO BE STABILIZED TO PREVENT ROAD FROM FAILING.

ROAD RECOMMENDED IMPROVEMENTS





NOTE:
REQ'D SUBSURFACE DRAINAGE, SIDEWALKS, STREETLIGHTS, STREETSCAPING & LANDSCAPING ARE NOT SHOWN.

B-70

DRAINAGE FLOWS

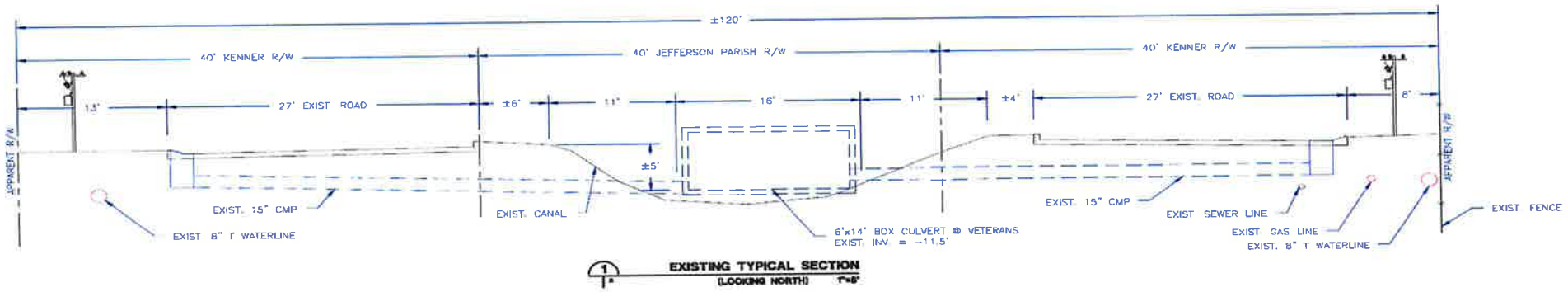
PREVIOUS DRAINAGE STUDY

- Shaw Coastal completed a drainage study for Canal #19 in 2012.
- Their recommendation:
  - 10-Year Flow based on 370 cfs @ Veterans based on Shaw Study.
  - Dual 8'x7' box culverts at Veterans to handle the flow.
  - Construct a 5'x32' wide U-Channel to maintain existing storage.

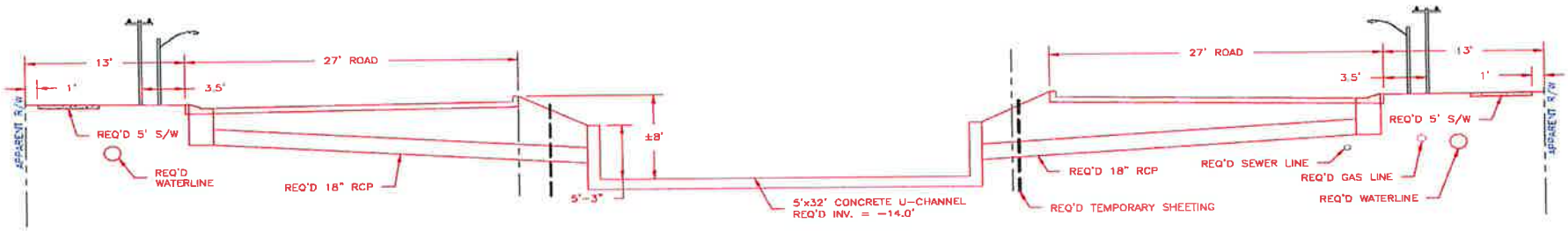
DRAINAGE OPTIONS

- Shaw recommends 5'x32' U-Channel
- Problem:
  - Expensive
  - Aesthetically unpleasing
- Options Meyer investigated:
  - Sheet Pile Wall
  - Dual 8'x15' Box Culverts
  - Dual 8'x7' Box Culverts
  - Earthen Canal Section (South of Canal #14 only)

U-CHANNEL & SHEET PILE WALL



1 EXISTING TYPICAL SECTION (LOOKING NORTH) 1"=5'



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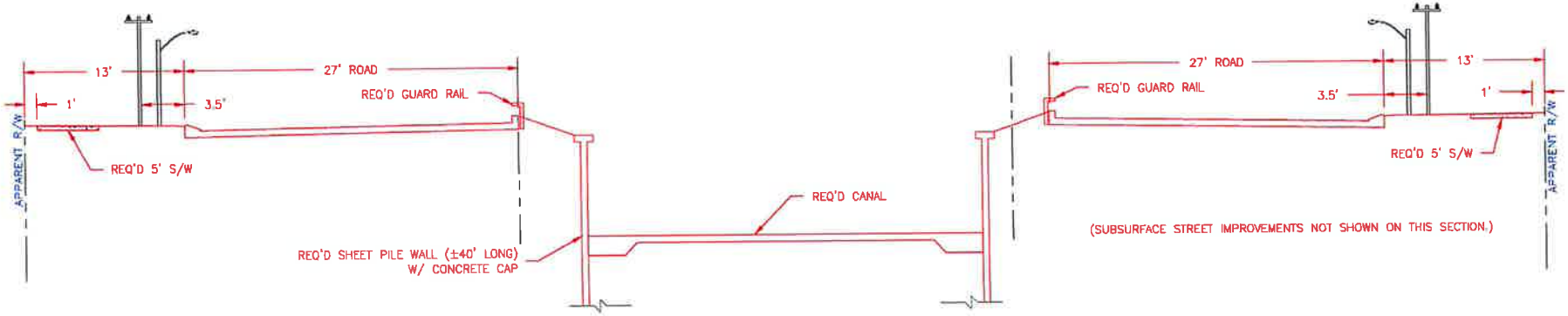


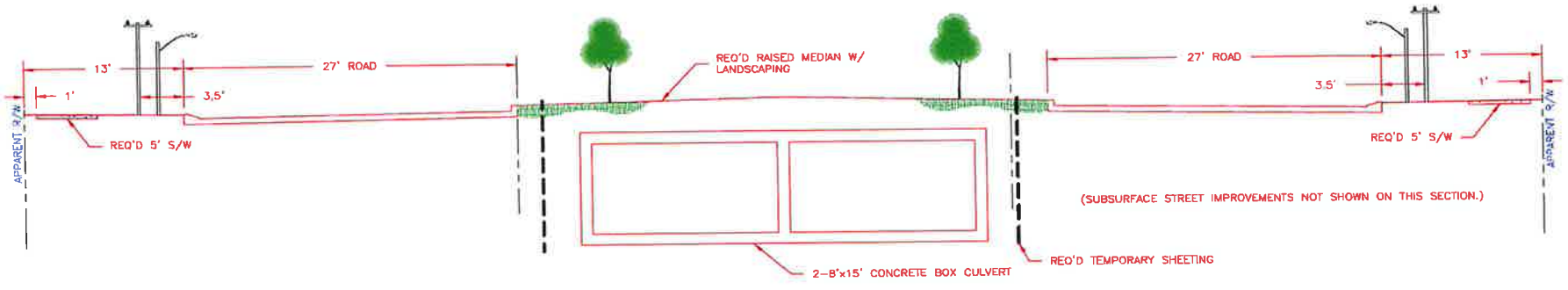
3 PROPOSED SECTION - OPTION B: SHEET PILE WALL (LOOKING NORTH) 1"=5'

U-CHANNEL - UNDER CONSTRUCTION AT GARDERE CANAL (NOTE THE TEMPORARY SHEETING)

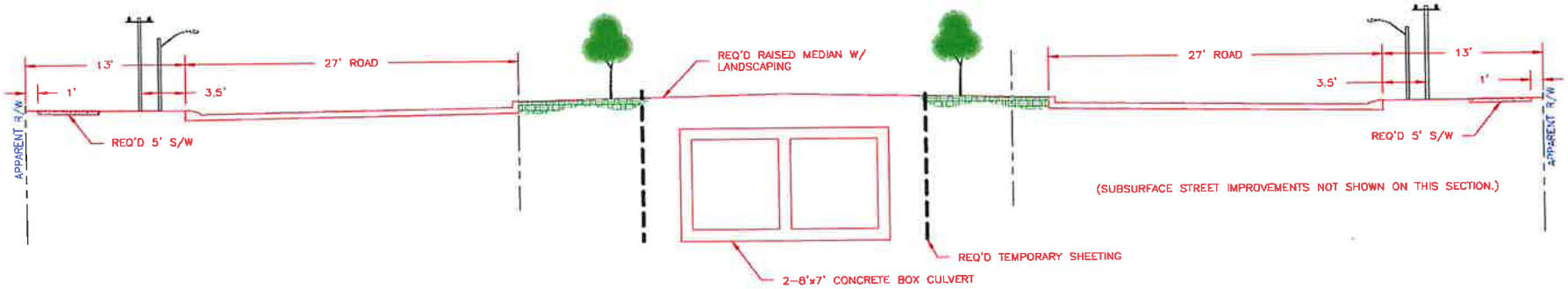
U-CHANNEL - GARDERE CANAL

SHEET PILE WALL SECTION WITH A CONCRETE CAP

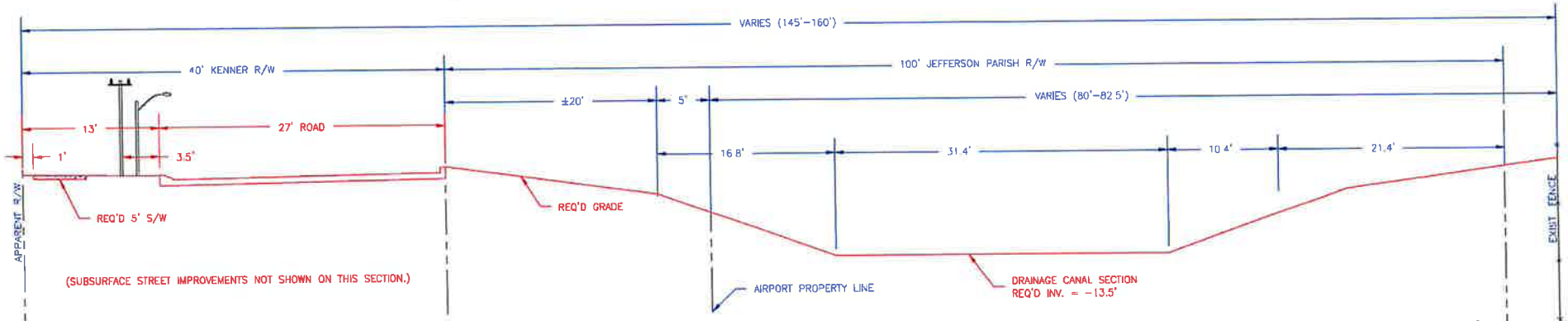
BOX CULVERT & EARTHEN SECTION



1 PROPOSED SECTION - OPTION C: 2-8'x15' CONCRETE BOX CULVERT
(LOOKING NORTH) 1"=5'

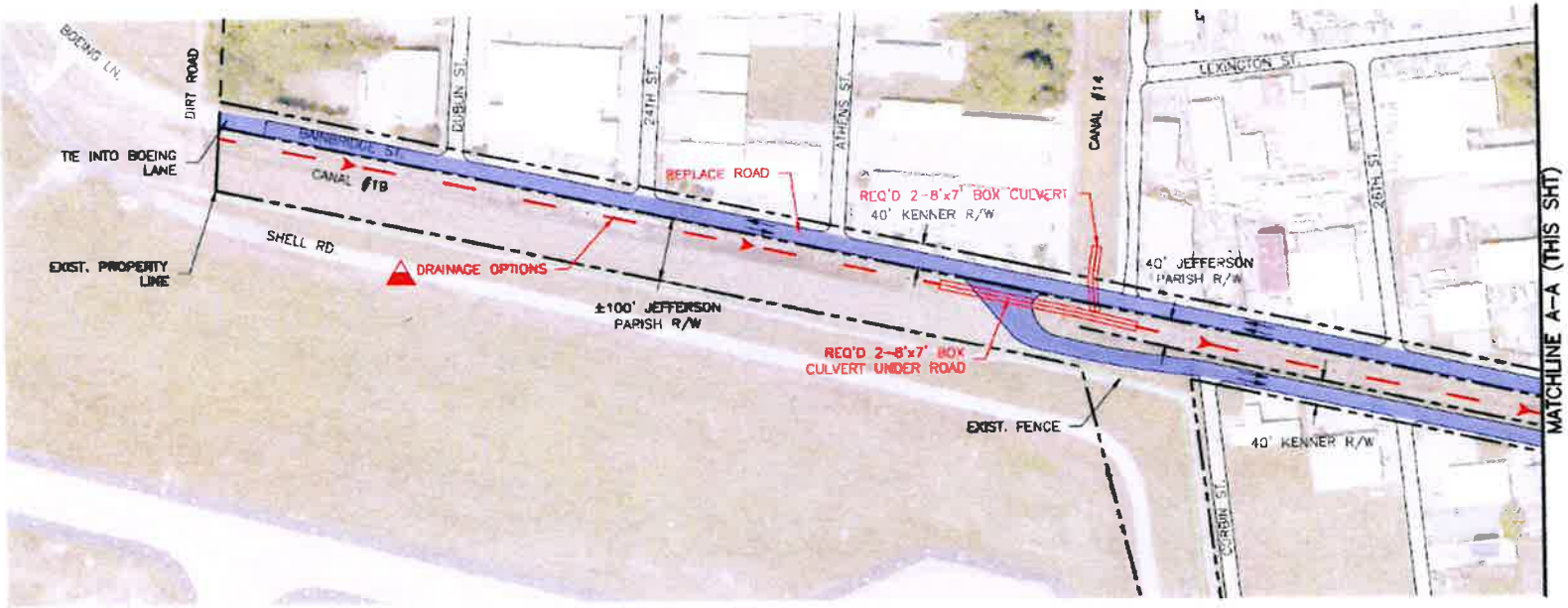


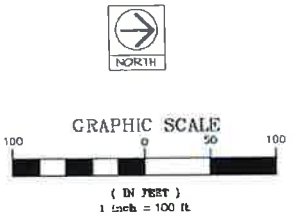
2 PROPOSED SECTION - OPTION D: 2-8'x7' CONCRETE BOX CULVERT
(LOOKING NORTH) 1"=5'

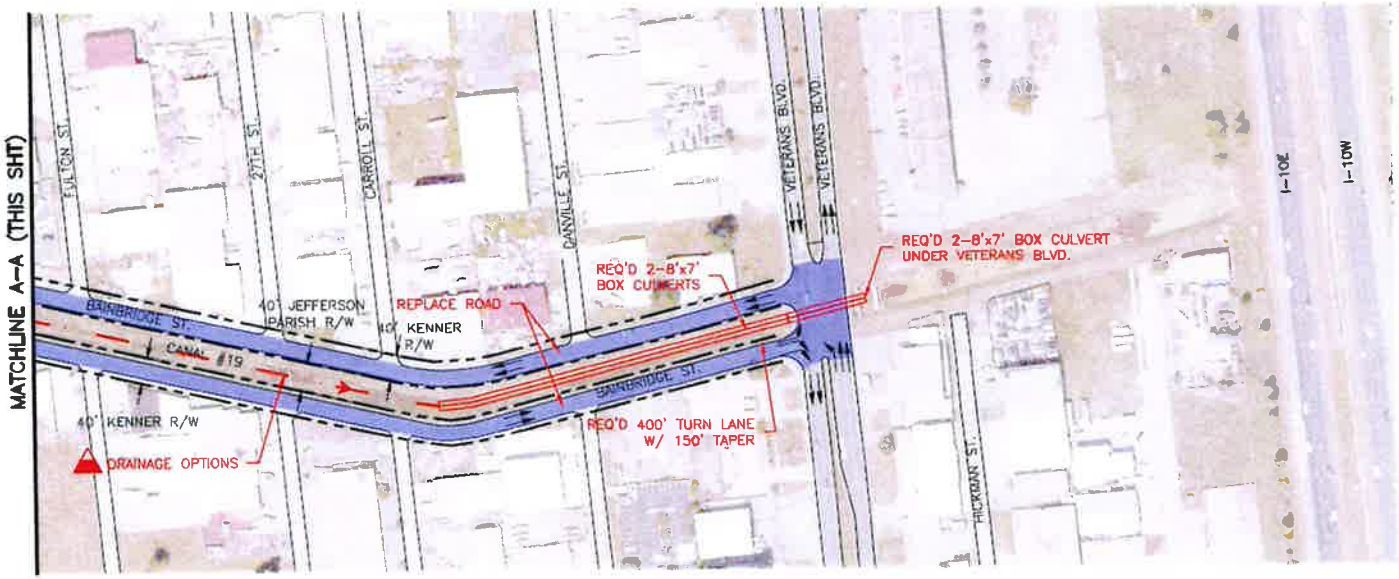


3 PROPOSED SECTION - OPTION E: EARTHEN CANAL SECTION (SOUTH OF CANAL #19 ONLY)
(LOOKING NORTH) 1"=5'

DRAINAGE OPTIONS







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DRAINAGE OPTIONS FOR CANAL #19 INCLUDE:

A. 5' x 32' CONCRETE U-CHANNEL
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D. DUAL – 8'x7' CONCRETE BOX CULVERTS
E. EARTHEN CANAL SECTION (SOUTH OF CANAL #14 ONLY) AND DUAL 8'x7' CONCRETE BOX CULVERTS (FROM VETS TO CANAL #14)

CONSTRUCTION ESTIMATES FOR OPTIONS

CONSTRUCTION ESTIMATES FOR OPTIONS

OPTION		STORAGE VOLUME IN CANAL (CUBIC FEET)	COMMENTS	CONSTRUCTION ESTIMATE (INCLUDES BAINBRIDGE STREET, VETERANS, AND DRAINAGE OPTIONS LISTED)
	EXISTING CANAL	773,600	-	-
A	**5' X 32' U-CHANNEL**	**917,000**	**VIABLE OPTION**	**$26,290,000**
B	SHEET PILE WALL	773,600	NOT AS AESTHETICALLY PLEASING AS U-CHANNEL	$26,050,000
C	**DUAL 8' X 15' BOX CULVERTS**	**822,000**	**AESTHETICALLY THE BEST SOLUTION**	**$32,050,000**
D	DUAL 8' X 7' BOX CULVERTS	383,600	REDUCES STORAGE TOO MUCH	$26,290,000
E	**EARTHEN CANAL SECTION (SOUTH OF CANAL #14), AND 8' X 7' BOX - (NORTH OF CANAL)**	**785,540**	**COST EFFICIENT, BUT LIMITS FUTURE WIDENING OF ROAD**	**$20,533,000**

COMMENTS

Contact:

David Dupre w/ Meyer Engineers, Ltd.

504-885-9892 or DDUPRE@MEYER-E-L.COM

APPENDIX C:

TRAFFIC ANALYSIS

I. PURPOSE AND NEED:

Due to the construction of New Terminal at New Orleans International Airport, the secondary access to the airport is being provided through Bainbridge Street. The purpose of this report is to evaluate the existing and future operations on Veterans Boulevard at Bainbridge Street and Airport Road, which is in the vicinity of proposed Bainbridge Street access.

II. TRAFFIC DATA COLLECTION:

2018 24-hour ADTs

ITS Regional conducted 24-hour automatic machine counts at five locations given below. This portion of the data collection task occurred during third week of November.

1) Between Veterans Boulevard and 27th Street (both sides of Canal)
2) Between 27th St. and Canal 14 (both sides of Canal)
3) Two lane, two way section south of Canal 14
4) Veterans Blvd. immediately east of Bainbridge
5) Veterans Blvd. immediately west of Bainbridge

Figure I illustrate the existing Year 2018 ADTs. A detailed account of the Average Daily Traffic (ADT) data is available upon request.

2018 Peak Hour Turning Movement Counts

Weekday AM and PM peak hour manual turning movement counts were conducted by ITS Regional at the two Study Area intersections. Data collection activities occurred from 6:30 AM to 9:30 AM and from 3:30 PM to 6:30 PM during first week of December, 2018. **Figure II and Figure IIA** illustrate the existing Year 2018 peak hour turning movement activity at each of the Study Area intersections. A detailed account of the turning movement count data is available upon request.

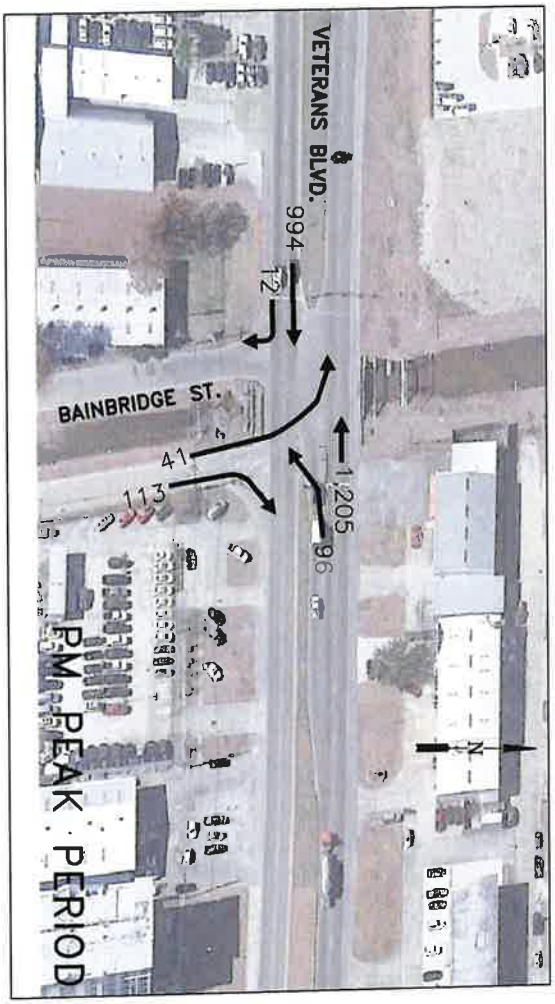
Projected Airport New Terminal trips for the AM and PM peak hour turning movement counts were provided by the Airport for the two Study Area intersections. **Figure III and Figure IIIA** illustrate the existing Year 2019 peak hour turning movement activity at each of the Study Area intersections.

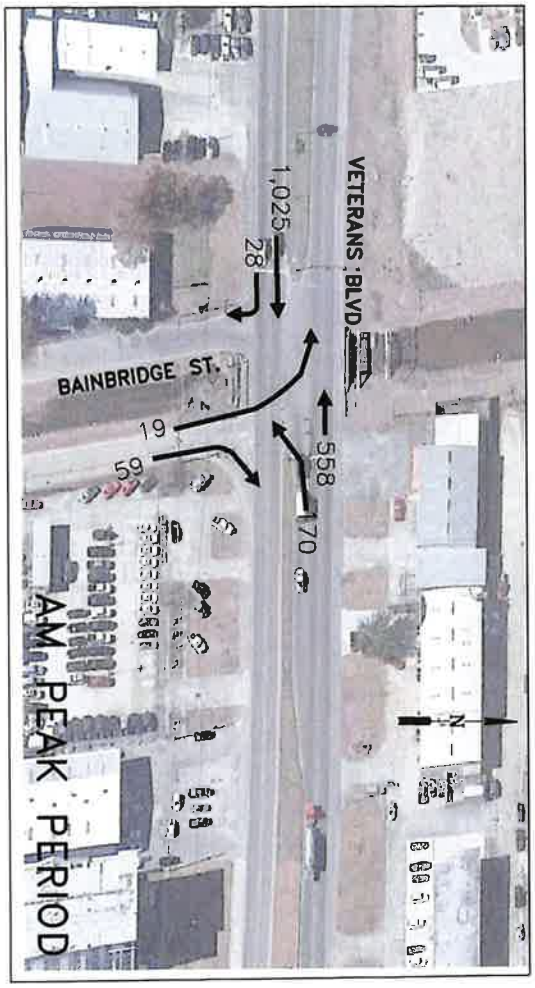
Weekday Projected Airport New Terminal trips and existing turning movement counts were added together for the AM and PM peak hour turning movement counts for the two Study Area intersections. **Figure IV and Figure IVA** illustrate the existing Year 2019 peak hour turning movement and the Airport New Terminal trips combined for each of the Study Area intersections.

The combined 2019 Weekday Projected Airport New Terminal trips and existing turning movement counts were projected to the design year 2039 for the AM and PM peak hour turning movement counts for the two Study Area intersections. **Figure V and Figure VA** illustrate the projected Year 2039 peak hour turning movement and the Airport New Terminal trips combined for each of the Study Area intersections.

FIGURE I

	INTERMODAL ACCESS / IMPACT STUDY BAINBRIDGE ACCESS TO LOUIS ARMSTRONG NEW ORLEANS INTERNATION AIRPORT JEFFERSON PARISH, LOUISIANA RPC TASK A-3.19; FY-19 UPWP	FIGURE I 2018 ADT'S



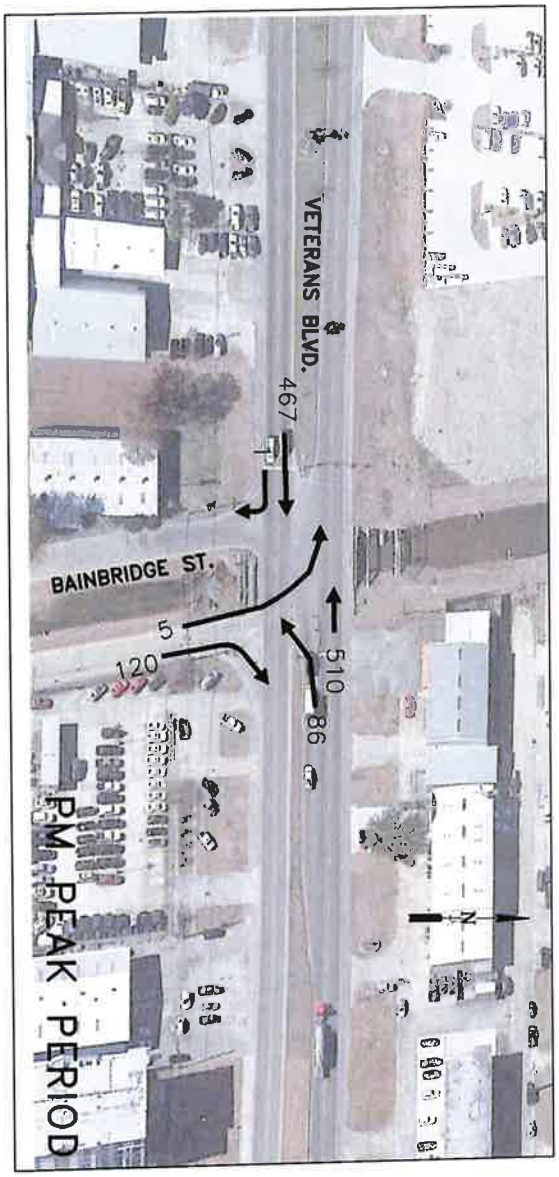


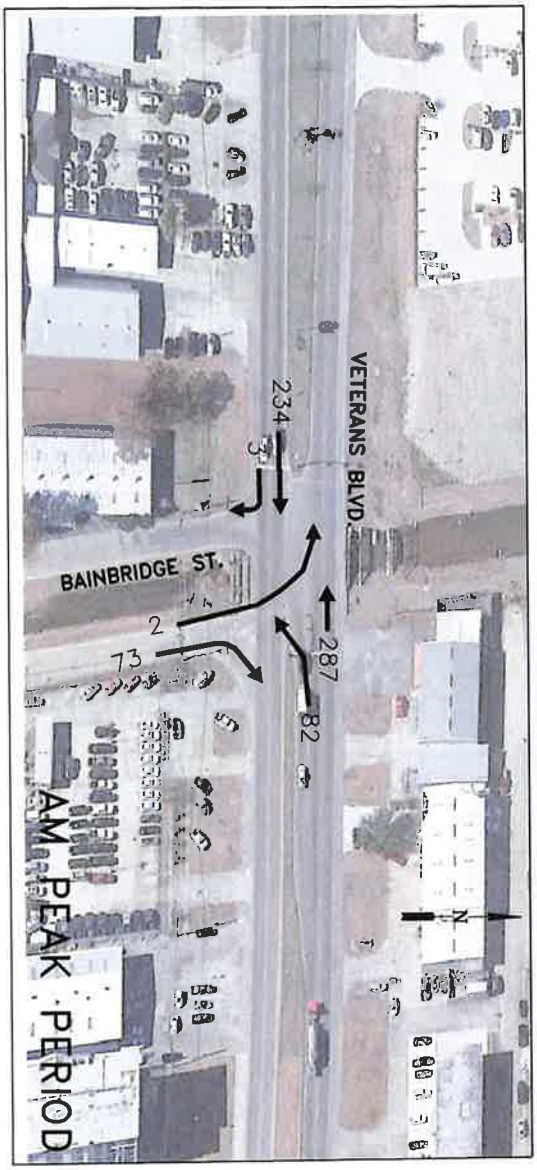
INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

FIGURE II
EXIISTING
2018
TMC

INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

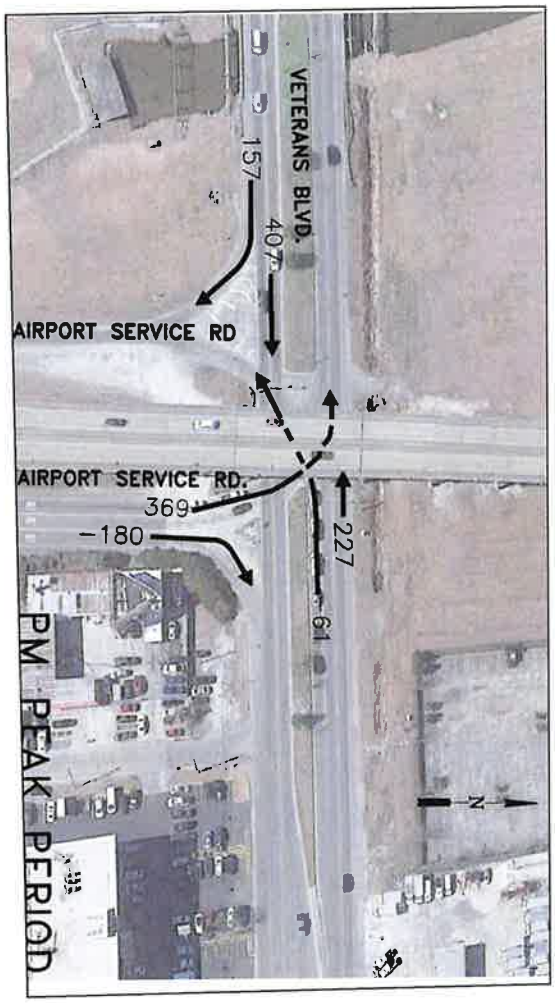
FIGURE IIA
EXIISTING
2018
TMC





INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

FIGURE III
AIRPORT
TRIPS
2019
TMC

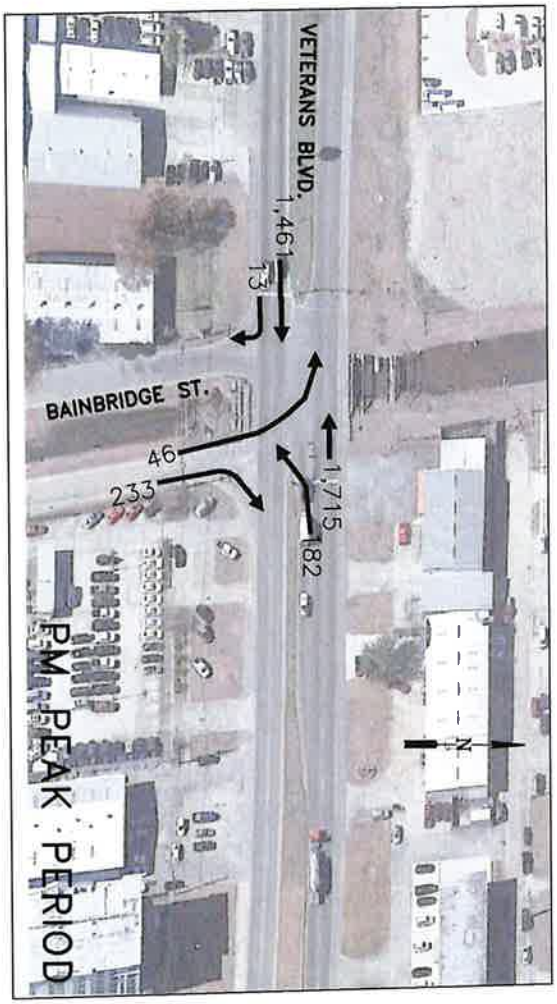


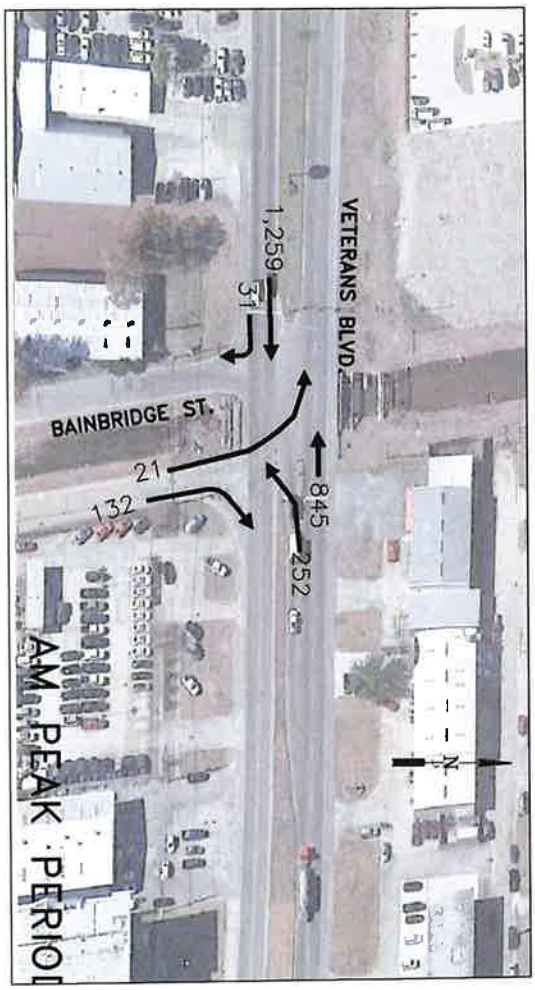
EXISTING TURNING MOVEMENT COUNTS

(YEAR 2018 TMC)

AM AND PM PEAK PERIODS

	INTERMODAL ACCESS / IMPACT STUDY BAINBRIDGE ACCESS TO LOUIS ARMSTRONG NEW ORLEANS INTERNATION AIRPORT JEFFERSON PARISH, LOUISIANA RPC TASK A-3.19; FY-19 UPWP	FIGURE IIIA AIRPORT TRIPS 2019 TMC

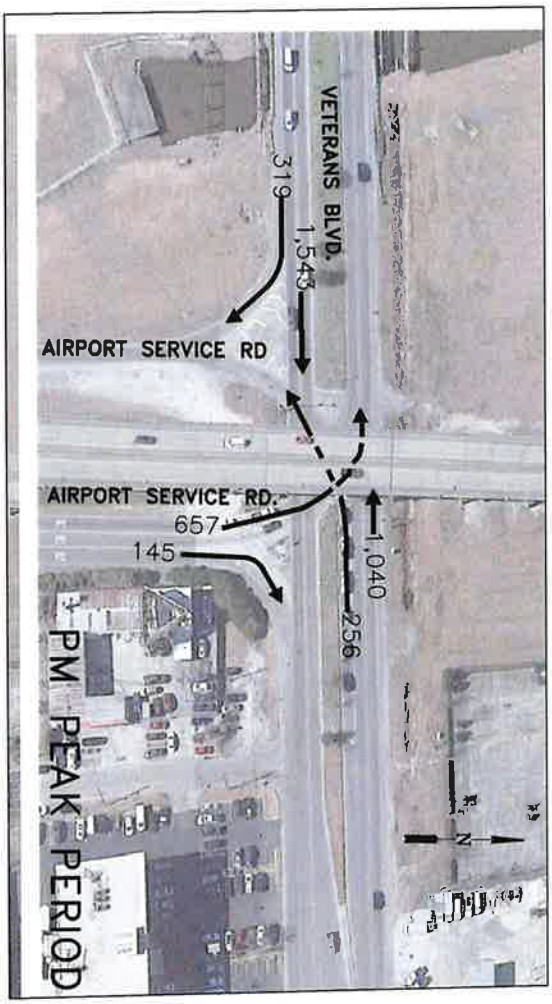


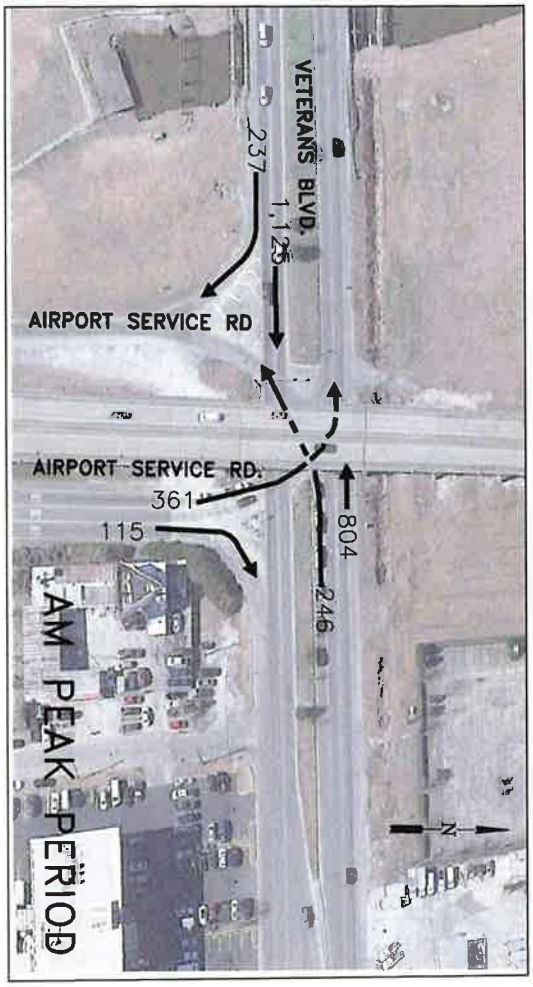


INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

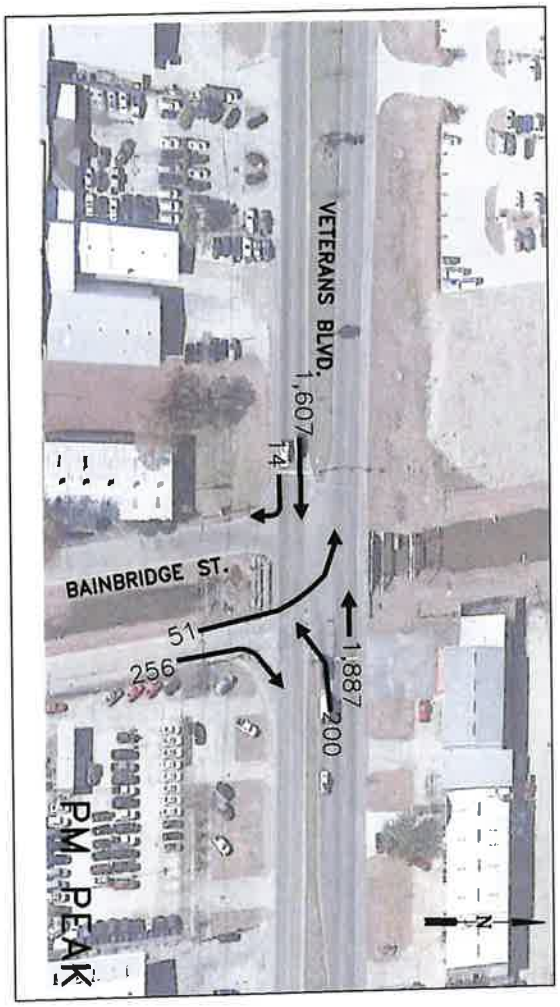
ITS REGIONAL, LLC.

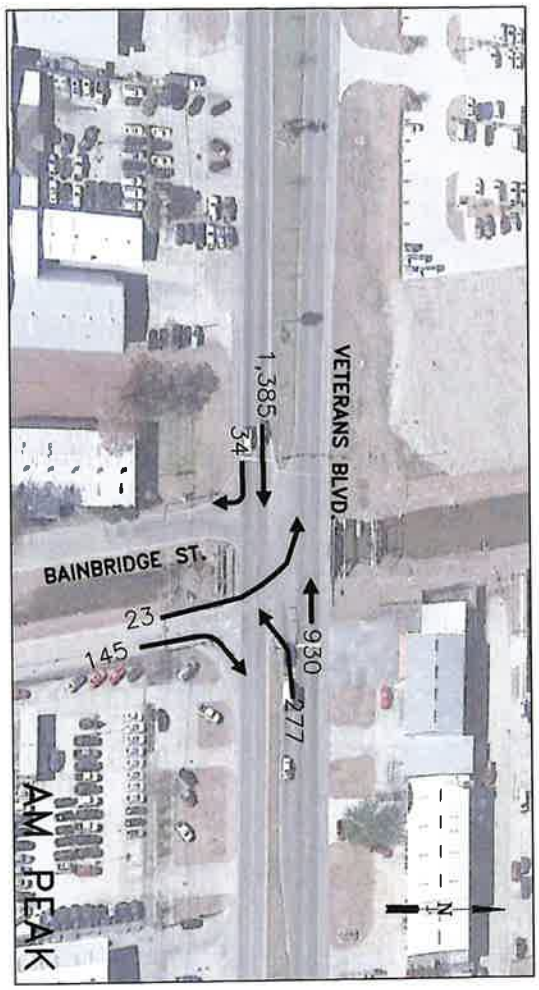
FIGURE IV
EXISTING + AIRPORT TRIPS
2019
TMC





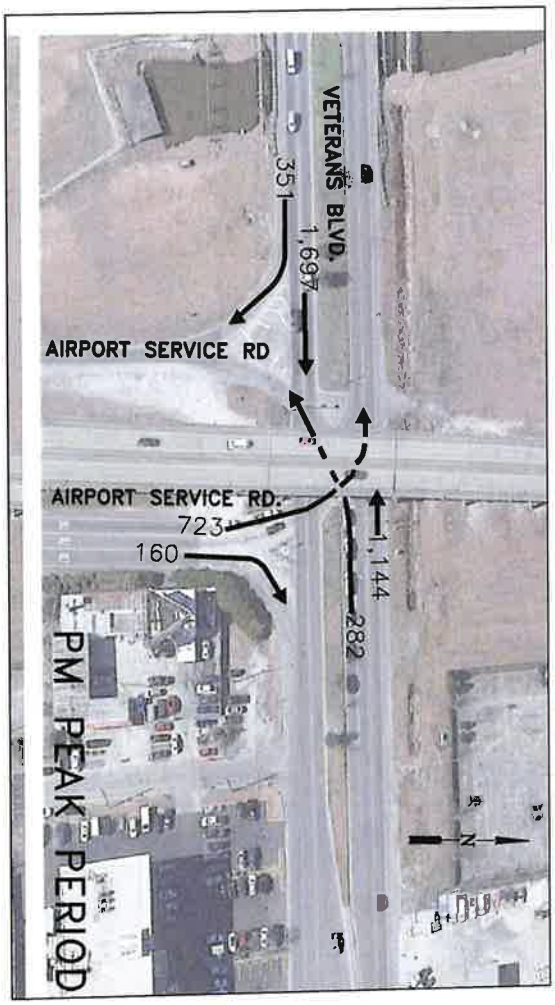
	INTERMODAL ACCESS / IMPACT STUDY BAINBRIDGE ACCESS TO LOUIS ARMSTRONG NEW ORLEANS INTERNATION AIRPORT JEFFERSON PARISH, LOUISIANA RPC TASK A-3.19; FY-19 UPWP	FIGURE IVA EXISTING + AIRPORT TRIPS 2019 TMC





INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

FIGURE V
PROJECTED
2039 TRIPS
TMC



INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

FIGURE VA
PROJECTED
2039 TRIPS
TMC

III. INTERSECTION ANALYSIS:

Analysis Methodology

The capacity of a highway system is predicated by two components: the capacity of the included roadway sections and the capacity of the affected intersections along the route. Intersecting roadways generally provide the initial constraint on a system's capacity. Efficiency at the intersections becomes the critical constraint for capacity. Vehicle interactions at these points must therefore be analyzed to assess the projected operation and capacity levels.

The metric for analyzing the capacity of signalized and unsignalized intersections employed in this study is the Intersection Capacity Utilization (ICU) and Highway Capacity Software (HCS). The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the Highway Capacity Manual published by the Transportation Research Board. Synchro 9 and Sidra were the software used for analyzing the operating conditions at the study area intersections. The procedure yields a Level of Service (LOS) rating as an indicator of how well intersections operate.

Based on the ICU metric, the concept of Level of Service is defined in terms of the ratio of intersection traffic volume to intersection capacity, measuring the amount of time required to serve all movements at saturation for a given cycle length relative to the cycle length itself. The equation for determining ICU LOS is as follows:

ICU = (max(tMin,v/s_i) * CL +

tL_i) / CL CL = Reference

Cycle Length
tL_i = Lost time for critical movement i
v/s_i = Volume to saturation flow rate, critical movement i tMin = Minimum green time, critical movement i

The resulting ratio serves as an indicator of how much reserve capacity is available at a given intersection, or, conversely, how much a given intersection is over capacity. These ratios translate to eight different LOS ratings. Each rating is represented by a letter designation, ranging from "A" to "H", with LOS "A" and "B" representing the best conditions (little or no congestion), LOS "C" and "D" indicating moderate congestion, LOS "E" and "F" exhibiting more severe congestion, and LOS "G" and "H" representing the worst conditions (excessive congestion).

It is important to note that ICU, unlike the traditional HCM measure, does not serve as an indicator of delay. Instead, ICU is based on the volume to capacity ratio at a given intersection. However, ICU is designed to be compatible with the HCM delay-based metric. Consequently, the ICU LOS analysis performed in this study will include information regarding expected delays at study intersections in addition to the ICU LOS analysis.

Further, a six-level LOS rating system (LOS "A" – LOS "F") has been employed to measure the capacity of the roadway itself, as the Highway Capacity Software (HCS) is a delay-based metric much like the HCM. Six Levels of Service, with corresponding levels of delay are defined and include letter designations, from "A" to "F", with LOS "A" representing the best conditions (little or no delay), LOS "C" average conditions, and LOS "F" the worst (excessive delay).

Table IA depicts ICU LOS criteria for intersection analysis. **Table IB** depicts LOS criteria for signalized intersections.

TABLE IA – INTERSECTION CAPACITY UTILIZATION (ICU) LEVEL OF SERVICE CRITERIA

Level of Service	ICU
A	0 to 55%
B	> 55% to 64%
C	>64% to 73%
D	>73% to 82%
E	>82% to 91%
F	>91% to 100%
G	>100% to 109%
H	>109%

LOS A, ICU ≤ 0.55: The intersection has no congestion. A cycle length of 80 seconds or less will move traffic efficiently. All traffic should be served on the first cycle. Traffic fluctuations, accidents, and lane closures can be handled with minimal congestion. This intersection can accommodate up to 40% more traffic on all movements.

LOS B, 0.55 ≤ ICU ≤ 0.64: The intersection has very little congestion. Almost all traffic will be served on the first cycle length. A cycle length of 90 seconds or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures can be handled with minimal congestion. This intersection can accommodate up to 30% more traffic on all movements.

LOS C, 0.64 ≤ ICU ≤ 0.73: This intersection has no major congestion. Most traffic should be served on the first cycle. A cycle length of 100 seconds or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures may cause some congestion. This intersection can accommodate up to 20% more traffic on all movements.

LOS D, 0.73 ≤ ICU ≤ 0.82: The intersection normally has no congestion. The majority of traffic should be served on the first cycle. A cycle length of 110 seconds or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures can cause significant congestion. Suboptimal signal timings cause congestion. This intersection can accommodate up to 10% more traffic on all movements.

LOS E, 0.82 ≤ ICU ≤ 0.91: The intersection is right on the verge of congested conditions. Many vehicles are not served on the first cycle. A cycle length of 120 seconds is required to move all traffic. Minor traffic fluctuations, accidents, and lane closures can cause significant congestion.

Suboptimal signal timings can cause significant congestion. This intersection has less than 10% reserve capacity available.

LOS F, 0.91 ≤ ICU ≤ 1.00: The intersection is over capacity and likely experiences congestion periods of 15 to 60 minutes per day. Residual queues at the end of green are common. A cycle length over 120 seconds is required to move all traffic. Minor traffic fluctuations, accidents, and lane closures can cause increased congestion. Suboptimal signal timings can cause increased congestion.

LOS G, 1.00 ≤ ICU ≤ 1.09: The intersection if 10% to 20% over capacity and likely experiences congestion periods of 60 to 120 minutes per day. Long queues are common. A cycle length over 120 seconds is required to move all traffic. Motorists may be choosing alternate routes, if they exist, or making fewer trips during the peak hour. Signal timings can be used to "ration" capacity to the priority movements.

LOS H, 1.09 < ICU: The intersection is 20% over capacity and could experience congestion periods of over 120 minutes per day. Long queues are common. A cycle length over 120 seconds is required to move all traffic. Motorists may be choosing alternate routes, if they exist, or make fewer trips during the peak hour. Signal timings can be used to "ration" capacity to the priority movements.

TABLE IB – HCM LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS	
Level of Service	**Control Delay per Vehicle (sec)**
A	≤ 10
B	>10 to ≤ 20
C	> 20 to ≤ 35
D	> 35 to ≤ 55
E	> 55 to ≤ 80
F	> 80

IV. BAINBRIDGE OPERATIONS ANALYSIS:

ITS Regional, LLC performed operations analysis of study area intersections along Veterans Boulevard at Bainbridge Street and Veterans Boulevard at Airport Road for different scenarios. Synchro 9 was used to perform analysis at the intersections and Highway Capacity Software (HCS) was used to perform highway analysis in the study area. The Synchro Capacity Analysis worksheets and HCS worksheets are available upon request.

EXISTING CONDITIONS (2018):

The Scenario consists of Existing (2018) volumes and lane configuration at the study intersections. The Delay and Level of Service (LOS) results are presented in the Table 1 below:

TABLE 1 - 2018 EXISTING CONDITIONS LEVEL OF SERVICE

INTERSECTION	TYPE OF CONTROL	APPROACH	MOVEMENT	2018 EXISTING	
				AM	PM
VETERANS BLVD AT BAINBRIDGE	SIGNALIZED	EB	EB TR	B (13.6)	B (12.3)
		OVERALL APPROACH LOS		B (13.6)	B (12.3)
		WB	WBL	D (47.7)	D (44.5)
			WBT	A (2.5)	A (4.4)
		OVERALL APPROACH LOS		B (13.1)	A (7.3)
		NB	NBL	D (44.9)	D (43.7)
			NBR	D (44.1)	D (42.3)
		OVERALL APPROACH LOS		D (44.3)	D (42.7)
		OVERALL LOS		**B (14.7)**	**B (11.6)**
VETERANS BLVD AT AIRPORT RD	SIGNALIZED	EB	EB TR	B (17.7)	C (30.6)
		OVERALL APPROACH LOS		B (17.7)	C (30.6)
		WB	WBL	D (54.7)	E (56.6)
			WBT	A (3.2)	A (4.6)
		OVERALL APPROACH LOS		B (18.2)	B (19.2)
		NB	NBL	D (45.3)	D (47.0)
			NBR	C (24.0)	C (23.4)
		OVERALL APPROACH LOS		D (35.3)	C (34.5)
		OVERALL LOS		**C (20.3)**	**C (27.1)**

*Delays in sec/veh

PROJECTED CONDITIONS (2019, 2039) WITH EXISTING GEOMETRY:

There are two scenarios analyzed, first Scenario consists of Projected airport trips for the year 2019 added to existing volumes and in the second scenario, the overall 2019 volumes projected till 2039 using a growth rate of 0.2% annually. The scenarios are analyzed using existing lane configuration at the study intersections. The Delay and Level of Service (LOS) results are presented in the Table 2 below:

TABLE 2 - PROJECTED CONDITIONS LEVEL OF SERVICE - EXISTING GEOMETRY

INTERSECTION	TYPE OF CONTROL	APPROACH	MOVEMENT	2019 PROJECTED - EXISTING GEOMETRY		2039 PROJECTED EXISTING GEOMETRY	
				AM	PM	AM	PM
VETERANS BLVD AT BAINBRIDGE	SIGNALIZED	EB	EB TR	C (26.3)	B (18.1)	D (38.3)	C (22.0)
		OVERALL APPROACH LOS		C (26.3)	B (18.1)	D (38.3)	C (22.0)
		WB	WBL	D (48.8)	F (84.9)	D (48.2)	F (83.0)
			WBT	A (2.6)	A (2.6)	A (2.7)	A (3.0)
		OVERALL APPROACH LOS		B (13.2)	B (10.5)	B (13.2)	B (10.7)
		NB	NBL	D (36.0)	E (67.5)	D (36.1)	E (67.6)
			NBR	D (35.9)	E (65.4)	D (35.9)	E (65.2)
		OVERALL APPROACH LOS		D (35.9)	E (65.7)	D (36.0)	E (65.6)
		OVERALL LOS		**C (21.2)**	**B (17.8)**	**C (27.3)**	**B (19.4)**
VETERANS BLVD AT AIRPORT RD	SIGNALIZED	EB	EB TR	D (36.5)	F (114.1)	D (40.8)	F (165.1)
		OVERALL APPROACH LOS		D (36.5)	F (114.1)	D (40.8)	F (165.1)
		WB	WBL	D (52.3)	F (101.4)	E (63.1)	F (164.0)
			WBT	A (4.5)	B (10.6)	A (4.8)	B (12.3)
		OVERALL APPROACH LOS		B (15.7)	C (28.5)	B (18.4)	D (42.3)
		NB	NBL	E (55.5)	E (76.9)	E (69.1)	F (82.0)
			NBR	B (18.8)	C (27.3)	B (18.7)	C (27.7)
		OVERALL APPROACH LOS		D (46.6)	E (67.9)	E (56.9)	E (72.2)
		OVERALL LOS		**C (30.6)**	**E (76.7)**	**D (35.3)**	**F (106.1)**

*Delays in sec/veh

V. PROPOSED IMPROVEMENTS:

Due to the projected traffic in future conditions, ITS Regional proposes the following geometric improvements at the study area intersections for them to perform at acceptable level of service.

Veterans Blvd at Bainbridge Rd:
EB: Add an extra through lane
WB: Add an extra left turn lane and a through lane
NB: Add an extra right turn lane

The proposed improvements are depicted in **Figure VI**.

INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

FIGURE VI
PROPOSED
BAINBRIDGE
IMPROVEM.

Veterans Blvd at Airport Rd:
EB: Add an extra through lane
WB: Add an extra through lane
NB: Add an extra left turn lane

The proposed improvements are depicted in **Figure VII**.

INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

FIGURE VII
PROPOSED
AIRPORT RD.
IMPROVEM.

PROJECTED CONDITIONS (2019, 2039) WITH PROPOSED GEOMETRY:

There are two scenarios analyzed, first Scenario consists of Projected airport trips for the year 2019 added to existing volumes and in the second scenario, the overall 2019 volumes projected till 2039 using a growth rate of 0.2% annually. The scenarios are analyzed using the proposed lane configuration at the study intersections. The Delay and Level of Service (LOS) results are presented in the Table 3 below:

TABLE 3 - PROJECTED CONDITIONS LEVEL OF SERVICE - WITH IMPROVEMENTS

INTERSECTION	TYPE OF CONTROL	APPROACH	MOVEMENT	2019 PROJECTED IMPROVED GEOMETRY		2039 PROJECTED IMPROVED GEOMETRY	
				AM	PM	AM	PM
VETERANS BLVD AT BAINBRIDGE	SIGNALIZED	EB	EB TR	B (13.3)	B (13.3)	B (14.4)	B (14.4)
		OVERALL APPROACH LOS		B (13.3)	B (13.3)	B (14.4)	B (14.4)
		WB	WBL	D (47.8)	D (46.1)	D (47.4)	D (46.6)
			WBT	A (2.3)	A (2.7)	A (2.3)	A (2.9)
		OVERALL APPROACH LOS		B (12.7)	A (6.9)	B (12.6)	A (7.1)
		NB	NBL	D (36.3)	D (37.2)	D (36.4)	D (37.3)
		NB	NBR	D (35.8)	D (36.0)	D (35.9)	D (35.9)
		OVERALL APPROACH LOS		D (35.9)	D (36.2)	D (35.9)	D (36.1)
		OVERALL LOS		**B (14.4)**	**B (11.7)**	**B (14.9)**	**B (12.3)**
VETERANS BLVD AT AIRPORT RD	SIGNALIZED	EB	EB TR	C (25.4)	C (26.8)	C (30.4)	D (37.5)
		OVERALL APPROACH LOS		C (25.4)	C (26.8)	C (30.4)	D (37.5)
		WB	WBL	D (43.0)	D (52.8)	D (45.9)	E (78.1)
			WBT	A (3.6)	A (5.2)	A (3.7)	A (5.6)
		OVERALL APPROACH LOS		B (12.8)	B (14.6)	B (13.6)	B (19.9)
		NB	NBL	D (40.1)	D (50.3)	D (41.8)	E (57.4)
			NBR	B (18.6)	B (17.4)	B (18.2)	B (17.6)
		OVERALL APPROACH LOS		C (34.9)	D (44.3)	D (36.1)	D (50.2)
		OVERALL LOS		**C (22.4)**	**C (26.4)**	**C (25.2)**	**C (34.3)**

*Delays in sec/veh

VI. HCS MULTILANE CAPACITY ANALYSIS:

Highway Capacity Software (HCS) was used to perform the capacity analysis of Multilane Highway for two-scenarios with 4-lane and 6-lane highway segment on Veterans Blvd between Bainbridge Rd and Airport Rd during 2018, 2019 and 2039. Tables 4, 5 and 6 below, depict the density on roadway during both scenarios.

TABLE 4 - MULTILANE HIGHWAY ANALYSIS

Year	B/W Bainbridge and Airport Rd			
	EB		WB	
	AM	PM	AM	PM
2018 (4-Lanes)	B (12.1)	B (16.1)	A (9.0)	B (16.1)
2018 (6 - Lanes)	A (8.0)	A (10.7)	A (6.0)	A (10.7)

*Density in (pc/ln/hr)

TABLE 5 - MULTILANE HIGHWAY ANALYSIS

Year	B/W Bainbridge and Airport Rd (4 -Lanes)			
	EB		WB	
	AM	PM	AM	PM
2019	B (17.2)	C (21.0)	B (12.8)	C (23.5)
2039	C (18.9)	C (23.0)	B (14.9)	C (25.8)

*Density in (pc/ln/hr)

TABLE 6 - MULTILANE HIGHWAY ANALYSIS

Year	B/W Bainbridge and Airport Rd (6 -Lanes)			
	EB		WB	
	AM	PM	AM	PM
2019	B (11.5)	B (14.0)	A (9.0)	B (15.6)
2039	B (12.6)	B (15.4)	A (10.0)	B (17.2)

*Density in (pc/ln/hr)

As shown on Table 6, with the addition of an extra lane between Williams Blvd. and Dawson St. on the eastbound and westbound direction along Veterans Blvd. the capacity of Veterans and the LOS will be greatly improved. From the HCS Multilane Analysis, density decreases with increase in number of lanes and hence, the highway performs better in the future conditions with more volumes.

The proposed improvements along Veterans Blvd. are depicted in **Figure VIII**.

INTERMODAL ACCESS / IMPACT STUDY
BAINBRIDGE ACCESS TO
LOUIS ARMSTRONG
NEW ORLEANS INTERNATION AIRPORT
JEFFERSON PARISH, LOUISIANA
RPC TASK A-3.19; FY-19 UPWP

FIGURE VIII
PROPOSED
VETERANS BLVD.
IMPROVEM.

APPENDIX D:

Excerpt from

DRAINAGE IMPROVEMENTS TO

BAINBRIDGE CANAL (CANAL NO. 19)

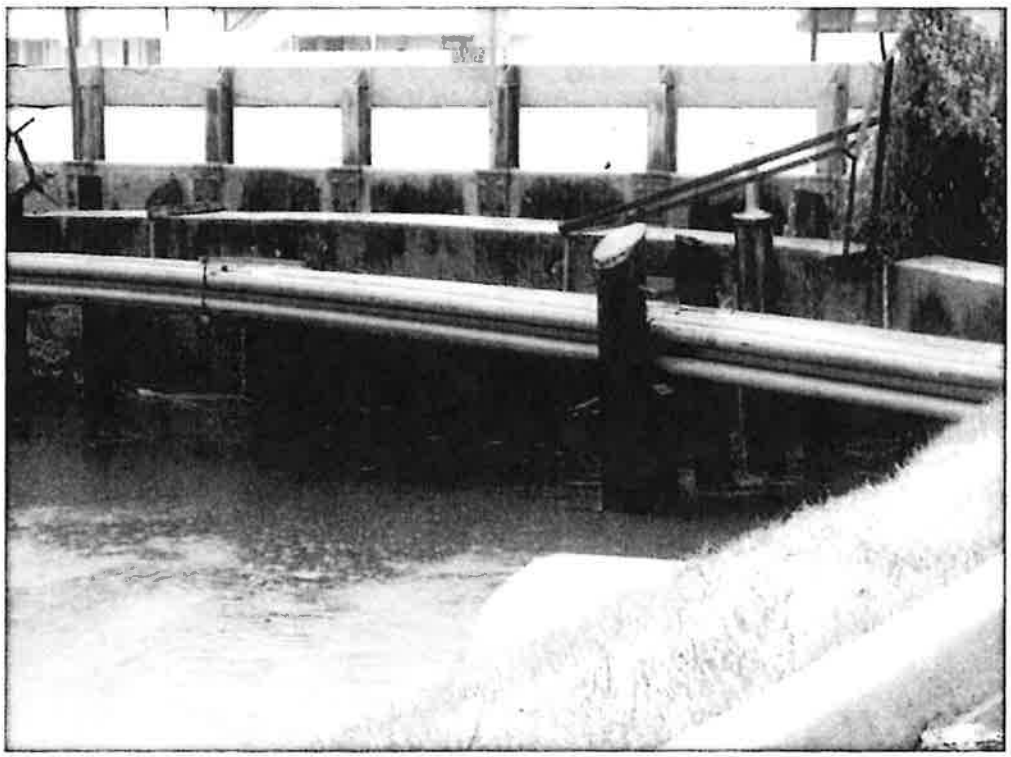
by SHAW COASTAL, INC.

Shaw® Shaw Coastal, Inc.

Shaw Coastal, Inc.
Three Lakeway Center, Suite 3200
3838 North Causeway Boulevard
Metairie, Louisiana 70002

Drainage Improvements to Bainbridge Canal (Canal No.19) (Between Veterans Memorial Blvd. and Canal No.14)

Shaw Coastal, Inc. Project No. 13774801



MARCH, 2012

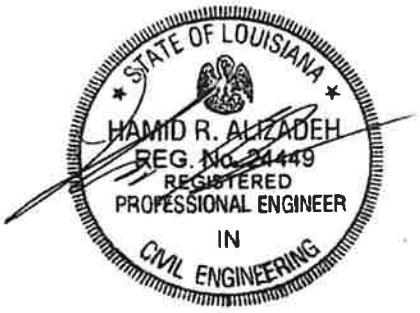


Table II.2: Illustration of Improvement I Condition vs. Improvement II, Option 2 Flow Parameters

STATION of Cross-Section	FLOW RATE Cubic Feet per Second (CFS)	IMPROVEMENT I		IMPROVEMENT II, OPTION 2	
		Velocity (FPS)	Water Surface Elevation	Velocity Feet / Sec (FPS)	Water Surface Elevation
0+00	380 CFS	1.58 FPS	-7.50 FT NAVD	1.58 FPS	-7.50 FT NAVD
2+05	380 CFS	1.35 FPS	-7.48 FT NAVD	1.35 FPS	-7.48 FT NAVD
4+04	380 CFS	1.36 FPS	-7.47 FT NAVD	1.36 FPS	-7.47 FT NAVD
5+93	380 CFS	2.07 FPS	-7.48 FT NAVD	2.07 FPS	-7.48 FT NAVD
5+98	V.M.B. Culvert	3.55 FPS	-7.48 FT NAVD	3.55 FPS	-7.48 FT NAVD
6+94	V.M.B. Culvert	3.62 FPS	-7.26 FT NAVD	3.62 FPS	-7.21 FT NAVD
7+00	370 CFS	2.49 FPS	-7.26 FT NAVD	1.80 FPS	-7.21 FT NAVD
8+47	370 CFS	2.63 FPS	-7.24 FT NAVD	1.74 FPS	-7.21 FT NAVD
10+45	370 CFS	2.67 FPS	-7.18 FT NAVD	1.66 FPS	-7.20 FT NAVD
12+97	370 CFS	1.97 FPS	-7.08 FT NAVD	1.65 FPS	-7.19 FT NAVD
14+57	370 CFS	1.74 FPS	-7.04 FT NAVD	1.64 FPS	-7.18 FT NAVD
16+57	370 CFS	1.51 FPS	-7.01 FT NAVD	1.62 FPS	-7.17 FT NAVD
18+59	370 CFS	1.46 FPS	-7.00 FT NAVD	1.61 FPS	-7.17 FT NAVD
20+54	370 CFS	1.55 FPS	-6.99 FT NAVD	1.63 FPS	-7.16 FT NAVD
22+62	370 CFS	1.56 FPS	-6.97 FT NAVD	1.62 FPS	-7.15 FT NAVD
24+58	370 CFS	1.54 FPS	-6.96 FT NAVD	1.62 FPS	-7.15 FT NAVD
26+52	370 CFS	1.74 FPS	-6.95 FT NAVD	1.81 FPS	-7.14 FT NAVD

Improvement II, Option 3

"Option 3" modeled a 40' wide "U Channel", which increased channel storage volume by approximately 100,000 cubic feet; however, SCI observed that geometric restrictions of the existing roadways would prove to be problematic. "Option 3" would prove to be quite expensive to build with the walls being over 6' high and the channel bottom being 40' wide; the observed reduction in upstream water elevations would be negligible between "Option 2" and "Option 3". Therefore, "Option 3" was deleted from any further consideration during this Evaluation Study.

Conclusion and Recommendations

It is clear, from visual inspection alone, that the initial improvement recommendation should consist of an upgrade to the box culverts running under Veterans Memorial Boulevard. It is SCI's opinion that an upgrade to the box culvert structure beneath Veterans Memorial Boulevard is critical to upgrading Bainbridge Canal, and would provide the greatest benefit to mitigate drainage problems within the Bainbridge Canal drainage sub-basin. This would reduce constrictions currently seen and lower the water surface elevation on the upstream side of the roadway. Additional recommendation options consist of lining the canal with a concrete "U" shape flume section located upstream of Veterans Memorial Boulevard. This would allow for less frictional loss, and increase the amount of storm water that could be drained through the canal. Various sizes of "U" shape flume section were analyzed to determine the appropriate recommendation.

After evaluating the entire Bainbridge Canal existing condition and several options Shaw Coastal, Inc. recommends an upgrade of the box culverts to two 8' wide by 7' high box culverts at Veterans Memorial Boulevard, to reduce some of the issues that are occurring right now in the Bainbridge Canal. The current structure is restricting flow and increasing water surface levels upstream of Veterans Memorial Boulevard. Additionally, the existing drainage structure is accelerating the flow of water as it passes through, causing turbulent flow and reducing the efficiency of the entire canal. Upgrading the size of this structure and lowering its invert elevation will eliminate the constrictive effect it is now causing, which will help the canal to drain the area more efficiently, and lower its upstream water surface elevation.

If Jefferson Parish has been experiencing any maintenance issues with reference to slope stability in the upstream reaches of Bainbridge Canal, then Shaw Coastal, Inc. also recommends installing a cast-in-place concrete "U Channel" in the upstream section of the Bainbridge canal. The best option for the "U Channel" would be Improvement II, Option 2, having a 32' wide bottom opening. It satisfies the existing canal storage volume requirements, actually increasing it by roughly 22,000 cubic feet, and it is cheaper to build than the 40' version. The walls would need to be 5'-3" tall, but the bottom slab would be reduced 8' from the 40' wide alternative. This would prove to be more economical and fits better with the existing roadway geometry.

This option will provide the most cost effective solution, while allowing for greater capacity and slope stability within the canal itself. It should be noted that SCI does not recommend Improvement II, Option 1, because it would eliminate some of the existing storage capacity within the channel, thus possibly exacerbating the existing drainage problems. Also, SCI does not recommend Improvement II, Option 3, because it would result in higher "U" channel wall heights in order to match the existing side slope profiles, which would prove to be more costly than Improvement II, Option 2, and its greater width may prove to be problematic, given the geometric restrictions inherent in the existing adjacent roadway surfaces that run contiguous to both high banklines of Bainbridge Canal.

Conceptual Design cost estimates for Improvement I and for Improvement I with Improvement II, Option 2 included, are depicted in the Engineer's Opinion of Probable Construction Costs attached hereto as Appendix "E".

APPENDIX E:

STAGE 0 CHECKLISTS

- **Stage 0 Preliminary Scope and Budget Checklist**
- **Stage 0 Environmental Checklist**

STAGE 0
Preliminary Scope and Budget Checklist
Urban Systems Program
MPO Area: Jefferson Parish

A. Project Background

Project Name (40 characters max.) Bainbridge Industrial District Improvements

District 02 Parish Jefferson

City/Town Kenner Local Road Name Bainbridge Street

If project is on a state route: Route: _____ Control Section: _____

Begin Log Mile: ____ End Log Mile: _____

List study team members: Meyer Engineers, Ltd. and ITS Regional, LLC.

Who is the sponsor of the study? City of Kenner

Has someone on the sponsor's staff attended the LPA Certification class? Yes

Sponsor DUNS#:____

Date Study Completed: April 2019

Describe the existing facility:

Functional classification: Urban minor collector

Number and width of lanes: 4 lanes – 12' Wide

Shoulder width and type: 0' Mode: Vehicular

Access control: N/A ADT: 2,220 Posted Speed: 20 mph

Describe any existing pedestrian facilities (ADA compliance should be considered for all improvements that include pedestrian facilities): There are some sections of existing four foot (4') wide concrete sidewalk on the west side of Bainbridge Street south of Fulton Street.

Describe the adjacent land use: Mostly commercial with some industrial and undeveloped sections.

Will this project be adding miles to the state highway system (new alignment, new facility)? If yes, has a transfer of ownership been initiated with the appropriate entity? No

Are there recent, current or near future planning studies or projects in the vicinity? Yes

If yes, please describe the relationship of this project to those studies/projects. Construction of the new terminal at the Louis Armstrong New Orleans International Airport is underway. The airport's primary access route via Loyola Drive and Aberdeen Street is recently under construction also and will be completed in two phases. The first phase will be the construction of a four-lane, divided road bracketed by sound walls from Veterans Memorial Boulevard and Loyola Drive to run alongside Aberdeen Street to the new terminal. The second phase would see the intersections of Veterans and Loyola and I-10 and Loyola tweaked to accommodate the road. Bainbridge is planned to be the secondary access road to the new airport terminal. Ultimately, a third phase will provide a more efficient means of access to the new airport terminal when the I-10/Loyola interchange improvements are in place.

Provide a brief chronology of these planning study activities: The new terminal at the Louis Armstrong New Orleans International Airport began construction in January 2016 and is scheduled to open in fall 2019. The airport's primary access route via Loyola Drive and Aberdeen Street started construction in January 2019. The first phase will be the construction of a four-lane, divided road bracketed by sound walls from Veterans Memorial Boulevard and Loyola Drive to run alongside Aberdeen Street to the new terminal. The second phase would see the intersections of Veterans Memorial Boulevard and Loyola Drive and I-10 and Loyola Drive. South of I-10, Loyola Drive is planned to be tweaked to accommodate the road. Bainbridge is planned to be the secondary access road to the new airport terminal and would follow the previous projects mentioned above. Construction for the I-10/Loyola interchange improvements should begin summer of 2019 and is expected to be complete by the summer of 2023.

B. Purpose and Need

State the Purpose (reason for proposing the project) and Need (problem or issue)/Corridor Vision and a brief scope of the project. Also, identify any additional goals and objectives for the project. The purpose of the project is to accommodate additional anticipated traffic related to the use of Bainbridge Street as the secondary access to the new airport terminal. Improvements to Bainbridge Street are needed because the amount of traffic and types of vehicles planned to use Bainbridge Street are significantly different from its current use. The scope of work is

to construct a four lane divided roadway for Bainbridge Street along with street lights, utility replacement, additional turn lanes, sidewalks, landscaping and box culverts at the center and at the intersection of Veterans Memorial Boulevard. The existing roadway is a four lane divided roadway. No additional through lanes are proposed. However, additional turn lanes are recommended.

C. Agency Coordination

Provide a brief synopsis of coordination with federal, tribal, state and local environmental, regulatory and resource agencies. A Project Management Committee was formed to guide planning, analysis, review findings, and develop recommendations. It consisted of representatives from the Regional Planning Commission, DOTD, New Orleans Aviation Board, Kenner and Jefferson Parish. Kickoff meetings and review meetings were held in order to coordinate with the agencies on the Project Management Committee.

What transportation agencies were included in the agency coordination effort? Transportation agency coordination included Regional Planning Commission, New Orleans Aviation Board and DOTD.

C. Agency Coordination (Continued)

Describe the level of participation of other agencies and how the coordination effort was implemented.
Kenner and Jefferson Parish also participated to provide their requirements for the project because the roadway is owned and maintained by Kenner and the drainage canal is owned and maintained by Jefferson Parish.

What steps will need to be taken with each agency during NEPA scoping?
Agencies will receive plans for review and comment. They will be invited to review and comment in order to participate in the project.

D. Public Coordination

Provide a synopsis of the coordination effort with the public and stakeholders; include specific timelines, meeting details, agendas, sign-in sheets, etc. (if applicable).
A kick-off meeting was held with the RPC and the Project Management Committee in November 2018 in order to introduce them to the purpose and need for the project and discuss design issues. An additional kick-off meeting was also held in November 2018 with the RPC, PMC and the New Orleans Aviation Board to discuss the airport's anticipated needs. Following data gathering, traffic counting and field observations, the Project Management Committee met to analyze the data, review the findings and discuss the alternatives in January 2019. Conceptual plans were developed. A Power Point presentation was given at a PMC meeting in February 2019, which also included elected officials to represent their constituents. The alternatives considered and their probable construction costs were presented at this meeting. The PMC representatives gave their input for the alternatives considered and the recommended improvements. A draft Stage 0 Feasibility Study and conceptual plans were prepared and submitted to RPC in April 2019. Meeting memos and sign-in sheets are included in the Stage 0 Feasibility Report. No public meetings have been held because the project is still in the feasibility study phase.

E. Project Scope, Range of Alternatives, Alternative Evaluation and Screening

Provide a project scope and give a description of the project concept for each alternative studied.

What are the major design features of the proposed facility? Attach a vicinity map showing project limits. If applicable also attach an aerial photo with concept layout.
Currently, Bainbridge Street is a four (4) lane divided roadway from Veterans Memorial Boulevard to Canal No. 14 and a two (2) lane roadway from Canal No. 14 to the Boeing Lane. After reviewing the anticipated traffic needs, no additional lanes were recommended. However, an additional 400' long right turn lane with a 150' taper was recommended along Bainbridge Street to turn eastbound onto Veterans Memorial Boulevard. An additional left turn lane is also recommended from the west bound Veterans Memorial Boulevard to turn southbound onto Bainbridge Street.
The major design features for the proposed roadway facility are a concrete roadway with street lights, utility replacement, traffic signals, sidewalks, signage and landscaping. RPC funds will only be used for roadway-related improvements.
Drainage options along Bainbridge Street were evaluated to address Canal No. 19, which is in the center of the divided roadway north of Canal No. 14 and then runs along the eastern side of Bainbridge Street south of Canal

No. 14. Alternative canal sections considered north of Canal No. 14 were U-channel, box culverts and sheet pile walls. Also, an earthen canal section was considered south of Canal No. 14.
Shaw Coastal, Inc. completed a study in 2012 for Drainage Improvements to Bainbridge Canal (Canal No. 19) (Between Veterans Blvd. and Canal No. 14). Shaw Coastal recommended a 5' high by 32' wide U- channel as the most cost effective solution to provide slope stability and provide a slightly increased capacity of the canal. Jefferson Parish Drainage Department officials also recommended double 8' x 15' concrete box culverts so that the cross sectional area of the canal would not be reduced. Other canal sections considered under this feasibility study were sheet pile walls, an earthen cross section and doing nothing to the canal. The dual 8' by 15' box culverts were the recommended canal section. A vicinity map is included in the Stage 0 Feasibility Study. These major design features are shown on the conceptual plans included in the Stage 0 Feasibility Study.

Will design exceptions be required? No design exceptions are required.

Follow this link to view LADOTD Minimum Design Guidelines:
http://www.dotd.louisiana.gov/highways/project_devel/design/road_design/Memoranda/English_Design_Guidelines.pdf

What impact would this project have on freight movements? This project will not have any adverse impacts on freight movements.

Does this project cross or is it near a railroad crossing? No

DOTD's "Complete Streets" policy should be taken into consideration. Per the policy, any exception for not accommodating bicyclists, pedestrians and transit users will require the approval of the DOTD chief engineer. For exceptions on Federal-aid highway projects, concurrence from FHWA must also be obtained. In addition any exception in an urbanized area, concurrence from the MPO must also be obtained. Follow this link to view the policy: http://www.dotd.la.gov/programs_grants/completestreets/documents/cs-la-dotpolicy.pdf

- Describe how the project will implement the policy or include a brief explanation of why implementing the policy would not be feasible. The DOTD and Regional Planning Commission Complete Streets policies were taken into consideration by adding sidewalks for pedestrian and bicycle traffic to utilize the corridor.

How are Context Sensitive Solutions (CSS) being incorporated into the project? For more information on CSS follow this link: http://www.dotd.la.gov/administration/policies/DOTD_CSS_Policy_20060526.pdf.

The proposed improvements integrate into the existing fabric of the right-of-way, buildings and landscape. The project will have minimal impact on the surroundings by being built within the existing right-of-way.

E. Project Scope, Range of Alternatives, Alternative Evaluation and Screening (Continued)

Was the DOTD's "Access Management" policy taken into consideration? If so, describe how. (See EDSM IV.2.1.4 for more information.) N/A

Were any safety analyses performed? If so describe results and attach documentation. For safety analysis guidance follow this link: http://www.dotd.la.gov/planning/highway_safety/home.aspx?key=3

No

Are there any abnormal crash locations or overrepresented crashes within the project limits? No

What future traffic analyses are anticipated? A traffic study was conducted on existing and future traffic conditions. No further analyses are anticipated.

Will fiber optics be required? If so, are there existing lines to tie into? N/A

Are there any future ITS/traffic considerations? Future traffic considerations for 2039 were projected for Bainbridge Street based on the airport's anticipated use of Bainbridge Street as a secondary access to the new airport terminal.

What is the required Transportation Management Plan (TMP) level as defined by EDSM No. VI.1.1.8? 2

- Is this project considered significant as defined in EDSM No. VI.1.1.4? No

- If yes, describe the mobility and safety analysis and assessment that was conducted as required in the development of a TMP. _____

_____

- What further data will need to be collected to address the content and scope of the TMP in the design stage/phase of this project? N/A

Was Construction Transportation Management/Property Access taken into consideration? N/A

Were alternative construction methods considered to mitigate work zone impacts? N/A

Describe screening criteria used to compare alternatives and from what agency the criteria were defined.
Alternatives were screened for safety, feasibility, improvements to intermodal circulation, design form, aesthetics and public acceptance as defined by Regional Planning Commission.

Give an explanation for any alternative that was eliminated based on the screening criteria.
The canal sections considered in the median of the divided roadway such as U-channel, sheet pile walls and earthen sections were eliminated by the PMC due to safety, feasibility, cost, public acceptance and aesthetics.

Which alternatives should be brought forward into NEPA and why? The recommended alternative to bring forward is constructing the four (4) lane divided roadway with turn lanes, street lights, sidewalk, landscaping, signage and dual 8' high by 15' wide box culverts in the center because the PMC felt that it was the safest, most cost-effective, aesthetically pleasing and publicly accepted alternative presented.

Did the public, stakeholders and agencies have an opportunity to comment during the alternative screening process? Yes

Describe any unresolved issues with the public, stakeholders and/or agencies.
There are no unresolved issues with the public, stakeholders and/or agencies.

F. Planning Assumptions and Analytical Methods

What is the forecast year used in the study? 2039

What method was used for forecasting traffic volumes? TRANSCAD model by RPC

Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long range transportation plan? Yes

What future year policy and/or data assumptions were used in the transportation planning process as they are related to land use, economic development, transportation costs and network expansion? Future traffic counts were provided by the New Orleans Aviation Board since they will control the access of Bainbridge Street as the secondary access to the airport. They provided the expected type and number of vehicles to use Bainbridge Street. After the new airport terminal opens, the land use and economic development of the area may change but is not expected to change significantly.

G. Potential Environmental Impacts

The Stage 0 Environmental Checklist is attached.

H. Schedule Planner Worksheet

The Schedule Planner Worksheet is attached.

I. Budget/Cost Estimate

Provide a cost estimate for each feasible alternative:

Phase	Total Estimated Cost	Funding Source (STP>200K, STP<200K, CMAQ, DEMO, DOTD Priority Program, Local)	Match Provided By (City, Parish, State, Other)	TIP Fiscal Year
Environmental (document, mitigation, etc.)	$29,000	RPC, DOTD, NOAB, Kenner & Jefferson Parish	-	2020
Engineering Design	$2,226,000	RPC, DOTD, NOAB, Kenner & Jefferson Parish	-	2020
R/W Acquisition (C of A if applicable)	$0	-	-	-
Utility Relocations	$70,000	RPC, DOTD, NOAB, Kenner & Jefferson Parish	-	2021
Construction	$22,260,000	RPC, DOTD, NOAB, Kenner & Jefferson Parish	TBD	2021
Construction Engineering & Inspection Services	$1,600,000	RPC, DOTD, NOAB, Kenner & Jefferson Parish	-	2021
TOTAL COST	$26,185,000			

ATTACH ANY ADDITIONAL DOCUMENTATION

Disposition (circle one): (1) Advance to Stage 1 (2) Hold for Reconsideration (3) Shelve

Schedule Planner Worksheet			
Stage	**Range of Time (months)**	**Estimated Time (months)**	
		Min.	Max.
Stage 0 - Planning			
MPO - Urban Systems Program			
Selection Process (MPO)	4 - 12 months	4	12
Develop Stage 0 Check list (LPA)	Up to 3 months	0	3
Approval of Stage 0 Checklist (DOTD)	3 - 6 months	3	6
DOTD project number assigned (DOTD)	1 day - 2 weeks	0	0.5
Total MPO - Urban Systems		**7**	**21.5**
Other Programs			
Develop Application (LPA)	1-3 months	1	3
Selection Process (DOTD)	2-6 months	2	6
Total Other Programs		**3**	**9**
Stage 1 - Environmental			
MPO - Urban Systems Program			
Complete traffic studies, *if needed*	3 - 12 months		
Prepares environmental document (LPA)	2 months - 12 months	2	12
CE Soliciation of Views (LPA)	2 - 3 months		
Process & obtain **federal** approval of the document (DOTD)	2 -3 months	2	3
CE Approved (DOTD)	1 - 2 months		
PCE (DOTD clears)	1 -2 month		
Total MPO - Urban Systems		**4**	**15**
Other Programs			
Prepares environmental document (LPA)	1-3 months	1	3
CE Soliciation of Views (LPA)	2-3 months		
Process & obtain federal approval of the document (DOTD)	2-3 months	2	3
CE Approved (DOTD)	1-2 months		
PCE (DOTD clears)	1-2 months		
Total Other Programs		**3**	**6**
Stage 2 - Funding			
Approval by Council (match)	dependent upon LPA		
TIP Amendments	1 - 4 months		
Stage 3 - Preconstruction			
Consultant Selection & Contract			
DOTD Selects (Fed money)			

Submits scope of services and man-hours (LPA)	1 - 2 months	1	2
Reviews scope and man-hours (DOTD)	1 - 2 months	1	2
Prepares & advertises contract (DOTD)	1 month	1	1
Selects the consultant with input from entity (DOTD)	5 months	5	5
Prepares contract (DOTD)	1 - 1 1/2 months	1	1.5
Executes contract (LPA)	1 month	1	1
Provides schedule & budget (LPA)	throughout the life of the contract		
Reviews, approves & transmits invoices to DOTD (LPA)	monthly basis		
Processes & pays invoices (DOTD)	1 month		
Monitors the contract time & requests any extensions /suspensions (LPA)	throughout the life of the contract		
Total additional time if DOTD selects consultant		**10**	**12.5**
LPA Pays (Selects)			
Preliminary Plans			
MPO - Urban System Projects			
Completes predesign form (LPA)	1 week	0.25	0.25
Schedules & chairs predesign meeting (DOTD)	2 weeks	0.5	0.5
Attends predesign meeting (LPA)	1 day		
30% Submittal	1 month	1	1
30% Review	1 1/2 - 2 months	1.5	2
60% Submittal (Geometrics, Hydraulic)	1 month	1	1
60% Review (DOTD)	1 1/2 - 2 months	1.5	2
90% Submittal (required for all submittals)	1 month	1	1
Schedules & chairs PIH (DOTD)	2 - 3 months	2	3
DOTD distributes Field Inspection notes	1 month	1	1
100% Submittal - LPA reviews plans to ensure comments have been incorporated*	1 month	1	1
Total - MPO - Urban Systems Preliminary Plan Development		**10.75**	**12.75**
Other Programs			
90-95% Submittal (LPA)	3 - 6 months	3	6
90-95% Review	2 - 3 months	2	3
Field Inspection	2 - 3 months	2	3
Total - Other Programs Preliminary Plan Development		**7**	**12**
Final Plans			
MPO - Urban System Program			
60% Submittal (Geometrics, Hydraulic)	1 month	1	1
60% Review (DOTD)	1 1/2 - 2 months	1.5	2
Advanced Check Print (95%) Submittal (LPA)	1 month	1	1
Advanced Check Print (95%) Review (DOTD)	2 - 3 months	2	3
100% Submittal -stamped, signed & dated final plans, cost estimate & calculations (LPA)	1 - 3 month	1	3
Total - MPO - Urban Systems Final Plan Development		**6.5**	**10**
Other Programs			

90-95% Submittal (ACP) - LPA reviews plans to ensure comments have been incorporated	1 - 3 months	1	3
90-95% Review (ACP) - DOTD verifies all comments have been incorporated	1 - 3 months	1	3
100% Submittal -(LPA submits final documentation with all needed information - stamped, signed & dated final plans, cost estimate & calculations)	1 - 3 months	1	3
Total - Other Programs Final Plan Development		**3**	**9**
Throughout Plan Development required items that can be process coincidentally but must be completed prior to 100% plan submittal			
Entity-State Agreement Processing (DOTD)	1-3 months		
Entity-State Agreement Processing (Entity)	2-5 months		
Obtain all Permits (Environmental & RR) (LPA)	6-12 months		
RR Agreement (Start in Stage 0 - Finish in final plans) (LPA)	6 - 12 months		
Utility Agreements (clearances & certification documentation) (LPA)	6 - 12 months		
Ensures permits & utility clearances are obtained (DOTD)	1 month		
Completes non-standard pay item request (LPA)	2 months		
Processes non-standard pay item requests (DOTD)	2 months		
Right-of-way Maps	6 months		
Right-of-way Purchase	6 - 12 months		
Stage 4 - Letting			
Bid Package Preparation	3 months	3	3
Advertised	1 month	1	1
Bid/Bid Review	1 month	1	1
Award/Execute Contract (Notice of Contract Execution NOCE)	1 month	1	1
Project Set-up Meeting prior to preconstruction conference (DOTD & LPA)	At least 2 weeks before Preconstruction Conference		
Preconstruction Conference	Is scheduled prior to the NTP		
NTP	Max 1 month from NOCE	0	1
Total - Letting		**6**	**7**
Stage 5 Constructon			
Construction of project	3-36 months	3	36
Final Inspection	0.5 months	0.5	0.5
Project Closeout	1 month	1	1
Total		**4.5**	**37.5**

STAGE 0
Environmental Checklist

Route: Bainbridge Street Parish: Jefferson Parish

C.S. N/A Begin Log mile: N/A End Log mile: N/A

ADJACENT LAND USE: Commercial, Industrial and Undeveloped Land

Any property owned by a Native American Tribe?
(Unknown) If so, which Tribe? _____

Any property enrolled into the Wetland Reserve Program?
(Unknown) If so, give the location. Note: The Agricultural Act of 2014 repealed the Wetland Reserve Program (WRP) but does not affect the validity or terms of any WRP contract, agreement or easement entered into prior to the date of enactment on February 7, 2014 or any associated payments required to be made in connection with an existing WRP contract, agreement or easement. However, the Natural Resource Conservation Service no longer provides geographic information for WRP easements on its website. This information would have to be obtained through a search of property records at the Jefferson Parish Clerk of Court.

Are there any other known wetlands in the area?
(N) If so, give the location. _____

Community Elements: Is the project impacting or adjacent to any (if the answer is yes, list names and locations):
(N) Cemeteries
(N) Churches
(N) Schools
(Y) Public Facilities (i.e., fire station, library, etc.) Adjacent to Louis Armstrong International Airport
(N) Community water well/supply

Section 4(f) issue: Is the project impacting or adjacent to any (if the answer is yes, list names and locations):
(N) Public recreation areas _____
(N) Public parks _____
(N) Wildlife Refuges _____
(N) Historic Sites _____

Is the project impacting, or adjacent to, a property listed on the National Register of Historic Places? (N) Is the project within a historic district or a national landmark district? (N) If the answer is yes to either question, list names and locations below:

Do you know of any threatened or endangered species in the area? (N)
If so, list species and location. _____

Does the project impact or adjacent to a stream protected by the Louisiana Scenic Rivers Act? (N) If yes, name the stream. _____

Are there any Significant Trees as defined by EDSM I.1.1.21 within proposed ROW? (N) If so, where? _____

What year was the existing bridge built? N/A

Are any waterways impacted by the project considered navigable? (N) If unknown, state so, list the waterways:

Hazardous Material: Have you checked the following DEQ and EPA databases for potential problems? (If the answer is yes, list names and locations.)
(N) Leaking Underground Storage Tanks _____
(N) CERCLIS _____
(N) ERNS _____

(N) Enforcement and Compliance History _____

Underground Storage Tanks (UST): Are there any Gasoline Stations or other facilities that may have UST on or adjacent to the project? (N) _____
If so, give the name and location: The closest gasoline station with a UST is an Exxon and is approximately 900' away from the project at the intersection of Veterans Memorial Blvd. and Marietta Street.

Any chemical plants, refineries or landfills adjacent to the project? (N) Any large manufacturing facilities adjacent to the project? (N) Dry Cleaners? (N) If yes to any, give names and locations: _____

Oil/Gas wells: Have you checked DNR database for registered oil and gas wells? (N) List the type and location of wells being impacted by the project. No oil and gas wells are anticipated in the project vicinity.

Are there any possible residential or commercial relocations/displacements? (N)
How many? _____

Do you know of any sensitive community or cultural issues related to the project? (N)
If so, explain.

Is the project area population minority or low income? (Y) Poverty thresholds are updated each year by the Census Bureau for statistical purposes; this measure is not the same—although they do correlate—with poverty guidelines issues by the Department of Health and Human Services for administrative purposes. Persons with incomes below the poverty level (<1 times the poverty rate) are categorized as very low-income. Persons with incomes at the poverty level (ratio of 1:1) and less than twice the poverty level (ratio of <2:1) are considered to be relatively low-income. These categories combined are used to express the proportional level of low-income persons living in the project area.

The estimated percentage of persons with incomes below the poverty level in 2012-2016 in the State of Louisiana is 19.7. Relatively low-income populations comprise of 17.1 percent of the state population. Jefferson Parish has between 15.6% and 18.6% of its citizens in poverty.

What type of detour/closures could be used on the job? The adjacent streets could be used as needed for detour/ closures.

Did you notice anything of environmental concern during your site/windshield survey of the area? If so, explain below.
No

David H. Dupre, P.E.
Point of Contact

504-885-9892
Phone Number

April 22, 2019
Date

STAGE 0
Environmental Checklist

General Explanation:

To adequately consider projects in Stage 0, some consideration must be given to the human and natural environment which will be impacted by the project. The Environmental Checklist was designed knowing that some environmental issues may surface later in the process. This checklist was designed to obtain basic information, which is readily accessible by reviewing public databases and by visiting the site. It is recognized that some information may be more accessible than other information. Some items on the checklist may be more important than others depending on the type of project. It is recommended that the individual completing the checklist do their best to answer the questions accurately. Feel free to comment or write any explanatory comments at the end of the checklist.

The Databases:

To assist in gathering public information, the previous sheet includes web addresses for some of the databases that need to be consulted to complete the checklist. As of February 2011, these addresses were accurate.

Note that you will not have access to the location of any threatened or endangered (T&E) species. The web address lists only the threatened or endangered species in Louisiana by Parish. It will generally describe their habitat and other information. If you know of any species in the project area, please state so, but you will not be able to confirm it yourself. If you feel this may be an issue, please contact the Environmental Section. We have biologist on staff who can confirm the presence of a species.

Why is this information important?

Land Use? Indicator of biological issues such as T&E species or wetlands.

Tribal Land Ownership? Tells us whether coordination with tribal nations will be required.

WRP properties? Farmland that is converted back into wetlands. The Federal government has a permanent easement which cannot be expropriated by the State. Program is operated through the Natural Resources Conservation Service (formerly the Soil Conservation Service).

Community Elements? DOTD would like to limit adverse impacts to communities. Also, public facilities may be costly to relocate.

Section 4(f) issues? USDOT agencies are required by law to avoid certain properties, unless a prudent or feasible alternative is not available.

Historic Properties? Tells us if we have a Section 106 issue on the project. (Section 106 of the National Historic Preservation Act) See http://www.achp.gov/work106.html for more details.

Scenic Streams? Scenic streams require a permit and may require restricted construction activities.

Significant Trees? Need coordination and can be important to community.

Age of Bridge? Section 106 may apply. Bridges over 50 years old are evaluated to determine if they are eligible for the National Register of Historic Places.

Navigability? If navigable, will require an assessment of present and future navigation needs and US Coast Guard permit.

Hazardous Material? Don't want to purchase property if contaminated. Also, a safety issue for construction workers if right-of-way is contaminated.

Oil and Gas Wells? Expensive if project hits a well.

Relocations? Important to community. Real Estate costs can be substantial depending on location of project. Can result in organized opposition to a project.

Sensitive Issues? Identification of sensitive issues early greatly assists project team in designing public involvement plan.

Minority/Low Income Populations? Executive Order requires Federal Agencies to identify and address disproportionately high and adverse human health and environmental effects on minority or low income populations. (Often referred to as Environmental Justice)

Detours? The detour route may have as many or more impacts. Should be looked at with project. May be unacceptable to the public.

Louisiana Governor's Office of Indian Affairs:
http://www.indianaffairs.com/tribes.htm

Louisiana Wetlands Reserve Program:
http://www.nrcs.usda.gov/programs/wrp/states/la.html

Community Water Well/Supply
http://sonris.com/default.htm

Louisiana Department of Wildlife and Fisheries – Wildlife Refuges
http://www.wlf.louisiana.gov/refuges
http://www.fws.gov/refuges/profiles/ByState.cfm?state=LA
http://www.fws.gov/refuges/refugelocatormaps/Louisiana.html

U.S. Fish & Wildlife Service – National Wetlands Inventory:
http://www.fws.gov/wetlands/

Louisiana State Historic Sites:
http://www.crt.state.la.us/parks/ihistoricsiteslisting.aspx

National Register of Historic Places (Louisiana):
http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome
http://www.nationalregisterofhistoricplaces.com/la/state.html

National Historic Landmarks Program:
http://www.nps.gov/history/nhl/

Threatened and Endangered Species Databases:
http://www.wlf.louisiana.gov/wildlife/louisiana-natural-heritage-program

Louisiana Scenic Rivers:
http://www.wlf.louisiana.gov/wildlife/scenic-rivers
http://media.wlf.state.la.us/experience/scenicrivers/louisiananaturalandscenicriversdescriptions/
http://www.legis.state.la.us/lss/lss.asp?doc=104995

Significant Tree Policy (EDSM I.1.1.21)
http://notes1/ppmemos.nsf
(Live Oak, Red Oak, White Oak, Magnolia or Cypress, aesthetically important, 18" or greater in diameter at breast height and has form that separates it from surrounding or that which may be considered historic.)

CERCLIS (Superfund Sites):
http://www.epa.gov/superfund/sites
http://www.epa.gov/enviro/html/cerclis/cerclis_query.html

ERNS - Emergency Response Notification System - Database of oil and hazardous substances spill reports: http://www.epa.gov/region4/r4data/erns/index.htm

Enforcement & Compliance History (ECHO)
http://www.epa-echo.gov/echo/

DEQ – Underground Storage Tank Program Information:
http://www.deq.louisiana.gov/portal/tabid/2674/Default.aspx
Leaking Underground Storage Tanks:
http://www.deq.state.la.us/portal/tabid/79/Default.aspx

SONRIS – Oil and Gas Well Information & Water Well Information
http://sonris.com/default.htm

Environmental Justice (minority & low income)
http://www.fhwa.dot.gov/environment/ej2000.htm

Demographics
http://www.census.gov/

FHWA's Environmental Website
http://www.fhwa.dot.gov/environment/index.htm

Additional Databases Checked

Other Comments: