

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 02 representatives. 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