EXHIBIT A

SCOPE OF SERVICES
FOR
FINANCIAL PROJECT ID(S). 440414-1-22-01

FDOT DISTRICT 5
FRIEGHT STUDIES FOR IMPROVED MOBILITY AND SAFETY
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1 PURPOSE

The purpose of this contract is for the Consultant to provide the District 5 TSM&O and Planning Offices with a study that identify improvements to aid freight movement, and design short term improvements. This study will determine specific corridors and strategies of improvement, including cost estimates for each improvement. It will deliver recommended solutions.

Freight plays a key role in determining the economic vitality of the Central Florida area. Central Florida (D5) is located between two big ports playing an important role in global hub for trade, logistics, and export-oriented manufacturing. Road closures, incident response time, Public infrastructure street parking, regulatory changes affect freight movement within central Florida regions. Improvements in these areas will translate on aid to the freight movement.

Changes in technology as Connected Vehicles, Smart detection systems, Pre-Pass, virtual weight station, computer vision, and truck parking availability are some of the changes that has the potential to aid freight transportation. Connected Vehicle offers applications such as Freight Signal priority that can be used to reduce delay and improve safety. Pre-pass systems are already on place and offer the truck driver the ability to avoid unnecessary stops at weight stations when trucks had not pick up any additional load (based on speed, time distance). Technology has the possibility to impact Freight movements when the freight industry is supportive and assisted by the changes.

This study will engage the trucking industry and others to determine freight needs and if TSMO plays a role in addressing some of these needs. This study will look at the application technology for improved transit operations, enriching transportation data, improving safety, and minimize disturbance to motoring public.

The consultant will provide a final comprehensive report that will contain all essential technology information, future implementations, final recommendations, and cost estimates. The recommendations will be in sufficient detail to format a sound basis for design. The report shall contain all necessary background research, technical analysis and coordination with trucking industry, local and regional agencies.

2 STUDY OBJECTIVE

The CONSULTANT is to study the freight movement improvements and provide recommendation for specific corridors with their respective cost estimates. The below tasks had been identified to study the effects of strategies to aid Freight.

- **Literature Search** - The CONSULTANT will look for best practices and evolving trends throughout the industry and research the industry. The review of literature will be documented and submitted to the Department.

- **Stakeholder Engagement** - The CONSULTANT will use the stakeholder
engagement to determine Freight needs, preferred corridor(s), trends, and obtain feedback on potential high-level strategies to aid Freight Movements, evaluate and present it to the Department. Upon approval, the CONSULTANT shall conduct the analysis and present to the Department the recommended alternatives for further exploration.

- **Data Collection** - includes gathering data on pertinent corridor physical features and conditions, truck routes, legislation, and metadata on data. Metadata should focus on the availability for TSMO data for implementation and gaps that prevent implementation of TSMO solutions, which will address needs of the freight industry under consideration.

- **Opportunity and Needs document** - After completion of the data collection an abridged document that is easy to read and includes graphic depictions of concepts will be prepared to document the needs and opportunities that will drive concept development. This will be divided into short-term, middle-term, and long-term opportunities and needs. The short-term will focus on existing commitments and implementation that can occur within the next year. The middle-term will focus on implementation that will be added to the Departments 5 year work program this year and the follow 5 years, meaning a 10 year horizon. The long-term will focus on more than 10 years and will be based on evolving trends in transportation.

- **Concept Development** - During the concept development the following tasks will need to be completed:
  - Develop Concepts to address needs and opportunities to aid Freight Movement
  - Determine performance measures to evaluate the effectiveness of alternatives
  - Should data flows for the incorporation of freight data into the TSMO program
  - Developed Cost Estimates for middle-term and long-term strategies
  - Perform high-level analysis of strategies
  - Present findings to the Department
  - Iterate as needed including updating opportunity and needs document time horizon

- **Freight Input #1** - Present and receive public support via freight industry, local agencies and other significantly affected stakeholders, explaining opportunities and concepts. Adjust concepts to ensure meeting the needs of the community.

- **Revise Concepts** – Provide updates based on Input

- **Freight Input #2** – Present and receive public support via freight industry, local agencies and other significantly affected stakeholders, explaining opportunities and concepts. Clearly explain the changes from the first Input meeting and insure the group understands the potential timeline for implementation. Communicate specific needs from industry for the success of projects and any expectations the Department has of their involvement.

- **Legal, Regulatory and Policy** – Document any needed changes to legal, regulatory, or FDOT policy needed to achieve opportunities or address the needs identified

- **Summarized and Document** – Update the Opportunity and Needs to document to have a similar Concept Recommendation. Include cost estimates. Develop
Concept of Operations, reflecting roles and responsibilities. Review the District architecture and edit the then current architecture file (Turbo or RAD-IT) as required to include the projects.

- **Develop Plans for Immediate Implementation** – Provide plans for the short term implementation

### 3 GENERAL REQUIREMENTS

#### 3.1 Liaison Office

The DEPARTMENT will designate a Liaison Office and a Project Manager who shall be the representative of the DEPARTMENT for the Project. While it is expected the CONSULTANT shall seek and receive advice from various State, regional, and local agencies, the final direction on all matters of this Project remain with the Project Manager.

#### 3.2 Key Personnel

The CONSULTANT’s work shall be performed and directed by the key personnel identified in the proposal presentations by the CONSULTANT. Key personal knowledge and experience should include but not be limited to project management, Intelligent Transportation Systems, Traffic Engineering Studies, Traffic Signal Timing, etc. Any changes in the indicated personnel shall be subject to review and approval by the DEPARTMENT.

#### 3.3 Meetings and Presentations

The CONSULTANT shall be required to attend Meetings with DEPARTMENT representatives, where relevant project information will be provided by the DEPARTMENT, along with procedures for administering the contract. The CONSULTANT and supporting staff shall also be available with no more than a five (5) workday notice to attend meetings or make presentations at the request of the DEPARTMENT. Such meetings and presentations may be held at any hour between 8:00 A.M. and 12:00 midnight on any day of the week. The CONSULTANT may be called upon to provide maps, press releases, advertisements, audiovisual displays and similar material for such meetings.

#### 3.4 Correspondence

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this study shall be provided to the DEPARTMENT for their records within one (1) week of the receipt of said correspondence.
3.5 Coordination with Other Consultants and Entities

The CONSULTANT is to coordinate their work with any ongoing and/or planned projects that may affect this study. The CONSULTANT is to coordinate with local governmental entities to ensure design requirements for the project are compatible with local public works improvements. The CONSULTANT is to coordinate with any agencies and/or entities that require further coordination.

3.6 Submittals

The CONSULTANT shall provide electronic and hard copies of the required documents as listed below. These are the anticipated printing requirements for the project. This tabulation will be used for estimating purposes, and the Project Manager will determine the number of copies required prior to each submittal.

- Stakeholder Involvement Plan
  - Plan to engage stakeholders
  - Action Items with status
- Literature Review
- Updated Architecture
- Opportunity and Needs Document
- ConOps
- Process Documentation
  - Presentations
  - Sign-In Sheets
  - Meeting Minutes

4 STAKEHOLDER INVOLVEMENT

Local maintaining agencies involvement includes communicating to and receiving input from all interested persons, groups, and government organizations regarding the development of the project. The CONSULTANT shall coordinate and perform the appropriate level of stakeholder involvement for this project.

Stakeholder Coordination - The CONSULTANT will coordinate with the following stakeholders: FDOT District 5 Traffic Ops and PIO, Freight Industry, Cities and Counties along the corridors used by Freight industry, Metro Plan, AAM Operations, Florida Highway Patrol (FHP), and Police Departments.

4.1 Stakeholder Involvement

The CONSULTANT will assist the DEPARTMENT in coordinating the time and place to meet with all stakeholders. CONSULTANT shall prepare an agenda and take appropriate meeting minutes which includes action items.
4.2 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for insuring that all work products conform to DEPARTMENT standards and criteria. This shall be accomplished through an internal Quality Control (QC) process performed by the CONSULTANT. This QC process shall insure that quality is achieved through checking, reviewing, and surveillance of work activities by objective and qualified individuals who were not directly responsible for performing the initial work.

Prior to submittal of the first invoice, the CONSULTANT shall submit to the DEPARTMENT'S Project Manager for approval the proposed method or process of providing Quality Control for all work products. The Quality Control Plan shall identify the products to be reviewed, the personnel who perform the reviews, and the method of documentation.
5 REGIONAL ITS ARCHITECTURE (RITSA)

The consultant will be tasked with the Systems Engineering Management Plan (SEMP) and will update the Regional Architecture file to ensure that adaptive Ramp Metering is included. The Regional Architecture helps define the elements of the ITS system and the standard information that is exchanged between these elements; the guidelines for developing a Regional Architecture are defined in the National ITS Architecture. The Consultant will develop a PITSA (Project ITS Architecture) which shows the alternatives that are chosen and update the Turbo Architecture file for the region. The architecture shall be based on the National ITS Architecture, and will complement FDOT's Regional ITS Architecture. The document shall include the support needed from each stakeholder for resolution.

The Consultant will review both the existing National ITS Architecture for identification of any new applicable market packages as well as the existing Statewide Florida ITS Architecture as it applies to District 5. Given Florida has an existing process for updating the SITSA through the Change Management Board, the Consultant will discuss with both the steering committee and the FDOT ITS Representative(s) the process by which any updates to the SITSA are considered by the Change Management Board (CMB).

6 CONCEPT OF OPERATIONS

The Consultant will provide a Concept of Operations that defines the roles and responsibilities for development and implementation of the Freight Aid Strategies and also includes the level of information sharing, status and control between agencies. The document shall include the support needed from each stakeholder for resolution.

The Concept of Operations (CONOPS) provides an overview of the project/system to be deployed; specific details as to the current system; the transportation situation being addressed; identification of any desired changes, assumptions and constraints or operational issues; specifics on using/operating the project/system; methods to train and involve stakeholders; and requirements for project/system support and maintenance. In order for the CONOPS to be most effective, the document will be updated as elements change or are added/deleted. Stakeholders, or parties who will have an interest in or participate in the project or system, will be consulted to determine their needs and preferences.

The CONOPS will summarize the needs and preferences of each stakeholder and how they will interact and utilize the project/system. In some instances where conflicts between the needs and preferences of various stakeholders arises, the CONOPS document will address these conflicts and document the resultant outcome of which items will be implemented by the project or system and which items have been considered but will not be included. Ultimately, the CONOPS will serve as a record of the project/system needs, requirements, interactions, agreements and constraints in regard to all parties involved from the conception through maintenance of the desired product.

The Consultant will meet with each of the stakeholders upon project award to discuss their project roles and needs to determine if the existing CONOPS accurately reflects the current state of the
STAGE II
June 3, 2019
anticipated development and implementation. The document will also be reviewed by the Consultant to determine if any suggestions can be made regarding possible changes to technologies or operational concepts described throughout the CONOPS, which could provide equal or better results with less initial and future maintenance costs. Suggestions will be forwarded to the Project Manager for consideration and any approved changes would be added to the CONOPS via a document revision.

7 ESTIMATES
The CONSULTANT will generate a cost estimate as described within the table below. The study should evaluate the cost vs. value. The CONSULTANT shall develop construction cost estimates and updates for design alternatives. The cost estimates are to be developed using the Department’s long range estimating (LRE) program.

<table>
<thead>
<tr>
<th>Description</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>3</td>
</tr>
<tr>
<td>Operation</td>
<td>5</td>
</tr>
<tr>
<td>Maintenance</td>
<td>5</td>
</tr>
</tbody>
</table>

8 LEGAL COMPLIANCE
The CONSULTANT will verify that all data collection, analysis and requirements comply with the Legal rules and regulations.

9 COORDINATION WITH THE DEPARTMENT
All aspects of this CONTRACT/AGREEMENT and/or of each authorization or task will be coordinated through the DEPARTMENT’s Project Manager (or his/her designee).

All authorizations and approvals shall be in writing and executed by the DEPARTMENT prior to the commencement of work.

The DEPARTMENT's Project Manager for this project is Noemi S Rodriguez Located

    at: Florida Department of Transportation
    District 5 Traffic Operations
    719 South Woodland Blvd Deland, FL 32720

In the DEPARTMENT’s Project Manager’s temporary absence from the office, the DEPARTMENT shall authorize another individual to perform the DEPARTMENT Project Manager’s duties.

The DEPARTMENT may replace the DEPARTMENT’s Project Manager (or his/her designee) at any time during the term of this CONTRACT / AGREEMENT.
10 INVOICING LIMITS

Payment for the work accomplished shall be in accordance with Method of Compensation of this contract. Invoices shall be submitted to the DEPARTMENT, in a format prescribed by the DEPARTMENT. The DEPARTMENT Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by the DEPARTMENT.

The CONSULTANT shall provide a list of key events and the associated total percentage of work considered to be complete at each event. This list shall be used to control invoicing. Payments will not be made that exceed the percentage of work for any event until those events have actually occurred and the results are acceptable to the DEPARTMENT.