

**Space Coast Transportation Planning Organization**  
**Mobility on Demand Study**  
**Work Order 24-09K**  
**Scope of Services**  
**11/10/2023**

## **A. INTRODUCTION**

Space Coast Area Transit is looking to expand from traditional fixed-route service and explore potential mobility on demand (MOD) alternatives in different areas of the County. Under this Work Order, Kittelson & Associates, Inc. (CONSULTANT) will work with Space Coast Area Transit and the Space Coast Transportation Planning Organization (SCTPO) (Study Team) to identify and assess MOD options, recommend one (or more) locations where MOD could be implemented, and establish an implementation framework that would make the recommended alternative competitive for future grant funding opportunities.

## **B. SCOPE TASKS**

The CONSULTANT will assist the Study Team with the following tasks as part of the project:

- Task 1 Existing Conditions Analysis
- Task 2 Identification of Mobility on Demand Areas
- Task 3 Mobility on Demand Alternatives Analysis
- Task 4 Selection of Mobility on Demand Recommended Alternatives
- Task 5 Final Report
- Task 6 Stakeholder Meetings & Presentations
- Task 7 Internal Project Meetings
- Task 8 Project Administration

### **TASK 1 EXISTING CONDITIONS ANALYSIS**

#### **1.1 Coordination with Ongoing Studies**

Space Coast Area Transit and the SCTPO are currently working on the 2035 Transit Development Plan (TDP) as part of the 2050 Long Range Transportation Plan (LRTP) update. The SCTPO is also working on the Intermodal Station Feasibility Study which is identifying and analyzing intermodal connections for a potential station along SR 501 (Clearlake Road). The CONSULTANT will coordinate with the project teams for both the TDP Update and Intermodal Study to identify overlaps in data collection and leverage resources where appropriate. The goals and objectives from **Task 1.3** will also be in alignment with the goals from the TDP Update and also incorporate any MOD alternatives explored as part of the Intermodal Study. Up to three (3) CONSULTANT

staff will attend up to four (4) one-hour virtual meetings throughout the course of the MOD Study to coordinate with these other studies.

## **1.2 Mobility on Demand Literature Review**

The CONSULTANT will review best practices for MOD deployments and summarize MOD use cases, service types, partnerships/business models, funding, and revenue strategies. Agencies/municipalities that have implemented MOD pilots or sustainable deployments will also be identified. The information from this task can serve as a primer for Study Team members and interested stakeholders who are not familiar with MOD.

## **1.3 Goals and Objectives**

The CONSULTANT will prepare goals and objectives intended to guide the MOD study. As noted in **Task 1.1**, these goals and objectives will be coordinated with the other ongoing transit related studies. These goals and objectives may be focused around expanding service areas in transportation disadvantaged areas, providing better first mile/last mile connections, increasing service flexibility for all transit users, and other MOD related topics. These goals and objectives will be reviewed with the Study Team towards the beginning of the study, as they will set the direction for potential MOD alternatives explored.

## **1.4 Data Collection**

The CONSULTANT will coordinate with Space Coast Area Transit and the SCTPO to collect the following data:

- Origin-Destination patterns from the Comprehensive Operations Analysis (COA) that Space Coast Area Transit is conducting;
- Transit schedules and fare structure;
- Transit ridership data by route (and by stop, if available);
- Size and composition of existing Space Coast Area Transit fleet (including regional paratransit services);
- Previously performed and TDP on-board surveys and/or other ridership surveys;
- Land use data that reflects planned County population growth and expansion; and
- Existing and future population and employment data by transportation analysis zone (TAZ).

This data will be analyzed in **Task 2** to help identify key travel areas that might be the focus for an initial MOD pilot.

## 1.5 Peer Agency Interviews

The goals of this task are to connect the Study Team to peer agencies who have experience with MOD deployments and to collect best practices and lessons learned from those agencies. Based on **Task 1.2**, the CONSULTANT will identify up to three agencies and gather contact information to conduct virtual interviews. In identifying peer agencies, it is important to consider factors such as size, availability of transit, land use and development, and travel patterns.

The CONSULTANT will prepare a list of questions in advance of the virtual interviews to allow for input from the Study Team prior to engagement. The CONSULTANT will send the questions to the peer agencies in advance so they may prepare for the meetings, or offer initial feedback in writing prior to the meeting.

Up to three (3) CONSULTANT staff will attend up to three (3) one-hour virtual meetings with the peer agencies identified for these interviews.

### *Task 1 Deliverables:*

- *The goals and objectives from **Task 1.3** will be reviewed with the Study Team prior to finalizing.*
- *The efforts in **Task 1** will be documented in the Final Report discussed in **Task 5**.*

## TASK 2 IDENTIFICATION OF MOBILITY ON DEMAND AREAS

### 2.1 Travel Pattern Analysis

The CONSULTANT will analyze the origin-destination data collected in **Task 1.4** to identify key connections to transit, employment, education, healthcare, and tourism, which could be served by first mile/last mile MOD connections. The CONSULTANT will study both existing patterns, as well as any changes to travel patterns that the Study Team anticipates due to population growth and future land use changes. The CONSULTANT will also utilize previously identified transportation disadvantaged areas via the SCTPO's Vision Zero Action Plan Update to facilitate the travel pattern analysis.

### 2.2 Select Mobility on Demand Service Areas

Utilizing analysis performed in **Task 2.1**, the CONSULTANT will identify potential MOD service areas. These will be identified through a GIS analysis that will consider ridership demand and low performing routes as well as the feasibility of serving these areas with MOD solutions consistent with best practices (travel times, wait times, reliability, etc.) identified in **Task 1.2**.

Based upon the considerations noted above, the CONSULTANT will identify up to three (3) potential service areas for a MOD pilot. The prioritization and selection of these areas will be based on the goals and objectives from **Task 1.3**. Up to three (3) CONSULTANT staff will perform

a field review of the three potential service areas to verify MOD applicability and note any features that may be helpful to inform the Alternatives Analysis in **Task 3**.

As part of this task, the CONSULTANT will facilitate meetings with key stakeholders within each service area to gauge interest and obtain feedback on potential MOD applications. Performing these initial meetings will help with “buy-in” from the local jurisdictions where the MOD is being proposed before assessing potential MOD alternatives as part of **Task 3**.

#### *Task 2 Deliverables:*

- *The efforts in **Task 2** will be documented in the Final Report discussed in **Task 5**.*

## **TASK 3 MOBILITY ON DEMAND ALTERNATIVES ANALYSIS**

### **3.1 Identification of Potential MOD Applications for Service Areas**

For each of the three service areas identified in **Task 2.2**, the CONSULTANT will identify potential MOD applications that meet the project goals and objectives, meet the specific travel needs of the service area, and can be implemented into the existing transportation system. Examples of potential MOD applications could include:

- Microtransit integration into the Fixed Route System;
- First mile/last mile connections;
- Connecting paratransit to fixed route system;
- Off-hour services – using MOD (rideshare) to help fill gaps in transit service hours; and
- Micromobility/Bikeshares/E-Bikes/E-Scooters.

### **3.2 Prioritization of MOD Applications for Service Areas**

The CONSULTANT will identify resources that are required for each potential MOD application (such as staffing, workforce development, hardware/software, and partners), potential revenue strategies, potential public-private partnership strategies, and potential cost savings from reduced/eliminated fixed route service. These factors will be used to help create an evaluation matrix to aid in prioritizing MOD applications for each of the three service areas.

#### *Task 3 Deliverables:*

- *The efforts in **Task 3** will be documented in the Final Report discussed in **Task 5**.*

## **TASK 4 SELECTION OF MOBILITY ON DEMAND RECOMMENDED ALTERNATIVES**

### **4.1 Identification of Preferred Area for MOD Pilot Study**

For each of the three service areas, the CONSULTANT will work with the Study Team to select the preferred MOD application based on the evaluation matrix prepared in **Task 3.2**.

Once the preferred MOD application is selected for each service area, the CONSULTANT will facilitate meetings with key stakeholders within each service area. In these meetings, the CONSULTANT will present the recommended potential MOD application and solicit input from key stakeholders to identify which local partners are interested in hosting a potential MOD pilot. Based on these meetings, one service area will be selected to develop the framework for a MOD pilot. The scope hours for these meetings area included in **Task 6**.

## **4.2 Pilot Implementation Framework**

The CONSULTANT will outline a recommended framework for implementing a MOD pilot in the preferred service area. The implementation framework will be based on the best practices review and peer municipality interviews in **Task 1**. The implementation framework will outline the recommended MOD application for the preferred service area, the goals and objectives for the pilot, and the partnership strategies to implement the pilot.

## **4.3 Potential Funding Sources**

The CONSULTANT will identify the potential federal, state, local, and non-governmental funding sources to implement the recommended MOD service area pilot. This list will include new federal funding sources established as part of Infrastructure Investment and Jobs Act (IIJA). The CONSULTANT will also identify potential public-private partnerships that Space Coast Area Transit could consider.

### ***Task 4 Deliverables:***

- *The efforts in **Task 4** will be documented in the Final Report discussed in **Task 5**.*

## **TASK 5 FINAL REPORT**

### **5.1 Draft Final Report**

The CONSULTANT will summarize **Task 1** through **Task 4** in a draft Final Report. It is anticipated the Study Team will provide one (1) round of review comments on the Final Report.

### **5.2 Revised Final Report**

Based on the edits/comments received from the Study Team, the CONSULTANT will revise the Report and produce a final version for the Study Team's records.

### ***Task 5 Deliverables:***

- *Draft and Final Report.*
- *Six (6) hard copies of the Final Report will be prepared for the Study Team once the document is finalized. An electronic version in PDF format will also be submitted to the Study Team.*

## **TASK 6 STAKEHOLDER MEETINGS & PRESENTATIONS**

### **6.1 Stakeholder Meetings**

The CONSULTANT will coordinate with the Study Team to identify Stakeholders that can be coordinated with during the course of the Study. It is anticipated that these Stakeholders will be representatives from local municipal jurisdictions who may ultimately support a MOD pilot and implementation. Up to three (3) CONSULTANT staff will prepare for and attend up to six (6) Stakeholder Meetings throughout the course of the Study (three (3) meetings as part of **Task 2** and three (3) meetings as part of **Task 4.1**). It is anticipated that these meetings will be held in-person and will be one (1) hour in length.

### **6.2 Presentations**

The CONSULTANT will coordinate with the Study Team to develop a presentation summarizing the MOD Study. It is anticipated two (2) CONSULTANT staff will make up to five (5) in-person presentations at the end of the project:

- Brevard County Board of County Commissioners;
- Local jurisdiction where MOD pilot is recommended (as discussed in **Task 4.1**);
- SCTPO Transportation Disadvantaged Local Coordinating Board (TDLCB);
- SCTPO Technical Advisory Committee (TAC) and Citizens Advisory Committee (CAC); and
- SCTPO Governing Board.

#### ***Task 6 Deliverables:***

- Meeting materials such as presentations and meeting materials will be made available to the Study Team for review prior to the meetings.
- Meeting summaries from each of the meetings will be prepared and distributed amongst the Study Team.
- A summary of Stakeholder Meetings & Presentations will be included in the Final Report discussed in **Task 5**.

## **TASK 7 INTERNAL PROJECT MEETINGS**

### **7.1 Kick-Off Meeting**

Up to three (3) CONSULTANT staff will attend a two-hour in-person Kick-Off Meeting with the Study Team to discuss the goals and anticipated outcomes of the project. The CONSULTANT will present a draft schedule to the Study Team during this meeting.

### **7.2 Bi-Monthly Project Status Meetings**

Up to three (3) CONSULTANT staff will attend up to five (5) additional bi-monthly project status meetings with the Study Team to discuss project progress and receive input on tasks completed.

The purpose of these meetings is to maintain clear communication between the Study Team and the CONSULTANT. It is anticipated that each of these meetings will be held in person and be one (1) hour in length. The CONSULTANT will prepare a meeting agenda and prepare/distribute meeting notes following each of these meetings.

### **Task 7 Deliverables**

- Prep, attendance, and summaries from the Kick-Off Meeting and five (5) bi-monthly project status meetings with the Study Team.

## **TASK 8 PROJECT ADMINISTRATION**

**Project Manager:** Ken Harley ([ken.harley@brevardfl.gov](mailto:ken.harley@brevardfl.gov)) will serve as the Space Coast Area Transit project manager, Debbie Flynn ([debbie.flynn@sctpo.com](mailto:debbie.flynn@sctpo.com)) will serve as the SCTPO project manager, and Travis Hills ([thills@kittelson.com](mailto:thills@kittelson.com)) will serve as the CONSULTANT project manager for this project.

**Quality Control:** The CONSULTANT will designate appropriate senior staff to conduct Quality Control (QC) reviews of work products.

**Project Schedule:** The CONSULTANT will prepare and submit a detailed project schedule identifying major tasks, their durations, and task relationships. The CONSULTANT will keep the schedule up to date monthly. The beginning date of the services will be the date of authorization for this work order. Any changes to the schedule necessitated by circumstances outside the CONSULTANT's control will be coordinated with the Study Team. It is anticipated the project will be complete by December 31, 2024.

**Invoices:** Invoices will be prepared in the format prescribed by the SCTPO. A detailed invoice including a narrative description of the work performed by the CONSULTANT during the period covered by the invoice for each item in the scope will be submitted. The final invoice will be labeled "Final" and project close-out procedures will be followed.

**Deliverable Coordination:** The CONSULTANT will prepare, package, and coordinate deliverables for **Task 1** through **Task 7** with the Study Team.

**Budget:** This work will be completed as a lump sum task order. A detailed summary budget table for the CONSULTANT is attached.

### **Task 8 Deliverables:**

- Project Schedule (initial and updates when necessary)
- Monthly Progress Reports
- Project Administration

## **C. NEXT STEPS**

The following next steps could be performed when the MOD Study is complete and an implementation framework has been created for the recommended MOD application:

- Create a Concept of Operations (ConOps) for the MOD pilot
- Create a Project Systems Engineering Management Plan (PSEMP) for the MOD pilot
  - Both the ConOps and PSEMP are necessary in order to pursue Federal grant funding for MOD pilot implementation
- Grant funding support for MOD pilot implementation



**ATTACHMENT A - STANDARD FEE SUMMARY SHEET**

**Name of Firm: Kittelson & Associates, Inc.**

Prime Consultant Information

Kittelson & Associates, Inc.  
Travis Hills, P.E., RSP<sub>1</sub>  
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Task Work Order Consultant Information

Kittelson & Associates, Inc.  
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**Task: Mobility on Demand Study**

ACTIVITY	Senior Principal RATE: \$	Engineer/Planner 270.00	Associate Engineer/Planner RATE: \$	210.00	Senior Engineer/Planner RATE: \$	175.00	Engineer/Planner RATE: \$	140.00	Transportation Analyst RATE: \$	115.00	Associate Technician RATE: \$	160.00	TOTAL HOURS	COST BY ACTIVITY
<b>Task 1 Existing Conditions Analysis</b>	<b>4</b>	<b>\$ 1,080.00</b>	<b>88</b>	<b>\$ 18,480.00</b>	<b>8</b>	<b>\$ 1,400.00</b>	<b>60</b>	<b>\$ 8,400.00</b>	<b>80</b>	<b>\$ 9,200.00</b>	<b>0</b>	<b>\$ -</b>	<b>240</b>	<b>\$ 38,560.00</b>
1.1 Coordination with Ongoing Studies (4 virtual meetings; prep, attendance, and	0	\$ -	48	\$ 10,080.00	0	\$ -	0	\$ -	24	\$ 2,760.00	0	\$ -	72	\$ 12,840.00
1.2 Mobility on Demand Literature Review	0	\$ -	4	\$ 840.00	0	\$ -	12	\$ 1,680.00	16	\$ 1,840.00	0	\$ -	32	\$ 4,360.00
1.3 Goals and Objectives	4	\$ 1,080.00	8	\$ 1,680.00	0	\$ -	12	\$ 1,680.00	0	\$ -	0	\$ -	24	\$ 4,440.00
1.4 Data Collection	0	\$ -	4	\$ 840.00	8	\$ 1,400.00	12	\$ 1,680.00	16	\$ 1,840.00	0	\$ -	40	\$ 5,760.00
1.5 Peer Agency Interviews	0	\$ -	24	\$ 5,040.00	0	\$ -	24	\$ 3,360.00	24	\$ 2,760.00	0	\$ -	72	\$ 11,160.00
<b>Task 2 Identification of Mobility on Demand Areas</b>	<b>16</b>	<b>\$ 4,320.00</b>	<b>40</b>	<b>\$ 8,400.00</b>	<b>8</b>	<b>\$ 1,400.00</b>	<b>28</b>	<b>\$ 3,920.00</b>	<b>92</b>	<b>\$ 10,580.00</b>	<b>0</b>	<b>\$ -</b>	<b>184</b>	<b>\$ 28,620.00</b>
2.1 Travel Pattern Analysis	4	\$ 1,080.00	16	\$ 3,360.00	0	\$ -	16	\$ 2,240.00	80	\$ 9,200.00	0	\$ -	116	\$ 15,880.00
2.2 Select Mobility on Demand Service Areas	12	\$ 3,240.00	24	\$ 5,040.00	8	\$ 1,400.00	12	\$ 1,680.00	12	\$ 1,380.00	0	\$ -	68	\$ 12,740.00
<b>Task 3 Mobility on Demand Alternatives Analysis</b>	<b>16</b>	<b>\$ 4,320.00</b>	<b>40</b>	<b>\$ 8,400.00</b>	<b>48</b>	<b>\$ 8,400.00</b>	<b>32</b>	<b>\$ 4,480.00</b>	<b>80</b>	<b>\$ 9,200.00</b>	<b>0</b>	<b>\$ -</b>	<b>216</b>	<b>\$ 34,800.00</b>
3.1 Identification of Potential MOD Applications for Service Areas	8	\$ 2,160.00	20	\$ 4,200.00	24	\$ 4,200.00	16	\$ 2,240.00	40	\$ 4,600.00	0	\$ -	108	\$ 17,400.00
3.2 Prioritization of MOD Applications for Service Areas	8	\$ 2,160.00	20	\$ 4,200.00	24	\$ 4,200.00	16	\$ 2,240.00	40	\$ 4,600.00	0	\$ -	108	\$ 17,400.00
<b>Task 4 Selection of Mobility on Demand Recommended Alternatives</b>	<b>8</b>	<b>\$ 2,160.00</b>	<b>24</b>	<b>\$ 5,040.00</b>	<b>28</b>	<b>\$ 4,900.00</b>	<b>8</b>	<b>\$ 1,120.00</b>	<b>16</b>	<b>\$ 1,840.00</b>	<b>0</b>	<b>\$ -</b>	<b>84</b>	<b>\$ 15,060.00</b>
4.1 Identification of Preferred Area for MOD Pilot Study	2	\$ 540.00	8	\$ 1,680.00	4	\$ 700.00	0	\$ -	4	\$ 460.00	0	\$ -	18	\$ 3,380.00
4.2 Pilot Implementation Framework	4	\$ 1,080.00	12	\$ 2,520.00	16	\$ 2,800.00	8	\$ 1,120.00	4	\$ 460.00	0	\$ -	44	\$ 7,980.00
4.3 Potential Funding Sources	2	\$ 540.00	4	\$ 840.00	8	\$ 1,400.00	0	\$ -	8	\$ 920.00	0	\$ -	22	\$ 3,700.00
<b>Task 5 Final Report</b>	<b>12</b>	<b>\$ 3,240.00</b>	<b>36</b>	<b>\$ 7,560.00</b>	<b>12</b>	<b>\$ 2,100.00</b>	<b>12</b>	<b>\$ 1,680.00</b>	<b>56</b>	<b>\$ 6,440.00</b>	<b>28</b>	<b>\$ 4,480.00</b>	<b>156</b>	<b>\$ 25,500.00</b>
5.1 Draft Final Report	8	\$ 2,160.00	24	\$ 5,040.00	8	\$ 1,400.00	8	\$ 1,120.00	40	\$ 4,600.00	20	\$ 3,200.00	108	\$ 17,520.00
5.2 Revised Final Report	4	\$ 1,080.00	12	\$ 2,520.00	4	\$ 700.00	4	\$ 560.00	16	\$ 1,840.00	8	\$ 1,280.00	48	\$ 7,980.00
<b>Task 6 Stakeholder Meetings &amp; Presentations</b>	<b>0</b>	<b>\$ -</b>	<b>136</b>	<b>\$ 28,560.00</b>	<b>68</b>	<b>\$ 11,900.00</b>	<b>0</b>	<b>\$ -</b>	<b>68</b>	<b>\$ 7,820.00</b>	<b>4</b>	<b>\$ 640.00</b>	<b>276</b>	<b>\$ 48,920.00</b>
6.1 Stakeholder Meetings (prep, attendance, and summary)	0	\$ -	60	\$ 12,600.00	60	\$ 10,500.00	0	\$ -	60	\$ 6,900.00	0	\$ -	180	\$ 30,000.00
6.2 Presentations (prep and attendance)	0	\$ -	76	\$ 15,960.00	8	\$ 1,400.00	0	\$ -	8	\$ 920.00	4	\$ 640.00	96	\$ 18,920.00

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Task Work Order Consultant Information

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**Task: Mobility on Demand Study**

ACTIVITY	Senior Principal Engineer/Planner RATE: \$ 270.00	Associate Engineer/Planner RATE: \$ 210.00	Senior Engineer/Planner RATE: \$ 175.00	Engineer/Planner RATE: \$ 140.00	Transportation Analyst RATE: \$ 115.00	Associate Technician RATE: \$ 160.00	TOTAL HOURS	COST BY ACTIVITY						
<b>Task 7 Internal Project Meetings</b>	<b>0</b>	<b>\$ -</b>	<b>86</b>	<b>\$ 18,060.00</b>	<b>10</b>	<b>\$ 1,750.00</b>	<b>45</b>	<b>\$ 6,300.00</b>	<b>0</b>	<b>\$ -</b>	<b>0</b>	<b>\$ -</b>	<b>141</b>	<b>\$ 26,110.00</b>
7.1 Kick Off Meeting (prep, attendance, and summary)	0	\$ -	16	\$ 3,360.00	10	\$ 1,750.00	0	\$ -	0	\$ -	0	\$ -	26	\$ 5,110.00
7.2 Bi-Monthly Project Status Meetings (5 total; prep, attendance, and summary)	0	\$ -	70	\$ 14,700.00	0	\$ -	45	\$ 6,300.00	0	\$ -	0	\$ -	115	\$ 21,000.00
<b>Task 8 Project Administration</b>	<b>40</b>	<b>\$ 10,800.00</b>	<b>44</b>	<b>\$ 9,240.00</b>	<b>10</b>	<b>\$ 1,750.00</b>	<b>22</b>	<b>\$ 3,080.00</b>	<b>20</b>	<b>\$ 2,300.00</b>	<b>0</b>	<b>\$ -</b>	<b>136</b>	<b>\$ 27,170.00</b>
Quality Control	40	\$ 10,800.00	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	40	\$ 10,800.00
Project Schedule	0	\$ -	12	\$ 2,520.00	0	\$ -	0	\$ -	0	\$ -	0	\$ -	12	\$ 2,520.00
Administration	0	\$ -	12	\$ 2,520.00	0	\$ -	12	\$ 1,680.00	0	\$ -	0	\$ -	24	\$ 4,200.00
Deliverable Coordination	0	\$ -	20	\$ 4,200.00	10	\$ 1,750.00	10	\$ 1,400.00	20	\$ 2,300.00	0	\$ -	60	\$ 9,650.00
<b>SUM</b>	<b>96</b>	<b>\$ 25,920.00</b>	<b>494</b>	<b>\$ 103,740.00</b>	<b>192</b>	<b>\$ 33,600.00</b>	<b>207</b>	<b>\$ 28,980.00</b>	<b>412</b>	<b>\$ 47,380.00</b>	<b>32</b>	<b>\$ 5,120.00</b>	<b>1433</b>	<b>\$ 244,740.00</b>
<b>11/10/2023</b>														<b>TOTAL PROJECT \$ 244,740.00</b>