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### Scope Summary

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The goal of this project is to assess the multi-modal transportation needs of the Central Oahu region, and identify key transportation system improvements, strategies, and policies that can improve regional transportation mobility and access in a sustainable way. The study shall develop desired multi-modal strategies and system improvements that are technically feasible, financially realistic, sustainable, and meet regional transportation needs.

**Task 1: Coordinate and review past and on-going traffic, transit, and land use studies prepared by other agencies, establish a project management working group, and stakeholder involvement process.**

The goal of this task is to ensure that existing and on-going studies inform the outcomes of this project for consistency and maximum coordination across agencies.

#### 1.1 Identify existing and on-going studies relevant to this project

The Contractor shall research and identify existing and on-going studies that have been or are underway by the State of Hawaii Department of Transportation, the City and County of Honolulu Department of Transportation Services, the Honolulu Authority for Rapid Transportation, OahuMPO, and the City and County of Honolulu Department of Planning and Permitting (collectively, "the cooperating agencies").

Deliverables:

- 1.1a: A listing of existing and on-going studies that has been developed in cooperation with the cooperating agencies
- 1.1b: A technical report summarizing the analysis of each of those studies identifying factors and other considerations relevant to the goals of this project

#### 1.2 Establish a project management working group.

The Contractor shall establish a project management working group with which it consults on a regular basis for guidance on project oversight, direction and feedback to the Contractor, while the day-to-day management of the study, the details of data being gathered, memoranda and/or reports being prepared, etc., is the responsibility of the Project Manager. It is assumed throughout this RFP that especially those reports wherein the Contractor proposes criteria and/or assumptions, all decisions concerning the application of those criteria and/or assumptions will be made in consultation with the project management working group.

Deliverables:

- 1.2a: A schedule to be set for meetings of the project management working group in consultation with the cooperating agencies' staff. The project management working group may initially meet more often than once a month



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but, then, meet only as necessary to receive updates, accomplishments, etc., from the Project Manager and Contractor.

1.2b: Agendas for each of the meetings to be coordinated with the Project Manager at least ten working days in advance of the scheduled meeting date.

1.2c: Minutes of each meeting identifying the date, time, and place of the meeting, who was in attendance, and the topics discussed and any decisions taken at the meeting. In addition, the minutes shall clearly define any follow-up actions required on the part of the Contractor and/or the cooperating agencies.

### 1.3 Establish a stakeholder involvement process

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The Contractor shall coordinate with the project management working group to establish an early and on-going stakeholder involvement process that conforms to the requirements of the OahuMPO's Participation Plan.

Deliverables:

1.3a: A listing of stakeholders, including members of the general public and those "traditionally underserved," as defined in Title VI of the United States Code as well as Executive Order 12898 (1994) related to environmental justice.

1.3b: A plan for soliciting input from stakeholders early in and continually throughout the study.

1.3c: A summary of input provided by stakeholders and documentation of the disposition of those comments.

1.3d: A technical report identifying the key factors resulting from the stakeholder involvement process that are incorporated into the final study report.

### 1.4 Identify relevant transportation user surveys that may inform or provide details not necessarily documented in the existing and on-going studies identified in subtask 1.1, above.

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The Contractor shall coordinate with the cooperating agencies to determine what transportation user surveys have been conducted that have relevance to the area and goals of this project, obtain survey results, and supplement the analysis done in subtask 1.1, as appropriate, and, if necessary, conduct an additional survey.

Deliverables:

1.4a: A listing of transportation user surveys that have been conducted by the coordinating agencies relevant to Central Oahu since 2000.

1.4b: A survey, if required, conducted to supplement information from prior surveys required to inform critical aspects of this study.

1.4c: A technical report summarizing analysis of the survey results documenting how they may affect or be incorporated into the analyses done in subtask 1.1.



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*Task 2: Establish performance measures and measures of sustainability, collect and establish a comprehensive baseline multi-modal transportation dataset.*

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The priority of this task is to establish performance measures and measures of sustainability. These measures will dictate the type of data that need to be collected and should provide a focus on what relevant transportation and/or other data need to be collected. This multi-modal transportation dataset, for purposes of this study, provides a framework to integrate arterial traffic information (for vehicles, bicycles, and pedestrians) and public transit (bus, paratransit, and rail passengers, headways, etc.) information into a common data platform in order to understand the impact of a change in one subsystem on the larger system as a whole.

### 2.1. Establish performance measures and measures of sustainability.

The Contractor, in cooperation with the project management working group, shall identify performance measures and measures of sustainability that will serve to guide the determination of appropriate data required for purposes of this study.

#### Deliverables:

2.1a: A listing of the performance measures that are appropriate to the analyses required to meet the scope and goals of this project.

2.1b: A document that contains the definition of each of the performance measures including, but not limited to, any algorithm or set of calculations required to quantify the performance measures.

2.1c: A listing of measures of sustainability that will ensure that the goals and purposes of this project will be maintainable and supportable financially for the useful life of the projects and/or programs determined to be within the scope of this project.

2.1d: A document that contains the definition of each of the measures of sustainability including, but not limited to, any algorithm or set of calculations required to quantify and ensure that sustainability.

### 2.2. Identify the elements of and create a data dictionary for the information required to ensure optimal analyses of the area and components of this study.

The Contractor, in consultation with the cooperating agencies, shall develop a comprehensive listing of all data elements required for the analyses required throughout the course of this study. These data shall be those applicable to all forms of vehicular travel including, but not limited, to cars, trucks, buses, bicycles, as well as pedestrians.

#### Deliverables:

2.2a: A listing of the data elements necessary for the analyses required to meet the scope and goals of this project.

2.2b: A document that contains the definition of each of the data elements as used within the meaning and context of this project.

2.2c: A technical report identifying any data element(s) not available in existing sources and a detailed plan for acquiring such data.



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### 2.3. Collect the data identified in subtask 2.2 of this section.

The Contractor, working with the cooperating agencies, shall collect the data identified in subtask 2.1 and populate a database suitable for the analyses needed to meet the scope and goals of this project.

#### Deliverables:

2.3a: A populated database suitable for the analyses required to complete this project.

2.3b: Obtaining and/or collecting data not currently in available sources for integration into that database.

### Task 3: Analyze and evaluate regional transportation, demographic, economic, and land use trends and issues.

The goal of this task is to develop an understanding of the regional transportation, demographic, economic, and land use trends and issues affecting the Central Oahu area.

#### 3.1 Analyze and evaluate the demographic, economic, and land use trends and issues affecting Central Oahu

The Contractor shall analyze and evaluate the demographic, economic, and land use trends and issues affecting Central Oahu as documented in the Central Oahu Sustainable Communities Plan (2014) as well as the detail found within the ORTP 2035.

#### Deliverables:

3.1a: A technical report describing the criteria identified and proposed to be used for analyses of the demographic, economic, and land use trends and issues affecting Central Oahu.

3.1b: A technical report identifying any assumptions underlying the analyses of these factors.

3.1c: A technical report identifying the performance measures proposed to be used to measure the successful outcomes of the goals and objectives of this project.

3.1d: A technical report assessing the demographic, economic, and land use trends and issues affecting Central Oahu

#### 3.2 Analyze and evaluate the impacts of the trends and issues identified in subtask 3.1 on regional transportation.

The Contractor shall analyze and evaluate the regional transportation system based on its analyses performed in subtask 3.1.

#### Deliverables:

3.2a: A technical report identifying the transportation alternatives that are technically feasible, financially realistic, sustainable, and meet regional transportation needs.

3.2b: A technical report assessing the impacts of the trends and issues identified in subtask 3.1 on each of the transportation alternatives identified in the technical report required by subtask 3.2b.



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*Task 4: Determine and assess current and future multi-modal needs and opportunities for the region through technical methodologies, user surveys, and stakeholder outreach. The technical forecasting of future traffic, transit, land use, and other related projections will utilize and be done in coordination with OahuMPO's current travel demand forecast model and Congestion Management Process.*

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The goal of this task is to determine and assess current and future (2035) multi-modal needs and opportunities for the Central Oahu region, especially with regard to the commute between Central Oahu and the Primary Urban Center.

*4.1 Forecast future traffic, transit, land use, and other related projections for each of the multi-modal scenarios that the Contractor evaluates using the OahuMPO TransCAD transportation demand forecast model and Congestion Management Process.*

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Consistent with the transportation alternatives identified in deliverable 3.2a, the Contractor shall identify a minimum of three (3) multimodal scenarios that are technically feasible, financially realistic, sustainable, and meet regional transportation needs

Deliverables:

4.1a: Program the OahuMPO TransCAD model to capture the necessary attributes of each of the transportation alternatives and run the model.

4.1b: A technical report analyzing the output of each of the individual model runs.

4.1c: A technical report contrasting and comparing the outcomes of the model runs and providing recommendations for both implementation and, possibly, further study.

4.1d: A technical report providing a ranking of the impacts of the alternatives using OahuMPO's Congestion Management Process.

*Task 5: Identify potential strategies and system improvements for key corridors in the region, including but not limited to, transit improvements with connections to the Honolulu rail transit system and the Central Highway.*

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The goal of this task is to identify potential strategies and system improvements for key corridors in the Central Oahu region that are technically feasible, financially realistic, sustainable, and meet regional transportation needs.

*5.1 Identification of potential strategies and systems improvements for key corridors in the Central Oahu region.*

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Based on its assessments in tasks 1 - 4, the Contractor shall identify potential strategies and system improvements appropriate for achieving the goal of this project to meet current and future regional needs that are technically feasible, financially realistic, and sustainable.

Deliverables:

5.1a: A report that identifies the criteria proposed for evaluating the selection of potential strategies and systems improvements for the Central Oahu region.



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5.1b: A technical report identifying each of the potential strategies and system improvements that the Contractor recommends based upon its analyses completed for tasks 1 – 4.

*5.2 Perform a feasibility assessment of the potential strategies and system improvements identified in subtask 5.1.*

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The Contractor shall conduct a feasibility analysis for each of the potential strategies and system improvements identified in subtask 5.1.

Deliverables:

5.2a: A report identifying the criteria the Contractor proposes for evaluating and determining the feasibility of the potential strategies and system improvements.

5.2b: A technical report prioritizing the potential strategies and system improvements based on the criteria identified in deliverable 5.2a.

*5.3 Perform a financial assessment identifying the implementation costs, inclusive of but not limited to, land acquisition, design, and construction.*

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The Contractor shall provide a financial assessment of the costs of implementing each of the potential strategies and improvements identified in subtask 5.1.

Deliverables:

5.3a: A report identifying the financial assumptions that the Contractor proposes to employ in developing the financial assessments required for this project including, but not limited to, assumed baseline costs for land acquisition, construction material, transit equipment, and inflation factors.

5.3b: A technical report assessing the financial requirements of each of the potential strategies and tasks identified in subtask 5.1.

*5.4 Provide a sustainability assessment identifying the life-cycle costs associated with maintaining each of the potential strategies and system improvements identified in subtask 5.1.*

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The Contractor shall develop an assessment of the sustainability, i.e., operations and maintenance of the potential strategies and system improvements for their useful life-cycle.

Deliverables:

5.4a: A report identifying the assumptions the Contractor proposes for assessing the sustainability of the potential strategies and system improvements.

5.4b: A technical report applying the sustainability assumptions to each of the potential strategies and system improvements.

*Task 6: The potential strategies and system improvements shall be provided (not exhaustive) in terms of transportation measures, expected performance, project delivery and land acquisition costs, environmental impacts and possible mitigation, time, and operations and maintenance costs.*

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The goal of this task is to consolidate the information developed under task 5 of this RFP in order to understand the order-of-magnitude of impacts of the potential strategies and system improvements in terms of expected performance, project delivery and land acquisition costs, environmental impacts and possible mitigation, time, and operations and maintenance costs.

#### 6.1 Identify the performance measures that are recommended for assessing the potential strategies and system improvements developed under task 5.

The Contractor shall identify and define the means of measuring performance measures for determining the order-of-magnitude of impacts of the potential strategies and system improvements.

Deliverables:

6.1a: A report that documents the recommended performance measures and the data and algorithms required for determining the magnitude of impacts of the potential strategies and system improvements.

6.1b: A technical report that analyzes the application of the performance measures to both current and future conditions, consistent with the scenarios identified in subtask 4.1.

6.1c: A technical report that analyzes the application of the performance measures to the potential strategies and system improvements and, based on those outcomes, develops a preliminary ranking of the potential strategies and system improvements.

#### 6.2 Assess the project delivery and land acquisition costs associated with the potential strategies and system improvements on a consolidated basis.

The Contractor shall assess the order-of-magnitude environmental impacts and high-level assessment of possible mitigation required for implementation of the potential strategies and system improvements identified by this study.

Deliverables:

6.2a: A report defining the potential order-of-magnitude environmental impacts associated with each of the potential strategies and system improvements analyzed in task 5.

6.2b: A technical report identifying the possible mitigation required for each of the order-of-magnitude environmental impacts including, but not limited to, the potential scope of the mitigation measure(s) required, the order-of-magnitude cost(s) associated with those measure(s), any alternative that may be reasonably considered as alternatives to the Contractor's recommended proposed mitigation strategy.

#### 6.3 Provide an estimate of the time required to implement the potential strategies and system improvements.

The Contractor shall develop an estimate of the time required to implement the potential strategies and system improvements as well as identify recommendations concerning the staging of those potential strategies and system improvements over time.

Deliverables:

6.3a: A report estimating underlying assumptions the Contractor proposes for the time required for all aspects of each of the potential strategies and system



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Improvements including, but not limited to, design, land acquisition, environmental assessment and mitigation, and construction.

6.3b: A technical report that applies the assumptions identified in deliverable 6.3a to each of the potential strategies and system improvements.

6.4 Provide an estimate of the operations and maintenance costs resulting from implementation of the potential strategies and system improvements.

The Contractor shall develop an estimate in presumed year-of-expenditure dollars of the operations and maintenance costs associated with each of the potential strategies and system improvements.

Deliverables:

6.4a: A report identifying the assumptions the Contractor proposes for estimating the on-going operations and maintenance costs for the potential strategies and system improvements.

6.4b: A technical report applying the assumptions documented in deliverable 6.4a to the operations and maintenance of the potential strategies and system improvements.

*Task 7: Conduct a multi-modal transportation systems benefit-cost analysis of the regional and environmental impacts of the potential strategies and system improvements. The comparison shall provide for the evaluation of individual and system (i.e., several solutions) to each other in terms of transportation benefits, impacts/costs and trade-offs, ideally in a "dashboard" type format.*

The goal of this task is to develop a multi-modal transportation systems benefit-cost analysis of the regional and environmental impacts of the potential strategies and system improvements.

7.1 Define the benefits and costs associated with each of the individual potential strategies and system improvements.

The Contractor shall analyze and document the benefits and costs associated with each of the potential strategies and system improvements.

Deliverables:

7.1a: A report documenting the assumptions underlying the benefits and costs associated with assessment of the potential strategies and system improvements.

7.1b: A technical report analyzing the benefits and costs of each of the potential strategies and system improvements based on the assumptions identified in deliverable 7.1a.

7.2 Compare and contrast the benefits and costs associated with the several potential strategies and system improvements to each other.

The Contractor shall conduct an analysis that compares and contrasts the benefits and costs of the individual potential strategies and system improvements to each other in terms of transportation benefits, and impacts, costs, and trade-offs, ideally in a "dashboard" type of format.



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### Deliverables:

7.2a: A technical report that compares and contrasts the outcomes of the potential strategies and system improvements in terms of the performance measures identified in subtask 6.1.

7.2b: A technical analysis of the trade-offs between and across the potential strategies and system improvements.

7.2c: A technical analysis of the benefits and costs associated with the several potential strategies as identified in tasks 6.3 and 6.4.

*Task 8: Compare and prioritize those potential strategies and system improvements that meet the desired purpose mentioned above (technically feasible, financially realistic, and sustainable).*

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The goal of this task is to compare and prioritize those potential strategies and system improvements that meet the goals of this study.

*8.1 Compare and prioritize those potential strategies and system improvements that meet the goals of this study.*

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The Contractor shall compare and prioritize the potential strategies and system improvements that best meet the goals of this study with regard to technical feasibility, financial reasonability, and long-term sustainability.

### Deliverables:

8.1a: A technical report summarizing a global view of the combined potential strategies and system improvements that meet the goals of this study.

8.1b: A technical report that compares and prioritizes the potential strategies and system improvements that, in the Contractor's assessment, best meet the goals of this study based on all facets of analyses performed through task 7.

*Task 9: Develop recommendations and an implementation timeframe to set priorities for those strategies and system improvements.*

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The goal of this task is to develop recommendations and an implementation timeframe to serve as a guide for the implementation of the prioritized potential strategies and system improvements.

*9.1 Develop recommendations for which of the potential strategies and system improvements should be considered for implementation.*

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The Contractor shall develop recommendations, in consultation with the cooperating agencies, identifying which of the potential strategies and system improvements that have been considered throughout tasks 1 – 8 should be considered for implementation.

### Deliverables:

9.1a: A report documenting the Contractor's recommendations as to the priority in which those strategies and system improvements should be considered for funding and implementation.

9.1b: A technical report providing an analysis of potential impacts if the Contractor's recommendations cannot be implemented by the cooperating agencies.



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9.2 Develop a recommended timeframe for guiding the staging and implementation of the recommended strategies and system improvements.

The Contractor shall develop a recommended timeframe to assist the cooperating agencies in determining how to optimize the staging and implementation of the recommended strategies and system improvements.

Deliverables:

9.2a: A report that provides a recommended timeframe that may be used to guide the cooperating agencies in optimizing the staging and implementation of the recommended strategies and system improvements.

9.2b: A technical report providing an analysis of potential impacts if the Contractor's recommended timeframe cannot be implemented by the cooperating agencies.

10. Conflict. If there is a conflict between this Attachment -S1 (Scope of Services) and the General Conditions, this Attachment-S1 (Scope of Services) shall govern and control unless otherwise specified.