State of Hawaii
Department of Transportation
Highways Division

Request for Proposal
Scope of Work

Project Title

Interstate H-1 Eastbound, Congestion Improvements
Vicinity of Waikele to the Vicinity of Halawa, M.P.~7.3 to M.P.~14.8
District of Honolulu and Ewa, Island of Oahu
Project No. H1DEF-01-06

Background and Purpose

The purpose of this project is to reduce congestion in the short-term on the Interstate H-1 in the eastbound direction in the vicinity of Waikele to the vicinity of Halawa.

The Interstate H-1, also known as the Queen Liliuokalani Freeway, is one of most important freeways that connects Oahu's workforce from the Leeward, Central, Kailua/Kaneohe and East Honolulu regions to Oahu's Primary Urban Center; and provides for the primary connection to and from the air- and sea-ports, military bases and industrial areas. These connections provide a significant support to the Oahu economy by providing mobility to commuters, tourists and military, and the goods and services movement.

These 27 miles of this interstate are also the most heavily used and the most congested in the State. Within these project limits exists the highest volume and most congested segment of interstate. The AADT is about 250,000 vehicles, the highest in the State. The morning peak hour in the eastbound direction generally between 6:00 AM to 9:00 AM.

The Interstate H-1 traveling in the eastbound direction at Paiwa Interchange (Waikele) is four lanes with an eastbound on-ramp; at the Kamehameha Overpass there are two off-ramps onto Kamehameha Highway, one to go southbound and the next exit to go northbound; at the Waiawa Interchange (H-1/H-2 Merge) there is a dedicated lane to the Interstate H-2 in the northbound direction which drops the H-1 to three lanes; then three H-2 lanes merge with the H-1 which the H-1 becomes five lanes; from Farrington Highway there is a two lane on ramp that merges on the H-1; at Waiau Interchange (Pearl City) there is an off-ramp, then an on-ramp from Moanalua Road; at the Halawa Interchange there is a dedicated lane to the H-201 (Moanalua Freeway) and H-3 at which the H-1 becomes four lanes in the eastbound direction; further on there is an off-ramp to H-201; then an on-ramp from Kamehameha Highway that provides an additional lane that drops at the Pearl Harbor Interchange.

This several mile section of the H-1 is within Oahu's urban center that passes through several interchanges and viaducts where the right-of-way is restricted by the surrounding and abutting commercial and residential land uses.

Zipper Lane
During the morning peak hours from 5:30 am to 9:00 am, Monday to Friday except holidays, there are two additional median lanes in the eastbound direction on the H-1from before the Paiwa Interchange to before the Pearl Harbor Interchange. These additional median lanes are provided by contra-flowing the westbound lanes, also known as the Zipper Lane. This Zipper Lane is for car pool vehicle with 2 or people and opens when flashing.

Shoulder Lane
There are two sections of shoulder lanes that are open Monday to Friday, except holidays, during the morning peak hours from 5:00 am to 9:00 am. One section of shoulder lane begins at the Waipahu Interchange on-ramp and ends at the Waiau Interchange off-ramp. The other section of shoulder lane begins at the Waiau Interchange and ends at the vicinity of Halawa Interchange ramp to H201.

HOV Lane
The HOV lane for car pool vehicles with 2 or more people opens from 5:30 am to 9:00 am, Monday to Friday except holidays. It begins at Waiawa and ends in town.

General Requirements

A. Scope of Services:

The State of Hawaii, Department of Transportation (HDOT) is seeking environmental and highway design services which may include, but not limited to, civil, electrical, structural, hydraulics, traffic, and geotechnical engineering for the proposed congestion relief project to be constructed in the short-term.

To meet the short-term purpose, the HDOT seeks an alternative(s) that meets the congestion purpose while considering minimal to none right-of-way taking, major structural and civil work, and environmental and social/economic effects.

Environmental Services

The required environmental services will be the performance of the coordination, processes and documentation for all required federal and state environmental clearances and permitting for the construction of the project. These clearances and permits include, but are not exclusive to, NEPA; Section's 106, 4(f), 6(f), 7, 401, 402, 404; EJ; Magnuson-Stevens; HEPA; HRS 6E; Noise Impact Analysis and Abatement; ESA Ph I & II; Hydraulic Study, and utilities.

The environmental services shall include a traffic congestion analysis and a traffic safety analysis to validate the proposed project length and for the development of alternatives.

The environmental services shall include the required social-economic and environmental required studies and analysis. The studies shall be developed and produced by experts in the field.

For any proposed alternative outside of the right-of-way, a topography survey and archeological inventory survey shall be performed.

Appropriate aerial-photo contour and/or topographic maps of the project area shall be obtained. These maps shall have a scale equal to or better than 1" = 200', and provided electronically also.

The environmental services shall include a public and stakeholder coordination plan. Community and stakeholder surveying and a project website should be considered.

As part of the alternatives analysis, the HDOT seeks the following to be considered:

- One-lane widening
    - with and without shoulder lane
    - with and without zipper lane
    - with and without HOV lane
- Improvements to the interchange and on- and off-ramps
- Traffic System Management (TSM)
- No-build

The preliminary engineering work shall be performed for the proposed alternatives, which will include at the minimum traffic and civil engineering analysis, and property search and estimated acquisition.

Draft technical or expert reports shall be submitted for HDOT review and comment prior to the review and approval of the final report.

Highway Design Services

The required design services shall be the performance of the coordination, processes and documentation for a federal-aid project plans, specifications and estimate (PS&E) including other required documents for the HDOT to advertise the project for construction services.

HDOT will include public and stakeholder outreach for this project, therefore the proposal must include methods and reasons on its outreach strategies, such as meetings, websites, surveys, notices, etc.

The surveying scope of work shall include but is not limited to establishing horizontal and vertical controls for projects, a boundary study with determination showing record

and ground coordinates, a topographic map showing all existing features within the area of limits using adjusting controls from the boundary study. Survey works shall be done by a licensed Land Surveyor in the State of Hawaii.

Design submittal shall consist of 60%, 90% and 100% Design Plans, Specifications, Cost Estimates, and basis of design.

Plans shall consist, but not be limited to, roadway plans, stations, elevations, sections and details, topographic plans and data, tax map keys, relative benchmarks, and utilities, azimuths, distances, property lines, highway right-of-way and reference monuments from as-built information, if available.

Specifications shall be prepared to correspond with the STATE's specifications, including, without limitation, numbering the sections of the technical specifications so that they can be readily combined with the STATE's specifications.

An Engineer's Preliminary Detailed Cost Estimate with estimated quantities and unit prices shall be prepared.

The selected Consultant shall responsible for identifying existing utilities in the project limits. If the existing utility is needed to be replaced or relocated, the selected Consultant shall prepare applicable Utilities Agreements (UA) and/or Memorandum of Understanding (MOU).

Right-of-Way maps shall be prepared if permanent acquisition, construction parcels, or easement is needed.

The selected Consultant shall also prepare applicable reports, including but not limited to, Geotechnical Report, Drainage Report, Traffic Management Plan, Nosie Study, and Design Exceptions.

General Services

It is expected the project work shall be performed in accordance with all applicable federal and state regulations and best practices. Further, all work and conduct of work shall be consistent with HDOT's policies, procedures and protocols.

The services shall include a project manager that ensures all objectives and tasks are carried out in accordance to the project scope of work, schedule and contract; shall be responsible for the coordination, recording and documentation of all tasks and reports; and upkeep an organized and accessible project file.

HDOT shall utilize a work plan developed by the selected Consultant and approved by HDOT to monitor and manage the project scope, schedule and budget/costs. The selected Consultant shall provide to HDOT sufficient assurance the selected Consultant

has sufficient and adequate resources and competency to perform the project work at the time of the proposal submittal and during the project development process.

All work performed by Consultant services shall be subject to review and approval by HDOT.

All documents shall be provided to HDOT in both electronic and hard copy.

The selected Consultant shall utilize Quality Assurance and Quality Control (QA/QC) procedures to ensure completeness, accuracy, and quality of all work efforts and submittals made as part of this project.

On-going Project within Project Limits

Interstate Route H-1 Shoulder Work and Portland Cement Concrete Pavement Rehabilitation Vicinity of Waimalu Viaduct to Vicinity of Halawa (Federal Project No. NH- H1-1(274)) is a design-build project that was awarded in January 2018 and the construction is anticipated to begin in March 2018.

The scope of work includes replacing the existing eastbound 10' shoulder from mile post 11.74 to mile post 12.6 with a minimum 24' wide PCC pavement shoulder that could allow a 24 hour, 7 days per week vehicular traffic load. A conceptual layout of the design build project is enclosed for reference.

The selected Contractor shall incorporate the changes from this design-build project into the PS&E of this Interstate H-1 Eastbound, Congestion Improvement project.

B. Project Approach

This section provides an overview of the issues and tasks to be undertaken for the said project. It is not intended to be a complete or comprehensive list of all work issues and tasks required and should be expanded upon in the proposal as deemed appropriate and/or necessary.

1. An initial meeting shall be held to discuss and clarify expectations for this overall project effort. Specific details shall be discussed on project approach, coordination, products and critical project elements.

   Additionally, project administration matters shall be discussed, such as contract, amendments, invoicing, protocols, etc.

2. An environmental scoping meeting shall be held to discuss and go over the project area, purpose and need, possible alternatives, and environmental and social/ economic issues, compliance of clearances and permits, alternatives analysis and evaluation, processes, coordination and documentation.
3. A highway design scoping meeting shall be held to discuss design criteria and requirements for civil, hydraulic, structural, traffic, geotechnical, landscaping,

surveying and right of way landscaping, identify detail scope of work, submittal requirements, and design mile stones.

Monthly or agreed regular meetings shall be held between HDOT project manager/team and the consultant team for the purpose to keep the project on schedule.

C. Project Deliverable

The project deliverables contain, but are not limited to the following:

Environmental Services

- Traffic Congestion Analysis
- Traffic Safety Analysis
- Social-Economic and environmental required studies
- Public and Stakeholder Coordination Plan
- Public Meetings
- Alternative Analysis
- NEPA Environmental Assessment / Categorical Exclusion (depending on the selected alternative)
- State Environmental Assessment / Chapter 343 Exemption
- Noise Impact Analysis and Abatement Study
- Section 106 National Historic Preservation Act Consultation
- Section 7 Endangered Species Act Consultation
- HRS Chapter 195D Conservation of Aquatic Life, Wildlife, and Land Plants Consultation

Design Services

- 60%, 90% and 100% Construction Plan, Specifications, Cost Estimate
- Boundary Study (depending on the selected alternative)
- Geotechnical Report
- Drainage Report
- Traffic Management Plan
- Utility Color Coded Plan (depending on the selected alternative)
- Utility Cost Sharing (depending on the selected alternative)
- Utility Agreement (depending on the selected alternative)
- Utility Memorandum of Agreement (depending on the selected alternative)
- Right of Way Map (depending on the selected alternative)

D. Project Time:

28 months from Notice to Proceed (NTP).

Phase I: Environmental Services and Preliminary Engineering work to complete and obtain approval on the Federal and State environmental compliance documents. – 22 months

Phase II: Completion of Design Services – 6 months

Contract Execution

The HDOT shall execute the contract in two parts. The first part shall be for Environmental Services and Preliminary Engineering Work, and up to 60 percent of the Highway Design Services. And, the second part shall be of the completion Highway Design Services from where the first part of contract ended.

The HDOT has the right not to proceed with the second part of the contract.

Proposal Content
The proposals shall include the following:

Identification

Organization proposal and introductory letter that includes the principal's name, title, business address, telephone and fax numbers, and email address.

1. Title Page

The project tile and project number shall be included.

2. Table of Contents

3. Introduction

4. Approach

The proposal shall provide an approach that reflects a strong capacity and capability complete the project in the required time. The proposal shall also provide major task/milestone a methodology that provides a comprehensive understanding of the issues identified in the scope of work. The project approach shall be described ins sufficient detail to permit objective evaluation of the proposal.

5. Products

The proposal shall describe the major project tasks as integral parts of the finished product. The finished product description shall include how the anticipated results will be reported and presented. Additionally, describe the format in which these products will be submitted to the HDOT. The finished product description shall be ins sufficient detail to permit objective evaluation of the proposal.

6. Work Plan

A Work Plan shall be provided for the purpose of identifying the interrelationships of the project major tasks, subtasks, milestones and products; schedule and critical and parallel paths; team member efforts.

7. Project Team

1. The proposal shall identify the Project manager and other key team members and/or subconsultants who will be assigned to the project. Resumes of key project team members' qualifications and experience shall be included, limited to one pager per individual. Resumes are to be provided in the Appendix.
2. Substitutions of identified key personnel subsequent to the submission of the proposal are subject to the HDOT approval.
3. An organization chart of the Project Team for the project and project products.
4. Roles and responsibilities of each team member, and the estimated/projected percentage of effort(time) they will be devoting to the project, each product, and projects tasks.

8. Anticipated Problems

The proposal shall indicate potential and perceived problem areas anticipated during the course of undertaking the project and possible solutions to remedy the problems.

9. Information Support

The proposal shall identify the information and services which the proposer expects the HDOT to provide in order to undertake and complete the project.

10. Project References

The proposal shall include information of the Consultant and the subconsultants experience in performing work similar to the scope of work identified herein. The Project References are to be provided in the Appendix. This reference information on past projects shall include:

1. Project Name
2. Project Summary
3. Inclusive project dates

4. Organization name, address, telephone and email for whom the project performed.
5. Name, telephone number and email address of the individual in the organization who is familiar with the past project.
6. The team member assigned to the past project and the work they accomplished.

Contact Person

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