TECHNICAL PROVISIONS

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TECHNICAL PROVISIONS FOR:

INTERSTATE ROUTE H-1, PM CONTRAFLOW LANE, PHASE 2
VICINITY OF RADFORD DRIVE TO WAIAWA INTERCHANGE
HONOLULU & EWA, OAHU, HAWAII
FEDERAL-AID PROJECT NO. NH-H1-1(260)

AND

INTERSTATE ROUTE H-1, PEARL CITY AND WAIMALU VIADUCT
IMPROVEMENTS, PHASE 1
HONOLULU & EWA, OAHU, HAWAII
FEDERAL-AID PROJECT NO. BR-H1-1(263)

I. OVERVIEW

The Interstate Route H-1, PM Contraflow Lane, Phase 2, Vicinity of Radford Drive to Waiawa Interchange and the Interstate Route H-1, Pearl City and Waimalu Viaduct Improvements, Phase 1 (Project) will be combined into a single **design-build contract** which will be awarded using the two-step process described in paragraph III Qualifications Proposal and in paragraph IV Design and Price Proposal.

The purpose of these provisions is to provide sufficient programming information and parameters so that interested offerors are able to put together a contractor-designer team's (Contractor) Qualification Proposal and, if qualified and ranked in the top three by the Department of Transportation (Department), prepare and submit a Design and Price Proposal.

The project will be awarded to the Contractor with the highest total sum of the Design Documentation and the Price Proposal scores.

The Department's intent is to establish a single point of responsibility by combining the project management, engineering/design services, construction, and operations and maintenance work, as indicated below, for both projects under a single contract. The Contractor shall use the information contained in this RFP package to provide a complete "turn key" product to the State which shall include preparation of construction drawings and specifications; obtaining the necessary permits and plan acceptance; obtaining the Department's acceptance of the construction documents; provide quality control measures; and constructing the Project in accordance with the approved contract documents.

II. CRITERIA AND PARAMETERS FOR DESIGN AND CONSTRUCTION

A. GENERAL PROJECT DESCRIPTION

1. The Project will consist of both the Interstate Route H-1, PM Contraflow Lane, Phase 2, Vicinity of Radford Drive to Waiawa Interchange project and the Interstate Route H-1, Pearl City and Waimalu Viaduct Improvements, Phase 1 project.

2. The PM Contraflow Lane, Phase 2, Vicinity of Radford Drive to Waiawa Interchange includes the design, permitting and construction required to increase the westbound capacity of H-1 by a minimum of one lane during the PM peak period using a contraflow lane in the vicinity of Radford Drive to the Waiawa Interchange (approximately 6.1 miles), while the existing eastbound AM peak contraflow lane remains operational.

3. The Pearl City and Waimalu Viaduct Improvements, Phase 1 includes full depth repair of viaduct concrete decks at specified locations, and the restoration of pavement marking.

B. PROJECT GOALS AND OBJECTIVES

1. It is the goal of the Department to have both the PM Contraflow Lane, Phase 2, and the Pearl City and Waimalu Viaduct Improvement, Phase 1 constructed at a cost below the budgeted amount of $75 million.

   The Department seeks to achieve the following objectives from the execution of the design-build process:

   a. Expedient design and construction that will allow the traveling public to use completed increments and lead to the earliest completion of the project;
   b. Increase the westbound capacity during the afternoon peak period between Pearl Harbor and the Waiawa Interchange without decreasing the eastbound capacity during the afternoon peak period;
   c. Integration of the AM peak contraflow lane into the project improvements to avoid future re-work in the AM contraflow lane, and avoid decreasing the east bound capacity during the AM peak period;
   d. Repair degrading concrete decks on Pearl City and Waimalu Viaduct that are located within the 2 left lanes in the east bound and west bound directions (4 lanes total) and designated high priority areas;
   e. Integrate improvements with the proposed PM Contraflow Lane Phase 1 improvements, which will add a useable westbound shoulder lane from the Waiawa Interchange to the Waikele off-ramp (approximately 2.1 miles). Work under the Phase 2 project may require temporary striping of the area from Waiawa Interchange to the Waikele off-ramp to facilitate dispersion until Phase 1 improvements are complete;
   f. Construction phasing that minimizes disruptions to traffic flow and mitigates impacts to highway safety;
   g. Minimize impacts (traffic, noise, etc.) to existing highway facilities, and utilities;
   h. Allow contraflow of the entire H-1 freeway within the project area during instances of emergency;
   i. Highway improvement which minimizes operational and maintenance cost; and
   j. Uphold the Department's commitment to safety for all users of the roadway; and public outreach that will minimize impacts to abutting businesses and neighborhoods, and users of the roadway.

2. For PM Contraflow Lane, Phase 2, it is the goal of the Department to have a safe and efficient contraflow system which increases the westbound capacity of Interstate Route H-1 during the PM peak period by a minimum of 1 lane and is opened to the public as quickly as possible while minimizing impacts to the public.

3. For Pearl City and Waimalu Improvement, Phase 1,, It is the goal of the Department to install durable, full depth concrete deck repair at damaged locations with a high level of quality control. Priority 1 repairs are located on the 2 inside lanes of the Inbound and Out-bound structures. Priority 2 repairs are located in the remaining lanes. The specifications provided herein were developed to ensure that the quality assurance, material properties, and construction procedures utilized by the Contractor meet the objectives of the Department.

C. DESIGN SCOPE OF WORK AND SERVICES

The Contractor shall be solely responsible for finalizing and completing the scope of design and construction necessary to complete the Project. The Contractor shall also be responsible for determining the Project phasing and incrementation to allow construction to commence as soon as practical; to allow construction to continue simultaneously with the design and permitting activities; to avoid impacts to the operation and maintenance of the existing AM Contraflow lane, and to allow the earliest possible use of the completed facility by the public.

For the purpose of the PM Contraflow Lane project, the installation of contraflow lane(s) shall be a stand alone segment of the H-1 Freeway (inbound and outbound lanes) that is physically complete and operational in terms of traffic lanes, traffic control devices, traffic signals, signs, pavement striping/markings, highway lighting, and drainage that will allow the improvements to be used by the traveling public.

Engineers and other designers shall be licensed in the State of Hawaii and shall stamp and sign all plans, calculations, and reports. The construction documents prepared by these engineers and designers will be used by the Contractor to construct the Project and will be used by the Department to monitor the work progress.

The Contractor shall furnish all supervision, professional services, labor, equipment, tools, supplies, permanent materials, and temporary materials required to provide the following services:

1. Project Management: Overall project management shall include coordinating, scheduling, and monitoring the activities of design build team, and coordinating with utility companies and government agencies from who plan acceptance are required. Project management also includes processing payment requests of the design consultants and subcontractors, and making payments; settling any Project related disputes within Contractor team, and participating in the settlement of Project related disputes with the Department; distributing required documents; coordinating and making submittals to the Department; coordinating the work on the site; preparing and updating project

schedule; providing documents and material control; preparing and distributing public announcements and conducting public meetings, resolving public complaints, and any other coordination required for the successful completion of the Project.

All activities and decisions of the Contractor relating to the Project concerning the following shall be subject to the review and acceptance by the Department:

a. Change in scope of improvements;
b. Change in the project schedule submitted as part of the Design Documentation Requirements in Section IV.C.1.(h);
c. Change in project incrementation submitted as part of the Design Documentation Requirements in Section IV.C.1.(a);
d. Change in Contractor key subcontractors and key designers listed in the Contractor's Qualification Proposal, Section III.A.1 and III.A.3;
e. Changes in design criteria;
f. Changes in design or construction activities that may impact the traveling public or the adjoining properties;
g. Changes in quality of materials; and
h. Changes in design or construction activities that may require changes to the approved environmental documents. The Contractor shall be responsible for all delays and associated costs related to additional public notices or hearings and review by all affected agencies as a result of these changes.
i. Changes to the Traffic Management Plan.
j. Changes to the Safety Plan.

The Contractor shall submit 10 copies of documentation related to items a thru j above for the Department's review and acceptance. The Department will review any such submittals within 28 calendar days upon receipt from the Contractor. The Project completion time will not be extended due to the Department's review time of these items.

2. Design Services: The Contractor shall be responsible for all work required to Design and prepare construction plans, special provisions specifications and detailed construction estimate for the various elements of work. The Contractor shall obtain the acceptance(s) of government agencies and utility companies, as appropriate. The Contractor shall be responsible for the professional quality, technical accuracy and coordination of the above services.

The Project Design Designation is as follows:

(Kam: Peak Hr % of 24-hr traffic; Dam: Directional Distribution)

		Interstate Route H-1, Waiawa IC (West End) to Waiawa IC (East End) Rte H-1 (7.87 mp to 9.21 mp)	**Interstate Route H-1,** Waiawa IC (East End) to Waiau IC Rte H-1 (9.21 mp to 10.82 mp)	**Interstate Route H-1,** Waiau IC to Halawa IC (West End) Rte H-1 (10.82 mp to 12.91 mp)
2009	ADT	163,400	225,700	242,800
2029	ADT	229,800	286,100	297,000
Kam		6.5	7.5	8.0
Dam		65/35	75/25	70/30
Tam		5.0	4.0	2.5
Kpm		7.5	7.5	7.0
Dpm		60/40	60/40	60/40
Tpm		2.5	3.0	3.0
T24		3.5	3.5	3.0

		Interstate Route H-1, Halawa IC (West End) to Halawa IC (East End) Rte H-1 (12.91 mp to 13.73 mp)	**Interstate Route H-1,** Halawa IC (East End) to Pearl Harbor IC (NW End) Rte H01 (13.73 mp to 14.95 mp)
2009	ADT	146,600	145,300
2029	ADT	196,600	194,900
Kam		8.0	9.5
Dam		80/20	85/15
Tam		3.0	3.0
Kpm		8.0	8.0
Dpm		70/30	70/30
Tpm		3.0	3.0
T24		3.5	4.0

		Interstate Route H-1, (Westbound) Waiawa IC (West End) to Waiawa IC (East End) Rte H-1 (7.87 mp to 9.21 mp)	**Interstate Route H-1,** (Westbound) Waiawa IC (East End) to Waiau IC Rte H-1 (9.21 mp to 10.82 mp)	**Interstate Route H-1,** (Westbound) Waiau IC to Halawa IC (West End) Rte H-1 (10.82 mp to 12.91 mp)
2009	ADT	80,900	111,700	120,200
2029	ADT	113,700	141,600	147,500
Kpm		9.0	9.5	9.0
Dpm		100/0	100/0	100/0
Tpm		2.5	2.5	2.5
T24		4.0	4.0	3.5

		Interstate Route H-1, (Westbound) Halawa IC (West End) to Halawa IC (East End) Rte H-1 (12.91 mp to 13.73 mp)	**Interstate Route H-1,** (Westbound) Halawa IC (East End) to Pearl Harbor IC (NW End) Rte H01 (13.73 mp to 14.95 mp)
	ADT	69,100	68,600
2029	ADT	92,700	92,000
Kpm		10.5	11.5
Dpm		100/0	100/0
Tpm		2.0	2.0
T24		3.5	4.0

In addition, the Contractor shall design all work in conformance with appropriate Federal and State Standards, Regulations, and Codes listed in, but not limited to, Paragraph II.C.5 Codes and Design Standards.

In addition to the as-built drawings provided by the Department, the Contractor shall conduct their own research of plan files available at the Department. A Plans Release Form for Highway Plans, Data, and CADD files is provided in the attachment to the Technical Provisions.

The Project scope of improvements are described herein below and by the information listed in paragraph II.I. Specifications and Attachments.

a. Road Design:

1) General Description of Existing Roadway:

a) PM Contraflow Lane Project: Presently, the Interstate Route H-1 Project limits (Radford Drive to Waiawa Interchange) consists of three to seven lanes outbound and three to five lanes inbound (not including the shoulder lane). An AM contraflow lane operates weekdays between the hours of 5:30am and 8:30am between Waikele and the Airport (total deployment time is between 4 am and 5:30 am). Removal of the AM Contraflow lane starts at 8:30am and must be completed by 12:30pm. Currently, the freeway is regularly congested in the morning and afternoon peak periods with queues from Pearl Harbor extending through Pearl City and Waiawa.

Lane widths along the H-1 vary between 11 feet and 12 feet. Shoulder widths vary from 6 feet to 10 feet. Medians vary in width from 8 feet to 26 feet.

The roadway within the project area includes three prestressed concrete girder viaduct bridge structures. The Pearl City Viaduct is located between approximate mileposts 9.2 and 10.3. Waimalu Viaduct is located between approximate mileposts 11.2 and 11.5. Northleg Viaduct is located between approximate mileposts 13.7 and 14.1.

Traveled way pavement consists of flexible asphalt concrete (AC) pavement between the airport and Halawa, and rigid Portland cement concrete (PCC) between Halawa and Waiawa. Shoulder pavement consists of AC, except for the outbound lanes between Halawa and Waiau, which consists of PCC.

The H-1 Freeway contains drainage systems along both shoulders and along the median (depending on roadway superelevation). Drainage facilities generally consist of open swales with grated inlets. Runoff from inlets are collected by pipes and discharged at stream crossings or other external drainage systems. Known problems with existing drainage systems are as follows:

- Pearl City Viaduct Eastbound Left Lane – Existing drainage grates cannot support the existing traffic and have cracked in the past.
- Waimalu Viaduct Eastbound Right Shoulder Lane Just East of Kaahumanu Overpass – Existing drains have plugged during heavy rains flooding the two right-hand travel lanes.

Other known major utilities along the H-1 corridor include Hawaiian Electric overhead lines along the Pearl City viaduct, as well as transverse (no longitudinal) underground crossings, water mains, and communication lines at various locations.

b) Pearl City and Waimalu Viaduct Improvements Project: Drawings of the existing viaduct structures are available from the State of Hawaii, Department of Transportation. These drawings shall be used to confirm existing details or original construction. The Contractor shall also refer to the project drawings for specific existing details.

2) Scope of Improvements:

a) PM Contraflow Lane, Phase 2:

- The improvements include, but are not limited to, adding a minimum of one additional travel lane in the westbound direction during PM peak periods using contraflow lane(s) from the vicinity of the Radford Drive Overpass to the Waiawa Interchange.
- The barriers for AM and PM contraflow lanes shall be installed to isolate AM and PM contraflow lane(s) from the rest of the travel way, permanently with a fixed barrier system or when in use with a moveable system, such that the total laneage currently provided during AM and PM peak conditions is not reduced (including currently used shoulder lanes).
- Existing median barriers may be removed. Contractor is responsible for reviewing as-built plans and determining structural mitigation required for median barrier removal on the viaducts. Contractor is also responsible for determining appropriate removal practices that will avoid damage to the roadway and viaduct areas.
- Barriers, fixed and/or moveable, shall accommodate incident response, and shall comply with National Cooperative Highway Research Program (NCHRP) 350.
- Examine existing AM contraflow system and integrate new PM contraflow system to work seamlessly with existing and/or retrofitted AM contraflow system.
- Construction phasing shall provide provisions for existing AM Contraflow lane to remain operational during construction.

- The Contractor shall assume operations and maintenance of the existing AM Zipper Contraflow lane during construction phase. Reference attached sample contract requirements.
- Modification to existing AM peak contraflow lane, including areas beyond project limits, may be considered.
- Minimum width of travel lanes shall be 11 feet.
- Minimum width of shoulders shall be 6 feet. (Contractor will be required to request a design exception for shoulder widths less than 10 feet)
- Minimum of 1 ft. striped buffer from the barrier face to the travel lanes shall be provided.
- The contraflow barriers and existing median barrier shall accommodate gates or other system to allow for safe and efficient incident response.
- Incident Management Plan to address the safe and efficient clearing of accidents, stalls, emergencies, etc. within the contraflow lane to be provided by the Contractor.
- A minimum of two crossovers into and out of the contraflow lanes shall be provided. One crossover shall be located in the vicinity of Radford Drive and one crossover shall be located in the vicinity of Waiawa Interchange.
- Where required for improvements (i.e. A.C., Concrete), new pavement should match existing pavement type at all locations within the project limits.
- Appropriate pavement markings, signage, and signals to be provided by the Contractor.
- Upgrade eastbound shoulder lane and/or left shoulders to provide sufficient laneage to meet capacity and pavement requirements.
- Restripe laneage from Waiawa Interchange to Waikele off-ramp to provide useable shoulder lane to aid in dispersion temporarily until Phase 1 improvements are completed.
- Relocation and/or improvements to affected drainage facilities. The proposed improvements shall not impede the natural drainage flow pattern within the limits of the project.
- Upgrade existing drainage grates in the Eastbound left lane of Pearl City Viaduct to support the anticipated traffic.
- Upgrade existing drainage system in the Eastbound shoulder lane of Waimalu Viaduct just East of Kaahumanu Overpass to avoid flooding of the travel way.
- If affected by improvements, Contractor shall relocate and/or upgrade affected highway lighting to current standards. Temporary lighting provided during construction shall be to current highway lighting standards.
- Documentation for Design Exceptions shall be prepared by the Contractor and submitted to the Department for review and approval processing.
- Install guardrails in areas where guardrails are warranted or adjust existing guardrail to be consistent with the project improvements and current standards.

- Contractor shall demonstrate design is safe and show a history of usage and/or similar applications.
- The improvements shall be designed based on a design speed of 60 miles per hour.
- Contractor should assume that night work will be required, and that obtaining all necessary permits, such as a noise variance, will be the responsibility of the contractor.

b) Pearl City and Waimalu Viaduct Improvement, Phase 1:

- Sound the existing concrete deck slab in the areas identified in Plan Sheets S-0 to S-17 for BR-H1-1(263). Mark the limits of decking to be repaired for approval by the Engineer.
- Existing reinforcing steel shall remain. Girder stirrups with insufficient cover to the surface of the deck slab shall be bent to provide a minimum of 1 ½" of cover.
- Repair corroded reinforcing steel per the drawings.
- Utilize a high performance, very early strength replacement concrete equivalent to that specified in the Special Provisions Section 676 Concrete Deck Repair. The quality control of the replacement concrete is critical.
- Install removed or previously missing pavement markings in the area of the work.
- Provide traffic control above and below the viaduct, as necessary for Contractor's operations.
- Replacement concrete shall match the adjacent existing concrete deck in color and texture.
- Documentation for Design Exceptions shall be prepared by the Contractor and submitted to the Department for review and approval processing.
- The Contractor shall remain in strict conformance with the Specifications and Technical Provisions with the exception of any approved Alternative Technical Concepts as described in paragraph IV.B..
- After completing the deck repairs, the entire deck surface of the 2 inside (left) lanes of the Inbound and Outbound structures (4 lanes total) shall receive a concrete sealer of 100% silane containing migrating corrosion inhibitors that are amine carboxylate based dipole corrosion inhibiting. The roadway surface texture and friction shall remain unchanged after application of the sealer. The installed sealer shall be compatible with a polyester overlay which will be installed in a future phase of this project. The polyester overlay will utilize a methacrylate resin prime coat and a polyester concrete consisting of a polyester resin binder and dry aggregate.
- The work shall be completed within the time constraints specified for lane closures and traffic control.

b. Structural Design

1) Work on Viaduct and Bridges: For H-1 PM Contraflow Lane, Phase 2, the Contractor shall evaluate the structural integrity of viaduct and bridge structures as impacted by the proposed improvements or changes to the structures, and provide the required structural improvements. For Pearl City and Waimalu Viaduct Improvement, Phase 1, the Contractor shall comply with the requirements set forth in the Technical Provisions and Specifications Section 676 Concrete Deck Repair.

2) Miscellaneous Improvements: The Contractor shall provide required structural improvements, which comply with current Federal and State codes and regulations.

c. Utility Corridor and Utility Company Systems

1) Scope of Improvements: The work shall include, but is not limited to, the following:

a) Relocate existing utilities affected by proposed work in coordination with Utility Companies having jurisdiction, if required.
b) Except for minor and isolated areas, relocate all utilities impacted by the new work in accordance with the directive provided hereinabove, with HAR Chapter 19-105, "Accommodation and Installation of Utilities on State Highways and Federal Aid County Highways", with the requirements of the utility company or government agency involved, and the Contract Documents.
c) As required by the Department's Pipeline Removal Policy, all segments of existing utility rendered inactive as a result of any relocation work shall be removed from the highway right-of-way.
d) Prepare construction plans and detailed cost proposal for the utility relocation and obtain plan and cost proposal acceptance from the affected utility or government agency and from the Department. Utility relocation will be paid for on a Force Account basis. Utility companies are responsible for all betterment costs (direct and indirect), and will be required to provide funds in advance of construction. If the utility company does not comply with these requirements, no betterment work will be considered by the Department in this project.

Utility Agreements or Facilities Relocation Agreements for the following utilities, if affected by the Project, are required:
(1) Board of Water Supply waterlines
(2) Honolulu Gas Company gas line
(3) HECO overhead and underground power lines
(4) Verizon overhead and underground systems
(5) Oceanic Cablevision overhead and underground systems
(6) U.S. Army Joint Trucking System/Signal Corps Lines

The Department will prepare the utility agreements based on complete and accurate information provided by the Contractor. Once the plans and cost proposals are accepted, submit to the Department a "Request for Utility Agreement" which shall include a color-coded plan, and a cost proposal to relocate the utility, all in accordance with the Department's format and requirements. Unless otherwise directed by the Department, any utility requested betterments will not be included in the project. See section II.E. for more details on the "Request for Utility Agreement."

d. Temporary work required for incremental work: The Design Build Contractor shall design, install and remove all temporary work necessary to tie in a completed increment(s) to the existing or new roadway and make repairs to the existing viaduct concrete decks. This work includes but is not limited to pavement striping and markers; traffic signs; lighting; traffic signals; utilities; drainage; items specified in Section 676 "Concrete Deck Repair" and any other improvements necessary to make and keep the highway operational.

   The Department will consider the temporary work as included in the contract prices of the various contract items and will not pay for the temporary work separately.

e. Maintenance of Completed Increments: The Contractor shall maintain any completed increment(s) opened for public use in accordance with Subsection 105.13-Maintenance of the *Hawaii Standard Specifications for Road and Bridge Construction*. The Department will consider this maintenance work as included in the contract prices for the various contract items and will not pay for this maintenance work separately.

f. Miscellaneous Work: The Contractor is responsible for all work necessary to complete the Project, even if the work is not described hereinabove or covered by the documents listed in paragraph II.I. Specifications and Attachments or listed in the Proposal Schedule. The Department, at its sole discretion, may compensate the Contractor for any Department directed changes.

g. Operation and Maintenance of AM Contraflow Lane During Construction Phase: The Contractor will be responsible for the operation and maintenance of the AM Zipper Contraflow Lane during the construction phase. The intent of this requirement is to avoid any schedule impact(s) to the Contractor from the AM Zipper operations. The attached scope of services details the operational and maintenance requirements.

h. Operation and Maintenance of Completed Project: The Department reserves the right to require the Contractor to maintain and operate the Project for a 5 year period at the cost indicated in the Proposal. The Contractor's proposed maintenance schedule shall be approved by the Department. The Department also reserves the right to bid out the operation and maintenance of the Project in a competitive bid.

i. Detail Breakdown of Contract Items: Prior to the start of construction, the Contractor is responsible for preparing a detailed breakdown of all contract items by smaller, more measurable units in a format accepted by the Department, and for updating the breakdown as the design and construction progresses.

j. Lane Closure Restrictions: The Contractor shall follow the lane closure restrictions listed below:
   - No inbound lanes will be closed Monday thru Friday during AM peak hours (4:30AM to 9AM); and
   - No outbound lanes will be closed Monday thru Friday during PM peak hours (2:30PM to 8 PM), and
   - No lane closures will be permitted in the outbound direction until the AM Zipper lane barrier is relocated back to the stored position in the project area, including the removal of all cones and signs along the AM contraflow route.
   - No lanes will be closed from Friday 2:30PM to Sunday 8 PM unless justification can be provided by the Contractor and approved by the Department.
   - A minimum of two inbound and two outbound travel lanes must be operational during working hours, excluding requirements noted during AM Zipper Lane deployment.

3. Design Support Services

   a. Geotechnical Work: Any Geotechnical Investigation/ Studies required to complete the project shall be paid for by the Contractor, and included in the contract price of the various contract items.

   b. Topographic Survey: The Department will not provide a topographic survey. Topographic surveys required to complete the design and construction of the project shall be prepared and paid for by the Contractor, and included in the contract price of the various contract items.

   c. Survey Mapping and Written Documentation: The Design Build Contractor shall retain the services of a licensed surveyor to prepare mapping and written documentation for easements and construction parcels, utility corridor maps and metes and bounds descriptions, etc. that may be required for the Project.

   d. Traffic Control Plan: The Contractor shall develop and implement Department approved traffic control/phasing plans to complete proposed project improvements.

   e. Safety Plan: The Contractor shall develop and implement a project Safety Plan, as required for proposed improvements. The Safety Plan should articulate how the Contractor will implement safety procedures on the project and coordinate with the Department. Roles and

responsibilities should be clearly detailed in the plan differentiating respective responsibilities.

4. Permits and Clearances:

The Contractor shall prepare and process all required permits. Permit fees shall be paid for by the Contractor and included in the contract price of the various contract items. The Final Design may not begin until NEPA and State permits and clearances are obtained and approved by the Department.

The Department has processed the clearance of a Federal Categorical Exclusion. This document included clearance of Section 106 and Section 7 requirements.

5. Codes and Design Standards

At a minimum, the Contractor shall design and construct all permanent and temporary features of the project according to the following Codes and Design Standards. Other Codes, Design Standards, or Rules and Regulations not listed may also apply to the Project and it shall be the sole responsibility of the Contractor to adhere to the appropriate documents.

a. A policy on Geometric Design for Highways and Streets, 2004 edition, by AASHTO (Green Book),
b. AASHTO LRFD Bridge Design Specifications, US Units (2004) and subsequent interim revisions,
c. Hawaii Statewide Uniform Design Manual for Streets and Highways, State Highway Division, October 1980
d. Roadside Design Guide including Chapter 6 (2006), including latest revisions, AASHTO 2002,
e. NCHRP Report 350,
f. Manual on Uniform Traffic Control Devices, 2009 edition,
g. Americans with Disabilities Act,
h. Design Criteria for Highway Drainage, SDOT Highways Division, dated 5/15/06,
i. New Development and Significant Redevelopment BMP Manual, Volume II, Hawaii Department of Transportation, December 2000"
j. Storm Water Permanent Best Management Practices Manual, State of Hawaii, Department of Transportation, Highways Division, February 2007.
k. Accommodation and Installation of Utilities on State Highway and Federal Aid County Highway, Hawaii Administrative Rules, Title 19, Chapter 105
l. Applicable Hydraulic Engineer Circulars (HEC), U.S. Department of Transportation, Federal Highway Administration,
m. Pavement Design Manual by the Materials Testing and Research Branch, Highways Division, Department of Transportation, March 2002.
n. Applicable sections of 23 CFR 650.
o. National Electrical Code, 2008 Edition, NFPA 70.
p. Roadway Lighting Design Guide, AASHTO, 2005.
q. AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, 5th Edition, 2009, including Subsequent Interim Revisions.

r. State of Highway, Department of Transportation, Bridge Design Criteria, February 14, 2005 (HWY-DB 2.6843).
s. Updated Operating and Inventory Rating Using Load Factor Design (LFD) (HWY-DB 2.6272).
t. Required Data for Consultant Design Projects or Design-Build Project dated November 24, 1999, HDOT, Bridge.
u. Basic Wind Speed: 105 mph.
v. Mean Recurrence Interval: 100 years.
w. Standard for Fiber Optic Outside Plant Communications Cable, ANSI/ICEA S-87-640-1992.
x. EIA/TIA-492AAA-1989, Detail Specification for 62.5 um core diameter 125um cladding diameter Class 1a multi-mode, graded index optical wave-guide fibers.
y. TIA/EIA-758 Customer-Owned Outside Plant Telecommunications Cabling Standard, April 1999.
z. Water System Standards, Board of Water Supply, 2002.
aa. Standard Specifications and Details, Public Works Construction, City and County of Honolulu, September 1986.
bb. A Policy on Design Standards Interstate System, January 2005.
cc. National Transportation Communication for Intelligent Transportation Protocol (NTCIP) Standards.
dd. National Electrical Manufacturers Association (NEMA) Standards.
ee. Institute of Transportation Engineers (ITE) Standards.
ff. International Concrete Repair Institute, Guideline 03732 "Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcement steel Corrosion"
gg. International Concrete Repair Institute, Guideline 03732 "Selecting and Specifying Concrete Surface, Surface Preparation for Sealers, Coatings and Polymer Overlays"
hh. American Concrete Institute 546.1R-80 "Guide for Repair of Concrete Bridge Superstructures"
ii. Any other applicable other codes and standards typically used for design of highways projects.

D. THE DEPARTMENT REVIEW OF CONSTRUCTION DOCUMENTS:

Prior to commencing with the construction documents, the Contractor shall meet with the Department's engineers to confirm the drawing requirements such as sheet size and content of drawings and special provision requirements. Drawing requirements may vary based on proposed concepts. These requirements can be addressed in discussions with the Department during preparation of Design and Cost Proposals.

The Contractor is will be required to maintain close communications with the Department throughout the design, construction, and maintenance of the project. It is anticipated that this close communication will serve to expedite submittal review; facilitate the incorporation of innovative project solutions that will enhance the project; and facilitate final acceptance of the project.

Should the Contractor choose to hold meetings with the Department, the Department would be available to meet weekly during the design phase. Contractor shall provide a minimum 72-hour notice to allow coordination of key Department personnel schedules. The Contractor shall be responsible for all meeting agendas (to be sent to invitees prior to meeting), providing meeting facilities, and preparing meeting minutes to be sent to meeting participants within 7 calendar days. The Department shall return comments, if any, on the minutes within 7 calendar days of receiving the minutes. The Contractor shall finalize the minutes within 7 calendar days of receiving the comments.

If the Project is done in increments, the construction shop drawings for each increment shall be complete and "stand alone." Cross referencing between increment plans will not be allowed.

The Special Provisions, which are part of the Request for Proposal, are the specifications governing the construction of the Project. The Contractor shall add to or modify the sections in Division 200 to 700 to suit the final design. If there are any additions or modifications, the Contractor shall submit a compilation of RFP Special Provisions, Proposal, Contract and Bond and those changes with the appropriate submittal.

The Department will not pay claims for any item that the Department may have reviewed in the Contractor's submittals, that may have contained design errors or omissions, changes, scheduling conflicts, improper material, or other conflicting information that the Department did not comment on or accept in previous submittals.

1. Submittal Format
   a. Submit CAD files for construction drawings in Microstation V8.0 or AutoCADD 2009 using the Protocol for Line Weight, Color, Level, Size, Grid Reference, Standard Units, Fonts, and Symbology for Microstation Produced Contract Plans ("State Drafting Protocol"), dated December 1999 on CD-ROM or DVD. CAD files are required for Final Submittal Only.
   b. All other electronic files shall be usable in Microsoft Word 2003 and Microsoft Excel 2003 on CD-ROM or DVD.
   c. Submit Design and Construction schedules in Microsoft Project or alternative software approved by the Department.
   d. Print hardcopies on 20 pound bond and bind.
   e. Detailed cost estimates shall follow the Department's format used for Federal Aid projects.
   f. Plot tracings on vellums (20 lb) or alternative media approved by the Department.

2. Copies per Submittal to the Department
   a. Submit five copies of engineer stamped full size construction drawing sheets and 20 copies of engineer stamped half-size construction drawings,
   b. Five sets of calculations,
   c. Five copies of permit applications,
   d. 12 sets of design reports,

e. 12 sets of detailed cost estimates,
f. 12 sets of special provisions specifications,
g. 12 sets of legible Design and Construction schedule plots on construction drawing size (or smaller) sheets, and
h. CD-ROM or DVD containing CAD and other electronic files.

The Contractor shall make the necessary submittals to other government agencies and utility companies and secure the required acceptances independent of the Department's review and acceptance.

3. Design Submittal and Review by the Department
The Department will review all scheduled submittals within 28 calendar days after the Department notifies the Contractor in writing that a complete submittal was received as determined by the Department. In the event a resubmittal is required due to incompleteness as determined by the Department, the Department will be afforded an additional 28 calendar days to review any resubmittals. The Project's completion time will not be extended due to any review time required by the Department for resubmittals due to incompleteness. Scheduled submittals shall be as follows:

a. 50% Design Submittal: Develop preliminary plans necessary to clearly document the complete scope of improvements and to allow the Contractor to determine the permitting, plan acceptances, and construction parcels necessary to accomplish the work. This may include, but may not be limited to:
   1) Contractor's incrementation Plan,
   2) Prefinal Structural Design Report,
   3) Prefinal Drainage report,
   4) Site specific best management plan (BMP), and details,
   5) Prefinal Geotechnical Report, as required,
   6) Basis of Design Report.
   7) Preliminary construction drawings for all of the highway improvements, including traffic control plans,
   8) Request for Utility Agreement, Utility Relocation plan(s) and estimate(s),
   9) Highway lighting and voltage drop calculations,
   10) Construction parcel requirements,
   11) Log of submittals made to other government agencies and utility companies and status of coordination and approvals,
   12) Log of permit applications to be made in conjunction with the work proposed and copies of draft permit applications,
   13) The Progress schedules shall be prepared in accordance with Section 108.06-Progress Schedules of the Special Provisions and any activities including non-construction activities with durations exceeding one month shall be broken into smaller sub-activities,
   14) Schedule and copies of public announcements, in coordination with the Department
   15) New special provisions section (Division 200-700), as applicable
   16) Quality Control and Assurance Plan,
   17) Operational and Maintenance Plan and detail breakdown of estimated O&M costs,

18) Detailed breakdown of contract payment items with schedule of values and theoretical quantities, broken down by increments and in measurable units.
19) Design Exceptions, as necessary,
20) Prefinal Traffic Control Plan
21) Prefinal Safety Plan
22) Traffic Management Plan (TMP)

b. 100% Design Submittal (Final Design): Develop all final plans and any documentation required (i.e. permitting, etc.) for construction of the proposed improvements. This may include, but may not be limited to:
   1) Design and construction phasing schedule (updated as necessary),
   2) Construction shop drawings,
   3) Finalized calculations,
   4) Finalized cost estimate (including Operation & Maintenance costs),
   5) Finalized Geotechnical Report,
   6) Finalized Drainage Report,
   7) Compilation of RFP Special Provisions, Proposal, Contract and Bond and accepted additions and modifications to Division 200 to 700.
   8) Completed "Permanent BMP Consideration Checklist and Project Record."
   9) Finalized "Request for Utility Agreement" document,
   10) Finalized Easement documentation, and
   11) Tabulation of how each comment from the 50% submittal was addressed,
   12) CAD files for construction drawings.
   13) Finalized Design Exceptions
   14) Finalized Traffic Control Plan
   15) Finalized Safety Plan

c. End of Job Design Submittal. At the completion of the construction work, furnish metes and bounds description of the utility corridor for power and communication cables, as required; coordinates (x,y &z) of installed utilities; as-built vellum drawings prepared in accordance with the *Hawaii Standard Specifications for Road and Bridge Construction* Section 648 "Field Posted Drawings" and with the State Drafting Protocol; and any other submittals to complete the design and construction of the Project.

E. THE DEPARTMENT'S PROCEDURE IN PROCESSING UTILITY AGREEMENTS

Information in this section is provided in the event existing utilities are impacted by the improvements, and either a Utility Agreement or Facility Relocation Agreement is required.

1. Submittal Format
   a. Request for Utility Agreement with appropriate fields filled out (by Contractor)
   b. Color-coded plans (by Contractor)
   c. Cost Estimates (by Contractor)
2. Number of copies: Seven (7) copies (by Contractor)

3. Timeframe for processing scheduled Utility Agreement. (by Contractor)
   The processing of a Utility Agreement involves the Department, the State Attorney General's office (AG), and the Utility Company. The following is an approximate timetable for processing a Utility Agreement from the date the Department notifies the Contractor in writing that a scheduled and complete "Request for Utility Agreement" was received as determined by the Department.
   a. Processing the agreement by the Department and review and approval by the AG: 60 calendar days
   b. Review and acceptance by Utility Company 60 calendar days
   c. Department's completing process 10 calendar days

   The Project's completion time will not be extended if a Utility Agreement is not processed to completion within the approximate time provided hereinabove unless the Contractor states in his transmittal, with proper documentation, that the Agreement is a critical path item. The Contractor will not be entitled to additional compensation should the process go beyond the timeframe provided hereinabove.

F. THE DEPARTMENT'S PROCEDURE IN PROCESSING CONSTRUCTION PARCEL REQUEST

1. Submittal Format (By Contractor):
   a. Construction parcel delineated on the Rights-of-Way Map
   b. State the use of the parcel, the start date, and the duration the parcel will be used.
2. Number of copies: One (1) copy (By Contractor)
3. Timeframe for processing scheduled Construction Parcel request
   The processing of a Construction Parcel involves obtaining an appraisal, title search, and land owner's approval (negotiated or condemnation.) The following is an approximate timetable for processing a construction parcel from the date the Department notifies the Contractor, in writing, that a complete submittal (as determined by the Department) was received by the Department.
   a. Title search, appraisal and prepare documentation, all reviewed by the AG office: 60 to 120 calendar days
   b. Owner's approval (no challenge) 30 calendar days
      Owner's approval (condemnation) 150 calendar days

4. Inquiries regarding staging areas on State property should be directed to Department project manager. A timeframe for processing of 90 calendar days should be assumed.

   The Project's completion time will not be extended if the right-of-entry is not obtained within the approximate time provided hereinabove unless the Contractor states in his transmittal, with proper documentation, that the right-of-entry is a critical path item. The Contractor will not be entitled to additional compensation should the process go beyond the timeframe provided hereinabove.

G. CONSTRUCTION WORK DURING DESIGN

If the Department determines that the construction drawings and other design documents related to an increment have been sufficiently addressed after the review of the 100% submittal, the Department at its sole discretion may authorize the Contractor in writing to start construction of that increment.

1. Submit copies of approved applicable permits to the Department prior to start of any construction work,
2. Construction parcel, if required,
3. Have all Best Management Practice measures in place,
4. Obtain written acceptance from all utility companies (as required),
5. Establish the Field Office and utility connections, and
6. Submit to the Department and obtain acceptance of all proposed materials to be used.

The Department may delay the Notice to Proceed for construction of any increment affected by referenced rights-of-way acquisition even if all of the above items have been satisfactorily completed by the Contractor. No claim for this State imposed delay will be considered.

The Contractor shall construct the improvements in accordance with the accepted engineered construction drawings and specifications. Provide revised drawings and applicable calculations to the Department for any revisions or deviations from the accepted construction drawings for review and acceptance.

The Contractor shall provide copies of correspondence between the Contractor's designers and the Contractor that pertains to any corrections or clarifications to the construction drawings to the Department.

H. INSURANCE AND BONDING REQUIREMENTS

The Contractor shall maintain throughout the term of the Project for any design and construction work within State Right-of-Way and construction parcels, a policy or policies of general liability and automobile liability insurance with an insurance company licensed to do business in the State of Hawaii, naming the State of Hawaii as additionally insured, with a limit of Excess Liability of not less than Two million dollars ($2,000,000) for each occurrence and covering (i) all of the Contractor's operations, (ii) operations of the Contractor's subcontractors, (iii) Contractor's completed operations, (iv) motor vehicles of every description for which the Contractor is legally responsible, and (v) pedestrian and other non-motor vehicular traffic of every description for which the Contractor is legally responsible during the Project construction.

Minimum coverage for Personal Injury and Property Damage Liability and Automobile Bodily Injury and Property Damage Liability shall be as specified in Section 107.01 of the Special Provisions.

The Contractor shall provide three copies of a certificate of insurance to the Department in advance of any activities conducted within Department rights-of-way.

I. SPECIFICATIONS AND ATTACHMENTS

In addition to the items covered in this Technical Provisions and attachments, the Contractor shall use the following for the design and preparation of Construction Drawings, Project Specifications, and Detailed breakdown of contract items.

State of Hawaii, Department of Transportation Highways
Division STANDARD PLAN, 2008 and subsequent revisions

All applicable	Check with the Department Project Manager, Mr. Emilio Barroga at 692-7546 and contact for revisions at Project award.

Hawaii Standard Specifications for Road and Bridge Construction

All Applicable Section	Use and modify all applicable sections from the 2005 "Hawaii Standard Specifications for Road and Bridge Construction" and sections from the Special Provisions 200-700 series that become applicable. Latest versions of Special Provisions sections are available from the Department's website.

J. DESIGN-BUILD QC/QA PLAN REQUIREMENTS

1. Description

The Design-Build Quality Control/Quality Assurance (QC/QA) plan, submitted as part of the proposal, must be approved by the Department prior to design NTP. This approval will occur after selection in order to allow minor modifications to the QC/QA plan if necessary. No work activities may proceed until the Contractor's Quality Control Plan has been approved in writing by the Department.

The plan shall detail how the Contractor will ensure quality control and quality assurance for both the design and construction elements of the project, coordinate design review with the Department or other affected agencies, perform tests in strict compliance with the latest edition of "Hawaii Department of Transportation, Highways Division, Quality Assurance manual for Materials" for quality control, provide inspection, and exercise management control to ensure that work conforms to the contract requirements.

The Design-Build QC/QA Plan shall include a description of the quality control and quality assurance organization, including the number of full-time equivalent employees with specific Quality Control and/or Quality Assurance responsibilities and including a chart showing lines of authority and reporting responsibilities. The persons and organizations performing Quality Control

and/or Quality Assurance functions shall have sufficient authority and organizational autonomy to identify quality problems, and to initiate, recommend, and verify implementation of solutions. Persons performing Quality Control and/or Quality Assurance functions shall be at an organizational level which ensures that they are not influenced by the impact of implementation of Quality Control and/or Quality Assurance measures on the Project schedule, performance or cost. To ensure the above organizational independence, at the very least, the QC/QA organization shall be established as a separate entity operating under a separate profit center from the design and production organization. All key personnel performing Quality Control and/or Quality Assurance functions shall be exclusively designated to such and shall not be assigned to perform conflicting duties.

Partnering should be considered an integral part of the Design Quality Control/Quality Assurance program. A partnering agreement is recommended to handle disputes. In addition a separate procedure for conflict resolution should be developed and agreed to by the partnering participants. The procedure should include, but is not limited to, the following elements.

a. Disputes should be delegated to the lowest appropriate level of authority on the project team to resolve within a specified timeframe.
b. A timeframe for each level of authority should be established before the project begins for a list of typical disputes that could occur on a project.
c. Appropriate parties required to facilitate/address conflicts or disputes shall be available within a 24-hr timeframe or time mutually agreeable to all parties.
d. If the dispute is not resolved to the satisfaction of both parties within the specified timeframe, the dispute would automatically be escalated to the next level of authority on the project team.
e. If left unresolved, the process would then continue to escalate to the highest level of authority where a final resolution would be arbitrated by an unbiased third party, whose selection would be agreed upon in advance as part of the QC/QA Plan.
f. A written report describing the dispute, all subsequent actions, and final disposition of the dispute should be submitted to the project records.
g. If subsequent disputes arise on the same issue, the written report should be included as a resource during the resolution process.
h. Disputes not resolved informally through the partnering process may be brought by either party to the Disputes Review Board.

2. Contractor QC/QA Staff

At a minimum, Contractor QC/QA staff shall include the following:

a. Contractor Quality System Manager

The Contractor Quality System Manager is the individual with overall responsibility for development of and adherence to the Design-Build QC/QA Plan. This individual shall be a Professional Engineer licensed by the State of Hawaii having a minimum of ten years supervisory

experience in roadway or bridge design or ten years supervisory experience in inspection or materials testing on highway transportation construction projects or a combination thereof.

b. Contractor Design QC/QA Manager

The Contractor Design QC/QA manager is the individual with overall responsibility for the Design portion of the Design-Build QC/QA Plan. This individual shall have a minimum of five years supervisory experience in roadway design on highway transportation construction projects.

Once construction commences, the Contractor Design QC/QA manager or his designated representative shall make weekly visits to the project site. A site inspection report which includes the purpose of the inspection, items reviewed, deficiencies observed, recommendations and additional actions required, shall be furnished to the Department within three working days following the site visit date.

c. Contractor Construction QC/QA Manager

The Contractor Construction QC/QA manager is the individual with overall responsibility for the Construction portion of the Design-Build QC/QA Plan. This individual will be responsible for implementing, monitoring and, as necessary, adjusting the processes to assure acceptable quality. This individual shall have a minimum of five years supervisory experience in inspection or documentation or testing materials or combination thereof on highway transportation construction projects, and shall meet one of the following additional requirements:

- A Professional Engineer registered in the State of Hawaii with at least two years of highway materials and/or inspection experience acceptable to the State, or
- A Bachelor of Science Degree in Civil Engineering, or Construction with at least six years of highway materials and/or inspection experience acceptable to the State.

The Construction QC/QA Manager or his designated representative shall be available or on the project within four hours of being notified of a problem regarding the quality control of any work being done by the Contractor, or any of its subcontractors or agents.

d. Quality Testing Supervisor

The Quality Testing Supervisor may be an employee of the Contractor's laboratory, and shall be on the site during testing. The Quality Testing Supervisor shall meet one of the following requirements:

i. A Professional Engineer, registered in the State of Hawaii, with at least one year of highway materials testing experience acceptable to the State, or

ii. A Bachelor of Science Degree in Civil Engineering or related field acceptable to the Department; and at least three years of highway materials testing experience acceptable to the State, or
iii. An individual with at least eight years of highway materials testing and construction experience acceptable to the State.

In addition to the above, technicians and inspectors shall be employed when necessary. The Testing Technicians and Inspection Technicians shall have the following qualifications:

e. Inspection Technicians

The Contractor's QC/QA Inspection Technicians shall have a minimum of three years roadway construction inspection experience in the work activity being inspected and shall be certified by the Department's Materials Testing and Research Branch for material sampling and testing.

3. Design QC/QA Plan Requirements

a. General

The quality control and quality assurance procedures for each type of Design Document and Construction Document shall be organized by engineering discipline (such as structural, civil and utilities). These procedures shall specify measures to be taken by the Contractor (1) to ensure that appropriate quality standards are specified and included in the Design Documents and Construction Documents and to control deviations from such standards, it being understood and agreed that no deviations from such standards shall be made unless they have been previously approved by the Department at the Department's sole discretion, and (2) for the selection of suitability of materials, and elements of the Work that are included in the Project.

The Design QC/QA Plan shall include the following:

Quality control and quality assurance procedures for preparing and checking all plans, calculations, drawings and other items submitted, to ensure that they are independently checked and back-checked in accordance with generally accepted engineering practices, by experienced engineers. The originator, checker and back-checker shall be clearly identified on the face of all submittals. Specific procedures for verifying computer programs used shall also be included. Plans, reports and other documents shall be stamped, signed and dated by the responsible Hawaii registered engineer where required under the Contract Provisions, under generally accepted engineering practices or by applicable laws.

The plan shall set forth the level, frequency and methods of review of the adequacy of the design of the Project, including the methods by which all final Design Documents and Construction Documents shall be independently reviewed and verified for adequacy of design and

back-checked in accordance with generally accepted design and engineering practice by experienced engineers not involved with the preparation of such Documents.

The plan shall set forth the procedures for coordinating Work performed by different persons in the same area, or in adjacent areas or in related tasks to ensure that conflicts, omissions or misalignments do not occur between drawings or between the drawings and the specifications and to coordinate the review, approval, release, distribution and revision of documents involving such persons.

The plan shall identify those elements of the Contract Provisions, Design Documents or Construction Documents, if any, requiring special Quality Control and/or Quality Assurance attention or emphasis, including applicable standards of quality or practice to be met, level of completeness and/or extent of detailing required.

The plan shall identify by discipline, the name, qualifications, duties, responsibilities and authorities for all persons proposed to be responsible for QC/QA.

The plan shall state any requirement for, and the name, qualifications, duties, responsibilities and authorities of, external technical experts necessary to ensure the quality of the design of the Project, the anticipated timing of use of, the expected availability of, and any coordination required with respect to any such experts.

The plan shall describe the required design quality control and assurance functions, including scheduled activities for Design QC/QA identifying the Design Documents and Construction Documents to be delivered to the Department for its review at each stage of the design or work phase of the Project.

All documents shall be maintained by the Contractor for the duration of the Contract and shall be organized, indexed and delivered to the Department (1) upon Final Acceptance unless required to be delivered earlier pursuant to the Contract Provisions, or (2) even if incomplete, within seven days of receipt of request from the Department. These documents should include but not be limited to the following items: design criteria, reports and notes, calculations, drawings, schematics, supporting materials, etc.

b. Department Review of Design Work

The Department will not officially approve Design Work after initial acceptance of the Contractor's Proposal, except as noted for approved Alternative Technical Design concepts (ATC), right of way plans, and permit documents. The Department will reach agreement with the Contractor on dates and times for design reviews, and will comment on Design Work. Responses to comments are required unless specifically noted otherwise by Department. If the Department at any time

determines that the Design Work is proceeding which does not conform to Contract or plan requirements, the Department reserves the right to suspend work for cause until resolution of the issue.

c. Design Quality Review

Prior to the release of final Design Documents and Construction Documents, the Contractor shall complete review with engineers experienced in the appropriate disciplines(s). The review shall verify that the Design Documents and Construction Documents were prepared in such a manner as to ensure that they will be acceptable to the Department, as well as the Design-Build Team. The criteria used in such review shall include (1) conformity of the final Design Documents and Construction Documents with the Contract Provisions; (2) assurance that all materials, equipment and elements of the Work provided for in such documents which shall be incorporated into the Project have been provided for and designed to perform satisfactorily for the purpose intended; (3) the appearance, organization, technical and grammatical accuracy of such documents; (4) verification that such documents have been checked and signed by the drafter, designer, checker and reviewers; (5) where required under the contract, generally accepted engineering practices or applicable law, verification that such documents have been stamped, signed and dated by the responsible Hawaii registered civil engineer; and (6) assurance that such documents fully provide for constructability, compatibility of materials and conformity to acceptance criteria for inspections and tests as provided in the Contract.

d. Plan Approvals by the Department

Permit drawings and utility construction drawings shall be developed to the appropriate design standards as specified. The Department or the appropriate agency shall approve these drawings after a thorough review for completeness and conformance to standards. The Department will return all non-conforming drawings to the Contractor for corrective action.

1) Plans Distribution

The Contractor shall provide to the department copies (20 sets ½ size, 5 sets full size) of the following documents, with all design changes and revisions shown, upon their being stamped "Released for Construction". These documents will be used by the department to facilitate their administration and inspection responsibilities:

- All Design and Construction Documents
- All shop or fabrication drawings which have been approved by the Contractor
- All forming plans which have been approved by the Contractor
- All traffic control plans which have been approved by the Contractor

e. QC/QA of Design Changes

Changes, including field changes, in the design of the project or any portion thereof as shown on the Design and Construction Documents, shall be subject to design QC/QA measures and procedures commensurate with those applied to the original design of the portion of the Project being changed. Furthermore, all changes described in this Section shall be approved in writing by the organization that performed the original design, with the written approval of the Department. Any changes affecting the basic configuration of the Project shall also be subject to the requirements contained in this Section. Documents containing design and/or field changes shall be distributed according to the requirements set forth in the section entitled "Plans Distribution".

f. Submittals for Review by Department

Design and Construction Documents relating to the following construction phases shall be submitted to the Department for review. Department approval of these submittals is not required and will not be provided. Any review comments made by the Department will be provided, in writing, to the Contractor within 28 calendar days, or as agreed to in writing. The following table indicates the submittals for review.

The Contractor shall be fully responsible for the schedule impacts and costs of revisions arising from the Department's review of the Construction Documents for consistency with the requirements of the Contract Provisions and caused by the Contractor's non-compliance with Contract requirements.

Project Phase	**Documents**
Environmental	Permanent Best-Management Practices Report NPDES Permit Noise Variance Other Environmental Clearances Required
Earthwork	Roadway Geometrics (Plan and Profile) Channelization Plan Traffic Control Plan Erosion Control Plan Clearing & Grubbing Roadway Quantities Geotechnical Report Construction Specifications
Geotechnical	Draft Geotechnical Report Final Geotechnical Report

Construction Phase	Documents
Surfacing and Pavements	Pavement Justification Report Roadway Geometrics Roadway Sections Superelevation diagrams Paving Quantities Paving Plan Construction Specifications
Bridge Deck Replacement Concrete	As required in Section 676 "Concrete Deck Repair"
Drainage Structures & Hydraulics	Hydraulics Report Design calculations Drainage Plans & Profiles Drawing & Special Details Construction Specifications
Safety and Traffic Items	Phasing and Construction Sequence Report Sign Inventory Traffic Markings and Delineation Guardrail Highway Lighting Signal System Permanent Signing Traffic Management Plan Work Zone Traffic Control Construction Specifications Safety Plan
Misc. Construction	Plans and Plan Details Construction Specifications

4. Construction QC/QA Plan Requirements

   a. General

   The plan must at a minimum address the following:

   1. Describe the Contractor's quality control organization, including the number of full-time equivalent employees with specific Quality Control and/or Quality Assurance responsibilities and including a chart showing lines of authority and reporting responsibilities;
   2. List by discipline the name, qualifications, duties, responsibilities and authorities for all persons proposed to be responsible for Construction Quality Control and/or Quality Assurance;
   3. Project progress schedule;
   4. Submittal schedule;
   5. Inspection requirements;
   6. Quality control sampling, testing, and analysis plan with frequencies, location and methods;
   7. Identify the laboratory(s) to be used;

8. Specify documentation for QC/QA activities, including control charts; and
9. Department's requirements for corrective action when quality control and/or acceptance criteria are not met.

The Contract Provisions may also require specific quality control measures for certain materials. When so required the Contractor shall provide all personnel, equipment, supplies, and facilities necessary to perform quality control, obtain samples, and perform tests required in the Contract Provisions.

b. Contractor Responsibilities

The Contractor shall be responsible for the quality of construction and materials incorporated into the project. The Contractor's Quality Control measures are to insure that operational techniques and activities provide material of acceptable quality. Contractor's sampling and testing shall be performed in strict compliance with latest edition of "Hawaii Department of Transportation, Highways Division, Quality Assurance Manual for Materials".

c. Department's Responsibilities

Verification sampling and testing will be performed by the Department to validate Contractor sampling and testing as well as the quality of the material produced. An Independent Assurance Program will also be conducted by the Department to evaluate all sampling and testing used in the acceptance of material.

The Contractor shall provide a schedule for material testing to be conducted by the Department as required by these documents. The schedule will clearly state the response time required to avoid impact to the project schedule. The response times shall be mutually agreed to.

The Department shall be solely responsible for determining the acceptability of materials incorporated into the project. The acceptance decision will consider results of Contractor sampling and testing at specified frequencies and locations, verification sampling and testing at specified frequencies and locations, inspection by the Department of the attributes and processes that may affect the quality of the finished product, and a dispute resolution system to resolve discrepancies between the verification sampling and testing and the Contractor sampling and testing. The testing of referee samples to resolve disputes will be done by the Department.

The persons and organizations performing Quality Control and/or Quality Assurance functions shall have sufficient authority and operational independence to identify quality problems, and to initiate, recommend, and verify corrective actions. Persons performing Quality Control and/or Quality Assurance functions shall be designated as such and shall not be assigned to perform any conflicting duties.

d. Activities Meetings

Prior to the start of any work activity, the Contractor shall hold an Activity Meeting to ensure that all project personnel have a thorough understanding of work to be done. Work activities generally correspond to the sections of the Standard Specifications, such as clearing and grubbing, earthwork, etc. or a definable feature of work such as a pre-paving conference. The Activity Meeting should include discussions relating to what will be accomplished, by whom it will be performed, and where, when, and how the work will be done. The Activity Meetings are to ensure that all parties have the same understanding of the design intent, have the appropriate plans, specifications and any special details, and are aware of safety regulations and procedures that need to be followed. At this time the QC inspection checklist for this activity should be reviewed. Activity Meetings shall be scheduled several days in advance of the actual work beginning on an activity to allow for additional preparation if necessary. The Activity Meetings shall be planned and conducted by the Contractor Construction QC/QA Manager. Minutes of the meeting shall be taken to document any clarifications and understandings related to the construction of the item that are not documented elsewhere. Activity Meetings are classified as hold points and shall be identified in the Contractor's QC/QA plan.

e. Contractor Sampling and Testing

Contractor field and laboratory sampling and testing shall be performed as specified in the Specifications and the Technical Provisions. Sampling and testing shall be performed by qualified testing personnel certified by the Department's Materials Testing and Research Branch. Representative samples shall be randomly obtained by the Contractor at specified frequencies and locations. The Contractor shall furnish copies of all test results to the Department within 24 hours of acquiring the sample or the next day of business.

The Contractor shall provide to the Department a testing plan for each material. The testing plan shall be submitted prior to the beginning of production or placement of the material.

5. Quality Control Inspections

a. Witness and Hold Points

Witness and Hold Points are to be established where notification of the Department is required for the Department's option of observing or visually examining a specific work operation or test. Witness Points are points identified within the inspection plan which require notification of the Department. Work may proceed beyond a witness point with or without participation by the Department provided proper notification has been given. Hold Points are mandatory verification points identified within the inspection plan beyond which work cannot proceed until mandatory

verification is performed and a written release is granted by the Department. Witness and Hold Points should be identified in the construction process where critical characteristics are to be measured and maintained, and at points where it would be difficult, time consuming, and costly to determine the adequacy of either materials or workmanship once work proceeds past this point. All Activity Meetings shall be included in the Contractor's QC/QA Plan as Hold Points.

b. Coordination and Notification

The Contractor's Construction QC manager shall designate a primary point of contact for notifications for inspection at hold points and witness points. An alternate individual may be designated to function in this capacity in his/her absence. The Department will also designate one individual, and an alternate, to handle responses to the Contractor with written reports or releases for hold and witness points.

The time necessary to respond to the notification for inspection at hold and witness points shall be stated in the Contractor's QC Plan and shall be mutually agreed to by both the Contractor and the Department.

c. Hold Points

The following are mandatory hold points for inspections to be performed by the Department. The Contractor may wish to include others.

1. Structures (incl. all foundations)
   i. Pearl City and Waimalu Viaduct Improvements:
      - Pre-Operational Conference as described in Section 676. Concrete Deck Repair
      - Pre-Operational Demonstration as described in section 676 Concrete Deck Repair
   ii. Pearl City and Waimalu Viaduct Improvements Deck Sounding. The Department will confirm the limits of deck repair identified and marked by the Contractor.
      - The repair area shall include as many previously repaired spalled areas as practical.
      - Repair area shall be rectangular and the cold joint between the existing and new concrete (parallel to traffic) is located above a girder bulb.
      - Confirm the square footage of deck to be repaired.
   iii. Pearl City and Waimalu Viaduct Improvements Deck Replacement Concrete.
      - Early strength of the concrete shall be confirmed using maturity meters.
   iv. Prior to all concrete pours
      The Department will check that the Contractor has completed the following:
      - Rebar size, spacing and splices have been checked

The Department will perform the following independent inspections or checks:

- Spot check form dimensions
- Check that concrete mix design has been reviewed by the Department
- Pre-pour meeting held

v. For walls, the Department will inspect footing excavation base prior to concrete pour.

2. Pavements

i. Asphalt Paving – pre-paving conference

The following elements will be discussed:

- QC sampling and testing discussed
- Compaction test sites determined
- Traffic control
- Hours of operation
- Weather & surface temperature limitations

d. Witness Points

The following are witness points for inspections or checks that the Department may elect to perform. The Contractor may wish to include others.

1. Compaction

The Department shall be given the opportunity to check that the Contractor has completed the following:

i. Embankment
- Compaction – minimum one test/ lift

ii. Backfill Zones
- Compaction – minimum one test/ lift

iii. Surfacing
- Compaction – minimum one test/ lift

e. Quality Control Inspection

The QC Plan shall contain inspection plans for each construction work item included in the project whether performed by the Contractor or a subcontractor or vendor. Work items may be definable features or items of work defined by the Hawaii Standard Specifications for Road and Bridge Construction, 2005.

f. Work Activities

The Contractor shall provide inspection for all work activities for conformance with the construction requirements in the Contract Provisions.

g. Inspection Guidelines

Inspections shall be performed during all phases of the project from start to completion in order to assure that the work meets, and is being performed in accordance with, the Contract Provisions, plans, specifications, approved submittals, and any other requirements.

i. Inspection Documentation

Each of the Contractor's QC inspectors shall summarize their daily inspections, test and material sampling activities in a daily report. The Department's Inspectors Daily Report or a similar form shall be used for maintaining a written record of inspection results. Copies of the inspector's diaries shall be provided to the Department daily.

K. PUBLIC RELATIONS AND PUBLIC COMPLAINTS

The Department's goal is to minimize the emotional and physical impact on roadway users, businesses and neighborhoods that abut, or are serviced by, the roadway that comprise this project. It will be the responsibility of the Contractor to provide the following services for the well-being of the affected highway users, residents, and businesses.

The Contractor shall provide a public information specialist responsible for managing public information and public involvement activities outlined below. This staff member shall be experienced in public works projects, including newsletter writing, design and production, direct mailing, telecommunications, news release writing, webpage management, and public speaking. This public information specialist will be expected to work with the Department staff in a team effort to help promote public satisfaction with the project. All information released shall be approved in advance by the Department.

The public information specialist shall have "real-time" access to all project details that may be relevant to the public, public agencies, emergency service providers, businesses, and other interested groups. The public information specialist is expected to provide that "real-time" information to the Department's public information staff located at the Highways Division office at (808) 587-2160, or by email at DOTPAO@hawaii.gov on a weekly basis at a minimum, and more frequently if deemed necessary by the Department. The public information specialist is also expected to maintain a hotline to handle public inquiries and complaints. In addition, the contractor may also utilize a website. Responses to inquires and/or complaints shall be provided within a 24-hour period.

Although media interviews will mainly be the responsibility of the Department, the Contractor or the public information specialist may be asked to provide the media

with an interview or other information on short notice. In such a case, the Contractor or the public information specialist shall deliver a message consistent with the Department's message. The Contractor or designee shall inform and coordinate this activity with the Department prior to the interview.

In addition, all written, audio and video materials produced by the Contractor's staff for public dissemination shall comply with the Department's standards. A copy of all such materials shall be provided to the Department for pre-approval at least seven (7) calendar days prior to scheduled distribution.

The goal of written, audio or video materials should be to increase stakeholder satisfaction of the project by educating and informing the public about the project, including long-term, short-term and daily disruptions or changes to traffic conditions, project benefits, project staging when appropriate, and other relevant issues.

At least two weeks before construction activities begin, the Department's public information staff will meet with the Contractor and public information specialist to review the following requirements.

1. Public Meetings

   The Contractor shall have well-trained and informed speakers available for public meetings, community and civic organizations, neighborhoods associations, private businesses, and other stakeholders.

   The Contractor shall organize, prepare, attend, and conduct, a minimum of 4 Public Informational Meeting (PIM). Two PIMs will be conducted during design to provide project status and information to the community. A third PIM will be conducted just prior to construction to advise the community of temporary construction impacts and schedule. A fourth PIM will be conducted after the start of construction to address any public complaints received by the Department or the Contractor.

   If required and as solely determined by the Department, any additional PIMs conducted by the Contractor may be considered as extra work and compensable by change order. The Department will not pay for the cost of public meeting(s) associated with permits. The Department will consider the cost of the public meeting(s) associated with the permits, such as the PIM for noise variance, as included in the contract prices for the various contract pay items.

   For each meeting, the Contractor shall be responsible for providing technical assistance, data, information, display boards, printed materials, video graphics, and other forms of information necessary for dialogue with the public. The Contractor shall also provide the necessary staffing and video equipment to present the information. The Contractor shall find a suitable venue to conduct the PIM and make arrangements to reserve the meeting facility. The Contractor shall make accommodations for disabled or disadvantaged people. The Contractor shall submit a newspaper notice to the Department for approval no later than 10 days prior to publishing in the

Advertiser and Star Bulletin. The notice shall be published in the Honolulu Advertiser and Honolulu Star Bulletin no later than 14 calendar days prior to the PIM date.

Upon completion of the PIM, the Contractor shall prepare a list of attendees and meeting minutes. The meeting minutes shall accurately record all discussions in the PIM and identify all action items and responsible parties for each action item. Five (5) hard copies and one pdf copy of the list of attendees and meeting minutes shall be provided to the Department within seven calendar days from the PIM date.

2. Bi-Weekly Progress Reports

   The Contractor shall provide updates every two weeks to the Department. That information should specify details of the following periods closures, detours, general project status and other information relevant to the motoring public.

   The Contractor shall provide the Department Project Engineer a bi-weekly summary of public inquiries, complaints and comments that includes general categories and trends of comments and an explanation of how the Contractor has responded to those comments.

3. The contractor shall develop, update, and host a project web page that will contain information listed below:

Information	Update Frequency
Project Work Scope	Beginning of job, and 14 calendar days prior to starting physical work on any major scope changes
Project Site Map	Beginning of job
Contractor call-in number for complaints	Beginning of job
Progress Schedule/ Milestones	Beginning of job and when schedule is adjusted. Schedule changes must be approved by the Department prior to posting.
Work progress narrative with sketches	every 2 weeks
Scheduled Road/Lane Closures	14 calendar days prior to closure changes. The Department shall be provided 14 calendar days notice for any road/lane closures or changes to road/lane closures.

L. CONTRACT TIME

The Contract Time shall be either a maximum of 700 calendar days from date of Design Notice to Proceed to completion of all construction work items, or the duration shown in the Project Schedule submitted as part of the Design Documentation Requirements in Section IV.C.1. (h) plus 30 calendar days, whichever is less. For any work beyond the established Contract Time, the Contractor will be subject to Liquidated Damages in accordance with Subsection 108.08-Liquidated Damages for failure to complete the work or portions of the work on time.

M. ANTICIPATED REQUEST FOR PROPOSAL SCHEDULE

The Department anticipates the following timeframe for the Request for Qualifications, Design and Price Proposal, and Evaluation:

1.	Qualifications Proposal:	3 Weeks
2.	Department Evaluation, Rank, and Invitation:	2 Weeks
3.	Design and Price Proposal:	3 Months
4.	Evaluation, Award or Best and Final Offer:	1 Month

III. QUALIFICATIONS PROPOSAL

Each Contractor interested in being considered for this project is required to submit a Qualification Proposal, limited to 100 pages, no later than the date and time specified in the Request for Proposals, at the Department of Transportation Contracts Office, 869 Punchbowl Street, Room 105, Honolulu, Hawaii, 96813.

The Department has scheduled a mandatory pre-qualifications proposal meeting for all interested Contractors at the time, date, and location specified in the Request for Proposals. At a minimum, the Department requires that representative(s) from the prime firms making up the contractor-design team attend this meeting. The purpose of this meeting will be to present a summary of the information contained in the technical provisions related to the Project scope of work and requirements: and to the proposal, selection and award process. The Department will give all attendees an opportunity to pose any questions to the Department. Meeting minutes will be taken and these minutes will be issued as an addendum before the qualifications proposals are due.

A. QUALIFICATIONS PROPOSAL ITEMS

The Qualifications Proposal shall contain the following:

1. Contractor, key subcontractors and key consultants' experience and qualifications relevant to the Project and to Design Build process. Key personnel should include, but may not be limited to, Project Manager, Design Lead, Construction Lead, QC/QA Manager, QC/QA personnel, and Public Information Specialist. Documentation showing 2 years experience by prime or sub-contractor in bridge deck repairs including the use of volumetric concrete mixers and a minimum of 5,000 square feet of bridge deck construction repairs all completed within the last 4 years.

2. Past performances on highway projects of similar scope. Provide a list of specific projects, owner, and client contacts. Indicate which projects, if any were Design Build.
3. Capacity to accomplish the work in the required time (Contractor's proposed staffing plan showing the organizational structure proposed to accomplish the management, design and permitting, construction, quality control, and administrative services).
4. Contractor's understanding of the project scope of work and the Contractor's proposed approach to accomplishing the work;
5. Submit a Draft Quality Control Plan, which at a minimum shall provide an organizational chart identifying the personnel, the name of the laboratory(s), and the flow chart of the documentation that will be required to comply with the requirements of Department's Quality Assurance Manual for Materials, October 2001.
6. Demonstration of financial capability. This may include a certification or letter from a financial institution attesting that the contractor-designer team is financially capable of undertaking the project. If balance sheets, consolidated statements of income or consolidated statements of cash flow are included, the Contractor shall enclose one copy of these documents in a separate sealed envelope marked "CONFIDENTIAL". The financial documents in the separate sealed envelope will not be counted towards the 100 page qualification proposal limitation.

Submit 10 hard copies of the Qualification Proposal in a bound volume on 8 ½ "x 11" letter size paper. Drawings, charts, or exhibits may be of larger size up to 11" x 17" folded down to letter size. To facilitate the Department's review, the Design Builder shall include a Table of Contents and tab each of the above six items clearly.

In addition to the items contained in the six categories above, a completed CONFLICT OF INTEREST (COI) DISCLOSURE FORM shall be included as a separate tabbed appendix to the Qualification Proposal. A blank form is provided after the Technical Provisions. All potential conflicts of interest must be disclosed in the COI Disclosure Form. The proposer may include a conflict mitigation plan as described in the COI disclosure form. If the proposer was aware of an organizational COI as defined in the COI form prior to award of the contract and did not disclose the conflict or potential COI to the Department, the Department may delay contract execution or rescind award, or may terminate the contract for default if discovery is made after contract execution on the COI is not addressed. The separately sealed financial documents, the COI forms and tabs will not count against the Qualification Proposal 100-page limitation.

The COI forms shall be used throughout the term of the contract to disclose any conflicts that may arise (i.e. new contract awards, replacement of subcontractors/subconsultants, etc.).

Submit a pdf copy of the Qualification Proposal, including the COI disclosure forms, on CD-ROM or DVD.

B. QUALIFICATIONS PROPOSAL EVALUATION CRITERIA

The Department's Review Committee will review the Qualifications Proposal and a Qualifications Score will be based on the following criteria items tabulated below:

	CRITERIA ITEM	MAXIMUM POINTS	ACTUAL POINTS
1	Experience and qualifications of the Contractor's staff (engineers and construction members to be assigned to the Project), relevant to the Project and to the Design Build process.	30	
2	Past performance on highway projects of similar scope for public agencies or private industry. Provide a list of specific project titles, project owners, and current contacts. Indicate which projects were Design Build.	25	
3	Capacity to accomplish the work in the required time (Contractor's proposed staffing plan showing the organizational structure proposed to accomplish the management, design and permitting, construction, quality control, and administrative services.)	20	
4	Contractor's understanding of the project scope of work and the Contractor's proposed approach to accomplishing the work.	15	
5	Draft Quality Control Plan, which at a minimum shall provide an organizational chart identifying the personnel, and the flow chart of the documentation that will be required to comply with the requirements of Department's Quality Assurance Manual for Materials, October 2001.	10	
	QUALIFICATION PROPOSAL SCORE:		_____ pts

Total Qualification Points Possible = 100 Points

The total number of pages including introductory letters, evaluation criteria items, exhibits, and references shall not exceed 100 pages. Tabs will not be counted as a page. A penalty of five points will deducted from the total score for each page exceeding the 100 page total limit. If double-sided pages are used, each printed face will count as one page. (Example, 2 sheets of paper with one sheet double sided print and one sheet single sided print will count as three pages.) All pages shall be numbered.

All information required for the Department to properly evaluate the proposers for each criteria item contained in six categories identified MUST be submitted in the Qualifications Submittal for the Department to assign a credible score. Failure to provide complete information in the Qualifications Proposal will automatically result in a reduced score for a given Criteria Item where complete information is not provided. If no information is provided for a given criteria item, this will automatically result in a score of zero points for the criteria item. In addition, the Department, at its sole discretion, may deem the Qualifications Submittal as non responsive if the information submitted is incomplete and the Department is unable to assign a credible Qualifications Proposal score due to the incomplete submittal.

The maximum Qualifications Proposal score is 100. Any score of 60 or less will be considered as non-qualified for the project.

In the event only one qualified Contractor remains after all Qualifications Proposals are evaluated, the Department reserves the right to cancel this Request for Proposals and re-advertise the project.

C. DETERMINATION OF TOP THREE QUALIFIED CONTRACTORS

The Department will use the three highest Qualifications Proposal Total Scores to determine the top three qualified Contractors who will be invited to submit Design and Price proposals. In the event of a tie, the Contractor with the higher sum of criteria item numbers 3 and 4 will prevail.

For Example:

Contractor	Qualifications Proposal Total Score	Total Sum of 3 and 4	Rank
Contractor A	75	30	3*
Contractor B	75	25	4
Contractor C	78	30	2*
Contractor D	80	35	1*
*Contractors invited to submit Design and Price Proposal			

When the Department's determination of the top three qualified Contractors is made, the Department will notify the selected and non-selected firms in writing within the time frame outlined in the Notice to Proposers. The Department will invite the top three qualified Contractors to submit a Design and Price Proposal as described in Section IV below.

IV. DESIGN AND PRICE PROPOSAL

The Design and Price Proposal shall consist of design documentation and price, to be received no later than the date and time specified in the Request for Proposals at the Department's Contracts Office, 869 Punchbowl Street, Room 105, Honolulu, Hawaii, 96813.

By submitting a Design and Price Proposal, the Contractor acknowledges the Contractor's team is fully qualified to complete the Project and that the allocated time was sufficient to collect the necessary information and to prepare designs to base its price proposal. There will be no claims due to "insufficient time to collect information and prepare studies and designs."

Once the Design and Price Proposal is submitted to the State, the Department becomes the owner of the Design Documentations. After the winning Contractor is selected and the project is awarded, the Department may disclose desirable elements from the second ranked and third ranked designs to the winning Contractor. Those Alternative Technical Concepts (ATCs) identified by the second and third ranked proposers will remain confidential.

Any variations from the Scope of Improvements or any other section of this RFP, including Alternative Technical Concepts (ATC), shall be identified by the Contractor. Any variations, either perceived or noted by the Contractor shall not necessarily cause a proposal to be considered non-responsive. The Department will assess the variations during the evaluation process and score the proposal accordingly.

A. REQUESTS FOR INFORMATION

The Department will accept Requests for Information (RFI) related to preparing the Design Documents up to 40 calendar days prior to the Proposal (Design and Price Proposal) submittal date specified in the Request for Proposals. All RFI's will be received by the Department in writing, by FAX, letter, or email by 4:00pm of this date. RFI's shall be emailed to the following address: emilio.barroga@hawaii.gov or faxed to the following number: (808) 692-7555, attention: Emilio Barroga. No verbal inquiries will be accepted by the Department.

The Department's responses to the RFI's related to the preparation of the design documents will be issued by Addendum no later than 30 calendar days prior to the Proposal submittal date. After the Addendum is received, the Contractors shall finish their design documentation according to their best understanding of the project given all information received in this Request for Proposal Documents, in the mandatory pre-qualifications proposal meeting, and any addenda documents received to that point.

B. ALTERNATIVE TECHNICAL CONCEPTS

The Department will accept proposed Alternative Technical Concepts (ATC) related to preparing the Design Documents up to 40 calendar days prior to the Proposal (Design and Price Proposal) submittal date specified in the Request for Proposals. All proposals will be received by the Department in writing at 601 Kamokila Boulevard, RM 688, Kapolei, HI 96707, attention: Mr. Emilio Barroga. No verbal proposals will be accepted by the Department. Prior to the 40 calendar day Proposal submittal date, the Contractor may schedule up to three (3), two (2) hour confidential meetings with the Department to discuss ATC. The Department will require 7 calendar days advance notice prior to meeting date.

The Department's responses to the proposed ATC will be issued in a letter to the Contractor. The Department will respond to proposed ATC requests within 10 calendar days of receipt of written ATC proposal.

1. General: To promote innovation by the Proposers and to maintain flexibility of design and construction, the Department will allow Proposers to submit for consideration Alternative Technical Concepts (ATCs) that provide a variation in the Scope of Improvements and/or to other sections of this RFP.

   Proposed ATCs must not have an adverse effect on project quality and objectives as determined by the Department at its sole discretion. Proposed ATCs most likely to receive favorable consideration are those that are consistent with the Departments goals and objectives, and more specifically, improve safety, maximize efficiency, incorporate technical innovation while not compromising safety, reduce project schedule, minimize traffic impacts, or otherwise improve the quality of the project or reduce the contract time, thereby benefitting the traveling public.

   Proposers must demonstrate that the proposed ATC was either used successfully on a similar project under comparable circumstances or otherwise demonstrate the reliability and efficiency of the proposed ATC. The Department will not consider any change that would require excessive time or cost for review, evaluation, investigation, or that does not result in increased benefits or savings to the Department.

   ATC's related to Section 676 "Concrete Deck Repair" must be submitted in accordance with the deadline for Pre-Proposal submittals of ATCs. ATC's received after the deadline will not be considered and may result in an unresponsive proposal.

2. Pre-Proposal submittal of ATCs: To be considered, a proposed ATC must be submitted to the Department no later than 40 calendar days prior to the proposal (Design and Price Proposal) submittal date. This deadline applies to both initial ATCs and ATCs that have been revised for resubmittal in response to the Department's comments. Each ATC submittal package shall consist of 10 copies and shall address all of the following elements:
   - Description – A detailed description of and schematic drawings of the configuration of the ATC or other appropriate descriptive information including, if appropriate, product details (i.e. specifications, special provisions);
   - Usage – A description of where and how the ATC would be used on the project;
   - Variations – References to requirements in the RFP documents that are not consistent with the proposed ATC, an explanation of the nature of the variation from said requirements, and a request for approval of such deviations;
   - Analysis – An analysis justifying use of the ATC and demonstrating why the requested variation from the requirements of the RFP documents should be allowed;

- Impacts – Discussion of potential impacts the implementation of the ATC will have on vehicular traffic, including a traffic operational analysis, safety, and project life cycle costs (including impacts on the cost of repair and maintenance);
- History – A detailed description of other projects where the ATC has been used, the success of such usage, and current names/ telephone numbers of project owners that can confirm such usage;
- Benefit – An estimate of cost savings and added value likely to result if the ATC were approved and implemented;
- Goals – Discussion on how the ATC is consistent with the Departments Project Goals and Objectives.

3. Pre-Proposal Review of ATCs

Incomplete ATC submittal packages may be returned by the Department without review or comment. The Department may, in its discretion, request additional information regarding a proposed ATC and/or conduct meetings with the Proposer of ATC(s).

The Department will return comments to the proposer submitting the ATC within 10 business days of receipt, provided the Department has received all requested information regarding the ATC. The Departments determination will indicate one of the following:

- The ATC is approved; or
- The ATC is not approved; or
- The ATC is not approved in its present form, but may be approved upon satisfaction, in the Department's sole judgment, of certain identified conditions that must be met or certain clarifications or modifications that must be made; or
- The submittal does not qualify as an ATC, but is eligible to be included in the Proposal without an ATC (i.e. concept conforms to the basic scope of improvements and is consistent with other contract requirements).

C. DESIGN DOCUMENTATION

1. Design Documentation Requirements

The Design Documentation shall be done in sufficient detail to effectively present to the Department the scope of design and construction that is being priced and shall contain the following:

a. Contractor's proposed Project Incrementation Plan. Except for utility relocation(s), each increment shall result in a completed highway facility that is operational in every aspect typical of any active highway and can be opened for use by the traveling public.
b. Contractor's proposal of technical concepts such as additional traffic crossover, additional highway capacity, safety of the system, and flexibility of the system for future modifications to respond to changes in traffic demand.

c. 20 or 40 scale drawings showing the roadway, including approximate limits of work, grading limits, drainage systems, utility removal and relocation, highway lighting, signage, striping, signalization and traffic control. Other drawings at appropriate scales shall include structural plans, as required.
d. Preliminary drainage report covering the proposed drainage area.
e. Sample color-coded plan and cost estimate for one of the utility relocation;
f. Listing of anticipated permits and clearances to be obtained;
g. Contractor's quality control plan and proposed list of materials to be used for construction of the various elements; and
h. Project Schedule – A critical path method schedule showing the sequence of design, permitting and construction work leading to the completion of each increment and the Project. The schedule shall indicate the total number of calendar days from design Notice to Proceed (NTP) to Project completion. The number of calendar days derived from this Schedule plus 30 calendar days, if less than 700 calendar days, will be the Proposer's Contract time. See Section II.L. Contract Time. The schedule shall show a separate path for each increment outlining the sequence of design, permitting and construction work leading to the completion of an increment and the relationship of that increment to other increments. This schedule shall include the following milestones with sufficient documentation:
   (1) Geotechnical Investigation and topographic survey,
   (2) 50% Design Submittal,
   (3) 100% Design Submittal,
   (4) The Department design reviews and acceptance milestones as outlined in Section II.D,
   (5) Coordination with utility companies or agencies and the Department's processing of Utility Agreement(s) as outlined in Section II.E,
   (6) Procurement of construction parcels as outlined in Section II.F.
   (7) Coordination with government agencies,
   (8) Permitting submittals and approvals,
   (9) Start of Construction,
   (10) Sequencing any activity that relates to a contract pay item,
   (11) Increment completion, and operational and available for public use,
   (12) End of Job Design Submittals, and
   (13) Completion of All Work Items.
i. Traffic Management Plan shall be provided.
j. Anticipated Design Exception Requests shall be provided.
k. Detailed description of any deviations from Section 676 "Concrete Deck Repair".
l. Concrete deck sealer and corrosion inhibitor, including manufacturer's recommendations for installation.

Failure to submit any of the above information, or submission of information that is deemed insufficient for evaluation shall not necessarily cause a proposal to be considered non-responsive. The Department will assess the information provided, or lack thereof, during the evaluation process and score the proposal accordingly.

2. Design Documentation Submittal

The submittal shall contain the following:

a. 10 bound sets of drawings,
b. Three bound sets of preliminary drainage report(s),
c. 10 copies of a listing of anticipated permits and clearances to be obtained,
d. 10 plots of the Project Schedule neatly folded to 8 ½" x 11" size, and
e. 10 bound sets of the Contractor's quality control plan and proposed materials list.
f. Electronic pdf of all files submitted on CD(s).

3. Evaluation Criteria for Design Documentation

	CRITERIA ITEM	MAX POINTS	ACTUAL POINTS
1	Expediency of total project completion, including design and construction as indicated by the Project Incrementation Plan and Schedule submitted as part of the Design Documentation, Section IV.C.1.(h).	20	
2	All design documentation requirements have been addressed.	7	
3	Design documentation, which meets or exceeds the project objectives as determined by the Department.	50	
4	Design documentation that develops a roadway plan with the least negative impact and the greatest positive impact to the existing roadway facilities, including flexibility of the contraflow system to adapt to future traffic demands.	10	
5	Design documentation that the roadway design improvements provide the least operational and maintenance cost. Operational and maintenance costs shall be provided for a 20 year time frame including all necessary expenditures such as equipment, upgrades, etc.	10	
6	Documentation, which addresses efficiency of incidence response through contraflow lanes, including contraflow of entire freeway during instances of emergencies.	10	
7	Traffic management plans that minimize disruption to the vehicular traffic during construction in the Airport to Waikele corridor.	23	

DESIGN DOCUMENTATION SCORE: _____ Points

Total Design Documentation Points Possible = 130 Points

4. Interviews with Contractors

The Department, at its sole discretion, may schedule a separate interview with each Contractor after the Design Proposals are reviewed but before the Price Proposals are opened. These interviews will be held to promote understanding of the Department's requirements and the Contractor's design proposal and to facilitate the Department's evaluation of design proposal taking into consideration the criteria for design documentation provided hereinbefore. The Department may conduct discussions with "Priority-Listed Offerors" pursuant to HAR Section 3-122-53, but proposals may be accepted without discussions.

Any substantial oral clarification by the Contractor shall be reduced to writing by the Contractor. The Department will consider all information presented in the interview together with the Design Proposal before determining a final score for Design Proposal. In addition, proposers shall designate in writing those portions of the unpriced proposal that contain trade secrets or other proprietary data that are to remain confidential, subject to HAR Section 3-122-58.

The winning Contractor will be expected to incorporate into their design and construction, any clarifications presented in this interview that were not clearly reflected in the Design Proposal. The Department will take meeting minutes and will incorporate these meeting minutes and any written clarification offered by the Contractor into the design build contract documents.

The Contractor shall be permitted to submit a new price proposal or amend those submitted if, and only if, the Department issues an addendum following these interviews. If the addendum is issued, the original, unopened price proposal will be returned to the Proposer and the Proposer will be allowed a maximum of 10 working days to resubmit their price proposal.

The Department will limit each interview to 60 minutes maximum. The Department will contact each Contractor to set the final time, date, and location of the interview.

D. PRICE PROPOSAL

1. Price Proposal Items

The Project is a design build project to be priced for a total lump sum price, force account work items and itemized separately, the five year operational and maintenance cost of the Project. The itemized lump sum prices in the Proposal Schedule are intended principally to serve as a guide in determining and comparing the price proposals. The Schedule may not include all units of work traditionally itemized in other Department projects. It is the responsibility of the Contractor to price the total scope of work necessary to complete, operate and maintain the Project for five years, and to include the costs of any work items, not listed in the schedule, in the various lump sum prices contained in the Proposal Schedule.

The Contractor shall submit a Price Proposal, which shall consist of a completed Proposal Schedule, in a sealed envelope that is separate from the Design Documentation. The Contractor shall clearly mark the completed Price Proposal as follows:

"PRICE PROPOSAL
For
Interstate Route H-1 PM Contraflow Lane, Phase 2
Vicinity of Radford Drive to Waiawa Interchange
Project No. NH-H1-1(260)
Pearl City & Waimalu PM No. BR-HI-11263

Submitted by

Name of Contractor"

The Department will consider this Price Proposal to be the Contractor's Best and Final offer unless the Department issues addendum(s) to the Request for Proposal after receiving the Design and Price Proposals.

2. Price Score

The maximum score for the Price Proposal is 70 points. The envelopes containing the sealed Price Proposal will be opened and the Department's Review Committee will determine a Price Score as follows:

$$\text{Price Score:} \quad \frac{\text{70 points x Lowest Price Proposal Amount}}{\text{Price Proposal amount of any given Contractor}}$$

The score will be rounded to the nearest tenth of a point. The Department will round any score of 0.05 or greater to the next higher tenth of a point.

Example: Contractor	Bid Amount
Contractor A	$12,400,000
Contractor C	$11,200,000
Contractor D	$13,000,000

Calculation of Price Score:

Contractor C = $\frac{70 \times \$11,200,000}{\$11,200,000}$ = 70 points (low bid price)

Contractor A = $\frac{70 \times \$11,200,000}{\$12,400,000}$ = 63.2 points

Contractor D = $\frac{70 \times \$11,200,000}{\$13,000,000}$ = 60.3 points

E. DETERMINATION OF PROJECT AWARD AND CONTRACT EXECUTION

The project will be awarded to the Contractor with the highest total score of the Design Documentation and the Price Proposal scores. The maximum Design Documentation score is 130 points and the maximum Price Proposal score is 70 points; therefore, the highest possible total score is 200 points. The award will be made after the Department's Review Committee determines the Design Documentation and Price Proposal scores for the three Contractor teams.

Example of score tabulation

	Design Documentation score (130 point maximum)	Price Proposal score (70 point maximum)	Total	Rank
Contractor A	105	63.2	168.2	1*
Contractor C	95	70	165.0	2
Contractor D	100	60.3	160.3	3

* Apparent winning Contractor. In the event of a tie, the Contractor with the higher Design Documentation score will prevail.

After the Department completes its review of the completed Proposal Documents and determines that the documents are in order, the Department will issue an award letter to the Contractor with the apparent winning proposal. If the Department, in the best interest of the State, deems additional discussions are required to clarify issues regarding the offeror's proposals, the Department will request that the offeror(s) submit their best and final offer (BAFO) in accordance with HAR 3-122-54.

The winning Contractor shall break down any of the contract items contained in the Proposal Schedule by increments and to smaller, more easily measurable elements for monthly payment and measurement purposes. The winning Contractor shall provide a schedule of values and the theoretical quantities associated with each lump sum bid item, and shall clearly indicate which contract item and specification section(s) it applies to. **Unless otherwise shown in the Proposal Schedule (P-8 to P-14)** all items shall be lump sum based on theoretical quantities. The Contractor shall provide this breakdown of items with the 50% Design Submittal described in Section II.D. of the Technical Provisions.

END OF TECHNICAL PROVISIONS