THE ALASKAN WAY VIADUCT &

SEAWALL REPLACEMENT PROGRAM

AGREEMENT Y-9715

AMENDMENT 1 - TASK NO. CL

SR 99 TUNNEL

PRELIMINARY ENGINEERING AND REQUEST FOR

PROPOSALS (RFP) DEVELOPMENT

SCOPE OF WORK

(EXHIBIT A)

Summary:

This Task Order amendment describes the scope, schedule, and budget for Preliminary Engineering for the SR 99 Tunnel program and development of a Request for Proposals (RFP) and contractor selection for the bored tunnel project as described below.

The SR 99 Tunnel program is comprised of the south portal and interchange; the north portal and interchange; the bored tunnel; tunnel systems and operations including ventilation structures and control buildings; and realignment of Alaskan Way and street grid from South Royal Brougham Way to South King Street (PROGRAM). The PROGRAM extends from approximately South Atlantic Street to Ward Street. The tunneling project is comprised of the site utility services required for construction and operations; the TBM launch pit; bored tunnel construction; TBM retrieval pit; tunnel interior structures; and portal-t- portal tunnel systems including commissioning (PROJECT). Ventilation structures and control buildings will not be constructed in the scope of the PROJECT. A schematic depicting programmatic and project elements can be found at Attachment A.

The Task Order amendment duration is from May 18, 2009 through July 31, 2010. The work is budgeted to be complete by April 30, 2010.

Objective:

The objective of this Task Order is to perform preliminary engineering for the SR 99 Tunnel PROGRAM and to develop an RFP and support the design-build contracting process for the tunneling PROJECT.

Approach:

The CONSULTANT shall develop preliminary engineering for the SR 99 Tunnel PROGRAM and a Request for Proposal for the tunneling PROJECT in accordance with the Work Plan outline found at Attachment B. The following is an overview of work to be accomplished under this task order.

Preliminary engineering for all PROGRAM elements will be developed to a 15 – 20% design level with the exception of Tunnel Systems. Tunnel Systems design will be developed to a 60% level of design. Preliminary engineering will consist of the following major elements:

- Civil Design
- Structural Design
- Architectural Design
- Urban Design
- Tunnel Systems Mechanical Design
- Tunnel and Roadway Electrical Systems Design
- Traffic Surveillance and Control System Design
- Geotechnical (support)
- Tunnel Utility Service Design
- Specifications
- Construction Planning
- Project Visualization
- Tunnel Boring Machine performance criteria
- PROGRAM estimate of direct construction costs
- Risk Management planning (program wide support)
- Program-wide preliminary engineering plan set

RFP development for the PROJECT will include the following:

- Preliminary engineering plan set for the PROJECT
- Support of Request for Qualifications (RFQ) development
- RFP preparation
  - RFP contract form and selection process (support)
  - RFP Technical Requirements
  - RFP Reference Documents
  - Recommended proposal evaluation criteria
  - Quality Control requirements
  - Contractor risk management requirements
  - RFP addenda as required
- PROJECT Estimate of direct construction costs
- TBM and tunnel construction criteria
- Preliminary civil, structural, architectural, utility services, and systems design

- Civil, structural, architectural, utility service, and systems design criteria
- Reference specifications

Cost Accounting: The following cost accounts will be used to track the work of this task order:

1. **CL. 01 - Project Management**: includes all coordination and management of the design team, oversight of the quality management process for design, interaction with the STATE and Project Management Advisory Consultant (PMAC) in the execution of the scope of work, and task order related project controls.

2. **CL.02 - Civil Design**: includes all scope elements related to civil design and specification preparation for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

3. **CL.03 – Structural Design**: includes all scope elements related to structural design and specification preparation for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

4. **CL.04 - Architectural Design**: includes all scope elements related to architectural design and specification preparation for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

5. **CL.05 - Urban Design**: includes all scope elements related to urban design preparation for preliminary engineering for the PROGRAM.

6. **CL.06 – Tunnel Systems Mechanical Design**: includes all scope elements related to Tunnel Systems Mechanical design and specification preparation for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

7. **CL.07 - Tunnel and Roadway Electrical Systems Design**: includes all scope elements related to Tunnel and Roadway Electrical Systems design and specification preparation for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

8. **CL.08 - Traffic Surveillance and Control System Design**: includes all scope elements related to Traffic Surveillance and Control System design and specification preparation for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

9. **CL.09 - Geotechnical Data and Analysis (support)**: includes all scope elements related to supporting the STATE in the development of geotechnical and sub-surface environmental data, analysis for the PROGARAM and preparation of Geotechnical Baseline Report for the PROJECT.

10. **CL.10 - Tunnel Utility Services Design**: includes all scope elements related to Tunnel Utility Service design and specification preparation for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

11. **CL.11 - Specifications**: includes all scope elements related to compilation of design criteria and specifications for preliminary engineering for the PROGRAM and RFP development for the PROJECT.

12. **CL.12 - Construction Planning**: includes all scope elements related to construction planning for the tunnel necessary to inform preliminary engineering for the PROGRAM and RFP development for the PROJECT.

13. **CL.13 - Project Visualization**: includes development of project graphics and simulations to aid design and to support the STATE's communications with the public, stakeholders, and the contracting community for the PROGRAM and the PROJECT. (As directed).

14. **CL.14 - Tunnel Engineering**: includes development of performance criteria and specifications for the TBM, tunnel construction, and tunnel liner in support of RFP development for the PROJECT.

15. **CL.15 – Cost Estimates**: includes preparation of construction cost estimates for the PROGRAM and the PROJECT.

16. **CL.16 - Risk Management planning (program wide support)**: includes all work associated with supporting the STATE's risk management process for the PROGRAM.

17. **CL.17 – Plans Preparation:** includes all work associated with preparation of drawings including Computer Aided Design and Drafting (CADD) and electronic file management.

18. **CL.18 – RFQ Support**: includes all work associated with preparing the development of the Project Information Memorandum, and supporting development of the Request for Qualifications (RFQ), review of Statements of Qualifications (SOQ) and the selection process for proposers.

19. **CL.19 – RFP Preparation**: includes all work associated with assembling the technical documents into the draft and final Request for Proposal including discussions with contractors and revisions.

Assumptions: The following assumptions apply to all elements of this task order:

- The baseline SR 99 Tunnel PROGRAM and PROJECT configurations will be defined and will not change after submission of the Draft Design Approval Package on June 30, 2009 and the EIS Snapshot submitted by the CONSULTANT under Task No. CE.
- Transportation and traffic analysis and modeling will be performed under a separate task order. Analysis will be complete and validated by June 30, 2009.
- Topographic and utility mapping services will be provided under a separate task order. In the absence of current project mapping, the CONSULTANT shall use STATE provided photogrammetry and City of Seattle archived Graphical Information Systems (GIS), mapping and utility as-built plans as available.

- Surveying and Record of Survey, and Right of Way plans will be prepared under separate task order or by the STATE. The CONSULTANT will provide input and support to this effort.
- The Alaskan Way Viaduct and Seawall Replacement Program (AWVSRP) Quality Control and Quality Assurance Plan is applicable to all deliverables in this task order.
- For the purposes of the RFP development, it is assumed that construction of the preparatory work will be complete prior to the start of PROJECT construction. Final design for the south tunnel portal preparatory work in 1st Avenue will be performed by others. Design efforts not under the purview of the CONSULTANT will be coordinated and directed by the STATE. The CONSULTANT will have input to the final design of the south tunnel portal preparatory work where it will influence TBM performance.
- The south and north tunnel interchanges will be designed and constructed by others as a DBB contract. Design efforts will be coordinated by the STATE.
- Final tunnel systems to include ventilation structures and control building(s) will be designed and constructed by others as a DBB contract. Design efforts will be coordinated by the State.
- Geotechnical exploration and analysis will be performed by the STATE or the STATE's geotechnical consultant. Geotechnical data and analysis for engineering and construction considerations will be provided by the STATE or its consultants and are not included in this scope of work. The CONSULTANT will provide input, review and comment of exploration plans and data and recommendations reports and author the Geotechnical Baseline Report (GBR) in collaboration with the STATE and the STATE's consultants. GBR development will follow ASCE *Geotechnical Baseline Reports for Construction: Suggested Guidelines,* 2007. GBR "A" report will be required in the scope of this task order amendment..
- The STATE will solicit proposals and make the final selection and award of the Design-Build Contract. The CONSULTANT will assist in discussions with potential contractors during the RFP preparation phase. Support for the proposal evaluation and contractor selection process is not included in this task order.
- The tunnel project will be designed to a 100 year design life.
- Design criteria developed during conceptual design will be complete and form the basis for preliminary design

Activities List and Cost Accounts:

WSDOT MDL No.	PB No.	Description
PE.XXXXXX	CE.01	Project Management
PE.XXXXXX	CE.02	Civil Design
PE.XXXXXX	CE.03	Structural Design
PE.XXXXXX	CE.04	Architectural Design
PE.XXXXXX	CE.05	Urban Design
PE.XXXXXX	CE.06	Tunnel Systems Mechanical Design

PE.XXXXXX	CE.07	Tunnel Electrical Systems Design
PE.XXXXXX	CE.08	Traffic Surveillance and Control System Design
PE.XXXXXX	CE.09	Geotechnical Data and Analysis (support)
PE.XXXXXXX	CE.10	Tunnel Utility Services Design
PE.XXXXXXX	CE.11	Specifications
PE.XXXXXXX	CE.12	Construction Planning
PE.XXXXXXX	CE.13	Project Visualization
PE.XXXXXXX	CE.14	Tunnel Engineering
PE.XXXXXXX	CE.15	Cost Estimates
PE.XXXXXXX	CE.16	Risk Management planning (program wide support
PE.XXXXXXX	CE.17	Plans Preparation
PE.XXXXXX	CE.18	RFQ Support
PE.XXXXXX	CE.19	RFP Preparation
	CE.99	Other Direct Costs

Deliverables:

The deliverables are listed in Attachment B, SR 99 Tunnel Program and RFP Development Work Plan Outline

Anticipated Schedule:

Issue RFQ – 8/1/2009
Receive SOQ – 10/1/2009
Short list Proposers – 11/1/2009
Issue Draft RFP – 11/15/09
Issue Final RFP – 3/1/2010
Receive Proposals – 9/1/2010
Award DB contract – 12/15/2010
Record of Decision (ROD) – 12/31/2010
NTP for design – 1/1/2011

Consultant's Cost Computations (Cost Estimate):

The CONSULTANT's Cost Computations (Cost Estimates) are included as Exhibits D and E and by reference are made part of this Task Order.

Progress Reporting:

Deliverable progress milestones may be completed early, with STATE approval, so that work may be progressed if the schedule will allow. Progress of deliverables will be updated monthly.

List of Attachments and Exhibits:
Attachment A – PROJECT footprint
Attachment B – Work Plan Outline
Exhibit D – Prime Consultant's Cost Computations (Cost Estimate)
Exhibit E – Sub Consultant's Cost Computations (Cost Estimate)