
From: Williamson, Alec
Sent: Thursday, February 05, 2009 4:00 PM
To: Greco, Theresa; White, John
Cc: Preedy, Matt
Subject: FW: Initial Bored Tunnel Implementation Plan (Design)
Attachments: Implementation Plan for Bored Tunnel Delivery.doc

Per our lunchtime discussion today- we made good progress on the Task CE "design support of the EIS: snapshot drawing set" scope discussion with PB this afternoon. (My note below references task order CD which has since been revised to CE) Our plan is to negotiate on Tuesday afternoon if our estimates are close on Monday. We will let you know as soon as we have the estimates as to how they compare.

Alec

From: Williamson, Alec
Sent: Friday, January 23, 2009 10:40 AM
To: Preedy, Matt
Cc: Robison, Jim (Consultant); Schmitt, Sara; Amiri, Ali; Lacy, Paul; Grigware, Mike; Clark, Gordon T. (Consultant); Jarnagan, Harry (Consultant); Anderson, Ward; Benito, Roland; Anderson, Mark - UCO; Conte, Rick (Consultant); Rigsby, Mike (Consultant)
Subject: Initial Bored Tunnel Implementation Plan (Design)

Hi Matt-

Per your request, attached is my initial cut at an outline for implementation of the bored tunnel design. The focus is short term- through June of this year. This will be the basic framework from which we will scope task order CD with PB for configuration plans and other design support of the RFQ/RFP process. Please let me know when you would like to discuss it with John and Theresa- I am welcome to feedback, it is just a start and will need fleshing out over the next couple of weeks. As you will see, I think we will need additional budget to make this happen. My prior budgeting assumptions were for a continuation of the planning process; the current expectation is ultra-fast track delivery for a program of this magnitude. We will need to get off to a fast start to have any chance of meeting the schedule.

Alec

Implementation Plan for Bored Tunnel Delivery

Dimensions

Milestones

Major Deliverables

Scope and Project Elements

Teams

Resource/Budget Needs

Key Assumptions

Milestones

Key project objectives

Bored tunnel open to traffic by 12/15

ROD by end of 12/10

Begin tunnel boring by 1/12

Key short term milestones to support EIS development

Preferred alternative selection: 1/09

Geometric Design Criteria Definition: 3/09

North portal interchange config: 4/09

South portal interchange config: 4/09

Bored tunnel basic configuration plan set: 6/09

EIS analysis launch: 7/09

Key milestones to support tunnel RFQ/RFP process

Contract package definition 6/09?

RFQ Advertisement 9/09?

Award Constructor Contract 4/10

Major Deliverables

Short Term (first 6 months)

Basic Configuration Plans

Plan, Profile, Sections

Bored tunnel and CC tunnel portal locations

North and South Interchange Plans

Horizontal Alignments w/Stationing

Draft R/W Limits Identified

Ventilation Approach and Validation

Egress Approach and Validation

Monitoring and Controls Approach

Major ITS Facilities Plan

Detour/Maintenance of Traffic Approach

Design Approval Package

Access Determination

Current Classification: Class 1 Managed Access

Acquiring Limited Access

Cost and schedule implications

Typically higher design speed -55mph

Principal Arterial Standards

Transitions/interface at north and south

Jurisdictional O/M clarity

Managed Access

Existing corridor analysis

45 mph design speed – flexibility

Managed Access Standards – flexibility

Consistent with north and south ends

Local Agreement for O/M

Design Speed

Corridor Report (if needed to set design speed)

Design Matrix Selection

Deviation Identification

Phase 1 of Geotechnical Baseline Report

Assume 10 deep borings on current alignment

Permitting/Traffic Control

No analysis and reporting

Medium Term (6-12 months)

Start Geotechnical Baseline Report

Assume an additional 20 borings

Limited analysis and reporting

Begin RFQ Process

Tunneling Machine Contract

DB Contract

Engage TBM and Contracting Community

Advertise RFQ

Scope and Project Elements

Four Lane Bored Tunnel

South cut and cover w/facilities

South off-ramp and north on-ramp

North cut and cover w/facilities

Multiple tight geometry access points north of Denny

New roadway between AW and Elliott/Western

Viaduct removal – limits?

Waterfront restoration – limits?

Teams

South Portal Design

Bored Tunnel Design

North Portal Design

“Armory Way” connector

Civil Standards/Criteria

Fire and Life Safety Standards/Criteria

Major Discipline Support

Transportation/Traffic

Utilities

Geotechnical

Public Involvement

Program Mgmt

Environmental

Cost Estimating

Structural Engineering

Technical and Other Resources

HMM Tunneling and Systems

HMM Geotechnical

Tolling

Contract Packaging

EIS Strategy/Streamlining

CEVP

Value Engineering

Project Management Planning

FHWA Coordination/Approvals

07/09 Biennium Resource/Budget Needs

Design Teams

5 FTE transitioning to 25 FTE

Range estimate – add'l $2.0-$2.4 million

TDY/ODC additional ???

Geotechnical Investigation

Range estimate – $700-850 thousand

HMM Support (Task AC)

$500-600 thousand

Other Technical Resources/Specialty Services

$400 thousand (SWAG)

GEC Management/Overhead

$400-600 thousand

Key Assumptions

Tunnel Preferred Alternative Decision 1/09

Construction Traffic Impacts Minimal (no long term closures of SR 99)

Viaduct remains open until bored tunnel open to traffic

EIS contains one build and one no-build only

Tunnel is Design Build Construction

Tunnel is single bore 54' diameter

Tunnel alignment is as shown on 1/09 roll plot

EIS includes only basic two lane roadway from Elliott/Western to Alaskan Way at Pike

Viaduct removal south of Pike not included in EIS

Seawall not included in EIS

North Alaskan Way not included in EIS

Streetcar not included in EIS