The Basis of Estimate is part of estimate documentation to record assumptions and back-up calculations and can be tailored to the project. Refer to WSDOT Cost Estimating Manual M-3034 for more details. The blue text offers tips and examples, replace with information about your project. Complete the last page of this document for your project (some people prefer to do this first).

**ESTIMATING TEAM** - list parties involved in estimate preparation.

|  |  |  |
| --- | --- | --- |
| **Role** | **Name** | **Contact Information** |
| Design wsdot/consultant |  |  |
| Project Manager |  |  |
| Lead Estimator |  |  |
| Quantity Calculations |  |  |
| Unit Cost determination |  |  |
| QA/QC review |  |  |

**PROJECT**

|  |  |
| --- | --- |
| Estimate Date: | Month and Year |
| Construction Start Date: | Month and Year |
| Estimating Processing Software: | Excel or? |
| Estimate available in Excel format: | Yes or no? |
| Database for cost estimate: | Sources |
| Method of Measurement: | Field or CADD or Scaling or? |

**NEED** - the primary reason a project has been proposed (see DM 1101).

**SCOPE**

|  |  |
| --- | --- |
| Estimate Type: | Parametric, Deterministic, Risk Based or? |
| Project Type: | New project or upgrade to existing facility? |
| New structures required: | Yes or no? |
| Existing Structures which need to be modified: | Which structures are being modified? |
| Demolition: | Bridge and buildings? |
| Hazardous Materials: | Anticipated? |
| Wetlands Issues: | Yes or no? |
| Archeological Impacts: | …based on database research… |
| Native American (Tribal) Issues: | …based on contacts made to date |
| Storm water regulation update: | …based on latest manual |
| Noise walls: | Yes or no? |

Briefly describe the scope of the project.

**TYPICAL ESTIMATING METHOD**

Describe the primary estimating methodology used for the cost estimate. Several methodologies may be used in an estimate. What is the milestone timeline for updating the project estimate?

* Planning level estimates typically use a parametric estimate (dollars per unit) approach for many of the larger cost items along with an appropriate allowance for unquantified items.
* Scoping level estimates commonly use parametric estimating for some items and historical bid-based estimating for others. An appropriate allowance is included for unquantified items.
* Design estimates (up to and including the engineer’s estimate prior to ad) typically are historical bid-based and/or cost-based bottom up estimates.

*Note: Contractors develop bids using a cost-based bottom up estimate that considers sub-consultants, productivity, labor, material, equipment, contractor overhead, and contractor profit for each major line item.*

**ALLOWANCES** – an estimated amount to cover the cost of known but undefined (unquantified) items. Describe the purpose of the allowance and how the amount was determined.

**ASSUMPTIONS** – Examples of assumptions include

* Construction funding all at once or staged increments?
* Will need to replace bridge SR###/Bridge No.?
* Storm water retrofit of ######?
* Environmental regulations don’t change.
* Today’s dollars, unknown future inflation rate.
* Mid point of construction could change.
* Properties remain undeveloped.
* There are good soils.
* Estimate is for major bid items only; other costs captured in allowance.
* Traffic control cost based on past experience and region philosophy doesn’t change.
* Right of Way is not needed to relocate the gas line.
* The project is in the process of selecting a preferred alternative for analysis in an EA.
* At this time there are two alternatives, a preferred **alternative should be selected by MONTH AND YEAR**. This estimate is based on alternative #### with the thought that it may be the more expensive of the two options.

**EXCLUSIONS and EXCEPTIONS** - List items NOT INCLUDED in the cost estimate; include things people may think are included but are not. Describe items that do not follow WSDOT standards for cost estimating. An example: payment to local agencies for damage to roads during detours.

**RISKS and UNCERTAINTY** - Describe threats and opportunities that can affect the cost estimate. This can become the basis for a risk management plan. Examples: Quantity of base course may increase significantly due to soil conditions. Cut material may be unsuitable for fill.

**ESTIMATE QUALITY ASSURANCE** - Describe the quality assurance plan for the estimate. What reviews have been performed on this estimate?

**RECONCILIATION** – estimates change over time. Explain differences between the current and the previous estimate. Explain how review comments were resolved or incorporated into the estimate.

**Attachments:**

Estimate – estimate of project at time this basis was completed

Reference drawings – if applicable and if used for this estimate

Risk Register – if available

List projects used as comparison for estimate – if applicable

Project status at the time of this cost estimate

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | **Question** | **Answer** | | | **Comments** |
|  | Has NEPA/SEPA process begun? | Yes | No | N/A |  |
|  | Has a preferred alternative been selected? | Yes | No | N/A |  |
|  | Are environmental mitigation measures included? | Yes | No | N/A |  |
|  | Has an alignment been established? | Yes | No | N/A |  |
|  | Has a grade been established? | Yes | No | N/A |  |
|  | Have right of way requirements been researched and priced? | Yes | No | N/A |  |
|  | Has a typical section been established? | Yes | No | N/A |  |
|  | Have geotechnical site conditions and costs been researched? | Yes | No | N/A |  |
|  | Has a drainage report and concept plan been prepared? | Yes | No | N/A |  |
|  | Has a noise analysis been performed? | Yes | No | N/A |  |
|  | Are sound walls included in the estimate? | Yes | No | N/A |  |
|  | Have retaining wall types been defined? | Yes | No | N/A |  |
|  | Has a safety analysis been performed? | Yes | No | N/A |  |
|  | Has a traffic analysis (HCM, LOS, etc.,) been performed? | Yes | No | N/A |  |
|  | Have pavement design reports been reviewed? | Yes | No | N/A |  |
|  | Has a pavement life cycle cost analysis been performed? | Yes | No | N/A |  |
|  | Is there a construction phasing strategy? | Yes | No | N/A |  |
|  | Were detour options evaluated for volumes and vehicle type? | Yes | No | N/A |  |
|  | Have potential utility impacts been investigated? | Yes | No | N/A |  |
|  | Has a landscaping and aesthetics plan been developed? | Yes | No | N/A |  |
|  | Has required design analysis been completed? | Yes | No | N/A |  |
|  | Were other projects used as metrics for the estimate? | Yes | No | N/A |  |
|  | Has funding been identified for: Design/PS&E? | Yes | No | N/A |  |
|  | Has funding been identified for: Right-of-Way? | Yes | No | N/A |  |
|  | Has funding been identified for: Construction? | Yes | No | N/A |  |