

## PROCESS ACTIVITY - DETERMINE ESTIMATE BASIS

<b>Activity</b>	<b>Determine Estimate Basis</b>
<b>Description</b>	<p><b>Determine Estimate Basis</b> focuses on obtaining project scope information and data from which a project cost estimate can be prepared. The level of scope detail varies depending on the project phase, project type (program area – preservation and improvement), and project complexity.</p> <p>Planning – a concept with some schematic support          Scoping – typically 5 to 10 percent design completion on less complex projects (P1 – P3 and some safety (I2) projects) or greater percent design completion depending on project complexity and up to 25 percent complete on more complex improvement projects (I1 – I4)          Design – after Scoping and up to Design Approval (60 to 90%)          PS&amp;E – after design approval to complete plans and specifications for advertisement</p>
<b>Inputs</b>	<p>Project Management Information</p> <ul style="list-style-type: none"> <li>• Completed Project Work Breakdown Structure</li> <li>• Defined Project Roles and Responsibilities</li> </ul> <p>Project Scope Description</p> <ul style="list-style-type: none"> <li>• Completed Project Summary</li> <li>• Completed Plans for Approval</li> <li>• Completed Design Documentation Package</li> <li>• Completed Plans and Specifications</li> <li>• Project Location and Site Characteristics</li> </ul>
<b>Techniques and Tools</b>	<p>Project File (includes scope documents and cost estimate information)          Site Visits/Aerial Photos          Meetings – review scope needed and timing of receiving scope          Project Estimate Schedule          Design Manual          Plans Preparation Manual          Route Development Plans (RDPs)          Design Studies including Type, Size and Location (TS&amp;Ls) reports          Previously Developed Environmental Reports          Regional Planning Documents</p>
<b>Steps</b>	<ol style="list-style-type: none"> <li>1. Gather Scope Information              This step requires the estimator to identify and collect all information that describes the scope of work for the project.</li> <li>2. Request Specialty Group Input              This step is guided by the project WBS and project roles and responsibilities. These documents identify what deliverables are necessary for this project and who is responsible for the deliverables. The estimator must solicit input from specialty groups regarding scope and cost estimates covering their areas of expertise (e.g., bridge,</li> </ol>

	<p>ROW/RES, traffic, etc.)</p> <p>3. Evaluate Site Conditions The purpose of this step is to ensure that all features of the site are known and an evaluation of how these features might impact project design and costs. The estimator visits the site and walks the project. If a site visit is not possible the estimator can use aerial photos to help assess site characteristics and conditions.</p> <p>4. Organize Project Scope and Site Information In this step, the estimate basis is documented in a systematic format to provide supporting information and data for decisions regarding scope, cost, and schedule.</p>
<b>Products</b>	<p>Compilation of the project scope related information and data in Project Cost Estimate File (e.g., three ring binder) Knowledge of project site characteristics</p>
<b>Guidance</b>	<ul style="list-style-type: none"> <li>• Estimators are also typically involved in the technical aspects of the planning, scoping or design process. As such, they are often required to develop project scope information that serves as the basis for estimating a project’s cost. Various manuals provide steps in developing the project scope. For example, the Design Manual provides guidance on the scoping process. This Manual also provides guidance on other related design processes. The Plans Preparation Manual provides guidance on preparing final plans to support the PS&amp;E.</li> <li>• The estimator must identify who is involved in the project that will provide scope and, perhaps, cost estimates. This must be accomplished early in the project so these service groups have adequate time to prepare the scope information they are responsible for and, if necessary, provide cost estimates for their part of the project. Estimators may want to consider meetings to establish interfaces or develop a schedule for preparing an estimate.</li> <li>• It is critical that the estimator visit the proposed project site and examine the site conditions and characteristics. Location attributes influence both scope and costs. Some questions that should be considered are: <ul style="list-style-type: none"> <li>○ Are there potential environmental conditions that must be mitigated?</li> <li>○ Are there Right of Way issues to consider?</li> <li>○ Is construction access going to require temporary ROW?</li> <li>○ Are there utility relocations required?</li> <li>○ Will there be work time restrictions?</li> </ul> </li> </ul>

	<p>If time does not permit a site visit than aerial photos are helpful in developing such information.</p> <ul style="list-style-type: none"><li>• Logically organizing the project scope is critical for establishing the scope basis for the estimate, among other requirements. Proper documentation sets the basis for assessing scope related changes in the future. The various manuals provide assistance in the documentation process.</li></ul>
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