140 Lump Sum Projects

Modification for Non-Conventional Projects:
Delete ***FDM 140***.

140.1 General

The purpose of Lump Sum projects is to reduce the costs of contract administration associated with quantity verification and measurement. This contracting technique requires the contractor to submit a lump sum price to complete a project as opposed to bidding on individual pay items. The contractor will be provided a set of bid documents (plans, specifications) and will develop a Lump Sum bid for all work specified in the contract drawings.

The decision to use the Lump Sum Contracting Technique on a project should be made by the District Design Engineer in consultation with the District Construction Engineer. Lump Sum projects should be identified during the scope development process, rather than during or after the design process. Conversion of partially complete plans and completed “plans on the shelf” that were originally developed as conventional bid item type projects to the Lump Sum Technique may require significant rework and is generally not recommended.

The contingency pay item is recommended on Lump Sum projects. This tool is used to compensate the contractor for any additional work requested, which is not covered in the contract documents. District Construction should be consulted for the contingency amount.

140.2 Project Selection

Lump Sum contracting should be used on simple projects. “Simple” is defined by the work activity, not by the project cost. “Simple” projects are:

(1) Projects with a well-defined scope for all parties (Design and Construction)

(2) Projects with a low risk of unforeseen conditions (i.e., projects that do not involve such things as significant underground utilities, earthwork variations, underground drainage pipes, bricks under pavement in urban areas)

(3) Projects with a low possibility for change during all phases of work – Design and Construction (i.e., limited possibilities for added driveways, median modifications due to developments, or changes due to political involvement)

Examples of projects that may be good Lump Sum contracting candidates include:

(1) Bridge painting
(2) Bridge projects
(3) Fencing
(4) Guardrail
(5) Minor intersection improvements (with known utilities)
(6) Landscaping
(7) Lighting
(8) Mill/Resurface (including Interstate) without complex overbuild requirements
(9) Minor road widening
(10) Sidewalks
(11) Signing
(12) Signalization

Examples of projects that may not be good Lump Sum contracting candidates are listed below. Use of Lump Sum contracting on these types of projects requires written approval by the State Roadway Design Engineer:

(1) Urban construction/reconstruction
(2) Rehabilitation of movable bridges
(3) Projects with subsoil earthwork
(4) Concrete pavement rehabilitation projects
(5) Major bridge rehabilitation/repair projects where there are many unknown quantities
(6) JPA projects with local agency funds

140.3 Plans Preparation

Plan content should conform to the requirements of ***Part 9,*** subject to the guidance provided herein. Designers should detail plans, either by detailed drawings or plan notes, to clearly describe the work to be performed by the contractor. Notes and requirements must provide specific direction and details that can be properly bid on by the contractor; avoid notes containing “as directed by the Engineer”.

The following are some of the desired elements in a set of Lump Sum plans:

(1) Typical sections.

(2) Milling, resurfacing and overbuild details to show any cross slope corrections, including existing pavement cross slope information.

(3) Document quantities for all work to be performed on the project by location in the Estimated Quantities Report.

(4) Plan sheets to accurately depict existing conditions and detail all work to be performed by contractor (i.e., show all limits of milling and resurfacing, pipe installations, limits of sod when different from typical section, all concrete work, guardrail removal/installation).

(5) Details of work not covered by typical section or the ***Standard Plans*** (e.g., curb and gutter installation, traffic separator limits, special curb ramps, modifications to storm inlets).

(6) Cross sections when the shoulder break is moved. When cross sections are provided, earthwork columns should not be used.

(7) Anticipated pile tip/drilled shaft elevations on bridge projects. Note: This is the predicted elevation to achieve axial capacity and satisfy all other design requirements and is usually deeper than the minimum tip elevation shown for piles.

140.4 Preliminary Estimate

For a single project (one FPID number), load the pay item for Lump Sum (Alternative Bidding, 999-2) and the Initial Contingency Amount (Do Not Bid) Pay item (999-25) into Designer Interface for AASHTOWare Project™ Preconstruction under the project's FPID number. Do Not Bid and "Special" pay items do not require a Summary Table. Projects or Contracts using pay item 999-2 will continue to require detailed quantities on the duplicate (non-advertised) project, by location, for work shown in the plans. Load the detailed pay items and quantities that make up the Lump Sum project scope of work into the Designer Interface system under a duplicate project number created using the FPID number appended with the designation, "LS" (Ex. 12345678901LS). The pay items and quantities are loaded by category to reflect the work shown in each design group.

Complete the summary tables similar to traditional pay item projects. Pay item numbers related to specific work are not needed on Summary Tables but may be used to describe work to be completed.

For a strung project (multiple FPID numbers), load the Lump Sum and Initial Contingency Amount pay item into the Designer Interface system for each FPID number. Load the detailed pay items and quantities for each FPID number into the Designer Interface

system under the respective duplicate project number (i.e., do not load all pay item and quantity information into one FPID number).

Detailed pay items and quantities that make up the Lump Sum project scope of work will be loaded into a duplicate project from the one to be advertised. Pay items and quantities are loaded into the Designer Interface system by category to reflect the work shown in each design group. Contact the Project Manager for specific requirements.

140.5 Specifications

The Design Project Manager will provide an “Items of Work” checklist to the District Specifications Office. This checklist is ***Form 140-A***, which is found in ***FDM 103***. The Specifications Office will include the work items identified on the checklist in the “Intent and Scope” in the Specifications Package. The checklist must include, as a minimum, the major work items shown in the sample included with these guidelines.

Lump Sum projects require Special Provisions that modify the first nine articles of the ***Standard Specifications***. These Special Provisions are in the Specifications Workbook and must be included as part of the Specifications Package.

Article 9-2 of the Special Provisions for Lump Sum projects must be completed with predetermined unit prices for asphalt materials, concrete, and base when applicable. These unit prices will serve as a basis for calculating pay reductions for deficiencies accepted by the Project Engineer. In the case of asphalt overbuild, the predetermined unit price for the material used for overbuild will serve as a basis for pay adjustments for thicknesses that differ from the thickness shown in the plans. All predetermined unit prices should be based on an analysis of similar types of projects let in the district and the districtwide average of projects let within the six months prior to the letting date of the project.

For projects including bridges, Article 9-2 of the Special Provisions for Lump Sum projects must be completed with predetermined unit prices for piling and drilled shafts as applicable. These unit prices will serve as a basis for pay adjustments for the actual quantities installed as additions or deletions from the individual element lengths shown in the plans. All predetermined unit prices should be based on an analysis of similar types of projects let in the district and the districtwide average of projects let within the six months prior to the letting date of the project.

140.6 Contracts Administration

Contracts Administration will include the information provided in the Specifications Package “Intent and Scope” in the job advertisement. This information can be used by the contractors/subcontractors to determine what type of work is contained in the project, in lieu of a list of pay items.

140.7 Construction Contract Administration

Monthly payments will be made based on a payout schedule mutually agreed upon by the Department and the contractor. The payout schedule will include only major tasks similar to what has been used on design-build projects.

Lump Sum contracts are not fixed price. Changed conditions, extra work and unforeseen work must be negotiated and resolved with the contractor utilizing Supplemental Agreements and Work Orders on Contingency Supplemental Agreements.

Construction inspection personnel should not be required to document quantities except for asphalt and other items subject to pay adjustments (items with predetermined unit prices). Measurement and completion of a “Final” Estimated Quantities Report is not required. The focus should be on inspection and achieving a quality final product. For example, the Project Engineer will not be concerned with how many square yards of sod it takes or the number of miles of final striping. The Project Engineer will be charged with ensuring that the sod, striping, embankment, and pipe meet the lines and grades of the plans and specifications.