

Memo

New Mexico Department of Transportation

SUBJECT: Infrastructure Design Directive
IDD-2009-04 (Estimates and Lump Sum Pricing
Guidelines)

DATE: 26-June-2009

TO: Office of Infrastructure Divisions
District Offices
Transportation Design Community

FROM: Tamara P. Haas, Acting Chief Engineer
Office of Infrastructure Divisions

FILE REFERENCE:
PSESHARE:Design Directives

The Infrastructure Design Directive IDD-2007-02 Lump Sum Pricing dated November 30, 2007 is hereby rescinded and replaced with the following Estimates and Lump Sum pricing guidelines to follow in preparation of the Engineer's Opinion of Probable Cost (EOPC) consistent with the latest baseline cost information for these pay items statewide.

The Project Development Engineer (PDE) must adjust this baseline pricing to conform to project location, quantity, difficulty in performing the work and any historical information deemed necessary to reflect the market price of bid items. Unit bid prices for these items should be rounded up to the nearest reasonable precision for estimating purposes.

The PDE must assure that every project and file contains a documented basis with assumptions for every lump sum estimated price in the EOPC.

The following percentage ranges are recommended for purposes of establishing a **baseline** for these Lump Sum items.

201000 - Clearing and Grubbing

- 1 % of Project Total (Check actual terrain and ground cover as well as anticipated width of clearing required for adjustments.)
 - For rough terrain current data trends indicate prices on the order of \$10k per mile.
 - For lighter clearing current data trends indicate prices on the order of \$2k per mile.

601000 - Removals of Structures & Obstructions

- Tabulate cost using actual list of removals based upon the removal items summary at approximately 1/2 of the estimated installation costs of those items. (Approximate costs are available from the P.S. & E. Bureau's DQA Shared Folder).

618000 - Traffic Control Management

- 1%-3% of Project Total Cost for Typical Rural Highway Projects
 - The Traffic Control Management item for simple rural "Transportation Management Plans" typically are bid at approximately 1% of total cost;

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- The Traffic Control Management item for more complicated “Transportation Management Plans” for rural projects often are bid higher up to approximately 3% of total project cost;
- The Traffic Control Management item for simple “Transportation Management Plans” for urban projects with intensive traffic conditions with many phases are bid higher up to approximately 5% and occasionally up to 8% of total project cost; These must be discussed with the project managers and District Traffic Engineers during project development in order to make an informed estimate.
- \$5000 (Minimum) + (1%-2% of Project Total) for miscellaneous construction projects, i.e. Fencing, Stockpiling, etc. projects.

In accordance with Design Directive IDD-2009-02 dated March 12, 2002, the “Suggested Sequence of Construction” shall be included and shall include sufficient detail and construction phasing to convey a clear understanding of the traffic control requirements for a specific project. This must be reviewed when establishing the lump sum pricing for this item.

621000 - Mobilization

- 10% of Project Total (Establish pricing for all other items, before pricing this item.) The majority of the projects will be in the 10% price range for this item as described in Section 621 of the Standard Specifications. Sufficient discussion during the inspections and reviews of a project should be held to determine the most accurate mobilization cost for the project.

702810 - Traffic Control Devices For Construction

- 1%-3% of project total for Typical Rural Highway Projects
 - Lump Sum Traffic Control Devices for simple rural “Transportation Management Plans” typically are bid at approximately 1%;
 - Lump Sum Traffic Control Devices for more complicated “Transportation Management Plans” for rural projects often are bid higher up to approximately 3%;
- Lump Sum Traffic Control Devices for “Transportation Management Plans” for urban projects with intensive traffic conditions with many phases are bid higher up to approximately 5% and occasionally up to 8% of total project cost; These must be discussed with the project managers and District Traffic Engineers during project development in order to make an informed estimate.

702800 - Traffic Control Plan

- \$5000 (Minimum) + (1%-2% of Project Total) for Item 702800 Traffic Control Plan. This item shall only be called for on miscellaneous construction projects, i.e. Fencing, Stockpiling, etc. requiring minimal traffic interruption.

All **major traffic control devices** (High cost items, i.e. Changeable Message Boards, Concrete Wall Barrier, Impact Attenuators, Detour Pavement) of the “Transportation Management” interim construction traffic control plans shall be itemized and paid for separately in the project bid documents.

In accordance with Design Directive IDD-2009-02 the “Suggested Sequence of Construction” shall be included and shall include sufficient detail and

construction phasing to convey a clear understanding of the traffic control requirements for a specific project. This should be reviewed and considered when establishing the lump sum pricing for this item.

801000 - Construction Staking by Contractor

- Historical data indicates that 1%-3% of the Project Total is a typical cost for this work, however actual staking required for the work involved should be considered.
 - Simple construction projects with minimal new construction staking required should be estimated on the low end (Approx. \$5,000 to \$10,000 per mile).
 - Projects with a high amount of new staking required (new construction, grade changes, significant reconstruction) should be estimated at the higher end (\$5,000 Minimum + \$10,000 to \$20,000 per mile)

901000 - Contractor Process Quality Control

- 100% of Total Tonnage for both Base Course aggregate and Hot Mix Asphalt combined, converted empirically to dollars (i.e. 10,000 Tons of Base Course + 10,000 tons of HMA, converts to Price for Testing of approximately \$20,000) for flexible pavement.
- Project with rigid pavement should be priced based on the above method plus an additional cost for testing PCCP depending on quantity (approximately 20% to 50% of the area in Square Yards, converted empirically to dollars for large quantities).

It is noted that the Project Total indicated above is defined as the total for all items in the Engineers Opinion of Probable Cost (EOPC) but does not include the standard 8% Engineering & Contingencies ("E&C") or Gross Receipts Tax ("GRT").

The above factors may be updated in the future as market trends suggest. Updates will be sent out as available.

The PDE shall ensure that the estimate is submitted to the Design Quality Assurance (DQA) Unit of the P. S. & E. Bureau for review at the time of the P.S. & E. Plan Review distribution.

District-lead designs and consultant-designs shall also utilize Estimator for the compilation the estimate. The estimate files for these designs shall be created in Estimator since these design groups do not have access to Trns•port.

It is the responsibility of the PDE to adjust the pricing, established by the Estimator software, based on project location, quantity, difficulty in performing the work and any historical information deemed necessary to reflect the market price of bid items prior to submittal to the DQA Unit for review.

It is also ultimately the responsibility of the PDE for all project estimates assigned to them, both in-house and consultant as the accuracy of the EOPC is crucial to the planning, funding and the awarding of highway construction projects.

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As a reminder, the Design Directives reside in the PSESHARE drive. General Office staff will utilize the \\asgopinon\pseshare drive to access the Directive. District staff can access the Directive utilizing the appropriate District drive as indicated below:

District 1	\\D1Blade3\D1Design
District 2	\\D2flsv01\public\psesection
District 3	\\D3-blade1\District 3\PS&E_Section
District 4	\\D4-blade2\designshared
District 5	\\d5-blade4\d5design
District 6	\\d6flsv06\d6_users\pse_section

In addition, the Directive will reside in the Department's external website. The web address is:

<http://www.nmshtd.state.nm.us>

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