



VIRGINIA RAILWAY EXPRESS
REQUEST FOR QUALIFICATIONS (RFQ) APPENDICES

RFQ No.: 026-006

L'ENFANT STATION AND 4TH TRACK IMPROVEMENTS
PROJECT

Construction Manager/General Contractor Services

Appendix E
Open Book Cost Estimating Requirements



Open Book Cost Estimating Requirements

(Provided in RFQ for general information)

1 Introduction

Throughout the preconstruction phase, and as changes demand during the construction phase, the Contractor, as applicable, shall provide estimates of Project cost and/or cost of individual Project elements. The estimates shall be prepared in a transparent, detailed, open book format that allows the Project Team to understand the basis of costs and cost development. The estimates shall be prepared in the Contractor's cost estimating system in customary use by the Contractor for other projects of similar nature. The estimates are to be developed using current pricing for wage and equipment rates (material pricing will depend on how quoted and the amount of time for which the quote is fixed). Escalation will be addressed as an item in the field indirectly. Since some estimates will not have the pricing for all material suppliers and subcontractors to enable firm fixed pricing for use in the GMP, there may be limited items of *plug pricing*, which should be noted as such. As the estimates are successively refined, the plug pricing will be replaced by firm prices in using competitively selected subcontractors and materials suppliers.

Submitted estimates shall clearly itemize the estimated costs of performing the construction Work of the items in the mutually agreed upon schedule of values and also include the Contractor's field indirect items. A summary-level cost is requested for each of the items provided, supported by a detailed cost of each item. The detail shall provide crews with rates of production for each activity within the item of construction Work. Crews shall clearly show the numbers of equipment and personnel within each activity and work hours for overtime calculations. Estimates of cost for items of construction Work shall be further divided into the Contractor's customary cost categories such as man-hours, labor, permanent materials, expendable materials, equipment ownership and operation, and subcontract cost, as appropriate. The detail of the construction Work breakdown may include several activities within a schedule of value line item that shall subtotal to a one-line entry for the summary report. The summary shall include the same cost categories along with the unit cost of the total. Further groupings of similar items of construction Work can be agreed upon to further facilitate reconciliation of VRE and Contractor estimates.

Costs and price for the construction Work shall be subdivided as follows:

- A. Total construction phase costs composed of direct costs attributed to bid items appearing on the bid schedule and field indirect costs; and
- B. Mark-up expressed as a percentage of total construction phase costs.

2 Total Construction Cost Elements

2.1 Direct Costs

Enter the direct costs for performing the construction Work on the bid forms provided using the estimated quantities. Direct costs of the items of construction Work shall not include:

- A. Any contingencies;
- B. The spread of field indirect; and
- C. The Contractor's profit and home office overhead.



The items of construction Work shall include the direct cost of performing the construction Work only. The schedule of values line items list will be developed in conjunction with the Designer and required specifications including measurement and payment as specified by the standard provisions. This may not be an all-inclusive list of the construction Work to be done for a section but includes the major items of construction Work for cost development.

2.2 Field Indirect Costs

The Contractor's field indirect costs shall be included in the total construction phase cost. The list below shows a sample breakdown of indirect cost categories that is acceptable to VRE. However, it is also acceptable to use the Contractor's own customary indirect template with an explanation of the costs included within each item if the level of detail is similar to that shown below.

Field indirect shall include cost for the following:

- A. *Job Supervision and Overhead:* Wages, including benefits, payroll insurance and taxes for onsite management, supervision, engineers, safety personnel, quality control staff, and administration staff.
- B. *Survey:* Cost of construction survey including both Contractor-hired and outside services.
- C. *Site Office Expense:* Ownership or rental of building, maintenance, removal, utilities, office and engineering expendables, furniture, computers and infrastructure, and photographs.
- D. *Insurance and Taxes:* Insurance other than that based on payroll, such as railroad protective, equipment insurance, and other specified or Contractor-required insurances; taxes, excluding payroll taxes such as property tax and any special local or State sales tax, should be included with the applicable item taxed.
- E. *Temporary Buildings:* Cost of ownership or rental, set up, maintenance and removal of such buildings as owner's office (if not a direct bid item), warehouses, first aid building, and other miscellaneous.
- F. *Personnel Expense:* Small tools and supplies (unless carried in the direct cost portion of the estimate), safety expendables, drug screen testing, training, physicals, hiring expense; include any per-diem costs for craft or indirect personnel.
- G. *Project Utilities:* Site utilities such as temporary electric, water, and sanitation.
- H. *Mobile Equipment:* Overhead vehicles, maintenance equipment and personnel (if not in equipment operating expense), and general service equipment (e.g., flatbeds and forklifts) and personnel if not in the direct cost.
- I. *Mobilization:* Cost of transportation of equipment and other items for move in, move out, set up, and take down, including the cost of personnel moves and related expenses.
- J. *Construction Plant:* Site fences, parking areas, material yards, temporary access, and other such special construction not included in direct costs; haul road construction and maintenance to be included in direct costs.
- K. *Quality Control:* Cost of quality control labor, equipment, supplies, outside services, and Contractor-hired personnel and on-site quality supervision.
- L. *Bonds:* Cost of payment and performance bond or other guarantees as specified or allowed, if any; also includes cost of subcontract or material bond.
- M. *Escalation:* Estimated cost of items for which firm pricing cannot be obtained, including increases in craft and field indirect wage rates and fringe benefits whether by agreement or estimated, and



material and subcontracts that are not firm for the given durations; explain basis for all escalation costs.

2.3 Allowable Construction Phase Costs for Direct and Field Indirect Costs

Definitions of some of the items of direct and field indirect costs are set forth below and shall not be included in the mark-up:

- A. *Labor*: Wages and add-ons, including overtime, vacation pay, and all fringe payments such as health and welfare, pensions, and any other that may be included in union agreement or as paid to both craft and staff employees; payroll insurance including Workers' Compensation and General Liability if based on labor amounts; payroll taxes including Federal Insurance Contributions Act (FICA) and State and Federal unemployment.
- B. *Permanent Materials*: Cost of materials incorporated into the construction Work, including estimated loss, waste, and non-pay overruns; sales tax and any shipping for these materials will be a part of this category.
- C. *Construction Expendable Materials*: Non-permanent materials, temporary facilities, small tools, formwork, temporary construction, office supplies, services, insurance, and taxes.
- D. *Equipment Ownership*: Rental or ownership charge of both company-owned and outside rentals, and tax on any rentals.
- E. *Equipment Operating Expense*: Repair parts, tires and tracks, Contractor's repair labor, services and fuel, and oil and grease.
- F. *Subcontract*: Cost of items of Construction Work subcontracted, including contracted trucking.

2.4 Use of Construction Cost Estimate

The detailed cost estimate will be the basis of developing estimates during the preconstruction phase and for preparing the GMP.

Total the direct and field indirect costs separately. The same cost estimating model, with the same transparency and level of detail, shall be used and submitted for cost proposals for Early Work, the GMP price proposal, and as construction changes warrant for change proposals during the construction Phase.

3 Mark-ups, ICE, and GMP

The Contractor shall propose a mark-up for the construction Work expressed as a percentage of the total construction phase cost on the form provided in the RFP. The mark-up percentage will include the Contractor's profit and the portion of home office overhead, General and Administrative (G&A) allocated to the L'Enfant Station and 4th Track Improvements Project (Project). Home office overhead (G&A) is defined as the cost of activities that are necessary to the overall operation of the contractor's business as a whole allocated to all of the Contractor's ongoing projects, including insurance that is maintained by the Contractor as a general cost of doing business. The mark-up percentage proposed in the Request for Proposal (RFP) will be used in the Independent Cost Estimate (ICE) and final GMP.

The profit component of the mark-up includes any bonuses and incentives but excludes all costs associated with direct construction Work activities, including, but not limited to, risk or contingency. Home office overhead (G&A) is defined as all auditable costs that are allocated to all of the Contractor's ongoing projects, such as off-site supervision and travel expenses for off-site supervisors, attorney and counsel fees, and insurance that is maintained by the Contractor as a general cost of doing business. The mark-up shall not include any field indirect costs or direct costs of the Project.



The mark-up percentage shall be applied to the total construction phase cost, and the result shall be the GMP. The mark-up percentage shall also be applied to any change proposals during the construction phase.

4 Narrative

Along with the estimate reports, provide a summary narrative of the estimate. Include a discussion of how specific items were developed in the estimate, such as, but not limited to, escalation factors, fuel pricing, material sources, labor rates, any craft labor agreements, and availability of skilled craftsman. Discuss approach to equipment availability and rental rates, including any equipment adjustments to hourly equipment rates used in the estimate based on scheduled usage of equipment versus the length of time equipment will be on the job, or if a buy-sell basis of ownership costs is applicable to the Project. Discuss which material and subcontract pricing is firm, which uses plug prices, and the expected variability of such pricing. Discuss temporary construction required such as haul roads, detours, temporary bridges and access, any retained earth, and borrow or waste pit development. Discuss approach to schedule, including hours of Work, double or triple shifts, weather and winter considerations, and the general duration of the estimated Work.