RAIL TRANSIT

Federal Transit Administration Could Improve Information on Estimating Project Costs

What GAO Found

Rail transit construction project sponsors, typically state or local government entities, have a vested interest in controlling costs. Stakeholders GAO interviewed identified a variety of factors that affect a rail transit construction project’s costs (see figure).

Types of Factors That Affect Rail Transit Project Construction Costs

<table>
<thead>
<tr>
<th>Project design decisions</th>
<th>Site characteristics</th>
<th>Project execution</th>
<th>General and local market conditions</th>
<th>Community and political environment</th>
<th>Legal requirements</th>
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<tbody>
<tr>
<td>Such as building at ground level, underground, or elevated.</td>
<td>Such as the terrain and soil conditions.</td>
<td>Such as the construction methods.</td>
<td>Such as those for labor and materials.</td>
<td>Such as community and political influence on project decisions.</td>
<td>Such as environmental, labor, and procurement laws and regulations.</td>
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</tbody>
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Source: GAO analysis of interviews with transit project stakeholders. | GAO-19-562

Project sponsors and other stakeholders identified various approaches sponsors have used to manage a project’s costs. These approaches align with key project management principles GAO identified: (1) ensuring management capability; (2) making informed procurement decisions; (3) managing risk; and (4) managing stakeholder relationships. For example, sponsor officials and a contractor’s representative from one GAO case study said they managed risk by cooperating to purchase steel materials early in the project to reduce the risk of additional steel price increases.

The Federal Transit Administration’s (FTA) cost estimating information for sponsors aligns with many best practices, but FTA could improve the information’s usefulness. GAO found that taken together, FTA’s cost estimating information substantially or fully met 7 of the 12 cost estimating steps outlined in GAO’s Cost Estimating and Assessment Guide (Cost Guide) but did not align with 5 of the steps. For example, the documents did not discuss sensitivity analyses—an assessment of each factor’s effect on cost. Doing so could help sponsors better identify which cost factors are most likely to influence a project’s overall costs if assumptions change, thereby improving an estimate’s reliability and better informing sponsors’ decisions. In addition, sponsors may have difficulty identifying critical cost estimating information because it is distributed across 14 different documents available to sponsors, 11 of which are intended for FTA’s oversight contractors. By improving the content and organization of cost estimating information, FTA would help project sponsors increase the reliability of their cost estimates and reduce the risk of cost overruns.

What GAO Recommends

FTA should (1) ensure that FTA’s cost estimating information is consistent with all 12 steps in GAO’s Cost Guide for developing reliable cost estimates and (2) provide a central, accessible source of cost estimating information for project sponsors. FTA partially concurred with the first and concurred with the second recommendation. GAO believes FTA should fully implement both recommendations.

Why GAO Did This Study

Rail transit projects are complex, and challenge sponsors to maximize limited resources. To help project sponsors build new or extend existing transit projects, Congress appropriated about $2.65 billion for FTA’s 2019 Capital Investment Grants program. Congress included a provision in a committee report for GAO to evaluate factors affecting the costs to build transit projects. This report examines: (1) stakeholders’ views on factors that affect rail transit project costs, (2) stakeholders’ views on approaches sponsors have used to manage costs, and (3) the extent to which FTA’s cost estimating information for sponsors aligns with best practices in GAO’s Cost Guide. GAO interviewed academic, construction, and other stakeholders identified through a literature search and referrals. GAO conducted case studies of four U.S. rail transit projects that received FTA grants and that were selected to obtain variation in transit mode, location, and other characteristics, and compared their approaches to GAO-identified key project management principles. GAO also interviewed FTA officials and compared FTA’s cost estimating information with GAO’s best practices.

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