Accelerating Highway and Transit Project Delivery: Issues and Options for Congress

August 3, 2011
Summary

Major highway and transit facilities can take somewhere on the order of 10 to 15 years to plan and build. The environmental review process required by the National Environmental Policy Act (NEPA) and other federal environmental laws and regulations is often cited as the main culprit for long delivery times. Available data and research, however, show that environmental review is typically not the greatest source of delay in surface transportation projects. Developing a community consensus on what to do, securing the funding, and dealing with affected residents and businesses, including utilities and railroads, also contribute to the long timelines required to complete certain projects.

Project delay can occur during any of the five main phases in delivering major highway and transit projects: planning; preliminary design and environmental review; final design; right-of-way acquisition and utility relocation; and construction. If it wishes to address project delay in the pending reauthorization of surface transportation projects, Congress has several options that might broadly affect all phases of project delivery in both highway and transit projects. Other possible options are targeted to specific issues that affect just one or two phases of a highway or transit project.

Broad options that Congress might consider for accelerating project delivery are

- devolving federal surface transportation funding and the associated federal requirements back to the states;
- creating an office within the Department of Transportation responsible for expediting project delivery;
- new initiatives for encouraging and rewarding collaboration between federal, state, and local agencies, such as a requirement in law for partnering plans, funding an awards program for outstanding collaboration, or creation of a special research and technical training center devoted to transportation project delivery.

More narrowly tailored options for specific phases or modes include

- certifying states to use their own procedures to protect dislocated property owners and tenants;
- reducing the number of steps in the public transit New Starts program and the elimination of the alternatives analysis that is often seen as a duplication of the requirements in NEPA;
- providing the Federal Transit Administration with the ability to “fast-track” New Starts projects that are low-risk;
- creation of an Integrated Planning Pilot Project, under the Special Experiment Program authority that currently exists for the Federal Highway Administration;
- making permanent the Surface Transportation Project Delivery Pilot Program and expanding it to allow delegation of NEPA authority for highway projects to any state.
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Introduction

Budgetary pressures at all levels of government have increased concern about using resources for transportation projects as effectively as possible. The speed with which transportation projects are delivered, and the role the federal government plays in the project delivery process, have received particular attention. It is often claimed that the environmental review process required by the National Environmental Policy Act of 1969 (NEPA, 42 U.S.C. §4321 et seq.) and other federal environmental laws and regulations are major causes of delay in moving highway and transit projects from conception to completion.¹

To more fully understand sources of delay in major highway and transit projects, this report examines the process from beginning to end, including environmental review, and looks at the available evidence on timelines in project delivery. Unfortunately, the evidence is scant and anecdotal, relying for the most part on the memories and opinions of transportation professionals involved in planning, designing, and constructing highway and transit facilities. What the evidence appears to show is that while major highway and transit facilities do take a long time to plan and build, typically on the order of 10 to 15 years, much of the delay is unrelated to federally mandated environmental review. Developing a community consensus on what to do, securing the funding, and dealing with affected residents and businesses, including utility companies and railroads, all appear to be significant causes of delay. While Congress has options that may accelerate project delivery, it may be necessary to temper expectations for dramatically shortening timelines on expensive, complex, and often contentious projects.

The report begins with an overview of the project delivery process for highway and transit projects. This is followed by an examination of the evidence on the reasons for project delay, and a discussion of environmental streamlining efforts in past surface transportation reauthorization legislation. The final section identifies new legislative options for Congress to speed project delivery.

Project Delivery Process

Highway and transit projects range widely in purpose, scope, location, size, and cost. Although all types of projects can suffer delays, concerns about long delivery times are mostly focused on big highway, bridge, and transit projects.² This includes major new highways and bridges, major expansions of existing highway facilities, and major public transit projects (often referred to as “new starts” along with the federal transit program of the same name). Because of the high costs involved in these types of projects, the federal government typically provides a share of the funding. In the case of major highway and bridge projects, state departments of transportation (state DOTs) receive funding from a number of different federal-aid highway programs. In the case of New Starts transit projects, transit agencies and other local government project sponsors receive federal funding from the New Starts program, but may also use smaller amounts of other

² For a discussion of smaller projects see Transportation Research Board, Effective Delivery of Small-Scale Federal-Aid Projects, National Cooperative Highway Research Program (NCHRP), Synthesis 414, Washington, DC, 2011.
federal highway and transit program funding. Along with federal funding come requirements established in federal law and regulation.

Highways

There may be as many as 200 steps in a major highway project, but these are typically grouped into five major phases: planning; preliminary design and environmental review; final design; right-of-way acquisition and utility relocation; and construction.  

- During the planning phase, transportation needs are identified and projects to meet those needs, within the bounds of available resources, are brought forward. State DOTs, as well as metropolitan planning organizations (MPOs), are required to develop long- and short-range plans laying out capital and operational strategies and projects to support the movement of passengers and freight. The planning process is required to be a continuing, cooperative, and comprehensive endeavor involving a full spectrum of community interests including residents, businesses, freight shippers and carriers, transit agencies, and environmental groups (23 U.S.C. §134 and 23 U.S.C. §135).

- The preliminary design and environmental review phase involves consideration of possible alternatives to address the identified need and selection of a preferred alternative. This phase, which has drawn more attention from transportation stakeholders, including some Members of Congress, than any other element of the surface transportation project development process, is discussed in detail below.

- The final design phase begins once preliminary design and environmental review have identified the preferred alternative. Final design leads to decisions on what property is needed and final estimates of project costs.

- Final design is followed by the acquisition of right-of-way, the relocation of affected residents and businesses, and the relocation of utilities. The acquisition of property must be accomplished according to the requirements of the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended.

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3 For example, the Central Puget Sound Regional Transit Authority in Seattle is building a new light rail extension to the University of Washington using $813 million in New Starts Program funds, $3 million in Fixed Guideway Modernization funds, and $9 million in Congestion Mitigation and Air Quality Improvement (CMAQ) Program funds.


5 For more information about the metropolitan transportation planning process, see CRS Report R41068, *Metropolitan Transportation Planning*, by William J. Mallett.

6 Also during the planning phase, it may be required that transportation “conformity” be demonstrated. Transportation conformity is required by the Clean Air Act (42 U.S.C. 7506(c)) to ensure that federal funding and approval are given to highway and transit projects that are consistent with (“conform to”) the air quality goals established by a state air quality implementation plan (referred to more commonly as a state implementation plan or SIP). Issues associated with transportation conformity are not discussed in this report. For information, see the Federal Highway Administration’s “Air Quality: Transportation Conformity” website at http://www.fhwa.dot.gov/environment/air_quality/conformity/ or the Environmental Protection Agency’s “State and Local Transportation Resources: Transportation Conformity” website at http://www.epa.gov/otaq/stateresources/transconf/index.htm.
(P.L. 91-646, 49 CFR 24), a law designed to provide fair treatment of property owners and tenants.

- The state DOT then awards construction contracts, oversees construction, and takes delivery of the final project. Federal-aid construction projects are typically subject to a number of federally required contract provisions, such as nondiscrimination, payment of a predetermined minimum wage (Davis-Bacon and Copeland Acts), and accident prevention.\(^7\) The federal government is not directly involved in construction, but does have an oversight role. The state is reimbursed by the federal government for its share of project costs upon the completion of the project or upon completion of project milestones.

Although these project phases follow logically one after the other, they are not always carried out sequentially. Indeed, there has been a push for agencies to conduct work concurrently, where possible, to speed delivery. For instance, project sponsors have been encouraged to conduct as much of the environmental compliance work as possible during the planning phase. Moreover, there have been innovations in contracting in which the traditional design-bid-build method has been collapsed into a design-build contract, partly as a way to speed project delivery.

**Preliminary Design and Environmental Review of Highway Projects**

During preliminary design and environmental review, MPOs and state DOTs identify the preliminary engineering issues, proposed alignment of roadways, costs, and project details. This phase includes, but is not limited to environmental assessments, topographic surveys, real property surveys, geotechnical investigations, hydrologic analysis, hydraulic analysis, utility engineering, traffic studies, financial plans, revenue estimates, hazardous materials assessments, and general estimates of the types and quantities of materials and other work needed to establish parameters for the final design.

Environmental review includes two related processes. First, it involves the preparation of appropriate documentation under NEPA. Second, it involves fulfillment of any other requirements under any local, state, tribal, or federal law other than NEPA, including reviews, studies, and environmental permits and approvals. Therefore, meeting any environmental requirement, such as permitting under the Clean Water Act, is considered part of the environmental review process.

**NEPA and Highway Projects**

NEPA requires federal agencies to consider the environmental impact of a project and to give the public a meaningful opportunity to learn about and comment on the proposed project before a final decision is made. To ensure that environmental impacts are considered before final decisions are made, NEPA requires federal agencies to prepare an environmental impact statement (EIS) for any proposed project that is determined to have a significant affect on the environment. After a final EIS is approved, a final Record of Decision is issued, documenting the final project alternative selected and public comments received on the project. If it is not clear whether a project will have significant impacts, the project sponsor must conduct an environmental assessment, a less elaborate study than an EIS. If analysis conducted during the EA demonstrates that no EIS is required, the federal agency supporting the project issues a Finding of No Significant Impact (FONSI).

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The agency or agencies having primary responsibility for preparing the necessary NEPA documentation are designated the “lead agency.” Pursuant to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA) (P.L. 109-59), Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) were explicitly defined as the lead agencies responsible for the environmental review process for any highway or transit project requiring DOT approval. The direct recipient of federal funds for a project, typically the state DOT or the local transit agency, must serve as a joint lead agency. Also, state or local agency project sponsors, such as a local public works agency or a regional toll road agency, may be invited to serve as a joint lead agency. In practice, the project sponsor (e.g., state DOT or local agency) prepares the bulk of the necessary NEPA documentation, subject to oversight and final approval by FHWA or FTA.\(^8\)

The overwhelming majority of highway projects are deemed to have no significant impact on the environment and require no or limited environmental review or documentation under NEPA. These projects are processed as categorical exclusions. Projects processed as categorical exclusions are sometimes incorrectly described as being exempt from NEPA or as having no environmental impact and, hence, free of further environmental compliance requirements (e.g., those related to the second element of the environmental review process). More accurately, categorical exclusions have no significant environmental impact under NEPA. That is, they are excluded from the requirement to prepare an EIS or EA, but may require some level of documentation to demonstrate the lack of significant impact.

Only about 4\% of all projects funded through FHWA programs require an EIS (Figure 1), meaning that 96\% of all projects approved by FHWA have been determined to have no significant impact on the environment.\(^9\) In the majority of states, the total number of projects that require an EIS is quite low. As of April 12, 2011, according to FHWA, nine states have no projects underway for which an EIS is being prepared. Of the remaining 41 states, 31 were preparing between 1 and 5 statements, meaning that only 10 states had more than five highway-related Environmental Impact Statements in preparation.\(^10\) Almost 92\% of all projects funded through FHWA programs are processed as categorical exclusions.\(^11\) The remaining 4\% of highway projects require an EA/FONSI (i.e., no subsequent EIS). The proportion of projects proceeding without an EIS has remained relatively constant since 1998.\(^12\)

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\(^9\) See FHWA Projects by Class of Action on the Federal Highway Administration’s “Streamlining/Stewardship” website at http://www.environment.fhwa.dot.gov/strmlng/projectgraphs.asp. Data from 2007 are the most recent available.


\(^11\) See FHWA Projects by Class of Action on the Federal Highway Administration’s “Streamlining/Stewardship” website.

\(^12\) A categorical exclusion is not a type of document. That is, there is no CE documentation format, per se. However, state DOTs may have a CE or a “CATEX” checklist to assist in their determination.
Figure 1. Federal Highway Projects by NEPA Action Class, 2007


Note: Data are for projects with an environmental document completed in 2007, the most recent year available.

While projects that require an EIS represent a small proportion of the number of projects, these are likely to be high-profile, complex undertakings that affect sizeable populations. They are also likely to be relatively expensive projects. For example, in 2007, although projects requiring an EIS accounted for 4% of the total number of projects funded through FHWA programs, they represented 15% of the total funding amounts.  

Other Environmental Review Requirements for Highway Projects

The second element of the environmental review process includes any additional environmental permit, approval, review, or study required for a project under any federal law. This element is potentially more complex, and is often misunderstood when there is debate regarding potential methods to expedite project delivery.

Environmental requirements applicable to a project will depend on factors specific to an individual project. For example, unique geographic, demographic, historic, and natural conditions affect each transportation project. Requirements applicable to a project may be implemented under the authority of DOT or an outside agency with jurisdiction over the regulated impact. In some states, a state agency may be delegated partial or complete authority over a federal

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environmental program that is included in the environmental review process. The sometimes extensive reviews required by these various federal and state agencies have added to the perception that the environmental review process entails extensive delays.

While applicable requirements are project-specific and likely dependent on the level of impacts to specific resources, there are certain requirements that commonly apply to surface transportation projects. Also, certain federal laws have been identified by transportation stakeholders as those that are more likely to increase the time to complete the environmental review process. Those laws, and the agencies authorized to implement them, are

- the Endangered Species Act (16 U.S.C. §1531 et seq.), the Department of the Interior’s U.S. Fish and Wildlife Service;
- the National Historic Preservation Act (16 U.S.C. §460 et seq.), the federal Advisory Council on Historic Preservation and state historic preservation offices;
- the Clean Water Act (33 U.S.C. 1251 et seq.), the U.S. Army Corps of Engineers or the Environmental Protection Agency (EPA); and
- “Section 4(f)” of the Department of Transportation Act of 1966 (40 U.S.C. §303), the U.S. Department of Transportation.

In addition to a project potentially requiring a permit, approval, or consultation under one of these, or other, laws, federal agencies other than DOT may be required to participate in the environmental review process by performing scientific analysis or providing an assessment of some element of a project’s impact.

The environmental and resource agencies participating in reviews or considering approvals for highway projects may also be providing similar analyses and approvals for other regulated federal agency and private actions. The agency may then have to consider whether to give the transportation project priority over mining projects, timber sales, cattle grazing, port or river dredging projects, federal land transfers, private construction projects, or other activities requiring its review and approval.

To integrate the compliance process and avoid duplication of effort, NEPA regulations specify that, to the fullest extent possible, NEPA documentation must be prepared concurrently with any environmental requirements. Further, the Department of Transportation’s NEPA regulations specify that a project’s final EIS or FONSI must demonstrate compliance with all applicable environmental laws, Executive Orders, and other related requirements that may apply to protected resources impacted by a project. If full compliance is not possible, the final EIS or FONSI should reflect consultation with the appropriate agencies and provide reasonable assurance that the requirements will be met. In this capacity, NEPA functions as an “umbrella” statute. That is, any

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14 “Section 4(f)” requirements apply to the use of publicly owned parks and recreation areas, wildlife and waterfowl refuges, and to publicly or privately owned historic sites of national, state, or local significance. Section 4(f) of the Department of Transportation Act of 1966 Act was originally set forth at 49 U.S.C. §1653(f) and applies to all DOT projects. A similar provision, found at 23 U.S.C. §138, applies specifically to Federal-aid highways. In 1983, as part of a general recodification of the DOT Act, 49 U.S.C. §1653(f) was formally repealed and codified in 49 U.S.C. §303 with slightly different language. This provision no longer falls under a “Section 4(f),” but DOT has continued this reference, given that over the years, the whole body of provisions, policies, and case law has been collectively referenced as Section 4(f).

15 Resource agencies include those responsible for managing/protecting historic and cultural resources as well as natural resources.

16 40 C.F.R. §1502.25.

17 Generally, this requirement ensures that federal funds will be released only for projects that comply with applicable law.
study, review, or consultation required by any other local, state, tribal, or federal environmental requirement should be conducted within the framework of the NEPA process (i.e., as part of the process to prepare an EIS, EA, or CE).

While NEPA forms the framework for demonstrating compliance with other requirements, NEPA itself does not require compliance with any other requirement. For example, consider a project that requires a permit under the Clean Water Act. The requirement to obtain the permit would simply be identified during the NEPA process, not explicitly required by NEPA. If the legal requirement to comply with NEPA were removed, compliance with each law applicable to a given project would still be required—only the mechanism to identify the applicable laws would be changed.

This use of NEPA as an umbrella process means that the time it takes to complete the environmental review process under NEPA is inextricably linked to the time it takes to demonstrate compliance with any other environmental requirement. This link can blur the distinction between what is required under NEPA and what is required under other law. This distinction is particularly relevant when trying to identify causes of project delays and, hence, potential remedies to address those delays.

Consider, for example, a bridge rehabilitation project that meets the criteria for a categorical exclusion because it has no significant environmental impacts under NEPA and does not require an EIS or EA. Such a finding does not mean that the project involves no environmental impacts or activities that may be regulated under other local, state, tribal, or federal law. For example, the bridge rehabilitation may involve some level of consultation with a state historic preservation office pursuant to the National Historic Preservation Act. If approval of the categorical exclusion ultimately takes longer than expected by a local or state transportation official, it would be relevant to know whether additional time was needed as a result of the requirements of NEPA or of the National Historic Preservation Act.

As noted previously, the NEPA process should not simply document decisions that have already been made. Therefore, the next stage of the process—final design and property acquisition—may not proceed until the agency coordinating federal assistance issues one of three possible determinations: a record of decision approving a completed EIS, a finding of no significant impact, or approval of categorical exclusion. At subsequent stages of the project development process, additional environmental review may be required if changes to the project affect the level or nature of environmental impacts that were previously identified.

**Transit New Starts Projects**

The New Starts program provides federal funds to public transit agencies on a largely competitive basis for the construction of new fixed-guideway transit systems and the expansion of existing fixed-guideway systems. Federal funding for major New Starts projects is typically committed in a full funding grant agreement (FFGA), usually a multi-year agreement between the federal government and a transit agency. A FFGA establishes the terms and conditions for federal financial participation, including the maximum amount of federal funding being committed.19

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18 In federal law “fixed-guideway” is defined as a public transportation facility using and occupying a separate right-of-way or rail for the exclusive use of public transportation and other high occupancy vehicles; or using a fixed catenary system and a right-of-way usable by other forms of transportation (49 U.S.C. §5302(a)(4)).

According to federal law, the process for obtaining a FFGA (Figure 2) begins with a regional, multimodal planning process that includes systems planning and alternatives analysis. Systems planning examines the transportation needs of a region. Alternatives analysis examines the benefits and costs of different options, such as light rail or bus rapid transit, in a specific transportation corridor or regional subarea. The conclusion of the alternatives analysis is the selection of a locally preferred alternative, which the project sponsor submits to FTA for evaluation and approval for entry into preliminary engineering.

New Starts projects must fulfill the requirements of NEPA because they involve a proposed major federal action significantly affecting the environment. FTA requires a project to have moved beyond the NEPA scoping phase before entering preliminary engineering. NEPA scoping involves identifying the alternatives that will be examined in the NEPA documents and the significant environmental issues that arise from the proposed project.\(^{20}\)

Preliminary engineering involves the project sponsor refining the project by examining the costs, benefits, and impacts of different design alternatives, and completing an analysis of environmental impacts as required by NEPA. Once preliminary engineering is complete, FTA may approve the project for final design. Final design includes the preparation of final construction plans and cost estimates, and may also include right of way acquisition and utility relocation. After final design is complete FTA may approve the project for a FFGA. FTA must notify Congress 60 days in advance of its intent to sign an FFGA. Once the FFGA is signed, and if federal funds are appropriated, the project may move into the construction phase. FTA retains some oversight of a project as it is constructed. Moreover, FTA must request the funding that is to be provided under the terms of the FFGA for each approved project from Congress each fiscal year.\(^{21}\)

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Figure 2. Major New Starts Planning and Project Development Process

Partly because of concerns about the complexity of the New Starts Program process, SAFETEA created a category known as Small Starts. Small Starts projects are those costing $250 million or less in total and seeking $75 million or less in federal funding. The Small Starts project process is a simplified version of the process for major New Starts projects (49 USC §5309(e)). A Small Starts project must still emerge from systems planning and an alternatives analysis, but FTA expects the alternatives analysis to be much simpler than for a major New Starts project. Moreover, preliminary engineering and final design are combined into a single phase known as project development. FTA’s approval for entry into project development requires submission of fewer and simplified reports. Even though preliminary engineering and final design are combined into a single phase, final design may not commence until the NEPA process is complete. After project development, FTA may recommend the project for a Project Construction Grant Agreement.

For projects costing less than $50 million in total, known as Very Small Starts, FTA has developed a process that permits approval after a highly simplified alternatives analysis. Until FTA issues a final regulation for the Small Starts program, projects costing $25 million or less are exempted from the Small Starts evaluation and rating process. Sponsors of exempt projects may submit relatively simple applications to FTA for funding. Nevertheless, exempt projects must still satisfy the requirements of NEPA and other environmental laws.

**Reasons for Project Delivery Delay**

**Highways**

There appear to be few systematic public data on how long it takes to deliver highway projects from conception to completion, and whether or not it takes longer to complete projects now than in the past. Some of the reasons include the great diversity of projects, the difficulty of assigning meaningful beginning and ending dates to project milestones, and the time and cost involved in keeping and analyzing project records. Despite these problems, both FHWA and the American Association of State Highway and Transportation Officials (AASHTO) have provided general timeframes for the five phases of federally financed major new highway projects. FHWA estimates about 9 to 19 years in total for projects with significant environmental impacts, while AASHTO suggests 11-17 years (Table 1).

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Table 1. Generalized Timeframes for Completing Federally Financed Major Highway Projects by Project Phase

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Time To Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FHWA</td>
</tr>
<tr>
<td>Planning</td>
<td>4-5 Years</td>
</tr>
<tr>
<td>Preliminary Design and Environmental Review</td>
<td>1-5 Years</td>
</tr>
<tr>
<td>Detailed Design</td>
<td>2-3 Years (including right-of-way and utility relocation)</td>
</tr>
<tr>
<td>Right-of-Way Acquisition and Utility Relocation</td>
<td>Included in above</td>
</tr>
<tr>
<td>Construction</td>
<td>2-6 Years</td>
</tr>
<tr>
<td>Total</td>
<td>9-19 Years</td>
</tr>
</tbody>
</table>


It is worth keeping in mind that major projects may only constitute about 4% of all federally funded highway projects. Most projects are much smaller rehabilitation or reconstruction projects that require less planning, environmental review, and funding. The General Accounting Office (now the Government Accountability Office, GAO) noted that “according to FHWA, most federally funded highway construction projects advance from planning to construction within 1 year but may take up to 4-6 years, depending on the individual project’s characteristics.”

Perhaps because of the lack of systematic data on project completion, there is no consensus on the reasons for project delivery delay. Moreover, as FHWA has noted, “measuring the extent and cause of delays is often highly subjective.” Part of the problem is that even the definition of delay can be controversial. As one study notes, “without clear time frames established ahead of time, it is very difficult to determine whether delay is occurring. What one person might consider a ‘delay’ another considers a normal part of the process.”

A few studies have been conducted on the reasons for highway project delay. Most of these focus on delays during the environmental review process, or at least during the period in which environmental review is occurring, and on those projects which have been in the environmental review process for a considerable amount of time. This research appears to show that while environmental review of a project can take a long time, delays are often due to non-environmental factors. In many cases, the cause of delay in the environmental review process is a factor external to the process.

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In 2002-2003, FHWA conducted two surveys intended to identify causes of delay associated with preparation of an EIS. Both studies asked FHWA field staff for the main reason the project had been delayed. In the first survey, respondents identified the top three reasons for delay as lack of funding (18%), low local or state priority (15%), and local controversy (16%). Issues having to do with the human or natural environment combined for 25% of the identified delays. These included resource agency review (8%), issues related to fish and wildlife or Endangered Species Act compliance (7%), historic preservation requirements (6%), and issues associated with wetlands (4%). Another cause of delay frequently cited by respondents, “complex project,” mentioned 13% of the time, may also have involved environmental issues, but no additional detail was collected.

The second FHWA survey gathered data from projects completed in FY2002. In addition to looking at projects that took more than five years to complete (25 projects in FY2002), the survey gathered information on projects requiring an EIS that were completed in under three years (7 projects). The two time frames were selected because three years had been identified by FHWA as “timely completion of NEPA” and five years had been identified by the House Subcommittee for Transportation and Infrastructure in 2000 as indicating “delay.”

For those projects that took less than three years, the primary reason cited for completing the EIS relatively quickly was “early agency coordination.” A majority of respondents (six of seven) also indicated that those projects were identified as a priority by the state. The primary reasons survey respondents identified for a project taking more than five years to complete an EIS were: low priority (24%), complex project (16%), change in scope (12%), and historic preservation (12%). Additional reasons cited included poor consultant work, lack of funding, issues with city documentation, lawsuits, and changing the document from an EA to an EIS.

An academic study of the factors affecting the length of NEPA reviews conducted in the 1990s for highway projects in Oregon also found that the most common causes of delay were not obviously related to the natural environment. The most common causes of delay, in terms of the percentage of projects experiencing the source of delay, were design changes (83%), citizen/property owner concerns (75%), communications and staffing problems (42%), and funding availability (42%). Some of the citizen concerns were related to the natural environment, but many were related to traffic, safety, and access issues. These concerns sometimes led to design changes, such as the addition of new traffic lights and medians, which then resulted in reopening already completed studies and providing additional time for public comment, causing delays but also potentially improving the final project. Staff turnover, sometimes related to a lack of funding and agency reorganization, was also found to be a cause of delay, partly because it made communication between agencies more difficult.


32 See footnote 15.

33 This study was subject to methodological criticism in a review by GAO, including problems with determining the primary reason for delay and that responses were often general and did not identify the underlying reasons for why the environmental review took more than five years (see U.S. General Accounting Office, Highway Infrastructure: FHWA Has Acted to Disclose the Limitations of Its Environmental Review Analysis, GAO-03-338R, January 16, 2003, http://www.gao.gov/new.items/d03338r.pdf). Nevertheless, the results are presented here because they are widely cited in the literature.


35 Dill, p. 11.
In a study of the costs of environmental compliance, FHWA had this to say about assessing the causes of project delay:

The underlying causes of delay are not always apparent or simple in nature. For example, sometimes design review results in an engineering decision to alter proposed project limits or other features. Similarly, often there are decisions to accommodate requests from local governments for specific project elements. Such situations necessitate corresponding changes to the parameters used in right-of-way activities and in environmental reviews. Those changes often generate new acquisition or environmental compliance requirements, or the need for revision of project documentation. If the modifications require a substantial amount of such rework, then adjustments in project schedule and budget occur. Those adjustments nominally appear as delays generated by the disciplines doing the rework. In this manner, a decision by one operating unit has effects that cascade throughout the various State DOT disciplines, and the original cause often is obscured. Furthermore, often there are independent and unrelated delays in multiple functional areas (e.g., design, right-of-way, and environment). In all delay cases, to decide whether delay really resulted in late project delivery would require a determination of the critical path elements that actually affect project delivery.36

For the most part, these studies focus on problems during the environmental review stage of a project. In contrast, two more recent studies have sought to identify the causes of highway project delay from inception to completion.

The first, prepared under the auspices of the Transportation Research Board’s National Cooperative Highway Research Program (NCHRP), conducted interviews with eight state DOTs. The study found that the five main reasons for project delay are, in no particular order: utility coordination and relocation; railroad coordination and involvement; right-of-way acquisition; interagency coordination; and lack of funding.37 The study did not try to evaluate the relative importance of these factors, nor quantify the effects of these factors on project delivery.

The NCHRP study found that utility coordination and relocation can be a source of project delay, sometimes during project design, but more typically during construction. Utilities are often located in the highway right-of-way, necessitating relocation during a project. The major issue is that utilities are expected to move their facilities for little or no compensation. Consequently, such work is not the utilities’ highest priority. Underground utilities complicate matters because, particularly for older installations, records may be poor and the amount of relocation work required is not known in advance. In dense urban environments utility coordination may require dealing with multiple entities, which multiplies the risk of delay. For similar reasons, the involvement of railroads was mentioned frequently by state DOT officials as a contributor to delays.38

Right-of-way acquisition is identified as another source of delay in the NCHRP study because, typically, acquiring land cannot proceed until the Record of Decision has been granted and construction cannot begin until the land has been acquired. The procedures in the Uniform


Relocation Assistance and Real Property Acquisition Act of 1970, which federally supported projects must follow, have been criticized as long and complicated compared with some state laws and processes. In some cases delay may result when property owners are unwilling to sell their land, requiring taking by eminent domain. Occasionally, disputes between transportation departments and land owners must be resolved by the courts.

Problems with interagency coordination, particularly during the planning and environmental review stages, is identified as another reasons for delay. The study argues that delays occur because of long review times from permitting agencies, different priorities among agencies, studies having to be redone because they did not include the correct information, and lack of frequent communication.

The second recent study, prepared for the Orange County Transportation Authority (OCTA), conducted interviews with a wide range of industry leaders, including transportation infrastructure practitioners, state and local officials, industry officials, and other experts. The study specifically focused on the role of the federal government in program and project delivery, and, again, did not attempt to quantify delays. As did the NCHRP study, the OCTA study identified environmental review, right-of-way acquisition, utility relocation, and railroad involvement as sources of delay. But the report also argued that, to some extent, delay results because participants in the public works construction industry expect delay to occur and too readily accept it as part of the process. As the authors noted, “As an industry, public works construction suffers from a culture where delays are considered an acceptable tradeoff for the size, complexity, cost, and life span of products.” They argued that some of the main barriers to accelerating project delivery are “a function of institutions and adopted roles rather than law or policy.”

Some of the other sources of delay identified in the OCTA study include the federal fiscal constraint requirements in the planning process, the federal micromanagement of projects, risk aversion by federal oversight agencies, and the predictability of funding, not just the level of funding.

Transportation improvements recommended in planning documents must be supported by funding sources reasonably expected to be available, in addition to funds necessary to operate and maintain the existing system. The OCTA study notes that this fiscal constraint requirement in the planning process can create difficulties and delay in project delivery, particularly when funding is uncertain and when the process for changing planning documents is cumbersome. The study also suggests that, unlike in the past, today’s federal funding recipients are generally sophisticated and experienced, and therefore “the close scrutiny of routine actions by agencies could be considered to be no longer justified for the full range of grantees and might be streamlined by adjusting oversight processes to focus on accountability and good project control rather than micromanagement.”


Emergency Lessons

Some of the current concern with delay in project delivery is a reaction to rapid completion of several high-profile highway projects under emergency conditions. This includes the rebuilding of the collapsed I-35W bridge in Minneapolis, MN, which was contracted to be rebuilt in 437 days but was finished in just over a year, for which Representative John Mica, Chairman of the House Transportation and Infrastructure Committee, has named his plan to speed project delivery “the 437 Plan.” Other examples include the rebuilding of the I-580 connector in San Francisco in 26 days after a fiery truck crash in 2007 and the rebuilding of the I-40 bridge at Webber Falls, OK in 65 days after it was struck by a river barge in May 2002.

In a report examining the process for rebuilding a collapsed bridge, FHWA concluded that the most frequent causes of project delay may recede in an emergency situation, notably lack of funding or low priority, local controversy, stakeholder or local opposition, and insufficient political support. Moreover, the special circumstances often make it easier to deal with project complexity or environmental concerns. For instance, in some cases the scope of the project can be limited to simply rebuilding, without capacity expansion, realignment, or changes to the roadways approaching the bridge. This tends to limit controversy and makes environmental review easier. The OCTA report agrees that in emergency situations, “when public consensus and pressure are present, barriers to expedited processing essentially disappear because Federal agencies’ priorities are in sync with those of their Grant recipients.”

Small Federal-Aid Highway Projects

Federal funding is available for small-scale highway projects through many programs administered by FHWA, including such targeted programs as Transportation Enhancements, Safe Routes to School, and the National Scenic Byways Program. A study of small-scale projects, defined as projects with a federal share of $300,000 or less, in ten states, again prepared under the auspices of the Transportation Research Board’s National Cooperative Highway Research Program, found concerns about the time and effort it takes to deliver projects that involve relatively small amounts of federal funding.

Based on a survey of state DOT staff and interviews with public-sector officials, the study found that there were several causes of delay in small-scale project delivery. Problems mentioned most often included finding local matching funds, the complexity of the NEPA and right-of-way processes, and the prohibition on using local agency forces for small-scale construction projects. Other problems mentioned included a lack of familiarity with federal regulations because of staff turnover at local agencies, complying with federal regulations when not required, delays in appraisals required for property acquisition, and slow response for approvals and permits from resource agencies.

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43 U.S. Congress, House Committee on Transportation and Infrastructure, 112th Cong., 1st sess., “Cutting Red Tape: the 437-Day Plan,” http://republicans.transportation.house.gov/singlepages.aspx/806. The new bridge was opened to traffic 413 days after the old bridge collapsed (August 1, 2007 to September 18, 2008).
46 OCTA, 2011, p. 2-10.
48 Ibid., p. 13.
Transit New Starts Projects

As with highway projects, there are no good estimates of how long it takes to complete an “average” transit New Starts project. Two studies have examined how long it takes to move through the New Starts program, but these studies do not assess the initial planning process nor the time required for construction.

One study, by GAO, was unable to determine how long it takes for major transit projects to move through the New Starts process due to data problems, and therefore reached no conclusion as to whether the process has become lengthier. Complete data were only available for 9 of the 40 projects that have received a FFGA since 1997, and GAO notes that these 9 are not necessarily representative of the entire group. Of the 9 projects, the shortest completion time, from the beginning of alternatives analysis to the approval of a FFGA, was 4 years 7 months, and the longest was 14 years 2 months (Table 2). It is important to note that this may not include the time period, often several years, during which local officials and planning agencies examine possible transit projects before selecting the alternatives to be analyzed in greater detail.

A second study of the New Starts program, sponsored by FTA but conducted by outside consultant Deloitte, also examined nine major transit projects, six that sought funding from the New Starts program and three than did not. The study found that project length varied dramatically across the projects, but the non-New Starts projects generally took less time to complete. Like the GAO study, these projects are not necessarily representative of all New Starts projects, and, moreover, the duration of the alternatives analysis was only estimated approximately.

Table 2. Time to Complete Phases of Major Transit Capital Projects

<table>
<thead>
<tr>
<th>Project Phase (in Months)</th>
<th>Alternatives Analysis</th>
<th>Preliminary Engineering</th>
<th>Final Design</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternatives Analysis</td>
<td>Preliminary Engineering</td>
<td>Final Design</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Government Accountability Office Study, New Starts Projects</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Southeast Corridor Light Rail (Denver, CO)</td>
<td>34</td>
<td>27</td>
<td>6</td>
<td>67</td>
</tr>
<tr>
<td>Metra South West Improvements and Extension (Chicago, IL)</td>
<td>33</td>
<td>24</td>
<td>10</td>
<td>67</td>
</tr>
<tr>
<td>Metra Union Pacific West Line Extension/Central Kane (Chicago, IL)</td>
<td>33</td>
<td>24</td>
<td>10</td>
<td>67</td>
</tr>
<tr>
<td>Metra North Central Service Improvements (Chicago, IL)</td>
<td>33</td>
<td>21</td>
<td>13</td>
<td>67</td>
</tr>
<tr>
<td>Eastside Corridor LRT Project (Los Angeles, CA)</td>
<td>16</td>
<td>24</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>West Corridor Light Rail (Denver, CO)</td>
<td>71</td>
<td>53</td>
<td>41</td>
<td>165</td>
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<tr>
<td>Norfolk Light Rail Transit Project (Norfolk, VA)</td>
<td>110</td>
<td>46</td>
<td>13</td>
<td>169</td>
</tr>
<tr>
<td>South Corridor I-205/Portland Mall Light Rail Project (Portland, OR)</td>
<td>131</td>
<td>19</td>
<td>20</td>
<td>170</td>
</tr>
<tr>
<td>University Link LRT (Seattle, WA)</td>
<td>56</td>
<td>12</td>
<td>25</td>
<td>93</td>
</tr>
</tbody>
</table>

Despite these data problems, both studies found concern with the complexity, length, and expense of the federal approval process for major transit projects partially funded through the New Starts program. The New Starts process requires the development of extensive data and the preparation of a large number of detailed reports and other documents, all of which are reviewed in depth by FTA in making multiple project approval determinations. Although GAO has suggested that the New Starts evaluation process might be used as a model for other federal programs to ensure the effective use of federal funding,\textsuperscript{50} transportation industry stakeholders complain that the process is time-consuming and costly, with some delays due to FTA deciding whether a project can move into the next phase.\textsuperscript{51} One transit agency estimates that federal involvement can add an extra one to two years to a project and 10% to 15% extra in project costs.\textsuperscript{52}


The FTA-sponsored (Deloitte) study found a number of problems that cause confusion and may add time to a project, and might be amenable to administrative remedies. For example, the study noted that some project stages lack clear and concise definitions of requirements, that some organizational conflicts exist within FTA, and that there is ineffective use of technology for project submissions. Moreover, the New Starts review process is “first-in, first out,” which means that a relatively small, simple project may get stuck behind a large and complex project in the FTA review process. The frequent issuance of policy and guidance changes by FTA is also said to lead to delay and additional costs because sponsors have to revise and resubmit project materials.

Some other issues that emerged in the studies may be difficult to address without legislation. For example, the review of project submissions by FTA appears to contribute to long delivery times. This may be because of a lack of staff in the New Starts program office. Another issue that is a subject of many complaints from project sponsors is that much of the work done during the alternatives analysis has to be redone for the NEPA review. New Starts alternatives analysis examines the effects of a number of different project options in a corridor or subarea, whereas the NEPA review usually examines fewer alternatives, but with a more detailed focus on the local effects on the human and natural environment. While these studies have somewhat different aims and requirements, they overlap to such an extent that several stakeholder groups have proposed eliminating a separate alternatives analysis in the New Starts program.

However, FTA told GAO that project delays are often the result of actions at the local level, and thus not always directly attributable to the federal program. For instance, due to local political pressures, sponsors sometimes change a project’s scope when development is already far along. In other instances, a project’s local financing mechanism might be withdrawn only to be replaced by something else at a later time.

Environmental Streamlining in TEA-21 and SAFETEA

There have been several past legislative efforts intended to accelerate the environmental review of surface transportation projects. Those efforts became commonly referred to as “environmental streamlining” in the debate surrounding the passage of the Transportation Equity Act for the 21st Century (TEA-21; P.L. 105-178). Although the term “streamlining” was used in TEA-21, it was not defined in the statute nor in regulation. DOT broadly defined streamlining as the timely delivery of federally-funded transportation projects while protecting and enhancing the environment. Section 1309 of TEA-21 included streamlining provisions that directed DOT to establish a “coordinated environmental review process” that encouraged early identification of federal agencies outside DOT that may have jurisdiction over a project and to cooperatively determine timeframes for compliance with any identified environmental requirements. TEA-21 also authorized DOT to approve state DOT requests to reimburse federal resource agencies for expenses associated with meeting expedited time frames. TEA-21’s streamlining provisions

53 See GAO, 2009, p. 24; and FTA, 2007, p. 9, 12, and 20.
55 Ibid.
56 For more information, see the Federal Highway Administration’s “Streamlining/Stewardship: Program Overview” website at http://www.environment.fhwa.dot.gov/strmlng/index.asp.
largely included procedures that could be implemented voluntarily by states or codified requirements that were already included in DOT’s NEPA regulations. TEA-21 also included requirements that certain environmental factors of a project be considered during project planning.57

In SAFETEA, unlike TEA-21, the term “streamlining” is not used. However, SAFETEA includes provisions similarly intended to expedite compliance with certain environmental requirements, particularly NEPA and Section 4(f) requirements. Like TEA-21, many of the provisions in SAFETEA codify existing regulatory requirements, such as: specifically designating DOT as the “lead agency” for surface transportation projects; specifying the role of the lead and cooperating agencies; and allowing deadlines for decision-making to be set. SAFETEA also includes a host of provisions that changed statutory or regulatory requirements applicable to the transportation planning process and the environmental review process.58

Section 6001 of SAFETEA (“Transportation Planning”) required that the development of long-range transportation plans include such elements as: consultations with relevant resource agencies; discussion of potential environmental mitigation activities; participation plans that identify a process for stakeholder involvement; and visualization of proposed transportation strategies where practicable. In 2007, DOT promulgated regulations implementing SAFETEA’s planning requirements.59 It has also developed guidance on the efficient development of environmental and planning linkages.60

The most significant change to the environmental review process was the establishment of new project development procedures under Section 6002 (“Efficient Environmental Reviews for Project Decision-making”). The new process repealed TEA-21’s streamlining provisions and established a new environmental review process for highways, transit, and multi-modal projects. The new process, mandatory for all projects requiring an EIS,

- requires project sponsors to initiate the environmental review process by notifying DOT of the type of work, termini, length, general location of the proposed project, and a statement of any anticipated federal approvals;
- establishes a new entity required to participate in the NEPA process, referred to as a “participating agency,” which includes any federal, state, tribal, regional, and local government agencies that may have an interest in the project;61
- requires the lead agency to establish a schedule for coordinating public and agency participation in the environmental review process;

57 Under Sections 1203 and 1204 of TEA-21, a factor required to be considered during the state or metropolitan transportation planning process was “to protect and enhance the environment, promote energy conservation and improve quality of life.”
58 For more information, see CRS Report RL33057, Surface Transportation Reauthorization: Environmental Issues and Legislative Provisions in SAFETEA-LU (H.R. 3), by Linda Luther.
60 For more information, see the Federal Highway Administration’s “Planning and Environmental Linkages: Program Overview” website at http://www.environment.fhwa.dot.gov/integ/index.asp.
61 This category of agency participant differs from “cooperating agencies,” which were already required to participate in the NEPA process and include any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed project or project alternative.
- establishes a 180-day statute of limitation on judicial claims on final agency actions related to environmental requirements (the previous limit had been six years, under provisions of the Administrative Procedures Act); and
- authorizes the use of federal transportation funds to help agencies required to expedite the environmental review process (similar to provisions in TEA-21).

In 2006, DOT produced guidance intended to assist state DOTs in implementing SAFETEA’s new environmental review process.  

There were several other significant environmental-related provisions of SAFETEA. First, under Section 6004 (“State Assumption of Responsibility for Categorical Exclusions”) DOT was allowed to assign and states were allowed to assume DOT’s responsibility for determining whether certain designated activities are categorical exclusions. To assume DOT authority, Section 6004 requires states to enter into a memorandum of understanding (MOU) setting forth the responsibilities to be assigned to that state. Subsequently, DOT established a Memorandum of Understanding (MOU) template and guidance to implement Section 6004. To date, California, Utah, and Alaska have entered into MOUs with FHWA.

Second, Section 6005 (“Surface Transportation Project Delivery Pilot Program”) required the establishment of a pilot program to allow Oklahoma, California, Texas, Ohio, and Alaska to assume certain federal environmental review responsibilities (in addition to CE determinations). Only California agreed to participate in the pilot program. Other states declined, primarily due to state legislature concerns regarding the potential liability associated with assuming federal responsibility under NEPA.

Third, Section 6009 (“Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites”) amended Section 4(f) requirements to allow for the use of Section 4(f) resources if that use can be proven to have only de minimis impacts to the resource. The law previously prohibited the use of a Section 4(f) resource for a transportation project unless there is “no prudent and feasible” alternative to do otherwise, and the project includes all possible planning to minimize harm to the resource.  

**Effectiveness of Changes Made in SAFETEA**

In a survey conducted by the National Cooperative Highway Research Program, a majority of state DOT respondents were generally in favor of the SAFETEA’s environmental-related requirements. However, they also expressed certain concerns, such as: SAFETEA represented no major change from what state DOTs were doing previously; the act duplicated existing coordination procedures; and DOT already involved outside agencies prior to implementing the new procedures. Further, while there was wide approval of the 180-day statute of limitations and the de minimis provisions added to Section 4(f), many survey respondents expressed concern that some requirements of the new environmental review process seemed to run counter to

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64 See Department of Transportation, “Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites,” final rule, 73 Federal Register 13367-13401, March 12, 2008.
streamlining initiatives by creating additional requirements that could have a negative impact on schedules and budgets.\textsuperscript{65}

In a 2011 report to its state legislature, the California Department of Transportation (Caltrans) reported that the median time for NEPA-related environmental approvals under the Section 6005 pilot program was 17.9 months less than previously.\textsuperscript{66} Caltrans reported that time savings were achieved by eliminating one layer of government review formerly conducted by FHWA and consolidating NEPA reviews with Caltrans’. Its analysis also showed that the time that it took to deliver Caltrans’ projects was substantially shortened. Caltrans noted, however: “this time savings is likely attributable to both Caltrans’ new role as NEPA lead agency, as well as Caltrans’ recent strong emphasis on rapid project delivery.”\textsuperscript{67} Caltrans’ report also stated that, while NEPA delegation played a significant role in overall project delivery time savings, it was impossible to isolate the effect that the pilot program had had on the delivery of projects.

Despite the changes enacted in SAFETEA, certain issues continue to be cited by transportation stakeholders as needing to be addressed to improve the environmental-review process. These include the length of NEPA documents, particularly the impression by some that DOT’s legal sufficiency reviews require over documentation in an effort to “litigation proof” NEPA documents; the time it takes for outside agency review and comment; and the potential for duplication of analysis or documentation, particularly when the environmental review and transportation planning processes are not well coordinated or there is confusion over similar state and federal environmental compliance requirements. DOT’s NEPA regulations, including those promulgated after SAFETEA, include explicit requirements that address most elements of these issues. It is difficult to determine what, if any, additional requirements may be imposed upon DOT or state DOTs that would lead to more effective implementation of those existing requirements, particularly without adding additional steps to an already complicated process. Instead of creating additional regulatory requirements, interested stakeholders have primarily advocated for legislative options that would give state DOTs more autonomy to implement the environmental review process or authorize funding for activities specifically intended to expedite that process.

\section*{Options for Congress}

Many proposals have been advanced to accelerate delivery of highway and transit projects. Some of these entail broad changes in federal surface transportation or environmental laws. Others are far more technical in nature, and are intended to address narrow issues that can cause project delay.

\section*{Major Legislative Changes}

Possibly the broadest option under discussion as Congress considers the reauthorization of federal surface transportation programs would abolish many of the programs and thereby eliminate many


\textsuperscript{67} Ibid., p. 1.
of the associated federal requirements. States would then be responsible for funding their own transportation projects and determining how to carry them out. This proposal is typically referred to as “devolution” or “turn-back.” Although most federal programs would end, proponents of devolution often suggest that certain programs be retained at the federal level, notably those dedicated to the Interstate Highway System. Because many large highway projects involve the Interstates, devolution in this manner might not address delays in the most complex, highly visible projects.

A different approach to providing states with more authority might be through delegating a wide range of federal oversight responsibilities to the states. This has been approved on a limited pilot basis with regard to NEPA. One suggestion is for delegation to be approved in exchange for a state instituting a performance-based management program, again on a pilot basis to start. Instead of requiring aspects of project development be carried out in a certain way, the federal government might allow states to proceed according to their own laws and regulations but then hold them accountable for the outcomes based on certain agreed measures.

Another broad option would be the creation of an office within the Department of Transportation responsible for accelerating project delivery. Such an approach was proposed in the Surface Transportation Assistance Act (STAA) of 2009, the only reauthorization bill considered in the 111th Congress. STAA would have required that Offices of Expedited Project Delivery be created in both FHWA and FTA, each with a director appointed by the Secretary of Transportation. The major role of these offices would have been to facilitate the timely completion of projects being funded by FHWA and FTA, with special attention to large and potentially complicated projects. In the case of FHWA these were defined as “significant” projects, those costing $500 million or more. For FTA the emphasis was on “New Starts” projects. Although STAA provided special attention to large projects, the offices nonetheless would have been charged with providing oversight for all FHWA- and FTA-funded projects.

The offices were expected to fulfill their mission by taking a “leadership” role in the project delivery process. This was to be done by identifying problems (especially those associated with environmental review issues) and working with project managers to find solutions. The offices would have been required to provide annual reports to Congress on the project delivery process and make recommendations as to how it might be improved. The offices were not given any specific authority to force action by any party or to penalize any party for not following through on its recommendations, raising questions about their ability to actually expedite project delivery.

Creating these offices within DOT would also likely mean dedicating staff and funding to fulfill this new mission. STAA, however, did not propose set-aside funding for these offices, but would have funded them through the respective FHWA and FTA administrative budgets. Hence, it is unclear from the bill as drafted how much these new functions were expected to cost and whether the agencies would be required to reallocate funding from existing administrative activities.

Another broad approach for speeding up project delivery is to provide more authority and incentives for partnerships between federal agencies and grant recipients. This might involve

68 In the 112th Congress, see, for example, S. 1164 and H.R. 632/S. 252.
70 The bill was incomplete, lacking funding data and other details on several of what might be the most significant features in the bill. The bill was not formally introduced and therefore went unnumbered, but it was nonetheless subject to mark up by the House Committee on Transportation and Infrastructure, Subcommittee on Highways and Transit.
establishing in law a requirement for a partnering plan, funding an awards program for outstanding collaboration, or creation of a special research and technical training center devoted to transportation project delivery. Unlike Stewardship and Oversight agreements that exist between FHWA and a state DOT, a partnering plan would include, depending on local circumstances, more partners such as other state and local agencies, including resource agencies. Another possibility along these lines is to create partnering grants to help federal agencies and grant recipients implement innovative contracting techniques. Some have even suggested setting up a program to reward states and metropolitan areas for on-time project delivery while maintaining standards for review, public involvement, and other elements of the process. Its proponents argue that this would encourage “strong partnerships and coordination among stakeholders.” Apart from the extra funding that would be needed, another issue with such an approach would be how to measure whether or not a project is on time, given the great diversity of projects and local circumstances.

Exempting projects from federal requirements if the amount of federal funding is relatively small is an option that might shorten delivery times for smaller projects. AASHTO argues that this could be done on projects in which less than $1 million in federal funds is involved, or if federal funds are less than a certain percentage of total project costs. Projects would then be administered under state regulations. One suggestion is to amend Titles 23 and 49 U.S.C. to allow funding recipients to certify compliance with federal requirements and to proceed without further approval if federal funds are one-third or less of project costs.

Another option that might improve project delivery broadly would be to bolster the internal resources of agencies involved in the project delivery process. For instance, greater federal funding assistance could be provided to state DOTs for technology and data such as geographic information systems to track transportation infrastructure, underground utilities, and natural resources.

Options for Accelerating Environmental Review

One legislative option that might be considered in surface transportation reauthorization is expanding the delegation of DOT’s authority under NEPA to states. Such a step might make permanent SAFETEA’s Pilot Program (§6005) and expand it to allow delegation of NEPA authority to any state that consents to accept that authority (see, for example, H.R. 2160, 112th Congress). After the establishment of programs that would allow states to assume certain federal authority under NEPA (under both §§6004 and 6005 of SAFETEA), two primary factors were identified that may discourage states from assuming that authority.

First, pursuant to SAFETEA, as a condition of assuming federal authority, Congress required a state to waive its right to sovereign immunity against actions brought by its citizens in federal

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72 See OCTA, 2011, pp. 2-10 through 2-23.
76 OCTA, 2011, p. 2-23.
court and consent to the jurisdiction of federal courts. That is, the state would become solely liable for complying with and carrying out the federal authority that it consents to assume. State legislatures have not wanted to take on this federal liability. One suggestion made by some stakeholders is that a process be established where states may take some authority for NEPA documentation approval, but liability remain with DOT. It is unclear how legislation could provide states with more autonomy in implementing their NEPA requirements, while minimizing DOT’s liability for actions over which it has little control.

Second, some stakeholders have expressed concern regarding regulations established by DOT in response to SAFETEA’s directives that have to do with rights-of-way (ROW) acquisitions in states that choose to assume federal authority under NEPA. As discussed earlier, one of NEPA’s primary requirements is that federal agencies consider the impacts of their actions before proceeding with them. The NEPA process cannot simply document a decision that was already made. Thus, federal funds cannot be used for ROW acquisitions (an action that would indicate a final decision) before the NEPA process is complete. Currently, states may make ROW acquisitions using state funds, but risk losing future federal funding for that purchase if the project ultimately involves an alternative that does not use that property (thereby placing state funds “at risk”). By assuming DOT’s authority, a state would assume federal agency-level responsibility to comply with NEPA. DOT has found that would mean, in the state’s capacity as a federal agency, the state would be precluded from making ROW acquisitions.

Another legislative option relates to a desire for more “prompt action” from agencies outside DOT when those agencies are required to provide permits, approvals, analyses, or consultation. Methods to encourage prompt action, usually in the form of establishing deadlines on outside agencies, were debated during the development of TEA-21 and SAFETEA. Under SAFETEA’s new environmental review requirements, DOT has developed a plan to coordinate outside agency participation in the environmental review process. However, DOT has limited ability to establish or enforce deadlines on other agencies, and surface transportation reauthorization is not likely to be the vehicle for such changes. Outside agencies participating in the NEPA process are doing so because they have jurisdiction by law, such as the Clean Air Act or Endangered Species Act. DOT has no authority over the implementation of those laws. Further, the laws applicable to a project, and the corresponding state, tribal, or federal agencies charged with implementing those laws, will vary from project to project. The ability of DOT to establish binding deadlines on a potentially wide ranging group of agencies would be challenging.

Considering these limits to DOT’s authority, a potential option in reauthorization would be to continue the process established under SAFETEA that allows DOT to approve state DOT requests to provide federal-aid highway or federal transit funds to state, tribal, or federal, agencies that support activities that contribute to expediting and improving the planning and delivery of transportation projects in that state. SAFETEA did not provide any additional funding for this purpose. Consequently, a state proposing to use this authority must take the funds out of its normal allocation of federal transportation funds.

SAFETEA required greater consideration of environmental issues in the statewide and metropolitan planning processes. Moreover, some states have integrated transportation planning to a much greater extent with other planning efforts such as land use and natural resource preservation. Despite these changes, however, some believe they have not made much difference in speeding project delivery because of the uncertainty of applying these efforts in the NEPA process.⁷⁷ One option in reauthorization for overcoming this problem is to create an Integrated Planning Pilot Project, under the Special Experiment Program authority that currently exists for

⁷⁷ Miller testimony, p.8.
FHWA. Perhaps beyond this is the idea for pursuing a programmatic approach to oversight, rather than one based on project by project review.

Changes to Accelerate Highway Projects

In addition to the efforts to streamline environmental review, there have been other past legislative changes and administrative actions dealing with the delays of the highway project delivery process. These include the encouragement by DOT of environmental-planning linkages (EPL) and the creation of its “Every Day Counts” (EDC) initiative, as well as the encouragement of innovative methods in contracting. The EDC Initiative aims to identify areas of concern in project delivery and to disseminate innovations and best practices that already exist to states and others to overcome them.\(^{78}\) EPL is one of the ten ways to shorten project delivery times as part of the EDC initiative. The others are: expanding use of programmatic agreements; legal sufficiency enhancements; use of in-lieu fee and mitigation banking; clarifying the scope of preliminary design; flexibilities in right-of-way; flexibilities in utility accommodation and relocation; enhance technical assistance on ongoing EISs; design-build; and construction manager/general contractor. Innovative contracting included FHWA’s Special Experiment Project 14 (SEP-14)\(^ {79}\) and Special Experiment Project 15 (SEP-15)\(^ {80}\) and the changes in TEA-21 (Section 1307) that made design-build contracting a permissible method of contracting in the federal-aid highway program.

Some new options for accelerating specific phases of highway projects include the process for acquiring right-of-way, the relocation of affected residents and businesses, and how to deal with utilities. Traditionally, construction bids are let after the purchase of right-of-way. However, there have been proposals for FHWA to allow the bidding process and construction to begin while ROW is still being acquired. Typically in proposals of this type, the approval to proceed concurrently would not be a blanket approval, but would be contingent on the results of a risk analysis.\(^ {81}\) Complying with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended, when relocating residents and businesses is often argued to be cumbersome and time-consuming, in part, because the current law is interpreted to constitute a minimum requirement for states and localities. Consequently, there have been suggestions to allow states to use their own procedures, provided that FHWA has certified that a state’s procedures properly protects property owners and tenants.\(^ {82}\)

In the case of delays resulting from utility relocation, one option would be to encourage better partnerships between DOTs and utilities. This might involve revising federal guidance and regulation to make it feasible for DOTs to do utility work themselves, by making it easier for DOTs to pay utilities for work, and allowing greater access for utility rights-of-way on

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79 SEP-14, begun in 1990, focused primarily on four methods of innovative contracting: cost-plus-time bidding, lane rental arrangements, warranties, and design-build contracts.
82 AASHTO, AASHTO Authorization Policy, pp. 30-31.
transportation rights-of-way. Another option is to continue research on how to improve coordination between project developers and utility companies.

**Options for Accelerating Transit New Starts Projects**

In prior legislation Congress has made changes to the New Starts program with a view to speeding up the project delivery process. In SAFETEA, for example, Congress enacted the Small Starts program, in part, to simplify the application process for less expensive projects. SAFETEA also created a pilot project, the Public-Private Partnership Pilot Program, or “Penta-P,” to see whether program simplification would increase private participation and risk-taking in project development, construction, and operation. To accelerate program approvals, FTA has offered regular training workshops to potential project sponsors and developed project delivery tools such as project requirements checklists.

Going forward Congress may want to consider other ways to simplify and shorten the New Starts process, particularly for major New Starts projects. Options for programmatic changes to reduce the complexity of the process typically involve reducing the number of steps in the New Starts process and moving up the federal government’s decision or signal of intent to fund a project to earlier in the process.

One option would be to replace approval for entry into preliminary engineering with approval for entry into the New Starts program. According to this proposal, approval into the program would signal the federal government’s intent to ultimately fund a project providing certain conditions are met. Another possibility is to eliminate the requirement for FTA to approve advancement into final design. To help manage projects through this abbreviated process there have been proposals for Project Development Agreements (PDAs). APTA argues: “the PDA should include schedules and roles for both FTA and the grantee and should define the criteria and conditions a project must meet to streamline and expedite overall project delivery and could be the basis for an Early System Work Agreement once the National Environmental Policy Act (NEPA) process is completed.”

Another option is for Congress to provide FTA with the ability to “fast-track” projects that are low-risk, because the project sponsor is experienced and other reasons, or that involve a relatively low share of federal funds.

Critics worry that such changes may reduce the rigor of the evaluation process, ultimately leading to federal support of less beneficial projects. This may run counter to the current push for greater performance measurement in transportation programs. Simplifying the process by creating a low hurdle for entry into the New Starts pipeline also creates the possibility that FTA may receive a large number of project proposals that it would have to manage through the evaluation process to ultimate denial. Another possibility is that FTA will approve or intend to approve for funding many more projects than can be supported by the available funding. This may mean relatively

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83 OCTA, 2011, p. 2-24
85 Ibid.
quick funding approval for projects that then languish while waiting in line for more funding to be made available by Congress.

In essence, the Small Starts program fast-tracks projects using relatively small amounts of federal funds. The downsides of fast-tracking are that problems might not be detected early in project development, that there may be charges of favoritism if some projects are treated to less scrutiny and quicker approval than others, and that some New Starts sponsors may have little experience in project development and construction.

FTA already has the authority to implement management or rulemaking changes that might speed-up and improve the New Starts approval process. As noted earlier, many of these were identified in the study commissioned by FTA, and include defining project stages, overcoming organization conflicts within FTA, and improving the prioritization of project reviews. GAO stated back in 2008 that FTA is working to implement some of these recommendations. Congress might play an active role in overseeing the implementation of these improvements.

Along these lines, it is possible that with more staff dedicated to reviewing New Starts proposals, FTA might be able to reduce the time it takes to evaluate projects. An option Congress might consider, therefore, is providing more funds for New Starts administration, although this might prove difficult in the current fiscal environment. Finally, the frequent issuance of policy and guidance changes by FTA is also believed to lead to project delay and additional costs because sponsors have to revise and resubmit project materials. To avoid this, some suggest that FTA apply these changes to future project submissions, although this may reduce FTA’s ability to improve its oversight on existing projects. Congress might direct FTA on this issue.

If Congress considers major changes to the New Starts approval process as part of surface transportation reauthorization legislation, it may wish to revisit the provisions in STAA that would have required FTA to approve a project for entry into project development if it has been chosen as the locally preferred alternative under the metropolitan transportation planning process. Once a project is approved for project development, the multi-step approval process is reduced to one step, the approval of a FFGA.

STAA would also have done away with alternatives analysis required under the New Starts program, which is often seen as a duplication of the alternatives analysis required under the National Environment Policy Act (NEPA). It would have allowed the Secretary of Transportation the option to fast track some projects, and would have based the rigor of FTA’s evaluation partly on the amount of federal assistance being sought by the applicant. The break point between a major New Start and a Small Start would have been raised from $75 million to $100 million in federal assistance. Projects requesting $25 million or less would have become exempt from the requirements of the program so that they could be advanced using a special warrant, presumably a written pledge of federal support if certain conditions are met.

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89 GAO, 2008.