Expediting The Transportation Planning and Project Development Process to Meet Fast Paced Customer Requirements

FINAL REPORT

Requested by:

American Association of State Highway and Transportation Officials (AASHTO)

Standing Committee on Planning

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EXECUTIVE SUMMARY

The objective of this research was to identify processes and practices of the transportation planning and development process that can be expedited and to identify methods the regulations, process, and/or practices can be modified to realize potential time savings.

A substantial portion of the analysis was based on interviews focusing on users of the transportation planning and development process including people working for transportation agencies, economic development agencies, businesses, and "champions" of previously expedited projects. A literature review, including a review of regulations pertinent to the transportation planning and project development process, provided information both on the current processes and on streamlining measures already in place or being developed at the state and federal level.

Based on the information collected, the research team developed a sourcebook of transportation project streamlining methods. The sourcebook includes a description of the transportation planning and development process, a summary of recent initiatives to streamline this process for more timely project completion, a list of potential streamlining methods identified from the literature, interviews, and research staff experience, and selected case studies.

Nearly all expediting measures can be implemented by modifying current practices. Some of the changes could be considered major in some instances, because they would change the way a portion of the process is accomplished. While a few potential beneficial changes in regulations were identified, such changes would not be necessary, at least at the federal level, to achieve most of the time savings identified. In fact, interview respondents indicated satisfaction with the overall framework and intent of the current regulations.

Streamlining measures identified in this sourcebook fall into the following general categories:

- Parallel processes, in which two or more elements of the review, permitting, or other phases of a project are performed simultaneously;
- Coordination and public involvement, actively involving stakeholders and project participants early in the process to minimize miscommunication and maximize project support;
- Funding methods to leverage, supplement or replace federal funding and some associated requirements;
- Conflict resolution techniques;
- Staffing and training, to minimize internal delays;
- Information management techniques; and
- Process improvements, from the programming phase to contracting.

In summary, the findings of this research indicate a number of opportunities to expedite projects, particularly in the project development process, most of those without having to alter federal regulations.

CHAPTER 1. INTRODUCTION

This document is intended for transportation professionals involved in metropolitan transportation planning and project development and for businesses or government agencies involved in transportation projects that may need to be expedited. It describes examples of measures that can expedite parts of the transportation and development process. Most of the measures listed refer to changes in practice rather than changes in legislation or regulations.

Background

Transportation system needs are changing at a rapid pace due to changes in the business environment, technology, lifestyles, and economic conditions. Major business facilities are often proposed, and need to be completed and operational in less time than state or metropolitan long-range plans and programs can be updated and improvement projects approved, permitted, designed, and built. New or improved transportation facilities are often required for economic development opportunities to be captured. If adequate infrastructure cannot be provided, these economic development opportunities may be lost to the area or even the state (e.g., auto assembly plants or dot-com research facilities). However, despite these pressures and needs, the transportation planning and project development process continues to grow more complex and takes longer to complete. Hence, to enable communities and states to capitalize on opportunities, the duration of the transportation project planning and development process needs to be more responsive to the needs of these users of the transportation system.

The objective of this research was to identify the strategic needs of end users ("customers") of the transportation planning and project development process for faster decision-making and to identify ways the process can be modified to be more responsive to these needs.

Research Approach

Researchers conducted a literature review, including a review of legislation and regulations pertinent to the transportation planning and project development process. The literature provided information both on the current processes and on streamlining measures already in place or being developed at the state and federal level. The transportation planning and project development process is described in Chapter 2 of this report. State and federal streamlining measures are summarized in Chapter 3.

A substantial portion of the research was based on interviews focusing on users of the transportation planning and development process such as transportation and other agencies, people involved in economic development, and "champions" of previously

expedited projects. These interviews were developed into case studies, which are presented in Chapter 3.

Based on the information collected, the research team developed a sourcebook of transportation project streamlining methods. These methods are listed and described in Chapter 4.

CHAPTER 2. TRANSPORTATION PLANNING AND PROJECT DEVELOPMENT PROCESS

The metropolitan transportation planning process is the framework within which actual transportation plans are produced. Metropolitan planning organizations (MPOs), in cooperation with the State and transportation providers, are responsible for the process. The project development process can be described as the process necessary to plan, design, and program a project. Over the years there have been numerous changes to the project development process that have affected the duration of the process itself. These changes will be discussed more thoroughly in the following sections and include:

- comprehensive planning,
- environmental requirements,
- consultation,
- conformity (for non-attainment areas),
- public involvement, and
- programming/funding.

Relevant Legislation

The watershed legislation in terms of the current transportation planning process in the United States was the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). ISTEA was the most recent basic change in how federally-funded projects are developed. This act had a three-part philosophy:

- decentralization;
- friendlier to the environment; and
- more responsive to the needs of increasingly diverse populations and businesses.

The Transportation Equity Act for the 21st Century (TEA-21), which built on the initiatives of ISTEA, was signed into law in June 1998. This new legislation continued the highway and transit initiatives under ISTEA.

ISTEA as refined by TEA-21 outlines transportation planning requirements of state departments of transportation (DOT) and Metropolitan Planning Organizations (MPOs). These requirements must be followed in order for these levels of government to receive federal funding for transportation-related projects.

In addition to the planning-related legislation mentioned above, there are numerous environmental-related acts that have a direct effect on the transportation project development process. These include:

- National Historic Preservation Act of 1966;

- National Environmental Policy Act of 1969;
- Noise Control Act of 1972;
- Clean Water Act (with major amendments in 1972, 1977, and 1987);
- Clean Air Act (with major amendments in 1965, 1970, 1977, and 1990);
- Oil Pollution Act of 1990; and
- Energy Policy Act (1992).

Planning Requirements

MPOs have been established in all urbanized areas with populations of 50,000 or more. More than one MPO can be designated for an urban area if the governor determines that the size and complexity of the area warrants more than one MPO. In urban areas with more than one existing MPO, they are required to coordinate plans and programs with each other and the state. Large urbanized areas (over 200,000 in population) are designated as transportation management areas (TMAs). These areas have additional requirements related to congestion management, project selection, and certification.

Under ISTEA and TEA 21, each metropolitan area must prepare a long-range (20-year or longer horizon) metropolitan transportation plan (MTP). This plan must be updated periodically and should include transportation facilities to function as an integrated transportation system. The legislation also requires coordination with other metropolitan transportation plans and an opportunity for public input. Such plans are to include the following components:

- financial strategy, including a financially achievable plan;
- assess capital investment and other measures to preserve the existing transportation system;
- make the most efficient use of existing transportation facilities to relieve congestion; and
- indicate appropriate enhancement activities.

MPOs are also required to prepare a three-year Transportation Improvement Program (TIP), which is updated annually. The various TIPs become part of the Statewide Transportation Improvement Plan (STIP).

At least every three years federal certification of the transportation planning process is required for TMAs. TMAs that do not have their transportation plans certified are subject to funding sanctions.

One important factor is the effect of transportation decisions on land use and development and their consistency with land use and development plans. Abbreviated planning procedures can be used for areas not designated as TMAs. Abbreviated procedures, however, are not allowed in air quality non-attainment areas.

Where the planning process identifies a need or problem in a corridor or sub-area that suggests the possible need for a major investment using Federal funds, a Major Investment Study (MIS) may be required (many states also have a similar requirement for projects using state funds). The purpose of a MIS is to analyze solutions to address substantial transportation problems and to present this information to decision makers.

The legislation is very specific about what must be addressed in the metropolitan planning process. While methods and analytical procedures are generally not specified, the following seven factors are to be considered in the 20-year metropolitan (and statewide) transportation plans:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety and security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility options available to people and for freight;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.
- Protect and enhance the environment, promote energy conservation, and improve quality of life;

Most of the above factors are relatively easily and quickly addressed in standard planning processes conducted by state DOTs and MPOs. The last factor is often the subject of public concern and with some frequency leads to protracted planning, environmental, and project selection and approvals. This factor has shown to be the hardest to control time-wise.

The legislation further requires certain additional aspects of the planning process itself, which include:

- a proactive public involvement process in connection with the transportation plan including timely public notice, full public access, and early and continuing public involvement in plan development;
- consistency and compliance with the 1964 Civil Rights Act;
- compliance with the Americans with Disabilities Act;
- involvement of traffic, ridesharing, parking, safety, and enforcement agencies as well as other operators (public and private), toll authorities, and city officials; and
- involvement of local, state, and federal environmental, resource, and permit agencies.

Of these, public involvement is the most time-consuming and, combined with environmental and community impact considerations, is most likely to cause schedule slippage.

Projects that do not use federal funding are not subject to the same requirements unless stipulated by state or local laws or regulations. State DOTs and MPOs generally adhere to the federal planning process, regardless of whether or not federal funding is utilized for all projects, simply because most projects do involve federal funding and virtually all projects must be considered in the federally mandated process anyway. Local agencies using local funding may be able to use a local process unless otherwise required by state or local regulations. Most such projects are relatively small. However, those too may also encounter delays if opposed.

Project Development Process

Each state DOT has a project development process that differs slightly from each other's. As mentioned above, large scale transportation projects are developed through a process that involves both long-range transportation system planning and short term programming of projects obtained from the plan. Different states also have different environmental review processes that typically coincide with parallel federal requirements.

Figure 1 shows the fundamental components of the transportation project development process. It should also be noted that many of the project development steps require coordination/agreements with other jurisdictions.

In addition to the steps shown in Figure 1, Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) planning regulations include the requirement that MISs are to be conducted for proposed major highway and transit investments in metropolitan areas. The MIS broadens the alternatives under consideration and advances the preferred alternative to NEPA evaluation.

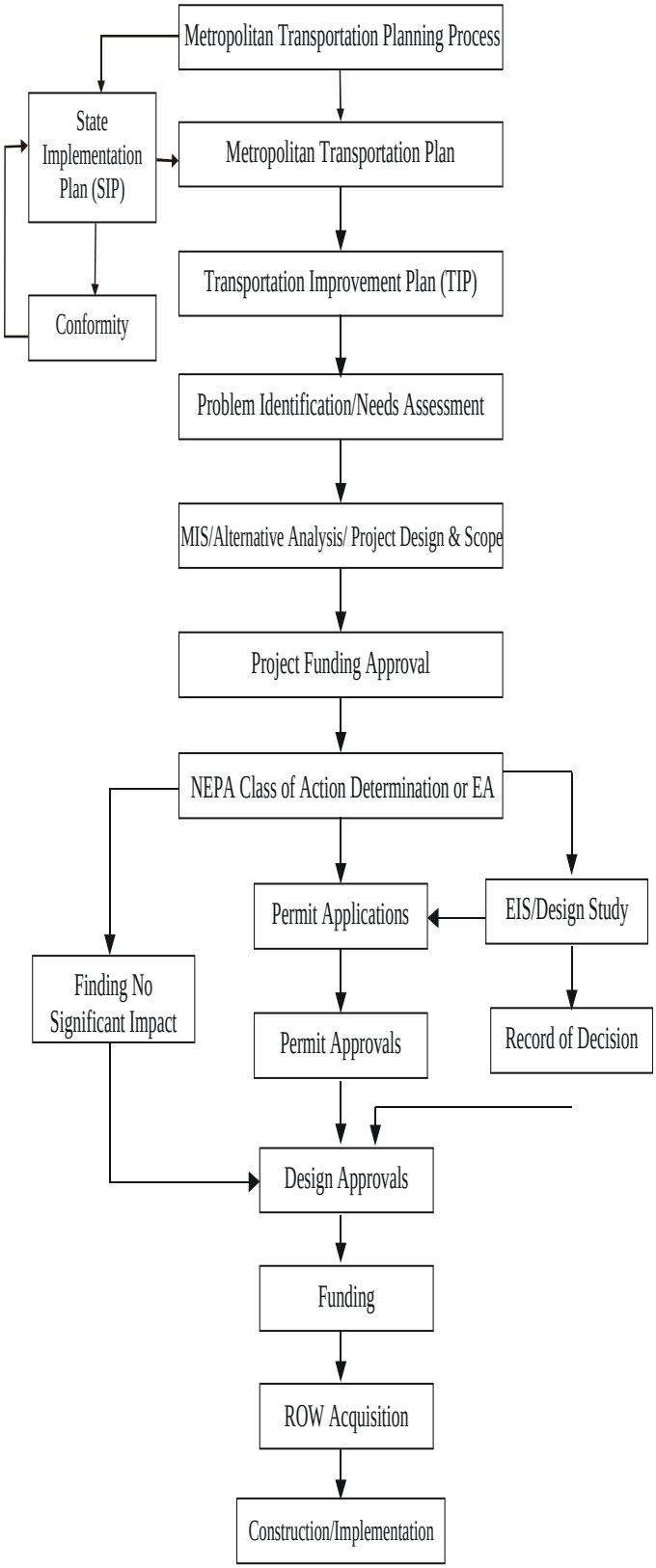
Metropolitan Transportation Planning Process
State Implementation Plan (SIP)
Metropolitan Transportation Plan
Transportation Improvement Plan (TIP)
Conformity
Problem Identification/Needs Assessment
MIS/Alternative Analysis/ Project Design & Scope
Project Funding Approval
NEPA Class of Action Determination or EA
Permit Applications
EIS/Design Study
Finding No Significant Impact
Permit Approvals
Record of Decision
Design Approvals
Funding
ROW Acquisition
Construction/Implementation

FIGURE 1. Major Transportation Project Planning and Development Process (*1*)

CHAPTER 3. FAST TRACK PROJECT DEVELOPMENT

Major business facilities are often proposed and need to be completed and become operational in less time than would typically occur under normal scheduling of updates of state or metropolitan long-range plans and programs or the conventional handling of the project development process. New or improved transportation facilities are often required for economic development opportunities to be captured. If these improvements cannot be provided in time, the opportunities may be lost to that region or even the state. Therefore, the transportation planning and programming process needs to be expedited capitalize on development opportunities of all types.

Throughout the years, the project development process has become increasingly complex, competitive, and time consuming. In part, the process has become more complex because of an increase in federal mandates for project planning, including the consideration of a variety of factors such as environmental impact, regional development impact, system operations, and fiscal projections and limitations. The entire process has become more competitive as the available funding has become scarce over the years – with the needs far outstripping the ability of states to fund projects to meet those needs (*2*). In addition to these factors, the extent of public involvement and coordination has made it an increasingly time-consuming process. It is therefore not surprising that a survey of the FHWA division offices revealed the following main reasons why the project development process often takes so long (*3*):

- lack of funding or low priority
- local controversy or opposition
- complex project.

A FHWA study of transportation project delays, released in 2001, found that the average length of time to completion of infrastructure projects covered by NEPA was 13 years. Of that, five years was attributable to the preparation of an EIS (in the 1970s an EIS took 2.2 years on average to complete)(*4*). The average environmental review time (including decision making) has been approximately one third of the 13-year planning time.

The extended duration of the planning and project development process both increases total cost and makes improving transportation a very time-consuming process and slower to respond to needs than is sometimes necessary. There is, therefore, a large incentive for all levels of government, as well as the private sector to expedite the project development process if time-sensitive opportunities are to be realized.

Recent Initiatives

Environmental streamlining has been identified as one technique to expedite the project development process. It involves the completion of environmental reviews and permitting in a more timely way, while still ensuring environmentally sound projects (*5*). A number of initiatives have begun recently to facilitate environmental streamlining. Since the environmental

process is often the component most subject to protracted time consumption, environmental streamlining has the potential to be very beneficial in expediting projects.

National Memorandum of Understanding

Section 1309 of TEA 21 calls for a coordinated environmental review process to expedite Federal highway and transit projects. The following federal agencies agreed in a memorandum of understanding to facilitate the streamlining of the environmental review process:

- U.S. Department of Transportation;
- U.S. Army Corps of Engineers;
- U.S. Department of Interior;
- U.S. Environmental Protection Agency;
- U.S. Department of Commerce;
- Advisory Council for Historic Preservation; and
- U.S. Department of Agriculture.

The key focus areas of the memorandum of agreement are (*5*):

- identify solutions to reduce unnecessary project delays, including delays caused by staffing constraints, and to amend rules and policies where needed without compromising environmental quality;
- apply the necessary technical and financial resources to identify and resolve issues early;
- direct field organizations of different agencies and departments to work collaboratively to develop processes that assure the timely, and cost-effective development of sound transportation plans and projects;
- emphasize the use of concurrent review processes where possible;
- develop national procedures for dispute resolution and encourage the use of appropriate mechanisms and organizations to facilitate and expedite such resolutions;
- provide timely review and constructive comments on transportation proposals focusing additional information requests on information that is actually needed to reach an informed decision;
- support and encourage field offices to explore flexible streamlining opportunities on their own with state transportation and environmental partners; and
- establish, with stakeholder input, goals, performance measures, and benchmarks to enhance transportation and environmental decision-making.

This agreement puts in place a framework for initiating actions needed to expedite the process. Key to actually succeeding is the identification of methods to achieve these actions. Specific policies and practices that could be changed in conjunction with this memorandum of understanding are discussed later in this report.

Executive Order 13274

On September 18, 2002 U.S. President George Bush signed an executive order to enhance environmental stewardship and to streamline the environmental review and development of transportation infrastructure projects. The order comprises the following six sections (*6*):

- Policy;
- Actions;
- Interagency Task Force;
- Report;
- Preservation of Authority; and
- Judicial Review.

The major actions under the order can be summarized as follows:

- the overall goals are to promote environmental stewardship and to expedite environmental reviews;
- agencies are to implement mechanisms for expediting reviews;
- environmental stewardship should be advanced through cooperative actions;
- the Secretary of Transportation shall designate, for the purposes of this order, a list of high-priority transportation infrastructure projects that should receive expedited agency reviews and shall amend such list from time to time, as the Secretary deems appropriate;
- an interagency task force is established within the Department of Transportation for administering the activities under this executive order; and
- at least once a year the task force shall submit a report to the President.

In effect, Executive Order 13274 introduced specific emphasis on one of the improvement areas, interagency collaboration, called for in the interagency memorandum of agreement. Federal agencies under the leadership of the FHWA and FTA have recently initiated the process of developing specific ways to implement this directive.

Project Streamlining In the 50 States

Under recent FHWA initiatives, all 50 states have adopted or initiated process/procedural-related agreements or initiatives for streamlining that clarify, amend, or re-invent the project development process. At least 24 states have focused their process redesign efforts on integrating planning and National Environment Policy Act (NEPA) activities. Over two-thirds of all states (34) have agreements that provide state and federal environmental agency personnel for expediting reviews. A total of 29 states have adopted agreements to merge the FHWA NEPA process and the Clean Water Act permitting process administered by the U.S. Army Corps of Engineers (USACE). (This eliminates a potentially duplicative process.)

Most states (41) have some level of delegated authority for review of historic resources that allows many projects to be processed more quickly, freeing up federal and state resources to focus on complex issues. A total of 22 states have initiated tribal consultation Memoranda of

Understanding (MOUs) that address new Historic Preservation Act consultation requirements in a streamlined fashion. Some 26 states have context sensitive design initiatives.

All are consistent with and complementary to the fundamental federal streamlining strategies of program efficiency (i.e., timely reviews combined with early and continuous involvement), flexible mitigation (i.e., avoiding impacts where possible with mitigations based on programmatic agreements where not), resource management (i.e., adequate staffing, agency agreements and interagency training), and continuous communication.

Most of the direct and tangible results associated with streamlining are realized at the project level. The results are a culmination of many overlapping and integrated efforts by the relevant FHWA Division/FTA Region and staff working with state DOTs, transit operators, federal and state resource agencies, and federal agency headquarters staff.

Additional Actions to Expedite Projects

Environmental streamlining is still being developed and pursued as are other process modifications to shorten project development time. This research project sought out specific actions that have been or could be taken to expedite the process. The remainder of the report focuses on such opportunities.

Case Studies

Several projects or situations known to have had expeditious handling were identified. Key people involved in these projects were interviewed to determine the needs, approaches, and strategies explored for these projects, and the actions taken.

Background and Approach

Finding the correct candidates for interviews about expediting projects presented several challenges. First, there is often little documentation of the internal details of modified or expedited planning processes and even less stating who was involved. The objective of expediting a process is to make it fit into conventional protocols, or at least function in a conventional manner, albeit more quickly. Consequently, the formal documentation tends to obscure or minimize special provisions and expediting measures. Secondly, many major business-related private-sector projects are either active or relatively recent, in which case they are often too sensitive to talk to interviewers about, or they are in place, often for many years, and the team members are dispersed and recollections are vague. In either case, there is also the issue of private-sector confidentiality and proprietary information that limits interviewer access to information.

In response to these challenges, the research team’s strategy was to identify a few major projects that were sufficiently large and exceptional, and therefore well documented and/or memorable for the participants in the process. These few detailed examples provide insights into various expediting strategies that could then be verified and validated against a larger set of more modest projects where the documentation and experience was more limited.

Transportation planning experience was sought from those responsible for both the Atlanta Summer Olympics (1996) and the Salt Lake City Winter Olympics (2002). Probably the archetypical example of a critical user of the transportation planning process is preparation for the Olympics. Site selection is a long and highly competitive process. Award of the games is typically made years in advance. Major transportation infrastructure, existing and future, is an important element of the decision process. The actual event is extremely public and making everything available on time and working as planned is a widely shared objective. Though widely seen as public in character (Olympic facilities are often retained for public use), the Olympic games themselves are in fact a private corporation with various anticipated benefits that can include profit. The large project sizes and essential completion deadlines are characteristics that make Olympic games ideal for case studies of systems under stress and extreme pressure—situations that often bring out the best in individuals and organizations.

The Interviews

A broad array of individuals involved in various aspects of the planning associated with the Olympics was interviewed. These included key administration and staff from the respective DOTs, regional planning authorities, and regional transportation operators. Due to the nature of the interviews and sensitivity of the material involved, complete anonymity was requested and provided for both individuals and organizations.

> **Atlanta 1996 - The Summer Games:** Most of the transportation infrastructure construction supporting the Olympics was already identified and programmed at the time of Atlanta's selection in 1990. However, completion of many of the projects was scheduled for well after 1996. A set of construction projects were identified as critical for the Olympics and placed on an accelerated schedule to ensure completion before the games.
>
> There were many transportation and freeway reconstruction or improvement projects associated with the Olympics. The interviews, however, focused on two projects, an Advanced Transportation Management System (ATMS) project and a system of HOV lanes. In a theme that dominated the entire analysis of Olympic planning, both were existing projects in that they were already in the planning process. The Atlanta Regional ATMS links eight agencies and includes freeway, surface street, and transit operations. Seven ATMS control centers functioned during the games. The linkage to the Atlanta Regional Traveler Information Showcase, which provides travel information directly to the public, is an important feature of the Atlanta ATMS. Over 78 miles of HOV lanes were deployed for the games in Atlanta. The justification for this deployment was primarily to ensure relatively free flow of transit vehicles to and from the various venues and secondarily to encourage carpooling.
>
> The Olympics leveraged existing projects and facilitated funding. Atlanta's non-attainment status was, however, also a factor. On construction projects, design was "fast tracked" as conventionally defined (e.g., simultaneous environmental analysis), but design/build was not used since the Georgia DOT was not using design/build at that time.

The mechanism for accelerating projects via accelerated funding was the "Transportation Choices Initiative" which provided $8.2 billion. This initiative made funding available earlier than otherwise could have been possible. Further acceleration was limited by the requirements of the public involvement process (which could not be compressed), and air quality conformity issues relating to the synchronization of long-range plan updates and the TIP process. The 18-month air quality conformity demonstration requirement was singled out as especially problematic in this regard.

Thus, transportation system improvements for the 1996 Summer Olympic Games were expedited by (1) advancing funding originally anticipated over a longer period and by (2) performing environmental analyses and design in parallel. It was neither appropriate nor possible to expedite the public involvement or the air quality-related conformity determination aspects of the projects.

Salt Lake City 2002 - The Winter Games: Active involvement of the Utah DOT began in 1995 with the award of the games. As was the case with Atlanta, most of the transportation infrastructure projects supporting the Olympic games were in the planning pipeline (i.e., included in the long-range plan) prior to the awarding of the Olympics. Once a list of Olympics-related transportation projects was developed, both project schedules and subsequent steps in the planning process were expedited. Expediting included (1) beginning the environmental analyses in anticipation of funding (as opposed to waiting until funding was approved), (2) the acceleration of funding acquisition (through coordination with funding agencies), (3) use of design-build for construction projects (e.g., I-15 reconstruction/improvements), and (4) use of contract sliding incentives/penalties for contractors to complete construction on/ahead of schedule.

It is important to clearly communicate the extent to which Olympics-related transportation projects were already in the planning process and the extent to which they were expedited for the Olympics. The case of the I-15 reconstruction/improvements is instructive in this regard. Alternatives analyses were originally completed in the mid-1980s. The Olympics accelerated these improvements by raising their priority and by accelerating the funding approval process (by raising priority of Olympics-related projects in the state program). The construction process was also accelerated through a design-build protocol with incentives for early completion and penalties for late completion. Thus, the basic process was unaltered, but the schedule and implementation were accelerated.

The situation was similar for the other most frequently cited Olympics-related transportation project, the 2.5-mile light rail transit (LRT) extension to the University of Utah. The entire 11-mile LRT corridor was in the long range plan well prior to the awarding of the Olympics in 1995. In the case of the LRT, the primary objective was to not allow LRT construction to interfere with the games. In other words, there was an implicit (and perhaps explicit) recognition that the LRT corridor in general and the University extension in particular was not critical to the success of the games, but that avoiding disruptive construction during the games was. Furthermore, the segments of the

corridor were prioritized based on their value to the community, though the construction schedule was driven by the Olympics (i.e., completion prior to avoid disruption).

To this end, a design-build compressed construction schedule was used, though there were no modifications to the actual planning process. Design-build is common in Utah; however, it was arguably pushed in this case (for example, the notice to proceed was issued before the grant document was actually in hand, because it was known that project was approved). The no-disruption objective was recognized as critical and was formalized to the extent of having strict provisions and contingency plans in place between the stakeholders, including a deadline go/no go determination process. These priorities and contingencies notwithstanding, the value and utility of the LRT extension to the Olympics was widely recognized and appreciated.

While individual projects were expedited using means and mechanisms appropriate for those specific projects, the main strategy used was to expedite the entire process rather than focus on individual projects. Key planning personnel were on the early planning committees, including the Olympic Committee itself. The focus was on interagency issues for funding. The strategy was to make all transportation improvement funding totally fungible (i.e., not mode specific) and avoid modal competition issues. This strategy took full advantage of the "One DOT" philosophy, under the leadership of the USDOT from both the local office and in Washington.

Obviously there was supportive political leadership as well. State representatives early on recognized the merit of a single funding package, thus avoiding the classic funding problems (and delays) associated with zero sum game problems and turf/modal issues. More specifically, the discretionary funding was largely under FTA. However, since FTA has no project or construction review capability, the Utah DOT administered the construction projects.

UDOT's leadership role extended to high level membership on the Olympic Committee. A UDOT staff person was one of the first 30 committee members. The committee eventually numbered several hundred. This level of local participation and influence is very unusual for the Olympic games. This influence extended as far as regulating Olympic event ticket sales based on access capacity.

Thus, the expediting of the Salt Lake City Winter Olympic transportation construction projects was highly funding driven. Furthermore, the focus of the expediting effort was organizational as opposed to project or procedural. Transportation improvement projects for the 2002 Winter Olympic Games were expedited by expediting funding, using a "One DOT" approach to eliminate modal differences and competition in the process, using aggressive contract scheduling, using design-build with incentives and penalties, involving stakeholders in the transportation systems improvement process (not just environmental review or public participation), and making transportation system effectiveness central to the entire decision process.

Similar findings were derived from conversations about other projects. The only additional expediting action found was expeditious reviews on minimum time schedules. These were facilitated by extra communication efforts and reminders of upcoming reviews, strengthened by direction from senior management regarding the high priority of quick completion of reviews.

Discussion

As noted already, the Olympic games are unique events, but to a certain extent so are all large projects. More importantly, the principles that expedite unique events are applicable to other large projects. Further supporting transferability, in many ways the Olympic games are more like private sector ventures than public projects. From these interviews a number of related themes were identified.

- It is clear from the interviews that the expediting measures involved primarily the facilitation of the existing process rather than its modification. This facilitation of the existing process, which resulted in the success of all the specific projects as well as the overall success of transportation improvements, was attributed to early and fundamental participation and coordination. Moreover, participation and coordination was broadly defined and included political, senior management, and public support. As a subset of the participation and coordination theme, it was recognized that for multi-year projects continuity of personnel was critical, or at least focus and philosophy. This was repeatedly mentioned in various contexts and by virtually all of the interviewees.

- In virtually all cases, desired improvement projects were already somewhat in the pipeline/planning process. This is a function of the nature of the planning process itself. The purpose of the planning process is to identify and address transportation problems. Transportation problems are most likely to occur in areas where there is active change and growth, in other words areas that are desirable and attractive to development. These are where most economic development projects are likely to occur. This is also where the transportation planning process is likely to have focused attention, and more importantly, future projects. Aside from the inherent attractiveness of these active areas, business siting decisions are likely to be (positively) influenced by the existence of planned future improvements.

- Respondents agreed that the fundamental planning, funding, environmental, and design processes are sound and produce good results. The deficiencies and causes of lost time are in the process management. Respondents felt that each could be expedited, not by dropping key components, but by improving procedural effectiveness through teamwork and coordination, by managing funding schedules, and by reviewing submittals early and resolving issues promptly (meaning when they first arise and at minimum review periods).

- Expediting was focused almost entirely on elevating priority and acceleration of the schedule. What expediting of the details of the process there were, used relatively standard successful practices (e.g., design-build, simultaneous completion of environmental analyses and design, etc.) This is driven by two factors: the inherent merit and success of the project development process as it currently exists and the various legal

and regulatory requirements that preclude radical modification, compression, or expediting. This last point touches on the objective of this analysis, i.e., to identify ways to expedite the process. The point here (repeated in the conclusions and guidelines) is that the basic elements on the process are sound. Their removal or radical modification would weaken the planning and environmental review process and could produce lower quality results. This in turn is predicated upon the idea that the planning and environmental review process itself is a balancing of interests through an objective process that is both responsive to the needs of all parties and at the same time respectful of their rights.

Verification Interviews/Cases

Armed with these insights (functioning almost as hypotheses) a subsequent series of interviews was conducted to determine if these strategies were in fact more generally applicable.

Florida's ETDM Process: The Florida Department of Transportation (FDOT), working with the FHWA and other agencies, is developing a refined and improved methodology for making better and more efficient transportation decisions. Initially called "streamlining" in response to Section 1309 of the TEA 21 and associated memorandum of understanding between federal agencies, the FDOT process redefines how Florida accomplishes transportation planning and project development within current statutes and regulations.

Renamed Efficient Transportation Decision Making (ETDM), this process links land use, transportation, and environmental resource planning initiatives through early, interactive agency involvement, which is expected to improve decisions and greatly reduce the time, effort, and cost to effect transportation decisions. Efficiency is gained by two screening events built into the current transportation planning process. An Environmental Technical Advisory Team (ETAT) consisting of planning and resource protection agencies is established for each FDOT District to advise the agencies responsible for transportation planning.

Key features of Florida's ETDM process include early and continuous involvement from agencies and citizens in decision-making; early identification of avoidance, minimization or mitigation requirements (as well as identification of enhanced or positive benefits); reducing duplication of effort by multiple agencies; coordinating land use, transportation, and environmental protection efforts; access to comprehensive data in standardized formats; early project approvals for less complex projects; reducing the number of projects subject to detailed reviews; reviews focused on mutually agreed upon key issues; permit issuance linked to NEPA reviews for more complex projects; and maximized use of electronic technology for coordination to minimize burdensome paper trails. All of these efforts are to ease reviews.

The two points in the planning process where screening is focused are the Long-Range Transportation Plan (LRTP) Screen and the Transportation Improvement Program (TIP) Screen. These screening events are conducted very early in the process and enable agencies to identify problems early and recommend avoidance or minimization options.

This early agency involvement coupled with continuous community impact assessment and involvement is expected to improve the quality of decisions made and reduce late project changes or challenges. Early in the Project Development phase the ETAT also conducts a "NEPA Review" to reach a decision on the NEPA scope of work identified during the TIP Decisions Screen. The intent is for ETAT members to coordinate issuance of their agency's permit at this early stage.

I-69 Extension/NAFTA Highway: I-69 currently connects Port Huron, Michigan, and Indianapolis, Indiana, a distance of about 360 miles. The planned extension of I-69 from Indianapolis to the Texas border with Mexico will add approximately 1,600 miles to the interstate highway system. When the extension of I-69 is complete it will cross eight states and connect Mexico to Canada. (However, over 1,000 miles of I-69 are in Texas, hence Texas' early action and the research team's focus on the Texas strategy.)

The President's executive order (EO 13274) to streamline the environmental review of transportation infrastructure projects will utilize I-69 as one of several prototype projects. Based on the experience gained from these projects, the USDOT will develop a series of best practices for streamlining the decision-making and approval process on all transportation infrastructure projects.

As the Texas Department of Transportation (TxDOT) moves forward with the next phase of project development for their sections of I-69, their "streamlining pilot project" will include defining an improved decision-making process intended to reduce project delays, as well as protect and enhance environmental quality. TxDOT, in association with FHWA, has begun a partnering process for I-69 with federal and state agencies, which includes the establishment of both a Steering Committee and a Technical Advisory Committee (TAC). TAC membership and participation over the life of the I-69 process is expected to vary based upon the evolving needs of the project, and decisions by the agencies on their levels of involvement.

The process is divided into four "Stages" which contain 11 "Steps," including four "Concurrence Points." Each "Stage" generally represents a narrowing of the range of alternatives (or area to be studied) and an increase in the level of detail. Each "Step" represents the completion of a series of tasks or work effort most of which will include some level of agency input. Four of these "steps" will conclude with a TAC recommendation, followed by Steering Committee approval, and FHWA decision (as the lead federal agency). These "Concurrence Points" represent the critical decision points in the project development process:

- Concurrence point 1—NEPA purpose and need, Section 404 purpose, evaluation criteria, and study area limits;
- Concurrence point 2—alignment alternatives;
- Concurrence point 3—preferred alignment alternative; and
- Concurrent point 4—environmental mitigation plan and environmental commitments.

SH 130/SH 45/US 183A in Austin Texas: The Turnpike Authority Division of TxDOT is responsible for these three projects. SH 130 is a controlled access transportation facility from I-35 north of Georgetown in Williamson County to I-10 near Seguin in Guadalupe County, a distance of approximately 91 miles. The purpose of SH 130 is to relieve congestion on I-35 and other major transportation facilities within the Austin-San Antonio corridor. SH 45 is an approximately 15-mile controlled access east-west highway through the rapidly urbanizing area of northern Travis and southern Williamson counties in the north Austin area. US 183-A is another planned toll facility west of I-35 in northern Travis and southern Williamson counties.

All three projects connect and will function as an interrelated system. All three are funded as a package and have been expedited using the Division's practice of aggressive management of the planning process from the very beginning. Consistent with the conclusions summarized above, they do not attempt to modify the steps in the process. Rather they actively identify the range of outcomes at each stage of the process and assume the most probable. By acting on these assumptions the planning process approaches the minimum possible duration (as determined by the legally required notification and review periods). This strategy is predicated on in-depth project manager knowledge and organizational risk tolerance, as well as a clear and collegial understanding between the partners involved in the project.

These projects are being funded with a combination of conventional funds, loans and revenue bonds to advance project implementation. There are significant financial benefits to expediting completion. Design-build and public-private partnerships are also being used to expedite the project. However, perhaps more important are partnerships among agencies involved and a consensus of state and local political leadership and community support that has been created to move the project forward as quickly as possible.

Given the nature of the funding for these projects (i.e., including significant private-sector funds and revenue bonds), the value of timely completion is believed to offset the costs of the additional risk incurred by the assumptions/presumptions of outcome of the various steps (in effect trading a limited amount and somewhat known amount of uncertainty for completion time). This strategy allows the near optimal compression of the process while maintaining rigorous adherence to the legal and regulatory requirements (the risk associated with noncompliance being deemed too great to warrant variation or compromise). Though it is important to recognize that the associated risk will sometimes result in actual additional costs.

Samsung and Dell corporate campuses in Austin Texas: Samsung and Dell desired to locate campuses in the north Austin area, but wanted access improvements to meet their satisfaction. Consistent with the approaches described above, the access requirements of the corporate campuses of Samsung and Dell were accommodated by accelerating two roadway projects that were in the long-range plan at the time. This was accomplished in two stages and made use of county funds for this purpose (which was unusual at the time). Other improvements such as widening and intersection improvements were also included.

SH 150 / Sea World in San Antonio Texas: SH 150 is the primary access to Sea World from central San Antonio. Extending SH 150 as a freeway was in the long-range plan to the extent of having the directional frontage roads already constructed. The main lanes were accelerated to coincide with Sea World's opening. The impending/imminent completion of the SH 150 corridor was a significant factor in Sea World's siting decision, along with other factors of course.

Case Study Conclusions

From these general observations and their subsequent elaboration and confirmation, several recommendations follow relating to the organizational context most conducive to expediting the planning process.

No Rule Changes Necessary: The first conclusion that follows from these findings is that broad revision or change to the general planning and project development processes is not needed. No respondent criticized the basic elements or steps of the existing process. No one suggested the alteration or elimination of steps in the basic process. To the contrary, several expressed satisfaction with the process and concern only with the duration. The concern and focus was entirely with accomplishing these steps more expeditiously and efficiently, not with redesigning the fundamental steps themselves.

Cooperation Critical: Early and broad cooperation were found to be critical in expediting projects. This was consistent across all respondents and was cited as a major element in all of the expedited planning efforts. Starting early means as soon as the need for coordination/cooperation is recognized or the opportunity is identified. Broad means all the usual stakeholders with a direct interest, as well as all those who may have an indirect interest (e.g., organizational, procedural, etc.). Cooperation means both formal coordination, as well as informal collegiality with true teamwork. It was widely recognized and commented upon that cooperation must be deliberately facilitated (e.g., through formal organizations, informal activities, and the intentional reduction of inter-agency rivalry). It was also widely noted that this implies active interest and support from the top of the respective organizations (e.g., agency heads and above), as well as from individual rank and file professionals and staff.

Parallel Processing: The third conclusion involves the implementation of specific expediting or streamlining measures. Given the nature and focus of the interviews, these measures were generally categorized as simply performing separate steps of the process that agencies could perform at the same time. It is important to note, however, that this does not contradict the previous recommendations (i.e., no radical change to process and the importance of cooperation). In other words, the specific measures and efficiencies are probably already available or at least known in one form or another; the sequence in which they are accomplished during the process can be modified. The key is to facilitate their implementation. (The reader may recall that this is the fundamental strategy of the Texas Turnpike Division's approach to time sensitive projects.)

Prioritization of Efforts: The final common thread through the experiences represented above is placing high priority on the selected projects and managing business to make sure those projects receive attention expeditiously. Senior management, political, and other leaders cooperate to establish that high priority across all participants.

CHAPTER 4. ADDITIONAL METHODS FOR EXPEDITING THE PROJECT DEVELOPMENT PROCESS

The measures described in this chapter are techniques identified through the literature review, the details of projects discussed in the previous chapter, and experience of the research team that may be used to expedite the transportation project development process (*3,7,8,9*). These are listed below, and then described in more detail in the remainder of the chapter.

1. *Coordination and Public Involvement Measures:*
   - Full participation
   - Early issue identification
   - Regular and frequent team meetings and communications
   - Interagency partnerships
   - Conflict resolution process

2. *Staffing and Training Measures:*
   - Standard procedure and guidance for preparers
   - Increased project servicing staff and prioritization of work efforts
   - Interagency funding of state/federal staff dedicated to expedited projects
   - NEPA and streamlining training
   - Increased internal legal staff

3. *Information Management Measures:*
   - Improved early communications
   - Comprehensive Geographic Information Systems (GIS) database to improve information management
   - Internet-based project monitoring
   - Easy-to-read and understand environmental impact documentation

4. *Process Improvement Measures:*
   - Shorten the contracting process
   - Provide contract incentives/penalties
   - Designated high-priority projects and prioritized handling
   - Use of context-sensitive design
   - Early information dissemination for reviews
   - Over-match cash or in-kind

5. *Parallel Process Measures:*
   - Intermediate concurrence points between NEPA and project planning
   - Concurrent environmental reviews
   - Allow parallel processing of PE and NEPA documents
   - Use design/build process
   - Combine PS&E preparation and right-of-way (ROW) acquisition

- "Overlap" contracting
- One-stop permitting

6. Funding:
- Accelerate funding
- Use alternative funding source
- Fund all phases of project development

7. Rule Changes:
- Delegate more authority to the state at the planning level
- Limit review duration
- Allow anticipatory or early ROW acquisition
- Expand "massive major litigation" option
- Fee in lieu of mitigation
- Prohibit lawsuits after Record of Decision

Explanation of Terms and Ratings

Each of the above measures is described in detail below. In addition, each measure is rated according to several criteria important to expediting projects. Ratings for all measures described are coded as follows:

●	Low
●●	Medium/Moderate
●●●	High
●○	Ranges from Low to Medium
●●○	Ranges from Medium to High
●○○	Ranges from Low to High

A High rating is considered the most desirable for every category. The attributes that are rated are as follows:

- "Ease of change" refers to the time, money, and effort required to implement the measure. A High (●●●) rating for "ease of change" means that the measure can achieved reasonably inexpensively, without significant additional staff or bureaucratic difficulty. A low (●) rating means that one or more of these attributes will make the measure difficult to implement.
- "Consistency with regulations" refers to how closely the streamlining measure agrees with or fits into current planning and project regulations. A High rating (or n/a) indicates that no rules need to be changed to implement the measure. A Low rating indicates that a rule or regulation change would likely be needed to implement the measure.

- "Effectiveness" refers to the potential time savings that could be realized as a result of implementing the measure. A High rating indicates significant potential time savings; a Low rating indicates a relatively small time savings.
- A "public acceptance" rating of High means that there is likely to be public support, or at least an absence of public resistance, to the measure. A Low rating indicates that the measure is likely to be opposed by stakeholders and/or the general public.

A range in ratings (Low to Medium, Medium to High, Low to High) means that the measure's rating in that category (ease of change, consistency with regulations, effectiveness, or public acceptance) will vary according to circumstances. Where possible, these circumstances are explained under the "considerations" column in the ratings table.

Coordination and Public Involvement

Early and active involvement of the public and key stakeholders with planning and implementing transportation agencies, plus regular communication between project participants, were found to be major factors in expediting the project development process.

Full participation. Typical stakeholders that need to be engaged through coordination and public involvement process include the general public, state legislators, state and local agencies, city, county, and business associations, credible community and business leaders, the construction industry, and environmental, labor, and tribal interests. Other special interests may need to be involved depending on specifics of the project and the area.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●●● Public Acceptance ●●●	Requires more staff and usually staff time per step in the process; will save "backtracking" time from disagreements after the fact. *Jurisdiction:* Lead agency	Salt Lake City Olympics, 2002 Florida's ETDM Process

Identify issues early, especially those that could be highly contentious, and start addressing them before they become critical and cause delay.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●●● Public Acceptance ●●○	Effectiveness varies with volatility of project, potential for conflict, and subsequent actions to quickly address the issues effectively. *Jurisdiction:* All contributing agencies	Florida's EDTM Process

Regular and frequent team meetings will help streamline the process. Monthly (or more frequent) meetings are a good way to build trust and cooperation.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●● Public Acceptance ●●	May be resisted due to time commitments. Potential for burnout. *Jurisdiction:* Lead agency	Salt Lake City Olympics, 2002 Atlanta Olympics, 1996

Interagency partnerships can be formed on specific project or streamlining initiatives or to address specific types of issues. Partnerships may cover project leadership, planning, environmental, funding, permitting, or other reviews or process components.

Ratings	*Considerations*	*Examples*
Ease of Change ●○ Consistency with Regulations ●●● Effectiveness ●●● Public Acceptance ●●●	Territorialism may be an obstacle. Acceptance and ease of change vary with perception of value among participants. Public acceptance likely high. *Jurisdiction:* Lead agency	Salt Lake City Olympics 2002 Florida's ETDM Process I-69

Conflict resolution process. Establish a mutually acceptable conflict resolution process very early. The Transportation Roster provides states and federal agencies with access to a list of qualified neutral facilitators and mediators with relevant experience.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●○○ Public Acceptance ●●●	Effectiveness varies from low to high, depending on conflicts and ability to resolve. Does not guarantee early resolution. *Jurisdiction:* Lead agency, with input from stakeholders	

Staffing and Training

Project development cannot be expedited without adequate manpower with sufficient experience and qualifications. The following measures address staffing levels, guidance, and training.

Standard procedure and guidance for preparers. Use a standard procedure, guidelines, or other structured mechanism to guide consultants involved in plan and NEPA development.

Ratings	*Considerations*	*Examples*
Ease of Change ●● Consistency with Regulations ●●● Effectiveness ●● Public Acceptance ●●●	Will facilitate reviews. Requires time and work to prepare; must set/develop standards and guidelines, and convince those involved to use and follow them. *Jurisdiction:* All funding agencies and those with legal rights to approval	Florida's ETDM Process Washington State EAO

Increased project servicing staff and prioritization of work efforts. More full-time positions, dedicated to servicing aspects such permitting, should be funded at the state and local levels. Prioritize staff efforts to projects being expedited.

Ratings	*Considerations*	*Examples*
Ease of Change ● Consistency with Regulations N/A Effectiveness ●●● Public Acceptance ●●	Needs decision to commit funds for additional salaries. Issues include job security, corporate culture, hiring processes (including federal or state), prioritizing staff, and funding. Also requires senior management commitment and communication to designate and obtain expedited handling through prioritization. *Jurisdiction:* State/Federal	

Interagency funding of state/federal staff dedicated to expedited projects. Use interagency funding agreements to hire additional staff at state and federal resource agencies, and dedicate that staff to review or expedite handling of the funding agency's documents.

Ratings	*Considerations*	*Examples*
Ease of Change ●● Consistency with Regulations N/A Effectiveness ●●● Public Acceptance ●●	Challenging to keep staff focused on only priority projects; tendency toward diversion to "other priorities." Main consideration is cost of paying for time. *Jurisdiction:* Lead agency, funding agencies	

NEPA and streamlining training. Develop and implement training in NEPA and planning streamlining methods for agency staff and consultants.

Ratings	*Considerations*	*Examples*
Ease of Change ●●○ Consistency with Regulations ●●● Effectiveness ●●● Public Acceptance ●●	Needs commitment to time for training. Issues include funding, time available, and agency reluctance. *Jurisdiction:* State/Federal	Florida's ETDM Process

Increase the internal legal staff for larger agencies to expedite legal review and approval, and to help avoid lawsuits.

Ratings	*Considerations*	*Examples*
Ease of Change ● Consistency with Regulations ●●● Effectiveness ●○○ Public Acceptance ●	See "Increased full-time staff" above. Legal staff does not contribute directly to project completion. Most beneficial where legal issues/controversy are involved. Alternative is hiring outside legal resources. *Jurisdiction:* Lead agency	

Information Management

Effective information management can play a key role in expediting the project development process.

Improve early communications. Improve information management and distribution by identifying and sharing all relevant project and environmental-related information early, especially information associated with unresolved project issues, necessary approvals, and public and agency concerns.

Ratings	*Considerations*	*Examples*
Ease of Change ●● Consistency with Regulations ●●● Effectiveness ●●○ Public Acceptance ●●●	Costs money and staff time; requires continuing management direction. *Jurisdiction:* Lead agency	Florida's ETDM Process

Use GIS database to improve information management. GIS may improve the availability, management, and distribution of information as well as reducing duplication of effort and resources. GIS technology helps project sponsors and reviewers consolidate environmental and engineering data, refine the study area to focus review efforts and screen project alternatives efficiently. GIS can also enable an entire region or state to populate and keep up-to-date a single database containing all standard resources needed for project development, particularly environmental data.

Ratings	*Considerations*	*Examples*
Ease of Change ●○○ Consistency with Regulations ●●● Effectiveness ●●● Public Acceptance ●●○	Ease of change is high if a GIS database already exists for the area, otherwise low due to cost and effort needed to establish. Acceptance high for the product, lower for cost of the product. Requires commitment and resources to keep database current. *Jurisdiction:* Lead agency	FHWA Toolbox for Regional Policy Analysis, Case Study: Orange County.

Internet-based project monitoring. An Internet-based tracking system can be developed so that the progress of projects can be monitored on a semi real-time basis. This allows participants to keep up-to-date without reports having to be issued by the managing agency.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●○ Public Acceptance ●●●	Effectiveness varies with volatility of process. Augments communications between project participants. Requires commitment and resources to constantly update Internet site. *Jurisdiction:* Lead agency	

Easy-to-read and understand environmental impact documentation. This helps the agencies and the public to easily obtain the required information to address their concerns and review permit actions. Examples include avoidance of jargon and overuse of technical terms, concise descriptions, clear comprehensive exhibits, referencing technical support data (rather than including it), use of bulleted text, displaying environmental features with color maps, and provision of documentation electronically via email, Internet site or CD-ROM, providing concise but complete documentation, clearly address all the requisite issues and topics.

Ratings	*Considerations*	*Examples*
Ease of Change ●○ Consistency with Regulations ●●● Effectiveness ** Public Acceptance ●●●	**Effectiveness: saves time only if a problem or objections arise. Adds to production time, saves time in decision process. Continual changes in process make editing difficult. *Jurisdiction:* Environmental documentation preparer	

Process Improvements

The following measures address ways to minimize or prevent delays in individual steps of the transportation planning and development process.

Shorten the contracting process. For example, prepare request for qualifications (RFQs) and request for proposals (RFPs) in advance of actual need, pre-qualify consultants, and issue RFPs only to the best qualified. Additionally, include draft contracts in RFPs and require all proposed changes to be specified in the proposals, delegate signature authority to a contracting group within the agency, require proposal review and selection and contract turnaround within specified periods, and develop standard contracts by type of work.

Ratings		*Considerations*	*Examples*
Ease of Change	●	Difficult to overcome bureaucracy. See additional details in text. *Public acceptance may be n/a. *Jurisdiction:* Contracting agency (usually lead agency)	
Consistency with Regulations	N/A		
Effectiveness	●●●		
Public Acceptance	●●●*		

Provide contract incentives/penalties to expedite work by consultants and contractors.

Ratings		*Considerations*	*Examples*
Ease of Change	●○○	**Effectiveness varies depending on how efficient the contractor is already and magnitude of incentives and penalties. Not common, but already frequently used. Should be built into contract. Incentives may not be well accepted by public due to potential cost increase. *Jurisdiction:* Contracting agencies	Houston METRO Texas Dept. of Transportation
Consistency with Regulations	N/A		
Effectiveness	**		
Public Acceptance	●●●		

Designate high-priority projects and prioritized handling. Designate a small percentage of projects as "high-priority" to expedite internal agency handling and processing of contracts, reviews, meetings, and approvals.

Ratings	*Considerations*	*Examples*
Ease of Change ● Consistency with Regulations ●●● Effectiveness ●●● Public Acceptance ●●●	Requires moving some projects to lower priority. Requires careful leadership and selectivity to avoid priority inflation. *Jurisdiction:* Lead agency	Atlanta Olympics 1996

Use of context sensitive design, to be initiated at the beginning of project planning to enhance responsiveness to community, environmental, and social concerns. Incorporate compatibility and aesthetic factors earlier in the process. This can potentially expedite the project development process, especially interactions with environmental review agencies and the public.

Ratings	*Considerations*	*Examples*
Ease of Change ●○○ Consistency with Regulations ●●● Effectiveness ** Public Acceptance ●●●	Anticipatory mitigation; reduces public opposition in sensitive areas and usually improves long-term project impacts and benefits. Possible resistance to added cost. **Effectiveness depends on the project's natural compatibility with surroundings. *Jurisdiction:* All participating agencies, especially lead agency and owner of project	FHWA *Flexibility in Highway Design*

Early information dissemination for reviews: Coordinate reviews and approvals by extracting and reviewing information as it is developed to raise potential issues and difficulties early, to reduce the duration of reviews at submittal time, and to reduce unexpected and potentially time consuming remedial actions.

Ratings	*Considerations*	*Examples*
Ease of Change ●○○ Consistency with Regulations ●●● Effectiveness ●● Public Acceptance ●●●	Easy to circulate early information; may not be possible to identify all issues early; may be difficult to get responses to early information. *Jurisdiction:* Lead agency	Florida's ETDM Process

Over match cash or in-kind funding share: Local communities support projects with additional funding over and above the required match for program funding either in cash or in services or facilities, including ROW. This can raise the priority and advance project scheduling.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●●● Public Acceptance ●○○	Overmatching increases project cost to local agency; imparts priority via benefit/cost ratio. Public and political acceptance will vary widely depending on popularity of project. *Jurisdiction:* Local funding agencies	Samsung-Dell

Parallel Processes

The interviews identified the importance of generally combining steps or performing them concurrently wherever possible. The specifics provided in the literature and case studies provide more detail and reinforce the importance of compressing the existing procedures.

Intermediate concurrence points between NEPA and project planning. Develop concurrence points in the planning and NEPA processes. Specifically, early stages of the NEPA process should be initiated earlier in the transportation planning process and duplication should be eliminated between transportation planning and NEPA studies. At intermediate milestones, agency agreement and interim approvals can be issued on specific aspects to conclude related efforts that no longer should require attention.

Ratings	*Considerations*	*Examples*
Ease of Change ●● Consistency with Regulations ●●● Effectiveness ●○○ Public Acceptance ●●○	Initial environmental screening at planning stage, looking for "fatal flaws" such as an historic building or environmentally sensitive area. Effectiveness depends on fatal flaws found (if any). *Jurisdiction:* Lead agency, with state/federal agreement	I-69

Concurrent environmental reviews. States can take advantage of the flexibility inherent in Section 4(f) (historic and park resources) and conduct Section 4(f) reviews concurrently with Section 106, Endangered Species Act and Section 404, Wetlands reviews.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ● Public Acceptance ● or n/a	Limited scope; internal to NEPA. *Jurisdiction:* State/federal	Atlanta Olympics 1996

Allow parallel processing of PE and NEPA documents. For example, allow federal funding of preliminary engineering coincidental with NEPA process or perform EIS/EA and Preliminary Engineering (PE) in parallel (latter allowed by USDOT, but not often done).

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ** Public Acceptance ●○○	Effectiveness either high or low, with some risk of re-work involved; if project is volatile, preliminary work and time can be lost. High financial risk. Redesign can be needed if project changes with EIS. *Jurisdiction:* Federal, state	Salt Lake City Olympics 2002 Texas Highways SH 130

Use design/build process to combine plans, specifications, and estimates (PS&E) and construction sequences, allowing design and construction to be performed in parallel. This can potentially eliminate one contracting, one review, and (sometimes) one funding step as well as making final design and construction nearly concurrent.

Ratings	*Considerations*	*Examples*
Ease of Change ●● Consistency with Regulations ●●○ Effectiveness ●●○ Public Acceptance ●●	Possible public perception of conflict of interest. Must be allowed to be managed as a design-build, with design reviews. Must get an exception to regulations for same contractor on design and build (depending on regulatory environment). *Jurisdiction:* Lead agency	Salt Lake City Olympics 2002 San Joaquin Hills Toll Road (California)

Combine PS&E preparation and ROW acquisition. Acquire ROW from PE plans. Any locations with ROW requirement uncertainties can be addressed through expedited final design.

Ratings	*Considerations*	*Examples*
Ease of Change ●● Consistency with Regulations ●●○ Effectiveness ●○ Public Acceptance ●●●	May need regulatory change. Effective only if NEPA is cleared first. *Jurisdiction:* State/federal	

"Overlap" contracting: Perform contracting for subsequent phase during the final stages of a prior phase.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●●○ Public Acceptance ●●●	Bureaucracy may balk, as this is not usual practice; agency staffs tend to want to finish one contract before starting another. *Jurisdiction:* Lead agency	

Fund all phases of project development and implement at one time to eliminate intermittent programming, funding, and construction phases.

Ratings	*Considerations*	*Examples*
Ease of Change ●●● Consistency with Regulations ●●● Effectiveness ●●○ Public Acceptance **	Saves repetitive competition for funds (and the attendant interruptions and delays) for high-priority projects. ** Public acceptance depends on popularity of project. *Jurisdiction:* Funding agencies	Austin Highways (SH 130 / SH 45 / US 183A**)**

One-stop permitting: Washington State approved a bill to create a state committee to develop a streamlined "one stop" permit process. The bill may provide a national model.

Ratings	*Considerations*	*Examples*
Ease of Change ●○ Consistency with Regulations ●●● Effectiveness ●● Public Acceptance ●●●	Consolidates processes of multiple agencies. Public acceptance high due to reduction in bureaucracy. *Jurisdiction:* Permitting agencies	Washington

Rule Changes

Specific rule changes and suggestions for rule changes were not identified during the interviews. However, the clear indication was that some rule modification could facilitate improved coordination, and cooperation, as well as more efficient (e.g., simultaneous) processing. The literature, case studies, and research staff understanding identified the following possible examples.

Prohibit lawsuits after Record of Decision (ROD). Reduce delays caused by such suits late in the process.

Ratings		*Considerations*	*Examples*
Ease of Change	●	Ease of change may be low due to resistance by legal profession and environmental activists. **Effectiveness and acceptance are low if there is no contention for the project, high if high contention is associated with project. *Jurisdiction:* State or federal	
Consistency with Regulations	N/A		
Effectiveness	**		
Public Acceptance	**		

Limit review duration. Specify the maximum durations for completion of project development, including specific tasks, reviews, approvals, selections, and awards, and then adhere to those deadlines. These restrictions should be applicable to agencies, consultants, contractors, and public (reviews).

Ratings		*Considerations*	*Examples*
Ease of Change	●○	*Jurisdiction:* Reviewing agencies	
Consistency with Regulations	●●●		
Effectiveness	●●○		
Public Acceptance	●○○		

Delegate more authority to the state at the planning level. For example, the delegation of Section 404 permitting authority to the state allows for extra resources to customize the program to its particular needs. Michigan and New Jersey are currently the only two states where wetlands permitting authority rests with the state.

Ratings		*Considerations*	*Examples*
Ease of Change	●	Removes a level of review. State may be more aware of local needs than federal agencies. Environmental review must still be done at federal level. *Jurisdiction:* Federal	
Consistency with Regulations	●		
Effectiveness	●○		
Public Acceptance	●○○		

Fee in lieu of mitigation: The payment of a fee instead of requiring mitigation as part of the project (e.g., acquiring or agreeing to manage property for the mitigation of an adverse wetlands environmental impact). (Currently in place in Texas.) Funds received would be used to mitigate the impacts off-site and might be combined with mitigation of similar impacts of other projects (e.g., wetlands).

Ratings	*Considerations*	*Examples*
Ease of Change ●○ Consistency with Regulations ●● Effectiveness ●○○ Public Acceptance ●○	Intended to provide more effective mitigation in a location other than the project site; wetlands are already being treated this way. Effectiveness will vary with type of mitigation. *Jurisdiction:* State/federal	Wetlands

Expand "mitigation banking" option currently limited to wetlands to other areas. First applied to wetlands, this provision allows for appropriate mitigations without the necessity of identifying the exact location in advance of construction and the specific site and details of each individual instance of adverse impact.

Ratings	*Considerations*	*Examples*
Ease of Change ●○ Consistency with Regulations ●○○ Effectiveness ●○ Public Acceptance ●○	For wetlands, this replaces all affected areas on a specific (typically) 3-to-1 or 4-to-1 ratio, for example. Consistency with regulations is impact-specific. Eliminates piece-by-piece environmental reviews; limited application. May apply to some environmental, cultural, recreational impacts; will not apply to historical, archeological areas. *Jurisdiction:* State/federal	Wetlands mitigation – Katy-Cypress Wetlands Mitigation Bank

Allow anticipatory or early ROW acquisition based on "system" environmental reviews.

Ratings	*Considerations*	*Examples*
Ease of Change ●○ Consistency with Regulations ● Effectiveness ●○○ Public Acceptance ●○○	"Buy at own risk" – mitigate or move if environmental analyses so require. Agencies want this, NEPA process and public more resistant. Still dependent on project impacts and surrounding land uses. Effectiveness may vary with future urbanization and size of the area (only if ROW is acquired before the area is urbanized). Could be viewed as land banking at public cost. *Jurisdiction:* Federal	

CHAPTER 5. RECOMMENDATIONS

Conclusions

Research completed for this project demonstrates that transportation agencies have successfully found methods to expedite project implementation. This has been accomplished within the context of the rules and regulations that govern the transportation project planning and development process.

While further expediting could be accomplished if there were fewer requirements, no agency representative or project sponsor interviewed during this project felt that the requirements were either unjust or inappropriate. The consensus response was that the process in place, largely driven by requirements for federal funding, was needed to maintain the overall effectiveness and integrity of the process. Nevertheless, the research team has identified some rule changes that could further expedite some projects without compromising the effectiveness of the current process.

Transportation agencies collectively identified methods for expediting projects using a wide variety of techniques. These covered most major phases of project planning, development, and design. These methods consisted mainly of introducing efficiencies into the existing processes. Some of the efficiencies would require changes in agency policies regarding how specific aspects are conducted rather than policies regarding the projects and their effects.

The expediting actions are of the following categories:

- Prioritization of efforts and management of resources and schedules
- Process efficiency
- Parallel processing
- Risk/schedule trade-offs

These actions are described in Chapter 4. Many of these actions can be applied to almost any project. Some must be used selectively and cannot be used for all projects (e.g., placing highest priority or advancing funding for projects).

Recommendations

Expediting actions are available for state and local projects. The extents to which the recommended actions will be effective depend on the requirements for the specific project. For those involving federal funding, most of the recommended actions can expedite the project. For projects not involving federal funding, the recommended actions will only help to expedite the project if the related requirement or process is in place. For example, for a locally-funded project not requiring NEPA clearance, interim environmental concurrence points may not be applicable.

For projects being developed and approved by a single agency, the recommended coordination actions may not be needed.

Actions that can expedite projects include:

Coordination and Public Involvement Measures:

- Full participation
- Identify issues early
- Regular and frequent team meetings
- Interagency partnerships
- Conflict resolution process

Staffing and Training Measures:

- Standard procedure and guidance for preparers
- Increased project servicing staff
- Interagency funding of state/federal staff
- NEPA and streamlining training
- Increase internal legal staff

Information Management Measures:

- Improve early communications
- Use GIS database to improve information management
- Internet-based project monitoring
- Make environmental impact documentation easy-to-read and understand

Process Improvement Measures:

- Shorten the contracting process
- Provide contract incentives/penalties
- Designate high-priority projects
- Encourage context-sensitive design
- Early information dissemination for reviews
- Over-match cash or in-kind

Parallel Process Measures:

- Concurrence points between NEPA and project planning
- Concurrent environmental reviews
- Allow parallel processing of PE and NEPA or EIS/EA
- Use design/build process
- Combine PS&E and ROW
- "Overlap" contracting
- Fund all phases of project development
- One-stop permitting

Rule Changes:

- Prohibit lawsuits after Record of Decision
- Limit review duration
- Delegate more authority to the state at the planning level
- Fee in lieu of mitigation
- Expand “massive major litigation” option
- Allow anticipatory or early ROW acquisition

Each is explained in Chapter 4.

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