CAN-DO
REFERENCE MANUAL

Guidelines for Implementing
Iowa Department of Transportation's
CAN-DO Project Development Process

Revised 2002

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EXECUTIVE SUMMARY

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Can-Do is a process that streamlines the development of Iowa Department of Transportation (Iowa DOT) projects from concept to contract. Not only does Can-Do enhance the development process, but it also improves internal and external communication and produces a better-quality final product. Can-Do provides a serious approach to managing projects rather than letting projects manage Iowa DOT.

Can-Do does what was once considered undoable. The name derives from a commitment to "go where no one has gone before." As explained in this manual, Can-Do provides a system that:

- Shaves years off the project development process.
- Integrates compliance with the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act.
- Promotes interagency cooperation.
- Enables customer-oriented public involvement.
- Furthers project understanding and acceptance.
- Puts into practice federal policy for harmonizing a highway project with its environment through context-sensitive design (CSD).

ES.1 CONTENTS OF THIS MANUAL

This Executive Summary highlights the purpose, principles and other features, advantages, history, and current implementation status of the Can-Do process. For more specific information, see the body of this manual, which contains:

- Chapter 1 – an introduction to Can-Do and its origin
- Chapter 2 – the tasks ("events") in a typical Can-Do project schedule, which begin with prioritizing projects, forming the PMT, and developing the project concept; continue through analysis, design, NEPA document preparation, public involvement, and right-of-way activities; and conclude with the letting process.
- Chapter 3 – guidance for project management teams
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[1] U.S. Environmental Protection Agency, U.S. Department of Transportation, and Federal Highway Administration.

- Appendix B – project management team responsibilities and a meeting agenda in the form of checklists
- Appendix C – a guide to the environmental concurrence[2] meeting process
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  - o An early coordination letter and information packet
  - o A probable class of NEPA action information packet
  - o A public meeting notice
  - o Public hearing certification

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ES.2 PURPOSE

Can-Do serves a threefold purpose:

- To re-engineer the project development process with the *goal of reducing development time while maintaining the integrity and quality of the process.*
- To promote cooperation between Iowa DOT and the regulatory agencies.
- To merge compliance with NEPA and Section 404 of the Clean Water Act as part of the federal streamlining initiative.

Can-Do was developed for Type I and some Type II projects[3] requiring an environmental document because these projects encompass all facets of the development process. Although projects that do not require an environmental document are not currently covered in Can-Do, the intent is to have a single development process for all project types. Projects already under development ("pipeline projects") and projects not requiring an environmental document are also to take advantage of the enhancements available using Can-Do.

ES.3 CAN-DO PRINCIPLES

Can-Do emphasizes flexibility by applying a set of interrelated principles that form the cornerstone of the Can-Do process:

1. *Multidisciplinary project management* – The focal point of Can-Do is the multidisciplinary project management team (PMT), which is charged with developing a quality, constructible project on time and within the programmed budget. The PMT sets and maintains the project schedule and identifies project resource requirements. The PMT concept provides project management continuity from the planning phase to development and into construction.

[2] *Concurrence* means confirmation by the agency that information to date is adequate to agree that the project can be advanced to the next stage of project development.

[3] A Type I project is a major change, a Type II project is a minor change, and a Type III project is a repair, replacement, or operational improvement. (See Chapter 9, Glossary, for definitions.)

Notes

Early in the Can-Do development schedule, a PMT is formed for projects that are likely to require an environmental document. PMT membership includes representatives of the Iowa DOT District (District); the Offices of Design, Bridges & Structures, Right-of-Way, and Location & Environment; the Federal Highway Administration (FHWA); and other internal and external resources as needed and appropriate. The nucleus of the PMT remains on the project from concept development through project letting, and longer if needed during the construction phase. The PMT meets as often as appropriate based on project needs.

Members' general responsibilities are:

- To review the proposed project.
- To provide insight and expertise at each step of the process.
- To work together to identify potential problems early and develop solutions.
- To ensure that project concerns are adequately addressed.
- To present answers and solutions from others within Iowa DOT to the PMT for discussion and resolution.
- To act as a liaison to their offices and areas of specialty.
- To represent the support functions and identify appropriate times to involve them.

2. *District leadership* – Can-Do moves project oversight to the Districts because they are closest to the customer and most familiar with customer needs. The Districts ensure that a PMT is established for all projects requiring an environmental document. District staff coordinates the work of the PMT under the leadership of the district engineer and other District staff members as appropriate during project development.

3. *Early problem identification* – Can-Do makes more complete data available at key decision points. When a Can-Do project is programmed, approximately 25 to 35 percent of the design work is already completed and improved project cost estimates are available. By beginning tasks earlier in the schedule, the PMT can base decisions on complete, factual, reliable information, along with engineering judgment, and can tailor solutions to individual project needs.

   The means of early problem identification include:

   - Gathering input from the public, environmental resource agencies, and other stakeholders
   - Setting the limits of the environmental analysis through the scoping[4] process
   - Initiating data collection, for example by obtaining aerial photography and performing full environmental investigations of all reasonable alternatives

[4] *Scoping* is "an early and open process . . . for identifying the significant issues related to a proposed action" (40 C.F.R., 1501.7). Scoping considers a range of action(s), alternatives, and potential impacts as well as Section 404 permitting issues to include in the environmental review process.

Notes

4. *Uniform, integrated development process* – Can-Do provides a seamless process from concept to letting, with project data continuity along the entire development time line. Parallel planning and design minimize linear sequencing and expedite project development. Concurrent processing by the various disciplines enables schedule challenges to be managed more effectively than with the conventional end-to-end philosophy.

5. *Avoidance of environmental impacts* – All of the Can-Do principles work toward maximum avoidance of environmental impacts. In an effort to avoid impacts, full environmental investigations of all reasonable alternatives are completed, though it is recognized that some data may not be used. The footprint cleared[5] during environmental investigations is sufficiently wide to minimize rework and ensure that potential borrow areas are included. In cases where environmental impacts are unavoidable, proactive measures can be taken to minimize impacts and a range of mitigation options can be applied as appropriate.

6. *Context-sensitive design* – The CSD approach to project planning and development fits the roadway into the environment (that is, the total context within which the project is to be built) rather than modifying the environment to fit the roadway. CSD is an integral part of efforts by FHWA to advance environmental stewardship and streamline implementation. It is a collaborative, interdisciplinary approach that is closely linked to the other Can-Do principles. The goal is to provide "a transportation facility that suits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility."[6]

   The catalyst for CSD was the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA), which "emphasized the importance of good design that is sensitive to its surrounding environment."[7] Designers are to "think beyond the pavement" and consider the impacts a highway would have on the area. The various project elements should be in harmony with one another, resulting in a highway in harmony with its surroundings. Community input should guide development so that the project concept and design incorporate the community's resources, physical characteristics, and sense of place.

7. *Proactive public involvement and consensus building* – Underlying Can-Do is the concept of collaboration and collective development of a project with broad-based input from all stakeholders.

   Public involvement – Iowa DOT sees its primary responsibility as service to the public and is committed to working with the public as partners from the earliest stages of project development to develop the best projects possible. Chapter 5, Guide to Public Involvement – Part I, cites reasons for involving the public, including legal requirements.

   Public involvement plays a critical role in the Can-Do process because transportation projects affect the economic and social fabric of a community. Therefore, substantive input is solicited early and continuously in an open,

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[5] As used here, "clear" means to survey in order to ensure that there are no encumbrances from an environmental standpoint.

[6] FHWA, *Context Sensitive Design/Thinking Beyond the Pavement*, http://www.fhwa.dot.gov/csd/index.htm.

[7] FHWA, *Flexibility in Highway Design*, FHWA-PD-97-062.

multifaceted process for consideration during decision making. Emphasis is placed on building and sustaining relationships with a broad range of stakeholders.

More than 100 public involvement techniques are available. Some focus on gathering and exchanging information; others are geared toward disseminating information. Techniques commonly used in Iowa are open forum public hearings and meetings, focus groups or neighborhood groups, on-site drop-in centers, media strategies ranging from flyers and brochures to radio and TV messages, transportation fairs with various exhibits, and citizen surveys. A combination that works well on one project may not be effective on another. Under District leadership, in coordination with the Office of Location & Environment – Public Hearing Section, the PMT can customize the public involvement process to the individual project needs. The District Office helps prepare a public involvement plan (PIP)[8] as a blueprint, and District staff plays a major role in its execution. The PIP should be unmistakably by and from Iowa DOT rather than some third party.

The PIP is prepared by identifying the various groups that make up "the public," determining the current project development stage, identifying issues of concern, defining objectives, and selecting the most effective techniques. The public involvement effort should be evaluated based on the PIP objectives and feedback from the public. Refer to Chapter 6, Guide to Public Involvement – Part II, for an annotated outline for a PIP.

Consensus building – Throughout project development, Iowa DOT strives to build consensus – among resource and regulatory agencies as well as with the public. Provisions for public and agency participation and buy-in at all stages help coordinate efforts, minimize changes, and prevent rework. Examples are public information meetings, an early coordination letter and a project information packet (see Appendix E, Attachment A), environmental scoping, environmental concurrence meetings (see the following Can-Do principle), and distribution of the draft environmental document for review and comments.

8. *Merged compliance with NEPA and Section 404 Requirements* – Can-Do provides a system for merging the NEPA and Section 404 processes. This Can-Do principle is based on a Statewide Implementation Agreement (SIA), reprinted in Chapter 7, by which the relevant federal agencies and Iowa DOT agreed to implement concurrent NEPA and 404 processes for eligible highway projects in Iowa.[9] To implement the merged NEPA/404 processing, the SIA provides for concurrence points during project development:

   - Concurrence Point 1 – Purpose and Need
   - Concurrence Point 2 – Alternatives to Be Analyzed
   - Concurrence Point 3 – Alternatives to Be Carried Forward
   - Concurrence Point 4 – Preferred Alternative

Notes

[8] A PIP is a project-specific set of actions designed to enable Iowa DOT to work effectively with the community and the resource agencies. The purpose is to identify the public's concerns and use existing guidelines as a framework for gathering meaningful public input to assist in project decisions.

[9] That is, for those needing Federal Highway Administration action under NEPA and a Department of the Army permit under Section 404 of the Clean Water Act.

Notes

At these points, the transportation agency asks the resource agencies to confirm that the information to date is adequate, concur that the alternatives to be analyzed are appropriate to meet the resource agencies' goals, and agree to advance the project to the next stage of development. The purpose is "to preclude the routine revisiting of decisions that have been agreed to earlier in the process and encourage early substantive participation by the agencies" (see the SIA in Chapter 7).

The concurrence points are a vital component of the merged NEPA/404 processing in Can-Do. They foster interagency cooperation and provide for resource agency buy-in to project concepts and decisions. Two Gantt charts in Appendix A show the concurrence points in relation to the time line for developing Can-Do projects:

- Figure A-1, Can-Do Development Schedule – EA & Possible FONSI, for events associated with preparation of an environmental assessment (EA) and, if applicable, a finding of no significant impact (FONSI)
- Figure A-2, Can-Do Development Schedule – EIS & ROD, for events associated with preparation of an environmental impact statement (EIS) and a record of decision (ROD)

For an overview of the NEPA process within Can-Do project development, see Figure 1-2 in Chapter 1, Introduction to Can-Do.

ES.4 OTHER FEATURES OF CAN-DO

Several important features, outlined below, of Can-Do relate to the above principles.

ES.4.1 Commission's Role

The Commission's role has not changed with regard to programming decisions, except that these decisions have increased significantly in importance and, as with other activities, have shifted to an earlier starting point. The District, in conjunction with the Office of Location & Environment, is responsible for working with the Commission to identify priority projects and request spending authority for development costs prior to programming. The division directors and Districts routinely keep the Commission apprised of project-specific information. Figure 1-2, Overview of the Can-Do NEPA Process, in Chapter 1 indicates the Commission's role.

ES.4.2 Early Acquisition

Can-Do shortens the time from an acquisition agent's initial contact with a landowner to ROW acquisition by approximately 2 years. Although acquisition takes less time, Can-Do does not shorten the public involvement process, which begins about the time the project concept is developed.

ES.4.3 Single Hearing

With the enhanced public involvement process, projects require only a single public hearing. When this combined location-design hearing is conducted, about 25 to 35 percent of a project is complete, and more details are therefore available than at the traditional location hearing.

ES.4.4 Value Engineering

Notes

Can-Do incorporates value engineering (VE), which is a systematic method of identifying, evaluating, and selecting an alternative in light of both objective and subjective parameters associated with a project. The PMT initiates and manages the VE process as authorized by, and in accordance with, FHWA's regulations for VE. As outlined in the PMT Responsibility Checklist in Appendix B, the PMT:

- Determines the applicability of VE and the appropriate time to initiate a VE study.
- Establishes a schedule for preparing the VE report.
- Assigns a value engineering team.
- Defines the scope of the VE study.
- Ensures that the value engineering team has all appropriate and relevant project information for its review.
- Oversees the process to keep it within the scope.
- Implements the results.

ES.4.5 Cost

Some aspects of the Can-Do process are more expensive, such as conducting environmental investigations on multiple alignment options or a wider footprint within a corridor, or flying more corridors at a lower flight level to improve photo resolution. The broader picture, however, requires consideration of overall value, not just individual costs. The many advantages of the Can-Do process, discussed below, offset additional costs during the early activities.

ES.5 ADVANTAGES OF CAN-DO

Can-Do effectively puts into practice the following advantages:

- Enhanced public and resource agency involvement through more effective communication and public access to information
- More responsiveness to customers' needs
- Increased acceptance and ownership by the various participants through better understanding of the project
- Shared goals and vision for the project
- Improved project credibility among policy makers and the public
- Timely incorporation of property owner information and concerns into the NEPA document
- Minimized rework and duplication caused by late changes, environmental surprises, and political changes
- More accurate project cost estimates and a more fiscally constrained program
- Improved project management of the scope, schedule, and budget
- Better, more complete data for consideration at key decision points
- More predictable delivery time once a project is programmed

- Flexible development oversight
- Reduced hand-offs (transfers of responsibility)
- Increased accountability
- Emphasis on avoiding environmental impacts
- Reduced costs for mitigating environmental consequences
- Improved efficiencies
- Shorter development time (reduced from slightly over 11 years to about 6 years for a typical 4- to 6-mile project with an EA/FONSI-level document)

Notes

ES.6 HISTORY

Development of the Can-Do process began early in 1997. Iowa DOT and FHWA defined their overall goal: *To streamline the project development process.*

A Process Development Improvement (PDI) team was established to review and re-engineer the development process between the Commission's approval and the letting of major (Type I) projects. The goal was to reduce development time without compromising process integrity and quality.

During development and validation of the Can-Do process, the PDI team consulted a wide range of internal and external customers. In November 1997, the team produced a report that outlined the new Can-Do process.

In February 1998, an Implementation Team was chartered to manage and coordinate the implementation of 10 recommendations from the PDI team. The recommendations were prioritized, with the goal of having the Can-Do development process fully operational by the end of 1998. Iowa DOT offices were encouraged to look at ways to improve the process.

A process improvement team identified and described tasks for monitoring projects developed using Can-Do. Another team recommended a public involvement process to support Can-Do project development.

Several other review teams were chartered at office levels. Their responsibility was to study such inter-office issues as the level of detail needed for digital terrain models, the compatibility of automation/computer-aided drafting and design (CADD), and the complete submittal of design plans. In addition, partnering efforts were undertaken by several Iowa DOT offices and sections.

The first step in implementing Can-Do was to ensure that Type I projects entering the development process were using Can-Do. Several projects were identified as appropriate for Can-Do, and PMTs were established. A major focus of the Implementation Team was to train PMT members regarding their responsibilities and to obtain feedback on how the Can-Do process was functioning. In December 1998, the Implementation Team determined that the Can-Do process was fully operational, recognizing that opportunities would arise to hone the process over time. In January 1999, the Can-Do process became functional for all new projects requiring an environmental document.

In the spring of 1999, "listening sessions" were held to determine how well the Can-Do process was being integrated into project development and how PMTs were functioning. Questions and unresolved issues were addressed, as reported in Chapter 3, Guidance for PMTs.

A reorganization of Iowa DOT in early 2000 consolidated essential Can-Do functional responsibilities within the Districts and the Highway Division's Engineering Bureau.

ES.7 IMPLEMENTATION STATUS OF CAN-DO

When the Can-Do process became functional in 1999, "pipeline projects" were to take advantage of the enhancements available using Can-Do. A July 2002 policy formally established the Iowa DOT Highway Division's Can-Do process for developing highway projects (see Figure 1-1, Iowa Department of Transportation Policy No. 500.02).

Can-Do is the first step on a journey to development excellence. The Highway Division is committed to continuing its quality improvement review of the development process.

Notes

CHAPTER 1

Introduction to Can-Do

Notes

CHAPTER 1
INTRODUCTION TO CAN-DO

Can-Do is a process developed in the late 1990s to streamline and expedite the development of Iowa Department of Transportation (Iowa DOT) projects from concept to contract. This chapter explains the purpose, principles, advantages, and history of the Can-Do process and also includes some frequently asked questions about additional topics.

1.1 PURPOSE

The purpose of Can-Do is threefold:

- To re-engineer the project development process with the goal of reducing development time while maintaining the integrity and quality of the process.
- To facilitate cooperation between Iowa DOT and the regulatory agencies.
- To merge compliance with the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act as part of the federal streamlining initiative (see Chapter 7 for the Statewide Implementation Agreement for merging the NEPA/404 compliance processes for highway projects in Iowa).[1]

Can-Do provides a single development process for all projects. It is specifically intended for Type 1 and some Type II projects[2] requiring an environmental document because these are the most complex projects and encompass all facets of the development process. A process that can handle these projects, however, can equally be used for any lesser project. The intent is to apply the Can-Do process to projects that are already under development ("pipeline projects") as well as projects that do not require an environmental document. Ultimately, therefore, Can-Do is designed for all Iowa DOT work.

1.2 CAN-DO PRINCIPLES

Can-Do creates a new development philosophy based on the conviction that a better end product will result from application of the following principles:

1. Multidisciplinary project management
2. Iowa DOT District (District) leadership
3. Early problem identification
4. Uniform, integrated development process
5. Avoidance of environmental impacts

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1 The *NEPA process* refers to the development of a full and fair discussion of the social, economic, and environmental issues associated with a proposed project and its reasonable alternatives. Its purpose is to ensure that the policies and goals defined in NEPA are infused into the ongoing programs and actions of the federal government. The *Section 404 process* refers to the permitting of a project involving discharge of dredged or fill material into waters of the United States. The permitting of such a project is subject to provisions of Section 404 of the Clean Water Act.

2 A Type I project is a major change, and a Type II project is a minor change. See Chapter 9, Glossary, for definitions of Type I, II, and III projects. The major difference between types is the point at which a project enters the time line and the question of whether a formal project management team is needed.

6. Context-sensitive design
7. Proactive public involvement and consensus building
8. Merged compliance with NEPA and Section 404 requirements

Notes

These principles overlap and reinforce one another, resulting in a holistic approach. Can-Do was never intended as a cookbook of solutions to all possible problems. Instead, it emphasizes flexibility through application of these principles, discussed individually below.

1.2.1 Multidisciplinary Project Management

The focal point of the Can-Do development process is the multidisciplinary project management team (PMT). Each PMT consists of experts and decision makers in all relevant major planning and development disciplines, who are brought together early in the project planning phase.

The district engineer (DE) typically establishes the PMT by contacting the directors of the Offices of Design, Location & Environment, and Right-of-Way as well as the Federal Highway Administration (FHWA). PMT membership includes the following representatives:

- *Iowa DOT District* – DE, district planner, assistant district engineer (ADE)
- *Office of Design* – design project engineer, design staff, Soils Design and Photogrammetry & Preliminary Survey Sections, and consultant (for outsourced projects)
- *Office of Bridges & Structures*[3] – design section engineer, design staff, and consultant (for outsourced projects)
- *Office of Right-of-Way* – manager of ROW Operations
- *Office of Location & Environment* – location engineer and senior location design technician as necessary depending on the project and stage of development
- *FHWA Operations Team representative*
- *Other internal and external resources* – as appropriate and as needed for additional expertise, such as the Office of Contracts, Office of Program Management, and Support Services Bureau – Project Agreements Section

Can-Do gives the PMT full responsibility for managing a project. The PMT is charged with developing a quality, constructible project as follows:

- Evaluate the project.
- Identify issues and develop solutions collaboratively and collectively.
- Provide continuous guidance and ownership – from project planning through construction.
- Establish an appropriate schedule (see Chapter 2, Can-Do Scheduling, for a description of the basic tasks and Appendix A for typical Can-Do development schedules).

[3] Depending on the project, the level of involvement of the Office of Bridges and Structures can range from a supportive role to a major role or to the lead role, including establishment of the PMT.

- Keep the project on time and on budget throughout the development process.
- Build on previous work.
- Identify project resource needs and work with Iowa DOT office directors to schedule those resources when needed.
- Develop the project from the bottom up, with the goal of zero rework.

Each Type I and Type II project requiring an environmental document and additional right-of-way (ROW) is assigned to a PMT. For all other projects (that is, Type II and III projects not requiring an environmental document or ROW), the Office of Design or Office of Bridges & Structures determines whether a PMT is necessary and, if so, establishes one consisting of individuals from the District; the Offices of Design or Bridges & Structures, Right-of-Way, and Location & Environment; and other offices as appropriate.

For more detail on the roles and responsibilities of the PMT, see Chapter 3, Guidance for PMTs, and Appendix B, PMT Checklists.

1.2.2 District Leadership

The Can-Do process is built around District leadership. Can-Do moves project oversight to the Districts because they are closest to the customer and most familiar with customer needs.

The Districts have a major role in managing project development. District staff coordinates the work of the PMT, under the leadership of the DE and others as appropriate during project development. The team leader prioritizes development work, identifies needed resources, influences the project concept, and leads the involvement with the general public and other project stakeholders, as follows:

- The DE is ultimately responsible for implementation. The DE ensures that PMTs are established for all projects requiring an environmental document[4] and that all steps are accomplished for projects in the Can-Do process.
- The district planner and ADE are involved in the project concept to ensure that specific transportation needs are met.
- The district planner and ADE, to varying degrees, manage project development through letting. The planner leads the team for planning and pre-location activities, and the ADE leads the team as the project moves into design.
- The Districts coordinate the public involvement effort in conjunction with the PMT and the Office of Location & Environment – Public Hearing Section.
- The district construction engineer (DCE) provides expertise on staging, constructibility, etc. and takes over during construction.
- The district maintenance manager (DMM) provides insight into the serviceability and acceptability of the final product.

Notes

[4] Specifically, an environmental assessment or environmental impact statement; categorical exclusions are not necessarily included in this group.

1.2.3 Early Problem Identification

Notes

Can-Do makes more complete data available at key decision points than was the case prior to Can-Do. This approach enables the PMT to base decisions on complete, factual, reliable information, along with engineering judgment, and to tailor solutions to individual project needs. It also improves problem identification and problem solving.

When a Can-Do project is programmed, approximately 25 to 35 percent of the design work is already completed and improved project cost estimates are available. Also, certain development tasks begin at an earlier point in the schedule. Examples are such tasks are setting the limits of the environmental analysis, contacting the environmental resource agencies and other external stakeholders, and initiating data collection.

1.2.4 Uniform, Integrated Development Process

Parallel planning and design, with concurrent task development, minimize linear sequencing and expedite project development. Both phases are essentially the same with respect to team leadership.

Maximum continuity of project data along the entire development time line optimizes the Can-Do process from concept to contract while promoting fiscal soundness and project credibility. Fewer changes are required, time is available for additional public involvement in accordance with State of Iowa (State) law, and the PMT is better able to establish and maintain the development schedule. As a result of this seamless process, a project can be ready for letting about two and one-half years after review of the project by the Iowa Transportation Commission (the Commission).

1.2.5 Avoidance of Environmental Impacts

A commitment of the Can-Do philosophy is to avoid environmental impacts to the maximum extent and to mitigate those impacts that are unavoidable. All Can-Do principles work toward fulfilling this commitment.

In an effort to avoid impacts, full environmental investigations of all reasonable alternatives are completed, recognizing that some data may not be used. A wide corridor is cleared[5] to minimize rework and include potential borrow areas. Wider footprints for archaeological and architectural studies ensure clearance for parcels where the total land acquisition requirements are not obvious early in the planning process. For each alternative developed and under study, archaeological investigations typically delineate roadway clearance widths as follows:

- *New alignment* – all identified borrow areas and 1,200 ft on each side of the centerline (if known) or 200 ft outside of the corridor limits (if the centerline is not known)
- *Addition of two lanes* – all identified borrow areas, 1,000 ft on the construction side, and 500 ft on the nonconstruction side

[5] In the context of environmental investigations of a corridor, "clear" means to survey in order to ensure that there are no encumbrances from an environmental standpoint.

- *Reconstruction and Super-2 highways*[6] – all identified borrow areas and 500 ft on both sides of the centerline for two-lane roadways or 200 ft on the outside of existing ROW limits for four-lane roadways
- *All side roads* – 500 ft on both sides of the centerline, for a minimum distance of 1,000 ft left and right of the mainline centerline

Historical and architectural studies evaluate these same clearance widths, plus buildings and real estate improvements on all properties affected by the footprint.

In cases where avoidance is not practical or feasible, proactive measures can minimize impacts. For unavoidable impacts, the range of mitigation options includes:

- Wetland banking rather than project-by-project mitigation – to avoid having to purchase ROW and develop a project mitigation site
- Early acquisition of sites with archaeological or historic importance, or negotiation for early access to the sites and recovery rights – to evaluate, document, and possibly recover artifacts on sites that require State ownership or owner sign-off without major delays in project development time
- Remediation of regulated materials before project letting – to avoid construction delays

1.2.6 Context-Sensitive Design

Context-sensitive design (CSD) fits the roadway into its physical setting (that is, the context within which it will be built).[7] This collaborative, interdisciplinary approach to project planning and development is an integral part of FHWA's efforts to advance environmental stewardship and streamline implementation. For a full discussion of this design approach, see Chapter 4, Context-Sensitive Design.

1.2.7 Proactive Public Involvement and Consensus Building

Can-Do provides early contact with the public and ample opportunities for public input, in informal settings, throughout the project. Soliciting comments early and continuously in an open, multifaceted process encourages broad-based stakeholder input for consideration during decision making.

Public involvement is modeled around a development process that provides design details earlier in the process than in the past. Information on planning and development is made accessible through a series of public information meetings.

Coordination of the public involvement effort is assigned to the Districts in conjunction with the Office of Location & Environment – Public Hearing Section and the PMT. Field Services staff in each District play a major role. This moves the availability of information for planning and development closer to the customers.

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6 A *Super-2* highway is a two-lane roadway with improved operation features (periodic turn lanes and acceleration lanes for truck).

7 FHWA, *Context Sensitive Design/Thinking Beyond the Pavement*, http://www.fhwa.dot.gov/csd.

Because of the enhanced public involvement process, projects require only a single public hearing, called the "location-design hearing." The PMT may initiate more than one public hearing if it deems necessary.

Notes

Under District leadership, the PMT can customize the public involvement process to the needs of an individual project and the external customers. A wide range of public involvement techniques is available, as discussed in Chapters 5 and 6, Guide to Public Involvement – Parts I and II, respectively.

Provisions for buy-in are included at all stages of the project development process to coordinate development efforts and minimize rework. For example, an environmental scoping[8] meeting is held for the following purposes:

- To establish a dialogue with the resource agencies.
- To provide the resource agencies with basic project information.
- To identify any known concerns or issues that could influence the alignment alternatives.
- To reach consensus as to the project purpose and need, acceptability of the proposed study alternatives, and scope of environmental evaluation.

In addition, major steps in the development process are thoroughly documented for all study corridors. The complete draft environmental document is made available for review, and comments as well as potential impacts are evaluated before final selection of the preferred alignment.

1.2.8 Merged Compliance with NEPA and Section 404 Requirements

A Statewide Implementation Agreement (SIA), reprinted in Chapter 7, merges the NEPA and Section 404 compliance processes for highway projects in Iowa and fosters interagency cooperation. Iowa DOT is one of the signatories.

The SIA provides for concurrence[9] points, which play a critical role in the consensus-building process discussed above. According to the SIA, concurrence points are intended "to preclude the routine revisiting of decisions that have been agreed to earlier in the process and encourage early substantive participation by the agencies." For further information, see Appendix C, Environmental Concurrence Meetings, which discusses the scheduling of meetings, invitation letters, distribution lists, meeting displays, agenda, minutes, and concurrence form.

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8 *Scoping* is a process by which the scope of issues to address during the environmental review is determined and a range of action(s) and alternatives are considered.

9 *Concurrence* means agency confirmation that information to date is adequate to agree that the project can be advanced to the next stage of project development.

1.3 ADVANTAGES OF CAN-DO

Notes

The cornerstone of the Can-Do development process consists of three parts:

- *PMT concept* – provides project management continuity from the planning phases to development and into construction.
- *Increased public and resource agency involvement* – results from moving project management responsibility to the District Office, which brings public contact to the local level.
- *Seamless process from location to concept to design* – increases ownership by the participants and reduces the number of changes.

A chief advantage of Can-Do is improved efficiencies, achieved by consolidating, empowering, and working smarter. For example, shifting the critical path for development to controllable internal processes shortens the development time. Identifying environmental problems early allows time to avoid problems or to quantify them and incorporate appropriate cost considerations. Completing a greater percentage of design work before a project enters the Five-Year Transportation Improvement Program produces more accurate project cost estimates and a more fiscally sound funding program. Conducting the location-design hearing slightly later in the development process makes more complete design information available. Also, providing coordinated, continuous, customer-oriented public involvement promotes project understanding.

Other advantages of applying the Can-Do principles include:

- Shared goals and vision for the project
- More flexible development oversight
- Improved project management of the scope, schedule, and budget
- More predictable delivery time once a project is programmed
- Minimized rework and duplication
- Reduced hand-offs (transfers of responsibility)
- Increased accountability
- More effective communication and public access to information
- Greater responsiveness to customers' needs
- Improved credibility among policy makers and the public

1.4 HISTORY

Notes

The following summarizes the development and implementation of the Can-Do process.

1.4.1 Development

To strengthen their partnership, Iowa DOT and FHWA cooperatively developed 21 joint program goals based on interviews of Iowa DOT and FHWA management. In 1997, the overall program goal was defined:

> *Program Goal: To streamline the project development process*

To implement this goal, Iowa DOT's former Project Development Division[10] Quality Council established a Process Subcommittee, which wrote a charter, dated January 9, 1997:

> *Charter: To review the development process with the goal of reducing development time while maintaining program integrity and quality.*

The Process Subcommittee also created a Process Development Improvement (PDI) team, listed in Table 1-1, to review the development process. The PDI team developed a mission statement and a motto:

> *Mission Statement: To re-engineer the development process between the Commission's approval and the letting of major (Type I) projects with the goal of reducing development time while maintaining the integrity and quality of the process. (May 8, 1997)*
>
> *Team Motto: To go boldly where no one has gone before.*

Table 1-1. Process Development Improvement Team

Member/Facilitator	Position	Affiliation[a]
Scott Dockstader	development engineer	Central Iowa Transportation Center
Bruce Matzke	assistant administrator	FHWA
Bob Stoecker	assistant office director	Office of Design
Wendal Johnston	assistant office director	Office of Bridges & Structures
Bill McGuire	assistant office director	Office of Right-of-Way
Mark Kerper	development section engineer	Office of Project Planning
Pete Tollenaere	district construction engineer	Southeast Iowa Transportation Center
Mike Kennerly	production schedule engineer	Office of Contracts
Jim Rost	environmental engineer	Office of Development Support
Carol Culver	facilitator	Office of Development Support

Note:
[a] *Some office names changed during Iowa DOT restructuring in 2000.*

During early meetings, the PDI team recognized that, to maximize potential time-saving benefits, the process review would have to include planning in the early development process. It also became evident that re-engineering was beyond the scope of the PDI

[10] The Project Development Division became the Highway Division as a result of Iowa DOT restructuring in 2000.

team and would require looking at micro-level operations. Therefore, the PDI team chose to stay at the macro-level and focus on cycle time reduction. To that end, the team hired a consultant, Carl Johnson, who based his assistance on the Total Quality Institute's publication *Business Process Improvement through Cycle Time Reduction – Implementation Workshop.*

Notes

In November 1997, the PDI team produced a report that outlined a new development process called "Can-Do."

1.4.2 Implementation

1.4.2.1 Can-Do Implementation Team

In February 1998, four individuals (Tom Cackler of the Highway Division, Dennis Tice of the Planning and Programming Division, Neil Volmer of the Modal Division, and Colin MacGillivray of the Research Management Division) chartered a Can-Do Implementation Team. Members are listed in Table 1-2.

Table 1-2. Implementation Team

Member	Position	Affiliation
Roger Bierbaum	office director	Office of Contracts
Harry Budd	office director	Office of Project Planning
Scott Dockstader	development engineer	Central Iowa Transportation Center
Don East	office director	Office of Design
Mark Kerper	development section engineer	Office of Project Planning
Bruce Matzke	assistant division administrator	FHWA
Bob North	office director	Office of Right-of-Way
Jim Rost	environmental engineer	Office of Development Support
Dave Little	assistant engineering division director	Engineering Division

The Implementation Team's charter read, in part:

> *The Implementation Team shall be responsible for managing and coordinating the implementation of the 10 recommendations from the [PDI] team. Since some recommendations are more critical to the goal of reducing development time of projects, the recommendations will need to be prioritized. The goal is to be fully operational by the end of 1998.*

1.4.2.2 Process Improvement Teams

The Implementation Team encouraged Iowa DOT offices to look at ways of improving the development process through process improvement teams at the micro-level.

1. *Production Scheduling Team* – chartered in August 1998 to "establish events and descriptions of events for monitoring projects being developed under the 'Can-Do' process using the flowchart contained in the October 1997 'Can-Do' Final Report." (A portion of this team's work product is contained in Chapter 2, Can-Do Scheduling.)

2. *Public Involvement Team* – chartered in October 1998 to "recommend a Public Involvement Process that supports 'Can-Do' by identifying applicable state and federal requirements for public involvement, recommend a process to customize public involvement, and develop a matrix of public involvement options to assist in customization." (See Chapters 5 and 6, Guide to Public Involvement – Parts I and II, respectively.)

Notes

1.4.2.3 Review Teams

Several other review teams were chartered at office levels to study issues among individual offices and report on the progress made to address these issues, specifically:

- *Level of detail needed for digital terrain models (DTMs)* – Office of Design and Corridor Development
- *Automation/Computer-Aided Drafting and Design (CADD) compatibility* – Office of Design, Office of Bridges & Structures, Office of Right-of-Way, and Corridor Development
- *Complete submittal of design plans* – Offices of Design and Right-of-Way

1.4.2.4 Partnering Efforts

Further partnering efforts were undertaken by several Iowa DOT offices and sections, such as:

- Offices of Design, Bridges & Structures, and Right-of-Way
- Offices of Design and Right-of-Way and the district land surveyors
- Offices of Design and Project Planning

1.4.2.5 Implementation Steps

The first step in implementing Can-Do was to ensure that Type I projects entering the development process were using Can-Do. During 1998, several projects were identified as appropriate for Can-Do and PMTs were established.

A major focus of the Implementation Team was to train PMT members concerning their responsibilities and to acquire feedback on how the Can-Do process was functioning. Therefore, the Implementation Team did the following:

1. Conducted a Can-Do PMT workshop in the fall of 1998 to present the concepts of Can-Do and discuss the role of PMT members.
2. Conducted listening sessions in late March through early April 1999 to hear problems and successes and to explore opportunities for improvement. From this effort, a "Guidance for PMTs" was developed and distributed. Topics discussed in the listening sessions are reported in Chapter 3, Guidance for PMTs.
3. Prepared a PMT checklist that includes the modified value engineering (VE) process approved by FHWA in December 1999 (see Appendix B, PMT Checklists, and Appendix D, FHWA Value Engineering Authorization).
4. Conducted a second PMT workshop in September 2000.

1.4.2.6 Can-Do Status

Notes

In December 1998, the Implementation Team determined that the Can-Do process was fully operational. When the Can-Do process became functional for all new projects that require preparation of an environmental document, pipeline projects were also to take advantage of the enhancements available using Can-Do.

The Implementation Team took a reorganization sabbatical in early 2000. For the most part, the reorganization consolidated essential Can-Do functional responsibilities within the Districts and the Highway Division's Engineering Bureau, as shown in Table 1-3.

Table 1-3. Implementation Team after Reorganization

Member	Position	Affiliation
Sandra Larson	bureau director	Engineering Bureau
Mitch Dillavou	office director	Office of Design
Scott Dockstader	district engineer	District 1
Don East	office director	Office of Traffic & Safety
Gerry Kennedy	Environment and Realty manager	FHWA
Mike Kennerly	scheduling engineer	Engineering Bureau
Mark Kerper	assistant office director	Corridor Development
Norm McDonald	office director	Office of Bridges & Structures
Ron Otto	office director	Office of Right-of-Way
Jim Rost	office director	Office of Location & Environment

An Iowa DOT policy, effective July 9, 2002, establishes the Iowa DOT Highway Division's process for developing highway projects. The policy, reprinted in Figure 1-1, states:

> *New highway projects that require an environmental document shall be developed using the Can-Do process. Projects already in the development process shall take advantage of enhancements available using Can-Do. Projects that do not require an environmental document should use those principles of Can-Do that apply to the type of project being developed.*

As Can-Do is applied over time, opportunities will arise to hone the process. Actually, Can-Do is the first step on a journey to development excellence. The Highway Division is committed to a continuing quality improvement review for the macro-development process.

Iowa Department of Transportation
Policies and Procedures Manual

Title	Policy No.
Can-Do Process	**500.02**

Responsible Office	Related Policies and Procedures
Engineering Bureau	510.02

Effective/Revision Dates	Approval(s)
7-9-02	Kevin M. Mahoney

Authority: Director of the Highway Division.

Contents: This policy establishes the Highway Division's process for developing highway projects.

Affected Offices: All Highway Division Offices and Districts

Who to Contact for Policy Questions: Director of the Engineering Bureau

Definitions:

Can-Do Process –A process for developing highway projects from concept to project letting. Some key elements of the Can-Do process are:

- Proactive involvement of the public, regulatory agencies and stakeholders early and throughout the project development process, to build consensus among these parties.
- Concurrent task development.
- Establishment and empowerment of multidisciplinary project management teams to provide project ownership, continuity and communication among the various development disciplines throughout the project development process.
- District oversight of projects.
- Early problem identification.
- Context-sensitive design; i.e., fitting the roadway into the environment.
- Avoidance of environmental impacts and mitigation of those impacts that are unavoidable.
- Merged compliance with the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act.

Forms: None.

Policy and Procedure:

I. Policy

New highway projects that require an environmental document shall be developed using the Can-Do process. Projects already in the development process shall take advantage of the enhancements available using Can-Do. Projects that do not require an environmental document should use those principles of Can-Do that apply to the type of project being developed.

The *Can-Do Reference Manual* establishes the policies, procedures and guidelines for developing a highway project using the Can-Do process.

II. Procedure

The *Can-Do Reference Manual* is maintained and distributed by the Engineering Bureau and is available in hard copy, on DOTNET and on the DOT's website. Updates to the manual require the approval of Director of the Engineering Bureau.

Figure 1-1

1.5 FREQUENTLY ASKED QUESTIONS

Notes

During development and validation of the Can-Do process, the PDI team consulted a wide range of internal and external customers. The following are frequently asked questions that are not addressed in the preceding sections.

Q: How does the Commission's role fit into the Can-Do process?

The Commission's role with regard to programming decisions has not changed, except that these decisions have increased significantly in importance and, as with other processes, have shifted to an earlier starting point. In the Can-Do process, the District and the Office of Location & Environment – Corridor Development are responsible for working with the Commission to identify priority projects and request spending authority for development costs prior to programming. Figure 1-2, Overview of the Can-Do NEPA Process, indicates the Commission's role and shows the key steps from planning to construction.

A project is formally brought back to the Commission for final support and funding authorization after the NEPA process is complete. The division directors and the Districts routinely keep the Commission apprised of project-specific information.

Q: What effect does shortening the development process have on the time between citizen contact, appraisal, and acquisition? Doesn't this make acquisition much more difficult, considering that the property owner needs some time to work through this, and doesn't it result in more parcels in condemnation?

This question has two somewhat different aspects. First, Can-Do does not shorten the public involvement process. In fact, it is modeled around more public involvement and better design detail earlier in the process. For example, the first public involvement occurs about the time the project concept is written, well before any Iowa DOT site activity occurs. The Districts have the ability and responsibility to customize the public involvement process to fit the needs of the individual project, the public, and the special interest groups.

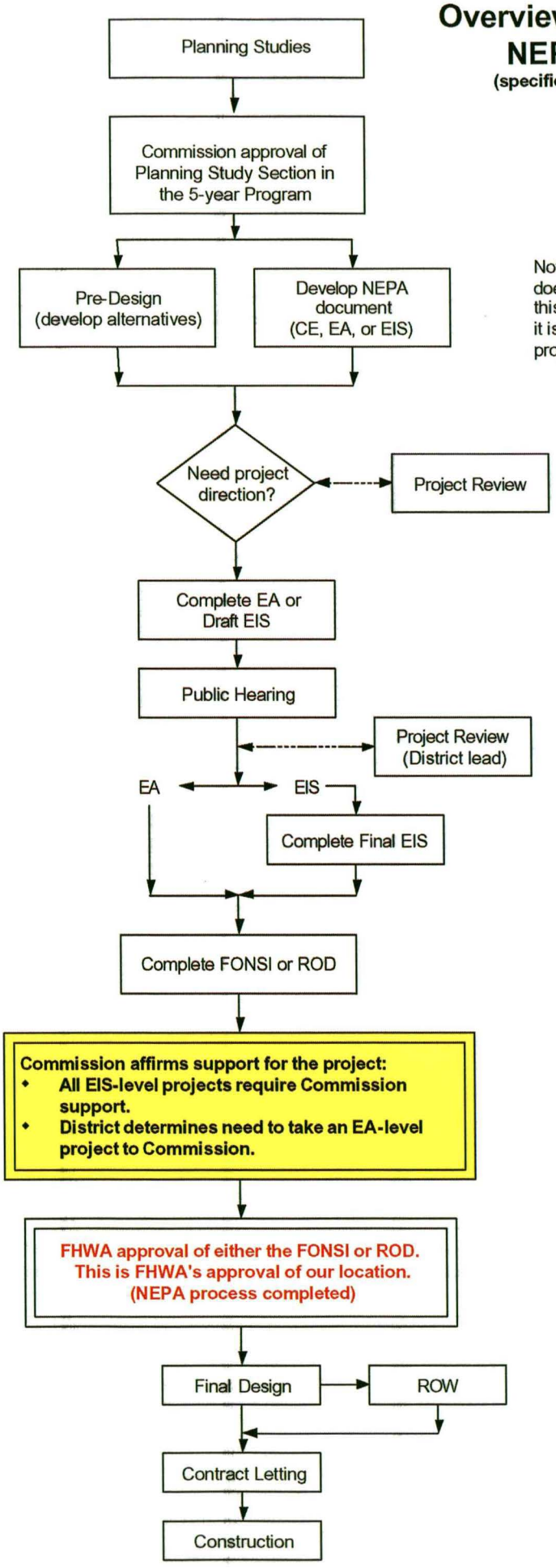
Second, the Implementation Team considered how much upfront time is needed and appropriate. The time from an acquisition agent's initial contact with a landowner to ROW acquisition has been shortened by approximately 2 years. This does not account for the early contact. Accelerating ROW acquisition allows additional public involvement in accordance with State law. The process is outlined in Figure 1-3, Early Acquisition Flow Chart. Note that this figure abbreviates Office of Location and Environment as OLE.

Q: Why does Can-Do have a single hearing, as opposed to two?

The single hearing process is possible because of the enhanced public involvement process and is considered better suited for an optimized development schedule. When the combined location-design hearing is conducted, about 25 to 35 percent of a project is complete. Consequently, more details are available than at the traditional location hearing.

Overview of the Can-Do NEPA Process

(specific detail not included)



Commission approval of active Planning Study Section in 5-year program.

This ensures that Can-Do projects are fundable and fit with Commission's statewide transportation goals.

Note: The CE document does not occur again in this flow chart because it is used primarily for projects not needing ROW.

Proje ct review is used by staff and the Districts to brief top Management and obtain consensus for project-specific decisions.

District updates and briefs Commission to keep it apprised of issues and development progress; i.e., we do not want surprises for the Commission as we bring a project forward at programming time.

Uses of project review by staff and the Districts include:

- To brief top Management on controversial issues.
- To discuss comments received at the hearing.
- To seek guidance/ project direction as necessary.

District briefs Commission about the project. The Commission takes formal action to place the project in the 5-year program.

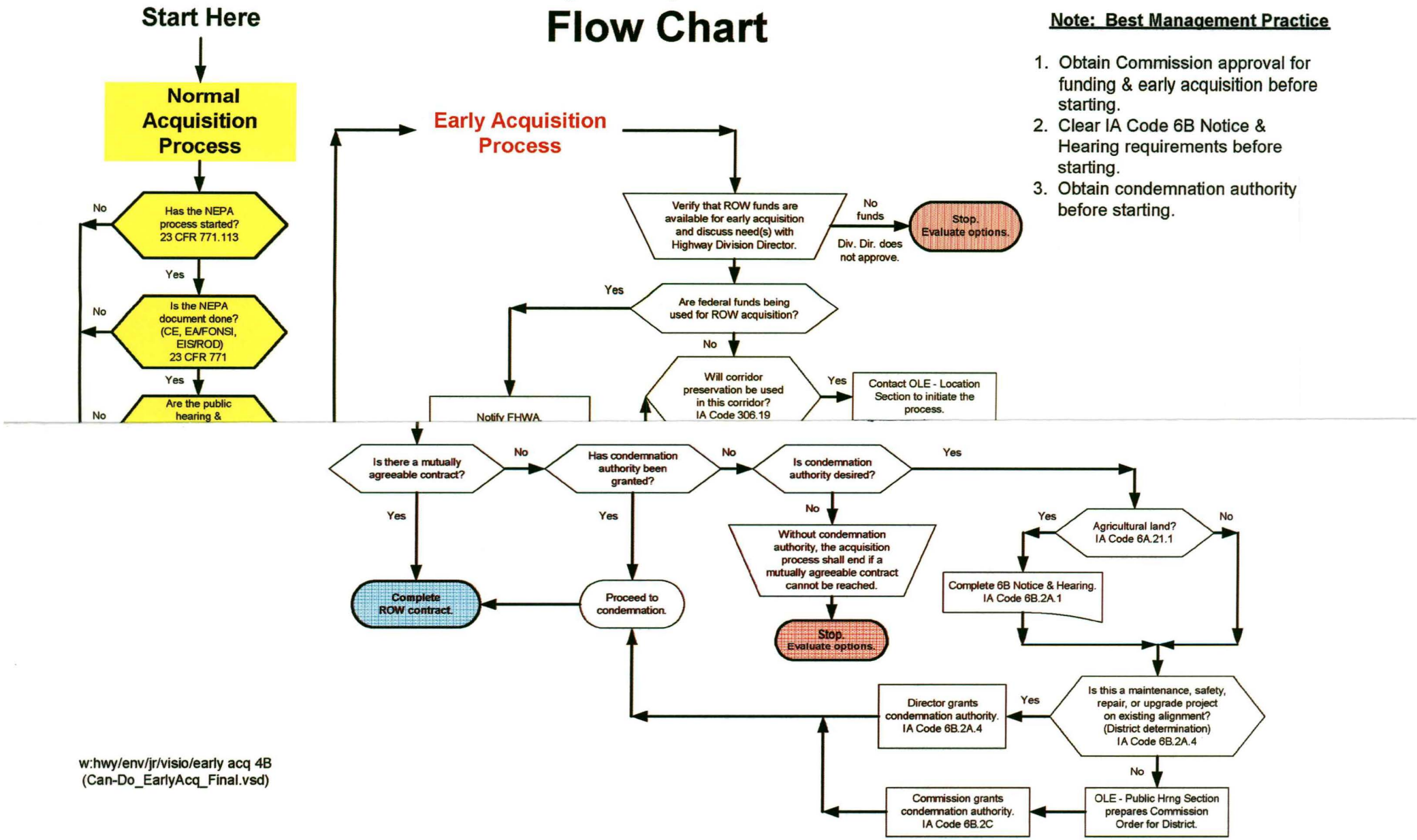
If required by SF 2192, Commission action also includes a statement authorizing condemnation for our ROW needs.

District briefs and updates Commission as necessary to keep it apprised of issues and progress.

Figure 1-2

Early Acquisition Flow Chart

Date 12/5/2002



Note: Best Management Practice

1. Obtain Commission approval for funding & early acquisition before starting.
2. Clear IA Code 6B Notice & Hearing requirements before starting.
3. Obtain condemnation authority before starting.

w:hwy/env/jr/visio/early acq 4B (Can-Do_EarlyAcq_Final.vsd)

Figure 1-3

The location-design hearing actually improves customer service because, in the two-hearing process, a 3- to 6-year period between location and design hearings was not uncommon.

Notes

Q: What is included in 35 percent complete?

By the 35 percent milestone, the following are complete:

- Viable project with a well-defined scope or concept
- Aerial photography for the corridors
- DTM with design-level accuracy
- Basic geotechnical evaluation of the corridors
- Horizontal and vertical geometrics, template, and project footprint
- Interchange and/or intersection locations and basic geometrics
- Access classification and predetermined accesses (PDAs)
- Historic and Phase I, IA and Phase II archaeological investigations
- Wetland delineations and draft Section 404 permit application
- Investigation of proposed ROW acquisitions for regulated materials
- Hard shots for missing data, conducted in stages with timely delivery
- (Typically) at least two public involvement meetings and a public hearing
- Contacts with affected resource agencies, utilities, and railroads

Q: How can environmental issues be moved to an earlier stage in the process?

The key is to substitute an avoidance mode for a mitigation mode. Can-Do does this as follows:

- Some aspects of the environmental responsibilities are combined. For example, an end-to-end philosophy, as in the past, would complete the reconnaissance historical survey and move into the full historical survey only if needed. As a result, decisions were sometimes made with incomplete data, as project development marched forward. Admittedly, it may cost more to conduct the two surveys together, but each phase, along with the decision process, takes time. Therefore, combining two tasks not only produces better data for earlier decision making but also shortens the time it takes to initiate mitigation, if needed.
- Some tasks, such as the investigation for hazardous substances and the delineation of wetlands, are moved forward. These tasks have to be completed for potential additional alignments as well.
- ROW is acquired early for environmental investigations, should the need arise, and for Iowa DOT to conduct mitigation.

Q: Is Can-Do more expensive than conventional linear project development?

It is very difficult to assess a process cost. Some aspects of the Can-Do process are more expensive. For example, it costs more to conduct environmental investigations on multiple alignment options or a wider footprint within a corridor, or to fly more corridors

at a lower flight level to improve photo resolution. These upfront costs are identifiable and measurable.

Notes

The broader picture, however, requires consideration of overall value, not just individual costs. The many advantages of Can-Do, outlined in Section 1.3, above, include more customer-oriented public involvement and early recognition of environmental problems. Such advantages offset additional costs during the early activities by:

- Reducing rework caused by late changes, environmental surprises, and political changes (Less development time means less time for changes to occur in the political arena.)
- Cutting the development time from approximately 11 years to approximately 6 years
- Using a seamless development process from concept to letting
- Providing better and more complete data for consideration at key decision points
- Reducing costs for mitigating environmental consequences
- Winning acceptance for the project
- Incorporating property owner information and concerns into the NEPA document for the project before the start of final design

CHAPTER 2

Can-Do Scheduling

CHAPTER 2
CAN-DO SCHEDULING[1]

Notes

A project development schedule consists of the various essential tasks, or "events," to complete a project. The type of project and its complexity determine which Can-Do events are applicable when developing a schedule.

This chapter is a tool to use in deciding which events to include in the schedule. Rather than presenting an all-inclusive list of events, with the full range of possible variations for different types of Iowa DOT projects, this chapter includes only the basic events needed by a PMT to develop an initial schedule. Specifically, this chapter contains:

- Typical events for Type I Can-Do projects
- A description of each event

Some events are listed only once although they actually may have to occur several times in the development of a project. For example, the number of times the tribal notification event occurs will depend on project-specific findings. This chapter describes only what is essential and what is done for notification, regardless of when or how many times it occurs. For the latest scheduling information, contact the Iowa DOT Engineering Bureau's scheduling engineer.

2.1 EVENT CODES

Table 2-1 lists event codes for scheduling and tracking Can-Do projects. It defines each code and indicates the primary parties affected by and contributing to each event). Milestones are indicated by an asterisk.

Appendix A contains the two development timelines listed below. One pertains to an Environmental Assessment (EA) and possible Finding of No Significant Impact (FONSI), and the other pertains to an Environmental Impact Statement (EIS) and Record of Decision (ROD). Each timeline shows the major events, their durations, and their relationship to the whole.

- Figure A-1, Typical Can-Do Development Schedule for an EA and Possible FONSI
- Figure A-2, Typical Can-Do Development Schedule for an EIS/ROD

[1] This chapter is based on Mike Kennerly et al., *Can-Do Production Schedule Team – Final Report,* June 1999.

Table 2-1. Summary of Event Codes

Event No.	Code	Definition	Affected Parties
1	RANK	Rank Projects	Commission, Office of Location & Environment, District Office, Office of Program Management
2	FPMT	Form Project Management Team (PMT)	District Office, Offices of Location & Environment, Design, Right-of-Way, and Bridges & Structures (as needed), FHWA
3	CNPT	Develop Project Concept	Office of Location & Environment, District Office, Office of Design, PMT
AN (as needed)	PIM1	Hold Public Information Meeting (PIM)	District Office, Office of Location & Environment, PMT
4	INFO	Collect Preliminary Information	District Office, Office of Location & Environment, Office of Right-of-Way, PMT
5	ECOR	Conduct Early Coordination	Office of Location & Environment
5A	SCOP	Conduct Environmental Scoping Process	Office of Location & Environment, PMT
5B	CPTM	Hold First of Four Concurrence Point Meetings with Resource Agencies`	Office of Location & Environment, Office of Design, Office of Bridges & Structures, PMT
6	TDAT	Order Traffic Data Analysis	Office of Systems Planning, District Office, PMT, Office of Location & Environment
7	FLY1	Order Aerial Photography	Office of Location & Environment, District Office, PMT
8	EACE	Prepare Environmental Document (EA or Categorical Exclusion [CE])	Office of Location & Environment
ALT 8	DEIS	Prepare Draft Environmental Impact Statement (DEIS)	Office of Location & Environment
8A*	SIGN	Sign EA/DEIS	Office of Location & Environment
9	FLY2	Generate and Review Aerial Photography	Office of Design, Office of Location & Environment, PMT, District Office
10	T&ES	Investigate Threatened and Endangered (T&E) Species	Office of Location & Environment
11 (A, B, C, D)	HS&A	Perform Historic and Archaeological Work	Office of Location & Environment
12	REG1	Perform Initial Review of Regulated Materials	Office of Location & Environment
13	WTL1	Conduct Fieldwork for Section 404 Permit Application	Office of Location & Environment
AN	PIM2	Hold Public Information Meeting	District Office, Office of Location & Environment, Office of Right-of-Way, PMT

Notes

Table 2-1. Summary of Event Codes

Event No.	Code	Definition	Affected Parties
14	PDTM	Create Preliminary Digital Terrain Model (DTM)	Office of Design, District Office, Office of Location & Environment, PMT
15	GEO1	Perform Preliminary Geotechnical Review	Office of Design
16	SURV	Conduct Land Surveys for Property Acquisition	Office of Design, District Office
17	ALTS	Develop Alternatives	Office of Location & Environment, District Office, Office of Design, PMT
18	REG2	Perform Field Investigation for Regulated Materials	Office of Location & Environment
19	WTL2	Prepare Section 404 Permit Application	Office of Location & Environment
19A*	WTL3	Submit Section 404 Permit Application	Office of Location & Environment
20	UMTG	Hold Utility Coordination Meetings	District Office, Support Services Bureau, PMT
21	RMTG	Hold Railroad Coordination Meetings	District Office, Office of Rail Transportation, PMT
22	RWRL	Prepare Right-of-Way (ROW) Inventory and Relocation Plan	Office of Right-of-Way, Office of Location & Environment
23	CNVE	Conduct Concept Value Engineering (VE) Study	District Office, PMT
24	LOC1	Determine Preliminary Access Locations	Office of Traffic & Safety, District Office, Office of Design, Office of Location & Environment, PMT
25	PTSL	Develop Preliminary Type, Size and Location (TS&L) Structure Information	Office of Bridges & Structures, PMT
AN	PIM3	Hold Public Information Meeting	District Office, Office of Location & Environment, Office of Design, PMT
26	PCUL	Determine Preliminary Culvert Locations	Office of Bridges & Structures
27	FDTM	Develop Final Digital Terrain Model	Office of Design, District Office, Office of Location & Environment, PMT
28	HEAR	Conduct Public Hearing	Office of Location & Environment, District Office, Office of Design, Office of Right-of-Way, PMT
29	FEIS	Prepare Final Environmental Impact Statement (FEIS)	Office of Location & Environment
30	PJRV	Conduct Project Review	District Office, Office of Location & Environment, Office of Design, PMT
31	PDES	Complete Preliminary Design	Office of Design, Office of Location & Environment

Notes

Table 2-1. Summary of Event Codes

Event No.	Code	Definition	Affected Parties
32	FONS	Prepare FONSI	Office of Location & Environment
ALT 32	PROD	Prepare ROD	Office of Location & Environment
33	CMSP	Obtain Commission Support for the Project	District Office, Office of Location & Environment, Office of Design
34*	DFEX	Conduct Design Field Examination	Office of Design, District Office, Office of Maintenance, PMT
35	DNVE	Perform Design Value Engineering	District Office, Office of Design, PMT
36	GEO2	Perform Geotechnical ROW Evaluation	Office of Design
37*	PLBG	Submit Plans to Office of Bridges & Structures	Office of Design
38	RWEV	Acquire ROW for Environmental Work	Office of Right-of-Way, Office of Location & Environment, Office of Design, District Office
39*	WTL4	Receive Approved Section 404 Permit	Office of Location & Environment
40	FTSL	Develop Final TS&L and Culvert Layout	Office of Bridges & Structures
41	LOC2	Determine Final Access Locations	Office of Traffic & Safety, District Office, Office of Design, PMT
42*	PLRW	Submit Plans to Office of Right-of-Way	Office of Design, District Office, PMT
43	RWDS	Perform ROW Design and Layout	Office of Right-of-Way
44*	RWPS	Submit ROW Plot Plans and Summary Sheets	Office of Right-of-Way
45	PLAT	Complete Certified ROW Plats and Legal Descriptions	Office of Right-of-Way, District Office
46	REG3	Conduct Final Review of Regulated Materials	Office of Location & Environment
AN	PIM4	Hold Public Information Meeting	District Office, Office of Location & Environment, Office of Design, PMT
47	RWFE	Perform ROW Field Examination	Office of Right-of-Way, District Office, PMT
48	CPKG	Recommend Contract Packaging	Office of Contracts, District Office, Office of Design, PMT
49	MITG	Conduct Historic/Phase III Archaeological Mitigation	Office of Location & Environment, FHWA
50	FDES	Develop Final Road Design	Office of Design
51	RWAP	Conduct ROW Appraisal	Office of Right-of-Way
52	RWAC	Perform ROW Negotiation and Secure Acquisition Contract	Office of Right-of-Way
53	RWLC	Complete ROW Relocations	Office of Right-of-Way
54	FBRG	Perform Final Bridge Design	Office of Bridges & Structures

* Milestone Event

Notes

Table 2-1. Summary of Event Codes

Event No.	Code	Definition	Affected Parties
55	RWTC	Complete ROW Title Transfers and Closing	Office of Right-of-Way
56	GEO3	Perform Final Geotechnical Design	Office of Design
57	RWCN	Complete ROW Condemnation	Office of Right-of-Way
58*	FPLN	Submit Final Plans	Office of Design and/or Office of Bridges & Structures, Office of Contracts
59	LETT	Let Project	Office of Contracts

Note:
* *Milestone event.*

Notes

2.2 DESCRIPTION OF EVENT CODES

2.2.1 Event No. 1: RANK

Definition of Code — Rank Projects

Action — Prioritize Type I planning study projects to determine which projects should be active and to authorize expenditure of funds on approved projects.

Purpose — To prioritize projects so that development efforts are expended on projects likely to be funded.

Needs — In order to describe the project to decision makers:

- A list of current planning studies in the program
- An overall project concept (with typical cross sections, access control, bypasses, and route continuity) based on the Office of Systems Planning's long-range plans

Output

- A list of planning study projects, with priorities assigned
- A filed request for services for aerial photography in the following year (typically completed in the fall preceding the year the photography is needed)

Affected Parties — Commission, Office of Location & Environment – Corridor Development, DE, Planning & Programming Division – Office of Program Management

2.2.2 Event No. 2: FPMT

Definition of Code — Form Project Management Team (PMT)

Action

- Form a PMT for each Type I and Type II project that is likely to require an environmental document.
- Provide the list of PMT members to the Engineering Bureau's scheduling engineer for tracking.

Action (cont'd)	Note: PMT membership typically includes representatives of the District; Offices of Design, Bridges & Structures, Right-of-Way, and Location & Environment; FHWA; and other internal and external resources as needed (see Chapter 1, Introduction to Can-Do).
Purpose	• To provide guidance and continuity as the project develops through the planning, design, and construction phases. • To improve customer service and public involvement. • To add accountability and project support from concept to letting.
Needs	• Project ranking • General project concept listing in the Transportation Improvement Program/State Transportation Improvement Program (TIP/STIP)
Output	Ongoing guidance for the project by the PMT, which is responsible for setting and maintaining the project schedule and identifying project resource requirements. All members act as a liaison to their offices and areas of specialty.
Affected Parties	District Office, Offices of Location & Environment, Design, Right-of-Way, and Bridges & Structures (as needed), FHWA

2.2.3 Event No. 3: CNPT

Definition of Code	Develop Project Concept
Action	• Identify potential alternatives that meet the overall project concept, as defined in Event No. 1, RANK – Rank Projects. • Validate or draft a project purpose and need statement.
Purpose	To identify project corridors and location alternatives that meet the project purpose and need. (The environmental reviews are initiated on the identified corridors.)
Needs	• High-flight aerial photography • U.S. Geographical Survey (USGS) topographic quadrangle (quad) maps • Traffic estimates • As-built plans • Known environmental concerns derived from Geographic Information Systems (GIS) databases • Long-range plans from the Office of Systems Planning • A defined project purpose and need • Bridge data • Sufficiency ratings • Accident data • Property ownership information • Project ranking from the planning study grouping from the 5-year program

Notes

Output	Identification of all viable corridors with potential alignments, with sufficient detail for ordering digital terrain models (DTMs) and aerial photography
Affected Parties	Office of Location & Environment – Corridor Development, District Office, Office of Design, PMT

2.2.4 Event AN (as needed): PIM1

Definition of Code	Hold Public Information Meeting (previously Event P9) Note: PIMs occur at several points during the development process.
Action	Hold the first meeting early in the process to gather and disseminate information.
Purpose	• To inform the public of possible highway projects. • To collect the public's input regarding the project purpose and need as well as perceived transportation needs. • To solicit the public's input in identifying highway corridor issues that could limit or restrict alternatives.
Needs	For the initial PIM: • Corridor limits • Project purpose and need statement • Aerial photography • Public contact information from Office of Right-of-Way, Office of Design, and District Office
Output	Increased public awareness and involvement in the project development process
Affected Parties	District Office, Office of Location & Environment, PMT

2.2.5 Event No. 4: INFO

Definition of Code	Collect Preliminary Information
Action	Begin to collect relevant and available project data about existing ROW, property owners and addresses, tenant addresses, businesses, preliminary property plats, etc., within the corridor(s) being studied. Note: This effort begins the process of making dynamic (continually refined) project information readily available on-line and minimizes collection of the same data by different offices. Each office is responsible for adding information or making changes, as circumstances warrant, until the preliminary database is complete.

Notes

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Purpose	• To consolidate the information-gathering efforts of various District Offices. • To gain general early information about affected property owners. • To create a Corridor Property Ownership database with information each office can use for contacts. • To provide data for use by (1) internal customers (within Iowa DOT) as a resource for identifying contacts and increasing public awareness and involvement in the project development process and (2) external customers (Iowa DOT consultants) as a source of contacts to gain right of entry or to do data searches for various outsourced tasks.
Needs	• Corridor alignments • Project limits • Courthouse information on property owners • Sidwell maps
Output	Oracle database on the local area network (LAN) or DOTNET applications (for use in Event No. 13, WTL1 – Conduct Fieldwork for Section 404 Permit Application, and Event No. 22, RWRL – Prepare ROW Inventory and Relocation Plan) Note: This Corridor Property Ownership database should contain businesses, utilities, property owners and/or tenant names, addresses, phone numbers, property descriptions, etc. It could also include or link to preliminary CADD or GIS files that have identified property boundaries, known utilities, public parks, etc.
Affected Parties	District Office, Office of Location & Environment, Office of Right-of-Way, PMT

2.2.6 Event No. 5: ECOR

Definition of Code	Conduct Early Coordination
Action	Prepare an early coordination packet and send it to all resource agencies and Native American tribes with interest in Iowa. Note: Early coordination is required for both EA- and EIS-level projects.
Purpose	• To provide resource agencies and Native American tribes with a very basic project concept, project location information, and elementary purpose and need statement. • To ask for known problems, concerns, and/or specific issues Iowa DOT should be aware of as alternatives and options are developed.

Notes

Purpose (cont'd)	• To determine agency interest in becoming a cooperative agency.[2] • To meet the Iowa Intergovernmental Review requirements.
Needs	• Basic project concept and/or problem statement • Aerial photography (at least a high-flight) • Quad maps of the project area • Traffic estimates • Accident data • Cover letter signed by the Office of Location & Environment director
Output	• List of problems, concerns, and areas of special interest to the resource agencies and/or Native American tribes • GIS project map incorporating available GIS data, project base information, and other data received from the resource agencies and/or Native American tribes • Preliminary environmental work plan developed from agency comments
Affected Parties	Office of Location & Environment

2.2.7 Event No. 5A: SCOP

Definition of Code	Conduct Environmental Scoping Process[3]
Action	Conduct a meeting with environmental resource agencies and local jurisdictional representatives who wish to attend. Note: Environmental scoping is required for all EIS-level projects and is optional for EAs.
Purpose	• To establish a dialogue with the stakeholders. • To provide the stakeholders with basic project information, including a project purpose and need statement. • To determine any known concerns that could influence the alignment alternatives. • To reach consensus as to the project purpose and need, acceptability of the proposed study alternatives, and scope of environmental evaluation.
Needs	• Published Notice of Intent (NOI) (for an EIS only) • High-flight aerial photography • Quad maps • Traffic estimates • As-built plans • Known environmental concerns from GIS databases • Long-range plans from the Office of Systems Planning • Purpose and need statement

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2 Defined in 23 Code of Federal Regulations (C.F.R.) 771.109
3 40 C.F.R. 1501.7.

Needs (cont'd)	• Bridge data • Sufficiency ratings • Accident data • Property ownership information • Project ranking from the Planning & Programming Division
Output	• Identification of key study issues and viable corridors with potential alignments (Detail must be sufficient to allow the project location to be described, potential impacts to be analyzed, potential interchanges to be identified, a typical template to be developed, and the level of access control to be proposed.) • Resource agency consensus on the project purpose and need
Affected Parties	Office of Location & Environment – Document Writer or NEPA Coordinator

2.2.8 Event No. 5B: CPTM

Definition of Code	Hold First of Four Concurrence Point[4] Meetings with Resource Agencies Note: The four concurrence point meetings are: • 1 – Purpose and Need • 2 – Alternatives to Be Analyzed • 3 – Alternatives to Be Carried Forward • 4 – Preferred Alternative
Action	• Hold the first concurrence point meeting with the resource agencies to discuss the review data provided to them with the goal of reaching concurrence. Schedule the meeting after Iowa DOT has prepared a final draft of the purpose and need statement for review, conducted the first PIM, and completed environmental scoping. • Schedule the next three concurrence point meetings as discussed in Chapter 7, Statewide Implementation Agreement, and Appendix C, Environmental Concurrence Meetings, and as shown in the Typical Can/Do Development Schedules in Appendix A. Concurrence points 1 and 2 often can be combined.
Purpose	• To encourage early substantive participation by the resource agencies in the development process. • To ensure that information provided and data collected to that point in time are adequate to reach agreement that the project can be advanced to the next step.

Notes

[4] A *concurrence point* is a point within the NEPA process where the transportation agency requests agency concurrence (meaning confirmation by the agency that information to date is adequate to agree that the project can be advanced to the next stage of project development).

Purpose (cont'd)	• To develop a task list of concerns and additional work needed to reach agreement, should the project not advance. • To identify and address agency concerns throughout the project development process. • To satisfy the requirements for sequential mitigation (avoidance, minimization, and development of compensatory mitigation).
Needs	Typical needs (although concurrence points 1 – 4 differ in this respect): • Aerial photography • Quad maps • Purpose and need statement • Alternatives being developed • Property ownership • Field data and studies (See Appendix C, Environmental Concurrence Meetings.)
Output	The resource agencies' concurrence that Iowa DOT is properly considering and addressing any potential natural resource impacts relating to the project's development in balance with social and economic impacts.
Affected Parties	Office of Location & Environment, PMT, Office of Design, Office of Bridges & Structures

2.2.9 Event No. 6: TDAT

Definition of Code	Order Traffic Data Analysis
Action	Order an analysis of the traffic data for the corridor improvement project, including: • Projected average daily traffic (ADT) for the design year and beyond for both the mainline and intersecting roads • An analysis of turning movements for intersecting roads and other designated locations, with a breakdown showing the percentage of trucks and directional traffic flow effects
Purpose	To use in the development of alternatives and design requirements and in the environmental document.
Needs	• A map of the project corridor • Targeted design year • Locations requiring turning movement analyses • Project description, including the type of work • Purpose and need statement
Output	Traffic projections and turning movement analysis
Affected Parties	Office of Systems Planning, District Office, Office of Location & Environment – Corridor Development, PMT

Notes

2.2.10 Event No. 7: FLY1

Definition of Code	Order Aerial Photography
Action	Order low-level aerial photography suitable for the production of design-quality DTMs Note: Requests for aerial photography are processed in the late fall of the year prior to actual flights. All requests for spring aerial photography must be completed and approved by January, at the latest, to be included in the spring work plan.
Purpose	To use in the development of the DTM, public meeting displays, planning and design studies, and environmental investigations.
Needs	Corridor alignments or study areas
Output	A formal request, along with appropriate corridor limits, processed through the Office of Design – Photogrammetry Section for inclusion of the project in the spring flights. Note: For early, less precise work, this task could also include ordering satellite imagery.
Affected Parties	Office of Location & Environment – Corridor Development, District Office, PMT

2.2.11 Event No. 8: EACE

Definition of Code	Prepare Environmental Document (Environmental Assessment or Categorical Exclusion)
Action	Prepare a document that describes and evaluates the expected social, economic, and environmental impacts of all alternatives proposed for a highway project. • Prepare an EA when the expected environmental impacts of a project are not immediately evident. • Prepare a CE when an action, individually or cumulatively, does not have a significant effect on the human environment and does not require an EA or an EIS. Note: The Office of Location & Environment, in coordination with the FHWA division office, determines the type of environmental documentation.
Purpose	To enable Iowa DOT and FHWA to determine which of the following applies: • The project is not expected to result in any significant social, economic, or environmental impacts. In this case, a FONSI is prepared and processed, upon which the project may proceed.

Notes

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Purpose (cont'd)	• The project is expected to result in significant impacts or to be controversial on environmental grounds, in which case the EA is expanded into a full EIS (see Event No. Alt 8, DEIS) and processed in accordance with NEPA and FHWA regulations.
Needs	Relevant data, including: • Maps or aerial photos with delineated project corridors • Property owner information • Brief description of the project purpose and need and general concept • Alignments being considered, including proposed interchange locations • Current and targeted design year traffic estimates • Results of preliminary surveys for regulated (hazardous) materials • Protected plant and animal species • Full historical survey and Phase I archaeological survey • Results of the environmental scoping process • Data from preliminary PIMs • Wetland delineations • Preliminary estimates of residential and business displacements Note: Some of this information will already be available, and some will become available from early coordination contacts and requests for input initiated by the writer.
Output	• CE for a proposed action that, individually or cumulatively, does not have a significant effect on the human environment and does not require an EA or an environmental impact statement (EIS), or • Preliminary draft EA for FHWA review (optional), or • EA for submittal to FHWA (see Event No. 8A, SIGN – Sign EA/DEIS)
Affected Parties	Office of Location & Environment – NEPA Section, FHWA

2.2.12 Event No. ALT 8: DEIS

Definition of Code	Prepare Draft Environmental Impact Statement
Action	Draft a comprehensive, full-disclosure document that, in accordance with NEPA and FHWA regulations, fully describes each of the proposed alternatives, including anticipated individual and cumulative impacts on the environment. Note: An EIS is prepared when Iowa DOT and FHWA have determined, either at the onset of planning or upon preparation and review of an EA, that the project is likely to result in a major federal action significantly affecting the quality of the human and natural environment or is likely to be highly controversial.

Action (cont'd)	If an EIS is to be prepared, an NOI to that effect is published in the *Federal Register.*
Purpose	• To communicate Iowa DOT's and FHWA's findings with regard to expected environmental impacts and mitigation commitments to resource agencies and the public. • To serve as a tool for decision making and documentation of environmental commitments.
Needs	• Maps or aerial photos with delineated project corridors • Property owner information • A brief narrative describing the project purpose and need and general concept • Alignments being considered, including proposed interchange locations • Current and targeted design year traffic estimates • Results of preliminary surveys for regulated (hazardous) materials, protected plant and animal species, full historical survey, and Phase I archaeological survey • Results of the environmental scoping process • Information from preliminary PIMs • Wetland delineations • Preliminary estimates of residential and business displacements • Other, similar relevant data is also needed Note: Some of this information will already be available, and some will become available from early coordination contacts and requests for input initiated by the writer.
Output	A completed DEIS for signing by FHWA (see Event No. 8A, SIGN – Sign EA/EIS) and circulation for review by the appropriate agencies and others who request a copy. Note: An additional step, in which a preliminary DEIS is produced for FHWA to review and FHWA's comments are incorporated into the DEIS, may be required.
Affected Parties	Office of Location & Environment – NEPA Section, FHWA

2.2.13 Event No. 8A*: SIGN

Definition of Code	Sign Environmental Assessment/Draft Environmental Impact Statement
Action	Secure FHWA's signature on the completed EA or DEIS
Purpose	• To provide a milestone event marking the signing of the EA or DEIS by FHWA.
Needs	The completed EA or DEIS

Notes

Output	The EA or DEIS, signed by FHWA and made available to appropriate agencies and the public for review Note: Events No. 8 and No. ALT 8 are considered complete only when the EA/DEIS has been signed by FHWA and can be distributed for review and comment.
Affected Parties	Office of Location & Environment – NEPA Section, FHWA

2.2.14 Event No. 9: FLY2

Definition of Code	Generate and Review Aerial Photography
Action	Provide aerial photography for the project corridor(s).
Purpose	To generate the aerial photography needed to create a DTM and orthogonally corrected digital imagery. There are opportunities to use satellite imagery for some needs and applications that require less precision.
Needs	Description of the project corridor(s), including: • Alignment alternatives • Desired height of photography • Accuracy level for the DTM • Width of the project corridor(s)
Output	Aerial photography of the project corridor suitable for use in creating a DTM or base record for GIS and other spatially referenced applications Note: This is a seasonal activity, usually performed by a vendor in the spring. Spring flights provide the best opportunity to view the terrain unobscured by vegetation or distorted by snow.
Affected Parties	Office of Design – Photogrammetry & Preliminary Survey Section, Office of Location & Environment – Corridor Development, PMT, District Office

2.2.15 Event No. 10: T&ES

Definition of Code	Investigate Threatened and Endangered (T&E) Species
Action	Conduct a field study and prepare a written report to establish the presence, or likely absence, of any State- or federally listed protected plant or animal species. Note: Conduct the field studies only when evidence exists that suitable habitat may be present or when a protected species is known to inhabit the area.
Purpose	• To locate and identify any State- or federally protected plant or animal species, or its habitat, within each alternative project corridor that may be affected by construction. • To allow full consideration of protected natural resources when evaluating alternatives.

Notes

Needs	• Maps or aerial photos with delineated alternative project corridors • Property owner information within the corridors • GIS survey maps of known locations from resource agencies • Data from environmental scoping process • Coordination with local, State, or federal resource agencies
Output	• A habitat or species survey report for review and comment by the resource agencies, and for inclusion of pertinent data in the environmental document (EA or EIS) • A summary letter and comments from reviewing resource agencies for inclusion in the environmental document (EA or EIS)
Affected Parties	Office of Location & Environment – T&E Section

Notes

2.2.16 Event No. 11: HS&A

Definition of Code	Perform Historic and Archaeological Work (includes Events No. 11A, 11B, 11C, and 11D)

2.2.16.1 Event No. 11A: HS&A

Definition of Code	Perform Historical Survey (concurrent with Events No. 11B, 11C, and 11D)
Action	• *Reconnaissance Survey* – Conduct an archival records/literature search, perform a preliminary exterior visual examination, conduct local area interviews, and possibly prepare a preliminary report. • *Full Survey* – For all alternative project corridors, conduct a more in-depth review of historic structures or other property identified during the reconnaissance survey. Include a detailed study of early maps, literature search, ownership records, and other sources to gather sufficient evidence about the property. Submit a written report to the Iowa State Historic Preservation Office (SHPO) for review and determination of eligibility for the National Register of Historic Places (NRHP).
Purpose	To locate, identify, study, and evaluate any standing structures that have the potential to qualify for listing on the NRHP or any items of cultural significance. Typical candidates are over 50 years old and have distinctive characteristics of type, period, method of construction, or associations with a person or event significant to local, State, or national history.

Purpose (cont'd)	Note: All planning and design activities require thorough and adequate consideration of the avoidance of historically or culturally significant properties unless there is no reasonable or practical alternative. The "no reasonable or prudent alternative" clause of Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended, applies to publicly owned parkland as well as to historic sites.
Needs	If the reconnaissance survey is complete: • Field notes and other information gleaned from the reconnaissance survey. • Property owners' permission to access the site, including permission to enter buildings to examine, photograph, and measure their interiors If the reconnaissance survey is not yet complete: • Maps and GIS data • Aerial photos with alternative corridors delineated • Property owner information within the corridors • Owner or tenant permission to access the property • Survey data and/or benchmarks for global positioning system (GPS) field data logging
Output	A letter of comment from the SHPO staff historian, based on the written report(s) on the reconnaissance or full surveys, which: • Agrees that no historic or architectural properties would be affected by the project; • Requests that Iowa DOT provide additional information before a determination can be made; or • Concurs with the recommendation that one or more historic properties identified during the full survey appear to be eligible for the NRHP. Note: Receipt of the letter of comment from SHPO marks completion of Event No. 11A. Information from these surveys and documented evidence of Iowa DOT avoidance studies are included in the environmental document (EA or EIS).
Affected Parties	Office of Location & Environment – Cultural Resource Section

Notes

2.2.16.2 Event No. 11B: HS&A

Notes

Definition of Code: Perform Archaeological Survey (concurrent with Event No. 11A)

Action:

- *Phase I Survey* – Conduct a records or literature search and local area interviews, a preliminary walk-over survey of the ground surface, and subsurface probing. Gather geomorphological information on potential buried pre-historic sites for development of an archaeological report to submit to SHPO. Include SHPO comments received on one or more proposed project alternative corridors.
- *Phase IA Survey* – Characterize the project area by conducting generally extensive background research of known or potential resources, with very limited, if any, field investigations.
- *Phase II Survey (as necessary)* – Conduct an intensive subsurface investigation of the archaeological site(s) identified during the Phase I and Phase IA surveys. Use soil probes and augers, post holes, hand-excavated test units, or other appropriate excavation equipment to gather sufficient evidence about the site to (1) establish its horizontal and vertical boundaries and (2) allow a determination by Iowa DOT/FHWA and concurrence by SHPO as to the site's eligibility for the NRHP. Normally, prepare a data recovery plan to be approved by SHPO if the site is found to be eligible.

Purpose:

- *Phase I Survey* – To identify previously unrecorded archaeological sites and relocate previously recorded sites; to assess surface and subsurface effects in the area of potential effect (APE); to determine the number, location, condition, types, and distribution of properties; to allow classification of the properties; and to record the physical extent of specific properties.
- *Phase IA Survey* –To establish estimates of the numbers and types of resources known to be in the project area; to document previous work in the project area; to help interpret what was found in the context of what was previously known; and potentially to use for administrative, planning, or management purposes.
- *Phase II Survey* – To establish horizontal and vertical boundaries and to generate sufficient data to allow a determination by Iowa DOT/FHWA and concurrence by SHPO as to eligibility of the site for the NRHP.

Note: Sites eligible for listing in the NRHP must be avoided by the project, or the impacts mitigated by means of a SHPO-approved data recovery plan.

Needs	• *Phase I Survey* – Maps and GIS data, aerial photos with alternative corridors delineated, property owner information within the corridors, owner or tenant permission to access the property, and survey data or benchmarks for GPS field data logging. • *Phase IA Survey* – Existing records such as State archaeological files, old atlases and plat books, and other sources. • *Phase II Survey* – Maps or aerial photos with alternative corridors delineated, information on property owners within the corridors, owner or tenant permission to access the property, staked ROW limits near the sites, survey data or benchmarks for GPS field data logging, and permission to conduct shovel-tests, test pits, or trench transections.
Output	• *Phase I Survey* – A letter of comment from the SHPO staff archaeologist, based on the Phase I written report, that either (1) agrees that no significant archaeological sites would be affected by the project, (2) requests that Iowa DOT provide additional information before a determination can be made, or (3) concurs with the Iowa DOT/FHWA recommendation that one or more sites identified during the Phase I survey appear to be significant and should be subjected to Phase II testing to establish significance and boundaries. Receipt of the SHPO letter of comment marks completion of the event. • *Phase IA Survey* – An overview of the existing resources by which to develop a baseline. • *Phase II Survey* – A letter of comment from the SHPO staff archaeologist, based on the written report, that either (1) concurs with the Iowa DOT/FHWA recommendation on eligibility or (2) requests additional information to reach a concurrence determination. Receipt of the SHPO's letter of comment marks completion of the event. Note: Information from these surveys is included in the environmental document.
Affected Parties	Office of Location & Environment – Cultural Resource Section

Notes

2.2.16.3 Event No. 11C: HS&A

Definition of Code	Notify Tribes Note: This event is triggered by a finding, or potential to find, prehistoric sites of importance or human remains.
Action	Identify and notify American Indian tribes that might have traditional cultural properties (TCPs) located within a project impact and taking area.
Purpose	• To search the National Park Service's Native American Consultation Database (NACD) and consult the SHPO list to identify which of the over 20 American Indian tribes that formerly lived in Iowa may have concerns in the project area. This involves drafting a letter and providing documentation about the project's impact area, known prehistoric archaeological sites, and possible TCPs or prehistoric burials in the project area for FHWA to send to the identified tribes. • To address any comments and concerns in letters returned by the tribes. This could involve providing more information; including the tribes in consultations; providing signatures to a memorandum of agreement (MOA) for affected archaeological sites; and coordinating a visit to significant archaeological sites affected by the project.
Needs	• Tribal list from NACD and SHPO • Project corridor maps • Archaeological information from Phase I and/or Phase II fieldwork
Output	• Letters from FHWA (drafted by Iowa DOT) to the identified tribes • Comment letters from interested tribes to express that they (1) have no concerns or are satisfied with Iowa DOT's actions to address any possible concerns or (2) have concerns and wish to be consulted further in some manner
Affected Parties	Office of Location & Environment – Cultural Resource Section, FHWA

Notes

Notes

2.2.16.4 Event No. 11D: HS&A

Definition of Code	Sign MOA
Action	Secure signatures from FHWA, SHPO, and those who have responsibilities under the MOA. Note: This event should occur whenever a project would have an adverse effect on an NRHP-eligible archaeological site or historic property.
Purpose	To record an agreement reached by FHWA, SHPO, and any consulting parties for the treatment of significant historic properties or archaeological sites to be adversely affected by project construction. The treatment could be protection or preservation measures, additional studies, data recovery, recordation or publications, or an agreement that loss of the resource is an acceptable cost of the proposed project.
Needs	• Consultation with FHWA, SHPO, and parties with an interest in the historic property • Provision to the Advisory Council on Historic Preservation of documentation of studies and findings leading to the agreement
Output	Signed MOA that records an agreement for resolution of adverse effects and allows data recovery, recordation, or other mitigation measures to proceed
Affected Parties	Office of Location & Environment – Cultural Section, FHWA

2.2.17 Event No. 12: REG1

Definition of Code	Perform Initial Review of Regulated Materials
Action	Initiate the preliminary assessment of properties that are or may be contaminated by regulated materials. This noninvasive assessment consists of a database search, visual survey, and interviews.
Purpose	• To identify properties that are or may be contaminated. • Based on this preliminary review, to notify the Office of Design, Corridor Development, Office of Right-of-Way, and District Office about properties to avoid. Note: If avoidance is not possible, the Office of Location & Environment conducts more in-depth assessments (see Event No. 18, REG2 – Perform Field Investigation for Regulated Materials) to determine whether existing conditions present a potential liability for Iowa DOT, to determine whether avoidance is possible, or to develop an acquisitions strategy.

Needs	• Maps or aerial photos with delineated alternative corridors • Property owner information • Parcel numbers • Legal descriptions of affected property within the corridors
Output	Summary memo and/or consultant's report that describes the results of the assessment and presents recommendations to the Office of Design, Corridor Development, Office of Right-of-Way, and District Office (All information is included in the environmental document.)
Affected Parties	Office of Location & Environment – Regulated Materials Section

2.2.18 Event No. 13: WTL1

Definition of Code	Conduct Fieldwork for Section 404 Permit Application
Action	Review and delineate all corridors for potential impacts on wetlands and waters of the U.S.
Purpose	To identify areas with potential wetland impacts. Note: Highway designers and Corridor Development use this information to avoid impacts, when feasible, when laying out alignments. The Office of Design documents efforts to avoid wetland impacts. If avoidance is not possible, documentation is needed for minimization efforts.
Needs	• Corridor boundaries marked on an aerial photograph • Purpose and need statement • Potential borrow sites • Corridor Property Ownership database (created in Event No. 4, INFO – Collect Preliminary Information) • Access to private property within the corridors • Regional GIS information from resource agencies • Natural Resources Conservation Service (NRCS) soil maps • Information from environmental scoping process • Data from PIMs
Output	Maps of alternative corridors with wetland boundaries marked and wetland determinations with some qualitative analysis (field truthing) (All information is included in the environmental document.)
Affected Parties	Office of Location & Environment – Wetlands Section

Notes

2.2.19 Event AN: PIM2

Definition of Code	Hold Public Information Meeting (previously Event P9)
Action	Hold an informal public forum to: • Discuss issues. • Collect input relative to the project purpose and need as well as transportation needs perceived by the public. • Identify problems/issues in the project corridor. Note: PIMs occur at several points during the development process.
Purpose	To disseminate, gather, and exchange information on possible highway projects.
Needs	• Corridor limits • Purpose and need statement • Aerial photos
Output	Increased public awareness and involvement in the project development process (All information is included in the environmental document.)
Affected Parties	District Office, Office of Location & Environment, Office of Design, PMT

2.2.20 Event No. 14: PDTM

Definition of Code	Create Preliminary Digital Terrain Model (DTM) Note: The preliminary DTM is a three-dimensional ground model generated from aerial photography. A preliminary DTM typically has a 1-meter contour interval for vertical control and is sufficient for corridor development.
Action	• Complete the fieldwork necessary for establishing project photo control. Information to gather includes GPS control network, major utility locations (gas), densification of GPS control, bench level run, establishment of as-built alignment, and photo control. • Review aerial coverage
Purpose	To provide terrain information for corridor analysis.
Needs	• Aerial photography • Corridor limits
Output	• Project control • Microstation planimetric file • Digital orthography
Affected Parties	Office of Design – Photogrammetry & Preliminary Survey Section, District Office, Office of Location & Environment – Corridor Development, PMT

Notes

2.2.21 Event No. 15: GEO1

Notes

Definition of Code	Perform Preliminary Geotechnical Review (previously Event S1)
Actions	• Review corridor/plans for any grade or alignment changes necessitated by soils design considerations. • Identify multiple potential borrow sites.
Purpose	• To allow soils design constraints to be incorporated into selection of the preferred alignment. • To allow survey coverage and all clearances[5] (archaeological, environmental, etc.) to start on potential borrow sites. Note: Hydric soil and potential wetland impacts are handled by Office of Location & Environment and are not a GEO1 function.
Needs	• Any available EA/EIS-type information • Proposed corridor limits • Documentation on the type of project • Aerial photo layout • Topographic maps • Grade and alignment proposals • General estimate of borrow need and distribution • Any other available and pertinent information • Anticipated or known project breaks (termini)
Output	• Documentation (a letter with attached plan sheets, air photos, etc.) of any horizontal or vertical restrictions or alignment areas to avoid for geotechnical reasons • Outlines/limits of all GEO1 potential borrow sites, with discussion as necessary and appropriate
Affected Parties	Office of Design – Soils Design Section

2.2.22 Event No. 16: SURV

Definition of Code	Conduct Land Surveys for Property Acquisition (previously Event T1)
Action	• Locate or establish all property lines, section lines, existing road centerlines, and rights-of-way. • Enter this information into GEO-PAK and Microstation. • Create an ASCII or GPK file for use by the Offices of Design and Right-of-Way – Design Section.

[5] In the context of environmental investigations of a corridor, *to clear* means to survey in order to ensure that there are no encumbrances from an environmental standpoint.

Notes

Purpose	• To locate, by analysis of the evidence and professional judgment, the exact location of all legal land lines and lines of occupation. • To provide this information for use by the Office of Design, Office of Right-of-Way – Design Section, and district land surveyor.
Needs	• GPS control coordinates and monument locations • Aerial photographs • Proposed road corridor • Land owner records • Report of liens • County and city records • Section corner reference ties • Existing road as-built drawings • Subdivision plats • Recorded surveys • Original government surveys • Original road establishment records • Permission to enter the properties • Fixed date of completion
Output	• A layer produced in CADD, with all lines shown graphically • An electronic file in ASCII or GPK form • Certified Public Section Corner Certificates produced and recorded on all section corners to be used for the legal descriptions
Affected Parties	Office of Design, district land surveyor

2.2.23 Event No. 17: ALTS

Definition of Code	Develop Alternatives
Action	Through Corridor Development (for Type I and some Type II projects) or the Office of Design (for some Type II projects), refine alternatives identified in Event No. 3, CNPT – Develop Project Concept. Use GEO-PAK road design software to define the alternatives in CADD.
Purpose	• To lay out project concepts electronically and transfer the data to the design phase using CADD. • To improve the identification of project impacts. • To respond to project impacts during the planning phase to reduce concept changes during the design phase.
Needs	• Corridor alignments • DTM • Results of environmental scoping meeting(s) • Results of fieldwork or data collection work • Results of preliminary soils work • Results of public involvement during Event No. 3, CNPT

Output	• Horizontal and vertical alignments • Typical cross section • Approximate construction need lines • Location of interchanges and intersections • Planning-level cost estimates • Identification of ROW impacts • Preliminary predetermined access (PDA) locations
Affected Parties	Office of Location & Environment – Corridor Development, District Office, Office of Design, PMT

2.2.24 Event No. 18: REG2

Definition of Code	Perform Field Investigation for Regulated Materials
Action	• Through the Office of Location & Environment, initiate invasive fieldwork at properties that are, or may be, contaminated by regulated materials and appear to be unavoidable. • Using consultant services, collect and analyze environmental samples to establish what contaminants are present and the extent and seriousness of the contamination. Note: The fieldwork may progress through multiple iterations. In some cases, additional fieldwork is conducted in coordination with the ROW layout.
Purpose	• To verify which properties are contaminated, by what contaminants, and the extent and seriousness of the contamination. • To share this information with the Office of Design, Corridor Development, Office of Right-of-Way, and District Office as the alternatives are finalized and preliminary design begins.
Needs	• Results of Event No. 12, REG1 – Perform Initial Review of Regulated Materials • Timely updates from the Office of Design, Corridor Development, and Office of Right-of-Way regarding the project alignment and needs
Output	• Consultant reports documenting the field investigation results, submitted to the Office of Location & Environment • A summary letter (with or without reports), provided to the Office of Design, Corridor Development, Office of Right-of-Way, and District Office
Affected Parties	Office of Location & Environment – Regulated Materials Section

Notes

2.2.25 Event No. 19: WTL2

Notes

Definition of Code	Prepare Section 404 Permit Application
Action	Provide written documentation and GIS maps for use in preparing the environmental document and the Section 404 permit application.
Purpose	• To provide environmental document writers with the technical information related to potential wetland impacts within the alternative corridors. • To identify potential mitigation plans for the individual corridors based on the estimated impacts.
Needs	• Identification of corridors to carry forward in the environmental document as reasonable and prudent • Delineation and data from fieldwork for Event No. 13, WTL1 – Conduct Fieldwork for Section 404 Permit Application • Information from environmental scoping process • Data from T&E investigations • Data from cultural/historic reviews and/or an MOA from SHPO • Design information, including borrow sites and designs
Output	• Identification, delineation, classification, quantification, and documentation of wetland, timbered areas, and flora and fauna impacts • Determination of potential mitigation sites and development of mitigation concept and plans • Written documentation with necessary supporting charts and maps for inclusion in the draft and final environmental documents • Completed Section 404 permit application
Affected Parties	Office of Location & Environment – Wetlands & 404 Permitting Section

2.2.26 Event No. 19A*: WTL3

Definition of Code	Submit Section 404 Permit Application
Action	Submit the Section 404 permit application to the U.S. Army Corps of Engineers (Corps) and Iowa Department of Natural Resources (IDNR).
Purpose	To provide a milestone event marking the formal permit application submittal to the Corps and IDNR to supply them with project information to begin their public interest review.
Needs	• Selected corridor • Other information listed under Event No. 19, WTL2 – Prepare Section 404 Permit Application.

Output	• Cover letter to accompany the completed Section 404 permit application package • Corps/IDNR-issued public notices
Affected Parties	Office of Location & Environment – Wetlands & 404 Permitting Section

2.2.27 Event No. 20: UMTG

Definition of Code	Hold Utility Coordination Meetings
Action	Conduct the coordination meetings between Iowa DOT staff and utility companies affected by the proposed project.
Purpose	• To establish a dialog with the utilities, which continues throughout the project. • To provide a forum for information exchange and problem resolution.
Needs	• For the first meeting: project concept, tentative alignment with alternatives, determination of affected utilities • During the subsequent development process: refined information, including letting dates
Output	An ongoing effort to address and resolve utility issues in a cooperative manner
Affected Parties	District Office, PMT, Office of Local Systems – Project Agreements & Utility Coordination Section

2.2.28 Event No. 21: RMTG

Definition of Code	Hold Railroad Coordination Meetings
Action	Conduct coordination meetings between Iowa DOT staff and railroad companies affected by the proposed project.
Purpose	• To establish a dialog with the railroad(s), which continues throughout the project. • To provide a forum for information exchange and problem resolution.
Needs	• For the first meeting: project concept, tentative alignment with alternatives, and determination of affected railroad(s) • During the subsequent development process: refined information, including letting dates
Output	An ongoing effort to address and resolve railroad issues in a cooperative manner
Affected Parties	District Office, PMT, Modal Division – Office of Rail Transportation

Notes

2.2.29 Event No. 22: RWRL

Notes

Definition of Code	Prepare ROW Inventory and Relocation Plan
Action	• Assess the number of homes, farms, and businesses that would be displaced by the proposed alignment alternatives. Include an inventory of available properties in the area that could serve as suitable replacement properties for those displaced. • Compile financial information on property values and mortgage rates in the local market.
Purpose	• To provide information on impacts on the occupants of properties within the corridors of all alignments studied. • To estimate the relocation costs for each alignment alternative.
Needs	• Aerial photography of the project corridor showing the alignment alternatives, with the approximate highway footprint for each one • Corridor Property Ownership database (created in Event No. 4, INFO – Collect Preliminary Information)
Output	• ROW inventory • Relocation Plan for use in estimating the cost of various alignments and for listing in the environmental document
Affected Parties	Office of Right-of-Way – Relocation Section, Office of Location & Environment – Corridor Development

2.2.30 Event No. 23: CNVE

Definition of Code	Conduct Concept Value Engineering (VE) Study
Action	Using a multidisciplinary team, systematically apply recognized techniques to identify the function of a product or service, establish a worth for that function, generate alternatives through creative thinking, and provide the needed functions at the lowest life-cycle costs without sacrificing safety, necessary quality, and environmental attributes of the project. Note: VE applies to all federal-aid highway projects on the National Highway System (NHS) with an estimated cost of $25 million or more. Iowa DOT is required to have procedures to identify candidate projects for VE studies early in the development stage.
Purpose	• To improve project quality, foster innovation, and eliminate unnecessary and costly design elements. • To compare the proposed alternatives to other VE alternatives and determine if there are other equal or better alternatives to accomplish the same function at a lower life-cycle cost.

Purpose (cont'd)	Note: A VE study may be conducted at any time, but this event is intended to allow studying the early decisions of corridor and alignment during the planning stage.
Needs	• Basic preliminary engineering data, with comparable quantity and cost data • Other typical information, including aerial photos with project alternative alignments and corridors; significant property owner information within the corridors; utilities or other items which could affect project locations and costs; wetlands and other environmentally sensitive areas; and key concerns of Iowa DOT's local customers
Output	Completed VE study for distribution to the VE coordinator, who compiles and distributes to FHWA a VE Workbook Report detailing the VE team's findings and recommendations
Affected Parties	District Office, PMT Note: The DE is responsible for determining the need for a VE study and ensuring that it is completed when required. (See Appendix B, PMT Responsibility Checklist, for the PMT's role in completing a VE study.)

2.2.31 Event No. 24: LOC1

Definition of Code	Determine Preliminary Access Locations
Action	Provide an approximate location of the access points for the alignments under consideration. Base access spacing and type on the selected level of access control and on guidelines established in the Iowa DOT Access Policy. Note: This information becomes part of the public hearing display.
Purpose	• To give the public and affected landowners a preliminary indication of the location of their access to the highway. • To give the public an opportunity to discuss any access concerns they have with District staff.
Needs	• Established level of access control • Property owner information • Approximate property line location • Current access locations • Proposed interchange locations and configurations • Side road connections • Preliminary location of structures
Output	Preliminary location of access points for alignments under consideration

Notes

Affected Parties	Office of Traffic & Safety, District Office – Access Policy Administrator, Office of Design, Office of Location & Environment – Corridor Development, PMT

Notes

2.2.32 Event No. 25: PTSL

Definition of Code	Develop Preliminary Type, Size, and Location (TS&L) Structure Information
Action	Prepare a preliminary estimate of the major structure needs, such as bridges and large culverts, for the proposed alignments. Include a recommendation for widening or replacing existing structures and a preliminary cost estimate for the items identified.
Purpose	• To support the public hearing process. • To provide the Office of Location & Environment with information needed to analyze the alternatives and prepare the environmental document, including early indication of stream/river impacts and areas of impact for wetland delineation.
Needs	Information regarding the proposed alignments, including interchange configuration, typical template top, terrain information, drainage areas, and stream/river channel profiles
Output	Preliminary estimate of the type, cost, and number of major structures for each alignment alternative
Affected Parties	Office of Bridges & Structures, PMT

2.2.33 Event AN: PIM3

Definition of Code	Hold Public Information Meeting (previously Event P9) Note: PIMs occur at several points during the development process.
Action	As needed, conduct a meeting to present the anticipated alignment alternatives and associated project impacts for public discussion.
Purpose	To receive comments to use, in conjunction with other factors, for continuing evaluation of alternatives and, ultimately, definition of a preferred alignment.
Needs	• Project concept assessment of impacts • Anticipated entrance locations • Aerial photo(s) or CADD layout showing alternatives • Results of environmental investigations
Output	Increased public awareness and involvement in the project development process
Affected Parties	District Office, Office of Location & Environment, Office of Design, PMT

2.2.34 Event No. 26: PCUL

Notes

Definition of Code	Determine Preliminary Culvert Locations
Action	Prepare a preliminary estimate of the culvert locations and sizes based on existing available information from the Office of Design and/or Corridor Development. Potentially include a preliminary cost estimate for the items identified.
Purpose	To provide the Office of Design with approximate culvert locations for plan development and presentation at the public hearing.
Needs	Complete TS&L information: • Cross section • Field survey details • Mainline and side road alignment and grade • Median crossovers • Proposed ditch grades • Interchange geometrics • Proposed sidewalks and bicycle paths • Soils and foundation boring data • Drainage areas
Output	Identification of culvert locations only Note: The level of detail and information available determines the degree of completion for this event. The final type and size usually are not identified at this time because of limited information. Event 40, FTSL – Develop Final TS&L and Culvert Layout provides the final type and size.
Affected Parties	Office of Bridges & Structures – Preliminary Bridge Section

2.2.35 Event No. 27: FDTM

Definition of Code	Develop Final Digital Terrain Model (previously Event D1)
Action	Refine the preliminary DTM to improve the accuracy of the model for use in design. To do this, obtain additional field survey and photographic details and merge them with the preliminary DTM. Those details include the location and identification of utilities, culvert and bridge information, pavement elevations at critical locations, drainage plats, and property owner plats.
Purpose	To provide the detailed survey information necessary to develop final earthwork quantities and design details.
Needs	Limits of the field survey
Output	Final Microstation files, GEO-PAK alignment data, and field survey reports

Affected Parties	Office of Design – Photogrammetry & Preliminary Survey Section, district land surveyor, Office of Location & Environment – Corridor Development, PMT

Notes

2.2.36 Event No. 28: HEAR

Definition of Code	Conduct Public Hearing Note: Can-Do requires one public hearing, but the District Office may determine that the project warrants more than one.
Action	Conduct the following activities: • Phase 1 – Prepare and publish a notice of hearing • Phase 2 – Conduct the hearing • Phase 3 – Receive comments • Phase 4 – Prepare a transcript of the hearing and comments received
Purpose	To collect and document public and agency comments on the project alternatives and the anticipated social, economic, and environmental impacts of the various alternatives to assist in identifying the preferred alternative.
Needs	• EA or DEIS • Aerial photo(s) or CADD display showing all alternatives under consideration • 30-35 percent design completion
Output	A transcript of the hearing prepared by Iowa DOT staff and responses to the comments submitted at the hearing and during the subsequent comment period. Note: The transcript is reviewed by staff and the Commission as part of the project approval process.
Affected Parties	Office of Location & Environment – Public Hearing Section, District Office, Office of Design, Office of Right-of-Way, PMT

2.2.37 Event No. 29: FEIS

Definition of Code	Prepare Final Environmental Impact Statement
Action	• Prepare a document which: – Serves as an action-forcing device to ensure that the policies and goals defined in the Code of Federal Regulations are met.[6] – Provides full and fair disclosure of the significant environmental impacts of the proposed action.

[6] 40 C.F.R. 1500 et seq.

Action (cont'd)	– Informs decision makers and the public of the reasonable alternatives for avoiding or minimizing impacts in order to enhance the quality of the human environment. • Obtain FHWA's signature. • Publish a Notice of Availability (NOA) in the *Federal Register.* • Provide the FEIS to resource agencies and others who may request a copy to review during a 30-day period.
Purpose	• To evaluate all reasonable alternatives considered and select the preferred alternative. • To assess the potential environmental impacts. • To discuss substantive comments received on the DEIS and to provide responses. • To summarize public involvement efforts. • To describe the mitigation measures to be incorporated into the proposed project. • To document compliance with all applicable environmental laws and provide reasonable assurances that requirements can be met. Note: The purpose is *not* to justify decisions already made.
Needs	• DEIS, with a purpose and need statement • Data from the public involvement process • The Commission's supported alternative • Data from cultural studies, T&E studies, wetland delineations, and environmental justice (EJ) studies • ROW needs and land use impacts • Identification of borrow sites • Comments on the DEIS from the 45-day review period
Output	An approved environmental document
Affected Parties	Office of Location & Environment – NEPA Section, FHWA

2.2.38 Event No. 30: PJRV

Definition of Code	Conduct Project Review
Action	Review project information Note: The project review is not mandatory. This event typically occurs after the conclusion of the public hearing but can occur at any time and as often as the District Office or PMT determines there is a need.
Purpose	To brief the Highway Division management team (HDMT) on issues and concerns, seek its guidance, develop project strategies, and review the development schedule through discussions about public input, design developments, environmental findings, ROW input, bridge considerations, and traffic safety.

Notes

Needs	• Transcript of the public hearing (if applicable) • Graphics or displays of the project area and alternatives • Summary of impacts of the various alternatives
Output	Further definition of how to proceed with development or an alignment that is supported by the Commission
Affected Parties	District Office, Office of Location & Environment, Office of Design, Engineering Bureau Director, PMT

2.2.39 Event No. 31: PDES

Definition of Code	Complete Preliminary Design
Action	Through the Office of Design, continue to work on completing the preliminary design and move into the early phases of final design. This includes refining the alignment and grade for all viable alternatives.
Purpose	To develop a final set of plans for the contract documents.
Needs	• An approved alignment and concept • DTM and preliminary geotechnical information • Input from the PMT
Output	Plans with the final alignment and grade to the Office of Bridges & Structures for the design of drainage structures and to Office of Right-of-Way for ROW layout
Affected Parties	Office of Design – section assigned to the project, Office of Location & Environment

2.2.40 Event No. 32: FONS

Definition of Code	Prepare Finding of No Significant Impact (previously Event A3)
Action	If no significant impacts are identified in the EA process: • Write a cover document recommending a FONSI. • Attach it to a copy of the EA, along with any public involvement information, copies of any comments received, and responses to the comments. • Prepare the FONSI after review of the EA by the resource agencies and the public for the prescribed period and after a public meeting/hearing or offer of a hearing.
Purpose	• To document, for the reviewing agencies and the public, FHWA's determination, based on its independent evaluation of the EA, that: – The EA adequately and accurately discusses the need, environmental issues, and impacts of the proposed project as well as appropriate mitigation measures. – The EA provides sufficient evidence and analysis for determining that an EIS is not required.

Notes

Purpose (cont'd)	– The project would not have any significant impact on the environment. • To provide the basis for FHWA to grant location approval for the project. Note: If necessary, FHWA may expand the FONSI to identify the basis for the decision, uses of land from Section 4(f) properties, wetland findings, etc.
Needs	• A properly processed EA • Results of Iowa DOT and FHWA staff discussions concerning the anticipated project impacts • Any correspondence about the project
Output	FONSI granting location approval for the project, signed by FHWA and distributed to recipients of the EA
Affected Parties	Office of Location & Environment – NEPA Section, FHWA

2.2.41 Event No. ALT 32: PROD

Definition of Code	Prepare Record of Decision
Action	Prepare the ROD (a brief, concise document written to the specifications of NEPA and FHWA) only for projects for which an FEIS has been completed. Document decisions made regarding the project, including any Section 4(f) determinations; identify the environmentally preferred alternative; discuss the basis for decisions and mitigation measures planned; and present responses to any comments received on the FEIS. Distribute the ROD to the same parties who received the FEIS. Note: FHWA may give no further project development approvals until the ROD has been approved.
Purpose	• To tie together, for all interested parties, the final disposition of environmental decisions and issues. • To provide additional information regarding mitigation plans or Section 4(f) decisions. • To respond to any comments received on the FEIS.
Needs	• Approved FEIS • Passage of at least 30 days since the NOA for the FEIS was published in the *Federal Register* • Passage of at least 90 days since the NOA for the DEIS was published in the *Federal Register* • All relevant information developed concerning decisions, mitigation plans, project revisions, project commitments, etc.
Output	ROD granting location approval for the project, signed by FHWA and distributed to recipients of the FEIS
Affected Parties	Office of Location & Environment – NEPA Section, FHWA

Notes

2.2.42 Event No. 33: CMSP

Definition of Code	Obtain Commission Support for the Project (previously Event A4)
Action	Brief the Commission on the preferred alternative(s) for further development and ask for the Commission's support. Note: All projects with an EIS-level document must come to the Commission. The District, with concurrence of the HDMT, decides which projects with EAs or CEs need Commission review.
Purpose	• To allow Management-level discussion about a proposed project, its pros and cons, and stakeholder input. • To obtain Commission support so that the preferred alternative(s) can continue through development, programming, and preparation of the final plan.
Needs	• Transcript of the public hearing • Completion of a ROD for an EIS or a FONSI for an EA • Iowa DOT staff recommendation • Graphics or displays of project alternatives • A summary of alternatives
Output	Commission action supporting the project
Affected Parties	District Office, Office of Location & Environment, Office of Design,

2.2.43 Event No. 34*: DFEX

Definition of Code	Conduct Design Field Examination (previously Event D2)
Action	Using a multidisciplinary team, conduct an on-site review of the preliminary plans. The team is primarily composed of staff from the District and Office of Design, consultant design team (if involved), PMT, Office of Maintenance, and local officials where appropriate. The preliminary plans reviewed by this team are approximately 35 percent complete and include such features as vertical and horizontal alignment, preliminary TS&L of structures, preliminary access locations, and interchange configuration.
Purpose	To determine how well the plans meet the field conditions and the objectives of the project.
Needs	In order to prepare the plans used for the field examination: • Densified DTM • Proposed alignment(s) from Corridor Development • Design concept • Level of access control and proposed interchange configurations • As-built drawings

Notes

Needs (cont'd)	• Pavement history and accident history for intersections/interchanges • Preliminary wetland delineations • Preliminary TS&L of drainage structures and bridges • Preliminary findings of the EA and archaeological review
Output	An accepted set of marked-up preliminary plans that serve as the basis for the completed design
Affected Parties	Office of Design, District Office, Office of Maintenance, PMT, consultant design team (if involved), and local officials

2.2.44 Event No. 35: DNVE

Definition of Code	Perform Design Value Engineering
Action	Using a multidisciplinary team, systematically apply recognized techniques to: • Identify the function of a product or service, • Establish a worth of that function, • Generate alternatives through the use of creative thinking, and • Provide the needed functions at the lowest life-cycle costs without sacrificing the safety, necessary quality, and environmental attributes of the project. Note: VE applies to all federal-aid highway projects in the NHS with an estimated cost of $25 million or more. A VE study may be conducted at either the preliminary or design stage of project development, or both.
Purpose	To improve project quality, foster innovation, eliminate unnecessary and costly design elements, and determine whether there are other equal or better alternatives to accomplish the same function at a lower life-cycle cost. Note: The purpose is not to reopen or reconsider the location selection or environmental commitments already made or about to be made.
Needs	Typical needs: • Aerial photos • Design CADD files • Bridge TS&L determinations • Property owner information • Utilities, railroads, and other facilities within the project corridor that could affect project costs • Wetlands and other environmentally sensitive areas • Key concerns of local Iowa DOT customers • List of commitments (obtained by the PMT and/or VE coordinator from the Office of Location & Environment)

Notes

Output	A design VE study for distribution to the VE coordinator, who compiles and distributes to FHWA a VE Workbook Report detailing the VE team's findings and recommendations
Affected Parties	DE, Office of Design – Consultant Coordination Section, PMT Note: The DE is responsible for determining the need for a VE study and ensuring that it is completed when required. This can be done using several different methods, as described in the PMT Responsibility Checklist in Appendix B.

Notes

2.2.45 Event No. 36: GEO2

Definition of Code	Perform Geotechnical ROW Evaluation (previously Event S2)
Action	Identify all soils-related items affecting ROW and/or requiring additional ROW. This typically includes final borrow site selections as well as stability berms, backslope benches, and other stability features. Designers must convey significant design changes made during this event to the Soils Design Section in a timely manner to minimize the potential for delaying this event. The Soils Design Section typically does not submit final designs at this time.
Purpose	To allow the acquisition of ROW to begin on a timely basis.
Needs	• Plan/profile sheets updated after the field examination to include all changes (except minor details) and considered final with respect to alignment and grade • Project cross sections • Final borrow needs and distribution • Location of all bridges, culverts, etc. • Drilling information (GEO2 requires most drilling to have been performed, which may require several months.) • Anticipated or known project breaks for packaging and/or staging information Note: The above information is required for geotechnical fieldwork. It should be provided as soon as possible after (1) completing the field examination, (2) obtaining all necessary Iowa DOT staff and PMT approvals, and (3) selecting the final alternative.
Output	Documentation (a letter with attached plan sheets, aerial photos, etc.) defining additional ROW areas to acquire for soils design purposes (including final borrow sites with conceptual or preliminary borrow designs, stability berms, etc.), with discussion as necessary and appropriate

Output (cont'd)	Note: The GEO2 submittal is in essence part of the submittal for Event No. 42, PLRW – Submit Plans to Office of Right-of-Way.
Affected Parties	Office of Design – Soils Design Section

2.2.46 Event No. 37*: PLBG

Definition of Code	Submit Plans to Office of Bridges & Structure (previously Event D3)
Action	Submit a preliminary set of plans to the Office of Bridges & Structures – Preliminary Bridge Section, with adequate design information to complete its analysis (see Purpose).
Purpose	To provide the Office of Bridges & Structures – Preliminary Bridge Section with the design information needed to complete its hydraulic review and assessment of the TS&L of the culverts, bridges, and other required drainage structures.
Needs	• Updated plans that result from the field examination • CADD files • Alignment and grade • Preliminary ditch design • Soils and foundation data
Output	Updated plans resulting from changes to the field examination
Affected Parties	Office of Design

2.2.47 Event No. 38: RWEV

Definition of Code	Acquire ROW for Environmental Work
Action	Early in the project development process: • Acquire ROW or negotiate for right of entry to wetland mitigation sites and clean-up of sites contaminated by regulated materials. • Acquire documentation of historic structures. • Secure ownership of recovered artifacts. Note: Phase III archaeology is intrusive, detailed site mapping and recovery of artifacts (see Event No. 49, MITG–Conduct Historic/Phase III Archaeological Mitigation). The action is required when a historic/architectural site must be documented and structures demolished or when an archaeological site must be excavated, documented, and artifacts recovered. Federal law (36 C.F.R. 60 and 800) mandates that any artifacts be recovered and turned over to a recognized curator for study and preservation. Therefore, Iowa DOT must own the site or have the owner's written permission to conduct a Phase III recovery action and take ownership of the artifacts.

Notes

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Purpose	To acquire the necessary ROW, including temporary easements and access rights, to complete the requirements of the environmental process.
Needs	In order to purchase ROW: • Appraisal indicating the estimated value of the property(s) to be acquired • Summary sheet defining the ROW need • Plot plan showing the acquisition area • Current report of liens • ROW design plan • Design plans showing cross sections In order to acquire easement: a summary sheet and request memo from Office of Location & Environment defining the ROW needs
Output	Right of entry for environmental analysis purposes
Affected Parties	Office of Right-of-Way, Office of Location & Environment, Office of Design, District Office

2.2.48 Event No. 39*: WTL4

Definition of Code	Receive Approved Section 404 Permit
Action	Receive Section 404 permit.
Purpose	To provide a milestone event marking the receipt of the approved Section 404 permit by Iowa DOT.
Needs	Submittal of the Section 404 permit application to the regulatory agency for approval Note: The goal of the Corps is to process permit applications within 120 working days of receipt, provided the permit is complete as submitted and the Corps or IDNR does not receive adverse comments during their individual public comment periods.
Output	Approved Section 404 Permit
Affected Parties	Office of Location & Environment – Wetlands Section

2.2.49 Event No. 40: FTSL

Definition of Code	Develop Final TS&L and Culvert Layout (previously Event B1)
Action	Determine the structural needs for the project, which includes establishing the TS&L for bridges and box culverts as well as the layout of drainage pipes.

Purpose	• To provide the Office of Bridges & Structures – Detail Design Squads with a completed bridge and culvert TS&L so that final design can begin. • To provide the Office of Design with final pipe culvert layout for incorporation into the final design.
Needs	• Typical cross section or actual cross sections • Field survey details • Drainage areas • Stable plan and profiles, including mainline and side road, geometrics, median crossovers, proposed ditch grades, interchange geometrics, proposed sidewalks and bicycle paths, soil problem areas, and stability berms that affect structure lengths
Output	CADD reference file and Situation Plan for Design and GEO-PAK information
Affected Parties	Office of Bridges & Structures – Preliminary Bridge Section

2.2.50 Event No. 41: LOC2

Definition of Code	Determine Final Access Locations
Action	Determine the final location of the access points for the adjacent property owners along the selected alignment.
Purpose	To ensure that the access point locations are in accordance with the safety and spacing requirements outlined for the level of access control established for the project.
Needs	• Level of access control • Information from the public involvement process • Selection of the final alignment • Property owner information (report of liens) • Property lines, existing ROW lines, and need lines • Design profile grades (vertical and horizontal alignment) • Interchange layout • Side road connections • Locations of drainage structures, including bridges and culverts • Project review comments that could affect the location of the access points
Output	Final location of access points
Affected Parties	Office of Traffic & Safety, District Office – Access Management & Utility Coordination, Office of Design, PMT

Notes

2.2.51 Event No. 42*: PLRW

Definition of Code	Submit Plans to Office of Right-of-Way (previously Event D5)
Action	Submit design plans to the Office of Right-of-Way. Note: To facilitate concurrent development, start this event with a preliminary submittal to the Office of Right-of-Way – ROW Design Section to enable the ROW design task to begin.
Purpose	To provide the Office of Right-of-Way with the design information necessary to complete the ROW layout process.
Needs	Design plans that include: • Interchange configuration • Access locations • Horizontal and vertical alignment • Cross sections • Final ditch design • TS&L of bridges and culverts • Borrow site size and location • Determination of the need for stability berms and benches Any other design information that would influence the amount of ROW needed to construct and maintain the project
Output	Set of design plans showing the final need lines and delineating the project footprint, which defines the ROW limits for the project
Affected Parties	Office of Design, District Office, PMT

2.2.52 Event No. 43: RWDS

Definition of Code	Perform ROW Design and Layout (previously Event R1)
Action	• Determine the proposed ROW needs, both permanent and temporary. • Identify property ownerships. • Complete the ROW plan, with a parcel checklist showing owners' names and areas of proposed acquisition.
Purpose	To complete ROW design and layout.
Needs	• Final design plans • Wetland mitigation sites • Cross sections • Report of liens
Output	Final ROW plot plans and Summary of Proposed Acquisition sheets
Affected Parties	Office of Right-of-Way – ROW Design Section

Notes

2.2.53 Event No. 44*: RWPS

Definition of Code	Submit ROW Plot Plans and Summary Sheets
Action	Provide the ROW information developed in Event No. 43, RWDS – Perform ROW Design and Layout, to the district land surveyor, Office of Right-of-Way – Appraisal and Acquisition Sections, and Office of Design for use in completing their functions.
Purpose	To provide a milestone event marking submittal of completed ROW information.
Needs	Information listed under Event No. 43, RWDS – Perform ROW Design and Layout
Output	Submittal of final ROW plan and negotiator file for all parcels
Affected Parties	Office of Right-of-Way – ROW Design Section

2.2.54 Event No. 45: PLAT

Definition of Code	Complete Certified ROW Plats and Legal Descriptions (previously Event T2)
Action	Complete land acquisition plats and legal descriptions for all parcels requiring this work.
Purpose	To define the land parcels to be acquired by legally prescribed means dictated in the Iowa Code.
Needs	• Final design for each parcel of land • Complete set of final road plans • Survey information and a fixed date for completion (see Event No. 16, SURV – Conduct Land Surveys for Property Acquisition)
Output	A legally certified land acquisition plat and legal description that meet the full requirements of Iowa Code
Affected Parties	Office of Right-of-Way, district land surveyor

2.2.55 Event No. 46: REG3

Definition of Code	Conduct Final Review of Regulated Materials (previously Event F3)
Action	Through the Office of Location & Environment, review the final ROW plans and investigation work from REG1 and REG2 (see Event No. 12, REG1 – Perform Initial Review of Regulated Materials, and Event No. 18, REG2 – Perform Field Investigation for Regulated Materials) to determine that:

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Action (cont'd)	• The project needs are within the original study area, and • The existing data suffice to advise the Office of Right-of-Way on acquisition strategies that limit Iowa DOT's liability for clean-up costs. Note: In some cases where contaminated properties cannot be avoided, additional fieldwork may be conducted subsequent to the REG3 event to comply with requirements of the environmental regulatory agencies. These activities are coordinated with the Offices of Design, Right-of-Way, Construction, and the District Office as necessary.
Purpose	• To mark the dissemination of the final fieldwork report(s) describing the results of the regulated materials investigation. • To make recommendations concerning the avoidance of contaminated properties based on the report(s).
Needs	Timely descriptions of project needs from: • Corridor Development (responsible for developing the alternatives) • Office of Design (responsible for preliminary design) • Office of Right-of-Way (responsible for ROW layout)
Output	Memos or consultant reports, or both, distributed by the Office of Location & Environment, to describe the results of the invasive property assessments and to make recommendations to the Office of Right-of-Way – Acquisition Section regarding easement, fee titles, or specific contract conditions based on the assessments
Affected Parties	Office of Location & Environment – Regulated Materials Section

2.2.56 Event No. AN: PIM4

Definition of Code	Hold Public Information Meeting (previously Event P9) Note: PIMs occur at several points during the development process.
Action	Hold a meeting to provide design and ROW details to the public.
Purpose	To show the impacts of the selected alternative and the access for each parcel within the project corridor.
Needs	• Commission's approval of the selected alternative • Anticipated ROW takings • Final PDA locations
Output	Increased public awareness and involvement in the project development process
Affected Parties	District Office, Office of Location & Environment, Office of Design, PMT

2.2.57 Event No. 47: RWFE

Definition of Code	Perform ROW Field Examination
Action	Conduct an ROW field examination. Include representatives from the District Office, Office of Design, and Office of Right-of-Way – ROW Design, Appraisal, Acquisition, Relocation, and Property Management Sections. Also include representatives from local jurisdictions and planning organizations as appropriate.
Purpose	• To provide an on-site review of the proposed design. • To determine total and partial takes to minimize adverse impacts on affected properties while ensuring that all construction and maintenance needs are covered by the proposed ROW.
Needs	• Proposed alignment from the Office of Design • Design concept • Preliminary wetland delineations • Preliminary TS&L of drainage structures and bridges • Preliminary findings of the EA and archaeological review • Level of access control • Proposed interchange configurations
Output	• Set of plans identifying the ROW take lines, temporary easement needs, property owners, and parcel numbers • Final PIM plan, with exhibits and cross sections
Affected Parties	Office of Right-of-Way, District Office, PMT

2.2.58 Event No. 48: CPKG

Definition of Code	Recommend Contract Packaging
Action	Determine the project size for the most attractive and biddable contracts, while maintaining project goals including completing the corridor improvement within a specified time frame. Note: To increase competition among bidders, the Office of Contracts has established guidelines on the best time of year to let various types of work and the optimum size of projects to attract potential bidders.
Purpose	• To encourage competition among bidders. • To provide an opportunity to assess the need for innovative contracting methods such as incentive/ disincentive, bonuses, lane rental, contract periods, late start date, and other options that would become part of the contract.

Notes

Needs	• Review of the staging and construction requirements to determine when the various components should be let (for example, whether to let the culverts first or the bridges after the grading) • Consideration of innovative contracting methods, including incentive/disincentive, lane rental, bonuses, and other alternatives that may benefit the project • Quantities for the major work types • Borrow needs and site location(s) • Structure needs • Proposed staging • Preliminary plans that include ROW needs • Access locations
Output	Recommendations for: • Dividing corridor improvement projects by the major work type into projects for letting • Grouping the projects for letting • Determining the order for letting
Affected Parties	Office of Contracts, District Office, Office of Design, PMT

2.2.59 Event No. 49: MITG

Definition of Code	Conduct Historic/Phase III Archaeological Mitigation
Action	Use accepted mitigation measures to compensate for the unavoidable loss of significant cultural resource properties to a highway project: • Documentation: Record a historic structure or other property using archival photographic techniques, historic research, and written narrative to document the essence of the property and reasons for its historic significance. • Data recovery: Excavate to recover a "substantial amount" of information from an archaeological site based on a data recovery plan previously approved by the SHPO archaeologist.
Purpose	• Historic/Architectural Mitigation: To record, document, and often recover significant parts of structures. These mitigation measures are required when a historically or architecturally significant structure is approved for removal for a highway project. Some standard/ acceptable best management practices apply for some types of work. FHWA requires the SHPO historian's signature on the fieldwork portion of the mitigation before the project is authorized for construction letting.

Notes

Notes

Purpose (cont'd)

- Archaeological Mitigation: To recover data from and provide documentation of archaeological sites. FHWA regulations require federal highway funding recipients to carry out these mitigation measures. FHWA requires the SHPO archaeologist's signature on the fieldwork portion of the mitigation before the project is authorized for construction letting.

Note: In both cases, Iowa DOT will have rigorously explored all possible alternatives to avoid the resources, or at least to minimize impacts if avoidance is not possible. Section 4(f) documentation will have been completed for all historic/architectural impacts of these alternatives or, at a minimum, of the preferred alignment.

Needs

Significant historic/architectural properties:

- MOA (see Event No. 11D, HS&A – Sign MOA)
- Iowa DOT ownership of parcel(s) containing the site(s)
- Involvement of the Advisory Council on Historic Preservation (ACHP) as a reviewing party to the MOA (in rare cases)
- Documentation from the National Park Service

Archaeological resources:

- SHPO-approved MOA (see Event No. 11D, HS&A – Sign MOA)
- Data Recovery Plan (DRP)
- Iowa DOT ownership of parcel(s) containing the site(s)
- Tribal concurrence, if the need is triggered by an MOA and DRP (see Event No. 11C, HS&A – Notify Tribes)

Output

SHPO letter of acceptance of the documentation of historic/architectural properties or of the final report for data recovery

Note: In some cases, this may not occur until after the highway project has been constructed and opened to traffic. In this event, SHPO would have signed off twice: (1) when fieldwork was completed (photography and measurements for as-built drawings for structural documentation or excavations for archaeological data recovery) and (2) upon approval of the final deliverables. For production schedule purposes, SHPO concurrence on completed fieldwork constitutes completion of the event.

Affected Parties

Office of Location & Environment – Cultural Resource Section, FHWA

2.2.60 Event No. 50: FDES

Definition of Code	Develop Final Road Design
Action	Develop the final plan and profile sheets, tabulate final quantities, and develop any project-specific specifications. To ensure a complete plan, coordinate the plan development with the Offices of Design, Bridges & Structures, Right-of-Way, Traffic & Safety, Location & Environment; District Office; and PMT.
Purpose	To complete a biddable, buildable plan for the project.
Needs	• Completed preliminary plans • Information from the Office of Bridges & Structures on drainage structures • ROW layout • Geotechnical design (Also see Needs under Event No. 56, GEO3 – Perform Final Geotechnical Design.)
Output	Plans submitted to the Office of Contracts
Affected Parties	Office of Design – Urban and Rural Design Sections

2.2.61 Event No. 51: RWAP

Definition of Code	Conduct ROW Appraisal (previously Event R2)
Action	Provide an estimate of just compensation, as defined by the Iowa Code, for that portion of property being acquired. Include damage items to be caused by the acquisition.
Purpose	To provide a value basis for negotiation and/or a before-and-after value for the condemnation process.
Needs	• A parcel file generated by the Office of Right-of-Way – ROW Design Section that includes: • Report of lien identifying the owners of record and containing the legal description • Summary sheet identifying the needed acquisition • Plot plan showing the acquisition in relation to the entire property • Survey plat (desirable at this point)
Output	Written estimates of just compensation for the negotiator to use in the acquisition process
Affected Parties	Office of Right of Way – Appraisal Section

Notes

2.2.62 Event No. 52: RWAC

Definition of Code	Perform ROW Negotiation and Secure Acquisition Contract (previously Event R3)
Action	Negotiate an acquisition contract that is acceptable to both Iowa DOT and the landowner.
Purpose	To acquire the necessary land, temporary easement access rights, or other rights necessary for the construction and maintenance of transportation facilities.
Needs	• Appraisal of the real estate value • Summary sheet defining the needs • Plot plan showing the acquisition in relation to the whole property • Survey plat and description of the acquisition area • Current report of liens • Plan and cross sections from the Office of Right-of-Way – ROW Design Section
Output	Acquisition contract acquiring the property and/or rights needed for project construction
Affected Parties	Office of Right-of-Way – Acquisition Section

2.2.63 Event No. 53: RWLC

Definition of Code	Complete ROW Relocations (previously Event R5)
Action	Assist the owner, tenant, or business in finding alternative housing or an alternative business location.
Purpose	• To provide decent, safe, and sanitary housing for displaced residential residents. • To help re-establish business operations.
Needs	• Identification of owner/tenant-occupied residences or businesses affected by the acquisition (needed for the relocation study) • Signed acquisition contract (needed after the study and prior to paying relocation benefits) • Appraisal (needed to determine owner-occupied residential relocation benefits)
Output	A vacated property (The owner/tenant or business has relocated to other housing or facilities, and the property is clear for demolition or removal of structures.)
Affected Parties	Office of Right-of-Way – Relocation Section

Notes

2.2.64 Event No. 54: FBRG

Definition of Code	Perform Final Bridge Design (previously Event B3)
Action	Perform a detailed analysis of the design elements of each structure. Include: • Foundation design (pile or spread footing) • Pier design • Development of a complete set of plans with tabulated bid items and quantities • Complete cost estimate
Purpose	To develop a set of plans containing all the design details, tabulated quantities, and specifications to allow the Office of Contracts to begin the bid-letting process.
Needs	• Completed structure TS&L • Final soils analysis and recommendations • IDNR flood plain permit • Completed horizontal and vertical geometrics
Output	Final structural plans
Affected Parties	Office of Bridges & Structures – Detail Design Squads

2.2.65 Event No. 55: RWTC

Definition of Code	Complete ROW Title Transfers and Closing
Action	Provide and secure signed transfer documents from landowners.
Purpose	To ensure that all property rights have been acquired, proper documents are signed and recorded, and landowners are paid.
Needs	• Current report of liens or current abstract • Properly executed acquisition contracts • Survey plats and descriptions
Output	Clear title to the acquired property or property rights
Affected Parties	Office of Right-of-Way – Fiscal & Title Section

2.2.66 Event No. 56: GEO3

Definition of Code	Perform Final Geotechnical Design (previously Event S3)
Action	Complete and submit all soils design work, including soils (Q) sheets, soil profile and supplemental for bridges, all soils information on final cross sections, treatment tabulation, longitudinal subdrain tabulation, shrinkage tabulation, incorporation of all stability items (benches, berms, blankets, drains, etc.) on Q sheets and cross sections, final borrow design (with soil profiles for borrows and borrow cross sections), any other required tabulations, etc.

Notes

Action (cont'd)	Note: Project changes made at this time may result in delayed completion of this event.
Purpose	• To provide all soils design requirements to the design section responsible for the project. • To provide all soils design sheets, tabulations of final quantities, etc., for the contract documents. • To provide a part of the overall design or bridge plan submittal.
Needs	• Final plan and profile sheets • Final cross sections • Detailed borrow needs from each borrow site • Final staging/packaging requirements • Final project breaks or similar items • Special mitigation needs • All related final project information Note: This information is needed at the same time that final plan development begins (see Event No. 50, FDES – Develop Final Road Design) based on the assumption that no grade or alignment changes occur during that event.
Output	• Final set of geotechnical plans, provided to the Office of Bridges & Structures (for bridge projects) and to the Office of Design (for road projects) for incorporation into the final set of project plans • Any special plan notes; special specification language, including Special Provisions; and bid tabulations for this work
Affected Parties	Office of Design – Soils Design Section

2.2.67 Event No. 57: RWCN

Definition of Code	Complete ROW Condemnation (previously Event R4)
Action	Acquire all property and property rights through the process of eminent domain when friendly acquisition contracts are not possible.
Purpose	To provide clear title through the eminent domain process and provide a method for the landowner to receive just compensation under the Code of Iowa.
Needs	• Current report of liens • Survey plat and description for permanent and temporary acquisition • Design plans • ROW notice to landowners • Staking by the resident construction engineer's (RCE's) office • Compliance with notification requirements of Iowa Code Chapter 6B as appropriate

Notes

Output	Legal transfer of the title from the landowner to the State via the eminent domain process
Affected Parties	Office of Right-of-Way – Acquisition Section

2.2.68 Event No. 58*: FPLN

Definition of Code	Submit Final Plans
Action	Submit a completed set of design and/or bridge plans to the Office of Contracts to begin the letting process.
Purpose	To provide a milestone event marking completion and submittal of the plans for the letting process.
Needs	A complete set of plans that: • Includes all bid items and quantities • Outlines the required specifications and special provisions
Output	Final set of plans submitted to the Office of Contracts to enable the Proposal and Estimating Section to prepare the contract documents for letting
Affected Parties	Office of Design and/or Office of Bridges & Structures, Office of Contracts

2.2.69 Event No. 59: LETT

Definition of Code	Let Project (previously Event L1, L2, etc.)
Action	Prepare the project for bidding, conduct the bidding, and award the contracts: • Review the project plans and ensure that the plans and specifications clearly outline the project requirements and scope of work. • Prepare cost estimates, bidding documents, and proposals. • Print the proposals and plans. • Distribute the bidding documents to prospective bidders. • Request FHWA approval. • Advertise and conduct the letting. • Analyze all bids to determine whether the bidders can perform the work and to ensure that the project is awarded to the actual low bidder. • Award contracts.
Purpose	To establish contracts with the industry to perform the work outlined in the project plans.

Notes

Needs	A complete set of plans that: • Includes all bid items and quantities • Outlines the required specifications and special provisions
Output	A set of plans ready for bidding, including all bidding documents, and approvals
Affected Parties	Office of Contracts

Notes

CHAPTER 3

Guidance for PMTs

CHAPTER 3
GUIDANCE FOR PMTS

Notes

The Can-Do Implementation Team completed a series of listening sessions in the spring of 1999. The sessions were held on March 9, 1999, with Iowa DOT district engineers (DEs); on March 17, 1999, with district planners and representatives of Corridor Development; and on April 5, 1999, with the Office of Design. The purpose of the listening sessions was:

- To determine to what extent the new Can-Do process was being integrated into project development.
- To gain a better understanding of how PMTs were functioning and are intended to function.
- To address any questions, concerns, or unresolved issues.

The listening sessions generated an honest and forthright discussion. As with any change, there were more detailed questions than apparent answers. Typically, however, the specifics are not as important to the whole as is the approach, which often requires innovative problem solving. The topics discussed in the listening sessions are reported below, after a summary of the Can-Do principles that are to guide the PMTs. Specific questions are cited in boldface

3.1 GUIDING PRINCIPLES

To implement the Can-Do process as intended, the PMTs are to follow the Can-Do principles. Those principles, discussed in more detail in Chapter 1, can be summarized as follows:

1. *Multidisciplinary project management* – A PMT consisting of experts and decision makers in all relevant major planning and development disciplines takes responsibility (jointly and severally) for developing a quality, constructible project on time and on budget.
2. *District leadership* – District staff, led by the DE and others as appropriate during project development, have project oversight.
3. *Early problem identification* – By initiating data collection early and investigating all reasonable alternatives fully, solutions can be developed based on complete, factual, reliable information.
4. *Uniform, integrated development process* – Concurrent task development minimizes linear sequencing. Project development is also expedited by building on previous work and aiming for a seamless transition of project data along the development time line, with zero rework.
5. *Avoidance of environmental impacts* – All Can-Do principles work toward avoiding environmental impacts to the maximum extent. When impacts are unavoidable, mitigation methods are applied as appropriate.

Notes

6. *Context-sensitive design* – This approach considers the total context of a transportation project and involves all stakeholders to develop a project concept and facility design that:
   - o Fit the highway into its environment ("context").
   - o Preserve scenic, aesthetic, historic, and environmental resources.
   - o Maintain safety and mobility.[1]
7. *Proactive public involvement and consensus building* – An open, multifaceted process provides for broad-based, ongoing input from the public, regulatory agencies, and other stakeholders for consideration during decision making. Both internal and external customers are included, and decisions are thoroughly communicated to all affected offices.
8. *Merged compliance with NEPA and Section 404 requirements* – Merging the NEPA and Section 404 compliance processes streamlines project development and promotes interagency cooperation. Concurrence point meetings are a means of obtaining buy-in to advance the project from one development stage to the next. (See Chapter 7, Statewide Implementation Agreement, and Appendix C, Environmental Concurrence Meetings.)

The Can-Do principles do *not* authorize PMTs to:

- Remove or replace the project development responsibilities of individual offices within the development process. For example, Corridor Development still does planning work, and the Office of Design still does design. The difference is that Corridor Development now does its work by including the early and continuous input and buy-in from those who are affected by its decisions. The PMT is the vehicle for this involvement. The buy-in/teamwork concept is further propagated to all those offices with responsibility for developing a project from the planning study[2] through letting.
- Circumvent the resource allocation responsibility of any individual office director. The PMT does not have resource allocation authority other than negotiation and commitment responsibility for the office each member represents. The PMT must identify resource needs as early as possible and work with individual office directors to ensure that resources (internal and/or outsourced) are available and can be committed before a development schedule is finalized or a problem is encountered.

3.2 PMT ROLES, AUTHORITY, AND LEADERSHIP

In the listening sessions, some confusion was expressed regarding the roles and authority of both the PMT as an aggregate and the individual members assigned to a team. The root issue appeared to be the newness of Can-Do and consequent lack of experience with the process. Most comments indicated a belief that the PMT concept would significantly enhance the development process, improve internal and external communication, and produce a better-quality final product.

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1 See FHWA, *Context Sensitive Design/Thinking Beyond the Pavement*, http://www.fhwa.dot.gov/csd.

2 As used here, "planning studies" are conducted before a project moves into Can-Do.

The Implementation Team explained that the PMT is responsible for working together without bias to deliver a project on time and within the programmed budget. The PMT must establish the project schedule at a very early stage and then manage project development to that schedule. (See Appendix B for the PMT Responsibility Checklist and PMT Meeting Agenda Checklist.)[3]

Notes

3.2.1 Roles

Q: What are the roles and responsibilities of the PMT members, the support functions, and the supervisors?

3.2.1.1 PMT Members

The PMT concept centers on bringing together key individuals from the major disciplines involved in developing a project (see Chapter 1, Introduction to Can-Do). This nucleus of individuals remains on the project from concept development (Event No. 3, CNPT) through project letting (Event No. 59, LETT), and longer if major plan revisions are needed during the construction phase. The members bring different key elements to the team by virtue of their individual experience and responsibilities within Iowa DOT.

The PMT members' responsibilities are:

- To review the proposed project.
- To provide insight and expertise at each step of the process.
- To ensure that their concerns are adequately addressed throughout the development process, including selection of the preferred alignment.
- To work together with the other PMT members to identify potential problems early and to develop solutions through consensus.
- To bring answers and solutions to potential problems, for example from supervisors or the design project engineer, back to the PMT for discussion and resolution at the team level. For example, if a project is in the develop alternatives phase (Event No. 17, ALTS) and one alternative under consideration has a constraint that would require a design exception, the design project engineer (a PMT member) should bring it to the PMT's attention and seek resolution. If another alternative is not readily available via the prudent and feasible test, the design project engineer should take the issue to the design engineer and ask whether a design exception would be appropriate.
- To act as a liaison to their offices and areas of specialty.
- To represent the support functions (discussed in the following section) and identify appropriate times to involve them.

3.2.1.2 Support Functions

Support functions are those groups or individuals who do not have direct membership on the PMT but whose work product is needed to make informed decisions, or to provide necessary project clearances and/or construction permits. Examples are the Office of

[3] In the case of projects without a PMT, the scheduling engineer initiates the schedule in cooperation with the production schedule team.

Design – Photogrammetry & Preliminary Survey and Soils Design Sections; Office of Contracts; Office of Maintenance; District Field Services; and Office of Location & Environment – Public Hearing Section.

Notes

Generally, support functions are represented by a PMT member, whose duties are:

- To involve the support functions in the development process, as appropriate, in a timely manner.
- To provide the support functions with all pertinent facts needed to complete their work.
- To ensure that the support functions' work product and deliverables are incorporated into the project design.

Sometimes it may be more efficient to add a support function to the PMT during its mission-critical phase of the work. On a case-by-case basis, the PMT should decide whether to include the support function by asking, "What is reasonable and most efficient?"

3.2.1.3 Supervisors

All PMT members must involve their supervisors as follows:

- Keep the supervisors informed of progress on the project.
- When representing resources, both directly and indirectly in the case of support functions, request these resources from the appropriate supervisor and ensure that the resources are available. If a problem occurs with resources, work out an acceptable solution with the supervisor or others before committing to the proposed development schedule.
- In the specific area of responsibility, alert office supervisors to potential problems early in the process and enlist the supervisors' participation in solving problems identified at the office and PMT levels. For example, if a PMT member recognizes there is a problem with staffing to keep the project on the development time line, the PMT member should alert the supervisor. It is the supervisor's responsibility to work with the PMT member to develop a solution.

Thus, through the PMT, Can-Do provides another level – beyond the supervisor – for resolving problems. Continuing the preceding example, should the PMT member and supervisor agree that it is not possible to adhere to the time line with the resources available, the PMT member is to report this to the PMT for resolution.

3.2.2 Authority

Q: What are the basis and extent of the PMT's and PMT members' authority?

There is little doubt that the PMTs have the authority to do their jobs within the Can-Do framework. Nevertheless, the authority vested in the PMT (both as an aggregate and as individual members) is difficult to quantify and almost impossible to mandate. The following discusses that authority on the macro, micro, and individual member level.

3.2.2.1 Macro Level

Notes

Iowa DOT management's (Management's) acceptance of the Can-Do process and PMT leadership has laid the foundation for the PMT's authority. The formal basis of that authority is the concept of collaboration on a project and collective development of that project with input from all affected offices. The PMT is charged with managing the project through all phases of the development process

The *de facto* authority comes when individual members collectively make decisions based on sound data, while keeping their supervisors informed and involved as the project proceeds. Thus, the PMT's authority is ultimately secured by an open process, collaborative consensus building, and decision making that occurs only after considering all available, relevant data (both internal and external).

Furthermore, the PMT itself sets the stage for success or failure in how it chooses to obtain buy-in from Management. The Implementation Team does not recommend or suggest continuous involvement with project review (Event No. 30, PJRV) (see Section 3.5, Project Review). Rather, flexibility is built into the process: it is the PMT's responsibility to recognize sensitive projects and possibly spend extra time acquiring feedback from Management.

If the PMT is effective at consensus building and presents Management with a project that has no surprises, Management is not likely to overturn a recommendation by the PMT. However, Management always retains the prerogative to make any changes it deems necessary. In that case, the PMT is responsible for delineating the impacts (especially development time and project cost) that would result from any Management-directed changes so that Management will be aware of, and responsible for, the implications of its decision.

3.2.2.2 Micro Level

A conviction driving development of the Can-Do process was that a better end product would result through teamwork and early identification of problems. A reasonable assumption was that the PMT would have the authority to accomplish its mission after overcoming two hurdles:

- Obtaining Management buy-in
- Working out the details (a formidable challenge, if for no other reason than the cultural change occurring in the development process)

Rather than make major changes in a process that had yet to have even one iteration, the Implementation Team opted to allow PMTs the latitude to resolve micro issues. If such issues are interfering with a PMT's ability to accomplish its mission, however, and are irresolvable at the PMT level, they should be taken to the Engineering Bureau director.

Authority to accomplish the mission of developing a project on time and within the programmed budget resides solely in the PMT, except where Management decides to change a PMT recommendation. In that case, Management is charged with justifying changes to the project development schedule and/or the programmed budget. In all other cases, the key elements are within the PMT's range of control.

Project Development Schedule. In the listening sessions, concerns were voiced regarding the ability to deliver a project on time. Cases were presented to show how time expectations are not reasonable, "other" influences can affect a schedule, and "the PMT does not have authority to direct resources."

Notes

The Implementation Team responded that the project development schedule is solely a function of the PMT. The PMT develops and monitors the schedule, and recommends changes to the DE and Engineering Bureau director. With buy-in and commitment of resources to the initial schedule, no resource allocation problems should occur. If the PMT is functioning as intended, early identification of problems should enable the PMT to guide the project over potential hurdles. If all else fails, the PMT has the authority to modify the development schedule, as justified. It cannot be overemphasized that a valid schedule at the outset and early identification of problems should greatly minimize problems, if not eliminate them.

Development Costs. A recurring theme during the listening sessions was development costs (internal and outsourced services) and overruns of programmed project costs. The Implementation Team offered the following clarifications:

- *Internal development costs* – The Can-Do process is built on extra front-loaded development costs. Management has accepted this cost of doing business in the Can-Do environment.
- *Programmed project costs* – Overruns of programmed costs typically occur because (1) conceptual changes occur after a project is programmed; (2) previously unidentified major problems (show stoppers) are found late in development; or (3) incremental design changes occur as the project is being developed. Overruns of estimated project costs should be almost nonexistent if the Can-Do process is functioning properly.

Here again, the PMT has project management oversight. There is little reason to make significant changes after Commission approval if the PMT functions as intended early in the development process.

Specifically, the PMT is responsible for developing multidisciplinary consensus on the preferred alignment. This should minimize subsequent changes in concept and incremental changes.

Also, the PMT prepares an engineering estimate at about the time of programming. If the PMT provides a reasonable estimate to the Office of Program Management, nearly all that is left is to complete predesign and final design. The opportunity for incremental ratcheting-up of major costs at this point should then be almost nonexistent, and the project's contingency factor should cover any small-item cost change.

3.2.2.3 Individual Members

Individual PMT members' authority is somewhat more difficult to quantify, mainly because it has two basic components: (1) authority delegated from supervisors, and (2) authority conveyed from within the PMT.

Neither can be mandated; both must be assumed by the individual. "Authority is 20 percent given and 80 percent taken"[4] as the following illustrates:

Notes

- The degree of authority a team member has from the supervisor affects the Can-Do process insofar as the number and level of issues that need to go back to the supervisor for resolution. A situation requiring excessive involvement of the supervisor can affect timely decisions.
- The degree of authority a team member has from the PMT is essentially an issue of credibility (that is, how well the member works within a team environment and is able to share ideas and concerns). If a problem arises, PMTs are encouraged to take advantage of team-building training available through the Highway Division's quality coordinator in the Support Services Bureau.

3.2.3 PMT Leadership

Q: Who is the PMT leader?

PMT leadership is the overall responsibility of the Iowa DOT Districts because they are the closest to the customer and the most familiar with customer needs. As explained in Chapter 1, Introduction to Can-Do, the district planner is responsible during the planning phase, and the assistant district engineer (ADE) is responsible during the design phase. Both phases are essentially the same with respect to the application of team leadership. Clarity and flexibility must be maintained, as illustrated in the following cases:

Case 1. During the planning phase (Events No. 1, RANK – Rank Projects, through No. 33, CMSP – Obtain Commission Support for the Project), the district planner is responsible for ensuring that a project moves forward according to the established schedule. The PMT, however, can vary the way this is done as it deems practical.

For example, by mutual agreement with the PMT, the district planner could recognize the role of the Corridor Development – Location Section in early development. They could designate that office to lead the efforts through certain phases, such as the collection of engineering data for the develop alternatives phase (Event No. 17, ALTS) and the initiation of scoping meetings with the resource agencies. This case would not be business as usual because the district planner's role would be to coordinate the PMT's efforts and to call special meetings when deemed necessary, while maintaining the Can-Do principles.

Case 2. During the design phase (Events No. 31, PDES – Complete Preliminary Design, through No. 58, FPLN – Submit Final Plans), the ADE is responsible for overseeing project development. The PMT decides how that translates into who is in charge.

For example, by mutual agreement within the PMT, the ADE could recognize the Office of Design's role and could designate the design project engineer to lead the efforts through certain phases. For example, this could occur during preliminary and final design or geotechnical design (Events No. 15, GEO1 – Perform Preliminary Geotechnical Review; No. 36, GEO2 – Perform Geotechnical ROW Evaluation; and No. 56, GEO3 –

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[4] Ken Blanchard and Susan Fowler-Woodring, *Empowerment: Achieving Peak Performance Through Self-Leadership*, 1998.

Perform Final Geotechnical Design). Then, as project development moves into the appraisal and acquisition phase (Events No. 51, RWAP – Conduct ROW Appraisal, and No. 57, RWCN – Complete ROW Condemnation), the lead could easily be shifted to the Office of Right-of-Way. Again, this is not business as usual but it is business in accordance with the Can-Do principles.

Notes

To clarify, delegation of leadership to a subgroup does not exclude the PMT, district planner, or ADE from the process. The PMT can parcel out individual leadership roles and areas of responsibility as it sees fit. Also, the district planner and ADE have joint and overlapping (not segmental) leadership responsibilities to work toward a common project goal during both the planning and design phase.

In the case of a Type III project such as a rehabilitation, resurfacing, and restoration (3R) project, it can logically be argued that a formal PMT does not add value to the process. If that is true, someone still needs to provide management oversight. That individual or entity would be responsible for coordinating among various developmental groups and ensuring that a project moves through the development process in a timely manner. In Can-Do, that responsibility would lie with the DE and, to a lesser degree, the design project engineer.

The specifics of "who ultimately has various responsibilities" and "to what degree" depend on the working relationship between the DE and the design engineer, based on project needs as opposed to a mandate from the Implementation Team.

Q: Should leadership be handled differently for pipeline projects?

The Implementation Team also discussed redefining the PMT leadership concept for pipeline projects (that is, projects already under development when Can-Do was implemented). These projects have caused the greatest time constraint concern for the Districts. Since pipeline projects began under the previous development process, they could be allowed to continue by having the design project engineer assume overall responsibility. That approach would maintain the PMT concept while temporarily minimizing the workload at the Districts.

The Implementation Team considers this solution temporary, at best, in that the PMT concept begins in early planning (Event No. 3, CNPT – Develop Project Concept) and continues through project letting (Event No. 59, LETT). Shifting the project management focus to the design project engineer for the pipeline projects would not reduce the District's workload until after the Can-Do projects move to this point.

On the positive side, the idea has its merits. It would reduce the PMT management workload for Districts and would add value to the process – at least for those pipeline projects that are in the early phases of design and/or require completion of an environmental document. Before such a solution could be implemented, the Implementation Team would need to discuss it with the design project engineers and obtain buy-in from them.

3.3 PMT MEETINGS

Notes

3.3.1 Meeting Frequency

Q: How often should a PMT meet?

The frequency depends on how often the PMT needs to meet to identify and resolve issues, build consensus, and manage the project needs. Thus, the meeting frequency is a PMT decision based on project needs.

Several individuals at the listening sessions expressed their preference to schedule reoccurring (perhaps monthly) meetings well into the future. That allows meetings to be held at the tentatively scheduled times if there are agenda items or to be canceled if there are no items. This approach has its advantages but, again, the meeting frequency is a PMT decision.

Q: What constitutes a PMT meeting?

The Implementation Team purposely set no parameters. Each PMT can establish guidelines as to what constitutes an official meeting for its group, but the PMTs are urged not to lose sight of the goal of continuous, multidisciplinary participation, and buy-in during the development of a project. PMTs should not wait to schedule a meeting until they have an identified problem. Then it is too late.

It is imperative to be proactive and maintain continuous communication. A PMT meeting could be as minimal as a phone conversation between a planner and a design project engineer about an issue, or as formal as a meeting of all PMT members. In either case, the primary object is to obtain multidisciplinary input through enhanced communication and to develop buy-in through consensus. As long as the results of the planner's and design project engineer's phone conversation are communicated to the PMT, and the PMT agrees with the conclusions, a meeting has occurred.

3.3.2 Time Demands for PMT Meetings

Q: How can we manage the time demands brought about by PMT meetings?

Comments about the time issue became more urgent when projects already in the development phase were added to the scenario. The Implementation Team fully recognizes the uneven workload distribution and intimately understands a full work schedule. Obviously, the development workload is not evenly spread over the Districts, and probably never will be. The stakes are so high, however, that workload cannot be the sole factor determining whether the PMT concept is successful – at least not without significant searching for time management alternatives.

Part of the perceived problem could be a lack of understanding of the Can-Do principles. To illustrate, comments such as "I had a full plate before Can-Do" and "It is impossible to include the additional workload to my schedule" are without a doubt true from the presenter's perspective. However, an individual PMT member need not attend every meeting. While there is no flexibility in the overall project management responsibility (which belongs to the District), there is flexibility in the leadership roles, as discussed above in Section 3.2.3, PMT Leadership.

Some brainstorming for potential solutions occurred at the listening sessions. The Implementation Team explained that PMTs should:

Notes

- Avail themselves of support staff.
- Select a team member or an office support person to take the minutes of PMT meetings and have the minutes distributed to all members.
- Make use of the electronic repository for Can-Do projects that is available on the "S" drive of LAN for information sharing. This improves communications by providing on-line accessibility not only to PMT members but also to everyone connected to the network. In addition, it facilitates ultimate electronic archival of pertinent decisions and general project information.
- Solve problems by thinking outside the box. For example, the Implementation Team cannot mandate but has encouraged the use of the Iowa Communications Network (ICN) to reduce the burden of travel and to assist with time management. Although the use of ICN has practical limitations, it can be valuable under the right circumstances. Another example is the sharing of workloads among Districts, where practical and reasonable.

In addition, when PMT members are going to be absent, they should convey concerns, issues, and comments to other PMT members for presentation at the meetings.

Q: Could we combine the target review meeting with the production schedule meeting, in effect, making the new combined meeting a surrogate PMT meeting?

The Implementation Team does not agree with combining the target review and production schedule meetings to replace regular PMT working meetings. The current target review and production schedule meetings have evolved out of the necessity for various offices to discuss project development issues.

On the other hand, it appears that these meetings could be greatly streamlined (or even eliminated) if all projects had a PMT performing as intended. Each PMT would track the project development status to maintain the development schedule. The PMT would initiate schedule changes and bring them to the HDMT, rather than following the current procedure of having a major target review meeting to discuss the project status.

3.4 CONSULTANT PARTICIPATION ON PMTS

Q: To what extent should consultants participate on PMTs?

The Implementation Team considers this an issue for the PMT to determine, based on project needs and reasonable requirements to ensure that the project is developed on time and on budget. Molding a one-process-fits-all approach is difficult because of the varied use of consultants.

The single most important issue when consultants are involved is for the PMT to maintain control over the process and decision-making. Can-Do is not a mechanism for outsourcing Iowa DOT's responsibility to manage the development process.

In general, if a consultant is hired to provide a turnkey (planning to letting) package, it is reasonable to include the consultant in key PMT meetings. Without that involvement, at least one member of the PMT should be responsible for providing the consultant with

important information generated during a PMT meeting and for ensuring that issues raised by the consultant are discussed and resolved by the PMT. It suffices for a PMT member to volunteer to perform this intermediary role and for the team to agree. It is also acceptable for the PMT to opt to include key individuals from the consultant's project team.

In situations where consultants provide a selected portion of the project development, or their work product is incorporated into a portion of the development process, it is reasonable for the office responsible for the consultant contract to be the liaison between the PMT and the consultant. For major portions of work, highly sensitive issues, or short turn-around times, however, it may be just as reasonable for the consultant to participate as a member of the PMT.

In summary, the PMT is empowered to complete its work in the most practical way, provided that the Can-Do principles are upheld.

3.5 PROJECT REVIEW

Q: When should a project go to project review (Event No. 30, PJRV)?

Comments during the listening sessions indicated a concern with keeping Management informed of the process and the PMT's decisions. Including Management as a stakeholder in the process minimizes rework. The Can-Do process allows for at least two presentations to Management and FHWA:

1. The first is to occur before the formal public hearing. This presentation is to provide information on alternatives being prepared for public presentation.
2. The second is scheduled prior to the Commission presentation. This presentation is to brief Management on the public hearing transcript, the PMT's preferred alignment, and the rationale for that decision.

Project review meetings should be structured as informational briefings, as opposed to an opportunity for redesign by Management. Buy-in and stakeholder involvement on the part of the PMT, Management, and FHWA should be informal and continuous. (See Figure 1-2, Overview of the Can-Do NEPA Process.)

Specifically, the PMT should not work in isolation from Management or FHWA. PMT members should freely keep their supervisors abreast of issues, resource needs, and progress to avoid surprises. Further, the district planners, DEs, and individual office directors are responsible for keeping Management informed of development issues and their resolution. The PMT, collectively, is responsible for ensuring that this chain has no weak link. The first step is persistent, continuous communication.

3.6 PUBLIC INVOLVEMENT

Q: What form should the public involvement process take?

Chapters 5 and 6, Guide to Public Involvement – Parts I and II, respectively, and Appendix E, Iowa Department of Transportation's Project Development Public Involvement Plan provide guidance on developing public involvement plans.

Notes

When the Can-Do process was under development, it became evident that there were opportunities to improve the stakeholder involvement process using public information meetings. Recognizing that one process does not fit all, Iowa DOT saw the importance of flexibility in tailoring the public involvement program to the particular needs of each project. To further the goal of open meetings and enhanced public involvement, the Implementation Team chartered a Public Involvement Team to develop recommendations and guidance on structuring flexible public information involvement for the Can-Do process. (See Chapter 5, Guide to Public Involvement – Part I, which focuses on Iowa DOT's public involvement philosophy and suggested approach.)

Notes

3.7 SCHEDULING

Q: What is being done about processes that are likely to cause a scheduling problem?

The best solution is early and continuous involvement of all stakeholders. To assist the PMTs, the Implementation Team developed a PMT Responsibility Checklist (see Appendix B). While the checklist is admittedly a first step at this time, the intent is for the PMTs to use it (and modify it as necessary) to ensure that key areas and issues are addressed in a timely manner.

Q: What should be done with hot priority projects that just drop in from the blue?

Significant concern was expressed (justifiably) about such projects which "just appear" and take priority over those projects that are moving "normally" through the process. This situation jeopardizes the entire Can-Do process, especially as it relates to resource allocation.

The Implementation Team fully recognizes the potential problem but has no complete or immediate solutions to offer. However, the only uncontrollable issue (with or without the Can-Do process) is that Iowa DOT is a public entity and therefore does not have full control over its destiny.

The Can-Do process offers the opportunity to manage scheduling challenges effectively because of PMT oversight, concurrent processing, improved communication, and stakeholder involvement. Taking a serious approach to managing projects, instead of letting the projects manage Iowa DOT, will enable a credible and viable scheduling process to be developed. At that point, office directors can begin to have a planning tool for telling Management, "You want to do 'X', but here are the impacts."

Until the scheduling engineer has a formal scheduling process in place, the PMT should employ the following interim measures:

- Formally lay out the project schedule at one of the first PMT meetings, modeling it after the schedule shown in Appendix A, Can-Do Gantt Charts.
- Complete the Can-Do Project Tracking Document (dated February 8, 1999) provided by the Implementation Team for each project and return it to the production schedule engineer. The Tracking Document is dynamic; it is to be filled out as completely as possible initially and then updated as additional benchmarks are reached. All Can-Do projects are to be monitored through the use of this document until a formal tracking process is operational.

3.8 BOTTLENECKS

Notes

Several comments during the listening sessions pertained to "what-if" scenarios. They were generally couched in a "cannot be done" tone rather than "here is a problem; here are potential solutions; and here are the irresolvable problems."

Q: What should be done about bottlenecks?

These bottleneck-related concerns fell into two categories:

1. Delays in obtaining information on traffic analysis and turning movements
2. Very limited capacity (one-person functions) in a few service areas within certain offices

Even though none of the functions in the second category are typically on the Can-Do critical path, the concern was that the lack of redundancy could have significant consequences within the streamlined Can-Do process. Conceivably, a situation could arise in which that particular task becomes a controlling item of work.

The Implementation Team responded by noting that the issue of project size may be complicating mental visualization of the magnitude of any single task within the Can-Do process. To illustrate, Corridor Development deals with corridors that may be many miles long and contain more than one alternative, at least in the early phases of development. Final design typically begins with the same-size project but then breaks it into smaller individual design projects that are a subset of corridors. There generally are multiple projects within a planning corridor.

The situation changes, however, when the new Can-Do customer is from a work group that deals with corridors and the baseline work reference is project size. The complications are magnified when neither the customer nor the provider communicates actual needs and priorities. Practically speaking, neither the customer nor the service provider can work on an entire 20-mile project (with multiple corridors) all at one time. It then becomes an issue of dividing the whole into pieces and setting priorities for those pieces.

The Can-Do process was modeled around a typical, slightly to moderately controversial, new four-lane construction project of about 5 to 7 miles. Larger and/or more controversial projects must be evaluated early by the PMT, and on an individual case-by-case basis, to determine scheduling restrictions, resource availability, opportunities for packaging and prioritization, etc.

During development of the Can-Do process, individual task start dates were moved forward and some were reordered. Very few individual process durations were shortened, however, and no durations were shortened without direct input from the affected office or section.

Consequently, if there was time in the old process to complete a job, something has changed to precipitate comments such as "it cannot be done": namely, in some cases, more work is now required because of multiple alignments; however, internal resources are finite and were generally fully committed before Can-Do.

In those cases where the work cannot be completed by internal resources within the customer's time frame, the work has to be outsourced. It is unacceptable for a support function or service provider to become an impediment to timely completion of the customers' work. Office directors and section leaders who find themselves in such a situation and do not have a ready solution are encouraged to bring concerns and unresolved problems to the Highway Division director and the Engineering Bureau director.

The issues of existing bottlenecks and "one-person functions" were corrected through awareness at the last Iowa DOT restructuring. The issue of obtaining timely traffic analysis and turning movements can be addressed by prioritizing individual segments within a request.

Notes

CHAPTER 4

Context-Sensitive Design

Notes

CHAPTER 4
CONTEXT-SENSITIVE DESIGN

Context-sensitive design (CSD) is a collaborative, interdisciplinary approach to project planning and development that transforms highway design. The CSD approach "considers the total *context*[1] within which a transportation improvement project will exist."[2] It fits the roadway into the environment[3] rather than modifying the environment to fit the roadway. Public input and project context guide the development of the project concept and design elements to provide "a transportation facility that suits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility."[4] CSD is an important part of the Can-Do process.

FHWA supports context-sensitive design. In its *Flexibility in Highway Design* guide, FHWA states: "For each potential project, designers are faced with the task of balancing the need for the highway improvement with the need to safely integrate the design into the surrounding natural and human environments."[5]

FHWA promotes CSD as an integral part of its efforts to advance environmental stewardship and streamlined implementation. In the memorandum attached to this chapter, FHWA explains that CSD "begins with the early project planning and scoping phases and involves the environmental and public participation process, preliminary and final design, and even construction." State Departments of Transportation (DOTs) are urged to "seek to institutionalize the principles of CSD with the same commitment that drove the implementation of the Interstate Highway System." This calls for "innovative thinking, improved coordination, cooperation, interdisciplinary decision-making, streamlined implementation, and community acceptance."

4.1 HISTORY OF CSD

The catalyst for CSD was the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA). FHWA's *Flexibility in Highway Design*, states:

> When Congress passed ISTEA in 1991 they . . . maintained a strong national commitment to safety and mobility . . . and made a commitment to preserving and protecting the environmental and cultural values affected by transportation facilities. The challenge to the highway design community is to find design solutions, as well as operational options, that result in full consideration of these sometimes-conflicting objectives. This guide is about designing highways that incorporate community

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1 The project *context* includes the environment and the people who live, work, or pass through the area.

2 FHWA, *Context Sensitive Design/Thinking Beyond the Pavement*, http://www.fhwa.dot.gov/csd.htm.

3 As used here, "environment" is an inclusive term that encompasses not only the natural and historic environments but also the human and socioeconomic environments.

4 FHWA, *Context Sensitive Design/Thinking Beyond the Pavement*.

5 Major portions of this chapter and the figures have been excerpted and adapted from *Flexibility in Highway Design*, FHWA-PD-97-062, http://www.fhwa.dot.gov/environment/flex/ch03.htm. References to other FHWA publications are also cited.

> values and are safe, efficient, effective mechanisms for the movement of people and goods. It is written for highway engineers and project managers who want to learn more about flexibility available to them when designing roads. Aesthetic, scenic, historic, and cultural resources and the physical characteristics of an area are always important factors because they help give a community its identity and sense of place and are a source of local pride.[6]

Subsequently, a policy statement in the 1994 American Association of State Highway and Transportation Officials (AASHTO) *National Highway System Design Standards* lends support to CSD. The policy states that AASHTO "will work on design criteria and a design process for NHS routes that integrate safety, environmental, scenic, historic, community and preservation concerns, and on standards which also foster access for bicycles and pedestrian traffic along with other transportation modes."

In addition, the 1995 National Highway System Designation Act[7] lends support to CSD. The 1995 act calls for designs that take into account "the constructed and natural environment of the area; the environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity; and access for other modes of transportation."[8]

CSD is not a totally new concept at Iowa DOT. The basics have been applied on a case-by-case basis for some time, though not to the full extent of CSD. Previous project examples are:

- An alternative bridge construction sequence proposed for U.S. 63 in Bremer County, proposed by District 2 to avoid opening an additional borrow site
- A retaining wall on U.S. 151 in Jones County, proposed by the Office of Design to minimize encroachment into a property while avoiding a wetland impact
- A curbed section on U.S. 63 in Mahaska County to reduce the ROW needs and avoid impacts on a pioneer cemetery
- Extension of a reinforced concrete box (RCB) on U.S. 65 in Polk County to minimize ROW needs and avoid a buried cultural site
- Location of U.S. 20 in Hardin County to avoid and minimize impacts to the Iowa River green belt
- U.S. 71 in Okoboji, Dickinsen County, where local citizens and citizen groups assisted in developing the highway template and aesthetics

The first four examples applied CSD principles very late in final design to avoid a problem, whereas the U.S. 20 project introduced CSD during design. The U.S. 71 project put CSD fully into practice even though it was completed long before CSD was a formalized approach.

Notes

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6 Excerpted from the Foreword to *Flexibility in Highway Design*, FHWA-PD-97-062.

7 Public Law (P.L.) 104-59.

8 See also *The History of Context Sensitive Design*, http://www.fhwa.dot.gov/csd.htm.

4.2 CONTRAST WITH TRADITIONAL APPROACH

Notes

CSD takes project development to a higher level by asking designers to "think beyond the pavement" and to consider the impacts a highway will have on the area it traverses. The resulting project is in harmony with its surroundings, and the various project elements are in harmony with one other.

CSD remedies the traditional situation in which the decisions made in the early planning and corridor development stages greatly limited flexibility during the detailed design phase and detracted from the ultimate design. Traditionally, detailed design occurred in the middle of the process, linking the preceding planning and corridor development phases with the subsequent final design, ROW acquisition, construction, and maintenance phases. While these are still distinct activities, Can-Do broke with the linear (end-to-end) process and introduced concurrent development among the various disciplines.

In contrast to the traditional approach, CSD allows flexibility when applying design standards as necessary to accomplish the overall project goals. CSD first analyzes the project purpose and need and then equally addresses safety; mobility; and preservation of scenic, aesthetic, historic, environmental, and other community values.

Community involvement plays a more critical role than in the past. In some situations, private citizens or citizen groups are a part of the project steering committee. Working together with Iowa DOT, communities can have their greatest influence on the final design features during the initial three stages – planning, corridor development, and early design.

4.3 KEY ELEMENTS

Successful CSD enhances design by including:

1. Early, ongoing use of a multidisciplinary design team to assist the PMT
2. Early and continuous public involvement
3. Definition of the project purpose, need, and goals
4. Extensive field reviews
5. Development of multiple alternatives (by starting with a blank sheet of paper and involving the public)
6. Attention to details and documentation of the pros and cons of these details as project development progresses
7. Development and evaluation of creative and innovative design solutions
8. Application of flexible and creative design criteria
9. Visualization techniques to help the public and external customers understand the project
10. Refinements during corridor development[9]

[9] Corridor development includes Events No. 1, RANK – Rank Projects, through No. 33, CMSP – Obtain Commission Support for the Project.

The following elaborates on three elements of CSD: public involvement, project definition, and visualization tools.

Notes

4.3.1 Public Involvement

Public involvement is effective only if sought from the beginning, while the need for the project is being defined and opportunities for design changes are the greatest. For a smoother and faster process, public input should also be enlisted while:

- Assessing the characteristics of the area
- Determining community values
- Identifying potential alternatives
- Solving design conflicts

These efforts should be proactive and should go far beyond the usual presentation of well-developed design alternatives at formal public meetings and hearings. For a variety of innovative techniques, see:

- Chapters 5 and 6, Guide to Public Involvement – Parts I and II, respectively
- *Public Involvement Techniques for Transportation Decision-making*, issued by FHWA and the Federal Transit Administration (FTA) in September 1996
- FHWA's *Community Impact Assessment: A Quick Reference for Transportation*, September 1996, which describes the community impact assessment process

Figure 4-1 illustrates the public's role in providing input along with professionals during the project development process.

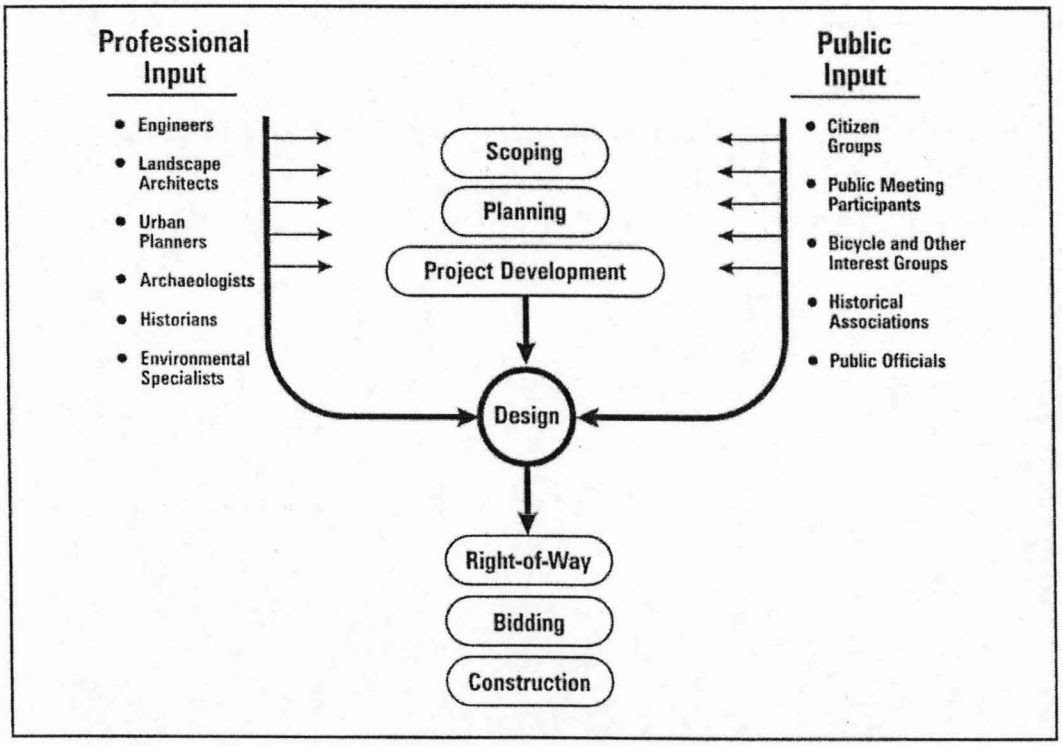

Figure 4-1. Balanced Design with Professional and Public Input

4.3.2 Problem Definition

Notes

4.3.2.1 Forward Vision

During the planning and corridor development stage, it has always been important to look ahead and consider the potential impact of a proposed facility or improvement. Forward vision is even more vital when CSD is applied because key decisions will affect and limit the design options in subsequent phases.

Questions to answer during the early stages, with the help of public involvement, include:

- How will the proposed transportation improvement affect the general physical character of the area surrounding the project?
- Does the area to be affected have unique historic or scenic characteristics?
- Does the area to be affected have any unique natural or human resources that need to be protected?
- What are the community's safety, capacity, and cost concerns?

Questions such as these provide an understanding of the landscape involved, the neighboring community, and the valued resources in the area before engineering design begins. Knowing, for example, which physical features are most valued by the community, and thus have the greatest potential for impact, can help designers avoid them. This reduces the need for mitigation and the likelihood for controversy.

4.3.2.2 Consensus

Typically, the need for any highway or bridge improvement project is first defined during the planning and/or corridor development stage. This definition usually occurs at the District, regional, and/or local level, depending on the scale of the proposed improvement. For all Iowa DOT work, this is the time to engage the public and obtain input into the decision-making process.

Regardless of the problem (or set of problems) identified, all parties must agree that the problem actually exists and that it is accurately identified and well defined. Consensus on acceptable solutions (a range, if possible) is also needed. If early consensus on the definition of the problem and possible solutions cannot be reached, it will be difficult to move ahead in the process and unrealistic to expect consensus on the final design.

Also, there must be agreement that the problem should be remedied. For example, some communities may decide not to pursue a project. They may acknowledge that a roadway is operating over its capacity, but may not want to improve the roadway for fear that such action would encourage more growth along the corridor. Similarly, road access may be a problem, but a community may decide against increasing access because it might spur development. Such decisions are not necessarily standard highway design solutions but are definitely well within the parameters of CSD considerations.

4.3.3 Visualization Tools

Notes

Effective communication between two parties requires a common language. In design, this can be achieved with illustrations that show stakeholders what a project will look like after it is built. Increasingly, computer-generated visualization tools are used for this purpose. Designers can communicate conceptually what they are planning for an area, and citizens can react with a certain degree of confidence that they understand what is intended. Lower-end computer systems use a photograph of the existing project area and, by means of computer graphics, superimpose a drawing depicting the new construction. Visualization tools such as these help the public gain a better understanding of the proposed project.

4.4 DEVELOPMENT OF A CONTEXT-SENSITIVE DESIGN CONCEPT

A design concept that follows CSD focuses the project and helps to move toward timely consensus building. Each of the many elements in a highway involves a number of separate but interrelated design decisions. Integrating all these elements to achieve a common goal helps the designer in making decisions. Figure 4-2 illustrates some of the many considerations involved.

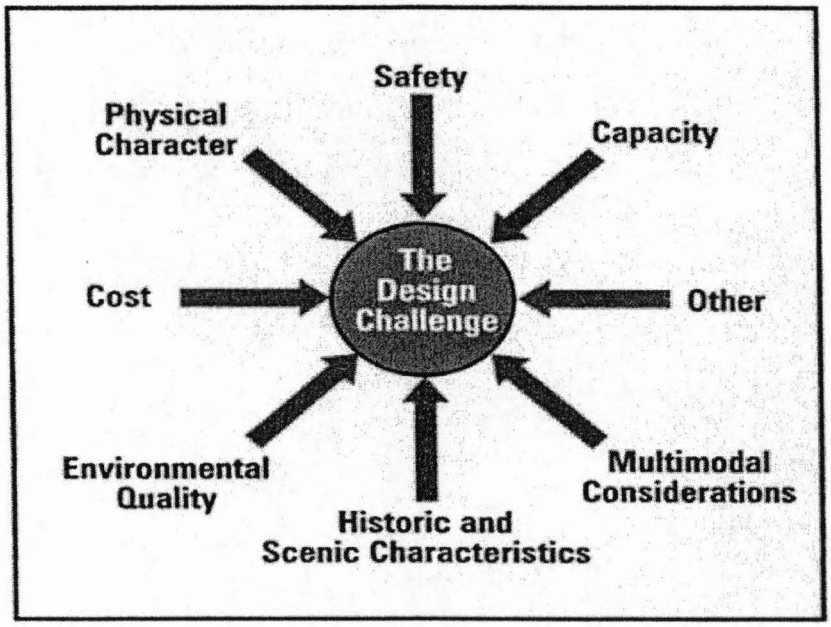

Figure 4-2. Design Considerations

Here again, Can-Do enhances CSD because the PMT is charged with:

- Achieving early and continuous public involvement
- Establishing a design theme for the roadway and/or determining the existing character of the corridor that needs to be maintained
- Maintaining design consistency with regard to physical size, visual continuity, and avoidance of environmental conflicts, all of which are important factors in CSD

Notes

These important functions of the PMT prevent having to force-fit design elements as add-ons late in the development process, such as landscape treatments to try to embellish a design that is not quite right or is unacceptable to the community. CSD enhances opportunities for early input from landscape architects, architects, planners, urban designers, and others. Enlisting their skills from the beginning increases the chances of project success.

Using public input and project context to guide the development of the concept helps achieve a harmonious, holistic design. Often this approach does not result in the lowest first-cost, and it does not always apply the highest (most conservative) design standards, but it is warranted to fit the roadway into the environment rather than unduly alter a sensitive environment to fit the roadway. In addition, this approach demonstrates to environmental stakeholders that impacts can be minimized.

4.4.1 Scale

People driving in a car see the world at a much different scale than people walking on the street. This large discrepancy in the design scale for a car versus pedestrians has changed the overall planning of our communities.

CSD fully integrates the two different design scales and considers the safety of pedestrian and non-vehicular traffic, along with the safety of motorists. For example, proper consideration of scale would minimize the chance of a proposed "improvement" turning a roadway that once allowed pedestrian access to both sides into a barrier and changing the way pedestrians use the road and its edges.

The wider the overall roadway is, the larger its scale. The design element with the greatest effect on the scale of the roadway is its width, or cross section. The cross section can include a clear zone, shoulder, parking lanes, travel lanes, and/or median. Certain design techniques can help to reduce the perceived width, and thus the perceived scale, of the roadway and make it look less imposing. Examples are:

- Limiting the width of pavement
- Breaking up the pavement with a grass or planted median
- Using grass shoulders, as in many parts of the Southeast
- Providing green space between the travel lanes and the sidewalks or non-motorized vehicle paths

Whether such design techniques are appropriate depends on the context of the area; volume, type, and speed of traffic; and the needs of pedestrians and bicyclists. These types of shoulders limit the perceived width of the roadway and still provide a breakdown area for motorists.

Elements (or a lack of elements) along the roadside also contribute to the perceived width of the road. The following may help reduce the perceived width and speed of the road:

- Horizontal and vertical alignment
- Cross section elements
- Vegetation along the roadway
- Buildings close to the road

- On-street parking
- Noise walls

Considering such elements as these is critical in designing a facility that is compatible with its surroundings. These elements can even affect the speed at which motorists travel. All else being equal, the wider the perceived road, the faster motorists will travel. Figure 4-3 illustrates the concept of perceived roadway width.

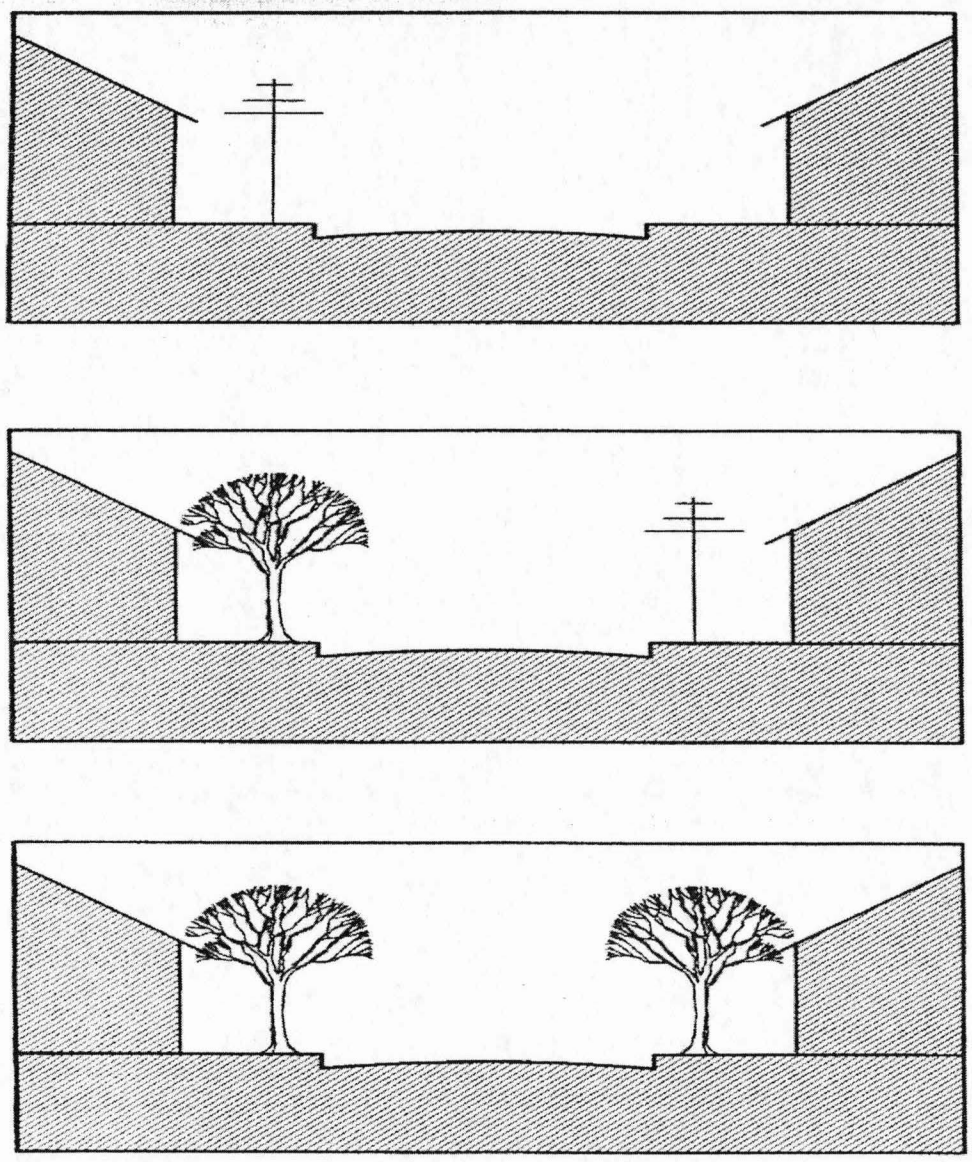

Figure 4-3. Differences in Perceived Roadway Width

Notes

4.4.2 Scoping

Notes

As in planning, many decisions are made during the scoping phase of corridor development, regardless of the level of detail being studied. Therefore, it is important to identify the various stakeholders in the project and give them the opportunity to become involved (see Chapters 5 and 6, Guide to Public Involvement – Parts I and II, respectively, for public involvement options). The general public should not be omitted during scoping, although a different approach is usually needed with the general public than with those who are more intensely interested.

A good community impact assessment will help identify stakeholders and avoid overlooking inconspicuous groups. This assessment process is described in FHWA's guide titled *Community Impact Assessment: A Quick Reference for Transportation.*[10]

To be sensitive to the environment surrounding the project, the PMT must carefully consider the context and physical location during all stages of development. This is true whether a house, road, bridge, or something as small as a waiting shelter for bus passengers is to be built. A data collection effort may be needed. Site visits and contacts with residents and other stakeholders in the area may also be involved in this effort.

Several important considerations during scoping are illustrated in Figure 4-4, Scoping Issues. Questions to ask at this stage include:

- What are the physical characteristics of the corridor? Is the setting urban, suburban, or rural?
- How is the corridor being used (other than for vehicular traffic)? Do bicycles and other non-motorized vehicles or pedestrians travel along the road? Are there destination spots along the traveled way that require safe access for pedestrians to cross?
- What is the vegetation along the corridor? Is it sparse or dense? Are there many trees or special plants?
- Are there important viewsheds from the road? On the other hand, are there reasons to obscure the proposed roadway?
- What is the size of the existing roadway, and how does it fit into its surroundings?
- Are there historic or especially sensitive environmental features (such as wetlands or endangered species habitats) along the roadway?
- How does the road compare with other roads in the area?
- Are there particular features or characteristics of the area that the community wants to preserve (such as a rural character, neighborhood atmosphere, or main street) or change?
- Is there more than one community or social group in the area? Are different groups interested in different features or characteristics? Are the groups affected differently by possible solutions?

[10] FHWA-PD-96-036, http://www.fhwa.dot.gov/environment//nepa/cia.htm.

- Are there concentrations of children, the elderly, or disabled individuals with special design and access needs (such as pedestrian crosswalks, curb cuts, audible traffic signals, median refuge areas)?

Notes

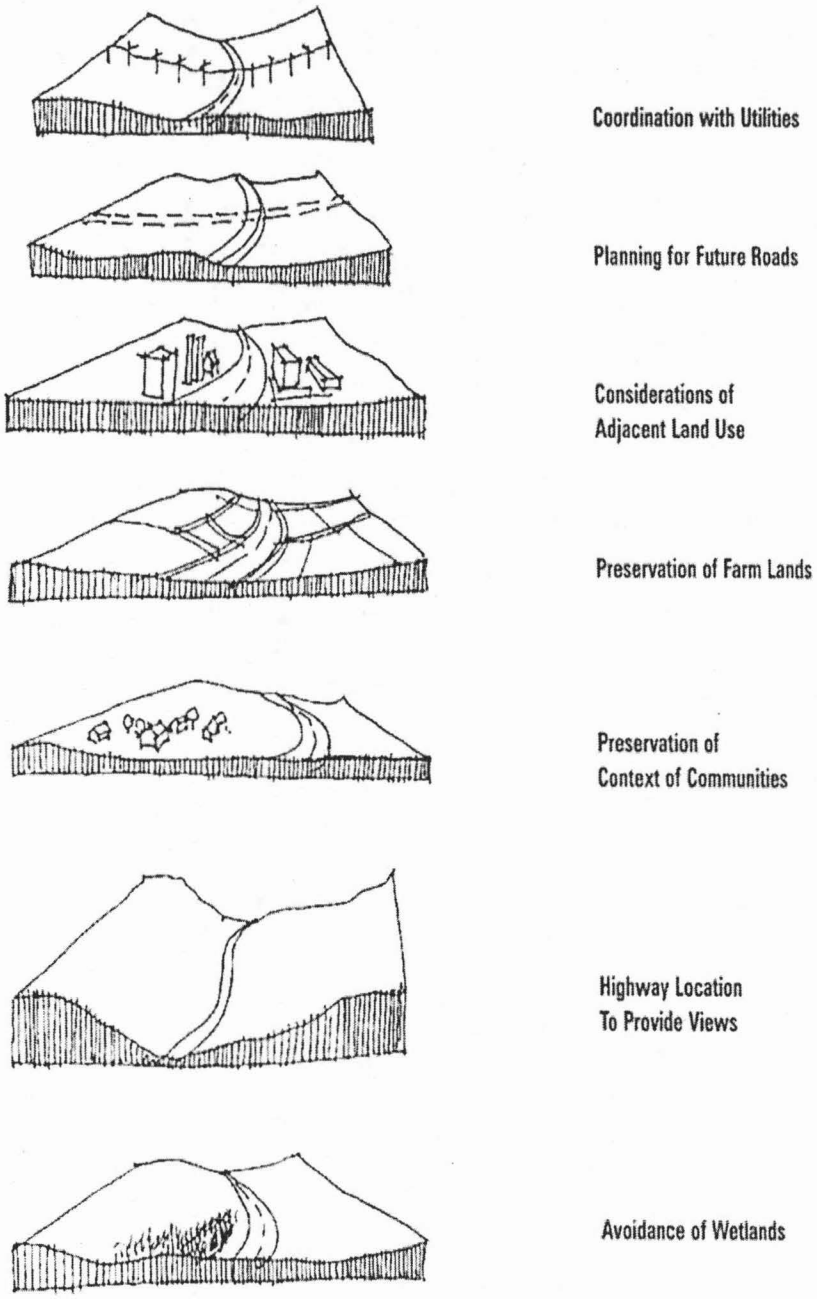

Figure 4-4. Scoping Issues

Notes

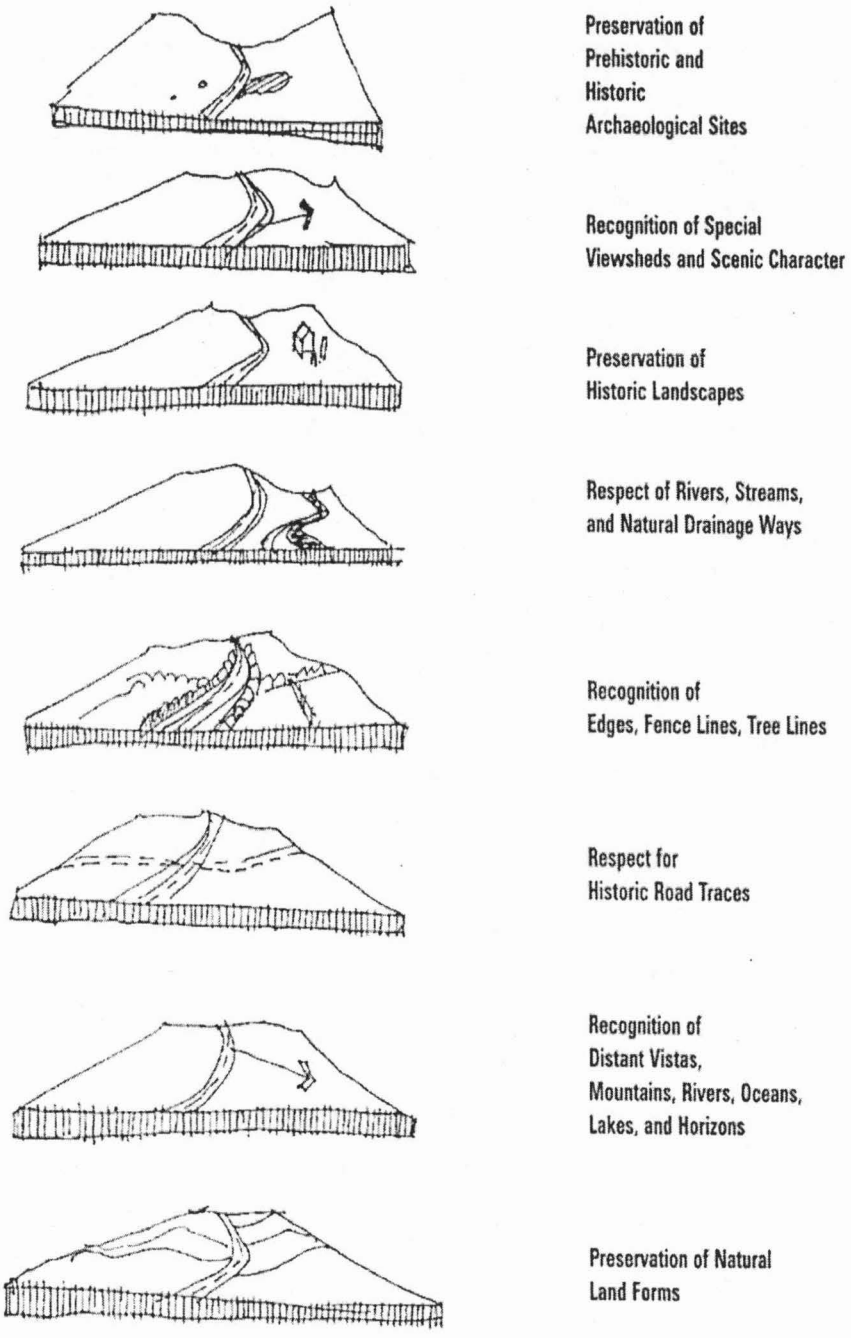

Figure 4-4. Scoping Issues (cont'd)

4.5 FLEXIBILITY IN DESIGN

Notes

After a preferred alternative has been identified, the environmental document is completed, and the Commission has approved it, a project moves into the final design and ROW acquisition stage. At this stage, imagination, ingenuity, and flexibility come into play within the general parameters established during planning and corridor development. Designers need to be aware of design-related commitments made during project planning and development, as well as proposed mitigation. They also need to recognize minor changes in the original project and design concepts developed during the planning phase that can result in a better final product.

4.5.1 Green Book

The reference most often used by designers during the design of a highway project is *A Policy on the Geometric Design of Highways and Streets*, commonly referred to as the "Green Book." It has been published by AASHTO, in one form or another, since the late 1930s. FHWA has adopted applicable parts of the Green Book as the national standard for roads in the NHS, which comprises all interstates and some other primary routes. The design of roads other than those in the NHS is subject to the standards of the particular state, which are usually based on Green Book criteria.

While the Green Book is often viewed as dictating a set of national standards, it is not a design manual. The Green Book is actually a series of guidelines on geometric design within which the designer has a range of flexibility. The foreword states:

> The intent of this policy is to provide guidance to the designer by referencing a recommended range of values for critical dimensions. Sufficient flexibility is permitted to encourage independent designs tailored to particular situations.

The Green Book guidance on the geometric dimensions of a roadway includes the widths of travel lanes, medians, shoulders, and clear zones; width and shape of medians; turning radii; and other dimensions. Many aspects of design are included by reference, rather than directly, such as:

- Aesthetic treatment of surfaces
- Agreement on, and writing of, the project purpose and need statement
- Design within the appropriate context
- Design criteria classification (see Section 4.5.4, Highway Classification), appropriate functional requirements, capacity, and level of service (discussed below in Section 4.5.6, Level of Service)
- Landscape development
- Light fixtures
- Roadside development
- Structure design
- Traffic operations

Notes

The new aspect in CSD is a broader view of the final product than is possible with Green Book design standards alone. CSD takes into account the natural and human environment through the expressed interests and involvement of affected stakeholders. Many of the same techniques employed to facilitate public participation during the earlier corridor development phases need to be continued during the final design phase.

4.5.2 Detailing the Design

The PMT is responsible for ensuring that important design details are considered and are compatible with community and environmental values. Often, the details of the project are the most recognizable to the public. For example, a special type of tree used as part of the landscape plan, antique lighting, brick sidewalks, and ornamental traffic barriers are all highly visible roadway elements that leave an impression. Therefore, the treatment of such details is a critical element of good design, although aesthetics and environmental avoidance/mitigation are not the only CSD considerations.

Design involves the difficult process of merging previous design decisions with the appropriate design criteria in the AASHTO Green Book and the Office of Design's Design Manual, working within the existing environmental and other important constraints, and using a designer's best judgment and experience to make decisions.

4.5.3 Design Exception Process

Despite the range of flexibility that exists with respect to virtually all the major road design features, there are situations in which the application of even the minimum criteria would result in unacceptably high costs or major impact on the adjacent environment. In such cases, when appropriate, the design exception process allows for the use of criteria lower than those specified as minimum acceptable values in the Iowa DOT Office of Design's Design Manual. Additional information is provided in the Green Book.

For projects on NHS routes, FHWA requires justification and documentation of all exceptions from accepted guidelines and policies as well as formal approval for 13 specific controlling criteria. Projects using only State funds are encouraged, though not required, to follow this justification and documentation process. Examples of these controlling criteria are:

- Bridge width
- Cross slope
- Design speed
- Grade
- Horizontal alignment and horizontal clearance (not including clear zone)
- Lane width
- Shoulder width
- Stopping sight distance
- Structural capacity
- Super-elevation
- Vertical alignment and vertical clearance

A few points to consider when evaluating design exceptions are:

- Effect on the safety and operation of the facility
- Compatibility with adjacent sections of the roadway
- Design criteria classification of the road, volume and character of the traffic, type of project, and accident history of the road
- Cost of attaining full standards and any resultant impact on scenic, historic, or other environmental features
- Degree to which a guideline is being reduced
- Effect on other guidelines
- Any additional features being introduced that would mitigate the design exception

Notes

4.5.4 Highway Classification

4.5.4.1 Relation to Highway Design

The Green Book explicitly recognizes the relationship between the functional classification of a highway and the design criteria. FHWA defines *functional classification* as "the process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide."[11] There are three functional classifications for all streets and highways: arterial, collector, and local roads. The classification depends on the character of the traffic (local or long distance) and the degree of land access allowed.

State, county, and city highway design manuals likewise relate the functional classification to the design criteria. The Green Book states:

> The first step in the design process is to define the function that the facility is to serve. The level of service required to fulfill this function for the anticipated volume and composition of traffic provides a rational and cost-effective basis for the selection of design speed and geometric criteria within the range of values available to the designer (for the specified functional classification). The use of functional classification as a design type should appropriately integrate the highway planning and design process.

The functional classifications listed in the Green Book are not used in Iowa. Instead, Iowa DOT has opted for the following design criteria classification system:

- Freeway – a multi-lane divided highway with full access control[12]
- Expressway – a multi-lane divided highway with at-grade intersections, often in combination with interchanges at high-volume intersections and primary routes
- Urban – a roadway with an urban cross section controls surface drainage using curbs and an enclosed storm sewer system

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11 *Flexibility in Highway Design*, FHWA-PD-97-062.

12 Access is allowed only at interchanges.

- Super-2 – a rural two-lane undivided highway with at-grade intersections and enhanced geometrics to improve operational and safety features
- Two-lane

The design criteria classification of a particular roadway defines the allowable range of design speed, which, in turn, defines the principal limiting design parameters associated with horizontal and vertical alignment. Similarly, the design criteria classification establishes the basic roadway cross section in terms of lane width, shoulder width, type and width of median area, and other major design features.

The design criteria classification process, as it relates to highway design, is important because the classification decisions are made well before an individual project is selected to move into the design phase. Moreover, such decisions are made on a systemwide basis by the city, county, Iowa DOT, or metropolitan planning organizations as part of their continuing long-range transportation planning functions. Such systematic reassessments are typically undertaken on a relatively infrequent basis. Thus, the classification of a particular section of highway may well represent a decision made 10 or more years ago. Even after the decision has been made to classify a highway section, there is still a degree of flexibility in the major controlling factor of design speed.

4.5.4.2 Periodic Re-evaluation

Traffic service patterns on a roadway and the roadway's function can change over time. If the classification system for a specific jurisdiction is not updated on a regular basis, roadways may be designed using inappropriate design standards.

The CSD solution is to re-evaluate a locality's highway classifications on a relatively frequent and regular basis to ensure that the classification of any particular route accurately reflects the current and foreseeable traffic function. This continuing reassessment process can be viewed as an application of design flexibility even before the decision is made to begin designing a particular project. The decision to change the classification should be made based on a careful review of changed conditions and sound reasoning.

4.5.4.3 Limitations

One of the difficulties surrounding the relationship between highway classification and design guidelines is that the classification process is not an exact science. The predominant traffic service associated with a particular route cannot be definitely determined without exhaustive origin-destination surveys of traffic patterns on each link of the road network. Engineering judgment based on experience, together with public input, must play a role in making design decisions.

Design criteria classification guidelines established in the Office of Design's Design Manual have overlapping ranges of values. This allows the designer greater flexibility in choosing the most appropriate road design within the determined classification. This flexibility allows designers options to create CSD solutions that are appropriate for that roadway without creating a design exception.

Notes

4.5.4.4 *Impact of Land Use Changes*

Notes

Land use is an important determinant of the function of an area's roads. As land use changes because of development, especially at the urban fringe, road functions also change. It is not uncommon for roads that once served as rural local access routes to farmland to become routes serving suburban residential subdivisions and commercial land uses. These roads should then be reclassified as reduced-speed urban facilities[13] or transitional facilities,[14] depending on the intensity of development and the type of traffic generated by the development. Design standards or guidelines must also change to meet actual or impending change in traffic character and road function.

Furthermore, a local jurisdiction's actions to control or direct the form and location of growth or to preserve the current physical and scenic characteristics of a highway corridor should reflect the need to re-examine existing classifications, and perhaps even jurisdictional responsibilities. For example, the construction of a new controlled-access bypass route might allow for a downward reclassification of what had been a Super-2 or rural two-lane route through a community to a transitional or reduced-speed urban facility.

4.5.5 Role of Design Speed

4.5.5.1 *Design Speed Designation*

Design speed warrants further discussion because CSD emphasizes flexibility, fitting the highway into the environment, and minimizing accumulated conservatism. The design speed is used to determine individual design elements, such as stopping sight distance and horizontal curvature. Therefore, designation of the design speed is pivotal to all the various design elements affected by it and should be justified on that basis.

The selected design speed affects all geometric design elements of the highway in some way. Some roadway design elements are related directly to, and vary appreciably with, design speed. These include horizontal curvature, super-elevation, sight distance, and gradient. Other elements are less related to design speed, such as pavement and shoulder width and clearances to walls and traffic barriers. The design of these features can, however, significantly affect vehicle operating speeds. As a result, more stringent criteria for these features are generally recommended for highways with higher design speeds. Conversely, less stringent criteria for these features may be more appropriate for roadways with lower design speeds.

The designation of a design speed is influenced by:

- Design criteria classification of the highway
- Character of the terrain
- Density and character of adjacent land uses
- Anticipated traffic volumes
- Economic and environmental considerations

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13 A reduced-speed urban facility is a roadway with an urban cross section and reduced speed.

14 A transitional facility is a roadway that transitions between a high-speed rural driving environment and a reduced-speed urban environment.

Notes

AASHTO Green Book and Iowa DOT design standard values are minimum acceptable design speeds for the various terrain conditions and traffic volumes associated with new or reconstructed highway facilities. For CSD, designers have to balance the advantages of a higher design speed against the flexibility lost in design. It may be more important to retain the maximum possible flexibility so that a context-sensitive roadway more in tune with the needs of a community is designed using a lower design speed.

For example, for any particular highway other than a freeway or expressway, the design speed would typically decrease as land use density increases. The design speed of an urban collector street passing through a residential neighborhood should be appreciably lower than that of a rural highway with the same functional design classification. This also recognizes the fact that bicycles and pedestrians would be more likely to use a route located in an urban area.

Similarly, in areas with significant historic interest or visual quality, a lower design speed may be appropriate because of lower average operating speeds and the need to avoid affecting the historic or aesthetic resources.

The Green Book, in agreement with this philosophy, states:

> Above-minimum design values should be used where feasible, but in view of the numerous constraints often encountered, practical values should be recognized and used.

There is a range of allowable design speeds that may be appropriate for each of the various functional design classifications for use in the design of new or reconstructed highway facilities. Situations may arise where even the use of the lowest typically acceptable value would result in unacceptably high construction or ROW costs or impacts on adjacent properties. In such instances, design exceptions can be employed. For the most part, design exceptions are easy to identify and define. For example, the reconstruction of a two-lane rural arterial route through a relatively flat but environmentally sensitive area might need to employ a design speed of 50 mph rather than the recommended design classification of 60 mph.

4.5.5.2 Application of Appropriate Design Speed

For some projects, affected community residents may perceive an imbalance between what they consider to be an appropriate scale of improvement and what the highway designers deem appropriate. Much of this conflict can be traced to the design speed for the specific project.

For example, an older two-lane rural road with a posted speed limit of 45 mph may be adequate to accommodate current and anticipated future traffic demands, except for a short section that contains several sharp curves and has a high incidence of accidents. If this facility were classified as a minor arterial, the State's design criteria might suggest a minimum design speed in the range of 60 to 70 mph for reconstruction of the deficient roadway section. The reconstructed section would then have a significantly higher design speed (and, hence, a higher operating speed and magnitude of physical impact on its surroundings) than the immediately adjacent sections of highway, resulting in a potentially unsafe condition.

A CSD solution would be to apply a lower uniform design speed over the entire length of the route. This would suggest a 50 mph design speed for the reconstruction project to preserve the design continuity and character of the route.

Note that the design speed must be higher than the posted speed and should also be above the operating speed on a facility, regardless of the posted speed.

Notes

4.5.6 Level of Service

Once an appropriate design speed has been selected, the other basic defining elements of the highway – the number of lanes and basic configuration of junctions with other highway facilities – can be determined. This is done by applying the acceptable peak-hour level of service (LOS), which is a grading system for the amount of congestion. LOS "A" represents the least amount of congestion, and "F" refers to the greatest amount.

The appropriate degree of congestion (that is, the LOS) to use in planning and designing highway improvements is determined by considering a variety of factors, including the desires of the motorists, adjacent land use type and development intensity, environmental factors, and aesthetic and historic values. These factors must be weighed against the financial resources available to satisfy motorists' desires.

While the *Highway Capacity Manual* provides the analytical basis for design calculations and decisions, judgment must be exercised in selecting the appropriate LOS for the facility under study. Then all elements of the roadway should be designed consistently to the selected LOS.

For example, along recreational routes subject to traffic demands that vary widely with the time of year, or in response to environmental or land use considerations, the designer may find it appropriate to select a LOS lower than what is usually recommended. The selection of the desired LOS for a facility must be weighed carefully because the facility's overall adequacy depends on this decision.

4.5.7 Horizontal and Vertical Alignments

4.5.7.1 Holistic Design

One definition of a visually attractive and unobtrusive highway is the degree to which the horizontal and vertical alignments of the route have been integrated into its surrounding natural and human environments. This takes careful planning and design, as noted in the Green Book:

> Coordination of horizontal alignment and profile should not be left to chance but should begin with preliminary design, during which adjustments can readily be made. The designer should study long, continuous stretches of highway in both plan and profile and visualize the whole in three dimensions.

The degree to which a road is integrated into its surroundings separates the outstanding project from one that merely satisfies basic engineering design criteria. The book *Aesthetics in Transportation* describes this holistic design process:

> A general rule for designers is to achieve a "flowing" line, with a smooth and natural appearance in the land, and a sensuous, rhythmic continuity for the driver. This effect results from following the natural contours of the land, using graceful and gradual horizontal and vertical transitions, and relating the alignment to permanent features such as rivers or mountains.[15]

Notes

The greatest opportunities for influencing the horizontal and vertical alignments of a highway occur during the planning and preliminary engineering phases associated with a new-location facility. The designs of such facilities have the most dramatic effects on the natural and human environments through which they pass.

Important points to consider regarding horizontal and vertical alignments are that they should be consistent with the topography, preserve developed properties along the road, and incorporate community values. Superior alignments are those that follow the natural contours of the land and have no detrimental impact on aesthetic, scenic, historic, and cultural resources along the way. When less earthwork is needed, construction costs can be reduced in many instances and resources preserved. It is not always possible to avoid impacts on both the natural and human environments. Therefore, superior alignments incorporate input from the community through a participatory design process.

When possible, the alignment should be designed to enhance attractive scenic views, such as rivers, rock formations, parks, historic sites, and outstanding buildings. The designation of certain highways as scenic byways recognizes the importance of preserving such features along our nation's roadways.

Equally as important as the facility's horizontal alignment is its vertical alignment. Factors that influence the vertical alignment of a highway include:

- Natural terrain
- Minimum stopping sight distance for the selected design speed
- Number of trucks and other heavy vehicles in the traffic stream
- Basic roadway cross section, such as two lanes versus multiple lanes
- Natural environmental factors, such as wetlands
- Historic, cultural, and community resources

This country has numerous examples of excellence in integrating the horizontal and vertical alignments of highways into their surroundings. Unfortunately, there are also examples of new or widened highways that have scarred a rural landscape or disrupted an established community. While these past actions cannot easily or inexpensively be rectified, future problems can be avoided by applying CSD and the creative approaches outlined herein.

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[15] Lajos Héder and Ellen Shoskes, *Aesthetics in Transportation,* USDOT, 1980.

4.5.7.2 Cross Section Elements

Notes

Some of the most challenging aspects of highway design have to do with cross section elements, which include the number of lanes, width of travel lanes and shoulder areas, type of drainage, and desirability of including sidewalks or bicycle/pedestrian paths as part of the project. The cross section elements contribute to the theme of the roadway, and the design of these elements can add greatly to the appearance of the highway. The ROW can be defined as the publicly owned parcel of land that encompasses all the various cross section elements, considered as a unit.

Some decisions about the cross section, such as the capacity and number of lanes, are made during project development. Other decisions, such as the functional design classification, are made earlier in the process. Within these parameters, the Green Book recommends a range of values for the dimensions to use for cross sectional elements. Deciding which elements to include and selecting the appropriate dimensions within these ranges is the role of the designer. In selecting the appropriate cross section elements and dimensions, designers need to consider factors such as:

- Volume and composition (percentage of trucks, buses, and recreational vehicles) of the vehicular traffic expected to use the facility
- Likelihood that bicyclists and pedestrians will use the route
- Climatic conditions (such as the need to provide storage space for plowed snow)
- Presence of natural or human-made obstructions adjacent to the roadway (such as rock cliffs, large trees, wetlands, buildings, and power lines)
- Type and intensity of development along the section of highway being designed
- Safety of the users

The most appropriate design for a highway improvement is the one that balances the mobility needs of the people using the facility (motorists, pedestrians, or bicyclists) with the physical constraints of the corridor within which the facility is located.

Some of the first elements that users of a facility notice are details such as the design and width of the median and traffic barriers and the selection of plant material. Even if highway facilities are designed with the greatest concern to fit them into their surrounding environments, they still can leave an unappealing impression without carefully thought-out design of cross section details. For example, designers may go to great length to preserve vegetation along the roadway because of its importance to the community and its scenic qualities. If they use concrete barriers as shields in front of this vegetation, however, that one element may be what catches the users' attention. Figure 4-3, above, illustrates the influence of cross section details on the perception of roadway width. The CSD solution is to work with a multidisciplinary PMT from the beginning of the project development process through the last design detail to achieve a unified look.

4.5.8 Avoidance of Impacts

During the era of interstate construction from the 1950s to the 1980s particularly, a number of instances of new highway construction had a devastating impact on communities and areas of environmental sensitivity. It is readily acknowledged that there will be some degree of physical impact on the surroundings associated with the

construction of any new-location highway or major reconstruction or widening of an existing highway. From the perspective of horizontal and vertical alignment, however, much of this impact can and should be alleviated.

The CSD solution is to minimize impacts on the surrounding human and natural environments by careful attention to detail during the route location and preliminary design phases and by a willingness of all concerned parties to work together toward a common goal. When the horizontal and vertical alignments are designed separately from one another, unnecessarily large cuts and fills may be required, resulting in very dramatic and often visually undesirable changes to the natural landscape.

One way to ensure the most effective coordination of horizontal and vertical alignment is to use a multidisciplinary PMT during the planning and engineering phases of a project. The combined expertise of landscape architects, urban designers, structural engineers, and historic preservationists, in addition to civil engineers and highway designers, can result in superior highway improvement projects.

4.5.9 Restricted Right-of-Way

Many existing roads were not built to today's standards. These roads may be located in restricted ROW corridors that have scenic or historic resources adjacent to the roadway. Efforts should be made to avoid impacts on these resources when considering highway improvements.

CSD offers three potential solutions:

- Reconsider the design criteria classification and design speed of a particular section of highway. These are key decisions in defining the basic design parameters for an improvement of the facility. Changing the functional design classification or lowering the design speed decreases the minimum width dimensions of the cross section elements.
- Maintain the road in its existing condition.
- Designate the road as a rehabilitation, resurfacing, and restoration (3R) project. Design criteria are generally lower for 3R projects than for reconstruction projects.
- Seek design exceptions.

Whichever alternative is chosen, the designer should try to maintain consistency in the roadway cross section. If only a small stretch of highway is located within restricted ROW, it would be unsafe to narrow that stretch while maintaining a much higher roadway width before and after it.

4.5.10 Bridges and Other Major Structures

Bridges and other related major structures play an important role in how a highway affects the aesthetic, scenic, historic, and cultural resources of the corridor in which it is located. Some of the distinguishing features of a number of major cities are their bridges. For example, thoughts of San Francisco bring the Golden Gate Bridge to mind. Even smaller structures have a visual impact.

Notes

4.5.10.1 Guidelines for Geometrics of Bridge Design

Notes

The geometric criteria in the Green Book for new or replacement bridges deal primarily with the width of the bridge deck and its relationship to approach roadways. Early design coordination is important when establishing the width of a new or replacement bridge and determining its horizontal and vertical alignment. Input from highway engineers, architects, and landscape architects, as well as members of the community, can help the bridge designer determine the appropriate geometric dimensions and overall appearance of the bridge. The Green Book offers a range of options for cross section widths for bridges with a span of less than 90 ft, depending on the functional design classification and ADT.

The Green Book recommends that the minimum clear width for new bridges be the same as the curb-to-curb width of the approach street. In addition to determining the cross section width, a bridge designer must consider the need for pedestrian and non-vehicular traffic over the bridge and the most appropriate method of accommodating this traffic, such as including a wide shoulder, a raised sidewalk, or both. If sidewalks are on the approach road, continuity of the sidewalk over the bridge is important.

For existing bridges that do not meet the criteria for travel-way width, the Green Book recognizes that those that tolerably meet the criteria may be retained. Factors in considering the retention of existing bridges include "the aesthetic value and the historical significance attached to famous structures, covered bridges, and stone arches".[16] Because of this, AASHTO has criteria for minimum roadway widths and minimum structural capacities for bridges that are to remain in place. It is important to consider this option for each aesthetically and historically significant bridge on a case-by-case basis before deciding to demolish and replace it.

4.5.10.2 Design Elements

In addition, designers must consider many design elements. Basically, bridges are viewed from two perspectives:

- Traveling over the bridge deck, the driver of a vehicle sees the travel-way, bridge railings, and view to either side.
- Crossing over another roadway, the driver can view water or land both on the side and underneath.

Bridge designers should keep in mind that these two perspectives may require consideration of additional aesthetic treatments for the bridge.

For the design of the bridge deck, the major components include the width of the roadway and shoulders and pedestrian and other non-vehicular accommodations, as mentioned above. Other components include railings, lighting fixtures, and other design details. For the side of the bridge, the major components include the piers, the side fascia, abutments, and wing walls. In addition, the bridge railings and other fixtures selected for the top of the bridge play a design role for the side because they can be seen from below.

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[16] AASHTO Green Book, p. 423.

4.5.10.3 Compatible Design Scale

When rehabilitation of existing bridges is not feasible, a common concern of local residents is whether the proposed new structure will visually fit into the community. The CSD solution for designing a visually attractive and context-sensitive new bridge is to be flexible and to work with the community from the beginning to obtain public input. Professionals from other disciplines, such as architects, can also assist, especially if engaged early in the design of the structure. It is important to consider how use of the geometric criteria will affect the overall scale of the bridge and how that scale will relate the bridge to its surroundings.

Notes

Memorandum

U.S. Department
of Transportation

Federal Highway Administration

Subject: ACTION: Context-Sensitive Design

Date: January 24, 2002

Sign by: Mary E. Peters

From: Mary E. Peters
Administrator

Reply to:
Attn. of: HIPA-20
Seppo Sillan
366-1327

To: Directors of Field Services
Resource Center Managers
Division Administrators

As you know, I believe it is important for FHWA to identify the most critical areas where we can make a difference. So that we can all concentrate our effort on the critical areas, we jointly selected the "Vital Few," which are: Safety, Environmental Stewardship and Streamlining, and Congestion Mitigation.

Context-Sensitive Design (CSD) is an approach that places preservation of historic, scenic, natural environment, and other community values on an equal basis with mobility, safety and economics. I am asking for your support and assistance in advancing CSD as an element of our Environmental Stewardship and Streamlining efforts.

A transportation facility is an integral part of the community's fabric and it can help define the character of the community or it can destroy it. A context-sensitive approach to planning and designing transportation facilities will help us to better understand that role and properly address it.

Our State departments of transportation (State DOT) partners and we in the FHWA should view CSD as an opportunity to connect with the communities and the constituents that we serve. We should seek to institutionalize the principles of CSD with the same commitment that drove the implementation of the Interstate Highway System. We are in an era that calls for innovative thinking, improved coordination, cooperation, interdisciplinary decision-making, streamlined implementation, and community acceptance. These are lofty but necessary goals. I encourage each of you to work tirelessly in partnership with your State DOT and other partners toward initiating CSD concepts where they do not exist, and toward sustaining them where they do.

If you have questions, we are prepared to offer technical assistance to your staff and the State DOT. You may contact Seppo Sillan, (202) 366-1327, seppo.sillan@fhwa.dot.gov or Harold Peaks, (202) 366-1598, harold.peaks@fhwa.dot.gov.

Figure 4-5

SUMMARY SHEET

SUBJECT: Context-Sensitive Design (CSD)

ISSUE: FHWA's position on CSD principles

FHWA POSITION: FHWA supports the CSD approach to project development. This memorandum encourages the divisions to work in partnership with State DOT's toward initiating CSD concepts where they do not exist, and toward sustaining them where they do.

BACKGROUND: The 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) and the 1995 National Highway System (NHS) Designation Act both encouraged and emphasized greater flexibility in highway design. The NHS Act specifically added human and natural environment, modal access and community interests to the factors commonly weighed in highway design, such as safety, durability and economy of maintenance.

Context-sensitive design is a process that begins with the early project planning and scoping phases and involves the environmental and public participation process, preliminary and final design, and even construction.

The initial actions that began to define what we now are calling context-sensitive design (CSD) included the development and publication of FHWA's "Flexibility in Highway Design" publication in 1997 and the Maryland "Thinking Beyond the Pavement" conference the following year. Since then, FHWA, AASHTO, the State DOT's and others in the transportation community have been full partners in promoting design that recognizes the context in which the roadway exists. We have sponsored or co-sponsored other national conferences on CSD and jointly with AASHTO, we have established a website to share the latest information on context-sensitive design (www.fhwa.dot.gov/csd/index.htm).

POINT OF CONTACT: Seppo I. Sillan, HIPA-20, 61327

SUPERVISOR: Dwight A. Horne, HIPA, 65530

CHAPTER 5

Guide to Public Involvement – Part I

Notes

CHAPTER 5
GUIDE TO PUBLIC INVOLVEMENT – PART I

This chapter is the first part of a guide for creating and implementing successful public involvement programs. The guide includes techniques for enlisting public participation and explains how to develop, implement, and evaluate a public involvement plan (PIP). Also see Appendix E, Iowa Department of Transportation's Project Development Public Involvement Plan.

The focus of this chapter is Iowa DOT's public involvement philosophy and suggested approach. Iowa DOT's goal for such programs is to build and sustain relationships with citizens, business people, interest groups, legislators, and other government agencies.

For complementary information, see Chapter 6, Guide to Public Involvement – Part II, which is based on U.S. Environmental Protection Agency (EPA) and FHWA sources. Together, the two chapters constitute a reference guide for use by Iowa DOT personnel, consultants, and personnel from other administrative jurisdictions engaged in the public involvement phase of project development. These chapters provide the means to promote meaningful public involvement while attempting to minimize controversies that delay projects and erode public trust. Their purpose is to instruct and motivate.

If there are any questions about Iowa DOT's public involvement policy or preparing a PIP, please contact the Office of Location & Environment – Public Hearing Section.

5.1 A, B, C'S OF PUBLIC INVOLVEMENT

5.1.1 Definition and Origin

Public involvement is service to the community. Citizens of the U.S. have had input into the government process since the founding of this country. Government "of the people, by the people, and for the people" is a basic element of democracy and forms the underlying ideal of public involvement.

5.1.2 Importance

Iowa DOT's primary responsibility is service to the public. Transportation improvements, especially the construction of large-scale facilities, influence the overall economic and social development of a community. Therefore, the public should be involved. Local citizens should have the opportunity to participate fully in making decisions that affect their individual lifestyles and shape their collective future.

Public involvement has always been part of a successful public agency's policy. This is illustrated in a world where competing interests must come to consensus on how to address multiple social needs. As might be expected, solutions to difficult and important questions are rarely easy to achieve. No formula can be applied to arrive at the "right" answer.

The process of soliciting, listening to, and responding to what citizens and stakeholders have to say about a public agency's plan for action can be complicated, challenging, and often intimidating for all involved. When it is done well, however, the process becomes

a rewarding and meaningful experience that leads to better policy decisions. People are expecting greater accountability from public officials. They are also demanding higher levels of efficiency and quality from the products and services provided by government agencies. In many instances, projects and programs are being scrutinized to ensure they are worthy of the public's investment and are in the public's best interest. The public also understands that no issue is so compelling that it cannot be challenged.

At the same time, skepticism exists as to whether the public's involvement will lead to any real influence on government programs or projects. Unfortunately, the history of gathering citizen input reinforces this perception. Holding one or two formal public hearings after the bulk of planning and project development decisions have been completed is clearly not sufficient for any agency committed to being responsive to the public's needs. Failure to seek meaningful public involvement can severely affect the final outcome of a project, plan, or study.

Therefore, Iowa DOT must actively seek citizen input and explicitly consider this input in its decision making. In addition, Iowa DOT must develop PIPs with attention to the complexities of the project and tailor each PIP to the individual project. Doing so will foster improved two-way communication and mutual trust, leading to the development of better projects and services.

Purposeful communication with a community is nearly always productive. An organized public involvement program ensures that citizens' expectations are met and their concerns are addressed. It also provides citizens with a better understanding of how transportation problems can be solved through active dialogue.

5.1.3 Reaching Out and Building Consensus

Openness is a fundamental ingredient of a successful public involvement program. It is gained by approaching the public as partners during the earliest stages of project development. Reaching out and making Iowa DOT's presence known early and often provides the community with access to the decision makers and promotes openness in discussing the issues. This also allows Iowa DOT representatives to gain an understanding of the community's issues and creates a sense of shared responsibility during the project's development.

Therefore, public involvement programs should:

- Seek information and meaningful comments from the public.
- Enable an open dialogue with interested citizens.
- Assess the public's reaction to alternatives.
- Provide the public with access to decision makers.
- Include public views and preferences in decision making and document that consideration.
- Strive to reach a consensus within the community on a recommended course of action.
- Provide useful, timely information to the community throughout project development.

Notes

Throughout project development, Iowa DOT strives to build consensus – among the resource and regulatory agencies as well as with the public. Consensus is desired for all major issues, such as project needs, alternatives, and mitigation measures.

A well-organized public involvement program can effectively guide public discussion toward resolution of key issues. The public involvement program should outline the techniques and practices that can focus public dialogue and local involvement in a productive and useful way.

Iowa DOT's public involvement efforts give Iowa residents an important role in shaping the decisions that will affect their communities. This cooperative approach to transportation planning involves Iowa DOT, elected officials, stakeholders, and other local citizens in a continuing dialogue about the community's goals for the future. Together, they can then determine the specific transportation improvements needed to help the community achieve its goals.

5.1.4 Legal Requirements

Iowa DOT's efforts to involve the public meet Iowa Code Chapter 6B as well as the federal government's requirements for citizen participation, including:

- The Federal Highway Administration's regulations
- The Americans with Disabilities Act (ADA) of 1990
- The Clean Air Act Amendments (CAAA) of 1990
- Executive Order 12898 of 1994 concerning Environmental Justice for minority and low-income populations
- The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991
- The Transportation Equity Act for the 21st Century (TEA-21)
- The National Environmental Policy Act (NEPA) of 1969

The procedures in this guide apply not only to federally funded projects that require NEPA documents (including environmental impact statements, categorical exclusions, and environmental assessments) but also to non-federal-aid projects. While looking at compliance with these regulations, Iowa DOT must create an environment that takes stakeholder and agency needs into account. For information on conducting the public involvement process in compliance with federal and State regulations, see Appendix E, Iowa Department of Transportation's Project Development Public Involvement Plan.

5.1.5 Commitment

Public involvement is successful only when everyone involved in planning and project development has made a commitment to it in terms of time, resources, and energy. The challenge may seem daunting, but it is one that public agencies cannot afford to ignore. Not only is public involvement required by law, but it also will help develop the best plans and projects possible. Ultimate success can be realized only by going out into communities and engaging in a dialogue with all stakeholders.

Notes

5.1.6 Goal and Objectives

Notes

As stated above, Iowa DOT's goal for public involvement programs is not merely to satisfy the letter of the law, but to build and sustain relationships with citizens, business people, interest groups, legislators, and other government agencies. Iowa DOT is genuinely committed to addressing the particular concerns and needs of local interests.

The objectives for involving the public in project development are to carry out public involvement programs that are appropriate to the type, size, and interests of the community and the type, size, and complexity of the project. Timely notice of events must also be provided, along with the opportunity for the public to identify and comment on transportation needs.

5.2 PUBLIC INVOLVEMENT RESPONSIBILITIES

Various Iowa DOT offices, as well as FHWA and consultants, have certain responsibilities for the public involvement program, as outlined below. In addition, the same offices and FHWA serve on the PMT, as discussed in Section 5.4, Developing a Public Involvement Plan.

5.2.1 District Office

The District Office confers with the PMT and the Office of Location & Environment – Public Hearing Section in preparing a PIP for a proposed project.

It is the responsibility of the District Office to secure a hearing or meeting site after a date has been set as well as to provide the Public Hearing Section with a list of invitees, including officials, schools, and emergency services. When Iowa Code Chapter 6B compliance is required, a certified list of property owner names and addresses from the Auditor's Office is required. The District Office also should provide adequate personnel to assist with the hearing or meeting.

5.2.2 Office of Location & Environment

The Public Hearing Section of the Office of Location & Environment is responsible for setting the hearing or meeting date. This requires coordination among the District Office and the Offices of Design, Right-of-Way, and Location & Environment. The Public Hearing Section typically prepares the necessary paperwork (newspaper advertisements, letters of invitation to dignitaries and property owners, project statement for presentation at the hearing or meeting, and transcript of the hearing/meeting, Commission Order, etc.) for the proposed project.

Public Hearing Section personnel also attend the hearing or meeting to discuss the environmental document, cultural/historic issues, and mitigation concerns. The Office of Location & Environment, or its consultant, prepares the hearing or meeting display for projects involving location studies.

5.2.3 Office of Design

The Office of Design prepares the hearing or meeting display for design hearings, arranges for review of the display, attends the hearing or meeting, and responds to citizen comments. It also provides copies of the replies to the Public Hearing Section for the hearing/meeting transcript.

5.2.4 Office of Right-of-Way

The responsibilities of the Office of Right-of-Way include providing ROW design plans and a parcel check list (property owner list) to the Public Hearing Section; attending the hearing or meeting; responding to citizen comments regarding ROW questions; and providing copies of the replies to the Public Hearing Section for the transcript.

5.2.5 Office of Bridges & Structures

The Office of Bridges & Structures attends the hearing or meeting at the request of the District Office or the PMT.

5.2.6 Federal Highway Administration

The role of FHWA is one of oversight and guidance.

5.2.7 Consultants

Design and environmental consultants attend the hearing or meeting at the request of the District Office or PMT and provide support services as requested.

All staff attending the hearing or meeting record the names of the people with whom they talked; the issues, questions and concerns expressed by the public; and the replies provided by the staff. Consultant staff also attend the debriefing session immediately after the hearing.

5.3 TECHNIQUES FOR PUBLIC INVOLVEMENT

More than 100 public involvement techniques are available for public involvement programs. A combination usually provides the most effective public involvement program. The following are techniques that have been effective in Iowa, together with some other suggestions. It should be noted, however, that what worked successfully on one project may not be best for another project.

For further detail on techniques for public involvement, see Chapter 6. A source of additional techniques and their applications is the FHWA publication *Public Involvement Techniques for Transportation Decision-Making*.[1] A copy of this publication was provided to the District engineers, transportation planners, and field service coordinators as part of the "Public Involvement in Transportation Decision-Making" training manual at three training sessions in 2000.

Notes

[1] FHWA and FTA, *Public Involvement Techniques for Transportation Decision-making*, FHWA-PD-96-031 HEP-30/9-96(4M)QE, 1996, http://www.fhwa.dot.gov/reports/pittd/cover.htm.

5.3.1 Commonly Used Techniques

Notes

The following techniques have led to successful public involvement in Iowa:

- *Open forum public hearings and meetings* – to elicit citizen comments and disseminate information. These events can be used to facilitate participation in the planning and development processes and can provide for citizen input at any stage of the process.

  The format traditionally used by Iowa DOT is an open forum that allows the public to come and go as they wish and provides an informal atmosphere where uninhibited one-on-one discussion can occur. This has been favorably received by the public and has been recognized as a legitimate public hearing format. It is also adaptable to hearings where a transcript is required.

- *Focus groups (neighborhood groups)* – to gauge in-depth opinions of community members through an informal, interactive, and conversational meeting. This method of citizen involvement through discussion is ideally suited to a small number of people who are allowed to elaborate as much as possible on project issues. This method of citizen involvement allows an agency a better and more comprehensive understanding of various problems and issues.

- *Drop-in centers (on-site information centers)* – to provide program or project information to the public in accessible agency offices. These convenient centers, which may be stationary, mobile, temporary, or permanent, are staffed with a knowledgeable representative who educates and informs as well as records questions and comments.

- *Media strategies* – to attempt to inform and educate the public by disseminating agency, program, or project information through newspapers, radio, TV, videos, posters, mass mailings, brochures, newsletters, and fliers. Media strategies are particularly important when a program or project requires public focus, understanding, and consensus. The more these goals are met, the more people should participate.

- *Transportation fair* – to provide maps, videos, models of projects, or other exhibits to present information to the public about the agency and various programs or projects as well as to elicit casual citizen input. Its chief objective is to improve citizen awareness and interest. A fair keeps attendees informed and up-to-date on various transportation-related matters.

- *Citizen surveys* – to assess widespread public opinion rather than to garner increased public participation. These surveys can be conducted formally or informally and may or may not be representative of the larger population. Through written questionnaires or telephone interviews, a randomly selected or targeted audience is asked carefully constructed questions regarding the agency, program, or project. Citizen surveys generally give broadly applicable results that enhance agency comprehension of a problem or issue.

5.3.2 Other Techniques

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Other suggestions for public involvement are:

- *Brainstorming* – A diverse range of participants are used to generate new and fresh ideas to various problems and issues. Participants generate as many possible solutions as they can, without initial comment or evaluation. These ideas can then be prioritized and evaluated in order to reach some type of group consensus. Brainstorming is valuable in that it often results in new and creative answers to both new and old problems.
- *Citizen advisory groups (CAGs)* – Representative groups of stakeholders are given periodic opportunities to discuss and comment on various agency issues and concerns. Members should be diverse and given equal status once on the CAG. The CAG must have an important role in the process if it is to function well and be taken seriously.
- *Telephone/cable techniques* – Several techniques can be used to elicit public participation. Examples are information bureaus, Email queries, hotlines or voice bulletin boards, Websites, telethons, electronic town meetings, and interactive cable TV information. These techniques are interactive and initiate a conversation or query. They have the potential to engage a wide array of citizens in agency-related matters.
- *Video techniques* – These are recorded and oral messages that attempt to educate and inform the public on any range of issues. The videos can be made available at local TV stations, libraries, agency locations, and video stores, or can be distributed by the agency directly to the citizen. This one-way communication can stimulate interest and target an audience that is attracted to the medium. It is useful in helping stakeholders understand the impacts of various programs or projects.

5.4 DEVELOPING A PUBLIC INVOLVEMENT PLAN

5.4.1 Definition and Purpose

A PIP is a project-specific set of actions designed to enable Iowa DOT to work effectively with the affected community and the resource agencies. The purpose of the plan is to identify the public's concerns and then use existing guidelines as a framework for gathering meaningful public input to assist in project decisions. Under District leadership, in coordination with the Office of Location & Environment – Public Hearing Section, the PMT can customize the public involvement process to the needs of the individual project or of the public.

5.4.2 Identifying "the Public"

Public concerns cannot be addressed realistically without understanding the makeup and temperament of the community. "The public" consists of individuals with different life experiences, interests, educational levels, and professions. Individual citizens have varied – and often conflicting – needs, values, and attitudes. They associate with each other through a number of formal and informal networks. An effective public involvement program distinguishes among the expectations and agendas of various segments of the public.

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Therefore, the project area should be assessed to identify the various groups that make up the public. The results of the assessment help not only to ensure that all of the public is informed of the project but also to define the objectives of the PIP. Addressing the potential effects of a proposed improvement on the various groups composing the public has become an important part of the transportation decision-making process.

The public includes:

- *Stakeholders* – those who have a vested interest in the land that lies within the limits of the corridor being studied for the transportation improvement. It is essential to reach out to stakeholders early. Not only do they have a right to be involved in the decision making, but they often have extensive knowledge about the area as well, enabling them to provide valuable input.
- *Special-interest groups* – those members of the public with common goals and interests, such as religious, economic, environmental, and community groups. Any group with an interest in a project should be informed and given the opportunity for involvement.
- *Minority and low-income populations* – those Environmental Justice populations whose rights are protected by Executive Order 12898. Addressing the disproportionately high and adverse human health or environmental effects that a proposed improvement might have on these populations has become an important part of the transportation decision-making process.
- *Traveling public* – those who will be using the transportation improvement. This group should also be made aware of the proposed improvement and be given the opportunity to participate in and contribute to the decision-making process.

The PMT is key to identifying the stakeholders.

5.4.3 Determining the Stage of Project Development

A major step in developing the PIP is to determine where the project is in the development process. This information can be obtained only with the complete cooperation of all offices represented on the PMT, which is responsible for establishing a development schedule and managing the project to meet that schedule.

5.4.4 Defining the Objectives of the PIP

Objectives should be established as part of the initial phases of early public involvement activities. They must address the public's concerns as well as planning and project development goals. The plan objectives will guide the outreach activities.

5.4.5 Identifying Public Involvement Techniques

When preparing the plan, it is important to consider:

- Whom are you trying to reach?
- What message or information do you want to convey or receive?
- How much will it cost?

- Which combination of techniques is most appropriate?
- How many techniques are appropriate?
- How easy (or difficult) will it be to implement the plan?
- How does each activity relate to your objectives? (For examples of public involvement techniques, see Section 5.3 of this chapter and also Chapter 6.)

Characteristics of effective public involvement techniques include those that:

- Meet a particular need and objective.
- Are appropriate for the scale of the project.
- Are appropriate for reaching target stakeholders in the relevant geographic area.
- Can be implemented within budgetary and time constraints.
- Are compatible with the community's operations, structure, politics, and style.

5.5 IMPLEMENTING AND EVALUATING THE PLAN

To conduct the public involvement process in compliance with federal and State regulations, Iowa DOT must:

- Coordinate with resource agencies and the public beginning at an early stage in the process.
- Provide for the appropriate level of environmental documentation.
- Include cooperating agencies and other State and local agencies and Native American tribes as appropriate.
- Tailor the public involvement process to the individual project through a PIP.
- Address impacts associated with relocation.
- Schedule public involvement opportunities for projects requiring ROW acquisition as provided for in Chapter 2, Can-Do Scheduling.
- Provide appropriate notice of public involvement meetings and public hearings. (See Attachment C of Appendix E for an example of a public meeting notice.)
- Provide certain information at the public hearing, including the project purpose and need, the project's alternatives and major design features, impacts of the project, and a copy of the signed NEPA document.
- Prepare a transcript of the public hearing.

For more specific information, see Appendix E of this manual.

It is important to track and evaluate the public involvement effort as follows:

- Base the evaluation on the achievement of objectives and feedback from the public.
- Establish milestones during the public involvement process, to use as points at which the status of the effort can be reviewed against the objectives.
- As issues and concerns change over time, make sure that the PIP reflects these changes. Always ask, "Is this still the case?"

Notes

- As public involvement proceeds, document how public input affects decisions.
  - o Start with any documentation of public concerns and input, such as meeting summaries, responses from questionnaires, etc.
  - o Next, group key issues together and respond to them stating how the input affected the final decision. Highlight areas where public input actually changed the final decision. (It is acceptable not to incorporate all of the public's advice, but take the time to explain the reasoning behind this decision. People will typically lend their support if they believe the process was fair and their concerns were considered.)
  - o Finally, inform the participants as to how the decision will affect them.

Notes

CHAPTER 6

Guide to Public Involvement – Part II

Notes

CHAPTER 6
GUIDE TO PUBLIC INVOLVEMENT – PART II

This chapter contains information on public involvement adapted from EPA and U.S. Department of Transportation (USDOT) sources.[1] It describes 15 techniques for public involvement and presents guidelines for developing a public involvement plan, including a sample annotated outline that can be adapted to different situations. These techniques and guidelines provide options for maximizing public participation.

Together with Chapter 5, Guide to Public Involvement – Part I, which is based on Iowa DOT's public involvement policy, this chapter constitutes a reference guide for involving the public in project planning and decision making.

6.1 TECHNIQUES FOR PUBLIC INVOLVEMENT

There are two categories of tools and techniques to facilitate public involvement:

- *Gathering and exchanging information* – used to solicit the views and opinions of members of the community and to provide forums for the community, Iowa DOT, and resource agencies to discuss issues related to a proposed project or permit application.
- *Disseminating information* – used at public hearings and information meetings to distribute information about a proposed project or specific aspects, such as utility and railroad coordination, to interested agencies, businesses, individuals, and the affected community.

Both categories are discussed in this section.

6.1.1 Gathering and Exchanging Information

Several methods are available for gathering and exchanging information:

1. Community interviews
2. Focus groups
3. Door-to-door canvassing
4. Surveys and telephone polls
5. Telephone contacts
6. Telephone hotlines
7. On-site information offices
8. Question and answer sessions
9. Information tables
10. Informal meetings with stakeholders
11. Stakeholder meetings and functions
12. Open houses
13. Citizen advisory groups
14. Workshops
15. Project Websites

[1] EPA, *Public Involvement in Environmental Permits, A Reference Guide*, EPA-500-R-00-007, http://www.epa.gov/permits; FHWA and FTA, *Public Involvement Techniques for Transportation Decision-making*, FHWA-PD-96-031 HEP-30/9-96(4M)QE, http://www.fhwa.dot.gov/reports/pittd/cover.htm; and other EPA sources cited in Section 6.2, Developing a Public Involvement Plan.

Each of these tools and techniques is described in the following paragraphs in question and answer format.

Notes

6.1.1.1 Community Interviews

Q. What are community interviews?

Community interviews are informal, face-to-face, or telephone interviews held with local residents, elected officials, community groups, and other individuals to acquire information on citizens' concerns and attitudes about a proposed project. Staff, public interest groups, or a third-party representative such as a contractor or community organization can conduct the interviews.

Q. What is the purpose of community interviews?

Community interviews are a valuable source of opinions, expectations, and concerns regarding the development of a project, often providing insights and views not presented in the media. The interviews allow Iowa DOT to tailor activities to the needs of a community. The information obtained is typically used to assess the community's concerns and information needs, and to prepare a public involvement plan that outlines a community-specific strategy for responding to the concerns identified in the interview process.

Q. When are community interviews appropriate?

Community interviews are effective at the beginning of the planning process for a major project or before design work has begun. They should also be conducted before revising a public participation strategy because months or perhaps years may have elapsed since the first round of interviews and community concerns may have changed.

Community interviews are not necessarily needed in every community for every project. Routine projects may not require the interviews, but a project that is controversial or receives high levels of public interest is more likely to require them. Projects ranging between these situations may benefit from interviews that begin with a survey of community representatives and group leaders.

The number of community interviews conducted and the depth of the interviews depend on the level of community concern and involvement. If considerable interaction has already taken place between the community and Iowa DOT, only a few informal discussions may be needed to verify, update, or round out the information already available. The discussions can be in person or by telephone with selected, informed individuals who clearly represent the community.

Q. How are community interviews conducted?

Potential individuals or groups to interview include local residents, elected officials, community groups, and any other individuals in the affected area.

Before the interview, the interviewer should briefly describe the proposed project and explain the purpose of the interview.

Notes

At the beginning of the interview, the interviewer should explain the public participation process and ask the interviewees how they would like to be involved and informed of progress and future developments. The interviewer should also ask them to recommend convenient locations for setting up an information repository or holding public meetings.

The interviewer should gauge concerns based on:

- *Need* – Does the community believe that a problem exists or the proposed project is needed?
- *Economic concerns* – How does the community think the proposed project would affect the local economy and the economic well-being of community residents?
- *Credibility* – Does the community have confidence in the ability of Iowa DOT and the proposed project to address their needs and concerns? What are the community's opinions of the public involvement process?
- *Involvement* – What groups or organizations in the community have shown an interest? How have interested community groups worked with Iowa DOT in the past? Have community concerns been considered or is there a trust factor to overcome?
- *Media* – Does the community believe media coverage accurately reflects the nature and intensity of their concerns?
- *Number affected* – How many households or businesses in the community perceive themselves as affected by the proposed project? Is the impact negative or positive?

During the interviews, the interviewer should look for perceptions of past public participation activities conducted in the community. Comments received will help develop an appropriate public participation strategy.

Finally, the interviewer should ask for the names and telephone numbers of other persons who may be interested in participating.

All comments should remain confidential. The interviewer should explain how the respondents' anonymity would be ensured. If interviewees feel uncomfortable sharing concerns and issues one-on-one, the interviewer should recommend other means of expressing their viewpoints, such as anonymous surveys or focus groups.

6.1.1.2 Focus Groups

Q. What are focus groups?

Focus groups are small discussion groups led by a facilitator who draws out participants' reactions to an issue. The group is selected either randomly or to approximate the demographics of the community.

Q. When are focus groups appropriate?

Focus groups are useful when there is a high degree of public interest in a project or process. The groups provide a quick means of feedback from a representative group and an opportunity to gain in-depth public reaction to a proposed project. They can be a good supplement to community interviews, especially if such group discussions will make some members of the public feel more comfortable. Some organizations use focus groups as a way of gathering information on community opinions.

Q. How are focus groups selected and used?

Focus groups should be selected based on input from stakeholders and community leaders. Community interview techniques should be used to gain input from the focus group. Information obtained from the focus groups should be used when developing a public involvement plan.

6.1.1.3 Door-to-Door Canvassing

Q. What is door-to-door canvassing?

Door-to-door canvassing is used to collect and distribute information by calling on community members individually. It involves face-to-face contact to ensure that citizens' questions are answered directly. The canvassing demonstrates a commitment to public participation and is an effective method of gathering accurate, detailed information while determining the level of public concern.

Q. When is door-to-door canvassing appropriate?

This technique is appropriate when:

- There is a high level of concern about the proposed project.
- There is a need to notify citizens about an event or an upcoming permitting issue.
- Communication is needed between a specific group of people for a specific purpose, such as getting signatures to allow access to properties adjacent to the facility.
- The community has a low literacy rate, which renders written materials ineffective.
- The area consists of a population whose primary language is not English, but it is important to pass information to the area.

Q. How is door-to-door canvassing conducted?

Canvassers ask questions about the proposed project, discuss concerns, and provide fact sheets or other materials. Interested citizens are informed that they can find out more about the project by signing up for mailing lists, attending upcoming public involvement events, or possibly visiting an Iowa DOT Website.

Canvassers should generally try to let residents know when door-to-door calling will occur in their area, for example, by distributing a flier. The notice should specify the time the canvassers will be in the neighborhood and explain the purpose of the canvassing program.

Notes

Q. What kinds of information does door-to-door canvassing provide?

Door-to-door canvassers should be trained to answer questions about the proposed project and the status of the project. They also should be able to provide general information about possible effects associated with various activities.

Some questions, however, may need to be referred to technical staff (for example, highly technical questions concerning design, access, environmental, ROW, or Iowa DOT policies). If necessary, a translator should accompany the canvasser, and materials in languages other than English should be provided.

In addition, the canvassers should tell citizens when, how, and for what purpose they will be contacted again. For example, the canvassers may state that a public information meeting (PIM) will occur in about 6 months and a notice of the meeting will be printed in the local newspaper).

All canvassers should have an official notice or letter from Iowa DOT to identify themselves. The canvasser must respect a citizen's right not to be contacted. Safety and security are crucial for citizens and canvassers. Do not conduct any door-to-door interview that endangers anyone.

6.1.1.4 Surveys and Telephone Polls

Q. What are surveys and telephone polls?

Surveys and telephone polls are a means of gathering general impressions about specific activities or public participation events. Frequently, they are used when an anonymous method for submitting information is needed.

Public participation is a dialogue, and citizens need ways to provide feedback. Surveys and polls are designed to solicit specific types of feedback from a targeted audience, such as public opinion about a project, the effectiveness of public participation activities, or possible measures to improve distributed materials and public awareness.

Surveys can be oral or written, and taken in person or by mail. They can be distributed either to the entire community or to specific segments or representative samples of the community.

Q. When are surveys and telephone polls appropriate?

Surveys and telephone polls are used when specific information is sought from a targeted community or audience, or as a method of giving anonymous feedback during the public involvement process. They can be used during a community assessment to gauge public sentiment about constructing or expanding a facility. They can serve to complement direct community interviews, especially during major, controversial projects.

Iowa DOT and public interest groups can also use surveys and telephone polls to find out if citizens are receiving enough information about the project and are being reached by public notices or other outreach methods.

Notes

Q. How are surveys and telephone polls conducted?

Written surveys can be distributed after a meeting, by hand, or by mail to community members' homes. Surveys can be distributed to a representative sample of the community or, in some cases, to all homes and businesses within a certain distance of the proposed project to blanket the community.

Telephone polls are generally conducted with a random sample, a representative sample, or a targeted segment of the community. Agencies can contact community leaders and local officials to determine the demographics of the area.

The wording of survey questions should not influence how the questions are answered. If community residents believe the survey is biased, they should bring their concerns to the attention of the Iowa DOT contact or whoever is conducting the survey.

6.1.1.5 Telephone Contacts

Q. What are telephone contacts?

Telephone contacts are a quick method of informing key persons about activities, monitoring shifts in community concerns, gathering information about the community, and providing updates.

Q. When are telephone contacts appropriate?

Telephone contacts are usually made to arrange or conduct community interviews, develop mailing lists, and arrange for other public participation activities such as news briefings, informal meetings, and presentations. This is a relatively inexpensive and expedient method of acquiring initial information about a community.

Telephone contacts are useful:

- In the early stages of planning, to identify key officials, citizens, and other stakeholders who have a high interest in the activity
- To gather information when face-to-face community interviews are not possible
- When new and time-sensitive material becomes available
- When there is a high level of community interest and it is important to keep key players informed

If individuals feel uncomfortable discussing their concerns or perceptions about the project over the telephone, they should be encouraged to find other means of expressing their viewpoint, such as attending public meetings or responding to notices.

6.1.1.6 Telephone Hotlines

Q. What are telephone hotlines?

Telephone hotlines are toll-free or local telephone numbers people can call to ask questions and obtain information about the project or process. Hotlines can provide interested persons with a relatively quick way of expressing their concerns directly and obtaining answers to their questions. Some hotlines are set up so that callers can order documents.

Notes

Q. When are telephone hotlines appropriate?

Telephone hotlines can be used when:

- Community interest or concern is moderate to high.
- Unexpected events occur or a situation is changing rapidly.
- A high potential for complaints exists (for example, regarding traffic congestion, dust, or noise).
- Literacy rates are low and written information must be supplemented.
- The community is isolated and has little opportunity for face-to-face contact with project staff (for example, rural areas or areas far from Iowa DOT District Offices).

Q. How are telephone hotlines operated?

Telephone hotlines can either be installed as a semi-permanent fixture for use throughout planning, design, and construction, or as a temporary measure when major community feedback is desired.

Each hotline should be staffed by at least one Iowa DOT staff member. If no one is available to answer calls throughout the day, the agency might consider installing an answering machine directing citizens to leave their name, number, and brief statement of concern, and informing them that someone will return their call promptly.

A voice mail system can also be used to provide information on commonly requested topics such as meeting dates and locations and the project status. Agencies should check the answering machine for messages at least once a day. If the level of concern is high, messages should be checked more frequently.

Q. How are telephone hotlines advertised?

The availability of new telephone hotlines should be publicized in press releases to local newspapers, radio stations, and television stations, as well as in fact sheets, public notices, and other written materials.

6.1.1.7 On-Site Information Offices (Drop-in Centers)

Q. What are on-site information offices?

On-site information offices are typically located in a trailer, small building, or office space near the project or are at a location that is convenient and accessible to the community. Usually, such offices are staffed by full-time or part-time personnel who respond to citizens' inquiries and prepare information releases. Staff could conduct meetings and question and answer sessions to inform citizens about the status of the process and answer any questions or concerns.

Q. What is the purpose of on-site information offices?

On-site information offices help ensure that citizens are adequately informed about project activities and their concerns are addressed in a reasonable timeframe.

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Q. When are on-site information offices appropriate?

Expenses for operating on-site information offices can be high. Therefore, on-site information offices should be used when:

- Community interest or concern is high.
- The project or related processes are complex.
- Activities (such as traffic patterns) may disrupt the community.
- The area near the activity is densely populated.

Q. What services should on-site information offices provide?

On-site information offices should be established in convenient, accessible locations for the community. A telephone and answering machine should be installed to respond to citizens' inquiries and information requests. Regular business hours should be established, in addition to some weekend and evening hours.

On-site information offices should contain the same materials found in an information repository. If there is a high level of public interest, Iowa DOT may locate the information repository at the on-site office. A copy machine should be available for citizens to make copies of documents for a small charge.

Q. How are on-site offices advertised?

The address and telephone number of the on-site office and the hours of operation should be provided in a public notice in a local newspaper, and in project handouts, posters, newsletters and Websites.

6.1.1.8 Question and Answer Sessions

Q. What are question and answer (Q&A) sessions?

Q&A sessions are a means of direct communication between Iowa DOT and citizens. Representatives are made available after an event such as a presentation, briefing, exhibit, or meeting to answer additional questions.

Q&A sessions are a useful, easy, and inexpensive way of providing one-on-one explanations in an informal or formal setting. They bring Iowa DOT staff and interested citizens together to discuss questions and concerns about the Iowa DOT project.

Q. When are Q&A sessions appropriate?

Q&A sessions are useful:

- After an event, when participants need more information
- When citizens feel uncomfortable discussing their questions or concerns during a large event
- After an event to clarify any issues or conflicts that were skimmed over to maintain the flow of events

Since Q&A sessions typically follow other activities, they are a convenient and effective way to answer citizens' questions regarding project specifics and the development process in general.

Q. How should Q&A sessions be conducted?

An agency representative should announce that someone would be available to answer questions at a designated area immediately following the presentation or other event. The designated person should be knowledgeable about the project and the development process. Responses to questions should be provided in a straightforward manner and as quickly as possible.

6.1.1.9 Information Tables

Q. What are information tables?

Information tables are a simple public participation tool that can be used by staff to interact one-on-one with interested citizens. They consist of a table or booth set up at a meeting, hearing, or other event (for example, a community fair or civic gathering). The information table is staffed by at least one person who is available to answer questions about the project. Pamphlets, fact sheets, brochures, newsletters, or project reports are available on the table, along with a sign-up sheet for interested people to add their names to the mailing list.

Q. When are information tables appropriate?

An information table is useful when:

- Iowa DOT wants community feedback after a public event.
- An issue or activity has raised significant public interest or technical issues have raised questions among the public.
- Names need to be compiled for the mailing list.

Information tables are a convenient way for Iowa DOT to obtain community feedback on project activities. They provide a comfortable atmosphere for the public to approach project staff and ask questions. They are also a convenient place for citizens to answer questionnaires and surveys, and obtain the name and telephone number of people they can contact for additional information. Exhibits and diagrams can also be displayed at information tables to help explain the project development process or specific technical issues.

Information tables are often made available at local events that will attract a significant portion of the community. Citizens should be encouraged to contact Iowa DOT to set up an information table if they know of a public event that will be well attended by community members.

6.1.1.10 Informal Meetings with Stakeholders

Q. What are informal meetings with stakeholders?

These are meetings that allow interested citizens and local officials to discuss issues and concerns in an informal, comfortable setting such as a resident's home, public library meeting room, community center, church hall, or other local meeting place.

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Informal meetings actively promote public participation. They offer citizens, resource agency staff, and elected officials the opportunity to increase their familiarity with the project and awareness of each other's viewpoints. The meetings can be held to discuss project or permitting activities by Iowa DOT, the resource agency, or an interested community group.

Q. What are the benefits of informal meetings?

Iowa DOT staff receive first-hand information from interested community members, special interest groups, and elected officials while citizens have the opportunity to ask questions and explore topics of interest regarding the project development process.

The primary benefit of informal meetings is that they allow two-way interaction between citizens, local officials, and Iowa DOT. Citizens not only learn about developments but can also voice their perceptions. Informal meetings add a personal dimension to what might otherwise be treated as a purely technical problem.

Q. When are informal meetings appropriate?

Informal meetings are most commonly held when:

- There is a wide range of knowledge among community members.
- The level of tension is high and large meetings may not be appropriate.
- Iowa DOT wants to learn more about the community and their perceptions of the activity.
- Groups want to discuss specific issues in which the community as a whole is not interested.

Q. How should informal meetings be organized?

Informal meetings can be arranged by Iowa DOT, the permitting agency, or a citizen- or community-based group. If a community group decides to host a meeting, the group should speak with Iowa DOT contacts prior to the event to discuss what it wants to accomplish. Meeting organizers may wish to enlist a neutral, third-party dispute resolution professional to facilitate the meeting.

To maximize effectiveness, informal meetings are generally kept small (for example, five to 20 people). Additional meetings can be scheduled if some people are unable to attend because of limited space.

The meetings should be scheduled in convenient locations and should not conflict with other public meetings (such as town council meetings), holidays, or other special occasions.

Q. How should an informal meeting be conducted?

The meeting should open with a brief presentation of the project development process and methods for involving the community in decision making. The opening remarks should be kept to a minimum to allow maximum opportunity for open discussion.

Notes

Possible discussion topics include:

- The project scope and the project purpose and need
- The time line and status of project planning and development
- Factors that might speed up or delay the process
- The way in which community concerns are considered in making project decisions and environmental permit actions

Iowa DOT contacts should be identified so that interested citizens can direct further questions or voice new ideas or suggestions after the meeting. Iowa DOT should respond promptly to any unanswered questions.

6.1.1.11 Attending Stakeholders' Meetings and Functions

Q. What is the purpose of attending stakeholders' meetings and functions?

Attending meetings or functions held by stakeholders can provide insight into other opinions and concerns. Local governments, environmental organizations, and religious and civic groups may all hold meetings or other gatherings during the planning and development process. Some may be required by regulation, and others may be informational meetings or discussions of important issues. Iowa DOT staff can learn more about the views of other stakeholders by attending their meetings. Iowa DOT staff can also join important discussions and provide information. Some groups may invite Iowa DOT to give a presentation or briefing.

Q. What can Iowa DOT do to promote stakeholder meetings?

Iowa DOT should inform the host organization if it decides to attend stakeholder meetings. If Iowa DOT representatives choose to identify themselves at the meeting, they should be prepared to answer questions.

In addition, Iowa DOT can allow other groups or individuals to attend meetings that it sponsors. Iowa DOT representatives should clearly state which meetings are open to others, provide advanced notice of their upcoming meetings, and invite groups to make presentations.

6.1.1.12 Open Houses

Q. What are open houses?

Open houses are informal meetings in a public location where people can talk to involved officials on a one-to-one basis. These meetings are usually scheduled during the evening at a local public library, school, or meeting room. The meetings allow citizens to ask questions and express concerns directly to project staff. Open houses can also be set up to allow informal conversations among representatives of all interested organizations.

Q. What are the benefits of open houses?

The one-to-one conversations during open houses help establish rapport between citizens and project staff. The informal, neutral setting of open houses keeps officials and citizens relaxed, thereby promoting communication. Also, this type of gathering is helpful in accommodating individual schedules.

Citizens can find out more about all sides of an issue through informal conversations with elected officials, resource agency staff, Iowa DOT staff, and representatives of involved interest groups and civic organizations.

Notes

Q. When are open houses appropriate?

Open houses are most appropriate when:

- Scheduling meetings is difficult because of community members' schedules.
- New information is available on several different technical or regulatory issues that would make explaining it in its entirety too long for a more formal meeting.
- Community members have widely varying interests or levels of knowledge.
- Larger crowds will make it difficult for certain citizens to raise questions.

Open houses require significant preparation and are typically held only when community interest in the site is significant.

Q. What information is available at open houses?

Knowledgeable staff should be present to respond to questions and concerns. Handouts and fact sheets containing the name and telephone number of the person interested citizens can contact for additional information after the event should be made available.

Q. How can interested parties find out about open houses?

Iowa DOT should notify everyone on its mailing list. Interested persons should receive an announcement for the open house at least 2 weeks prior to the event. In addition, announcements should be included in local newspapers, on television and radio stations, and in community newsletters.

6.1.1.13 Citizen Advisory Groups

Q. What are citizen advisory groups (CAGs)?

CAGs come in many different forms and have different responsibilities and roles. CAGs are generally composed of stakeholders who meet routinely to discuss issues involving a particular project. They provide a public forum for representatives of diverse community interests to present and discuss their needs and concerns with Iowa DOT or permitting agencies.

CAGs can increase active community participation in decision making and provide a voice for affected community members and groups. They promote direct, two-way communication among the community, Iowa DOT, and permitting agencies.

Q. How and when are CAGs established?

CAGs can be established based on individual situations. Community organizations may form CAGs to provide an official voice for the community. Iowa DOT may form CAGs of affected community members to provide informal or formal advice. A permitting agency may form CAGs that include stakeholders from Iowa DOT staff and the community as well as its own representatives.

CAG size will also vary because the size of a group can have an impact on its effectiveness. For example, too large a group can inhibit efficiency in working and reaching a consensus on issues, whereas too small a group may not be adequate to represent diverse community concerns.

Notes

CAGs can be formed at any point in the project development process but are most effective when formed in the early stages. Generally, the earlier they are formed, the more their members can participate in and affect decision making. Before forming new CAGs, however, communities should investigate whether other groups exist that are addressing similar issues.

Q. What should be considered when forming a CAG?

Having a CAG does not necessarily mean there will be universal agreement or no controversy during the process. Also, community trust in CAGs can vary widely depending on their structure (that is, who the members are and who sponsors or hires the facilitators) and at what point they are introduced in the process. If Iowa DOT or the resource agencies make a decision that differs significantly from the stated preferences of a CAG, the decision needs to be explained.

CAGs can be time consuming and expensive. They may not be appropriate in every situation. When forming CAGs, consider:

- The level of community interest and concern about the project or development process
- The community interest in forming a CAG
- The existence of groups with competing agendas in the community
- Any environmental justice issues or concerns regarding the project
- The history of community involvement with Iowa DOT or with environmental issues in general
- The working relationship between Iowa DOT, the community, and the resource agencies

If a group decides to organize a CAG, it should be encouraged to coordinate with Iowa DOT and the resource agency contacts. Contacts should be helpful resources that are familiar with the project development process. If Iowa DOT forms a CAG, it should announce the existence of the CAG in a public notice, at a public meeting, or in a news release.

6.1.1.14 Workshops

Q. What are workshops?

Workshops are seminars or gatherings of small groups of people (usually between 10 and 30), typically led by one or two specialists with technical expertise in a specific area. Experts may be invited to explain issues and offer possible remedies for problems.

Notes

Q. What is the purpose of workshops?

Workshops foster two-way communication between community members and Iowa DOT. They have proven successful in familiarizing citizens with technical terms and concepts prior to a formal public meeting. Workshops may help to improve public understanding of the project development process and may prevent or correct misconceptions. Workshops also help to identify citizens' concerns and encourage public input.

Q. When and where are workshops conducted?

Workshops are generally conducted before formal public hearings or during public comment periods to help interested citizens develop and present testimony. A convenient location and time should be chosen for the workshop.

Q. When are workshops appropriate?

Workshops are appropriate when:

- The project or development process needs to be explained to community members interested in participating in the process.
- Specific topics need to be discussed in detail, especially complex technical or ROW details.
- Technical material needs to be explained and feedback from the community is important to make sure that citizens understand and have some level of buy-in.

Q. How is the public notified of workshops?

In addition to sending notice of the time and location to members on the mailing list, posters should be distributed around the area well in advance of the event. Notification of the workshop should also be printed in a local newspaper.

Invitations and registration forms should be sent to concerned community citizens. Each form should provide for multiple registrations to accommodate friends and others who also might be interested in the workshop.

6.1.1.15 Project Websites

Iowa DOT could also develop a Website for the project.

Q. What is the purpose of Websites?

Websites have nearly unlimited possibilities. For example, they can provide commonly requested information such as meeting dates and locations, electronic copies of the availability of telephone hotlines, news releases to local newspapers, fact sheets, publications, and public notices. Websites can also include a place for individuals to enter a message or Email a request directly to Iowa DOT.

6.1.2 Disseminating Information

Notes

Several tools currently used for disseminating information at public hearings and meetings:

1. Language translations
2. Project newsletters and reports
3. Introductory notices
4. Exhibits
5. Briefings
6. Presentations
7. News releases and press kits
8. News conferences
9. Independent technical experts
10. Information booklets or brochures

Each of these tools is described in the following paragraphs in question and answer format.

6.1.2.1 Language Translations

Q. What do language translations include?

Language translations include multilingual fact sheets, notices, and other resources to provide equal access to information. Oral translations and signing are also considerations for public meetings, hearings, and news conferences.

Q. When are language translations appropriate?

No regulatory requirements currently exist for translations, but consideration should be given to using translation when a portion of the community does not speak English as its first language or includes hearing-impaired individuals. The need for translation is usually determined during the assessment of community needs, through community interviews, and community demographic databases. Oral translations and signing are suitable for public meetings, hearings and news conferences, or when Iowa DOT needs to reach out publicly and communicate with the community.

Q. What purpose do language translations serve?

Written translations, oral translations, and signing are a means of informing all community members about activities. They provide non-English speakers and the hearing impaired with a greater opportunity to be active in the public participation and decision-making process.

6.1.2.2 Project Newsletters and Reports

Q. What is the purpose of project newsletters and reports?

Project newsletters and reports are useful ways to share important information with affected members of the community or other interested persons. Project reports present detailed and highly technical information, whereas newsletters use a more reader-friendly tone. In addition to keeping citizens updated on project activities, newsletters can provide brief summaries of technical reports or studies as well as the names of persons to contact for additional information.

Q. What should be considered when using newsletters and reports?

To ensure that newsletters are distributed to all stakeholders and interested persons, it is important to maintain an updated mailing list. Also, Iowa DOT should use open houses and informal meetings to further explain the results of detailed reports and studies.

6.1.2.3 Introductory Notices

Q. What are introductory notices and what do they include?

Introductory notices can be presented as a public notice, fact sheet, or flier distributed to an areawide or targeted mailing list. They should explain, as clearly as possible, the proposed action and development process. Technical terms, jargon, and undefined acronyms should be avoided. The notices should identify an individual to contact for answers to questions about the project or process. The name, address, and phone number of that contact person should be provided.

Q. When are introductory notices appropriate?

Notices are used when it is believed the community knows little or nothing about the proposed project or development process or to notify the public about how to become involved in the development process.

While there are no regulatory requirements for introductory notices, Iowa DOT may want to provide them when an environmental document or 404 permit application is submitted to explain the permitting process and public participation opportunities.

In addition, introductory notices are a way of building Iowa DOT's mailing list. For instance, a return slip that the public can complete and return to be placed on a mailing list can be included with the notice. The return slip can also be used to ask questions about the proposed project or Can-Do development process.

6.1.2.4 Exhibits

Q. What are exhibits?

Exhibits are visuals such as diagrams, photographs, or computer displays accompanied by a brief description or introduction. They can be a creative and informative way of explaining technical and complex projects.

Q. When are exhibits appropriate?

Exhibits work well with public meetings, hearings and open houses. Agencies also can use surveys or comment cards at the display to encourage citizens to comment or request additional information. When used in conjunction with other activities, exhibits help to enhance the overall understanding and interest in a program.

Q. What are the benefits of using an exhibit?

Exhibits help make technical information more understandable. Because they are generally visually appealing, exhibits tend to stimulate public interest in a project. Unlike public notices and fact sheets, which may be glanced over quickly and easily forgotten, exhibits have visual impact and can leave a lasting impression.

Notes

6.1.2.5 Briefings

Notes

Q. Who participates in briefings?

Briefings are usually offered to small, select groups.

Q. What purpose do briefings serve?

Briefings share important information, such as a change in status or new technological information, with key stakeholders before the information is released to the media and general public. With the update provided by the briefings, elected officials, resource agencies, and key Iowa DOT staff are better prepared to answer questions from their constituents when the information becomes public. The briefings allow for the exchange of information and concerns. They can be highly useful in initiating or maintaining rapport with key stakeholders.

Briefings may be held to clear up stakeholder concerns before hosting a larger, more publicly visible event. Thus, briefings generally precede news conferences, press releases, or meetings. Briefings are particularly important if an upcoming action might result in political controversy.

6.1.2.6 Presentations

Q. What form can presentations take?

Presentations can take the form of speeches, panel discussions, videotapes, or slide shows for local clubs, civic or church organizations, school classes, or concerned citizens' groups.

Q. What purpose do presentations serve?

Presentations describe current activities while helping to improve public understanding of the issues associated with a project. They can be helpful in reaching a large audience during any stage of the development process.

Q. When are presentations appropriate?

Presentations are useful when:

- There is moderate public interest in a project.
- It is practical to integrate short presentations into meetings on other subjects.
- A major milestone in the development process is reached.

There are no regulatory requirements for presentations. Iowa DOT may schedule presentations by itself or at the request of a community-based contact. When citizens request a presentation during one of their regularly scheduled meetings, Iowa DOT should provide an agenda or timeframe for the presentation. Ample time should be allowed for group members to ask questions and voice their opinions at the conclusion of the delivery.

Visual aids, such as slides and exhibits, should be included to stimulate public interest and understanding. Handouts, such as fact sheets or news releases, should also be distributed so attendees have something to refer to after the presentation. At the conclusion of the presentation, the presenter should provide the name and telephone number of the person to contact for further information.

6.1.2.7 News Releases and Press Kits

Notes

Q. What are news releases and press kits?

News releases and press kits are communication tools for disseminating important information about a project or process. They can be used by all participants in the process, including citizens' groups, facilities, and agencies.

News releases are statements sent to the news media (such as newspapers, television stations, and radio stations), generally to publicize progress or key events in the development process. When carried by the media, news releases can effectively and quickly disseminate information to large numbers of people. They can also be used to announce public meetings, report the results of public meetings or studies, and describe how citizens' concerns were considered in the permit decision or corrective action.

Press kits consist of a packet of relevant information distributed to reporters summarizing key information. Typically, a press kit is a folder with pockets for short summaries of the project, technical studies, newsletters, press releases, and other background materials.

Q. When are news releases and press kits appropriate?

News releases and press kits are useful when:

- Significant findings are made at the project site, during the project development process, or after a study.
- Program milestones are reached or schedules are delayed.
- Public or media interest is growing, or a new policy stance has been adopted.
- There is a need to increase public interest in a project.

Q. Who issues news releases and press kits?

News releases and press kits can be complementary activities, although either one can be issued separately. They can be issued by Iowa DOT or the community. Also, citizens' groups may want to issue their own news releases or press kits if their organization has sponsored or conducted a study or event that directly relates to the project. A news release should not be issued at times when it may be difficult to get in touch with responsible officials (for example, Friday afternoons or the day before a holiday).

Q. How are news releases and press kits used?

Groups most likely to use news releases and press kits include organizations that sponsor community newsletters, bulletin boards, or other public information media.

News releases to the local media can reach a large audience quickly and inexpensively. Press kits allow reporters to put the issues in context. If a reporter is trying to meet a deadline and cannot contact Iowa DOT, he or she can turn to the press kit as an authoritative source of information. If the name, address, and phone number of a contact person is included, reporters can obtain answers to their questions about the information in the release.

Because news releases must be brief, they often exclude details of interest to the public. News releases should therefore be used in conjunction with other methods of communication that allow more detailed information. Draft news releases are internal working documents only and should not be distributed to the general public.

Notes

Q. How are news releases and press kits prepared?

To prepare news releases and press kits:

- Consult a person who regularly works with the local media, such as a public affairs specialist. The Iowa DOT Office of Media & Marketing Services will ensure adherence to internal policies on media relations. Iowa DOT's media specialist can help draft the news release and provide other helpful suggestions about the release and the materials for the press kit.
- Identify the relevant local and regional newspapers and broadcast media, and determine their deadlines. Get to know the editor or reporter who might cover the issue. Determine what information will be useful to them.
- Contact related organizations to ensure coordination. For instance, other groups may be working together on a citywide issue. Ensure that all facts are correct and procedures are coordinated among groups before releasing any statement or other materials. Consider discussing the news release with interested elected officials, resource agency staff, and local citizens' groups, if appropriate.
- Select the information to be communicated. Do not use news releases as a vehicle for transmitting sensitive information. Avoid frequent use of news releases to announce smaller actions, which could reduce the impact of more significant activities.
- Write and organize the news release clearly. Place the most important and newsworthy elements at the front, with additional information in descending order of importance. If presenting study findings or other technical information, use understandable terms and simple language: avoid professional jargon, overly technical words, and undefined acronyms. Use supporting paragraphs to elaborate on other pertinent information. Include any important qualifying information (for example, the reliability of numbers or risk factors).
- Keep news releases brief, typically one page long. Limit them to essential facts and issues.
- Use press kits to elaborate on the information in the news releases. Include basic information such as the purpose and need statement, goals, and organization activities. Also include background reports or studies if useful.
- Identify who is issuing the news release by including:
  - The name and address of the organization in the letterhead
  - The release date and time ("For Immediate Release" or "Please Observe Embargo Until . . . ")
  - The name and telephone number of the contact person for further information
  - A headline summarizing the information in the release

- In some cases, send copies of news releases and press kits to interested stakeholders at the same time as submitting them to the news media. Coordinate with the public affairs specialist to determine the appropriateness.

Notes

6.1.2.8 News Conferences

Q. What is the purpose of news conferences?

News conferences provide a major public forum for announcing plans, findings, policies, and other developments. They are an efficient way to reach a large audience in a short period of time.

Q. Who is the target audience?

While news conferences are information sessions or briefings held for representatives of the news media, they may also be open to the general public. News conferences provide all interested local media and members of the public with accurate information concerning important developments or processes.

Q. When are news conferences appropriate?

News conferences are useful when time-sensitive information needs to reach the media and the public, but a news release may not be able to address key issues for the community.

Q. What should be considered when using news conferences?

News conferences should be coordinated through the Iowa DOT Office of Media & Marketing Services. In addition to making logistical arrangements, the Office can help notify members of the local and regional media and any interested local officials of the time, location, and topics of the conference.

During the conference, an Iowa DOT representative should present a short, official statement, both written and spoken, about developments and findings, followed by a question and answer period. Therefore, the staff conducting the news conference should be well prepared to answer questions.

News conferences are often supplemented with fact sheets or news releases so that citizens can refer to them later for technical information.

6.1.2.9 Independent Technical Experts

Q. When is the use of independent technical experts appropriate?

Under some circumstances, a community may require impartial independent technical assistance or verification to ensure unbiased, informed opinions and information. For example, the community may mistrust the information provided by Iowa DOT.

Q. What are some possible results of using independent technical experts?

Many case studies report success when grants are awarded to allow a community to hire independent technical consultants. Success is attributed to:

- Establishing technical credibility to the same degree as that of other stakeholders
- Decreasing frustration levels, because consultants can translate community quality-of-life concerns into terms commonly used for siting or demographic issues

Notes

6.1.2.10 Information Booklets and Brochures

Q. What purpose do information booklets or brochures serve?

Information booklets or brochures are additional ways of providing information for identifying potential locations or alignments and involving neighboring communities in the site selection and development process. The booklets or brochures may serve as aids to local groups and government agencies to help determine the character of a community (such as the cultural composition, concerns, or lifestyles). They offer creative mechanisms to involve and work effectively with neighboring communities in addressing quality-of-life concerns.

Q. What kinds of information can the booklets and brochures provide?

Some booklets discuss land use, setback distances, access locations, and other important factors to consider before or during selection of the preferred alignment. Others address quality-of-life issues of concern to communities near potential or existing highway facilities. These booklets may also discuss the incentives, opportunities, and processes of doing more than what is required in the regulations, by establishing partnerships and promoting constructive dialogue with communities.

6.2 DEVELOPING A PUBLIC INVOLVEMENT PLAN

As defined in Chapter 5, a PIP is a project-specific set of actions to enable Iowa DOT to work effectively with the affected community and resource agencies during project development. The purpose of the PIP is to identify public concerns and then use existing requirements as a framework for meaningful public input in project decisions.

The following recommendations for preparing an effective PIP are based on current best practices. They are intended to complement the guidelines on developing a public involvement plan that are provided in Section 5.4.

Two additional sources should also be reviewed:

- The National Environmental Justice Action Council's *The Model Plan for Public Participation*,[2] which includes core values and a checklist
- EPA's *Draft Public Involvement Policy*[3] to guide public officials who manage and conduct EPA programs, which provides reasonable and effective means of involving the public in program decisions

Both of these documents have a broader focus but still are useful tools.

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2 EPA, *The Model Plan for Public Participation*, EPA-300-K-00-001 (originally published as EPA-300-K-96-003), http://www.epa.gov/oeca/oej/nejac/pdf/modelbk.pdf.

3 EPA, *Draft Public Involvement Policy*, FRL-6923-9 (originally EPA's 1981 Policy on Public Participation), http://www.epa.gov/publicinvolvement.

6.2.1 Preparation

Notes

Some basic research should be conducted before starting to write the PIP. Possible approaches include:

- Interviews with local officials and community leaders, which can be an effective way of gathering information on what to address in the PIP and how to implement it effectively
- The *LandView®* database[4] and EPA's *Envirofacts,*[5] which can provide demographic information, including the potential need to translate the PIP or future outreach materials for local residents
- Local newspaper archives to find past articles, editorials, or letters to the editor that give historical perspective on the political and public action groups and the media's treatment of Iowa DOT in the past

6.2.2 Audience

The PIP initially focuses on requirements Iowa DOT needs to meet. However, the PIP can also serve as a way of communicating and documenting the actions that all interested parties may undertake. Therefore, it is advisable to write the PIP so that it can be readily placed in an information repository for any interested citizen to read.

6.2.3 Originator

The PIP should be unmistakably by and from Iowa DOT, rather than some third party. It should be on Iowa DOT letterhead, with a cover sheet, and should state what Iowa DOT will do, rather than offer advice on what it should do.

6.2.4 Content

The PIP should identify the issues of concern for that community. If one project affects multiple communities, each with different demographics and concerns, the PIP needs to identify each community and address its issues independently. Also, PIPs gather more support with all interested parties when specific deadlines are established.

Names, addresses, or phone numbers of private citizens consulted during the community interviews should not appear in the PIP. There should be no way to attribute any information or comments to any specific private citizen. Leaders of local civic clubs, such as the chamber of commerce, are considered private citizens and should not be identified. However, local officials interviewed in their official capacity should be identified in the list of contacts, and their comments may be attributed. This is also true for any representatives of resource agencies interviewed in their official capacity.

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4 EPA, U.S. Census Bureau, U.S. Geological Survey, National Oceanic and Atmospheric Administration, *LandView IV*, DVD-ROM, http://landview.census.gov.

5 EPA, *Envirofacts,* http://www.epa.gov/enviro.

6.2.5 Annotated Outline for a Public Involvement Plan

Notes

The Iowa DOT District Office is to complete the following outline and provide a copy to each PMT member listed in Appendix C of the Public Involvement Plan and to the Engineering Bureau's scheduling engineer.

I. Overview

A. Purpose of the PIP
B. Distinctive Features of the PIP
C. Special Characteristics of the Community

Part I should be only a few paragraphs long. This is an opportunity to localize the generic goals of public participation by identifying specific objectives and any special circumstances this PIP addresses.

II. The Project

A. Purpose and Need
B. Project Description
C. Geography
    1. Project Location
    2. Site Maps
        a. Location within the State
        b. Location within the Community
        c. Proximity to Elements of Concern
    3. Project Relationship
        a. To Homes
        b. To Businesses
        c. To Schools
        d. To Playgrounds, Parks, and Public Lands
        e. To Watersheds (lakes and streams)
D. Technical Details (examples)
    1. Access Control
    2. Average Daily Traffic
    3. Applicable Design Standards
    4. Special Environmental Considerations
    5. Other
E. Outline of the Can-Do Process

Part II should also be relatively short. Its purpose is to set the stage and give readers sufficient information to be generally familiar with the project.

III. Community Background

A. Community Profile (developed by researching the local press)
B. Relevant Demographics
C. Chronology of Proposed Public Involvement
D. Key Community Concerns
    1. Analysis of Major Public Concerns
    2. Use of the Public Involvement Process to Address Concerns

Part III can range from three to seven pages, or more as needed. This section identifies the context and community perceptions of Iowa DOT's development process events and the need for the project. It can draw heavily from community interviews and database demographics. It also addresses the need for translation services during the planning and development process. These services include translation into the native language of non-English-speaking residents and signing for the hearing impaired.

Notes

IV. Public Involvement Activities and Timing

A. Activities to Be Conducted
   1. Required
   2. Supplemental
B. Sample Time Line for Activities

Part IV is the core of the PIP and describes what will be done and when. Section B contains the Can-Do schedule developed by the PMT. The schedule can be a printed Gantt chart to illustrate a logical sequence of events.

Appendix A, Contacts

A. Local Elected Officials
B. State Elected Officials
C. Federal Elected Officials
D. Environmental Groups or Other Active Citizen Groups
E. Local Safety Officials (police chief, fire chief, etc.)
F. Media
   1. Local Newspapers (including city desk and display advertising)
   2. Local Radio Stations (with popular newscasts)
   3. Local Television Stations (with local news programming)
   4. Local Cable Access Television Stations
   5. Websites and Email Groups
G. Local Outlets (such as businesses and churches that have agreed to post notices or serve as a distribution point for notices and information)

Appendix A should list key community leaders and consolidate the contact information for all interested parties to make it easier to share information.

Appendix B, Meeting Locations and Information Repositories

Appendix B should include the address of the facilities for public meetings and the name and phone number of the point of contact. Meeting locations should be accessible to the handicapped. Appropriate facilities include high school gymnasiums and auditoriums, public library meeting rooms, town halls or other local government facilities, and local churches. Information repositories also should be accessible to the handicapped and open to the general public at least two or three evenings a week and, ideally, on Saturdays.

Appendix C, Project Management Team Members

Appendix C should list PMT members as well as their offices, addresses, phone numbers, and Email addresses.

CHAPTER 7

Statewide Implementation Agreement

National Environmental Policy Act
and
Clean Water Act Section 404
Concurrent NEPA/404 Processes
for Highway Projects in Iowa

Note: This process is managed by the
Office of Location and Environment

Notes

CHAPTER 7
STATEWIDE IMPLEMENTATION AGREEMENT

NATIONAL ENVIRONMENTAL POLICY ACT AND CLEAN WATER ACT SECTION 404 CONCURRENT NEPA/404 PROCESSES FOR HIGHWAY PROJECTS IN IOWA

This chapter contains the signed Statewide Implementation Agreement to merge the National Environmental Policy Act process and the Clean Water Act Section 404 process into a single process. The following is a verbatim copy of the agreement.[1]

I. BACKGROUND

In a May 1, 1992, agreement, the U.S. Department of Transportation, the Department of the Army, and the U.S. Environmental Protection Agency (EPA) adopted the document "Applying the Section 404 Permit Process to Federal-aid Highway Projects." This document endorsed methods to integrate compliance with the National Environmental Policy Act (NEPA) and the requirements of Section 404 of the Clean Water Act.

In a July 31, 1996, agreement, the Federal Highway Administration (FHWA); the Department of the Army, U.S. Army Corps of Engineers, Rock Island District (Corps); and the Iowa Department of Transportation (Iowa DOT) adopted a document entitled "Iowa Local Operating Procedures for Integrating NEPA/404." This document provided some basic agreements on the mutual goal of concurrently processing NEPA and 404 activities but did not provide a specific process for accomplishing that goal. Also, other federal and State agencies that are an integral part of the NEPA and 404 processes were not involved in the development of those agreements and did not adopt the July 1996 document.

In January of 1997, the Iowa DOT Quality Council's "Process" Subcommittee chartered a review team to review the Iowa DOT project development process with the goal of reducing development time while maintaining program integrity and quality. In November of 1997, the team provided a report which outlined a new development process called "Can-Do." Through a streamlined, non-linear process the proposed development time for a typical, non-controversial project was reduced from slightly over 11 years to about five and one-half years. Iowa DOT management approved the process, and implementation began in February of 1998.

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[1] The Glossary originally attached to this Statewide Implementation Agreement has been incorporated into Chapter 9, Glossary, of this Can-Do Reference Manual.

II. PURPOSE

Notes

This Statewide Implementation Agreement (SIA) is based on the above-referenced guidance, continues the spirit of cooperation and agreement contained in the July 1996 agreement, and implements a concurrent NEPA/404 process for highway projects in Iowa.

This SIA commits its signatories to the following:

- Potential impacts to waters of the United States, including wetlands, in Iowa shall be considered at the earliest practical time in project development.
- Adverse impacts to such waters and wetlands shall be avoided to the extent practicable, and unavoidable adverse impacts shall be minimized and mitigated to the extent reasonable and practicable.
- Interagency cooperation and consultation shall be diligently pursued throughout the integrated NEPA/404 process to ensure that the concerns of the regulatory and resource agencies are given timely and appropriate consideration and that those agencies are involved at key decision points in project development.

This SIA is intended to:

- Improve cooperation and efficiency of governmental operations at all levels, thereby better serving the public,
- Expedite construction of necessary transportation projects, with benefits to mobility and the economy at large,
- Enable more transportation projects to proceed on budget and on schedule, and
- Protect and enhance wetlands and other waters of the United States in Iowa, which will benefit the State's aquatic ecosystems and the public interest.

Regulatory and resource agency participation in this process does not imply endorsement of a transportation plan or project. **Nothing in this SIA is intended to diminish, modify, or otherwise affect the statutory or regulatory authorities of the agencies involved.**

III. APPLICABILITY

All highway projects in Iowa needing FHWA action under NEPA and a Department of the Army permit under Section 404 of the Clean Water Act are eligible for processing under this SIA. If the NEPA/404 concurrent process is initiated and because of subsequent and more complete information the project is determined to have only very limited impacts, the concurrent process may cease. If it is later determined that more significant project impacts are present, the concurrent process may be reinitiated.

In general, the decision to develop a project using the NEPA/404 concurrent process will be made jointly by the signatory agencies. Eligible projects will be developed using the process unless:

- After consultation with the signatory agencies, it is determined that the project is not of sufficient complexity to warrant additional coordination and handling, or

- After consultation with the signatory agencies, it is determined that the discovery of need for an individual permit is too late in project development to revisit purpose and need or alternative points, or
- After consultation with the signatory agencies it is determined that the project is not suitable for the NEPA/404 process outlined in this agreement.

Notes

IV. IMPLEMENTING PROCEDURES

General Procedures

A. Concurrence/Concurrence Points

The following definitions for concurrence and concurrence points are adopted for the purposes of this SIA.

Concurrence – Confirmation by the agency that information to date is adequate to agree that the project can be advanced to the next stage of project development. Concurrence does not imply that the project has been approved by an agency nor that it has released its obligation to determine whether the fully developed project meets statutory review criteria. If substantial new information regarding a concurrence point is brought forward during project development, the adequacy of the prior concurrence statement may be reconsidered. The further refinement of the project, without a substantive change, will not normally be a reason to revisit the concurrence point. Rather, it should help decision makers select the least environmentally damaging, reasonable and practicable alternative.

Concurrence Points – Points within the NEPA process where the transportation agency requests agency concurrence.

The FHWA and the Iowa DOT shall seek concurrence from the other SIA signatories regarding **Purpose and Need, Alternatives to be Considered, Alternatives to be Carried Forward, and Preferred Alternative**. The intent of the concurrence points in the process is to preclude the routine revisiting of decisions that have been agreed to earlier in the process and encourage early substantive participation by the agencies. The timing of the concurrence points in the environmental process is reflected in the accompanying Iowa NEPA/404 Merger Concurrence Point Chart dated July 1999. The chart has a degree of flexibility and range built into it within which concurrence can be reached on each of the concurrence points. The method of accomplishing the concurrence reviews will be through joint meetings of the SIA signatories and other agencies as appropriate. The FHWA and Iowa DOT will schedule meetings approximately every six months, or as mutually agreed upon, at which projects ready for one of the concurrence points will be presented for concurrence. Iowa DOT representatives from the Office of Environmental Services[2] will develop the agendas for the meetings. The agendas will include the time and place of the meeting, descriptions of the projects to be discussed, appropriate background information to explain each project, and an indication of the concurrence point for each. Iowa DOT will provide the agenda to the SIA signatories, and other agencies as appropriate, at least 30 days in

[2] Now the Office of Location & Environment.

advance of the meeting to allow the regulatory and resource agencies sufficient time for review and preparation of their comments.

Notes

These meetings will promote efficient use of time and personnel resources by bringing together all of the appropriate parties to focus on multiple projects and facilitate the exchange of information necessary to obtain concurrence at the designated decision points. ***The minutes of the meeting, as revised based on review by the regulatory and resource agencies, will serve as documentation of concurrence.*** For major or complex projects or projects on expedited schedules, separate meetings may be scheduled. The Iowa DOT will provide agendas and notification for such meetings as described above and will document concurrence in the meeting minutes.

B. Resolving Disputes at Concurrence Points

It is anticipated that concurrence at each of the concurrence points will be achieved in most cases. In more controversial projects, however, the probability of non-concurrence may increase. Therefore, a process is needed to resolve disputes at any one of the concurrence points when one or more agency(ies) does not concur.

Dispute resolution will consist of informal efforts to reach a general consensus among the participating federal and State agencies regarding the issues involved at the particular concurrence stage. All parties appropriate to this effort should be involved, but formal concurrence will be required from the agencies with jurisdiction by law.

Attempts will be made to resolve issues at the lowest possible level in each agency. Within 30 days of a finding of non-concurrence at one of the designated points, the FHWA and Iowa DOT will meet with the agency(ies) involved to determine the direction for resolution of the dispute. The direction for resolution will be agreed upon through consensus of the agencies involved.

The NEPA/404 process may continue whether or not attempts to reach concurrence are successful. However, if the dispute remains unresolved, any agency in non-concurrence retains the option to elevate its concerns through existing, formalized dispute elevation procedures at the appropriate point in the NEPA or Section 404 permit process in accordance with Section 404(q) procedures. This will encourage all participating agencies to very carefully consider and accommodate the concerns raised by the resource agencies prior to finalization of the NEPA process and proposed issuance of the permit to avoid processing delays.

C. Data Collection and Analysis

The Iowa DOT will ensure that data collection activities will provide the specific items of information the Corps requires for determining compliance with the Section 404(b)(1) guidelines. Data collection will take place early in the coordination process so information will be available for discussion at the concurrence point meetings. The resource and regulatory agencies will be responsible for reviewing the data and evaluations provided by Iowa DOT and providing supplemental information as appropriate.

D. Systems Planning Process

Notes

Iowa transportation planning is accomplished under two separate processes. One is for urbanized areas over 50,000 population, where the plans are developed by the Metropolitan Planning Organization (MPO) designated for the area. The other is for the remainder of the state where the plans are developed by the Iowa DOT. The planning processes are to include the development of transportation plans addressing at least a 20-year planning horizon and include both long and short range strategies/actions and provide for the development of transportation facilities which will function as an intermodal transportation system.

In the planning processes, the MPOs are to develop a transportation improvement program (TIP) for the metropolitan planning areas and the Iowa DOT is to develop a statewide transportation improvement program (STIP) for all areas of the state. The TIP and STIP are to cover a period of not less than three years and include a separate priority listing of projects to be carried out in each of those three years. In cooperation with the MPOs, the Iowa DOT will incorporate the metropolitan area TIPs into the STIP creating a single statewide transportation improvement program for all areas of the State.

The transportation planning process will generally establish the purpose and need for projects. The TIPs and the STIP will identify the mode of transportation to be funded, i.e., highways or transit, including bicycle and pedestrian needs.

The process for development of the TIPs and STIP allows for input by the public and the resource and regulatory agencies and also for their review of the TIPs and STIP. The resource and regulatory agencies should provide their input into the process and review the TIPs and STIP as appropriate. Agency participation, along with the list of projects included in the STIP for implementation, will assist the agencies in identifying and prioritizing future workloads.

E. Scoping

Scoping is a process that considers a range and extent of action(s), alternatives and impacts, including Section 404 permit issues, to be considered in the environmental review process. It is not a single event or meeting but continues throughout the development of an environmental document and includes public involvement, usually a series of meetings, telephone conversations, or written comments from different individuals and groups. No matter how thorough the scoping process, it may become necessary to modify the scope of an environmental document if new issues surface during project development.

Scoping has specific and fairly limited objectives. They are (1) to identify the public and agency concerns; (2) to facilitate an efficient environmental documentation process through assembling the cooperating agencies, identifying all the related permits and reviews that must be scheduled concurrently; (3) to define the issues and alternatives that will be examined in detail in the environmental document while simultaneously devoting less attention and time to issues which cause no concern; and (4) to save time in the overall process by helping to ensure that draft documents adequately address relevant issues, reducing the possibility that new comments will cause a statement to be rewritten or supplemented.

Notes

Scoping begins when the Iowa DOT identifies the affected parties and presents a proposal with an initial list of environmental issues and alternatives. This basic information is necessary to explain to the public and the agencies what their involvement is expected to be. The first stage is to gather preliminary information and compose a clear picture of the action proposed.

A good scoping process will lay a firm foundation for the rest of the decision making process. If the environmental documentation can be relied upon to include all the necessary information for formulating policies and making rational choices, the agency will be better able to make a sound and prompt decision. In addition, if it is evident that all reasonable alternatives are being seriously considered, the public and agencies will usually be more satisfied with the alternative selection process.

Specific Procedures

The signatory agencies have identified four concurrence points which occur during the Iowa DOT's project development process. These are strategic points in time when the Iowa DOT will present updated project development information to the resource agencies. The resource agencies will review this information and provide concurrence that the Iowa DOT is properly considering and addressing potential natural resource impacts related to the project's development in balance with other social and economic impacts. This process will also serve to satisfy the requirements for sequential mitigation (avoid, minimize, and compensate). The goal is to identify and address agency concerns throughout the development process.

The four concurrence points are (1) Project Purpose and Need (this will equate to the Section 404 Overall Project Purpose), (2) Alternatives to be Analyzed, (3) Alternatives to be Carried Forward, and (4) Preferred Alternative. The final concurrence will be issuance of the required permits. The following describes the information that will be available to the resource agencies at the time the Iowa DOT seeks resource agency concurrence.

1. *Purpose and Need* – This concurrence point will occur after the Iowa DOT Commission has given approval to begin development of the project, the Iowa DOT has prepared a draft purpose and need statement for review, and the Iowa DOT has held a public meeting for local citizen and governmental input. The Iowa DOT will provide a draft purpose and need statement that will be partly based on information provided from its long-range systems planning office. A summary of input from the public information meeting will be available for the resource agencies. It is anticipated that the discussion on this concurrence point would be held in an environmental scoping meeting, early in the development process.
2. *Alternatives to Be Analyzed* – During the proposed early environmental scoping meeting, the Iowa DOT will present some preliminary draft alignments on aerial photos and USGS quad maps showing beginning and ending points and known sensitive areas. Sensitive areas include wetlands, woodlands, known 4(f) properties, homes, businesses, roads, known Section 106 sites, threatened and endangered species habitats, utilities, unique landforms, sources of pollution, floodplains, prairies, parks, refuges, etc. This resource information will most likely be obtained from secondary sources. Discussion will be based on general environmental knowledge of the area and aerial photo interpretation. The agency

concurrence will acknowledge that the range, number and scope of alternatives to be studied is likely adequate to satisfy permitting requirements. The Iowa DOT will seek guidance and agreement from the resource agencies at this point on the scope, duration, and details of any studies that may be required for any of the alternatives to allow a decision to be made at Concurrence Point 3.

3. *Alternatives to Be Carried Forward* – At this point, the Iowa DOT will have preliminary quantitative and qualitative information on the resource impacts for the various alternatives and potential borrow sites. Planning level, field-gathered information will be available for potential impacts to sensitive areas which include wetlands and other waters of the U.S. (including wetland types and boundaries), woodlands (by type), threatened and endangered species habitat, prime agricultural land, known Section 106 properties, resources which include regulated materials, and cultural resources for all alternatives. Based on this information, the Iowa DOT will seek concurrence on alternatives that can be dropped from further consideration. Iowa DOT will identify and provide documentation for those alternatives it feels are not practicable. Following this concurrence point, the Iowa DOT will proceed with more detailed development of the remaining alternatives.

4. *Preferred Alternative* – This concurrence point will be sought following the Iowa DOT Commission's selection of an alternative. The Iowa DOT will provide materials that support the preferred alternative. This will include results from any new studies, information developed following concurrence point 3, information from public and resource agency input, minutes of the Commission meeting, documentation of minimization efforts, and conceptual mitigation site alternatives.

Note: The Iowa DOT Commission has statutory authority for the route selection of highway improvements. The Commission's decision incorporates:

- Preliminary engineering design showing the actual footprint for the alternative and resulting resource impacts
- Comments received about the environmental documents completed and circulated prior to Commission approval
- Comments (both verbal and written) received during the public hearing
- Potential borrow(s) and compensatory mitigation options for the alternative

This process only applies to projects being completed under the Iowa DOT's Can-Do project development process. Projects that were started under the previous process may attempt to utilize the concepts stated above, but each project will be handled individually based on its complexity and sensitivity.

V. MODIFICATION/TERMINATION

This SIA may be modified upon approval of all signatories. Modification may be proposed by one or more signatories. Proposals for modification will be circulated to all signatories for a 30-day period of review. Approval of such proposals will be indicated by written acceptance. A signatory may terminate participation in this agreement upon written notice to all other signatories.

Notes

STATEWIDE IMPLEMENTATION AGREEMENT

NATIONAL ENVIRONMENTAL POLICY ACT
AND
CLEAN WATER ACT SECTION 404
CONCURRENT NEPA/404 PROCESSES
FOR HIGHWAY PROJECTS IN IOWA

Notes

The federal agencies and the Iowa Department of Natural Resources in cooperation with the Iowa Department of Transportation (Iowa DOT) agree to implement, to the fullest extent practicable and as funding and staffing level allow, the solutions outlined in the Statewide Implementation Agreement to the extent they are implemented by Iowa DOT.

This agreement becomes effective upon signature of all agencies and may be modified by written approval of each agency. This agreement may be revoked by agreement of all agencies or by any agency upon 30-days written notice to the other agencies.

U.S. Army Corps of Engineers

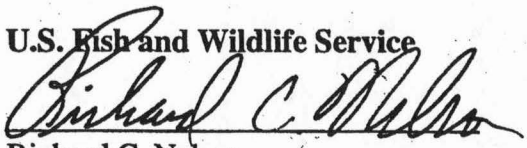
Edwin J. Arnold, Jr. — 5 Jul 01
Brigadier General, U.S. Army — Date
Division Engineer, Mississippi Valley Division

David A. Fastabend — 24 AUG 2001
Colonel, Corps of Engineers — Date
Division Engineer, Northwestern Division

Kurt F. Ubbelohde — 22 August 2001
Lieutenant Colonel (P), U.S. Army — Date
District Engineer, Omaha District

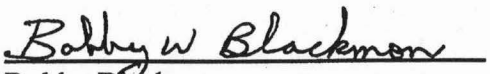
Torkild P. Brunso — 22 JUN 01
Lieutenant Colonel, U.S. Army — Date
Acting District Engineer, Rock Island District

U.S. Fish and Wildlife Service



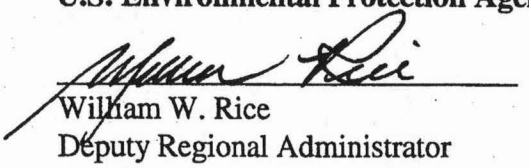
Richard C. Nelson
Supervisor
Rock Island Ecological Services Field Office

Federal Highway Administration



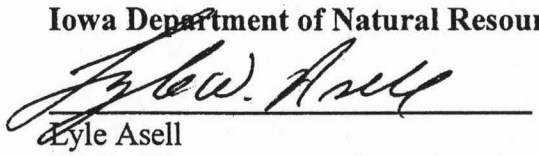
Bobby Blackmon
Division Administrator

U.S. Environmental Protection Agency, Region 7



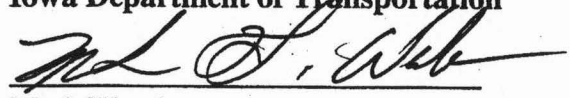
William W. Rice
Deputy Regional Administrator

Iowa Department of Natural Resources



Lyle Asell
Acting Director

Iowa Department of Transportation



Mark Wandro
Director

Notes

CHAPTER 8

Abbreviations and Short Forms

CHAPTER 8
ABBREVIATIONS AND SHORT FORMS

Notes

3R	rehabilitation, resurfacing, and restoration
404	Section 404 of the Clean Water Act
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act of 1990
ADE	assistant district engineer
ADT	average daily traffic
Advisory Council	Advisory Council on Historic Preservation
AN	as needed
APE	area of potential effect
CAAA	Clean Air Act Amendments of 1990
CADD	computer-aided design/drafting
CAG	citizen advisory group
CE	categorical exclusion
CEQ	Council on Environmental Quality
C.F.R.	Code of Federal Regulations
Commission	Iowa Transportation Commission
Corps	U.S. Army Corps of Engineers
CSD	context-sensitive design
DCE	district construction engineer
DE	district engineer
DEIS	draft environmental impact statement
District	Iowa DOT District
DMM	district maintenance manager
DMT	design management team
DOT	(state) Department of Transportation
DRP	data recovery plan
DTM	digital terrain model
EA	environmental assessment
ECM	environmental concurrence meeting
EIS	environmental impact statement

EJ	environmental justice
EPA	Environmental Protection Agency
FEIS	final environmental impact statement
FHWA	(U.S. Department of Transportation) Federal Highway Administration
FONSI	finding of no significant impact
FTA	Federal Transit Administration
GIS	Geographic Information Systems
GPS	global positioning system
HDMT	Highway Division management team
IAC	Iowa Administrative Code
ICN	Iowa Communications Network
IDNR	Iowa Department of Natural Resources
i.e.	id est (Latin) – that is
Iowa DOT	Iowa Department of Transportation
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
LAN	local area network
LOS	level of service
MOA	memorandum of agreement
MPO	metropolitan planning organization
NACD	(National Park Service's) Native American Consultation Database
NEPA	National Environmental Policy Act of 1969, as amended
NHS	National Highway System
NOA	notice of availability
NOI	notice of intent (to prepare an EIS)
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OLE	Office of Location & Environment (abbreviation used in Figure 1-3, Early Acquisition Flow Chart, and in Appendix A, Can-Do Gantt Charts)
PDA	predetermined access
PDI	process development improvement (team)
P.E.	professional engineer
PH	public hearing
PIM	public information meeting

Notes

PIP	public involvement plan
PMT	project management team (for Iowa DOT)
PPM	(Iowa DOT) Policies and Procedures Manual
Q&A	question and answer
quad	USGS 7.5-minute topographic quadrangle (map)
RCB	reinforced concrete box
RCE	resident construction engineer
ROD	record of decision
ROW	right-of-way
Section 106	Section 106 of the National Historic Preservation Act of 1966, as amended
Section 404	Section 404 of the Clean Water Act of 1948, as amended
SHPO	state historic preservation office
SIA	Statewide Implementation Agreement
State	State of Iowa
STIP	state transportation improvement program
T&E	threatened and endangered (species)
TCP	traditional cultural property
TEA-21	Transportation Equity Act for the 21st Century
TIP	transportation improvement program
Tracking Document	Can-Do Project Tracking Document
TS&L	type, size, and location
U.S.C.	United States Code
USDOT	U.S. Department of Transportation
USGS	U.S. (Department of the Interior) Geographical Survey
VE	value engineering

Notes

CHAPTER 9

Glossary

CHAPTER 9
GLOSSARY

Notes

A

action — A highway or transit project proposed for federal funding or approval. It also includes activities such as joint and multiple use permits, changes in land use access control, etc., which may or may not involve a commitment of federal funds (23 C.F.R. 771.107(b)).

agencies with special expertise — Agencies with statutory responsibility, agency mission, or related program experience (40 C.F.R. 1508.26).

area of potential effect (APE) — With respect to the Section 106 process, the area directly or indirectly impacted by a project. The APE is typically smaller than the survey area but could exceed the ROW limits.

availability session and open house — An informal meeting in a public location where citizens can talk to involved officials on a one-to-one basis, ask questions, and express concerns directly to project staff. Such meetings can also be set up to allow informal conversations among representatives of all interested organizations. The meetings are usually scheduled during the evening at a local public library, school, or meeting room.

C

Can-Do process — Iowa DOT's revised project development process, which was adopted in February of 1998. Can-Do:

- Is a streamlined co-development process that minimizes project development time through concurrent activities.
- Is designed around a commitment to proactive and continuous public involvement.
- Incorporates environmental commitments to avoidance of impacts in preference to mitigation, to early and continuous consultation with environmental resource agencies, and to early investigation and delineation of sensitive resources.

categorical exclusion (CE) — An action that does not require an environmental assessment or environmental impact statement because it would not (individually or cumulatively) significantly affect the human environment.

citizen advisory group (CAG) — Representative groups of stakeholders who are given periodic opportunities to discuss and comment on various project-related issues and concerns. CAGs provide a public forum for representatives of diverse community interests to present and discuss their needs and concerns with Iowa DOT or permitting agencies.

clear — In the context of environmental investigations of the corridor, to survey in order to ensure that there are no encumbrances from an environmental standpoint.

clearance — A determination, by means of environmental surveys, that the corridor does not contain environmental encumbrances (see "clear").

community interview — An informal, face-to-face or telephone interview held with local residents, elected officials, community groups, and other individuals to acquire information on citizen concerns and attitudes about a proposed project.

concurrence Agency confirmation that information to date is adequate to agree that the project can be advanced to the next stage of project development. Concurrence does not imply that the project has been approved by an agency or that the agency has released its obligation to determine whether the fully developed project meets statutory review criteria.

concurrence point A point within the NEPA/404 process where the transportation agency requests agency concurrence:

- Concurrence Point 1 – Purpose and Need
- Concurrence Point 2 – Alternatives to Be Analyzed
- Concurrence Point 3 – Alternatives to Be Carried Forward
- Concurrence Point 4 – Preferred Alternative

context-sensitive design (CSD) An approach to highway planning and development that fits the roadway into the environment rather than modifying the environment to fit the highway. This approach uses the project context (see definition below) and public input to guide development of the project concept.

cooperating agencies "Local public agencies with special expertise in the proposed action," which cooperate in the preparation of an environmental document (23 C.F.R. 771).

corridor A strip of land between two termini within which traffic, topography, environment, and other characteristics are evaluated for transportation purposes.

cross section The width of the roadway, including the clear zone, shoulder, parking lanes, travel lanes, and/or median.

D

design criteria classification The definition of the allowable range of design speed and the basic cross section of a roadway. Iowa DOT uses the following classifications: freeway, expressway, urban, Super-2, two-lane.

design management team (DMT) A process team consisting of a design engineer, senior design technician, and engineering support staff. The DMT is responsible for providing leadership, guidance, and engineering expertise during the design process.

development All processes required to bring a project from concept through project planning and design to contract letting.

digital terrain model (DTM) A three-dimensional ground model of the study area that is generated from aerial photography and developed by completing the field survey work necessary for establishing project photo control.

door-to-door canvassing The collection and distribution of project-related information by calling on community members individually and directly in order to gather information, determine the level of public concern, and answer citizens' questions directly and individually.

E

environmental As used in this document, this term typically has the broadest possible regulatory interpretation.

environmental assessment (EA) A written document that describes and evaluates the expected social, economic, and environmental impacts of all alternatives proposed for a highway improvement project. The type of environmental documentation (EA or EIS) is determined by the Iowa DOT Office of Location & Environment in coordination with the FHWA division office.

Notes

environmental impact statement (EIS) A comprehensive, full-disclosure document prepared in accordance with NEPA and FHWA regulations. An EIS fully describes each proposed alternative, including anticipated direct, secondary, and cumulative impacts on the environment. An EIS is prepared when Iowa DOT and FHWA have determined, either at the onset of planning or upon preparation and review of an EA, that the project is likely to result in significant adverse impacts on the environment or is likely to be highly controversial. Preparation of an EIS includes gathering data, writing the document, and circulating the draft EIS (DEIS) to federal, State, and local reviewing agencies and the public.

environmental scoping meeting A meeting with external regulatory and resource agencies and local jurisdictional representatives and other interested persons to develop mutual understanding about a proposed project and reach early consensus as to the level of environmental documentation required for external approvals. (See "scoping," below.)

environmental studies "The investigations of potential environmental impacts to determine the environmental process to be followed and to assist in the preparation of the environmental document" (23 C.F.R. 771.107).

exhibit A visual, such as a diagram, photograph, or computer display, accompanied by a brief description or introduction. Exhibits can be a useful means of explaining technical and complex projects.

expressway A multi-lane divided highway with at-grade intersections, often in combination with interchanges at high-volume intersections and primary routes.

F

field investigation for regulated materials Invasive fieldwork at properties that are or may be contaminated by regulated materials and appear to be unavoidable by the proposed project. Environmental samples are collected and analyzed to determine the contaminants present and the extent and seriousness of the contamination. The fieldwork may progress through multiple iterations.

fill material Any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water body.

final bridge design A detailed analysis of the design elements of each structure, including foundation design (pile or spread footing), footing design, pier design, design of the superstructure, and development of a complete set of plans that includes a tabulation of bid items and quantities as well as a cost estimate.

final environmental impact statement (FEIS) A document that serves as an action-forcing device to ensure that the policies and goals defined in NEPA are met. The FEIS provides full and fair disclosure of significant environmental impacts and informs decision makers and the public of reasonable alternatives that can avoid or minimize adverse impacts and thereby enhance the quality of the human environment. The FEIS is intended to assess the environmental impact of a proposed action, not to justify decisions already made.

finding of no significant impact (FONSI) A document, attached to the EA, briefly presenting the reasons why a proposed action would not have a significant effect on the human and natural environment.

focus group A small discussion group led by a facilitator who draws out participants' reactions to an issue. The group is selected either randomly or to approximate the demographics of the community.

Notes

freeway A multi-lane divided highway with full access control. Access is allowed only at interchanges.

full historic survey A more in-depth review of historic structures or other property identified during the reconnaissance survey. The review includes a detailed study of early maps and a literature search of ownership records and other sources to gather sufficient evidence for SHPO review. This survey allows Iowa DOT and FHWA, with SHPO concurrence, to determine whether affected properties are eligible for listing in the National Register of Historic Places (NRHP).

functional classification The process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. There are three highway functional classifications: arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic (local or long distance) and the degree of land access that they allow.

G

Gantt chart A view of a schedule that includes a list of tasks and graphically represents those tasks using bars representing the duration of each task.

geotechnical design The soils design work that includes information on bridges, cross sections, subdrains, stability items (benches, berms, blankets, drains, etc.), and borrow design (soil profiles for borrows, borrow cross sections, etc.).

Green Book *A Policy on the Geometric Design of Highways and Streets*, published by AASHTO. FHWA has adopted applicable parts of the Green Book as the national standard for roads in the NHS. The Green Book contains guidance on geometric design.

H

hard shots Elevation data collected by field survey as opposed to photometric data assembled by a stereo plotter. Hard shots are required for locations that typically are obscured in the aerial photo by water, vegetation, or fill. An example is gullies in heavily vegetated areas.

hazardous materials A substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated. The term includes hazardous substances, hazardous wastes, marine pollutants, and elevated temperature materials.

Highway Division management team (HDMT) A management team consisting of the Highway Division director, Engineering Bureau director, Operations Bureau director, district engineers, and their support staff.

historic/ architectural mitigation Recording, documenting, moving, and often recovering significant parts of historic structures. These mitigation measures are required when a historically or architecturally significant structure is approved for removal for a highway project.

historic property (or historic resource) "Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register of Historic Places, including artifacts, records, and material remains related to such a property or resource" (16 U.S.C. 470w(5)).

Notes

holistic design Careful planning and design that integrates the horizontal and vertical alignments of a route into its surroundings, rather than merely satisfying basic engineering design criteria, to produce a visually attractive, unobtrusive highway.

I

informal meeting with stakeholders A meeting that allows interested citizens and local officials to discuss project issues and concerns or permitting activities in an informal, comfortable setting such as a resident's home, public library meeting room, community center, church hall, or other local meeting place. An informal meeting actively promotes public participation by increasing stakeholders' familiarity with the project and boosting interested citizens', community groups', Iowa DOT's, and permitting agencies' awareness of one another's viewpoints.

information table A public participation tool that can be used by staff to interact one-on-one with interested citizens. A table or booth, staffed by at least one person who is available to answer questions about the project, is set up at a meeting, hearing, or other event such as a community fair or civic gathering. Pamphlets, fact sheets, brochures, newsletters, or project reports are available, along with a sign-up sheet for interested people to add their names to the mailing list.

initial regulated materials review A noninvasive, preliminary assessment of properties that are or may be contaminated by regulated materials. The review consists of a database search, visual survey, and interviews.

intermodal transportation system A system for the movement of people and goods that is economically efficient and environmentally sound, provides the foundation for the nation to compete in the global economy, and moves people and goods in an energy-efficient manner.

J

jurisdiction by law, agencies with Agencies with authority to approve, veto, or finance all or part of the proposal (40 C.F.R. 1508.15).

L

level of service (LOS) Depending on the context, either of two definitions:

- A qualitative rating of the effectiveness of a highway in serving traffic, measured in terms of operating conditions. Level of service (LOS) "A" (free-flow operations) represents the least amount of congestion, and "F" (forced or breakdown flow) refers to the greatest amount.
- The quality and quantity of transportation service provided, including characteristics that are quantifiable (safety, travel time, frequency, travel cost, number of transfers) and those that are difficult to qualify (comfort, availability, convenience, modal image).

location plus hearing The combined corridor hearing and design hearing in the Can-Do process.

Notes

M

memorandum of agreement (MOA) — A signed agreement reached by FHWA, SHPO, and any consulting parties in order to resolve adverse project effects on significant historic properties or archaeological sites and to allow mitigation measures to proceed. The MOA may stipulate treatment in the form of protection or preservation measures, additional studies, data recovery, recordation or publications, or agreement that loss of the resource is an acceptable cost of the proposed project.

metropolitan planning organization (MPO) — The organization designated as being responsible, together with Iowa DOT, for conducting the continuing, cooperative, and comprehensive planning process under 23 U.S.C. 134 and 49 U.S.C. 1607. It is the forum for cooperative transportation decision making for the metropolitan planning area (40 C.F.R. 51.392; 23 C.F.R. 450.104).

metropolitan transportation plan — The official intermodal transportation plan that is developed and adopted through the metropolitan transportation planning process for the metropolitan planning area.

mitigation — Avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts (as defined in Council on Environmental Quality [CEQ] regulations at 40 C.F.R. 1508.20). (See "historic/architectural mitigation" and "Phase III archaeological mitigation.")

N

National Highway System (NHS) — All interstates and some other primary routes.

NEPA process — All measures necessary for compliance with the requirements of NEPA.

news conference — An information session or briefing held for representatives of the news media or the general public to provide accurate information concerning important developments or processes. A news conference is used when time-sensitive information needs to reach the media and public and a news release may not be able to address key issues for the community.

news release — A statement sent to the news media (such as newspapers, television stations, or radio stations), generally to publicize progress or key milestones in the permitting process. When carried by the media, a news release can effectively and quickly disseminate information to large numbers of people. It can also be used to announce public meetings, report the results of public meetings or studies, and describe how citizen concerns were considered in the permit decision or corrective action.

notice of availability (NOA) — Information regarding the availability of the NEPA document (EA, DEIS, or FEIS), published in a newspaper with circulation in the affected area and/or in the *Federal Register*. Information regarding availability of the NEPA document is included in the notice of a public hearing unless project specifics require that the NOA be published separately. Note that, for a FONSI, an NOA is required for notification purposes, but formal publication is not required. Contact the Office of Location & Environment (NEPA Section or Public Hearing Section) for assistance. Also see 23 C.F.R. 771.119, .121, .123, and .125 for federal requirements.

Notice of Intent (NOI) — A notice, published in the *Federal Register*, that an EIS will be prepared and considered.

Notes

O

on-site information office — A trailer, small building, or office space located near the project or at a location convenient and accessible to the community. Usually, such offices are staffed by full- or part-time personnel who respond to citizens' inquiries and prepare information releases. The on-site staff can conduct meetings and question-and-answer sessions to inform citizens about the status of the permitting process and address their concerns.

P

Phase I archaeological survey — Information gathering to develop an archaeological report to submit to SHPO. Survey techniques include a search of records or other literature, local area interviews, a preliminary walk-over survey of the ground surface, subsurface probing, and the gathering of geomorphological information about buried prehistoric sites potentially affected by a proposed project.

Phase IA archaeological survey — Generally extensive background research of known resources, with very limited, if any, field investigations, to characterize the project area.

Phase II archaeological survey — A targeted subsurface investigation of the archaeological site(s) identified during the Phase I and Phase IA surveys to gather sufficient evidence about the site to (1) establish its horizontal and vertical boundaries and (2) allow a determination by Iowa DOT and FHWA, with SHPO concurrence, as to the site's eligibility for the NRHP.

Phase III archaeological mitigation — Data recovery for and documentation to prevent the destruction of data by highway construction. This work is completed for those sites that were determined eligible for the NRHP chiefly for their information potential.

pipeline projects — Projects that were already in the development process when the Can-Do process was initiated.

practicable alternative — An alternative to a project, as defined in 40 C.F.R. 230.3(q), that is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. (40 C.F.R. 230 is also known as the Section 404(b)(1) guidelines.)

preferred alternative — The alternative that best meets the project purpose and need while considering the economic, social, environmental, and technical factors. If a preferred alternative exists at the time the DEIS is published, it should be so identified; otherwise, the preferred alternative must be identified in the FEIS. Note that "preferred alternative" does not mean "selected alternative."

preliminary geotechnical review — A review of corridors and plans for any grade or alignment changes necessitated by the Office of Design – Soils Design Section's considerations, and an identification of multiple potential borrow sites.

preliminary type, size, and location (TS&L) — A preliminary estimate of the major structural needs, such as bridges and large culverts, for the proposed alignment. The information includes a recommendation for widening, replacing, or using existing structures, as well as a preliminary cost estimate for the items identified.

Notes

press kit A packet of relevant, key information for distribution to reporters. Typically, the kit is a folder with pockets for short summaries of the project, technical studies, newsletters, press releases, and other background materials.

project A portion of a highway that a state proposes to construct, reconstruct, or improve as described in the preliminary design report or applicable environmental document. A project may consist of several contracts or phases over several years.

project context The constructed and natural environment of an area in which a roadway project is to be undertaken. "Project context" includes the people who live, work, or pass through that area.

project development The major events for project implementation, such as preparation of the environmental document, design, ROW acquisition, and contract letting.

project letting The process of preparing a project for bidding, conducting the bidding, and awarding the contracts. This involves reviewing the project plans; preparing cost estimates, bidding documents, and proposals; printing proposals and plans; distributing bidding documents to prospective bidders; requesting FHWA approval; advertising and conducting letting; analyzing bids; and awarding contracts.

project management team (PMT) A multidisciplinary team assembled to guide a project from early planning through letting and possibly into construction. The PMT is responsible for initially setting and then maintaining the project production schedule to proceed to letting on time and on budget. The PMT also identifies needed project resources and works with office directors to schedule those resources when needed.

project tour A scheduled trip to the project site, during which technical and public outreach staff answer questions.

property documentation (historic) An accepted mitigation measure normally employed to compensate for the unavoidable loss of significant cultural resource properties to a highway project. The documentation involves recording a historic structure or other property, using archival photographic techniques and historic research, and preparing a written narrative to document the essence of the property and the reasons for its historic significance.

public hearing A public proceeding conducted for the purpose of acquiring information or evidence that will be considered in evaluating a proposed Department of the Army permit action, or federal project, and which affords the public an opportunity to present their views, opinions, and information on such permit actions or federal projects (33 C.F.R. 327.3(a)).

public involvement plan A set of project-specific actions to enable Iowa DOT to work effectively with the affected community and the resource agencies on the permit application. The purpose is to identify public concerns and use existing requirements as a framework for meaningful public input in permitting decisions.

Q

question and answer (Q&A) session A means of direct communication between Iowa DOT and citizens. Representatives are made available after an event such as a presentation, briefing, exhibit, or meeting. Q&A sessions bring Iowa DOT staff and interested citizens together to answer questions one-on-one and address concerns about the project and the Can-Do development process. The setting may be formal or informal.

Notes

R

reconnaissance historical survey — A search of archival records and literature, preliminary exterior visual examination, local area interviews, and possibly a preliminary report regarding historic properties potentially affected by a proposed project.

record of decision (ROD) — A concise document that records agency decisions made regarding the project, as published in the *Federal Register*. It identifies the environmentally preferred alternative, discusses the basis for decisions and planned mitigation measures, and presents responses to any comments received on the FEIS. No further project development approvals may be given by FHWA until the ROD is approved. A ROD is required only for projects for which an EIS has previously been prepared.

reduced-speed urban facility — A roadway with urban cross sections and reduced speeds. A roadway with an urban cross section controls surface drainage using curbs and an enclosed storm sewer system.

regulatory agency — An agency that has jurisdiction by law.

resource agency — An agency that has special expertise with respect to any environmental issue.

right-of-way (ROW) — A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

right-of-way relocation plan — A plan for relocating residents and businesses that would be displaced by the proposed alignment alternatives. The plan is based on an assessment that includes an inventory of the homes, farms, and businesses within the ROW; available properties in the area that could serve as suitable replacement properties; and financial information on property values and mortgage rates in the local market.

rural two-lane highway — A rural undivided highway with at-grade intersections.

S

scoping — "An early and open process for determining the scope of issues to be addressed [in the environmental review process] and for identifying the significant issues related to a proposed action" (40 C.F.R. 1501.7). Scoping considers a range and the extent of action(s), alternatives, and potential impacts as well as Section 404 permit issues to include in the environmental review.

Notes

(Section) 4(f) Section 4(f) of the Department of Transportation (DOT) Act of 1966. Section 4(f) was originally set forth in Title 49 U.S.C. Section 1653(f) and applies only to agencies within DOT. According to its provisions, the Secretary may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge, or land of an historic site of national, State, or local significance only if there is no prudent and feasible alternative to using that land and the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

The environmental regulations for applying Section 4(f) to transportation project development can be found at 23 C.F.R. 771.135.

Section 106 Section 106 of the National Historic Preservation Act of 1966, as amended, which requires federal agencies to take into account the effect of their undertakings on properties included in or eligible for inclusion in the National Register of Historic Places and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings.

(Section) 106 process The process for accomplishing the requirements of Section 106 of the National Historic Preservation Act, contained in federal rules at 36 C.F.R. Part 800. The purpose of this process is to ensure that no unnecessary harm comes to historic properties as a result of federal actions. Under Section 106, federal agencies are required to take into account the effect of their proposed undertakings on properties listed in or eligible for inclusion in the NRHP.

Section 404 permit A Department of the Army authorization, issued after a case-by-case evaluation of a specific project involving the proposed discharge(s) of dredged or fill material into waters of the United States in accordance with the procedures of 33 C.F.R. 323 and 325 and a determination that the proposed discharge is in the public interest pursuant to 33 C.F.R. 320.

(Section) 404 process The permitting process under Section 404 of the Clean Water Act, which establishes a program to regulate the discharge of dredged and fill material into waters of the U.S., including wetlands.

Section 404(q) Section 404(q) of the Clean Water Act, which requires development of procedures to expedite permit decisions by eliminating duplicative paperwork. The current process allows some federal agencies to appeal Section 404 permit decisions made by a district engineer of the Corps. The process is contained in the 404(q) Memorandum of Agreement.

sequential mitigation Avoidance, minimization, and development of compensatory mitigation.

single public hearing The combination of a corridor location hearing and design hearing, also called a "location plus hearing." When a formal hearing is conducted, more detail is available than at the corridor location hearing. It is estimated that planning studies will be 100 percent complete and design about 35 percent complete for this hearing. For complex projects, more than one alternative may be presented at the hearing, provided both are considered equal.

stakeholder Any non-Iowa DOT entity having an interest in a project, including (but not limited to) community members, groups, politicians, resource agencies, and the general public.

Notes

Statewide Transportation Improvement Program (STIP) — A staged, multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, metropolitan plans, and Transportation Improvement Programs (TIPs) and processes (23 C.F.R. 450.104).

Super-2 — A design criteria classification for roadways. (Other classifications are freeway, expressway, urban, and two-lane.) *Super-2* refers to a rural two-lane undivided highway with enhanced geometrics to improve operational and safety features. Intersections are at grade.

support functions — Those groups or individuals who do not have direct membership on a PMT but whose work product is necessary to make informed decisions or to provide necessary project clearances and/or construction permits. Examples are the Office of Design – Photogrammetry & Preliminary Survey and Soils Design Sections; Office of Contracts; Office of Maintenance; District Field Services; and Office of Location & Environment – Public Hearing Section. Support functions generally are represented by a PMT member.

survey and telephone poll — A means of gathering general impressions about specific activities or public participation events. A survey or poll is used when an anonymous method for submitting information is needed. A survey can be oral or written, taken in person or sent by mail. It can be distributed either to the entire community or to specific segments or representative samples of the community.

T

telephone contact — A quick method of informing key persons about activities, monitoring shifts in community concerns, gathering information about the community, and providing updates.

telephone hotline — A toll-free or local telephone number to call to ask questions and obtain information about a project or process. Telephone hotlines provide interested persons with a relatively quick way of expressing their concerns directly and obtaining answers to their questions. Some hotlines also enable callers to order documents.

threatened and endangered species (T&E) investigation — A field study with a follow-up written report to establish the presence, or likely absence, of any State- or federally listed protected plant or animal species. A field study is conducted only when there is evidence that suitable habitat may be present or when a protected species is known to inhabit the area.

traffic data analysis — An analysis for a corridor improvement project that includes the projected average daily traffic (ADT) for the design year and beyond for both the mainline and intersecting roads, and an analysis of turning movements for intersecting roads and other designated locations, with a breakdown showing the percentage of trucks, and directional traffic flow effects.

transitional facility — A roadway that transitions between a high-speed rural driving environment and a reduced-speed urban environment.

transportation facilities — Examples include highways, transit systems, pedestrian sidewalks, bicycle paths, and similar types of facilities.

Transportation Improvement Program (TIP) — A staged, multiyear, intermodal program of transportation projects which is consistent with the metropolitan transportation plan (23 C.F.R. 450.104).

Notes

turnkey A contractual method whereby responsibility for a project from planning to letting is delegated to a consultant.

Type I project (major change) – Policies and Procedures Manual (PPM) 500.02 A project with the following characteristics:

- *Location:* New alignment or relocation along a major portion of highway section.
- *Grades:* Complete new grade line or very small segments of existing grade are retained.
- *Right-of-way:* Substantial ROW acquisition is required.
- *Public access:* For a freeway or expressway, restricted to interchange locations or limited at-grade connections; otherwise, unchanged except for minor adjustments.

Type II project (minor change) – PPM 500.02 A project with the following characteristics:

- *Location:* Generally the existing location.
- *Grades:* Generally the existing grades.
- *Through lanes*: Remain in the existing location but normally will be widened.
- *Right-of-way:* Additional ROW is required.
- *Public access:* Unchanged or only minor adjustments.

Type III project (repair, replacement, or operational improvement) – PPM 500.02 A project with the following characteristics:

- *Location:* No change.
- *Grades:* No change, except in isolated circumstances.
- *Right-of-way:* No change, except in isolated circumstances.
- *Through lanes:* No change, but width may change and turning lanes may be added.
- *Public access:* Remains the same.

U

urban facility A roadway with an urban cross section, which controls surface drainage using curbs and an enclosed storm sewer system.

V

value engineering (VE) A systematic method of identifying, evaluating, and selecting an alternative by an objective, diverse team not associated with ownership of the project. The VE process takes into account both objective parameters (such as cost, time, or alternatives) and subjective parameters (such as safety or politics) associated with a project.

value engineering (VE) study The systematic application of recognized techniques by a multidisciplinary team to identify the function of a product or service, establish a worth for that function, generate alternatives through creative thinking, and provide needed functions at the lowest life-cycle costs without sacrificing the safety, necessary quality, and environmental attributes of the project. VE applies to all federally aided highway projects in the NHS with an estimated cost of $25 million or more. Iowa DOT has procedures to identify candidate projects for VE studies early in the development stage.

value engineering (VE) team An ad hoc team assigned as outlined in Appendix B, PMT Checklists, to perform the VE study for the project.

Notes

visualization tools Illustrations that give stakeholders a certain degree of confidence that they understand what the designers intend a project to look like after it is built. Increasingly, computer-generated graphics are used for this purpose.

W

waters of the U.S. All waters, lakes, rivers, streams (including intermittent streams), wetlands, sloughs, and the territorial seas, unless excluded from regulation. For a complete definition and exclusions, see 33 C.F.R. 328.3(a), 33 C.F.R. 323.4, and 40 C.F.R. 230.3(s).

wetlands Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 C.F.R. 328.3(b) and 40 C.F.R. 230.3(t)).

workshop A seminar or gathering of small groups (usually between 10 and 30 people) typically led by one or two specialists with technical expertise in a specific area. A workshop is used to explain the project or development process to community members, or to discuss specific topics, especially complex technical details. A workshop can improve public understanding of the project or development process, identify citizen concerns, prevent or correct misconceptions, and encourage public input.

Notes

CHAPTER 10

References

CHAPTER 10
REFERENCES

Notes

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Notes

APPENDICES

A – Can-Do Gantt Charts

B – PMT Checklists

C – Environmental Concurrence Meetings

D – FHWA Value Engineering Authorization

E – Iowa Department of Transportation's Project Development Public Involvement Plan

Attachment A – Example of an Early Coordination Letter and Information Packet

Attachment B – Example of a Probable Class of NEPA Action Information Packet

Attachment C – Example of a Public Meeting Notice

Attachment D – Example of a Public Hearing Certification

Attachment E – Executed Amendments to Iowa DOT's Project Development Public Involvement Plan

APPENDIX A
CAN-DO GANTT CHARTS

Figure A-1, Typical Can-Do Development Schedule – EA and Possible FONSI

Figure A-2, Typical Can-Do Development Schedule – EIS &ROD

Notes:

1. See Chapter 2, Can-Do Scheduling, for a description of the Can-Do events.
2. The blue vertical lines on the schedules show the concurrence points (as time ranges) referred to in Chapter 7, Statewide Implementation Agreement, and Appendix C, Environmental Concurrence Meetings.
3. These Gantt charts include the merged NEPA/404 process but do not include the Section 4(f) evaluation.

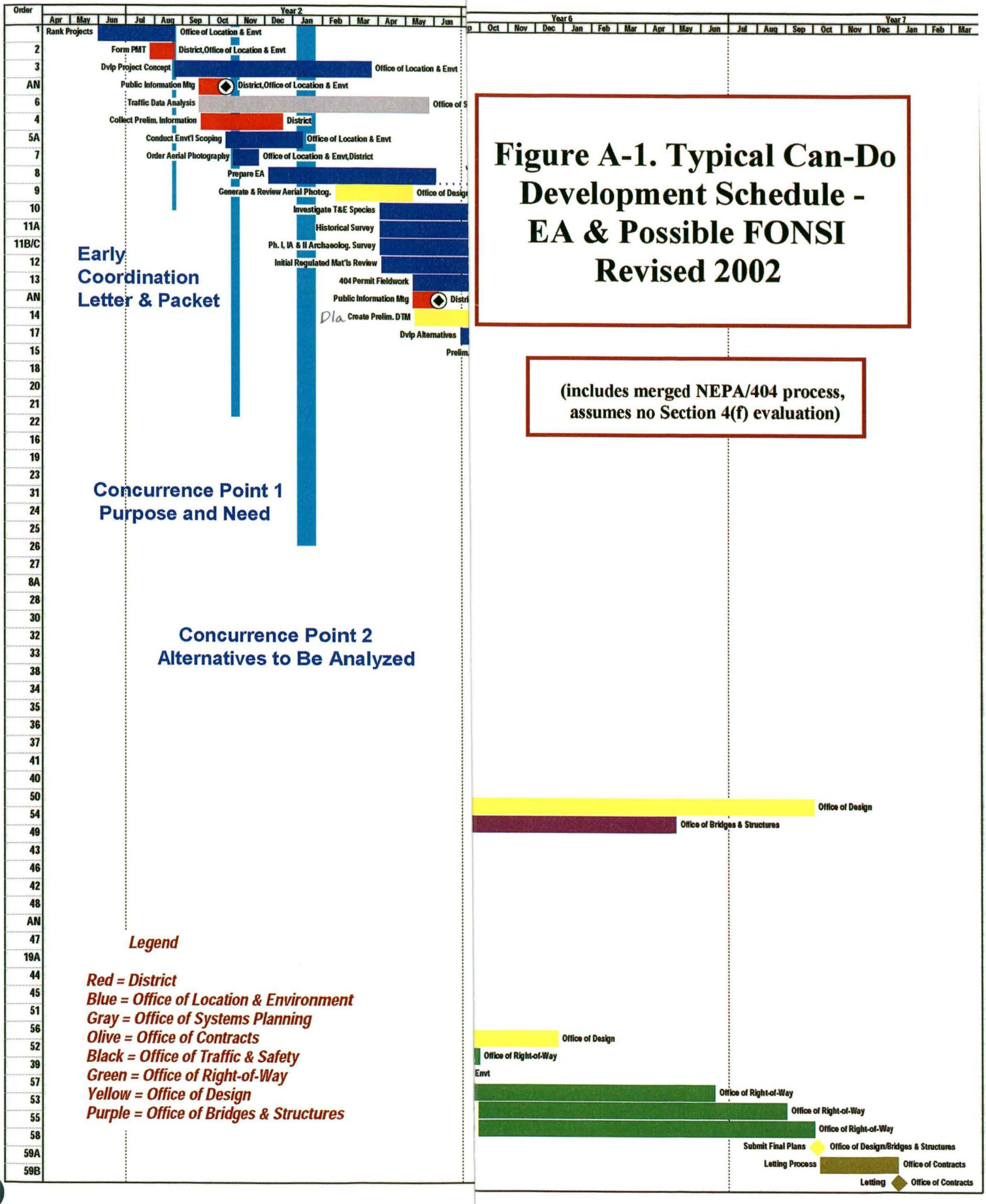


Figure A-1. Typical Can-Do Development Schedule - EA & Possible FONSI Revised 2002

(includes merged NEPA/404 process, assumes no Section 4(f) evaluation)

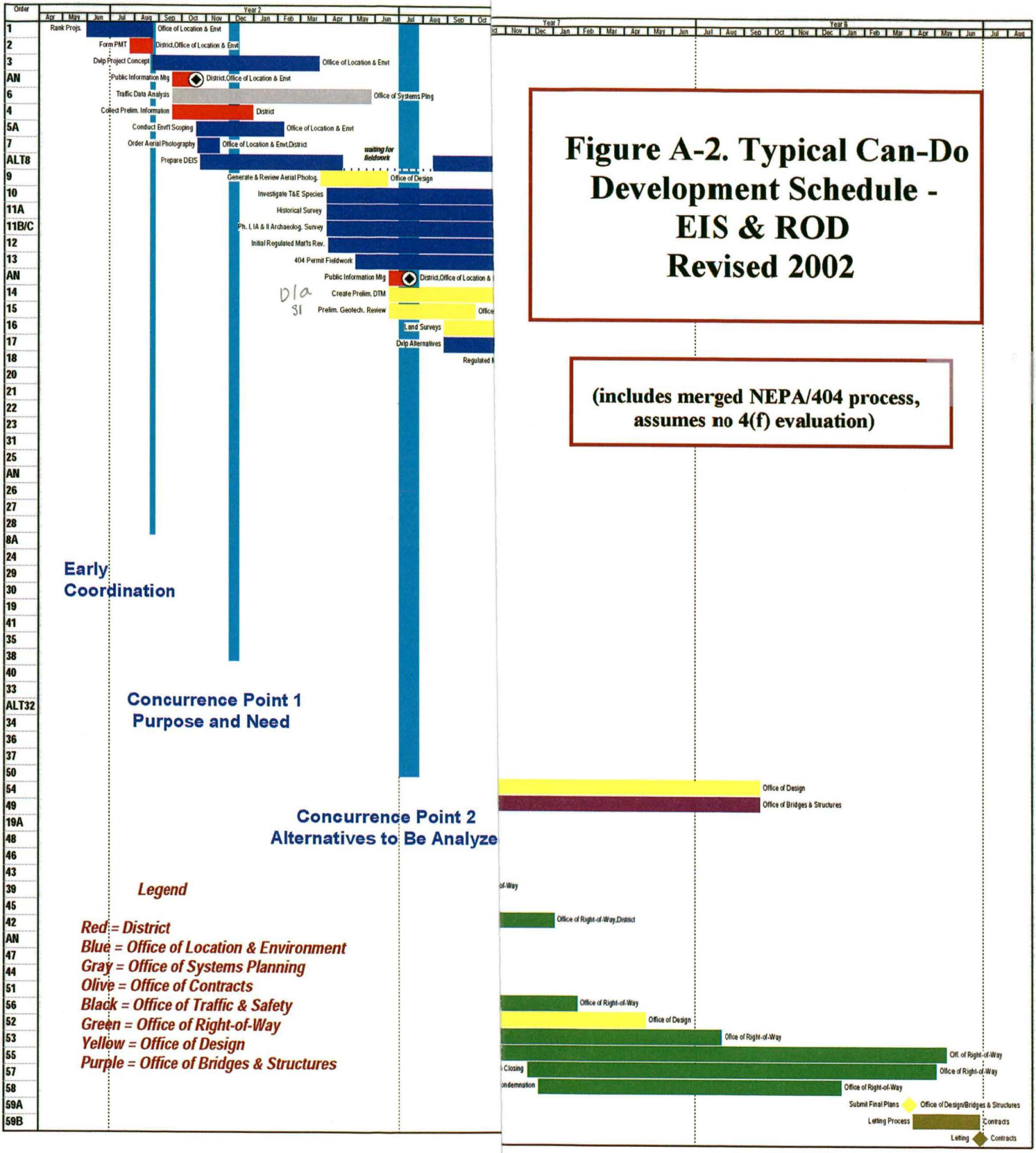


Figure A-2. Typical Can-Do Development Schedule - EIS & ROD Revised 2002

(includes merged NEPA/404 process, assumes no 4(f) evaluation)

APPENDIX B
PMT CHECKLISTS

PMT Responsibility Checklist

PMT Meeting Agenda Checklist

PMT RESPONSIBILITY CHECKLIST

Notes

This checklist briefly explains when Districts are to establish a project management team (PMT) and outlines the team's responsibilities. For the basic agenda for PMT meetings, see the subsequent checklist.

B.1 ESTABLISHMENT OF PMTS

Districts are responsible for ensuring that PMTs are established for all projects requiring an environmental document. Specifically, this requirement applies to all environmental assessments (EAs), findings of no significant impact (FONSIs), and environmental impact statements (EISs) but not to categorical exclusions (CEs).

B.3 SPECIFIC PMT RESPONSIBILITIES

PMTs are to accomplish the following in keeping with project needs. Note that some of the PMT responsibilities outlined in this checklist are concurrent rather than linear.

- ❑ 1. Assist in developing a project concept that meets the purpose and need statement for the project.
- ❑ 2. Prepare and maintain a project schedule.
  - ❑ a. Provide the project schedule to the scheduling engineer, who shall:
    - ❑ Incorporate it into the production schedule.
    - ❑ Maintain a list of projects with a PMT and the members assigned to each team.
  - ❑ b. Revise the schedule.
- ❑ 3. Request that the Office of Location & Environment determine the appropriate level of environmental documentation.
- ❑ 4. Determine the level of detail for the public involvement and establish the process.
  - ❑ a. Establish the public involvement process in accordance with Chapters 5 and Chapter 6, Guide to Public Involvement – Parts I and II, respectively.
  - ❑ b. Identify the external customers and their level of involvement.
  - ❑ c. Identify the affected agencies, such as federal agencies, cities, counties, and emergency providers.
  - ❑ d. Implement an early and ongoing public involvement process.

Notes

- ❑ 5. Prepare a project cost estimate.
  - ❑ a. Provide the cost estimate to the Highway Division management team (HDMT) for approval.
  - ❑ b. Provide justification for changes to the HDMT for approval.
- ❑ 6. Initiate and manage the value engineering (VE) process.
  - ❑ a. Determine the applicability of VE.
    - ❑ "Carry out a value engineering analysis during the design phase for all projects on the NHS with an estimated total cost of $25 million or more." (Refer to 23 U.S.C. 106 (g)(2) and 23 C.F.R. 627 for further guidance on the applicability of VE.)
    - ❑ Use VE where it would be advantageous to the project, regardless of the project size or federal requirements.
  - ❑ b. Determine the appropriate time to initiate a VE study. Opportunities are, at a minimum, during corridor evaluation and design evaluation.
  - ❑ c. Establish a schedule for preparing the final VE report.
  - ❑ d. Provide a copy of the VE schedule to the scheduling engineer.
  - ❑ e. Assign a value engineering team in one of three ways (as necessary for flexibility and maximum opportunities):
    - ❑ Option 1 (recommended): Request that the value engineering team be assembled from internal resources.
    - ❑ Option 2 (recommended): Request that the VE process be outsourced or compose the team of a combination of internal and external resources.
    - ❑ Option 3: Use PMT members. A PMT-staffed VE study may be the most practical for selected issues. If this option is used:
      - ❑ Ensure that all members serving on the value engineering team have received VE training.
      - ❑ Do not include the PMT member and the District representative in the area being studied. For example:
        - If the VE study is to evaluate the corridor or alignment phase, the PMT representative from Corridor Development and the district planner from the area being studied may not serve on the value engineering team. Any other resource individual from Corridor Development and another district planner may be designated to replace them.
        - If the VE study is to evaluate a design element, the PMT design engineer and the assistant district engineer (ADE) may not serve on the value engineering team. Any other design engineer and another ADE may be designated to replace them

Notes

- ❑ f. Forward requests for a value engineering team to the value engineering coordinator in the Engineering Bureau of the Highway Division. The value engineering coordinator then has the following responsibilities:
  - ❑ Arrange for resources (internal and/or external).
  - ❑ Obtain the necessary review documents and meeting location.
  - ❑ Assemble the value engineering team as requested.
  - ❑ Provide support (process and programmatic) to the PMT.
  - ❑ Monitor VE activities throughout Iowa DOT to ensure that studies are conducted when required by 23 C.F.R. 627.
- ❑ g. Define the boundaries (scope) of the VE study.
- ❑ h. Ensure that the value engineering team has all appropriate and relevant project information available for its review.
- ❑ i. Oversee the process to keep the report of findings within the predefined scope.
- ❑ j. Implement the results of the VE study.
  - ❑ Provide the value engineering coordinator with a copy of the final value engineering report and a list of recommendations to incorporate into the project.[1]
  - ❑ Alternatively, provide written comments to the value engineering coordinator as to why a VE recommendation was not incorporated into the project.

❑ 7. Provide general project coordination.

- ❑ a. Order the traffic analysis and turning movements.
- ❑ b. Ensure that the following peripheral functions are provided with continuous access to project information and are included in the decision-making process in their areas of responsibility:
  - ❑ *Support Services Bureau* – utilities involvement
  - ❑ *Modal Division* – railroad agreements
  - ❑ *Support Services Bureau* – city and county agreement needs
  - ❑ *Office of Traffic & Safety* – reviews and determinations
  - ❑ *Office of Local Systems* – local government agencies
  - ❑ *Office of Contracts* – contract packaging
  - ❑ *Statewide Operations Bureau* – specifications and special provisions

[1] Federal regulations require that Iowa DOT file an annual Value Engineering Report containing a summary description of each VE project, formal VE recommendations, a list of recommendations implemented, and estimated cost savings realized from VE. (Refer to FHWA Policy Guide G6011.9 and the Value Engineering Web site at www.fhwa.dot.gov/ve/index.htm for additional information.)

Notes

- ❑ 8. Monitor and manage project development.
  - ❑ a. Monitor the project schedule of the assigned project to ensure that individual tasks are started and completed within the allotted time.
  - ❑ b. Make resource requests to appropriate office directors to ensure that internal and/or external resources are available to meet scheduling commitments.
  - ❑ c. Maintain a fiscally constrained project by adhering to the cost estimate.
  - ❑ d. Conduct meetings on a regular basis.
  - ❑ e Maintain formal minutes. If possible, store the PMT meeting minutes in electronic files that are available (most likely as Read-Only) to those who have access to the Nterprise network.[2]
    - ❑ Provide information as to where project information can be obtained.
    - ❑ Provide paper copies to those few who do not have electronic connectivity.
  - ❑ f. Distribute the minutes to:
    - ❑ Engineering Bureau director
    - ❑ Scheduling engineer
    - ❑ Office directors in the Engineering Bureau
  - ❑ g. Maintain other business files. If possible, store the information in electronic project files that are available (most likely as Read-Only) to those who have access to the Nterprise network.

[2] For the sake of simplicity, a folder called "Can-Do Projects" could be created on the Nterprise drive. Subfolders could be created using the project number, and individual data files, such as the PMT minutes for a specific project, could be stored in the appropriate subfolders.

PMT MEETING AGENDA CHECKLIST

Notes

The following checklist[1] can be used as an agenda for PMT meetings to ensure that key development issues are discussed and tracked.

- ❑ 1. Review the project schedule, which should follow the Can-Do scheduling described in Chapter 2.
- ❑ 2. Review the development status.
  - ❑ a. Concept and corridor development progress
  - ❑ b. Design
  - ❑ c. Soils
  - ❑ d. Structures
    - ❑ Pinks
    - ❑ Type, size, and location (TS&Ls)
  - ❑ e. Ground survey
  - ❑ f. Environmental review
    - ❑ NEPA document (CE, EA/FONSI, EIS)
    - ❑ Cultural and historic surveys
    - ❑ Wetland surveys
    - ❑ Regulated materials surveys
    - ❑ Threatened and endangered species (T&E) surveys
  - ❑ g. Land corner survey
    - ❑ Corner certificates
    - ❑ Acquisition plats
  - ❑ h. Right-of-Way (ROW)
    - ❑ Relocation parcels
    - ❑ Layout
    - ❑ Reinforced-concrete box (RCB) parcels
    - ❑ Owner-tracking list (names and addresses)
- ❑ 3. Review project costs.

[1] Information provided in this checklist was developed by the Office of Design – Consultant Coordination Section.

- ❑ 4. Review the coordination status.
  - ❑ a. Traffic
    - ❑ Estimate
    - ❑ Traffic control review
  - ❑ b. Utilities involvement
  - ❑ c. Railroad and recreation trail agreements
  - ❑ d. City and county project agreements
  - ❑ e. Access reviews
  - ❑ f. Contract packaging
  - ❑ g. Value engineering
  - ❑ h. Lighting and signing
  - ❑ i. Public involvement
  - ❑ j. Interchange review (including interchange justification report, if needed)

Notes

APPENDIX C
ENVIRONMENTAL CONCURRENCE MEETINGS

ENVIRONMENTAL CONCURRENCE MEETINGS

Notes

C.1 OVERVIEW

A vital component of the Statewide Implementation Agreement (SIA) to Merge the NEPA and Section 404 Process is the environmental concurrence meeting (ECM) process, which is managed by the Office of Location & Environment. The purpose of ECMs is to provide a forum for interagency discussion of the identified concurrence points. Can-Do development relies heavily on continued buy-in to project concepts and decisions by the natural resource agencies. The following is a guide to using ECMs as a means of obtaining environmental concurrence from the SIA signatory agencies.

C.2 SCHEDULING

Can-Do provides for four concurrence points:

- *Concurrence Point 1* – Purpose and Need
- *Concurrence Point 2* – Alternatives to Be Analyzed
- *Concurrence Point 3* – Alternatives to Be Carried Forward
- *Concurrence Point 4* – Preferred Alternative

Environmental concurrence for a particular project may be pursued for any of the four concurrence points, and may be presented and requested for multiple points at the same time. Concurrence may be requested by the following methods.

- Individual project environmental concurrence meeting, scheduled as needed
- Multiple project environmental concurrence meetings, scheduled on a recurring basis
- Individual project environmental concurrence via correspondence

The method used should reflect the scope of the project, concurrence point(s) requested, and potential for detailed discussion.

Generally, projects should begin the ECM process at Concurrence Point 1 and be scheduled for a multiple project meeting day. The first concurrence meeting typically occurs at about the same time as Event No. 5A, Conduct Environmental Scoping Process (Code SCOP). See Chapter 2, Can-Do Scheduling, for additional information on this event. The discussion and level of concern expressed by the core resource agencies at this first meeting will guide the need for further concurrence meetings and possible formats.

The majority of Can-Do projects are developed using multiple project ECMs that are scheduled on a recurring basis. These regular meeting days are scheduled several months in advance and occur biannually or quarterly, as needed. The meeting days typically include two to four different projects scheduled for specific times. The Office of Location & Environment's ECM coordinator schedules the meetings. The ECM coordinator periodically notifies the SIA signatory agencies to confirm schedules. The current schedule is maintained by and available from the ECM coordinator. The multiple project ECMs are held in Ames, Iowa. Video conferencing is included for the Districts and signatory agencies upon request.

Large, complex, and/or potentially controversial projects may warrant individual ECMs and may be scheduled by the ECM coordinator as needed. Individual ECMs may be held at mutually agreed-upon locations and include video conferencing as needed.

Small, routine projects that have completed Concurrence Point 1 may proceed to the other concurrence points through correspondence if agreed upon by all the SIA signatory agencies. Projects utilizing this form of concurrence should be discussed with the ECM coordinator.

To request scheduling of an ECM, provide the project description, preferred date(s), concurrence point(s), and name of the facilitator to the ECM coordinator in the Office of Location & Environment.

C.3 MEETING INVITATIONS

Invitation letters should be sent to all prospective participants of upcoming ECMs. The letters should be produced by a designated PMT member or a consultant as directed by the PMT leader. All invitation letters should be prepared on Iowa DOT letterhead and signed by the Director of the Office of Location & Environment.

The SIA signatory agencies have requested that they receive copies of all materials to be discussed at ECMs at least 30-days prior to the meeting dates. This allows sufficient review time by the appropriate agency staff and ensures that they come prepared to adequately present their respective agency's position. If the materials cannot be provided at least 30 days prior to the meeting date, the ECM will be rescheduled.

The invitation letters should include:

- Project description
- Meeting location, date, and time
- Opportunities for video conferencing as well as a contact person
- Distribution list (both internal and external)
- Meeting facilitator
- Preliminary agenda (clearly indicating concurrence points to be discussed)
- Project information (proposed document text, maps, plans, photos, etc.)

Example invitation letters are available from the Office of Location & Environment for reference.

C.4 DISTRIBUTION LISTS

All ECM invitation letters should be sent to the appropriate federal, State, and local agencies, as well as to affected Iowa DOT staff. At a minimum, the distribution lists should contain the SIA signatory agencies: U.S. Army Corps of Engineers – Rock Island and/or Omaha District(s), U.S. Fish & Wildlife Service – Rock Island Field Office, U.S. Environmental Protection Agency – Region 7, Federal Highway Administration – Iowa Division, and the Iowa Department of Natural Resources. Projects involving state borders may require additional contacts. A contact list database is maintained by the Office of Location & Environment and should be used for preparing distribution lists.

It is important to note that ECMs are not public meetings. Therefore, the general public is not to be invited. Local planning and interest groups may be invited to observe but will not be asked to participate.

Notes

C.5 MEETING DISPLAYS

Notes

Given the geographic nature of highway projects, it is useful to provide poster-size visual displays for use during ECMs. Displays specifically requested by the natural resource agencies include a USGS topographic quadrangle base map with available natural resource GIS layers displayed as well as an aerial photograph with the project limits and features displayed. Other visuals may be provided as needed. Example displays are available from the Office of Location & Environment for reference. Keep in mind that remote sites may require alternative visual tools for adequate participation.

C.6 AGENDA

The ECM agenda should clearly indicate the concurrence point(s) to be discussed and the expectations of the meeting. Agenda items should be listed and include an assigned person to lead a particular discussion. It is often useful to begin with a project history described by a District Office representative. Updates on the various environmental studies may include the NEPA document, threatened and endangered species, cultural resources, wetlands, hazardous materials, 4(f) resources, and others as needed.

C.7 MINUTES

The meeting facilitator should designate someone to record the meeting minutes. The minutes should include the agenda, participant list, and any absent SIA signatory agencies. Minutes should make special note of individual agencies' acknowledgement of concurrence, conflict resolution efforts and outcomes, and any follow-up needed. Draft minutes should be circulated to the participants, especially all SIA signatory agencies, for timely review and approval. Final minutes should be provided to all and filed with the ECM coordinator. The approved minutes serve as documentation of agency concurrence.

C.7 CONCURRENCE FORM

Although the SIA does not mention a concurrence form, such a tool has proven to be very useful. The project-specific form is provided to the SIA signatory agencies with the final draft of the meeting minutes. It states that, if the agency agrees with the concurrence documented in the minutes, the agency should sign the form and return it for filing. The form also provides for reconsideration of concurrence if substantial new information develops. Concurrence forms are filed and tracked by the ECM coordinator. Sample concurrence forms are available from the Office of Location & Environment.

APPENDIX D
FHWA VALUE ENGINEERING AUTHORIZATION

Memorandum from Iowa DOT to FHWA

Memorandum from FHWA to Iowa DOT

Form 000021 12-89

IOWA DEPARTMENT OF TRANSPORTATION

Notes

To:	Federal Highway Administration	**Date:**	November 17, 1999
Attention:	Bobby Blackmon	**Ref. No.:**	
From:	E. Tom Cackler		
Office:	Project Development Division		
Subject:	Value Engineering		

Attached is a copy of the guidance we give our project management teams, which has been revised to address value engineering. Please review this draft and, if it's acceptable, we will issue formally to our staff.

ETC/bas

Attachment

cc: Jim Rost

Notes

MEMORANDUM

U.S. Department of Transportation

10CA

Federal Highway Administration

Internet Address: http://www.fhwa.dot.gov/ve/index.htm

Subject: Value Engineering **Date:** December 9, 1999

From: Division Administrator, FHWA **Reply to:** HDA-IA Ames, Iowa

To: Mr. Mark F. Wandro, Director
Iowa Department of Transportation
Ames, Iowa

The procedures for value engineering outlined in the Project Management Team Responsibility Checklist transmitted by Tom Cackler's November 17 memorandum meet the requirements contained in 23 CFR 627. The procedures are approved for use on Federal-aid projects.

We find that use of the Project Management Team Responsibility Checklist provides a satisfactory vehicle for informal policy guidance, but would suggest that Policy and Procedures Memorandum 420.05, Value Engineering dated May 1, 1996, be revised to reflect the changes approved here.

Bobby W. Blackmon

APPENDIX E
IOWA DEPARTMENT OF TRANSPORTATION'S PROJECT DEVELOPMENT PUBLIC INVOLVEMENT PLAN

E.1 Mission

E.2 Goals

E.3 Scope

Attachments A – E

Notes

EXECUTED AMENDMENTS TO IOWA DEPARTMENT OF TRANSPORTATION'S PROJECT DEVELOPMENT PUBLIC INVOLVEMENT PLAN

E.1 MISSION

Iowa Department of Transportation's (Iowa DOT's) public involvement process will have early and continuous public interaction throughout the project development process.

E.2 GOALS

The public involvement goals are:

- To gather broad public input to be considered during the transportation decision-making process.
- To share information and provide opportunities for public involvement throughout the development process. Typically, these opportunities will be offered through public information meetings (PIMs) and public hearings (PHs).
- To solicit the participation of individuals and groups who are affected by the proposed project as well as others in the affected area whose needs may not be addressed by existing transportation systems.
- To build sustainable relationships with citizens, the business community, special-interest groups, resource agencies, legislators, and other private and governmental agencies.

E.3 SCOPE

This document outlines how Iowa DOT will conduct its public involvement process in compliance with federal and State regulations.

1. Early coordination with resource agencies and the public will be accomplished, as applicable, through one or more of the following:
   - Implementation of Iowa DOT's/FHWA's and the resource agencies' "Statewide Implementation Agreement for National Environmental Policy Act and Clean Water Act Section 404 Concurrent NEPA/404 Processes for Highway Projects in Iowa" dated September 15, 2001. The process will be managed by the Office of Location & Environment. (Refer to Chapter 7 of this Can-Do Reference Manual for a copy of the fully executed merger agreement.)
   - Distribution of an early coordination letter and project information by the Office of Location & Environment. (Refer to Attachment A of this appendix for an example of a coordination letter.)
   - Implementation of the provisions addressing consultation with Native American tribes contained in the "Programmatic Agreement" and "Procedures for Implementation of Section 106 Requirements." Participating agencies are the Iowa Division of FHWA, Iowa State Historic Preservation Office, Advisory Council on Historic Preservation, and Iowa DOT. In accordance with this agreement and the procedures, the Office of Location & Environment will

provide early and continuing information to the Native American tribes with interests in Iowa.

- Early project notification via PIMs conducted by the District. In these meetings, preliminary project information will be distributed to the public. (Refer to Chapter 2 of this Can-Do Reference Manual.)

2. The level of probable environmental documentation will be determined soon after developing a project concept. The Office of Location & Environment will coordinate with FHWA to identify the class of NEPA action. (Refer to Attachment B of this appendix for an example of the documentation.)
3. Cooperating agencies: Early in the project development phase, those agencies that have jurisdiction by law will be extended by FHWA and the Office of Location & Environment, on a project-by-project basis, an opportunity to be cooperating agencies in the NEPA process. Other State agencies, local agencies, and Native American tribes will be considered and may be extended an opportunity to be cooperating agencies.
4. Coordination of public involvement activities and public hearings with NEPA will be accomplished by the district engineer (DE), the Office of Location & Environment – Public Hearing Section, and the PMT, as outlined in Chapters 1, 2, and 5 of the Can-Do Reference Manual.
5. The public involvement process will be tailored to each project through the development of a public involvement plan (PIP) as outlined Chapters 5 and 6 of the Can-Do Reference Manual. The plan will incorporate public involvement techniques identified in Chapters 5 and 6 and other nationally recognized techniques as appropriate.

   The DE and the PMT, working with the Public Hearing Section, are responsible for developing the PIP. The level of detail in this plan will be commensurate with the project needs and individualized to address the unique characteristics and needs of the affected community or region of the State.
6. To ensure that impacts associated with the relocation of individuals, groups, or institutions are addressed, an Iowa DOT Office of Right-of-Way representative will develop relocation information during the NEPA process and will be present, as necessary, at PIMs and PHs.
7. Public involvement opportunities for projects requiring acquisition of ROW will be scheduled throughout the development process as provided for in Chapter 2 of the Can-Do Reference Manual. Additional opportunities for public input will be scheduled as deemed appropriate by the DE. Iowa DOT will provide the public involvement required by Iowa Code, Chapter 6B for projects requiring agricultural ROW.
8. The public notice for a PIM or PH will be prepared by the Public Hearing Section in concert with the PMT and the District. It will be published as a legal notice in the official county newspaper or newspaper of general circulation in the county or city 30 to 40 calendars days prior to the meeting. A follow-up notice will be published five to 12 calendar days prior to the meeting. A notice of a public hearing will include information regarding the availability of the project's NEPA document unless project specifics require that the Notice of Availability (NOA) be published separately. (Refer to Attachment C of this appendix for a public notice example.)
9. The public hearing will be held at least 15 calendar days after publication of the NOA for the NEPA document (EA or DEIS).

Notes

10. At a minimum, the public hearing will provide the following information as appropriate:
    - The project's purpose, need, and consistency with the goals and objectives of any local urban planning
    - The project's alternatives and major design features
    - The social, economic, environmental, and other impacts of the project
    - The relocation assistance program and the ROW acquisition process
    - Iowa DOT's procedures for written or oral statements from the public
    - A copy of the signed NEPA document (EA or DEIS)
11. Following the public hearing, the Public Hearing Section, in concert with the District and other Iowa DOT offices, will prepare a transcript of the hearing. This transcript, accompanied by copies of all written statements from the public (both submitted at the PH or during the formal comment period) and a certification that a PH (or hearing opportunity) was offered, will be submitted to the Iowa Division Office of FHWA when it is completed. (Refer to Attachment D of this appendix for an example of a Hearing Certification.)

This document, when fully executed by FHWA and Iowa DOT, supersedes the 1990 Action Plan in its entirety and will remain in full effect unless canceled in writing by either party. This document may be amended if regulatory requirements change or if process modifications are warranted. Amendments will be prepared by Iowa DOT, reviewed for sufficiency by FHWA and Iowa DOT, executed by both agencies, and distributed within both agencies for attachment hereto.

Bobby W Blackmon

Date: 4/3/02

Bobby Blackmon, IA Division Administrator
Federal Highway Administration

Date: 4/3/02

Mark Wandro, Director
Iowa Department of Transportation

Notes

ATTACHMENT A

EXAMPLE OF AN EARLY COORDINATION LETTER AND INFORMATION PACKET

November 21, 2002

Subject: Interchange at U.S. 65 Bypass and Iowa 163, Polk County
NHSX-65-4(10)–3H-77
(for letter to SHPO only, add any site numbers)

Dear _____:

Our firm, (CONSULTANT), is initiating environmental studies for the Iowa Department of Transportation (Iowa DOT) for the improvement of the U.S. 65/Iowa 163 interchange located in Pleasant Hill in Polk County (see attached map).

The proposed project consists of relocating the off- and on-ramps for the southbound lanes of U.S. 65 to the west and constructing a new on-ramp loop to allow free-flow movement of traffic traveling west on Iowa 163 onto the southbound lanes of U.S. 65. It is anticipated that the proposed improvements will require the acquisition of about 12.5 acres of new right-of-way located west of the existing interchange.

As part of early coordination, the Iowa DOT is asking for comments from your agency in regard to the project as it relates to your agency's expertise and/or jurisdiction by law. So that we may maintain our schedule, please respond by November 5, 2001. If we do not hear from your agency by that date, we will assume you have no comments on the proposed project. If you have any questions or need additional information, please feel free to contact our office.

Very truly yours,

CONSULTANT or

NEPA Section Project Manager

IOWA INTERGOVERNMENTAL REVIEW SYSTEM
LETTER OF INTENT

PROJECT APPLICANT:	Iowa DOT	
SUBMITTED BY:	Iowa DOT or consultant representing Iowa DOT	
PROJECT LOCATION:	Polk County, Iowa	
PROJECT DATA:		
	Highway No.:	U.S. 65/Iowa 163
	Type:	Highway Interchange Improvement
	Purpose:	To improve traffic flow characteristics by relocating two existing ramps and constructing a new loop ramp
	Length:	Not applicable
	Project Costs:	A. Federal Request – to be determined
		B. State Request – to be determined
	Total Estimated Project Costs:	$2.5 million
	Project No.	NHSX-65-4(10)–3H-77
FEDERAL AGENCY AND PROGRAM:	A. FHWA, Department of Transportation B. Highway Trust Fund	
ESTIMATED APPLICATION DATE:	2006	
APPLICATION MANAGER:	Bobby Blackmon, Division Administrator Federal Highway Administration Ames, Iowa 50010	
IOWA DOT MANAGER:	Name of NEPA Section Manager Iowa DOT 800 Lincoln Way Ames, Iowa 50010	

PROJECT DESCRIPTION

The Iowa Department of Transportation (Iowa DOT) has initiated planning and preliminary design studies for the improvement of the interchange between U.S. 65 and Iowa 163 in Polk County. The proposed project consists of relocating the off- and on-ramps for the southbound lanes of U.S. 65 to the west and constructing a new on-ramp loop to allow free-flow movement of traffic traveling west on Iowa 163 onto the southbound lanes of U.S. 65. A project map is attached.

A categorical exclusion (CE) will be prepared for the proposed project. CEs are prepared for actions that (1) do not induce significant impacts on planned growth or land use; (2) do not require the relocation of significant numbers of people; (2) do not have a significant impact on any natural, cultural, recreational, historic, or other resource; (3) do not have significant air, noise, or water quality impacts; (4) do not have significant impacts on travel patterns; or (5) do not otherwise, either individually or cumulatively, have any significant environmental impacts.

ANTICIPATED IMPACTS

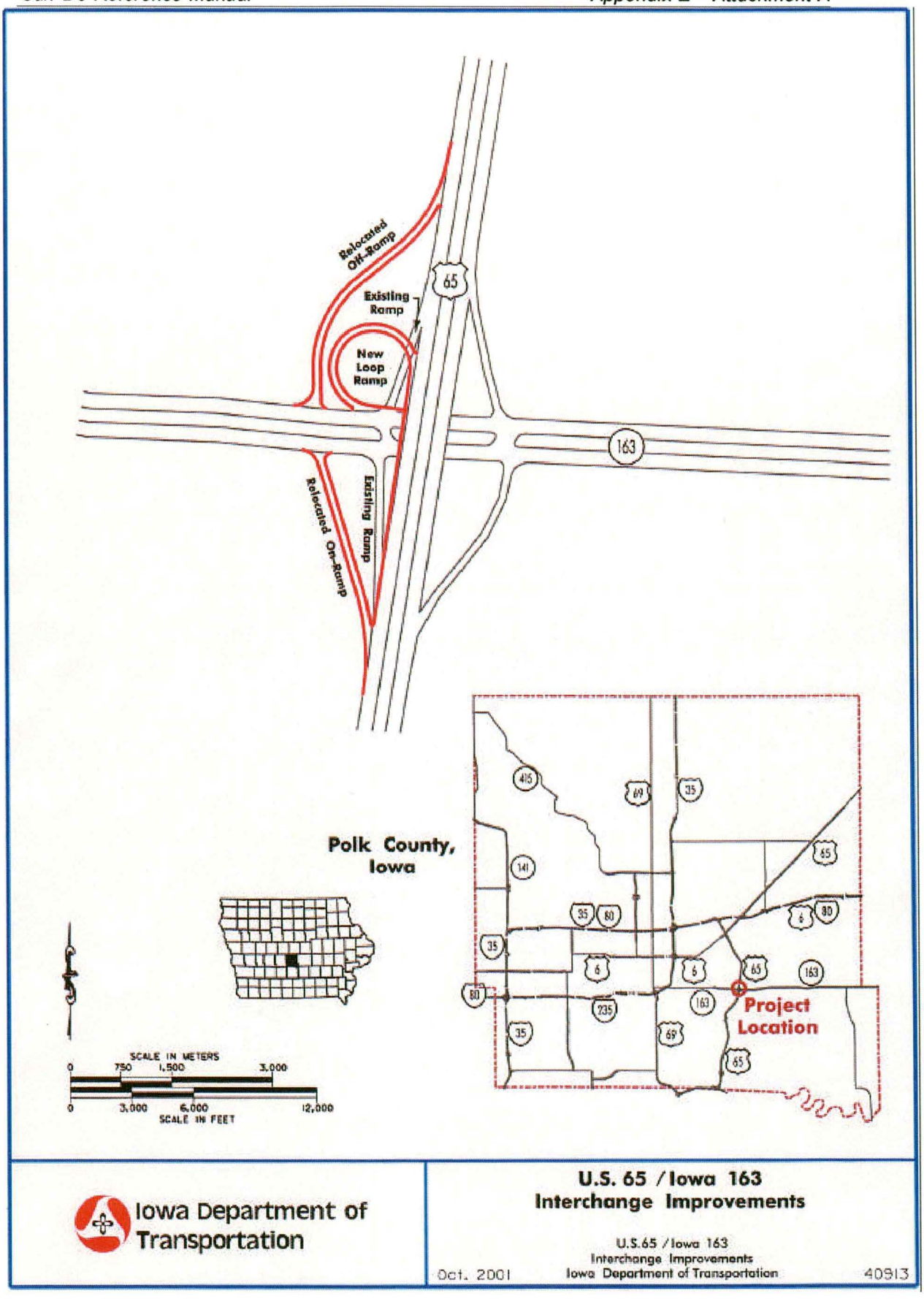
Although no significant impacts are expected, a wide spectrum of resources will be evaluated, including wetlands, threatened and endangered species, floodplains, homes and businesses, socioeconomic resources, and air quality. Impacts would vary depending on elements of the final design.

As part of the proposed project, the previously purchased right-of-way will be used whenever practical, but additional right-of-way impacts, estimated at about 12.5 acres, are probable. Precise right-of-way impacts, as well as potential project impacts on noise levels, air quality, cultural resources, natural resources, parks or recreation facilities and the natural environment, will be determined as planning and design activities continue.

DEVELOPMENT PROCEDURES

This project is being developed for federal funding participation. A determination by Iowa DOT and the Federal Highway Administration has identified this project as requiring preparation of a CE.

Current regulations governing development of federally funded highway improvements require early coordination with units of government that may have interests in the project or its potential impacts. This Letter of Intent is intended to provide early notification of the proposed project and to solicit comments regarding the potential impacts of such an action. Several federal, state, and local agencies will also be contacted directly to request their early input as part of the project impact identification process.


Relocated Off-Ramp
Existing Ramp
New Loop Ramp
65
163
Relocated On-Ramp
Existing Ramp
Polk County, Iowa
SCALE IN METERS
0 750 1,500 3,000
0 3,000 6,000 12,000
SCALE IN FEET
Project Location
Iowa Department of Transportation
U.S. 65 / Iowa 163
Interchange Improvements
U.S.65 / Iowa 163
Interchange Improvements
Iowa Department of Transportation
Oct. 2001
40913

ATTACHMENT B

EXAMPLE OF A PROBABLE CLASS OF NEPA ACTION INFORMATION PACKET

"Hiatt, Rebecca <FHWA>"
02/08/02 04:17 PM

To: Kris.Riesenberg@dot.state.ia.us
cc: Heitmann, Greg <FHWA>
Subject: Re: Project Concurrence (Outerbelt Drive Extension in Sioux City)

Concur, CE

"Kris Riesenberg <IADOT>"
02/06/02 03:23 PM

To: Rebecca.Hiatt@fhwa.dot.gov
cc: Greg.Heitmann@fhwa.dot.gov
Subject: Re: Project Concurrence (Outerbelt Drive Extension in Sioux City)

Project Title:

Outerbelt Drive Extension in Sioux City (reference the attached map)

County:

Woodbury

Project Number:

HDP-7057(628)--71-97

Project Concept:

The City of Sioux City is proposing to extend Outerbelt Drive from Floyd Boulevard to Lewis Boulevard (U.S. 75). The 0.5-mile, two-lane extension will require a railroad track relocation and a bridge over railroad tracks and the Floyd River. The minor arterial extension on the fringe of the City will also include some intersection modifications, lighting, and traffic signalization. A few relocations are expected. A possible Section 4(f) issue is present in the relocation of a couple softball fields contained in the Floyd Softball Complex.

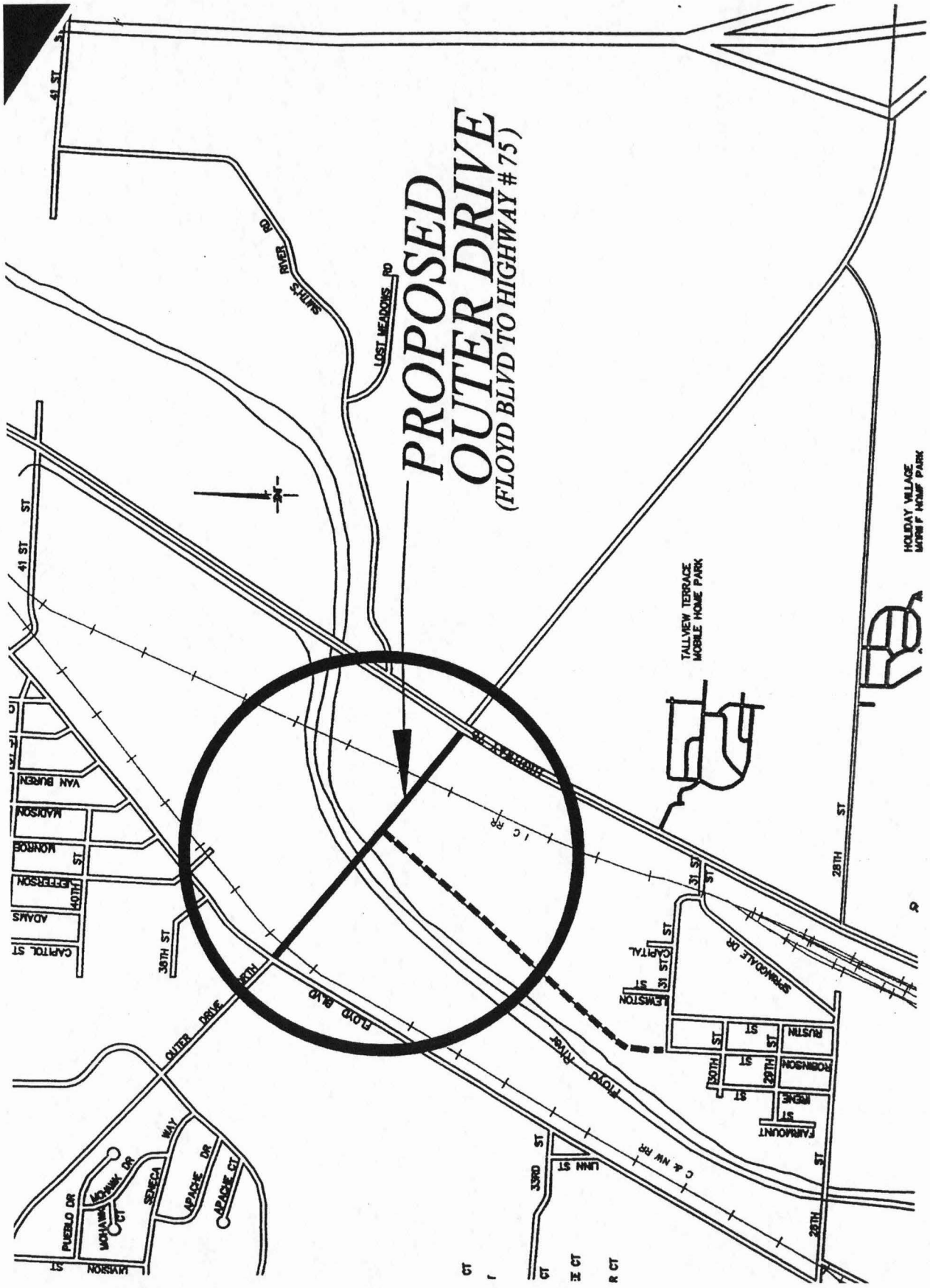
Recommendation:

CE

Your concurrence is requested.

Kris Riesenberg
Office of Location & Environment
Environmental Compliance Section
Kris.Riesenberg@dot.state.ia.us

Phone: 233-7977
Fax: 239-1726


PROPOSED
OUTER DRIVE
(FLOYD BLVD TO HIGHWAY # 75)
41 ST
SMITH'S MILL RD
LOST MEADOWS RD
TALLVIEW TERRACE
MOBILE HOME PARK
HOLIDAY VILLAGE
MOBILE HOME PARK
28TH ST
31 ST
FLOYD BLVD
OUTER DRIVE
FLOYD RIVER
C & NW RR
I C RR
36TH ST
40TH ST
VAN BUREN
MADISON
MONROE
JEFFERSON
ADAMS
CAPITOL ST
SPRINGDALE DR
LEMSTON ST
RUSTIN ST
ROBINSON ST
FAIRMOUNT ST
RENE ST
LINN ST
33RD ST
PUEBLO DR
MOHAWK DR
MOHAWK CT
SENECA WAY
APACHE DR
APACHE CT
HARRISON ST

ATTACHMENT C

EXAMPLE OF A PUBLIC MEETING NOTICE

NOTICE OF LOCATION DESIGN PUBLIC HEARING AND ENVIRONMENTAL ASSESSMENT ADDENDUM AVAILABILITY FOR THE PROPOSED LE MARS BYPASS

TO WHOM IT MAY CONCERN:

Notice is hereby given to all interested persons that an Open Forum Location Design Public Hearing will be held on April 2, 2002, between 5:00 and 7:00 p.m., at the Le Mars High School, 921 Third Avenue SW, Le Mars, Iowa, to discuss the proposed Le Mars bypass.

The proposed improvement provides for construction of a four-lane divided roadway on relocated alignment around the west side of Le Mars, with interchanges at 200th Street, IA 3, and existing U.S. 75. Segments of U.S. 75 and IA 60 would be reconstructed. The improvement would also include reconstruction of IA 3 through the interchange and reconstruction of the bridge on IA 3 over the West Branch Floyd River west of Keystone Avenue.

This public hearing will be conducted utilizing an open forum format. No formal presentation will be made. Interested individuals are encouraged to attend the hearing any time between 5:00 and 7:00 p.m. to express their views about the proposed improvement.

Iowa Department of Transportation (Iowa DOT) in cooperation with the Federal Highway Administration (FHWA) has prepared an Environmental Assessment Addendum for the proposed Le Mars bypass. Copies may be obtained by contacting any of the following:

Jim Rost, Director
Office of Location & Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010
Telephone: 515-239-1798

Bobby Blackmon, Division Administrator
Federal Highway Administration
Iowa Division Office
105 Sixth Street
Ames, Iowa 50010
Telephone: 515-233-7300

Brenda Durbahn
Earth Tech Transportation Services
501 Sycamore Street, Suite 222
Waterloo, Iowa 50703
Telephone: 319-232-6531 or 800-722-2028

A copy of the Environmental Assessment Addendum will be available for inspection at the hearing and is also available for viewing at the Le Mars Public Library, 46 First Street SW, Le Mars, Iowa.

A review deadline of April 15, 2002, has been established for receipt of comments on this document. All comments received on the Environmental Assessment Addendum by that date will be considered by Iowa DOT and FHWA in their evaluation of the environmental impacts of the project. Comments on the Environmental Assessment Addendum should be submitted to the Director, Office of Location & Environment, at the above address.

For general information regarding the proposed improvement or the public hearing, contact:

Rich Michaelis, District 3 Engineer
District 3 Office, Iowa Department of Transportation
PO Box 987, 2800 Gordon Drive
Sioux City, Iowa 51102-0987
Telephone: 712-276-1451 or 1-800-284-4368.

All persons interested in the project are invited to attend this hearing. The meeting room is accessible for persons with disabilities. If you require special accommodations at the hearing, please notify Mr. Michaelis or Gary Hood, Corridor Development, telephone 515-239-1626 by March 28, 2002, so arrangements can be made.

NOTICE TO PROPERTY OWNERS

A governmental body which proposes to acquire property under the power of eminent domain for a public improvement project is required to give notice of a public hearing to all owners and contract purchasers of record of agricultural land that may be subject to condemnation.

1. DESCRIPTION OF THE PROPOSED IMPROVEMENT
   Notice is hereby given that the Iowa DOT Commission will consider approving the following described project:

   Proposed Le Mars bypass

2. PRIVATE PROPERTY MAY BE ACQUIRED BY PURCHASE OR CONDEMNATION.

   If the Iowa DOT Commission approves the above-described project, Iowa DOT will be required to acquire property for the proposed improvements. Iowa DOT will attempt to purchase the required property by good faith negotiations; however, it may condemn those properties which it is unable to purchase. The proposed location of the above-described public improvement is shown on preliminary plans for the project. Preliminary plans are available from the Office of Right-of-Way, Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa, 50010.

3. IOWA DEPARTMENT OF TRANSPORTATION PROCESS TO DECIDE TO FUND THE DESIGN, TO SELECT THE ROUTE OR SITE LOCATION, OR TO ACQUIRE OR CONDEMN PROPERTY INTERESTS

   In order to acquire the necessary properties and property interests required for the project, the Iowa Department of Transportation Commission is required to approve the location of the project. Iowa DOT will hold a public hearing to present to the public the proposed improvement and the anticipated impacts of the improvement.

   Persons whose property may be affected by the project, as well as the general public, may comment on the project at the hearing. The comments will be presented to the Transportation Commission. Based in part on the information received at the hearing, the Commission will, at a future open meeting, select the location for the project and decide whether to fund the site-specific design and to authorize by purchase or condemnation the acquisition of right-of-way for the project.

4. OPPORTUNITY FOR PUBLIC INPUT

   As previously stated in this notice, an Open Forum Location Design Public Hearing will be held on April 2, 2002, between 5:00 and 7:00 p.m. at the Le Mars High School, 921 Third Avenue SW, Le Mars, Iowa. Iowa DOT staff will be available to answer

questions about the proposed improvement and the Environmental Assessment Addendum. Written statements can be submitted to the DOT at the hearing, or sent to Corridor Development, Iowa DOT, 800 Lincoln Way, Ames, Iowa 50010.

5. IOWA DEPARTMENT OF TRANSPORTATION CONTACT

For information regarding the proposed improvement contact:

Rich Michaelis
District 3 Engineer
District 3 Office
Iowa Department of Transportation
P O Box 987, 2800 Gordon Drive
Sioux City, Iowa 51102-0987
Telephone 712-276-1451 or 1-800-284-4368

6. STATEMENT OF PROPERTY OWNER'S RIGHTS

Just as the law grants certain entities the right to acquire private property, you, as the owner of the property, have certain rights. You have the right to:

a. Receive just compensation for the taking of property. (Iowa Constitution, Article I, section 18)

b. An offer to purchase, which may not be less than the lowest appraisal of the fair market value of the property. (Iowa Code section 6B.45, and Iowa Code section 6B.54)

c. Receive a copy of the appraisal, if an appraisal is required, upon which the acquiring agency's determination of just compensation is based not less than 10 days before being contacted by the acquiring agency's acquisition agent. (Iowa Code section 6B.45)

d. An opportunity to accompany at least one appraiser of the acquiring agency who appraises your property when an appraisal is required. (Iowa Code section 6B.54)

e. Participate in good faith negotiations with the acquiring agency before the acquiring agency begins condemnation proceedings. (Iowa Code section 6B.2B)

f. A determination of just compensation by an impartial compensation commission and the right to appeal its award to the district court if you cannot agree on a purchase price with the acquiring agency. (Iowa Code section 6B.4; Iowa Code section 6B.7; Iowa Code section 6B.18)

g. A review by the compensation commission of the necessity for the condemnation if your property is agricultural land being condemned for industry. (Iowa Code section 6B.4A)

h. Payment of the agreed-upon purchase price, or if condemned, a deposit of the compensation commission award before you are required to surrender possession of the property. (Iowa Code section 6B.25; Iowa Code section 6B.26; Iowa Code section 6B.54(11))

i. Reimbursement for expenses incidental to transferring title to the acquiring agency. Iowa Code section 6B.33; Iowa Code section 6B.54(10))

j. Reimbursement of certain litigation expenses: (1) if the award of the compensation commissioners exceeds 110 percent of the acquiring agency's final offer before condemnation; or (2) if the award on appeal in court is more that the compensation commissioner's award. (Iowa Code section 6B.33)

k. At least 90 days' written notice to vacate occupied property. (Iowa Code section 6B.54(4))

l. Relocation services and payments, if you are eligible to receive them, and the right to appeal your eligibility for and amount of the payments. (Iowa Code section 316.9; Iowa Code section 6B.42)

The rights set out in this Statement are not claimed to be a full and complete list or explanation of an owner's rights under the law. They are derived from Iowa Code Chapters 6A, 6B and 316. For a more thorough presentation of an owner's right, you should refer directly to the Iowa Code or contact an attorney of your choice.

This notice is given by authority of the Iowa Department of Transportation Commission.

This notice is <u>not</u> an offer to buy land nor is it an offer to provide relocation assistance. Affected property owners are not required to move from their residences or relocate their businesses at this time. Eligibility for relocation benefits will not occur until after an offer to purchase has been made to individual property owners.

_____

Highway Division
Iowa Department of Transportation

Plymouth County
NHS-60-1(16)--19-75
LeMars Bypass
March 4, 2002

This is to certify that a Notice of Location Design Public Hearing and Environmental Assessment Addendum Availability for the proposed LeMars bypass was sent to the attached list of property owners on March 1, 2002.

cc: Rich Michaelis, District 3 Office, Iowa DOT
Tony Lazarowicz, District 3 Office, Iowa DOT
Transportation Planner, District 3 Office, Iowa DOT
Dakin Schultz, District 3 Office, Iowa DOT
Mark Kerper, Corridor Development, Iowa DOT
Keith Cadwell, Office of Design, Iowa DOT
Dave Ferree, General Counsel, Iowa DOT
Ron Otto, Office of Right-of-Way, Iowa DOT
Jim Rost, Office of Location & Environment, Iowa DOT

Editorial Note:

There would be a list of addressees attached on the following pages.

ATTACHMENT D

EXAMPLE OF A PUBLIC HEARING CERTIFICATION

Executed Amendments to Iowa DOT's Project Development Public Involvement Plan [to be inserted here]