Project Development Manual (PDM)
Project Development Manual (PDM)

WHY??

- National Environmental Policy Act (NEPA)
- State Environmental Quality Review Act (SEQR)
- Federal and State Regulations
- Executive Orders
- Environmental Stewardship
- Dept Initiatives
- Build the Right Project Right
• Metropolitan Planning Organizations (MPO) - Federally mandated forum for discussing transportation issues in populated areas. NYSDOT, FHWA, & Locals are members.

• The MPO is req’d to develop two key products:
  – Long Range Plan (LRP) - 20 year
  – Transportation Improvement Plan (TIP)
Transportation Improvement Program (TIP) – 3-5 year plan approved by MPO and must conform to Clean Air Act.

TIPs and federally funded highway and transit projects planned for the State’s rural areas are combined to form the Statewide Transportation Improvement Program (the STIP).
• STIP = List of Projects / Initial Project Proposals (IPP)
• Projects Are Evaluated Based on NYSDOT’s Five Priority Result Areas:
  » Mobility and Reliability
  » Safety
  » Economic Sustainability
  » Security
  » IMPROVING Environmental Condition
• Region Prioritizes Projects Based on Program Goals
• Approved IPPs Make up Region’s Capital Program
PLANNING PROCESS OVERVIEW

• Approved IPP Includes:
  » A Description of the Problem
  » Preliminary Project Objective
  » Preliminary Environmental Classification
  » Special Concerns / Issues
  » Preliminary Cost & Schedule

• Project is Ready for Scoping
• Designate a Project Manager.
• Establish an Inter-Disciplinary Project Team.
• Develop and Follow a Public Involvement Plan - Informed Decision-Making relies upon input from: public, local governments, MPOs, technical experts; and consent of agencies with approval authority (e.g., NYSDOT, NYSDEC, and FHWA).
Purpose of Project Scoping:

- Identify the project area's safety, mobility, infrastructure, community, and environmental conditions, needs, and objectives.
- Establish project objectives.
- Establish design criteria.
- Identify Feasible Alternatives.
- Identify Potential Social, Economic, and Environmental Issues.
- Identify the likely NEPA & SEQR Type.
- Estimate Cost & Schedule.
PROJECT SCOPING OVERVIEW
ENVIRONMENTAL LAWS

  – CEQ Regulations (40 CFR 1500-1508)
  – FHWA Regulations (23 CFR 771)
• N.Y. State Environmental Quality Review Act (SEQR) became law 8/1/75 (17 NYCRR Part 15)
• TEA-21 Agreement [NEPA Checklist, DA Matrix]

NOTE: SEQR applies to ALL projects in NYS while NEPA only applies to Federal aid projects (even if only $1 of Federal funds are used) or when Federal action (permit / approval) is required.
NEPA (23 CFR 771.115)
- Class II [No significant effect on environment]
- Class III [Significance not clearly established]
- Class I [Have significant effect]

SEQR (17 NYCRR Part 15)
- SEQR Type II [No significant effect on environment]
- SEQR Non-Type II (EA) [Significance not clearly established]
- SEQR Non-Type II (EIS) [Have significant effect]
## Exhibit 4-2, TEA-21 DESIGN RELATED APPROVAL MATRIX, December 2004

<table>
<thead>
<tr>
<th>Funding 1</th>
<th>Highway System Project Type 2 Estimated Construction Cost 3</th>
<th>Non-Standard Feature Approval</th>
<th>Environmental Determination 4</th>
<th>Design Approval Request Memo 6</th>
<th>P.S. &amp; E. and Amendment Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fed-Aid</td>
<td>Interstate NHS &lt; $1M</td>
<td>RD</td>
<td>RD</td>
<td>NEPA 4</td>
<td>RD</td>
</tr>
<tr>
<td></td>
<td>Highway &amp; Major Intersection Reconstruction, New Construction, New &amp; Replacement Bridges ≥ $1 M</td>
<td>RD</td>
<td>RD</td>
<td>NEPA 4</td>
<td>RD</td>
</tr>
<tr>
<td></td>
<td>All Other Project Types ≥ $1 M</td>
<td>RD</td>
<td>RD</td>
<td>NEPA 4</td>
<td>RD</td>
</tr>
<tr>
<td></td>
<td>Non-Interstate NHS</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
</tr>
<tr>
<td></td>
<td>Highway &amp; Major Intersection Reconstruction, New Construction, New &amp; Replacement Bridges ≥ $1 M</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
</tr>
<tr>
<td></td>
<td>All Other Project Types</td>
<td>RD</td>
<td>RD</td>
<td>NEPA 4</td>
<td>RD</td>
</tr>
<tr>
<td>100% State</td>
<td>NHS (Including Interstate)</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
</tr>
<tr>
<td></td>
<td>Highway &amp; Major Intersection Reconstruction, New Construction, New &amp; Replacement Bridges ≥ $1 M</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
<td>Deputy Chief Engineer</td>
</tr>
<tr>
<td></td>
<td>All Other Project Types</td>
<td>RD</td>
<td>RD</td>
<td>NEPA 4</td>
<td>RD</td>
</tr>
<tr>
<td>100% State</td>
<td>or Fed-Aid</td>
<td>RD</td>
<td>RD</td>
<td>NEPA 4</td>
<td>RD</td>
</tr>
</tbody>
</table>

**KEY TO ABBREVIATIONS:**
- RD - Regional Director
- FHWA - Federal Highway Admin.
- NHS - National Highway System
- CE (A&P) - Categorical Exclusion (Automatic & Programmatic)
- MO - Main Office
- RDE - Regional Design Engineer
- ROD - Record of Decision

**FOOTNOTES:**
1. Projects funded in any part by federal funds earmarked for ITS projects shall follow the procedures for the Interstate NHS - Highway & Major Intersection Reconstruction, New Construction, New & Replacement Bridge projects ≥ $1 M.
2. A description of the project work types is provided in Appendix 5, Section 2.0.
3. For projects on more than one system, contact DQAB-RLS for Guidance.
4. NEPA only applies when federal action is required (e.g., Federal funding, design approval for access modification and/or a granting of a permit from a federal agency). For 100% state funded projects requiring no FHWA involvement, the federal agency funding, permitting, or granting approval will be the lead agency.
5. The Deputy Chief Engineer signs the DONSE or ROD for the projects they grant Design Approval for. The RD will make the SEQR determination for all other projects.
6. For select projects the Environmental Determination and the Design Approval actions will be combined (see Sections 4.4 & 4.5 - Procedural Steps).
7. The M.O. Liaison for the various project types is shown in Exhibit 4-1 [e.g., Design Quality Assurance Bur. (DQAB), Landscape Architecture Bur. (LAB), Structures Design & Const. Div. (SDCD), Traffic Engineering & Highway Safety Div. (TE&HSD)].
A list of federal and state laws, rules and regulations related to the environment that apply in highway design, and

The respective FHWA and NYSDOT guidelines for compliance.
PDM Appendix 1 – Federal and State Environmental Requirements, Regulations and Guidelines

- Air Quality
- Noise
- Environmental Justice
- Wildlife
- Historic and Cultural Resources (Section106)
- Parklands (4f)
- Social and Economic Impacts
- Water Resources & Wetlands
- Indian Nations/Coordination
- Hazardous Materials

- Quality Communities
- Context Sensitive Solutions (CSS)
- Environmental Initiative
Safe, efficient, balanced and environmentally sound transportation system.

Strives for outcomes that meet transportation & safety needs, as well as envir, cultural, scenic, natural resources, aesthetic, and community needs. Effective transportation solutions that fit a project’s context.

Overall public interest based upon a balanced consideration of competing values 23CFR 771.105(b)
## Project Categories

<table>
<thead>
<tr>
<th>Project Category</th>
<th>Criteria</th>
<th>Project Types/Examples (Refer to Appendix 5, Sec. 2.0 for Project Type definitions)</th>
<th>Project Scoping Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple¹</td>
<td>$ Project with limited public or outside agency involvement.</td>
<td>$ Maintenance by Contract A type projects such as Element-Specific projects.</td>
<td>IPP²</td>
</tr>
<tr>
<td></td>
<td>$ May involve Environmental issues.</td>
<td>$ See Appendix 7, Section 2.5 of this manual for a list of Element-Specific projects.</td>
<td>+ Additional information as appropriate.</td>
</tr>
<tr>
<td></td>
<td>$ Automatic and Programmatic Categorical Exclusion projects.</td>
<td>$ 1R projects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ SEQR Type II projects.</td>
<td>$ 2R projects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ Projects with one feasible alternative.</td>
<td>$ Minor bridge rehabilitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ All Element-Specific projects.</td>
<td>$ Simple culvert replacement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ Routine work with no unusual issues.</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Moderate³</td>
<td>$ Project with significant involvement with the public</td>
<td>$ 3R projects.</td>
<td>See note 4</td>
</tr>
<tr>
<td></td>
<td>$ Usually involve Environmental issues and/or outside agencies</td>
<td>$ <strong>Most</strong> Highway and interchange reconstruction projects.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ SEQR Type II or Non-Type II (EA) projects that are minor (NEPA Class II).</td>
<td>$ <strong>Most</strong> bridge replacement and major bridge rehabilitation projects.</td>
<td></td>
</tr>
<tr>
<td>Complex³</td>
<td>$ Projects with extensive public and outside agency involvement.</td>
<td>$ New bridge and major highway construction projects.</td>
<td>See note 4</td>
</tr>
<tr>
<td></td>
<td>$ Almost always involve environmental issues</td>
<td>$ Major Bridge Rehabilitation Highway and Interchange reconstruction projects.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ All NEPA EA projects.</td>
<td>$ Traffic management Centers (TMC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ All EIS projects.</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ SEQR Non-Type II (EA) projects that are not NEPA Class II.</td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>
Notes:
1. For simple projects, activities may occur during the scoping stage and Design Phase I. However, separate reports are not required and the appropriate documentation will be included in the final design report/Initial Project Proposal.
2. The Project Scoping Report is a first draft of the draft design report or draft design report/environmental document.
• Project Scoping Report:
  – Documents Scoping Decisions
  – Presents a Record of Project Evolution.
  – Provides a Clear Picture of what is to be Accomplished.
  – Describes Feasible Alternatives
  – Identifies Potential Impacts.
  – Establishes the Foundation and Direction for the Subsequent Design Stage
• Project Scope Approval:
  – Approval is by Regional Director (or a designee)
  – Indicates that the project is ready to move to Design Stage.
• Project Scope Changes After Scope Approval:
  – Changes may be necessary! Why?
  – Recycle for approval by RPPM/RD.
  – Project is ready to move to Design Stage.
Project Development Manual (PDM)
• What is Project Design?
  – Consists of Two Stages – Preliminary and Final Design. Preliminary Design is to assure the Department BUILDS the RIGHT project and Final Design is to assure the Department BUILDS the project RIGHT.

• What are the Design Phases?
  – Preliminary Design is made up of Phases I – IV
  – Final (or Detailed Design) covers Phases V – VI
Design Phase I
Development of Design Alternatives, Identification & Assessment of Impacts

- Continue involvement of other agencies and the public.
- Develop design alternatives.
- Identify and assess SEE impacts.
- Prepare draft Design Report/Environmental Document.
  - DR/EIS
  - DR/EA
  - DR with environmental documentation
- Reaffirm the environmental class and/or type.
- Draft design report/environmental document is reviewed within the Department and FHWA.
Design Phase I
Documentation /DR

Initiation Stage | Scoping Stage | Design Phase I | Design Phase IV
Simple Projects:
- Initial Project Proposal

Moderate Projects:
- Initial Project Proposal
- Project Scoping Report
- Draft Design Report
- Final Design Report

Complex Projects:
- Initial Project Proposal
- Project Scoping Report

Notes:
1. For simple projects, activities may occur during the scoping stage and Design Phase I. However, separate reports are not required and the appropriate documentation will be included in the final design report/Initial Project Proposal.
2. The Project Scoping Report is a first draft of the draft design report or draft design report/environmental document.
Design Phase I
Basic Design Report Format

- Chapter 1 - Executive Summary
- Chapter 3 - Alternatives
- Chapter 4 - Social, Economic and Environmental Considerations
- Appendices
• Distribution of the Design Report /Environmental Document to other agencies and the public

• Publish notices and press releases
Design Phase III
Public Hearing

- Publish notices and press releases
- Prepare for and conduct a public hearing or meeting
• Final evaluation of comments and selection of the preferred alternative.
• Finalization of design approval document and distribution for review.
• Publish notice, as applicable.
• On federal-aid projects, FHWA makes or concurs with NEPA determination unless NEPA Checklist is used for automatic or programmatic Categorical Exclusions.
• Region makes SEQR determination.
• Design Approval Request Memo is prepared and design approval is obtained.
• Notice of Design Approval, as applicable.
Changes After Design Approval

- Changes of Project Concept or Affected Environment after Design Approval
- Reevaluation Process 23CFR771.129
- Re-Affirm Environmental Determination
- Re-Affirm Design Approval
Design Phase V
Advance Detail Plans (ADPs)

- Right of way Acquisition
- Obtain Permits
- Prepare ADPs
- Review ADPs
Design Phase VI
Final Plans, Specifications & Estimate

- Prepare PS&E.
- Submit Special Specification Requests as Necessary.
- Prepare PS&E Transmittal Memo.
- Prepare ECOPAC.
- Obtain Title Sheet Signatures and Regional Director's Approval.
- Submit to DQAB for Review and Approval.
- Project is Ready for Construction
The Manual

- Dept policy and procedures for progressing capital projects from project scoping to letting.
- Roles & Responsibilities of participants
- Format & Content of DAD

- Replaced the DPM & SPM
Intended Audience:

- NYSDOT Staff
- NYSTA/CC Staff
- FHWA
- Consultants
PDM Reflects A PD Process That is:

- Structured / Streamlined
- Seamless
- Comprehensive - Integrates Dept Initiatives / Principles
- Context Focused
Project Development Manual (PDM)

Process

Electronic/Concurrent Reviews

QC/QA

Streamline Steps & Approvals

Simplify Doc
Project Development Manual (PDM)

Initiation Stage
- Simple Projects:
  - Initial Project Proposal

Scoping Stage
- Simple Projects:
  - Initial Project Proposal
  - Scoping Report

Design Phase I
- Simple Projects:
  - Initial Project Proposal
  - Scoping Report
  - Design Report

Design Phase IV
- Simple Projects:
  - Initial Project Proposal
  - Scoping Report
  - Design Report
  - Final Design Report
The PDM is the result of an extensive Dept-wide/FHWA/NYSTA outreach effort by the Office of Transportation Policy and Strategy and the Design Division. The PDM updates the processes and procedures from the DPM and SPM, and combines the two manuals to reflect a seamless project development process.
## Project Development Manual (PDM)

### Content

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Latest Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INTRODUCTION</td>
<td>December 2004</td>
</tr>
<tr>
<td>2</td>
<td>PROJECT DEVELOPMENT OVERVIEW</td>
<td>1/30/04</td>
</tr>
<tr>
<td>3</td>
<td>PROJECT SCOPING PROCEDURE</td>
<td>December 2004</td>
</tr>
<tr>
<td>4</td>
<td>PROJECT DESIGN STAGE</td>
<td>December 2004</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Latest Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ENVIRONMENTAL REQUIREMENTS, REGULATIONS AND GUIDELINES</td>
<td>10/17/03</td>
</tr>
<tr>
<td>2</td>
<td>PUBLIC INVOLVEMENT MANUAL</td>
<td>1/30/04</td>
</tr>
<tr>
<td>3</td>
<td>NEPA AND SEQR OFFICIAL NOTICES AND DOCUMENT DISTRIBUTION</td>
<td>December 2004</td>
</tr>
<tr>
<td>4</td>
<td>OBJECTIVES</td>
<td>December 2004</td>
</tr>
<tr>
<td>5</td>
<td>DESIGN YEAR TRAFFIC FORECASTS</td>
<td>12/06/01</td>
</tr>
<tr>
<td>6</td>
<td>INTELLIGENT TRANSPORTATION SYSTEMS (ITS)</td>
<td>December 2004</td>
</tr>
<tr>
<td>7</td>
<td>SCOPING AND DESIGN APPROVAL DOCUMENTS</td>
<td>See DPM Appendix B</td>
</tr>
<tr>
<td>8</td>
<td>FREEWAY ACCESS MODIFICATION PROCEDURES</td>
<td>1/07/02</td>
</tr>
<tr>
<td>9</td>
<td>VALUE ENGINEERING</td>
<td>10/24/03</td>
</tr>
<tr>
<td>10</td>
<td>NYSTA /CC PROJECTS</td>
<td>December 2004</td>
</tr>
<tr>
<td>11</td>
<td>REEVALUATION STATEMENTS</td>
<td>December 2004</td>
</tr>
<tr>
<td>12</td>
<td>QUALITY CONTROL AND QUALITY ASSURANCE</td>
<td>December 2004</td>
</tr>
<tr>
<td>13</td>
<td>REGIONAL QUALITY CONTROL PLAN</td>
<td>1/30/04</td>
</tr>
<tr>
<td>Chapter</td>
<td>Title</td>
<td>Latest Revision</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>1</td>
<td>INTRODUCTION</td>
<td>December 2004</td>
</tr>
<tr>
<td>2</td>
<td>PROJECT DEVELOPMENT OVERVIEW</td>
<td>January 2004</td>
</tr>
<tr>
<td>3</td>
<td>PROJECT SCOPING PROCEDURE</td>
<td>December 2004</td>
</tr>
<tr>
<td>4</td>
<td>PROJECT DESIGN STAGE</td>
<td>December 2004</td>
</tr>
<tr>
<td>Appendix</td>
<td>Title</td>
<td>Latest Revision</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>1</td>
<td>ENVIRONMENTAL REQUIREMENTS, REGULATIONS AND GUIDELINES</td>
<td>10/17/03</td>
</tr>
<tr>
<td>2</td>
<td>PUBLIC INVOLVEMENT MANUAL</td>
<td>1/30/04</td>
</tr>
<tr>
<td>3</td>
<td>NEPA AND SEQR OFFICIAL NOTICES AND DOCUMENT DISTRIBUTION</td>
<td>December 2004</td>
</tr>
<tr>
<td>4</td>
<td>OBJECTIVES</td>
<td>December 2004</td>
</tr>
<tr>
<td>5</td>
<td>DESIGN YEAR TRAFFIC FORECASTS</td>
<td>12/06/01</td>
</tr>
<tr>
<td>6</td>
<td>INTELLIGENT TRANSPORTATION SYSTEMS (ITS)</td>
<td>December 2004</td>
</tr>
<tr>
<td>7</td>
<td>SCOPING AND DESIGN APPROVAL DOCUMENTS</td>
<td>See DPM Appendix B</td>
</tr>
<tr>
<td>8</td>
<td>FREEWAY ACCESS MODIFICATION PROCEDURES</td>
<td>1/07/02</td>
</tr>
<tr>
<td>9</td>
<td>VALUE ENGINEERING</td>
<td>10/24/03</td>
</tr>
<tr>
<td>10</td>
<td>NYSTA /CC PROJECTS</td>
<td>December 2004</td>
</tr>
<tr>
<td>11</td>
<td>REEVALUATION STATEMENTS</td>
<td>December 2004</td>
</tr>
<tr>
<td>12</td>
<td>QUALITY CONTROL AND QUALITY ASSURANCE</td>
<td>December 2004</td>
</tr>
<tr>
<td>13</td>
<td>REGIONAL QUALITY CONTROL PLAN</td>
<td>1/30/04</td>
</tr>
</tbody>
</table>
The best soccer moments

Developed by:
Tim Valaert
&
Hans De Prekel