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CHAPTER 2
PROJECT DEVELOPMENT OVERVIEW

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Exhibit 1-1 at the beginning of this manual provides an overview of NYSDOT’s Project Development Process. This chapter gives a general overview of the Project Initiation Stage, Scoping Stage, and Design Stage.

2.1 PROJECT INITIATION STAGE

A project evolves from an identified transportation problem or need from a variety of sources including:

- Metropolitan Planning Organizations’ (MPOs) Long Range Plans (LRPs), and Transportation Improvement Program (TIP).
- Corridor planning studies.
- Local municipalities.
- Local officials.
- Citizens.
- The Department’s transportation management systems (e.g., pavement, bridge, Mobility, and safety).
- Any functional group within the Department.

2.1.1 Metropolitan Area Planning

MPOs are federally mandated forums required in all metropolitan areas with populations greater than 50,000. Metropolitan areas with a population of 200,000 or greater are designated as Transportation Management Areas (TMAs). Within these metropolitan areas, transportation plans and programs shall be based on a continuing, cooperative and comprehensive transportation planning process. The process shall include a congestion management system that provides for effective management of new and existing transportation facilities.

All MPOs are required to self certify their planning process on an annual basis. Within a TMA the planning process followed must be certified every three years by the Secretary of Transportation.

MPOs work cooperatively with the area’s locally elected officials, involved public agencies, major transportation providers and the general public to ensure coordinated, efficient, and appropriate transportation investments. Transportation providers are principally the State and local transportation departments, and transit operators. NYSDOT is an active member in each of the MPOs in the state.

MPOs have the responsibility of cooperatively creating urban congestion management plans in TMAs, examining transportation control measures for air quality attainment, developing capital programs using flexible funding sources (i.e., transportation plans), and identifying land use issues (e.g., development potential, loss of green space, impact on sensitive areas, etc.) that may be affected by proposed transportation projects.
The MPO’s transportation planning process includes:

- The Long Range Plan, which is a 20 year forecast of transportation needs within the metropolitan area boundary.
- The Transportation Improvement Program.
- Certification that the Long Range Plan and Transportation Improvement Program meet air quality conformity requirements within the air quality non-attainment areas.

2.1.2 Non-Metropolitan Area Planning

In rural and small urban, non-metropolitan, areas of the State there is not an official body to do transportation planning as Metropolitan Planning Organizations (MPOs) do in urban areas. Transportation legislation provides for states to consult with and consider concerns of the public and non-metropolitan officials when making transportation decisions. In non-metropolitan areas of the State, NYSDOT conducts transportation planning and develops lists of specific projects to be advanced. The Regional Offices consult with and solicit project proposals from their rural and small urban areas’ constituents.

The Regions are using different approaches that are appropriate for their specific Region to accomplish the overall goal of involving local officials and the public in the planning process and of cooperatively selecting projects for inclusion in our Capital Program. These approaches range from informal to formal processes. Examples of Regional approaches include: meeting with County Highway Superintendents; forming Transportation Advisory Committees; meeting with State legislators, local officials, and Native Americans; holding region wide workshops; and using interactive web sites. Some Regions, along with their local officials, have implemented a locally-administered Federal Aid Program for pavement and bridge needs and have a process in place to assure that all areas are addressed. Some Regions have established Regional Project Development Teams that have drafted and implemented a Regional procedure for public outreach. The degree of formality of the approaches vary from Region to Region but the goal of local involvement in the transportation planning process is attained.

2.1.3 Transportation Improvement Program (TIP)

A TIP is a five-year program of federally-funded highway and transit projects that is developed by each metropolitan area’s MPO. Federally-funded projects must be listed on an approved TIP to receive funds for planning/scoping, detailed design, authorization for advertisement, or obligation of funds for construction or operations.

The TIP is subject to federally mandated public involvement. Members of the MPO, other agencies, and the general public through the public involvement process, recommend candidate projects for possible inclusion on the TIP. Projects are then ranked and evaluated for inclusion on the TIP as appropriate. MPO staff provide technical information needed for the ranking process.
The TIP must be consistent with the MPO’s developed Long Range Plan and is the principal means for implementing the Long Range Plan. In air quality non-attainment and maintenance areas, the TIP must be analyzed and found to conform to the State Implementation Plan for air quality (SIP) before it can be approved by the MPO.

TIPs and federally funded highway and transit projects planned for the State’s rural areas (with no MPO) are combined to form the State Transportation Improvement Program (STIP).

2.1.4 **Corridor Planning**

The Long Range Plan is a broad-based document that identifies the needs on a regional/area-wide basis. The plan is made up of a series of activity-based corridors. A corridor is a transportation pathway that provides for the flow of people and/or goods within and between activity centers. It includes one or more primary transportation facilities and the abutting land uses and supporting street network. The practice of corridor planning can generally be defined as the application of multiple strategies to achieve specific land use and transportation objectives along a transportation corridor. Corridor planning combines capital improvements and management strategies into a unified plan of action for a transportation corridor.

Corridor planning studies identify and analyze long and short term needs of a corridor, develop objectives for projects along the corridor, and identify feasible alternatives (e.g., linear capacity, multi-modal, and ITS) for the projects that meet the stated objectives. Public involvement in corridor planning is an integral and ongoing part of the planning process. The studies begin the process of identifying the social, economic, and environmental consequences of alternatives within the study area.

At the conclusion of the corridor planning study, the alternatives identified in the report may be progressed in one or more of the following ways:

- The results may go into the Long Range Plan for future capital program development.
- One or more Initial Project Proposals (IPPs) may be generated and additional project development and Project Scoping Reports completed.
- A detailed Corridor Planning Study Report may function as the Project Scoping Report for a project. Based on this report the project may receive scope approval and move into the Preliminary Design Stage.

Contact the Mobility Management Bureau of the Planning and Strategy Group for additional information on corridor planning studies.
2.1.5 *Initial Project Proposal (IPP)*

The IPP is the initial planning and programming document used to select projects based on program goals. It briefly describes a candidate project and how the proposal addresses an identified need. The IPP includes:

- A description of the problem.
- A preliminary project objective(s).
- Project elements to be investigated.
- Preliminary environmental classification.
- Issues or circumstances which may arise (e.g., community concerns and environmental issues).
- Preliminary schedule.
- A cost estimate.

Regardless of who prepares the IPP, it is reviewed for system planning implications in the Regional Planning and Program Manager’s (RPPM) group. The RPPM prioritizes and selects IPPs for recommendation to the Regional Director for approval and addition to the capital program.

The project limits and proposed work in the IPP must be adequate to prevent project segmentation during the Preliminary Design Stage. To avoid “segmentation,” projects must have logical termini, independent utility, and not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. Refer to Section 2.5.1 of this chapter for additional information on segmentation.

The Regional Director’s approval of the IPP formally identifies a need for corrective action, authorizes the RPPM to add a project to the Region’s capital program, and subsequently to obligate funds for advancement. Upon approval of the IPP, the project is ready, from a capital program perspective, to advance to the next stage of project production, the Project Scoping Stage.
2.2 PROJECT SCOPING STAGE

The Project Scoping Stage begins after approval of the Initial Project Proposal (IPP). To successfully progress the scoping stage it is important, at the beginning of the scoping stage, to:

1. Establish an inter-disciplinary project team.
2. Develop and follow a Public Involvement Plan that seeks input from project stakeholders (the public, outside agencies, the Department, etc.) about the needs and objectives of the proposed project area to allow for informed decision-making. 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).

The purpose of the Project Scoping Stage is to:

1. Identify the project area’s safety, mobility, infrastructure, community, and environmental conditions, needs, and objectives.
2. Establish project objectives.
3. Establish design criteria.
4. Identify feasible alternative(s).
5. Estimate the project cost based on project information readily available.
6. Confirm the likely SEQR Type.
7. Confirm the likely NEPA Class, if the project uses federal funds or requires a federal approval or permit (Refer to Section 2.3.1 of this chapter).

2.2.1 Project Categories

Capital Projects are divided into three categories: simple, moderate, and complex. Exhibit 2-1 provides a summary of the types of projects and gives examples for each project category.

It is recommended that for moderate and complex projects, regional senior staff mentor and provide oversight to less experienced personnel. This will help ensure that the final product reflects regional priorities, is clear, and meets community context and quality of life concerns, as appropriate.
### Exhibit 2-1 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>
</table>
| Simple¹          | • Projects with limited public or outside agency involvement.  
                   • May involve environmental issues.  
                   • Automatic and Programmatic Categorical Exclusion projects.  
                   • SEQR Type II projects.  
                   • Projects with one feasible alternative.  
                   • All Element-Specific projects.  
                   • Routine work with no unusual issues.  
                   • "Maintenance by Contract" type projects, such as Element-Specific projects. See Appendix 7, Section 2.0 of this manual for a list of Element-Specific projects.  
                   • 1R projects  
                   • 2R projects  
                   • Minor bridge rehabilitation  
                   • Simple culvert replacement | IPP²  
                   + Additional information as appropriate | |
| Moderate³        | • Projects with significant involvement with the public  
                   • Usually involve Environmental issues and/or outside agencies  
                   • Categorical Exclusion projects  
                   • SEQR Type II or Non-Type II (EA) projects that are minor (NEPA Class II)  
                   • 3R projects  
                   • Most highway and interchange reconstruction projects  
                   • Most bridge replacement and major bridge rehabilitation projects | See note 4 |
| Complex³        | • Projects with extensive public and outside agency involvement  
                   • Almost always involve environmental issues  
                   • All NEPA EA projects  
                   • All EIS projects  
                   • SEQR Non-Type II (EA) projects that are not NEPA Class II  
                   • New bridge and major highway reconstruction projects  
                   • Major bridge rehabilitation  
                   • Highway and interchange reconstruction projects  
                   • Traffic management centers (TMC) | See note 4 |

**Notes:**

1. If a simple project area has a history of environmental or community issues, it will require a more concerted public involvement effort, consideration should be given to advancing it as a moderate project.
2. A separate Project Scoping Report is not prepared. The IPP is modified with attached sheets containing additional project information, as needed, forming a combined scoping and design document (i.e., IPP/FDR). Project scope approval and design approval are obtained simultaneously.
3. Even though moderate and complex projects will follow the same format, the degree of detail and analysis will be substantially different. The format is not meant to produce voluminous reports. The objective is to have a basic framework that works for all projects and results in an appropriate level of documentation based on the project type. It provides a check list to ensure all relevant issues are considered. For moderate projects, a simple statement with one or two lines can document that an issue has been considered and found not relevant.
4. The Project Scoping Report is in the format of a Design Report, Design Report/Environmental Assessment, or Design Report/Draft Environmental Impact Statement. The format serves as a checklist to ensure that relevant issues are considered prior to Project Scope Approval. The same document, with appropriate changes will be used for Design Approval.
2.2.2 **Project Manager and Project Developer**

An initial step in the Project Scoping Stage is the designation of a **project manager**. The project manager oversees and manages the development of the project. The project manager responsibilities include:

- Planning activities and tasks for the successful development and completion of the project.
- Ensuring that a Public Involvement Plan is prepared (See the NYSDOT Public Involvement Manual, currently under development).
- Coordinating the formation of the project team. Team members are assigned to the team by their functional manager.
- Facilitating project team meetings.
- Conflict resolution.

The job manager who is responsible for the Project Scoping Stage of the project is referred to as the **project developer**. The project developer is responsible for:

- Gathering technical information necessary to scope the project (See Chapter 3 of this manual for details).
- Preparing the appropriate documentation/report to move the project into the Preliminary Design Stage of the project development process.

For maintenance-type and element-specific simple projects there may not be a need to assign a separate project manager and project developer. For these types of projects, the same person can serve as the project manager and developer.

2.2.3 **Project Scoping Strategy**

At the beginning of project scoping, the project manager and project developer in consultation with appropriate Functional Units/Groups should formally develop a project scoping strategy. The purpose is to identify:

- Public involvement needs.
- Responsible functional unit(s).
- Make up of the project team.
- The expected level of project scoping beyond the IPP.
- Assessment of the most probable environmental process in accordance with SEQR and NEPA.
- The appropriate project documentation.
- Schedule.
Estimating the resources required to complete the project and the constraints related to the project are imperative to a successful project scoping strategy. This includes identifying:

- Deliverables (e.g., project documentation).
- Anticipated level of public involvement.
- Responsibilities.
- Staffing availability of Regional and Main Office Functional Units and other agencies responsible for development of the project.
- Regional priorities.
- Budget

### 2.2.4 Project Team

Proper project scoping is accomplished through a collaborative effort involving teamwork and consensus building. For the successful progression and completion of capital projects, representatives of Department regional and M.O. functional groups should work together to address concerns. This group of representatives is referred to as the **project team**.

The roles of the project team members include:

- Providing technical and analytical input.
- Reviewing and commenting on project documentation.
- Attending project meetings.
- Making sure that concerns are raised and addressed during project scope development and design.
- Addressing issues and needs at an adequate level of detail, including sufficient analysis and documentation, to allow informed decisions to be made.
- Following the progress of the project and providing input until the successful completion of the project.

Project team tasks and responsibilities should be assigned to those with technical expertise in the type of work being proposed.

The idea of a project team is to bring a core of involved individuals together to oversee project development and to stay with the project from the start of scoping to completion of design. The project team provides continuity over time as different staff become involved in the project. This team approach ensures that:

- Pertinent issues are raised and addressed.
- Decisions made over the course of the project’s development are well balanced, understood, accepted and can be supported by those involved.
- Transition from scoping to design is smooth and seamless.
- The end result of this teamwork is a project that provides the traveling public, and the communities involved, a safe, efficient, balanced, and environmentally sound transportation solution.
The project team may include representatives from various Regional Office Groups, and Main Office Functional Units. The project team may include, but is not limited to, representatives from:

- Planning
- Design
- ITS Coordinator
- Structures
- Construction
- Canals
- Utility Engineer
- Maintenance
- Real Estate
- Landscape Architecture / Environmental Services
- Traffic Engineering and Highway Safety
- Pedestrian and Bicycle Program Liaison
- Public Information Officer
- Technical Services / Materials
- Rail Road Liaison
- Equal Opportunity Development and Compliance Representative (for Title VI and environmental justice issues)

Simple Projects (see Section 2.2.1 of this chapter for description) may only require a limited project team due to the:

- Level of information needed to be developed
- Lack of complexity of problems and needs
- Lack of significance of related issues
- Fact that such projects normally have one feasible alternative

For simple projects, the project team may be limited to:

- A project developer who contacts appropriate functional sources for project related information.
- A representative from only one or two functional areas

2.2.5 **External Stakeholder Involvement in Project Scoping**

The public, local governments, MPO’s, other state agencies, authorities, federal agencies, etc., are also involved in project scoping activities. Their involvement is generally advisory. For projects that require outside agency design approval or permit approval, e.g., FHWA, FTA, EPA, COE, DEC, etc., it is especially important to provide such agencies with an early and ongoing opportunity for review and input during project development.

Where others are involved, including consultants, Department staff will always oversee project scope development. The Department is solely responsible for approval of the final project scoping document for Department projects.
External stakeholders include those affected by the project, interested parties, and those with approval authority. External stakeholders may include, but are not limited to, representatives from:

- General public
- Local governments
- Transit agencies
- Tribal governments
- Freight carriers
- Community organizations
- The Adirondack Park Authority
- The Federal Highway Administration (FHWA)
- The Environmental Protection Agency (EPA)
- Metropolitan planning organization (MPO)
- Federal Transit Administration (FTA)
- The State Historic Preservation Office (SHPO)
- The Department of Environmental Conservation (DEC)
- The Army Corp of Engineers (COE)

External stakeholders may be involved in scoping when projects involve:

- Community issues
- Alternatives with scenic and cultural context
- Environmental issues
- Federal aid funds
- Need for permits and approvals
- Multiple functional systems (e.g., arterial, collector, and local)
- Multiple modal systems (e.g., highway, transit, rail, and freight)
- Multiple governmental jurisdictions

2.2.6 Public Involvement and Coordination with External Stakeholders

Public involvement is a key component of the project development process (Refer to the NYSDOT Public Involvement Manual (PDM Appendix 2) for guidance on public involvement). The objective of public involvement is to:

- Ensure that community needs and concerns are appropriately considered
- Define project objectives
- Determine feasible alternatives
- Identify potential social, economic, and environmental issues for further analysis.

An early and thorough public involvement process will encourage participation by all stakeholders, identify areas of concern, and improve the likelihood of a successful project. Effective early public outreach provides the stakeholders with an early opportunity to suggest changes to the project scope that may involve surrounding area context or quality of life issues.

The level of public involvement is a function of project complexity and potential for community concerns. An opportunity for public input is encouraged even for the simplest of projects.
2.2.6.1 Public Involvement (PI) Plan

The PI plan is a brief document that outlines the public outreach measures to be followed during project development. It is a tool to ensure that public outreach is well planned, effective, and an integral part of the project development process. The Public Involvement Plan is a living document and should be modified as necessary throughout project scoping, design, and construction.

All project categories require a PI Plan. Early and effective public outreach, and active coordination with all stakeholders is necessary for the successful completion of Department projects. Public Involvement Plans should:

- Identify all known stakeholders and concerns including community interests, facility users, resource agencies and municipalities.
- Outline the methods that will be used to communicate project information in an understandable way to the public.
- Identify the community outreach and feedback mechanisms to reflect stakeholders input in all phases of the project development process.

The PI plan specifies the level of public outreach required, and should be commensurate with the project’s scope, context, and issues. Refer to chapter 2 of the PI manual for guidance on preparing PI plans.

2.2.6.2 Public Involvement in Project Scoping Stage

Working closely with the stakeholders during project scoping can go a long way toward avoiding confusion and misunderstandings later in the project development process. The start of the Project Scoping Stage (and earlier if possible) is the proper time to reach out to the project stakeholders. This allows:

- Continuous dissemination of information and flow of feedback which helps avoid misperception about the project.
- Issues of concern to be raised, put in their proper perspective, and properly considered.
- Changes to be accommodated much earlier than later on in the process when costly changes and/or delays could seriously jeopardize project implementation.
- Better coordination with other projects and initiatives.
- Development of alternatives that make a project compatible with community plans and neighborhood priorities are best discussed with the public during project scoping.

Decisions regarding the inclusion of elements that are beyond the basic purpose of the project should be made early in the Project Scoping Stage rather than later in the Preliminary Design Stage. These decisions may help avoid “scope creep” which, if substantial, may impact other project schedules and program priorities. The product of the project scoping process should be a clear understanding by all stakeholders of what the project is to accomplish.
2.2.6.3 Simple Projects

These are projects with limited potential for community issues. Public outreach is limited, and may be done in combination with other simple projects. Simple projects, due to the limited potential for community issues, usually have a standardized simple public involvement approach. The focus of this PI is to exchange project information, maintain contact with local officials, and provide notices to the public. A more concerted public involvement effort maybe needed if substantial community issues need to be addressed. It is important to let the affected locality and community know about the proposed project and what it intends to accomplish. If elements that help preserve/enhance the environment and community character are identified, consideration should be given to implementing these elements, while maintaining consistency with overall project objectives.

2.2.6.4 Moderate and Complex Projects

Moderate and complex projects should always have project-specific PI plans developed. The level of outreach identified in the Public Involvement Plan should be consistent with a project’s complexity and the potential for community concerns. The Public Involvement Plan should be developed in coordination with the Region’s Public Information Officer, unless Regional procedures state otherwise.

Complex projects are more likely to encounter environmental, quality of life and other community issues, and will generally require a greater degree of public participation. However, there is no clear dividing line between the PI effort required for moderate versus complex projects. The PI plan should be based on individual project requirements including technical scope, environmental process, potential stakeholders issues, and level of community interest.

Because of the nature of these projects, a corridor study may be needed in order to adequately address project area issues and impacts. These two types of projects will also require a greater level of effort to record and document relevant information concerning the issues and decisions from the public involvement process.

2.2.7 Environmental Classification

The preliminary NEPA and SEQR classification is an important decision to be made during the Project Scoping Stage. The identification of the NEPA Class and SEQR Type (see Section 2.3.1 of this chapter) are based on the “significance” of the anticipated social, economic, and environmental issues (impacts) of the project. To determine the appropriate design process and thereby the requisite level of documentation necessary, the determination of "significance" is a critical step (see Section 2.3.1.3 of this chapter for a discussion of “significance”).

When it is determined that a project may have a significant effect and an Environmental Impact Statement (EIS) is required, a Notice of Intent (NOI) to prepare an EIS needs to be issued for federal-aid projects and a positive declaration needs to be issued for 100% state funded projects. The timing of when these notices should be issued, either during the Project Scoping or Preliminary Design Stage, depends upon the project and will be discussed further in Chapters 3 and 4 of this Manual.
2.2.8  **Project Scoping Report**

The Project Scoping Report documents the scoping decisions and the considerations upon which those decisions were made. The amount of data collected, analyzed, and documented is a direct function of the project’s context including:

- Problems and needs
- Complexity
- Significance of related issues
- Potential social, economic, and environmental issues
- Stakeholders issues
- Range of alternatives to be evaluated

Information developed for the Project Scoping Report will guide the degree of public involvement in the Preliminary Design Stage as well as the appropriate environmental classification. A well prepared Project Scoping Report provides a clear, understandable, and acceptable “picture” of what is to be accomplished. The report is a structured record of the evolution of a project and ensures that project needs have been well defined, a consensus on objectives has been achieved, design criteria established, feasible alternative(s) identified, and a cost estimate prepared. The Project Scoping Report is used to grant scope approval and to guide subsequent stages of project development.

Exhibit 2-1 provides a summary of the project categories and required documentation. Exhibit 2-2 graphically presents the progression of project documentation.

2.2.8.1 Simple Projects

For simple projects, an IPP/FDR format is used. It will serve as the IPP, Project Scoping Report and Final Design Report (i.e., design approval document).

2.2.8.2 Moderate Projects and Complex Projects

The Project Scoping Report for these projects shall follow the Design Report format in Appendix 7. The Design Report forms the basis of the appropriate environmental document. Following this format, makes it possible to use the same report format to cover the scoping and design phases I-IV. This is accomplished by adding the necessary details to the report, i.e., expanding the different sections to complete the design approval document (Final Design Report, Final Design Report/ Environmental Assessment, and Final Design Report/Final Environmental Impact Statement). This report format is intended to serve as a checklist to help identify all applicable potential issues. While the checklist is a tool to assist in this effort, it does not replace the use of sound engineering judgement as part of the overall decision process.

A Public Involvement Plan should be included in the Project Scoping Report. The Public Involvement Plan is a flexible document that may be revised during preliminary design.

Chapter 3 of this manual provides further details on the mechanics of project scoping.
Exhibit 2-2  Project Documentation For Simple, Moderate, and Complex Projects

<table>
<thead>
<tr>
<th>Simple Projects</th>
<th>Moderate Projects</th>
<th>Complex Projects</th>
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<tbody>
<tr>
<td>Initial Project Proposal</td>
<td>Initial Project Proposal</td>
<td>Initial Project Proposal</td>
</tr>
<tr>
<td>Scoping Stage</td>
<td>Design Phase I</td>
<td>Design Phase IV Design Approval</td>
</tr>
<tr>
<td>Add Additional Information</td>
<td>Draft Design Report</td>
<td>Final Design Report</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 Initial Project Proposal/Final Design Report.
2. The Project Scoping Report is a first draft of the draft design report or draft design report/environmental document.
2.2.9 **Project Scope Approval**

Upon completion, the Project Scoping Report is submitted for approval to the Regional Director (or a designee). Approval of the Project Scoping Report demonstrates the project proposal meets Regional program goals, is acceptable from a fiscal perspective, and that the project is ready from a technical perspective to move forward into the Design Stage of project development. The approved Project Scoping Report provides specific guidance for the design of a project.

For simple projects, Project Scope Approval can occur simultaneously with Design Approval using an IPP/FDR. For moderate and complex projects, the project enters Design Phase I after completion and approval of the Project Scoping Report.

2.2.10 **Subsequent Project Scope Changes**

During the design stage in the project development process, a change in the approved project scope may be necessary due to:

- Community input
- The results of more in-depth design and environmental analysis
- Infrastructure deterioration that requires a different scope of work (e.g., bridge replacement vs. rehabilitation) has occurred since scope approval
- Changes in program priorities that cause the project to be significantly deferred such that project objectives need to be revisited
- Unanticipated area development that impacts the project needs and objectives

When changing an approved project scope, the project team needs to address and reach consensus on the proposed changes. A determination of what additional analysis and other project development work is required. Revisions that require changes in the project’s cost, scope, and schedule need to be approved by the RPPM from a system and program perspective. If the environmental classification changes, a revised design approval document may be necessary.

Each Region should develop Region specific procedures to address the review and approval of proposed changes in project scope. Refer to Section 2.5.2 of this chapter for a discussion on changing the funding source.
2.3 PROJECT DESIGN STAGE

The project team is responsible for ensuring a smooth transition from scoping into design. Under the direction of the project manager, the project team should continue to meet and oversee the progress of the project through the design phases and until the successful completion of the project. The public involvement plan should also be revised as necessary.

As shown in Exhibit 1-1, the Project Development Process flowchart, the Design Stage of a project consists of six design phases, some of which may not apply depending on the type of project, scope of work, environmental classification, public involvement, etc. The first four design phases make up the preliminary design stage of a project and the last two design phases make up the final (or detailed) design stage.

The following Exhibits 2-3 and 2-4 align the classes, project types, project scoping reports, design phases, and design approval document titles. Refer to Appendix 7 for the format and level of detail required.

**Exhibit 2-3  Federal-Aid Design Approval Document Formats** (see Notes on Page 2-17)

<table>
<thead>
<tr>
<th>Project Complexity</th>
<th>NEPA Class¹</th>
<th>SEQRA Type²</th>
<th>Document Formats Required</th>
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<td>Project Scoping Stage</td>
</tr>
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<td>Class II</td>
<td>Type II</td>
<td>A separate project scoping stage document is not prepared for simple projects</td>
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<td></td>
<td>Automatic CE or Programmatic CE</td>
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<tr>
<td>Moderate</td>
<td>Class II</td>
<td>Type II &amp; Non-Type II (EA)</td>
<td>Project scoping report (PSR) in format of design report</td>
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<tr>
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<td>Programmatic CE or CE w/doc.</td>
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<tr>
<td></td>
<td>Class III (EA)</td>
<td></td>
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</tr>
<tr>
<td>Complex</td>
<td>Class I (EIS)</td>
<td>Non-Type II (EIS)</td>
<td>Project scoping report (PSR) in format of design report</td>
</tr>
</tbody>
</table>

November 2008
## Project Development Overview

### Exhibit 2-4 100% State-Funded Project Reports

<table>
<thead>
<tr>
<th>Project Complexity</th>
<th>SEQRA Type²</th>
<th>Document Formats Required</th>
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</tr>
<tr>
<td>Simple</td>
<td>Type II</td>
<td>A separate Project Scoping Stage document is not prepared for simple projects</td>
</tr>
</tbody>
</table>

### Notes for Exhibits 2-3 and 2-4:

1. The NEPA Class as per 23 CFR 771.115 must be documented in the appropriate section of the project report in sufficient detail for DAD readers to understand the project's classification.
2. The SEQRA Type as per 17 NYCRR Part 15 must be documented in the appropriate section of the project report and the particular SEQRA 17 NYCRR Part 15 section that is the basis for the SEQRA Type determination must be stated in sufficient detail for DAD readers to understand the project's classification. This requirement applies to Federal-aid as well as 100% State-funded projects.
3. Projects that are Federal-Aid and SEQRA Non-Type II (EA) must follow the procedural steps found in PDM Sections 4.4.2 and 4.5.2. This includes the filing of a DONSE (in Section 4.5.2) if it is determined that there are no significant effects.
4. See PDM Section 2.3.1.2.B for detailed information on NEPA Class III project types.
2.3.1 Overview of the NEPA Environmental Classes and the SEQR Environmental Types

The NEPA classes and SEQR types are the underlying framework for this manual. The determination of which section of the procedural steps to use is based on the anticipated NEPA class or SEQR type selected in the Project Scoping Stage. Federally aided projects follow the procedures for their NEPA environmental class and 100% State funded projects follow the procedures shown for their SEQR type.

A project that follows Federal environmental requirements will generally satisfy SEQR environmental requirements. Exceptions to this (such as the SEQR Record of Decision or the SEQR Determination of No Significant Effect) are shown in the NEPA Class I, II, and III procedural steps. If there are questions about Federal requirements satisfying State requirements on a specific project, consult the Regional Environmental Contact or the Regional Quality Control Engineer.

100% State funded projects that require Federal approvals or permits may require compliance with NEPA. Examples of Federal approvals or permits for such projects are:

- FHWA's approval of an access modification on the Interstate System
- U.S. Army Corps of Engineers Section 404 permit
- U.S. Coast Guard permit

While the 100% State funded procedures are normally used for 100% State funded projects with Federal permits or approvals, the Main Office Liaison (see Section 2.5 page 2-26 of this manual) should be contacted to determine the procedures required to ensure compliance with NEPA and to avoid delays in obtaining the Federal permits or approvals. For example, the Army Corps of Engineers or U.S. Coast Guard may be the NEPA lead agency if a federal permit is needed on a 100% State-funded project. Tip: For such projects, it is advisable to include Federal money so that FHWA will be the NEPA lead agency rather than other federal agencies.

2.3.1.1 SEQR

The definitions of the SEQR Types are based on NYSDOT’s SEQR Regulations "17 NYCRR Part 15" as shown in the Environmental Procedures Manual (EPM) Chapter 2.1. They are summarized below.

A. SEQR Type II

SEQR Type II projects are actions that:

- Do not have a significant effect on the environment
- Are on NYSDOT’s SEQR Type II list
The SEQR Type II list is printed in Title 17 NYCRR Part 15.14(e) and includes 55 items. Numbers 37 through 45 contain the highway related actions. Title 17 NYCRR Part 15.14(e) specifies which of the prerequisites in 17 NYCRR Part 15.14(d) must be satisfied for each item. Refer to Appendix 7 of this manual for a sample of how to demonstrate that the applicable SEQR prerequisites are met.

B. SEQR Non-Type II (EA)

SEQR Non-Type II (EA) projects are actions that:

- Are not on NYSDOT's SEQR Type II list in 17 NYCRR Part 15.14(e)
- Do not meet the prerequisite criteria in 17 NYCRR Part 15.14(d) for SEQR Type II actions
- For which the significance of the environmental impacts is not clearly established per 17 NYCRR Part 15.6(a)(1)

Based on the environmental assessment in the FDR/EA (or FDR if a NEPA Class II project), a determination is made as to whether the project:

- Will not have a significant effect on the environment and a “Determination of No Significant Effect” (DONSE) is filed per 17 NYCRR Part 15.6(b)
- May have a potential for a significant effect, and a SEQR EIS is prepared per 17 NYCRR Part 15.6(c)

C. SEQR Non-Type II (EIS)

SEQR Non-Type II (EIS) projects are actions that may have a significant effect on the human environment and are not on NYSDOT’s SEQR Type II list. These are typically large scale projects similar to the Federal-aid NEPA Class I projects.

NYSDOT may use the EIS produced for a FHWA Class I EIS project to satisfy the NYS Environmental Quality Review Act (SEQR), by making a SEQR Record of Decision upon completion and consideration of the NEPA FEIS per 17 NYCRR Part 15.6(c)(1).

2.3.1.2 NEPA

The definitions of Class I, II, and III in this manual are as defined in the Federal Regulation 23 CFR 771, Section 771.115. (Note: The latest regulations can be downloaded from the FHWA website.) These classes prescribe the level of documentation required in the NEPA process. The definitions and level of documentation (in order of increasing complexity) are as follows.
A. Class II

Class II projects are actions that do not individually or cumulatively have a significant environmental effect. They are categorically excluded from the requirement to prepare a NEPA Environmental Assessment or Environmental Impact Statement. The Class II procedural steps explain how a project is classified as a categorical exclusion.

Federal-aid Class II projects are normally SEQR Type II projects. However, some Class II projects, such as 23 CFR 771.117(d) (or D-list) projects, may be SEQR Non-Type II projects requiring a SEQR Determination of No Significant Effect (DONSE). Additional guidance can be found in the Environmental Procedures Manual (EPM), Sections 2.1 and 2.2.

B. Class III

NEPA Class III projects are actions in which the significance of the environmental impacts is not clearly established. All actions that are not Class I or II are Class III. All actions in this class require the preparation of an Environmental Assessment (FDR/EA).

Based on the Environmental Assessment in the FDR/EA a determination is made as to whether the action:

- Will not have a significant effect on the environment and a “Finding of No Significant Impact (FONSI)” is issued.
- Will have a potential for a significant effect, and an EIS is prepared.

**Note:** There is little advantage to processing a project as a NEPA Class III project. Generally, these projects should be progressed as NEPA Class II projects with an analysis of the environmental issues in Chapter IV of the Design Report (DR). For SEQR Non-Type II (EA) projects, Chapter IV of the DR should include sufficient documentation of the alternatives analysis to support a DONSE. If significant impacts are anticipated, progress the project as a NEPA Class I with an EIS.

C. Class I

NEPA Class I projects are actions that may significantly affect the environment and require an EIS. Examples of Class I projects include:

- A new controlled access freeway
- A highway project of four or more lanes on a new location
- New construction or extension of fixed rail transit facilities
2.3.1.3 Significance

The NEPA environmental Class and/or SEQR environmental Type for a project determine which section of the PDM Chapter 4 procedural steps to use during the Design Stage. The environmental NEPA Class and/or SEQR Type are initially identified during the project's Initiation Stage, re-evaluated during the Project's Scoping Stage, and confirmed during the Preliminary Design Stage - Design Phase I. The identification of the NEPA Class and SEQR Type are based on the significance of the anticipated social, economic, and environmental effects (impacts) of the project.

The significance of anticipated effects or impacts is the key phrase here. To determine the appropriate design process and thereby the requisite level of documentation necessary to comply with the law, the determination of "significance" is a critical step in both the NEPA and SEQR processes. (i.e., Do I need to do an EIS for this project?)

What constitutes a significant effect is subject to interpretation and varies from project to project. Therefore, considerable reliance is placed on reasonable judgement. Determining significance is treated differently under SEQR and NEPA, as described below.

A. Significance Under SEQRA

The NYSDOT SEQRA regulations explain significance in terms of criteria. But they go a little further by naming some of the actions that result in significant impacts. This list of actions is shown in §15.11 of NYSDOT’s regulations implementing the State Environmental Quality Review Act (SEQRA) which can be found in Chapter 2.1 of the Environmental Procedures Manual.

The last section of §15.11 discusses the factors to be considered when determining the significance of a likely consequence. Like NEPA, which is discussed below, the Department must consider the severity of the environmental impacts and their importance in relation to the following list of SEQRA factors from 17 NYCRR Part 15.11:

- Setting
- Probability of occurrence
- Duration
- Irreversibility
- Geographic scope
- Magnitude
- The number of people affected

B. Significance Under NEPA

The discussion of significance under NEPA is not as clear as under SEQRA because fewer examples are provided. The CEQ regulations (40 CFR 1508.27) state that two main points should be considered in determining significance: context and intensity, see Exhibit 2-5.
Impacts can be considered in the context of society as a whole, the affected region, or locality. In the case of a site-specific action, significance would usually depend on the effects in the locale rather than the world as a whole. Short and long term cumulative effects are relevant.

For example, filling one acre of a one hundred-acre wetland could be considered not significant, but filling one acre of an environmentally sensitive two-acre wetland could be considered a significant impact. The intensity is the same, but the context is different.

**Exhibit 2-5  Significance under NEPA**

![Diagram of Context, Intensity, and Significance]

Similar to SEQRA, NEPA lists factors to consider when determining the severity of impacts. The following is a list of NEPA factors for determining severity (intensity) of impact:

- Beneficial and Adverse
- Public Health or Safety
- Uniqueness of Area
- Controversy
- Degree of Uncertainty

- Precedent Setting Action
- Cumulative Impacts
- Section 106 Properties
- Threatened and Endangered Species
- Violates a Law

Under the CEQ interpretation of NEPA, three points that are often missed are:

- Significance of impacts is judged in the context in which impacts occur.
- Beneficial impacts can be significant impacts.
- Significance generally cannot be avoided by terming the impacts temporary (e.g., construction vibration that adversely affects a nearby structure).

**2.3.1.4  Segmentation**

The project cannot be segmented during the evaluation of the social, economic, and environmental consequences. To avoid “segmentation,” projects must have logical termini, independent utility, and not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.
To have logical termini the project study area must start and end at reasonable points to allow for a full evaluation of the project impacts, i.e., a project must be of sufficient length to address environmental matters on a broad scope. For interchange reconstruction projects, the project study area should extend, at least, to the nearest interchanges on either side of the interchange being reconstructed.

To have independent utility the project must have value if no other projects are let in the same area.

To not restrict consideration of alternatives for other reasonably foreseeable transportation improvements, the project must be consistent with the feasible alternatives for other programmed or anticipated projects.

After design approval, the project may be segmented to allow for staged construction.

2.3.2 Overview of The Six Design Phases

The specific steps under each phase are contained in Chapter 4 of This Manual.

2.3.2.1 Design Phase I - Development of Feasible Design Alternatives, Identification and Assessment of Impacts.

Design Phase I consists of the steps necessary to:

- Continue the involvement of all stakeholders to further develop the design alternatives and assess social, economic, and environmental impacts.
- Prepare The draft design approval document and progress appropriate reviews.
- Make the environmental determination for SEQR Type II projects and NEPA Class II projects.
- Sign Title Sheets for NEPA Class I and III projects.

2.3.2.2 Design Phase II - Advisory Agency Review

Design Phase II is the distribution of the draft design approval document for review and comment by the federal, state and local advisory agencies. (Appendix 3 contains the distribution procedures and agency lists. Appendix 3 should also be referred to for sample notices and press releases.)

This phase does not apply to most projects, refer to Chapter 4 for details.

2.3.2.3 Design Phase III - Public Hearing/Information Meeting

Design Phase III consists of the steps necessary to prepare for and conduct the public hearing or information meeting. (Refer to Appendix 2 for requirements and guidance.) This phase does not apply to most projects, refer to Chapter 4 for details.
There are numerous opportunities to obtain informal public input early in the project development process. The public hearing in Design Phase III, if held, is one of the formal opportunities in the project development process for the public to provide input. All of the public should be considered and treated as our customers. However, it is the Department’s responsibility as a public agency to balance the project impacts with the needs of the public at large.

2.3.2.4 Design Phase IV - Final evaluation, Recommendation, and Design Approval

For simple projects, Design Phase IV consists of the addition of a signature line to the IPP to obtain both project scoping approval and design approval.

For moderate and complex projects, Design Phase IV consists of the final evaluation of comments received from the public and advisory agencies, and the selection of the preferred alternative. A design approval document (a Final Design Report/Final Environmental Impact Statement, or Final Design Report/Environmental Assessment, or Final Design Report) is prepared and reviewed within the Department. At this phase, all environmental documentation must be complete. Plans, profiles, and typical sections must be advanced to support the environmental determination and selection of the build alternative. Appendix 7 of this manual discusses the format and content of final design approval documents and lists the required technical appendices. (The format and content of preliminary plans, profiles, and typical sections required for most of these documents is covered in HDM Chapter 21.) Appendix 12 contains Main Office review guidelines.

2.3.2.5 Design Phase V - Advance Detail Plans (ADPs)

Design Phase V consists of the steps necessary for the preparation of 90% complete plans and the review of the plans within the Department and, if applicable, by FHWA, local agencies, and organizations with jurisdiction over the project area. (HDM Chapter 21 describes the content of ADPs.)

2.3.2.6 Design Phase VI - Final Plans, Specifications And Estimates (PS&E)

Design Phase VI consists of the steps necessary to prepare and submit the Final PS&E to DQAB for contract letting. (HDM Chapter 21 contains guidance on Final PS&E submissions.)
A substantial amount of work must be done in the Main Office after PS&E submission to let the project. Many groups within and outside the Department have activities that must be completed between PS&E submission and Letting. DQAB’s PS&E Section performs or facilitates many of the tasks that must be completed to assemble the plans and proposal for printing. The major activities include:

1. **The distribution of the PS&E for review, and resolution of comments.** FHWA, the Structures Division, the Thruway Authority and others perform reviews.

2. **Request and receipt of labor rates, and production of table of quantities and bid sheets.** The Department of Labor provides Labor Rates for all projects, and the Office of Equal Opportunity & Compliance establishes the minority participation goals.

3. **Assembly of the original plans and proposal for printing.** Graphic Arts prints the bid documents and distributes them to Plan Sales offices. When required by the TEA-21 Matrix, DQAB requests FHWA’s approval of the bid documents (i.e., Final PS&E).

4. **Project advertisement.** DQAB, the Project Letting & Management Bureau, and the Contracts Management Bureau work together to ensure that the projects are properly advertised. As applicable, Project Letting & Management Bureau either authorizes advertisement or obtains FHWA’s authorization to advertise.

5. **Distribution of bid documents to plan sales offices.** Plan Sales offices make bid documents available to Contractors beginning on the date the newspaper ad is published (see published letting schedule).


7. **Approval, processing, and distribution of amendments.** The amendments are approved by the Regions, transmitted to DQAB for processing, approved by FHWA as required by the TEA-21 Matrix, printed and distributed to Plan Sales offices by Graphic Arts, and mailed to all plan buyers by the Main Office Plan Sales office. Refer to HDM Chapter 21, Section 21.10 on amendments.

8. **Pre-Bid Meeting.** NYSDOT Regional Office holds pre-bid meeting, when needed.

9. **Bid preparation.** Contractors receive the amendments, and complete and submit their bids.

The Design Stage ends at contract letting. During letting, the contractors’ bids are opened and the Project Construction Stage begins with the award process.
2.4 PROJECT CONSTRUCTION STAGE

The Project Construction Stage begins with the award process, which is administered by the Contact Management Bureau. For more information on bid analysis and awarding of projects refer to MAP 7.30.

2.5 CHANGING FUNDING SOURCE

The elimination of Federal funds from a project is not an issue since a project following the Federal-aid steps contain the necessary 100% state funded steps.

100% State funded projects that are switched to federal funds may require a substantial amount of work depending on the NEPA Class and how far along the project has been processed. The following guidance applies to projects that are switched to federal-aid after they have received design approval as a 100% state-funded projects under SEQR. Designers should contact their Regional Liaison Engineer in DQAB for further guidance.

2.5.1 NEPA Classification

Projects that are switched to federal aid after design approval should be progressed as follows under NEPA:

- Projects that received design approvals SEQR Type II, should be progressed as NEPA Class II projects (Categorical Exclusion).
- Projects that received design approval as SEQR Non-Type II (EA) with a “Determination Of No Significance” (DONSE), should be progressed as NEPA Class II (Categorical Exclusion).
- Projects that received design approval as SEQR Non-Type II (EIS), should be progressed as NEPA Class I (EIS).

Copies of the NEPA checklist and design approval document must be filed in accordance with the procedures in EPM Section 2.2.

If a public hearing was held under SEQR, a new hearing is not required using the NEPA Class II procedures.

2.5.2 Design Approval Documents

For 100% state funded projects that are switched to Federal aid (NEPA) after receiving design approval, the design approval document should be revised as follows:

1. Projects without major changes in the scope of work: Prepare a reevaluation statement in accordance with Appendix 11 of this manual. The reevaluation statement along with approved SEQR design approval document should be used to progress the project under NEPA.
2. Projects with substantial change in scope after design approval:

- A supplemental design approval document “errata” can be developed and used along with the already approved SEQR design approval document to progress the project under NEPA. Refer to the errata format discussed in Appendix 7 of this manual. This format is best suited when the errata will be relatively short.
- A supplemental design approval document can be developed by editing the previously approved design approval document. With electronic design approval documents, changes to accommodate the funding change can be easily documented provided the initial document was prepared in accordance with Appendix 7 of this manual. This format can be used for minor and major changes to the project scope.

2.5.2.1 Environmental Studies, Permits and Approvals

Federal aid projects will likely have some additional environmental requirements. For example, Section 4(f) and Sole Source Aquifers apply only to Federal-aid projects. Appendix 1 of this manual and the Environmental Commitments & Obligations Package (ECOPAC) checklist should be used to ensure that all environmental issues are covered. Environmental studies should be attached to the design approval document (or reevaluation statement).

2.5.2.2 Design Related Approvals

If the design approval granting authority has changed based on the TEA 21 matrix, re-obtain design approval (and any non-standard feature approval) upon completion of the NEPA determination.

2.5.2.3 Value Engineering

Projects on the NHS with a total estimated cost of $25M or more require a value engineering study. If such a project is switched to federal funding after Design Phase I, a value engineering study can be accomplished anytime before PS&E submission to DQAB.