

Roadway Design Process Guide



Roadway Design Division

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INTRODUCTION

The purpose of this document is to provide a step-by-step guide for the design process. It provides locations for the information needed in each phase for all submittals and field reviews. It is intended to be used by designers and their supervisors to assist in the correct development of a project. The flowchart depicted in Figure 1 displays an overview of this process and can be referenced as a general guide.



INITIAL PROJECT ASSESSMENT

RECEIVE SURVEY

See Roadway Design Guidelines Chapter 1 General, Section 1-100.00

- [Standard Project Folder Layout](#) (Page 7)

TECHNICAL REPORT (TIR)

See Roadway Design Guidelines Chapter 4 Preliminary

- For details on Project Scope and Changes in Project Scope see Roadway Design Guidelines Chapter 1 General, Section 1-101.00

DESIGN SITE VISIT

An informal trip to determine potential Design issues during the project's development by the Design Team and any relevant personnel such as: Designer, Supervisor, Managers, and anyone else inside the Designer's team.

SCOPING DISCUSSION

Meeting to discuss the TIR, project requirements, anticipated constructability issues, phasing, potential scheduling changes to PPRM, etc. The designer, supervisor, Manager, PPRM scheduler, and other members of the designer's team shall be required to attend

- For Smaller projects, a conference call with the other divisions is acceptable
- For Larger projects, a formal meeting with all the different divisional groups is necessary

REQUEST TRAFFIC DATA

See Roadway Design Guidelines Chapter 4, Preliminary, Section 4-200.00

- [Traffic Report Request](#)

INITIAL STUDIES DIVISIONAL INFORMATION REQUEST

See Roadway Design Guidelines Chapter 4 Preliminary, Section 4-201.00.

- Initial Studies Form
 - [Initial Studies Request](#)
- [FileNet Project Deliverables](#)
- [Initial Studies Checklist](#)
- Should scoping change, initial studies will need to be resubmitted and the [Initial Studies Re-evaluation](#) process should be completed. See Roadway Design Guidelines Chapter 4 Preliminary, Section 4-201.08.

INCIDENTALS FUNDING REQUEST

See Roadway Design Guidelines Chapter 4, Preliminary, Section 4-202.00

- [Incidentals Funding Request](#)

PRELIMINARY PHASE

PRELIMINARY PLANS DEVELOPMENT

See Roadway Design Guidelines Chapter 1 General, Section 1-200.00, Chapter 2, Geometric Design and Chapter 3, Multimodal Design.

- Plans Development Links
 - [Preliminary Checklist](#)

PRELIMINARY FIELD REVIEW PROCEDURES

See Roadway Design Guidelines Chapter 1 General, Section 1-500.00 and 1-501.00.

SCHEDULING AND DISTRIBUTION

See Roadway Design Guidelines Chapter 1 General, Section 1-502.00.

- For External Agencies or Municipalities see Roadway Design Guidelines Chapter 1 General, Section 1-515.00
- [Field Review Notification](#)

PRELIMINARY FIELD REVIEW FILENET SUBMITTAL PACKAGE

See Roadway Design Guidelines Chapter 1 General, Section 1-105.01

- [FileNet Project Deliverables](#)

PRELIMINARY FIELD REVIEW REPORT

See Roadway Design Guidelines Chapter 1 General, Section 1-503.00

PRELIMINARY ESTIMATE SUBMITTAL

See Roadway Design Guidelines Chapter 1 General, Section 1-402.01

- [FileNet Project Deliverables](#)

UPDATING SURVEYS

See Roadway Design Guidelines Chapter 1 General, Section 1-305.00.

- [Additional Survey Request](#)

DESIGN EXCEPTION REQUESTS

See Roadway Design Guidelines Chapter 2 Geometric Design, Section 2-105.00.

- [Design Exception Form](#)

DESIGN WAIVER REQUESTS

See Roadway Design Guidelines Chapter 2 Geometric Design, Section 2-201.00

- [Design Waiver Request](#)

PUBLIC HEARING AND PUBLIC MEETING REQUIREMENTS

See Roadway Design Guidelines Chapter 1 General, Section 1-600.00 and for the FileNet submittal package see Chapter 1 General, Section 1-105.02

- [FileNet Project Deliverables](#)
- [Public Meeting Notice](#)
- [Public Meeting Checklist](#)
- [Public Meeting Pre-Questionnaire](#)

SITE REVIEW

See Roadway Design Guidelines Chapter 1 General, Section 1-500.00.

- [Distribution List](#)
- [Site Review Document](#)
- [Field Review Notification](#)

SITE REVIEW FILENET SUBMITTAL PACKAGE

See Roadway Design Guidelines Chapter 1 General, Section 1-105.03

- [FileNet Project Deliverables](#)

RIGHT-OF-WAY PHASE

RIGHT-OF-WAY PLANS DEVELOPMENT

See Roadway Design Guidelines: Chapter 4 Preliminary, Section 4-400.00, Chapter 2 Geometric Design, Chapter 3 Multimodal, Chapter 5 Right of Way, and Chapter 7 Item Numbers.

- [R.O.W. Checklist](#)

R.O.W. FIELD REVIEW PROCEDURES

See Roadway Design Guidelines Chapter 1 General, Section 1-500.00 and 1-501.00.

SCHEDULING AND DISTRIBUTION

See Roadway Design Guidelines Chapter 1 General, Section 1-502.00.

- For External Agencies or Municipalities see Roadway Design Guidelines Chapter 1 General, Section 1-515.00
- [Field Review Notification](#)

R.O.W. FIELD REVIEW FILENET SUBMITTAL PACKAGE

See Roadway Design Guidelines Chapter 1 General, Section 1-105.04

- [FileNet Project Deliverables](#)

R.O.W. FIELD REVIEW REPORT

See Roadway Design Guidelines Chapter 1 General, Section 1-503.00

UPDATING SURVEYS

See Roadway Design Guidelines Chapter 1 General, Section 1-305.00.

- [Additional Survey Request](#)

DESIGN EXCEPTION REQUESTS

See Roadway Design Guidelines Chapter 2 Geometric Design, Section 2-105.00.

- [Design Exception Form](#)

DESIGN WAIVER REQUESTS

See Roadway Design Guidelines Chapter 2 Geometric Design, Section 2-201.00

- [Design Waiver Request](#)

TRAFFIC MANAGEMENT PLAN

See Roadway Design Guidelines Chapter 2 Geometric Design, Section 2-201.00

- [Work Zone Design Deviation Form](#)

WORK ZONE SIGNIFICANCE DETERMINATION

See Roadway Design Guidelines Chapter 1 General, Section 1-205.02

- [Work Zone Significance Determination](#)

WORK ZONE DESIGN DEVIATION

See Roadway Design [Instructional Bulletin 19-15](#).

- [Work Zone Design Deviation Form](#)

PUBLIC HEARING AND PUBLIC MEETING REQUIREMENTS

See Roadway Design Guidelines Chapter 1 General, Section 1-600.00 and for the FileNet submittal package see Chapter 1 General, Section 1-105.02

- [FileNet Project Deliverables](#)

SUBMITTAL OF R.O.W. ESTIMATE FOR R.O.W. OR UTILITIES ONLY FUNDING

See Roadway Design Guidelines Chapter 1 General, Section 1-402.02

- [R.O.W. or Utilities Only Funding Approval Request](#)

R.O.W. INCIDENTALS FUNDING REQUEST

See Roadway Design Guidelines Chapter 4, Preliminary, Section 4-202.00

- [R.O.W. Incidental Approval Request](#)

R.O.W. SUBMITTAL PROCESS

See Roadway Design Guidelines Chapter 1 General, Section 1-105.05

- [FileNet Project Deliverables](#)
- [R.O.W. Plans Submittal](#)

R.O.W. REVISION SUBMITTAL PROCESS

Should there be a revision on the R.O.W. set of plans

- See Roadway Design Guidelines Chapter 1 General, Section 1-105.06
- [FileNet Project Deliverables](#)
- [R.O.W. Plans Revision](#)

R.O.W. REVISION RESUBMITTAL OF ESTIMATE DUE TO INSTRUCTIONAL BULLETIN OR ROADWAY DESIGN GUIDELINE CHANGE

Should there be a revision on the R.O.W. set of plans

- See Roadway Design Guidelines Chapter 1 General, Section 1-402.03
- [FileNet Project Deliverables](#)
- [Estimate Revision Request](#)

CONSTRUCTION PHASE

CONSTRUCTION PLANS DEVELOPMENT

See Roadway Design Guidelines: Chapter 2 Geometric Design, Chapter 3 Multimodal, Chapter 6 Construction, and Chapter 7 Item Numbers.

- [Construction Checklist](#)

PAVEMENT DESIGN UPDATE

See Roadway Design Guidelines: Chapter 6 Construction, Section 6-103.00 and Chapter 4 Preliminary,

- [Pavement Design Review](#)

CONSTRUCTABILITY REVIEW

See Roadway Design Guidelines Chapter 1 General, Section 1-500.00.

- Need for this will be determined at the Site Review
- [Constructability Review Procedures Manual](#)
- [Constructability Reviews](#)

CONSTRUCTION FIELD REVIEW PROCEDURES

See Roadway Design Guidelines Chapter 1 General, Section 1-500.00 and 1-501.00.

SCHEDULING AND DISTRIBUTION

See Roadway Design Guidelines Chapter 1 General, Section 1-502.00.

- For External Agencies or Municipalities see Roadway Design Guidelines Chapter 1 General, Section 1-515.00
- [Field Review Notification](#)

CONSTRUCTION FIELD REVIEW FILENET SUBMITTAL PACKAGE

See Roadway Design Guidelines Chapter 1 General, Section 1-105.07

- [FileNet Project Deliverables](#)

CONSTRUCTION FIELD REVIEW REPORT

See Roadway Design Guidelines Chapter 1 General, Section 1-503.00

CONSTRUCTION ESTIMATE FOR CONSTRUCTION FIELD REVIEW SUBMITTAL

See Roadway Design Guidelines Chapter 1 General, Section 1-402.04

- [FileNet Project Deliverables](#)

UPDATING SURVEYS

See Roadway Design Guidelines Chapter 1 General, Section 1-305.00.

- [Additional Survey Request](#)

DESIGN EXCEPTION REQUESTS

See Roadway Design Guidelines Chapter 2 Geometric Design, Section 2-105.00.

- [Design Exception Form](#)

DESIGN WAIVER REQUESTS

See Roadway Design Guidelines Chapter 2 Geometric Design, Section 2-201.00

- [Design Waiver Request](#)

TMP

See Roadway Design Guidelines Chapter 5, Section 5-413.00

WORK ZONE SIGNIFICANCE DETERMINATION

See Roadway Design Guidelines Chapter 1 General, Section 1-205.02

- [Work Zone Significance Determination](#)

WORK ZONE DESIGN DEVIATION

See Roadway Design [Instructional Bulletin 19-15](#).

- [Work Zone Design Deviation Form](#)

FINAL PLANS REVIEW PROCESS

See Roadway Design Guidelines Chapter 1 General, Section 1-500.00 and 1-501.00.

SCHEDULING AND DISTRIBUTION

See Roadway Design Guidelines Chapter 1 General, Section 1-502.00.

- For External Agencies or Municipalities see Roadway Design Guidelines Chapter 1 General, Section 1-515.00
- [Field Review Notification](#)

FINAL CONSTRUCTION PLANS REVIEW FILENET SUBMITTAL PACKAGE

See Roadway Design Guidelines Chapter 1 General, Section 1-105.08

- [FileNet Project Deliverables](#)
- For guidance on the submission of grading quantities sheets, see Chapter 6 Construction, Section 6-401.01

POST FINAL PLANS REVIEWED

See Roadway Design Guidelines Chapter 1 General, Section 1-500.00

- Final Construction Plans Review Form
- Final Construction Plans Submittal Delay

CONSTRUCTION LETTING

CONSTRUCTION SUBMITTAL PROCESS

See Roadway Design Guidelines Chapter 1 General, Section 1-105.09

- [FileNet Project Deliverables](#)
- [Construction Plans Submittal](#)

CONSTRUCTION ESTIMATE SUBMITTAL

See Roadway Design Guidelines Chapter 1 General, Section 1-402.04

- [FileNet Project Deliverables](#)

LETTING REVISION FILENET SUBMITTAL PACKAGE

See Roadway Design Guidelines Chapter 1 General, Section 1-105.10

- [FileNet Project Deliverables](#)
- [Letting Plans Revision](#)

CONSTRUCTION REVISION

CONSTRUCTION REVISION SUBMITTAL PROCESS

After the project is awarded to a contractor, revisions may be necessary. See Roadway Design Guidelines Chapter 1 General, Section 1-105.11 and Current Section 4 Construction Plans, 4-150.00

- [FileNet Project Deliverables](#)
- [Construction Plans Revision](#)