



FACILITIES DEVELOPMENT MANUAL

Wisconsin Department of Transportation

TABLE OF CONTENTS

Chapter 15: Plan Preparation

Section 15-1 Standards

- 15-1-1 General
 - 1.1 Originator
 - 1.2 Objective
 - 1.3 Composition
 - 1.4 Multiple Projects in One Plan or Multiple Project Plans within One Contract
 - 1.5 Numbering of Plans
 - 1.6 Typical Section and Detail Sheets
- 15-1-4 Preliminary Plan
 - 4.1 General
 - 4.2 Design Process
 - 4.3 Content
 - Attachment 4.1 Preliminary Plan Checklist
- 15-1-5 Sample Plan: Improvement Projects
 - Attachment 5.1 Sample Title Sheet
 - Attachment 5.2 Sample Typical Section Sheet (with other Information)
 - Attachment 5.3 Sample Typical Section Sheet
 - Attachment 5.4 Sample Detail Sheet (Construction Details)
 - Attachment 5.5 Sample Detail Sheet (Project Overview)
 - Attachment 5.6 Sample Detail Sheet (Intersection Layout)
 - Attachment 5.7 Sample Detail Sheet (Interchange Drainage and Pavement)
 - Attachment 5.8 Sample detail Sheet (Contour Map)
 - Attachment 5.9 Sample Detail Sheet (Cross Section Match Line)
 - Attachment 5.10 Sample Detail Sheet (Erosion Control)
 - Attachment 5.11 Sample Detail Sheet (Storm Sewer Plan)
 - Attachment 5.12 Sample Detail Sheet (Planting)
 - Attachment 5.13 Sample Detail Sheet (Permanent Signing)
 - Attachment 5.14 Sample Detail Sheet (Lighting)
 - Attachment 5.15 Sample Detail Sheet (Traffic Signal Plan)
 - Attachment 5.16 Sample Detail Sheet (Pavement Marking)
 - Attachment 5.17 Sample Detail Sheet (Traffic Control/Construction Staging)
 - Attachment 5.18 Sample Detail Sheet (Alignment Plan)
 - Attachment 5.19 Estimate of Quantities
 - Attachment 5.20 Sample Miscellaneous Quantities Sheets
 - Attachment 5.21 Sample Plan and Profile Sheet
 - Attachment 5.22 Sample Computer Earthwork Data Sheet
 - Attachment 5.23 Sample Cross Section Sheet
- 15-1-6 Sample Plan Abbreviated Project
 - Attachment 6.1 Sample Title Sheet-Abbreviated Plan
 - Attachment 6.2 Sample Typical Section Sheet -Abbreviated Plan
 - Attachment 6.3 Estimate of Quantities
 - Attachment 6.4 Sample Plan Sheet -Abbreviated Plan
- 15-1-10 Title Sheets
 - 10.1 Project Title
 - 10.2 Project Numbers
 - 10.3 Margin Information
 - 10.4 Order of Sheets
 - 10.5 Location Sketch

- [10.6](#)..... State Map
- [10.7](#)..... Design Designation
- [10.8](#)..... Net Length of Center Line
- [10.9](#)..... Conventional Symbols
- [10.10](#)..... Signatures
- [10.11](#)..... Signature Blocks
- [10.12](#)..... Coordinates
- [Attachment 10.1](#).... Signature Blocks for WisDOT Projects
- [Attachment 10.2](#).... Signature Blocks for Local Road Projects
- [15-1-12](#) General Notes, Railroad, and Contacts Sheet
 - [12.1](#)..... General Notes
 - [12.2](#)..... Abbreviations
 - [12.3](#)..... Utilities / Railroads Listing
 - [12.4](#)..... DNR Liaison
 - [12.5](#)..... Standard Detail Drawings List
- [15-1-14](#) Project Overview
- [15-1-15](#) Typical Section Sheet
 - [15.1](#)..... Sign Plates and/or Sign Details
- [15-1-20](#) Detail Sheet
 - [20.1](#)..... Project Overview
 - [20.2](#)..... Construction Details
 - [20.3](#)..... Typical Sections
 - [20.4](#)..... Intersection and Interchange
 - [20.5](#)..... Contour Maps
 - [20.6](#)..... Cross Section Match Line
 - [20.7](#)..... Erosion Control and Drainage
 - [20.8](#)..... Storm Sewer and Utilities
 - [20.9](#)..... Planting
 - [20.10](#)..... Permanent Signing
 - [20.11](#)..... Lighting
 - [20.12](#)..... Traffic Signals
 - [20.13](#)..... Pavement Marking
 - [20.14](#)..... Traffic Control/Stage Construction
 - [20.15](#)..... Fencing
 - [20.16](#)..... Alignment
 - [20.17](#)..... Other Details
- [15-1-25](#) Estimate of Quantities Sheet
- [15-1-30](#) Miscellaneous Quantities Sheet
- [15-1-35](#) Plan and Profile Sheet
 - [35.1](#)..... Scales
 - [35.2](#)..... Plan Requirements
 - [35.3](#)..... Profile Requirements
- [15-1-40](#) Earthwork Data Sheet
- [15-1-45](#) Cross Section Sheets
 - [45.1](#)..... Scale
 - [45.2](#)..... Earthwork Block
 - [45.3](#)..... Cross Section
 - [45.4](#)..... Begin and End Notations
 - [45.5](#)..... Culvert Pipe and Cattle Pass Notation
- [Section 15-5 Methods](#)**
 - [15-5-1](#) General
 - [1.1](#)..... Surveying and Mapping Section
 - [1.2](#)..... Plan Development
 - [1.3](#)..... Electronic Plans (E-Plans)
 - [15-5-2](#) CADDS Preparation Standards
 - [2.1](#)..... Design Files

- 2.2..... Graphical Parameters
- 15-5-3..... CADDs Directory and File Name Convention
 - 3.1..... Project Directory Conventions
 - 3.2..... File Naming Conventions
 - 3.3..... Object Naming Conventions
 - [Attachment 3.1](#)..... CADDs AutoCAD Civil 3D Project Folder Structure Standard
 - [Attachment 3.2](#)..... CADDs AutoCAD Civil 3D File and Object Naming Abbreviation Standard
 - [Attachment 3.3](#)..... CADDs AutoCAD Civil 3D File and Layout Naming Standard
 - [Attachment 3.4](#)..... CADDs AutoCAD Civil 3D Object Naming Conventions
 - [Attachment 3.5](#)..... CADDs File Cabinet Organization Prefixes
 - [Attachment 3.6](#)..... CADDs MicroStation Project Directory/Project File Name Conventions
 - [Attachment 3.7](#)..... CADDs AutoCAD Civil 3D File and Layout Naming Standard
 - [Attachment 3.8](#)..... Required PlatExp Folder Content
- 15-5-4..... CADDs Cell Files, Block Files, Line Styles and Linetypes
 - 4.1..... Line Styles and Linetypes
- 15-5-5..... Plan Sheet Vehicles
 - 5.1..... Size
 - 5.2..... Electronic Documents
 - 5.3..... Structure Plans and Details
 - [Attachment 5.1](#)..... Title Sheet Plan Vehicles – Construction/Traffic/Maintenance Operations
 - [Attachment 5.2](#)..... Plan Sheet Vehicle for Typical Section Sheet and Detail Sheet
 - [Attachment 5.3](#)..... Storm Sewer Plan Sheet Vehicle
 - [Attachment 5.4](#)..... Miscellaneous Quantities Sheet Vehicle
 - [Attachment 5.5](#)..... Plan Sheet Vehicle Without Profile
 - [Attachment 5.6](#)..... Plan Sheet Vehicle for Plan and Profile Sheet - Single Roadway
 - [Attachment 5.7](#)..... Plan and Profile Sheet Vehicle - Dual Profile
 - [Attachment 5.8](#)..... Cross Section Sheet
 - [Attachment 5.9](#)..... Right-of-Way Title Sheet Vehicle
 - [Attachment 5.10](#)..... Right-of-Way Schedule Sheet Vehicle
 - [Attachment 5.11](#)..... Right-of-Way Layout Sheet Vehicle
 - [Attachment 5.12](#)..... Right-of-Way Detail Sheet Vehicle
 - [Attachment 5.13](#)..... Special Sign Sheet Vehicle
 - [Attachment 5.14](#)..... Earthwork Sheet Vehicle
 - [Attachment 5.15](#)..... Transportation Project Plat Sheet Vehicle
 - [Attachment 5.16](#)..... Transportation Project Plat Title Sheet
- 15-5-7..... Design Models
 - 7.1..... General Requirements
 - 7.2..... Surface Models
 - [Attachment 7.1](#)..... Surface Model Types
- 15-5-10..... Electronic Plans
- 15-5-15..... Standard Detail Drawing Spreadsheet
- 15-5-25..... Standard Abbreviations
 - 25.1..... General
 - [Attachment 25.1](#)..... List of Standard Abbreviations
- 15-5-30..... Conventional Signs and Symbols
 - 30.1..... General
 - [Attachment 30.1](#)..... Topographic Symbols
 - [Attachment 30.2](#)..... Underground Utility Symbols
 - [Attachment 30.3](#)..... Right-of-Way Symbols
 - [Attachment 30.4](#)..... Construction Symbols
 - [Attachment 30.5](#)..... Freeway Traffic Management System Symbols
 - [Attachment 30.6](#)..... Traffic Control Symbols
 - [Attachment 30.7](#)..... Signing, Pavement Marking and Lighting Symbols
 - [Attachment 30.8](#)..... Planting Symbols
 - [Attachment 30.9](#)..... Erosion Control Symbols
 - [Attachment 30.10](#)..... Work Zone Traffic Control Symbols

Section 15-10 Review

[15-10-1](#)Plan-in-Hand Field Inspections

[15-10-5](#)Pedestrian Considerations