

Facilities Development Process

Phase Names		Project Initiation	Project Definition		Project Delivery			Project Proposal Execution			
Phase Elements											
Life Cycle (Construction ID)		00	10		11	12	15	20		40	
Milestone			Project Initiation Complete	Prelim. Scope Complete	Final Scope Certification Approved	Resourcing Complete / Start Final Delivery	Design Study Report Approved	P&S&E Submitted	Project LET	Project Award	
Deliverables (Deliverables listed may have been started in a previous phase but must be completed prior to advancing to the next phase)	Project Management Plan	Scope	- Conceptual Scope	- Prelim. Scope	- Final Scope	- Implement Scope					
		Schedule	- Conceptual Milestone Schedule - APLP Target Goals & Schedule - Program Let Schedule	- Final Milestone Schedule - Final Work Breakdown - Final APLP Schedule - Final Let Schedule Date - Non-let Schedule Dates			- Monitor and Manage Schedules				
		Budget	- Conceptual Const.Estimate	- Design Delivery Budget - Const. Estimate - Non-Let Estimate			- Refine Const. Estimate - Refine Non-Let Estimate				
	Phase Deliverables	- Design ID(s) loaded - Construction ID(s) loaded - Design ID(s) Authorized - Improvement Type - Structures Identified - Signed SMFA (design connect.hwy.)	- Purpose and Need - Resource Assignments - Improvement Strategy	- Signed Pavement Design Report - Risk Based Environmental Scoping Template - Utility Impacts - R/W Impacts - Structure Certification - Railroad Impacts - Signed SMFA & SMMA (const.)	- Final Delivery Resourcing	- Prelim. Plan - Structure Survey Report - Prelim. Structure Plan - Signed Env. Document - Signed DSR - Railroad Proj. Submittal Package - Recordable Plat - Risk Assessment	- DT1078 Plans - P&S&E package - Permits - Risk Assessment	- Plan Revisions - Bid Advertisement - Addenda (if required)	- Bid Review	- Design ID Closed - Design Files Archived	
Phase Activities		see FDM Chapter 3 - Attachment 1.2									
Change Management		Establishes original baseline for applying Change Management process.				Change Management process in effect.					

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Milestone			Project Initiation Complete	Prelim. Scope Complete	Final Scope Certification Approved	Resourcing Complete/ Start Final Delivery	Design Study Report Approved	PS&E Submitted	Project LET	Project Award	
Program Year		7-8	6		4		2		0		
Performance Measures	Scope	Program Loaded on-Time (PLOT)	Program Scoped On-Time at Scoping (PSOT)			Scope Adherence					
	Schedule		Program Life Cycle Report			Design On Time					
			Delivery Risk Report (DRR)			Achieving PS&E Milestones Measures					
	Budget				Design On-Budget Live (DOBL)			Engineering Estimate Accuracy		Engineering Delivery Cost Index (EDCI)	
Quality					Quantities						
					Design Quality Index (DQI)						

Facilities Development Process Phase Activities

Project Initiation Phase

This is a list of activities that may occur during this phase. This list is not all inclusive. Some activities are listed under multiple phases. Improvement type will determine when activities take place and the level of effort required. Refer to appropriate FDM chapters and other manuals for specific guidance on activities.

Project Initiation Phase Activity	Reference
Improvement Type	FDM 11-1 Att. 10.1 - Improvement Strategies, Improvement Concepts, and Design Criteria Applications PMM 05-10-05 - Project Description
Concept definition	FDM 11-4-1 - Concept Definition Report
Project needs/limits	PMM 3-5-5 - Program Development *
Cost per mile estimate	PMM 3-5-5 - Program Development *
State Municipal Agreements (Financial and Maintenance)	PMM 3-25-20 - State Municipal Agreements *
FIIPS projects (design and construction)	PMM Chapter 5 - Financial Integrated Improvement Programming System (FIIPS) *
FIIPS life cycle	PMM Chapter 5 - Financial Integrated Improvement Programming System (FIIPS) *
Design ID authorization	PMM Chapter 5 - Financial Integrated Improvement Programming System (FIIPS) *

**Only WisDOT employees have access to this.*

Project Definition Phase

This is a list of activities that may occur during this phase. This list is not all inclusive. Some activities are listed under multiple phases. Improvement strategy will determine when activities take place and the level of effort required. Refer to appropriate FDM chapters and other manuals for specific guidance on activities.

Project Definition Phase Activity	Reference
Let schedule date	FDM 3-10-10 - Scheduling and Programming FDM 19-1-3 - Project Letting Process (PLP)
Purpose and need	FDM Chapter 20 - Environmental Documents, Reports and Permits
Consultant resources Prepare consultant solicitation Review NOIs Make selection Negotiate Contract	FDM 8-5 - Securing Consultant Services Utility Coordination Guide Chapter 18 - Consultant Design Contracts
In-house staff assignments	Refer to region practices
Bridge design coordination with BOS	Design and Construction Contacts - Bureau of Structures (BOS) Bureau of Structures internal website * Bridge or Structure Certification Document (BOSCD) – Bridge Manual
Project management strategies for complex project	FDM Chapter 2 - Project Management
Alternatives development	FDM 3-25-1 - Environmental Scoping, Evaluation and Documentation Overview
Value Engineering (VE) level 1 - scope study as required	FDM 3-15-15 - Value Engineering PMM 3-1-5 - (Majors) Value Engineering Process *
Public Involvement Plan	FDM 6-5-10 - Public Involvement Plan
Stakeholders list	FDM 6-5-10 - Public Involvement Plan TPMS Guidance - Transportation Project Management System guidance *
Municipality and other agencies outreach	FDM 6-5-15 - Public Involvement Techniques
State Municipal Agreements (SMFA and SMMA) for construction cost share	PMM 3-25-20 - State Municipal Agreements *

Project Definition Phase Activity	Reference
Environmental impacts Archaeological/historical resources Section 106 screening Potential park lands (4f and 6f) Natural resources Threatened and endangered species Upland habitat Wetland delineations Water bodies, streams, floodplains Hazardous materials Property impacts Agricultural Residential Commercial Noise receptors Risk Based Environmental Scoping Template Environmental document	FDM 20-5 - Federal and State Environmental Laws and Regulations and Agreements FDM Chapter 20 - Environmental Documents, Reports and Permits FDM Chapter 21 – Hazardous Materials Investigation FDM Chapter 22 - Air Quality FDM Chapter 23 - Noise FDM Chapter 24 - Land and Water Resources Impacts FDM Chapter 25 - Socio-Economic Factors FDM Chapter 26 - Cultural Resource Preservation WisDOT Environment Tools and Forms website
Agency coordination DNR initial concurrence Native American letters	FDM Chapter 6 - Public Involvement
Local Officials Meeting (LOM) or other local officials outreach	FDM 6-5-15 - Public Involvement Techniques
Public Involvement Meeting (PIM) or other public outreach	FDM Chapter 6 - Public Involvement
Mapping and initial survey (including stream crossing survey)	Follow region procedures for requesting field survey. FDM 9-5-15 - Requests for Photogrammetric Products and Services
Drainage features: County drainage boards Ditches Storm sewer Curb and gutter Culvert sizing Underdrains	FDM 5-15-1 - Local Drainage Boards FDM Chapter 13 - Drainage FDM Chapter 10 - Erosion Control and Storm Water Quality

Project Definition Phase Activity	Reference
Initial data gathering and existing conditions: Asbuilts and field conditions Lane/shoulder widths Pavement slopes Side slopes/roadside conditions Pavement thickness Right of way Access controls Intersections Permits Driveway Crosswalk Lighting Freight accommodations	FDM 11-45-20 - Roadside Hazard Analysis FDM Chapter 7 - Access Control FDM 11-5-5 - General Design Consideration - Access Control
Access	FDM Chapter 7 - Access Control FDM 11-5-5 - Access Control FDM 11-20-10 - Driveways FDM 11-25 - Intersections at Grade
Vertical and horizontal geometrics	FDM 11-10 - Design Controls
Intersections/Interchanges	FDM 11-25 - Intersections at Grade FDM 11-26 - Roundabouts FDM 11-30 - Interchanges
Alternative Selection Intersection Control Evaluation	FDM 11-25-3 - Intersection Control Evaluation
Earthwork and slope intercepts	FDM 11-5-10 - Earthwork FDM 11-15 - Cross-section Elements for Rural Highways and Freeways FDM 11-20 - Cross-section Elements for Urban Highways
Design Justifications (formerly Exceptions to Standards)	FDM 11-1-20 - Design Justifications (formerly Exceptions to Standards)
Alternative contracting methods	FDM 11-2 - Alternative Contracting
Community sensitive design	FDM 11-3-1 - Community Sensitive Design
Traffic counts/forecasts Traffic analysis and modeling	FDM 11-5-2 - Travel Demand Forecasts Transportation Planning Manual (TPM) TEOpS 16-25 - Traffic Model Peer Review Policy
Roadside design	FDM 11-45 - Other Elements Affecting Geometric Design
Bike/pedestrian accommodations Bike Plans	FDM 11-46 – Bicycle and Pedestrian Accommodations

Project Definition Phase Activity	Reference
Traffic management methods (TMP) Detour technical memo Use of alternative contracting tools	FDM 11-50 - Traffic Control FDM 11-2 - Alternative Contracting
Scoping Intersection Control Evaluation (ICE)	FDM 11-25-3 - Intersection Control Evaluation
Safety analysis	FDM 11-38 - Safety Certification Process
Operations analysis	FDM 11-52-15 – Operations Certification Process
Barrier system evaluation	FDM 11-45 - Other Elements Affecting Geometric Design Refer to region practices
Traffic control Traffic control constrains Traffic management methods Traffic management plan (TMP)	FDM 11-50 - Traffic Control FDM 11-50-5 - Transportation Management Plan Process
Utility activities DT1077 process Field survey comparison Preliminary impact utility coordination/review meeting	FDM Chapter 18 - Utility Coordination UC Guide - Utility Coordination Guide
Roadside facility coordination Rest area(s) Safety and weight enforcement facilities (SWEF)	FDM 11-55-40 – Roadside Facilities Coordination PMM 3-15-01 – State Highway Rehabilitation, Backbone Rehabilitation Program – Overview *
Railroad activities	FDM Chapter 17 - Railroad Coordination
Beam guard inspections	FDM 11-45-30.5 – Existing Barrier System Evaluation FDM 11-45-10 – Roadside Design Applications Improvement Strategy Refer to region practices
Title searches	FDM Chapter 12 - Right of Way Plat Development
Field review	Refer to region practices
Operational issues	Refer to region practices
Soils conditions	Refer to region practices
Pavement recommendations	FDM Chapter 14 - Pavements
Storm sewer and culvert surveys	Refer to region practices
FIIPS life cycle	PMM Chapter 5 - Financial Integrated Improvement Programming System (FIIPS) *
Control and Detail schedules	PMP Manual Chapter 6 * PMM 6-1-10 - Managing Non-Let (RE, RR, UTL) * UC Guide Chapter 2 - Scheduling of Utility Projects FDM Chapter 12 - Right of Way Plat Development
Risk assessment	Transportation Project Management System (TPMS) guidance *
Final Scope Certification	FDM 11-4-3 – Final Scope Certification

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Project Delivery Phase

This is a list of activities that may occur during this phase. This list is not all inclusive. Some activities are listed under multiple phases. Improvement type will determine when activities take place and the level of effort required. Refer to appropriate FDM chapters and other manuals for specific guidance on activities.

Project Delivery Phase Activity	Reference
Value Engineering (VE) Level 2 – alternative analysis	FDM 3-15-15 - Value Engineering PMM Chapter 3 (For Majors) *
Federal grant and development review process	FDM 5-1-5 - Federal Grants and Development Process
Drainage features County drainage boards Ditches Storm sewer Curb and gutter Culvert sizing Underdrains	 FDM 5-15-1 - County Drainage Boards FDM Chapter 10 - Erosion Control and Storm Water Quality FDM Chapter 13 - Drainage
Public involvement Local Officials Meeting (LOM) or other local officials outreach Public Involvement Meeting (PIM) or other public outreach	FDM Chapter 6 - Public Involvement
Public hearing	FDM Chapter 6 - Public Involvement FDM Chapter 20 - Environmental Documents, Reports and Permits
Public Involvement Plan	FDM 6-5-10 - Public Involvement Plan
Access	FDM Chapter 7 – Access Control FDM 11-5-5 – Access Control FDM 11-20-10 – Driveways FDM 11-25 – Intersections at Grade
Design Justifications (Exceptions to Standards)	FDM 11-1-20 – Design Justifications (Exceptions to Standards)
Draft preliminary plan Per FDM including: Design notes identifying proposed work (culverts, beam guard, spot improvements) Horizontal/vertical alignment OSOW turning maneuvers (temp/permanent)	 FDM Chapter 15 - Plan Preparation FDM 15-1 Attachment 4.1 - Preliminary Plan Worksheet Refer to region practices
Sensitive areas	 FDM 11-4-10 - Design Study Report UC Guide - Chapter 7 - Design Study Report

Project Delivery Phase Activity	Reference
Earthwork and slope intercepts	FDM 11-5-10 - Earthwork FDM 11-15 - Cross-section Elements for Modernization Projects on Rural Highways and Freeways FDM 11-20 - Cross-section Elements for Modernization Projects on Urban Highways
Vertical and horizontal geometrics	FDM 11-10 - Design Controls
Intersections/Interchanges	FDM 11-25 - Intersections at Grade FDM 11-26 - Roundabouts FDM 11-30 – Interchanges TSDM – Traffic Signal Design Manual
Roadside design / Roadside Hazard Analysis	FDM 11-45 - Other Elements Affecting Geometric Design FDM 11-45-20 – Roadside Hazard Analysis
Bike/pedestrian accommodations	FDM 11-46 – Bicycle and Pedestrian Accommodations
Traffic management methods (TMP)	FDM 11-50 - Traffic Control
Use of alternative contracting tools	FDM 11-2 - Alternative Contracting
Preliminary plat	FDM Chapter 12 - Right-of-Way Plat Development
Environmental activities Agricultural Impact Statement Agencies coordination DNR Final concurrence 401 permit COE 404 permit Air quality Environmental documentation	FDM 20-45-35 - Agricultural Impact Statement FDM Chapter 20 - Environmental Documents, Reports and Permits FDM Chapter 22 - Air Quality
Structures activities Structure Survey Report Preliminary structure plan	Bridge Manual Bridge Manual Chapter 6 (see 6.2.1 Structure Survey Report) Bridge Manual Chapter 6 - Plan Preparation
Control and Detail schedules	PMP Manual Chapter 6 * PMM 6-1-10 - Managing Non-Let (RE, RR, UTL) * UC Guide Chapter 2 - Scheduling of Utility Projects FDM Chapter 12 - Right of Way Plat Development
Traffic analysis and modeling	TEOpS 16-25 - Traffic analysis and modeling
System alterations Jurisdiction Transfers State Trunk Highway System Change	FDM 4-5 - System Alterations
Erosion Control and Storm Water Quality	FDM Chapter 10 - Erosion Control and Storm Water Quality
Real Estate activities Plat recorded Relocation orders Acquisition	FDM Chapter 12 - Right of Way Plat Development Real Estate Program Manual

Project Delivery Phase Activity	Reference
Final plans (plans production) Electronic plan preparation Contractor Data Package	FDM 15-5-10 - Electronic Plans FDM Chapter 15 - Plan Preparation FDM 19-10-43.2 – Contractor Data Packet Submittal
Railroad activities	FDM Chapter 17 - Railroad Coordination
Utility activities Preliminary right of way plat review Potential utility conflicts Utility projects DT1078 process Utility work plan review Utility special provisions Work plan approval/Start Work Notice process Permitting process PS&E review	FDM Chapter 18 - Utility Coordination UC Guide - Chapter 9 - Identifying Utility Conflicts UC Guide - Chapter 10 - Sending Plans to Utilities
PS&E exceptions	FDM Chapter 19 - Plans, Specifications and Estimates
Proprietary Product Justification/Public Interest Findings	FDM 19-1-5 - Proprietary Products
Quantities	FDM 19-5-3.3 - Quantities
AASHTO-ware estimate	FDM 19-5-10 - Create Estimate and Proposal
Pre-PS&E and PS&E electronic submittals	FDM 19-10-1.2 - Submitting Roadway Plans with eSubmit
Bureau review of pre-PS&E submittal	FDM 19-10-5 - Final Review
Right of Way Certification (DT1899)	FDM 19-10-35 - Right of Way Certification (DT1899)
Utility Status Report (DT1080)	FDM 19-10-40 - Utility Status Report (DT1080) UC Guide - Chapter 15 - Utility Status Report
Certificate of RR Coordination (DT1804)	FDM 19-10-42 - Certificate of Railroad Coordination with Highway Construction (DT1804)
Special provisions	FDM 19-15 - Special Provisions UC Guide - Chapter 14 - Utility Article of Special Provisions
Noise report	FDM Chapter 23 - Noise
Lighting system design	TEOpS 11-02 - Lighting System Design Review
Traffic Operation permits	Refer to region practices
State Municipal Agreements (SMFA and SMMA) for construction costs	PMM 3-25-20 - State Municipal Agreements *
FIIPS life cycle	PMM Chapter 5 - Financial Integrated Improvement Programming System (FIIPS) *
Schedules and estimates	PMP Manual Chapter 6 - Schedule Module *
Risk assessment	Transportation Project Management System (TPMS) guidance *

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Project Proposal Execution Phase

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Project Proposal Execution Phase Activity	Reference
Utility activities Utility project costs/schedules Plans to utilities Pre-bid meeting	FDM Chapter 18 - Utility Coordination UC Guide - Utility Coordination Guide
PS&E exceptions	FDM 19-1 - PS&E Exception Approval Schedule (Table 1.1) FDM 19-10 - PS&E Transmittal and Composition
Contractor Data Package	FDM 19-10-43.2 – Contractor Data Packet Submittal
Advertise	FDM 19-1-1 - Plans, Specifications and Estimates
Bid letting	FDM 19-1-3 - Project Letting Process (PLP)
Respond to bid inquiries	FDM 19-22-5 - Post Advertisement Q and A Process
Addenda	FDM 19-22 - Post Advertisement Activities
Plan check	FDM 19-40 - Review
Contract award and execution	Standard Spec 103 - Contract Award and Execution
Close design contracts and projects	PMM Chapter 6 - (see PMM 6-10-55) General Information - Special Considerations-Closing Improvement Contracts and Projects *

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C = Concurrence A = Approval R = Review	Region Director	PDS Chief	PDS Supervisor	Consultant Supervisor	PDS Project Manager	Other	Comments	Reference
Final Scope Certification		C				A C	Planning/Programming Chief approve; all other chiefs Concur; concurrence can be delegated	FDM 11-4-3
Safety and Operations Certification Document						X	Planning/Traffic Supervisor	FDM 11-38
Risk-Based Environmental Scoping Template					X	X	PM or Planning/Programming	Env Doc Forms and Tools
Native American Lands of Interest scope determination						X	Tribal Liaison	Working with Tribal Communities
F4R						X	Planning Chief or delegate	FDM 3-22
Public Involvement Plan					X	X	Regional Communication Manager	FDM 6-5-10
Project Agreement/MOU/MOA with local municipalities					X		After consultation with supervisor/chief	
State Municipal (Financial/Maintenance) Agreement						X	SPO Chief	
Environmental Document type: Categorical Exclusions (PCE/CEC)					X	X	Region Environmental Coordinator	FDM 20-35-1
Environmental Document type: Environmental Report (ER)			X			X	Region Environmental Coordinator	FDM 20-35-1
Environmental Document type: All others (EIS, EA, FONSI)		X				X	Region Environmental Coordinator	FDM 20-35-1
Pavement Design Report (PDR)			X			X	PDS and TSS designees	FDM 14-15-25
Encroachment Report			X				(delegated from chief)	FDM 12-1-20
Design Study Report (DSR)		X						FDM 11-4-10

	Region Director	PDS Chief	PDS Supervisor	Consultant Supervisor	PDS Project Manager	Other	Comments	Reference
C = Concurrence A = Approval R = Review								
Propriety Product Justification (PPJ)		X						FDM 19-1-5
Traffic Management Plan (TMP)/ Incident Management Plan (IMP)		X			X	X	Region Traffic	FDM 11-50-5
WPDES Permit					X		Or delegated agent	FDM 10-1-2
ROW Cert w/o new Right of Way ROW Cert with new Right of Way			X		X	X	TSS-RE representative	FDM 19-10-35
Cert of Railroad Coordination						X	TSS-Railroad Coordinator	FDM 19-10-42
Utilities Status Report						X	TSS-Utility representative	FDM 18-10-40
PS&E Exceptions (in pseTrak)		C			X	C X	PDS/TSS chief concur; PM/Functional Lead entry	FDM 19-1-1
Plan title sheet					X		As designated by region	FDM 15-1-10
Right of Way title sheet						X	RE/Plat Supervisor or TSS Chief	FDM 12-10
Local Force Account (LFA) LFA under \$5000	X					X	Maintenance Supervisor	FDM 19-25
Consultant contracts under \$3000				X				FDM 8-20-1
Consultant contracts over \$3000				R				FDM 8-20-1
Consultant contract amendment /work order master under \$50,000				X				FDM 8-20-1
Consultant contract amendment/ Work order master over \$50,000				R				FDM 8-20-1