

Wisconsin Department of Transportation Guidance Matrix for Project Organization, Tools, Management, and Reporting

This matrix lists key management resources and strategies that are critical to the success of any project while highlighting how those items differ between standard or typical improvement projects, higher profile projects and Mega projects. This matrix is intended to guide the Department's decision-making process as it considers the best approach to manage a growing number of significant and high profile projects.

For the Best Practices and definitions of the Key Program Processes refer to the following: [WisDOT/FHWA Mega Process, Best Practices \(Mega Project Guidelines, Public Involvement, Best Practices Matrix\)](#)

Key Program Processes						Definition	Project Types*		
	Design	Construction	Financial	Doc Controls	Change Mgmt		Standard	High Profile (typically \$100-\$500M)	Mega (> \$500M)
Balancing Contract Modifications		x				Used to account for the overrun/underrun of quantities during a multi-year project. Allows for financial adjustments midway through a contract on quantities that are expected to either overrun or underrun by the completion of the project.	No	Possible	Possible
Benchmark Performance Indicators		x	x			Comparison to linear project percent complete based on both time and cost. Allows project managers to approximate whether the project is ahead or behind schedule.	Possible	Yes	Yes
Change Management	x	x			x	Define and adopt strategies, structures, procedures and technologies to deal with changes and determine how they impact the project's scope, schedule and cost. See Change Management	Standard	Intermediate	Required
Construction Planning and Submittal Workshops		x				Preconstruction workshops (after contract award) between the prime contractor, major subcontractors, and department staff to discuss critical aspects and areas of the project.	No	Possible	Yes
Contracted Project Expertise	x	x	x	x		Mega Projects may need to supplement the department's (owner's) expertise by hiring additional outside guidance. Typical hourly rates and travel expenses may be elevated beyond typical consultant contracts.	No	Possible	Likely
Cost Estimate Workshop	x					The development of a build out budget cost in year of expenditure values for a project or program. Includes risk & uncertainty identification. Conducted during NEPA phase and just prior to construction during final design.	No	Yes	Required
Design Liaison Contract	x	x				Contract with the design consultant to answer plan questions during construction and to provide design through construction continuity.	No	Possible	Yes
Disadvantaged Business & Worker Programs	x	x				Mentoring programs to assist DBE firms through the certification and bidding process as well as educational opportunities for minority and female workers for entry-level work required for construction projects.	Standard	Intermediate	High
Dispute Review Board		x				Established after execution of the contract to render decisions on unresolved claims quickly and impartially during construction of the project. Typically 3 persons: 1 WisDOT, 1 Contractor, 1 more appointed by first 2.	No	Possible	Yes
Dispute Resolution Process	x	x			x	A process used to resolve claims that cannot be resolved through the Real-Time Claims Management Process in a manner that complies with the contract, is impartial, and still expedites the standard claims process.	Standard FDM and Specification process	Possible	Yes
Document Controls	x	x	x	x		A framework or system to provide collection, storage, and distribution of information for timely and effective decision-making.	Standard	Intermediate	High
Documenting Decisions	x	x		x		Database to record and track decisions made on a project in order to provide for consistency in decision making throughout the project.	No	Possible	Required
Earned Value Analysis (EVA)		x				Project control technique for measuring progress and performance. Schedule Performance Index (SPI) and Cost Performance Index (CPI) are tracked to assess project performance.	N/A or at 25%, 50%, 75% 90% completion milestones	Monthly	Monthly
Escrow Bid Documents	x					Require the lowest responsible bidder to submit the documents they used to determine the costs shown in their bid into escrow. These remain sealed unless the bidder and the department mutually agree to release the documents to aide in dispute and claim resolution.	No	Possible	Yes
Federal Financial Plan			x			A comprehensive document that reflects the project's cost estimate and revenue structure and provides a reasonable assurance that there will be sufficient financial resources available to implement and complete the project as planned. Required to be updated annually.	No	Simplified Plan	Required - Detailed Plan Approved by FHWA
Issues, Risk & Complexity	x	x				Issues, risks and/or complex projects may require additional resources to mitigate future potential consequences/impacts.	Low	Medium	High
IT Innovation	x	x				Innovative IT proposals are sometimes considered on a project. Often policy, procedure, specifications, administrative rule, and statutory consideration are involved. Decision making can involve areas outside the Department. IT innovations shall be vetted through the Division IT executive committee (ITEC).	Standard	Standard	Standard
Owner Controlled Insurance Program (OCIP)	x	x				An insurance policy held by WisDOT during construction, which is typically designed to cover virtually all liability and loss arising from the construction project unless specifically excluded. Includes safety management and oversight.	Contact Risk Manager	Contact Risk Manager	Contact Risk Manager
Partnering	x	x				Open communications between the Department and contractors leadership at regularly scheduled meetings where issues are discussed and resolutions reached.	No	Possible	Yes
Pay Plan Quantity	x					Designate items of work in the contract as Pay Plan Quantity (PPQ) that are not measured in the field for payment, but rather paid as identified in the contract. Recommended to be used on quantities that can be estimated accurately, are not expected to vary and are measured linearly or by area.	Possible	Possible	Yes
Peer Review Committee	x	x			x	The evaluation of work by others to ensure that technical processes being applied or developed meet the agency's needs, meet the standards of professional practice, and/or meet federal, state or local planning requirements. Potential for a decision making board to aide in policy and change management decisions as well as schedule changes across state fiscal years.	Standard	Elevated	High
Program Controls	x	x	x			Documentation, tracking and reporting related to the overall program's schedule, quality, scope, material, and cost issues. Program Controls are generally in-house or a part of prime consultant's contract. Plan reviews should be completed by an independent entity. See Budget Estimation and Management	Standard	Intermediate	High
Project Design Manual	x			x		The plan developed defining design roles, responsibilities, relationships and decision making processes required to complete the project/program.	No	Possible	Yes
Program Management	x	x	x	x	x	Person or persons responsible for monitoring and oversight of project controls, document controls, financial controls, schedule controls and contract management. See Management System	Region	Region + possible extra	Extra dedicated staff
Program/Project Management Plan	x	x	x			A project management plan documents (1) the procedures and processes that are in effect to provide timely information to the project decision makers to effectively manage the scope, costs, schedules, and quality of, and the Federal requirements applicable to, the project; and (2) the role of the agency leadership and management team in the delivery of the project. See examples Zoo PMP and 441 PMP . See Mega Project Management Expectations Source: FHWA Innovative Delivery site http://www.fhwa.dot.gov/ipd/project_delivery/tools_programs/project_management_plans/guidance.aspx	No	Possible	Required
Project Controls	x	x	x	x		Documentation, tracking and reporting related to specific project's schedule, quality, scope, material, and cost issues. Project Controls are generally in-house or a part of a prime consultant's contract. Plan reviews should be completed by an independent entity.	Standard	Intermediate	High
Project Field Office	x	x				A project office need is dictated by the project's size, number of staff involved daily, potential for OCIP, and conference/meeting room space.	Standard Field Office	May have elevated need	WisDOT facility with IT and office furnishings
Projecting Cost to Complete		x	x			Revised project cost to complete estimates taking into account budgeted cost of work performed, budgeted cost of work scheduled, over/underrun quantities, design fees, public outreach, approved contract modifications, and anticipated contract modifications.	Quarterly	Monthly	Monthly
Project Innovation	x	x				Innovative design, construction, and other function proposals are sometimes considered on a project. Often policy, procedure, specifications, administrative rule, and statutory consideration are involved. Consideration and decision making can involve areas outside the Department and follow a process and procedure.	Standard	Standard	Standard
Public Outreach	x	x				The use of multiple and varied strategies to communicate project information to stakeholders, including businesses, general public, and local officials, to obtain feedback and to provide information.	Standard	Elevated	High
Quality Assurance	x	x		x		Steps taken to validate quality control, documentation and verification of materials and placement methods.	Region	Region + possible extra	Extra dedicated staff
Reports	x	x	x			1. TPC (All Projects Financed within the Majors Program) 2. Executive Summary 3. Detailed Monthly Report with Appendices	1. February & August 2. No 3. No	1. February & August 2. Monthly 3. Possible	1. February & August 2. Monthly 3. Monthly
Risk Workshop		x				Working meeting involving project team and wide array of functional experts (i.e. structures, geotech, construction, design, traffic control, etc.) to identify project risks and develop well-written description of risks. A risk is an uncertain event or condition that if it occurs has negative or positive effect on a project's objectives. Risk workshops shall be held approximately 2 months before each respective Cost Estimate Review (CER). Source: FHWA Cost Estimate Review guidance document	No	No	Suggested - not required
Reserve Budgets	x	x	x		x	Project reserve (contingency) budget to cover costs for unanticipated project costs, changed field conditions, design modifications, and required scope changes.	Standard	Yes	Yes
Road Safety Audits (RSA)	x					FHWA guidance at http://safety.fhwa.dot.gov/rsa/ . Some projects have included with VE study. See examples Zoo RSA and 441 RSA	No	Possibly	Possibly
Scheduling	x	x	x	x		A planning framework for tracking program delivery. Mega projects should require contractor to utilize Critical Path scheduling (CPM) software and submit a schedule that reflects the plan for their performance of the work within the contract completion deadlines, production rates, and the critical path of activities.	PMP	PMP or Critical Path Software (Primavera P6)	Critical Path Software (Primavera P6)
Staffing	x	x	x	x		Project or program resource load increases beyond Region staff capacity and additional dedicated staff are needed. See Example Chart and WisDOT example SWR ORG Chart . See Staffing Roles and Responsibilities , Mega Organizational Chart Template , Mega Project Roles and Responsibilities Guidelines	Region and Bureaus	Possible extra	Extra dedicated staff
Track Overrun/Underrun Quantities		x	x	x		Track and record overrun/underrun quantities for use in cost-to-complete estimating. Identifies areas of concern to discuss with contractor.	Possible	Yes	Yes
Traffic Mitigation Plan		x				A plan developed with input from business stakeholders, agencies, institutions and first responders to maximize the safe and efficient movement of traffic through construction zones. Developed as part of TMP.	Standard	Elevated	Required
Value Engineering		x				Value Engineering (VE) is a systematic process for creatively enhancing the value of a project. The Federal Highway Administration (FHWA) requires VE on all highway projects over \$50 million and all bridge projects over \$40 million, with additional study requirements for major highway and bridge projects. VE is the application of a step-by-step, systematic job plan based on specific industry-wide standards that are defined by the Society of American Value Engineers (SAVE). WisDOT's Value Engineering Program is documented in its Facilities Development Manual. http://roadwaystandards.dot.wi.gov/standards/fdm/01-15.pdf Source: Transportation Finance & Policy Commission - "Value Engineering - A Primer" http://www.dot.wisconsin.gov/about/tpf/docs/mtg7-value.pdf	Possible	Yes	Yes
Website	x	x				A project's web presence is dictated by its size. Smaller projects are profiled on the WisDOT website; mega projects typically have significant websites. Projects with websites utilize the 511 web system as a platform.	DOT Plans & Projects	511	511

*** Project Types:**

Standard: Routine improvement projects that follow normal staffing and management procedures. Individual project characteristic(s) may be unique and at times justify additional resources, management tools and reporting.

High Profile: Projects that are high cost, unusually complex or have a high level of public or congressional interest. Individual project characteristics may justify additional specialized staff and management positions, as well as additional processes and reporting tools to be used. Examples of these types of projects could be significant urban freeway rehabilitation or high cost bridges.

Mega: Projects that meet the federal major project definition. These are typically a small number of the state's highest profile and highest risk projects. A Mega project requires a larger investment of Department staff time, resources and reporting tools to ensure effective management and control of the project.