

Change Management for Mega Projects

May 17, 2012

All Department Mega project budgets shall be managed within the project estimate developed within the section: [Budget Estimation and Management for Mega Projects](#). This process includes development of and adherence to a project contingency.

Department Divisions DTSD and DTIM have a variety of ways to manage change in its improvement projects and programs. These methods vary from project level, business area, region level, division and cross division.

For management purposes the Department has chosen to manage all mega projects as if they were in the Major Projects Program. As such, Project Teams and Regions with Mega Projects will participate in the Major Projects Peer Review Team processes. The DTSD Administrator may assign additional High Profile projects to the committee as well.

Projects that are defined by FHWA as federal major projects or "Mega Projects" can be funded in managed in different programs. Examples include:

- Southeastern Wisconsin Freeway Mega projects such as the Marquette Interchange, I-94 North – South corridor, and the Zoo Interchange.
- Major Program Mega projects such as USH 41 and I-39/90
- High Cost Bridge Program Mega projects. Examples could include multi-state bridge river crossings.

The I-94 N-S project, Zoo Interchange project, I-794 / Hoan Bridge Project, and St. Croix Crossing project all have budgets established outside of the Major Highway Appropriation. As long as these projects are kept within total project estimates, the Major Projects Peer Review Committee will be utilized as a knowledge sharing forum vs. a decision making forum.

Change Management for Mega, Major, and High Profile projects shall utilize the change management process outlined in this section.

Change Management Summary Tables

Project Concept through Environmental Document completion.

Level of Decision	Scope Additions and Deletions
DTIM / DTSD Administrators and Monthly Program Team	Quarterly Updates
Major Projects Peer Review Team	Quarterly Updates
Region	Quarterly Updates

The Major Projects Peer Review Committee shall review all Major projects, future SE Freeway reconstruction appropriation Mega projects, and DTSD Administrator assigned high profile projects.

An initial project scope and estimate is developed at the time of concept definition, when a project is considered for study as part of the Major Highways Program or when a new SE Project Mega Project is identified for the biennial budget process.

At this time a design budget and initial project construction estimate (often on a per mile basis) is developed.

Alternatives for study during the environmental phase shall receive concurrence at the region level and division administrator level. Some projects may require concurrence at the Oversight Committee level as well. If work is anticipated on off corridor routes (ex. Parallel routes or mitigation on off corridor routes), these should be identified when alternatives are defined.

Alternative refinement and the addition of new alternatives shall receive the similar concurrence at the region and division administrator level.

During the development and refinement process, bureaus and other divisions will be involved and coordinated with.

The preferred alternative shall reflect the department’s choice and meet all of the NEPA / WEPA requirements.

Post Environmental Document (Enumerated/Approved for Construction)

Design, Utilities, Railroads, and Real Estate through Project Letting

Major Highway Mega Projects, future SE Freeway Appropriated Mega Projects, and DTSD Administrator assigned High Profile Projects	
Major Projects Peer Review Committee*	Scope Changes and cost increases > \$ 500k **
Region	Scope Changes and cost increases > \$ 500k
Project	Cost increases, excluding scope changes < \$500K
*BSHP Director will elevate issues to DTIM and DTSD Administrators on an as-needed basis	
**The investigation of project scope changes that would increase project cost more than \$5M must receive Major Peer Review Committee approval prior to proceeding with the investigation or study of the possible change	

For I-94 N-S, Zoo IC, I-794 / Hoan Bridge, and St. Croix Crossing, the % of Project Reserve	
DTIM / DTSD Administrators	Issues from Oversight Team or > Total Estimated Cost.
Major Projects Peer Review Committee	Cost increases and scope additions shared for knowledge transfer and information purposes
Region	50-100% of Project Reserves
Project	< 50% of Project Reserves

Note: The project team shall be sharing updates on the use and status of project reserves at the Region, Major Projects Peer Review Committee, and Oversight Committee.

Examples of scope changes could include:

Major Projects Peer Review Team and/or Administrator’s Monthly Program Meeting

- Addition of a new interchange
- Resurfacing a local route (ex. STH or Local Road outside chosen alternative from environmental document)
- Significant and sensitive local project issues.
- Industry trends
- Standards changes
- Estimate revisions

Region Level:

- Issues above
- TOIP improvements outside chosen alternative from environmental document.
- Consideration and Preparation of issues for Major Projects Peer Review Committee and monthly program meeting.
- Development Issues within and/or adjacent to the project.

Post project letting through final project close-out.

The Major Projects Peer Review Committee shall review all Major projects, future SE Freeway Reconstruction Appropriation Mega projects, and DTSD Administrator assigned High Profile Projects.

Level of Decision	% of Annual Project Change Order Budget ***	For I-94 N-S, Zoo IC. I-794 / Hoan Bridge, and St. Croix Crossing, the % of Project Reserve
DTIM / DTSD Administrators and Monthly Program Team	Issues elevated from Major Projects Review Team, DTSD Director's Sub-Team, or assigned from Oversight Team.	Issues elevated from DTSD Director's Sub-group, or assigned from Oversight Team.
DTSD Director Meeting Sub-Group Topic * **	>Annual Project Change Order Budget	> Estimated Total Project Cost
Region	50-100% of Annual Change Order Budget	50-100% of Project Reserves
Project	< 50% of Annual Change Order Budget	<50% of Project Reserves

* Any CCO > \$500k over the project budget shall be reported to the DTIM BHSP Director and Program Chief. This allows an evaluation of potential program impact and TPC cost impact. Project Development Chiefs regularly discuss change order issues at the project and program level and may request issues be elevated to DTSD Director's Sub-Group Meeting as discussion items.

** Subgroup of DTSD Directors: BPD Director, BOS Director, Region Directors and Deputy Directors. Meets after bi-weekly teleconference or at face to face director's meetings

*** The Major Projects Peer Review Committee will establish an annual construction project change order budget for each project (Major Highway Program, future SE Freeway Reconstruction Appropriation Mega projects, and DTSD Administrator assigned High Profile projects).

Examples of Issues:

DTSD Director Level and/or Administrator's Monthly Program Meeting:

- Project overruns that are projected to exceed annual change order budget. The various groups can do a value engineering review of trends.
- Significant TMP or Cost Savings proposal by contractor with incentives and public involvement components. Ex. System Interchange TMP
- Changes to environmental document scope.

Region Level Meeting:

- Same as above
- Significant Issues affecting other business areas
- Preparation of issues for DTSD Director's Sub-group or Administrator's Monthly Program Meeting.

Change Management Prior to Completion of Environmental Document (determination phase)

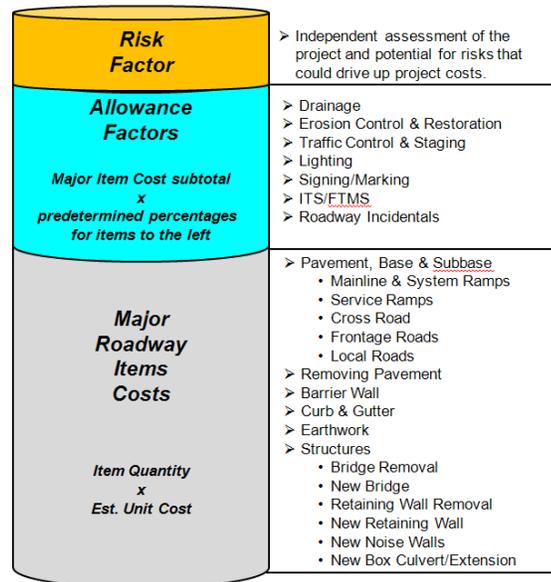
Mega projects, Major projects, and High Profile projects all follow the Facilities Development Manual (FDM) process as the environmental document phase of the project is carried out. On these types of efforts, the project team will deal with issues that may not regularly be dealt with on a standard project. The FDM and these sets of Mega Project guidelines, particularly the Best Practices section, provide a resource to the project team as they carry out the project. The project team established also provides a great set of resources to check in with. Other Mega project teams can also serve as resources

Project teams will be faced with unique issues that may present challenges to the project scope and estimate. Project teams shall utilize the Project Team’s Change Management process, the Region Change Management process, DTSD Director’s Sub-Group Meeting, Administrator’s Monthly Program Meeting, and when appropriate the Oversight Committee to seek guidance prior to making project commitments.

It is expected that each Mega Project and DTSD assigned High Profile projects will have an appropriate amount of risk (contingency) and allowance factors incorporated into the original project cost estimate. The level of the risk and allowance used in the cost estimate will be reviewed by the Departments Major Projects Peer Review Team, as part of a formal cost estimate review. The link to the Major Project Cost Estimating Tool is <http://dotnet/consultants/estimates/estimates-major.shtm>

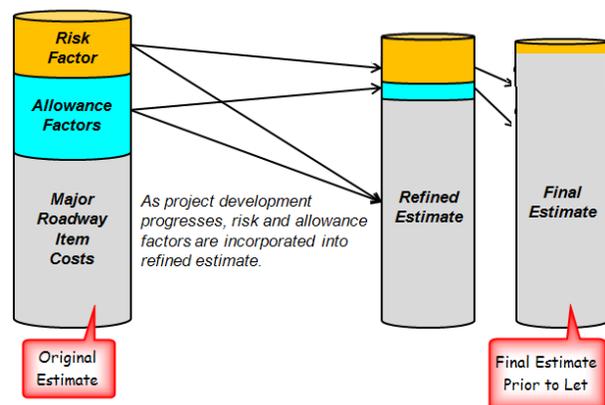
For non Major Highway Mega Projects such as the Southeast Region’s existing Mega Projects, Marquette Interchange - complete, I-94 North – South Corridor, Zoo Interchange, St. Croix Crossing, and I-794 / Hoan Bridge change management budgets or reserves have been established as part of a total build out budget. Change management decisions for these projects will continue to be made from the projects identified and established reserves. However, these projects shall become part of the Major Project Peer Review Team’s responsibilities for information sharing and knowledge transfer purposes. Cost estimates for new projects in the Major Highway Program or future SE Freeway Reconstruction appropriation Mega projects, and DTSD Administrator assigned High Profile projects will be reviewed by the Departments Major Projects Peer Review Team,

Cost Estimating Tool – Conceptual Overview



As a project moves through final design, real estate acquisition, utility and railroad process, and construction, the amount of risk and allowance is expected to be reduced as “unknowns” become “known”, and are therefore discretely itemized in a refined estimate.

For all Major Highway Mega Projects, it is expected that typically only a very small amount of “risk”, if any would be included in the final estimate prior to let. Please note that inflationary risk would be handled by a Majors Program reserve, and not at an individual project level.



Project contingency levels begin by utilizing historical information and considering specific project risks.

Department-Level Change Management Decisions (design, utilities, railroad, and real estate through project letting)

The process ensures consistent treatment of Mega, Major, and High Profile project change management issues at the Region level. The Major Projects Peer Review Team shall carry out this responsibility. Project and program issues that cannot be resolved by the Major Projects Peer Review Team shall first come to the DTIM / DTSD Administrator's monthly program meeting and likely will need discussion and consideration in the Secretary's Office and Oversight Committee.

The Department's Major Projects Peer Review Team is made up of:

<u>Chairperson:</u>	DTIM BHSP Director
<u>Meeting Facilitator:</u>	DTIM BHSP Program Chief and/or Majors Program Manager
<u>Members:</u>	DTSD Region Director Representative(s), and a mix of DTSD Planning and Design Chiefs,
<u>Typical Attendees:</u>	Majors Peer Review Members, Chiefs involved with Mega Projects, and FHWA.
<u>Projects Included:</u>	Any project defined as a Federal Major Project / Mega Project.
<u>Meeting Frequency:</u>	Monthly.
<u>Typical Agenda:</u>	The agenda and meeting materials are submitted to members and attendees the week prior to the meeting. Items covered during the meeting include: <ul style="list-style-type: none">• Establishment and management of Annual Construction Let Change Order Budget for each Major Highway, High Profile Projects assigned by DTSD Administrator, and future SE Freeway Reconstruction appropriation project letting.• Cost report reviews• Cost trend reviews• Cost to complete projections• Cost saving opportunities• See Change Management summary tables• New division and department level issues arising from Mega, Major, and High Profile Projects.

Note: Major Highway Projects with very time-sensitive change management issues that cannot wait for the next monthly meeting will be presented directly to the BSHP for a funding decision.

Department-Level Change Management Decisions (post project letting through final project close-out)

Project Teams and Regions shall utilize the Change Management Summary tables for discussion and resolution of issues.

The Major Highway Peer Review Committee shall be responsible for all projects funded out of the Major Highway Program, High Profile projects assigned by the DTSD Administrator to the committee, and all future SE Freeway Reconstruction Appropriation Mega projects.

An annual and individual project change order budget shall be established for each Department Mega, and assigned High Profile Project. This shall be established by the Departments Major Projects Peer Review Team. It will be based on a part of the total department un-programmed cost budget. The annual un-programmed costs budget and total un-programmed costs (life of project) is expected to fall within the project estimate developed at the time of enumeration. This estimate includes a project contingency.

Historically, un-programmed cost program level budgets have been based on a percentage of the previous year's let amount. Future annual individual Mega project un-programmed cost budgets will need to consider the project contingency estimate, project risk, the fluctuation of let amounts on an annual basis, as well as the multi-year nature of lettings.

Existing biennial budgeted Mega Projects and high profile projects outside the major highway program have change management budgets or reserves that have been established as part of a total build out budget. These projects include the Marquette Interchange - complete, I-94 North – South Corridor, Zoo Interchange, I-794 / Hoan Bridge, and St. Croix Crossing projects. Change management decisions for these projects will continue to be made from the projects identified and established reserves. However, these projects shall become part of the Major Project Peer Review Team's responsibilities for knowledge transfer and information sharing purposes.

Scheduling Project Costs: Major High projects have cost estimates developed prior to enumeration. A cost estimate is calculated in current year dollars, and an inflated build-out cost estimate is also prepared for environmental document requirements.

High Profile projects and SE Freeway Reconstruction Appropriation Mega projects both follow a similar path.

All these projects are managed using current year dollars.

Nearly all estimated project costs will be scheduled in FIIPs. Only a minimal amount of project costs are "un-programmed" – all costs are programmed except for a small un-programmed CCO reserve and possibly an un-programmed reserve for unused contingency late in a project's life (nearing the end of construction lets). This means all other contingency and reserve should be programmed in the year it is estimated to occur (e.g. a \$100M let package includes all contingency associated with the let package).

Programming guidance is provided by DTIM BHSP.

Region-Level Change Management Decisions

To ensure consistent treatment of Mega project change management issues at the region level a Change Management Team will be formed.

The Region's Mega Project Change Manage Team is made up of:

<u>Chairpersons:</u>	Region Deputy Director and Region Director
<u>Meeting or Topic Facilitator:</u>	Mega Project Chief
<u>Members:</u>	Region Directors, Mega Project Chief(s), and Region Chiefs
<u>Typical Attendees:</u>	Team members. Project personnel or additional expertise, when appropriate.
<u>Projects Included:</u>	Any project defined as a Federal Major Project / Mega Project.
<u>Meeting Frequency:</u>	Utilize a portion of a regular region senior management meeting or establish a monthly meeting for this topic.
<u>Typical Agenda:</u>	The agenda and meeting materials are submitted to members and attendees the Friday prior to the meeting. Items covered during the meeting include; <ul style="list-style-type: none">• Management of Annual Construction Project Change Order budget.• Cost report reviews• Cost trend reviews• Cost to complete projections• Cost saving opportunities• See Change Management Summary Tables• New region, division, and department level issues arising from Mega, Major, and High Profile Projects.

Project -Level Change Management Decisions

To ensure consistent treatment of Mega project change management issues at the project level, a Change Management Team will be formed.

Project changes in the construction phase will also follow the communication and involvement process outlined in the Construction and Materials Manual (CMM).

The Project's Mega Project Change Manage Team is made up of:

<u>Chairperson:</u>	Region Deputy Director
<u>Meeting or Topic Facilitator:</u>	Mega Project Chief
<u>Members:</u>	Region Directors, Mega Project Chief(s), Supervisors, FHWA, BPD Liaison, and key project staff.
<u>Typical Attendees:</u>	Team members. Additional expertise when appropriate.
<u>Projects Included:</u>	Any project defined as a Federal Major Project / Mega Project.
<u>Meeting Frequency:</u>	At least monthly.
<u>Typical Agenda:</u>	The agenda and meeting materials are submitted to members and attendees the Friday prior to the meeting. Items covered during the meeting include:

- Management of Annual Construction Project Change Order budget.
- Cost report reviews
- Cost trend reviews
- Cost to complete projections
- Cost saving opportunities
- **See Change Management Summary Tables**
- New project, region, division, and department level issues arising from Mega, Major, and High Profile Projects.