



Managing Construction Changes and I-90 Progress

August 27, 2015

Change is Common

- ▶ **Construction contract changes occur for a variety of reasons**
 - ▶ Differing site conditions (unsuitable soil, unidentified utilities, etc.)
 - ▶ Specification changes
 - ▶ Schedule changes
 - ▶ Balancing for final field measurements
 - ▶ Errors and omissions
 - ▶ Miscellaneous (such as weather)

- ▶ **Timely approvals are crucial to project delivery**
 - ▶ Capital program investing about \$6 to \$8 million per day

- ▶ **Details reported to the Board of Directors each month**

- ▶ **Illinois Tollway's change process is very effective**
 - ▶ National average for highway construction is 5 to 10 percent compared to current Tollway capital program average of 0.4 percent*

**American Society of Civil Engineers Journal of Construction Engineering and Management, September 2010*

Robust Process for Managing Change

- ▶ **Contract Cost Change Controls Committee (C5)**
 - ▶ Reviews and recommends construction contract changes
 - ▶ Reviewed by Chief Engineer (approve, reject, revise/resubmit)
 - ▶ Delegates signature authority per value of change

- ▶ **Committee composition**
 - ▶ Chairman appointed by the Chief Engineer
 - ▶ Two members appointed by the C5 Chairman (typically Tollway employees with design and/or construction experience)

- ▶ **Committee meets daily during peak construction months**

- ▶ **Representatives from Finance, Procurement and Audit Departments invited as observers**

Authorization Limit	Approving Authority
Credits	Project Manager
Up to \$30,000	Project Manager
Up to \$100,000	Chief Engineer
Up to \$150,000	Executive Director
Up to \$200,000	Chairman of the Board
More than \$200,000	Board of Directors

Experience and Success Managing Change

Reputation for successfully delivering projects

- ▶ **Delivered 80 percent of the 12-year Congestion-Relief Program in the first five years**
 - ▶ Processed more than 14,000 change orders/extra work orders
 - ▶ Resulted in modified cost less than one percent of total award amount

- ▶ **Successfully delivered 37-mile I-90 western segment**
 - ▶ Opened on time despite initial delays ranging from 15 to 118 days
 - ▶ Implemented successful mitigation strategy
 - ▶ Resulted in 2.67 percent (\$15 million) below established budget

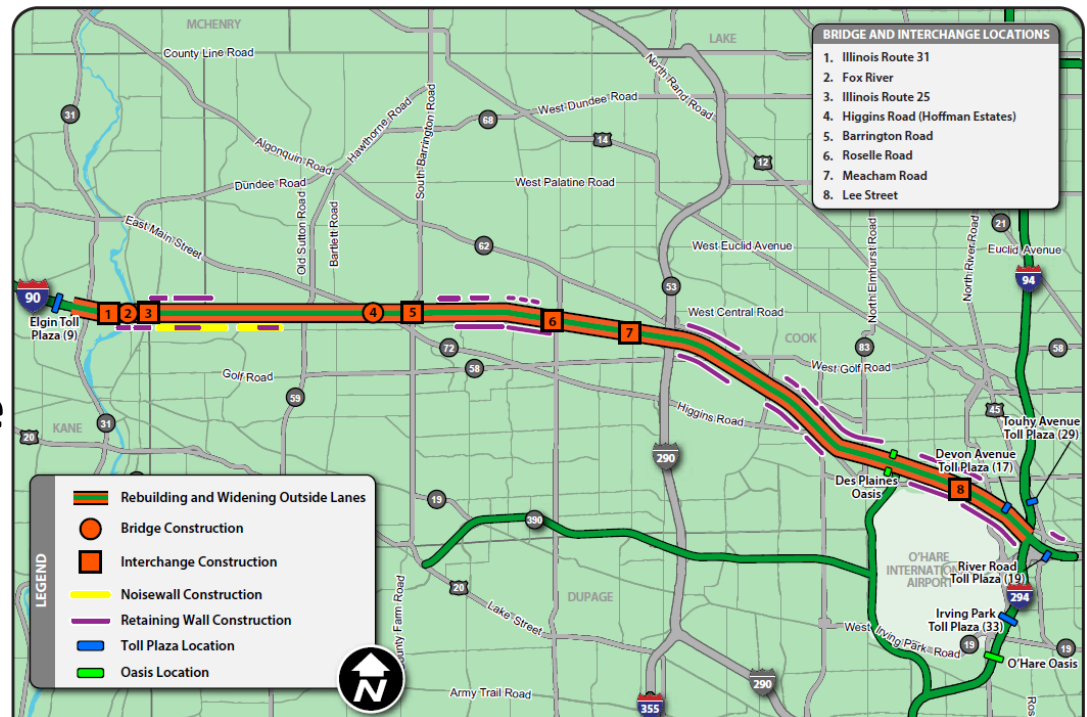
I-90 Eastern Segment Overview

- ▶ Rebuilding and widening 25 miles from six lanes to eight lanes
 - ▶ 28 bridges, including six interchanges
 - ▶ Urban region, with more than 270,000 vehicles per day

- ▶ Incorporating transit for the first time

- ▶ Implementing active traffic management (ATM) for the first time

- ▶ Addressing unique challenges throughout corridor



Met with Unique Challenges

Initial delays had a ripple effect – from advance work contracts to current contracts

- ▶ **U.S. Army Corps of Engineers permit delayed, required to begin work in regulated areas**
- ▶ **Major utilities serving more than 500,000 people run parallel to the corridor**
 - ▶ Highly complex work
 - ▶ Restrictive work rules limit productivity
 - ▶ Utility firms have limited resources available
- ▶ **Limited access to work zone**
 - ▶ Delays in third party utility relocations
 - ▶ Delays obtaining right-of-way and required rights-of-entry
- ▶ **Significant weather impacts**

Mitigating Delays for the Customers

Tollway is committed to delivering improvements on time and within budget

- ▶ **Tollway is customer-focused**
 - ▶ Minimizing impacts during construction
 - ▶ Making improvements in timely manner

- ▶ **Developed consistent, yet individual solutions to include**
 - ▶ Re-phasing and re-sequencing to prioritize mainline
 - ▶ Schedule recovery (extended hours/weekends)
 - ▶ Mobilization/remobilization
 - ▶ Extension of time for non-roadway work items
 - ▶ Winter protection for some work items

Making Progress



Quick Summary

- ▶ **I-90 change orders and extra work orders are within budget**
 - ▶ 2015 budget for I-90 is \$839.6 million
 - ▶ Cost of mitigation plans for I-90 are 1.9 percent of the 2015 budget
 - ▶ Operating within the \$2.5 billion I-90 Rebuilding and Widening Project budget
- ▶ **To date, capital program change orders/extra work orders account for 0.4 percent of total contract awards**



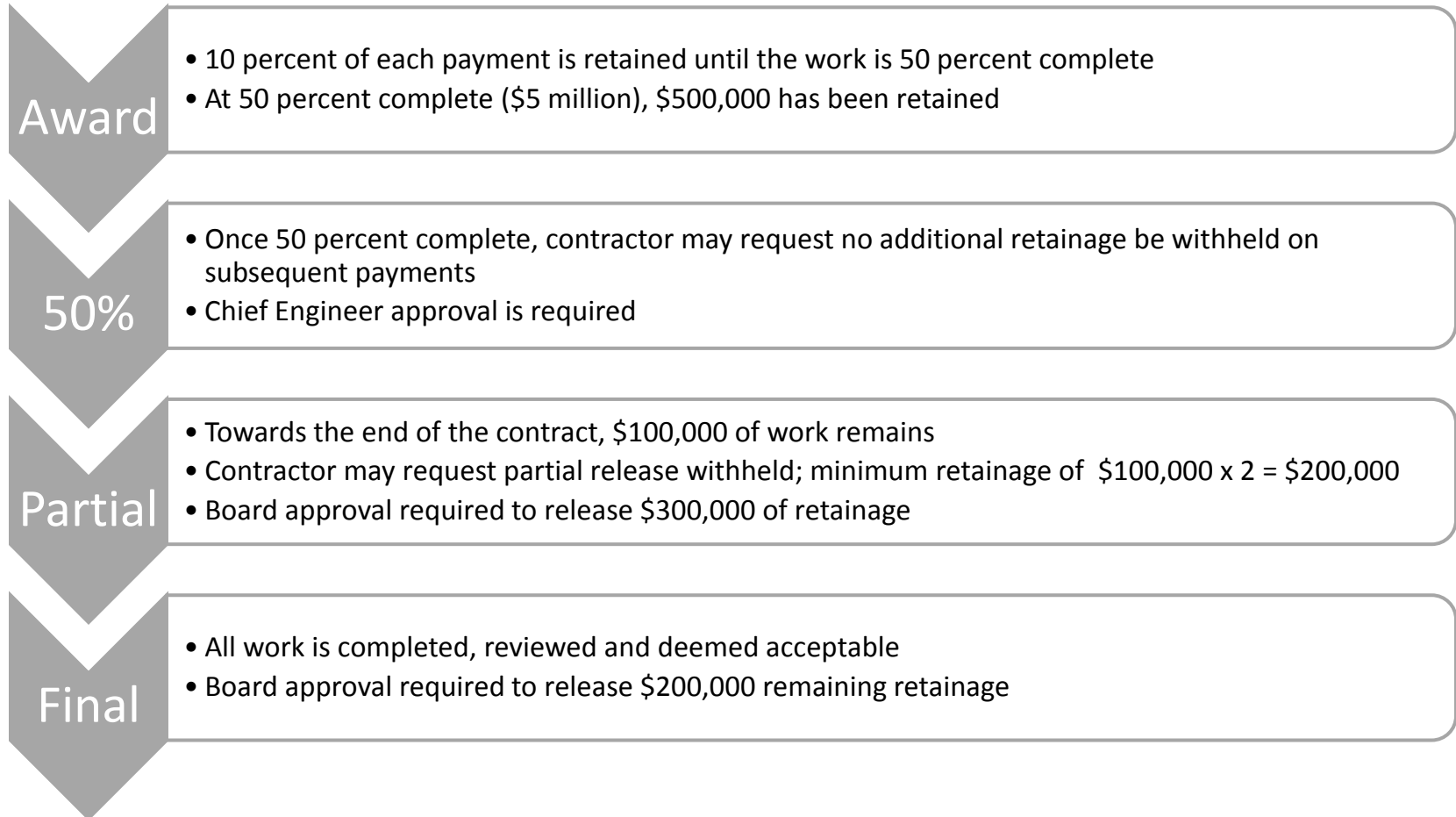
Release of Retainage

Rules of Retainage

- ▶ **Required by the Tollway's Trust Indenture and specifications**
- ▶ **Retainage requirements**
 - ▶ Ten percent of each payment amount retained until project is 50 percent complete
 - ▶ Upon completion of 50 percent of the work, retainage can be reduced with the Chief Engineer's approval
 - ▶ Partial release of retainage less than 5 percent requires Board approval
 - ▶ Final release of retainage requires Board approval
- ▶ **Detailed review process prior to Board approval**
- ▶ **Ensures contract compliance and completion by the contractor**
- ▶ **Diversity goals must be addressed prior to final payment**
- ▶ **Evaluating modifications to expedite the process**

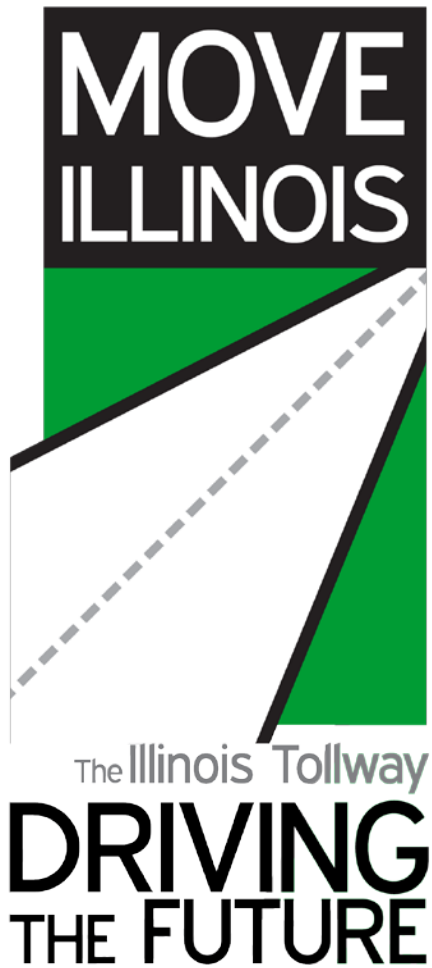
For Example...

Contract award for \$10 million





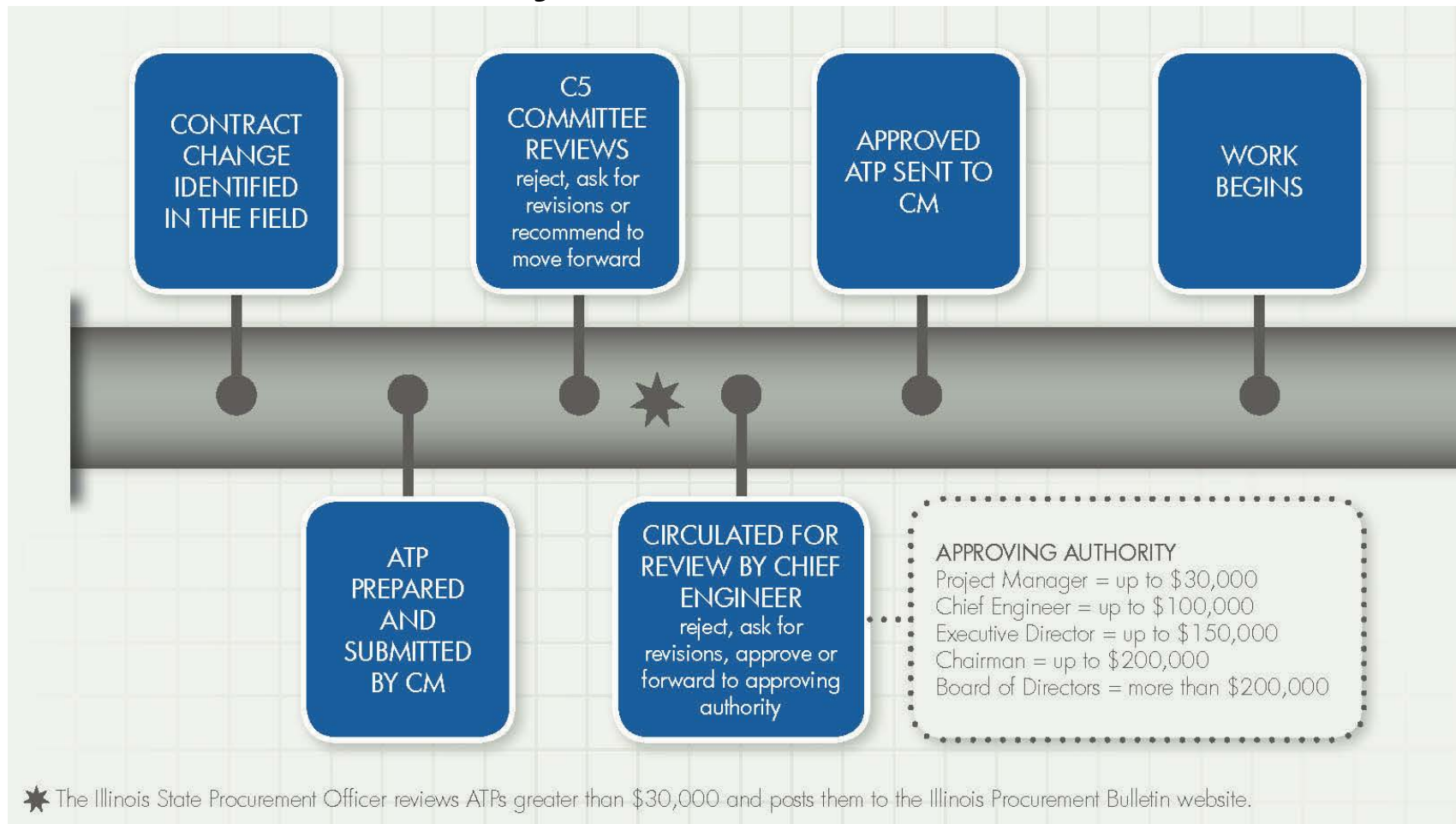
THANK YOU



Appendix

Authorization to Proceed Process

Allows work to move forward



Change Order/Extra Work Order Process

Allows payment for work performed in the field

