

OVERVIEW OF MDOT CONSTRUCTION ISSUES

CONTACT MODIFICATION PROCESS & ELECTRONIC SIGNATURES

October 2011

PRESENTER

R. Jason Clark, PE, MBA

MDOT Construction Contracts Engineer

PRESENTATION OVERVIEW

- Contract Modification Process
- New MDOT CM BOHIM
- Field Manager Software Updates
- E-sign BOHIM
- Questions

Construction Contract Modifications

Former Process Issues

- Modifications sometimes not drafted until months after work occurred
- Approval process sometimes took in excess of 3 months to authorize and make payments
- Approval process complicated (BOHIM 2004-11)
- Overrun Status – Spot all further payments to prime after 15% overrun
- Mailing delays / lost documents
- Multiple Board Approvals Required (SAB – STC – T&NR)
- Attorney General review
- Office of Commission Audit review
- Delays to get placed on board agendas (monthly meetings)

In general construction contract modifications requiring STC approval would often not be authorized for payment to contractor until 3-4 months after work was complete and accepted.

Goals of the CM Process Improvements

- Statewide alignment of construction process
- Expedite CM approval process
- Reduction in bureaucracy/redundancies
- Streamline entire process (simplify)
- Improve oversight (seems counter to above)
- Shorten or eliminate Board approvals
- Improve document routing (all parties)
- Start CM generation process sooner
- Elimination of “Overrun” status

Goals of the Process Improvement

➤ Simplification

- Extras
- Overruns
- Changes
- Modified
- Adjustments

➤ All simplify to one measure = % \$ over budget

In short – to streamline the entire process, expedite processing times, and increase oversight to reduce risk.

Steps Achieved to Date

- CM Team formed to develop new Contract Modification approval process and MDOT BOHIM 2004-14
- Effective Removal State Ad Board from MDOT CM process
- Statewide alignment – new Bureau of Field Services
- Re-organization of MDOT staff and hiring region construction engineers
- State Attorney General approval of the use of digital electronic signatures throughout MDOT
- Field Manager updates/changes
- E-sign Team developing BOHIM, standards, pilot projects, etc

Overview of New MDOT CM BOHIM

- Provide as much or more internal MDOT oversight/checks/balances as SAB process
- Tiered or layered approval process to increase scrutiny as the dollar values increase. (0-5% TSC, 5-10% Region, 10%+ C&T)
- Statewide alignment – same process in all regions
- Increased Region oversight via region construction engineers
- Reduce approval time in process.
- Streamline process and reduce overhead
- Maintain flexibility while at the same time centering most project authority on the delivery engineers
- Improve speed of payments to contractors for accepted work and have a more predictable process (time).

New MDOT CM BOHIM

General Info

- Divided into seven (7) sections
- Modernized the BOHIM layout
- Interactive hyperlinks to quickly find relevant information
- Table of Contents (also hyperlinked)
- Sample documents included
- Tables and flow charts for visual reference

SECTION – I

Executive Summary & Terms

- MDOT had used many specific terms that were sometimes defined differently than in other states, FHWA or industry. In addition, some types of changes even had separate evaluation / threshold criteria.
- Section I - Re-defines all contract work changes, No more different evaluations or criteria for various types of changes in work such as:
 - Overruns, Extras, Changes, Adjustments, Modifications, Change orders, etc
- To align with 2012 spec book, all contract changes are now referred to as:
“CONTRACT REVISIONS”

SECTION – II

Contract Modification Development

- Synchronizes Negotiations with contractor to 2012 spec book guidelines
- Must come to agreement on price / scope prior to Starting the work.
- This may mean estimated amounts, estimated units, budget for force account, etc but the extent of the contract revision and an agreed upon method of compensation must be agreed upon prior to starting the work.
- A contract modification must be generated by the engineer no later than seven (7) calendar days after the work commences and send to contractor for signature.
- Contract time must be addressed in the contract modification. The revised work may not impact contract time, if this is the case just indicate so in the description.

- Key Points:
 - Price agreed on before work starts
 - Contract modification generated within 7 days of work starting and send to contractor for signature

SECTION – III

Generating Contract Modifications

- Gives list of key information needed in each area of contract modification document
- Provides standard layout of information and samples
- Provides detailed information on the 4 contract modification types in the field manager software:
 - Original Pay item
 - Modified Original
 - Extra Work
 - Adjustments
- Provides easy to follow instructions for each type to the last section which contains a step by step series of items that must be answered for each work code
- Identifies the thresholds (Generally \$25k) for some work items codes to require more detailed information

SECTION – IV

Approval Thresholds

- Gives overview, table & detailed info on the new tiered con-mod approval system.

<u>Contract Modification Approval Level</u>	<u>Net Cumulative Increase to Contract</u> <i>(Sum of Current and all Previously Generated Contract Modifications over Original Contract Amount)</i>
<u>Tier I - TSC Approval</u>	Equal to or less than five percent (= or <5%)
<u>Tier II - Region Approval</u>	Greater than five percent (>5%) AND less than or equal to ten percent (< or = to 10%)
<u>Tier III - Bureau of Field Services Approval</u> Also including review or approval by State Transportation Commission, State Administrative Board*, and State Attorney Generals Office. <i>(*Not required if MDOT contract modification approval process in this BOHIM is followed)</i>	Greater than ten percent (>10%)

SECTION – V

Authorization Paths

- Gives detailed information on each step of the approval process from creation to final approval at each tier
- Outside MDOT review/approvals include:
 - Preparer
 - Consultants
 - Contractors
 - Federal Highway (FHWA)
 - Local Agency

SECTION – V (cont)

Sample Contract Mod

- More Signature blocks for greater flexibility on specific projects
- MDOT side in signature order
- Upcoming FM enhancements will automate more of process

 Contract Modification		7/7/2011 12:18 PM FieldManager 4.7a
If authorized, the contractor agrees to do the work outlined above under the direction of the Engineer, and to accept as payment in full the basis of payment as indicated. Prime Contractor, you are authorized and instructed as the contractor to do the work described herein in accordance with the terms of your contract.		
Prime Contractor: Ajax Paving Industries, Inc. _____ (Signature) _____ (Date)	Recommended by Delivery Engineer: Thomas J. Tellier _____ (Signature) _____ (Date)	
Prepared by: Jim Delafuente _____ (Signature) _____ (Date)	Authorized by TSC Manager: Erick Kind _____ (Signature) _____ (Date)	
Recommended by Consultant _____ (Signature) _____ (Date)	Region Authorization _____ (Signature) _____ (Date)	
Authorized by Local Agency _____ (Signature) _____ (Date)	Construction Field Services Approval _____ (Signature) _____ (Date)	
Recommended by Airport Sponsor _____ (Signature) _____ (Date)	Authorized by Airports Division _____ (Signature) _____ (Date)	
FEDERAL PARTICIPATION - ACTION BY F.H.W.A.		
<input type="checkbox"/> Approved <input type="checkbox"/> Not Eligible _____ See Letter Dated _____	_____ (Signature) _____ (Date)	

SECTION – V

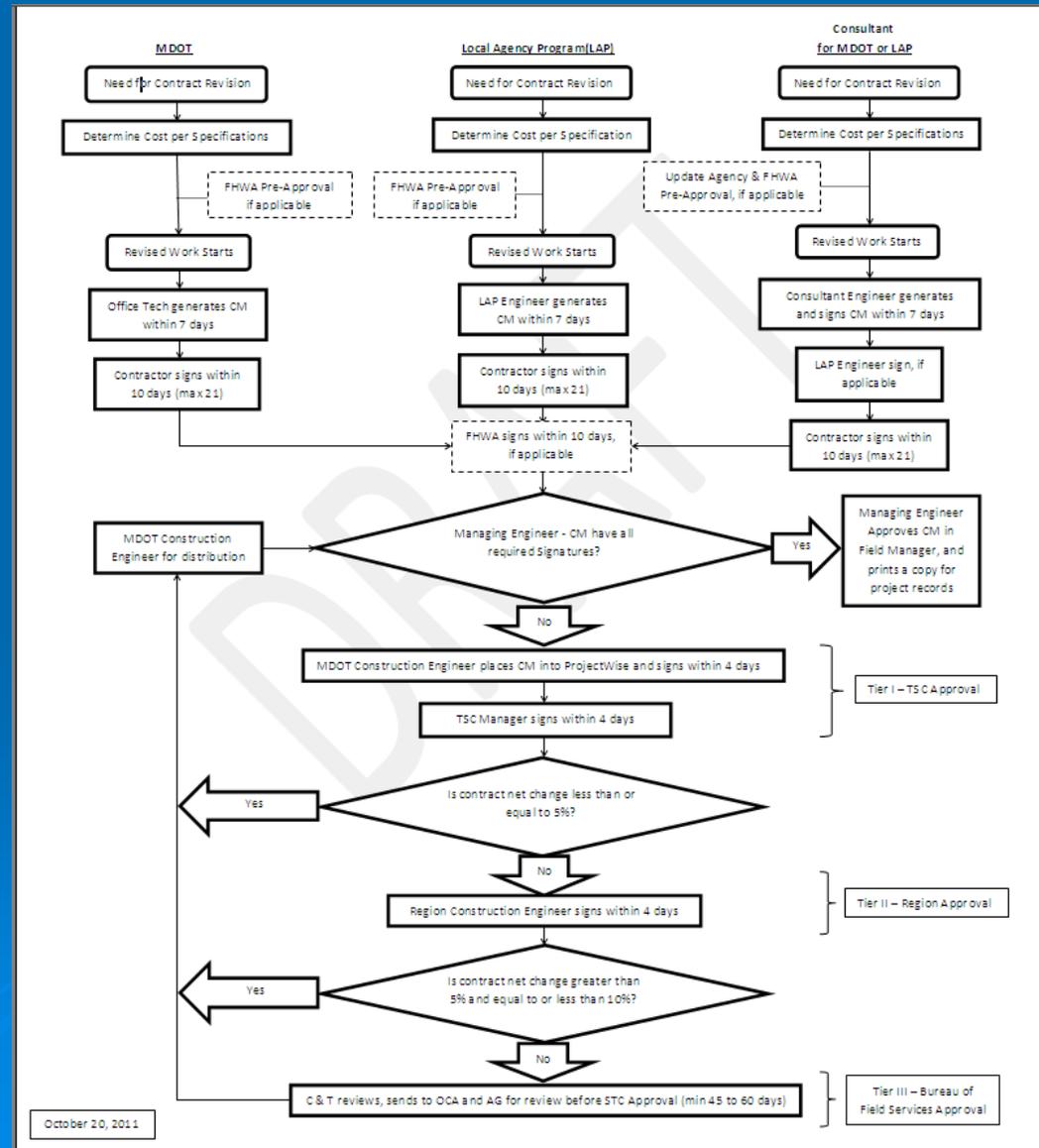
Authorization Paths (cont)

- Gives detailed information on each of the three tiers of MDOT approval:
 - Tier I – TSC Approval
 - Tier II – Region Approval
 - Tier III – Bureau of Field Services Approval
 - Construction Contracts Review
 - Commission Audit
 - Attorney General
 - State Transportation Commission
 - State Ad Board (only if non-conforming to BOHIM)
- Addresses other issues such as later dropping down a level of approval

SECTION – V

Authorization Paths (cont)

- Shows each separate possible path and interaction of key steps
- Engineer is key to process
- General timeframes
- Full size of chart included in the back of your handout



SECTION – VI

Digital Electronic Signatures

- More detailed information in the E-sign BOHIM
- For specific use of e-sign on contract modifications:
 - Document Routing: inside and outside MDOT
 - Signature authorization sheet (sample next screen)
 - Pre-approved Backup signers (vacations, etc)
 - Notification of forthcoming change to require e-sign on all MDOT bid project contract modifications in near future

SECTION – VI (cont)

Authorized Signature Form

- Required prior to pre-con meeting
- Only those shown can legally sign documents
- Backups identified (vacations, etc)
- Makes e-sign validation step very easy

Appendix B – Authorized Signature Form

Michigan Department of Transportation Form xxxx

MDOT Construction Project Authorized Signatures

File 113

Revision # _____

CONTRACT ID	REGION	FEDERAL PROJECT NUMBER
PROJECT DESCRIPTION		

FEDERAL HIGHWAY ADMINISTRATION

ROLE	NAME	COMPANY/AGENCY	TITLE	E-MAIL ADDRESS	PHONE #	E-Signature
Point of Contact		FHWA	Secretary			
Primary Authorized Signer		FHWA	Area Engineer			
Backup Primary Authorized Signer		FHWA				

CENTRAL OFFICE - LANSING C&T

ROLE	NAME	COMPANY/AGENCY	TITLE	E-MAIL ADDRESS	PHONE #	E-Signature
Point of Contact	Adam Iding	MDOT	Departmental Analyst	idingA@michigan.gov	517 - 322-5859	
Primary Authorized Signer	Jason Clark, P.E.	MDOT	Construction Contracts Engineer	ClarkJ25@michigan.gov	517 - 322-8830	
Backup Primary Authorized Signer	Jason Gutting, P.E.	MDOT	Engineer of Construction - Operations	GuttingJ@michigan.gov	517 - 636-6334	
Other Authorized Signer	Brenda O'Brien, P.E.	MDOT	State Division Administrator	ObrienB2@michigan.gov	517 - 322-1085	
Other Authorized Signer	Mark Chaput, P.E.	MDOT	Deputy Bureau Director	ChaputM@michigan.gov	517 - 322-3331	

REGION OFFICE

ROLE	NAME	COMPANY/AGENCY	TITLE	E-MAIL ADDRESS	PHONE #	E-Signature
Point of Contact		MDOT	Secretary			
Primary Authorized Signer		MDOT	Region Construction Engineer			
Backup Primary Authorized Signer		MDOT	Region Engineer			
Other Authorized Signer		MDOT				
Other Authorized Signer		MDOT				

TSC OFFICE

ROLE	NAME	COMPANY/AGENCY	TITLE	E-MAIL ADDRESS	PHONE #	E-Signature
Point of Contact		MDOT	Office Technician			
Primary Authorized Signer		MDOT	MDOT Construction Engineer			
Backup Primary Authorized Signer		MDOT				
TSC Manager		MDOT	TSC Manager			
Backup TSC Manager		MDOT				
Other Authorized Signer		MDOT				
Other Authorized Signer		MDOT				

SECTION – VII

Records Retention

- Gives detailed information on construction project documentation records retention.
- Specific information on electronic documents
- Consultant/LAP projects

MDOT CM BOHIM Appendixes

- Appendix A – Authorization Flow Chart
- Appendix B – Authorized Signature Form
- Appendix C – Sample Contract Mod
- Appendix D – STC Approvals
(hopefully temporary)

CM BOHIM Key Points

- Authorized signers and backups for all parties identified/established at Pre-construction meeting.
- Integral use of E-sign in process (more on e-sign later)
- Time limits on CM generation, contractor pricing, approval times. (contractor final price before work starts)
- No one person signing in more than one location
- Multiple people reviewing all CMs
- MDOT Engineer and MDOT Manager review all CMs
- Emphasis on establishing scope/cost prior to work start
- Focus on producing CM's as the work is identified in order to also begin approval process.
- Faster payments to contractors for work done as requested

Digital Electronic Signatures

- Authorized for use by MDOT September 2011 by State Attorney Generals Office
- MDOT E-sign BOHIM in region review, expected publication in November 2011

E-Sign

State Attorney General's Office has granted formal approval for MDOT to utilize Digitally Encrypted Electronic Signatures on MDOT processes.

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DEPARTMENT OF
ATTORNEY GENERAL
MEMORANDUM

MOA 1983
NOT FOR DISTRIBUTION
OUTSIDE MDOT*

TO: Jason Clark
Construction Contracts Engineer
Construction & Technology Division
Michigan Department of Transportation

FROM: James C. Shell
Assistant Attorney General
Transportation Division

RE: ELECTRONIC SIGNATURES – Review of Electronic Signatures

QUESTION

You have asked whether the Michigan Department of Transportation (MDOT) may use signatures that are “electronic” and bear “electronic signatures” rather than paper documents bearing written signatures.

SUMMARY RESPONSE

Yes. Based upon a review of federal and state law, MDOT may use and accept signatures that are electronic.

E-Sign

- Clarify: These are not scanned or faxed signatures (which are still not allowed in the State of Michigan as valid signatures)
- E-sign is like a stamp that is physically embedded into an electronic PDF document.
- E-sign is unique to each person, password protected, embeds key information, etc
- Electronic signatures can not legally be treated differently than hand written signatures.
- Easy to use, immense potential uses/impacts, and millions in potential savings to the State.
- AG decision was not limited to specific processes or departments. (wide open use)

E-Sign

- Feds have been using since 2003-2005 and have sophisticated fillable forms with e-signatures.
- New records retention/storage issues to address (the electronic file is the original copy, a printed out hard copy is meaningless (MDOT will use ProjectWise)
- All or nothing, not possible to mix hand written signatures with e-sign on same document.
- Will become mandatory for Field Manager, Pay Estimates, CM, etc (in near future)
- Solves Design Coversheet PE stamp/signature issues (all electronic projects)
- Consultant/Construction Contracts very soon

E-Sign Issues:

- Validation of sender's identity (reason for MDOT signature authority form)
- Federal stds for Signature Verification (*min two criteria met*)
- (*Trivia Q: what Decade did the US Federal Gov first accept an electronic signature on a contract?*)
- Some concern over software cost. (full version of Adobe is \$115 or less)
- Per Adobe technician; the free reader version is capable of e-sign with an additional module download (MDOT has not been able to test yet)
HOWEVER – if you are using the free (home use) reader version of Adobe for business purposes, you may already be violating the terms of the license agreement. (Bid Express/online plans/proposals/etc)
- Working to facilitate e-sign approval use on handheld devices, blackberries, tablets, and smart phones. (Adobe does not currently support e-sign on portable devices, but a great deal of 3rd party software does.

Samples of Signatures



R. Jason Clark,
PE, MBA

Reason: I have reviewed this document

Location: C&T, Lansing, MI

Date: 2011.07.26 15:32:52 -04'00'



cn=R. Jason Clark, PE, MBA, c=US,
o=Michigan Department of Transportation,
ou=Construction Contracts Engineer,
email=clarkj25@michigan.gov

I have reviewed this document
C&T, Lansing, MI

2011.07.26 15:31:17 -04'00'

Samples of Signatures

- Wide range of potential uses including:
 - Letters
 - Correspondence
 - Certified mailings
 - Certified payrolls
 - Contractor performance evaluations
 - Etc

Thank you,



R. Jason Clark, PE

Digitally signed by R. Jason Clark, PE
DN: cn=R. Jason Clark, PE, c=US, o=MDOT, ou=Construction
Contracts Engineer, email=ClarkJ25@Michigan.gov
Reason: I am the author of this document
Location: C&T, Lansing, MI

R. Jason Clark, PE
Construction Contracts Engineer
Michigan Department of Transportation

cc: Brenda O'Brien
Mark Chaput
Randy Van Portfliet
Cliff Farr



FHWA Oversight Approval Form 1365 (Sample E-sign Form)

- "smart" electronic form
(Any changes to text or unchecking a box will "unlock" the electronic signatures.)
- Has spell check!
- Legally the same as an ink signature on paper.

U.S. Department of Transportation
Federal Highway Administration

RECORD OF AUTHORIZATION TO PROCEED WITH MAJOR CONTRACT REVISION

PROJECT NO.	COUNTY	STATE
-------------	--------	-------

TYPE REVISION
 CHANGE ORDER SUPPLEMENTAL AGREEMENT TIME EXTENSION SPECIFICATION CHANGE
 WORK ORDER OTHER

REQUESTED BY	DATE
--------------	------

NATURE OF AND REASON FOR PROPOSED REVISION (If additional space is required, use reverse side)

ESTIMATED <input type="checkbox"/> INCREASE <input type="checkbox"/> DECREASE IN COST: \$ _____	METHOD OF PAYMENT: <input type="checkbox"/> FORCE ACCOUNT <input type="checkbox"/> NEGOTIATED PRICE <input type="checkbox"/> LUMP SUM <input type="checkbox"/> UNIT BID PRICES <input type="checkbox"/> OTHER
---	---

THE WORK COVERED BY THE PROPOSED REVISION AS DESCRIBED ABOVE IS HEREBY AUTHORIZED SUBJECT TO THE CONDITIONS MARKED BELOW:

<input type="checkbox"/> EVALUATION OF COST DATA <input type="checkbox"/> LIMITATIONS EXTENT OF FEDERAL PARTICIPATION <input type="checkbox"/> DETERMINATION OF SATISFACTORY ADJUSTMENT IN TIME <input type="checkbox"/> ADEQUATE SUBMITTAL OF WRITTEN SUPPORTING DATA	<input type="checkbox"/> PROPOSED REVISION AUTHORIZED WITHOUT FEDERAL PARTICIPATION <input type="checkbox"/> OTHER (Explain) <input type="checkbox"/> NONE
---	--

RECOMMENDED BY AREA ENGINEER		DIVISION OFFICE APPROVAL	
SIGNATURE	DATE	SIGNATURE	DATE

Form FHWA-1365 (Rev. 3-86) PREVIOUS EDITIONS MAY BE USED. (Use Reverse for Comments, if required)

[Save Data Only](#) [Clear Form](#) [Save Data & Form](#)

FHWA Oversight Approval Form 1365 – E-Signatures

ESTIMATED <input checked="" type="checkbox"/> INCREASE <input type="checkbox"/> DECREASE	IN COST: \$ <u>85,000.00</u>	METHOD OF PAYMENT: <input type="checkbox"/> FORCE ACCOUNT <input checked="" type="checkbox"/> NEGOTIATED PRICE <input type="checkbox"/> LUMP SUM <input type="checkbox"/> UNIT BID PRICES <input type="checkbox"/> OTHER:	
THE WORK COVERED BY THE PROPOSED REVISION AS DESCRIBED ABOVE IS HEREBY AUTHORIZED SUBJECT TO THE CONDITIONS MARKED BELOW:			
<input checked="" type="checkbox"/> EVALUATION OF COST DATA	<input type="checkbox"/> PROPOSED REVISION AUTHORIZED WITHOUT FEDERAL PARTICIPATION		
<input checked="" type="checkbox"/> LIMITATIONS EXTENT OF FEDERAL PARTICIPATION	<input type="checkbox"/> OTHER (Explain)		
<input type="checkbox"/> DETERMINATION OF SATISFACTORY ADJUSTMENT IN TIME			
<input type="checkbox"/> ADEQUATE SUBMITTAL OF WRITTEN SUPPORTING DATA	<input type="checkbox"/> NONE		
RECOMMENDED BY AREA ENGINEER		DIVISION OFFICE APPROVAL	
SIGNATURE <small>Digitally signed by R. Jason Clark, PE MBA DN: cn=R. Jason Clark, PE MBA, c=US, o=Michigan Department of Transportation, ou=Construction Contracts Engineer, email=clarkj25@michigan.gov Location: C&T Date: 2011.04.19 12:44:24 -04'00'</small>	DATE	SIGNATURE	DATE
Form FHWA-1365 (Rev. 3-86)		(Use Reverse for Comments, if required)	
PREVIOUS EDITIONS MAY BE USED.			
Save Data Only		Clear Form	
Save Data & Form			

RECOMMENDED BY AREA ENGINEER	
SIGNATURE <small>Digitally signed by R. Jason Clark, PE MBA DN: cn=R. Jason Clark, PE MBA, c=US, o=Michigan Department of Transportation, ou=Construction Contracts Engineer, email=clarkj25@michigan.gov Location: C&T Date: 2011.04.19 12:44:24 -04'00'</small>	
Form FHWA-1365 (Rev. 3-86)	
(Use Reverse for Comments, if required)	
PREVIOUS EDITIONS MAY BE USED.	

MDOT E-Sign “How To”

➤ Draft - MDOT E-Sign Instructions



Shortcut to draft - MDOT E-Sign Instructions RJC (3).doc.lnk

MDOT Construction Update Summary

Many positive changes are underway at MDOT

SAB changes are complete, STC is in process

New FHWA Con-Mod BOHIM published 9-13-2011

E-sign has been approved and will spread into many parts of MDOT

MDOT internal CM approval process and new BOHIM are in final stages of review, and will soon be published.

E-sign Team working on smart phone integration and developing training videos

QUESTIONS??

MDOT Construction Contracts Unit

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