

OFFICE MEMORANDUM

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- TO: Region Engineers Region Associate Operations Engineers Region Construction Engineers TSC Managers TSC Construction Engineers
- **FROM:** Gregory C. Johnson, P.E. Chief Operations Officer

Randy R. Van Portfliet, P.E. Bureau Director of Field Services

SUBJECT: Bureau of Highway Instructional Memorandum 2012-02 Digitally Encrypted Electronic Signatures

The Michigan Attorney General's office, in concurrence of the Federal Highway Administration, has issued a decision authorizing the Michigan Department of Transportation (MDOT) to use and accept digitally encrypted electronic signatures. These digital signatures are not scanned copies of handwritten signatures or faxed copies of a handwritten signature, but are a secure electronic "object" that is embedded into the electronic PDF document by the signer with their unique password, identity, and the date/time digitally encrypted into the electronic document.

Signatures are commonly used to authenticate documents. When you sign a paper document, you are authenticating its contents. Similarly, digital electronic signatures are used to authenticate the contents of electronic documents. These electronic signatures are unique to the signer and often provide enhanced verification of the signer's identity.

It has been legally acceptable to use digital electronic signatures for interstate and foreign commerce since passing the Electronic Signatures in Global and National Commerce Act (E-SIGN Act) on June 30, 2000, by the United States Congress. The act ensures the validity and legal effect of contracts entered into electronically and prevents these contracts from being treated differently from pen and paper equivalent contracts. This means that an electronic document with a validated digital electronic signature must be legally treated in the same manner as a paper document with an original handwritten signature.

To digitally sign a document, you must first have a digital identification (ID). This unique identifier can be obtained from various certification authorities, but MDOT will primarily use the Adobe Acrobat software. A digital signature can be placed anywhere on a document via the "Sign" toolbar icon in Adobe Acrobat software. Once a user has established their unique digital signature ID, digitally signing documents takes only seconds. The user must enter their unique

password in order to sign the document. The software will then embed their digitally encrypted electronic signature into the electronic PDF file. The electronic document is then a signed original and carries the exact same significance as a handwritten signature on a paper document.

Document Certification

The option of document certification should only be used when there is only going to be a single signature on a form or document. Certifying a document allows the document creator to ensure that no changes will be made to the document after signing. If any changes are made to a certified document after a certifying signature they will be very apparent and prevent anyone else from validating said document. Thus documents which require multiple signatures, like contract modifications, should never use the certify option. Certified documents would apply more to documents such as single signature letters and forms where the signer has to ensure that no data is changed, added or deleted from the original document.

Signature Validation

The use of a digital signature has the same legal validity as a traditional handwritten signature using ink on paper. However, since it is possible to create a digital signature ID with anyone's information in it, there are required signature validation procedures. Similar to how handwritten signatures must be verified, it is the responsibility of the recipient of an electronically signed document to confirm the identity of the signer/sender before the electronic signature identity that involves a minimum of two separate methods. The first (and typical) method is verification of the identity of the signer. If the document was supposed to be signed by a certain person and their name appears, then this requirement has been met. Secondly, it is common to identify the method/source of delivery. If the document arrives from the signers unique email address then the second validation method criterion has also been met. The following are questions/criteria to be answered by the person validating the electronic signature:

- 1. Did the document arrive from the signer's company/agency e-mail account or from an unknown email address?
- 2. Was it an electronic signature from the expected signer that has been previously validated?

Strange documents, new signatures not previously verified, documents from unknown email addresses, etc. should be verified by contacting the approver at their place of business (usually by telephone) to confirm the new digital ID and/or the document. Alternative approvers/signers of documents or unique delivery methods can always be pre-arranged. If approvers or delivery methods differ from the previously agreed upon people or methods, the recipient of the digitally signed document must contact the sender to validate their identity. When using electronic signatures, it is the responsibility of the recipient of the document to verify the electronic signature on the document before the document can be considered valid or provided to another entity for review and signature. These simple validation steps will significantly reduce any potential risks associated with electronic signatures.

Adobe Acrobat software has an integrated validation feature, therefore, once a user has validated (see Appendix) the sender of a digital signature, this sender will not need to be validated again. The effort required to validate electronic signatures will diminish as a users list of trusted digital signatures expands. Adobe Acrobat software also provides visual cues for validation. If the sender has not been previously verified, their digital electronic signature will have a grey colored question mark over it. Once a person's unique digital electronic signature has been validated and added to the trusted identity list, the Adobe Acrobat software will then always show a validated green-colored check mark next to that person's unique electronic signature. New or un-verified electronic signature until the validation step has been completed. The Adobe Acrobat software also allows you to share your previously validated electronic signatures with others through a simple e-mail process in the software.

One important issue to consider when utilizing digital electronic signatures is that any document that requires multiple signatures (i.e. contract modifications) must be either signed entirely in pen/ink on paper or signed entirely with all parties using electronic signatures. It is not possible to mix the two methods of signature as paper printouts of digital signatures are meaningless and scanning handwritten signatures into a PDF document is not currently acceptable to the Michigan Attorney General's office as a legal signature.

MDOT Electronic Signature Procedures

Digital electronic signatures will now be accepted wherever a signature is required on an MDOT document. The Michigan Attorney General's decision did not limit the types of documents MDOT may utilize digital electronic signatures on; however, it does require that new use of documents or processes be first cleared with their office. MDOT will continue to add new documents and processes to the growing list of those approved for electronic signature use; however, if a new document or procedure needs to be added, it should be submitted to the MDOT E-sign team in the Construction Field Services Division, Construction Contracts Unit. The use of electronic signatures throughout MDOT is encouraged and can lead to significant monetary, resource, and time savings for all involved. New forms, innovative ideas, and process improvements are encouraged to be submitted for approval.

Whether to sign by hand or electronically will continue to be optional for most documents; however, some documents or processes may eventually begin to require the use of electronic signatures due to the significant savings in material, time, and labor. Any changes to MDOT procedures that would require mandatory use of electronic signatures will be noted in the documented MDOT procedures.

MDOT currently only authorizes the use of the PKCS#12 Digital Signature ID. This international standard method of digital signature encryption requires the signer to enter their unique password each time they sign a document electronically. This method is also compatible with most common MDOT software such as Adobe Acrobat and Microsoft Office. Other types of digital IDs may also be approved in the future, but these IDs will be required to meet the minimum security and encryption protocols of the PKCS#12 IDs. Digital signature files are

transportable to other machines, but there is no password reset feature, so if you forget your digital signature password you will have to create a new digital signature. PKCS#12 digital signature IDs are good for a period of four years and the owner can change the password manually, but a user will not be prompted to change passwords until the ID expires.

MDOT is also working on integration of electronic signatures on portable devices. While Adobe Acrobat software does not currently support the use of electronic signatures on portable devices, there are several other software applications that do meet the MDOT security standards which allow regular PDF files to be digitally signed using portable devices. These applications and software are still being evaluated by the E-Sign team and the Department of Technology, Management and Budget for incorporation into MDOT processes. Until new portable device digital signature standard procedures are published, the use of these third party software applications will have to be submitted to the E-Sign team for evaluation on a case by case basis.

It is also important to note that for records retention and archiving purposes whenever digital electronic signatures are used on documents, the electronic file (adobe PDF file) is considered the legal original document. Printouts of documents containing digital signatures are only copies, so the electronic files containing digital electronic signatures must be retained and follow the relevant approved records retention procedures. Proper retention, archiving, and storage of the electronic files must be considered when using digital electronic signatures. MDOT will address the records storage issue through the requirement that all electronically signed documents must be placed in the project directory in the ProjectWise document management program.

Digital signatures are unique to each person. Under no circumstances may an electronic signature or password be used by another person. Signature authority may sometimes be allowed to be delegated to another party for certain procedures, but such delegation must be done by the designated party utilizing their own unique digital electronic signature on the document with the signature reason noting "Signed For *Persons Name*". If a person is found to have been committing fraud by using another person's digital electronic signature, the offending party will lose their electronic signature privileges and the case will be referred to the applicable authorities and/or the respective oversight group (pre-qualification committees, Attorney General, etc.). The fraudulent use of electronic signatures will be considered a significant violation and be subject to severe repercussions.

The use of PDF forms with pre-established fillable areas for electronic signatures on standard forms and documents is acceptable and encouraged for use within MDOT. The use of preestablished signature areas on other documents is not required. A significant advantage to using electronic signatures is that they may be placed on documents wherever the signer desires. When not using prepared forms with pre-established signature areas, the signer should take care to consider signature placement on the document with regard to clarity and readability. For instance, if the signer creates a signature placement box that is too small, the signature may not be readable, or if the signature placement box is drawn too large, it may encroach upon other areas of the document.

MDOT electronic signature instructions are attached to this BOH IM.

MDOT Style Guidelines for Use of Electronic Signatures

MDOT electronic signatures will need to conform to the following style guidelines:

Adobe Software digital signature option selections:

- Graphic options shall be:
 - "Name"
 - Or "Imported Graphic" (as outlined below)
- Configure text shall be configured as:
 - Uncheck the adobe "logo"
 - Required to include: ("Name", "Date", "Location" and "Reason")
 - Optional "Distinguished Name" (includes job title)
 - Optional for "labels"
- ➤ Text properties:
 - "left to right"

You may have multiple digital signature files configured for different purposes. It is even possible to configure a digital signature with an "Imported Graphic" (option noted above) containing an image of your scanned written signature or a scan of a professional license stamp. These are acceptable, but written signature images are not required and non-business related graphics are not acceptable.

Please share this information with consultants and local agencies within your area.

	Chief Operations Off	ïcer	Burea	u Director o	of Field Services
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FHW	A Approval 12-27-11				
Attac	hment				
BOFS	S:CFS:MA:lw				
Index	: Operations Review				
cc:	CFS Division Staff M. Chaput B. O'Brien M. DeLong	B. WieferichC. RademacherP. CollinsD. Wedley	 J. Adamini L. Wieber ACEC ACM	APAM CRAM FHWA MAA	MCA MCPA MITA MML

MDOT DIGITAL ELECTRONIC SIGNATURE INSTRUCTIONS

Updated February 2012

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- Appendix A Signature Validation and Trusted Identities (Steps A through H)
- Appendix B Setting up New Digital Electronic Signature for First Time (Steps A through E)

Step #1 – Document

Electronic document is received in a format that was scanned into a PDF file or printed to PDF that requires an electronic signature. Below is what an Adobe PDF file will look like. This one is a Field Manager Contract Modification approval.



Step #2 – Signatures

After review and approval of document contents and when you are ready to sign the document, just go to the "Sign" icon in the upper right end of the adobe menu or use the pull down menus.



Step #3 – Document Certified

This question will not always appear, but if it does you are probably the first person to sign the document. If you choose the "Certify Document" option then any changes made to the document after that point (including another person signing) will remove your certifying signature. So in the case of a multiple signature document like a contract modification, use the "Continue Signing" option.

Docume	nt Is Not Certified
	You are about to apply the first Digital Signature to this document. If you received this document from someone else, it could have been altered without the author's consent. Unless you receive this file from a trusted sender, you may not want to sign it. If you created this document, you may want to apply a Certifying Signature instead of a regular Digital Signature. If unauthorized changes are made to a Certified document, the Certifying Signature will be invalidated. Continue Signing Certify Document Cancel

Step #4 – Signature Field

This choice relates to documents that may have been pre-setup with signature areas like standard forms or if you wish to manually indicate where you will sign the document.

Sign Doc	ument
?	This document contains no signature fields that may be signed. Would you like to: • Create a new signature field to sign • Create a new invisible signature
He	elp Next Cancel

Step #5 – Create Signature Field

Draw a rectangle box in the area you intend to place your signature.

Adobe Acrobat Professional - [Con-Mod Sample - 1.pdf]					
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		-			
2					
0 kmar					
	****	Contract	Modification		
3	<u>(MDOT</u>	contract	modification		
gnatu	Michigan Department of Transportation			7/7/2011 12:18 PM FieldManager 4.7a	
0 					
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del Tree	Prime Contractor: Ajax Paving Industries, Inc		Recommended by Delivery Engineer: Thoma	as J. Tellier	
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HAMAN	Recommended by Consultant		Region Authorization		
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	Authorized by Local Agency		Construction Field Services Approval		
	(Signature)	(Date)	(Signature)	(Date)	
	Recommended by Airport Sponsor		Authorized by Airports Division		
	(Signature)	(Date)	(Signature)	(Date)	
eile eile eile eile eile eile eile eile	FEDERAL	PARTICIPATI	ON - ACTION BY F.H.W.A.		
tta chu	ApprovedNot Eligible				
4	See Letter Dated		(Signature)	(Date)	
120					
2222					

Step #6 – Choose Digital Signature

If you already have a digital signature, select it from the list and go to Step #7. If you do not have a digital signature already created, you will need to create one. (See Appendix A for setting up new digital electronic signatures.)

Step #7 – Apply Signature to Document

Enter your password, then type in your customized reason for signing the document (or use pull down menu for standard reasons). Next, confirm the contact info and then go to step #8 for more on signature appearance. (If signing for someone else, it is required to type *"signing for ??"* in the Reason for Signing Document area.)

the document. In case you ne	ss, you must apply the Digital Signat ed to later make changes to the orig	ure to the document by s inal, it is recommended t
you create a new signed copy	of the document by clicking Sign and	d Save As.
nature Details		
gning as R. Jason Clark, Pl	, MBA.	View Digital ID
nfirm Password:		
ason for Signing Document: (s	elect or edit)	
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Options Signature Appearance: MDOT PE Secure Location, e.g. city name: (op C&T, Lansing, MI	Edit.	New
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Options Signature Appearance: MDOT PE Secure Location, e.g. city name: (op C&T, Lansing, MI Your Contact Information, e. clarkj25@michigan.gov 616-	Edit. tional) g., phone number: (optional) 322-6630	New
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Sign Document	×
Digital ID: Adam Iding <idinga@michigan.gov></idinga@michigan.gov>	
Digital Identification Sign transaction, Encrypt document Adam Iding <idinga@michigan.gov></idinga@michigan.gov>	
2016/07/26 12:09:26 -05'00' Adam Iding	
Appearance: Standard Text Appearance: Standard Text Addam Digitally signed by Adam Iding DN: cn=Adam Iding. o, ou, email=Idinga@michigan.gov, o=US Reason: I am approving this document Location: CFS Date: 2011.12.15 12:36:30 -05'00'	
<u>R</u> eason)
I am approving this document	1
Other Information Image: CFS, Lansing, MI Location: CFS, Lansing, MI Contact Info: idinga@michigan.gov \$17-322-5659 Refresh IDs Sign Cancel	

Step #8 – Signature Appearance

MDOT standards are still being developed, but for now all signatures must include the Configure Graphic option of "name" and the Configure Text options of "name", "location", "date", and "reason". Initial primary requirement is to be sure to uncheck the box next to "logo" which places a copyrighted Adobe logo on your signature if you do not uncheck that box.

gure Signature Appearance	
e: MDOT Digital Signature	
review	
R. Jasor Clark, P	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 approving this document Location: C&T, Lansing, MI Date: 2011.08.10 11:05:49 -04'00'
Show: C No graphic	Import Graphic from:
 Imported graphic Name 	File Palm(TM) organizer
Configure Text Show: 🔽 Name 🔽 Location 🔽 Date 🔽 Reason	n 🔽 Distinguished name 🔲 Logo 🗟
ext Properties Text Direction: O Auto O I Digits: 0123456789	Left to right
	OK Cancel

Configure Signature Appearance	×
Ijtle: MDOT Digital Signature	
your common name here name here bN: your distinguished name here Reason: your signing reason here Location: your signing location here Date: 2011.12.15 12:32:51 -05'00'	
Configure Graphic Show: No graphic Import Graphic from: Imported graphic Import Graphic File	
Configure Text Show: ✓ Name ✓ Location ✓ Distinguished name Logo ✓ Date ✓ Reason ✓ Labels	
Text Properties Text Direction: • Auto Left to right Right to left Digits: 0123456789 OK Cancel	

Step #9 – Sign Document and Save Enter your password, confirm your information and then select either the "Sign and Save As" or the "Sign and Save" button.

	o Document			
To complete t the document you create a	the signing process, you m t. In case you need to late new signed copy of the do	ust apply the Digita make changes to ocument by clicking	al Signature to t the original, it is Sign and Save A	ne document by savin recommended that As.
Signature Details	÷			
Signing as R.	Jason Clark, PE.			View Digital ID
Confirm Passwo	ord: ******			
Reason for Sign	ning Document: (select or e	edit)		
I am approving) this document			•
<< Hide	Options			
Options				
Signature Ap	opearance:			
MDOT Digit		_	Edit	New
Theoreign	ar orginatar e			
Location, e.g	g. city name: (optional)			
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C&T, Lansin	igy init			
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C&T, Lansin Your Contac	t Information, e.g., phone	e number: (optional)	
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JC&T, Lansin Your Contac clarkj25@mi	it Information, e.g., phone ichigan.gov 616-322-6630	e number: (optional)	

Step #10 – Check Results and Validate

IMDOT	Contrac	t Modification	
Reprintment Investor Michigan Department of Transportation			7/7/2011 12:18 PI
			FieldManager 4.7
If authorized, the contractor agrees to do t payment in full the basis of payment as in to do the work described herein in accord	he work outlined dicated. Prime Co ance with the tern	above under the direction of the Engin ntractor, you are authorized and instru- is of your contract.	eer, and to accept as ucted as the contractor
Prime Contractor: Ajax Paving Industries,	Inc.	Recommended by Delivery Engine	eer: Thomas J. Tellier
(Signature)	(Date)	(Signature)	(Date)
Prepared by: 70m Delafuente		Authorized by TSC Manager: Ericl	k Kind
(Signature)	(Date)	(Signature)	(Date)
Recommended by Consultant		Region Authorization	
(Signature)	(Date)	(Signature)	(Date)
Authorized by Local Agency		Construction Field Services Appro	Wall Ar sport by K. Janni Can, PH min. Januar Can, PH, Jully, HOCT, Jan Canadastic Canadasti Biogram Canadat Mantalaga gan mi Tam Sporting Bit Allowed 2014 In 19 Thomas Pharter
(Signature)	(Date)	(Signature)	(Date)
Recommended by Airport Sponsor		Authorized by Airports Division	
(Signature)	(Date)	(Signature)	(Date)
FEDE	RAL PARTICIPA	TION - ACTION BY F.H.W.A.	
ApprovedNot Eligible			
See Letter Dated		(Signature)	(Date)

Blow up of Digital Electronic Signature (Note how large your draw box can greatly affect

(Note how large your draw box can greatly affect final signature appearance. Also note date/time, reason, contact info, etc)

Construction Field Services Ap 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=Clark/25@Michigan.gov Reason: I am approving this document Location: C&T, Lansing, MI Date: 2011.08.10 11:10:29 -04'00'
(Signature)	(Date)

Appendix A – Signature Validation and Trusted Identities

Step A – Validation – Right Clicking on a Signature Reveals

Right click on any digital electronic signature to see the validation info. This confirms the date/time were not altered (attempts to pre/post date), identity, changes to document since signing, etc. Another option in right clicking a signature is to view the document when it was signed (like track changes in MS word).

Signed by	R. Jason Clark, PE <clarkj25@michigan.gov> Show Certificate</clarkj25@michigan.gov>
Reason	I am approving this document
Date	2011/08/10 11:10:29 -04'00' Location: C&T, Lansing, MI
Validity 9	ummary
A 1	e Document has not been modified since this signature was applied.
🥢 Т	e document is signed by the current user.
🔔 Si	gnature date/time are from the clock on the Signer's computer.
Signature	was created using Adobe Acrobat 7.0.7.

gnature Pro	perties
A.	
Signati	ure is VALID, signed by Adam Iding <idinga@michigan.gov>.</idinga@michigan.gov>
Summary Do	ocument Signer Date/Time Legal
Signed by:	Adam Iding <idinga@michigan.gov></idinga@michigan.gov>
Reason:	Approving mod
<u>D</u> ate:	2011/12/15 10:07:27 -05'00'
- Validity Su	ummary
🅢 The	e Document has not been modified since this signature was applied.
🅼 The	e document is signed by the current user.
🛕 Sig	nature date/time are from the clock on the signer's computer.
Signature w	vas created using Adobe Acrobat 8.1.2.
	Validate Signature Close

Step B – Validation – Document Properties

This allows you to back up through a "Track Changes" type log to view the version of the document when someone signed. (The addition of each signature technically alters the document so it is not completely unmodified; however, the underlying PDF image is unchanged.)

iignature Properties	
Signature is VALID, signed by R. Jason Clark, PE <clarkj25@michigan.gov>.</clarkj25@michigan.gov>	
Summary Document Signer Date/Time Legal	
$ ot\!$	
Document Versioning	
Document revision 1 of 1 View Signed Version	
M This revision of the document has not been altered	
For integrity purposes, you should always verify what was signed by viewing the signed version of the document. This is not necessary when you are viewing the final version of a document.	
Modifications	
There are no restrictions on the changes that are permitted to be made to this document after signatures are applied. To view what was actually signed, click View Signed Version.	R
Modification Details:	
It is unknown what changes may have been made to this document since this signature was ;	
Compute Modifications List	
Verify Signature Cl	ose

Signature is VALID, signed by Adam Iding <idin< td=""><td>ga@michigan.gov>.</td></idin<>	ga@michigan.gov>.
ummary Document Signer Date/Time Legal	
The Document has not been modified since this	signature was applied.
Hash Algorithm: SHA1	
Document Versioning	
Document revision 1 of 1	View Signed Version
This revision of the document has not been	altered
For integrity purposes, you should always v version of the document. This is not necess document.	verify what was signed by viewing the signed ary when you are viewing the final version of a
Medifications	
There are no restrictions on the changes the after signatures are applied. To view what a Modification Details:	at are permitted to be made to this document was actually signed, click View Signed Version.
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There are no restrictions on the changes the after signatures are applied. To view what the Modification Details: It is unknown what changes may have been Compute Mod	at are permitted to be made to this document was actually signed, click View Signed Version.

Step C – Validation – Details of Signer

ignature Properties		
Ro		
Signature is VALID, signed	by R. Jason Clark, PE <clarkj25@michigan.gov< td=""><td>>,</td></clarkj25@michigan.gov<>	>,
Summary Document Signer	Date/Time Legal	(
The document is signed to	by the current user.	
Signed by: R. Jason Clark, P	E <clarkj25@michigan.gov></clarkj25@michigan.gov>	Show Certificate
💡 Click Show Certificate for	more information about the Signer's Certificate an	nd its Validity Details, or
to change the trust settin	gs for the Certificate or an Issuer Certificate.	
Validity Details		
N The document is signe	d by the current user.	
nath validation checks	were successful.	
🥢 Revocation checking is	not performed for Certificates that you have dire	ectly trusted.
Signer's Contact Information:	clarkj25@michigan.gov 616-322-6630	
	Verify	/ Signature Close

Signature Properties
Signature is VALID, signed by Adam Iding <idinga@michigan.gov>.</idinga@michigan.gov>
Summary Document Signer Date/Time Legal
W The document is signed by the current user.
Signed by: Adam Iding <idinga@michigan.gov></idinga@michigan.gov>
Click Show Certificate for more information about the signer's certificate and its validity details, or to change the trust settings for the certificate or an issuer certificate.
Validity Details
The document is signed by the current user.
Path validation checks were successful.
Revocation checking is not performed for Certificates that you have directly trusted.
Signer's Contact Information: 322-5659
Validate Signature

Step D – Validation – Date and Time Stamp Check (to prevent post/pre-dating document signatures)

Signature is VALID, signed by R. Jason Clark, PE <clarkj25@michigan.gov>. Summary Document Signer Date/Time Legal Image: 2011/08/10 11:10:29 - 04/00'</clarkj25@michigan.gov>	ignature Properties	
Summary Document Signer Date/Time Legal Image: Signature date/time are from the clock on the Signer's computer. Date: 2011/08/10 11:10:29 - 04'00'	Signature is VA	LID, signed by R. Jason Clark, PE <clarkj25@michigan.gov>.</clarkj25@michigan.gov>
Signature date/time are from the clock on the Signer's computer. Date: 2011/08/10 11:10:29 -0400'	Summary Document	Signer Date/Time Legal
Date: 2011/08/10 11: 10:29 -04'00'	Signature date	e/time are from the clock on the Signer's computer.
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Verify Signature		
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Signature Properties	×
Simple role VALID, signed by Adam Iding, (Idings @mithigan, cour)	
Signature is VALID, signed by Adam Iding <10inga@michigan.gov>.	
Summary Document Signer Date/Time Legal	
⚠️ Signature date/time are from the clock on the signer's computer.	
Date: 2011/12/15 10:07:27 -05'00'	
<u>V</u> alidate Signatur	e <u>C</u> lose

Step E – Validation – Legal Content

Signature Properties
Signature is VALID, signed by R. Jason Clark, PE <clarkj25@michigan.gov>.</clarkj25@michigan.gov>
Summary Document Signer Date/Time Legal
When validating digital signatures, you should evaluate the version of the document that was signed and the Signer Identity. Click Signer Legal Notice to review important information relating to Signer Identity, including legal terms and conditions that apply should you rely upon any signature created using the Signer Identity.
You should always view the original signed document to see what was signed (you can do this by clicking View Signed Version in the Document tab). Other tools available in the Document tab can help you analyze what has changed since the document was signed; however, these tools are not a substitute for viewing the original signed document.
Some documents may contain content that can affect the document's on-screen and printed presentation. You can get a description of such content by clicking View Document Integrity Properties. In most cases the content is harmless (for example, a JavaScript used for form calculations). You should verify that a document with such content comes from a trusted source and that only permitted changes have been made to it before trusting it.
Signer Legal Notice View Document Integrity Properties
6
Verify Signature Close

Signature Properties	×
Signature is VALID, signed by Adam Iding <idinga@michigan.gov>.</idinga@michigan.gov>	
Summary Document Signer Date/Time Legal	_
When validating digital signatures, you should evaluate the Document that was signed and the signer identity. Click Signer Legal Notice to review important information relating to signer identity, including legal terms and conditions that apply should you rely upon any signature created using the signer identity.	
You should always view the original signed document to see what was signed (you can do this by clicking View Signed Version in the Document tab). Other tools available in the Document tab can help you analyze what has changed since the document was signed; however, these tools are not a substitute for viewing the original signed document.	
Some documents may contain content that can affect the document's on-screen and printed presentation. You can get a description of such content by clicking View Document Integrity Properties. In most cases the content is harmless (for example, a JavaScript used for form calculations). You should verify that a document with such content comes from a trusted source and that only permitted changes have been made to it before trusting it.	
Signer Legal Notice View Document Integrity Properties	
Validate Signature	

Step F – Validation – Signer – View Certificate Under the "Signer" tab, clicking on "View Certificate" shows the details of the certificates of all the signers of the document to that point.

Show all certification paths four	nd	
R. Jason Clark, PE <clarkj2< th=""><th>General Details F</th><th>Revocation Trust Policies Legal Notice</th></clarkj2<>	General Details F	Revocation Trust Policies Legal Notice
		R. Jason Clark, PE <clarkj25@michigan.gov> MDOT</clarkj25@michigan.gov>
	Issued by:	R. Jason Clark, PE <clarkj25@michigan.gov> MDOT</clarkj25@michigan.gov>
	Valid from:	2011/08/10 11:02:25 -04'00'
	Valid to:	2016/08/10 11:02:25 -04'00'
	Intended usage:	Sign transaction, Encrypt document
		Export

Adam Iding <idinga@michic< th=""><th>Summary Details Devocation Truct Delicies Local Nation</th></idinga@michic<>	Summary Details Devocation Truct Delicies Local Nation
	Adam Idian (Idian Original and
	Adam Iding <idinga@michigan.gov></idinga@michigan.gov>
	Ikgued by: Adam Iding <idinga@michigan.gov></idinga@michigan.gov>
	Valid from: 2011/07/26 12:09:26 -05'00'
	Valid to: 2016/07/26 12:09:26 -05'00'
	Sign transaction, Encrypt document
	Export
This is a self-signed certifica	ate. The selected certificate path is valid.

Step G – Validation – Signer – View Certificate – Trust

Under the "Signer" tab, clicking on "View Certificate" then on the "Trust" tab shows the details of the trusted identity and allows you to "Add to Trusted Identities" once you have validated the signature. This only needs to happen once per digital electronic signature.

Certificate Viewer	
This dialog allows you to view details shown correspond to t	the details of a Certificate and its entire issuance chain. The he selected entry.
Show all certification paths four	nd
R. Jason Clark, PE, MBA <cl< th=""><th>General Details Revocation Trust Policies Legal Notice</th></cl<>	General Details Revocation Trust Policies Legal Notice
	This certificate is trusted because you have the corresponding private key. Trust Settings This certificate is trusted to:
▲	
♀ This is a Self-Signed Certificat	e. The selected certificate path is valid.
The path validation checks we	ere done at 2011/09/20 13:42:37 -04'00'
	OK

Adam Iding <idinga@michic Summary Details Revocation Trust Policies Legal Notice This certificate is trusted because you have the corresponding private key. Trust Settings This certificate is trusted to: Sign documents or data Certify documents Execute dynamic content that is embedded in a certified document Execute high privilege JavaScripts that are embedded in a certified document Add to Trusted Identities</idinga@michic 	now all certification paths four	id
	Adam Iding <idinga@michic< td=""><td>Summary Details Revocation Trust Policies Legal Notice This certificate is trusted because you have the corresponding private key. Trust Settings This certificate is trusted to: Image: Sign documents or data Image: Certify documents Image: Certified document Image: Execute dynamic content that is embedded in a certified document Execute high privilege JavaScripts that are embedded in a certified document Image: Add to Trusted Identities Add to Trusted Identities</td></idinga@michic<>	Summary Details Revocation Trust Policies Legal Notice This certificate is trusted because you have the corresponding private key. Trust Settings This certificate is trusted to: Image: Sign documents or data Image: Certify documents Image: Certified document Image: Execute dynamic content that is embedded in a certified document Execute high privilege JavaScripts that are embedded in a certified document Image: Add to Trusted Identities Add to Trusted Identities

Step H – Advanced Tools Menu – Manage Trusted Identities

The "Advanced" menu pull down and "Manage Trusted Identities" shows all of the previously validated and trusted electronic signatures that have been received. You can also share your trusted contacts to another person (via email) using the "export" feature.

me Oliff Farr /farrc@michinan.gov>	Add Contacts
Mohammad Azam <azamm1@michigan.gov> R. Jason Clark, PE, MBA <clarkj25@michigan.gov></clarkj25@michigan.gov></azamm1@michigan.gov>	Request Contact
	Details
	Export
	Delete
	New Group

ime D. Jacob Clark, DE MPA Kalarki 25@michiaap cows	Add Contacts
K, Jason Clark, PE MDA <clarkj23@michigan.gov,></clarkj23@michigan.gov,>	Request Contact
	Details
	Export
	Delete
	New Group

Manage Trusted Identities	
Display: Contacts	7
Name	Add Contacts
Mohammad Azam <azamm1@michigan.gov> R. Jason Clark, PE, MBA <clarkj25@michigan.gov></clarkj25@michigan.gov></azamm1@michigan.gov>	Request Contact
	Details,.,
	Export
	Delete
	New Group
Help	Close

<u> Appendix B – Setting up New Digital Electronic</u> <u>Signature for First Time</u>

Step A – Add Digital ID

Add Digital	ID
**	You are about to create a self-signed Digital ID.
	You will be the only certifying authority for this Digital ID. Others wishing to validate this Digital ID will need to contact you directly. As a result, this Digital ID may not be appropriate for use in situations requiring third party validation.
	Click Next to continue creating this self-signed Digital ID.
Cancel	< Back Next >

S	ecurity Settings				
±—	Digital IDs Directory Servers Time Stamp Servers	Add ID Usage Options	Certificate Details Prove Export	Refresh Tremove ID Storage Mechanism	Ext
	Adobe LiveCycle Policy Ser	Adam Iding <idinga@michigan.gov></idinga@michigan.gov>	Adam Iding <idinga@michigan.gov></idinga@michigan.gov>	Digital ID File	201
		<[
		Manage My Digital ID This is a list of the digital ID private and should not be sh decrypt documents that are e Each digital ID has a corresp you and which you can share for you, or to validate your d <i>Certificate Details</i> to view i certificate with others. Use <i>Set Default</i> to set or cle documents. Use <i>Add ID</i> to a	s that are available for your use or ared. They are used when you cre- mcrypted for you using <i>Certificat</i> onding <i>public</i> certificate which co with others. This certificate is use igital signatures. Select one of the nformation from your certificate. Use ar which digital ID is used by defa dd a new digital ID or to find an e	n this computer. Digital IDs a eate a digital signature or whe <i>e Security.</i> ntains identifying information d by others to encrypt docum entries above and click Jse <i>Export</i> to share your nult when you sign or encrypt xisting digital ID and add it to	re n you about nents
		view. Use <i>Kemove ID</i> to per	manenuy remove a digital ID from	i uns list and wherever it is sto	ored.

Step B – Select Type

Adobe Reader Version 7

Add Digital ID Your Digital ID can be used to sign and decrypt documents. The Certificate that comes with your Digital ID is used by others when verifying your signature and encrypting documents for you. If you have received a document requiring your signature, in most cases you should have already been given instructions on how to obtain a Digital ID. Otherwise you can choose one of the following options. C Find an existing Digital ID Browse for an existing Digital ID to add to your list of Acrobat Digital IDs. Create a Self-Signed Digital ID Create a self-signed Digital ID with a Certificate to distribute to others who need to validate your Digital Signatures or encrypt documents for you. Get a Third-Party Digital ID Go to a Web site with information on how to get a Digital ID. Third party Digital ID providers give both senders and recipients a convenient way to exchange Digital IDs. Cancel Next >

Add Digital 段	×
Add or create a digital ID to sign and encrypt documents. The certificate that comes with your digital ID is sent to others so that they can verify your signature.	
• Browse for an existing digital ID file	
O Configure a roaming ID for use on this computer	
O Create a self-signed digital ID for use with Acrobat	
O Look for newly inserted hardware tokens	
Cancel < Back Next >	

Step C – Storage Method Choosing the "Windows Certificate Store" option does not require the use of a password each time to sign; it uses your computer log-on.

Adobe Reader Version 7 Only

Add Digital ID
Where would you like to store your Self-Signed Digital ID?
New PKCS#12 Digital ID file
Creates a new password protected Digital ID file that uses the standard PKCS#12 format. This common Digital ID file format is supported by most security software applications, including major web browsers. PKCS#12 files have a .pfx or .p12 file extension.
O Windows Certificate Store
Your Digital ID will be stored in the Windows Certificate Store where it will also be available to other Windows applications. The Digital ID will be protected by your Windows login.
Cancei < Back Next >

Step D – Enter Your Info

Add Digital ID	
Enter your Identity inform	ation to be used when generating the Self-Signed Certificate.
,	
Name (e.g. John Smith):	R. Jason Clark, PE
Organizational Unit:	C&T
Organization Name:	MDOT
Email Address:	ClarkJ25@Michigan.gov
Country/Region:	US - UNITED STATES
Enable Unicode Suppo	rt
Key Algorithm:	1024-bit RSA
Use Digital ID for:	Digital Signatures and Data Encryption
- -	
Cancel	< Back Next >

Adobe Reader Version 8 (Step 1): Finish this step and move on to Step 2 to enter your information.

Add Digital ID	X
Browse for a digital ID file. Digital ID files are password protected and require yo order to be opened.	ur password in
Eile Name:	Browse
Password:	
×*****	
Cancel < Back	Next >

Adobe Reader Version 8 (Step 2): Choose Edit, then Preferences, select Identity on the left under Categories, and then click OK.

ategories:	Identity		
3D	Login Name:	idinga	
Batch Processing	<u>N</u> ame:		
Color Management			
Convert From PDF	Organization Name:		
orms	or genize don realies		
dentity	Organizational Unit:		
nternational			
nternet	Email Address:		
avaScript	Your identity informa	ation is used with comments, reviews, and digital signatures. Information entered h	re
lavaScript Aeasuring (2D)	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered he ansmitted beyond this application without your knowledge.	re
lavaScript Aeasuring (2D) Aeasuring (3D)	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered he ansmitted beyond this application without your knowledge.	ere
lavaScript Measuring (2D) Measuring (3D) Meeting Aultimedia	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
JavaScript Measuring (2D) Measuring (3D) Meeting Multimedia Aultimedia Trust	Your identity informa is secure and not tra	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
avaScript Ieasuring (2D) Ieasuring (3D) Ieeting Iultimedia Iultimedia Trust	Your identity informa is secure and not tra	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
avaScript Ieasuring (2D) Ieasuring (3D) Ieeting Iultimedia Iultimedia Trust Iew Document Online Services	Your identity informa is secure and not tra	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
lavaScript Aeasuring (2D) Aeasuring (3D) Aleeting Aultimedia Aultimedia Trust New Document Doline Services Reading	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
avaScript Aeasuring (2D) Aeeting Aultimedia Aultimedia Trust New Document Online Services Reading Reviewing	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
avaScript Aeasuring (2D) Aeeting Aultimedia Aultimedia Trust New Document Doline Services Reading Reviewing Bearch	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
avaScript Aeasuring (2D) Aeeting Aultimedia Aultimedia Trust New Document Doline Services Reading Reviewing Bearch Becurity	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered h ansmitted beyond this application without your knowledge.	re
avaScript Aeasuring (2D) Aeeting Aultimedia Aultimedia Trust New Document Doline Services Reading Reviewing Bearch Becurity Belling	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered h	re
avaScript Aeasuring (2D) Aeasuring (3D) Aeeting Aultimedia Aultimedia Trust Aultimedia Trust Aultimedia Trust Autometica Autometica Autometica Reading Reviewing iearch iearch iearch iearch iearch iearch	Your identity informa is secure and not trai	ation is used with comments, reviews, and digital signatures. Information entered h	re
AvaScript Aeasuring (2D) Aeasuring (3D) Aeeting Aultimedia Aultimedia Trust Autometia Trust Aeviewing Search Security Spelling TouchUp Trust Manager	Your identity informa is secure and not tra	ation is used with comments, reviews, and digital signatures. Information entered h	ere
JavaScript Measuring (2D) Meeting Multimedia Multimedia Trust New Document Dnline Services Reading Reviewing Search Security Spelling FouchUp Frust Manager Jnits & Guides	Your identity informa is secure and not tra	ation is used with comments, reviews, and digital signatures. Information entered h	re

Step E – Setup Password

After your password has been setup, go back to Step #7 and start using e-sign.