



MONTANA DEPARTMENT OF TRANSPORTATION
AASHTOWare Project CONSTRUCTION and MATERIALS



AASHTOWARE PROJECT ENHANCEMENTS / FIXES

Monday, August 1, 2022

Several patches were applied to our current 4.6 version. We are now on version 4.6.8 Revision 042. This included some miscellaneous fixes and an enhancement for the Materials module.

GENERAL

Miscellaneous fixes

- 1) Improved performance with agency views

CONSTRUCTION

Miscellaneous fixes

- 1) Eliminated notifications for inactive contract administrative offices
- 2) Eliminated errors with change order lump sum items
- 3) Eliminated issue with creating a diary adjustment on the contract time start date
- 4) Fixed some rounding issues with contract amounts and DWR item postings

MATERIALS

Reference Specification will be automatically checked on a Sample Record Test
Where possible, the system now uses contract Letting Dates and reference specification Effective Dates to automatically identify one reference specification on a sample record test as Use for Test, indicating that it should be the specification used in evaluating test results.

Tuesday, February 22, 2022

AASHTOWare Project has been upgraded to version 4.6. This included a lot of new enhancements for the Construction and Materials modules.

GENERAL

Attachment Indicator

The Actions dropdown menu will now contain an indicator showing how many attachments exist for that row item. This will eliminate having to click into the Attachments link to see if any exist.



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Material	Represented Qty	Source	SMFMI		
702.01.03.01 - CSS-1h, Cationic Slow		WESTSTSASP - Western States Asp			
Material Units	Conversion Factor	Reported Matl Qty	Cont Est Matl Qty	Sat Rep Matl Qty	
TON	0.00425	0.21250	0.78200	0.00000	

Source ID	Field Inspection Value
WESTSTSASP Western States Asphalt, LLC.	EMULS - Emulsion Sample Witnessed
Seal#/Batch/Lot	Witnessed
Begin typing to search or press Enter	02/04/2022
QPL Product Name	Invoice #
	12345

Actions

- Copy
- Copy DWR Acceptance Records to Items
- Create New Sample Record
- Delete
- Views
- Attachments (1)** ←
- Links
- Material
- Source
- Tracked Issues

CONSTRUCTION

Construction Stockpiles

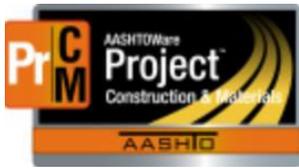
Fixes have been implemented for issues we've experienced with Construction Stockpiles incorrectly calculating balances and over-deducting when payment estimates were deleted and re-generated.

Exclude Acceptance Actions from Pay Exception Adjustments

Acceptance actions can now be excluded from withholding payment when an insufficient materials exception is generated on an item that is associated with the acceptance action. The payment estimate exception will still be generated, but a negative line-item adjustment will not be created. These excluded items will be setup globally and not editable at the contract level.

Action Type TEST - Physical Testing	Action Relationship Description IA - MT 202 - Field
Action Documentation Type Sample Record	Effective Date 01/01/2019
Expiration Date	Action Frequency 31,250.000
Action Rate 1	Minimum Quantity Required
Frequency Type Quantity	Comments
	Exclude from Pay Est Yes ←

Description			
Estimate Exception Type: Insufficient Materials: Project 8085165000, Item 301020340, Project Item Line Number 0060, Material Set CBC 6A, Material 701.02.04.02 - Crushed Base Coarse Grade 6A, Acceptance Action IA Comparison - Sieve Analysis is insufficient.			
Exception ID	Payment Estimate Exception	Status	Adjustment
3	Insufficient Materials	Unresolved	No ←
Description		Status *	
Estimate Exception Type: Insufficient Materials: Project 8085165000, Item 301020340, Project Item Line Nurr		Unresolved	
Adjustment			
No			



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Items

Contract Adjustments

Item Adjustments

Approval Tracking

System-Generated Item Adjustments

Type search criteria or press Enter *Advanced*

No rows found matching criteria.

Payment Estimate will prompt user to delete existing Draft estimate

If a payment estimate exists on a contract and is in Draft status, the user does not need to manually delete the estimate before re-generating. The user will be prompted to select OK to continue. If the existing payment estimate is in Pending Approval status the user will be notified that they cannot create a new payment estimate while there is one pending approval.

mdtwebtrnsporttest.mdt.mt.gov says

Payment Estimate already exists for the contract with a Draft status.
Would you like to delete the existing Payment Estimate and continue creating a new one?

Add Payment Estimate Process started at 02/02/2022 5:06:54 PM.

OK Cancel

Remarks can be added/updated on a locked Diary

Remarks on the Diary > General tab can be added, updated, or deleted if the Diary is locked. This can only be done by roles that have access to update Diaries.

Diary Locked: Yes

Payment Est Num: 0001

Last Updated By

Last Updated Date: 04/13/2021 2:06:57 PM

Contractor Working: No

Payment Est Status: Approved

Remarks

Type *	Remark Date	Remark *
DiaryGeneral - General	02/01/2022	Can add/update remarks on a Diary that is locked

Administrative DWRs

DWRs for administrative purposes can now be created that will not create Payroll exceptions. This will be used for the AutoMob DWRs and to pay for items when the contractor is not onsite. When the Payroll Not Required checkbox is checked, the Start Time, End Time and Hours fields



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become un-editable and the system will not expect a payroll, thus eliminating the past exception.

Contractor: L & J CONSTRUCTION GROUP, LLC

On Site: [dropdown] Start Time: [dropdown]

Prime: Yes Equipment: No Personnel: No Staff: No DBE Certified: Yes

End Time: [dropdown] Hours: [dropdown]

Payroll Not Required:

Comments: [text area]

Adjustment Filter on Estimate Exceptions

There is now an Adjustment filter dropdown on the Payment Estimate > Exceptions tab. This allows you to filter the list of exceptions based on whether a system-generated line-item adjustment was created or not.

Search: Type search criteria or press Enter **Advanced** Showing 4 of 4

No Filter [dropdown icon]

Exception ID	Payment Estimate Exception	Resolution	Adjustment
> 1	Insufficient Materials	Resolved	No
> 2	Insufficient Materials	Unresolved	No
> 3	Insufficient Materials	Unresolved	No
> 4	Overdue Payrolls	Unresolved	No

Adjustment Filter dropdown: No Filter, Yes, No

MATERIALS

Represented Quantity field on DWR Acceptance Records not automatically populated

When DWR Acceptance records are created upon creation of a DWR Item posting, the Represented Quantity field is no longer auto populated with the Placed Quantity from the posting. Since we are not using Represented Quantity for material acceptance, this does not affect any of our processes and this notice is for information only.



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DWR Item Posting

Proj Ln Num	Item ID	Item Description	Project	Catg	Rec	Attachments
0210	608010050	SIDEWALK-CONCRETE 6 IN	8085165000	0001	1	0

Supplemental Description: Attention: No

Current Qty	Unit Price	Extended Amt	Tot Qty Posted this DWR	Tot Qty Posted to Date
40.500	320.00000	12,960.00	10.000	10.000

Item Posting Num	Contractor	Station/Location	Placed Qty
1	7080 - L & J CONSTRUCTION GROUP, LLC	Testing	10.000

Contractor: L & J CONSTRUCTION GROUP, LLC (Prime)

Placed Quantity: ←

DWR Acceptance Record

Material	Represented Qty	Source	SMFMI
551.02.02.01 - Fly Ash		HEADLCS - Boral Resources (Lewis & Clark Station)	

Material Units	Conversion Factor	Reported Matl Qty	Cont Est Matl Qty	Sat Rep Matl Qty
	1.00000	10.00000	40.50000	0.00000

Source ID: (Boral Resources (Lewis and Clark Station))

Field Inspection Value:

Certification comparison to MDT Specs:

Sample Type:

Acceptance Method:

Sample ID:

Seal#/Batch/Lot:

QPL Product Name: (HEADLCS)

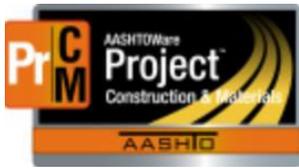
Represented Quantity: ←

Multiple Test Runs on the same Sample Record count toward Material Acceptance

Multiple test runs of the same test method entered on the same sample record will all count toward material acceptance now. For example, Emulsion and Concrete Properties samples may now have multiple tests entered on the same sample record.

Concrete Properties example

Test #	Test Method	Test Description	Dest Lab	Lab Unit	MAA	Test Status	Test Result
1.0	Concrete Properties	AASHTO T 152, T 119, T 309, T 121	FieldCrew	FieldCrewTesting	<input checked="" type="checkbox"/>	10 - Test in Queue	
2.0	Concrete Properties	AASHTO T 152, T 119, T 309, T 121	FieldCrew	FieldCrewTesting	<input checked="" type="checkbox"/>	10 - Test in Queue	
1.0	District Received	Sample Received in District/Area	Butte	ButteLab	<input checked="" type="checkbox"/>	40 - Test Complete	



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Project	Catg	Line#	Item	Current Qty	Unit	Unit Price	Qty Posted to Date
8085165000	0001	0210	608010050 SIDEWALK-CONCRETE 6 IN	40.500	SQYD	320.000	10.000

Material	Conv Factor	Material Qty	Option	Acceptance Type	Sample Type / Field Insp Value	Acpt Method	Test Method	Smpl Resp	Test Resp	Rate/Freq	Size/ Units	Est	Req	Tkn	Def
----------	-------------	--------------	--------	-----------------	--------------------------------	-------------	-------------	-----------	-----------	-----------	-------------	-----	-----	-----	-----

551.03.02.02	0.16667	1.667
Class General Concrete		
General-Uses Optimized		

Acceptance: Concrete Properties															
Concrete Properties	Sample Record	Project Acceptance	Test Results	Concrete Properties	FLD	FLD	1/24 CUYD	1 CF	1	1	2	0			
Sample ID	Sample Date	Status	Test #	Sample Type	Acpt Method	Rep Qty									
Attachments															
20220204110048	02/04/2022	Rcvd Lab	1	Project Acceptance	Test Results										
20220204110048	02/04/2022	Rcvd Lab	2	Project Acceptance	Test Results										

Emulsions example

Test #	Test Method	Test Description	Dest Lab	Lab Unit	MAA	Test Status	Test Result
1.0	Emulsion Properties	AASHTO T 59, T 72, T 49	Helena	Asphalt	<input checked="" type="checkbox"/>	10 - Test in Queue	
2.0	Emulsion Properties	AASHTO T 59, T 72, T 49	Helena	Asphalt	<input checked="" type="checkbox"/>	10 - Test in Queue	
3.0	Emulsion Properties	AASHTO T 59, T 72, T 49	Helena	Asphalt	<input checked="" type="checkbox"/>	10 - Test in Queue	
1.0	District Received	Sample Received in District/Area	Butte	ButteLab	<input checked="" type="checkbox"/>	40 - Test Complete	

Project	Catg	Line#	Item	Current Qty	Unit	Unit Price	Qty Posted to Date
8085165000	0001	0080	402020315 EMULSIFIED ASPHALT-TACK COAT	184.000	GAL	5.500	50.000

Material	Conv Factor	Material Qty	Option	Acceptance Type	Sample Type / Field Insp Value	Acpt Method	Test Method	Smpl Resp	Test Resp	Rate/Freq	Size/ Units	Est	Req	Tkn	Def
----------	-------------	--------------	--------	-----------------	--------------------------------	-------------	-------------	-----------	-----------	-----------	-------------	-----	-----	-----	-----

702.01.03.01	0.00425	0.213
CSS-1h, Cationic Slow Set Emulsion-hard		
CSS-1h		

Acceptance: Emulsion Acceptance (Satisfy 1 Option) - Disregard deficiencies on other Option															
QPL (per source)	Daily Work Report	QPL Verified					1/Contract	2 - 1 QT	1	1	0	1			
Test and Cert	Daily Work Report	Emulsion Sample Witnessed					1/35 TON	2 - 1 QT	1	1	1	0			
DWR Date	Status	Inspector	Seq #	Field Insp Value	Comments	Rep Qty									
Attachments															
02/01/2022	Draft	Kathryn James	1	Emulsion Sample Witnessed											
03921_CSS1h.pdf															
Sample Record	Project Acceptance	Test Results	Emulsion Properties	FLD	MTRL	1/35 TON	2 - 1 QT	1	1	3	0				
Sample ID	Sample Date	Status	Test #	Sample Type	Acpt Method	Rep Qty									
Attachments															
20220204115735	02/04/2022	Rcvd Lab	1	Project Acceptance	Test Results										
20220204115735	02/04/2022	Rcvd Lab	2	Project Acceptance	Test Results										
20220204115735	02/04/2022	Rcvd Lab	3	Project Acceptance	Test Results										

Updates to QPL Required fields in Sample Records and DWR Acceptance Records
When creating a sample record or a DWR Acceptance Record with a material that is QPL Required, after selecting a Source, you will be required to select a QPL Product Name before you can save.



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Sample Record

Add Sample Record

Error: No rows saved; detected rows with errors. Please review messages below.
 • Sample ID '20220203050831': QPL Product Name is required for Material: 714.08.00.01.

▼ Add Sample Record

General

Sample Location

Additional Information

Sources/Facilities

Destination Lab(s)

▼ Primary Source

Select Primary Source...

Source ID - Source Name
POTTRCN - Potters Industries, Inc. - Canada

Source City

Source Type
MTRL - Material Supplier

Source Legal Description

Material Code

QPL Required

QPL Product Name

Begin typing to search or press Enter

DWR Acceptance Record

Summary (RP 226.7)

Error: No rows saved; detected rows with errors. Please review messages below.
 • DWR Acceptance Record Id '290568': QPL Product Name is required for Material: 551.02.02.01.

Show All | Show Errors

Inspector: JamesK Sequence: 1 Status: Draft

Material	Represented Qty	Source	SMFMI	
551.02.02.01 - Fly Ash		HEADLCS - Boral Resources (Lewis a		
▼ Material Units	Conversion Factor	Reported Matl Qty	Cont Est Matl Qty	Sat Rep Matl Qty
	1.00000	10.00000	40.50000	0.00000

Source ID ▼

HEADLCS
Boral Resources (Lewis and Clark Station)

Seal#/Batch/Lot ▼

Begin typing to search or press Enter

QPL Product Name * ▼

Begin typing to search or press Enter

Field Inspection Value ▼

QPL - QPL Verified

Certification comparison to MDT Specs ▼

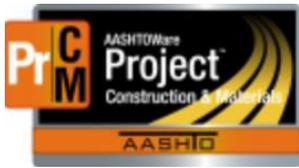
Meets Specs

Sample Type ▼

Acceptance Method ▼

Separate fields for capturing QPL Product Name and Pre-inspection Seal#/Batch/Lot

On the DWR Acceptance Record, the previous 'combo' field used to capture product name, seal#, batch or lot is now two separate fields. One for QPL Product name only and the other for Pre-inspected materials (Seal#/Batch/Lot). The Field Inspection Value choice will determine which of the two fields are required. Selecting a Source is also required.



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Field Inspection Value = QPL Verified or QPL Verified/Steel Cert Reviewed

Summary (RP 226.7)

Inspector: JamesK Sequence: 1 Status: Draft

Error: No rows saved; detected rows with errors. Please review messages below.

- QPL Product Name: Invalid value "; value is required when related field 'Field Inspection Value' is 'QPL'. (custom rule)

Show All | Show Errors

Material	Represented Qty	Source	SMFMI
551.02.02.01 - Fly Ash		HEADLCS - Boral Resources (Lewis & Clark Station)	
Material Units	Conversion Factor	Reported Matl Qty	Cont Est Matl Qty
	1.00000	10.00000	40.50000
			Sat Rep Matl Qty
			0.00000

Source ID *
Boral Resources (Lewis and Clark Station)

Seal#/Batch/Lot

QPL Product Name *

Field Inspection Value

Certification comparison to MDT Specs

Sample Type

Acceptance Method

Field Inspection Value = Pre-inspection Verified or Pre-inspection Verified/Steel Cert Reviewed

Summary (RP 226.7)

Inspector: JamesK Sequence: 1 Status: Draft

Error: No rows saved; detected rows with errors. Please review messages below.

- Seal#/Batch/Lot: Invalid value "; value is required when related field 'Field Inspection Value' is 'PREISTL'. (custom rule)

Show All | Show Errors

Line Num	Item ID	Item Description	Project ID	Catg	Se...	Loc/Desc
560	553010151	PRESTRESSED BEAM-TYPE MTS-36	8085165000	0002	1	Test

Material Set Materials 1

Material	Represented Qty	Source	SMFMI
553.01.00.01 - Prestressed Beam		CRETXBL - Forterra Pipe & Precast (Cretex) Billings #61	
Material Units	Conversion Factor	Reported Matl Qty	Cont Est Matl Qty
	1.00000	0.00000	0.00000
			Sat Rep Matl Qty
			0.00000

Source ID *
Forterra Pipe & Precast (Cretex) Billings #61

Seal#/Batch/Lot *

QPL Product Name

Field Inspection Value

Certification comparison to MDT Specs

Form 406

Sample Type



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Wednesday, April 8, 2020

AASHTOWare Project has been upgraded to version 4.2. This included a lot of new enhancements for the Construction and Materials modules.

CONSTRUCTION

Submit Another User's DWR for Approval

If your role has the ability to submit DWRs for Approval, you now have the ability to submit another user's DWR for Approval. In the prior version, only the Creator of the DWR could do that. This will allow an FOP or EPM to submit an Inspector's DWR for Approval if they are not available to do so. It still does not allow any changes to the DWR by anyone other than the Creator of the DWR.

DWR Date	Inspector	Status	Approval Date	Sequence	Attachments	Notes	Agency Views	Work Items In	Actions
11/27/2019	Daniel Hanni	Draft		1	No	No	0	0	Copy
11/26/2019	Daniel Hanni	Draft		1	No	No	0	0	Delete
11/25/2019	Daniel Hanni	Approved	11/27/2019 9:30:00 AM						Exclude from Search Results
									Open
									Tasks
									Approve
									Submit For Approval

Change Order Time Adjustments

When adding a time adjustment on a change order, you now have the ability to enter the Adjustment Completion Date instead of calculating and entering the Adjustment Time Units. Once you enter the Adjustment Completion Date and save, the system will auto-calculate the Adjustment Time Units. This is an OR situation where you either enter the Time Units or Completion Date and the system calculates the other field.

Time ID	Time Descr	Adj Time Units	Adj Completion Date
00 DT	BRIDGE REMOVAL, REPLACEMENT, APPR.	32.00	01/14/2020 12:00:00 AM

Time ID
00 DT

Time Description
BRIDGE REMOVAL, REPLACEMENT, APPR.

Up to 256 characters

time type

Completion Date

Charge Type

Adjustment Time Units
32.00

Adjustment Completion Date
01/14/2020 12:00:00 AM

Original Completion
12/13/2019 12:00:00 AM

Current Completion
12/13/2019 12:00:00 AM



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MATERIALS

Copy DWR Acceptance Records to Multiple Contract Project Items

The system now has the capability to copy DWR Acceptance Records from one item to multiple items on the contract. This will save the user from having to complete DWR Acceptance records for the same material, source and product name (if applicable) on multiple items (i.e. Portland Cement).

Once the initial work item is added to the DWR, an Item Posting created and corresponding DWR Acceptance record completed and saved, you can select an Action to Copy DWR Acceptance Records to Items. ****NOTE:** Attachments on DWR Acceptance records are NOT copied to the new records. In order for MICO to validate the certification for the copied records, enter a remark in the Comments field to indicate the original bid item the attachment is associated to (i.e. See CONCRETE-CLASS GENERAL bid item for Certification attachment).

Material	Represented Qty	Source	SMFMI			
551.02.01.01 - Portland Cement		ASHGVOR - Ash Grove Cement Compa	Type III Durkee			
Material Units	Conversion Factor	Reported Mati Qty	Cont Est Mati Qty	Sat Rep Mati Qty		
	1.00000	0.00000	8.40000	0.00000		

Source ID ▼

Ash Grove Cement Company - Durkee Plant

Product Name/Seal#/Batch/Lot ▼

Represented Quantity ▼

Comments ▼

Field Inspection Value ▼

QPL - QPL Verified

Certification comparison to MDT Specs ▼

Meets Specs

Sample Type (*Only when creating Sample) ▼

Acceptance Method (*Only when creating Sample) ▼

Sample ID

Material	Represented Qty	Source	SMFMI			
551.02.01.01 - Portland Cement		ASHGVOR - Ash Grove Cement Compa	Type III Durkee			
Material Units	Conversion Factor	Reported Mati Qty	Cont Est Mati Qty	Sat Rep Mati Qty		
	1.00000	0.00000	8.40000			

Actions ✕

Copy

Copy DWR Acceptance Records to Items

Create New Sample Record



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Copy DWR Acceptance Record to Items

Material
551.02.01.01 - Portland Cement

Showing 11 of 11

Item Complete:
 Projects:
 Contractors:
 Categories:
 Material Set:

Select: All None

Item/Description	Material Set	Ln Num	Proj Ln Num	Project/Category	Unit
551020030-CONCRETE-CLASS GENERAL	General-Uses Conventional	0210	0210	9038011000/0001	CUYD
<input checked="" type="checkbox"/> 551020030-CONCRETE-CLASS GENERAL	General-Uses Optimized	0210	0210	9038011000/0001	CUYD
551020035-CONCRETE-CLASS STRUCTURE	Structure-Uses Conventional	0220	0620	9038011000/0003	CUYD
<input checked="" type="checkbox"/> 551020035-CONCRETE-CLASS STRUCTURE	Structure-Uses Optimized	0220	0620	9038011000/0003	CUYD
551020166-CONCRETE-CLASS DRILLED SHAFT	Drilled Shaft-Uses Conventional	0230	0630	9038011000/0003	CUYD
<input checked="" type="checkbox"/> 551020166-CONCRETE-CLASS DRILLED SHAFT	Drilled Shaft-Uses Optimized	0230	0630	9038011000/0003	CUYD

Once you select the desired items to copy to, the system will automatically create the Work Item(s) and Item Posting record(s) for the selected items if they do not already exist.

If the Item Posting is created by the system it will put a comment in the Location/Description field to indicate it was copied automatically.

Item Posting Num	Contractor	Station/Location	Placed Qty
1	7947 - BATTLE RIDGE BUILDERS, LLC	Copied DWR Acceptance Record	

Contractor:

Placed Quantity:

Station From:

Offset Type From:

Offset Distance From:

Station To:

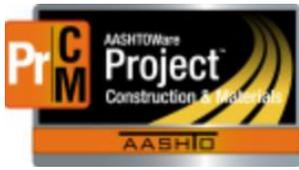
Attention: 0
 Units: CUYD
 Agency Views: None
 Automobiliation Posting:

Location/Description:

The DWR Acceptance records will be automatically created and the information in the record copied from (i.e. Source, Product Name, Field Inspection Value, etc.) will be copied to the new records.

LRS Fields added to DWR and Sample Record

LRS fields have been added to AASHTOWare Project and are available on the DWR Item Posting and the Sample Record – Sample Location Tab. These fields are informational only and are not required. They can be used to capture LRS information if desired.



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Location

Start Coordinate X

End Coordinate X

Start Coordinate Y

End Coordinate Y

Start Coordinate Z

End Coordinate Z

Start Location Method

End Location Method

Start Location Quality

End Location Quality

Start Location Quality Unit

End Location Quality Unit

Start Location Issue

End Location Issue

Start Location Created By

End Location Created By

Start Location Created Date

End Location Created Date

Start Location Last Updated By

End Location Last Updated By

Start Location Last Updated Date

End Location Last Updated Date

Start Location End Active Date

End Location End Active Date