

AASHTOWare Project Training Manual

Revision Date: December 2024



Create a Material Code

By the end of this Module, you will be able to:

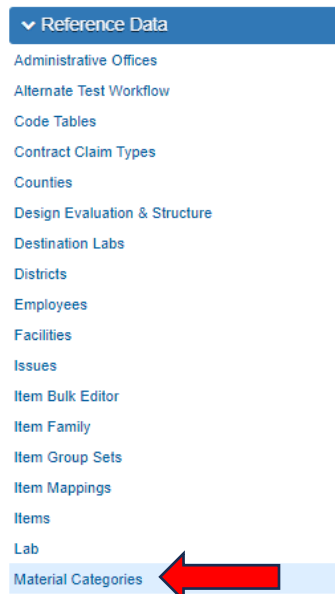
1. Create a Material Code in AASHTOWare Project
2. Define a Material Code in AASHTOWare Project
 - a. Modify Reference Material in AASHTOWare Project
 - b. Assign Tests to Reference Material in AASHTOWare Project
 - c. Define Acceptance Actions in AASHTOWare Project

Creating a Material Code

1. Log into AWP.

A screenshot of the AWP login interface. It includes a text field for the username (containing 'bholder'), a password field with masked characters, a dropdown menu for the DOT (currently showing 'DOT'), and a 'Log On' button.

2. Select Material Categories from your Materials Dashboard under Reference Data.



3. Select the Material Category Code that applies for the material you are wanting to add. If your Material Category Code is not displayed, scroll down to display Load next 50.

Material Category Code	Material Category Name
100 Misc Materials	100 Miscellaneous Materials
200 Earthwork, Misc	200 Earthwork, Miscellaneous
213 Flowable Fill	213 Flowable Fill
216 Cell Conc Fill	216 Cellular Concrete Fill
300 Agg Pvt/Bs, Misc	300 Aggregate Pavements & Bases, Miscellaneous
400 Asphalt, Misc	400 Asphalt Pavement, Miscellaneous
401 HMA, QC/QA	401 HMA, QC/QA
401 HMA, QC/QA Surf	401 HMA, QC/QA Surface
401 HMA, QC/QA, OG	401 HMA, QC/QA, OG
402 HMA	402 HMA, Intermediate/Base

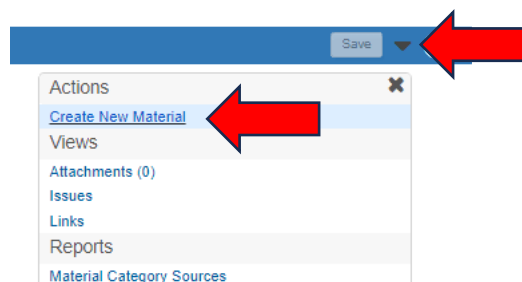
4. The Material Category Summary will display.

Material Category Summary

Material Category: 402 HMA

General	Material Category Code *	Remarks
Qualifications	402 HMA	0
Associated Materials	Material Category Full Name *	Specification Reference
Acceptable Alternates	402 HMA, Intermediate/Base	402
Associated Sources	English Unit	Metric Unit
Associated Facilities	TON - TON	
Action Relationships	Product Name Required	Source Facility Required
Acceptance Actions	☐	☐
	Recycled	Control Number Required
	☐	☐
	Effective Date	Expiration Date
	01/01/2021	mm/dd/yyyy
	Status	Active
	ACTIVE - Active	Yes
	Remarks	
	Type *	Remark *

5. Select the Component Actions Menu and click on Create New Material to create a new material code.



6. Enter the Material Code numbering sequence as defined by the Department.

Material Code *



7. Enter the material code name describing the material being added.

Material Full Name *

8. Ensure that the Material Category Code and Specification Reference is correct.

Material Category Code

402 HMA

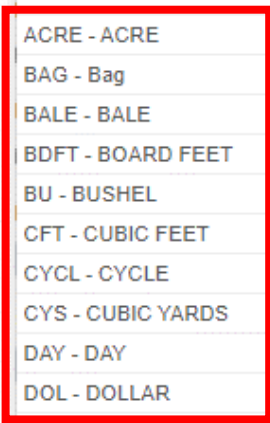
Specification Reference



9. Select how the material will be accepted by selecting the correct unit in the English Unit dropdown.

English Unit

TON - TON



- ACRE - ACRE
- BAG - Bag
- BALE - BALE
- BDFT - BOARD FEET
- BU - BUSHEL
- CFT - CUBIC FEET
- CYCL - CYCLE
- CYS - CUBIC YARDS
- DAY - DAY
- DOL - DOLLAR

10. Select Product Name Required if a Product Name is required for this material when reporting on a sample record.

Product Name Required

☐ 

11. Select the Effective Date for the material code by using the calendar icon.

Effective Date

01/01/2021 

12. Ensure that the Status of the material code is marked active.

Status

ACTIVE - Active 

13. If needed, an Expiration Date for the material code can be set.

Expiration Date

mm/dd/yyyy 

14. Remarks may be added when needed. Select General if you do not want the information to be shown on a Qualified Product List. Select QPL List if you wish the information shown on a Qualified Product list. This information applies to all products of the same material code.

▼ Remarks

Type *	Remark *
GEN - General 	Type D Cert

15. Select Save to save the sample.

Save  

Defining a Material Code

1. Now that you have created a new material code you need to define specific requirements needed for the system to use the new material.

Material Summary

Material 401M43411 - Test Code Successfully Saved

▼ Material: 401M43411 - Test Code

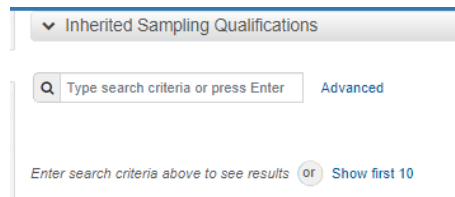
General	Material Code *	Remarks
Qualifications	401M43411	1
Component Materials	Material Full Name *	Material Short Name
Acceptable Alternates	Test Code	
Associated Sources	Material Category Code	Material Category Full Name
Associated Facilities	402 HMA	402 HMA, Intermediate/Base
Action Relationships	Specification Reference	Source Facility Required
Acceptance Actions	402	☒
	English Unit	Type/Size/Class Required
	TON - TON	☐
	Product Name Required	Print Label Copies
	☐	1
	Effective Date	Expiration Date
	01/01/2021	mm/dd/yyyy
	Status	Active
	ACTIVE - Active	Yes
	Research	
	☐	

2. Select Qualifications.

▼ Material: 401M43411 - Test Code

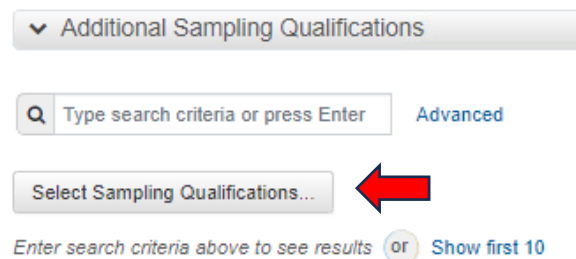
General
Qualifications
Component Materials
Acceptable Alternates
Associated Sources
Associated Facilities
Action Relationships
Acceptance Actions

3. Inherited Sample Qualifications are set up when Categories are created. The system will populate this section automatically.



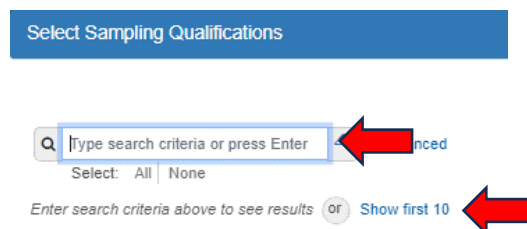
The screenshot shows a section titled "Inherited Sampling Qualifications" with a dropdown arrow. Below the title is a search bar with the placeholder text "Type search criteria or press Enter" and a magnifying glass icon. To the right of the search bar is a link labeled "Advanced". Below the search bar is a text input field with the placeholder text "Enter search criteria above to see results" and a radio button. To the right of the radio button is a link labeled "Show first 10".

4. Click Select Sampling Qualifications.



The screenshot shows a section titled "Additional Sampling Qualifications" with a dropdown arrow. Below the title is a search bar with the placeholder text "Type search criteria or press Enter" and a magnifying glass icon. To the right of the search bar is a link labeled "Advanced". Below the search bar is a button labeled "Select Sampling Qualifications...". To the right of the button is a red arrow pointing left. Below the button is a text input field with the placeholder text "Enter search criteria above to see results" and a radio button. To the right of the radio button is a link labeled "Show first 10".

5. There are several ways to search for Sampling Qualifications. You can type the qualification name, the qualification ID or Show first 10.



The screenshot shows a section titled "Select Sampling Qualifications" with a dropdown arrow. Below the title is a search bar with the placeholder text "Type search criteria or press Enter" and a magnifying glass icon. To the right of the search bar is a link labeled "Advanced". Below the search bar is a text input field with the placeholder text "Enter search criteria above to see results" and a radio button. To the right of the radio button is a link labeled "Show first 10". A red arrow points to the search bar, and another red arrow points to the "Show first 10" link.

6. Select the appropriate qualification you are looking for. Multiple qualifications can be selected to be added to the material.

ID	Description
✓ ITM580-HMA-Exam	Sampling Hot Mix Asphalt
R60-Concrete-Qual	Sampling Freshly Mixed Concrete
M&T Paint Lab	M&T Paint Lab Sampling Qualifications
ITM207-Agg-Exam	Sampling Stockpiled Aggregates
ITM207-Agg-Qual	Sampling Stockpiled Aggregates
✓ ITM580-HMA-Qual	Sampling Hot Mix Asphalt
ITM587-HMA-Exam	Sample Reduction of HMA Samples
ITM587-HMA-Qual	Sample Reduction of HMA Samples
R60-Concrete-Exam	Sampling Freshly Mixed Concrete
✓ R66-HMA-Exam	Sampling Asphalt Materials

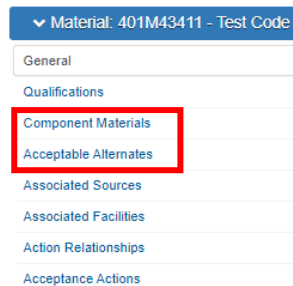
7. Select Add to Material.



8. The selected qualification will be displayed for activation on this material. Ensure that the Effective Date and Status are marked correctly.

ID	Type	Description
ITM580-HMA-Exam	Qualified - Qualified	Sampling Hot Mix Asphalt
Effective Date ▼	Expiration Date ▼	Status ▼
01/01/2020	mm/dd/yyyy	ACTIVE - Active
ITM580-HMA-Qual	Qualified - Qualified	Sampling Hot Mix Asphalt
01/01/2020	mm/dd/yyyy	ACTIVE - Active
R66-HMA-Exam	Qualified - Qualified	Sampling Asphalt Materials
01/01/2020	mm/dd/yyyy	ACTIVE - Active

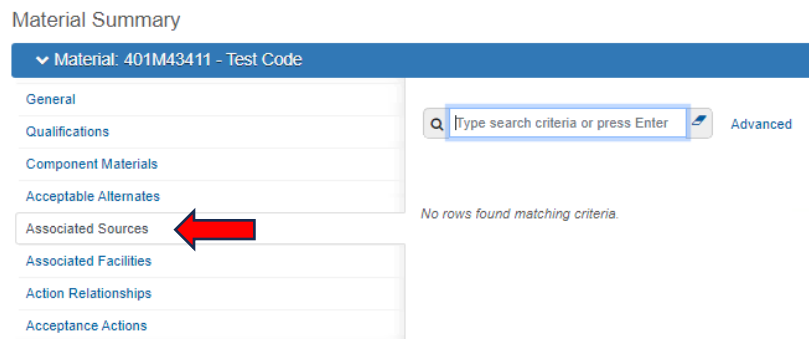
9. Component Materials and Acceptable Alternates are not used by INDOT currently.



▼ Material: 401M43411 - Test Code

- General
- Qualifications
- Component Materials
- Acceptable Alternates
- Associated Sources
- Associated Facilities
- Action Relationships
- Acceptance Actions

10. The Associated Sources tab shows you the sources that are currently assigned to this material.



Material Summary

▼ Material: 401M43411 - Test Code

- General
- Qualifications
- Component Materials
- Acceptable Alternates
- Associated Sources
- Associated Facilities
- Action Relationships
- Acceptance Actions

q Type search criteria or press Enter Advanced

No rows found matching criteria.

11. Associated Facilities is not currently used by INDOT.



▼ Material: 401M43411 - Test Code

- General
- Qualifications
- Component Materials
- Acceptable Alternates
- Associated Sources
- Associated Facilities
- Action Relationships
- Acceptance Actions

12. Select Action Relationships. Action Relations defines how the material test can be reported.



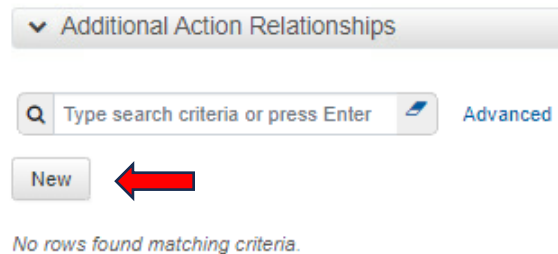
Material: 401M43411 - Test Code

- General
- Qualifications
- Component Materials
- Acceptable Alternates
- Associated Sources
- Associated Facilities
- Action Relationships**
- Acceptance Actions

13. Inherited Action Relationships are set up when Categories are created. The system will populate this section automatically if any apply.

Inherited Action Relationships	
Type search criteria or press Enter Advanced Showing 50 of 66	
Action Type	Act Relationship Stat Type
Act Documentation Type	Act Relationship Descr AV 9003 VERIFICATION Test Results
>	AASHTO T166 VERIFICATION Test Results
>	AASHTO T209 VERIFICATION Test Results
>	AASHTO T30 VERIFICATION Test Results
>	ITM 571 VERIFICATION Test Results
>	AASHTO T331 VERIFICATION Test Results
> Sample Record	ACTIVE - Active AASHTO T166 BACKUP Test Results
> Sample Record	ACTIVE - Active AASHTO T209 BACKUP Test Results

14. To add a New Action Relationship, select the new button in the Additional Action Relationships section.



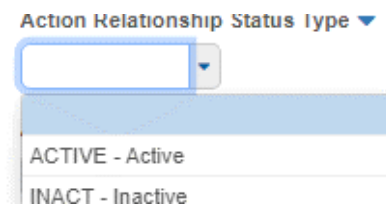
Additional Action Relationships

Type search criteria or press Enter Advanced

New

No rows found matching criteria.

15. Select the Action Relationship Status Type from the dropdown.

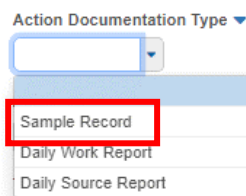


Action Relationship Status Type

ACTIVE - Active

INACT - Inactive

16. Select the Action Documentation Type from the dropdown. This should always be Sample Record.



Action Documentation Type

Sample Record

Daily Work Report

Daily Source Report

17. Click into the Test Method Description field and press the Enter key. This will bring up a list of Test Methods to choose from. Select the Test Method that applies.



Test Method	Description
AASHTO T100	Specific Gravity of Soil
AASHTO T11	Material Finer Than 200 Sieve By Washing
AASHTO T131	Time Set Hydraulic Cement by Vicat
AASHTO T155	Water Retention by Concrete Curing Material

18. Enter Special Instructions and Remarks if needed.

Special Instructions ▼

Remark ▼

19. Select the Acceptance Method that applies for this material from the dropdown.

Acceptance Method ▼

- CTR - Test Results
- OTTR - Other Than Test Results

20. Select the Sample Type that applies for this material from the dropdown.

Sample Type ▼

- ACCP - Acceptance Testing
- AUDT - Audit
- BACKUP - Backup Sample
- FAIL - Failed Material Investigation
- IAS - Independent Assurance Samples
- INFO - Informational Testing

21. Select the Effective Date for this Action Relationship by using the calendar icon.

Effective Date ▼
  

22. If needed, you can set an Expiration Date for the Action Relationship.

Expiration Date ▼
mm/dd/yyyy ☐ 

23. Action Relationship Description is a required field and is populated by how the material is to be accepted and tested. This step is defined by the State Materials Engineer and cannot be changed. The screenshot shows the general formatting for Action Relationship Description and an example Action Relationship Description.

Action Relationship Description * ▼

Test Method	Sample Type	Acceptance Method
AV 9003	Acceptance	Other Than Test Results

24. Select Approved Source Required.

Approved Source Required ▼
☐

25. Select the Status of the Action Relationship from the dropdown.

Status ▼

ACTIVE - Active

INACTIVE - Inactive

PENDING - Pending

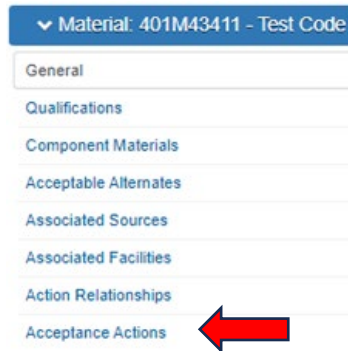
RESEARCH - Research

26. Select Save

Print Save ▼ ?

27. Repeat step 7-21 to add additional Action Relationships to the material.

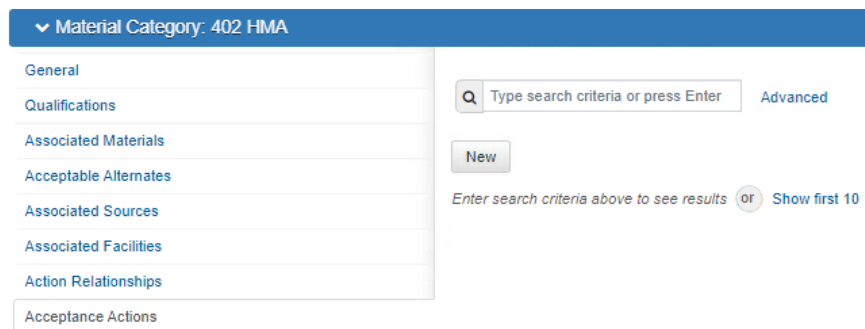
28. Select Acceptance Actions.



Material: 401M43411 - Test Code

- General
- Qualifications
- Component Materials
- Acceptable Alternates
- Associated Sources
- Associated Facilities
- Action Relationships
- Acceptance Actions

29. This screen will allow you to assign Acceptance Actions to this material.



Material Category: 402 HMA

- General
- Qualifications
- Associated Materials
- Acceptable Alternates
- Associated Sources
- Associated Facilities
- Action Relationships
- Acceptance Actions

Search: Type search criteria or press Enter Advanced

New

Enter search criteria above to see results or Show first 10

30. Select New.



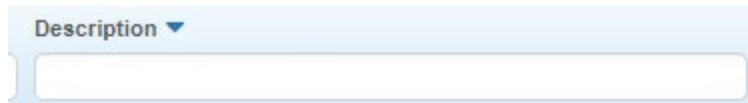
New

31. Name the acceptance action that is being added to the material.

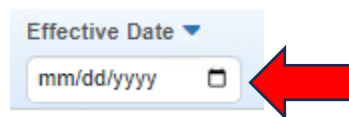


Name *

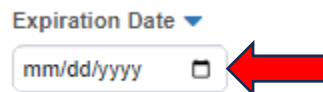
32. Enter the Description of the acceptance action. This should describe the purpose of the material being entered.

A screenshot of a web form with a label 'Description' and a dropdown arrow. Below the label is a large, empty rectangular text input field.

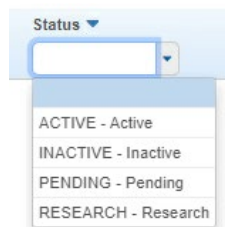
33. Enter the Effective Date for the acceptance action by using the calendar icon.

A screenshot of a web form with a label 'Effective Date' and a dropdown arrow. Below the label is a text input field containing the placeholder 'mm/dd/yyyy' and a small calendar icon to its right. A red arrow points to the calendar icon.

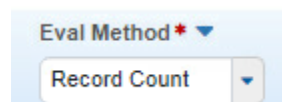
34. If needed, you can set an Expiration Date for the acceptance action.

A screenshot of a web form with a label 'Expiration Date' and a dropdown arrow. Below the label is a text input field containing the placeholder 'mm/dd/yyyy' and a small calendar icon to its right. A red arrow points to the calendar icon.

35. Select the Status for the acceptance action from the dropdown.

A screenshot of a web form with a label 'Status' and a dropdown arrow. The dropdown menu is open, showing four options: 'ACTIVE - Active', 'INACTIVE - Inactive', 'PENDING - Pending', and 'RESEARCH - Research'.

36. Eval Method should always be Record Count.

A screenshot of a web form with a label 'Eval Method' and a dropdown arrow. The dropdown menu is open, showing one option: 'Record Count'.

37. Select Save



38. You must now define the Acceptance Action you have added to the material.

Material Category Summary

Material Category: 402 HMA

General

Qualifications

Associated Materials

Acceptable Alternates

Associated Sources

Associated Facilities

Action Relationships

Acceptance Actions

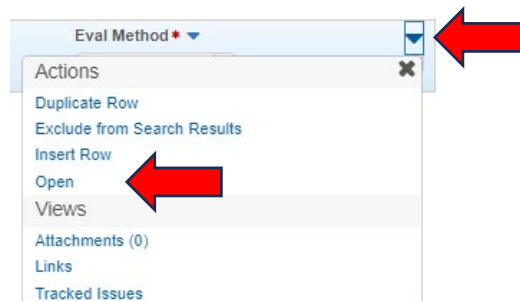
Search: [Type search criteria or press Enter] Advanced Showing 2 of 2

New

HMA, Inter/Base	HMA, Inter/Base	01/01/2021	mm/dd/yyyy	ACTIVE - Active	Record Count
Name	Description	Effective Date	Expiration Date	Status	Eval Method
Test	HMA	03/19/2024	mm/dd/yyyy	ACTIVE - Active	Record Count

0 added | 0 changed

39. Select the Row Action Menu button then select Open.



40. You now need to define the acceptance action option. The Option Name should represent the tests involved in that option.

Acceptance Actions Summary

Save Complete

Acceptance Actions: HMA, Inter/Base

Material Category: 402 HMA-402 HMA, Intermediate/Base

General

Items

Item Families

Name	Description
HMA, Inter/Base	HMA, Inter/Base
Effective Date	Status
01/01/2021	ACTIVE - Active
Expiration Date	Active
	Yes
Evaluation Method	
Record Count	

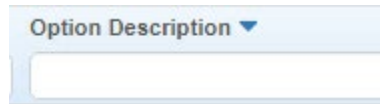
New

Option Name

Option Description

Up to 40 characters

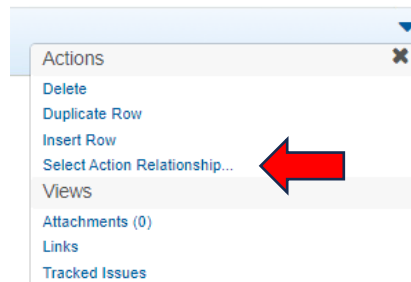
41. The Option Description gives more detail to the option name.

A screenshot of a web form showing a label 'Option Description' with a downward arrow, followed by a large, empty text input field.

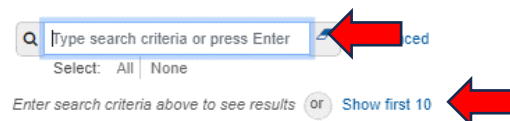
42. Select Save



43. Select the Row Actions Menu and click on Select Action Relationship.



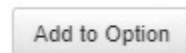
44. There are several ways to search for Action Relationships. You can type the Action Relationship Description, the Action Document Type or Show first 10.



45. Select the appropriate Action Relationship you are looking for. Multiple selections can be made to add to the material.

ITM 571 VERIFICATION Test Results		
✓	AASHTO T331 VERIFICATION Test Results	
	AASHTO T166 BACKUP Test Results	Sample Record
✓	AASHTO T209 BACKUP Test Results	Sample Record
	AASHTO T30 BACKUP Test Results	Sample Record
	ITM 571 BACKUP Test Results	Sample Record
✓	AASHTO T331 BACKUP Test Results	Sample Record
	AASHTO T84 BACKUP Test Results	Sample Record

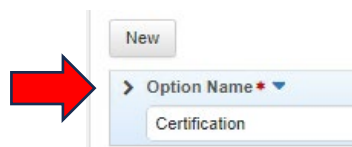
46. Select Add to Option.



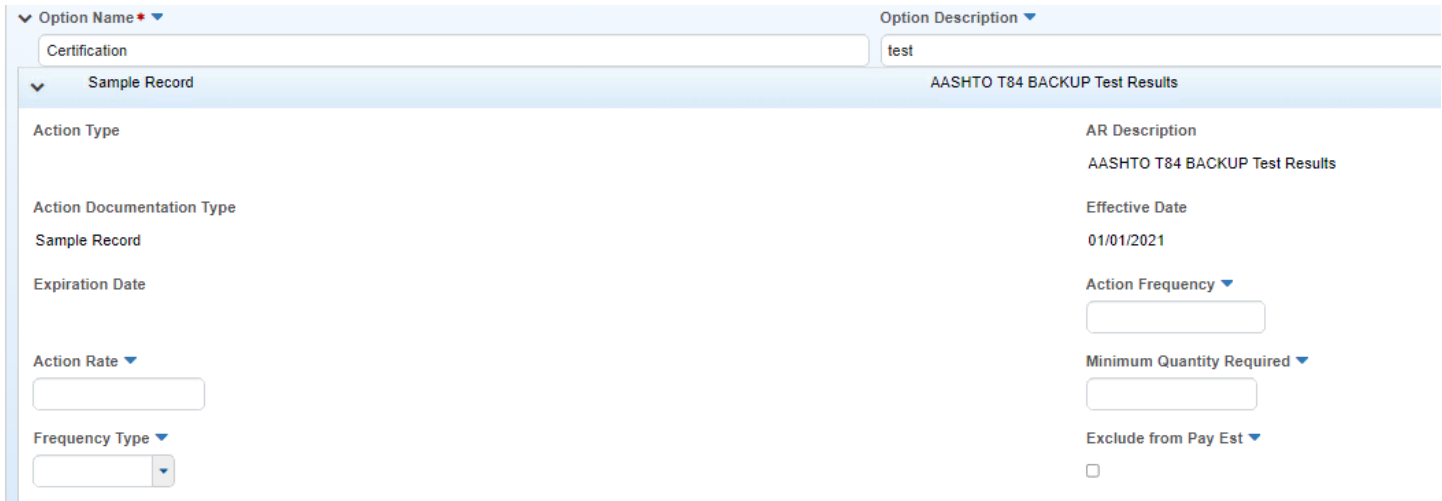
47. Select Save



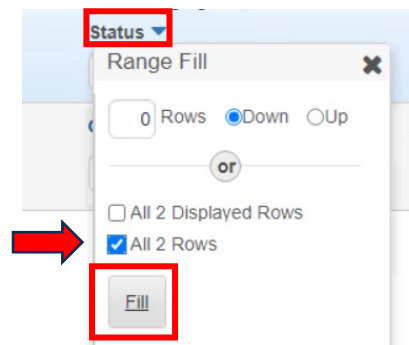
48. Select the arrow beside the Option Name.



49. Now you can define the frequency to each Action Relationship added.



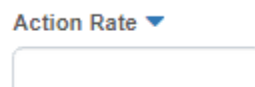
50. If there are multiple Action Relationships listed, click the Status arrow. Range Fill allows you to choose how many rows can be filled. Click Fill when completed.



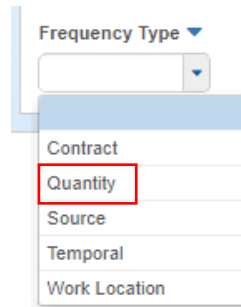
51. Click Save.



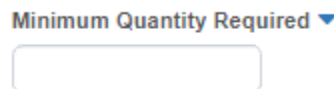
52. Define the Action Rate. This represents the number of tests that need performed per the frequency determined by the specification.



53. Select the Frequency Type from the dropdown.



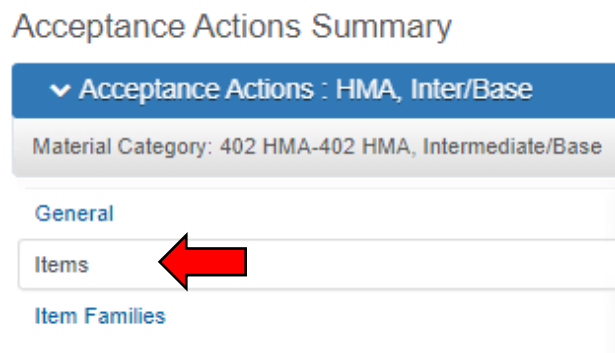
54. Enter the Minimum Quantity Required. This entry is Specification driven, consult your specification reference document before entering this field.



55. Select Save



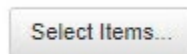
56. Select Items on the left side of your screen.



57. If needed, you can now assign this Acceptance Action to a specific item. This means that the only time the Acceptance Action will be required is when the material you have added is used on a contract.

Item	Descr	Spec Bk
304-07493	WIDENING WITH HMA, TYPE B	10
304-07494	WIDENING WITH HMA, TYPE C	10
304-07789	WIDENING WITH HMA, TYPE D	10
304-12623	HMA PATCHING, FULL DEPTH, TYPE B	10
304-12624	HMA PATCHING, PARTIAL DEPTH, TYPE B	10
304-12625	HMA PATCHING, FULL DEPTH, TYPE C	10
304-12626	HMA PATCHING, PARTIAL DEPTH, TYPE C	10
304-12627	HMA PATCHING, FULL DEPTH, TYPE D	10
304-12628	HMA PATCHING, PARTIAL DEPTH, TYPE D	10
402-05498	HMA FOR PARKING AREA	10
402-07451	HMA WEDGE AND LEVEL, TYPE B	10
402-07452	HMA WEDGE AND LEVEL, TYPE C	10

58. Click on Select Items.



59. Items can be searched by Item Code, Item Description or by selecting Show first 10.

Search: [Advanced](#)

Select: [All](#) | [None](#)

Enter search criteria above to see results or [Show first 10](#)

60. Select the appropriate Item you are looking for. Multiple items can be selected to be added to the material.

Q Type search criteria or press Enter  Advanced Showing 10 of 4605

Select: All | None

	Item	Descr
	104-05404	DESIGN BUILD
	104-12654	DESIGN BUILD
✓	105-06807	ADDITIONAL
	105-06845	CONSTRUCTION ENGINEERING
✓	105-09356	COST ADJUSTMENT FOR CLAIM RESOLUTION
✓	105-09357	COST ADJUSTMENT FOR ACCELERATION
	105-09645	CONSTRUCTION ENGINEERING AND INSPECTION UTILITY RELOCATION

61. Select Add to Acceptance Action.

Add to Acceptance Action

62. Select Save.



63. Item Families is not currently used by INDOT.

