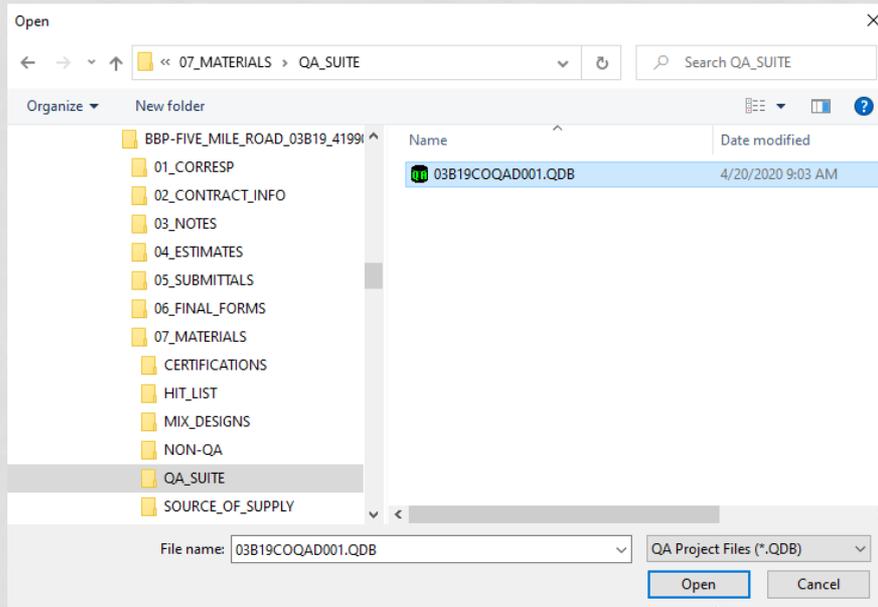


QA TRAINING MDT BILLINGS DISTRICT

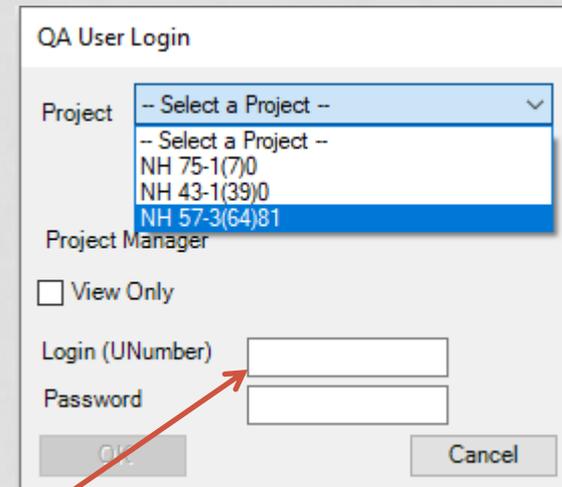
PLANT MIX FILE SETUP

PRESENTED BY: EMILY PETERSON, DISTRICT ENGINEERING OFFICER

QA PLANT MIX FILE SETUP



- Navigate to the file you want to setup. It should be located under the projects Materials folder, QA Suite. Click Open



- Login using the same credentials as you use to log into the computer and click ok. If you have a tied project you will need to select which project you want to open.

QA PLANT MIX FILE SETUP

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: COVER-TYPE 2

Material Type: COVER - TYPE 2

Effective Date: 1/16/2014

Comment: Changed the name from Grade 2A to Type 2 to match the supplemental specification.

Unit Cost: 1.00 Contract Quantity: 56344 Sq Yd

Base Price: 0.00 Bid Item Number: 409000020

Pit Lab Number: Material Code: 701.02.08.01

Last Modified By: Contract File Creation

Status: Currently in Specification Edit Mode

| Number | Quantity | Unit Cost |
|--------|----------|-----------|
| 0180 | 56344 | 1.00 |

Add Material Edit Selected Delete Selected

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: Material Code: 401.03.01.01

Last Modified By: Contract File Creation

Status: Currently in Specification Edit Mode

| Number | Quantity | Unit Cost |
|--------|----------|-----------|
| 0120 | 8019 | 42.00 |

Add Material Edit Selected Delete Selected

- To begin setting up the specific materials. Click on “Specifications”, then “Materials Summary”. You will see a list of all the possible materials for the project.

- Choose the Material you would like to set up. This example will show setting up Plant Mix Bit Surf Gr S – ¾”. Click Edit Selected.

QA PLANT MIX FILE SETUP

Material Item Information

Name: PLANT MIX BIT SURF GR S - 3/4 IN
Effective Date: 2/26/2015 Volumetric Acceptance
Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Base Price: 0.00 Contract Quantity: 8019 Ton
Item Number: 401020045 Pit Lab Number: Material Code: 401.03.01.01

Aggregate Selection Other Specifications

Select Aggregate (None if no Aggregate for this Material):
GRADE S - 3/4" \ 19 MM

Information for Selected Aggregate Specification

Effective Date: 2/15/2005

Comment: From Special Provisions, above date, Table 701-15B(1)

Sieves for Selected Spec:

| | |
|---|---|
| 1" \ 25 mm - Min=100 - Incentive Sieve=No | ▲ |
| 3/4" \ 19 mm - Min Targ=90 Max Targ=100 Targ=0 Tol=7 - Incentive Sieve=No | ▲ |
| 1/2" \ 12.5 mm - Min Targ=0 Max Targ=90 Targ=0 Tol=7 - Incentive Sieve=No | ▲ |
| 3/8" \ 9.5 mm - Min Targ=0 Max Targ=100 Targ=0 Tol=7 - Incentive Sieve=No | ▼ |

Break Sieve
1"

Additional Requirements for Aggregate:
MT217-Fracture
**Fracture: Min=35

Validation Errors:

| | |
|--|---|
| 3/4" \ 19 mm: Target value is not between max and min values. | ▲ |
| #8 \ 2.360 mm: Target value is not between max and min values. | ▲ |
| #200 \ 0.075 mm: Target value is not between max and min values. | ▲ |
| MT332-Gyratory-3/4"(19MM) | ▲ |
| VMA: Target value is not between max and min values. | ▼ |
| VFA: Target value is not between max and min values. | ▼ |

- Verify the correct aggregate is shown. If not choose "Select Aggregate" and navigate to the Correct aggregate.

Material Item Information

Name: PLANT MIX BIT SURF GR S - 3/4 IN
Effective Date: 2/26/2015 Volumetric Acceptance
Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Base Price: 0.00 Contract Quantity: 8019 Ton
Item Number: 401020045 Pit Lab Number: Material Code: 401.03.01.01

Aggregate Selection Other Specifications

Select Aggregate (None if no Aggregate for this Material):
GRADE S - 3/4" \ 19 MM

Information for Selected Aggregate Specification

Effective Date: 2/15/2005

Comment: From Special Provisions, above date, Table 701-15B(1)

Sieves for Selected Spec:

| | |
|---|---|
| 1" \ 25 mm - Min=100 - Incentive Sieve=No | ▲ |
| 3/4" \ 19 mm - Min Targ=90 Max Targ=100 Targ=0 Tol=7 - Incentive Sieve=No | ▲ |
| 1/2" \ 12.5 mm - Min Targ=0 Max Targ=90 Targ=0 Tol=7 - Incentive Sieve=No | ▲ |
| 3/8" \ 9.5 mm - Min Targ=0 Max Targ=100 Targ=0 Tol=7 - Incentive Sieve=No | ▼ |

Break Sieve
1"

Additional Requirements for Aggregate:
MT217-Fracture
**Fracture: Min=35

Validation Errors:

| | |
|--|---|
| 3/4" \ 19 mm: Target value is not between max and min values. | ▲ |
| #8 \ 2.360 mm: Target value is not between max and min values. | ▲ |
| #200 \ 0.075 mm: Target value is not between max and min values. | ▲ |
| MT332-Gyratory-3/4"(19MM) | ▲ |
| VMA: Target value is not between max and min values. | ▼ |
| VFA: Target value is not between max and min values. | ▼ |

- After the correct aggregate is selected or shown click "Edit Aggregate Spec".

QA PLANT MIX FILE SETUP

Material Item Information
Material Item Name: PLANT MIX BIT SURF GR S - 3/4 IN
Unit Cost: 42.00 Base Price: 0.00

Aggregate Specification Information
Aggregate Spec Name: GRADE S - 3/4" \ 19 MM Effective Date: 2/15/2005 **Select Spec Version**
Comment: From Special Provisions, above

Select Specification Version
Specification: GRADE S - 3/4" \ 19 MM
Effective Date: 10/9/2008 (selected)
10/9/2008
2/15/2005

Gradation Spec: 1" \ 25 mm (selected)
3/4" \ 19 mm
1/2" \ 12.5 mm
3/8" \ 9.5 mm
#4 \ 4.750 mm
#8 \ 2.360 mm
#16 \ 1.180 mm
#30 \ 0.600 mm
#50 \ 0.300 mm
#100 \ 0.150 mm
#200 \ 0.075 mm

Break Sieve: 1" \ 25 mm

Material Item Information
Material Item Name: PLANT MIX BIT SURF GR S - 3/4 IN
Unit Cost: 42.00 Base Price: 0.00

Aggregate Specification Information
Aggregate Spec Name: GRADE S - 3/4" \ 19 MM Effective Date: 10/9/2008 Select Spec Version
Comment: From Special Provisions, above date, Table 701-15B(1)

Gradation Spec: 1" \ 25 mm (selected)
3/4" \ 19 mm
1/2" \ 12.5 mm
3/8" \ 9.5 mm
#4 \ 4.750 mm
#8 \ 2.360 mm
#16 \ 1.180 mm
#30 \ 0.600 mm
#50 \ 0.300 mm
#100 \ 0.150 mm
#200 \ 0.075 mm

Gradation Test Method: MT320_PostBumGradation
Spec for Selected Sieve: Deduct Incentive
Target: (90 to 100)
Tolerance: 7
Test Range:
F Factor: (Blank for None)

Break Sieve: 1" \ 25 mm

Validation Errors:
3/4" \ 19 mm: Target value not set.
#8 \ 2.360 mm: Target value is not between max and min values.
#200 \ 0.075 mm: Target value is not between max and min values.

- Under the Edit Aggregate Spec, click “Select Spec Version” and choose the correct specification version. (This would be the specification closest to the letting date without passing it)

- Next you will need to enter the targets under the “Gradation Specifications”. These targets are found off the Contractor’s Mix Design.

QA PLANT MIX FILE SETUP

Edit Aggregate Spec

Material Item Information
 Material Item Name:
 Unit Cost: Base Price:

Aggregate Specification Information
 Aggregate Spec Name: Effective Date:
 Comment:

Gradation Spec:

Sieves for Gradation Spec:
 1" \ 25 mm
 3/4" \ 19 mm
 1/2" \ 12.5 mm
 3/8" \ 9.5 mm
 #4 \ 4.750 mm
 #8 \ 2.360 mm
 #16 \ 1.180 mm
 #30 \ 0.600 mm
 #50 \ 0.300 mm
 #100 \ 0.150 mm
 #200 \ 0.075 mm

Gradation Test Method:

Spec for Selected Sieve
 Deduct Incentive
 Target: (2 to 8)
 Tolerance:
 Test Range:
 F Factor: (Blank for None)

Break Sieve

Validation Errors:
 #200 \ 0.075 mm: Target value not set.

- Enter the Targets for each sieve that is required. The required targets to be entered will be shown under the validation errors until they are entered.

| Aggregate Gradation - Percent by weight passing square mesh sieves | | | | | | | | | | |
|--|-----------|-----------|----------|----------|-------------|-----------|-----------|-----------|-----------|-----------|
| Sieve Size | Coarse #1 | Coarse #2 | Inter #1 | Inter #2 | Air Sep Fns | Nat Fines | Nat Fines | Coarse #1 | Hyd. Lime | JMF Blend |
| 1" | 100.0 | 100.0 | 100.0 | | 100.0 | | | | 100.0 | 100.0 |
| 3/4" | 100.0 | | 100.0 | | 100.0 | | | | 100.0 | 100.0 |
| 1/2" | 71.0 | 100.0 | 100.0 | | 100.0 | | | | 100.0 | 87.2 |
| 3/8" | 37.0 | | 100.0 | | 100.0 | | | | 100.0 | 72.3 |
| 4M | 4.5 | 8.2 | 10.8 | | 89.2 | | | | 100.0 | 40.3 |
| 8M | 2.8 | | 3.7 | | 57.8 | | | | 100.0 | 26.1 |
| 16M | 2.4 | 2.9 | 3.0 | | 34.0 | | | | 100.0 | 16.4 |
| 30M | 2.2 | | 2.7 | | 18.3 | | | | 100.0 | 10.0 |
| 50M | 2.0 | 1.3 | 2.5 | | 10.8 | | | | 100.0 | 7.0 |
| 100M | 1.9 | | 2.3 | | 7.6 | | | | 100.0 | 5.6 |
| 200M | 1.6 | 1.8 | 2.0 | | 6.4 | | | | 90.0 | 4.8 |

- The Targets can be found in the Bituminous Mix Design Information Submittal Form from the Contractor.

*Note: After you enter the last Target you will need to click in another sieve or click Related Specification to get the "OK" Button to appear.

The screenshot shows the 'Edit Aggregate Spec' dialog box with the '#200 \ 0.075 mm' sieve selected in the list. The 'OK' button is now visible in the top right corner, indicating that the form is ready to be submitted.

QA PLANT MIX FILE SETUP

Edit Aggregate Spec

Material Item Information
Material Item Name:
Unit Cost: Base Price:

Aggregate Specification Information
Aggregate Spec Name: Effective Date:
Comment:

Gradation Spec | **Related Specifications**

Requirements for Aggregate

Fracture

Details for Selected Requirement
Item Name:
 Deduct Incentive
Min:
F Factor: (Blank for None)

Material Item Information

Name:
Effective Date: Volumetric Acceptance
Comment:
Unit Cost: Base Price: Contract Quantity: Ton
Item Number: Pit Lab Number: Material Code:

Aggregate Selection | **Other Specifications**

Existing Specifications for This Material:
Density_Test_Pay_Factor_3Percent
MT314-SpecificGravity-Cores
MT319-IgnitionBum
MT321-SpecGravity-Rice
MT328-TargetDensity
MT332-Gyratory-3/4"(19MM)
MT334-HamburgWheelTracking
MT422-RideSpecification
Plant_Mix_Incentive_Ties

Info for Selected Specification
Test Method:
Effective Date:
Comment:
Special provision spec updated effective date. This method is used to determine volumetric characteristics of pavement. Specs in this template are for 3/4" (19MM) Grade S pavement.

Choose Specifications

Details for Selected Specification
**VMA: - Min Targ=13 Max Targ=17 Targ=0 Tol=0.6 - F_Fact=6 - Incentive
--VFA: - Min Targ=65 Max Targ=80 Targ=0 Tol=5 - F_Fact=2 - Incentive
--VTM: - Min Targ=3.4 Max Targ=4 Targ=0 Tol=1 - F_Fact=6 - Incentive
**Dust/Asphalt Ratio: - Min Targ=0.6 Max Targ=1.4 Targ=0 Tol=0.2 - F_Fact=30 - Incentive

Validation Errors:
MT332-Gyratory-3/4"(19MM)
VMA: Target value is not between max and min values.
VFA: Target value is not between max and min values.
VTM: Target value is not between max and min values.
Dust/Asphalt Ratio: Target value is not between max and min values.
Pit Lab Number is required for a Plant Mix Material Item

- Choose the “Related Specifications” and verify the minimum fracture is correct. Then click OK.

- Choose “Other Specification” and then choose MT332-Gyratory-3/4” (19MM).

QA PLANT MIX FILE SETUP

MDT Edit Specification Definition

Material Item Information
 Material Item Name: PLANT MIX BIT SURF GR S - 3/4 IN
 Unit Cost: 42.00 Base Price: 0.00

Specification Information
 Name: MT332-Gyratory-3/4"(19MM) Test Method: MT332_GyratoryMethod
 Effective Date: 2/15/2005 Comment: Special provision spec updated effective date. This method is used to determine volumetric characteristics of pavement. Specs in this template are for 3/4" (19MM) Grade S pavement.

Specification Items
 VMA
 VFA
 VTM
 Dust/Asphalt Ratio

Details for Selected Item
 Item Name: VMA
 Deduct Incentive
 Target: 0
 Tolerance: 0.6
 Test Range: -0.6 to 0.6
 F Factor: 6 (Blank for None)

Validation Errors:
 MT332-Gyratory-3/4"(19MM)
 VMA: Target value is not between max and min values.
 VFA: Target value is not between max and min values.
 VTM: Target value is not between max and min values.
 Dust/Asphalt Ratio: Target value is not between max and min values.

- Enter the Target information from the Mix Design. Everything you need should be found in the Bituminous Mix Design Information Submittal Form.
- After all information is entered click OK.

MDT Edit Specification Definition

Material Item Information
 Material Item Name: PLANT MIX BIT SURF GR S - 3/4 IN
 Unit Cost: 42.00 Base Price: 0.00

Specification Information
 Name: MT332-Gyratory-3/4"(19MM) Test Method: MT332_GyratoryMethod
 Effective Date: 2/15/2005 Comment: Special provision spec updated effective date. This method is used to determine volumetric characteristics of pavement. Specs in this template are for 3/4" (19MM) Grade S pavement.

Specification Items
 VMA
 VFA
 VTM
 Dust/Asphalt Ratio

Details for Selected Item
 Item Name: VMA
 Deduct Incentive
 Target: 0.8
 Tolerance: 0.2
 Test Range: 0.75 to 1.0
 F Factor: 6 (Blank for None)



Montana Department of Transportation Bituminous Mix Design Information Submittal Form

| Design Volumetric Properties | | | | | |
|---|-------|---|-------|----------------------------------|-------|
| % Voids in Mineral Aggregate(VMA) @ N_{des} | 14.0 | % Voids Filled with Asphalt (VFA) @ N_{des} | 71.8 | % Voids in Mix @ N_{des} (VTM) | 4.0 |
| % of Rice (Gmm) @ N_{ini} | 85.5% | @ N_{des} | 96.0% | @ N_{max} | 97.6% |
| | | Max SG (G_{mm}) | 2.476 | Bulk SG @ N_{des} (G_{mb}) | 2.378 |
| Dust/Asphalt Ratio (D/A) | 0.98 | Dust Proportion (DP) | 1.09 | Tensile Strength Ratio (TSR) (%) | 96.4 |
| Effective SG (G_{se}) | 2.668 | % Absorbed Binder (P_{ba}) | 0.55% | % Effective Binder (P_{be}) | 4.37% |

QA PLANT MIX FILE SETUP

Material Item Information

Name:

Effective Date: Volumetric Acceptance

Comment:

Unit Cost: Base Price: Contract Quantity: Ton

Item Number: Pit Lab Number: Material Code:

Aggregate Selection Other Specifications

Select Aggregate (None if no Aggregate for this Material):

Information for Selected Aggregate Specification

Effective Date:

Comment:

Sieves for Selected Spec:

1" \ 25 mm - Min Targ=100 - Incentive Sieve=No
3/4" \ 19 mm - Min Targ=90 Max Targ=100 Targ=100 Tol=7 - Incentive Sieve=No
1/2" \ 12.5 mm - Min Targ=0 Max Targ=90 Targ=87.2 Tol=7 - Incentive Sieve=No
3/8" \ 9.5 mm - Min Targ=0 Max Targ=100 Targ=72.3 Tol=7 - Incentive Sieve=No

Break Sieve

Additional Requirements for Aggregate:
MT217-Fracture
**Fracture: Min=35

Validation Errors:

Pit Lab Number is required for a Plant Mix Material Item

- This will bring you back to the Material Item Information page. Take note of the “Validation Errors in the box on the bottom. For this example it is showing that we still need to enter the Pit Lab Number. This information can be found on the Mix Design Report. Once that is entered the OK button will become available.

MDT Montana Department of Transportation 04/07/2020 10
AASHTOWare Project™ Version 4.2.4 Revisi

Superpave Mix Design Report
2053S04

| | | | |
|----------------|-------------------------------|------------------------------------|----------|
| Material Code | 401.03.00.01 | Plant Mix Surfacing Grade S - 3/4" | |
| Associated To | 03819 MAIN STREET - LEWISTOWN | | |
| Manufacturer | 53-080044 | Joseph Simpson Site | |
| Effective Date | March 13, 2020 | Termination Date | |
| Approved Date | April 6, 2020 | Approved By | NeedhamM |

Remark:
This is a PG 70-28 design per contract requirements.,
Tied to Contract 03819

2053S04 Mix Design Properties

| | | | | | |
|--------------------------|-----------|---|-----|-------------------|--------|
| PG Binder Grade | 70-28 | Mixing Temp | 157 | PG Binder Sp Grav | 1.0190 |
| PG Binder Supplied By | MDT | | | | |
| PG Binder Supplier | MTREFIN | Calumet Montana Refining LLC (formerly MRC) | | | |
| 20 Yr Design ESALs Total | | 20 Yr Design ESALs Daily | 223 | | |
| Source Pit Code | 53-080044 | Joseph Simpson Site | | | |
| Hyd Lime Supplied By | MDT | | | | |
| Hyd Lime Supplier | Graymont | | | | |

QA PLANT MIX FILE SETUP

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: Simpson Pit Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Currently awaiting Specification Review - Specification Edit Mode marked as complete by PETERSON, EMILY

Line Item Information:

| Number | Quantity | Unit Cost |
|--------|----------|-----------|
| 0120 | 8019 | 42.00 |
| | | |
| | | |
| | | |
| | | |

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Edit Mode

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

Aggregate Gradations

Last Modified By: Material Test Creation

Status: Currently in Specification Edit Mode

Aggregate Gradations
Daily Plant Mix Report
Plant Mix Density
Ride Specification
Volumetric Testing

- After you click OK it will bring you back to this screen. I suggest you save your progress. Next you will need to setup the materials under the “Material Info for Selected Test” information located at the bottom of the screen.
- Highlight Aggregate Gradations and click “Edit”.

QA PLANT MIX FILE SETUP

Edit Aggregate Spec

Material Item Information
 Material Item Name:
 Unit Cost: Base Price:
 Default Lot Size: Ton

Aggregate Specification Information
 Aggregate Spec Name: Effective Date:
 Comment:

Gradation Spec | Related Specifications

Sieves for Gradation Spec:
 1" \ 25 mm
 3/4" \ 19 mm
 1/2" \ 12.5 mm
 3/8" \ 9.5 mm
 #4 \ 4.750 mm
 #8 \ 2.360 mm
 #16 \ 1.180 mm
 #30 \ 0.600 mm
 #50 \ 0.300 mm
 #100 \ 0.150 mm
 #200 \ 0.075 mm

Select Sieves

Break Sieve

Gradation Test Method:

Spec for Selected Sieve
 Deduct Incentive
 Target: (87 to 90)
 Tolerance:
 Test Range: 80.2 to 94.2
 F Factor: (Blank for None)

Buttons: OK, Cancel, Print, Print Preview, Edit Complete, Change Spec Type

Go through the Targets and verify that they match the Targets in the Mix Design. After everything is verified click "Edit Complete" and then OK.

| Aggregate Gradation - Percent by weight passing square mesh sieves | | | | | | | | | | |
|--|-----------|-----------|----------|----------|-------------|-----------|-----------|-----------|-----------|-----------|
| Sieve Size | Coarse #1 | Coarse #2 | Inter #1 | Inter #2 | Air Sep Fns | Nat Fines | Nat Fines | Coarse #1 | Hyd. Lime | JMF Blend |
| 1" | 100.0 | 100.0 | 100.0 | | 100.0 | | | | 100.0 | 100.0 |
| ¾" | 100.0 | | 100.0 | | 100.0 | | | | 100.0 | 100.0 |
| ½" | 71.0 | 100.0 | 100.0 | | 100.0 | | | | 100.0 | 87.2 |
| ¼" | 37.0 | | 100.0 | | 100.0 | | | | 100.0 | 72.3 |
| 4M | 4.5 | 8.2 | 10.8 | | 89.2 | | | | 100.0 | 40.3 |
| 8M | 2.8 | | 3.7 | | 57.8 | | | | 100.0 | 26.1 |
| 16M | 2.4 | 2.9 | 3.0 | | 34.0 | | | | 100.0 | 16.4 |
| 30M | 2.2 | | 2.7 | | 18.3 | | | | 100.0 | 10.0 |
| 50M | 2.0 | 2.3 | 2.5 | | 10.8 | | | | 100.0 | 7.0 |
| 100M | 1.9 | | 2.3 | | 7.6 | | | | 100.0 | 5.6 |
| 200M | 1.6 | 1.8 | 2.0 | | 6.4 | | | | 90.0 | 4.8 |

QA PLANT MIX FILE SETUP

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: Simpson Pit Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Currently awaiting Specification Review - Specification Edit Mode marked as complete by PETERSON, EMILY

| Line Item Information: | | |
|------------------------|----------|-----------|
| Number | Quantity | Unit Cost |
| 0120 | 8019 | 42.00 |
| | | |
| | | |
| | | |
| | | |
| | | |

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Edit Mode

Quantity: 8019 Ton

Line Item Number: 0120

Aggregate Gradations

- Daily Plant Mix Report**
- Plant Mix Density
- Ride Specification
- Volumetric Testing

Material Info for Selected Test

Daily Plant Mix Report

Last Modified By: Material Test Creation

Status: Currently in Specification Edit Mode

- After you click OK it will bring you back to this screen. I suggest you save your progress. Continue setting up the information under the “Material Info for Selected Test” tab at the bottom of the screen.

• Highlight Daily Plant Mix Report and click “Edit”.

QA PLANT MIX FILE SETUP

Daily Plant Mix Report Material Info

Material Item Information
Material Item Name:

Unit Cost: Base Price:

Type of Plant: Mix Design Date:

Mix Design No.: Mix Type:

Specification Items

| | | | |
|----------------------------|----------------------------------|------------------------|--------------------------------|
| Number of Lifts | <input type="text" value=""/> | Design % Voids | <input type="text" value=""/> |
| Average Plan Thickness | <input type="text" value=""/> in | Design Density | <input type="text" value=""/> |
| Maximum Mixing Temperature | <input type="text" value=""/> °F | Design % of Asphalt | <input type="text" value=""/> |
| Minimum Mixing Temperature | <input type="text" value=""/> °F | Design % Hyd. Lime | <input type="text" value=""/> |
| Design Rice Density | <input type="text" value=""/> | Design % Additive 2 | <input type="text" value=""/> |
| Design VFA | <input type="text" value=""/> | Max % Hyd. Lime | <input type="text" value="0"/> |
| Design Asphalt Type | <input type="text" value=""/> | Design Additive 2 Type | <input type="text" value=""/> |
| Design Hyd. Lime Type | <input type="text" value=""/> | | |

Bin Splits

| Bin Type | Gsb (Specific Gravity) | Split % |
|-----------|-------------------------------|------------------------------------|
| 1 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 2 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 3 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 4 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 5 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 6 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 7 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 8 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 9 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| 10 No Bin | <input type="text" value=""/> | <input type="text" value=""/> |
| Total | | <input type="text" value="0.0 %"/> |

Validation Errors:

Mix Design Number is blank.
A minimum of 2 Bin Splits must be entered.
Number of Lifts is blank.
Plan Thickness is blank.
Maximum Mixing Temperature is blank.
Minimum Mixing Temperature is blank.

- This information should be able to be found in the Bituminous Mix Design Information Submittal Form and Plan Typical Sections.

QA PLANT MIX FILE SETUP

Daily Plant Mix Report Material Info

Material Item Information

Material Item Name:

Unit Cost: Base Price:

Type of Plant: Mix Design Date:

Mix Design No.: Mix Type:

Specification Items

| | | | |
|----------------------------|--|--------------------------|------------------------------------|
| Number of Lifts | <input type="text" value="1"/> | Design % Voids (VTM) | <input type="text" value="4"/> |
| Average Plan Thickness | <input type="text" value="2.4"/> in | Design Density (Gmb) | <input type="text" value="2.378"/> |
| Maximum Mixing Temperature | <input type="text" value="315"/> °F | Design % of Asphalt (Pb) | <input type="text" value="4.9"/> |
| Minimum Mixing Temperature | <input type="text" value="266"/> °F | Design % Hyd. Lime | <input type="text" value="1.4"/> |
| Design Rice Density (Gmm) | <input type="text" value="2.476"/> | Design % Additive 2 | <input type="text" value="0"/> |
| Design VFA | <input type="text" value="71.8"/> | Max % Hyd. Lime | <input type="text" value="1.6"/> |
| Design Asphalt Type | <input type="text" value="70-28"/> | Design Additive 2 Type | <input type="text"/> |
| Design Hyd. Lime Type | <input type="text" value="Hydrated Lime"/> | | |

Bin Splits

| Bin Type | (Bulk SG) Gsb (Specific Gravity) | Split % |
|-----------------|-------------------------------------|--------------------------------------|
| 1 Coarse | <input type="text" value="2.639"/> | <input type="text" value="44"/> |
| 2 Intermediate | <input type="text" value="2.643"/> | <input type="text" value="15"/> |
| 3 Natural Fines | <input type="text" value="2.627"/> | <input type="text" value="39.6"/> |
| 4 Hyd Lime | <input type="text" value="2.364"/> | <input type="text" value="1.4"/> |
| 5 No Bin | <input type="text"/> | <input type="text"/> |
| 6 No Bin | <input type="text"/> | <input type="text"/> |
| 7 No Bin | <input type="text"/> | <input type="text"/> |
| 8 No Bin | <input type="text"/> | <input type="text"/> |
| 9 No Bin | <input type="text"/> | <input type="text"/> |
| 10 No Bin | <input type="text"/> | <input type="text"/> |
| Total | | <input type="text" value="100.0 %"/> |

*Notes:

- The Design Rice Density is also shown as Max SG (Gmm),
- The Design % Voids is also shown as the (VTM),
- The Design Density is also shown as the (Gmb),
- The Design % of Asphalt is also shown as the Total Binder % (Pb), and
- The Gsb (Specific Gravity) under the Bin Splits is also shown as the Aggregate Bulk SG.
- After all information is entered click “Edit Complete” and then OK.

QA PLANT MIX FILE SETUP

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: Simpson Pit Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Currently awaiting Specification Review - Specification Edit Mode marked as complete by PETERSON, EMILY

| Line Item Information: | | |
|------------------------|----------|-----------|
| Number | Quantity | Unit Cost |
| 0120 | 8019 | 42.00 |
| | | |
| | | |
| | | |
| | | |
| | | |

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Edit Mode

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

Daily Plant Mix Report

Last Modified By: Material Test Creation

Status: Currently in Specification Edit Mode

Aggregate Gradations
Daily Plant Mix Report
Plant Mix Density
Ride Specification
Volumetric Testing

- After you click OK it will bring you back to this screen. I suggest you save your progress. Continue setting up the information under the “Material Info for Selected Test” tab at the bottom of the screen.

• Highlight Plant Mix Density and click “Edit”.

QA PLANT MIX FILE SETUP

Plant Mix Density Material Info

Material Item Information

Material Item Name:

Unit Cost: Base Price:

Default Lot Size: Ton

Specification Items

Incentive

Minimum Percentage

Maximum Percentage

Deduct

Minimum Percentage Project Contains Mix Placed Directly On Crushed Aggregate Surfacing (CAC)

F Factor Lift On CAC Minimum Percentage

- The specifications should already be loaded for you.
- If your project will contain plant mix placed directly on CAC be sure to check the box.
- After all information is entered click “Edit Complete” and then OK.

QA PLANT MIX FILE SETUP

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Currently awaiting Specification Review - Specification Edit Mode marked as complete by PETERSON, EMILY

Line Item Information:

| Number | Quantity | Unit Cost |
|--------|----------|-----------|
| 0120 | 8019 | 42.00 |
| | | |
| | | |
| | | |
| | | |
| | | |

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Edit Mode

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

Ride Specification

Aggregate Gradations

Daily Plant Mix Report

Plant Mix Density

Ride Specification

Volumetric Testing

Edit

Last Modified By: Material Test Creation

Status: Currently in Specification Edit Mode

- After you click OK it will bring you back to this screen. I suggest you save your progress. Continue setting up the information under the “Material Info for Selected Test” tab at the bottom of the screen.

• Highlight Ride Specification and click “Edit”.

QA PLANT MIX FILE SETUP

AWARD COPY

SPECIAL PROVISIONS CONTRACT NO. 03819

A 0.05 pay factor will be applied to the lots of longitudinal joint when the average density for the lot (Xn) is from 92.0% to 95.0%, inclusive, of the Maximum Specific Gravity (Rice's Method) and the range (R) is 3 or less.
Include all costs associated with constructing the joint in the cost of plant mix surfacing.

26. **BINDER REPLACEMENT INCENTIVE [401] (REVISED 11-16-17)**
A. General. This project is eligible for a binder replacement incentive. The incentive will be based on the asphalt binder savings realized by the incorporation of recycled materials into the plant mix. The cost of the total binder saved, based on total % binder in the mix and virgin binder used, will be calculated for incentive. Half of the total savings will be paid to the Contractor as incentive as described below.
1) Certify the cost of the specified asphalt binder (FOB at the refinery) by submitting form MDT-CON-401_1 and copies of the binder invoices. Submit this information to the Project Manager prior to the completion of the paving. If the certified price varies by more than 20% of the bid price or if this information is not submitted in the specified timeframe, no incentive will be paid.
2) Furnish a mix design meeting all the requirements of Section 401 with the inclusion of recycled materials. Include extracted gradations and percent binder of the RAP and/or RAS in the mix design. Base this information on samples taken of the materials to be used. The mix design must also include the percentage of binder, by total weight of mix, to be replaced with that obtained from the recycled materials.
B. Method of Measurement and Basis of Payment. Include the costs associated with all work to incorporate recycled materials into the plant mix in the plant mix surfacing bid item. The plant mix and asphalt binder will be measured and paid for in accordance with the contract. Separate incentives will be calculated for each type of plant mix that incorporates recycled materials.
At the completion of all plant mix work, the incentive paid to the contractor will be calculated per the following:
Incentive = $(0.5)(AC\%_{Total} - AC\%_{Virgin})(T_{Total})(CP_{Ac})$
Where:
• $AC\%_{Total}$ is the average of all the after burn AC percentages calculated during production of the plant mix item (expressed as a decimal rounded to the nearest thousandth).
• $AC\%_{Virgin}$ is the total virgin AC used (tons) to produce the plant mix item divided by T_{Total} (expressed as a decimal rounded to the nearest thousandth).
• T_{Total} is total tons of plant mix placed and accepted by the Department.
• CP_{Ac} is the certified invoice price for the asphalt binder as described in part A)1) above or the asphalt binder bid unit price, whichever is less.

27. **RIDE SPECIFICATION CATEGORY (SINGLE) [401]**
NH 57-3(64)81, Category III
NH 75-1(7)0, Category II
NH 43-1(39)0, Category III

28. **OPTIONAL PAVING OF APPROACHES [402] (REVISED 6-27-13)**
A. Description. The Contractor has the option of providing a plan for the use of non-polymer modified asphalt cement in plant mix for private approaches, sidewalks, parking lots, bike paths and other miscellaneous handwork not subject to mainline traffic or public approaches. Provide the plan to the Project Manager for approval a minimum of seven (7) days prior to the scheduled start of the work. The plan must list the specific areas within the Right of Way where the use of non-polymer modified asphalt cement is proposed.
The Department may direct the Contractor to revert back to the use of modified asphalt at any time.

SECTION I - 20 -

Edit Ride Spec Material Info

Spec Effective Date
Project Class

Edit Ride Spec Material Info

Spec Effective Date
Project Category
Unit Cost \$/ft

- In the Spec Effective Date be sure to change or verify that the correct specification year for your contract is selected.
- Next, choose the correct Ride Specification Category. This information is usually found in the Special Provisions, if not it can be determined using the Supplemental Specification 401.03.23(A) Ride Specification.

QA PLANT MIX FILE SETUP

105.03.3(C) RIDE SPECIFICATION (QUALITY INCENTIVE ALLOWANCE)

Page 37

12-11-14

Within Subsection 105.03.3(C), rescind the second paragraph (that begins, "The incentive or disincentive...") as well as the formulas and variables that follow and replace with the following:

Incentive or disincentive for surface smoothness will be calculated based on the ride category and the entire project length in each travel lane or measured section using the following equation. The calculated value will be applied as a line item adjustment to the plant mix item on the estimate. Calculate the pay adjustment as follows:

Pay adjustment = (Pay Factor - 1) x L x Unit Cost

Pay Factor = Calculate using appropriate project category formulas

L = Measured lane length

Unit Cost = Use appropriate value from Table 105-4

Rescind Table 105-4, Unit Cost, and replace with the following:

TABLE 105-4
UNIT COST

| Category | Description | Unit Cost/ft. |
|---------------|---|---------------|
| I or III | Typical section with 0.3 ft. or greater plant mix surfacing | \$6.425 |
| I, II, or III | Typical section with 0.2 to 0.29 ft. plant mix surfacing | \$4.283 |
| I, II, or III | Typical section with 0.19 ft. or less plant mix surfacing | \$3.213 |

Note: Isolation lifts are not considered part of the surfacing section when determining appropriate overlay depth.

Edit Ride Spec Material Info

Spec Effective Date 4/21/2016

Project Category III

Unit Cost 4.283 \$/ft

Edit Complete

Print

Print Preview

OK

Cancel

- Enter the unit cost that relates to the correct Project Category. The amount can be found under the Supplemental Specification 105.03.3 (C) Ride Specification (Quality Incentive Allowance).
- After all information is entered click "Edit Complete" and then OK.

QA PLANT MIX FILE SETUP

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Currently awaiting Specification Review - Specification Edit Mode marked as complete by PETERSON, EMILY

| Number | Quantity | Unit Cost |
|--------|----------|-----------|
| 0120 | 8019 | 42.00 |
| | | |
| | | |
| | | |
| | | |

Material Version Info for Selected Item

Material Version: 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Edit Mode

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

Volumetric Testing

Edit

Last Modified By: Material Test Creation

Status: Currently in Specification Edit Mode

Aggregate Gradations
Daily Plant Mix Report
Plant Mix Density
Ride Specification
Volumetric Testing

- After you click OK it will bring you back to this screen. I suggest you save your progress. Continue setting up the information under the “Material Info for Selected Test” tab at the bottom of the screen.

• Highlight Volumetric Testing and click “Edit”.

QA PLANT MIX FILE SETUP

Edit Volumetric Testing Material Info - PLANT MIX BIT SURF GR S - 3/4 IN

Contract Unit Price (\$) Unit Base Price (\$)

Mix Design Number: Mix Design Date:

Mix Design Gmm: Hyd Lime Bulk Specific Gravity: Default Lot Size: Ton

Specifications

Specification Date:

| | % Voids | VMA | VFA | D/A Ratio |
|------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------------------------|
| Target Value | <input type="text" value="4.0"/> | <input type="text" value="14.0"/> | <input type="text" value="72"/> | <input type="text" value="1.0"/> |
| Allowable Target Range | 3.4-4.0 | 13.0-17.0 | 65-80 | 0.6-1.4 |
| Incentive Tolerance | N/A | N/A | N/A | N/A |
| Incentive Range | N/A | N/A | N/A | N/A |
| Job Mix Tolerance | 1.0 | 0.6 | 5 | 0.2 |
| Job Mix Range | 3.0-5.0 | 13.4-14.6 | 67-77 | 0.8-1.2 |
| Incentive | 0.02 | 0.02 | 0.02 | 0.02 |
| F' Factor | 6 | 6 | 2 | 30 |

Asphalt Information

Asphalt Type

Asphalt Supplier

Asphalt Specific Gravity

Notes:

Validation Errors:

Asphalt Specific Gravity is blank or zero.
 Asphalt Type is blank.
 Asphalt Supplier is blank.
 Mix Design Number is blank.
 Mix Design Gmm is blank or zero.

- Fill in the required information. Remember that the Validation Errors below will remind you about the information that is required.
- After all information is entered click “Edit Complete” and then OK.

Edit Volumetric Testing Material Info - PLANT MIX BIT SURF GR S - 3/4 IN

Contract Unit Price (\$) Unit Base Price (\$)

Mix Design Number: Mix Design Date:

Mix Design Gmm: Hyd Lime Bulk Specific Gravity: Default Lot Size: Ton

Specifications

Specification Date:

| | % Voids | VMA | VFA | D/A Ratio |
|------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------------------------|
| Target Value | <input type="text" value="4.0"/> | <input type="text" value="14.0"/> | <input type="text" value="72"/> | <input type="text" value="1.0"/> |
| Allowable Target Range | 3.4-4.0 | 13.0-17.0 | 65-80 | 0.6-1.4 |
| Incentive Tolerance | N/A | N/A | N/A | N/A |
| Incentive Range | N/A | N/A | N/A | N/A |
| Job Mix Tolerance | 1.0 | 0.6 | 5 | 0.2 |
| Job Mix Range | 3.0-5.0 | 13.4-14.6 | 67-77 | 0.8-1.2 |
| Incentive | 0.02 | 0.02 | 0.02 | 0.02 |
| F' Factor | 6 | 6 | 2 | 30 |

Asphalt Information

Asphalt Type

Asphalt Supplier

Asphalt Specific Gravity

Notes:

QA PLANT MIX FILE SETUP

MDT Quality Assurance Suite - MAIN STREET - LEWISTOWN - PETERSON, EMILY

File View Specifications Tools Window Help

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 5 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED BASE COURSE TYPE A GRADE 7 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Close

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

| Number | Quantity | Unit Cost |
|--------|----------|-----------|
| 0120 | 8019 | 42.00 |
| | | |
| | | |
| | | |
| | | |
| | | |

Last Modified By: PETERSON, EMILY

Status: Currently awaiting Specification Review - Specification Edit Mode marked as complete by PETERSON, EMILY

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Edit Mode

Quantity: 8019 Ton

Line Item Number: 0120

Aggregate Gradations

Daily Plant Mix Report

Plant Mix Density

Ride Specification

Volumetric Testing

Material Info for Selected Test

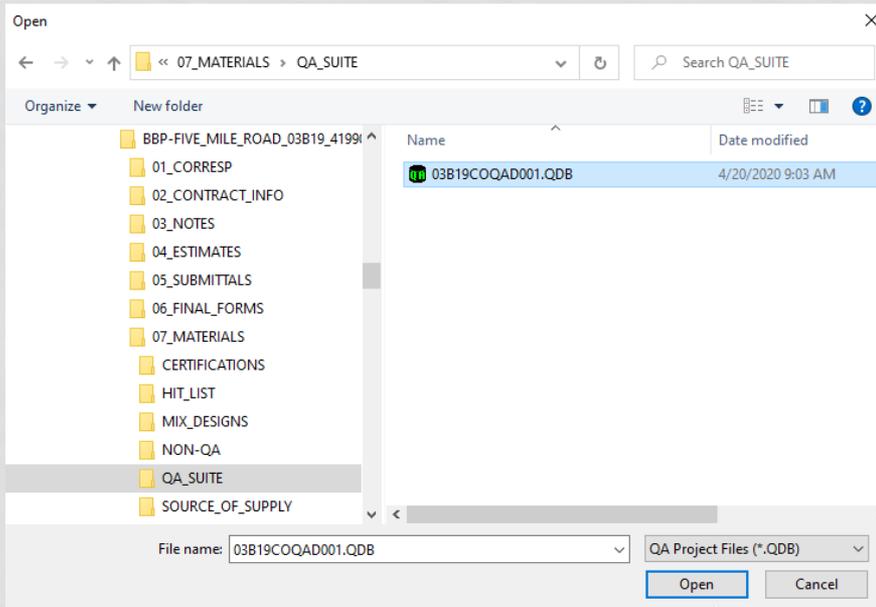
Aggregate Gradations

Last Modified By: PETERSON, EMILY

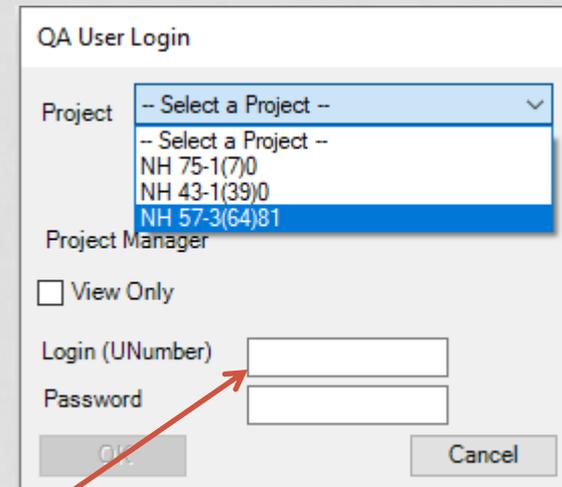
Status: Currently in Specification Review Mode - Specification Edit Mode marked as complete by PETERSON, EMILY

- After you click OK it will bring you back to this screen. I suggest you save your progress.
- Next, verify that the information under the Material Version Info for Selected Item is correct.
- Click “Edit Complete” and save.
- QA has a two-person setup process which means a different person (with at least FOP privileges) must log in and review the specification setup and lock the material, so it is ready for data entry.

QA PLANT MIX FILE SETUP

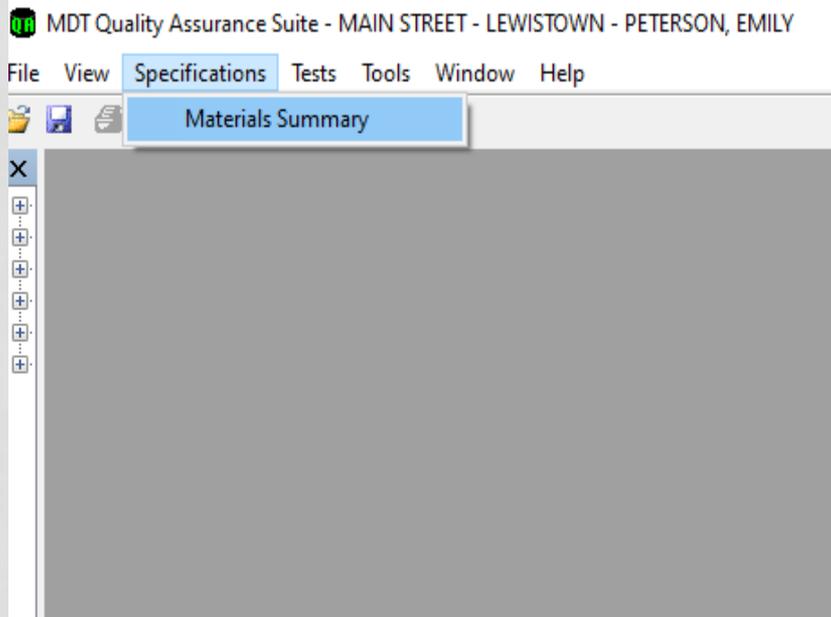


- Navigate to the file you want to lock. It should be located under the projects Materials folder, QA Suite. Click Open

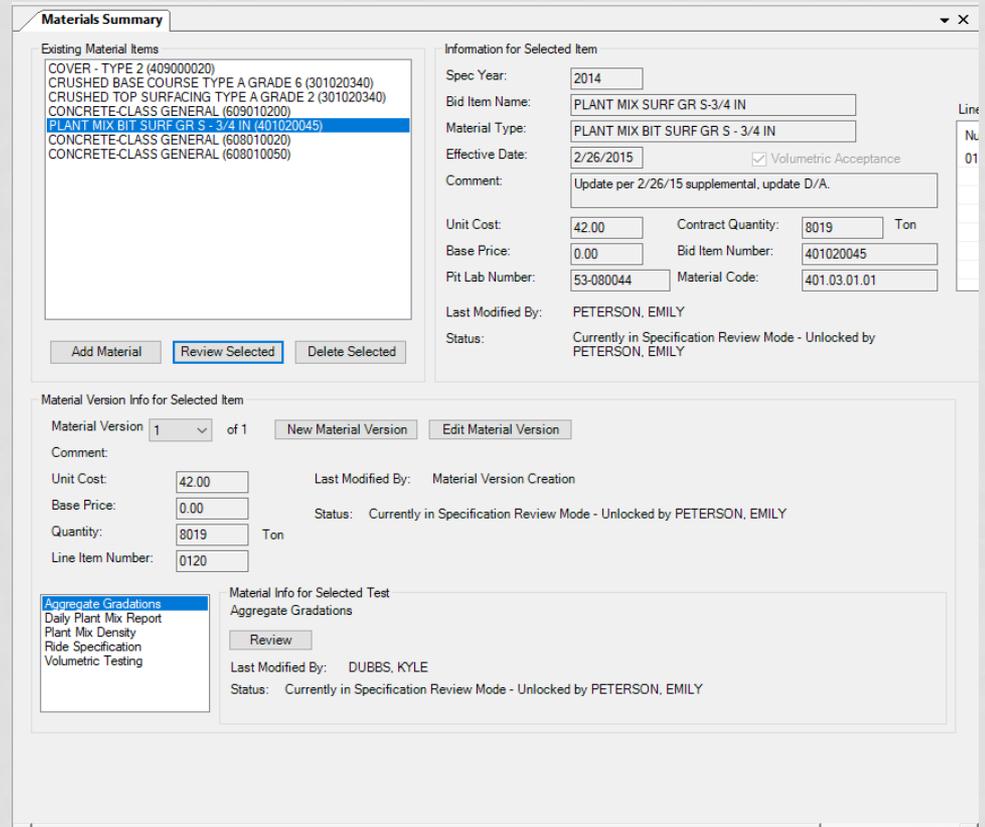


- Login using the same credentials as you use to log into the computer and click ok. If you have a tied project you will need to select which project you want to open.

QA PLANT MIX FILE SETUP



- To begin locking the specific materials. Click on “Specifications”, then “Materials Summary”. You will see a list of all the possible materials for the project.



- Select the Plant Mix Bit Surf Gr S – 3/4In (401020045) and click “Review Selected”.

QA PLANT MIX FILE SETUP

Edit Material Item Definition

Material Item Information

Name:

Effective Date: Volumetric Acceptance

Comment:

Unit Cost: Base Price: Contract Quantity: Ton

Item Number: Pit Lab Number: Material Code:

Aggregate Selection **Other Specifications**

Select Aggregate (None if no Aggregate for this Material):

Information for Selected Aggregate Specification

Effective Date:

Comment:

Sieves for Selected Spec:

| |
|--|
| 1" \ 25 mm - Min Targ=100 - Incentive Sieve=No |
| 3/4" \ 19 mm - Min Targ=90 Max Targ=100 Targ=100 Tol=7 - Incentive Sieve=No |
| 1/2" \ 12.5 mm - Min Targ=0 Max Targ=90 Targ=87.2 Tol=7 - Incentive Sieve=No |
| 3/8" \ 9.5 mm - Min Targ=0 Max Targ=100 Targ=72.3 Tol=7 - Incentive Sieve=No |

Break Sieve

Additional Requirements for Aggregate:

- Review that all the specifications were set up correctly. These specifications were set up in Slides 4 thru 9. You can review those slides to be sure you are checking everything that was setup.
- After everything is checked, select “Lock” and then “OK”.

QA PLANT MIX FILE SETUP

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Add Material View Selected

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Locked by PETERSON, EMILY

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

Aggregate Gradations

Last Modified By: DUBBS, KYLE

Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Aggregate Gradations
Daily Plant Mix Report
Plant Mix Density
Ride Specification
Volumetric Testing

- After you click OK it will bring you back to this screen. I suggest you save your progress. Next you will need to lock the information that is under the “Material Info for Selected Test” located at the bottom of the screen.
- Highlight Aggregate Gradations and click “Review.”

QA PLANT MIX FILE SETUP

Edit Aggregate Spec

Material Item Information

Material Item Name:

Unit Cost: Base Price:

Default Lot Size: Ton

Lock

OK
Cancel
Print
Print Preview

Aggregate Specification Information

Aggregate Spec Name: Effective Date:

Comment:

Gradation Spec Related Specifications

Sieves for Gradation Spec:

- 1" \ 25 mm
- 3/4" \ 19 mm
- 1/2" \ 12.5 mm
- 3/8" \ 9.5 mm
- #4 \ 4.750 mm
- #8 \ 2.360 mm
- #16 \ 1.180 mm
- #30 \ 0.600 mm
- #50 \ 0.300 mm
- #100 \ 0.150 mm
- #200 \ 0.075 mm

Select Sieves

Break Sieve

Gradation Test Method:

Spec for Selected Sieve

Deduct Incentive

Min: Change Spec Type

F Factor: (Blank for None)

- Review that all the specifications were set up correctly. These specifications were set up in Slide 11. You can review that slide to be sure you are checking everything that was setup.
- After everything is checked, select “Lock” and then “OK”.

QA PLANT MIX FILE SETUP

Materials Summary [X]

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Add Material View Selected

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Locked by PETERSON, EMILY

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

Daily Plant Mix Report

Last Modified By: DUBBS, KYLE

Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Aggregate Gradations
Daily Plant Mix Report
Plant Mix Density
Ride Specification
Volumetric Testing

- After you click OK it will bring you back to this screen. I suggest you save your progress. You will need to continue to lock the information that is under the “Material Info for Selected Test” located at the bottom of the screen.
- Highlight Daily Plant Mix Report and click “Review.”

QA PLANT MIX FILE SETUP

Daily Plant Mix Report Material Info

Material Item Information
Material Item Name:

Unit Cost: Base Price:

Type of Plant: Mix Design Date:

Mix Design No.: Mix Type:

Specification Items

| | | | |
|----------------------------|--|------------------------|------------------------------------|
| Number of Lifts | <input type="text" value="2"/> | Design % Voids | <input type="text" value="4"/> |
| Average Plan Thickness | <input type="text" value="2.4"/> in | Design Density | <input type="text" value="2.378"/> |
| Maximum Mixing Temperature | <input type="text" value="355"/> °F | Design % of Asphalt | <input type="text" value="4.9"/> |
| Minimum Mixing Temperature | <input type="text" value="280"/> °F | Design % Hyd. Lime | <input type="text" value="1.4"/> |
| Design Rice Density | <input type="text" value="2.476"/> | Design % Additive 2 | <input type="text" value="0"/> |
| Design VFA | <input type="text" value="71.8"/> | Max % Hyd. Lime | <input type="text" value="1.6"/> |
| Design Asphalt Type | <input type="text" value="70-28"/> | Design Additive 2 Type | <input type="text"/> |
| Design Hyd. Lime Type | <input type="text" value="Hydrated Lime"/> | | |

Bin Splits

| | Bin Type | Gsb (Specific Gravity) | Split % |
|-------|--|------------------------------------|--------------------------------------|
| 1 | <input type="text" value="Coarse"/> | <input type="text" value="2.639"/> | <input type="text" value="44"/> |
| 2 | <input type="text" value="Intermediate"/> | <input type="text" value="2.643"/> | <input type="text" value="15"/> |
| 3 | <input type="text" value="Natural Fines"/> | <input type="text" value="2.627"/> | <input type="text" value="39.6"/> |
| 4 | <input type="text" value="Hyd Lime"/> | <input type="text" value="2.364"/> | <input type="text" value="1.4"/> |
| 5 | <input type="text" value="No Bin"/> | <input type="text"/> | <input type="text"/> |
| 6 | <input type="text" value="No Bin"/> | <input type="text"/> | <input type="text"/> |
| 7 | <input type="text" value="No Bin"/> | <input type="text"/> | <input type="text"/> |
| 8 | <input type="text" value="No Bin"/> | <input type="text"/> | <input type="text"/> |
| 9 | <input type="text" value="No Bin"/> | <input type="text"/> | <input type="text"/> |
| 10 | <input type="text" value="No Bin"/> | <input type="text"/> | <input type="text"/> |
| Total | | | <input type="text" value="100.0 %"/> |

- Review that all the specifications were set up correctly. These specifications were set up in Slide 14. You can review that slide to be sure you are checking everything that was setup.
- After everything is checked, select “Lock” and then “OK”.

QA PLANT MIX FILE SETUP

Materials Summary [Close]

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Locked by PETERSON, EMILY

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

- Aggregate Gradations
- Daily Plant Mix Report
- Plant Mix Density**
- Ride Specification
- Volumetric Testing

←

Last Modified By: DUBBS, KYLE

Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

- After you click OK it will bring you back to this screen. I suggest you save your progress. You will continue to lock the information that is under the “Material Info for Selected Test” located at the bottom of the screen.
- Highlight Plant Mix Density and click “Review.”

QA PLANT MIX FILE SETUP

Plant Mix Density Material Info

Material Item Information

Material Item Name:

Unit Cost: Base Price:

Default Lot Size: Ton

Specification Items

Incentive

Minimum Percentage

Maximum Percentage

Deduct

Minimum Percentage Project Contains Mix Placed Directly On Crushed Aggregate Surfacing (CAC)

F Factor Lift On CAC Minimum Percentage

- Review that all the specifications were set up correctly. These specifications were set up in Slide 16. You can review that slide to be sure you are checking everything that was setup.
- After everything is checked, select “Lock” and then “OK”.

QA PLANT MIX FILE SETUP

Materials Summary [X]

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Locked by PETERSON, EMILY

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Quantity: 8019 Ton

Line Item Number: 0120

Material Info for Selected Test

Ride Specification

Last Modified By: DUBBS, KYLE

Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Aggregate Gradations

- Daily Plant Mix Report
- Plant Mix Density
- Ride Specification**
- Volumetric Testing

- After you click OK it will bring you back to this screen. I suggest you save your progress. You will continue to lock the information that is under the “Material Info for Selected Test” located at the bottom of the screen.
- Highlight Ride Specification and click “Review.”

QA PLANT MIX FILE SETUP

Edit Ride Spec Material Info

| | | |
|---------------------|-----------|-------|
| Spec Effective Date | 4/21/2016 | ▼ |
| Project Category | III | ▼ |
| Unit Cost | 4.283 | \$/ft |

Lock Print

Print Preview

OK Cancel

- Review that all the specifications were set up correctly. These specifications were set up in Slides 18 and 19. You can review those slides to be sure you are checking everything that was setup.
- After everything is checked, select “Lock” and then “OK”.

QA PLANT MIX FILE SETUP

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Locked by PETERSON, EMILY

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Quantity: 8019 Ton

Line Item Number: 0120

Aggregate Gradations
Daily Plant Mix Report
Plant Mix Density
Ride Specification
Volumetric Testing

Material Info for Selected Test

Volumetric Testing

Last Modified By: DUBBS, KYLE

Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

- After you click OK it will bring you back to this screen. I suggest you save your progress. You will continue to lock the information that is under the “Material Info for Selected Test” located at the bottom of the screen.
- Highlight Volumetric Testing and click “Review.”

QA PLANT MIX FILE SETUP

Edit Volumetric Testing Material Info - PLANT MIX BIT SURF GR S - 3/4 IN

Contract Unit Price (\$) Unit Base Price (\$)

Mix Design Number: Mix Design Date:

Mix Design Gmm: Hyd Lime Bulk Specific Gravity: Default Lot Size: Ton

Specifications

Specification Date:

| | % Voids | VMA | VFA | D/A Ratio |
|------------------------|--------------------------------|---------------------------------|-----------------------------------|-----------------------------------|
| Target Value | <input type="text" value="4"/> | <input type="text" value="14"/> | <input type="text" value="71.8"/> | <input type="text" value="0.98"/> |
| Allowable Target Range | 3.4-4.0 | 13.0-17.0 | 65-80 | 0.6-1.4 |
| Incentive Tolerance | N/A | N/A | N/A | N/A |
| Incentive Range | N/A | N/A | N/A | N/A |
| Job Mix Tolerance | 1.0 | 0.6 | 5 | 0.2 |
| Job Mix Range | 3.0-5.0 | 13.4-14.6 | 67-77 | 0.8-1.2 |
| Incentive | 0.02 | 0.02 | 0.02 | 0.02 |
| F' Factor | 6 | 6 | 2 | 30 |

Asphalt Information

Asphalt Type

Asphalt Supplier

Asphalt Specific Gravity

Notes:

- Review that all the specifications were set up correctly. These specifications were set up in Slide 21. You can review that slide to be sure you are checking everything that was setup.
- After everything is checked, select “Lock” and then “OK”.

QA PLANT MIX FILE SETUP

Materials Summary

Existing Material Items

- COVER - TYPE 2 (409000020)
- CRUSHED BASE COURSE TYPE A GRADE 6 (301020340)
- CRUSHED TOP SURFACING TYPE A GRADE 2 (301020340)
- CONCRETE-CLASS GENERAL (609010200)
- PLANT MIX BIT SURF GR S - 3/4 IN (401020045)**
- CONCRETE-CLASS GENERAL (608010020)
- CONCRETE-CLASS GENERAL (608010050)

Add Material View Selected

Information for Selected Item

Spec Year: 2014

Bid Item Name: PLANT MIX SURF GR S-3/4 IN

Material Type: PLANT MIX BIT SURF GR S - 3/4 IN

Effective Date: 2/26/2015 Volumetric Acceptance

Comment: Update per 2/26/15 supplemental, update D/A.

Unit Cost: 42.00 Contract Quantity: 8019 Ton

Base Price: 0.00 Bid Item Number: 401020045

Pit Lab Number: 53-080044 Material Code: 401.03.01.01

Last Modified By: PETERSON, EMILY

Status: Locked by PETERSON, EMILY

Material Version Info for Selected Item

Material Version 1 of 1

Comment:

Unit Cost: 42.00 Last Modified By: Material Version Creation

Base Price: 0.00 Status: Currently in Specification Review Mode - Unlocked by PETERSON, EMILY

Quantity: 8019 Ton

Line Item Number: 0120

Aggregate Gradations
Daily Plant Mix Report
Plant Mix Density
Ride Specification
Volumetric Testing

Material Info for Selected Test
Volumetric Testing

Last Modified By: PETERSON, EMILY

Status: Locked by PETERSON, EMILY

- After you click OK it will bring you back to this screen. I suggest you save your progress.
- Next, verify that the information under the “Material Version Info for Selected Item” is correct.
- Click “Lock” and save.
- This item is now ready for data entry.