

PLANTMIX AND RECYCLED SURFACE ITEMS

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OVERVIEW

All Plantmix and Recycled Bituminous Surfacing Items must be measured. Documentation examples for a few selected Plantmix and Recycled Bituminous Surfacing Items are illustrated in this chapter. If there are items which cannot be documented according to the following examples, contact the Construction Admin Services Section for assistance.

Forms change periodically, go to the SharePoint [Construction Forms](#) Area for the latest form available.

HOT PLANT/MARINATION INSPECTOR'S RESPONSIBILITIES– PLANTMIX SURFACING ITEMS

- Receive a copy of the current Jobmix Formula from the Office Engineer.
- Make sure to have enough Transmittal for Asphalt Sample forms (Form No. 020-016), to cover all the material samples for the day. If there are any questions concerning this form, contact the Materials Division.
- Complete the Plant Inspector's portion of the Daily Plant Report of Asphalt Mixtures (Form No. 040-011) and turn into the Office Engineer. Refer to Part 3, Forms, in the [Field Testing Guide](#) for details. Contact Construction Division Quality Assurance for assistance.
 - If the current Jobmix formula is being used on multiple contracts for different Resident Engineers, record the additional contract numbers at the top of the Plant Inspector portion of the 040-011 form.
 - Make sure to record ALL Plantmix Wasted in the Report of Asphalt Quantities section of the 040-011 form.
- Collect a Bill of Lading (B/L) (Figure 10-1) for each delivery of asphalt cement and/or mineral filler.
 - Record the contract ID in the upper right-hand corner.
 - Check and initial all weight calculations.
 - Turn into the Office Engineer each day.
- Collect a Material Certification (Figure 10-2) for each delivery of asphalt cement and/or mineral filler.
 - Record the contract ID in the upper right-hand corner.
 - Turn into the Office Engineer each day.
 - If a hotplant or marination plant supplies material on multiple contracts for different Resident Engineers, record the additional contract numbers on the B/Ls and Material Certifications.
 - The Transmittal for Test Samples and Certifications forms (Form No. 020-018) will be completed (by the Inspector or the Office Engineer) and sent into the Materials Division. When there is more than one B/L and Material Certification to be submitted for approval, combine them all on one transmittal. If there are any questions concerning this form, contact the Materials Division.

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86980

130-130 A
Lackey
8/21/15

Graymont Western US Inc.
Pilot Peak Plant
13 Miles W of West Wendover, Exit 398
P.O. Box 2520
West Wendover NV 89883

Sold To: GRAYMONT
Sierra Nevada Construction Inc.
P.O. BOX 59760
Sparks NV 89435

Ship To: 204650
Sierra Nevada Construction Inc.
Mustang Hot Plant
Mustang NV 89434

BILL OF LADING - Not Negotiable

Customer#: 187173 B/L Number: 4007049 Page: 1
Customer PO#: Mustang Ship Date: 20-Aug-2015
Our Order No: 178607 SO Broker #: 172957 FCA-COLLECT
Related Ord No: Broker Name: Customer's Truck
Order Date: 21-Aug-2015 Zone: Blank
Terms: Net 30 Delivery: 21-Aug-2015
Shipment#: 56449026 CTQ/NIR: 172957

Gross: 128940 lb 22:07" Scale ID:
Tare: 46180 lb 20:07" Car/Truck #: 130
Net: 82760 lb MAN WT Carrier: Customer's Truck

| Item | Quantity | Description |
|------|-----------|---|
| 2000 | 41.380 TN | Chem Hydrate, hulk, High Calcium Hydrated Lime |

This is to certify that Hydrated Lime produced at Pilot Peak, NV by Graymont Western US Inc. for the above named project identified and covered by this BL conforms to the chemical and physical requirements of ASTM C1097 and AASHTO M303 Type 1 Hydrate.
EMERGENCY TEL. NO. WHMIS: (800) 424-9300 CHMTREC (US)
(613) 396-6666 CANUTREC (CANADA)

Delivery Instructions:
MUSTANG HOT PLANT

Shipper/deputy: Carrier: Consignee:
per A per [Signature] per [Signature]
B/L Number 4007049

SHIPPING NOTICE-Customer Copy

Figure 10-1: Bill of Lading

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Ercon Asphalt Products, Las Vegas Terminal
8400 W. Richmar Ave.
Las Vegas Nevada, 89136
702-537-8966

Product: 76-22NV Date Sampled: 8/21/15 Date Tested: 8/21/15
Tank #: AC-1 Time Sampled: Time Tested:

| Test | Test Method | Criteria | Results |
|---|-------------|------------|---------|
| Tests on original binder | | | |
| Flash Point, °C | Nev. T716 | 230 Min. | |
| Viscosity @ 135 °C, Pa·s | AASHTO T316 | 3 Max. | 2.213 |
| Dynamic Shear, G' (kPa), Test Temp 76°C @ 10rad/s, kPa | AASHTO T315 | 1.3 Min. | 1.573 |
| Ductility @ 4 °C, 5cm/min, cm | Nev. T746 | 20 Min. | 26.73 |
| Sieve | Nev. T730 | Pass | pass |
| Polymer Content, % by mass | | 3.0 Min. | pass |
| Tests on Residue from R.T.F.O., Nev. T728 | | | |
| Mass Loss, % | Nev. T728 | 0.50 Max. | |
| Dynamic Shear, G' (kPa), Test Temp 76°C @ 10rad/s, kPa | AASHTO T315 | 2.20 Min. | 2.883 |
| Ductility @ 4 °C, 5cm/min, cm | Nev. T746 | 10 Min. | 14.6 |
| Tests on residue from Pressure Aging Vessel, AASHTO R28 @ 110 °C | | | |
| Dynamic Shear, G' (kPa), Test Temp 51°C @ 10rad/s, kPa | AASHTO T315 | 5000 Max. | 862.3 |
| Creep Stiffness, S, Test Temp -12°C @ 60 sec, Mpa | AASHTO T313 | 300 Max. | 86.3 |
| Creep Stiffness, m-value, Test Temp -12°C @ 60 sec | AASHTO T313 | 0.300 Min. | 0.333 |
| Direct Tension, Failure Strain, Test Temp -12°C @ 1.0 mm/min, % | AASHTO T314 | 1.00 Min. | |

This certifies that this material meets the specification for PG76-22NV according to section 703 of the State of Nevada Standard Specifications. This certificate has been reviewed by the Quality Control Manager for accuracy.
This material is certified to contain at least the minimum polymer content as set forth by section 703 of the State of Nevada Standard Specifications.

Signature: [Signature] Title: Lab Manager
Date: 8/21/15
Notes: Bl. # 564495
Temp. 340f

Figure 10-2: Material Certification

INSPECTOR DAILY REPORT (IDR) – MOBILE INSPECTOR (PLANTMIX SURFACE)

1. Create an IDR in Mobile Inspector (Details only) daily to document the activity being monitored at the plant. Refer to the [Mobile Inspector User Guide](#) for details on using this application.
2. Record the following required information in the Report Details window (Figure 10-3):
 - Date
 - Weather
 - Low and high temperature
 - Attachments (N/A) – Send ALL photos via email.
 - Remarks – Record the following information:
 - Checks every hour to determine bit ratio
 - Average daily bitumen ratio, calculated from daily totals of mix, aggregate, and asphalt.
 - Quantities of material delivered to the plant, plant settings, and moisture corrections.
 - Plant production rate and plant operation times, noting any time the plant is not in operation and the reason why.
 - Indicate if material was supplied for use on additional contracts.
3. Complete a final review of the IDR and lock it.

Note: When a Mobile Inspector IDR is completed and locked the information is uploaded into a FieldManager IDR where it is reviewed and generated.

The screenshot shows the 'Report Details' window with the following content:

- Date:** Wed, 02/01/2017
- Weather:** Cloudy with light rain show...
- Low Temp:** 34 °F
- High Temp:** 57 °F
- Attachments:** Camera and paperclip icons.
- Remarks:**

Hot Plant Inspection: Production of type 2C plantmix from mix design #BF 16-48, JMF #02.
 Low ambient temperature delayed the start time to 10:00am.
 Shut down at 4:55pm.
 Plant checks: 10:43pm-bitumen ratio = 4.05%; 12:05pm = 4.09%; 1:10pm = 4.08%; 2:18pm = 4.08%

Figure 10-3: IDR Report Detail Window (Hot Plant/Marination Inspector)

RECORD OF DELIVERY – ASPHALT CEMENT, MINERAL FILLER SPREADSHEET

The Record of Delivery – Asphalt Cement, Mineral Filler spreadsheet (Figure 10-4) is used to track the asphalt cement and mineral filler that was delivered to the project. A separate spreadsheet is used for each type of material. The spreadsheets are used as part of the source documents for payment.

1. Open the Record of Delivery –Asphalt Cement, Mineral Filler spreadsheet received in an email from the Office Engineer. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details on maintaining the spreadsheet.
2. Record the following information from the B/L into the spreadsheet:
 - Contract Number
 - Description – Material type
 - Inspector – Initials
 - Date
 - Bill of Lading No.
 - Truck No.
 - Trailer No. (if applicable)
 - Tons
3. Email the completed spreadsheet to the Office Engineer at the end of each day.

| Record of Delivery -- Asphalt Cement, Mineral Filler | | | | | | | |
|--|------------|--------------------|-----------|-------------|-------|-----------------|---------|
| Contract No.: | | 3583 | | Total Tons: | | 154.78 | |
| Description: | | PG 76-NV | | | | | |
| Inspector | Date | Bill of Lading No. | Truck No. | Trailer No. | Tons | Cumulative Tons | Remarks |
| NPW | 08/06/2016 | 56007 | 12380 | 125 | 22.55 | 22.55 | |
| NPW | 08/06/2016 | 56015 | 1952520 | 1295 | 23.72 | 46.27 | |
| TJL | 08/07/2016 | 56020 | 12380 | 125 | 22.89 | 69.16 | |
| TJL | 08/07/2016 | 56028 | 2340 | 4852 | 23.09 | 92.25 | |
| TJL | 08/07/2016 | 56040 | 1952520 | 1295 | 24.66 | 116.91 | |
| NPW | 08/08/2016 | 56045 | 1952520 | 1295 | 13.96 | 130.87 | |
| NPW | 08/08/2016 | 56549 | 12380 | 125 | 23.91 | 154.78 | |
| | | | | | | | |

Figure 10-4: Record of Delivery – Asphalt Cement, Mineral Filler

PLANT RECORD SPREADSHEET

The Plant Record spreadsheet (Figure 10-5) is used to track the materials samples taken each day. Refer to Subsection 106.04, (*Control of Material*) *Samples and Tests*, in the Standard Specifications for details.

1. Open the Plant Record spreadsheet received in an email from the Office Engineer. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details on maintaining the spreadsheet.
2. Record the following information:
 - Sample No.
 - Date
 - Time
 - Tons Represented
 - Inspector's initials
3. Email completed spreadsheet to the Office Engineer at the end of each day.

Important: The sample number and date must match the field number and date sampled on the Transmittal for Asphalt Samples (Form No. 020-016).

| Plant Record | | | | | | | |
|---------------|----------------------|------------|---------------------|-------------------------|---------|--------|--|
| Contract No.: | | 3583 | | Total Tons: | | 127.00 | |
| Asphalt Type: | | PG 76-22NV | | | | | |
| Sample No. | Date (mm/dd/yyyy) | Time | Tons Represented | Inspector (initials) | Remarks | | |
| 1 | 08/04/2016 | 6:00 AM | 25.00 | TMH | | | |
| 2 | 08/04/2016 | 2:00 PM | 17.00 | TMH | | | |
| 3 | 08/05/2016 | 6:05 AM | 25.00 | TMH | | | |
| 4 | 08/06/2016 | 6:00 AM | 25.00 | TMH | | | |
| 5 | 08/07/2016 | 5:30 AM | 25.00 | TMH | | | |
| 6 | 08/07/2016 | 12:00 PM | 10.00 | TMH | | | |

Figure 10-5: Plant Record Spreadsheet

INSPECTOR'S RESPONSIBILITIES – PLANTMIX SURFACING ITEMS

- Obtain a copy of the Agreement Estimate report to use as a reference to ensure that items and quantities are paid in the correct category (AEB).
- To help identify paving items, use the Summary of Quantities located in the Contract plans.
- Review the following for accuracy:
 - Special Provisions
 - Supplemental Notices
 - Contract Modifications

Note: When any changes are made to an item, reference the Contract Modification number in the IDR item posting remarks.

- Fill out the Street Inspector's portion of the Daily Plant Report of Asphalt Mixtures (Form No. 040-011) and turn into the Office Engineer. It is important that all information is accurate to what is shown in the Record of Delivery – Plantmix Surface spreadsheet for that day. Refer to Part 3, Forms, in the [Field Testing Guide](#) for details. Contact Construction Division Quality Assurance for assistance.

Note: Make sure to record ALL Plantmix Wasted on the 040-011 form.

- Retrieve all computerized load tickets and review for the following information:
 - Date
 - Material source
 - Material type
 - Gross, tare, net weights, and tons
 - Cumulative total tons
 - Time
 - Contract Number
 - Pit Number
- Turn in ALL computerized load tickets into the Office Engineer each day.

RECORD OF DELIVERY – PLANTMIX SURFACE SPREADSHEET

The Record of Delivery – Plantmix Surface spreadsheet is used to track daily material delivered to the job site. The spreadsheet is used as part of the source documents for payment.

1. Open the Record of Delivery – Plantmix Surface spreadsheet received in an email from the Office Engineer. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details on maintaining the spreadsheet.
2. Record the following information from the computerized load tickets onto the appropriate day tab in the spreadsheet (Figure 10-6):
 - Date
 - Contract Number
 - Item Number
 - Description – Item
 - Tickets Taken By – Initials
 - Ticket Number
 - Truck Number
 - Time – Every fifth load
 - Station – Beginning and Ending Station for the day and every change in Line Designation. Each station listed must have a line designation and LT, RT, or CL.
 - Temperature
 - Tons Delivered – from computerized load ticket, indicate any waste at the end of the day.
 - Remarks – Explanations of waste. State the total tons per AEB (category).
3. Email the completed spreadsheet to the Office Engineer at the end of each day.

Record of Delivery -- Plantmix Surface

| | | | | |
|------------------------------|-----------------------------|---------------------|------------|--------|
| Date: | 02/20/2017 | <i>(mm/dd/yyyy)</i> | Total Tons | 153.46 |
| Contract No.: | 3583 | | | |
| Item No. / Description: | 4020190 - PBS TYPE 2C (WET) | | | |
| Tickets taken by: | REW | <i>(initials)</i> | | |
| Checked against scale sheet: | | <i>(initials)</i> | | |

| Ticket No. | Truck No. | Time | Station | Temperature (°F) | Tons Delivered | Cumulative Tons | Remarks |
|------------|-----------|----------|---------------|------------------|----------------|-----------------|-------------------------------------|
| 5172 | 192333 | 11:00 AM | "TJ" 17+70 RT | 340 | 21.99 | 21.99 | |
| 5173 | 192346 | | | 335 | 16.06 | 38.05 | |
| 5174 | 192333 | | | 340 | 18.41 | 56.46 | |
| 5175 | 192346 | | | 336 | 19.57 | 76.03 | |
| 5776 | 192333 | 12:30 PM | "TJ" 15+90 RT | 335 | 21.10 | 97.13 | AEB # 1 total = 97.13 tons |
| 5177 | 192346 | 1:05 PM | "NP" 10+12RT | 330 | 20.40 | 117.53 | |
| 5178 | 192333 | | | 335 | 20.60 | 138.13 | |
| 5179 | 192346 | 1:45 PM | "NP" 8+10 RT | 335 | 20.33 | 158.46 | AEB # 2 total = 56.33 tons |
| | | | | | -5.00 | 153.46 | Excess material at the end of shift |
| | | | | | | | |

← ... Day 83 Day 84 Day 85 Day 86 Day 87 Day 88 Day 89 **Day90** +

Figure 10-6: Record of Delivery – Plantmix Surface

INSPECTOR DAILY REPORT (IDR) – MOBILE INSPECTOR (PLANTMIX SURFACE)

1. Create an IDR in Mobile Inspector daily to document the activity being monitored. Refer to the [Mobile Inspector User Guide](#) for details on using this application.
 - Report Details – daily activities
 - Item Postings – N/A for Plantmix Ton Items. The item posting will be completed by the Office Engineer in FieldManager.

- Equipment – type and hours
 - Personnel – title and hours
2. Record the following required information in the Report Details window (Figure 10-7):
 - Date
 - Weather
 - Low and high temperature
 - Attachments (N/A) – Send ALL photos via email.
 - Remarks – Verify with the Resident Engineer on what information is required.

Figure 10-7: IDR Report Detail Window

3. Record the following required information in the New Equipment window (10-8 and 10-9):
 - Contractor – Actual contractor performing the work (include subs).
 - Type – Detailed description of the equipment (e.g., diesel, HP, model, make).
 - Number – How many of each type.
 - Hours – Total hours in use.

Note: An attachment to an equipment’s base configuration must have its own record.

Figure 10-8: IDR Equipment Entry

Figure 10-9: IDR Equipment List

4. Record the following required information in the New Personnel window (Figure 10-10 and Figure 10-11):
 - Contractor – Actual contractor performing the work (include subs).
 - Type – Details of personnel type (e.g., foreman, laborer, truck driver).
 - Number – How many of each title.
 - Hours – Total hours worked.

Figure 10-10: IDR Personnel Entry

Figure 10-11: IDR Personnel List

5. Complete a final review of the IDR and lock it.

Note: When a Mobile Inspector IDR is completed and locked the information is uploaded into a FieldManager IDR, where it is reviewed and generated for processing progress payments.

OFFICE ENGINEER'S RESPONSIBILITIES – PLANTMIX SURFACING ITEMS

- Save and file the Mix Design(s) to the appropriate EDOC Contract Files\Contract Files\Division No. 8 – Daily Record of Scale Weights\8.# Mix Design directory.
- Collect all Bill of Ladings (B/Ls). Scan and save them to the appropriate EDOC Contract Files\Contract Files\Division No. 8 – Daily Record of Scale Weights\8.# BL directory.
 - If the marination is being done for more than one contract make copies of the B/Ls and send them to the other Resident Engineers for the remainder of the project.

Note: Each contract will be listing the same B/Ls. Communicate with the other office personnel and compare what has been used on each contract to assure no B/L is being used more than once.

- Collect all Material Certifications. Scan and save them to the appropriate EDOC Contract Files\Material and Testing Files\Division No. 4 – Materials Division Certs and Test Reports\4.# directory. Send original certifications to the Materials Division for approval.
 - If the marination is being done for more than one contract make copies of Material Certifications and send them to the other Resident Engineers for the remainder of the project.
- Collect all computerized load tickets from the Inspector(s). Only the last ticket is required for documentation.
- The Transmittal for Test Samples and Certifications (Form No. 020-018) shall be completed by the Office Engineer for the Materials Certifications. If there are any questions concerning this form, contact the Materials Division.
- Save plantmix surfacing item photos in the appropriate EDOC Contract Files\Contract Files\ Division No. 3 - Multimedia Records\3.1 Photographs with Descriptions directory.
- Approve materials in FieldManager when the approved material certifications are received from the Materials Division. Refer to Chapter 6, Working with Materials, in the [FieldManager User Guide](#), for details.
- Distribute executed copies of Contract Modifications to Inspectors.

RECORD OF DELIVERY – ASPHALT CEMENT, MINERAL FILLER SPREADSHEET

The Record of Delivery – Asphalt Cement, Mineral Filler spreadsheet (Figure 10-4) is used to track the asphalt cement and mineral filler that was delivered to the project. A separate spreadsheet is used for each type of material. The spreadsheet is used as part of the source documents for payment.

1. Email the Record of Delivery –Asphalt Cement, Mineral Filler spreadsheet to Hotplant/Marination Inspector daily. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details on maintaining the spreadsheet.
2. Review the entries against the B/Ls.
3. Save the updated Record of Delivery –Asphalt Cement, Mineral Filler spreadsheet to the appropriate EDOC Contract Files\Contract Files\Division No. 8 - Daily Record of Scale Weights\8.# directory.

PLANT RECORD SPREADSHEET

The Plant Record spreadsheet (Figure 10-5) is used to track the materials samples taken each day. Refer to Subsection 106.04, (*Control of Material*) *Samples and Tests*, in the Standard Specifications for details.

1. Email the Plant Record spreadsheet to the Hotplant/Marination Inspector daily. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details

on maintaining the spreadsheet.

2. Verify that the sample number and date match the field number and date sampled on the Transmittal for Asphalt Samples form (Form No. 020-016). These two items are important when calculating liquidated damages.
3. Save the updated Plant Record spreadsheet to the appropriate EDOC Contract Files\Contract Files\Division No. 8 - Daily Record of Scale Weights\8.# directory.

RECORD OF DELIVERY – PLANTMIX SURFACE SPREADSHEET

The Record of Delivery – Plantmix Surface spreadsheet (Figure 10-12) is used to track daily material delivered to the job site. The spreadsheet is used as part of the source documents for payment.

1. Email the Record of Delivery – Plantmix Surface spreadsheet to the Inspector daily. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details on maintaining the spreadsheet.
2. Save the updated Record of Delivery – Plantmix Surface spreadsheet to the appropriate EDOC Contract Files\Contract Files\Division No. 8 - Daily Record of Scale Weights\8.# directory.
3. Review the entries in the appropriate day tabs against the computerized load tickets. Ensure that all waste is explained in the Remarks.
4. Enter the Hotplant/Marination Inspector's waste, from the Daily Plant Report of Asphalt Mixtures (Form No. 040-011), in the Tons Delivered column and an explanation in the Remarks section.
5. Enter initials in the Checked against scale sheet box and save the file.
6. Save the completed spreadsheet (Figure 10-12) to the appropriate EDOC Contract Files\Contract Files\Division No. 8 - Daily Record of Scale Weights\8.# directory and email a copy back to the inspector.

| Record of Delivery -- Plantmix Surface | | | | | | | |
|---|-----------------------------|----------|---------------|------------------|----------------|-----------------|-------------------------------------|
| Date: | 02/20/2017 | | (mm/dd/yyyy) | | Total Tons | 153.46 | |
| Contract No.: | 3583 | | | | | | |
| Item No. / Description: | 4020190 - PBS TYPE 2C (WET) | | | | | | |
| Tickets taken by: | REW | | (initials) | | | | |
| Checked against scale sheet: | KMM | | (initials) | | | | |
| Ticket No. | Truck No. | Time | Station | Temperature (°F) | Tons Delivered | Cumulative Tons | Remarks |
| 5172 | 192333 | 11:00 AM | "TJ" 17+70 RT | 340 | 21.99 | 21.99 | |
| 5173 | 192346 | | | 335 | 16.06 | 38.05 | |
| 5174 | 192333 | | | 340 | 18.41 | 56.46 | |
| 5175 | 192346 | | | 336 | 19.57 | 76.03 | |
| 5776 | 192333 | 12:30 PM | "TJ" 15+90 RT | 335 | 21.10 | 97.13 | AEB # 1 total = 97.13 tons |
| 5177 | 192346 | 1:05 PM | "NP" 10+12RT | 330 | 20.40 | 117.53 | |
| 5178 | 192333 | | | 335 | 20.60 | 138.13 | |
| 5179 | 192346 | 1:45 PM | "NP" 8+10 RT | 335 | 20.33 | 158.46 | AEB # 2 total = 56.33 tons |
| | | | | | -5.00 | 153.46 | Excess material at the end of shift |
| <div style="display: flex; justify-content: space-between; align-items: center;"> ← ... Day 83 Day 84 Day 85 Day 86 Day 87 Day 88 Day 89 Day90 (+) </div> | | | | | | | |

Figure 10-12: Record of Delivery – Plantmix Surface

LAST COMPUTERIZED LOAD TICKET

The last computerized load ticket is part of the official contract documentation record for payment.

1. Copy the following information from the appropriate day tab in the Record of Delivery – Plantmix Surface spreadsheet (Figure 10-12) onto the last computerized load ticket of the day:
 - Beginning and Ending stations, making sure all stations are represented and match the spreadsheet.
 - Indicate line designation left, right or center line.

- AEB (category) number and total tonnage
 - Waste from the Hotplant/Marination Inspector and the Street Inspector, even if it is zero, and circle in Red.
2. Have the Resident Engineer sign the ticket.
 3. Have the person checking the information on the ticket initial it.
 4. Scan and save the ticket into the appropriate EDOC Contract Files\Contract Files\Division No. 8 - Daily Record of Scale Weights\8.# Scale Ticket Mix Design directory.

BILL OF LADING CALCULATION SHEET

The Bill of Lading Calculation Sheet (Figure 10-13) verifies there are enough Bill of Ladings (B/Ls) to cover the quantities placed on the contract based off the mix design (only). Go to the SharePoint Construction Forms, [Area: Construction Admin - Payment Forms](#) Area for the latest form available.

1. Complete the areas in Blue every two weeks, after Bill of Lading (B/Ls) are collected and recorded on the Record of Delivery Asphalt Cement spreadsheet, and the computerized load tickets are collected and recorded on day tabs of the Record of Delivery – Plantmix Surface spreadsheet.
2. Save the completed Bill of Lading Calculation Sheet to the appropriate EDOC Contract Files\Contract Files\Division No. 8 – Daily Record of Scale Weights\8.# Directory.

State of Nevada
Department of Transportation
BILL OF LADING CALCULATION SHEET

CONTRACT NO. DATE MATERIAL

MIX DESIGN NO. %RAP

(% OIL + % M.F.) + 1 = COMBINED % FOR CALCULATING

TOTAL WET TONS DELIVERED:

TOTAL WET TONS DELIVERED: + = DRY TONS

X = TOTAL ASPHALT TONS

X (1 -) X = MINERAL FILLER TONS

TOTAL BILL OF LADINGS DELIVERED FOR ASPHALT CEMENT: TONS

TOTAL BILL OF LADINGS DELIVERED FOR MINERAL FILLER: TONS

IN THE BOXES ABOVE, PLACE THE ACCUM. TOTAL SHOWN ON THE RECORD OF DELIVERY FOR THE ASPHALT CEMENT AND MINERAL FILLER.
COMPARE THESE TOTALS TO THE CALCULATED ASPHALT AND MINERAL FILLER SHOWN ON THIS FORM.

THIS SHEET IS USED TO ASSURE THAT ENOUGH ASPHALT AND MINERAL FILLER BILL OF LADINGS ARE COLLECTED TO COVER WHAT WAS DELIVERED. DO NOT DEDUCT WASTE OR STORAGE.

* If this mix design does not contain RAP, enter 0 in the box next to "%RAP".
* When RAP is included use the bitumen ratio added as shown on the mix design.
Do not use the bitumen ratio total.
* The percentage of RAP is taken from the Bin Percentages total RAP %, not the Bitumen Ratio From RAP %.

ENTERED BY:

CHECKED BY:

Rev 08-16

The %RAP, %OIL and %M.F. are taken from the applicable mix design.
NOTE: When adding in RAP, use the Bin Percentage from the bottom of the mix design sheet.

The Total Wet Tons Delivered amount comes from the Record of Delivery – Plantmix Surface spreadsheet. Add up the Total Tons from each of the day tabs for the two-week period. **Do not deduct Waste.**

The Total B/Ls Delivered for Asphalt Cement and Mineral Filler come from the Record of Delivery Asphalt Cement spreadsheet. Add up the Cumulative Tones for the two-week period.

Payment should not be made if there is not enough Bill of Ladings (B/L) to cover what has been delivered.

Figure 10-13: Bill of Lading Calculation Sheet

Note: It is the responsibility of the Resident Engineer to work with the contractor to have extra and/or missing B/Ls submitted. These B/Ls must be entered into the Record of Delivery Asphalt Cement spreadsheet.

DAILY PLANT REPORT OF ASPHALT MIXTURES FORM

The Daily Plant Report of Asphalt Mixtures form (Form No. 040-011) is a three-piece form done by the Tester, Hotplant and Street Inspectors. Refer to Part 3, Forms, in the [Field Testing Guide](#) for details. Contact Construction Division Quality Assurance for assistance with this form.

1. Collect and review the Hot Plant Inspector's, Street Inspector's and Tester's portion of form.
2. Take all three parts, (Tester, Plant Inspector, and Street Inspector,) and cut and tape together and attach all pertinent test reports.
3. Compare the stations on the form with those on the Record of Delivery – Plantmix spreadsheet.
4. Confirm that all the information on the report is correct and initial in the lower right-hand corner.
5. Have the Resident Engineer sign the form.
6. Distribute copies according to the bottom of the form. All original copies will be sent to Construction Division Quality Assurance staff.
7. Scan and save copy of the form and all pertinent test reports in the appropriate EDOC Contract Files\Materials & Testing Files\ Division No. 8 - Plant Reports\8.# directory.

Note: If the jobmix formula is being used on multiple contracts for different Resident Engineers, copies of the Plant Inspector's portion must be made and sent to the other Resident Engineers for the remainder of the projects. This does not relieve any of the other documentation requirements.

INSPECTOR DAILY REPORT (IDR) – FIELDMANAGER

When a Mobile Inspector IDR is locked by an Inspector, the information is uploaded into a FieldManager IDR. Refer to Chapter 7, Inspector Daily Report, in the [FieldManager User Guide](#) for details.

INSPECTOR'S IDR

1. Verify the following:
 - Information in the General tab Comments
 - Information in the Contractor tab (Personnel and Equipment)
2. Generate the IDR.

ITEM POSTING IDR

1. Create an IDR in FieldManager to document the item postings for the ton items:
 - In the General tab, enter a Comment related to the item posting.
 - Enter an item posting (Figure 10-14) for the ton item based on the Total Tons for each AEB (category) from the appropriate day tab(s) in the Record of Delivery – Plantmix Surface spreadsheet.

Note: These IDRs can be completed daily, weekly or bi-weekly within the two-week pay period.

NOTES for Plantmix TON (Figure 10-14):

- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. = .01
- In Remarks, reference the Record of Delivery spreadsheet amounts.

Figure 10-14: Office Engineer's IDR Item Posting (Plantmix Ton Item)

2. Generate the IDR.

TONNAGE ITEM SPREADSHEET BY CUTOFF DATE

The Tonnage Item Spreadsheet by Cutoff Date spreadsheet (Figure 10-15) was created as a useful tool to aid in the tracking and payment of ton items. The use of this spreadsheet is not required for ton item documentation. The spreadsheet is found in the SharePoint Construction Forms, [Area: Construction Admin - Payment Forms](#) Area. Refer to the [Tonnage Items Spreadsheet by Cutoff Date Instructions](#) for details on using this spreadsheet.

1. Open the Tonnage Item Spreadsheet by Cutoff Date spreadsheet.
2. Complete the spreadsheet information for the two-week period prior to the cutoff date.
3. Save the spreadsheet to the appropriate EDOC Contract Files\Contract Files\Division No. 7 - Construction Pay Estimate and Related Data directory.

| CONTRACT NO: | | | | | | | | | | | |
|--|---|------|--|--|--|--|--|--|--|--|--|
| BID ITEM NO: | | | | | | | | | | | |
| PLAN QTY: | | | | | | | | | | | |
| Accum Daily Total Placed/Paid - CATG # | 0 | 0.00 | | | | | | | | | |
| Accum Daily Total Placed/Paid - CATG # | 0 | 0.00 | | | | | | | | | |
| Accum Daily Total Placed/Paid - CATG # | 0 | 0.00 | | | | | | | | | |
| Accum Total PAID ALL CATG's = | | 0.00 | | | | | | | | | |
| Accum Daily Total WASTE ALL CATG's = | | 0.00 | | | | | | | | | |
| Accum Daily Total DELIVERED ALL CATG's = | | 0.00 | | | | | | | | | |

| CUTOFF DATE | CATG # | CATG # | CATG # | Daily Total Waste (all catg) | DAILY TOTAL PLACED/PAID | ACCUM. TOTAL PLACED/PAID | PMT # | DAILY TOTAL DELIVERED | MIX DESIGN # | COMMENTS |
|-------------|-------------------|-------------------|-------------------|------------------------------|-------------------------|--------------------------|-------|-----------------------|--------------|----------|
| | TOTAL PLACED/PAID | TOTAL PLACED/PAID | TOTAL PLACED/PAID | | | | | | | |
| ##### | | | | | 0.00 | 0.00 | | 0.00 | | |
| ##### | | | | | 0.00 | 0.00 | | 0.00 | | |
| ##### | | | | | 0.00 | 0.00 | | 0.00 | | |
| ##### | | | | | 0.00 | 0.00 | | 0.00 | | |
| ##### | | | | | 0.00 | 0.00 | | 0.00 | | |
| ##### | | | | | 0.00 | 0.00 | | 0.00 | | |

Figure 10-15: Tonnage Item Spreadsheet by Cutoff Date Spreadsheet

INSPECTOR'S RESPONSIBILITIES – RECYCLED BITUMINOUS SURFACE

- Obtain a copy of the Agreement Estimate report to use as a reference to ensure that items and quantities are paid in the correct category (AEB).

- To help identify paving items use the Summary of Quantities located in the Contract plans.
- Review the following for accuracy:
 - Special Provisions
 - Supplemental Notices
 - Contract Modifications

Note: When any changes are made to an item reference the Contract Modification number in the IDR item posting remarks.

- Collect a Bill of Lading (B/L) for each delivery of Lime (Cold Recycle).
 - Record the contract ID in the upper right-hand corner.
 - Check and initial all weight calculations.
 - Turn into the Office Engineer each day.
- Collect a Material Certification for each delivery of Lime (Cold Recycle).
 - Record the contract ID in the upper right-hand corner.
 - Turn into the Office Engineer each day.

RECORD OF DELIVERY AND PAYMENT – PORTLAND CEMENT, LIME (COLD RECYCLE) SPREADSHEET

The Record of Delivery and Payment – Portland Cement, Lime (Cold Recycle) spreadsheet (Figure 10-16) is used to track the Bill of Ladings (B/Ls) for daily material delivered to the job site. The spreadsheet is used as part of the source documents for payment.

1. Open the Record of Delivery and Payment – Portland Cement, Lime (Cold Recycle) spreadsheet received in an email from the Office Engineer. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details on maintaining the spreadsheet.
2. Record the following:
 - Contract Number
 - Item Number
 - Description – Item
 - Plan Qty. (tons)
 - Inspector – Initials
 - Date
 - Truck No.
 - Trailer No.
 - Bill of Lading No.
 - Tons Delivered
 - Tons Waste
 - Tons Left in Storage at the end of the day.

Note: The amounts in Tons Left in Storage will automatically be added to the next day's Tons Used value. If there are any Tons Left in Storage at the end of the contract, they are considered waste and will be subtracted from the total Tons Used.

- AEB (category) No.
 - Remarks – leave blank for Office Engineer comments for payment.
3. Email the completed spreadsheet to the Office Engineer.

| Record of Delivery & Payment -- Portland Cement, Lime (Cold Recycle) | | | | | | | | | | |
|--|---------------------|-----------|-------------|-----------------------|----------------|-------------|----------------------|------------------|---------|---------|
| Contract No.: | 3585 | | | Total Tons Delivered: | 98.60 | | | | | |
| Item No.: | 4040140 | | | | | | | | | |
| Item Description: | Lime (Cold Recycle) | | | | | | | | | |
| Plan Qty. (tons): | 420.00 | | | Total Tons Used: | 79.60 | | | | | |
| Inspector | Date | Truck No. | Trailer No. | Bill of Lading No. | Tons Delivered | Tons Wasted | Tons Left in Storage | Tons Used & Paid | AEB No. | Remarks |
| CAW | 02/14/2017 | 45 | 492 | 11017 | 25.15 | 2.00 | 0.00 | 23.15 | 9 | |
| CAW | 02/15/2017 | 390 | 391 | 11121 | 26.05 | 5.00 | 0.00 | 21.05 | 9 | |
| CAW | 02/18/2017 | 65 | 65A | 11128 | 24.15 | 0.00 | 0.00 | 24.15 | 9 | |
| CAW | 02/19/2017 | 4 | 4A | 11129 | 23.25 | 2.00 | 10.00 | 11.25 | 9 | |

Figure 10-16: Record of Delivery & Payment – Lime (Inspector’s Entries)

INSPECTOR DAILY REPORT (IDR) – MOBILE INSPECTOR (LIME - TON)

- Create an IDR in Mobile Inspector daily to document the activity being monitored. Refer to the [Mobile Inspector User Guide](#) for details on using this application.

Note: Refer to Steps 1 through 3 in the Inspector Daily Report (IDR) – Mobile Inspector (Plantmix Surface) section, in this chapter, for details on completing the Report Details, Equipment and Personnel for the lime item. The Office Engineer will complete these item postings.

INSPECTOR DAILY REPORT (IDR) – MOBILE INSPECTOR (RECYCLED BITUMINOUS - SQYD)

1. Create an IDR in Mobile Inspector daily to document the activity being monitored. Refer to the [Mobile Inspector User Guide](#) for details on using this application.

Note: Refer to Steps 1 through 3 in the Inspector Daily Report (IDR) – Mobile Inspector (Plantmix Surface) section, in this chapter, for details on completing the Report Details, Equipment and Personnel for the recycled bituminous items.

2. Record the following required information in the New Item Postings window (Figure 10-17):
 - Item
 - Proj/Catg – Refer to the AEB report.
 - Contractor – ALWAYS the Prime Contractor (subcontractors are not allowed)
 - Qty – Based on measurements and calculations
 - Location – Must show line designation, LT, RT or CL and offset if known.
 - Station From/To – Refer to Contract plans.
 - Attention Flag – Use to bring attention to Resident Engineer and Office Engineer for overruns and plan errors.
 - Remarks – Must show calculations when appropriate, refer to Calculation Sheet when appropriate (refer to Appendix B, Calculation Formulas, in this Manual for a Calculation Sheet example), other information relevant to item posting, and explanations when Attention Flag is checked.

New Item Posting

Item: RECYCLED BITUMINOUS...
 Proj/Catg: 60638C2C, 02, New "WS" Bri...
 Contractor: LAS VEGAS PAVING CORP...
 Qty: 5539.6 SQYD
 Location: "TW" RT
 Station From: 116 + 30
 Station To: 156 + 75
 Attention Flag:
 Remarks:
 3561.2 x 14 / 9 = 5539.6
 Length does not equal distance between stations due to an island at "TW" 125 + 10 to "TW" 129 + 93.80

128 remaining

NOTES for Recycled Bituminous SQYD (Figure 10-17):

- Payment for SQYD items will be based on field measurements and calculations.
- Calculation for SQYD = $L \times W \div 9$
- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. .1

Figure 10-17: IDR Item Posting – Recycled Bituminous SQYD

OFFICE ENGINEER'S RESPONSIBILITY – RECYCLED BITUMINOUS SURFACE

- Collect all Bill of Ladings. Scan and save them to the EDOC Contract Files\Contract Files\Division No. 8 – Daily Record of Scale Weights\8.# Lime (Cold Recycle) BL directory.
- Collect all Material Certifications. Scan and save them to the EDOC Contract Files\Material and Testing Files\Division No. 4 – Materials Division Certs and Test Reports\4.# Send original certifications to the Materials Division for approval.
- Save item photos in the appropriate EDOC Contract Files\Contract Files\ Division No. 3 - Multimedia Records\3.# Photographs with Descriptions directory.
- Review item calculation sheets for accuracy and save electronically in the appropriate EDOC Contract Files\Contract Files\Division No. 7 - Construction Pay Estimate and Related Data\7.# IDR Calculation Sheets directory using this naming convention: IDR YYYY-MM-DD Inspectors Initials, (e.g. IDR 2017-03-19 KMM).
- Approve materials in FieldManager when the approved material certifications are received from the Materials Division. Refer to Chapter 6, Working with Materials, in the [FieldManager User Guide](#), for details.
- Distribute executed copies of Contract Modificationsto Inspectors.

RECORD OF DELIVERY AND PAYMENT – PORTLAND CEMENT, LIME (COLD RECYCLE) SPREADSHEET

The Record of Delivery and Payment – Portland Cement, Lime (Cold Recycle) spreadsheet (Figure 10-18) is used to track the Bill of Ladings (B/Ls) for daily material delivered to the job site. The spreadsheet is used as part of the source documents for payment.

1. Email the Record of Delivery and Payment – Portland Cement, Lime (Cold Recycle) spreadsheet to the Inspector daily. Refer to the [How to Manage Load Sheets](#) document located on SharePoint under Construction Administrative Services Documents, Manuals and Guides, EDOC for details on maintaining the spreadsheet.
2. Save the updated Record of Delivery and Payment – Portland Cement, Lime (Cold Recycle) spreadsheet, received in an email from the Inspector, to the appropriate EDOC Contract Files\Contract Files\Division No. 8 - Daily Record of Scale Weights\8.# Lime (Cold Recycle) directory.
3. Verify the following:

- Entries match the information on the Bill of Ladings (B/Ls).
 - Plan Qty. (tons)
 - Waste and storage was recorded.
 - Correct AEB (category)
4. Enter the total Tons Used for each AEB (category) and the payment number in the Remarks section.
 5. Save the completed the Record of Delivery and Payment – Portland Cement, Lime (Cold Recycle) spreadsheet, to the appropriate EDOC Contract Files\Contract Files\Division No. 8 - Daily Record of Scale Weights\8.# Lime (Cold Recycle) directory.

Record of Delivery & Payment -- Portland Cement, Lime (Cold Recycle)

| | | | |
|-------------------|---------------------|-----------------------|-------|
| Contract No.: | 3585 | Total Tons Delivered: | 98.60 |
| Item No.: | 4040140 | | |
| Item Description: | Lime (Cold Recycle) | | |
| Plan Qty. (tons): | 420.00 | Total Tons Used: | 79.60 |

| Inspector | Date | Truck No. | Trailer No. | Bill of Lading No. | Tons Delivered | Tons Wasted | Tons Left in Storage | Tons Used & Paid | AEB No. | Remarks |
|-----------|------------|-----------|-------------|--------------------|----------------|-------------|----------------------|------------------|---------|-------------------------|
| CAW | 02/14/2017 | 45 | 492 | 11017 | 25.15 | 2.00 | 0.00 | 23.15 | 9 | |
| CAW | 02/15/2017 | 390 | 391 | 11121 | 26.05 | 5.00 | 0.00 | 21.05 | 9 | |
| CAW | 02/18/2017 | 65 | 65A | 11128 | 24.15 | 0.00 | 0.00 | 24.15 | 9 | |
| CAW | 02/19/2017 | 4 | 4A | 11129 | 23.25 | 2.00 | 10.00 | 11.25 | 9 | Pmt. 12 = 79.60 AEB # 9 |

Figure 10-18: Record of Delivery & Payment – Lime (Cold Recycle) (Office Engineer’s Entries)

INSPECTOR DAILY REPORT (IDR) FIELDMANAGER (LIME - TON)

When a Mobile Inspector IDR is locked by an Inspector, the information is uploaded into a FieldManager IDR. Refer to Chapter 7, Inspector Daily Report, in the [FieldManager User Guide](#) for details.

INSPECTOR’S IDR

1. Verify the following:
 - Information in the General tab Comments
 - Information in the Contractor tab (Personnel and Equipment)
2. Generate the IDR.

ITEM POSTING IDR

1. Create an IDR in FieldManager to document the item postings for Portland Cement and Lime ton items:
 - In the General tab, enter a Comment related to the item posting.
 - Enter an item posting (Figure 10-19) for the lime (cold recycle) item based on the Tons Used for each AEB (category) from the Record of Delivery & Payment – Portland Cement, Lime (Cold Recycle) spreadsheet.

Note: These IDRs can be completed daily, weekly or bi-weekly within the two-week pay period.

2. Generate the IDR.

Change IDR (IDR: 4/12/2017, Cecilia A Whited, 1) (Contract: 03583)

General Contractors Site Times Postings Attachments View

Item: 4040140, LIME (COLD RECYCLE)

Prop. Ln: 1275 Unit: TON Catg. Auth. Qty: 5,000.000 Catg. Auth. Amt: \$5,000.00
 Type: EXTRA WORK Unit Price: \$1.000 Catg. Qty. Placed: 79.600
 Catg. Pending Chgs: 0.000 Catg. Qty. Paid: 0.000

Item Posting

Project: 60638C2C MAIN ROADWAY BREAKOUT
 Category: 02 New "WS" Bridge I-3035 "WS"34+30.85 TO "WS" 58+00.
 Contractor: LAS VEGAS PAVING CORPORATION
 Quantity: 79.600 TON Attention:
 Station From: 116+30 Breakdown:
 Station To: 117+00 Remarks: See Record of Delivery and Payment-Portland Cement, Lime (Cold Recycle) 2/14/17 through 2/19/17.
 Location: TW RT

Materials OK Delete Cancel Add Materials Add Breakdowns

NOTES for Lime (Cold Recycle) TON (Figure 10-19):

- In Location, enter the Line Designation and LT, RT, or CL.
- Sig. Fig. = .01
- In Remarks, reference the Record of Delivery spreadsheet.

Figure 10-19: Office Engineer's IDR Item Posting (Lime (Cold Recycle) Ton Item)

INSPECTOR DAILY REPORT (IDR) FIELDMANAGER (RECYCLED BITUMINOUS - SQYD)

When a Mobile Inspector IDR is locked by an Inspector, the information is uploaded into a FieldManager IDR. Refer to Chapter 7, Inspector Daily Report, in the [FieldManager User Guide](#) for details.

1. Verify the following:
 - Information in the Comments and Remarks
 - Information in the Contractor tab (Personnel and Equipment)
 - Items are paid correctly according to the contract documents (e.g., plans, supplemental notices, Contract Modifications).
 - Item quantities
 - Quantities in postings are documented to the correct Significant Figure
 - Stations and Line Designations in the Locations
 - Calculations are correct.
 - Remarks reference calculation sheets, if applicable.

Note: Length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the Inspector before assuming the calculations are incorrect.

2. Generate the IDR.