

CHAPTER 11  
Concrete Paving, Roadbed Modification, Recycled Bit. Surface, Micro Surfacing and  
Misc. Surfacing Items

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**Rev 11/09**

**DOCUMENTATION REQUIREMENT  
SECTION A  
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,  
AND MISC. SURFACING ITEMS  
(INDEX AND INITIAL KEY)**

Below are illustrations of an index and an initial key. When setting up a field book at the beginning of a contract make sure each item in the book is listed on the index. During the contract if anything is added to the book make sure it is placed on the index. At job closeout make sure the index has the ending page for each item listed on more than one page. Make sure to list the book recap page(s) on the index. If room permits skip a line between entries on the index. Check the initial key each progress payment to assure that everyone who has made entries in the book has initialed and signed the initial key. If the signature is not legible, have the person print his/her name under the signature. Make sure the initials used throughout the book match the way the initials show on the initial key. If the initials change, add the new initials to the initial key next to the original initials.

Use when multiple items are placed in a book. →

Index		Initial Key 2		
Page	Description	Initials	Signature	Title
4-6	Record of Delivery & Payment Portland Cement	J	Shelli Jones	Tech III
10-25	PEEP (8-INCHES)	JD	Jack Dougherty	Tech III
30-35	PEEP curing compound	TJ	Tom Jones	Tech 3
40-50	Saw & Seal Trans. weakened Plane Joints			
75	Book Recap			

Use when only one item is placed in a book. →

Index		Initial Key 2		
Page	Description	Initials	Signature	Title
4-20	Record of Delivery & Payment - Portland Cement	J	Shelli Jones	Tech III
75	Book Recap			

**DOCUMENTATION REQUIREMENT**  
**SECTION B**  
**CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,**  
**AND MISC. SURFACING ITEMS**  
**(PORTLAND CEMENT CONCRETE PAVEMENT ITEMS)**  
**(PORTLAND CEMENT)**  
**(Record of Delivery & Payment)**

Portland cement shall be documented in a PORTLAND CEMENT book as illustrated on page 11-3 or if room permits shall be placed in the CONC PAVING book. No spreadsheet is required for cement deliveries.

To setup the field books, the information for the portland cement shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

A PORTLAND CEMENT book shall not be setup if there is no bid item for Portland cement.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**Note:** An illustration of a B/L and a certification is shown in Chapter 9 (Plantmix Surfacing). These illustrations are just to show where the contract and load number must be placed. They do not represent what a Portland cement B/L will look like. **Requirements for Certification** on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item.



**DOCUMENTATION REQUIREMENT  
SECTION C  
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,  
AND MISC. SURFACING ITEMS  
(PORTLAND CEMENT CONCRETE PAVEMENT ITEMS)  
(PORTLAND CEMENT CONCRETE PAVEMENT) (PCCP)**

Portland cement concrete pavement (PCCP) shall be documented in a CONC PAVING book. An illustration with Sqyd as the UOM is shown below.

To setup the field books, the information on PCCP items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. A separate page shall be provided for each bid item. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. The calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station, sqyd, date, initials, AEB#, the calculations, and any remarks that are needed. **Skip at least one line between entries.**

**Note:** All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**Payment for Sqyd will be based on field measure and calculations.**

<p>Item No: 4090508  Item: PCCP (8-inches)  Plan Qty: 3200.0 sqyd</p> <p>Station to Station sqyd Date Insp</p> <p>"BD"10+00 To "BD"50+00 RT 2488.9 9-10-08 TJ</p>          <p>Page total</p>	<p style="text-align: right;">Sig fig = .1      10</p> <p style="text-align: center;">LxW = 9 = sqyd</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">AEB#</th> <th style="width: 15%;">Pmt#</th> <th style="width: 70%;">Calcs/Remarks</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2</td> <td></td> <td>4000 X 5.6 / 9 = 2488.9 <i>TJ</i></td> </tr> </tbody> </table>          <p style="text-align: center;"><b>When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.</b></p>	AEB#	Pmt#	Calcs/Remarks	2		4000 X 5.6 / 9 = 2488.9 <i>TJ</i>
AEB#	Pmt#	Calcs/Remarks					
2		4000 X 5.6 / 9 = 2488.9 <i>TJ</i>					



**DOCUMENTATION REQUIREMENT  
SECTION E  
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,  
AND MISC. SURFACING ITEMS  
(PORTLAND CEMENT CONCRETE PAVEMENT ITEMS)  
(SAW TRANSVERSE/LONGITUDINAL WEAKENED PLANE JOINTS)  
(JOINT SEALER)**

Saw and seal transverse and longitudinal weakened plane joints shall be documented in a SAW/SEAL JOINTS book or if room permits shall be placed in the CONC PAVING book. An illustration with Linft as the UOM is shown below.

To setup the field books, the information on PCCP items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, the headings of Saw and Seal, and the page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station, meas length, saw and seal quantities (pay qty), date, initials, AEB#, and joint x joint length = meas linft. The saw and seal of each area will be listed in the book together as shown below. The individual entries for saw and seal for each area may be paid to (.5) but the total of the area (Saw and seal) will be to the whole number (significant figure). **Skip at least one line between entries.**

**Note:** No percentages other than 50% for sawing and 50% for sealing shall be allowed. All entries must be entered as called out in the plans and document left, right, or centerline, where applicable.

**Payment for Linft items will be based on field measure.**

Item No. 409 0560			Sig Fig = 1		40
Item: Saw & Seal Trans weakened Plane Joints			50% Saw		
Plan Qty: 284,000 Linft			50% Seal		
Station to Station	meas Linft	Pay qty	Date Insp	AEB#	Joint x Joint length = Linft
"BD" 10+00 TO "BD" 25+00	1500	Saw 750 Seal 750	9/12/08 TS	2	95 x 15.79 = 1500
"BD" 25+15 TO "BD" 50+00	2485	Saw 1242.5 Seal 1242.5	9/13/08 TS 9/13/08 TS	2 2	127 x 19.57 = 2485
		Saw			
		Seal			
		Saw			
		Seal			
		Saw			
		Seal			
		Saw			
		Seal			
Page Total:					

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.**



Processing for roadbed modification and pulverize existing surface shall be documented in a ROADBED MOD book. An illustration with a UOM of sqyds is shown on page 11-7 and an illustration with a UOM of Mile is shown below.

To setup the field books, the information on roadbed modification and pulverize existing surface items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station, meas linft, meas mile, date, initials, AEB#, the calculations from linft to miles ( $\text{linft} \div 5280$ ), and any remarks that are needed. **Skip at least one line between entries.**

**Note:** All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**Payment for Mile will be based on field measure.**

Item No: 3050300 Item: Pulverize Exist Surface Plan Qty: 10.000 mile				Sig fig = .001		4
Station to Station	meas Linft	meas mile	Date	Insp AEB* Pmt*	Calcs/Remarks	
'Lne' 451+00 To Lne" 495+00 LT	4400	.833	9-3-08	MD 9	$4400 \div 5280 = .833$	150
'Lne' 495+00 To Lne" 500+00 LT	500	.095	9-4-08	MD 9	$500 \div 5280 = .095$	150
Page total:						

When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.

**DOCUMENTATION REQUIREMENT  
SECTION G  
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,  
AND MISC. SURFACING ITEMS  
(RECYCLED BITUMINOUS SURFACE ITEMS)**

Recycled bituminous surface shall be documented in a COLD-RECYCLED book. An illustration with a UOM of Sqyd is shown below.

To setup the field books, the information on recycled bituminous surface items shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, all column headings, and page total in the bottom left-hand corner of the page. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.**

Daily, the **Inspector** shall document the station to station and AEB# if not already entered, sqyd, date, initials, the calculations, and any remarks that are needed. **Skip at least one line between entries.**

**Note:** All entries must be entered as called out in the plans and document left, right, or centerline, where applicable. Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**Payment for Sqyd items will be based on field measure and calculations.**

Item No: 404 0580				Sig fig = .1		40
Item: Recycled Bit. Surface (3" depth)				$L \times W \div 9 = \text{Sqyd}$		
Plan Qty: 237,000.0 Sqyd						
Station to Station	Sqyd	Date	Insp	AEB#	Pnt#	Calcs / Remarks
Lne" 116+30 TO Lne" 156+75 RT	5539.6	9-10-08	MD	9		3561.2 X 14 / 9 = 5539.6 ✓ Length does not equal distance between stations Due to an ISLAND @ "Lne" 125+10 TO "Lne" 129+93.80
"Lne" 156+75 TO "Lne" 230+00 RT	11394.4	9-11-08	MD	9		7325 X 14 / 9 = 11394.4 ✓
Page total:						

**When making out the field books if a required item of work is not illustrated in this chapter, use an illustration that has the same UOM.**

The **Lime** used in the cold-recycle process shall be documented in a LIME book or if room permits shall be placed in the COLD-RECYCLE book. The Record of Delivery & Payment for lime is illustrated on page 11-11. No spreadsheet is required for lime.

To setup the field books, the information for the lime shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). **Pay will be based on delivery minus waste and/or material left in storage, not based on the application rate.** If room permits the Record of Delivery & Payment may be placed in the COLD-RECYCLE book.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. **All notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

**Note:** An illustration of a B/L and a certification is shown in Chapter 9 (Plantmix Surfacing). These illustrations are just to show where the contract and load number must be placed. They do not represent what a lime B/L will look like. **Requirements for Certification** on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item.



The **Emulsified Asphalt** used in the cold-recycle process shall be documented in an ASPHALT CEMENT book or if room permits shall be placed in the COLD-RECYCLE book. The Record of Delivery & Payment for emulsified asphalt is illustrated on page 11-13. No spreadsheet is required for emulsified asphalt.

To setup the field books, the information for the emulsified asphalt shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and each Record of Application and Payment page shall be recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

**Note:** An illustration of a B/L and a certification is shown in Chapter 9 (Plantmix Surfacing). These illustrations are just to show where the contract and load number must be placed. They do not represent what an emulsified asphalt B/L will look like. **Requirements for Certification** on all B/Ls shall follow a certain criteria as described in the Standard Specifications for Road and Bridge Construction (Silver book) or in the Contract Special Provisions for that item.

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Delivery & Payment, all column headings, and the page total in the bottom left-hand corner of the page. Two red lines shall be drawn under the areas to be paid on a progress payment, as illustrated below. **Before each payment and at the end of the contract, the Officeperson will assure there are enough B/L's to cover the tons used. Payment will be based on the tons delivered minus any waste and/or material left in storage.** The entry in the field book along with the weigh ticket documents the load and quantity received. **A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.** The weigh tickets shall be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

When a load of emulsified asphalt is received, the **Inspector** shall obtain the weigh ticket (bill of lading) indicating the weight of the material and the certification. Record the load no., date delivered, truck and trailer no., B/L no., **raw** tons delvd, accum **raw** tons delvd, **raw** tons wasted, **raw** tons left in storage, **raw** tons used, accum **raw** tons used, initials, and AEB#. For ease in cross checking, the load number and contract number must be written on the corresponding B/L and the certification in the upper right-hand corner. **All weight calculations shall be checked and initialed. For each pay period and when the recycled bituminous surface items are complete the Inspector will record any tons used for the fog seal and waste not already recorded, and any asphalt left in storage.** A line shall be skipped after the payment entry and the next entry shall be placed on the next line, as illustrated below.

**Payment will be based on the tons delivered minus any waste and/or material left in storage.**

Item No: 404 0570  
 Item: CMS 25 (Raw)  
 Plan Qty: 530.00 Ton

Sig Fig: .01      4

Record of Delivery & Payment						Accum Raw Tons Delvd	Raw Tons Wasted	Raw Tons Left in Storage	Raw Tons Used for Seal	Raw Tons Used	Accum Raw Tons Used	Insp	AEB#
Load No	Date	TRK No	TRL No	B/L No.	Raw Tons Delvd								
1	9-10-08	83	18	146740	20.08	20.08				20.08	20.08	TC	9
2	9-11-08	1106	3A/1B	146742	38.52	58.60		3.24	35.28	55.36	TC	9	
3	9-14-08	21	200A/14B	146772	37.44	96.04		3.13	34.31	89.67	TC	9	
4	9-14-08	83	17	146803	38.80	134.84			38.80	128.47	TC	9	
5	9-15-08	600	18	146821	38.25	173.09	3.00	3.65	31.60	160.07	TC	9	
<b>Pmt #27 160.07 AEB#9</b>													

The next entry will start on this line

Page total:

The **Diluted Asphalt (Emulsified Asphalt, Diluted 50/50 by mass with water)** used as a fog seal in the cold-recycle process as illustrated on page 11-15 shall be documented in a LIQUID ASPHALT book or if room permits shall be placed in the COLD-RECYCLE book.

To setup the field books, the information for the emulsified asphalt shall be found in the contract plans on the Estimate of Quantities as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.).

The raw emulsified asphalt used in the cold recycle process, as illustrated on page 11-13 and the diluted emulsified asphalt used as a fog seal, as illustrated on page 11-15, are the same emulsified asphalt but will be two different item numbers. The emulsified asphalt used will be delivered **raw** and will be placed on a Record of Delivery & Payment as explained on page 11-12 and 11-13 under **Emulsified Asphalt**. **Raw** tons will be deducted from this Record of Delivery & Payment and diluted and used for the fog seal as illustrated on page 11-15.

Any items requiring measurements, or final quantity calculations must be shown in the field book or on a CALCULATION sheet (Form No. 040-034) and filed in the CALCULATION book as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.). Make sure to cross reference the quantity in the field book to the CALCULATION sheet and the CALCULATION sheet to the field book(s) and page(s).

It is important that all records be kept in a neat and legible manner. All **notes in the remarks column must be initialed** by the person or persons responsible for the entry. **All calculations must be checked and initialed by the checker.**

If room permits, **Sand Blotter** (paid by the ton) used in the cold-recycle process shall follow the guidelines as illustrated in Chapter 8 (Roadway Aggregate). **Pay will be based on delivery minus waste and/or material left in storage.** If room permits the record of delivery (load book) may be placed in the COLD-RECYCLE book.

Each book shall be setup as illustrated in Chapter 2 (Setting up a Contract, Book Format, etc.) and each Record of Application and Payment page shall be recapped as illustrated in Chapter 24 ("Finaling Out" a Contract).

The **Officeperson** shall complete for each page the item number, item description, plan quantity, the significant figure on the top right-hand side of the page, Record of Application & Payment, all column headings, and the page total in the bottom left-hand corner of the page. Two red lines shall be drawn under the areas to be paid on a progress payment, as illustrated below. **Make sure to take the total tons paid each payment cycle and multiply by 50%. Compare this amount to the total tons deducted for the seal coat from the Record of Delivery & Payment for the raw tons (illustrated on page 11-13), to assure the quantities match.** The entry in the field book along with the weigh ticket documents the load and quantity received. **Skip at least one line between entries. A separate page shall be provided for each bid item. Make sure to leave enough pages between items for any added or missed items. All calculations must be checked and initialed.** The tickets shall be filed in Section 1-Contract Files, Division No. 12 as described in Chapter 1 (Organization of Project).

The **Inspector** shall record the date, distributor no., oil temp, tons applied, accum tons applied, and AEB#. Record the station to station (roadway stations where the material was applied), width of the roadway covered, sqyd (length x width ÷ 9) of roadway covered, application rate, and initials. All stations must have a line designation and show left, right, or center line. If the station to station does not equal the length used to calculate sqyds, then the length must be written above the station to station. **Varies will not be accepted in the width column, must have a quantity. Skip at least one line between entries** and after the payment entry. The next entry shall be placed on the next line, as illustrated below.

**Payment for Ton items will be based on weights.**

Record of Application & Payment						Station to Station			
Date	Dist No.	Oil Temp.	Tons Applied	Accum Tons Applied	AEB#	Width	Sqyd	App Rate	Insp
9-11-08	16-8	95°	6.48	6.48	9	16	234.67		
9-14-08	16-8	95°	6.26	12.74	9	16	19120.00	.08	TC
9-15-08	16-8	95°	3.55	16.29	9	16	18666.67	.08	TC
9-15-08	16-8	95°	3.75	20.04	9	16	9777.78	.09	TC
<b>Payment #22 20.04 AEB#9</b>						<b>20.04/2 = 10.02 Raw tons</b>			
The next entry will start on this line.									
Page total:									

**DOCUMENTATION REQUIREMENT  
SECTION H  
CONCRETE PAVING, ROADBED MODIFICATION, RECYCLED BIT. SURFACE,  
AND MISC. SURFACING ITEMS  
(MISCELLANEOUS SURFACING ITEMS)**

**Screenings** (paid by the ton) shall be documented in the same manner as described and illustrated in Chapter 8 (Roadway Aggregate). The type and grade of bituminous material used with the screening will be specified in the contract Special Provisions and documentation will depend on the type specified.

**Premixed Bituminous Paving** (paid by the ton) shall be documented in the same manner as described and illustrated in Chapter 9 (Plantmix Surfacing). The type and grade of bituminous material and aggregate used with the premix will be specified in the contract Special Provisions.