

DOCUMENTATION APPENDIX

SPECIFIC TASK TRAINING PROGRAM

Conducted by the
ILLINOIS CENTER FOR TRANSPORTATION (ICT)
AND
IDOT BUREAU OF CONSTRUCTION

FY 2024

APPENDIX TABLE OF CONTENTS

Appendix Page 1	Current Construction Manual Table of Contents
Appendix Page 2	
Appendix Pages 3-10	Construction Inspector's Checklist for Contract Administration
Appendix Pages 11	
Appendix Page 12	Coordination of Contract Documents Art.105.05
Appendix Page 13	Sample Contract – Notice to Bidders
Appendix Page 14	
Appendix Page 15	
Appendix Page 16	Special Provision X7015005
Appendix Page 17	Special Provision Z0012500
Appendix Page 18	Contract Special Provision – Page 1 "Adopted" Contract 70767
Appendix Page 19	Federal Aid Provision for False Statements
Appendix Page 20	List of Highway Standards for Contract 70924
Appendix Page 21	ELM Contract Award Notice for Contract 70767
Appendix Page 22	Executed and Signed Contract Example
Appendix Page 23	
Appendix Page 24	Progress Schedule for Contract 70924
Appendix Pages 25-46	Construction Manual Section 109 – Measurement and Payment
Appendix Pages 47-48	Pay Estimate for Contract 70924
Appendix Page 49	. Projects Procedures Guide (PPG) – Key Sections (300 and 400) - Responsibilities
Appendix Pages 50-52	IDOT Materials Stamps, Tags, and LA-15
Appendix Pages 53	Project Procedures Guide Attachment 2 Sources of Information for Inspectors
Appendix Pages 54-71	Project Procedures Guide Attachment 3 Evidence of Materials Inspection

APPENDIX TABLE OF CONTENTS (cont.)

Appendix Pages 72-73 Qualified Producer List of Certified Precast Concrete Producers (07/07/23)
Appendix Pages 73-89Construction Memorandum 08-09 Force Account Billing Act 109.04
Appendix Page 90 Prior Approval Authorization of Contract Change Form BC 2256
Appendix Page 91Federal Unemployment Tax/State Unemployment Tax Information 2023
Appendix Page 92 Pile Payment Example
Appendix Page 93Bituminous Mix Record Example
Appendix Page 94ICORS Daily Quantities Example for Item# 40603315
Appendix Page 95ICORS Quantity Book Example for Item# 40603315
Appendix Pages 96-116Construction Memorandum No. 17-4 Contract Changes 104.2 and 109.04
Appendix Page 117 Request for Procurement Policy Board Waiver Form BC 24
Appendix Page 118Authorization of Contract Change Example Form BC 22
Appendix Page 119 Traffic Control Inspection Report BSE 726
Appendix Page 120 Approval of Railroad Liability Insurance Letter
Appendix Pages 121-124Construction Manual Art. 406.14 – Basis of Payment (Tack Coat)
Appendix Page 125 Tack Coat Spreadsheet Payment Calculation Example
Appendix Page 126Tack Coat Application Rate Verification Example
Appendix Page 127 Alternate Method of Tack Coat Payment Calculation

CURRENT CONSTRUCTION MANUAL Table of Contents (March 2021)

Preface

Document Control & Revision History

Division 100 – General Requirements and Covenants

Division 200 – Earthwork, Landscaping, and Erosion Control

Division 300 - Subgrades, Subbases and Base Courses

Division 400 – Surface Courses, Pavements, Rehabilitation, and Shoulders

Division 500 - Structures

Division 600 - Incidental Construction

Division 700 - Work Zone Traffic Control and Protection, Signing, and Pavement Marking Division 800 - Electrical

Appendices

Appendix A - IDOT Construction Memoranda

Current Construction Memoranda

Documentation Guide

Schedule of Average Annual Equipment Ownership Expense

Project Procedures Guide

Current Construction Inspector's Checklists

Forms and Reports

Equal Opportunity Employment

IDOT Inspector Checklist Link

Inspector Checklist

Construction Inspector's Checklists are issued by IDOT's Bureau of Construction to provide guidance to IDOT and local agency employees for the performance of required inspection for the major categories of work involved in department contracts.

For technical support call (217) 782-2760.

Checklist	Revision
Bridge Superstructures	01/03/2018
Concrete Structures Other Than Bridge Decks	03/01/2013
Continuously Reinforced PCC Pavement	12/14/2007
Contract Administration	12/14/2007
<u>Drilled Shaft Inspector's Checklist</u>	03/07/2016
Earth Excavation and Embankment	03/17/2021
Erosion Control	12/14/2007
Hot Mix Asphalt (HMA) Binder and Surface Course	12/14/2007
Hot Mix Asphalt (HMA) Pavement (Full Depth)	12/14/2007
Hot Mix Asphalt (HMA) Shoulders	12/14/2007
Pavement Patching	12/14/2007
<u>Piling</u>	01/11/2017
Pipe Culverts	12/08/2014
Portland Cement Concrete Pavement	12/14/2007
Precast Concrete Box Culverts	03/01/2013
Removal and Disposal of Regulated Substances	03/11/2021
Roadway Lighting	05/25/2018
Soil Modification	12/14/2007
Stabilized Subbase, BAM, CAM, PAM & CAM II	12/14/2007
Storm Sewers	12/08/2014
Structural Steel Bolting	12/14/2007
<u>Traffic Signal Installation</u>	12/14/2007

Appendix Page 2

State of Illinois Department Of Transportation

CONSTRUCTION INSPECTOR'S CHECKLIST FOR CONTRACT ADMINISTRATION

While its use is not required, this checklist has been prepared to provide the Resident Engineer a summary of easy-to-read step-by-step requirements relative to Contract Administration. The following questions are based on information found in the Standard Specifications, Construction Manual, Policy Memorandums, and letters.

BEGINNING OF CONTRACT

1. Have you received from your Construction Office the following?

Special Provisions

Plans

Copy of executed contract (i.e. signed by the Secretary of Transportation)

Commitment File

Copy of Joint Agreements and Letters of Understanding

404 Permits, etc. NPDES Plan & NOI

Design calculations

ROW plats for any proposed ROW or easements

Preprinted Quantity book pages.

Copy of first pay estimate Subcontractor Approvals

Approved material sources

Job Stamp.or preprinted labels

2. Establish contract files that includes the following as a suggested minimum?

As Built Plans Binder for IDR's, BC 628

Asphalt and Concrete Reports Material Inspection Reports - MIRC08

Audit Reviews Miscellaneous
Authorizations NPDES Reports

Calculations Pay Estimates / Material Allowance Commitments Proportioning Reports - Plant Reports

Contract QC/QA Plan, Reports

Contractor's Payroll Shop Drawings

Correspondence Subcontractor Approvals

EEO Reports Delivery Ticket Files/Envelopes

Erosion Control Reports Traffic Control Reports

Final Papers Trainee Reports
Force Account Reports Weekly Reports

3. Are you setting up the following documents?

Sheet 1 of 8

- a. Quantity Book. See Section A in the Documentation Section of the Construction Manual.
- b. Binder for Inspector's Daily Reports, for any IDR's prepared during the project. See Section A of the Documentation Section.
- c. Field Books. Put identifying information on any field books to be used. See Section A of the Documentation Section.
- d. Project Diary. Put identifying information on the inside cover. Put inspectors' names and initials in front of Diary. See Section A of the Documentation Section.
- 4. Have you been informed as to when and where the Pre-Construction Conference will be held?
 - a. Pick up several sets of plans and special provisions, and order full scale sized sets if it is a major project.
 - b. Have your key personnel attend this meeting (with Supervisor's permission).
 - c. Keep a copy of the minutes in your contract file.
 - d. Discuss any agreement to plan quantity (BC 981).
 - e. Scheduled jobsite inspection to review and designate the locations and types of erosion
 - control protection to be placed. (Article 280.03)
 - f. Discuss material sources and suppliers.
 - g. Discuss progress schedule submittal and start of work. See Section 108 of the Standard Specifications.
 - h. Discuss the proposed workforce and equipment to be used. See Section 108 of the Standard Specifications.
- 5. Have you contacted the designer and discussed this contract?
 - a. Obtain a copy of the Design Calculations for future reference. They show how the plan quantities were determined.
 - b. If the project involves rehabilitation, obtain a set of current as built plans plans from microfilm.

	6.	Have you discussed the following concerning this contract with your supervi	sor?
	a.	Personnel requirements.	
	b.	Vehicles.	
	C.	Survey and measurement equipment.	
	d.	ICORS equipment	
	e.	Material testing equipment.	
	f.	Authorization pre-approvals.	
	g.	Special commitments.	
7.	given İ	you discussed with the Contractor the location of the field office and him/her a list of any special equipment required by the contract? ection 670 of the Standard Specifications.	
		le the exact location of the field office and the field office phone ers to your District Construction office.	
8.	Recuri Specif	ou and your staff carefully examining the plans, Special Provisions, ring Special Provisions, Supplemental Specifications and fications? Any discrepancies shall be reconciled in accordance with 105.05.	
9.	you dis	your contract contain a temporary erosion control plan? If not, have scussed this with the Contractor and your Landscape Architect? the Construction Inspector's Checklist for Erosion Control.	
10.		ne Traffic Control Authorization Request Form OPER 725 been red, submitted and approved?	
11.		ou setting up a Project Diary for this contract? See Section A in the nentation Section of the Construction Manual.	
12.	Constr Constr	ou checking the list of Construction Memorandums found in the ruction manual to see if any apply to your contract? (Note: ruction Memorandums are not contract documents. Construction randums are policy.)	
13.	-	u have access to the pertinent Departmental Manuals listed on No. 1 of the Administration Section of the Construction Manual?	
14.	pertine form, i	w the standard forms necessary for documentation along with ent guidelines such as who prepares the form, the purpose of the instructions on its preparation and distribution that are contained in the section of the Construction Manual?	
15.	Prior to	o the contractor starting work, have you:	

Sheet 3 of 8

	a.	Received a satisfactory progress schedule from the contractor? (Article 108.02)	
	b.	Received approval for first or second-tier subcontractors the contractor has requested to use on the project?	
	c.	Determine if original cross sections are needed for earthwork?	
	d.	Measured items to be removed? (e.g. trees)	
	e.	Established bench marks needed for the work?	
	f.	Conducted the jobsite erosion control review scheduled at the pre- construction conference. (Article 280.03)	
	g.	Prior to commencing earthwork, installed Erosion and Sediment Control measures. (Article 280.03)	
16.	•	ou determining the ROW limits and any construction easements and any them for the contractor. (Article 107.32)	
	a.	In some cases it may be necessary to contact your District Land Acquisition Office to obtain the ROW plats.	
	b.	See Section 100 in the Construction manual.	
17.	Are yo	ou establishing stationing throughout the project?	
		times it is advantageous to run an offset line other than the centerline ially in urban areas.	
18.	•	ou locating the stations of all permanent signs, no passing zones, ll pavement markings, etc.?	
	The B	ureau of Operations have the signs inventoried by mile stations.	
19.	•	ou discussing the traffic control plan with the Contractor?	
	a.	Read Section 700 in the Standard Specifications.	
	b.	Contact your District Traffic Control Supervisor and discuss any recent specification changes. Ask if State Police hireback money is available for your project. Have him/her inspect the initial traffic control setup for specification compliance.	
		PROSECUTION AND PROGRESS OF CONTRACT	
1.	in plac	ou making out a Pay Estimate at least once a month of the materials se complete, the amount of work performed, and the value thereof, contract unit prices? (Article 109.07)	

Sheet 4 of 8

a. Enter the cumulative quantity from the quantity book not to exceed the plan quantity or authorized quantity on the corresponding line item of the pay estimate.

- b. Refer to Construction Memorandum No. 76 for specific procedures.
- c. See the Forms Section of the Construction Manual for more information.
- d. Do not include on the pay estimate quantities which do not have evidence of material inspection. Consult your District Materials office.
- 2. Are you performing erosion control inspections as required and ensuring the erosion control plan is being followed by the Contractor?
 - a. Follow the Construction Inspector's Checklist for Erosion Control.
 - b. See Construction Memorandum No. 60.
- 3. Are you filling out the Weekly Report of The Resident Engineer, form BC 239? (Article 108.04)
 - a. The Weekly Report is used by the Central Bureau of Construction to generate the "Monthly Construction Report" for each district. This monthly report tracks the progress and status of each contract in every district statewide.
 - b. Discuss the progress of the work with the Contractor and compare it to the progress schedule. (Article 108.02)
 - c. Extension of time requests can be initiated by either the contractor or Engineer. (Article 108.08) (Form BC-2019)
 - d. See also Construction Memorandum No. 28.
- 4. Are you performing traffic control inspections as required by Section 700 in the Construction Manual?

Coordinate through your District Traffic Control Supervisor from the Bureau of Operations.

- 5. Are you ensuring all materials incorporated into the work has evidence of Material Inspection?
 - a. Contact your District Bureau of Materials.
 - b. Follow the requirements of the *Project Procedures Guide*.
 - c. Request Report 16S from the Bureau of Materials. It summarizes all the Mistic MIRC08 reports for your contract.

Sheet 5 of 8

Appendix Page 7

6.	•	u completing Contractor evaluations on a annual basis on Form
	a.	This form is used to help determine the prequalification Work Rating of a Contractor.
	b.	See Form BC 1778, Numerical Guidelines For Use With Contractor's Performance Evaluation.
7.		field books set up as outlined in Section A (examples in Section F) Documentation Section of the Construction Manual?
	a.	Do not leave field books in drawers or State trucks.
	b.	Are daily bituminous, concrete and piling notes being recorded in hard-backed field books?
8.	Are Tro	uck Tare Weights being recorded daily on pay items paid for by the
	a.	See Section A in the Documentation Section of the Construction Manual, Documentation of Pay Quantities Based on Weight Tickets.
	b.	Use form BC 1465, Truck Tare Weights.
	C.	Are independent weight checks being conducted. See Special Provision and Documentation Section of the Construction Manual.
9.	For Ex	tra Work are you filling out daily copies of Form BC 635, Extra

a. Form BC 635 must be jointly signed by the Resident (or inspector) and the Contractor, recording labor, equipment, and material used. See Schedule of Average Annual Equipment Expense in

the Construction Manual and Construction Memorandum No. 4.

Work Daily Report or establishing an agreed unit price for the work?

(Article 109.04)

- b. Agreed unit prices require a letter from the Contractor and a memorandum from the District Estimator. See Section A in the Documentation Section of the Construction manual.
- If prior approval from supervisor (or higher) was required, record in the project diary the name of the person and when the approval was received
- 10. Are you ensuring that the Contractor is complying with all the EEO requirements? Are you periodically making spot interviews of employees of the Contractor and subcontractor(s) on the job to establish that the minimum wage and other labor standards of the contract are being fully

Sheet 6 of 8

complied with and that there is no misclassification of labor or disproportional employment of apprentices, etc.?

- a. See Construction Memorandum No. 24 and EEO Checklist, Form SBE 1008.
- b. Consult the Equal Employment Opportunity Section in the Construction Manual.
- c Use form BC 163, Report Of Employee Interviews.
- d See Checksheet #4, Required Provisions State Contracts.
- e. Interview one employee from each craft.
- f. Compare the wage rates to the Illinois Department of Labor's prevailing wage list for the appropriate county(s) contained in each contract.
- Report discrepancies to your supervisor and District EEO Officer..
- 11. Are you documenting thickness for items as indicated on the Thickness Determination Schedule contained in Section A of the Documentation Section in the Construction Manual?

END OF CONTRACT

1.	Are you	u checking the plans to be sure all work was performed under the
2.	•	u giving the Contractor a punch list of items to be completed before ject can be accepted?
		a joint inspection with either the Maintenance Field Engineer or echnician.
3.	•	u performing final documentation as indicated in Section A in the nentation Section of the Construction Manual?
	See Fo	orm BC 111, Checklist For Engineer's Final Payment Estimate.
4.		ontractor wishes to submit a claim on this contract is he/she ng the procedures outlined in Article 109.09?
	Refer t	o Construction Memorandum No. 71.
5.	Are yo	u preparing an As-Built sets of plans for this contract?
	a.	Use 1/4 size plan sheets and mark changes in green or blue (red pencil does not copy well).

Make two sets for contracts that involve changes or revisions to

b.

bridge plans.

IDOT Construction Memorandums Link

Construction Memorandums

Construction Memorandums are issued by IDOT's Bureau of Construction to distribute policy information.

Special Instructions: The current memos are available for download. Users can download individual memos or all memos. To download an individual file to your hard drive click the link with the right mouse button, then choose "save target as." To view the file, click the link with the left mouse button. An index with links to all the current memos is also available. After downloading, the memo files and the index must be placed in the same directory.

Files are in Adobe PDF format. Adobe Reader is required to view these files.

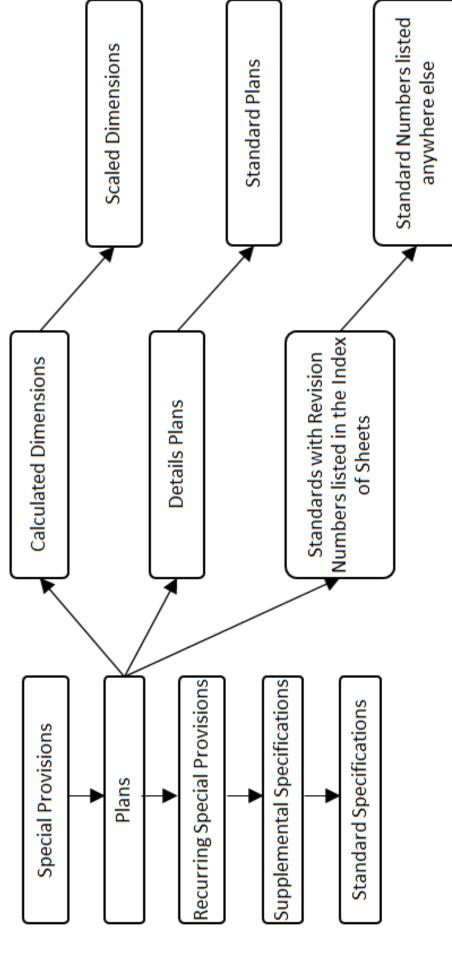


TITLE	↑	DESCRIPTION	ASSET DATE
1		Purpose of Construction Memorandums, Index and Extension of Expiration Dates	11/23/2003
14		Labor Compliance - Federal-Aid Highway Projects	08/22/2019
22		Procedures for Applying the Bituminous Materials Cost Adjustment	02/28/2009
<u>24</u>		Equal Employment Opportunity Contract Provisions and District Responsibilities	02/28/2006
30		Policies and Procedures for Approval of Subcontractors	12/11/2019
33		Operational Review of Contract Quantities	04/30/2012
<u>39</u>		Transportation or Operation of Heavy Equipment on Pavement or Bridges Within the Contract Limits - Article 107.16	03/31/2006
4		Authorization of Contract Changes	09/09/2020
<u>40</u>		Rubblizing PCC Pavement and Placing a Bituminous Concrete Overlay	05/31/2001
<u>46</u>		Field Control of Railroad and Utility Adjustments	06/03/2002

Showing 1 to 10 of 28 entries

Previous 1 2 3 Next

Documents - Art. 105.05 **Coordination of Contract**



Appendix Page 12

RETURN WITH BID

46

	ILE FOILIT WITH DID	
Proposal Submitte	ed By	
Name		
Address		
City		

Letting April 22, 2016

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

Notice to Bidders, Specifications, Proposal, Contract and Contract Bond



Springfield, Illinois 62764

Contract No. 70767
MCLEAN County
Section (57-20,57-1)RS&56RS-3
Route FAP 730,FAP 322
Project ACNHPP-000V(048)
District 5 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:
☐ A <u>Bid</u> <u>Bond</u> is included.
A Cashier's Check or a Certified Check is included
☐ An Annual Bid Bond is included or is on file with IDOT.

Prepared by

F
Checked by

(Printed by authority of the State of Illinois)

1 1 1 0 0 0 0 1 1 1 1 M 4 M			PROJECT NUMBE		ROUTE(S)	
N /019	(10-33HB)	BDR			I 57	i i
PAY ITEM NBR	PAY	TEM DESCRIPTION	NAUQ	IZΨ	UNIT PRICE	1 D A
X701500	HANGE	AGE SN	24.	CAL	75.00	1,800.00
Z001213	1 (1	1	584.000	SQ YD	49.0000	iŏi
Z001216	R DK	2 1/		Σ.	68.0000	39,712.00
Z0015595	OK I	NOISZ		EAC	١Ŏ	7,720.00
Z001580	LUGE	1 .02		EAC	0	3,120.00
Z001600	ECK S	P (FD-T2)	007.6		1,552.0000	
20016702	ETOUR	 	000.1	L	0	9,057.00
Z004189	OLYME	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30			2,534.60
40600100	BIT MATLS PR	1	000.88	٦	2.000(-
4060098	HMA SU	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	0.00	Ñ	.000	1,760.00
•	HMA SC		5.00	0 +	0.000	0 1
4420176	CL D PATCH T	3 10	000.08	SQ YD	Ŏ	0
5010240	REM	 		cu YI	9.000	7
5015730	ROTECTIVES	HIELD	213.000	SQ YD		
•	ONC SUP-STR	} } 1 1 1		CU Y	. I	21,894.00
5030026	R DECK GROO	VING		SQ Y	10.0000	
5030030	ROTECTIVE	!		SQ Y	6.0000	
5080020	EINF BARS	C	0.0	ı Ğ.	8.0000	Ŏ
5090020	EEL RAIL	0	435.000	II.	111.0000	48,285.00
63000001	BGR TY A	FT POS	2,037.500	FOOT	18.6500	37,999.38
63100	AF BAR T	!	4.000	EACH	,000.00	Ŏ.
63100	TR BAR TRM	I —	000.4	EACH	1 1	0.1
1 +	GUARDRAIL RE		1 S	_	3.0000	6,975.00
66101150	HMA SHLD CUR	i i i i i i i i i i i i i i i i i i i		ш		, 125.0
6710010	MOBILIZAT		1.00	SU	,150.750	0.7
7010070	TRAF CON	70140	00.	5	7,000.000,7	7,000.0
7800111	AINT PVT	INE 4	١Ŏ١	0	0.500	0.0
7820041	ARDRAIL MK	A TYPE	36.000	EACH	. 500	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	{ } 1 1 1 1	1 1				

Appendix Page 14

Item Number Designation

The first three numbers show the Section of Standard Specs.

•	Letter prefix has special meaning	4	РАҮ	ITEM DESCRI
۱n	- "Δ" through "K" indicate plant & landscape	X7015005	HANGEABLE	
nc	items	20012130	DECK SCAR	(M
\n	- "M" indicates a metric pav item on a	00121	R DK MIC C	OVL 2 1/4
۷iv			ECK DRAIN E	XTENSIONS
, D	- "X" indicates a special provision or general	01580	LUG EX DK	RA
) ၁ (note has modified the item from the	20016002	ECK SLAB	(FD-T
A.	Standard Specs.	20016702	ETOUR SI	U.S.
15	"Z" indicates an item shown only in the	Z0041895	OLYMER CO	RETE
•	Special		MATLS PR	ı O
	- Frovisions	6009	SURF REM	m
	 "XZ" indicates pay items that were created in for special circumstances which may be 	40603335	HMA SC "D"	NSO
	used with special provision or general			

note for clarification

Appendix Page 15

FAP Routes 730 & 322 (US 51 & US 51 BUS)
Project ACNHPP-000V(048)
Section (57-20,57-1)RS & 56RS -3
McLean County
Contract No. 70767

CHANGEABLE MESSAGE SIGN

Eff. 03-23-2004

Rev. 01-01-2014

This work shall consist of furnishing, placing, and maintaining changeable message sign(s) at the location(s) shown on the plans or as directed by the Engineer.

The sign(s) shall be trailer mounted. The message panel shall be at least 7 ft (2.1 m) above the pavement, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time. Character height shall be 18 inches (450 mm).

The message panel shall be of either a bulb matrix or disc matrix design controlled by an onboard computer capable of storing a minimum of 99 programmed messages for instant recall. The computer shall be capable of being programmed to accept messages created by the operator via an alpha-numeric keyboard and able to flash any six messages in sequence. The message panel shall also be capable of being controlled by a computer from a remote location via a cellular linkage. The Contractor shall supply the modem, the cellular phone, and the necessary software to run the sign from a remote computer at a location designated by the Engineer. The Contractor shall promptly program and/or reprogram the computer to provide the messages as directed by the Engineer.

The message panel shall be visible from $\frac{1}{4}$ mile (400 m) under both day and night conditions. The letters shall be legible from 750 ft (250 m).

The sign shall include automatic dimming for nighttime operation and a power supply capable of providing 24 hours of uninterrupted service.

The Contractor shall provide all preventive maintenance efforts s(he) deems necessary to achieve uninterrupted service. If service is interrupted for any cause and not restored within 24 hours, the Engineer will cause such work to be performed as may be necessary to provide this service. The cost of such work shall be borne by the Contractor or deducted from current or future compensation due the Contractor.

When the sign(s) are displaying messages, they shall be considered a traffic control device. At all times when no message is displayed, they shall be considered equipment.

Basis of Payment: When portable changeable message signs are shown on the Standard, this work will not be paid for separately, but shall be considered as included in the cost of the Standard.

For all other portable changeable message signs, this work will be paid for at the contract unit price per CALENDAR DAY for CHANGEABLE MESSAGE SIGN. Any portion of one calendar day during which the sign is operated as directed by the Engineer shall be paid as one full calendar day.

X7015005 "X" item number

FAP Routes 730 & 322 (US 51 & US 51 BUS)
Project ACNHPP-000V(048)
Section (57-20,57-1)RS & 56RS -3
McLean County
Contract No. 70767

ADJUSTING OF FRAMES AND GRATES OF DRAINAGE AND UTILITY STRUCTURES

Eff.: 03-09-2001 Rev.: 03-28-2007

At the contractor's option the adjustment of the casting may be performed after the surface course has been placed.

If this option is chosen, the existing pavement adjacent to and for a distance not exceeding 12 inches (300 mm) outside the base of the casting to be adjusted shall be broken sufficiently to permit its removal.

After the casting has been adjusted, the pavement and hot-mix asphalt mixture removed shall be replaced with Class SI concrete not less than 9 inches (225 mm) thick. The concrete surface to a depth of 1 inch (25 mm) shall be darkened with a mortar additive to match the adjacent hot-mix asphalt mixture.

Payment will be in accordance with Articles 602.16 or 603.09.

CONCRETE CURB REPAIR

Description: This work shall consist of removal and replacement of concrete curb at locations determined by the Engineer.

Construction Requirements: This work shall be completed according to the applicable portions of Section 440 and Section 606 of the Standard Specifications, and as directed by the Engineer. The minimum length of the curb repair shall be four feet. The minimum length of existing curb to be left in place between areas shall be ten feet. Joints in concrete gutter, curb and combination curb and gutter shall be constructed as a continuation of the joints in the adjacent concrete pavement, base course, base course widening, shoulder. Expansion joints adjacent to drainage castings may be placed in prolongation with other joint types. When concrete curb and combination curb and gutter are constructed adjacent to flexible Pavement or shoulders, joints shall be constructed at distances in accordance with existing joints.

Basis of Payment: This work will be paid for at the contractors unit price per foot measured in place for CONCRETE CURB REPAIR, which the price shall include the removal and disposal of the existing curb and reinforcement bars, as well as seeding and shaping any soil disturbed in order to perform said work.

Z0012500 "Z" item number

7

FAP Routes 730 & 322 (US 51 & US 51 BUS)
Project ACNHPP-000V(048)
Section (57-20,57-1)RS & 56RS -3
McLean County
Contract No. 70767

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions applement the "Standard Specifications for Road and Bridge Construction Adopted April 1, 2016", he latest edition of the "Manual on Uniform Traffic Control Devices for Materials" in effect on the date of invitation for bids, and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein, which apply to and govern the construction of FAP Routes 730 & 322 (US 51 & US 51 BUS), Project ACNHPP-000V(048), Section (57-20,57-1)RS & 56RS -3, McLean County, Contract No. 70767, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

DESCRIPTION OF PROJECT

The project consists of patching, milling, resurfacing, guardrail improvement and other miscellaneous items necessary to complete the work.

INTENT OF PROJECT

The intent of this project is to resurface FAP Routes 730 & 322 (US 51 & US 51 BUS) from Woodrig Road in Bloomington to Country Acres Road to provide an improved roadway surface. The items on this project will be constructed while maintaining at least one lane of traffic.

This work must be accomplished in a manner causing the least amount of damage possible to the environment and giving the maximum possible protection to the public, while minimizing disruption and inconvenience.

TRAFFIC CONTROL PLAN

Eff. 09-11-1990 Rev. 01-01-2014

Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these Special Provisions and any special details and highway standards contained herein and in the plans.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications, the following Highway Standards relating to Traffic Control, and the listed Supplemental Specifications and Recurring Special Provisions.

Highway Standards: 701101 701400 701406 701411

701421 701426 701456 701701

701901

1

Appendix Page 18

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

Appendix Page 19

INDEX OF SHEETS

Per Article 105.05, Highway Standards indicated by revision number listed in the Index of Highway Standards on the plans override the index numbers listed anywhere else.	INDEX OF SHEETS & LIST OF REGEMAY STANDARDS - GP-EAST-REG & SEETS & LIST OF REGEMAY STANDARDS - GP-EAST-REG & SEETS & SEETS & STANDARDS - GP-EAST-REG & SEETS & SEETS & STANDARDS - GP-EAST-REG & SEETS & STANDARDS - GP-EAST
STANDARD 000001-08 442201-03 482011-03 530001-10	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
PESCRIPTION MIDEX OF SHEETS A LIST OF HIGHWAY STANDARDS GENERAL MOTES AUXIMARY OF CAUSATTIESS GENERAL MOTES SCHEACLE OF GAUNTITIESS PLAN SHEETS A UNDER SAN 067-0047 & S.M. 067-0048 BUTT JOINT OETALLS STATUS OF SHEETS AND WISE SAN 067-0048 BUTT JOINT OETALLS SUTT ALON FIRM A SPHALT PATCHING DETAIL BUTT JOINT OETALLS SUTT ALON SHEETS AND WISE SAN 067-0048 BUTTAL OF PRIMARY AND COMMENCIAL ENTRANCES BUTTAL OF PRIMARY AND COMMENCIAL ENTRANCES BUTTAL OF PRIMARY AND COMMENCIAL ENTRANCES BUTTAL OF PRIMARY AND OFF A CONT. ANVENERT MARKING SINCTREET STATE & MALTLAWE APPLICATIONS) DETAIL SULFACE ANGERS TERMINAL TYPE SE OFF SCHALD DETAIL SULFACE ANGERS TO BUTCH STATE SAN ALL THE SULF SAN OFF SCHALD STALL SULFACE AND SHALL STATE SAN ALL THE SULF SAN OFF SCHALD STALL SULFACE AND SHALL STATE SAN ALL THE SULF SAN OFF SCHALD STALL SURVEY MARKER YAULT (GETAIL) HIGHWAY STANDARD ON PATCHESS DESCRIPTION STANDARD STANDESS SHOULDER WIDERING FOR TYPE 1 (SPECUAL) DUARDRAIL TERRIBALL. STREET PLATE SAN SHALL TYPE SE SECUAL SAN OFF SCHALD SHALL SHAPL TO SERVED SAN OFF SAN OFF SCHALD SAN OFF SCHALD SAN OFF SCHALD SAN OFF S	
### COVER SHEET 2	PLE WRE 1 SEPPRESSION SEPPRESSION SEPPRESSION SEPPRESSION SEPERESSION SEPPRESSION SEPPRESS

PAGE	AWARD DATE 05/19/2016 /	Awarded date 05/19/2016	MOTENCEDOLINA	PERCENTAGE P	R T I C I P A T I O N *********************************	80.0000		20.0000				
ATION VAL)	IGN Jardrail upgrad	rded dat	C-95-024-09	3,043,222.89	N T P A AMOUNT	577,600.86	577,600.86	1,856,977.38	1,856,977.38	2,434,578.24 608,644.56	2,434,578.24 608,644.56	2,434,578.24 608,644.56
ILLINOIS DEPARTMENT OF TRANSPORTATION ELM CONTRACT AWARD NOTICE (ORIGINAL)	HEDULED 7 DISTRICT: OS RESP BUREAU: DESIGN 2.92 miles of resurfacing with guardrail upgrades on from Woodridge Road in Bloomington to Country Acres	AWal	STATE JOB NBR:	08J RELEASE RELEASE 7721 2015-0017 06-1153	******** P A Y M E PARTICIPANT	FEDERAL(IL) / STATE OF IL /	FEDERAL(IL) STATE OF IL	FEDERAL(IL)	FEDERAL(IL) STATE OF IL	FEDERAL(IL) STATE OF IL	FEDERAL(IL) STATE OF IL	FEDERAL(IL) STATE OF IL
LINDIS OF	DISTRICT DIS		2 1	10	GROUP	4		٨				
IL EU	57	A divi	RS & 56RS-3	APPROPRIATION CODE 695-49442-7700-0115	AWARD AMT	722,001.07	722,001.07	2,321,221.73	2,321,221.73	3,043,222.80	3,043,222.80	3,043,222.80
ELMSO11:DTGB2392:ELMR092H 05/20/16 22:42:48	LETTING CONTRAC O.57-1)R G DAYS: project and US	CONTRACTOR 5183 -	PRO.	GRP PROG IND CODE SPLIT PRIDRITY FY A 02A 00 01 16	COUNTY 113 - MCLEAN FUND AREA SEQ CONST SFTY	Z001 L 01 0005	FUND/AREA/SEQ TOTALS	Z001 L 02 0005	FUND/AREA/SEQ TOTALS	COUNTY TOTALS	PROJECT TOTALS	CONTRACT TOTALS
		Δ	ppe	nd	IX	ra	ge	21				

STATE OF ILLINOIS CONTRACT

Execution Date

ITEM 046	04/22/2016	2000
/		3
	A	day of A
		17/64
		AGREEMENT made and concluded this

1. THIS

between the State of Illinois, acting by and though the Department of Transportation, known as the party of the

for Department use only)

Rowe Construction, A division of United Contractors Midwest, Inc.

his/their executors, administrators, successors or assigns, known as the party of the second part

own proper cost and expense to do all the work, furnish all materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the terms Bond referring to these presents, the party of the second part agrees with said party of the first part at his/their WITNESSETH: That for and in consideration of the payments mentioned in the Proposal hereto attached, to be made and performed by the party of the first part, and according to the terms expressed in the WITNESSETH: That for and in consideration of the payments mentioned in the Proposal hereto of this agreement and the requirements of the Engineer under it.

THE STATE OF ILLINOIS By the Department of Transportation	Party of the First Randall B. Blankenhorn All Company Contracts Official Contracts Official Contracts Official Contracts Official Contracts Official Contracts	
---	--	--

Execution Date:

Chief Programment Officer/State Purchasing Officer

days after the date the contract was executed, unless otherwise provided in Cannot start before execution date Per Article 108.03; must start within 10 the contract or directed in writing by the Regional Engineer

STATE OF ILLINOIS **CONTRACT BOND**

ITEM 046

	04/2	2/2016
KNOW ALL MEN BY THESE PRESENTS, That we	Rowe Construction, A division of to Contractors Midwest, Inc.	United
a Corporation organized under the laws of the State	of Illinois	
and licensed to do business in the State of Illinois, as	s Principal, and Travelers Casualty an	d
Surety Company of America	(Name of Surety)	
and existing under the laws of the State of Connec do business in the State of Illinois, as Surety, are helin the penal sum of	. WIL	th authority to State of Illinois
THREE MILLION FORTY-THREE THOUSAND TWO CENTS (\$3,043,222.79)	O HUNDRED TWENTY-TWO DOLLARS &	79/100
lawful money of the United States, well and truly to be payment of which we bind ourselves, our heirs, execuseverally and firmly by these presents.	ne paid unto said People of the State of Illino outors, administrators, successors and assig	ois, for the ins, jointly,
THE CONDITION OF THE FOREGOING OBLIC entered into a written contract with the State of Illinois construction of the work designated as:	GATION IS SUCH that whereas, the said Properties of Transports acting through the Department of Transports	rincipal has ortation, for th
Contract 70767 McLean	County Section (57-20,57-1)RS&	56RS-3
Fed. Proj. No. ACNHPP-000V(048)	FAP 730,FAP 322	District 5
which contract is hereby referred to and made a part said Principal has promised and agreed to perform s	t thereof, as if written herein at length, in and said work in accordance with the terms of sa	d whereby the aid contract,

Minois Department of Transportation

Progress Schedule

Sheet

2 of of

Section (57-20,57-1)RS&56RS-3

County MCLEAN

Route FAP 730, FAP 322

Date of Award 5/19/2016 Execution Date	Starting Date 6/6/2016	District 5 Contract No. 70767	
Contract Working Days 65	Date of Estimated Completion 10/5/2016	Job No. C-95-024-09	
Contractor Rowe Construction, a div of UCM, Inc. Address	Address 1523 N Cottage Ave, Bloomington, IL 61701	Project ACNHPP-000V(048)	
Month (Begin with starting month)	hily 2016 Aural Sept 2016 Oct 2016	Oct 20146	TOT

() I I I I I I I I I	MODELLI - (Deglii With Starting Holling)	0.000	June 2016	July 2016	August 2016	Sept 2016	Oct 2016	IOIAL
Projected W	Projected Working Day Per Month		14	17	17	16	-	WD's
Work Item	Quantity & Units	Daily Production Rate						PROGRESS
								Proposed
C1055 1)	2363	23						DBE/WBE
Patch	So Yel) J						Trainees
	۲,		2)			-		Proposed
	318	55		a .				DBEWBE
アナウン	んのと))				1 2 th annual to 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Trainees
	1 5777		11/3	W.				Proposed
	ノンのイ	7.50						DBE/WBE
70 X	- Sa Ye	` -)						Trainees
78.	נייני			1317				Proposed
HILLA CO.	107/50	3.882						DBEWBE
W://:/	S. 7.2							Trainees
1	L			IIA .				Proposed
1 2 cat (cat		70						DBEWBE
	Ton	· /						Trainees
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1707701				(0)			Proposed
PILL DING	217607	200						DBEWBE
Surface	20,							Trainees
HMA						70)		Proposed
	7/17	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\						DBEWBE
Shoolders	707)))						Trainees

Engineer of Construction Regional Engineer Contractor Resident 200

	Proposed	DBEWBE	Trainees
Non-Controlling		XXXXXXXXXXXXXXXX	Sraft
Controlling	20	Y	
LEGEND			

Date Date Contractor

District Construction Engineer

BC 255 (Rev. 2/05)

Printed 5/25/2016

SECTION 109. MEASUREMENT AND PAYMENT

109.01 MEASUREMENT OF QUANTITIES

109.01-1 <u>Documentation</u>

109.01-1(a) Department Documents

The IDOT Documentation of Contract Quantities publication provides detailed information on calculating quantities for payment. All Department field staff must have an in-depth knowledge of this publication. The following also apply to documentation:

- Construction Memorandum No. 33, Operational Review of Contract Quantities, in Appendix A, discusses procedures for District reviews of project support documentation for contract quantities.
- Construction Memorandum No. 81, District Construction Project File Requirements, in Appendix A, presents requirements for the retention of District construction files (e.g., retainage).

109.01-1(b) General

Contract work, as bid by the Contractor, is measured and paid as contract pay items. The contract documents will specify the following information for each item:

- The unit of measure
- The method of measurement
- The estimated quantity
- The system for the unit of measure (i.e., US Customary or metric (SI))

Each contract item represents a unique construction element of the project (e.g., guardrail, pipe culvert, riprap). Contract items may be measured by units of each, length, area, volume, weight or lump sum. The contract documents also include the estimated quantity of each contract item. The actual quantities of the various contract items performed by the Contractor must be determined by measurement and calculation, unless Form BC 981: Agreement on Accuracy of Plan Quantities, is signed.

Differences often exist between the estimated quantities shown in the contract documents and the actual quantities that result during construction. If necessary, contact the designer to discuss the project quantities (e.g., how were the quantities calculated?). If necessary, request additional backup quantity information, such as earthwork calculations, to assist in determining the planned quantity for a specific item for payment, or if there is a suspected conflict or discrepancy with the field-calculated earthwork based on the project staking notes.

109.01-2 Accuracy of Measurement

All pay item quantity documentation is subject to audit and review and, therefore, must be complete, accurate and established in a manner that is clear, concise and easily followed and understood by personnel unfamiliar with the project.

All contract quantities must have written data to support payment. The source document should include all pertinent information on the location, method of measurement (e.g., tons, cubic yards, square yards, lump sum, pounds, each), dates of installation, etc.

Measure and calculate contract item quantities to a degree of accuracy according to Section B of the IDOT Documentation of Contract Quantities.

109.01-3 Weight Checks

This Section presents the Department's policy for the performance of independent weight checks for pay items where the method of measurement for payment is based on weight.

The IDOT Documentation of Contract Quantities outlines three types of weight checks that must be performed by State (or local agency) representatives. They include one for weekly independent weight checks, and two types (that should be alternated) for ticket weights determined from batch weights.

The weekly independent weight check will be documented on Form BIC 2367. A copy of Form BIC 2367 (performed by Department personnel) will be forwarded to the Central Bureau of Construction and the Bureau of Investigations and Compliance.

The two weight checks for batch plants may be reported on 1) the Bituminous Daily Plant Output Report, Form MI-305, or 2) the Independent Weight Check, Form BIC 2367, or 3) other methods using the format described in the IDOT Documentation of Contract Quantities. Results shall be placed in the job file. Do not forward copies to the Central Bureau of Construction nor to the Bureau of Investigations and Compliance.

109.01-4 QC Checks By Contractor

The IDOT Documentation of Contract Quantities outlines the scale checks that must be performed by Contractors as part of the QC process. The scale checks will be documented on Form BIC 2367 and/or the Bituminous Daily Plant Output Report. Copies of QC checks by the Contractor should <u>not</u> be forwarded to the Central Bureau of Construction nor to the Bureau of Investigations and Compliance.

109.01-5 Weighing

See the IDOT Documentation of Contract Quantities. If loads or portions of loads are rejected, notes explaining the reason should be made on the respective load ticket or invoice, initialed and dated by the authorized Department Inspector.

At the discretion of the Department, in lieu of paper delivery tickets, the Contractor may employ the use of an automated electronic ticket (i.e. "e-ticket") system. If the District desires to approve

the Contractor's request, the District should coordinate Department approval with the Central Bureau of Construction. At a minimum, the automated e-ticketing system shall provide electronic, real-time tickets meeting the same criteria as per Article 109.01 of the Standard Specifications for Road and Bridge Construction, 3rd paragraph. Approved electronic tickets shall be considered to meet the Standard Specifications for Road and Bridge Construction in reference to "automatic printer", "delivery ticket", or any other reference to printed tickets.

It is anticipated an e-ticket system should satisfy the following:

- 1. E-tickets must contain all ticket data required by specification
- 2. The Department needs the ability to receive an e-ticket via e-mail (on a ticket by ticket basis) after an e-ticket is accepted. (This serves as a check against ticket data stored on a vendor website.)
- 3. The Department needs the ability to add comments to an e-ticket (e.g. test results, when only partial tonnage from a load is used, inspector initials, etc.)
- 4. The Department needs the ability for a RE/Inspector to safely identify which load they are accepting. (E.g. truck numbers should be readily displayed on side of trucks. In addition, the truck number and load number should readily be displayed on an e-ticket.)
- 5. The Department needs the ability to accept or reject an e-ticket
- 6. The Department needs the ability to undue an "accept" or "reject" action
- Online e-ticket reporting functionality should be exportable. (E.g. the Department needs the ability to summarize e-tickets for a specific date or range of dates and export data to excel.)

109.04 PAYMENT FOR EXTRA WORK

109.04-1 General

The Department reserves the right to require the performance of extra work to satisfactorily complete the contract work. It is in the best interest of both the Department and the Contractor to anticipate extra work whenever possible. Options for completing any extra work should be discussed with both the Contractor and Construction Field Engineer/Area Supervisor. A Contractor shall not begin this work without written authorization from the Department. Refer to Article 104.02 and Construction Memorandum No. 4 in Appendix A for extra work payment.

109.04-2 <u>Method of Payment Definitions</u>

The basic method of payment to the Contractor for extra work will be one of the following:

1. <u>Contract Unit Prices</u>. This method uses existing items and unit prices in the bidding schedule.

- 2. Agreed Unit Price (AUP)/Lump-Sum Price. AUP establishes new items and unit prices to pay for extra work. In general, an agreed unit price approach is used when there is a key component (e.g., cubic yards of structural concrete) of the overall construction element that can be used to provide payment for the Contractor's work. The AUP approach is best suited when the work can be quantified in advance.
 - Lump sum is used for payment for extra work when it is appropriate to pay for the completed work as a unit; i.e., the lump-sum price is the total agreed cost for all work associated with the construction of an overall construction element. It includes the cost of all materials, labor and equipment. This method is appropriate when it can be determined that there will be no changes or adjustments to the original scope or quantity of extra work agreed upon.
- 3. <u>Force Account</u>. A force account compensates the Contractor for extra work based on the actual hours worked and the equipment and materials used (i.e., time and materials). It is more cumbersome and administratively complex than either an agreed unit price or lump-sum price payment. Force account is best used when:
 - Defining the work clearly and accurately enough for a change order with an agreed unit or lump-sum price is too difficult
 - The extra work needs to begin immediately
 - The Department and the Contractor cannot agree on an agreed unit or lump-sum price for the extra work

109.04-3 <u>Lump Sum or Agreed Unit Price</u>

Either the Resident or the District Office will receive a letter from the Contractor proposing payment for extra work at a lump sum price or an agreed unit price. This request is forwarded to the District estimator who either approves or rejects the price. If the lump sum or agreed price is approved, the Contractor shall be given written confirmation of the approved method of payment and permission to proceed with the work. If the request is denied, one or two options exist — either the Contractor may resubmit the proposal with changes, or the Department will direct the Contractor to proceed under a force account basis.

109.04-4 Force Account

If it becomes necessary to do extra work under a force account basis, the Contractor shall perform the work in the most expedient and economical manner possible. This shall be discussed before the work actually begins. In this discussion, the labor force required, equipment to be used, and any material needed will be determined. After these issues are resolved, the extra work may proceed.

On a force account, the Resident should agree with how the work will be performed and the labor, materials and equipment that the Contractor will use before the work is performed. The Resident can also decide what to include and exclude on a force account.

Each day that the Contractor proceeds working on the extra work, an Extra Work Daily Report, Form BC 635: Extra Work Daily Report, shall be completed. Form BC 635 shall then be signed by both the Contractor's and Department's representatives. The original shall be given to the Contractor for future billing and a copy retained in the job file. Upon receiving the force account billing from the Contractor, the Resident shall check it for accuracy with the Extra Work Daily Report, Form BC 635, in the job file. The Contractor billing should resemble that shown in the IDOT Documentation of Contract Quantities. Once checked, processing for payment may proceed.

When extra work is performed by an Engineering firm hired by the Contractor, the cost should be administered as work performed by an approved Subcontractor per article 109.04(b)(7).

It is recommended that an authorization for an estimated amount is processed before the work begins.

Refer to Construction Memorandum No. 9 in Appendix A for procedures to process a force account bill.

109.05 EXPENSES INCURRED BY THE DEPARTMENT

The following are examples of items that typically apply to Article 109.05:

- 1. Utility work such as residential service hookup (beyond the meter) and utility service drops
- 2. Railroad flagger bills in accordance with Article 107.12
- 3. Utility charges that are the responsibilities of the Department.

To calculate the administrative cost, the following example is provided to ensure consistent interpretation of the specification. If the Contractor received three railroad flagger invoices for \$5000 each and issued one payment of \$15,000 for the three invoices, the administrative cost is $(0.05 \times 10,000) + (0.01 \times 5,000) = 550 . If the Contractor received three railroad flagger invoices for \$5000 each and issued three payments (one payment for each invoice), the administrative cost would be $(0.05 \times 5,000) + (0.05 \times 5,000) + (0.05 \times 5,000) = 750 .

109.07 PARTIAL PAYMENTS

One of the most important duties of the Resident is to submit pay estimates for quantities of completed work. The contract between the State and the Contractor differentiates two types of payments to the Contractor – partial payments (Article 109.07) and final payments (Article 109.08). The Resident's work on a project is not complete until the final payment has been made to the Contractor.

109.07-1 Progress Payments

109.07-1(a) Frequency of Progress Pay Estimates

Due to the large dollar value and duration of many contracts, Article 109.07 of the *Standard Specifications for Road and Bridge Construction* provides for partial payment to the Contractor

for work completed to date. A partial payment, commonly referred to as a progress payment, is initiated by the Resident when he/she completes and submits a pay estimate. Article 109.07 specifies that a partial payment will be made to the Contractor at least once per month. However, if the State is the awarding authority, payment will be made only if the value of the payment is \$1,000 or greater.

Depending on the size of the contract, progress pay estimates may be submitted on a more frequent basis. Normally, pay estimates are not submitted more often than twice a month. However, on a multimillion-dollar project, progress pay estimates may be submitted weekly if sufficient work has been completed to justify that schedule. The Resident may wish to discuss the payment schedule with the prime Contractor to ensure that all involved know when payments can be expected.

Each pay estimate must be processed individually by the Central Bureau of Construction. Due to the time required to process each payment, pay estimates should not be submitted more frequently than once per week. Two or more estimates should never be submitted at the same time.

109.07-1(b) Submittal of Progress Pay Estimates

Pay estimate entries may be made using CMMS, ICORS, or on preprinted forms. If CMMS or ICORS is used, pay estimates should be emailed with a statement indicating the Resident's approval for the contract and pay estimate number (i.e., "I hereby approve this estimate for payment.").

On State let State Contracts CMMS or ICORS must be used. Pay estimates must be emailed, by the Resident, to DOT.PayEST@illinois.gov. Copies of the pay estimate should be sent to the prime Contractor.

On State let local agency contracts, if using CMMS or ICORS, and after the local agency employee in responsible charge of the contract includes a statement indicating their approval of the estimate (i.e., "I hereby approve this estimate for payment."), pay estimates should be emailed to the District contact. After the estimate is approved in the District, the pay estimate, along with a statement indicating the District's approval (i.e., "I hereby approve this estimate for payment."), should be emailed to DOT.PayEST@illinois.gov and the Contractor.

On State let local agency contracts, if not using CMMS or ICORS, three copies should be mailed to the District contact for approval and one copy retained in the project file. Two sets of signature approvals are required — one from the local agency employee in responsible charge of the contract, and the other from an IDOT employee overseeing the local agency's contract (i.e. the District contact).

109.07-1(c) Quantities to Submit on a Progress Pay Estimate

On progress pay estimates, the payment quantities for most pay items may be estimated. Estimates can be made for either the quantity of completed work (e.g., volume of earth excavation completed) or the percentage of work completed. The basis for all estimates should be clearly stated in the Resident's documentation. Quantities paid must be assigned to the correct fund

code and County, Construction, Safety (CCS) Code, because these must be correct by the end of the project. These codes may appear to be random but are not. They are utilized to ensure that proper funding is charged for the project from State, Federal and local sources.

The Project Procedures Guide provides information for what is acceptable evidence of material inspection. This is a critical item and the Resident must have the evidence in their files, if the evidence is a document (i.e., tickets or an inspection report).

The pay estimate will include the quantities for all pay item work completed in accordance with the contract. It is in the best interest of the State that the Contractor is paid promptly for all work properly performed. All quantities, which are submitted on a pay estimate, must be supported by acceptable documentation. See Section 109.07-1(e).

All work accepted for progress payment must be maintained in acceptable condition until final payment. For example, new drainage structures must be clean at the time of final inspection. The cost of maintaining newly installed structures is included in the cost of the drainage structures. Ordinarily, it is not necessary to withhold a percentage of the payment for the item for such contingencies. Withholding must be discussed with the Resident's Construction Field Engineer/ Area Supervisor.

The Resident must use discretion when deciding how to pay for work that is partially completed. The Resident must never pay the full price for partially completed pay item quantities. The following general principles apply:

- The value of the partially completed work. The norm is to pay the Contractor for completed units of pay item work. However, if the Contractor is bearing a large cost for partially completed work, typically for lump sum or each item, it may be in the interest of the State to pay a calculated percentage of the pay item cost. Examples of incomplete work include intermediate lifts on bituminous pavement and traffic control (for which the Department has set up a partial payment schedule).
- 2. Risk to the State if the work is not eventually completed by the Contractor or if the work is not completed in a timely manner. This may happen, for example, if the Contractor goes out of business before the work is completed. Control of payment for partially completed work is one of the Resident's most effective tools for encouraging the Contractor to comply with the terms of the contract.
- 3. <u>Risk of damage to partially completed work</u>. For example, the Department does not ordinarily pay for traffic signal control cabinets installed but not yet tested.

109.07-1(d) Effect of Change Authorizations on Pay Estimates

When additional work has been added to a contract, whether it is due to a routine change in contract quantities or an addition of new work to the contract, the Contractor needs to be paid for the completed work in a timely manner. To accomplish this, a change authorization adding the work should be submitted as soon as a contract addition is known. If the work will be done on a force account basis, an authorization using the estimated costs should be submitted as early as possible, with a revised authorization submitted when final costs are known. There are a number

of pay items that have been set up for specific items on change authorizations. A list of these items is included in Construction Memorandum No. 4, Contract Changes – Articles 104.02 and 109.04.

Balancing authorizations should be submitted as work under various pay items are completed, rather than waiting until the end of the project to submit a single balancing authorization for all of the pay items.

109.07-1(e) Items NOT to Submit on a Progress Pay Estimate

- Never pay for work for which you do not have adequate evidence of material inspection. Section 106, Control of Materials, of the *Standard Specifications* discusses approval of materials incorporated into the work.
- 2. Never pay for work that has not been performed. For example, at the end of the fiscal year in June, payments may be temporarily delayed while the Comptroller performs their end-of-year accounting and establishes the appropriations for the upcoming fiscal year. On the last pay estimate of the fiscal year, it is illegal to pay for quantities of work that the Contractor intends to perform in the immediate future.
- 3. Never "swap" pay items. It is illegal to pay for work covered by one pay item by submitting it on the pay estimate as a different pay item, no matter how similar in description or price the pay items are. If a new type of work is required, then a new pay item (agreed unit price or force account) must be added to the contract by a change authorization.
- 4. Never bury non-pay item costs in the contract. For example, if an engineering mistake is made in laying out an item, causing the Contractor to have to perform the work twice, the extra cost should be submitted on an authorization as extra cost due to an engineering error. It is not acceptable to pay for the work twice under the pay item.
- 5. Never pay for work that is not complete in accordance with the contract specifications. If it is decided that non-compliant work may remain in place, a credit for non-compliant work/material may be pursued.
- 6. Never pay for work for which you do not have adequate documentation to support the quantity paid. For example, if the Contractor refuses to cooperate in weighing a tonnage item on an approved scale (when required by the contract), then do not pay for the unsupported quantity unless directed to do so by your Construction Field Engineer/Area Supervisor.

Paying for work in other than the approved manner may constitute a felony. Residents should be careful to follow the policies and procedures enumerated in the above related to payments.

109.07-1(f) Corrections to Pay Estimates

If errors are discovered in the project quantity documentation, the errors must be corrected as soon as possible. The quantity must also be updated as soon as possible so that the correction

can be reflected no later than the next pay estimate. This is especially important if the error being corrected resulted in a large overpayment to the Contractor.

If an error is discovered in the preparation of a pay estimate after submitting the estimate, under most circumstances, if the error is discovered immediately, the correction can be made over the telephone. In this case, the Resident should contact the District Construction Office which, in turn, will contact the Central Bureau of Construction to make the correction. Any corrections made by telephone should be documented in the project diary, and the quantity book must be updated to reflect the correction on the next pay estimate.

109.07-2 Material Allowances

Article 109.07 permits the Department, at its discretion, to pay the Contractor for costs incurred in supplying non-perishable materials under certain conditions.

The intent of this provision is to pay the Contractor for costs incurred for a particular contract for payment that would not normally be made until the materials are incorporated into the project. It is not the intent of this provision to pay material allowances for stocks of materials that can easily be acquired by the Contractor to meet project scheduling.

A material allowance is different from a payment for partially completed work. In the case of a partially completed pay item, material is consumed as work progresses and the Contractor is paid based on work accomplished. For material allowances, none of the covered material is yet incorporated into the project pay items.

The following conditions must be met to qualify for a material allowance:

- 1. The Contractor must submit acceptable evidence of passing material inspection(s).
- 2. The material must be non-perishable and is intended for use only on a specific contract.
- 3. The material should normally be ready to incorporate into the work. For example, structural steel must be fabricated. Form BBS 59 shall be used as documentation to substantiate the material allowance for fabricated structural steel.
- 4. All material for which an allowance is to be paid must be in secure storage on the project or at a location acceptable and accessible at any time by the Department. The material must be properly protected from damage. If the material becomes damaged or otherwise unacceptable, it shall be removed from the material allowance. If stored off the project site, the location must be such that the Resident can maintain reasonable control, either directly or through District staff. The State must be able to "take possession" of the material if the Contractor should default on the contract. For this reason, certain materials such as borrow cannot be considered for an allowance due to the problems the Department would encounter in taking title under this situation.
- 5. The Contractor must present proof of payment within 60 days after receiving payment from the Department or the material allowance will be reclaimed. Proof of payment could include:

- Copies of canceled checks (front and back)
- Copies of checks with some form of verification from the financial institution
- A copy of an invoice from the Supplier marked "Paid by check number _____," which
 also includes the date, signature and title of the supplier's representative
- Other acceptable documentation
- 6. There must be a clear benefit to the Department and the Contractor for purchasing the material in advance. For example:
 - There is a perceived or potential national or regional shortage of the material.
 - The time required to prepare the material is critical to meeting the contract schedule.
 - The cost of the material is expected to rise before the material is to be incorporated into the work.
- 7. Materials that can be readily supplied to the contract and materials that are expected to be incorporated within 60 calendar days should not be included in material allowances.
- 8. The inclusion of a material on a material allowance should not place an undue burden on the District with extra inspections or other monitoring requirements.
- 9. Because other costs are included with the material cost in the unit price of a pay item, the dollar value of the material allowance should represent only the bare material cost- and cost-plus transportation shall not exceed 70% of the cost of the corresponding pay item(s). Paying for more than 70% of the pay item cost can be considered in special situations but under no circumstances shall the value of the material allowance equal the value of the corresponding pay item work.
- 10. No allowance will be made for fuels, form lumber, falsework, temporary structures or other work that will not become an integral part of the finished construction.
- 11. As the materials are incorporated into the project and paid as a normal pay item, the value of the material allowance(s) will be reduced on the same pay estimate.
- 12. The following items are typically acceptable for material allowance payment:
 - Fabricated structural steel
 - Complete bridge bearing assemblies
 - Precast structural units (e.g., beams, deck planks)
 - Fabricated sign trusses
 - Mast arms

- Items impacted by a regional or statewide shortage
- Groups of items common except for type or size (e.g., pipe for culverts or storm sewers)
- 13. All material allowances must be submitted by the prime Contractor. Direct submittals from subcontractors or material suppliers will not be allowed.

To maintain uniformity in the payment of material allowances, the Bureau of Construction is always available for consultation on special situations involving material allowances. This is strongly encouraged for such issues as perceived material shortages and for non-typical material allowances.

109.08 ACCEPTANCE AND FINAL PAYMENT

109.08-1 Final Payment

The final payment is based on those completed pay item quantities included in the original contract documents and those quantities that have been added by an approved change order. A representative of the State or local agency must be present for all measurements taken for final payments. Payments shall not be based on Contractor measurements.

Final payment is normally made to the Contractor only after the following conditions have been met:

- 1. All physical work has been satisfactorily completed and accepted.
- 2. All documentation requirements have been satisfactorily completed.
- 3. All materials incorporated into the work have been certified.
- 4. The Contractor has agreed to final quantities.
- 5. DBE payment agreement forms have been submitted to document compliance with DBE goals (if required).
- 6. All appropriate EEO forms and payrolls have been filed.

109.08-2 Contract Closeouts

Contract closeouts are an important part of the overall contract administration process. Until a project is closed and the Contractor receives the final payment, the project is not complete. The following closeout process has been developed as a guide to facilitate the timely closeout of projects. Recognizing that projects differ in complexity and size, the time frames given may need to be adjusted in certain situations.

The positions listed are suggestions of who may perform the duties. The actual individual or position completing a process will vary depending on the District, available personnel, if a local agency is involved and other factors. All projects should be closed within six months of the final

inspection. However, there will occasionally be projects with performance requirements, liens, warranties, claims or other special circumstances that may require additional time.

I. WEEKLY REPORT OF RESIDENT (Form BC 239) submittal, Final Inspection and Punch List (Article 105.13) time frames.

- A. The Resident submits Form BC 239 at 99.5% a maximum of 3 days from the date all physical work was complete.
- B. The Resident performs inspection a maximum of 2 days after the physical work complete date to determine initial punch list.
 - 1. No initial punch list by the Resident.
 - a. The Resident contacts the Construction Field Engineer/Area Supervisor to perform final inspection. The Construction Field Engineer/Area Supervisor conducts the final inspection, including other Bureaus and local agencies as necessary, within ten days and, if all work is completed, the Resident submits Form BC 239 at 100% within three days.
 - b. If a punch list is developed, the Resident submits Form BC 239 at 99.9% within 3 days. The Contractor is allowed 5-7 days to re-mobilize to perform punch list items before Resident begins to charge working days. When punch list items have been completed to the satisfaction of the Resident and Construction Field Engineer/Area Supervisor, the Resident submits Form BC 239 at 100% within three days.
 - 2. Initial punch list issued by Resident.
 - a. Resident issues initial punch list to Contractor and submits Form BC 239 at 99.9% within 3 days. The Contractor is allowed 5-7 days to re-mobilize to perform punch list items before Resident begins to charge working days. If possible, this initial punch list is given to the Contractor prior to their demobilization. When initial punch list items have been completed to the satisfaction of Resident, the Resident contacts Construction Field Engineer/Area Supervisor to conduct the final inspection. The Construction Field Engineer/Area Supervisor conducts the final inspection including other Bureaus and local agencies as necessary and, if all work is completed, the Resident submits Form BC 239 at 100% within three days.
 - b. If a subsequent punch list is issued to the Contractor, the Contractor is allowed 5-7 days to re-mobilize to perform punch list items before Resident begins to charge working days. When punch list items have been completed to the satisfaction of Resident and Construction Field Engineer/Area Supervisor, the Resident submits Form BC 239 at 100% within three days.
- C. Once the 100% weekly report is received, Support checks database for any outstanding items that need to be addressed (e.g., extension of time, liquidated damages, Operations approval, coring waiver) and notifies appropriate personnel to resolve as soon as possible.

- D. Support personnel generate the "Final Inspection Letter(s)" for signature and distribution and begins preparation of office and Equal Employment Opportunity (EEO) files and plan retention. Support personnel begin to manage and assemble all final documents for final paperwork submittal to Central Bureau of Construction. Another option is the Resident or Construction Field Engineer/Area Supervisor generates the "Final Inspection Letter(s)" for signature, distribution and cc's to Support.
- E. If the above guidelines are not met, non-compliance notifications may be sent by Support to the appropriate personnel, and the Construction Engineer is copied. The Construction Engineer will intervene if warranted. All time frames can be extended to allow for mitigating circumstances.

II. CONTRACT RECORDS AND AUTHORIZATION SUBMITTALS AND TIME FRAMES AFTER 100% COMPLETION DATE FROM FORM BC 239 IS KNOWN.

- A. The Support Office must receive the contract records (job boxes) within 30 days after the 100% completion date for documentation and material certification reviews to commence. The Resident is required to contact the Support Office with an explanation if the 30-day time frame will not be met.
- B. The Resident submits to the Construction Field Engineer/Area Supervisor a balancing authorization of all remaining outstanding contract pay items, except outstanding force account work (see II.C.), within 30 days after 100% completion date and notifies Support of any outstanding authorizations. At this point, the Resident and Contractor have tentatively agreed to "final" quantities. If there are no outstanding extra work invoices (see II.C.), this authorization will be marked by Resident as "Final."
 - 1. The Construction Field Engineer/Area Supervisor checks the authorization for errors and omissions. All District signatures are obtained per Construction Memorandum No. 4 in Appendix A. Support will again check for errors, omissions and BCM screen 64 for 4 (four) signature status. Support will then input authorization data into the District Project Implementation Support database for tracking purposes and to facilitate in the creation of the Net Cost of Section. The processing is completed, and the authorization is mailed to CBC. The target time for this process is 2 days.
 - 2. Support monitors Report to Web daily for authorization posting by CBC and notifies and processes.
 - 3. The Resident will contact Support personnel if the contract will have no authorizations.
- C. The Resident must receive all extra work invoices from the Contractor within 60 days after completion of the work (Article 109.04) for the Contractor to be paid for any extra work. This also includes items paid for by Article 109.05. The Resident will only accept corrected invoices after the 60-day parameter has lapsed. Resident submits the marked "Final" authorization to Construction Field Engineer/Area Supervisor 80 days after 100% completion date.

- D. If the above guidelines are not met, non-compliance notifications may be sent by Support to the Resident, and the Construction Engineer is copied. The Construction Engineer will intervene if warranted. All time frames can be extended to allow for mitigating circumstances.
- E. Once the acceptable contract files are submitted to the District office, the contract becomes the responsibility of the District. Implementation Support staff in direct charge of closing out the contract may create and sign the final "balancing" pay estimate that does not involve significant contract administration issues when the Resident is not available to do so. Construction Field Engineer/Area Supervisor or higher-line authorities may also create and sign the final pay estimate, or any future pay estimates that may involve significant contract administration issues as needed when re-opening the contract when the Resident is not available to do so.

III. FINAL QUANTITY SUBMITTAL AND TIME FRAMES AFTER "FINAL" AUTHORIZATION HAS BEEN POSTED BY CBC.

A. Support personnel download the Final Quantity Approval Sheets from mainframe TSOA program. These are mailed certified to the Contractor for its signature of approval with a cover letter stating the need for the following submittals. The Final Quantity Approval Sheets must be checked against the hard copy of the Final Pay Estimate by Support and, if any payments have not been made by the Resident, they are verified and added to the Final Pay Estimate for submittal with final paperwork. As an alternative, a Final Pay Estimate from BCM may be used if the Contractor's signature and date are still collected.

It is not necessary to wait until Support has completed its review of final quantities to send the Contractor the final quantities. If the review finds quantity adjustments need to be made, the Resident will generate an authorization to correct the quantity, and Support sends the Contractor a Final Quantity Adjustment Letter or Revised Quantity Approval Sheets.

- 1. The Contractor has 21 calendar days from receipt of certified mail to either agree to final quantities or respond in writing indicating the quantities that are in disagreement. Failure to do so will be considered acceptance of the final quantities.
- Performance requirements, Form SBE 2115: DBE Payment Agreement, for each DBE Subcontractor (if applicable) and a Form BC 2115: Subcontractor Payment Agreement, for non-DBE Subcontractors (if applicable). Time frames for submittal to Support depend on the Contractor and Subcontractor. Another option is for Support to send this request for submittal to the Contractor with the "Final Inspection Letter" (see I.D.).
 - a. Performance Requirements Closeout cannot occur until warranty inspections are performed as directed in the *Standard Specifications*. This can delay closeout by several months.

- b. Form SBE 2115 and Form BC 2115 Submitted within one month after Final Quantity Approval Sheets have been agreed to and submitted; this may require intervention by the District EEO Liaison.
- B. The Form SBE 2115 is attached to the DBE/WBE Final Documentation Form (Form SBE 2028) and submitted to the Bureau of Small Business Enterprises (SBE) in the Office of Business and Workforce Diversity. SBE will respond to the District, and this entire information becomes part of the final documentation submitted to CBC.
- C. Copies of the Final Quantity Approval Sheets are retained with the other Support final documents and given to Support Documentation and Support Material Certification personnel for the review process.
- D. Support will supervise and control the status of all document submittals on a daily basis. Once final quantities are agreed to, Support orders from BCM screen 41 a hard copy of "RE Pay Estimate Report," to prepare for submittal to CBC with other final paperwork upon District closeout date.
- E. If the above guidelines are not met, non-compliance notifications may be sent to the Contractor by Support, and the Construction Engineer is copied. The Construction Engineer will intervene if warranted. All time frames can be extended to allow for mitigating circumstances.

IV. SUPPORT DOCUMENTATION REVIEW AND TIME FRAMES

- A. A contract records check-in sheet is completed by the Resident and submitted with the contract records. The check-in sheet is a fairly comprehensive visual aid for the documentation personnel to quickly locate certain items. It also aids the Resident to ensure that all documents are present.
 - 1. When records are submitted, the documentation reviewer checks the EEO monthly and payroll weekly log-in sheets for compliance. This check may also be completed by the District EEO Liaison or the Resident. If any required submittals are not logged-in, notification letters are generated, signed and sent to the Contractor. The District EEO Liaison and non-compliant Sub(s) are cc'd on the letter. A more comprehensive review of these items will occur when the actual documentation review process begins.
- B. The documentation reviewer starts the review process within 3 weeks after contract records are submitted. The documentation reviewer must have Final Quantity Approval Sheets to check accuracy of Quantity Book pay item quantities (see III.B.).
 - 1. Target times for initial review completion is 1 day to 3 weeks depending on the number of pay items, the dollar amount of the contract and the volume of documents.
 - 2. Form BC 111: Checklist for Engineer's Final Payment Estimate is started. Items 1-6, 10, 11, 19, 24, 26-28 are completed by the documentation reviewer with the Resident supporting if necessary. Form BC 111 is retained in a file on the S drive so that it can

be accessed and completed by other Support personnel as the conclusion of closeout nears.

- C. Documentation personnel complete the review process and Resident is notified.
 - Resident has 10 days to complete all contract documentation deficiencies.
- D. Documentation reviewer checks to ensure that all deficiencies have been corrected.
 - 1. If corrections are not complete, Resident has 2 days to complete.
 - 2. Documentation reviewer completes review within 2 days, distributes and retains findings.
- E. If the above guidelines are not met, non-compliance notifications may be sent by Support to the Contractor or Resident, and the Construction Engineer is copied. The Construction Engineer will intervene if warranted. All time frames can be extended to allow for mitigating circumstances.

V. SUPPORT MATERIAL CERTIFICATION REVIEW AND TIME FRAMES

This process time can be significantly decreased and, therefore, contract closeout time decreased, if the Resident strictly adheres to the discussion in Section 109.07-1(e), which presents items that must never be submitted on a progress pay estimate.

- A. Material certifications should be in compliance when contract records are submitted. Resident will have submitted contract records (job boxes) within 30 days of the 100% Form BC 239: Weekly Report of Resident submittal.
- B. Materials certification reviewer starts process within 1 month after Final Quantity Approval Sheets are received (see III.B.).
- C. Material certification reviewer completes review within 2 weeks and generates a "Shortage Letter" that is sent to Resident and copied to Contractor.
- D. Resident and material certification personnel work with Contractor, Subcontractors, suppliers and producers to resolve outstanding material certification issues. Material certification personnel work with other Districts to generate out-of-District material assignments and with District materials personnel for approvals. Target time frame for resolution is 1 month.
- E. Material certification reviewer conducts a final review and completes process within 1 week.
- F. An alternative option is, when the contract is 85% complete, a preliminary list of material certification deficiencies is compiled and sent to the Resident and Contractor. This provides all entities with another opportunity to reconcile deficiencies before contract records are submitted for review. The process will then follow A. through E.

G. If the above guidelines are not met, non-compliance notifications may be sent by Support to the Contractor or Resident, and the Construction Engineer is copied. The Construction Engineer will intervene if warranted. All time frames can be extended to allow for mitigating circumstances.

VI. SUPPORT PREPARES FINAL DOCUMENTS FOR SUBMITTAL TO CBC AND CONTRACT CLOSE-OUT IS COMPLETE

Support personnel obtain all documents necessary for closeout by the time the material certification review has been completed. Once the material certification review is complete, the close-out and final documents submittal to CBC occurs within 1 day.

VII. DATABASE

Support personnel should manage and track all documents necessary through a database that was created in part considering monitoring requirements. The database should also generate various status sheets, reports, letters, etc., that aid in the administration and monitoring of all phases of the closeout processes for all District contracts.

VIII. CONTRACTOR

The Contractor is also responsible for ensuring that projects are closed in a timely manner as described above. This includes the timely submission of all required documentation. The Resident should never pay for work for which there is not adequate documentation to support the quantity paid. Partial payment is discussed in Section 109.07. Failure to timely submit the required documentation, including that necessary to close a project, may result in a finding of non-responsibility on the part of the Contractor, resulting in the revocation of its prequalification.

109.09 CONTRACT CLAIMS

109.09-1 Claims Avoidance

109.09-1(a) General

The best mechanism for avoiding claims is to take an open and professional approach to claims avoidance by equitable adjustments for changes. Emphasizing field staff responsibilities for identifying and reporting potential change issues provides the "early warning" needed to avoid potential conflicts and disputes over change issues as they arise.

To avoid construction Contractor claims effectively, the following guidelines are recommended:

- Emphasize documentation and document controls to all project staff.
- Detailed Project Diaries; include phone conversations (written follow up) and any discussions.

- Good organization of all project records and claims documentation helps to retrieve these documents if necessary, at a later date, sometimes years later.
- Follow the conditions of the contract. By not following the conditions of the contract, the Contractor may later argue that the Department set a precedent contrary to the contract by neglecting to administer and enforce the requirements.
- Issue non-conformance notifications as required. If the Contractor is not following the contract, let them know clearly what the issue is and the required action and do this timely and in writing.
- Hold progress meetings with the Contractor frequently (at least weekly) to discuss issues, schedules, etc. Issue the meeting minutes as part of the project record.
- Do not allow issues to be ignored and become possibly inflammatory issues at the end of the project. Bring closure to all issues as soon as possible and try not to defer issues for resolution later.
- Track labor, equipment and materials for disputed items of work.

109.09-1(b) Resident's Responsibilities

Management at the project site can play an important role in minimizing problems and avoiding disputes. Following are some tools for accomplishing this:

- Ensure that the good practice guidelines as listed in the "Construction Inspector's Checklist for Contract Administration" and Section A of the IDOT Documentation of Contract Quantities are met.
- Review and discuss the project schedule with the Contractor.
- Recognize unreasonable or inaccurate schedules and define this to the Contractor, in writing, and require an updated schedule.

A photo/video history is a good means of recording progress, equipment in use and conditions.

109.09-2 Claims Review

This Section provides the Residents, Construction Field Engineers/Area Supervisors and District Construction Engineers with a uniform set of guidelines that may be used as a reference in addressing claims made by Contractors on construction projects. Knowledge of the examples included, plus familiarity with the contract documents, will assist engineers when analyzing contract claims. Proper analysis of contract claims will preclude recommendations of settlements that exceed Department policies or may establish potentially costly precedents.

The Department's philosophy in addressing construction contract claims is predicated on the concept of equitable treatment for the Contractor and the Department as owner. Several

questions should be addressed before making recommendations or decisions on claim settlements:

1. Has the Contractor been damaged?

If the Contractor has not suffered a documented financial loss or delay resulting from circumstances or events related to the contract, compensation is generally not granted.

2. Is the amount of the damage claim fair?

The Contractor may not be awarded settlements that exceed documented actual expenses. Assumed loss of profits or pro rata overhead costs are generally not recognized. Once entitlement is recognized, real costs that are not precluded by contract terms may be considered.

3. Is the payment excluded under the contract terms?

The requirements set forth in the contract documents may exclude entitlement for excusable delays and/or compensable damages resulting from compliance with the provisions of the contract. Claims are generally not considered where excluded by "no damage" terms in the contract.

4. Has the Contractor been asked to assume an unfair risk?

Occasionally, "no damage" or exculpatory terms may be considered when the adverse or damaging conditions exceed those contemplated by the contract. It is prudent to consider what was contemplated by the contract when analyzing this type of claim.

5. Would settlement establish an undesirable precedent?

Claims practices and procedures are based to a large extent on precedents established by past settlements. In analyzing claims, the impact a settlement may have in setting a precedent for future claims must be recognized in reaching a recommendation. The risk of establishing a damaging precedent is greatly increased when commitments are made prior to claims settlement.

109.09-3 Types of Costs

The following are examples of costs that are typically claimed by Contractors together with the Department's position on whether such costs are compensable and, if so, to what extent. Entitlement must be established before any costs are considered compensable:

1. <u>Idled Equipment</u>. Equipment required for a work operation that is idled and cannot be used on other work due to a compensable delay caused by the Department.

This is an identifiable cost and the hours claimed for reimbursement for the idled equipment must be documented by the Resident for future reference. Payment for idled equipment will be made in accordance with Article 109.04(b)(4). The Contractor has an obligation to minimize idled equipment expenses to the extent practical. Payment for

removing the equipment from the project should be considered if it is more economical than keeping it idled on the jobsite.

2. <u>Idled Personnel</u>. The labor force required for a work operation that is idled and cannot be used on other work due to a compensable delay caused by the Department.

This is a compensable cost which should be paid for in accordance with Articles 109.04(b)(1) and (2), without additives, for the time between the start of delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Salaried employees of the Contractor who are idled may be paid for the duration of the delay depending on the nature of their occupation. For example, an idled paving superintendent and plant operator would be eligible for compensation.

General superintendents, mechanics, and bookkeepers would not be paid unless all progress on the contract is delayed. Payment will be considered only for those hours solely attributable to the contract for which complete documentation is provided.

3. <u>Increased Wage Rates and Material Costs</u>. Added costs that a Contractor incurs when a compensable delay causes work, which otherwise would have been completed, to be performed after labor and material costs have increased.

Such costs are compensable only to the extent that the delay actually impacted the work operation. For example, a Contractor's paving operation is delayed for two weeks due to an act of the Department. During the two-week period, only seven working days are available because of rain. One week after resuming work, the Contractor is required to pay increased wage rates due to a new collective bargaining agreement. The Contractor is entitled to compensation for the difference in wage rates for those workers included in the paving operation for a period of seven days only — not the entire remaining paving operation.

4. <u>Jobsite Overhead</u>. Includes the cost of items such as salaried personnel, rental of office space, lease of plant and storage sites, telephones and utilities.

If a compensable delay affects a controlling item or the entire project such that the Contractor is required to remain at the project site for a longer duration, jobsite overhead may be considered to be compensable.

Each item of the jobsite overhead must be reviewed independently rather than accepting a daily or percentage rate. The cost of utilities will generally be directly related to the duration of use. However, rental or lease arrangements may be on a monthly, semi-annual or annual basis and not be affected by the delay. Salaried personnel who were compensated as "idled personnel" should not be included in jobsite overhead.

5. <u>Loss of Efficiency</u>. A reduction in labor or equipment productivity due to an act or omission of the Department. Such reductions in productivity must be documented to be compensable.

When a Contractor is delayed and is required to deviate from the progress schedule, the Contractor may claim that the work efficiency "built into" the schedule is lost, resulting in added costs. Similarly, when the Department decides to pay the premium portion of overtime rather than granting an extension of time, it may be claimed that work productivity declines due to the sustained work hours also resulting in added costs. Such added costs may be determined in accordance with the Department's policy on acceleration. See Section 108.03.

6. Loss of Use of Money or Interest. A cost that reflects the time value of money.

If a Contractor incurs "out of pocket" costs, it may claim that he was unable to invest funds equal to those costs in the marketplace or conversely was required to pay interest on money borrowed to meet those costs for the period from when the costs were incurred until the claim is settled.

Whether such claims have merit is a moot point. The Court of Claims has never awarded interest because there is no basis in the Mechanic's Lien Act for levying interest against the State. Such claims are therefore non-compensable.

7. <u>Loss of Anticipated Profit</u>. Profit is the excess of returns over expenditures on a business venture.

The amount of profit that a Contractor realizes on a project is dependent upon the profit factor included in the bid to remain competitive, actual productivity compared to planned productivity, weather, strikes, increased material costs, etc.

If a Contractor is required to perform added work beyond the original scope of the contract, such work is paid for on the basis of contract bid prices, agreed prices or force account, each of which provides for a profit factor.

If a Contractor incurs out of pocket costs in performing the original scope of work and is compensated for those costs, then the margin of profit on the original scope of work has not been diminished.

No allowance will be made for any loss of anticipated profit.

8. <u>Preparation of Claims</u>. A cost incurred by a Contractor in preparing and submitting a claim for additional compensation or time.

If a Contractor desires to pursue additional compensation or time, it should bear the cost of establishing entitlement and documenting associated costs. The Department also incurs costs as part of the claims settlement process in the form of review time, meetings, preparation of correspondence and, in some instances, attorney and consultant fees.

Costs for preparing claims are not considered compensable.

109.09-4 Processing

Claims for additional compensation that are supported by the Region Engineer must be submitted to the Central Bureau of Construction together with the District's supportive recommendation as to entitlement. The recommendation of the local agency should also be submitted for claims on FAS and FAUS contracts awarded by the Department.

If the District and Central Bureau of Construction agree that entitlement has been established, the District will review the Contractor's records in accordance with the above guidelines and refer to Article 109.09 to verify the amount of entitlement due the Contractor.

The District will then submit a supportive recommendation as to the amount of the proposed settlement to the Central Bureau of Construction.

Requests for extensions of time will be reviewed in accordance with Article 108.08 of the *Standard Specifications* and Section 108.08 of the *Construction Manual*.

	200 PAU 1977	Illin	vis Denartment	Illinois Denartment of Transportation		Contractor:	Rowe Construction Co.
Koute: Section:	(57-20,57-1)RS&56RS-3		Division of Highways	Highways		Challes	<u> </u>
In the Minesofts are	0.00.004.00	Line Iter	n Detail of Com	Line Item Detail of Completed Work-In-Place	Place	Contract:	70107
Resident:	William Parker, Jr.					County:	MCLEAN
(309)827-88 Working Days Charged to Date: Date From: 8/24/2016 To:	(309)827-8867 harged to Date: 34.50 8/24/2016 To: 9/6/2016		Pay Estimate Number:	Jeir: 4			
SubJob: A	FASID: Z001L01						
Pay Item Nbr)r	Quantity Awarded	Added by Authorization	Deducted by Authorization	Adjusted Total Quantity	Completed at Last Report	Total Completed to Date
XZ193400	SURVEY MARKER T2 SPL	1.000	0.000	0000	1.000	0.000	
X4400196	HMA SURFREM SPL	1,016,000	0.000	0.000	1,016.000	1,016.000	
X4406255	PART DEP REM T2 5.5	302,100	0.000	0.000	302,100	302,100	
X4421000	PARTIAL DEPTH PATCH	138,000	0.000	0000	138,000	108.600	
X6311217	TRAF BAR TERM T6B SPL	1,000	0.000	0.000	1.000	0.000	
X7015005	CHANGEABLE MESSAGE SN	7.000	0.000	0.000	7.000	7.000	
X7830070	GRV RCSD PVT MRKG 5	16,001.000	0.000	0.000	16,001.000	0.000	
X7830074	GRV RCSD PVT MRKG 7	87.000	0.000	0.000	87.000	0000	
37.830076	GRV RCSD PVT MRKG 9	1,448.000	0.000	0.000	1,448,000	0.000	
X7830077	GRV RCSD PVT MRKG 11	62.000	0000	0.000	62.000	0.000	
X7830078	GRV RCSD PVT MRKG 13	62.000	0.000	0.000	62.000	0.000	
X7830090	GRV RCSD PVT MRKG 25	58,000	0.000	0.000	58.000	0.000	
20010010	COLD MILLING SPL	320.000	0.000	0.000	320.000	320,000	
20012500	CONC CURB REPAIR	52.000	0.000	0.000	\$2.000	52.000	
40600290	BIT MATLS TACK CT	22,056.400	0.000	0.000	22,056.400	005'05'9	8,569.200
40600909	P LB MM IL-9.5FG N90	1,192.800	0.000	0.000	1,192.800	0.000	1,192.800
40600990	TEMPORARY RAMP	369,400	0.000	0.000	369,400	145.500	232,600
40603540	P HMA SC "D" N70	1,971.500	0.000	0.000	1,971.500	0.000	
						Баев	Page 1 of 9 CF-720-004

Appendix Page 47

Tuesday, September 06, 2016

CF-720-004

Page 9 of 9

Contractor:	CtrNumber: Contract:	County:		
Illinois Department of Transportation Division of Highways	Report of Resident Line Item Detail of Completed Work-In-Place		Pay Estimate Number: 4	
FAP 730, FAP 322		William Parker, Jr.	34.5	Date From: 8/24/2016 To: 9/6/2016 SubJob: A 'FAS ID: 2001L02
Route:	Section:	Joo Number: Resident:	Working Days (Date From: SubJob: A

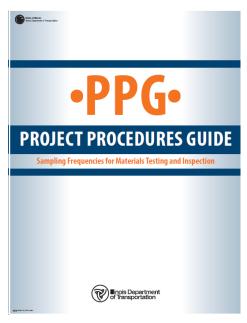
Rowe Construction Co.

5183 70767 MCLEAN

Pay Item Nbr	*	Quantity Awarded	Quantity Added by Awarded Authorization	Deducted by Adjusted Total Completed at Total Completed Authorization Quantity Last Report to Date	Adjusted Total Quantity	Completed at Last Report	Total Completed to Date
X9500201	PART DEP REM TJ 5.5	0.000	0.000	0:000	00000	0.000	
X9500600	ELCBL 18-3PR & CON RPR	0.000	0.000	0.000	0.000	0.000	
Resident: Date Prepared	4) W. Pal S.			Regional Engineer: E- Date Mailed:		Venil A Garnett wir	WLP

Note: "Engineer of Record" must be signing pay estimate and a signed file copy must be retained in the jobsite project records as per Const. Man. 109.07-1(b)

Project Procedures Guide - Key Sections



PPG Section 300 – Responsibilities of Resident

- Ensures all materials are inspected and approved
- Ensures that the sampling and testing are in accordance with the PPG
- Communicates with the District
 Materials office ensuring all testing is accomplished
- Should not include and pay item on the pay estimate for which there is no evidence of material inspection or approval
- Force Account and Agreed Unit Price pay items shall be treated the same as contract pay items

PPG Section 400 – Responsibilities of Contractor

- Provide materials that meet or exceed specification requirements
- Provide IDOT with required evidence of inspection prior to incorporating material into project
- Give IDOT advance notice to have sampling and testing performed for source inspection

IDOT MATERIALS STAMPS, TAGS, AND LA-15

To provide **Evidence of Materials Inspection** for inspected material delivered to construction projects, the **Department** has developed stamps, tags, and forms to assist in identifying sampled, tested, and/or inspected materials.

A **Department** materials **Inspector** uses one or more of these stamps or tags to provide **Evidence of Materials Inspection** for the **Resident**. Each materials **Inspector** is provided with a unique ILL OK number. When an item is stamped or tagged "ILL OK" and the material id designated for a specific contract, the materials **Inspector** will later report the inspection in **MISTIC**. The stamp is a 1.25-inch diameter circle with .25-inch letters/numbers (see example on the next page). A list of each stamp numbers and the associated **Department** materials **Inspector** can be found on the <u>IDOT Website</u>, Material Approvals–Metals & Miscellaneous, References, Material Specific Information, Illinois OK Stamps.

The **Department** also utilizes consultant **Inspectors** for some materials inspection. Currently, the use of an ILL OK stamp is limited to several employees of one consultant performing inspection on precast, prestressed products. The stamp is a 2.5-inch diameter circle with .25-inch letters/numbers. The company name or initials is on the top, the stamp number is in the middle and "ILL OK" is on the bottom. The unique ILL OK stamp design for this consultant and a list of each stamp number and the associated **Inspector** name can be found on the <u>IDOT Website</u>, under Doing Business/Material Approvals – Metals & Miscellaneous, References, Material Specific Information, Illinois OK Stamps.

The Suppliers Certification of Shipment of Approved Material (Form LA-15) for approved suppliers is intended for use with materials which are tested and approved at the source by specific lots, batches, or quantities and stored for later delivery to a jobsite (e.g. paint, thermoplastic, glass beads, pavement marking tape, cable, etc.).

The **Department** gives the supplier blank LA-15 forms and keeps track of the Ticket Numbers on the forms given to the supplier. Then, with each shipment of approved materials, the supplier sends a completed LA-15 form, certifying that the specific material has been inspected by the **Department** and is approved. The completed LA-15 form includes the source and destination of the material and the Test Identification, Lot, or Batch numbers.

The **Resident** receives the LA-15 with the material shipment at the jobsite. The **Resident** may use the original LA-15 as **Evidence of Materials Inspection**. The **Resident** may be asked to assist in taking random jobsite samples.

The **Department** office that provided the LA-15 booklets to the supplier will be noted on each completed LA-15 form. The responsible District Materials Office will also receive a copy of the LA-15 and will enter the materials inspection assignment(s) in **MISTIC**. Subsequent **MISTIC** inspection reports (MIR-C08 or MIR-C01) should list the materials contained on the **Resident's** copy of the LA-15. These **MISTIC** reports, while not generally used as evidence of inspection themselves, validate the evidence of inspection and indicate that the materials inspection has been entered in MISTIC.

The following are examples of stamps, tags, and a completed LA-15 form.



This stamp indicates the product was approved at the



This stamp shows the product has been sampled. It does NOT indicate the product is approved







Pink -

Supplier

This is not an actual LA-15.
It is for illustrative purposes only.

Supplier's Certification of Shipment of Approved Materials

Ticket No. **Shipment From** Supplier R. A. Smith Location Springfield, IL **Shipment To** Invoice Contractor John Doe Job No. C922222 Contract No. 22222 Section Municipality Sangamon State P.O. No. County (If Applicable) Material Name/Code Producer/Location Previous Supplier/Loc. Lot/ Batch **Test ID** Quantity Unit White Paint **Dunn Paint** 195 951111 37 gals. Yellow Paint **Dunn Paint** 295 952222 20 gals. **Dunn Paint** Sherwin Co. 5 lbs. Glass Beads 22395 953333 Supplier certifies that the above material(s) has been loaded from stock material which has been tested, approved and released for shipment by the Illinois Department of Transportation. John Smith 05-17-19 Signature of Supplier Representative Date The Illinois Department of Transportation (IDOT) regularly performs tests on the production and/or stock materials at the producer and/or supplier as a check on its quality control. The results of the tests and/or inspections may be obtained from the Illinois Department of Transportation. White -Resident's copy District No.: 96 Canary -Materials

Central Office:

LA -15 (Rev. 2/95) IL 494-0804

SOURCES OF INFORMATION FOR INSPECTORS

<u>CONTRACT DOCUMENTS</u> (In governing order)

Special Provisions
Approved Plans
Recurring Special Provisions
Supplemental Specifications
Standard Specifications

MANUALS¹

Construction Manual

Manual for Materials Inspection

Manual of Test Procedures for Materials

Manual for Fabrication of Precast Prestressed Products

Manuals for Aggregate, Mixture Aggregate, HMA Levels I-III, HMA Nuclear Density, PCC Tester, and PCC Levels I-III courses ²

Subgrade Stability Manual

- 1 Unless otherwise noted, the manuals are available on the <u>IDOT Website</u>, under Resources.
- 2 Available for download at the Lake Land College web site, QC/QA Training Manuals.

POLICY MEMORANDUMS - BUREAU OF MATERIALS

The most current list of **CBM** Policy Memorandums may be found on the **Department's** web site, **IDOT** Website, under "Doing Business/Material Approvals".

ADDITIONAL DOCUMENTS

<u>Special Provision for Hot-Mix Asphalt – Binder and Surface Course (BDE)</u>

Special Provision for Hot-Mix Asphalt – Longitudinal Joint Sealant (BDE)

Special Provision for Hot-Mix Asphalt – Mixture Design Verification and Production (BDE)

<u>Special Provision for Hot-Mix Asphalt – Pay for Performance Using Percent Within</u> Limits-Jobsite Sampling (BDE)

<u>Special Provision for Hot-Mix Asphalt – Quality Control for Performance (BDE)</u>

Special Provision for Hot-Mix Asphalt – Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS) (BDE)

Special Provision for Quality Control of Concrete Mixtures at the Plant (Check Sheet 30)

Special Provision for Quality Control/Quality Assurance of Concrete Mixtures (Check Sheet 31)

NOTE - This list of sources of information should be considered a dynamic list. Sources of information may be added to or deleted from this list at any time.

FIELD ACCEPTANCE

Construction materials do not just "appear" on the jobsite. In many cases, the material has been pre-inspected or may have been produced under a **Department**-approved **Quality Control** program. **Evidence of Materials Inspection** is the minimum proof that **Method of Acceptance** sampling and testing has been performed. This attachment identifies the type of evidence that is required. Additional information on **Evidence of Materials Inspection** may be found in the <u>Manual for Materials Inspection</u>. It is not always possible to update all documents concurrently. In case of a conflict, the most current edition should take precedence. If the **Evidence of Materials Inspection** is not clear, contact the Bureau of Materials for assistance.

This attachment does not describe the detailed **Method of Acceptance** sampling and testing requirements. Detailed information regarding materials inspection programs such as certified products, **Quality Management Programs**, and warehouse inspections may be found in the Manual for Materials Inspection.

Column 1 - Product

The table is arranged in alphabetical order by type of material or construction. An attempt was made to include major items. If an item is not listed, contact the District Materials Engineer or the **Bureau**.

Column 2- Material Series

The number in this column represents the first three digits of the **MISTIC** Material Code for the product. If the product spans several sequential Material Series, only the first is listed. This number may be used as a cross-reference to find more information about a product from the <u>Manual for Materials Inspection</u>.

Column 3 - Evidence of Materials Inspection

This column lists the <u>minimum</u> information that the **Project Inspector** needs to accept the material. Definitions of the most common methods are listed below. It is important to understand that other methods may also be appropriate. For example,

- A product TEST may be appropriate at any time as determined by the Resident/Inspector.
- In addition to the notation in this column, a Visual Examination <u>always</u> applies. A
 piece of paper or Inspector's stamp does not guarantee that all product defects
 were caught in the QC and QA process or that it was not damaged in transit. Visual
 Examination should be noted in writing by the Resident Engineer.
- A passing test result that has been reported in the MISTIC system is always acceptable Evidence of Materials Inspection.

EVIDENCE	COMMENT
BBS 59 (BB59)	Report of acceptance of fabrication of structural steel. The Bureau of Bridges and Structures usually performs this type of inspection and testing.
BILL OF LADING (BOL)	A shipping ticket that accompanies a product to the job site and which identifies the product, source, and lot.
CBM (CBM)	Bureau of Materials approval letter specific to a batch/lot/heat, etc. for a specific contract or producer/supplier.
CERTIFICATION (CERT)	Manufacturer's written certification that indicates material complies with the specifications or contract. Supplier certifications are not acceptable.
DAILY PLANT REPORTS (DPR)	For HMA, reports generated that provide mixture test results and other production data. For non-QMP projects, Daily Plant Reports are the responsibility of the Inspector. For QMP projects, refer to the appropriate special provisions to determine responsibility for Daily Plant Reports. For example, for QC/QA for PCC, the Daily Plant Report is often only the form BMPR MI504 completed by the Producer , Contractor, etc. for aggregate gradations.
ILL OK STAMP (ILOK)	Material is stamped by an IDOT Inspector with an "ILL OK" stamp indicating prior inspection and acceptance. An inspection tag may be used as Evidence of Materials Inspection and approval. A Resident Engineer must make note of the stamp or collect the inspection tag to ensure proper documentation of material inspection.
LA-15 (LA15)	This Department form is a supplier's certification indicating material is from approved stock. The form is sometimes used as a Bill of Lading to indicate prior approval. The form should include supplier, proper contract/job designation, material description, manufacturer, specific approved material (test ID number, lots, or batches), and quantity. Additional information on LA 15's is provided in Attachment 1.
QUALIFIED PRODUCT/ PRODUCER LIST (LIST)	The material appears on a current list of Department -approved products or approved sources found at the Department's web site, <u>IDOT Website</u> , under "Doing Business/Material Approvals." Contact the inspecting district's Materials Office for information on aggregates.
MARK (MARK)	A commercial label, tag, or other marking which indicates product specification compliance and/or an approved source/manufacturer. A Resident Engineer must make note of the label, tag, or other marking to ensure proper documentation of material inspection.
TEST (TEST)	Approved test result available via the MISTIC system or from locally performed lab or field tests (e.g., soil density).

EVIDENCE	COMMENT
TICKET (TICK)	A ticket from an approved source indicating Department material or aggregate quality and gradation, job designation, purchaser, and weight (if applicable).
VISUAL ACCEPTANCE (VIS)	A RE memo denoting visual inspection is required in the project file, and input into MISTIC is required. A Resident Engineer must make note of the visual acceptance to ensure proper documentation of material inspection.
VISUAL EXAMINATION (VISE)	Same as VIS, but no RE memo or input into MISTIC is required. A Resident Engineer must make note of the visual examination to ensure proper documentation of material inspection.

MIXTURES and AGGREGATE

In addition to field tests, approval for aggregate and mixtures is based on other final acceptance criteria. The following items identify the initial method of approving such materials.

AGGREGATE:

- 1. Approved Aggregate Producer (**CBM** List)
- 2. Approved quality and gradation (ticket) per current **CBM** policy memorandum
- 3. Verify quality and gradation (INV) if appropriate.

HOT MIX ASPHALT:

- Approved plant and lab (CBM)
- 2. Approved/verified mixture design
- 3. Approved materials Aggregate (above), Asphalt Binder (CBM list)
- Compliance with mixture and compaction specifications (QC/QA QMP specifications or Sampling Schedule 4, as applicable).

PORTLAND CEMENT CONCRETE:

- 1. Approved plant and lab (CBM and District)
- 2. Approved/verified mixture design
- 3. Approved materials Aggregates (above), Cement and Finely Divided Materials (CBM lists), Admixtures (CBM list)
- Compliance with QC/QA QMP or non-QC/QA QMP specifications and Sampling Schedule 3, as applicable.

CONCRETE AGGREGATE MIXTURE (CAM II):

- 1. Approved plant and lab (**CBM** and District)
- 2. Approved/verified mixture design
- 3. Approved materials Aggregates (above), Cement and Finely Divided Materials (CBM lists), Admixtures (CBM list)
- 4. Compliance with **QMP** or non-**QMP** specifications and Sampling Schedule 2, as applicable.

<u>LIME MODIFIED SOIL, LIME STABILIZED BASE AND SUBBASE, AND SOIL-</u>CEMENT:

- 1. Approved/verified mixture design
- 2. Approved materials Aggregates (above), Cement and Finely Divided Materials (CBM lists)
- 3. Compliance with specifications and Sampling Schedule 1 or 2, as applicable.

Column 4 - Jobsite Sample

This column identifies sampling responsibilities of **Project Inspectors**. For mixture components, sampling is generally handled at the plant by **Plant Inspectors**. Additional sampling requirements for other non-jobsite samples are detailed in the <u>Manual for Materials Inspection</u>. Non-jobsite samples, other than mixture component samples, are generally sampled by **District Inspectors** or **CBM** personnel.

An "NR" in this field indicates that a jobsite sample is not required. However, if the method of acceptance for a material is TEST and there is no evidence that the material has been sampled and tested, or if the material is suspect, the **Project Inspector** should obtain a sample and submit for testing. Other entries in this column direct the **Project Inspector** to sampling policy documents.

Column 5 - Responsible Lab – The **Bureau Laboratory** responsible for receiving samples and establishing the testing policy for a product. If the entry is "DI," any testing is performed by **District Inspectors**.

AC – Analytical Chemistry	CM – Cement	PC – Precast
AG – Aggregate	CN – Concrete	SL – Soils
BC – Bituminous Chemistry	MT – Metals	DI – District
DM D'C ' M'C		

BM – Bituminous Mixture

Column 6 - Sample Size

When a field sample is required, the sample size is indicated in this column. (Contact the responsible lab for mix design sample sizes.) The following table summarizes the size of aggregate samples for gradation testing.

Fine Aggregate	
FA1 – FA 24	25 lb.

Coarse Aggregate

CA1 - CA5	110 lb.
CA6 - CA11	55 lb.
CA12 - CA15	35 lb.
CA16	25 lb.
CA17 - CA19	35 lb.
CA20	25 lb.

LIMIT AGGREGATE SAMPLES TO 40 lb. PER BAG FOR SAFETY PURPOSES

For select fill, 80 lb. of fine aggregate and 120 lb. of coarse aggregate are required to perform the internal friction angle, pH, resistivity, chlorides, sulfates, and organic content tests.

Column 7 - Container

Samples submitted to the **Bureau Laboratory** must be clearly labeled with the name of the material on the body of the container.

Following are recommended container types:

- 1. Screw top metal container.
- 2. Plastic bag in double canvas sacks.
- 3. Canvas sacks secured with zip ties when specified. Do not use burlap or "sugar sacks" for fine aggregate.
- 4. Plastic/Polyethylene container/bucket with secured lid.

- 5. Friction top metal container.
- 6. Telescoping (cardboard) carton.
- 7. Fiber Carton 4" x 5" x 5", or large enough to fit core.
- 8. Well packed.
- 9. Securely fastened plastic bag in either a cardboard carton or a friction top metal container.
- 10. Plastic bag inside canvas sack.
- 11. Plastic/Polypropylene bag.
- 12. Original manufacturer's package (unopened).
- 13. Epoxy-lined friction top metal container.
- 14. Concrete cylinder mold (tightly sealed).
- 15. Test panel 18" x 18" x 3.5" (Steel 3/16 in. minimum thickness bottom and sides; Wood 3/4 in. minimum thickness bottom/1.5 in. minimum thickness sides).

NOTE: Shotcrete samples shall be labeled with the following information:

- Date shotcrete was placed;
- Name of material used from the QPL, <u>Packaged High Performance</u> Shotcrete;
- Name and phone number of the RE;
- Contract number:
- Measured air content of shotcrete; and
- Any other job specific location of placement (for example, East Pier)
- 16. Heavy duty cardboard box sealed with security tape when specified.

Column 8 - Small Quantity per Contract

Small quantity is the recommended amount of a material per contract that can be accepted or certified without standard testing and documentation. Under no conditions are materials to be used from an unknown source. Alternative materials inspection requirements for small quantities are discussed in Section 600, SMALL QUANTITIES.

Quantities in excess of these amounts must be approved by the District Materials Engineer. For PCC and HMA, the small quantity criteria are for non-QMP work. QMP specifications provide specific small quantity criteria for PCC and HMA.

Produ	ct	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Adhes	sives							
>	Bonding epoxy	427	CERT or MARK	NR	CN	-	5 or 12	N/A
>	Chemical Adhesive (Dowel & Tie Bar)	427	LIST	NR	MT	-	-	N/A
>	Glass Capsules for Anchor Bolts	427	LIST	NR	MT	-	-	N/A
Aggre	gate							
		001	LIST + TICK	See Sampling Schedules	DI	See Field Acceptance – Column 6	3 or 4	500 TON
>	Lightweight, for P.C. Concrete	025	CERT	See Sampling Schedules	DI	See Field Acceptance – Column 6	3	N/A
>	Riprap, Concrete	001	LIST + TICK	NR	AG	-	3 or 4	20 TON
>	Riprap, Stone	001	LIST + TICK	NR	AG	-	3 or 4	20 TON
Bridge	Bearing Pads							
>	Elastomeric (Whole pad)	703	LIST + CERT	*Sample when notified by CBM	MT	1 Pad	-	N/A
>	Fabric	703	LA15 or TEST	When directed	MT	12" x 12"	-	N/A
>	Pot & Disk Bearing (HLMR)	703	CERT + CBM	NR	MT	-	-	N/A
Ritum	inous Materials							
> Dituin	PG Asphalt Binder	101	(LIST or TEST) + BOL	See CBM Policy Memo	ВС	1 QT	5	N/A
>	Road Oil & Cutback Asphalt	103	(LIST or TEST) + BOL	NR	ВС	1 QT	1 or 5	N/A
>	Emulsified Asphalt	107	(LIST or TEST) + BOL	NR	ВС	1 GAL uncut emulsion	4	N/A

Produ	uct	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Hot M	ix Asphalt							
>	Hot Mix Asphalt	195	DPR + TICK + TEST	See Std. Specs.	DI	Per Manual Test Proc. for Mat'ls	3	Special Provision
Block/	/Brick							
>	Clay or Shale Building Brick	704	TEST	NR	CN	10 EA	8	100
>	Clay or Shale Paving Brick	704	TEST	NR	CN	10 EA	8	100
>	Concrete Building Brick	251	LIST	NR	CN	6 EA	-	N/A
>	Concrete Masonry Units for Buildings/ Catch Basin/ Manhole/ Inlet/ Valve Vault	251	LIST	NR	CN	6 EA	8	N/A
>	Concrete Paver	251	LIST	NR	CN	6 EA	-	N/A
>	Precast Block Revetment Mat	251	LIST	NR	CN	6 EA	-	N/A
>	Precast Articulated Block Revetment Mat	251	LIST	NR	CN	6 EA	-	N/A
>	Segmental Concrete Block Walls (Retaining Wall)	255	LIST	NR	CN	6 EA	-	N/A
Bridge	e Rail							
>	Railing							
	- Structural Steel	541	CBM	NR	MT	See MMI	-	N/A
	- Aluminum, Steel, Stainless	541	CERT or LA15	NR	MT	See MMI	-	N/A
>	Post, Anchoring Device	541	CERT or LA15	NR	MT	-	-	N/A
Ceme	ntitious Materials							
>	Cement							
	- Calcium Aluminate	379	TEST	See Sampling Schedules	СМ	6 LB	5 or 11	N/A
	- Portland or Blended	376	(LIST or TEST) + BOL	Yes, per CBM Policy Memo	СМ	6 LB	5 or 11	N/A
	- Rapid Hardening	379	LIST	NR	CN	3-5 as sold bags	4 or 12	N/A

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Cementitious Materials, continued							
Finely Divided Minerals- Fly Ash, Ground Granulated Blast- Furnace Slag, Microsilica, High- Reactivity Metakaolin	378	LIST or TEST	Yes, per CBM Policy Memo	СМ	6 LB	5 or 11	N/A
Chemicals / Admixtures							
HMA – Anti-Strip Additive for Bituminous Mixtures	434	DPR	NR	ВМ	1 PT	1	N/A
HMA – Asphalt Truck Release Agent		LIST	NR	BM	1 QT	4	N/A
Calcium Chloride (Dry, Liquid)							
- Dust Palliative	804	TEST	NR	AC	1 QT	4	1 TON or 500 GAL
 PCC – Calcium Chloride Accelerator 		CERT	NR	CN	1 QT	4 or 13	N/A
CLSM – Air Entraining Admixture	421	LIST	NR	CN	1 QT	4 or 13	N/A
PCC – Corrosion Inhibitor	437	LIST	NR	CN	1 QT	4 or 13	N/A
PCC – Latex Emulsion	437	CERT	NR	CN	1 QT	-	N/A
PCC - Air- Entraining Admixture	421	LIST	NR	CN	1 QT	4 or 13	N/A
▶ PCC – Type A – G Admixture	437	LIST	NR	CN	1 QT	4 or 13	N/A
PCC – Rheology Modifying Admixture	438	LIST	NR	CN	1 QT	4 or 13	N/A
PCC – Viscosity Modifying Admixture	438	LIST	NR	CN	1 QT	4 or 13	N/A
PCC – Membrane Curing Compound	430	LA15 or ILOK or TEST	NR	CN	1 QT/LOT	4 or 13	N/A
 PCC – Membrane Curing Compound/ Linseed Oil Emulsion 	430	LA15 or ILOK or TEST	NR	CN	1 QT/LOT	13	N/A
Concrete Sealer	427	LIST	NR	CN	1 QT	1 or 4	N/A
Protective Coat (Linseed Oil/ Petroleum Spirits)	426	LA15 or ILOK or TEST or CBM	NR	AC	1 QT	1 or 13	55 GAL
➤ Rock Salt, Sodium Chloride	804	TEST	NR	AC	10 LB	4 or 13	N/A

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Chemicals / Admixtures, continued							
Water, for concrete, mortar, or curing	425	TEST	If not potable	AC	1 QT	4	N/A
> Weed Killer	803	MARK or VIS	NR	AC	-	-	N/A
Concrete							
Polymer Concrete	216	LIST	NR	CN	1.5 FT ³	12	N/A
Portland Cement Concrete- Other than QC/QA	216	DPR + TICK (TICK not req'd for volumetric mixer) + TEST	See Sampling Schedules	CN	Per Manual Test Proc. for Mat'ls	-	100 CY
Portland Cement Concrete - QC/QA	216	DPR + TICK (TICK not req'd for volumetric mixer) + TEST	Special Provision	CN	Per Manual Test Proc. for Mat'ls	-	Special Provision
CAM II – Cement Aggregate Mixture	218	DPR + TICK (TICK not req'd for volumetric mixer) + TEST	See Sampling Schedules	CN	Per Manual Test Proc. for Mat'ls	14	600 SY
CLSM - Controlled Low-Strength Material	216	DPR + TICK (TICK not req'd for volumetric mixer) + TEST	See Sampling Schedules	CN	Per Manual Test Proc. for Mat'ls	-	50 CY
Non-Shrink Grout	216	LIST	NR	CN	3-5 bags	-	N/A
Thin Polymer Overlay System for Bridge Decks	216	LIST	NR	CN	-	-	N/A
 PCC – Curing Blanket- Burlap, Burlap/Poly, Waterproof Paper, White Poly, Cotton Mat 	702	VISE	NR	CN	-	11	N/A
Concrete, Precast							
Architectural Products	250	LIST	NR	-	-	-	N/A
Bridge Beams	253	LIST + ILOK	NR	PC	-	-	N/A
➤ Bridge Slabs	255	LIST + ILOK	NR	PC	-	-	N/A
Bridge- Three Sided Structure	484	LIST + ILOK	NR	PC	-	-	N/A
Drainage Products	252	LIST+ MARK	NR	PC	-	-	N/A
Noise Abatement Wall	255	TEST	NR	PC	-	-	N/A
MSE Retaining Wall	255	LIST	NR	PC	-	-	N/A
Modular Retaining Wall	255	LIST	NR	PC	-	-	N/A

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Concrete, Precast, continued							
Traffic Barrier	255	LIST	NR	PC	-	-	N/A
R.O.W, Drainage, Section, & Permanent Survey Markers	260	LIST	NR	PC	-	-	N/A
➤ Headwall	257	LIST	NR	PC	-	-	N/A
Bumper Blocks (Wheel Stops for Cars)	255	LIST	NR	PC	-	-	N/A
Picnic Table, Trach Receptacle, Planter	259	LIST	NR	PC	-	-	N/A
➤ Splash Blocks	285	LIST	NR	PC	-	-	N/A
Concrete, Precast and Prestressed (Except Piling)							
Prestressed Products	275	ILOK	NR	PC	-	-	N/A
Concrete Repair							
Mortar, Polymer Modified Portland Cement	216	LIST	NR	CN	One 50 LB bag	-	N/A
Rapid Hardening Cementitious Material	221, 379	LIST	NR	CN	3-5 as sold packages	4 or 12	N/A
Electrical							
Cable, unit duct	305	MARK	NR	MT		-	N/A
Conduit							
- Aluminum, plastic	311, 312	LA15 or (CERT + MARK)	NR	MT		-	N/A
- Flexible Steel, Steel	208, 313	LA15 or (CERT + MARK)	NR	MT		-	N/A
Detector Loop	316	LA15 or (CERT + MARK)	NR	MT		-	N/A
➤ Fiber Optic Cable	315	LA15 or (CERT + MARK)	NR	MT		-	N/A
➤ Ground Rod	316	CERT or LA15	NR	MT		-	N/A
Wire, span or tether	306	LA15 or TEST	NR	MT	2 @ 4 FT	-	N/A

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Fencing							
Fabric, Post, Wire	575	CERT or LA15	NR	MT		8	300 LF
Glare Guard, Slats	586	VIS	NR	MT			N/A
Guard Rail							
Cable for Road Guard	552	LA15 or ILOK or TEST	NR	MT	2 @ 4 FT	-	100 LF
Fasteners	676	(MARK + CERT) or TEST	NR	-	-	-	N/A
Steel Plate & Accessories	551	LIST + CERT	NR	MT	-	-	N/A
Steel Post	553	CERT or LA15	NR	MT	-	-	N/A
Traffic Barrier Terminal End Section	556	NCHRP 350 = (LIST + CERT) or LA15; Pdts. Not covered by NCHRP 350 = CERT or LA15	NR	MT	-	-	N/A
Wood Post, Plank	553	CERT or MARK or LA15	NR	MT	-	-	N/A
➤ High Tension Cable Median Barrier	556	LIST + CERT	NR	MT	-	-	N/A
Joint Fillers and Sealers							
Mastic for Precast Concrete Pipe	617	CERT or LA 15	NR	BC	1 QT	5	N/A
Hot-Poured Sealer	619	LA15 or ILOK or TEST or CBM	NR	ВС	1 mfg. sealed box per lot	12	200 LB
Cold-Poured Sealer	619	LA15 or ILOK or TEST	NR	BC	1 GAL per batch	5	200 LB
Polysulfide Sealer	619	CERT or LA15	NR	BC	-	-	N/A
Asphalt Fillers							
- PAF	620	LA15 or ILOK or TEST	NR	BC	1 QT	5	200 LB
 Fiber- Modified (Pavement Preserve.) 	620	CERT	NR	ВС	-	-	N/A
Preformed- Bituminous, cork, foam, fiber, plastic	616	LA15 or TEST	NR	ВС	2 SF	9 or 12	300 LF
Preformed Elastomeric Compression	619	LA15 or TEST or CBM	NR	MT	1 @ 6 FT	12	100 LF
Preformed Neoprene, EPDM	621	LA15 or TEST	NR	MT	1 LF-Neoprene; 2 LF-EPDM	-	100 LF

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Joint Fillers and Sealers, continued							
> PCC - Silicone	619	CERT or MARK (if it contains spec. info.) or LA15	NR	AC	-	-	N/A
Water Seal, PVC	618	LA15 or TEST	NR	MT	1 LF per batch	-	100 LF
Landscaping							
Agricultural Lime (Dept of Ag. Program)	002	LIST + TICK	NR	AG	9 LB	2 or 10	N/A
Excelsior Blanket	562	CERT or LA15	NR	MT		9 or 11	200 SY
➤ Fertilizer	561	CERT (bulk) or MARK (bags)	NR	MT	-	-	20 LB
Mulch - Straw	562	VIS	NR	MT	-	-	N/A
Mulch- Paper, Wood cellulose	562	MARK or CERT	NR	MT	-	-	N/A
➤ Compost	563	CERT	NR	MT	-	-	N/A
➤ Peat Moss	563	CERT or ILOK or LA15	NR	MT	-	-	N/A
➢ Seed, Sod	563, 567	CERT or ILOK or LA15	NR	MT	-	-	N/A
Trees, Shrubs, Plants	565	DOA CERT	NR	MT	-	-	N/A
Lighting and Signals							
➤ Controllers & Cabinets	330	VIS compared to approved submittals + CERT	NR	-	-	-	N/A
Lamps, Luminaires & Ballast	330	VIS compared to approved submittals + CERT	NR	-	-	-	N/A
Traffic Signal Components	335	VIS compared to approved submittals + CERT	NR	MT	-	-	N/A
Break-away Supports	335	VIS compared to approved submittals + CERT	NR	MT	-	-	N/A
➢ Poles							
- Steel, Aluminum	331	CERT or ILOK	NR	MT	-	-	N/A
- Wood	331	MARK	NR	MT	-	-	N/A

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Lighting and Signals, continued							
Mast Arm Assemblies	330	CERT	NR	-	-	-	N/A
Composite Handholes & Gulfbox	261	CERT	NR	PC	-	-	N/A
Lumber / Timber							
> Treated or Untreated Lumber	351	CERT or MARK or LA15	NR	MT	-	-	N/A
Metal Products, Miscellaneous							
Aluminum Drains	785	LA15 or CERT	NR	MT	-	-	N/A
Copper Water Pipe	779	MARK + CERT or LA15	NR	MT	-	-	N/A
Name Plate	782	LA15 or VIS	NR	MT	-	-	N/A
Rodent Shield	785	VIS	NR	MT	-	-	N/A
Survey Markers	783	LA15 or VIS	NR	MT	-	-	N/A
Miscellaneous							
Manhole Step, Plastic	495	CERT or LA15	NR	MT	-	-	N/A
 Geotextile Fabric - French Drain, Ground Stabilization, Pipe Underdrain, Rip Rap, Silt Filter Fence, & Weed Barrier 	498	CERT or LA15	NR	MT	-	8	400 SY
➤ Concrete Revetment Mat Fabric	562	LIST	NR	MT	-	-	N/A
Paint							
Bridge Paint & Primer	414	TEST (approved lot) or CBM	NR	AC	1 PT	13 or 4	20 GAL
Pavement Marking Paint	404	TEST or LA15 or CBM	NR	AC	1 PT	13	20 GAL
Pavement Marking							
➤ Glass Beads	604	TEST or LA15 or ILOK or CBM	NR	AC	1 QT	5	100 LB
Raised Pavement Marker	708	LIST	NR	AC	-	8	N/A
Temporary Pavement Tape	705	TEST or LA15 or ILOK or CBM	NR	AC	10 LF	8	N/A
Thermo Letters & Symbols	705	CERT or LA15	NR	AC	-	-	N/A

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Pavement Marking, continued							
➤ Thermoplastic - granular/block	706	TEST or LA15 or ILOK or CBM	NR	AC	1 GAL from 3 different bags	5	100 LB
➤ Thermoplastic Tape	705	TEST or LA15 or ILOK or CBM	NR	AC	1 SF	8	150 LF
Piling							
Metal Shell, Steel H, Steel Sheet or Steel Soldier	367	CERT or LA15 or ILOK	NR	MT	-	-	N/A
Precast Concrete	366	LIST + ILOK	NR	PC	-	-	N/A
Precast, Prestressed Concrete	366	ILOK	NR	PC	-	-	N/A
> Timber	370	CERT or MARK or LA15	NR	MT	-	-	N/A
Pipe, Culvert and Drain							
Cast or Ductile Iron Pipe	511	CERT or LA15	NR	MT	-	-	100 LF
Metal Corrugated & Components	452	CERT or ILOK or LA15	NR	MT	-	-	100 LF
Pipe - Plastic, PVC, HDPE - water/sewer	491	ILOK or LA15 or TEST	NR	MT	Per MMI	-	100 LF
Pipe Fittings - PE, PVC	493	VIS	NR	MT	-	-	N/A
Pipe Liner- PE, PVC	496	ILOK or LA15 or TEST	NR	MT	4 LF	-	100 LF
Pipe Underdrain	493	ILOK or LA15 or TEST	NR	MT	Per MMI	-	100 LF
Plastic Deck Drain	499	CERT	NR	MT	-	-	100 LF
Precast Concrete Pipe or Box Culvert	475	LIST + MARK	NR	PC	-	-	100 LF
Underdrain Mat, Wall Drain	496	LA15 or TEST	NR	MT	3 LF full width	-	100 LF
Signing							
Completed Sign Panels & standard- Aluminum Sheeting	601	LA15 or TEST or CBM	NR	AC	12" x 12"	8	N/A
Completed Sign Panels & standardReflective Sheeting	602	LA15 or TEST or CBM	NR	AC	13" x 13"	8	N/A
Post, Break-away	607	CERT or LA15	NR	MT		-	
▶·Post, Metal & Hardware	606	CERT or LA15	NR	MT	-	-	
≻·Post, Tubular (round, rectangle)	609	LA15 or ILOK or TEST	NR	MT	1 LF	-	

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Signing, continued							
Post, Steel Delineator	606	CERT or LA15	NR	MT	-	-	
Post, Wood	610	CERT or MARK or LA15	NR	MT	-	-	N/A
Reflector, Delineator, Terminal	612	LIST	NR	AC	3 EA per lot	8	N/A
Reflector, Prism	613	LIST or CERT or LA15	NR	AC	3 EA per lot	-	N/A
Sign Structure, Overhead	613	BB59 + CERT	NR	MT		-	N/A
Structural Fasteners	655	CBM or LA15 or ILOK or TEST	NR	MT	5 per lot	4 or 11	N/A
Soil / Modification / Stabilization							
➤ Topsoil	563	TEST	YES	SL	3 LB	3 or 11	N/A
➤ For IBR - Fine-Grained Soil	563	TEST	NR	DI/SL	75 LB	3	N/A
➤ For IBR - Coarse-Grained Soil	563	TEST	NR	DI/SL	100 LB	3	N/A
For Moisture Density - Fine- Grained Soil	563	TEST	YES	DI/SL	30 LB	3	N/A
For Moisture Density - Coarse- Grained Soil	563	TEST	YES	DI/SL	100 LB	3	N/A
Cement (Portland or Blended)	376	(LIST or TEST) + BOL	See Sampling Schedule	DI/SL	6 LB	5 or 11	1 TON
➤ Fly Ash	378	LIST or TEST	See Sampling Schedule	СМ	6 LB	5 or 11	1 TON
➤ Lime	003	CERT + TEST	See Sampling Schedule	DI/SL	6 LB; 1 QT (slurry)	4 or 5	1 TON, 600 GAL (slurry)
 Modified Soil with Lime, Portland Cement, Portland Blast, Furnace Slag Cement, or Fly Ash 	750	TEST	See Sampling Schedule	SL	Per Manual Test Proc. for Mat'ls	3 or 4	600 SY
Lime Stabilized Subbase or Base Course	750	TEST	See Sampling Schedule	SL	Per Manual Test Proc. for Mat'ls	3 or 4	600 SY
➤ Soil-Cement Base Course	750	TEST	See Sampling Schedule	SL	Per Manual Test Proc. for Mat'ls	3 or 4	600 SY

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Steel and Casting							
Cast Frames & Grates/Lids	200	CERT or LA15	NR	MT	-	-	5 EA
Cast Manhole Steps	210	CERT or LA15	NR	MT	-	-	N/A
Deck Drains	686	CERT or LA15	NR	MT	-	-	N/A
Gabions, Slope Mattress	680	CERT or LA15	NR	MT	-	-	N/A
Pipe Casing	680	CERT or LA15	NR	MT	-	-	N/A
Steel Frames & Grates	684	CERT or LA15	NR	MT	-	-	N/A
Steel, Miscellaneous							
> Anchor Bolts	676	CBM or LA15 or ILOK or TEST	NR	MT	3 pieces of each full size or 3 FT plus threads from each heat	-	N/A
Steel, Reinforcing							
Dowel Bars - black or epoxy coated	626	LIST + CERT	Yes, per CBM Policy Memo	MT	2 @ 6 FT EA for each size, grade and source	-	N/A
Dowel Bar Assembly (Only)	627	CERT or LA15	NR	MT	-	-	N/A
Pavement Fabric & Wire Mesh	628	LIST + CERT	Yes, per CBM Policy Memo	MT	See MMI	-	N/A
Prestressing Strand	631	СВМ	NR	MT	2 @ 4 LF for each reel	-	N/A
Reinforcing Bar – black or epoxy coated	629	LIST + CERT + MARK	Yes, per CBM Policy Memo	MT	2 @ 6 LF	-	N/A
Rebar Splicers – black or epoxy coated	632	LIST + CERT	Yes, if Contract Quantity of All Splicers > 100	MT	3 assemblies each size and source - min. 18" of rebar on each side	-	N/A

Product	Material Series	Evidence of Materials Inspection	Jobsite Sample	Responsible Lab	Sample Size	Container	Small Quant. Per Contract
Steel, Structural							
> Fasteners	655	CBM or LA15 or ILOK or TEST	NR	MT	5 pieces per lot	4 or 11	N/A
Structural Steel	650	BB59 + CERT	NR	MT	-	-	N/A
Stud Shear Connectors	658	(MARK + CERT) or LA15	NR	MT	5 pieces per lot	11	N/A
Temporary Items							
See Sections 100, 500 Except		VISE					
Reflective Materials		See Paint, Pavement Marking and Signing requirements					
Waterproofing Materials							
> Asphalt Emulsion (Art. 1060.08	381	(LIST or TEST) + BOL	NR	BC	1 GAL	4	55 GAL
Membrane System (Sec. 1061) - Coal-Tar Pitch Emulsion & Primer	382, 386	LA15 or TEST	NR	ВС	1 QT EA	5	56 GAL
Membrane System (Sec. 1061) - Fabric, Glass	385	LA15 or TEST	NR	ВС	1 @ 5 FT	8	N/A
 Reflective Crack Control (Sec.1062) - Reinforcing Fabric 	498	CERT or LA15	NR	MT		-	N/A
 Fiberglass Repair System (Sec. 1063) - Fiberglass Fabric 	385	LA15 or TEST	NR	ВС	1 @ 5 FT	8	N/A
Fiberglass Repair System (Sec. 1063) - Bit. Adhesive	385	LA15 or TEST	NR	ВС	1 mfg. sealed box	12	N/A

Illinois Department of Transportation Bureau of Materials

Qualified Producer List

CERTIFIED PRECAST CONCRETE PRODUCERS

July 7, 2023

This list supersedes the May 26, 2023 list.

Standard Specifications for Road and Bridge Construction, Sections 522 and 1042
Guide Bridge Special Provision "Three Sided Precast Concrete Structure"
Contract Special Provision "Noise Abatement Wall"

Current Policy Memorandum "Quality Control / Quality Assurance Program for Precast Concrete Products"

For information regarding new product submittal, click the "New Submittal" bookmark to the left.

Producer/ Supplier No.	Producer	<u>Location</u>	Prod. Mark ^A	<u>Products</u>	Resp <u>Dist/</u> CBM ^B
5482-01	Architectural Cast Stone	W. Chicago, IL		A:5 E:3,4 I:1,2,3	1
7107-01	Great Lakes Concrete & Supply	Chicago Heights, IL	Great Lakes	B :1,2 C :5 D :1,2,3,4,5,6,7,8,10 E :1,2,3 I :1,4	1
1062-01	Kieft Brothers Co.	Elmhurst, IL	Kieft Bros.	B :1,2 D :1,2,3,4,5,6,7,10	1
1442-01	Northfield Block Co.	Mundelein, IL		G :1,2,3,4,6	1
2509-01	Norwalk Tank Co.	Joliet, IL	NTCO	C :5,6 D :1,2,3,4,5,6,7,10 H :3 I :1	1
5086-01	Unilock Chicago, Inc.	Aurora, IL		G :5,6	1
3505-01	Welch Brothers	Elgin, IL	WBE	A:2 B:1,2 C:1,2,4,5 D:1,2,3,4,5,6,7,10 F:1	1
3505-04	Welch Brothers	Bartlett, IL	WBE	B :1,2 C :1,2,4,5 D :1,2,3,4,5,6,7,10 F :1	1
6542-01	Dukane Precast Inc.	Naperville, IL	DKN-N (Naperville)	A:1,3 F:1 G:1,2 H:1,2,3	1
7130-01	Des Plaines Material & Supply	Des Plaines, IL		C :6 D :3,4,5,7	1
4787-02	Schubert &Son Concrete	Plainfield, IL		D :3,4,5	1

Illinois Department of Transportation Bureau of Materials

Qualified Producer List

CERTIFIED PRECAST CONCRETE PRODUCERS

July 7, 2023

This list supersedes the May 26, 2023 list.

Standard Specifications for Road and Bridge Construction, Sections 522 and 1042
Guide Bridge Special Provision "Three Sided Precast Concrete Structure"
Contract Special Provision "Noise Abatement Wall"
Current Policy Memorandum "Quality Control / Quality Assurance Program for Precast Concrete Products"

Note 1: As of November 6, 2020, these locations were officially renamed from Concrete Specialties to Old Castle Infrastructure.

A Product markings are applicable to products A1, A6, B1, B2, C1-7, D1-8, and F1. Refer to Attachment C in the current Bureau of Materials and Physical Research's Policy Memorandum, "Quality Control/Quality Assurance Program for Precast Concrete Products" for additional information regarding minimum identification markings. For traffic barrier, refer to Design and Environment Highway Standard 704001.

B Central Bureau of Materials

Inspectors are reminded to visually inspect precast concrete products which arrive at the jobsite. Refer to Sections 23.0 and 24.0 in the current Bureau of Materials and Physical Research's Policy Memorandum, "Quality Control/Quality Assurance Program for Precast Concrete Products" for additional information on visually inspecting and repairing precast concrete products. Photographs of precast concrete products that are acceptable, unacceptable, and unacceptably repaired may be found by clicking here. Regarding identification markings on a product, inspectors are reminded to verify the producer's mark to determine the actual manufacturer. Some precast concrete producers will acquire products from another manufacturer and resell it. Any questions on the acceptability of a product should be referred to the District Materials Engineer or Physical Test Engineer.

Products Key:

A. Structural Members

- 1. Bridge Slabs
- Pile Caps
- 3. Other Structural Members
- 4. Piles and Extensions
- Decorative Bridge Structural Elements
- 6. Three Sided Precast Concrete Structures

B. Box Culvert

- 1. Box Culvert Sections
- 2. Box Culvert End Sections

C. Pipe

- 1. Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
- Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
- 4. Concrete Sewer, Storm Drain, and Culvert Pipe
- 5. Reinforced Concrete Rectangular End Sections
- 6. Reinforced Concrete Flared End Sections
- 7. Reinforced Concrete Elliptical Flared End Sections

D. Drainage Structures

- 1. Inlet Boxes for Pipe Culverts and Medians
 - Types 24A-G, 36A, 48A, and Flush Inlet Box for Median
- 2. Headwall for Pipe Drain
- 3. Catch Basins Types A, B, C, D
- Manhole Type A
- 5. Inlets Types A, B
- 6. Drainage Structures Types 1, 2, 3, 4, 5, 6
- 7. Valve Vault Type A
- 8. Bridge Approach Drains
- 9. Reserved
- Other Inlets (Applies when there is no Design and Environment Highway Standard.)

E. Markers

- Right of Way
- Drainage
- 3. Permanent Survey
- Section

F. Traffic Barrier

1. Temporary Concrete Barrier

G. Block/Brick

- 1. Erosion Control: Precast Block Revetment Mats
- Erosion Control: Precast Articulated Block Revetment Mats
- 3. Concrete Brick
- 4. Concrete Masonry Units
- 5. Concrete Pavers
- 6. Segmental Concrete Block Walls

H. Walls

- 1. Facing Panels for Mechanically Stabilized Earth Systems
- 2. Noise Abatement Walls (Reflective Type)
- 3. Modular Retaining Walls
- Non-smooth Facing Panels for Mechanically Stabilized Earth Systems

l. Miscellaneous

- Bumper Blocks (Wheel Stops For Cars)
- 2. Picnic Tables, Trash Receptacles, Planters
- 3. Splash Blocks
- 4. Handholes

The Products Key does not include composite concrete handholes (Article 1088.05/Design and Environment Highway Standards 814001 and 814006), composite concrete gulfbox junction (Article 1088.07(b)), precast concrete railroad crossings, or precast prestressed concrete products. In addition, clay paving bricks (Article 1041.01), decorative pavers and some special purpose blocks are not included.

Subject: CONSTRUCTION MEMORANDUM 09

Force Account Billing Article 109.04

Effective: April 1, 2021 Expires: Indefinite

This memorandum supersedes Construction Memorandum 08-09 dated January 1, 2008.

Paying for extra work on a Force Account Basis is an accepted and common practice through-out the highway construction industry. The purpose of this memorandum is to provide direction to Department personnel for reviewing contractor force account billings. The Department utilizes Equipment Watch's Rental Rate Blue Book (Blue Book) as the source of equipment rates for force account billing.

Included in this memorandum are guidelines for force account billings and the following attachments:

Attachment 1: Rates for Items not Available from the Blue Book. The rates shown in Attachment 1 have been indexed to the 2021 preliminary United States Department of Labor, Bureau of Labor Statistics, Producer Price Index for Construction Machinery Manufacturing (PPI-CMM). (The preliminary PPI-CMM for January 2021 is 269.7.)

Attachment 2: <u>BC 635</u>, Example Extra Work Daily Reports

Attachment 3: Sample Force Account Billing

Attachment 4: BC 2370, Equipment Expense Rate Data

Attachment 5: Blue Book Supplemental Information

Particular attention should be paid to the following:

- 1. Each day that force account work is being performed Form BC 635, Extra Work Daily Report, must be completed. All labor, equipment and material used in the force account work shall be agreed to by both the Contractor and the Engineer and entered on this form at the end of each day. The Contractor must then prepare the force account bill from the daily reports. Only the labor, equipment and material shown on the daily reports shall be included on the force account bill.
- 2. The verification of labor cost and the affidavit as to materials taken from stock.
- 3. Payroll additives are to be restricted to actual costs.
 - a) Worker's compensation insurance is chargeable for all hours worked on a straight time basis. Overtime premiums (1 ½ x, 2 x, 3 x, etc.) are not eligible.

- b) Truck drivers' total salaries shall be excluded from computation of public liability and property damage insurance as these insurance costs are covered by equipment ownership expense.
- c) Current Federal Unemployment Tax (i.e. unemployment insurance contribution) rate and contribution cap shall be obtained from the <u>current IRS Publication 15</u> "(Circular E), Employer's Tax Guide". Year to date employee earnings are to be reported in the force account bill.
- d) Up to date information regarding State Unemployment Insurance (UI) Tax can be obtained from the <u>State of Illinois Department of Employment Security website</u>, specifically, the applicable year's "State Experience Factor and Employers' UI Contribution Rates" document. Year to date employee earnings are to be reported in the force account bill.
- e) Current Federal Social Security Tax information can be located at the Social Security Administration's website, www.ssa.gov/oact/cola/cbb.html, or by websearching "Social Security Administration- Contribution and Benefit Base". For example, Federal Social Security Tax is contributed at the rate of 6.2% plus 1.45% for Medicare, a total of 7.65%, on the first \$142,800 paid to an individual as wages in calendar year 2021. After the first \$142,800 in wages, the rate for Medicare continues at 1.45%.
- 4. The following policies shall be used in determining rates:
 - a) Equipment owned by Contractor.
 - i) Equipment already on jobsite

The time paid for shall be the period that the equipment is in operation on the force account work, and in addition shall include traveling time to the locations of the force account work when the equipment is moved under its own power. (Loading and transportation costs will be allowed when equipment is moved through means rather than its own power.)

ii) Equipment not already on jobsite

Same as (i) except that minimum total operating time paid for on the work shall be not less than four hours.

The hourly rates for Contractor owned equipment will be determined from the Equipment Watch Rental Rate Blue Book (Blue Book). The Blue Book is available via subscription only to select District Implementation Support staff as well as District Estimators.

- 1) The Blue Book will be used in the following manner:
 - (i) The hourly rate will be determined by using the FHWA Hourly Rate. The monthly, weekly, daily or hourly rates will not be used.

- (ii) The current revisions will be used in establishing rates. The current revision applicable to specific Force Account work is as of the first day of work performed on that Force Account work and that rate applies throughout the period the Force Account work is being performed.
- (iii) The Regional adjustment for Illinois will be made. Model year adjustment will also be made. No user defined adjustments will be made.
- (iv) The estimated operating costs per hour are included in the FHWA Hourly Rate and will be used for each hour that the equipment is in operation on the Force Account work. Such costs do not apply to idle time regardless of the cause of the idleness.
- (v) The rates established above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance and all incidentals. No additional compensation will be allowed for normal operating expenses. The rates do not include labor.
- (vi) The Contractor may submit Form BC 2370 Equipment Expense Rate Data Sheet to the Engineer with sufficient information for each piece of equipment and its attachments to enable the Engineer to verify the rental rate. As a preferred option, the Contractor may submit a copy of the printable report from the Blue Book. All equipment shall, in the opinion of the Engineer, be in good operating condition. Equipment used by the Contractor shall be specifically described and be of suitable size and suitable capacity required for the work to be performed.
- (vii) Standby time for equipment beyond the end of the shift when the delay occurred will not be paid for, except where the equipment has been held on the jobsite on a standby basis at the request of the Engineer. Such payment will be made based upon:
 - 0.5 X (FHWA Hourly Rate adjusted for Model Year and Region Estimated Operating Costs)
- 2) Rates for equipment not listed but available upon request from Blue Book:
 - Contractors with a subscription to the Blue Book can obtain a custom rate from Equipment Watch for equipment not listed. Alternatively, the Contractor may submit a fully completed BC 2370, Equipment Expense Rate Data sheet. BC 2370 information can be forwarded, by support staff, to Equipment Watch for a rate determination (see Attachment 5 for additional information).
- 3) Individual pieces of equipment not listed in Attachment 1 of this memorandum and having a replacement value of \$1,000 or less shall be considered to be tools or small equipment and no payment will be made for their use on the work. Compensation will be allowed for actual cost of consumables (oxygen, acetylene, propane, etc.) used by small tools.

- b) Equipment rented by the Contractor.
 - i) Whenever it is necessary for the Contractor to rent equipment elsewhere, they shall be paid the rental and transportation cost of such equipment to which 5% shall be added. The rental rates may not exceed those allowable for equipment owned by the Contractor unless first approved in writing by the Engineer before the work is started. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.
 - ii) When the Contractor rents equipment from a related party and that equipment was used in the determination of the Contractor's prequalification ratings, the Contractor shall be paid per a) above regardless of the rental agreement between the Contractor and the related party.
- 5. Preparation of force account bills.

All force account bills should show an accurate description of equipment used on force account work by year manufactured, type, size and horsepower and/or capacity.

Any changes or correction of ownership expense rates on a force account bill must be made in a manner that ensures the Contractor has been made aware of the revised amount before the bill will be approved for payment.

Contractors are eligible for an additive to a bill prepared by a subcontractor. See Art. 109.04(b)(7).

6. Response Contractors Indemnification Fund.

Pay item XXX15000 should be used when the force account or a portion thereof, involves issues related to a remedial or response action, or to the identification, handling, storage, treatment or disposal of a pollutant, or other items subject to payment into the Response Contractors Indemnification Fund (RCIF).

- 7. Where work extends over more than one week or payroll period, one bill should be submitted whenever possible, listing all labor together and all equipment together.
- 8. It will be proper to pay a foreman's salary based on the individual's actual wage and allow actual cost or company average for company contribution to life insurance, health insurance, or pension funds. We will also pay documented travel expense if it applies. Bonuses or profit sharing arrangements will not be allowed. Under some limited circumstances, the contractors' superintendent may act as a foreman. In those situations it may be appropriate to pay for those costs as normally would be done for a foreman.

9. Some flaggers may be shown simply under the laborer wage rate. Others may have a special wage rate for laborers when acting as flaggers. It is also possible for flagger's wage rates to be under traffic control workers rather than laborers. For force account bills the designation flaggers should be used if they are paid a different wage rate than laborers.

Tim Kell, P. E.

Engineer of Construction

ATTACHMENT 1

ITEMS NOT AVAILABLE FROM BLUE BOOK

ARROW BOARD

For vehicle mounting, rate for vehicle not included

HOURLY EXPENSE RATE = Flat rate for all models \$3.67 for all models for a maximum of 176 hours per month STANDBY HOURLY RATE = Hourly Expense Rate x 0.897 x 0.50

ATTENUATOR

Crash, for truck mounting, rate for truck not included, one-piece aluminum, one-piece fiberglass

HOURLY EXPENSE RATE = Flat rate for all types \$5.09 for all models for a maximum of 176 hours per month STANDBY HOURLY RATE = Hourly Expense Rate x 0.942 x 0.50

Crash, for truck mounting, rate for truck not included, two-piece aluminum

HOURLY EXPENSE RATE = Flat rate for all types \$6.74 for all models for a maximum of 176 hours per month STANDBY HOURLY RATE = Hourly Expense Rate x 0.942 x 0.50

Impact, sand module, temporary

DAILY EXPENSE RATE = Flat rate for all types \$8.31 for all models for a maximum of 180 days

BARRICADE

Type I or Type II

DAILY EXPENSE RATE = Flat rate for all models \$1.50 for each type I or type II barricade for a maximum of 180 days

Type III

DAILY EXPENSE RATE = Flat rate for all models \$3.52 for each type III barricade for a maximum of 180 days

BARRIER WALL

Concrete, temporary; 12.5 ft section

DAILY EXPENSE RATE = Flat rate for all types \$0.47 for each section for a maximum of 180 days

Lifting Clamp

REIMBURSEMENT RATE = Flat rate for all types \$0.37 for each section placed and removed

DELINEATOR

Barrel

DAILY EXPENSE RATE = Flat rate for all types \$1.87 for each delineator barrel for a maximum of 180 days

Cone

DAILY EXPENSE RATE = Flat rate for all types \$0.75 for each cone for a maximum of 180 days

LIGHT

Flasher

DAILY EXPENSE RATE = Flat rate for all types \$0.30 for each flasher for a maximum of 180 days

Hi-intensity, sign mounted

DAILY EXPENSE RATE = Flat rate for all types \$2.55 for each sign mounted hi-intensity lite for a maximum of 180 days

Steady Burn

DAILY EXPENSE RATE = Flat rate for all types \$0.45 for each steady burn for a maximum of 180 days

SIGN

Construction Work Zone

DAILY EXPENSE RATE = Flat rate for all types \$3.00 for each sign for a maximum of 180 days

TRENCH BOX

Steel or aluminum, single or double wall; all lengths and depths; including braces

NOTE: Area equals depth times length

HOURLY EXPENSE RATE = \$0.064 times the box's area in square feet plus \$4.57 for a maximum of 176 hours per month

STANDBY HOURLY RATE = Hourly Expense Rate x 0.900 x 0.50



Extra Work Daily Report

		County Christian	
		Section	
		Route IL-29	
		District 6	
Contractor Smith Construction Co.		Contract No. 12345	
Report No. 1 Date 05/05/202	11	Job No. C-96-000-00	
	. 1		
Authorization No. 05		Project No.	
Description and Location of Work: Additional Pipe & O	Collars at Statio	n 05+05	
	LABOR		
Name, Worker Classification		Total Hours Worked (Straight-Time) (Overti	
Matt Reilly, Foreman		6	пе
Tim Seitz, Laborer		6	
Bernie Henderson, Laborer		6	_
Earl Roth, Laborer John Graham, Laborer		6	
Marlee Reid, Teamster		6	
Macy Smith, Operator		6	
	1		
EQUIPMENT USED		MATERIAL USED	
Description: List Manufacturer, Model, Year Built, Capacity	Number of Hours	Description	Quantity
2020 Caterpillar 814 F Series II Wheel Dozer (253HP)	6		
2018 Chevy Light Duty P/U Truck, 4x4 Crew Cab 1/2			
ton	6	24 in RCP	64 ft
2017 On-Hwy Rear Dump Trk 4x4 Diesel	6		
30,000lb/GVW	6		
REMARKS:			
	45550	VED. Stephanie Jones	
APPROVED: R.L. Smith Contractor's Representative	APPRO	VED: State's Representative	

Original: Contractor Printed 03/26/2021



Extra Work Daily Report

		County Christian
		Section
		Route IL-29
		District 6
Contractor Smith Construction Co.		Contract No. 12345
Report No. 2 Date 05/06/202	01	Job No. C-96-000-00
· <u> </u>	. 1	
Authorization No. 05		Project No.
Description and Location of Work: Additional Pipe & 0	Collars at Statio	on 05+05
	LABOR	
Name, Worker Classification		Total Hours Worked
Matt Reilly, Foreman		(Straight-Time) (Overtime) 8
Tim Seitz, Laborer		8
Bernie Henderson, Laborer		8
Earl Roth, Laborer		8
John Graham, Laborer		8
Marlee Reid, Teamster		8
Macy Smith, Operator		8
EQUIPMENT USED		MATERIAL USED
Description: List Manufacturer, Model, Year Built, Capacity	Number of	Description Quantity
2020 Caterpillar 814 F Series II Wheel Dozer (253HP)	Hours 6	
2018 Chevy Light Duty P/U Truck, 4x4 Crew Cab 1/2		
ton	6	Trench Backfill 48.6 tons
2017 On-Hwy Rear Dump Trk 4x4 Diesel		
30,000lb/GVW	6	
REMARKS:		
APPROVED: R.L. Smith	APPRO	OVED: Stephanie Jones
Contractor's Representative		State's Representative

Original: Contractor Printed 03/26/2021



Extra Work Daily Report

Contractor Smith Construction Co.		County Christian Section Route IL-29 District 6 Contract No. 12345	
	<u> </u>	Job No. C-96-000-00	
•	: 1		
Authorization No. 05		Project No.	
Description and Location of Work: Additional Pipe &	Collars at Statio	n 05+05	
	LABOR		
Name, Worker Classification		Total Hours Worked (Straight-Time) (Overtime)	
Matt Reilly, Foreman		8 Straight, 2 OT	
Tim Seitz, Laborer		8 Straight, 2 OT	
Bernie Henderson, Laborer Earl Roth, Laborer		8 Straight, 2 OT 8 Straight, 2 OT	
John Graham, Laborer		8 Straight, 2 OT	
Marlee Reid, Teamster		8 Straight	
Macy Smith, Operator		8 Straight	
EQUIPMENT USED		MATERIAL USED	
Description: List Manufacturer, Model, Year Built, Capacity	Number of Hours	Description Quar	ntity
2020 Caterpillar 814 F Series II Wheel Dozer (253HP)	8	PCC 6 Sa	cks
2018 Chevy Light Duty P/U Truck, 4x4 Crew Cab 1/2	10	Aggregate 1.5 t	one
2017 On-Hwy Rear Dump Trk 4x4 Diesel	10	Aggregate	0115
30,000lb/GVW	8	Form Lumber, 1in x 6in x 14ft 24 p	cs
	I		
REMARKS:			
APPROVED: R.L. Smith	APPRO		
Contractor's Representative		State's Representative	

Original: Contractor Printed 03/26/2021

ATTACHMENT 3

This sample bill does not establish any policy relative to the amount to be allowed for any particular item of materials or equipment or as representing actual rates for insurance. Its sole purpose is to standardize the form of force account bills.

SAMPLE OF A FORCE ACCOUNT BILL (USING 2021 BLUEBOOK RATES) SHOWING FORM TO BE FOLLOWED

CONTRACTOR'S LETTERHEAD

Route IL-29 Section	County <u>Chri</u>	istian Auth. No. 05
Force account bill for Additional Pipe	e & Collars	Contract No12345
Insert applicable dates		
		Payroll Amount Eligible
Total Hours	Insurance	Payroll Earnings to for Unemployment Tax
May 2021 <u>5 6</u> 7 <u>S.T. O.T.</u>	Rate Amount	Amount Date F.U.T. S.U.T.
Matt Reilly, Foreman 6 8 10 22 2	47.65 \$1,143.60	\$1,191.25 \$35,000.00 \$0.00 \$0.00
Tim Seitz, Laborer 6 8 10 22 2	43.47 1,043.28	1,086.75 9,000.00 0.00 1,086.75
Bernie Henderson, Laborer 6 8 10 22 2	44.47 1,067.28	1,111.75 6,000.00 1,111.75 1,111.75
Earl Roth, Laborer 6 8 10 22 2	40.39 969.36	1,009.75 7,100.00 909.75 1,009.75
John Graham, Laborer 6 8 10 22 2	43.47 1,043.28	1,086.75 9,100.00 0.00 1,086.75
Marlee Reid, Truck Driver 6 8 8 22	46.05 1,013.10	1,013.01 27,000.00 0.00 0.00
Macy Smith, Operator 6 8 8 22	47.50 <u>1,045.00</u>	<u>1,045.00</u> 40,000.00 <u>0.00</u> <u>0.00</u>
Subtotals, Labor	\$7,324.90	\$7,544.35 \$2,021.50 \$4,295.00
*Laborer Pension & Welfare Funds – 96 hours @ 33.32		3,198.72
*Operating Engineer Pension & Welfare – 22 hours @ 40.65		894.30
*Teamsters Pension & Welfare – 22 hours @ \$28.00		<u>616.00</u>
Subtotals, Labor		12,253.37
Plus 35% of \$12,253.37		4,288.68
Subtotals, Labor		16,542.05
Plus: Worker's Compensation Ins. 10.75% of \$7,324.9		
Public Liability and Property Damage Ins., excluding pa		
of Truck Drivers 5.25% of \$6,311.80	331.37	
**Federal Unemployment Tax 0.6% of \$2,021.50	12.13	
***State Unemployment Tax 7.25% of \$4,295.00	311.39	
Federal Social Security Tax 7.65% of \$7,544.26	<u>577.14</u>	
Total Payroll Additives	2,019.46	
Plus 10% of \$2,019.46	201.95	0.004.44
Subtotal		<u>2,221.41</u>
Total Labor		18,763.46
*These are not suggested rates, as these rates vary widely be Union Locals. This is intended as an example only. **Do not include costs for employees which have reached the \$7,000 ceiling on Federal Unemployment Tax (F.U.T.) (2021) ***Do not include costs for employees which have reached the \$12,960 ceiling for State Unemployment Tax (S.U.T.) (2021)	3	
I hereby certify that the above statement is a copy of that porti for taxes and insurance are actual costs.	ion of the payroll which ap	_
	(Signed)	R. L. Smith

(Contractor)

May 2021 Equipment Expense	<u>5</u>	<u>6</u>	<u>7</u>	Total Hrs	<u>Rate</u>	<u>Amount</u>
2020 Caterpillar 814F Series II Wheel Dozer, (253 HP) 2018 Chevy Light Duty Pickup Truck, 4X4 Crew Cab (1/2 ton) 2017 On-Hwy Rear Dump Truck, 4X4, Diesel, (30,000 lb GVW)	6 6 6	6 6 6	8 10 8	20 22 20	\$122.29 \$22.25 \$40.40	\$2,445.80 \$489.50 \$808.00
Total Equipment Expense	Ü	Ü	J	20	ψ+0.+0	\$3,743.30
Materials Used						
24 in. R.C.P., 64 ft. @ \$47.40 per ft.(receipted invoice attached)						\$3,033.60
Trench backfill, 48.6 tons @ \$16.50 per ton (taken from stock) Portland cement, 6 sacks @ \$14.67 (taken from stock)						801.90 88.02
Aggregate, 1.5 tons @ \$14.25 per ton (taken from stock)						21.38
Form lumber, 24 pieces, 1x6, 14 feet long @ \$12.45 per piece (receipted invoice attached)						298.80
Less salvage value of form lumber, 50% (agreed to in field)						(149.40)
Subtotal material Plus 15% on \$4,094.30 Total Materials						4,094.30 <u>614.15</u> \$4,708.45
• •						

AFFIDAVIT

This is to certify that the material entered on this force account bill which was taken from stock is shown at our cost.

_	Smith Construction Co.
	(Company)
	0
D.	R. L. Smith
Ву	1(03 0
Total Labor	\$18,763.46
Total Equipment Expense	\$3,743.30
Total Materials	\$4,708.45
Total	\$27,215.21
Bond 0.75%	\$204.11
Plus 10% of Bond	\$20.41
Total Bill	\$27,439.73
	Resident



Equipment Expense Rate Data

To Be Filled Out by	the Requestir	ng Agency or Contra	actor:					
Name				1			Contrac	t Number
Address				_ City			State	Zip Code
Phone								J L
Description of Equi	pment		Maka			Madal		
Type			Make			Model		
Year Manufactured	Fuel Type		Horsepowe	er	Size a	nd/or Capa	city:	
Remarks								
Cost of Equipment	(For Equipme	nt Not Listed in Blue	e Book)					
Purchase Price		Year Purchased	Estimate	d or Actual Annual Re	pair Cos	<u>t</u>		
Estimated or Actual A	 Annual Usage	of Equipment in Hour	s per Year					
	aa. ooago		- ро од.					
Additional Comments								
Additional Comments	5							

(Upon completion, please submit to the appropriate District Office)

ATTACHMENT 5

Blue Book Supplemental Information

After discussions with the staff at Equipment Watch, the following guidelines have been prepared to provide additional assistance with using the Blue Book for force account billings: If a particular equipment category, make, and model number is known, rather than using all of the information to drill down through the categories, simply type in the model number in the search feature and click on search. The categories assigned by Blue Book are sometimes difficult to determine.

Contractors are to be paid the FHWA Hourly Rate. When the rate is not given, it can be calculated as follows:

The FHWA Hourly Rate = [(monthly rate/176) x (model year adj.) x (Illinois adj.)] + EOC

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

Authorized idle (standby) time payment will be made at the following hourly rate:

0.5 x (FHWA hourly rate - EOC).

Equipment Watch updates the Rental Rate Blue Book twice per year, once in January, and once in July. Only half of the Book is updated each period, so in effect, a particular equipment rate stays valid for one year. All reports list the revision date for each rate (1st Half 2021, 2nd Half 2021, etc.), so it can be traced back to the proper time period for auditing purposes should it become an issue.

The Blue Book is a guide and if there are any units which a contractor feels is not represented in the guide, Equipment Watch will determine a custom rate based on the contractor completing a survey. When using a custom rate, check to ensure the "Illinois" and "Model Year" adjustments have been properly applied.

The "Model Year" adjustment is not available for pieces of equipment that are more than 20 years old. There are contractors that have older pieces of equipment. Most state DOT's accept the rate adjusted to the earliest published year, and IDOT has decided to accept this methodology as well. There are many ways to justify this treatment. Equipment Watch feels that large capital investments for major rebuilds must be made, in order to extend the economic life of these older pieces of equipment; additionally the operating cost may be higher. Thus you get a smaller ownership cost and a larger operating cost. Both of these factors tend to extend the validity of the published Blue Book rate.

For older pieces of equipment, greater than 20 years, that have a discontinued model number, most states use rates for the closest model (horsepower, capacity, etc.) published. IDOT has decided to adopt this practice. If a close match cannot be located, Equipment Watch can be contacted for a custom rate.

For new models of existing equipment that won't be incorporated into the Blue Book until the latest update, other states accept the closest model year published. IDOT has accepted this practice. Equipment Watch feels that they are equitable on their rates, and in the case of a

truck, for example, contractors will find that the acquisition cost of their trucks regardless of the GVW, is usually covered by the closest published model.

Until more Material Transfer Devices (MTD's) are incorporated into the Blue Book, custom rates may need to be requested. Several MTDs are located under the category "Asphalt Pick-Up Machines". Equipment Watch will be continuing to add more makes and models into future updates of the Blue Book.

The main purpose of the Buckets section is to allow for attachments. The best example is a hydraulic breaker for an excavator. The rate for the unit is determined by subtracting the rate for the standard bucket (or closest listed) from that of the Excavator (which includes the bucket) and adding in the rate for the appropriate hammer.

Most states avoid allowing rate changes for daily or hourly bucket changes, because it is not only an administrative nightmare but it brings the whole standby rate question to bear. The duty of the buckets (general purpose, heavy duty or severe duty) is a reflection of manufacturer nomenclature and not discrete wall thickness ranges. Model year of a bucket may be impossible to determine. Therefore, when determining a rate for equipment with bucket attachments, use the rate given for the manufacturer's standard size bucket and the same model as the equipment.

Changeable Message Signs – Although the rates for Changeable Message Signs are now being provided by Blue Book, the maximum number of hours per month remains 176. This is consistent with our previous policy when the Schedule of Average Annual Equipment Ownership Expense guide was used for equipment rates.

Due to the variability in equipment rates provided by Equipment Watch for the same piece of equipment based solely on differing annual usage hours per year provided by the contractor, when requesting a "custom" rate from Equipment Watch for a piece of equipment not available in the Rental Rate Blue Book, request "standard annual usage hours". Widely variable annual usage hours provided by the contractor greater than 2080 hours or less than 176 hours tend to create anomalies with Blue Book methodology and can significantly impact a given equipment rate. Standard annual usage hours are typically 800 to 1500 hours per year depending on the type of equipment in question. If Equipment Watch catches reported annual usage hours on a custom rate request that are out of the range of normal equipment use, they may question the requesting party.

Pile leads are listed under Pile Drivers, and one needs to "build" the required length of the lead based on dimensions and section type (top, mid, swivel, etc.) to get to the required length for either the fixed or swinging type leads. The fixed leads are listed in increments from 10 to 40ft.; the swinging leads are listed in increments of 5 to 40ft.

Because of the many variations on the cabs, conventional, crew, extended, extra-cab, etc., and the different doors, half doors, full rear seats, fold down rear seats, when Equipment Watch does their averaging, they include as "crew cab" any of the crew/extended cab/rear seating options. In other words, if it's larger than a "conventional cab" then it would be included in the "crew cab" averages.

Equipment Watch publishes rates for some equipment in the Shop Tools, Miscellaneous, and Air tools sections that are based on list prices less than \$1000. We are continuing the policy of

<u>not</u> giving equipment rates for small tools with a replacement value of under \$1000. Therefore no payment will be made for their use on the work.

Some listings in the Blue Book give different rates for ROPS and EROPS versions of the equipment. ROPS/OROPS- "Roll Over Protective System", "Rollover Protective Structures" or "Open Roll Over Protective System" are different than EROPS- "Enclosed Roll Over Protective Structure". ROPS is a cab or frame that provides a safe environment for the tractor operator in the event of a rollover. The ROPS frame must pass a series of static and dynamic crush tests. These tests examine the ability of the ROPS to withstand various loads to see if the protective zone around the operator station remains intact in an overturn. A homemade bar attached to the tractor axle, or simple sun shades, cannot protect the operator if the tractor overturns. The ROPS must meet standards, such as those set forth by the American Society of Agricultural Engineers, which certify they provide adequate protection in a tractor upset. If the ROPS is certified, there will be a certification label on the unit.



Prior Approval Authorization of Contract Change



•		E-ma	dii	Reset Form			
				Contract No	umber	District	Letting Date
							-
				Route			County
				Project Nur	nber		Job Number
				Section Nu	mber		
Please attach a copy of this approved	form to the BC 22, A	uthorization	n of Contra	act Change, subn	nitted for th	is work.	
FHWA Approval Required? Tyes	No						
Contract Number	Authorization Numbe	r	Awarde	d Contract Value	Estim	nated Cost of	this Authorization
Determination The undersigned determine that the c	hange is germane to	the original	contract	as signed, becau	se:		
Provision for this work is included	in the original contrac	at.					
Work of this type was included in Department policy.	the original contract, a	and the add	ditional eff	orts of this work a	are within th	ne intent of th	e contract and
 The change represents an adjust 	ment required by the o	ontract, ba	sed on un	predictable deve	lopments in	1 the work.	
 The change in design is necessar 	y to fulfill the original i	ntent of the	e contract.				
Other, explain							
Location and Description of Work							
Reason							
Prepared By	Date	_	Re	gional Engineer			Date
Engineer of Construction	Date	_	Dir	ector of Highway	s Pl/Chief	Engineer	Date
THE STATE OF By the Department of			١.		FHWA		
Secretary	Date		1 '	otable to Proceed		_	
			1	wed for Participa	_		
Director of Finance & Administratio	n Date		FHW	A Representative	<u>!</u>		Date
Chief Counsel	Date						

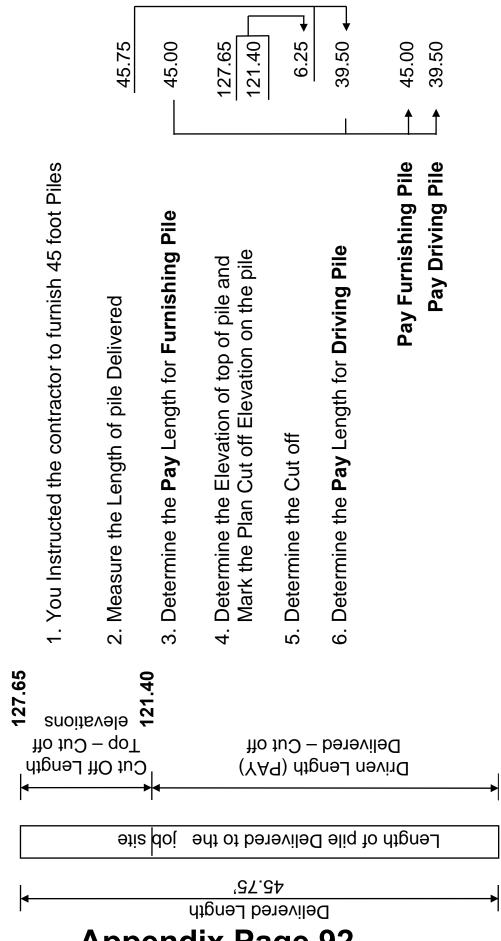
F.U.T. / S.U.T. INFORMATION for 2023

The contractor's contribution to Federal Unemployment Insurance Tax (F.U.T.) for an employee applies only to the first \$7,000 of wages earned in a calendar year. For 2023, the rate of contribution remains at 6.0%, but employers who pay contributions on time receive a credit with the maximum credit being 5.4%; therefore, those employers contributing on time will have a Federal rate of 0.6% (6.0% - 5.4%), for a maximum FUTA tax of \$42.00 per employee, per year (.006 X \$7,000 = \$42.00). This information can be found on the U.S. Department of Labor, Employment & Training Administration website at https://oui.doleta.gov/unemploy/uitaxtopic.asp. Additional information can be located at IRS Publication 15 "(Circular E), Employer's Tax Guide" at http://www.irs.gov/pub/irs-pdf/p15.pdf, page 36 of 70.

Also, the contractor's contribution to State Unemployment Insurance Tax (S.U.T.) for an employee applies only to the first \$13,271 of wages earned for calendar year 2023. The rate of contribution varies for each employer. This information can be found on page 5 of the State of Illinois Department of Employment Security's https://ides.illinois.gov/content/dam/soi/en/web/ides/ides forms and publications/ea-50-2023.pdf. Additional information regarding this matter can be found on IDES' "Illinois Unemployment Insurance Law Handbook" at http://www.ides.illinois.gov/IDES%20Forms%20and%20Publications/CLI106L.pdf

When these insurances are being charged on a force account bill, it is the contractor's responsibility to monitor and charge accordingly (see the Instructions for Preparing Force Account Bills located within Construction Memorandum No. 09). The Resident is not required to maintain a record of contractor employee's wages to determine payment on these two insurances. The contractor's billing should reflect proper charges for these insurances and the Resident has the option of having the contractor provide evidence of employee's wage earnings to verify these charges.

Pile Payment Example



BITUMINOUS MIX RECORD

(EXAMPLE ONLY)

Bit Mix No: 82BIT1234 **Material Code:** 19513 Name: HMA SC N50 C

Matl Code	Material Name	Source	Source Name	% Blend
032CM16	STONE CR CLBQ	51832-01	MTRL SRV @ FRMNT	55.9
038FM20	SAND ST F AGG CLBQ	50912-02	VLCN MTL @ KANK	22.1
037FM01	SAND NTL F AGG CLBQ	51130-06	SHARF @ HYWRTH	19.8
004MF01	MINERAL FILLER	51052-04	LVSTN ST@ OCOYA	2.2
10127	AC PG 64-22	2260-03	FMLSCT @ LIRBANA/SALINE	

Mix Formula **Optimum Design Data**

25 mm /1": 19 mm / 3/4": 12.5 mm / 1/2": 9.5 mm / 3/8": 4.75 mm / # 4: 2.36 mm / # 8:	100 98 63 42	(+/-6) (+/-5) (+/-5)	1.18 mm /# 16: .600 mm / #30: .300 mm / #50: .150 mm / #100: .075 mm / #200: AC	30 19 10 7 5.5 5.8	(+/-4) (+/-1.5) (+/-0.3)	Gmm: Gmb: % Voids: VMA: VFA: TSR: Gsb:	2.453 2.340 4.0 14.6 72.6 0.86 2.602
							Gmh (little d)

Central Mix Design: 32BIT5678 **Effective Date:** 04/21/08 I/A

Remarks:

Gmb (little a) from approved mix design

Aggregate Quality Reports are on file in the District Materials Office

County: <u>STEPHENSON</u> Producer No.: 6420-05 ABC ASPHALT @ Anytown, IL Name: Section: 20RS-1&20 BR

Route: FAP 5 District: Cont. No.: 84776

Type of Plant: **H&B DRUM MIXER** 276 TPH Batch Size or Ton / Hr: Job No.: C-92-072-08 Plant Approved: 03/19/08 Responsible Loc: 92 Project: STPF-BRF-Copies to:

0005/050/000 Date: 08/17/2008

Contractor: XYZ CONSTRUCTION Producer: ABC ASPHALT @ Anytown, IL

<u>SMITH</u>

<u>EAP</u>

QC Mngr: **B.J. JONES**

File:

Res. Engr.:

Matls Tech:

82BIT1234

Brett Schwalb John Scheibal (618)659-9781Field Office Phone: Supervisor: Resident: **Fransportation** State of Illinois Department of County: MADISON Section: 54BR-1 **Contract: 76864**

Transportation Field Office Phone: (618)
ICORS SYSTEM Job Number: C-98-

M Job Number: C-98-032-09 es Project: BRF-0789/045

Daily Quantities Route: FAP 789

Contractor: C.E. Mahoney Co. Date: 09/16/2011 235 DQ Number:

40603315-L110L01-11910002A-A HMA SC "C" N70

Paid on Estimate Number: 22 × **234.70 TON** Posted

Estimate or Final: Final

Evidence of Inspection: Plant Report & Tickets in File & Test

Location: EB & WB 275+00 – 289+75

Weight tickets on file. Yield Checks on IDR dated 9/16/2011 Source of Progress

Documentation:

Appendix Page 94

Quantity Inspected:

Pay Item Key:

District: 08

Contract:	76864	State of Illinois Resident:	nt:	Brett Schwalb
County:	MADISON	Donartment of Supervisor:	isor:	John Scheibal
Section:	54BR-1		Field Office Phone:	(618)659-9781
		Transportation Job Number:	mber:	C-98-032-05
Route:	FAP 789	Project:	::	BRF-0789/045
District:	80	HMA SC "C" N70		

HMA SC "C" N70 **Qty Book Page:** 40603315-L110L01-A

Subjob A L110L01 FASID 40603315 Pay Item Number:

Units TON Unit Price \$83.0600

d Quantity Awarded 229.000 Adjusted Total Qty: 234.700

Source of Final Documentation: Weight tickets on file. Yield Checks on IDR 9/16/2011

Finaled Yes

	tity	
	Deducted Quantity 0.000	
	Added Quantity 5.700	
	Date Approved 07/15/2011	
	ch Letter CCS Code 11910002A	
	Auth Letter	
Authorizations:	Auth Number Aut 5	
Pa	age	(

Quantities:

Estimate#	22
Source of Progress Documentation:	& Tickets in File & Test IDR dated 5/19/11 & tickets
Evidence of Inspection	ant Report
To Date	234.700 Pla
Oty Inspected	234.700
Date (9/16/2011
DQ Nbr	235
CCS Code	119I0002A

Location: EB & WB 275+00 - 289+75

Estimate or Final: Final

Report Name: Quantity Book Friday, September 23, 2011

Page 1 of 1

Subject: CONSTRUCTION MEMORANDUM NO. 4
Contract Changes

Articles 104.02 and 109.04 Effective: September 10, 2020

Expires: Indefinitely

This memorandum supersedes Construction Memorandum No. 7-4 dated January 23, 2017.

This memorandum provides the procedures by which highway construction contract changes will be administered, as well as the circumstances under which such changes will be permitted. These procedures are designed to ensure compliance with the letter and spirit of all applicable laws, to foster proper administration of the provisions of all Department-let highway construction contracts in accordance with accepted legal principles, and to avoid disputes that can arise when it is necessary to modify the terms of a highway construction contract. These procedures apply to all contracts that are let by the Department of Transportation. It should be noted, that for the purpose of this memorandum, the term "changes" includes change orders and adjustments.

A contract change is one of the most important aspects of contract administration. By definition, it alters the contract work from that awarded under the competitive bidding process and, therefore, requires clear explanation and careful consideration. The approval of the Regional Engineer on such an order (BC 22), Authorization of Contract Changes, signifies complete review of and support for the change proposed.

The applicable state laws are the <u>Illinois Procurement Code</u> (30 ILCS 500), the <u>State Finance Act</u> (30 ILCS 105/9.02) and the <u>Criminal Code</u> (720 ILCS 5/33E). The Secretary of Transportation and the Director of Highways have directed further changes in procedure both to bring the Department into conformance with the laws and to better enable the Department to administer contract changes (Departmental Order 2-2, Signature Authority).

Basic Requirements

- All contract changes must be germane to the original contract.
- On a limited basis, Small Purchases may be approved by the Central Bureau of Construction and paid for under an existing contract.
- All extra work must be approved and directed in writing before the work begins.
 The method of payment should be determined prior to beginning any extra work.
- The written approval of a contract change and the written directive to the
 contractor may or may not be the same document. The approval or the directive
 can be in the form of an e-mail, Resident's memo, form <u>BC 2256</u> (Prior Approval
 Authorization of Contract Change), form BC 22 (Authorization of Contract
 Changes) or other written instrument (paper or electronic), as appropriate.
- The contract change must be approved by a person who has direct or delegated authority to approve the type, scope or value of the work involved in the change.

determination.

- The written approval for a contract change must include a determination that the work is germane to the contract, and the reasons for this germaneness
- Ordinarily, emergency purchases / contracts are procured as outlined at https://www.ilga.gov/commission/jcar/admincode/044/044000060C01200R.html.
 However, in case of an immediate hazard to public safety, the Resident is granted limited authority to initiate work if immediate action is necessary.
- Contract changes for individual extra work efforts greater than \$100,000 must be published in the Transportation Bulletin on the Internet. An extra work effort is comprised of all the work, paid under one or more new or existing pay items, necessary to accomplish the goal of the extra work. To the extent practical, the districts are asked to submit a separate BC 22 for each extra work effort that requires publication. The Central Bureau of Construction will not try to dissect the items on the BC 22. Instead, the relevant information treated as a whole, will be published.
- Contract changes greater than \$100,000 must also be reviewed by the Procurement Policy Board (PPB). The <u>BC 24</u> (Request for Procurement Policy Board Waiver) is to be submitted to the Central Bureau of Construction to provide the information in the format agreed to by the PPB. Certain changes require the waiver prior to beginning the work.
- The delegated authority to approve contract changes is in relation to the entire work effort involved in the change. A work effort may involve payment under several different pay items. The delegated authority levels are for the net value of a work effort, including both additions and deductions to the various pay item quantities involved in the changed work effort.
- Residents will assign a two-digit code number to each authorization line item, to categorize the type of change involved in the line item. This requirement applies primarily to State projects. For Local Agency projects, there is a single category code (33) that is to be used for all contract changes. (See Attachments 1 & 2)

Change Order - Contract Adjustment

44 Administrative Code Part 6 provides the following definitions:

Change Order – A change in a contract term, other than as specifically provided for in the contract, which authorizes or necessitates any increase or decrease in the cost of the contract or the time for completion for procurements subject to the jurisdiction of the Chief Procurement Officers appointed pursuant to Section 10-20. (Section 1-15.12 of the Code)

Contract Adjustment – A written price adjustment that adds to or deducts from a contract in accordance with provisions included in the original contract, including but not limited to increases or decreases in quantities, incentives, changed conditions and the addition of missing pay items called for in the specifications.

In the past, the terms change order and authorizations have been used interchangeably. To help administer contract changes, the terms change order and contract adjustment will be used as defined above. The term authorization is used more generically to refer to all the contract changes and adjustments submitted on a

BC 22. See the Procurement Policy Board section for further discussion on Change Orders and Contract Adjustments.

Major and Minor Changes

It is the policy of the Department to require the approval of the Central Bureau of Construction prior to a commitment for all <u>major</u> changes in the plans or contract provisions. The prior approval of the Federal Highway Administration is required for all major changes on projects that are currently considered Projects of Division Interest (PoDI) and/or Projects of Corporate Interest (PoCI).

- A. Major is considered to apply to any contract change that:
 - 1. Revises the alignment or typical section of the mainline roadway, ramps, frontage roads or crossing areas.
 - 2. Revises the access control (either temporary or permanent).
 - 3. Accelerates work on the project involving payment for premium time or loss of productivity (or involving other forms of acceleration e.g., winter protection of concrete) greater than \$20,000 per contract.
 - 4. Revises the staging of construction or the traffic control plan and reduces the number of lanes open to traffic or otherwise impacts traffic flow or traffic patterns.
 - 5. Changes the limits of the project or adds omitted work.
 - 6. Impacts a protected environmental resource or modifies an environmental commitment such that follow-up coordination is required with the affected entities.
 - 7. An extra work effort at contract unit prices, agreed unit prices or force account methods that equals or exceeds a total cost of \$250,000.
 - 8. Contract Claims filed in accordance with Article 109.09. (See Construction Manual Guidelines for Review of Contract Claims)
 - Changes the Method of Measurement or Basis of Payment for an item of work.
 - Small Purchases procured in accordance with 44 Administrative Code Part 6 Section 6.100(b) (i.e. the Department's Procurement Rules). (Small Purchases will not require prior approval from FHWA on PoDI / PoCI projects)
- B. <u>Minor</u> is considered to apply to any contract change that is:
 - An adjustment in unit prices, less than \$250,000, specifically required by the Standard Specifications or a Special Provision; (a traffic control price adjustment is one example).

- 2. An extra work effort that is to be accomplished at contract unit prices, agreed unit prices, force account or a combination thereof that does not classify as Major and will not result in a total cost equal to or exceeding \$250,000. Again, to the extent practical, the districts are asked to submit a separate BC 22 for each extra work effort. The Central Bureau of Construction will not try to dissect the items on the BC 22. Instead, the authorization's net change will be treated as a whole when classifying an authorization as a major or minor.
- 3. Adjusting contract quantities to final as-built quantities.
- 4. Acceleration of work on the project costing \$20,000 or less per contract.

Approval Procedures

The Criminal Code and the Illinois Procurement Code both include provisions that require documentation of prior approval, depending on the nature and value of the change and the value of the original contract. The State Finance Act contains additional approval requirements governing higher value changes.

These provisions have created a complex web affecting the addition of work to a contract and the payment for that work. From the perspective of the contractor, proper and timely approval facilitates lawful and timely payment.

Therefore, in order to assure compliance with Illinois and Federal law, the Department's Determination to protect the public interest, and the expeditious prosecution of the work, the following requirements are established to be followed in approving all contract changes (see also Departmental Order 2-2):

- 1. All extra work must be approved in writing and a copy provided to the contractor before the work is begun. When the written approval is in paper form the approval must include the signature of the person who approved the change. When the written approval is electronic a written signature is not required. In addition, the person granting the approval must have direct or delegated authority to approve such a change. The written approval must also include a description and reason for the change, a statement that the change is germane and a description of why the change is germane (unless an Emergency Purchase Affidavit is filed).
- 2. The <u>Resident</u> is directly authorized to verbally or by action (i.e. layout) approve and direct additional quantities to contract pay items, when the quantities can be considered balancing. The Resident is not directly authorized to approve additional quantities if there is a significant discrepancy in the plan quantities, or the amount is greater than \$20,000.

When verbal approval is given for balancing quantity adjustments, the Resident should submit these quantities on form BC 22, Authorization of Contract Changes, in a timely basis as needed to ensure timely payment to the contractor for significant additions. The original contract documents serve as the written authorization to the contractor to proceed, so no separate written directive to the contractor is needed.

3. The Regional Engineer has the authority to approve minor changes less than \$250,000. The levels of delegated authority for minor contract changes on projects are as follows:

Implementation Engineer	\$150,000
Construction Engineer	\$100,000
Supervising Field Engineer	\$40,000
Resident Engineer or Technician	\$20,000

All delegations listed above are mandated down to the level of Residents. The Regional Engineer may delegate additional authority above these minimum levels.

For such added work, the district may proceed with the added work prior to submitting the BC 22 to the Central Bureau of Construction. However, change orders greater than \$100,000 require the Procurement Policy Board's waiver prior to work beginning (as noted later). The BC 22 will indicate that this is a minor addition. The Regional Engineer's (or their designee's) approval of the BC 22 will be accepted as approval of the work. An approved BC 22 should be submitted as soon as possible to the Central Bureau of Construction. All district approvals shall comply with the law, the contract and Department policy.

- 4. The <u>Engineer of Construction</u> is authorized to approve change orders to expedite or accelerate the construction work (Major Change) up to a value of \$250,000.
- 5. The <u>Engineer of Construction</u> is authorized to approve payment of "small purchase" work under an existing contract.
- 6. The <u>Engineer of Construction</u> is authorized to approve claim settlement offers up to a value of \$250,000.
- 7. In accordance with Departmental Order 2-2, Signature Authority, the Secretary must approve all changes resulting in a net addition of \$250,000 or more.

Finance Code Requirements:

In accordance with the State Finance Act and Departmental Order 2-2, when a single or cumulative contract change results in a net change that is equal to or greater than \$250,000 in a fiscal year, before funds may be obligated for such a change, the BC 22 must have the approval of the Secretary, Chief Fiscal Officer, Chief Counsel and the Chief Procurement Officer for the Department's construction and construction related procurements. (These same approvals are required for contracts having an awarded amount of less than \$250,000, if / when cumulative changes result in an adjusted contract value becoming equal to or greater than \$250,000.)

The Central Bureau of Construction will coordinate with the executive officers to obtain these approvals. It is understood that these approvals may be obtained after the work has already been ordered, when the BC 22 includes only minor changes approved at the district level. The Central Bureau of Construction will obtain these approvals, when applicable, for all major changes before the work is approved.

Coordination with FHWA:

By agreement, the Federal Highway Administration (FHWA) reviews all authorizations of contract changes on selected contracts identified as a PoDI or PoCI, and other contracts that may be required by the Oversight Agreement. Currently, the FHWA is

developing new procedures for their oversight of the Department's construction program. The FHWA is no longer identifying new contracts as a PoDI or PoCI. The FHWA last provided a PODI/POCI project list in federal Performance Year 2019 (PY 19). All contracts identified on that list shall be administered according to the following procedures. Questions about the list of active PoDI or PoCI projects can be directed to the Central Bureau of Construction.

The FHWA's prior approval is required for major changes. The FHWA's prior approval is not required for minor changes. It is recognized that some additions exceeding \$250,000 may, by their nature, not require prior approval. These additions include Balance Final Field Measurements (category code 01), Allowable Contingencies (category code 03), and Specification Performance Adjustments (category code 16) for which the work and the method of payment is included in the contract.

The district should keep the FHWA Transportation Engineers (TEs) aware of pending major changes during project visits or through telephone calls or e-mails.

Authorization Approval Process:

The Resident Engineer prepares a BC 22 and requests additional District Office review and approval. Upon obtaining the District approval, the District submits the BC 22 to the Central Bureau of Construction for additional approvals (if applicable) and processing. When central office or FHWA approvals are required, the Central Bureau of Construction will coordinate obtaining these approvals. When FHWA approval is required, the FHWA TE will notify the Central Bureau of Construction in writing (paper or electronic) whether or not the change is approved for federal participation.

Prior Approval Process:

For work efforts requiring central office or FHWA prior approval, the Resident Engineer prepares a BC 22 (or BC 2256) and requests additional District Office review and approval. Upon obtaining the District approval, the District submits the BC 22 (or BC 2256) to the Central Bureau of Construction for additional approvals and processing. The Central Bureau of Construction will coordinate obtaining these approvals. The Central Bureau of Construction will notify the District when the needed approvals are obtained so that the added work may proceed. The required FHWA prior approvals must be in writing (paper or electronic) and included on or attached to the BC 22 (or BC 2256).

The BC 2256 is primarily intended for use when prior approval is required but insufficient time exists to fully prepare a BC 22 before starting the approval process. If a BC 2256 is used to obtain the prior approval. A BC 22 must still be submitted as soon as practicable. The approved BC 2256 must accompany the BC 22 for processing as per the approval process described above.

Local Agency Contracts Awarded by the Department

The laws noted above apply to State-let local agency projects as well as State contracts. Residents on local agency projects must coordinate carefully with the districts to ensure that any changes made to a contract are within the limits prescribed by the laws. Delegation of approval authority will be discussed with the local agency Resident at the preconstruction conference.

Failure to follow the procedures in this memorandum could result in the loss of State or Federal-Aid participation in the cost of the project.

The district will obtain the local agency's approval of major changes and added work prior to approving a BC 22. This will afford the local agency the opportunity to determine that the necessary funding is available and that the completed project will be acceptable for maintenance.

Environmental Commitments

When a change on any project, regardless of project funding or highway system, modifies an environmental commitment or permit requirement, it will be necessary to have the District Environmental Coordinator, and the central Bureau of Design and Environment as appropriate, reevaluate the continuing validity of the environmental document. The reevaluation shall be coordinated, as necessary, with affected agencies to determine the acceptability of the proposed change and the need for mitigation, prior to implementing the change. When the reevaluation indicates a change in the impacts evaluated in an approved federal environmental document, prior approval of the Federal Highway Administration (FHWA) will also be required. Changes to permit requirements will be coordinated with the permitting agency.

Transportation Bulletin

The Procurement Code and the rules promulgated under this Code require that all contract changes for which the value of the extra work effort is greater than \$100,000 must be published in the Department's volume of the Illinois Procurement Bulletin. IDOT's volume is called the Notice of Contract Awards Transportation Bulletin. For germane contract changes, the publication of this information will be coordinated by the Central Bureau of Construction. However, in order to comply with the disclosure requirements and time limits of the law it is essential that the districts submit all the necessary information with the authorization in a timely manner.

The Central Bureau of Construction will submit for publication the following information from an authorization:

- Contract Number
- Project description. The description will be the one published in the Transportation Bulletin and will be obtained from the Bureau of Design & Environment after the contract is let.
- The name of the prime contractor.
- Description and reason for the change. This will be copied in its entirety directly from the BC 22 submitted by the district.
- Net Change shown on the BC 22.
- Determination statement that the change is germane, and the reason why it is germane. This will be copied from the BC 22 submitted by the district.

Procurement Policy Board

On July 30, 2004 legislation was enacted establishing the Procurement Policy Board (PPB). One of the functions of the PPB is to provide oversight of the procurement of construction activities. As a result, all Authorizations resulting in an increase to the contract greater than \$100,000 require the review and waiver from the PPB. The BC 24 (Request for Procurement Policy Board Waiver) is to be submitted to the Central Bureau of Construction to provide the information in the format agreed to by the PPB.

Change Orders require a waiver prior to beginning the work. Change Orders include plan omissions, design changes, acceleration and other germane additions for which no provision is included in the original contract. (Category Codes 9, 19, 28 and 30)

Contract Adjustments do not require a waiver prior to beginning the work. Contract Adjustments, which would include balancing, incentives and other additions for which both the work and the method of payment are included in the contract as well as additions for missing pay items where the work was included in the plans, plan errors, plan quantity errors and differing sight conditions. (Category Codes 1, 3, 12, 16, 22, 24, 26, 29, and 85)

Authorizations resulting in a net change of \$100,000 or less, regardless of Category Code are not required to be submitted to the PPB.

Authorizations with the Category Codes 33 may or may not be considered Change Orders. These Authorizations should be examined on a case by case basis.

On Local Agency projects, Category Code 33, the Local Agency will be responsible for making the determination of a Change Order . If the determination is not readily apparent, consult the District Office or Central Bureau of Construction.

When determination is made that an Authorization (BC 22) or Prior Approval (BC 2256) will be in excess of \$100,000, the Resident Engineer, District Office, or Local Agency will submit the BC 24 to the Central Bureau of Construction. CMMS and ICORS users can transmit the information electronically. For non-CMMS / non-ICORS contracts, the BC 24 form can be emailed to DOT.PPBW@illinois.gov or faxed to 217-524-4922.

The information will be published in the Transportation Bulletin and then reviewed by the PPB. See http://apps.dot.illinois.gov/changeorder/ for the PPB waiver status. A copy of the waiver documentation should be retained in the Resident's file.

Additionally, notification of a waiver may be sent by e-mail to select District personnel. The Districts are responsible for supplying a list of e-mail recipients to the Central Bureau of Construction and keeping the list current.

The process for approving Authorization of Contract Changes (BC 22) or Prior Approval Authorizations (BC 2256) which are Major Changes or require central office approvals remains the same. The IDOT approval for these BC 22's (or BC 2256's) can be processed concurrently with the submittal for PPB review; however, the work for BC 22's (or BC 2256's) considered Change Orders cannot begin until the PPB has granted a waiver. For this reason, timely submission of the BC 24 is critical to minimizing delay to the contract. A copy of the submitted BC 24 should be attached to the BC 22 (or BC 2256). If a waiver is received from the PPB prior to the BC 22 (or BC 2256) being submitted to the Central Bureau of Construction, the waiver should be attached to the BC 22 (or BC 2256).

Contract Renewals

For contracts containing provisions for a renewal, the following procedures apply. (Please note the terminology is "renewal" and not "extension".)

Notify the contractor in writing of the Department's desire to renew the contract and have the Contractor concur in writing.

Obtain the Contractor's signature on the BC100 (Bureau of Construction Contract Renewal Form) prior to the original contract ending date and in accordance with the contract renewal special provision.

Submit the BC 24 for the PPB review. Procurement law requires the PPB waiver be requested within 10 days of the Department electing to exercise its option to renew the contract. In the Reason for Extra Work section of the BC 24 note this is a contract renewal. For example, "This is renewal 1 of 1 as provided for in the contract."

Submit the BC 100, BC 22, and PPB waiver to the Central Bureau of Construction. The Central Bureau of Construction will obtain the required central office approvals, submit the package to the Comptroller, and inform the District when required approvals have been granted.

Submittal of BC 22 - Authorization of Contract Changes

All contract pay item quantity changes must be submitted to the Central Bureau of Construction on form BC 22, Authorization of Contract Changes. The submittal should include Regional Engineer's (or their designee's) approval.

The guidelines for including line item changes on an authorization (BC 22) are as follows:

 To the extent practical, submit a separate BC 22 for each extra work effort. This is primarily important for major changes or when the value of the extra work effort exceeds \$100,000, or has some possibility of exceeding \$100,000 on future authorizations.

If subsequent authorizations (BC 22's) are needed to adjust the quantities involved in the extra work effort, those authorizations should use the same Authorization Number as the original and assign a sequential Authorization Letter to the subsequent authorizations. For example, if the items related to the original authorization are submitted on Authorization Number 22, then later authorizations for the same change order should be numbered and lettered as 22A, 22B, etc. The explanation on these subsequent authorizations will include the cumulative total of this work effort. (Note that subsequent line items used to balance previously submitted force account or agreed unit price extra work pay items should be designated with the same category code as the original submittal of the line items.)

- Small Purchases to be paid under an existing contract are to be submitted on a separate BC 22, since the determination statement will be different from ordinary, germane contract changes.
- Contract changes which represent balancing of quantities can be submitted together on a single authorization. The description of the changes can be, simply, "Balancing final quantities."

 New pay items for force accounts or agreed unit prices representing individual work efforts (not part of another work effort) can be submitted together, or included on a balancing authorization. If it is known that the total value of the work represented by each item is less than \$100,000, and the net value of the BC 22 is less than \$100,000.

Both the Procurement Code and the Finance Code forbid line item changes to be artificially divided among separate authorizations so as to avoid any of the requirements of the laws.

Documentation

Written Direction vs. Written Approval:

As stated in Article 109.04, Payment for Extra Work, all extra work must be directed in writing to the contractor. However, the written directive to the contractor to proceed with the extra work may or may not be the same document as the written approval of the extra work. For example, approval of the work may be documented on form BC 22, but the directive to the contractor may be accomplished by an e-mail from the Resident.

The BC 22 may be used as both the written approval of the work and the written directive to proceed only when it has been fully approved before the work is to be started. Do not forward a copy of the BC 22 to the contractor unless it includes the approval of a person with sufficient authority to approve the change.

For minor changes, the BC 22 may be considered the written approval when it is approved by, or for, the Regional Engineer, as long as this approval occurs before the contractor is directed to perform the work. In this case, the district may use some other form to direct the contractor to proceed with the work.

To avoid ambiguities that could result in contract disputes, the written directive to the contractor must provide a clear description of the work to be performed, including any reference to any applicable specifications by which the work is expected to be performed. The method of payment should also be determined at that time.

Description and Reason for the Change:

There must be an explanation for each item, or group of items, which someone not familiar with the project can understand. Brief explanations such as "balancing" and "change of fund key" are acceptable. If extra work is directed by a member of the district staff, the individual's name and title should be included with the explanation. For example, "Supervising Field Engineer Bill Smith directed that the culvert under the field entrance left of Station 09 + 010 be lowered to prevent the ponding of water in the ditch."

On subsequent BC 22's for an extra work effort (e.g. #11A, 11B, etc.), the description and reason will be repeated on each authorization.

Keep in mind that for authorizations to be published in the Transportation Procurement Bulletin, the description and reason will be published but not the actual line items. Make sure the written description is understandable when read separate from the actual BC 22.

Determination Statement:

A determination statement must be included on all documents approving extra work efforts. The determination statement must also be included on the BC 22 (whether or not a separate document was used to document approval of the work).

For germane (ordinary) contract changes, the determination must state that the change is germane, and explain why the change is germane.

The portion of the determination statement that is required by the Criminal Code for germane changes is: "The undersigned determine that the change is germane to the original contract as signed."

The Procurement Code goes a step further and requires that under certain conditions a determination be made as to why the change is germane. The following typical germaneness determinations can be used, when appropriate. However, actual circumstances may require greater detail.

- 1. The undersigned determine that the change is germane to the original contract as signed, because provision for this work is included in the original contract.
- The undersigned determine that the change is germane to the original contract as signed, because work of this type was included in the original contract, and the additional efforts of this work are within the intent of the contract and Department policy.
- 3. The undersigned determine that the change is germane to the original contract as signed, because the change represents an adjustment required by the contract, based on unpredictable developments in the work.
- 4. The undersigned determine that the change is germane to the original contract as signed, because the change in design is necessary to fulfill the original intent of the contract.
- 5. The undersigned determine that the change is germane to the original contract as signed. See attached sheet for additional explanation of germaneness.

For Small Purchases paid under an existing contract, the following determination statement is to be used:

6. Small Purchase procured in accordance with Section 6.100(b) of the Department Procurement Rules. The undersigned determine that this change is in the best interest of the State and is authorized by law.

The germaneness determination specified for a contract change should be consistent between the BC 24 (when required), the BC 2256 (when used), the initial BC 22, and subsequent BC 22's (when applicable).

It is not permissible to simply place a germaneness code (e.g. G1, G2, etc.) on the BC 22. A determination statement must be used.

Miscellaneous BC 22 Documentation:

The following miscellaneous information must be noted on the BC 22 submitted to the central office:

Type of Authorization: Contract Adjustment, Change Order.

- Major vs. Minor: Indicate whether the contract changes included on the BC 22 represent a major or a minor change.
- FHWA Oversight: On Federal-aid projects, indicate if the project is classified as a PoDI / PoCI.
- Project Location: This is intended to be a brief description of the entire project, for the benefit of the reader unfamiliar with the project. Specific location descriptions related to the included contract changes will be included with the Reason and Description, as appropriate.
- Resident/Supervisor: The name of the Resident and the IDOT Supervising Field Engineer should be noted. Typically, both individuals should approve the authorization.
- Designer: It should be noted whether the plans related to the changes included were prepared by the Department ("In House") or by a consultant. If prepared by a consultant, then the name of the consultant will also be noted.

Supporting Documentation:

When additional documentation is required to support a contract change, it should be submitted with the BC 22. The documents should reference the specific contract change by including the contract number and the authorization number on each document.

Errors and Omissions:

If the contract plans were prepared by a consultant and the contract change is categorized as an error or omission, a copy of the Errors and Omissions memo from the District Bureau of Project Implementation to the District Bureau of Program Development must be included with the authorization. Refer to Chapter 8, Section 8-4.01, Damage Due to Consultant Errors and/or Omissions, of the Design and Environment Manual for proper documentation procedures of contract changes caused by an error or omission.

Agreed Unit Prices:

Agreed unit prices require the District Estimator's review and written approval. An authorization that contains agreed unit prices will have the District Estimator's written approval or comments attached.

The contractor's written request for an Agreed Unit Price (AUP) must contain a written description of the work, quantity, and price. In order to expedite the review of an AUP request by the District Estimator, if higher than historical bid prices for a given type of work effort are requested by the contractor, justification for the higher costs (e.g., lower production rates due to confined areas, small quantities which may have higher unit prices, limited availability of material, etc.) should be clearly documented and provided in the contractor's request. Other justification that would assist the District Estimator in evaluating requests could also include documented material costs such as actual price quotes from a material supplier, a contractor's unit cost worksheet, associated mobilization costs, an "estimated" force account bill, documented production rates for the type of work specified, or any other non-typical situation which would substantiate the higher costs.

The District Estimator must document whether the approval was based on an estimates worksheet, historical bid prices, concurrent similar projects or some other basis in

accordance with the Bureau of Design and Environment guidelines. A copy of the documentation should be submitted with the authorization.

FAS ID's and CCS Codes (a.k.a. Fund Keys):

State and federal accounting procedures require that all contract changes be posted to the correct FAS ID (Fund-Area-System) and CCS Code (County-Construction Type-Safety Type). (The FAS ID / CCS Code combination is known as a Fund Key in CMMS). The FAS ID and CCS Code of each line item must be identified. All changes for the same combination of FAS ID and CCS Code must be grouped together on the BC 22. If CMMS is used to create the BC 22, this grouping is performed automatically.

Eligibility of Roadway Maintenance Work for Federal Funding:

The broad category of work called Roadway Maintenance has, in the past, included various sub-categories of work, some eligible for federal funding and some not eligible for federal funding. The following presents a breakdown of what types of roadway maintenance work are eligible for federal funding and what types are not eligible for federal funding:

- A. Types of Roadway Maintenance Work that are Eligible for Federal Funding:
 - Patching, overlays, and repairs of roadway to accommodate staged traffic configuration;
 - Placement, repairs and maintenance of permanent guardrail damaged within
 construction zones when the temporary lane configurations expose the guardrail
 to increased risk of damage (e.g., traffic staged closer to guardrail or other
 safety appurtenance than will be in final configuration) and no accident report
 exists allowing the Department to recover costs through the Motorist Caused
 Highway Damage (MCHD) program (presuming every effort has been made to
 pursue reimbursement for any damage to guardrail from parties responsible for
 the damage).
- B. Types of Roadway Maintenance Work that are normally not Eligible for Federal Funding:
 - Permanent Safety Appurtenances (Guardrail, drums, attenuators, signs, etc.) damaged when traffic configuration and appurtenance are in their permanent configuration whether before, during or after project construction activities;
 - Culvert cleaning;
 - Snow plowing;
 - Mowing;

Work that is eligible for federal funding and work that is not eligible for federal funding are to be broken out into separate authorizations. Work efforts not eligible for federal funding/participation under the descriptions above are to be separated into 07A fund keys. The description of work included on an authorization for work associated with roadway maintenance should be detailed sufficiently to clearly specify which type of roadway maintenance work is being performed in order to assure eligibility for federal funding.

Force Account:

When balancing force account work a recap should be provided as shown below:

Authorization #11 Authorization #11A Total	Estimate Estimate	\$20,000.00 <u>32,000.00</u> \$52,000.00
Actual Billing		\$51,959.03
Total Deduction this Authorization #11B		(\$40.97)

Force account billings and daily reports are not to be submitted with the authorization and will be retained in the district's files.

New Pay Items and Special Item Numbers:

When new pay items are added to the contract, the districts will use the following format for creating the pay item number:

- For force accounts, the first three characters of the number should be "FRC". The second three digits will correspond to the authorization number on which the item was first submitted. The last two digits will normally be "00", but if more than one new pay item is submitted on the same authorization, then change the last two digits (e.g. "0A", "0B", etc., or "01", 02", etc.) to distinguish the additional items.
- The unit of measure for force account items is DOLLAR (\$), and the unit price is \$1.00. The value of the force account is given in the quantity of the force account pay item.
- For agreed unit price items, the first two characters should be "X9" and the third character will be the district number. The remaining characters should follow the same scheme as described above for new force account items.

For example, the pay item number "FRC01000" identifies a force account that was first submitted on authorization number 10. "X9100401" identifies a new agreed unit price item from District 1 that was the second new agreed unit price pay item number submitted on authorization number 4.

In addition, the Department is tracking historical data on certain pay items that may be added to contracts. A list of these Special Pay Item Numbers is included at the end of this memorandum (see Attachment 3). If any of these types of work are added to a contract, the Resident will use the appropriate special pay item number from this list.

The list is organized by change category, to show which change category should be indicated when the item is added to the contract. Note that some of the special pay items are rarely used anymore, but are maintained in the list for historical reasons.

All the special item numbers begin with "XXX". If the same special item number is needed more than once on a contract, the last two digits of the item number can be changed for the additional occurrences, such as "0A", "0B", etc., or "01", "02".

Handwritten Copies:

On projects where IT resources are not available, Residents should hand write, in ink, a legible <u>BC 22</u>, and submit it to the district office for typing. The <u>BC 22</u> submitted to the Central Bureau of Construction must be typed.

Tim Kell, P.E.

Engineer of Construction

Jim Kell

Authorization Chart

		Authorization	BC 24 Prior	Germane
Code	New Category	Туре	Approval	Reason*
01	Balance Final Field Measurements	Adjustment	No	1
03	Allowable Contingencies	Adjustment	No	1
09	Design Change	Change Order	Yes	4
12	Utility Cause Change/Addition	Adjustment	No	3
16	Specification Performance Adjustment	Adjustment	No	1
19	Contract Acceleration	Change Order	Yes	2
22	Differing Site Condition	Adjustment	No	3
24	Contract Administration	Adjustment	No	1
26	Highway Plan Quant Omission or Error	Adjustment	No	1
28	Highway Design Engineering Error	Change Order	Yes	4
29	Bridge Plan Error or Omission	Adjustment	No	1 or 4
30	Construction Engineering Error	Change Order	Yes	5
33	Local Agency Project	***	***	**
85	Miscellaneous	Adjustment	No	**

Authorizations \$100,000 or Less, Regardless of Type, Do Not Require a BC 24 All Authorizations > \$100,000, Regardless of Type, require a BC 24

- * Most common reason. Could vary based on individual circumstances.
- ** Could be any of the 5 reasons
- *** Could be either

Change Category Descriptions

Code Category

01 Balance Final Field Measurements

Changes needed to account for the difference between estimated plan quantities and final, asbuilt quantities, when the work is built to the lines and grades shown on the plans. The Resident should use reasonable judgment whether an adjustment is within the expected tolerance for the accuracy of plan quantities.

This category also includes bookkeeping changes and maximum payment adjustments.

Note that this category does not include balancing changes for extra work items or quantities since the total cost of the extra work effort should be designated under the same, appropriate category code.

Changes in this category are always considered germane since they are a specified adjustment of pay quantities to perform the specified work. Contract changes of this type do not require additional written direction to the contractor prior to the start of the work.

03 Allowable Contingencies

These are "built-in" changes that are required by the specifications or state-wide changes in department policy based on the type of work involved in the contract or conditions found at the job site. Generally, changes in this category are work efforts called for in the contract but specified to be paid for as extra work, or they are planned contingencies, that is, work efforts that depend on the actual field conditions which could not be known at the time of design.

Examples include accident cleanup, anti-strip additive, repairing water main breaks, water main or service breaks, temporary drainage facilities, mowing prior to final inspection, additional cofferdams, cofferdam inspection, cofferdam excavation, storage of structural steel, pile splices, replacing damaged pipe, repairing state-owned traffic signal control equipment, additional flaggers or traffic control devices, replacing temporary striping, repair traffic barrier terminals or sand impact attenuators, railroad flaggers, pavement cleaning, temporary access, blading earth shoulders (adjacent to resurfacing), preparing or repairing existing base, covering CRCP patches, preservation of stone markers and survey monuments, installation and electricity charges for traffic signal and lighting service installations, repairing slope failures, excess field office telephone charges, samples for destructive testing, additional erosion control devices, traffic control price adjustments, investigation and cleanup of hazardous or controlled waste, and adjustments in contract unit prices as provided in the contract.

Changes in this category are most always germane to the contract, since provision for the work is included in the specifications. Germaneness of this type of change would be questionable, though, if the cost of the change was grossly disproportionate to the value of the original contract.

09 Design Change

This category includes all changes in the specifications or design that are not specified in another category without regard as to why they were initiated or who initiated them. Care must be taken to determine the germaneness of any design change.

12 Utility Caused Change/Addition

Compensation to the contractor for compensable delay damages caused by utilities, locating utilities, as well as changes in the design made primarily to accommodate or avoid utilities within the right-of-way.

Note that this category does not necessarily include miscellaneous bills paid in accordance with Article 109.05. Such bills should be included under category 03, if more appropriate.

Contract changes in this category are considered germane contract adjustments, insofar as the changes are provided for in the contract.

16 Specification Performance Adjustment

This category includes adjustments or credits to the contract as result of deficient work or materials accepted by the Department, assessment of liquidated damages, incentive/disincentive adjustments, thickness and smoothness adjustments, traffic control deficiency deductions and erosion control deficiency deductions.

Note that most of these types of adjustments have special pay item codes (XXX____) associated with them.

These adjustments are specifically provided for in the contract and are, therefore, considered germane contract adjustments. Since these adjustments must occur after the work is performed, the requirement for prior written approval does not apply to this type of change.

19 Contract Acceleration

Adjustments made to the contract for the purpose of accelerating the contractor's progress in the work. Examples include pay for Premium Time, High-Early Cement, and Wintertime Concrete Protection.

22 Differing Site Condition

Compensation to the contractor for additional costs incurred when subsurface or latent physical conditions are encountered in the project, in accordance with Art. 104.03.

24 Contract Administration

Any costs added to the contract as a direct result of a contract claim settlement.

Note that the Contract Acceleration category should be used for an item such as Premium Time, if the acceleration item is not an explicit part of the formal claim.

All additions and deductions in pay items or quantities, including the actual value engineering incentive payment, as a result of the acceptance of a value engineering proposal from the contractor.

All other changes related to state costs for administering the contract. Examples include samples for destructive testing (such as for bearing pads), contractor furnished equipment and Partnering,

Any costs in this category that are provided for in the contract are germane contract adjustments.

26 Highway Plan Quantity Omission or Error

Changes in plan quantity due to significant discrepancy between plan quantity and the as-built quantity with no change in the intended scope of work shown on the plans, as well as changes for a pay item that was not include in the plans, but for which the work was called for in the plans with the intention of paying for such work as a separate pay item. This category does not include errors in bridge plans.

Design errors in this category are not a change to the intended design but include costs that, had the error not been made, would have been included in the awarded contract amount.

Changes due to account for plan quantity errors are generally considered germane contract adjustments, unless the error is so large that the additional quantity changes the nature of the work or could be considered under a separate contract.

28 Highway Design Engineering Error

Changes in pay items or quantities resulting from an inappropriate design, given field conditions that were known or should have been known at the time the plans were being prepared. This category may include resolution of commitments made during the planning and design of the project, if the resolution was not adequately addressed in the plans. This category does not include errors in bridge plans.

Design errors in this category involve costs that should not have been paid had the original plans been correctly designed.

Changes due to design errors require special consideration, as some design errors changes could change the scope of the contract and would not, therefore, be considered germane.

29 Bridge Plan Error or Omission

Any changes resulting from an error in the bridge plans.

Note that a change is categorized as an error only if the issue involving the change was something that the designer should have known about, was within the scope of the design, and should have addressed in the plans. This category does not include errors or omissions in the highway plans.

Changes due to design errors require special consideration, as some design errors changes could change the scope of the contract and would not, therefore, be considered germane.

30 Construction Engineering Error

Additional compensation to the contractor due to errors in layout or construction within the responsibility of the department. This category includes construction errors by both in-house staff and consultant construction staff.

Work in this category is generally considered germane to the contract, since the extra cost is needed to restore the work to what was intended by the contract. This work would be considered a change order.

33 Local Agency Project

All changes on a local agency project can be grouped under this category. The other categories are intended to identify changes on State projects.

In regards to the germaneness or classification (contract adjustment vs. operational/non-operational change order) of the change, refer to the discussions noted under the appropriate category.

85 Miscellaneous

Changes not included in any other category above. (It is intended that this category be used rarely, if at all.)

Special Pay Item Numbers

Category	Pay Item Nbr	Special Item	Typical Units
16	XXX00100	Failure to Open Lanes to Traffic	DOLLAR
03	XXX02100	Railroad Flaggers	DOLLAR
03	XXX03100	Traffic Control Price Adjustments (per	EACH, L SUM, DOLLAR
		contract specifications)	
03	XXX03200	Antistrip Additive	DOLLAR
03	XXX04000	Mentor Protégé Reimbursement	DOLLAR
03	XXX05000	CCDD Testing	DOLLAR
03	XXX05100	CCDD Extra Costs	DOLLAR
03	XXX15000	Pay Items Subject to RACIF	DOLLAR
85	XXX06000	PLA Reporting	DOLLAR
16	XXX16000	Traffic Control Deficiency	CAL DAY
16	XXX16100	Credit Non-Compliant Work	DOLLAR
16	XXX16200	Credit Non-Compliant Material	DOLLAR
16	XXX16300	Erosion Control Deficiency	CAL DAY
16	XXX16400	Credit Specification Non-Compliance	DOLLAR
16	XXX16500	DBE Goal Not Met	DOLLAR
16	XXX16700	Idling Deficiency	CAL DAY
16	XXX16800	Ultra Low Sulfur Diesel Deficiency	CAL DAY
16	XXX16900	Diesel Retrofit Deficiency	CAL DAY
16	XXX17100	Liquidated Damages	CAL DAY
16 16	XXX18100	Incentive Payment	DOLLAR
16 16	XXX18200 XXX18300	Disincentive Deduction	DOLLAR
16		Contract Compl Incentive	CAL DAY
16 16	XXX18400	Contract Compl Disincentive Lane Rental Incentive	CAL DAY
16	XXX18500 XXX18600	Lane Rental Disincentive	CAL DAY CAL DAY
19	XXX19100	Acceleration	DOLLAR
16	XXX19100 XXX19500	Warranty Incentive	DOLLAR
16	XXX19500 XXX19600	Warranty Disincentive	DOLLAR
16	XXX19000 XXX19700	PFP Incentive	SQ YD, SQ M, DOLLAR
16	XXX19800	PFP Disincentive	SQ YD, SQ M, DOLLAR
16	XXX19900	PFP Resolutions Testing	DOLLAR
16	XXX20000	PFP Credit Non-Compliant Material	DOLLAR
16	XXX201**	Thick Dis PCC	SQ YD, SQ M
16	XXX202**	Thick Inc PCC	SQ YD, SQ M
16	XXX203**	Thick Dis FD HMA	SQ YD, SQ M
16	XXX204**	Thick Inc FD HMA	SQ YD, SQ M
16	XXX211**	Smooth Inc PCC	SQ YD, SQ M, DOLLAR
16	XXX212**	Smooth Dis PCC	SQ YD, SQ M, DOLLAR
16	XXX213**	Smooth Inc FD HMA	SQ YD, SQ M, DOLLAR
16	XXX214**	Smooth Dis FD HMA	SQ YD, SQ M, DOLLAR
16	XXX21500	Surface Variations HMA SC 1T	EACH
16	XXX21600	Surface Variations HMA SC 2T	EACH
24	XXX22000	Utility Delays	DOLLAR
24	XXX22500	Railroad Delays	DOLLAR
24	XXX23000	Claim Settlement	DOLLAR
24	XXX24500	Contractor Furnished Vehicles	DOLLAR
24	XXX25000	Value Engineering Incentive	DOLLAR
16 16	XXX26100	QCP Disincentive	DOLLAR
16 16	XXX26200	Longitudinal Joint Density Deduction	DOLLAR
16	XXX26300 XXX26400	Dust AC Deduction QCP Credit Non-Compliant Material	DOLLAR DOLLAR
03	XXX27000	Speed Display Trailer	DOLLAR
03	XXX27000 XXX27100	Truck Mounted Attenuator	DOLLAR
85	XXX27100 XXX28000	Project Shutdown Costs	DOLLAR
03	XXX35000	Traf Cont Standard Adj (changes to the	DOLLAR
35	70.00000	standard)	DOLL III
03	XXX99000	Fuel Price Adjustment Increase	DOLLAR
03	XXX99100	Fuel Price Adjustment Decrease	DOLLAR
03	XXX99300	Bituminous Price Adjustment Increase	DOLLAR
03	XXX99400	Bituminous Price Adjustment Decrease	DOLLAR
03	XXX99500	Addl RR Insurance Reqt	DOLLAR
03	XXX99600	Steel Price Adjustment Increase	DOLLAR
03	XXX99700	Steel Price Adjustment Decrease	DOLLAR

^{**} For Pavement Thickness Incentive/Disincentive and Pavement Smoothness Incentive/Disincentive Items: Include the actual pay item description in the Special Item description. The description must be no longer than 22 characters and spaces; abbreviate where necessary. If more than one pay item falls within the same Special Item number, the last two digits should be changed (i.e. XXX20100, XXX20101, XXX20102). Do not delete the original pay item. The unit price for the Special Item will only reflect the incentive or disincentive.



Request for Procurement Policy Board Waiver



Print Form Reset Form Contract Number District Letting Date Route County Project Number Job Number Section Number Date Authorization Number Project Description Contractor Awarded Contract Value Authorization Amount Category Code Reason for Extra Work Determination of Germaneness: The undersigned determined that the change is germane to the original contract as signed, because provision for this work is included. in the original contract. ■ The undersigned determined that the change is germane to the original contract as signed, because work of this type was included in the original contract, and the additional efforts of this work are within the intent of the contract and Department policy. The undersigned determined that the change is germane to the original contract as signed, because the change represents an adjustment required by the contract, based on unpredictable developments in the work. The undersigned determined that the change is germane to the original contract as signed, because the change in design is necessary to fulfill the original intent of the contract. The undersigned determined that the change is germane to the original contract as signed, because

Resident Name	

Date

Resident Signature



Authorization No.
Sheet 1 of 1

11

Authorization of Contract Changes

✓ Contrac	t Ad	instme		D-DI/D-C	Y#		Date:		08/07/2018	
Change	•	•	III.	PoDI/ PoC	;I		County: Section:			
☐ Consulta ✓ InHouse				☐ Major Cha ✓ Minor Cha	U		Route District: Contract:	FAS 1522 & FAU 7092 05 70707		
Consulta	nt's	Nam	ne: N/A				Job No.: Project No.:		C9508807 STP-HSIP-000V(50)	
	: g cha	; I ange fr		TRYVIEW R IL e construction of	RD 61802- of the above				t is authorized and dire	
		pe or o	Pay Item			Quantity	Unit Price		Addition	Deduction
		1	S ID: LZ2ED0	01	1	CS Code 0190005				
78300200		01	RAISED REF PV	VT MK REM	EACH	37.000	15.0000	D	\$0.00	\$555.00
XXX03100	*	03	TRAF CONT PR	R ADJ 701201	DOLLAR	52.630	1.0000	A	\$52.63	\$0.00
XXX21600	*	16	SURF VAR HM	A SC 2T	EACH	11.000	-170.3000	A	(\$1,873.30)	\$0.00
		FA	S ID: M2E1U	01	CC	CCS Code 0190005				
X9500600		01	METAL POST T	ТҮ В	FOOT	26.000	30.3500	D	\$0.00	\$789.10
Amount of	Orig	inal Co	ontract: \$3,94	19,999.99			Totals:		(\$1,820.67)	\$1,344.10
Net Change	э То	Date:	\$48	8,180.04 Pe	ercent Chan	ge: 1.22%	Net Change:		-3,164.77	
Project Loc Description and Reasor	1	SE	S 45- RANTOUL - EE ATTACHED SH DCATIONS AND R	HEET FOR DES		- /	By the Depa	artmer	OF ILLINOIS at of Transportation	
Determinati			61) The undersigne				Randall S. Blank Matt Magalis, C			Date

Date Regional Engineer Supervisor: JASON R SMITH Supervisor Date Date **Engineer of Construction** Resident: M GUTTERRIDGE Director of Highways PI/Chief Engineer Date Resident Date **FHWA** Acceptable to Proceed: \square Yes \square No FHWA Participation: Yes

FHWA Representative

germane to the original contract as signed, because provision for this work is included in the original contract.

Print Date: 08/07/2018

Date

Phillip C. Kaufmann, Chief Counsel

Date

Date

Traffic Control Inspection Report

Illinois Department of Transportation

US 51 / Bsn 51 from Woodrig Rd to Country Acres Rd in Bloomington RAMP OPEN AMERD & KAMP OPEN AMERD STENS IN PLACE 10142 701411 2 91304M Report No. Description, Comments or Corrective Measures Recommended Standard(s) NEED A COME IN FRONT OF OPEN PATCHES. Utilized: FAP 730, FAP 322 FLAGGERS @ RAMPS (3) 07/14/12 Time Contract 70767 CONES 1156B, SPACINGS PROPER Rowe Construction Company Route FLACECER @ MILL @ BUTH RAMPS. Date Submitted by: Reviewed by: S Contractor describe: Location District McLean Location(s): NB DL & RAMPS QUEST TO WOODIZIG If yes, Effectiveness Evaluate: (G) Good, (F) Fair, (D) Deficient, (X) Does Not Apply ☐ Field Engineer ☒ Operations/Traffic Engineer County P P P × × P × ջ ⊠ $^{\lambda}$ (57-20,57-1)RS&56RS-3 Patching, Milling, Resurfacing, Guardrail, Striping Zes PD DATCHING 9/15/16 Night Visibility × × > \times \times \times × \times Do any previously reported discrepancies still exist? Est. Completion Date Placement Location/ Section P P P ☐ RE or RT ☐ Office ☐ Subcontractor × × P \times \geq William Parker, Jr. Condition P Yes Ф P P × × × \times File Field Contractor C-95-024-09 BSE 725 on File? and Changeable Sign and Device Hazard Marking Channelizing or Message Signs Comments on Arrow Board(s) Type of Work Traffic Signals other items: Barrier Wall Temporary Temporary Pavement Flagger(s) Markings Devices Lights RE/RT Control Traffic Signs **Appendix Page**

BSE 726 (Rev.04/13/15) Printed 6/14/2016



August 7, 2018

SUBJECT: Contract No. 61E32

Cook County

Section 14-00028-00-SW

Route FAU 1602 Project BR78-203

District 1

If you have questions, contact Contracts at Design & Environment at (217) 782-7806.

Davis Concrete Construction Company 11244 W. Manhattan-Monee Rd. Monee, IL 60449

Dear Contractor:

Approval was received on July 26, 2018 from Metra for the Railroad Protective Liability Insurance Policy No. RP008U418 you furnished in connection with the subject improvement.

The policy you furnished indicates that coverage expires April 6, 2019.

Very truly yours,

Jack A. Elston, P.E. Engineer of Design & Environment

By: Katharine L. Finn

Chief Contract Official

Katharine & Linn

KF/jv

cc: Anthony Quigley, Region 1, District 1 Magdalena Marinkovic, District 1

Design Environment File

Unit File

406.11 SURFACE TESTS

The Department uses a bump buggy or straightedge to check the surface smoothness of the new pavement overlay. See Figure 400-13.



Figure 400-13 — 16-FT STRAIGHTEDGE

406.14 BASIS OF PAYMENT

406.14-1 General (Tack Coat)

To accurately pay for tack coat material placed on the pavement surface, the quantity measured for payment will be the actual residual amount of asphalt applied. The volume of the cutback or emulsion used and any water added will not be the amount that is measured for payment. The residual amount of asphalt in the emulsion or cutback will be used for payment.

A test procedure has been developed to physically check the residual amount of asphalt applied to the pavement surface. For projects that contain at least 2000 tons (1815 metric tons) of HMA, the Inspector shall determine the residual amount of asphalt placed using the test procedure titled, "Determination of Residual Asphalt in Prime and Tack Coat Materials," which is Appendix B24 in the BMPR *Manual of Test Procedures for Materials*. If a copy of the *Manual* is not available in the Resident's field office, a copy of the test procedure can be obtained from the BMPR or IDOT's website.

The test shall be performed at least once per project for each type of surface being tacked for which at least 2000 tons (1815 metric tons) of HMA will be placed, preferably on the first day tack coat is placed on a given surface. More tests may be performed at the Resident's discretion. The Contractor may proceed with paving as soon as the tack fully breaks and before the test results are provided. However, test results should be obtained as quickly as possible.

This test is not intended to be the sole criteria used for acceptance of the work, but it is a tool for the Resident to evaluate the Contractor's performance. The residual rate of material placed will be calculated as described below based on truck weights.

If the test results and/or quantity calculations indicate that the residual amount of tack on the surface to be paved does not meet the specified amount, the tack may be considered unacceptable. However, research has shown that tack coat applied with a tolerance of plus or minus 0.01 lb./sq. ft. is adequate. Recognizing that precisely meeting the specified rate can be difficult, engineering judgment should be used to consider if unacceptable work performed is adequate to leave in place. In accordance with Article 105.03, the Department reserves the right to accept work that is in close conformity with the contract by a contract modification. The construction supervisor and BMPR should be consulted on how to address the situation. The Contractor shall make appropriate adjustments for further applications so that the correct amount of material is placed. Payment will be made by weight as described in Section 406.14-2.

406.14-2 Payment Procedures

The Inspector will need to know the following to properly calculate the amount of material for payment:

- The total weight of the material applied (This weight includes any additional water added to the emulsion). The actual percentage of residual asphalt in the emulsion or cutback as produced
- The amount of water added to the emulsion.

The pressure distributor shall be weighed before and after placement of the tack coat to determine the net amount of material placed. Any scale of adequate size and displaying a current Department of Agriculture sticker will be sufficient to perform the weighing.

The actual percentage of residual asphalt in the emulsion or cutback, as produced, will be indicated on the producer's Bill of Lading or attached Certificate of Analysis from the BMPR. The amount of additional water (if any) added to an emulsion will also be indicated on the Bill of Lading.

The amount of water added is necessary to calculate the percent of emulsion in the diluted emulsion mix. The Bill of Lading will show the amount of water that was added to a tanker of the emulsion from which the pressure distributor is loading out. For example, a pressure distributor may only have two tons of a diluted emulsion mix in its tank, but the tanker it loads out from will have much more. The amounts of emulsion and water on the Bill of Lading may far exceed the quantity delivered in a pressure distributor. Information provided in this fashion is appropriate because only the percentages of water and emulsion are necessary to calculate quantities for payment. Payment is based on weighing the amount of diluted emulsion placed from the pressure distributor.

Using the percentage of residual asphalt for the material used, the quantity of residual asphalt placed can then be calculated as shown in the following two examples.

406.14-3 <u>Example to Calculate Residual Amount of Asphalt from an Emulsion</u>

Known: Material used is an emulsion.

Percent of residual asphalt in the emulsion = 57% (from the producer's Bill of Lading or attached Certificate of Analysis)

Weight of pressure distributor before application of material = 35,000 lb

Weight of pressure distributor after application of material = 28,000 lb

Amount of water added (from Bill of Lading) = 2208 lb added to a tanker containing 8300 lb of the emulsion

Calculate the amount of residual asphalt for payment:

Net weight of material:

```
35,000 - 28,000 = 7000 lbs.
```

Percentage of emulsion in the pressure distributor:

```
8300 lb. + 2208 lb. = 10,508 lb. (total weight of diluted emulsion mix) 8300 lb./10,508 lb. = 79% (amount of emulsion in the pressure distributor)
```

Percent residual asphalt for payment:

```
7000 lb. \times 0.79 = 5530 lb. of emulsion
```

5530 lb. \times 0.57 = 3152 lb. of residual asphalt

3152 lb. represents the weight of actual residual asphalt that can be paid as Tack Coat

The provisions for maximum payment will apply to this quantity. For example, assume that the quantity ordered by the Resident for tack coat is 3100 lb (based on the area to be tacked and the appropriate residual rate):

Maximum payment = 3100 lb. \times 1.05 = 3255 lb.

Therefore, all 3152 lb. of residual asphalt placed can be paid for.

406.14-4 Example to Calculate Residual Amount of Asphalt from a Cut Back

Known: Material used is a cutback.

Percent of residual asphalt in the cutback = 60% (from the Bill of Lading or attached Certificate of Analysis)

Weight of pressure distributor before application of material = 35,000 lb.

Weight of pressure distributor after application of material = 29,750 lb.

Calculate the amount of residual asphalt for payment.

Net weight of material:

$$35,000 - 29,750 = 5250$$
 lb.

Percent residual asphalt for payment:

```
5250 lb. \times 0.60 = 3150 lb.
```

3150 lb. represents the weight of actual residual asphalt that can be paid as Tack Coat

The provisions for maximum payment will apply to this quantity. For example, assume that the quantity ordered by the Resident for tack coat is 3100 lb. (based on the area to be tacked and the appropriate residual rate):

Maximum payment = $3100 \times 1.05 = 3255$ lb.

The Method of Measurement for Bituminous Materials (Tack Coat) is located in Article 1032.02. The Article states that a weight ticket for each truck load shall be furnished to the Inspector. The truck referred to in this Article is the pressure distributor that is required to place the material. Tack to the project is in a large semi tanker, a tank at the Contractor's yard or from a tank at the producer's facility. Weight tickets are not needed for materials contained in these tanks. Only material that is delivered to the project in a pressure distributor requires weight tickets.

SECTION 407. HOT-MIX ASPHALT PAVEMENT (FULL DEPTH)

407.01 DESCRIPTION

The specifications for the construction of HMA (full depth) are essentially the same as that for the construction of binder and surface courses (see Section 406). The difference for a full-depth pavement is the construction of the pavement in multiple lifts with a maximum thickness for each lift.

Review the Construction Inspector's Checklist for HMA Pavement (Full Depth).

407.05 SUBGRADE

Check the subgrade to ensure that it is at the proper grade and cross section. The riding quality of the new pavement will depend largely on the smoothness of the grade on which it is placed. Check the grade on subgrades by stringline from grade stakes or level shots. Many problems with thin pavements and/or rough riding pavement are due to poor grade control.

PAYMENT CALCULATION FOR RESIDUAL AMOUNT OF ASPHALT FROM AN EMULSION

Calculations per Construction Manual CALC BY CONTRACT # 7/15/2015 70985 DGR CKD BY AOX 7|15|2015 Knowns: > material used is an emulsion > % of residual aphalt in the emulsion (from Bill of Lading) 0.57 > wt of distributor before application 35000 LB 28000 > wt of distributor after application LB > amount of water added (from Bill of Lading) 2208 D LB > added to a tanker with shown amount of emulsion 8300 **NET WEIGHT OF MATERIAL:** net wt of distributor before application = LB *35000* B net wt of distributor after application = LB 28000 NET WT OF MATERIAL = (B - C) = **7000** F PERCENT OF ORIGINAL EMULSION IN DISTRIBUTOR: TOTAL WT OF DILUTED EMULSION MIX = E + D = G 10508 G AMOUNT(%) OF ORIGINAL EMULSION IN DISTRIBUTOR = E/G = H0.790 **POUNDS OF RESIDUAL ASPHALT:** POUNDS OF EMULSION = FXH=I 5529 3152 POUNDS OF RESIDUAL ASPHALT = I X A = J (represents the amt of actual apshalt that can be paid as prime coat) LENGTH (MEASURED) 5175 WIDTH (MEASURED) FT 12 62100 SQ FT rate based on area / lbs of residual asphalt LB/SQ FT 0.0508 Z = J/MSPECIFIED RATE (ENTER RATE) LB/SQ FT 0.05 THEORETICAL AMOUNT OF ASPHALT = O O = M X N3105 LB **MAX PAY = 105 % X O = P** LB **3260** P (ALLOWABLE) If Delivered Residual (J) < Max Pay (P), then Pay Delivered Residual (J)

If Delivered Residual (J) > May Pay (P), then Pay Max Pay (P)

PAY QUANTITY = 3152 LB

VERIFICATION OF RESIDUAL ASPHALT APPLICATION RATE

CONTRACT # **70985**

PER APPENDIX B24 FROM MANUAL OF TEST PROCEDURES FOR MATERIALS

ONLY USE IF PROJECT HAS > 2000 TONS OF HMA

NOTE:

ONLY USED TO VERIFY THE RATE IS CORRECT. DO NOT USE FOR PAYMENT ADJUSTMENT

- 1) CUT 12 IN X 12 IN PIECE OF CARDBOARD; WEIGH CARDBOARD (TO NEAREST 0.1 GRAM)
- 2) PLACE CARDBOARD ON PAVEMENT AHEAD OF PRIME TRUCK, AND PRIME OVER CARDBOARD
- 3) TAKE CARDBOARD + PRIME TO OVEN AND DRY AT 230 ° ± 9° F
- 4) WEIGH DRY CARDBOARD + PRIME (TO NEAREST 0.1 GRAM)

WEIGHT OF CARDBOARD (NO PRIME) GRAMS 50.1 Q

WEIGHT OF CARDBOARD (WITH DRY PRIME) GRAMS 73.0 R

RESIDUAL ASPHALT APPLICATION RATE= S = R-Q /454 = LBS/SQ FT

LB/SQFT 0.0504 S

CALC BY	DATE
DGR	7/15/2015
CKD BY	DATE
AOK	7 15 2015

BILL OF LADING

Kane Asphalt 136 Crane Rd. Bartlett, IL

11954

Oitouration Contraction

sold to: Murphy Construction Delivered to: Schaumburg, IL

Truck No: 207 Driver: P. O'Hara

Material: SS-1 Residue 57.0%

Gross: 38508 lb

Tare 28000 lb 8,300 LB.-E Net Wt. 10,508 lb

2,208 LB.-W

Sp. Gr 1.01.

ALTERNATE METHOD

New % Residual Asphalt =

(Wt. Emulsion) x (% Residue)

(Wt. Emulsion) + (Wt. Added Water)

Pounds of Residual Asphalt Applied =

(New % Residual Asphalt) x (Wt. Applied)

| (Initial Wt. – Final Wt.)

New % Residual Asphalt =

(8,300) x (0.570)

(Wt. Emulsion) x (% Residue)

(Wt. Emulsion) + (Wt. Added Water)

(8,300 + 2,208)

Pounds of Residual Asphalt Applied =

(New % Residual Asphalt) x (Wt. Applied)

 $(0.4502) \times (31,200 - 21,420) = 4,403.2 \text{ lb}$

Initial Truck Wt. = 31,200 lbs Final Truck Wt. = 21,420 lbs