April 15, 2014

SUBJECT: FAI Route 70 (I-70)

Project ACNHPP-0070(401)

Section 3-5RS-3 Bond County Contract No. 76D21

Item No. 128, April 25, 2014 Letting

Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

- 1. Revised Schedule of Prices
- 2. Revised plans sheets No. (2, 3, 4, 5, 6, 9,11, 12 & 14)
- 3. Revised Table of Contents of the Special Provisions pages i & ii
- 4. Revised pages 4 & 11,12 & 13 of Special Provisions
- 5. Revised pages 40 & 41 of the Special Provisions
- 6. Added pages 97-102 to the Special Provisions

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P.E.

Acting Engineer of Design and Environment

By: Ted B. Walschleger, P. E.

Ted Jaluchya P.E.

Engineer of Project Management

cc: Jeffrey L. Keirn, Region 5, District 8; Tim Kell; D. Carl Puzey; Estimates

HM/kf

State Job # - C-98-061-13

County Name - BOND- -

Code - 5 - -

District - 8 - - Section Number - 3-5RS-3

Project Number

ACNHPP-0070/401/

*REVISED: APRIL 9, 2014

Route

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X4060110	BIT MATLS PR CT	POUND	101,141.000				
X5870015	BR DK CONCRETE SEALER	SQ FT	30,060.000				
X6350120	DELINEATOR REMOVAL	EACH	272.000				
*ADD X7010410	SPEED DISPLAY TRAILER	CAL MO	16.000				
Z0034105	MATL TRANSFER DEVICE	TON	34,012.000				
Z0040530	PIPE UNDERDRAIN REMOV	FOOT	72,002.000				
*ADD 20100110	TREE REMOV 6-15	UNIT	30.000				
20100210	TREE REMOV OVER 15	UNIT	452.000				
20100500	TREE REMOV ACRES	ACRE	9.500				
20200100	EARTH EXCAVATION	CU YD	2,142.000				
20400800	FURNISHED EXCAVATION	CU YD	2,733.000				
21400100	GRADING & SHAP DITCH	FOOT	1,885.000				
25000210	SEEDING CL 2A	ACRE	5.000				
25000400	NITROGEN FERT NUTR	POUND	405.000		-		
25000500	PHOSPHORUS FERT NUTR	POUND	405.000				

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Code - 5 - -

District - 8 - -

Section Number - 3-5RS-3

Project Number

ACNHPP-0070/401/

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Route

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
25000600	POTASSIUM FERT NUTR	POUND	405.000				
25100115	MULCH METHOD 2	ACRE	5.000				
28000250	TEMP EROS CONTR SEED	POUND	450.000				
28000305	TEMP DITCH CHECKS	FOOT	19.000				
28000500	INLET & PIPE PROTECT	EACH	2.000				
28100801	STONE DUMP RIP CL A1	TON	171.700				
31100910	SUB GRAN MAT A 12	SQ YD	5,520.000				
35501328	HMA BASE CSE 11	SQ YD	11,148.000				
40600982	HMA SURF REM BUTT JT	SQ YD	2,269.000				
40600990	TEMPORARY RAMP	SQ YD	2,377.000				
DEL 40603149	P HMA BC SMA N90	TON	17,465.000				
40603153	P HMA SC SMA N80	TON	16,458.000				
ADD 40603243	P HMA BC IL19.0FGN90	TON	17,465.000				
40800050	INCIDENTAL HMA SURF	TON	7.000				
44000157	HMA SURF REM 2	SQ YD	138,667.000				

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District - 8 - - Section Number - 3-5RS-3

Project Number
ACNHPP-0070/401/

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Route

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
44004250	PAVED SHLD REMOVAL	SQ YD	7,560.000				
44200547	CL A PATCH T4 9	SQ YD	5,520.000				
44200645	CL A PATCH T2 16	SQ YD	202.000				
44200646	CL A PATCH T3 16	SQ YD	18.000				
*ADD 44201043	CL B PATCH T2 16	SQ YD	32.000				
44201047	CL B PATCH T3 16	SQ YD	37.000				
*REV 44201299	DOWEL BARS 1 1/2	EACH	115.000				
44213000	PATCH REINFORCEMENT	SQ YD	5,741.000				
*REV 44213100	PAVEMENT FABRIC	SQ YD	69.000				
*REV 44213200	SAW CUTS	FOOT	9,836.000				
44213204	TIE BARS 3/4	EACH	1,035.000				
45100100	CRACK ROUTING (PAVT)	FOOT	192.000				
45200300		POUND	54.500				
48102100	AGG WEDGE SHLD TYPE B	TON	4,154.200				
48203029	HMA SHOULDERS 8	SQ YD	735.000				

State Job # - C-98-061-13

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Code - 5 - -

District - 8 - -

Section Number - 3-5RS-3

Project Number Route
ACNHPP-0070/401/ FAI 70

*REVISED: APRIL 9, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
48203100	HMA SHOULDERS	TON	10,444.000				
50800105	REINFORCEMENT BARS	POUND	1,066.000				
60100060	CONC HDWL FOR P DRAIN	EACH	144.000				
60100072	SHOULDER REM & REPL 5	FOOT	68,792.000				
60107700	PIPE UNDERDRAINS 6	FOOT	68,792.000				
60108200	PIPE UNDERDRAIN 6 SP	FOOT	2,755.000				
60600605	CONC CURB TB	FOOT	62.500				
63000001	SPBGR TY A 6FT POSTS	FOOT	8,275.000				
63100045	TRAF BAR TERM T2	EACH	14.000				
63100070	TRAF BAR TERM T5	EACH	1.000				
63100085	TRAF BAR TERM T6	EACH	4.000				
63100089	TRAF BAR TERM T6B	EACH	4.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	21.000				
63200310		FOOT	6,969.000				
63400105	GUARD POSTS	EACH	32.000				

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Section Number - 3-5RS-3

Project Number

ACNHPP-0070/401/

*REVISED: APRIL 9, 2014

Route

ltem Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
63500105	DELINEATORS	EACH	272.000				
64200116	SHOULDER RUM STRIP 16	FOOT	48,588.000				
*DEL 64300430	IMP ATTEN NRD TL2	EACH	6.000				
*ADD 64300450	IMP ATTEN NRD TL3	EACH	6.000				
67000400	ENGR FIELD OFFICE A	CAL MO	16.000				
67100100	MOBILIZATION	L SUM	1.000				
70100205	TRAF CONT-PROT 701401	EACH	2.000				
70100207	TRAF CONT-PROT 701402	EACH	6.000				
70100420	TRAF CONT-PROT 701411	EACH	4.000				
70100450	TRAF CONT-PROT 701201	L SUM	1.000				
70100825	TRAF CONT-PROT 701456	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	60.000				
70300100	SHORT TERM PAVT MKING	FOOT	9,238.000				
70300240	TEMP PVT MK LINE 6	FOOT	117,757.000				
70300250		FOOT	949.000				

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Code - 5 - -

District - 8 - -

Section Number - 3-5RS-3

Project Number Route
ACNHPP-0070/401/ FAI 70

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70301000	WORK ZONE PAVT MK REM	SQ FT	7,631.000				
70400100	TEMP CONC BARRIER	FOOT	3,138.000				
70400200	REL TEMP CONC BARRIER	FOOT	3,138.000				
70600340	IMP ATTN REL NRD TL2	EACH	6.000				
72000300	SIGN PANEL T3	SQ FT	947.500				
72400330	REMOV SIGN PANEL T3	SQ FT	906.750				
72700100	STR STL SIN SUP BA	POUND	6,494.700				
73000100	WOOD SIN SUPPORT	FOOT	34.000				
73400100	CONC FOUNDATION	CU YD	16.100				
73700100	REM GR MT SIN SUPPORT	EACH	12.000				
73700200	REM CONC FDN-GR MT	EACH	10.000				
78004200	PREF PL PM TB INL L&S	SQ FT	288.000				
78004230	PREF PL PM TB INL L6	FOOT	127,665.000				
78004240	PREF PL PM TB INL L8	FOOT	2,291.000				
78100100	RAISED REFL PAVT MKR	EACH	1,442.000				

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ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 76D21

State Job # - C-98-061-13

Project Number

Route

County Name - BOND- -

ACNHPP-0070/401/

FAI 70

Code - 5 - - District - 8 - -

Section Number - 3-5RS-3

*REVISED: APRIL 9, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78200410	GUARDRAIL MKR TYPE A	EACH	113.000				
78201000	TERMINAL MARKER - DA	EACH	21.000				
78300200	RAISED REF PVT MK REM	EACH	1,342.000				

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This Special Provision must be included in each subcontract agreement.

The Department of Transportation is requesting disclosure of information necessary to accomplish the statutory purpose as outlined under 23CFR part 230 and 41CFR part 60.4 and the Illinois Human Rights Act. Disclosure of this information is REQUIRED. Failure to comply with this special provision may result in the withholding of payments to the contractor, and/or cancellation, termination, or suspension of the contract in whole or part.

Compliance with this Special Provision shall be considered incidental to the cost of the contract and no additional compensation will be allowed for any costs incurred.

This Special Provision must be included in each subcontract agreement.

PEAK HOUR RESTRICTIONS

The Contractor shall have one lane open to traffic during peak hours in each direction along I-70, as shown in the plans. The Contractor shall not be permitted to conduct any type of operation that would impede the flow of traffic during peak hours. The Contractor shall be permitted to work through the weekends, except for those holiday weekends specified in Article 107.09.

Peak hours are defined as:

Westbound 6:00 am to 8:00 am Eastbound 3:00 pm to 6:00 pm

This peak hour restriction only applies to moving processes or localized work areas adjacent to the roadway. (This includes, but is not limited to, milling, paving, patching, shoulder work, pavement marking and guardrail replacement.)

Once the existing HMA overlay is milled, traffic cannot be returned to that area until new binder course is placed. No special payment will be made for TRAFFIC CONTROL, SPECIAL. It shall be included in the cost of TRAFFIC CONTROL AND PROTECTION 701401

EMBANKMENT

Revised November 1, 2006

Material which is proposed for use by the Contractor to be used for embankment construction must be inspected and approved by the District Geotechnical Engineer. In order to be approved for use as embankment material, it must meet all applicable requirements of Sections 202, 203, 204, 205, and 502 of the Standard Specifications and meet the following requirements:

1. It must fall in one of the following Highway Research Board Classifications: A-1, A-2, A-3, A-4, A-6, or A-7-6.

(8) Two-Line Capacity - Projects that have a second phone line through the provision of a 670.05 Engineer's Field Laboratory shall provide a single phone answering machine that services both lines.

Prior to the purchase of this item, the Contractor shall submit specifications for the proposed machine to the Engineer for his approval.

TRAFFIC CONTROL PLAN

Effective: July 12, 1993 Revised: May 12, 1997

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 "National Manual on Uniform Traffic Control Devices for Streets and Highways", Illinois Supplement to the National Manual of Uniform Traffic Control Devices, 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 for Road and Bridge Construction" and the following Highway Standards relating to traffic control:

701101	701106	701301	701306	701400	701401
701402	701406	701411	701421	701426	701428
701456	701901	704001	780001		

In addition, the following Special Provision(s) will also govern traffic control for this project:

Speed Indicator Sign
Traffic Control and Protection Standard 701501
Portable Changeable Message Sign
Construction and Maintenance Sign Supports

SPEED DISPLAY TRAILER (BDE)

Effective: April 2, 2014

Add the following to Article 701.15(I) of the Standard Specifications:

" (I) Speed Display Trailer. A speed display trailer shall be utilized on freeways and expressways as part of Highway Standard 701400. The trailer shall be placed on the right hand side of the roadway adjacent to, or within 100 ft (30 m) beyond, the first work zone speed limit sign.

Whenever the speed display trailer is not in use, it shall be considered non-operating equipment and shall be stored according to Article 701.11."

Add the following to Article 701.20 of the Standard Specifications:

(k) Speed Display Trailer will be paid for at the contract unit price per calendar month or fraction thereof for each trailer as SPEED DISPLAY TRAILER."

Add the following to Article 1106.02 of the Standard Specifications:

(o) Speed Display Trailer. The speed display trailer shall consist of a LED speed indicator display with self-contained, one-direction radar mounted on an orange seethrough trailer. The height of the display and radar shall be such that it will function and be visible when located behind concrete barrier.

The speed measurement shall be by radar and provide a minimum detection distance of 1000 ft (300 m). The radar shall have an accuracy of ±1 mile per hour.

The speed indicator display shall face approaching traffic and shall have a sign legend of "YOUR SPEED" immediately above or below the speed display. The digital speed display shall show two digits (00 to 99) in mph. The color of the changeable message legend shall be a yellow legend on a black background. The minimum height of the numerals shall be 18 in. (450 mm), and the nominal legibility distance shall be at least 750 ft (250 m).

The speed indicator display shall be equipped with a violation alert that flashes the displayed detected speed when the posted limit is exceeded. The speed indicator shall have a maximum speed cutoff. The display shall include automatic dimming for nighttime operation.

The speed indicator measurement and display functions shall be equipped with the power supply capable of providing 24 hours of uninterrupted service."

PORTABLE CHANGEABLE MESSAGE SIGN

This work shall be according to Section 701 and the following:

Each portable changeable message sign shall be equipped with a cellular – Ethernet/IP-based digital modem meeting the following specifications:

PHYSICAL CHARACTERISTICS

- Weight: < 1 lb.
- Size: 3" wide x 1.1" high x 5.1" long
- Status LEDs
- RF Primary Antenna Connector: 50 Ohm SMA
- RF Receive Diversity Antenna Connector: 50 Ohm SMA
- Ethernet 10/100 Mbps Interface: RJ-45 Connector
- RS-232: DB9 DCE (1200-230400 baud)

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot (meter) for GROOVING FOR RECESSED PAVEMENT MARKING of the groove width specified, and per square foot (square meter) for GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS.

The following shall only apply when preformed plastic pavement markings are to be recessed:

Add the following paragraph after the first paragraph of Article 780.07 of the Standard Specifications.

"The markings shall be capable of being applied in a grooved slot on new and existing portland cement concrete and HMA surfaces, by means of a pressure-sensitive, precoated adhesive, or liquid contact cement which shall be applied at the time of installation. A primer sealer shall be applied with a roller and shall cover and seal the entire bottom of the groove. The primer sealer shall be recommended by the manufacturer of the pavement marking material and shall be compatible with the material being used. The Contractor shall install the markings in the groove as soon as possible after the primer sealer cures according to the manufacturer's recommendations. The markings placed in the groove shall be rolled and tamped into the groove with a roller or tamper cart cut to fit the groove and loaded with or weighing at least 200 lb (90kg). Vehicle tires shall not be used for tamping. The Contractor shall roll and tamp the material with a minimum of 6 passes to prevent easy removal or peeling."

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HOT MIX ASPHALT - PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS - JOBSITE SAMPLING (BMPR)

Effective: April 4, 2008 Revised: December 1, 2013

<u>Description</u>. This special provision describes the procedures used for production, placement and payment for hot-mix asphalt (HMA). This special provision shall apply to all pay items as specified in the plans. This work shall be according to the Standard Specifications except as specified herein.

Delete Articles: 406.06(b)(1), 2nd paragraph (Temperature requirements)

406.06 (e), 3rd paragraph (Pavers speed requirements)

406.07 (Compaction)

1030.04, last two sentences of first paragraph (Mix design verification)

1030.05(a)(4, 5, 7, 8, 9, & 10)(QC/QA Documents)

1030.05(d)(2)a. (Plant Tests)

1030.05(d)(2)b. (Dust-to-Asphalt and Moisture Content)

1030.05(d)(2)d. (Small Tonnage) 1030.05(d)(2)f. (HMA Sampling) 1030.05(d)(3) (Required Field Tests)

1030.05(d)(4) (Control Limits) 1030.05(d)(5) (Control Charts)

1030.05(d)(6) (Corrective Action for Required Plant Tests) 1030.05(d)(7) (Corrective Action for Field Tests (Density))

1030.05(e) (Quality Assurance by the Engineer)

1030.05(f) (Acceptance by the Engineer)

1030.06(a), 3rd paragraph (Before start-up...) 1030.06(a), 7th paragraph (After an acceptable...)

1030.06(a), 8th paragraph (If a mixture...) 1030.06(a), 9th paragraph (A nuclear/core...)

Definitions.

- (a) Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.
- (b) Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.
- (c) Percent Within Limits (PWL): The percentage of material within the quality limits for a given quality characteristic.
- (d) Quality Characteristic: The characteristics that are evaluated by the Department for payment using PWL. The quality characteristics for this project are field Voids in the Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined Aggregates Bulk Specific Gravity (G_{sb}) from the mix design

- (e) Quality Level Analysis (QLA): QLA is a statistical procedure for estimating the amount of product within specification limits.
- (f) Sublot: A sublot for field VMA, and voids, will be 1000 tons (910 metric tons). If the quantity is less than 8000 tons, the sublot size will be adjusted to achieve a minimum of 8 tests. If the last sublot consists of less than 200 tons (180 metric tons), it will be combined with the previous sublot.
- (g) Density Testing Interval: The interval for density testing will be 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm). If a density testing interval is less than 200 ft (60 m), it will be combined with the previous test interval.
- (h) Lot: A lot consists of 8 sublots or 30 density intervals. If seven or less sublots or 19 or less density intervals remain at the end of production of a mixture, the test results for these sublots will be combined with the previous lot for evaluation of percent within limits and pay factors. Lots for mixture testing are independent of lots for density testing.
- (i) Density Test: A density test consists of a core taken at a random longitudinal and transverse offset within each density testing interval. The HMA maximum theoretical gravity (G_{mm}) will be based on the running average of four including the current day of production. Initial G_{mm} will be based on the average of the first four test results. The random transverse offset excludes the outer 1.0 ft (300 mm) from an unconfined edge. For confined edges, the random transverse offset excludes a distance from the outer edge equal to the lift thickness or a minimum of 4 in. (100 mm).
- (j) Unconfined Edge Density: The outer 1.0 foot of an unconfined edge will be excluded from the effective pavement width used for calculating random transverse density location. The unconfined edge density will be randomly selected within each ½ mile section for each unconfined edge. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4.0 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the core barrel shall be within 5.0 in. (125 mm) from the edge of pavement.)

<u>Pre-production Meeting</u>. The Engineer will schedule a pre-production meeting a minimum of seven calendar days prior to the start of production. The HMA QC Plan, test frequencies, random test locations, and responsibilities of all parties involved in testing and determining the PWL will be addressed. Personnel attending the meetings will include the following:

- (a) Resident Engineer
- (b) District Mixture Control Representative
- (c) QC Manager
- (d) Contractor Paving Superintendent
- (e) Any consultant involved in any part of the HMA sampling or testing on this project

<u>Quality Control (QC) by the Contractor</u>. The Contractor's quality control plan shall include the schedule of testing for both quality characteristics and non-quality characteristics required to control the product such as asphalt binder content and mixture gradation. The schedule shall include sample location. The minimum test frequency shall not be less than outlined in the Minimum Quality Control Sampling and Testing Requirements table below.

Table 1
Minimum Quality Control Sampling and Testing Requirements

Quality Characteristic	Minimum Test Frequency	Sampling Location
Mixture Gradation		
Binder Content	1/dov	nor OC Plan
G_{mm}	1/day	per QC Plan
G_{mb}		
Density	per QC plan	per QC Plan

The Contractor shall submit QC test results to the Engineer within 48 hours of the time of sampling.

<u>Initial Production Testing</u>. The Contractor shall split and test the first two samples with the Department for comparison purposes. The Contractor shall complete all tests and report all results to the Engineer within two working days of sampling. The Engineer will make Department test results of the initial production testing available to the Contractor within two working days from the receipt of the samples.

Quality Assurance (QA) by the Engineer. The Engineer will test each sublot for field VMA, voids, and dust/ac ratio; and each density interval for density to determine payment for each lot. A sublot shall begin once an acceptable test-strip has been completed and the AJMF has been determined. All Department testing will be performed in a qualified laboratory by personnel who have successfully completed the Department HMA Level I training.

<u>Voids, field VMA, and Dust/AC ratio</u>. For each sublot, the Engineer will determine the random tonnage for the sample and the Contractor shall be responsible for obtaining the sample according to the "PFP and QCP Hot-Mix Asphalt Random Jobsite Sampling" procedure. The Engineer will not disclose the random location of the sample until after the truck containing the random tonnage has been loaded and en-route to the project.

<u>Density</u>. The Engineer will identify the random locations for each density testing interval. The Contractor shall be responsible for obtaining the four inch cores within the same day and prior to opening to traffic unless otherwise approved by the Engineer according to the "PFP and QCP Random Density Procedure". The locations will not be disclosed to the Contractor until after final rolling. The cores shall be obtained under the supervision of the Engineer. All core holes shall be filled immediately upon completion of coring. All water shall be removed from the core holes prior to filling. All core holes shall be filled with a rapid hardening mortar or concrete which shall be mixed in a separate container prior to placement in the hole. Any depressions in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the lift thickness and replacement.

<u>Test Results</u>. The Department's test results for the first sublot, or density testing interval, of every lot will be available to the Contractor within three working days from the time the secured sample was delivered, by the Contractor, to the Department's Testing Facility or a location designated by the Engineer. Test results for a completed lot will be available to the Contractor within 10 working days from the time the secured sample from the last sublot or density testing interval was delivered to the Department's testing facility or a location designated by the Engineer.

The Engineer will maintain a complete record of all Department test results. Copies will be furnished upon request. The records will contain, at a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

<u>Dispute Resolution</u>. Dispute resolution testing will only be permitted when the Contractor submits their split sample test results prior to receiving Department split sample test results and: 1) the difference between the Contractor and Department split test results exceed the precision limits shown in Table 2 below; or 2) the Department's test results are outside the acceptable limits shown in Table 4. For density disputes, the Contractor shall use the Department's running average for G_{mm} when determining compliance with the Limits of Precision.

Table 2

Test Parameter	Limits of Precision
Voids	1.0 %
VMA	1.0%
Ratio - Dust / Asphalt Binder	0.2
Core Density	1.0 %

If dispute resolution is necessary, the Contractor shall submit a request in writing within four working days of receipt of the results of the quality index analysis for the lot. The Engineer will document receipt of the request. The Bureau of Materials and Physical Research (BMPR) laboratory will be used for dispute resolution testing.

Density cores for dispute resolution testing shall be taken at the same time as the random density core. The density core for dispute resolution testing shall be taken within 1 ft (300 mm) longitudinally of the random density core and at the same transverse offset. Density dispute resolution will replace original density test results.

If three or more consecutive mix sublots are contested, corresponding density results will be recalculated with the new $G_{\rm mm}$.

Test results from the dispute resolution testing will replace voids, VMA and Dust/AC results from the original quality assurance testing. The lot pay factor for the lot under dispute resolution will be recalculated. If the recalculated lot pay factor is less than or equal to the original lot pay factor, laboratory costs listed below will be borne by the Contractor.

Table 3

Test	Cost
Mix Testing	\$1000.00 / sublot
Core Density	\$300.00 / core

<u>Acceptance by the Engineer</u>. All of the Department's tests shall be within the acceptable limits listed below:

Table 4
Acceptable Limits

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Parameter	Acceptable Range
Field VMA	-1.0 - +3.0% ^{1/}
Voids	2.0 - 6.0%
Density:	
IL-19.0, IL-25.0,IL-9.5, IL-12.5	90.0 – 98.0%
IL-4.75, SMA	92.0 – 98.0%
Dust / AC Ratio	$0.4 - 1.6^{2/}$

1/ Based on minimum required VMA from mix design

2/ Does not apply to SMA

In addition, the PWL for any quality characteristic shall be 50 percent or above for any lot. No visible pavement distress shall be present such as, but not limited to, segregation, excessive coarse aggregate fracturing or flushing.

<u>Basis of Payment</u>. Payment will be based on the calculation of the Composite Pay Factor for each mix according to the "PFP Quality Level Analysis" document. Payment for full depth pavement will be based on the calculation of the Full Depth Pay Factor according to the "PFP Quality Level Analysis" document.

Additional Pay Adjustments. In addition to the Composite Pay Factor for each mix, monetary deductions will be made for dust/AC ratios and unconfined edge densities as shown in Tables 5 and 6 below.

Table 5
Dust / AC Pay Adjustment Table 1/

Range	Deduct / sublot
0.6 ≤ X ≤ 1.2	\$0
$0.5 \le X < 0.6$ or $1.2 < X \le 1.4$	\$1000
$0.4 \le X < 0.5$ or $1.4 < X \le 1.6$	\$3000
X < 0.4 or X > 1.6	Shall be removed and replaced

1/ Does not apply to SMA.

Table 6
Unconfined Edge Density Adjustment Table

Density	Deduct / 0.5 mile
≥ 90.0%	\$0
89.0% to 89.9%	\$1000
88.0% to 88.9%	\$3000
< 88.0%	Outer 1.0 foot will require remedial action acceptable to the Engineer