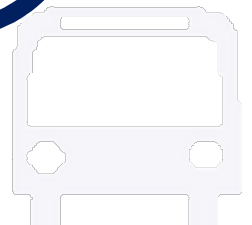
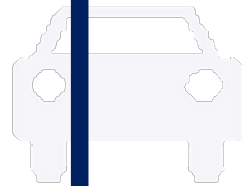


2020 HMA Updates

Nathan Awwad, PE
Asphalt Engineer
Office of Materials Management

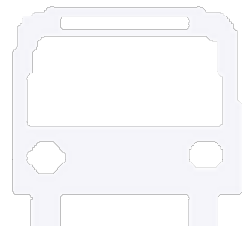
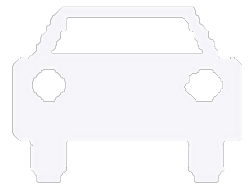
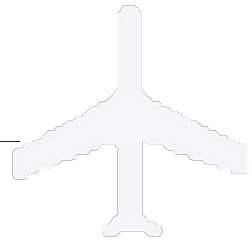
STATEWIDE Preseason HMA meeting



HMA Updates

Overview:

- Specifications
- ITM updates
- Directives
- DMF ENTRY
- HMA Pay Wizard



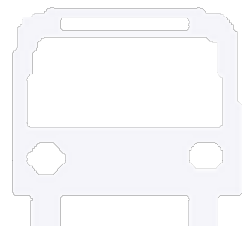
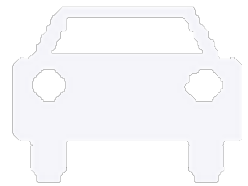
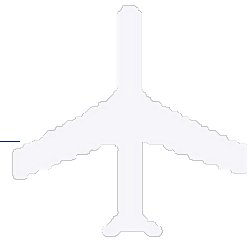
Specifications

- **2020 Standard Specifications**

- www.in.gov/indot → Doing business with INDOT → Standards and Specifications → Standard Specifications → 2020 Standard Specifications

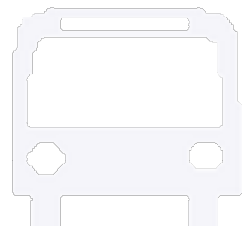
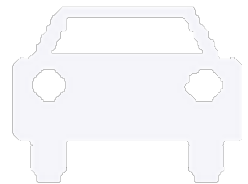
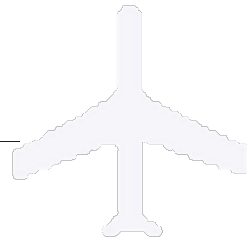
- **Recurring Special Provisions (400 section)**

- www.in.gov/indot → Doing business with INDOT → Standards and Specifications → Recurring and Unique Special Provisions and Recurring Plan Detail → September 2019 edition

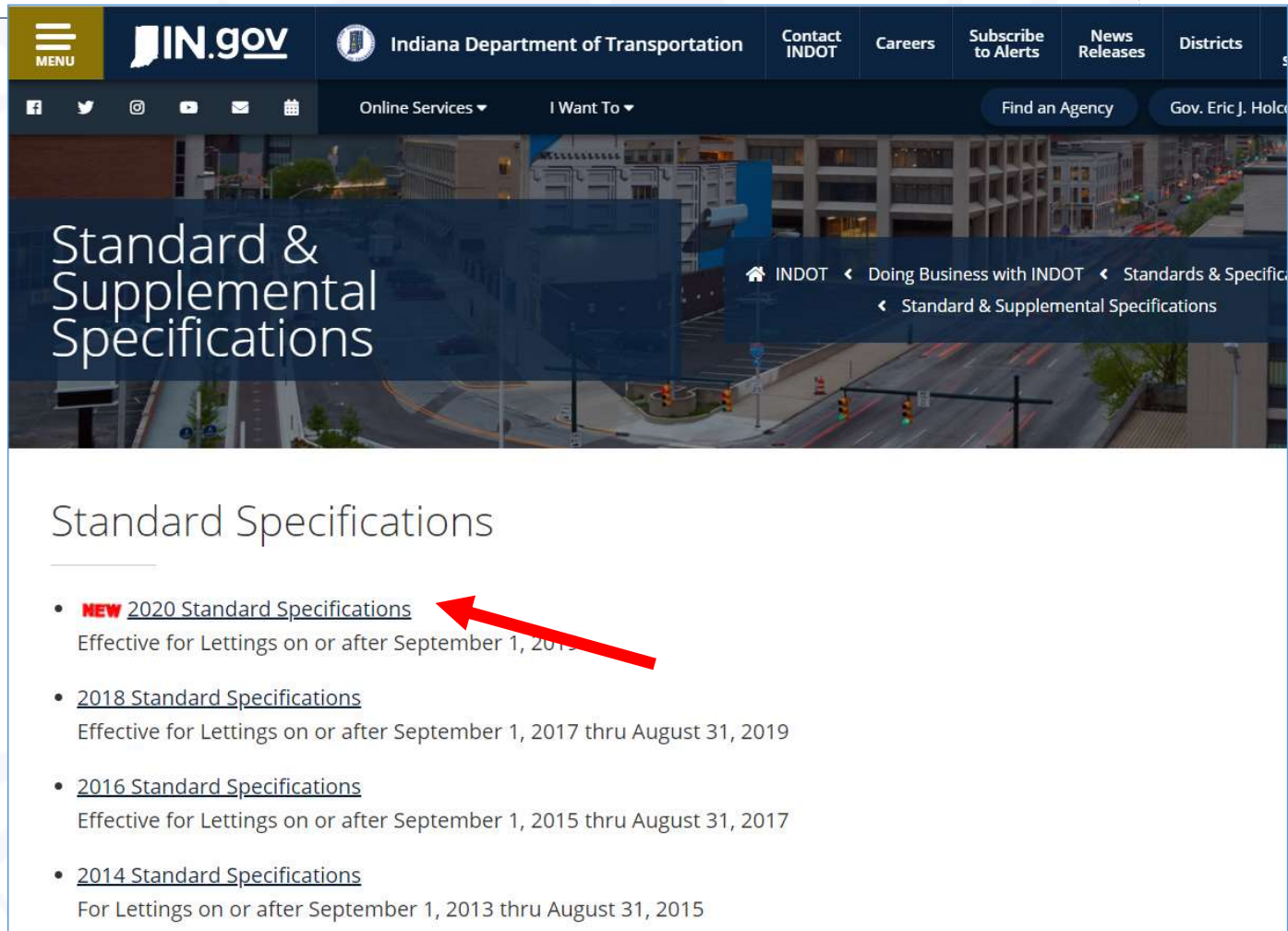


Specifications

The screenshot shows the Indiana Department of Transportation (INDOT) website. The browser address bar displays `in.gov/indot/`. The header includes the IN.gov logo, the text "Indiana Department of Transportation", and navigation links for "Districts", "Public Meetings & Hearings", "Subscribe to Alerts", "Careers", "Contact INDOT", and a search icon. A red arrow points to the search icon. Below the header, there are social media icons, "Online Services", "I Want To", "FAQs", "Find an Agency", and "Gov. Eric J. Holcomb". The main banner features a construction site image with the text "INDOT Home" and "INDOT Construction Map", followed by the subtitle "View current and future INDOT construction projects" and a "Learn More" button. The footer contains six categories: "Major Projects", "Public Involvement", "Contract Letting", "Tolls and Bridges", "Maps", and "Social Media".



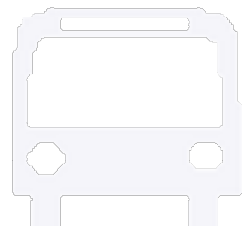
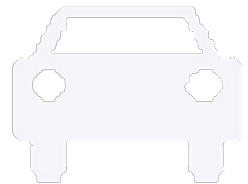
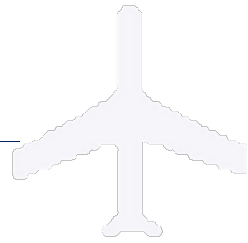
Specifications



The screenshot shows the Indiana Department of Transportation website. The header includes the IN.gov logo, the department name, and navigation links for Contact INDOT, Careers, Subscribe to Alerts, News Releases, and Districts. Below the header is a navigation bar with social media icons, 'Online Services', 'I Want To', 'Find an Agency', and 'Gov. Eric J. Holcomb'. The main content area features a large image of a city street at night with the text 'Standard & Supplemental Specifications' overlaid. Below this is a breadcrumb trail: 'INDOT < Doing Business with INDOT < Standards & Specifications < Standard & Supplemental Specifications'. The main heading is 'Standard Specifications'. A list of links is provided, with a red arrow pointing to the 'NEW 2020 Standard Specifications' link.

Standard Specifications

- **NEW** [2020 Standard Specifications](#)
Effective for Lettings on or after September 1, 2019
- [2018 Standard Specifications](#)
Effective for Lettings on or after September 1, 2017 thru August 31, 2019
- [2016 Standard Specifications](#)
Effective for Lettings on or after September 1, 2015 thru August 31, 2017
- [2014 Standard Specifications](#)
For Lettings on or after September 1, 2013 thru August 31, 2015

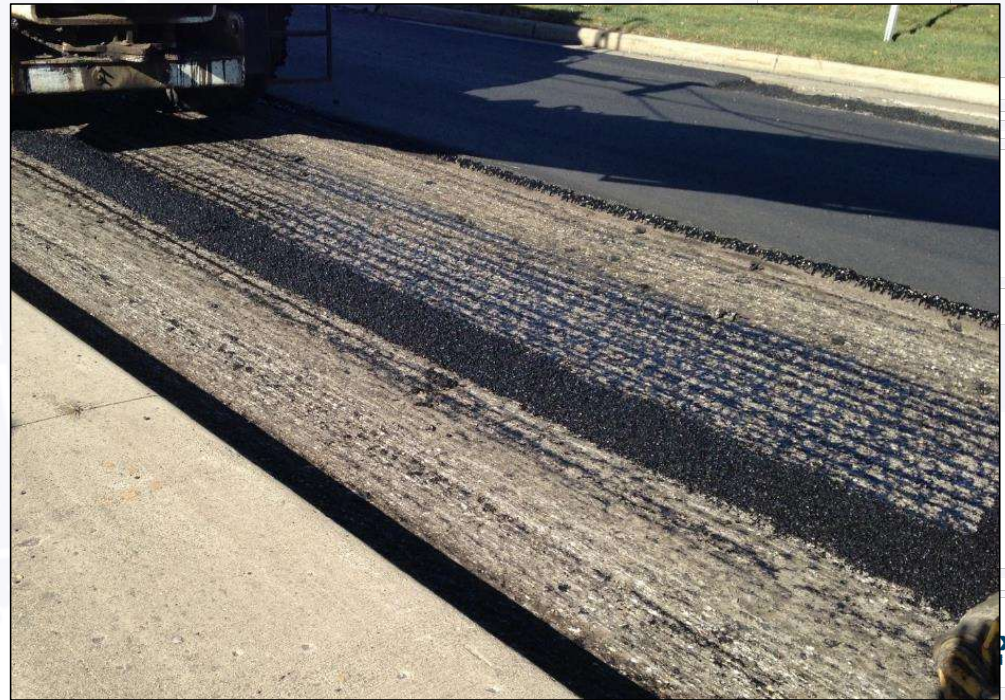


Tack Coat Improvements

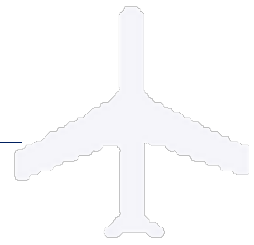
Tack Coat → Bonded Layers → Longer Life → \$\$\$\$

Previous Specification issues

- Inadequate coverage
- Streaking
- Tracking



Current Specifications - 2020



SECTION 406 – TACK COAT

406.01 Description

This work shall consist of preparing and treating an existing pavement or concrete surface with asphalt material in accordance with 105.03.

MATERIALS

406.02 Materials

The type and grade of asphalt material shall be in accordance with the following:

- Asphalt Emulsion, SS-1h, AE-NT 902.01(b)
- PG Asphalt Binder, PG 64-22 902.01(a)

CONSTRUCTION REQUIREMENTS

406.03 Equipment

A distributor in accordance with 409.03(a) shall be used.

406.04 Preparation of Surface

The existing surface to be treated shall be free of foreign materials deemed detrimental by the Engineer. The surface to which the asphalt material is applied shall not have standing water and shall be cleaned of dust, debris and any substances that will prevent adherence.

406.05 Application of Asphalt Material

The asphalt material shall be uniformly applied across the entire width of pavement to be overlaid and shall cover a minimum of 95% of the surface. The asphalt material shall be given sufficient time to break and set to minimize tracking from hauling and laydown equipment. Areas of inadequate coverage that create streaking or areas of excessive coverage that create ponding shall be corrected to obtain an even distribution.

The asphalt material application rate shall be based on the existing surface type and shall be as follows:

SURFACE TYPE	APPLICATION RATE* (gal./sq yd)
New Asphalt	0.05 to 0.08
Existing Asphalt	0.06 to 0.11
Milled Asphalt	0.06 to 0.12
PCCP	0.05 to 0.08

* The asphalt material shall not be diluted

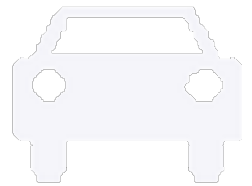
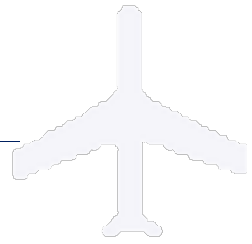
406.06 Method of Measurement

Asphalt for tack coat will be measured by the ton or by the square yard.

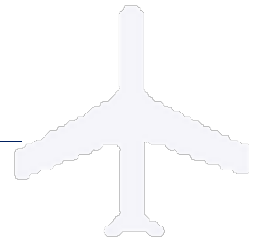


What We Want to See

- Cleaner surface
- No Standing Water
- Uniform and adequate coverage
- Minimize tracking



What We Want to See



Better?



Better?



Recurring Special Provisions

in.gov/dot/div/contracts/standards/rsp/sep19/sec400.htm

Apps GovDelivery PeopleSoft SPECS Materials Man Citrix OMM FMC HMA Plant Map RedVector AASHTOWare

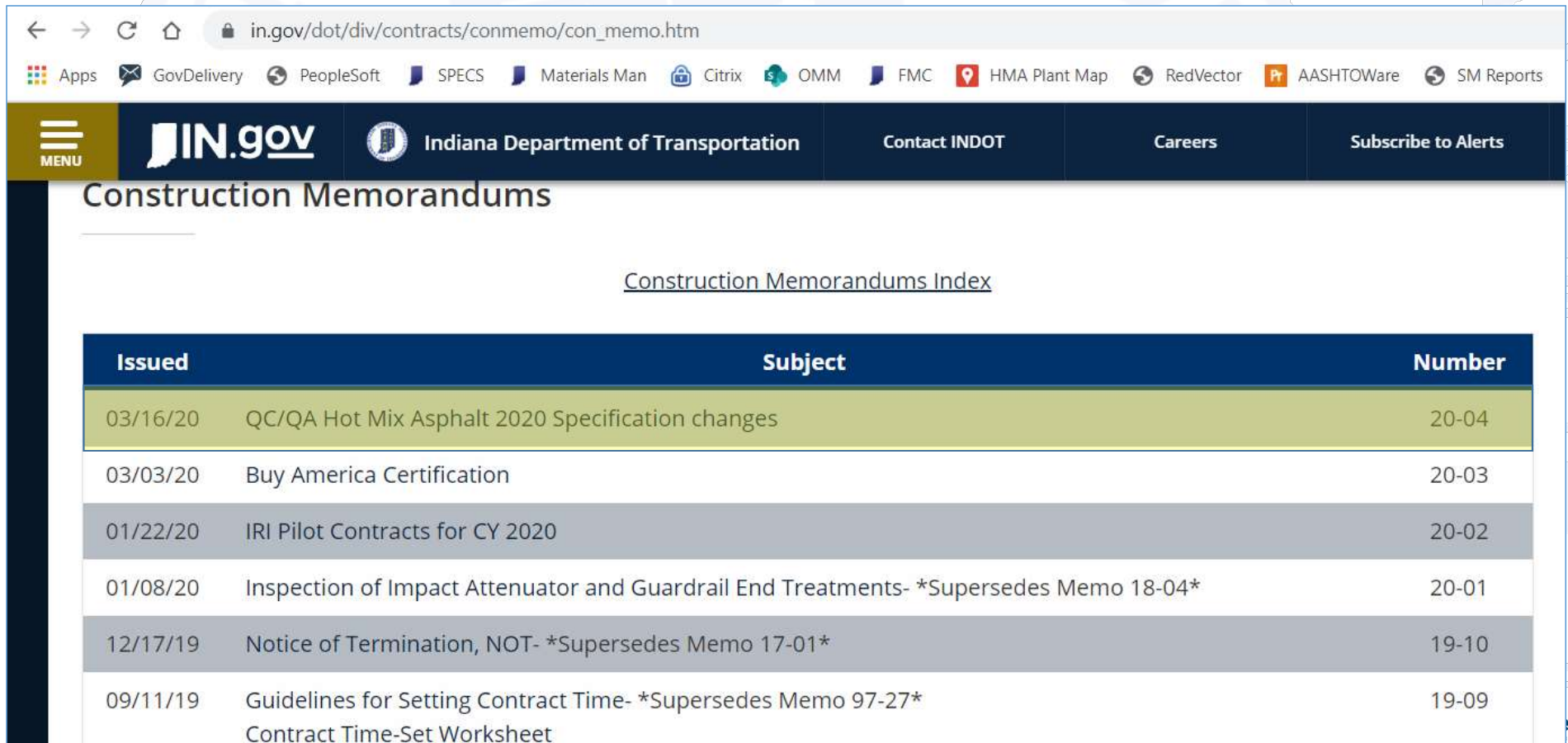
IN.gov Indiana Department of Transportation Contact INDOT Careers Subscribe to Alerts News Releases Districts SEARCH

DIVISION 400 - Asphalt Pavements

RSP or RPD	Description	Rev. Date*	Letting Date**
400-R-680	QC/QA Sampling and Testing on 401 and 410 Pay Items <i>(edit.)</i>	06/21/18	12/01/18
401-R-701	QC/QA HMA Pavement	10/17/19	03/01/20
402-R-702	HMA Pavement		1/20
410-R-703	QC/QA HMA-SMA Pavement		1/20
411-R-608	Cost of Closure Periods for Micro-Surfacing Remedial Work <i>(edit.)</i>	05/02/19	09/01/19
414-R-609	Cost of Closure Periods for UBWC Remedial Work <i>(edit.)</i>	05/02/19	09/01/19

Construction Memo 20-04

Recurring Special Provisions



The screenshot shows a web browser window with the URL in.gov/dot/div/contracts/conmemo/con_memo.htm. The browser's address bar and tabs are visible at the top. Below the browser window, the website's navigation bar includes the IN.gov logo, the text "Indiana Department of Transportation", and links for "Contact INDOT", "Careers", and "Subscribe to Alerts". The main content area is titled "Construction Memorandums" and features a link to "Construction Memorandums Index". Below this is a table with three columns: "Issued", "Subject", and "Number". The table lists seven entries, with the first entry highlighted in a light green background.

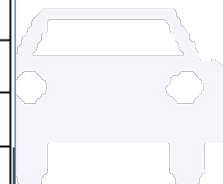
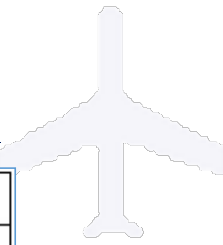
Issued	Subject	Number
03/16/20	QC/QA Hot Mix Asphalt 2020 Specification changes	20-04
03/03/20	Buy America Certification	20-03
01/22/20	IRI Pilot Contracts for CY 2020	20-02
01/08/20	Inspection of Impact Attenuator and Guardrail End Treatments- *Supersedes Memo 18-04*	20-01
12/17/19	Notice of Termination, NOT- *Supersedes Memo 17-01*	19-10
09/11/19	Guidelines for Setting Contract Time- *Supersedes Memo 97-27* Contract Time-Set Worksheet	19-09

401-R-701

Sieve Size	Dense Graded, Mixture Designation – Control Point (Percent Passing)				
	25.0 mm	19.0 mm	12.5 mm	9.5 mm	4.75 mm**
50.0 mm					
37.5 mm	100.0				
25.0 mm	90.0 - 100.0	100.0			
19.0 mm	< 90.0	90.0 - 100.0	100.0		
12.5 mm		< 90.0	90.0 - 100.0	100.0	100.0
9.5 mm			< 90.0	90.0 - 100.0	95.0 - 100.0
4.75 mm				< 90.0	90.0 - 100.0
2.36 mm	19.0 - 45.0	23.0 - 49.0	28.0 - 58.0	32.0 - 67.0*	
1.18 mm					30.0 - 55.0
600 µm					
300 µm					
75 µm	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	3.0 - 8.0

* The mix design gradation shall be less than or equal to the PCS control point **58.0% passing the 2.36 mm sieve** for all 9.5 mm surface mixtures. The mix design gradation can be greater than the PCS control point **58.0% passing the 2.36 mm sieve** when used on non-Department maintained facilities.

** The total blended aggregate gradation for the 4.75 mm mixture shall have a fineness modulus greater than or equal to 3.30 as determined in accordance with AASHTO T 27.



401-R-701

SECTION 401, BEGIN LINE 381, INSERT AS FOLLOWS:

401.14 Spreading and Finishing

The mixture shall be placed upon an approved surface by means of laydown equipment in accordance with 409.03(c). Prior to paving, both the planned quantity and lay rate shall be adjusted by multiplying by the MAF. When mixture is produced from more than one DMF for a given pay item, the MAF will be applied to the applicable portion of the mixture for each. The temperature of each mixture at the time of spreading shall be less than 315°F whenever PG 64-22 or PG 70-22 binders are used or not more than 325°F whenever PG 76-22 binder is used. *No mixture shall be placed on a previously paved course that has not cooled to below 175°F. For mixtures compacted in accordance with 402.15, the temperature of each mixture at the time of spreading shall not be less than 245°F.*

401-R-701

2 of 3

402-R-702

SECTION 402, AFTER LINE 38, INSERT AS FOLLOWS:

A Type D mixture may be used in lieu of a Type C or a Type B mixture and a Type C mixture may be used in lieu of a Type B mixture.

SECTION 402, BEGIN LINE 99, DELETE AND INSERT AS FOLLOWS:

402.09 Acceptance of Mixtures

Acceptance of mixtures will be in accordance with the Frequency Manual on the basis of a type D certification in accordance with 916. The test results shown on the certification shall be the quality control tests representing the material supplied and include air voids and binder content. Air voids tolerance shall be $\pm 1.52.0\%$ and binder content tolerance shall be $\pm 0.7\%$ from DMF.

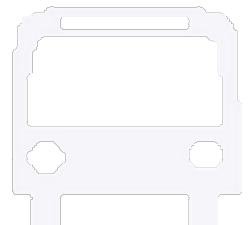
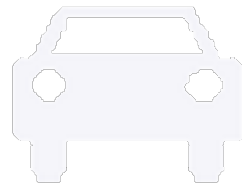
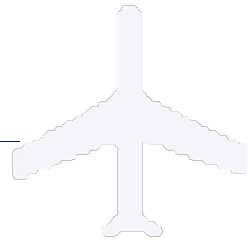
SECTION 402, BEGIN LINE 176, INSERT AS FOLLOWS:

The temperature of each mixture at the time of spreading shall be less than 315°F whenever PG 64-22 or PG 70-22 binders are used. *The temperature of each mixture at the time of spreading shall not be less than 245°F. No mixture shall be placed on a previously paved course that has not cooled to less than 175°F.*

ITM Updates

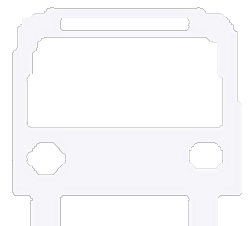
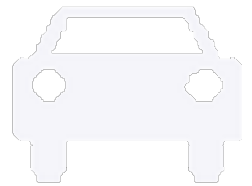
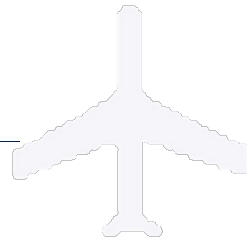
• Indiana Test Methods

- www.in.gov/indot → Doing business with INDOT → Contractors/Construction → Materials Management Information → Publications & Manuals
- ITM 571. Extraction. **02/26/20**
 - Further clarified soaking and rise procedures for uniformity.
- ITM 583. Certified HMA producer. **02/26/20**
 - SMA adjustment periods re-added. Updated cert for 402 mix.



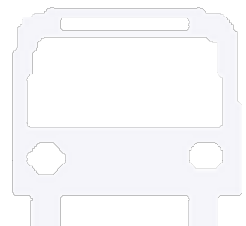
INDOT Directives

- Directives are for public view on the INDOT webpage
 - www.in.gov/indot → Doing business with INDOT → Contractors/Construction → Materials Management Information → Publications & Manuals
- Directives are not typically binding on producers. These are internal procedures to direct testing activities.
 - Can be viewed as “best practices”

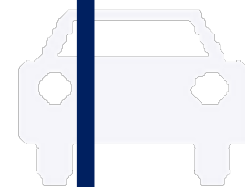


INDOT Directives

300	<i>Asphalt Materials</i>	
301	Certified Hot Mix Asphalt Producer Program Procedures	2/17/19
302	Asphalt Materials	4/15/19
303	Plate Sample Preparation and SUPERPAVE Gyratory Compactor (SGC) Specimen Fabrication	2/4/19
304	QC/QA Hot Mix Asphalt Procedures	4/15/19
305	Hot Mix Asphalt Mix Design Laboratory Requirements	1/23/20
306	Specific Gravity of Fine Aggregates from Extracted Samples	2/14/19

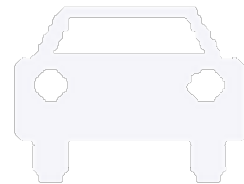
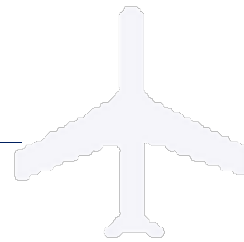


DMF Entry and HMA Pay Wizard



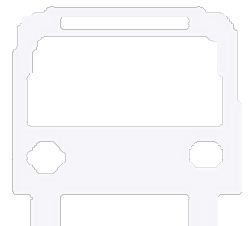
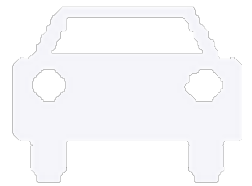
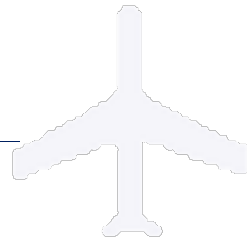
DMF Entry

IN.gov		INDOT DMF Entry		Welcome Nathan Awwad					LOGOUT
Mix Design Summary									
	Created Date	Internal Mix Id	INDOT DMF	Plant #	Mix Type	District	Status	Status Date	
	03/06/2019			0	HMA,,Surf,4.75 mm,Open Grade		Draft	01/06/2020	
	04/22/2019	G95FS21R		3308	HMA,2,64-22,Inter,Surf,9.5 mm,...	VINCENNES	Draft	03/02/2020	
	01/09/2020	630	203290012	3290	HMA,2,64-22,Base,Inter,19.0 m...	LAPORTE	Accepted	02/20/2020	
	01/16/2020			0	HMA,,9.5 mm,Superpave 4		Draft	01/16/2020	
	01/20/2020	1		3407	HMA,2,64-22,Base,Inter,19.0 m...	SEYMOUR	Under Review	03/02/2020	
	01/20/2020	2		3407	HMA,2,64-22,Surf,9.5 mm,Su...	SEYMOUR	Under Review	03/02/2020	
	01/21/2020	671	203290017	3290	HMA,2,64-22,Inter,Surf,9.5 mm,...	LAPORTE	Accepted	02/24/2020	
	01/22/2020	12.5-3-3137	203137008	3137	HMA,3,64-22,Inter,Surf,12.5 m...	FT. WAYNE	Accepted	02/19/2020	
	01/22/2020			0	HMA,64-22,9.5 mm,		Draft	01/22/2020	
	01/24/2020	IN 9 12.5 B	203405001	3403	HMA,2,64-22,Surf,12.5 mm,Su...	VINCENNES	Rejected	02/05/2020	



DMF ENTRY

- Works better in Google Chrome, especially print function
- Reminder that SMA currently is outside of DMF Entry (future enhancement).
- IDIQ and Design/Build handled differently
- Continue to use attachment feature



HMA Pay Wizard

R#'s are now very important to contractor



Summary

DMF Contract Number

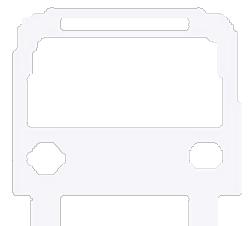
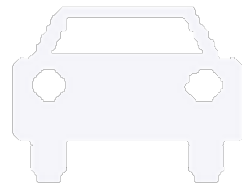
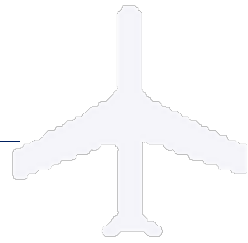
CLN	Lot	SLs	Last Updated
	0		No items to display

Enter Sample ID

Sample ID:

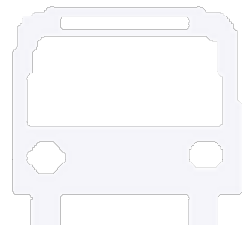
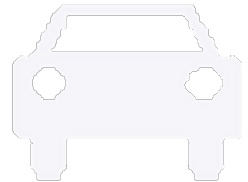
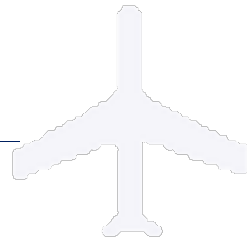
CANCEL CONTINUE

Add Sample



HMA Pay Wizard

R#'s are now very important to contractor



Acceptance

Acceptance

Search for...

Add Sample

Contract: R -41769 **CLN:** 0014 **DMF:** 193184005

Sample Id: R193530414001 **Lot/Sublot:** 193184005D, R -41769, \$95.43/Ton, L1 S1

Sample Date: 06/25/2019 **Lot:** 1 **Sublot:** 9

Mix % Binder: **Mix Gmm:**

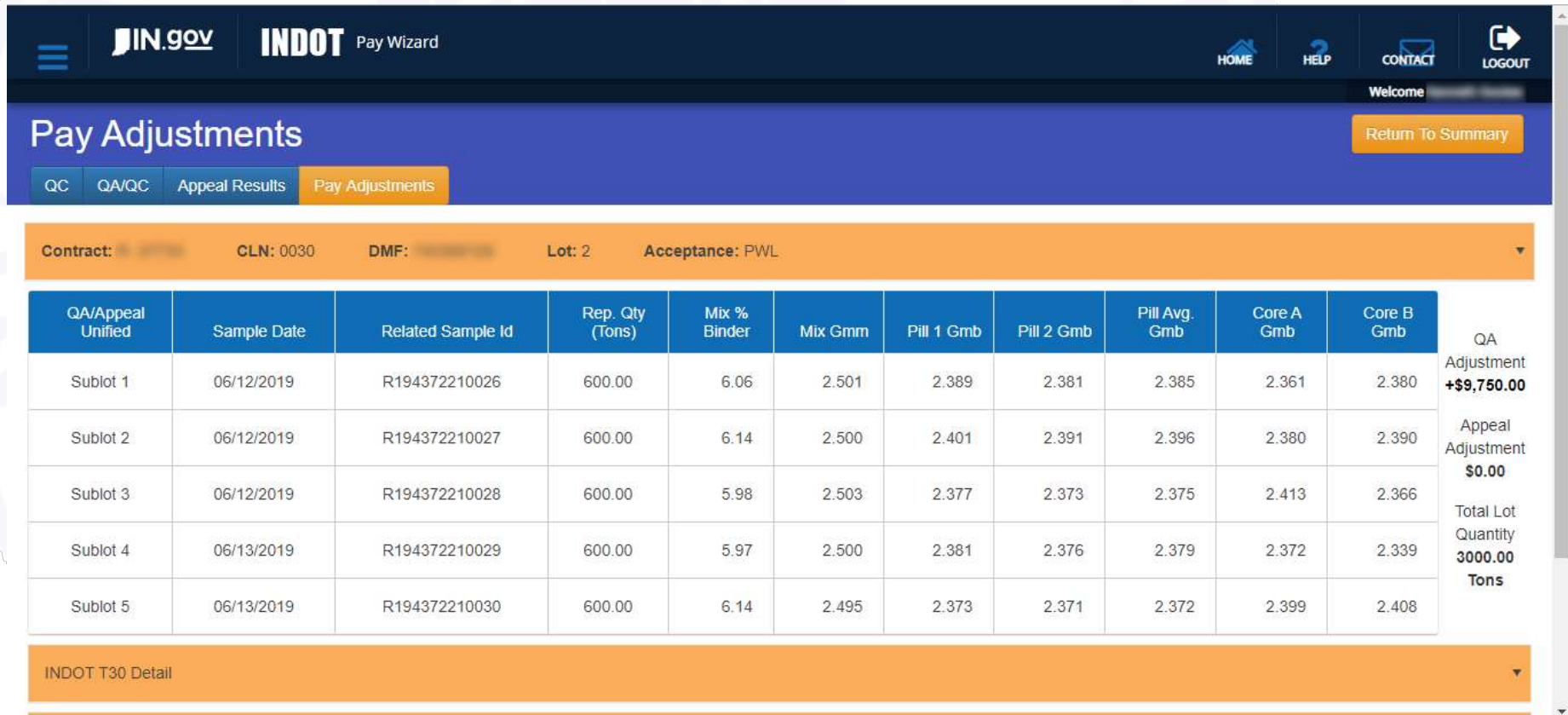
Pill 1 GMB: **Pill 2 GMB:** **Will this Sublot finish Lot 1?**
 No Yes

Core A Gmb: **Core B Gmb:**

CANCEL SAVE

HMA Pay Wizard

R#'s are now very important to contractor 

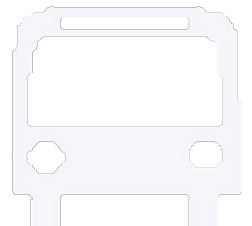
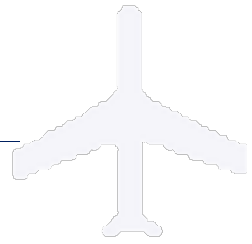


The screenshot displays the INDOT Pay Wizard interface. At the top, there are navigation links for HOME, HELP, CONTACT, and LOGOUT. The main heading is "Pay Adjustments" with a "Return To Summary" button. Below this, there are tabs for QC, QA/QC, Appeal Results, and Pay Adjustments. The contract details are shown as: Contract: [redacted], CLN: 0030, DMF: [redacted], Lot: 2, Acceptance: PWL. The main data table lists five sublots with their respective sample dates, related sample IDs, and various material properties. To the right of the table, summary statistics are provided: QA Adjustment of +\$9,750.00, Appeal Adjustment of \$0.00, and a Total Lot Quantity of 3000.00 Tons. The bottom of the screen shows a dropdown menu for "INDOT T30 Detail".

QA/Appeal Unified	Sample Date	Related Sample Id	Rep. Qty (Tons)	Mix % Binder	Mix Gmm	Pill 1 Gmb	Pill 2 Gmb	Pill Avg. Gmb	Core A Gmb	Core B Gmb	
Sublot 1	06/12/2019	R194372210026	600.00	6.06	2.501	2.389	2.381	2.385	2.361	2.380	QA Adjustment +\$9,750.00
Sublot 2	06/12/2019	R194372210027	600.00	6.14	2.500	2.401	2.391	2.396	2.380	2.390	Appeal Adjustment \$0.00
Sublot 3	06/12/2019	R194372210028	600.00	5.98	2.503	2.377	2.373	2.375	2.413	2.366	Total Lot Quantity 3000.00 Tons
Sublot 4	06/13/2019	R194372210029	600.00	5.97	2.500	2.381	2.376	2.379	2.372	2.339	
Sublot 5	06/13/2019	R194372210030	600.00	6.14	2.495	2.373	2.371	2.372	2.399	2.408	

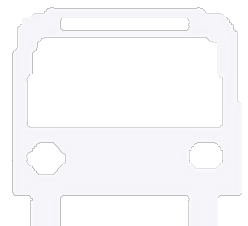
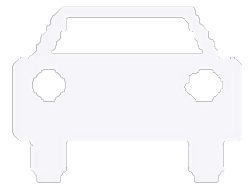
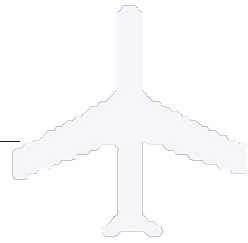
HMA Pay Wizard

- R# must be input into sitemanager in a timely fashion.
- QA results only post if entered through Lab Testing app
 - If a District hand enters test results into sitemanager, HMA Pay Wizard will not work.
- OG and SMA currently outside of HMA Pay Wizard (future enhancement).




Email Updates

The screenshot shows the Indiana Department of Transportation (INDOT) website. The browser address bar displays "State of Indiana [US] | https://www.in.gov/indot/". The top navigation bar includes the "IN.gov" logo, "Indiana Department of Transportation", "Districts", and "Public Meetings & Hearings". Below this, there are social media icons (Facebook, Twitter, Instagram, YouTube, Email, Calendar) and utility links for "Online Services", "I Want To", and "FAQs". A red arrow points to the email icon in the social media row. The main content area features a large image of a construction site with a yellow excavator and a green sign for "70 WEST Indianapolis". Text on the page reads "INDOT Construction M" and "View current and future INDOT construction proje". A blue button labeled "Learn More" is positioned below the text. At the bottom, there are four icons representing "Major Projects", "Public Involvement", "Contract Letting", and "Tolls and Bridg". A "Scroll for more" button is located at the bottom right of the page.



Email Updates



Indiana Department of Transportation

Email Updates

To sign up for updates or to access your subscriber preferences, please enter your contact information below.

Subscription Type

Email Address *

Your contact information is used to deliver requested updates or to access your subscriber preferences.

[Privacy Policy](#) | [Cookie Statement](#) | [Help](#)

Subscription Topics

- Indiana Department of Transportation (
- Doing Business with INDOT
- INDOT Major Projects
- Southwest (Vincennes) District
- East Central (Greenfield) District
- Northwest (LaPorte) District
- Northeast (Fort Wayne) District
- West Central (Crawfordsville) District
- Southeast (Seymour) District
- LPA & Grants Administration
- Office of Materials Management**
 - OMM Concrete
 - OMM Hot Mix Asphalt
 - OMM HMA Mix Design
 - OMM Binders and Emulsions

Your contact information is used to deliver requested

<https://tinyurl.com/hmaplants>

Certified HMA Producers
A map of all the INDOT certified HMA producers
489 views
All changes saved in Drive

Add layer Share Preview

- 3324-Brooks Construction C...
- 3326- Dave O' Mara Contract...
- 3330- Rieth-Riley Constructio...
- 3332- Milestone Contractors...
- 3333- Milestone Contractors...
- 3334- Niblock Excavating Inc
- 3336- Walsh & Kelly, Inc.
- 3339- E & B Paving Inc
- 3340- E & B Paving Inc
- 3341- E & B Paving, Inc.
- 3342-API Construction Corp
- 3343- Wayne Asphalt and Co...
- 3344- Dave O' Mara Contract...
- 3345- Milestone Contractors...**
- 3347- Milestone Contractors...
- 3348- E & B Paving, Inc.
- 3349- E & B Paving Inc
- 3350-Wabash Valley Asphalt...
- 3351- Walsh & Kelly, Inc.
- 3353- Rieth-Riley Constructio...

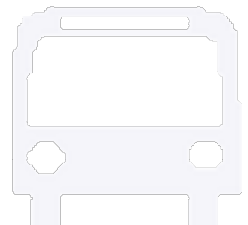
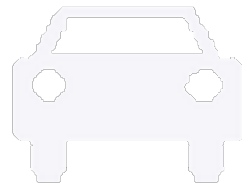
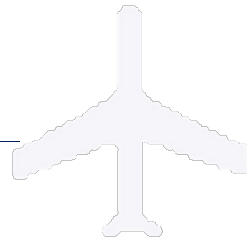
3345- Milestone Contractors LP

1 of 7

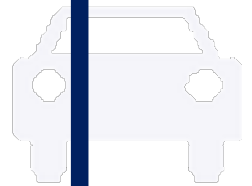
Indianapolis, IN

Details from Google Maps Remove
4206 S Harding St, Indianapolis, IN 46217
[View in Google Maps](#)

39.70559, -86.18689

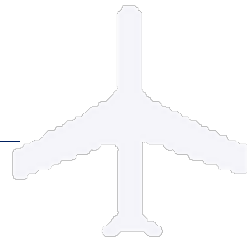
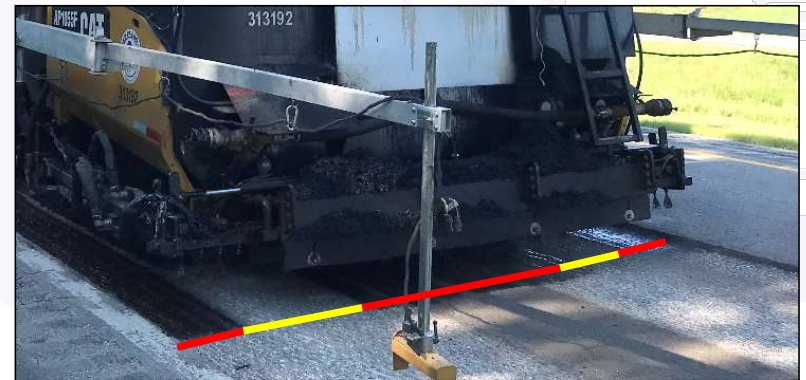


Current Initiatives



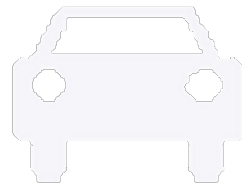
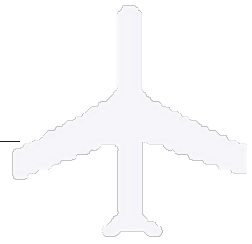
Initiative – Spray Pavers

- Improve coverage



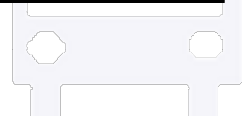
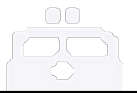
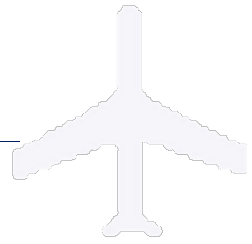
Initiative – Spray Pavers

- Spray Pavers with HMA
 - 2017 2 contracts, Greenfield District
 - 2018 3 contracts, Greenfield District
 - 2019 2 contracts, Greenfield District
 - 2020 ~10 contracts
 - Ft Wayne (1), Greenfield (5), Seymour (4)



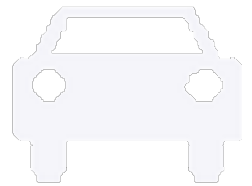
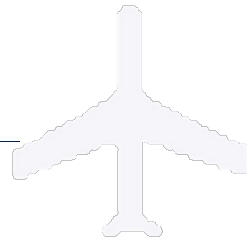
Initiative - VRAM

- Placed under the joint, as opposed to on top
- Solves issue with pavement marking adhesion



Initiatives - VRAM

- Void Reducing Asphalt Membrane
 - 2016 ~1 pilot contract
 - 2018 ~8 contracts
 - 2019 ~9 ??? Marion County work
 - 2020 ~17 contracts
 - S5 and Finer mixes will affect spray rates
- Perhaps full implementation 2022?
- Treatment is relatively expensive

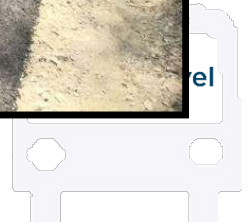
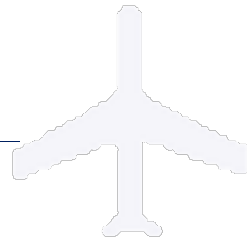


Initiative – RPE

- Rapid Penetrating Emulsion

- 3 let in 2019
 - at least 1 already paved
- 3 to let in 2020
- 1 to let in 2021

- Not sure of future, but has promising results
 - Inexpensive
 - No pavement marking issue



Questions?

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