ODOT STANDARDS & SPECIFICATIONS UPDATE • FEBRUARY 5, 2020































theBiG SPECE THEORY

ODOT STANDARDS & SPECIFICATIONS UPDATE

aka THE BIG SPEC THEORY

Dave Miller, P.E.

ODOT Office of Pavement Engineering



PRESENTATION OUTLINE

- Theme Song
- Recap 2015 Presentation
- In Memoriam
- Today's Episode
- Coming Attractions





JOHN R. KASICH, GOVERNOR

JERRY WRAY, DIRECTOR

Guidelines for Local Agency Use of ODOT's New HMA Specifications



David Miller, P.E.
Office of Pavement Engineering

February 4, 2015

Questions?



IN MEMORIAM

Obsolete/Retired/Deleted Specifications

- SS 806 AC Surface Course
 - Now (447) acceptance
- 423 Type III Crack Seal
- SS 857 AC with Gilsonite
- SS 874 Ultrathin Bonded AC
- PN 470 Thin Lift Smoothness Incentive
 - Incorporated into PN 420



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NEW OR REVISED SPECIFICATIONS SINCE 2015

- C&MS: 302, 401, 402, 403, 407, 421, 422, 423, 424, 441, 442, 443, 446, 447, 448, 702
- Supplemental Specs: 826, 860, 872, 874, 886, 887, 888, 897
- Supplements: 1013, 1032, 1036, 1038, 1040, 1053, 1055, 1058, 1060, 1088, 1101, 1107
- Proposal Note: 420



SS 875 LONGITUDINAL JOINT ADHESIVE

- Not new but increased use
- Incidental to items 447 and 874



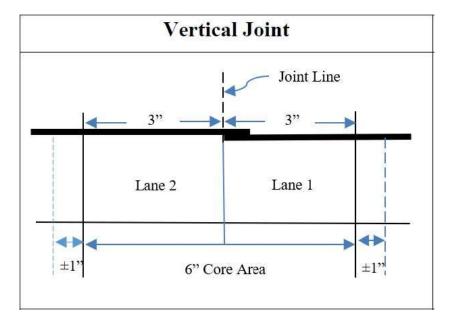
447 AC MAT AND JOINT CORE DENSITY ACCEPTANCE

- Was SS 806
- For surface courses only
- Multi-lane, limited access facilities
 - Few, if any, driveways and intersections
- Requires 10,000 ft. minimum of cold longitudinal joints



447 AC MAT AND JOINT CORE DENSITY ACCEPTANCE

- Requires 10 mat cores
 - 12" away from cold longitudinal joint
- Requires one joint core for every 2500 ft. of cold longitudinal joint
- Incentive/disincentive for both mat and joint density

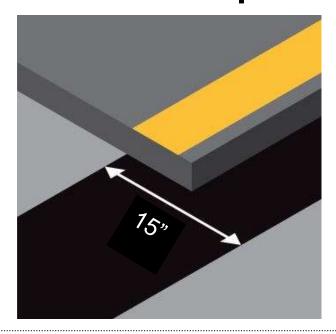


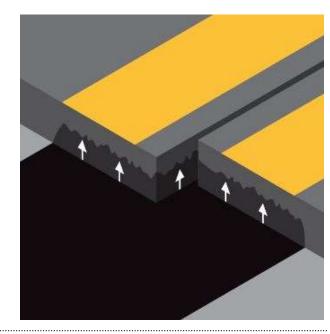


SS 872 VOID REDUCING ASPHALT MEMBRANE (VRAM)

- Placed under cold longitudinal paving joints
- Not for use with 447 acceptance









CENTER LINE RUMBLE STRIPES

o House Bill 51

General Assembly

133

Short Title

Require center-line rumble strips for certain highway projects

Long Title To enact section 5517.06 of the Revised Code to require the Ohio Department of Transportation to install rumble strips along the center line for all two-way, undivided state highways with a speed limit exceeding 45 miles per hour, as a part of specified highway projects.



CENTER LINE RUMBLE STRIPES

House Bill 51

		VOTES	
DATE	CHAMBER	RESULTS	VOTE
6/27/2019	House	Passed	Yeas: 95 Nays: 0 [Show Breakdown]



ODOT updates issued October 18, 2019

- Traffic Engineering Manual (TEM) revisions
- New specification SS 874 Longitudinal Joint Preparation
- o BP-3.1 revisions





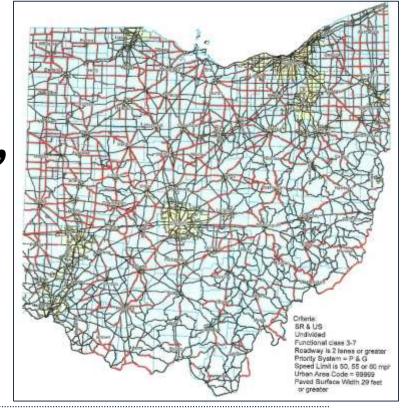


Traffic Engineering Manual, Section 1415

- 2-lane, undivided highways
- Posted speed >45 mph
- 1" of new asphalt or double microsurfacing
- Edge line rumbles require minimum 2' shoulder
- No edge line rumbles on designated bike routes with less than 4' shoulder!



- Total Pavement Width 29' or Greater
 - Both Center and Edge Line Rumble Stripes
- o Pavement Width 26' to 29'
 - One or the other
- o Pavement Width Less than 26'
 - No rumble stripes





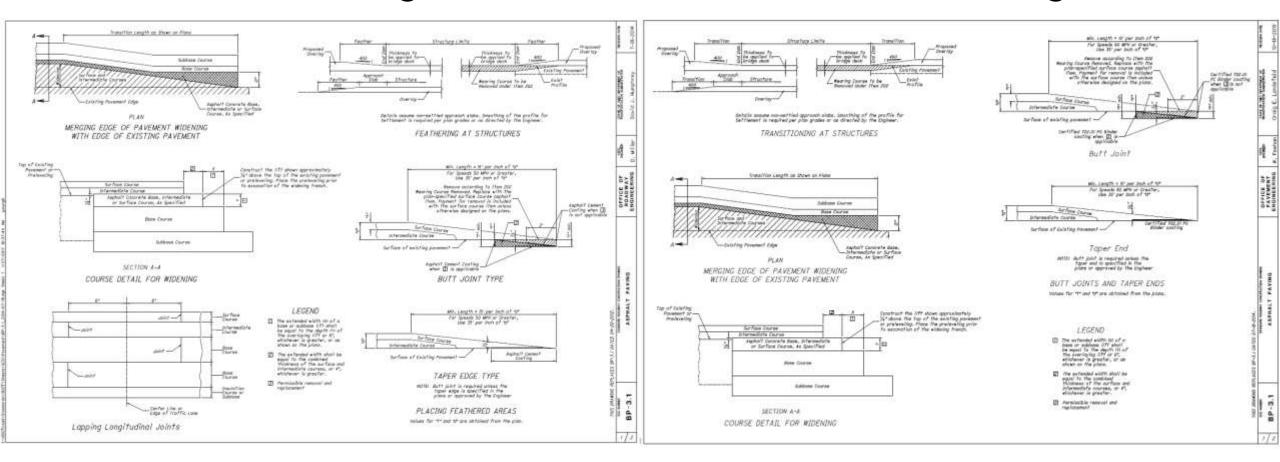
New SS 874 Longitudinal Joint Preparation

- For use with center line rumble stripes
- Two options for preparing the joint:
 - Cut back 3" from the first pass and apply Longitudinal Joint Adhesive, or
 - Apply VRAM



Old BP-3.1 Page 1

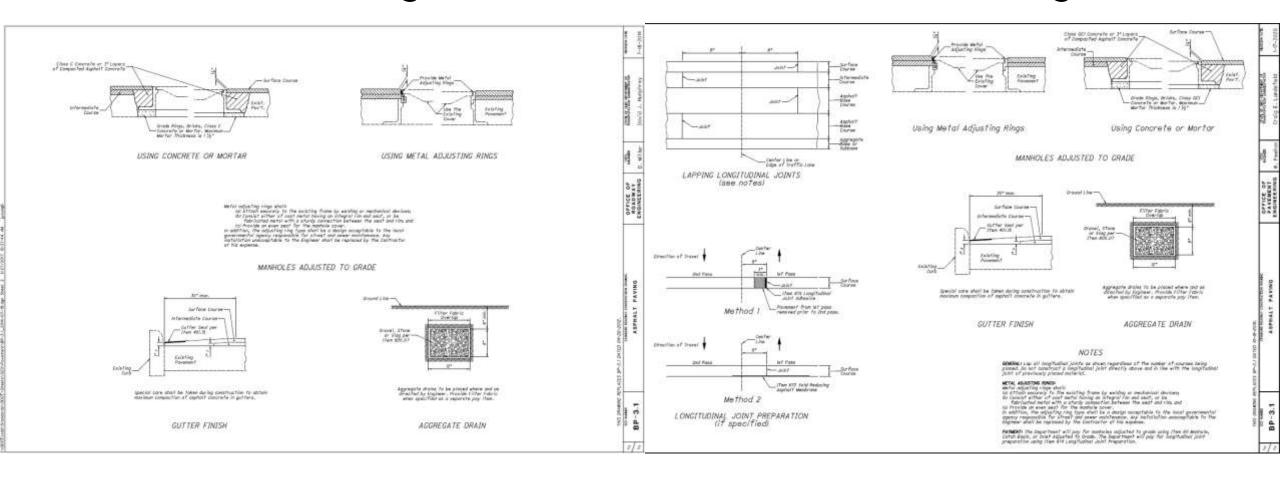
New BP-3.1 Page 1

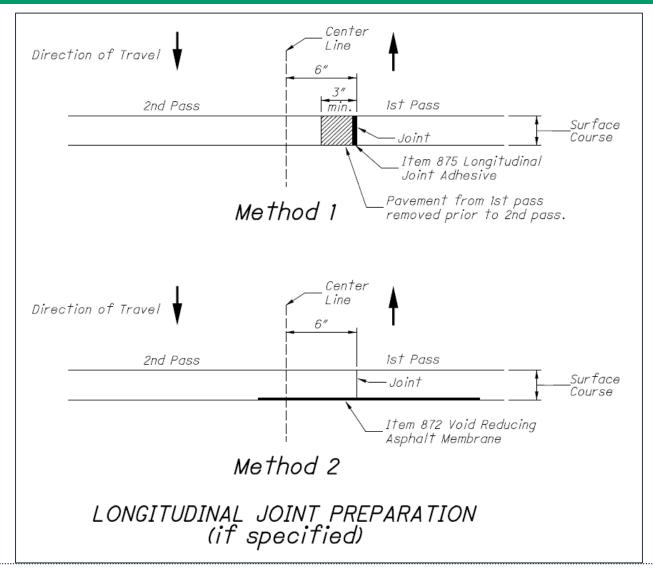




Old BP-3.1 Page 2

New BP-3.1 Page 2







SAFETY EDGE

- Updated PDM guidance
- New standard drawings
- C&MS changes to 209, 401, and 617





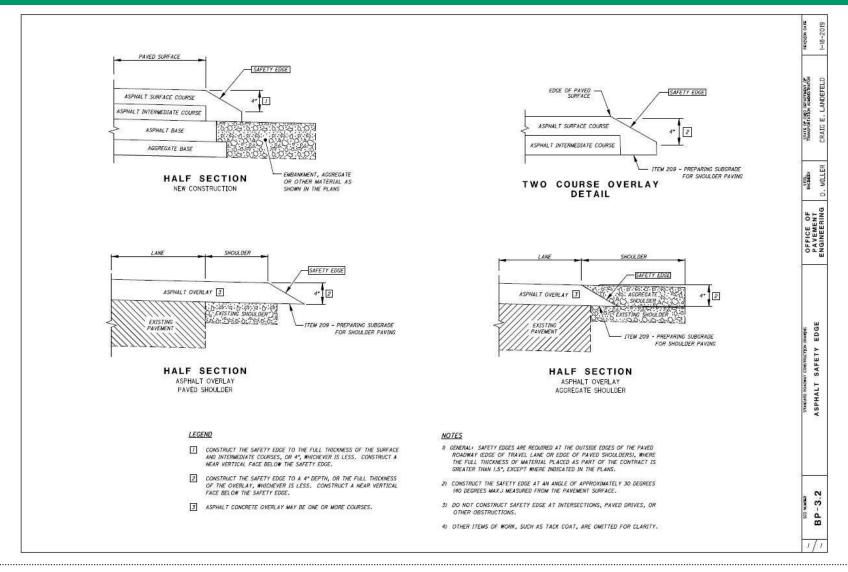
SAFETY EDGE

PDM Section 105.1

- Safety edge required when:
 - More than 1.5" of new asphalt is placed, and
 - At least 1500' of continuous paving, and
 - Less than 4' paved shoulder width, and
 - Legal speed limit greater than 35 mph.
- Also requires approximately 10" graded shoulder for Item 209 Preparing Subgrade for Shoulder Paving



SAFETY EDGE STANDARD DRAWING BP-3.2



OTHER PDM UPDATES

Section 406.4 Tack Coat

Tack between all lifts of asphalt







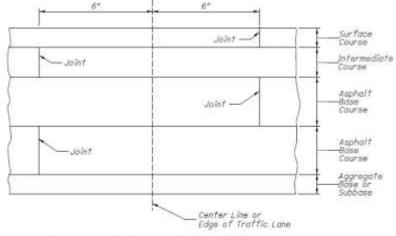
OTHER PDM UPDATES

Section 403.1.1 Phase Joints

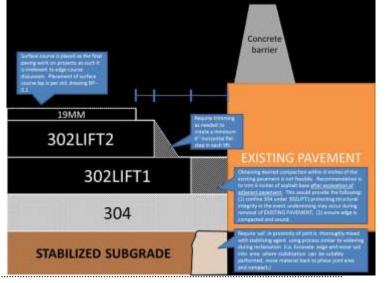
 Provide a detail in the plans showing trimming back to create steps

C&MS 401.17 Joints

Provide a minimum 6" offset (step)
 between cold joints for each lift



LAPPING LONGITUDINAL JOINTS (see notes)





AND NOW A WORD FROM OUR SPONSORS







Building for the next 100 years

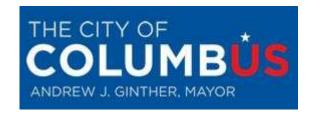












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C&MS 441/442 ANTI-SEGREGATION EQUIPMENT

 Included as a pay item for surface and intermediate course paving on the priority

system

o PDM 406.6



C&MS 401.11 HAULING

 Completely discharge the mix into the spreading equipment within 90 minutes of loading



C&MS 441.09 QUALITY CONTROL TESTS

- Perform all quality control tests once each 700 tons of asphalt
 - Previously once each half day or once each 1400 tons



C&MS 422 CHIP SEAL

Revised pay items

- Emulsion by the gallon
- Aggregate by the square yard
- 2-year warranty in effect
 - Do not add plan note to waive warranty





CHIP SEAL AND MICROSURFACING

- Remove all pavement markings including traffic paint
- o Pay for removal under applicable 640 item





SS 886 FOG SEAL

- Available for use with Type A Single Chip Seals
- Improves chip retention
- Improves pavement marking visibility
- Looks like HMA



SS 888 HIGH FRICTION SURFACE COURSE

 Used as part of a friction management program to correct short sections of poor

friction

Requires pre-approval by OPE

o \$20 - \$30/SY



SS 860 THINLAY ASPHALT CONCRETE

- Requires pre-approval from OPE
 - General and urban systems only
- Low and medium traffic mixes
 - Low: <2500 ADT and <250 trucks
 - Medium: <1500 trucks
- o 0.75"-1.25" lift thicknesses
- Temperature restrictions
 - o 60 °F surface and ambient





SMOOTHNESS INCENTIVE/DISINCENTIVE

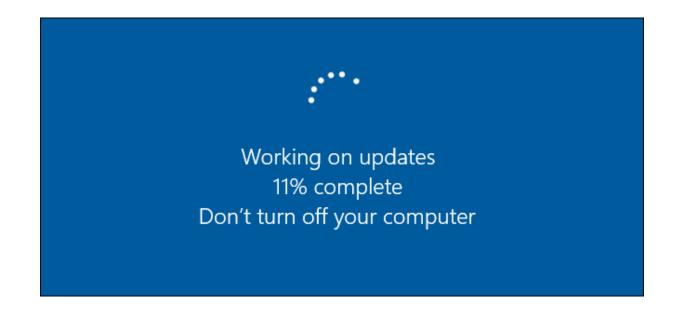
Proposal Note 420

- Recommended for all paving projects >1 mile
- Supplement 1058
 - Equipment, operator, and project verification requirements

TABLE 420-1 ASPHALT CONCRETE PAVEMENT CLASS CRITERIA							
	Divided Highways*		Undivided Highways*				
Pavement Class	Corrective Action	Pay Adjustment Schedule (Table 420-3)	Corrective Action	Pay Adjustment Schedule (Table 420-3)			
Type A [≥ 3in. + 2-course]	[1],[5]	A	[2],[5]	A			
Type B [< 3in. + Milling] or [< 3in. + 2-course]	[1],[5]	A	[3],[5]	A			
Type C [< 3in. + 1-course]	[2],[5]	A	[4]	В			



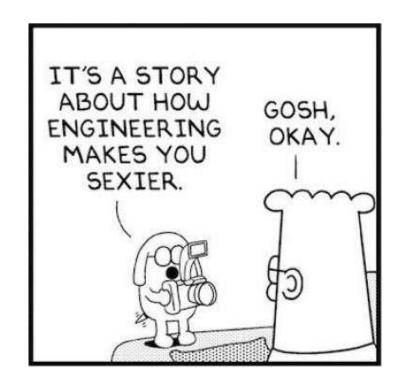
COMING ATTRACTIONS





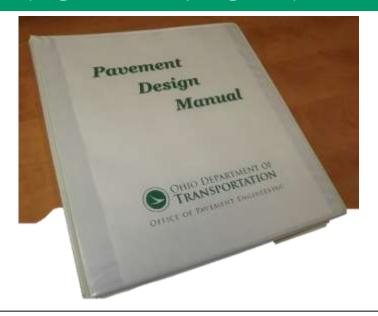
COMING ATTRACTIONS

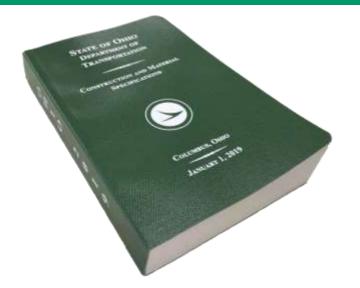
- New 442 intermediate courses
 - Changes to 19mm mix usage guidelines
 - New 12.5mm intermediate course
- 302 density requirement
- o 302 superpave mix design
- 401/402/403/441/442/702re-write





FOR MORE INFORMATION...









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ODOT ASPHALT PAVEMENT SPECIFICATIONS COMMITTEE





QUESTIONS



Last updated 2/10/2020

