



PAPA Regional Technical Meeting

(State College)

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District 2

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2018 Bituminous Testing

Testing:

- 166 Lots- Mixture Acceptance by box sample
- 114 Lots – Density Acceptance by pavement core

Failure:

- 0 AC failures
- 1 Gradation failure
- 0 Density failures

➤ 2018 Longitudinal Joint Density Performance

	Longitudinal Joint Density Summary		
Year	2016	2017	2018
Lots Tested	79	81	95
% Density Range	87.8-95.5	88.7-94.4	82.9-97.3
% Average Density	92.8	92.3	92.5
Incentive Lots	71	63	82
Zero Lots	4	13	6
Disincentive Lots	4	5	7
Total \$ for Incentive Lots	\$331,000	\$282,450	\$394,100
Total \$ for Disincentive Lots	\$31,800	\$17,400	\$16,840
Delta (Incentive - Disincentive)	\$299,200	\$265,050	\$377,260

REF: Section 405 Evaluation of Bituminous Pavement Longitudinal Joint Density and Payment of Incentive/Disincentive

➤ 2018 Longitudinal Joint Density Performance

- Longitudinal Joint Type
 - Which joint type is being utilized most?
 - Vertical
 - Notched Wedge Joint
 - Which joint type is producing better density?
 - Not sure- We haven't captured this data
 - Are you having any longitudinal joint issues?
 - Pavements failing at longitudinal joint
 - Repair with mill and fill-(19mm and micro surface)
 - Better since Longitudinal Joint Density Spec.

2018 Percent Within Tolerance (PWT)

	District 2 - PWT SUMMARY		
Year	2016	2017	2018
Number of PWT Projects Let	4	15	13
Number HOLA	1	0	3
Number LTS	3	15	10
Average Pay Factors (%)			
Asphalt Content	101.24	100.19	101.21
Primary Control Sieve	97.36	95.01	99.94
#200 Sieve	101.48	100.58	102.38
Density (Cores)	102.36	102.11	101.45
Average Density	93.8	94.2	94.0
Average Overall Lot Pay Factor (%)	1.01	1.00	1.01
Incentive (\$)	\$46,908.89	\$303,775.43	\$404,198.64
Disincentive (\$)	-\$18,866.20	-\$207,672.51	-\$178,675.04

2019 Planned Construction Projects

- List Projects With > 1000 tons of WMA Paving

2019 Planned Construction Projects

ECMS #	Let Date	SR	County	Tons
87694	9/13/2018	80-B44	Clearfield	20,000
109316	6/21/2018	GR 2-18-ST52	McKean	22,000
108278	4/11/2019	GR 2-19-ST1	Centre	17,500
108278	4/11/2019	GR 2-19-ST1	Clinton	9,000
108307	4/11/2019	GR 2-19-ST2	Clearfield	40,500
108278	4/11/2019	GR 2-19-ST2	Elk	20,000
108378	4/11/2019	GR 2-19-ST2	Cameron	7,000
108328	4/11/2019	GR 2-19-ST5	McKean	80,000
108360	5/23/2019	GR 2-19-ST6	Potter	26,000
108368	4/11/2019	GR 2-19-ST9	Juniata	15,560
108368	4/11/2019	GR 2-19-ST9	Mifflin	9,700
106657	1/17/2019	SR 80-B48	Clearfield	10,700
101101	12/6/2018	SR 255-819	Elk	25,100
99999	3/28/2019	SR 333-911	Juniata	10,600
105933	8/9/2018	SR 879-P28	Clearfield	2,000

2019 Planned Construction Projects

ECMS #	Let Date	SR	County	Tons
4719	7/25/2019	SR 2004-A01	Mifflin	1,400
88186	10/10/2019	SR 0255-A03	Elk	1,500
109733	3/28/2019	SR 3002-FFA	Elk	27,000
96820	3/22/2018	SR 0322-B06	Centre	50,000
85198	8/23/2019	SR 0219-A16	Clearfield	1,200
85199	8/23/2019	SR 0219-A17	Clearfield	1,500
81405	5/10/2018	SR 0035-A07	Juniata	2,080
85216	2/14/2019	SR 0155-A05	McKean	7,000
106282	2/28/2019	SR 0026-N39	Centre	2,000
85201	2/28/2019	SR 0219-P23	Clearfield	2,000
4643	8/9/2018	SR 2002-A01	Mifflin	2,400
85212	12/13/2018	SR 0006-A13	McKean	1,400
88639	12/13/2018	SR 0059-A06	McKean	1,200
91609	3/14/2019	SR 3001-A01	Mifflin	2,000

2019 Planned Construction Projects

- High RAP 19mm
 - ECMS 108278 - GR2-19-ST2 (Elk, Clinton & Cameron)
 - 22,000 Tons
 - ECMS 108328 - GR2-19-ST5 (McKean)
 - 35,000 Tons
 - ECMS 108360 - GR2-19-ST6 (Potter)
 - 22,000 Tons
 - ECMS 108368 - GR2-19-ST9 (Mifflin & Juniata)
 - 22,000 Tons

2019 Maintenance WMA Tons (Estimated)

County	9.5 mm	12.5 mm	19.0 mm	19.0 mm LVR	25.0 mm	37.5 mm
2-1	434		9054			
2-2	1623		10129			
2-3	489		18			
2-4	143		48			
2-5	2338		3590			
2-6	217		334			
2-7	200		1410			
2-8	325		1612			
2-9	10		13640			
TOTAL TONS	5779		39835			

LVR = Low Volume Roads

District Innovations & Best Practices

- Have you tried a 6.33 mm Thin Lift project yet?
 - Yes-
 - GR 2-17-ST1 Centre (E107331)
 - Beaver Avenue, State College
 - Segment 140-180
 - PG 76-22 (1 inch)
 - GR 2-18-ST1 Centre (E108270)
 - SR 1001
 - PG 76-22, 6.3mm, 0.75in depth- Virgin mix (Segment 10-40)
 - PG 64-22, 6.3mm, 0.75in depth Virgin Mix (segment 40-60)
 - PG 64-22, 6.3mm, 0.75in depth RAP (Segment 60-70)
 - Mill, Tack, Scratch, Overlay
 - Central Office Pilot

> 2017 Pilot- 6.3 MM



➤ 2017 Pilot- 6.3 MM



➤ 2017 Pilot- 6.3 MM



➤ 2017 Pilot- 6.3 MM



> 2017 Pilot- 6.3 MM



> 2017 Pilot- 6.3 MM



> 2017 Pilot- 6.3 MM -2019



> 2017 Pilot- 6.3 MM -2019



> 2017 Pilot- 6.3 MM -2019



➤ 2017 Pilot- 6.3 MM -2019



➤ 2017 Pilot- 6.3 MM -2019



➤ 2018 Pilot- 6.3 MM



➤ 2018 Pilot- 6.3 MM -2019



➤ 2018 Pilot- 6.3 MM -2019



➤ 2018 Pilot- 6.3 MM -2019



District Innovations & Best Practices

- Do you utilize SMA on all Interstate Highways?
 - Yes. Using SMA on all interstate and Interstate Look a likes.

District Innovations & Best Practices

- Are you still having tack coat issues? What tack coat type do you predominantly specify? Why?
 - Mostly TACK
 - Specify NTT in urban areas
- Tack Issues
 - Still some pick up- Usually milled surfaces
 - Surfaces not clean
 - Uniform Even Coat

District Innovations & Best Practices

- Have your maintenance forces completed a 19.0 mm for Low Volume Roads mix project yet?
 - No-County Forces do not pave
 - Produced 19.0mm High Rap for adjacent district
 - 30,000 Tons
 - Will have low volume high rap 19.0 mm on Group projects in 2019.
 - E108378- 22,000 Tons
 - E108328- 35,000 Tons
 - E108360- 22,000 Tons
 - E108368- 22,000 Tons

District Innovations & Best Practices

- Have you bid or completed a LLAP Project?
 - Yes- SR 0080-B34 Centre (E82105)
 - Mill and Overlay- LLAP-wearing (SMA)
 - A lot of Testing
 - Information gathering-What are we looking for?
 - Did not change the SMA previously used
 - SR 322-B06 Centre Full Depth New Construction (2019-2020)
 - LLAP
 - Wearing
 - Binder
 - Base
 - Asphalt rich base course
 - Just completing Design

District Innovations & Best Practices

- Have you bid and/or completed any crack and seat projects/asphalt structural overlay in the past few years?
 - None

District Innovations & Best Practices

- Please discuss any Innovations/Best Practices that you have piloted or recommend.
- SR 0080-B34 Centre (E82105)
 - Echelon Paving at travel lane & 10 foot shoulder joint
 - Goals
 - Elimination of joint or at least have a hot joint
 - Improved joint densities
 - Longer pavement life

District Innovations & Best Practices

- Please discuss any Innovations/Best Practices that you have piloted or recommend.
 - Issues
 - Construction Congestion
 - Safety
 - Dissimilar materials
 - SMA
 - Superpave
 - Densities

District Innovations & Best Practices

- Please discuss any Innovations/Best Practices that you have piloted or recommend.
 - Density Results
 - Echelon 92.8
 - Non Echelon 92.6
 - Best Practice- Time will tell
 - Future Projects-Not at this Time

District Innovations & Best Practices



District Innovations & Best Practices



District Innovations & Best Practices



District Innovations & Best Practices



Echelon

District Innovations & Best Practices



Non-Echelon



2018 District Changes - Direction

- Please discuss any changes to policy, specifications, special provisions, staff, etc. that are relevant to the asphalt paving industry.
- Mike Reeder (814-765-0452), PE Acting ACE for Centre, Mifflin Juniata
- Northern ACE position still vacant. Contact Steve Fantechi (814) 765-0452

Questions/Comments???



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