

PAPA Regional Technical Meeting

March 16, 2022
8:00 AM to 3:00 PM
District 9-0

Kevin Gnegy
District Materials Engineer
(814) 696-7190
kgnegy@pa.gov



2021 Asphalt Mix Testing

Testing:

- 121 Lots- Mixture Acceptance by box sample
- 79 Lots – Density Acceptance by pavement core

Failure:

- 2 AC failures
- 1 Gradation failures
- 0 Density failures

2021 Longitudinal Joint Density Performance

	Longitudinal Joint Density Summary					
Year	2021	2020	2019	2018	2017	2016
Lots Tested	17	11	4	7	0	0
% Density Range	87.4-96.8	85.0-95.2	88.5-94.8	87.2-95.6	n/a	n/a
% Average Density	92.7	91.6	91.9	92.0	n/a	n/a
Total \$ for Incentive Lots	76,575	18,000	3,000	25,000	0	0
Total \$ for Disincentive Lots	0	0	0	0	0	0
Delta (Incentive - Disincentive)	76,575	18,000	3,000	25,000	0	0



2021 Longitudinal Joint Density Performance

- Longitudinal Joint Type
 - Which joint type is being utilized most?
 - Primarily Vertical/Butt Joint
 - Some Tapered/Notched Wedge
 - Which joint type is producing better density?
 - Varies by contractor/mix; but appears Notched Wedge trends higher historically
 - Are you having any longitudinal joint issues?
 - Performing very well overall.
 - J-Band Pilot on I-70 Sec. 021 Bedford County (SMA)

2020-22 Material Usage (Actuals & Projected)

MATERIAL	2020 Actual	2021 Projected	2021 Actual	2022 Projected
ASPHALT (TONS)	225,000	*520,000	*400,000	517,500
AGGREGATE (TONS)	415,000	700,000	810,000	816,500
STRUCTURAL CONCRETE (CY)	5,250	16,000	13,100	14,000
CONCRETE PAVING (SY)	1,360	*47,000	*15,200	30,000

- * 2021 Asphalt Tonnage difference due to 3 projects being supplied from Out of District Suppliers.
- * Concrete Paving Square Yard difference due to Fulton Co. I-70 Concrete paving being pushed to 2022.

2022 Maintenance Asphalt Tons (Estimated)

- No Dept. Force Long Line Paving in 2021 and none planned for 2022

LVR = Low Volume Roads

District eTicketing Pilots

- Three Pilots in 2021
 - No connectivity established between producer's software and APP.
 - Received CSV Data
 - 15 Pilots identified for 2022
 - Hoping for better connectivity for data sharing between systems

District 6.3 & SMA Projects

- List of 2021 6.3 mm Thin Lift projects
 1. 2 Projects US 22, Cambria County
 2. 1 Project SR 4013, Blair County
- List of SMA Projects
 1. 2 Projects I-70, Fulton County

District HWTT/IDEAL-CT Pilots

- 2021 Pilot HWTT/IDEAL-CT Pilot Projects

ECMS	County	SR	Sect
91659	Huntingdon	0655	008
106472	Somerset	4002	002
106052	Cambria	0056	006
96647	Somerset	4005	001
96599	Somerset	0030	016

Mix Design

- Do you see any issues with reducing the mix design gyration numbers to 50 & 75?
 - Carry over projects will use the old gyration level unless the producer requests to change to the new gyration level.
 - All old gyration mix designs will be conditionally approved for a specific project(s) only.
 - Need to consider PG Bumping where applicable.

District 9.5 mm & 19.0 mm High RAP Mixes for LVR Mixes

- Used 19mm Hi-RAP on both ECMS/Contract and Dept. Force paving. Over 100,000 tons placed in 2019.
 - To date, no issues. Mix and placement/performance has been very favorable to date.
- No Dept. Force Long Line Paving in 2021 and none planned for 2022
- Looking to pilot 9.5 mm & 25mm Hi-Rap (Via ECMS- *Funding Dependent)- *Need active SSP for 25 mm (Currently "Pending" Status)*

District Rehabilitation Projects

- Performed crack & seat on a portion of I-99
 - Worked well, utilized “Crack and Seat” special provision, not the Rubblizing Spec. in 408, resulting in thinner overlay (9 ½”).
- SR 403-001, #96607 in Somerset Co.
 - Worked well. Existing Concrete Pavement was RCCP Break and Seat, cutting panels at 1/3 points to minimize slab lengths

District Innovations & Best Practices

- Please discuss any Innovations/Best Practices that you have piloted or recommend.
 - VRAM
 - HIMA Pilot, I-70 Fulton Co. (Pending FHWA approval)
 - Crack/Break and Seat
 - PME works under DME, review pavement designs. Better coordination of pavement designs and treatments

2021 District Issues - Problems

- When placing 6.3mm Thin Overlay over concrete patching.
 - Look at including diamond grinding Item Quantities at patches to improve ride.

2022 District Changes - Direction

- Continue HOLA testing, with appropriate resources
- Increase use of preservation techniques- 6.3 Thin Lift in future. Good performing mix to date with substantial benefits.
- Continued use of FDR with bituminous overlay*
 - * Typically, 19mm High-RAP with wearing or chip seal

Questions/Comments???



Kevin Gnegy
DME
(814) 696-7190
kgnegy@pa.gov

Matt Hankinson
Matl's. Mgr. 1
(814) 934-5874
mahankinso@pa.gov