Plastic Project: Ridley Creek State Park

NVI Advanced Materials Group

- NVI supplied the plastic additive for this Project.

NewRoad® Hybrid Asphalt High Performance Additives

AMG uses recycled plastic polymers and re-engineers them through several processes to achieve the required performance.

Procedure

- 9.5 mm Hybrid Polymer Asphalt Wearing Course, PG 64-22 Mix Design and Certified Weight Slips. This mix design shall be consistent with item (d) including asphalt content,. except the mix includes **1 – 2 %** of Hybrid polymer additives by total binder weight (including RAP). This range is equivalent to 0.05 - 0.10 percent by weight of aggregate, or approximately 1 – 2 lbs. per ton of mix

Volumetric Mix Testing

Mix Test Data				
Without Plastic			With Plastic	
	10/20/2021	10/22/2021	10/20/2021	10/22/2021
#8	33	34	33	35
# 200	5.8	5.9	5.8	6
Gmm	2.553	2.556	2.551	2.555
Voids	3.5	4.2	3.4	4
VMA	16.1	16.4	16	16.4

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Compaction

- There was no noticeable difference in compaction during paving or roller operations.

Field Density	
without plastic	with plastic
96%	92.8%
94%	92.9%
96%	95.8%
94.5%	97.1%
94.6%	95.1%