



Civil / Structural /
Transportation Engineers

Construction
Inspectors/Managers

Bridge Condition
Inspectors

*New Jersey
New York
Pennsylvania*

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Route 18 Northbound Resurfacing Project Milepost 5.5 to 11.3

Monmouth County, New Jersey

PROJECT TYPE

Transportation Design

PROJECT OWNER / CLIENT

New Jersey Department of Transportation

CONTRACT AMOUNT

\$397,000 fee

START & END DATES

12/2013 – 5/2016

ROLE

Prime
Transportation Engineering,
Construction Support Services

REFERENCES

Jayesh Pandya, NJDOT
(609)-530-2999

PROJECT DESCRIPTION

For this \$3.7 million federally funded pavement resurfacing project, SJH provided complete engineering services for the pavement evaluation and final design of Route 18 NB, from North of Route 138 to South of Deal Road between Milepost 5.5 to 11.3, which consist of two 12-foot travel lanes, a 3-foot left shoulder and a 12-foot right shoulder on the mainline roadway, and 6 on/off ramps. This section of the Route 18 is classified as an Urban Principal Arterial, and currently has a two-way ADT of about 50,000 VPD. SJH prepared complete contract plans including construction plans, traffic control plans, striping plans, miscellaneous bridge repair details, cost estimates, specifications, and construction schedule in compliance with NJDOT and federal regulations. The existing pavement issues included joint deterioration, longitudinal cracks that were sometimes raveled, top-down cracking, low-severity block cracking in isolated areas, and several transverse cracking areas. The right shoulder also exhibited transverse cracking and low-severity longitudinal cracking. The pavement recommendation for this work involved milling 2 inches and overlaying 2 inches of HMA on 12.5 M 64 surface course Rt. 18.

Spalls on bridge decks were patched with concrete and settled/deteriorated compression seal in the deck joints were resealed with hot poured asphalt. Guide rail elements that were deemed substandard were upgraded as part of the roadway resurfacing effort. A quarter acre of new and a quarter acre of replacement non-vegetative HMA surfaces were provided under the new guide rails. Porous HMA non-vegetative surfaces were provided under the remaining replacement guide rails. A Self-Certification to the Storm Water Regulation was filed and approved through the NJDOT Bureau of Environmental Program Resources, Stream Encroachment and Storm Water Unit.

Since Route 18 is one of the major corridors for summer traffic, one lane of traffic was maintained at night time in a two-stage construction effort utilizing the resurfaced shoulder as travel lane. Variable message signs were installed to inform motorists regarding any changes in traffic operations. Construction has been completed on time and within budget with no RFI's.



SJH Engineering, P.C.