



# COUNTY OF SOMERSET DEPARTMENT OF PUBLIC WORKS

## ENGINEERING DIVISION

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## Project Update and Outline for Safety Improvements for Hillcrest Road (CR 531) Warren Township & Watchung Borough Somerset County, NJ February 8, 2022

The below is a project outline of safety improvements completed to date and status of that currently under design. The project has been segregated into various phases to better address the recommendations of the numerous safety evaluations conducted throughout the corridor as well as respond to input by the public and local officials. This phased approach enables the County to immediately install improvements not requiring extensive engineering design and coordination while at the same time advancing safety measures that require additional design, coordination funding and permitting.

- **High Friction Surface Treatment (HFST) (Completed 2017)**
  - Treatment applied to pavement to aid vehicle safety navigating the sharp horizontal and vertical curvature on this portion of Hillcrest Road.
  - Installed along the horizontal curve approximately 200 LF south of the intersection of High Oaks/Ridge Road and Hillcrest Road. Initially installed in 2017 and reinstalled during roadway resurfacing in 2020.
  - Before and After High Friction Surface Treatment Crash Comparison Study found the installation has reduced crashes by 35%. Findings are supported by feedback from the Watchung Police Department.
- **Phase I Roadway Safety Improvements (Completed Fall 2020)**
  - Improvements include the following signing and striping improvements to the northern section of Hillcrest Road:
    - 8" wide thermoplastic edge line stripes
    - Transverse rumble strips located south of the horizontal curve south of the High Oaks Drive/Ridge Road intersection and north of the vertical crest curve.
    - Numerous additional regulatory and warning signs to advise of weight limit, reduced speed, horizontal curves, and the intersection ahead.
    - Replacement of the sign panel on the cantilever sign support, located south of Crestwood Drive.
    - Advanced street name plaques.

- Mission Statement -

The County of Somerset is committed to excellence and innovation in public service, promoting the well-being of all residents and communities by providing effective, efficient and responsive leadership.

*Somerset County Is An Equal Opportunity Employer*

### **Traffic Control Changes and Restriping at I-78 Interchange (Under Review by NJDOT)**

- Initiative of Somerset County to implement traffic calming measures designed to reduce speed and improve safety within NJDOT's jurisdiction in the vicinity of the I-78 overpass.
- Currently Hillcrest Road is two lanes in each direction along the I-78 overpass. The County has proposed restriping in both directions to provide a single through lane and one deceleration lane to the I-78 on-ramps in each direction. The County has also proposed a change in the traffic control from "Yield" to "Stop" for right turn movements exiting I-78 eastbound and westbound at Hillcrest Road (Exit 40).
- A Conceptual Restriping Plan was prepared and submitted to the NJDOT for their consideration. The plan is currently under review by the NJDOT and awaiting their possible modifications and authorization. If approved, the improvements will be completed by NJDOT forces.

### **NJDOT Truck & Weight Limit Signage Review and Evaluation (Under Review by NJDOT)**

- Initiative of Somerset County to review existing truck routing and weight limit signage along Hillcrest Road between I-78 and Valley Road (CR 527), along I-78 between interchanges 41 and 43, and on the County and local roadway network between I-78 at these interchanges and US-22 to the south.
- The review concluded that there is adequate truck/weight limit restriction signage in the vicinity of the study area, but there is insufficient signage directing trucks from I-78 to US-22 via alternate routes that do not have weight limit restrictions.
- A Conceptual Sign Modification Plan was prepared and submitted to the NJDOT for their consideration. The plan is currently under review by the NJDOT and awaiting their possible modifications and authorization. If approved, new and modified signs within the NJDOT jurisdiction will be completed by NJDOT forces.

### **Southern Hillcrest Road Sign Modifications (To Be Installed Spring 2022)**

- Evaluation of signage along Hillcrest Road north of its intersection with Valley Road.
- Key modifications proposed:
  - Increased and enhanced advanced warning signs along Hillcrest Road.
  - Removal of redundant or unnecessary signs throughout the project area to provide more emphasis on the warning and regulatory signs.
  - Weight limit restriction signs placed on Valley Road further in advance of its intersection with Hillcrest Road.

### **Phase II Roadway Safety Improvements (Under Design, anticipate construction to commence 2023)**

- Project limits have been extended south to the intersection with Valley Road
- The roadway improvements being considered for Phase II include:
  - Increased and uniform shoulder width (3-5' shoulder, 11' lane, 4' gore) to provide an escape from potential crashes, increased sight distance from driveways, and greater separation between the travel way and utilities, guiderail and signs.
  - Widening of Hillcrest Road southbound at the intersection with High Oaks Drive for increased sight distance.
  - A flashing beacon at the intersection of Hillcrest Road and High Oaks / Ridge Road to provide an advanced warning of the intersection, especially to southbound drivers on Hillcrest

Road coming over the vertical curve at the crest of Hillcrest Road where inadequate stopping sight distance is present.

- Grading and drainage improvements along the approaches of High Oaks Drive, Ridge Road, and Hillcrest Road. Grading will reduce sheet flow across travel lanes with additional inlets to more effectively capture runoff collected in the road gutters and safely conveying runoff to an existing stable stormwater outfall.
- An intelligent queue detection system on southbound Hillcrest Road at its approach to the crest vertical curve to alert drivers of stopped vehicles ahead.
- A striped centerline median around the horizontal curve south of High Oaks / Ridge Road to provide greater separation between oncoming drivers and a buffer for vehicles that may cross the double yellow centerline.
- Replacement of existing guiderails and installation of compliant end treatments.
- Road surfaces within project limits shall be repaved with and High Friction Surface Treatment reinstalled, additional areas to be evaluated and limits of treatment expanded if warranted.

