



The Falcon Group

ENGINEERS, ARCHITECTS AND ENERGY CONSULTANTS



West Essex Highlands Condominium Association

Roadway and Driveway Pavement Improvement Project

PROJECT LOCATION

West Orange, NJ

BUILDING TYPE

Condominium Association

PROJECT VALUE

\$2,250,000.00

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The community is approximately 65 acres in size with 68,000 square yards of asphalt roadway and parking surface area to be repaved as part of the project. The residences are comprised of 52 buildings, which contain 300 townhouse style condominium units, each with a private driveway also to be repaved as part of the project. Due to the community's large size, the project was phased over 5 years with Phase 1 being completed recently in late 2018.

As part of the design process, we initially performed asphalt core sampling to determine the average sectional thickness of the pavement throughout the community. The results from the core sampling indicated an adequate total thickness of over 6.5". The scope of work for the project involved milling (removing) the surface course, removing and replacing failed areas of base course, and repaving a new asphalt surface course. The core sampling allowed us to design a cost-effective repaving project. Failure to recognize an adequate pavement section could result in poor roadway performance and/or increased construction costs.

In addition to repaving all the roads, parking areas and driveways, Falcon also included drainage repairs and improvements where necessary. Some of the existing storm water catch basins were failing, which would have caused settlement and other drainage issues with the new pavement if not repaired. We also observed areas of poor drainage flow over the existing pavement surface and designed new drainage structures and pipe to accommodate the new pavement surface.

The community is vast with rolling green hills, large boulder retaining walls and beautifully manicured lawns and landscaping; however, the asphalt surfaces were in poor condition and took away from the otherwise rich aesthetics of the community. At this point in time, only the first phase of the project has been completed. There is already an overwhelming difference in aesthetics between the newly repaved area and the old. In an effort to reduce stress on the community, the Falcon team worked with the contractor on a daily basis to implement a plan that maximized construction efficiency and minimized the amount of time and distance traveled for residents to park and walk to the temporary parking areas. The additional challenge was storing all the equipment and machinery for a large-scale repaving project.



Before



During



In Progress