

French & Parrello Associates (FPA) is a multi-discipline engineering firm, employing over 140 professionals in four offices with corporate headquarters in Wall, NJ and branch offices in Camden, NJ, Hackettstown, NJ, and New York, NY. Through its principals and staff, the firm has established a reputation of technical excellence and responsiveness on diverse and complex projects.

FPA's staff includes Licensed Professional Engineers, Certified Municipal Engineers, Licensed Landscape Architects, LEED® Accredited Professionals, Professional Land Surveyors, LSRP (Licensed Site Remediation Professionals), Certified Wetlands Delineators, Licensed Professional Land Planners, Licensed Professional Geologists, Certified Construction Inspectors/NICET Level II - IV and NJ DCA-Certified Special Inspectors.

Backed by our technical expertise and wide range of services, our commitment to client satisfaction has made us a leader in engineering design from project inception to closeout. FPA is committed to bringing exceptional service and value to each project through focused attention, timely response, and innovative solutions.

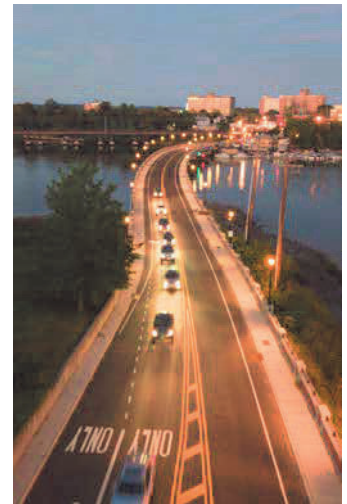
The firm's strength lies in its people, its principals and technical and administrative employees. The entire staff forms a team that is prepared to share knowledge and experience. FPA's professionals are complemented by talented support staff as well as extensive computer-aided drafting and design (CADD) resources, online capabilities and cutting-edge equipment. FPA has a full-service internal geotechnical lab, a mobile lab and full-time survey crews.

### Engineering Services

- Land Development
- Land Surveying
- Landscape Architecture
- Geotechnical Engineering
- Environmental Engineering
- Construction Phase Services & Material Testing
- Building Design
  - Electrical Engineering
  - Mechanical Engineering
  - Plumbing Engineering
  - Structural Engineering
- Telecommunications
- Transportation Engineering
  - Bridge & Highway Engineering
  - Traffic Engineering
- Shoreline Protection
- Solid Waste Engineering
- Water Resources
- Renewable Energy

## Monmouth County Bridge S-17, Red Bank, NJ

FPA provided final design and construction support for this federally funded local lead project for Monmouth County and the NJTPA. The new 488-foot long steel girder bridge consists of six (6) 80-foot spans supported on pile bents and pile supported abutments. Two signalized intersections were upgraded along with improvement of the roadway profile, lighting and drainage system through the project limits. Pedestrian activities were also improved by constructing a sidewalk along both sides of the bridge, and by upgrading all handicapped ramps to be compliant with current ADA requirements. The design was advanced in compliance with FHWA NEPA guidelines as a Categorical Exclusion. The final design involved the preparation of construction documents for a new bridge on adjacent parallel alignments to maintain traffic during construction, minimize impact to the surrounding towns during the summer months, and maintain the navigable waterway.



*This project received the 2017 Distinguished Engineering Award from the New Jersey Alliance for Action.*

## South Orange Avenue Improvements, Essex County, NJ

FPA completed the scoping study and advanced this federally funded local lead project through the final design phase for Essex County and the NJTPA. The project included the realignment and full reconstruction of 1.6 miles of roadway through South Mountain Reservation in Essex County. The project included widening and realignment of the roadway.

New traffic signals with dedicated turn lanes were installed at three intersections. Dedicated turn lanes were also provided at several driveways to improve safety for turning vehicles in areas with limited sight distance. Two new prefabricated arch pedestrian bridges were installed to provide safe crossings for trails within the reservation. Decorative street lighting and landscaping was provided throughout. Over 4,000 trees were planted throughout the reservation as part of a reforestation plan.



## New Brunswick Bikeway, New Brunswick, NJ

FPA was retained by Middlesex County and the NJTPA to provide final design services for this local lead federally funded project to install a 1.8 mile long dedicated bikeway through the City of New Brunswick. To accomplish this highly complex project, FPA performed a scoping study that included a comprehensive bi-lingual community outreach effort, including coordination with a steering committee, focus groups, the local public, numerous project stakeholders and Rutgers University faculty, staff and students. Critical tasks include detailed survey and constraint mapping; Traffic Assessment and Signal Modifications; ADA compatibility evaluation and design; Lane configuration and transition design and stormwater management analysis and improvement design. As part of the final design, a total of 9 traffic signals were either modified or completely replaced, including 3 under NJDOT jurisdiction. The entire project length was resurfaced with new signage and striping installed. New drainage collection systems were also installed throughout.



## Commonwealth Avenue (CR 619) Resurfacing, Township of Upper, Cape May, NJ

FPA provided final design services for the rehabilitation of approximately 1.6 miles of County Route 619 (Commonwealth Avenue) in the Strathmere section of Upper Township through resurfacing and minimal full depth pavement reconstruction. The design was Federally funded through the SJTPO. The project included the modification of the existing roadway profile to increase elevation to improve roadway passage during storm events while adjusting the cross slopes to minimize right of way and environmental impacts. Scope of work also included drainage analysis resulting in the replacement of existing drainage structures and the installation of new drainage structures. Sidewalks at the intersections within the project limits were replaced to conform with current ADA and PROWAG Standards. As part of this project FPA developed exhibits and handouts for Public Information meetings to assist Cape May County in securing public support. FPA also provided construction support services during the construction of the improvements.



## Route 70 & Massachusetts Avenue Intersection Improvements, Toms River, Ocean County, NJ

FPA completed preliminary and final design for the reconstruction, widening and signalization of a one-mile section of NJ Route 70 for NJDOT. The project included a traffic analysis and signal design of two traffic signals on Route 70 at Massachusetts Avenue and at Lake Ridge Blvd. The new signals included the use of microwave technology for signal coordination. The portion of Route 70 within the project limits consisted of a 12-foot lane and 8-foot shoulder in each direction. The roadway approaches at the project limits consist of four lanes with shoulders whereby creating a bottleneck in the roadway. It was the goal of the project to provide a consistent roadway section between the project limits and improve traffic operations and safety at the intersections. The project also included approximately 3000 linear feet of roadway widening along Massachusetts Avenue at the intersection approaches. Other engineering activities included preparation of a CED; stormwater management measures including the design of recharge basin, infiltration swales and drainage systems; preparation of final bid documents in accordance with NJDOT delivery procedures; preparation of CAFRA permit; utility coordination and relocation plans; design of highway geometry, grading, traffic signing and striping; detailed traffic control plans; pavement design; and preparation of an engineer's estimate.



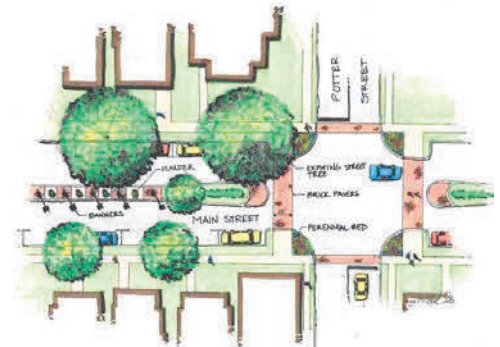
**Chapel Hill Road, Cherry Hill, NJ**

FPA was retained by Camden County to provide concept development, along with preliminary and final design for the improvements to approximately 2.1 miles of Chapel Avenue in Cherry Hill Township. The project required close coordination with local officials as two schools, a hospital, and municipal park were all located within the project limits. Conceptual plans were developed for multiple design schemes aimed at reducing traffic speeds on the roadway and improving pedestrian/bicycle safety. The selected design included the introduction of dedicated bicycle lanes in each direction, installation of decorative paver medians and islands, and restricting onstreet parking. The final design plans are anticipated to include pavement resurfacing, signing and striping improvements, minor drainage improvements, and ADA compliance upgrades. An existing traffic signal at a school driveway will also be replaced.



**Main and Feltus Streets Traffic Calming and Streetscaping, City of South Amboy, NJ**

FPA was retained by the City of South Amboy to perform feasibility studies for traffic calming and streetscaping improvements along Main Street and traffic calming improvements (without streetscaping) along South Feltus Street. The City of South Amboy was particularly concerned with addressing vehicular speed issues and improving the visual aspects of these two main corridors within the City. FPA's scope included data collection and analysis of existing traffic volume, speed and accident data on Main Street and Feltus Street; and to determine appropriate traffic calming methods to reduce speed and enhance vehicular, bicycle, and pedestrian safety within the project limits. The preparation of conceptual design plans was included in the scope of work.



**County Route 537 Corridor Study, Monmouth County, NJ**

FPA completed the concept development phase of this project through NJTPA's Local Scoping Program in accordance federal with guidelines. County Route 537 is a major east-west regional arterial in Monmouth County. As part of this scoping study, numerous engineering evaluations were conducted at key locations including Route 9 and Route 33 freeway interchanges; intersection investigations at seven locations; and several alternate access roads to alleviate traffic through the corridor. Transportation alternatives investigated included bus and Park-n-Ride facilities. Other critical components include Section 4f evaluations, air/noise assessments, traffic impact studies, community outreach, ecological and wetlands screenings, and hazardous waste Phase 1 screenings.

