ENVIRONMENAL IMPACT ASSESSMENT

RUNKLE DRIVE PARK PLAYGROUND IMPROVEMENTS PROJECT

Block 82, Lot 4.03 Clinton Township Hunterdon County, NJ

MAYOR

Brian Mullay

TOWNSHIP ADMINISTRATOR William Close

January 2024

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LAWRENCE PLEVIER, PE Professional Engineer - NJ Lic. No. 24GE04748500





ENVIRONMENTAL IMPACT ASSESSMENT

RUNKLE DRIVE PARK PLAYGROUND IMPROVEMENTS PROJECT BLOCK 82, LOT 4.03 CLINTON TOWNSHIP HUNTERDON COUNTY, NJ

DATE: January 2024

The Township of Clinton has conceptually prepared a site plan for improvements for the Runkle Drive Park on Lot 4.03 in Block 82 within the Township of Clinton in Hunterdon County, NJ. The subject parcel is owned by the Township of Clinton and is currently an active farm field. The Township is considering the installation of a stone parking area and playground equipment for the use by the general public.

This Environmental Impact Assessment (EIA) has been prepared for the subject property with the NJDEP guidelines as a format for the document.

Description of the Proposed Project:

The Runkle Drive Park improvements include the construction of a stone parking area, concrete ADA parking stalls, playground equipment, and site amenities such as trash and recycling receptacles, benches, and a shade tree. The improvements are proposed on an open space lot currently owned by the Township of Clinton. The parking area was a previous construction staging area for the recent Clinton Woods affordable housing project located on the adjoining parcel. The parking area will have a total of twenty (20) parking stalls including two (2) ADA parking stalls. The playground area is 125' x 160' in size. The proposed improvements are located on the north side of Runkle Drive on Lot 4.03 near the intersection of NJ State Highway Route 31 southbound.

A Soil Erosion and Sediment Control (SESC) Certification was procured from the Hunterdon County Soil Conservation District for the project in 2023 based on a concept site plan.

The objective of the project is to provide active recreational equipment to the general public for children within the Township and the surrounding area. The parking area will provide off-street parking stalls for visitors, and the implementation of benches and a shade tree will provide passive recreation for adults along with an area to safely and comfortably supervisor the children at the proposed park.

The project will be completed in a single phase, and the project will not require staged construction with multiple phases.

The adjacent affordable housing project is an 100% affordable housing project with seven (7) buildings with a total of eighty-four (84) low and moderate income housing units.



• <u>Description of the Environment:</u>

The subject parcel is currently an active farm field for the growing and harvesting of straw and/or hay. The proposed site has a tree line along the property line to the west, which will not be disturbed during construction. The project does not propose clearing or grubbing of any wooded area for the proposed improvements.

The wildlife for the subject site contains typical fauna for an open farm field for the region for birds, insects, and mammals. The current habitat is changing throughout the year due to the active farming activities including the tilling or plowing of the soils, planting of crops, and harvesting of crops.

In accordance with the USDA WebSoil Survey information, the entire limits of the project are within Duffield Silt Loam (DufB) soils with 2 to 6 percent slopes.

The subject site is not encumbered or constrained by Freshwater wetlands, wetlands buffers, streams, water bodies, riparian buffers, and/or flood plains. The subject site is not within the CAFRA zone and/or below the mean high-water line.

Access to the parking lot is from the municipal roadway, Runkle Drive. The centerline of the proposed driveway is approximately 270 linear feet west from the travel way of NJ State Highway Route 31 southbound. Also, the adjoining residential development of the Clinton Woods project has a bus stop as part of the recently constructed improvements. The Clinton Woods project is an affordable housing project, and the recent residential development is linked to the proposed Runkle Drive Playground by a concrete pedestrian sidewalk system with striped crosswalks and signage. The installation of ADA curb ramps with detectable warning surfaces are also proposed for the Runkle Drive Park project to supplement the existing pedestrian walkway system.

The lands adjacent to the proposed project include an active farm field to the north and east; the municipal right-of-way with Runkle Drive to the south; and the recently constructed Clinton Woods affordable housing project to the west.

Environmental Impact Analysis of Proposed Action:

The proposed project will have a de minimis impact on the existing resources. The playground area will be covered with a pervious layer of wood mulch, and the parking area has been designed to maintain the motor vehicle surface to be less than one-quarter of an acre. The surrounding areas will not be altered, and the project will not require clearing of trees or vegetative areas. The limits of the project will be located within the footprint of an active farm field, which is annually disturbed for the various farming activities. The benefit for the project will be a passive and active recreational area for the community, including the recently constructed affordable housing project to the west. The project does not propose water and/or sanitary sewer facilities. Upon completion of the project, the site will be approved by the Hunterdon County Soil Conservation District for permanent stabilization. During construction, temporary soil erosion and sediment control devices will be utilized to avoid off-site impacts.

The long-term negative impacts for the project will be de minimis as the project will not generate water and/or sanitary sewer demands. The project will be for the general public and will allow for the community to enjoy the outdoor park space. The location of the proposed park will be adjacent to an existing trail system to supplement the current active outdoor use.



With the recent affordable housing project located adjacent to the proposed subject site, the due diligence for environmental permitting requirements has already been completed. The proposed project will not require a permit from the NJDEP. As stated above, the project has already received a Soil Erosion and Sediment Control Certification from the Hunterdon County Soil Conservation District. The project site is currently disturbed as a result of the active farm field.

The subject location is not impacted by sea level rise as the project does not adjoin a tidally influenced water body. The subject site is located within the Hydrologic Unit Code (HUC) 11 Watershed Management Area 8 – North and South Branch Raritan within New Jersey.

Alternatives to the Proposed Action:

The alternative to the proposed action or improvements for the project would be to maintain the land as an active farm field. With this alternative, the general public would not benefit from a passive and active playground. The subject site was part of the construction staging area for the Clinton Woods affordable housing project, and therefore, the area has been previously disturbed for construction with areas of compaction for the proposed parking lot area. The stone ground cover used for the affordable housing project will be maintained as part of the proposed stone parking lot which will save taxpayers money for the improvements; eliminate the need for waste for the construction material; reuse the stone construction material in a long-term beneficial project; and the site has experienced soil compaction due to the staging area use which will benefit the parking lot improvements.

Any alternate site will not have the benefit of the base material for the parking lot which has been established as part of the affordable housing project. The site does not require the clearing of vegetation or trees.

Any alternate site will not be adjacent to an existing trail system.

Any alternate site will not be adjacent to an affordable housing residential development.

Any alternate would more than likely require environmental permitting with the NJDEP.

Any alternate site would not be in proximity to a new bus stop as established at the affordable housing project.

<u>Mitigating Measures:</u>

The proposed playground improvements have been designed to minimize stormwater management and groundwater recharge impacts with the proposed parking area having a motor vehicle surface of less than one-quarter of an acre. The overall project will be less than one acre of overall total disturbance, and the proposed playground surface material will be a wood mulch material to ensure safety while allowing stormwater to infiltrate into the existing subsoils.

Author(s) and Qualifications:

The preparer of this Environmental Impact Assessment (EIA) has been the Clinton Township Engineer, Larry Plevier, PE, CME. Please see the attached resume for qualifications.

M MOTT MACDONALD

Lawrence Plevier, PE, CME

Personal summary

Education:

BS, Civil Engineering Technology, Wentworth Institute of Technology, 1999

Registrations:

Professional Engineer NJ #24GE04748500, 2008

Certified Municipal Engineer NJ #07-42, 2008

Years with Mott MacDonald: 25

Years with other firms:

Professional memberships:

American Society of Civil Engineers

Mr. Plevier has significant experience providing design and construction phase engineering services for a wide range of municipal and land development improvements projects. He is a Project Manager with experience coordinating clients and design teams, including multiple engineering disciplines, for delivering projects on time and on budget. He has performed layout and design surveys, estimated quantities, reviewed shop drawings, prepared "as-built" record plans, reviewed developer's plans, and prepared contract drawings. He provides Municipal Engineering services for several New Jersey municipalities, consisting of permitting, budgeting, and procuring funding for capital improvements related to municipal roads and related amenities, sanitary sewer facilities, and stormwater management facilities. He has specific project experience in the design and construction of sanitary sewer force mains, pump stations, detention and retention basins with discharge control structures, infiltration basins, site layout for residential and commercial applications, stormwater conveyance and collection systems, new road construction, and fully reconstructed roads.

Mr. Plevier has served several clients for numerous years as Project Manager on a wide range of projects, from storm hardening gas regulator stations to flood mitigation projects to improvements for wastewater conveyance systems to stormwater management compliance. He has designed new minor arterial roadways with stormwater management improvements, including an infiltration/extended detention facility, and prepared documents and applications for NJDEP stream encroachment permits and general wetlands permits. He has prepared subdivision and site plans for preliminary and final approval for a senior housing apartment complex with detached patio homes.

Employment history

1999 – Present	Mott MacDonald
1998	JD Marquedant and Associates Inc
1998	Boston Water and Sewer Commission

Selected projects

Municipal Engineering Services, Mantoloking Borough, Ocean County, NJ: Engineer-of-Record providing day-to-day municipal engineering services as Borough Engineer and appointed as Board Engineer for the Joint Planning/Zoning Board. Provide budgeting for capital improvements, funding assistance, design, permitting, and implementation of capital improvements related to municipal roads, groundwater remediation, the Barnegat Bay check valve program, sanitary sewerage maintenance, Barnegat Bay walkway systems, flood code compliance reviews, and the Barnegat Bay revetment project. Responsible for plan reviews related to the NJDOT improvements project for the reconstruction of Route 35, including coordination and meetings with NJDOT officials, the State's design consultant, and local municipal officials. (2009 – present)

Municipal Engineering Services, Clinton Township, Hunterdon County, NJ: Engineer-of-Record providing day-to-day municipal engineering services as Township Engineer and Appointed Board Engineer responsible for attendance at Planning Board and Zoning Board of Adjustment meetings for professional consultation on various applications. Served as assistance to the Township Engineer prior to appointment as Township Engineer. Assist with proposed site plan improvements including stormwater management and parking layout for municipal affordable housing obligation compliance with the renovation of the old municipal building. Assist professional land surveyor with field survey of properties for municipal acquisition and open space preservation thru the NJDEP Green Acres Program. General administrative and construction management activities include the preparation of Performance Guarantees Estimates for site improvements, Certificates of Occupancy, Performance Guarantee Reduction and Release, Plot Plan Reviews, Site Plan/Subdivision Review Reports for Zoning and Planning Boards, as-built surveys, and easement acquisitions. Prepared specifications and construction details for building ramp improvements for the Township Police Department facility, including technical support with Construction Code Official. (2006 – present)

Historic Streetscape Improvements, Allentown Borough, Monmouth County, NJ: Project Engineer for the streetscape and business district beautification project, which included new brick paver sidewalk improvements along Main Street/County Route 524/539 with new tree pits, decorative lighting, benches, trash receptacles, and bike racks. The project also included the design, grading, and layout of a new 61-stall off-street municipal parking lot with retaining walls. Obtained an NJDEP Transition Area Waiver for wetlands and a Soil Erosion and Sediment Control Certification, which included the preparation of stormwater management hydraulic and hydrologic calculations for compliance with off-site stability requirements. (2013 – 2014)

ADA Walkway No. 4 Improvements, Mantoloking Borough, Ocean County, NJ: Assistant Project Manager for the preparation of plans for ADA-compliant walkway system with sitting area for access to Barnegat Bay. The project was funded under a grant from the Community Development Block Grant (CDBG) Program. Responsibilities included coordination with the Ocean County Planning Department for CDBG compliance. (2012 – 2014)

ADA Walkway No. 3 Improvements, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of plans for ADA-compliant walkway system with sitting area for access to Barnegat Bay, including the reconstruction of existing storm inlets. The project was funded under a grant from the Community Development Block Grant (CDBG) Program. Responsibilities included coordination with the Ocean County Planning Department for CDBG compliance. (2009 – 2010)

Municipal Engineering Services, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications and performed construction management services, including preparation of contract documents, payment invoices and estimates, and change orders, for NJDOT-funded sidewalk construction projects. Observed the installation of thousands of feet of sanitary sewer and storm drainage systems, as well as the construction of new roads and road widening projects, including curbs, culverts, and drainage swales. Performed proof rolls for roads and parking lot construction. General administrative and construction management activities also include the preparation of Performance Guarantee Estimates for site improvements for over 5,000,000 sf of development, Certificates of Occupancy, Performance Guarantee Reduction and Release, Plot Plan Reviews, Site Plan/Subdivision Review Reports for Zoning and Planning Boards, as-built surveys, easement acquisitions, and coordination with NJDOT and Middlesex County for various road improvement projects. Provide consultation and technical support for NJDEP Air Quality Permits for emergency generators. Assist professional land surveyor with field survey of parcels for farmland and open space preservation thru the State Agriculture Development Committee - NJ Farmland Preservation Program and the NJDEP Green Acres Program. (1999 - 2009)

Wrights Roses Facility Demolition, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for the demolition and removal of the Wrights Roses Facility, a 2-story commercial building totaling 20,000± square feet. Project included removal of a bituminous concrete and stone parking/loading area, underground septic tank removal, above ground fuel storage tank removal, final re-grading of an area of disturbance, and asbestos abatement of asbestos-containing materials (ACMs). Project management responsibilities included procuring permits and certifications from the Freehold Soil Conservation District, procuring Authorization to Discharge permit from the NJDEP, daily coordination with air monitoring inspections, payment applications, and mediation of pre-bid and pre-construction meetings. (2004)

Cranbury Township Historic Village District, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications and construction management for a sidewalk replacement project in the Cranbury Township Historic Village District. (2004)

Cranbury Neck Road Sidewalk, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for the Cranbury Neck Road Sidewalk Construction Project. Scope of design included embankment fill for sidewalk installation along the existing roadway, relocation of grass drainage swale, landscape buffers, crosswalk/signage, new curb installation, and clearing. Project management responsibilities included procurement of NJDOT Transportation Fund Safe Streets to School Program allocations, daily coordination with field inspectors and contractor, payment applications, change orders, mediation of pre-construction meeting with Contractor and NJDOT, preconstruction meeting attendance with property owners within limits of work, and project closeout inspection/meeting with the NJDOT. (2004)

Plainsboro Road Sidewalk, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for the Plainsboro Road Sidewalk Construction Project. Scope of design included regrading within cut for proper stormwater drainage, modular block retaining wall, new curb installation, retrofitting existing inlets, and crosswalk/signage. Project management responsibilities included procurement of NJDOT Transportation Fund Safe Streets to School Program allocations, daily coordination with field inspectors and contractor, payment applications, change orders, mediation of pre-construction meeting with Contractor and NJDOT, pre-construction meeting attendance with property owners within limits of work, and project closeout inspection/meeting with the NJDOT. Perform field engineering and inspection tasks. (2002)

Greenhouse Facilities Demolition, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for the demolition of three greenhouse facilities totaling 87,500 sf and two commercial buildings totaling 22,000 sf. Project included air monitoring and asbestos abatement. Project management responsibilities included procuring permits and certifications from the Freehold Soil Conservation District and mediation of pre-construction meeting. (2001)

North Main Street Sidewalk, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for the North Main Street Sidewalk Construction Project. Scope of design included regrading within cut and fill for proper stormwater drainage, relocation of driveway culvert, removal of existing curb, relocation of grass drainage swale, stone retaining wall, and providing offset information to land surveyor for project stake-out. Project management responsibilities included procurement of NJDOT Transportation Fund Pedestrian Safety Program allocations, daily coordination with field inspectors and contractor, payment applications, change orders, mediation of pre-construction meeting with Contractor and NJDOT, and project closeout inspection/meeting with the NJDOT. Performed field engineering and inspection tasks. (2000)

C-17 Conversion: CNS Air Drop Facility, Charlotte Air National Guard Base, NC: Site/civil Lead Engineer for the design team for the construction of a new air drop facility as a building addition to existing Building 5 with a parachute drying tower. The project included site improvements, service utilities, site grading, storm sewer collection and conveyance systems, and compliance with Federal Aviation Administration (FAA) regulations for height of structures adjacent to a runway, compliance with the Energy Independence and Security Act (EISA) Section 438 stormwater requirements, and compliance with the Unified Facilities Criteria (UFC) design standards. (2019 – 2021)

Munition Storage Expansion (MSA), 145th Airlift Wing, Charlotte Air National Guard Base, NC: Site/civil Lead Engineer on design team for the munition storage expansion (MSA) project, including munitions maintenance/inspection facility and administration building, which included demolition of existing facilities, service utilities, grading design, and stormwater collection and conveyance systems. The project also included the design of temporary facilities for munitions storage and inspection during construction. (2018 – 2021)

New Warehouse Building, Central Wastewater Treatment Facility, Middlesex County Utilities Authority (MCUA), Sayreville, NJ: Site/Civil Engineer for the site design and layout for the 100,000 sf warehouse at the Central Wastewater Treatment Facility. Responsible for the preparation of contract drawings for the Grading and Drainage Plan, Site Plan, Soil Erosion and Sediment Control Plan, and an NJDEP Freshwater Wetlands Letter of Interpretation (LOI) application package. Prepared the stormwater management design for compliance with NJAC 7:8 for Major Development compliance. Assist field crew with wetlands delineation, "asbuilt"/property surveys, soil borings, and site reconnaissance. (2013 – 2016)

Community Service Organization (CSO) and Municipal Records Storage Buildings, Toms River Township, Ocean County, NJ: Design Engineer for the new 12,420 sf Community Service Organization (CSO) building and the new 4,000 sf municipal records retention building on an undeveloped property on Church Road/County Route 620. Responsibilities included site layout, parking and driveway geometry, grading, stormwater management for Major Development (NJAC 7:8) compliance, utilities with off-site sanitary force main connection, landscaping, and lighting. Permitting included Soil Erosion and Sediment Control Certification, Request for Authorization To Discharge, and NJDEP Letter of Interpretation (LOI) for wetlands. (2012) Department of Public Works (DPW) Bunk House Improvements, Clinton Township, Hunterdon County, NJ: Assistant Project Manager responsible for performing field site inspection and reconnaissance of existing conditions for preparation of the feasibility study and contract document. Prepared development feasibility study to identify the necessary permits and approvals from the Soil Conservation District, County, and NJDEP, and to present site plan concept designs to the municipality for a DPW facility with parking improvements. Prepared plans and specifications for site improvements, including cut/fill earthwork, DGA parking area, HMA parking area, utilities, dry well, and walkways/driveway for walk-out basement. Procured Soil Erosion and Sediment Control Certification. Attended on site pre-bid meeting with municipal officials and architect. Project management responsibilities included coordination with DPW superintendent and construction official for design layouts, revisions, and contract document addendum. (2009 – 2010)

Fats, Oils, and Grease (FOG) Treatment Building, Ocean County Utilities Authority (OCUA), Bayville, NJ: Site/civil Engineer for the design of the stormwater management design, including site grading, for compliance with NJAC 7:8 for a Major Development for the construction of a new fats, oils, and grease (FOG) treatment building. (2020)

Unit Sub-Station Improvements, Central Wastewater Treatment Facility Middlesex County Utilities Authority, Sayreville, NJ: Design Engineer for the design of secondary containment systems for 10 on-site electric unit sub-stations (USS), including connection of secondary containment systems to existing storm drainage systems at the facility. Secondary containment systems consist of liners with smart textiles with embedded agents that prevent the transmission of a petroleum-based product by solidifying the hydrocarbons on contact, geotextile barriers, storm piping, curbing, and stone storage fields. Prepared contract drawings and containment system capacities for existing USS components. (2013 – 2014)

Pump Station Improvements - Brielle Station, Wreck Pond Station, Glimmer Glass Station, and Wall North Station, South Monmouth Regional Sewerage Authority (SMRSA), Monmouth County, NJ: Project Engineer for the design of improvements to four sanitary sewer pump stations. The design included reconstruction of influent channels, electrical upgrades, site improvements, building façade improvements, and station upgrades. Base map information for the contract drawings was gathered via 3D survey scans of the interiors of the stations, including wet wells. Survey scans also provided information required for the design of various other station upgrades. (2018 – 2019)

Herbert Street Pump Station Reconstruction, Mantoloking Borough, Ocean County, NJ: Project Manager for the design of a new sanitary sewer pump station to replace the existing pump station, which was destroyed during SuperStorm Sandy, in accordance with NJDEP and FEMA codes and standards. Prepared contract documents including plans, specifications, and estimate. Obtained Treatment Works Approval (TWA) permit from the NJDEP and Soil Erosion and Sediment Control Certification approval from the Soil District. Provided FEMA flood mitigation measures for the new pump station for flood hazard risk reduction, including deep pile foundation, retrofitting the wet well with submersible pumps, and elevating the pump house above the 500-year design storm. (2013 – 2014)

Dey Road Pump Station and Force Main Improvements, Cranbury Township, Middlesex County, NJ: Assistant Project Manager responsible for performing field engineering and inspection tasks for a 16-inch diameter ductile iron pipe (DIP) sanitary sewer force main installation, including air-pressure test witnessing. Reviewed shop drawing submissions, prepared payment applications, and prepared change orders.

Broadway Road Pump Station and Force Main Improvements, Cranbury Township, Middlesex County, NJ: Assistant Project Manager responsible for performing field engineering and inspection tasks for a 12-inch diameter ductile iron pipe (DIP) sanitary sewer force main installation, including hydrostatic-pressure test witnessing and leakage field calculations. Reviewed shop drawing submissions and prepared payment applications.

Bay Avenue Flood Mitigation Improvements, Mantoloking Borough, Ocean County, NJ: Project Manager for the construction of roadway and storm sewer improvements, including flood mitigation control measures. The project was funded by two fiscal year NJDOT Municipal Aid program grants. Improvements included elevating roadway and sidewalk elevations, curedin-place liner improvements with a new check valve for a storm sewer outfall, and construction of improvements for future consideration for a storm sewer pump station. The project required the procurement of an NJDEP Waterfront Development Permit. (2015 – 2017) **Replacement of Culvert 4-C-108, South Main Street, Middlesex County, Cranbury, NJ:** Design Engineer responsible for design and preparation of the Grading and Drainage Plan for the replacement of Culvert 4-C-108 on South Main Street/County Route 685. Responsible for the preparation of concept plans for an alternate design analysis, including a full build-out scenario for sidewalks and roadway widening with stormwater management NJAC 7:8 compliance for Major Development. Stormwater Best Management Practices (BMP) design and the stormwater improvements model were prepared using PondPack software. (2013 – 2016)

Stanton Mountain Road Improvements, Phase 2, Clinton Township, Hunterdon County, NJ: Project Manager for the full reconstruction of 2,000 lf of Stanton Mountain Road, including drainage improvements, roadside underdrain and swale improvements, and hot mix asphalt roadway construction. The project was funded by the NJDOT Municipal Aid Program, and the design stages included a value engineering element to ensure construction expenditures were within budget while still complying with roadway design life criteria and NJDOT design standards. (2018 – 2020)

Restoration of Various Roadways, Mantoloking Borough, Ocean County, NJ: Project Manager for a borough-wide project for the improvement and restoration of existing roadways and to the municipal parking lot damaged by SuperStorm Sandy and/or the recovery efforts thereafter with the replacement of curbs and sidewalks, replacement of ADA curb ramps, the milling and paving of HMA roadways, and the reconstruction of roadways. The project was funded and subject to the requirements of the Federal Emergency Management Agency (FEMA) and complied with the design standards of the NJDOT. (2015 – 2016)

Police Station Emergency Driveway, Clinton Township, Hunterdon County, NJ: Design Engineer for the construction of a 350 lf emergency driveway to improve vehicular access to local roads to avoid the Route 31 one-way traffic pattern and improve emergency response time. Prepared Contract Drawings and obtained outside agency approvals including NJDEP Flood Hazard Area permit, NJDEP wetlands Letter of Interpretation (LOI), and Hunterdon County Soil Conservation District Soil Erosion and Sediment Control Certification. (2013)

Lagoon Lane Improvements, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of contract documents and design for roadway rehabilitation to mitigate impacts from Barnegat Bay surcharges and roadway flooding, including re-grading to address water ponding problems, design of storm sewer check valve system, and the reconstruction of sidewalks, aprons, and curbs. Project management responsibilities included coordination with NJDOT for State Aid, coordination with field inspectors, preparation of payment estimates, submittal reviews, and project closeout. (2011 – 2012)

Old Bridge Street and Bay Avenue Improvements, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of contract documents and design for roadway rehabilitation to mitigate impacts from Barnegat Bay surcharges and roadway flooding, including re-grading to address water ponding problems, design of stormwater collection system, design of storm sewer check valve system, and the reconstruction of sidewalks, aprons, and curbs. Project management responsibilities included coordination with NJDOT for State Aid, coordination with utility companies for submarine utility crossings of Barnegat Bay, coordination with field inspectors, preparation of payment estimates, submittal reviews, and project closeout. (2011 – 2012)

Lilac Drive Improvements Phases III and IV, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of NJDOT FY2010 Municipal Aid application. Prepared plans and specifications for roadway reconstruction improvements including full-depth hot mix asphalt construction, DGA sub-base course, vertical and horizontal alignment corrections of roadway geometry, and drainage improvements with riprap-lined drainage channels. (2011 – 2012)

East Main Street and Pierce Heights Road Improvements, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of plans and specifications for full-depth roadway reconstruction and drainage improvements. Responsibilities include project management, technical support, and coordination with field inspectors and the High Bridge Borough Utility Department. (2010 – 2011)

Channel Lane and Bergen Avenue Improvements, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of plans for vertical roadway geometry adjustment to mitigate impacts from Barnegat Bay water surcharge and flooding of roadways, including the installation of storm sewer, curbing, and outfall check valves. Attended resident meeting for presentation of roadway improvements with impacts to private improvements due to the

proposed raising of the existing roadway elevation. Project management responsibilities included coordination with field inspectors, preparation of payment estimates, submittal reviews, and project closeout. (2009 – 2011)

Griggs Tract Roadway Improvements, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of NJDOT FY2009 Municipal Aid Program application. Performed field site inspection and reconnaissance of all storm sewerage with the Department of Public Works for contract document preparation. Prepared specifications and plan for the Phase I roadway improvements for municipal roadways, including Ryan Road, Griggs Road, O'Brien Road, and Holmes Road. The Phase I improvements included the reconstruction of storm inlets, reconstruction of 6,100 lf of curbing, installation of handicap curb ramps, and reconstruction of various sidewalks and driveway aprons. The project also included retrofitting of inlets for Phase II stormwater compliance. Project management responsibilities include coordination with NJDOT for State Aid project and submittal reviews. (2008 – 2009)

Brick Yard Road Repairs, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of NJDOT FY2009 Local Aid Infrastructure Fund Program application. Performed field site inspection and reconnaissance of the road conditions with the Department of Public Works for contract document preparation. Prepared specifications and plans for roadway reconstruction improvements including full depth hot mix asphalt road construction with DGA sub-base course and underdrain system. Project management responsibilities include coordination with NJDOT for State Aid project and submittal reviews. (2008 – 2009)

Lilac Drive Improvements Phase II, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of NJDOT FY2010 Municipal Aid application. Prepared plans and specifications for roadway reconstruction improvements including full-depth hot mix asphalt construction, with DGA sub-base course with vertical and horizontal alignment corrections of roadway geometry. Designed scouring protection at culvert with riprap and controlled low-strength material concrete. Project management responsibilities included coordination with NJDOT for State Aid project, and technical support for field inspectors. (2009 – 2010)

East Avenue Improvements, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of contract documents and design for roadway rehabilitation, including regrading to addressing water ponding problems and the reconstruction of sidewalks, aprons, and curbs. (2009)

Allerton Road and Hoffman Road Improvements, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of NJDOT FY2009 Municipal Aid application. Prepared specifications and plans for roadway reconstruction improvements including full depth hot mix asphalt road construction with DGA sub-base course with vertical and horizontal alignment corrections of roadway geometry. Project management responsibilities include coordination with NJDOT for State Aid project. (2008 – 2010)

Belvidere Avenue Sinkhole Remediation, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of plans and specifications for the remediation of a 15-ft x 30-ft sinkhole which occurred on a municipal roadway servicing a public school. Sinkhole remediation was completed with a graded filter consisting of 16-inch boulders, riprap, filter fabric, DGA, and hot mix asphalt road. Construction was completed while maintaining water service to a resident and the shoring of an existing water main within the area of the sinkhole. Project management responsibilities included coordination with the Board of Education, Department of Public Works, and the NJDEP New Jersey Geological Survey. Provided technical support for field inspection personnel, submittal reviews, and payment applications. (2007 – 2008)

Old Mountain Road Improvements, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of plans and specifications for full reconstruction of 3,600 lf of municipal roadway. Designed roadway vertical realignment to improve geometry and drainage, and underdrain system to address high water table. The project included the replacement of the existing storm sewer system and stabilization of the downstream channel with FESs and conduit outlet protection. Provided project management and coordination with municipal officials, including submittal reviews, payment applications, meetings, Requests for Information (RFIs), technical support for field inspection personnel, and communications with the NJ Water Supply Authority, Hunterdon County Parks Department, and NJ Transit. (2008) Potterstown Lane and Payne Road Improvements, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of plans and specifications for the full reconstruction of 4,150 lf of municipal roadways. Designed roadway vertical realignment to improve geometry, and underdrain system to address high groundwater table, and reconstruction of subgrade material with selective fill and geotextile fabric. Project management responsibilities include submittal reviews, payment applications, meetings, Requests for Information (RFIs), and technical support for field inspection personnel. Coordinated with municipal officials for various topics and issues. (2007 – 2008)

Wynnewood Drive and Woodview Drive Improvements, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of NJDOT FY2008 Municipal Aid Program applications, as well as plans and specifications involving milling and resurfacing of municipal roadways, replacement of concrete curb, sidewalk, and driveway aprons, and the installation of handicap curb ramps. Attend pre-construction resident meeting with property owners within limits of work for project update and discussions. The project also included retrofit and reconstruction of inlets for Phase II stormwater compliance. Project management responsibilities include coordination with NJDOT for State Aid project, submittal reviews, preconstruction meeting mediation, field meeting attendance, and technical support for field inspection personnel. (2008)

Liberty Way (North) Extension Project, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the design of a collector roadway for the Liberty Way (North) Construction Project to complete a missing link for Liberty Way, in addition to the Liberty Way Extension project. The design project extended a Cranbury Township Master Plan roadway from the intersection of Security Drive to Half Acre Road with intersection and widening improvements along Half Acre Road. The scope of design included Superpave HMA pavement section, roadway geometry, cut/fill earthwork, and stormwater management design with the utilization of StormCAD computer software. Procure permits from the Freehold Soil Conservation District and the Delaware and Raritan Canal Commission. Performed project management for NJDOT funding allocations from Fiscal Year 2006, including preparation of NJDOT FY2007 Municipal Aid Program State Aid application. Assisted professional land surveyor with the preparation of legal metes and bounds descriptions for right-of-way acquisitions. Project management responsibilities included coordination with NJDOT for compliance with State Aid regulations, technical support for field inspection personnel mediation of pre-construction and progress field meetings, shop drawing reviews, addressing Requests for Information (RFIs), payment applications, and field modifications for electrical and telephone utilities. (2007 - 2008)

Grayrock Road, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the design of a collector roadway realignment and widening improvements for Grayrock Road. Assisted with outbound and as-built survey. Prepared outbound descriptions of subject ROW and adjoiner parcels from deed legal descriptions. Prepared plans and specifications for the vertical and horizontal realignment of Grayrock Road to preserve a historic farmhouse, including specifications for vibration monitoring survey for the historic structure. The scope of design included roadway geometry, striping and signage layout, stormwater management, and cut/fill site grading. Prepared NJDOT FY2007 Municipal Aid Program State Aid application. Permits included Stream Encroachment Modification with the NJDEP, Street Improvement Permit with the NJDOT, and Soil Erosion and Sediment Control Certification and Request for Authorization to Discharge with the Hunterdon County Soil Conservation District. Compliance with Stormwater Managements regulations as a Major Development was required. Responsible for coordination for the relocation of existing utilities, including overhead electric, overhead telephone, overhead cable, buried telephone, and high-pressure gas line. Coordinated with archeologist for monitoring of disturbance near the historic house. Project management responsibilities included submittal reviews, payment applications, meetings, Requests for Information (RFIs), and technical support for field inspection personnel. Also coordinated with municipal officials for various topics and issues. (2006 - 2007)

Liberty Way Extension, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the design of a collector roadway extension for Liberty Way, a Cranbury Township Master Plan roadway. The Liberty Way Extension project completed the collector roadway from Half Acre Road to the Cranbury Brook bridge approach (to be completed by Middlesex County). Preparation of plans and specifications. The scope of design included modular block retaining wall, Superpave HMA pavement section, and roadway geometry design, including superelevation and guiderail. The project design included stormwater management improvements in accordance with NJDEP Phase II regulations utilizing the Pond Pack computer software program, including storm sewer conveyance system, conduit outlet protection (riprap apron and pre-formed scour hole), infiltration basin for groundwater recharge, and extended detention basin for stormwater quality and peak flow attenuation. Prepared NJDEP permit applications for stream encroachment and wetlands, and permit application for Delaware & Raritan Canal Commission. Procured permits and certifications from the Freehold Soil Conservation District and Authorization to Discharge permit from the NJDEP. Performed project management for NJDOT funding allocations for Fiscal Years 2003, 2004, and 2005. Assisted professional land surveyor with the preparation of legal metes and bounds descriptions for right-of-way acquisitions. Performing project management, including daily inspection coordination, technical support for field inspection personnel, mediation of preconstruction meeting, shop drawing reviews, and payment applications. (2005 – 2006)

Township Police Station Access Roadway, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the design of a local road, Logan Drive, for a new Police Station facility, including storm sewer conveyance system and conduit outlet protection. Prepared plans and specifications for Logan Drive. Performing construction management, including attendance at progress meetings, shop drawing reviews, procuring permits and certifications from the Freehold Soil Conservation District, procuring Authorization to Discharge permit from the NJDEP, procuring approval from the Delaware & Raritan Canal Commission for Stormwater design, and preparing payment estimates. Assisting with design of site grading and storm sewer improvements for the Police Station parking facility. Assisting professional land surveyor with preparation of Major Subdivision for the new Police Station, including outbound survey and plat. (2005 – 2006)

Hightstown-Cranbury Station Road, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for the full reconstruction of 2,875 lf of Hightstown-Cranbury Station Road, including signage and striping for a railroad grade crossing. Performing construction management responsibilities, including NJDOT funding allocations, payment applications, meetings, change orders, and final project close-out. (2002 – 2003)

John White Road Improvements, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for the reconstruction of John White Road, including replacement of storm sewer culverts, coordination of resurfacing and restriping with Middlesex County through an Inter-Local Agreement, and replacement of guide rail. (2001)

Brooklyn Districts 13 and 15 Garages, Department of Sanitation of New York (DSNY) Brooklyn, NY: Site/civil Lead Engineer on design team for the preliminary site design of three concept designs for the construction of a parking garage and salt storage facility with the consolidation of DSNY Districts 13 and 15, including stormwater management design, earthwork calculations, repairs to environmental cap, fuel management system, retaining walls, vehicular access and roadway geometry design, and site utility design with an on-site sanitary sewer pump station. (2017)

Storage Garage Site Improvements, Bay Head Improvement Association Garage, Ocean County, NJ: Project Engineer for the preparation of plans and specifications for the site and drainage improvements for a 26-ft. x 76-ft. storage garage, including provisions for a planned, 26-ft. x 50-ft. building expansion. Responsibilities included meeting with the Owner for building layout and project scope of work, and coordination with the design team architect for contract preparation. (2010)

Salt Storage Facility, Clinton Township, Hunterdon County, NJ: Assistant Project Manager for the preparation of plans and specifications for a 50-ft. x 72-ft. timber-framed salt storage barn, including site improvements. Prepared site layout and design for grading, stormwater management, dry well, DGA access driveway, and HMA building pad and apron. Obtained Soil Erosion and Sediment Control Certification from the Hunterdon County Soil Conservation District. Provided project management and coordination with municipal officials, including submittal reviews, payment applications, meetings, Requests for Information (RFIs), and technical support for field inspection personnel. (2007 – 2008)

Site Improvements, Boasso America Corporation, Newark, NJ: Project Engineer responsible for performing field site inspection and reconnaissance of existing conditions with owner for site renovation feasibility study for drainage and parking improvements. Prepared concept parking design for owner review. Evaluated drainage improvement concepts for both a

gravity collection system with grading improvements and a stormwater pumping system. Evaluated potential approvals from the NJDEP for a Water Development Permit. Project management responsibilities included teleconference meeting with owner for concept design reviews and project schedules. Prepared contract drawings and design for stormwater collection and conveyance system for Phase 1. Prepared contract drawings and design for HMA parking lot for Phase 2. Obtained permit approval from the NJDOT for connection to the State's storm drainage infrastructure, a Modification Approval from the NJDEP for the WFD Permit, and a permit from the City of Newark for a Soil Erosion and Sediment Control Certification. Attended City of Newark Planning Board meeting for procurement of Site Plan Approval. (2009 – 2011)

Soccer Fields Irrigation System Extensions, Cranbury Township, Middlesex County, NJ: Assistant Project Manager responsible for the preparation of contract documents, including plans and specifications, for the extension of an existing irrigation system to provide water service to existing Township and Board of Education athletic fields. (2008 – 2009)

Babe Ruth League Baseball Field, Cranbury Township, Middlesex County, NJ: Assistant Project Manager responsible for the preparation of contract documents, including plans and specifications, for local public bidding process based on field layout by third party consultant. Designed an infiltration trench and dry well system for stormwater management. Project management responsibilities include procurement of Soil Erosion and Sediment Control Certification from Freehold Soil Conservation District, submittal reviews, payment applications, pre-construction meeting mediation, and technical support for field inspection personnel. (2007 – 2008)

Village Park Improvements, Cranbury Township, Middlesex County, NJ: Assistant Project Manager for the preparation of plans and specifications for refurbishing a basketball court and a battery of tennis courts, including resurfacing and equipment replacement. (2004)

Stormwater Management Facilities, Bayberry Dinner Playhouse (Hallett), Middle Township, Cape May County, NJ: Design Engineer for the design of stormwater management infrastructure, including the modeling of two infiltration basins with PondPack software, for the construction of a new dinner theatre/playhouse, including associated parking lots and site improvements. (2013)

Linden Lake Senior Housing Project, Conifer Reality, Lindenwold, NJ: Site/Civil Engineer responsible for the design of the site layout and preliminary utility and infrastructure for a Brownfields redevelopment. Prepared plans for Preliminary Major Site Plan approval from the Borough Planning Board, including grading plan, sanitary sewer flow projections, and site layout in accordance with RSIS standards. The project included the relocation two sanitary force mains, pump station upgrades, cut/fill site grading, off-site municipal roadway widening improvements, parking lot geometry and layout, water main extension, and two modular block retaining walls. Designed stormwater management facilities utilizing the Pond Pack computer software program, including two extended detention basins, conveyance systems, grass swales, groundwater recharge patio home dry wells, pervious asphalt and pavement, infiltration trenches, and conduit outlet protection. Prepared the design of the proposed subdivision for 12 new lots for patio homes and a 3-story senior housing apartment building. Assisted with the preparation of NJDEP Letter of Interpretation for on-site wetlands and transition areas. Assisted with outbound property survey, wetlands flag survey, and as-built location survey of existing decommissioned on-site wastewater treatment plant. Assist with the preparation of the Major Subdivision plat. Procure permits and approvals, including NJDEP Treatment Works Approval, NJDEP Simplified Water Main Extension Certification, Camden County Municipal Utilities Authority, Soil Erosion and Sediment Control Certification, Authorization to Discharge, Camden County Planning Board, USEPA Mapping Waiver, and NJDEP Freshwater Wetlands General Permits 6,11, and 27. Attend progress meetings with client and attend review meetings with the Planning Board Engineer. Attend field meetings during construction with Contractor, Owner, and municipal officials, including remediation of soft on-site soil conditions. Review shop drawings and submittals and address Requests for Information (RFIs) during construction. Address field modification requests, including the installation of guide rail adjacent to CCMUA metering building parking area and modified force main alignment. (2005 - 2008)

Seaview Gardens, NJ School Construction Corporation, Keansburg, NJ: Project Engineer for the preparation of a Design Feasibility Study to review and evaluate an approved Site Plan for zoning district requirements, stormwater management measures, permit approvals, and

CAFRA conditions. Performed site reconnaissance, determined development constraints, and evaluated Township documents.

Development Feasibility Study and ALTA Title Survey, GlaxoSmithKline, Piscataway, NJ: Site/Civil Design Engineer for the preparation of a Design Feasibility Study for the development of 88 acres of commercial property, including meeting with Township officials, document research, and identifying development constraints. Performed ALTA Title Survey with GPS equipment and EDM total station. Prepared outbound descriptions of subject parcels, vacated ROW, and adjoiner parcels from deed legal descriptions, and filed subdivision plats. Prepared a Post-demo Grading Plan for entire project site to balance the cut/fill earthwork activities and maintain proper drainage patterns. Attended on-site project meeting with contractor for earthwork and grading activities for balancing cut/fills and ensure positive drainage patterns to eliminate ponding and comply with Soil Erosion and Sediment Control standards. (2005)

Survey Services, Co-Steel Raritan, Sayreville, NJ: As Project Engineer, assisted with site reconnaissance, topographical survey, and "as-built" survey of existing conditions for the future expansion of the epoxy building. Ran traverse to carry benchmark from railroad bridge location to the project site. Operated transit, total station, and rod.

Surveying Services, Landis Sewerage Authority, Vineland, NJ: As Project Engineer, assisted with the vertical and horizontal survey control for aerial photography, including the operating of transit, total station, and survey rod.

Emergency Response Services, SuperStorm Sandy Recovery, Mantoloking Borough, Ocean County, NJ: Project Manager providing municipal engineering services for recovery efforts, including preliminary damage assessment, residential structure evaluations, Office of Emergency Management (OEM) technical support, demolition of unsafe structures, removal/disposal of private property and public right-of-way debris, asbestos sampling, repairs and reconstruction of all major infrastructure, and the collection, screening, and placement of sand onto the temporary protective dune system. Recovery projects include the installation of a temporary bypass pumping system for the sanitary sewer system, reconstruction of sanitary sewer improvements, jet/vac cleaning and CCTV inspection of all sanitary sewer gravity mains, reconstruction of storm sewer improvements, reconstruction of municipal ADA-access walkways to Barnegat Bay, and the reconstruction of damaged bulkheads. (2012 – 2017)

Residential Demolition and Debris Removal, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of contract documents for the removal and disposal of private property debris and for the demolition and removal of unsafe residential structures as part of SuperStorm Sandy recovery efforts throughout the Borough. The project was based on the FEMA Private Property Debris Removal (PPDR) Program, and included inspection and construction management in accordance with FEMA requirements for the removal and proper disposal of asbestos-containing materials (ACMs), household hazardous waste (HHW), general debris (C&D), vegetative debris, concrete, and e-waste, and the screening and placement of clean sand onto the temporary protective dune system. (2013)

Tier A Municipal Stormwater General Permit, Clinton Township, Hunterdon County, NJ: Assistant Project Manager responsible for the preparation of a Municipal Stormwater Management Plan, revision of the Township Land Development Stormwater Management Ordinance, and preparation of a Stormwater Pollution Prevention Plan for compliance with NJDEP Phase II Municipal Tier A permits. (2006 – present)

Tier A Municipal Stormwater General Permit, Cranbury Township, Middlesex County, NJ: Assistant Project Manager responsible for the preparation of a Municipal Stormwater Management Plan, revision of the Township Land Development Stormwater Management Ordinance, and preparation of a Stormwater Pollution Prevention Plan for compliance with NJDEP Phase II Municipal Tier A permits. Attended sub-committee meetings, coordinated and assisted with geographic information system (GIS) mapping preparation, and attended Middlesex County Stormwater Review subcommittee meetings. (2005 – 2009)

Stormwater Analysis, Calgary International Airport, Calgary Airport Authority, Alberta, Canada: Performed hydrologic and hydraulic stormwater analysis for the design of stormwater retention basins for 100-year and 200-year storm events. Modeled storm events with PondPack software to estimate retention basin volumes required for airport improvements with a specific target stormwater release rate. (2009)

Force Main Installation, Freehold Township, Monmouth County, NJ: Site Inspector for the installation of approximately 2,000 If of HDPE sanitary sewer force main, including heat and electrical fusion connections at all joints, with an injector pump station and an interior drop connection to an existing manhole. Witnessed hydrostatic pressure test of fused HDPE force main. Recorded force main alignment with as-built swing tie data.

Storm Sewer Evaluation and Rehabilitation, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of plans and specifications for cleaning and inspection of the storm sewer system using jet vacuum and closed circuit television (CCTV) inspection. Reviewed CCTV inspection reports. Performed point repairs with cured-in-placed spot liners to address separated pipe joints, damaged pipe sections, and cracks for structural remediation, and to mitigate infiltration and surcharging of the storm sewer system from Barnegat Bay. (2010)

Woodland Falls Corporate Park/Columbia Lake Dam Emergency Repairs, Brandywine Realty Trust, Cherry Hill, NJ: Project Manager for the design of emergency repairs to failing sheet piles for the dam and earthen embankment. The project included a dam inspection, and the lowering of the lake's water level for fish salvage operations. Responsible for the preparation of contract plans, specifications, and estimates, the solicitation and review of bids, the procurement of permits from NJDEP Dam Safety and NJDEP Fish and Wildlife, and the inspection and construction management of the emergency repairs, which included the installation of a new low-level drain system for Dam Safety regulation compliance. (2013 – 2014)

Elevated Water Storage Tank, New Jersey American Water, Harrison, NJ: Design Engineer of the site layout for a new 0.75 MG elevated tank within a 2.6 acre easement, including new access driveway, fencing, and tank overflow basin. Prepared hydraulic and hydrologic stormwater management calculations and Best Management Practices (BMP) design for stormwater management NJAC 7:8 compliance for Major Development, including a Stormwater Maintenance Plan. Prepared grading plan and obtained Soil Erosion and Sediment Control Certification from the Soil District, which included the preparation and submission of calculations for off-site stability requirements. (2014)

Fueling System Upgrades, Department of Public Works, Freehold Township, Monmouth County, NJ: Site/Civil Engineer for the design of new above ground storage tanks (ASTs) for the facility's fueling system, including the demolition of the underground fuel storage tanks (USTs) and the excavation/removal of on-site contaminated soils. Responsibilities include the preparation of contract plans, specifications, and estimates for the design of the new fueling system, including vapor recovery, fuel management, and leak detection systems, overhead canopy with lighting, storm sewer improvements, and gate/fencing improvements. The demolition of the existing UST system included the removal of the existing canopy and a remote fueling station on Board of Education property. (2013 – 2016)

Wastewater Management Plan, Clinton Township, Hunterdon County, NJ: As Assistant Project Manager, assisted with the preparation of a Draft Wastewater Management Plan under the latest NJDEP regulations, including mapping, nitrate dilution modeling, proposed infrastructure layout, proposed sewer service area delineation, and final Draft Report. Responsibilities also included attendance at meetings with Township Officials.

Landfill Closure Plan, American Soils Property, Freehold Township, Monmouth County, NJ: Design Engineer for the preparation of a landfill closure plan, including grading design for compliance with NJDEP fill cover and drainage slope requirements for landfill caps. Project included preliminary design for the construction of a firing range for the Township Police Department. Prepare stormwater management compliance and earthwork calculations. (2013 – present)

Recycling Center, Ocean County, Lakewood, NJ: Assisted with survey grade stake out and horizontal lay-out, including centerline, edge of pavement, and all radii for an access road and cul-de-sac.

Wright South Soil Remediation, Cranbury Township, Middlesex County, NJ: Assistant Project Manager responsible for the preparation of plans and specifications for the soil remediation project, involving the blending of on-site soils to remediate high levels of lead and arsenic and the excavation of petroleum-impacted soils. Mediated pre-bid meetings and preconstruction meeting. Performed project management, including daily coordination with air monitoring inspections, payment applications, change orders, and project closeout for Soil Erosion and Sediment Control Certification permit. Assisted with the preparation of the Remedial Action Report for the NJDEP. (2005 – 2006)

Borough Hall Asbestos Abatement, Mantoloking Borough, Ocean County, NJ: Project Manager for the preparation of contract plans and specifications for the removal and disposal of all asbestos-containing material (ACMs) based on asbestos sampling and testing in preparation for the building's demolition. Services included asbestos sampling, testing, air monitoring, and project close-out with regulatory agencies. (2014)

Site Plan Review and Professional Testimony, Plainsboro Township, Middlesex County, NJ: Project Engineer for the review of site plan application documents on behalf of the Township related to a South Brunswick Zoning Board project. Provided professional testimony on behalf of the Township at South Brunswick Zoning Board hearings to object to the development application. Provided sufficient expert testimony and review comments to justify and support the South Brunswick Zoning Board's denial of the Site Plan application. (2010)