

TODD D. RITCHIE, PE, BCEE, LEED AP

Principal Civil Engineer



YEARS OF EXPERIENCE

- <1 With This Firm
- 20 With Other Firms

EDUCATION

- Certificate of Graduate Study, Environmental Engineering, Worcester Polytechnic Institute
- M.B.A., Business Administration, University of New Haven
- B.S., Civil Engineering, Clarkson University

TECHNICAL REGISTRATIONS

- Professional Engineer - CT (#PEN.0023730), MA (#46731)
- Board Certified Environmental Engineer (BCEE)
- Envision Sustainability Professional (ENV SP)
- Leadership in Energy and Environmental Design Accredited Professional (LEED AP)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Certified Professional in Stormwater Quality (CPSWQ)
- OSHA 10-hour Construction Safety

Mr. Ritchie brings over 20 years' experience in land development, civil and wastewater infrastructure. He is an accomplished civil/environmental engineer and project manager with a professional reputation for integrity, dedication and commitment to project success and client service. He has experience in management and engineering capacities for a wide variety of municipal and private site development, civil infrastructure, and wastewater projects from inception through design, bidding and construction. He is a team-oriented leader with excellent communication and coordination skills and extensive experience working on multi-disciplinary projects.

SELECTED PROJECT EXPERIENCE

- **Hamden Middle School | Hamden, CT**
Site engineering including grading, stormwater and utilities design, and water main relocation for a 27,800 g.s.f. building addition.
- **Theraplant Production Facility | Watertown, CT**
Site engineering including stormwater and utilities design, water and sewer main relocations for a 30,000 g.s.f. building addition.
- **Drew Marine Manufacturing Facility | Waterbury, CT**
Site engineering including grading, stormwater and utilities design, water and sewer main relocations for addition of a tank farm and chemical delivery station.
- **Southbury Plaza | Southbury, CT**
Onsite wastewater systems evaluation, design and DEEP permitting associated with redevelopment of a 100,000 s.f retail building and renovation of existing tenant spaces.
- **Storm Drain Outfall Replacement | East Hartford, CT**
Evaluation of existing storm drainage system on Springside Avenue and design of new 24-inch RCP outfall to replace existing deteriorated CMP outfall.

MIXED USE DEVELOPMENT

- **Goodsell Point Marina, Branford, CT**
Site planning and engineering services for proposed redevelopment of existing marina property along with several adjacent residential properties as a Planned Development District with 15 single-family residential units and a 155-slip marina, including maintenance and amenities buildings.

- FAA Certified Unmanned Aircraft Systems Operator

AFFILIATION

- American Society of Civil Engineers
- American Academy of Environmental Engineers & Scientists (AAEES)
- Water Environment Federation (WEF)

ROADWAY REHABILITATION

- **The Hollows Condominium Community | Hamden, CT**
Evaluated existing bituminous asphalt roadway pavement areas and provided recommendations for rehabilitation including asphalt reclaiming and repaving. Responsible for design, bidding and construction administration.

PARKING FACILITIES

- **Wolcott Park Western Parking Lot | West Hartford, CT**
Site engineering and landscape design services for rehabilitation and expansion of the existing parking lot.
- **Prospect Street Parking Lot | Waterbury, CT**
Site engineering and landscape design services for a new municipal parking lot.

PREVIOUS EXPERIENCE

LAND DEVELOPMENT

- **Residential Estate Planning & Design | Various Towns, CT**
Project manager and lead engineer for 100+ residential estate development projects in CT. Responsible for preparing and presenting application materials including site plans, erosion and sediment control plans, stormwater analysis and design and environmental assessments. Projects have included design development, permitting and construction administration of site plans for coastal and environmentally sensitive properties requiring innovative design approaches focused on Low Impact Development.
- **Southbury Plaza | Southbury, CT**
Lead civil engineer for onsite wastewater systems design and DEEP permitting associated with redevelopment of a 100,000 s.f retail building and renovation of existing tenant spaces.
- **1292 Boston Post Road | Darien, CT**
Site engineering services for redevelopment of a commercial property into a new two-story retail building including site layout, grading, stormwater design, erosion and sediment control and local approvals.
- **First County Bank | Darien, CT**
Site engineering services for redevelopment of a commercial property into a new bank building including site layout, grading, stormwater design, erosion and sediment control and local approvals.

TODD D. RITCHIE, PE, BCEE, LEED AP

- **Darien Public Library | Darien, CT**

Project manager and lead engineer for site and stormwater design for a new 54,000 s.f. library building. This award-winning project was certified as a LEED Gold design by the U.S. Green Building Council.

- **Saint Luke's Parish | Darien, CT**

Site engineering services for new clergy housing and youth/community center including site layout, grading, utilities, stormwater management, and erosion and sediment control including local approvals.

- **Station 2 Firehouse | Weston, CT**

Project manager and lead engineer during site design, permitting and construction. This project was located on a very challenging site adjacent to the Saugatuck River subject to floodplain building regulations and requiring an onsite sewage disposal system and a stormwater treatment system with limited available land area.

- **Chestnut Ridge Water Storage Tank | Bethel, CT**

Site engineering services for new public water supply storage tank including site layout, grading, utilities, stormwater design, and erosion and sediment control including local approvals.

- **Community Well Water Treatment Facility | Coventry, CT**

Site engineering services for new well water supply treatment facility including site layout, grading, utilities, stormwater management, filter backwash basin design, erosion and sediment control including local approvals.

- **Water System Booster Station | Haverhill, MA**

Site engineering services for the City's new Crystal Springs water booster pump station including site layout, grading and stormwater design.

- **Water Pollution Control Facility | Danbury, CT**

Project manager for civil design, including stormwater analysis and design, for the WPCF's design-build tertiary treatment process upgrade. Stormwater design included hydrologic and hydraulic analysis for replacement and upgrade of an existing drainage system with a new 60-inch HDPE stormwater conveyance pipe network to be interconnected with an existing stormwater outfall via a new overflow relief structure for flood control.

- **Water Pollution Control Facility | Aberdeen, MD**

Project manager for civil design, including stormwater analysis and design, for the WPCF's enhanced nitrogen removal upgrade project. Responsible for evaluation and design of onsite stormwater management systems for runoff conveyance, quantity control, and water quality treatment in compliance with strict regulatory requirements of the Maryland Department of the Environment. To meet these requirements, the stormwater design incorporated Green Infrastructure and Low-Impact Development practices into existing and proposed development site areas. Also responsible for preparation of detailed erosion and sediment control plans.

STORM DRAINS & CULVERTS

- **Storm Drain Rehabilitation | South Windsor, CT**

Project manager and lead engineer for the Town's storm drain rehabilitation project including the completion of cured-in-place-pipe lining of existing damaged and deteriorated reinforced concrete storm drainage pipes.



- **Culvert Condition Assessment, Woodlake Tax District | Woodbury, CT**

Performed a field evaluation and condition assessment of an existing 60-inch CMP culvert that the District was concerned could collapse due to erosion at the outfall. Responsible for preparing a summary report that documented deficiencies and provided recommendations for repair.

- **Culvert Replacement | Danbury, CT**

Project manager and lead engineer for hydraulic analysis and design of a new 52-inch arch CMP culvert on a commercial property to replace the existing antiquated box culvert, which consisted of field stone walls and reinforced concrete top slabs. Responsible for design, permitting and construction administration.

- **Culvert Replacement | Weston, MA**

Project manager and lead engineer for design and permitting of a new 5'x5' precast culvert in a town roadway to replace the existing antiquated box culvert, which consisted of field stone walls and reinforced concrete top slabs. Responsible for design and permitting.

WASTEWATER COLLECTION SYSTEMS AND PUMP STATIONS

- **Wastewater System Evaluation | Colebrook, CT**

Project manager and lead engineer for evaluation of the existing onsite wastewater system serving the YMCA Camp Jewell facility. Responsible for evaluating treatment plant flow and performance data and providing recommendations for upgrades including a new equalization tank, a new moving bed biofilm reactor and repairs to the denitrification process equipment. The recommended wastewater upgrades will allow the facility to achieve consistent compliance with CT DEEP wastewater discharge permit limits.

- **Pump Station Access Cover Evaluation | Waterford, CT**

Lead engineer for evaluation of existing access covers at ten of the Town's existing wastewater pump stations. Provided recommendations and budgetary cost estimates for replacement and rehabilitation of the access covers based on field assessments.

- **Pump Station Flood Resiliency Review | South Windsor, CT**

Lead engineer for evaluation of three of the Town's wastewater pump stations for potential flooding impacts as part of the Town's wastewater pump station asset management plan. Provided recommendations for improvements to the stations for flood resiliency including elevating critical equipment, regrading, sealing of hatches and installation of fixed or removeable flood barriers.

- **Pump Station Flood Resiliency Review | Norwalk, CT**

Lead engineer for evaluation of ten of the City's wastewater pump stations for potential flooding impacts as part of the City's wastewater pump station asset management plan. Provided recommendations for improvements to the stations for flood resiliency including elevating critical equipment, regrading, sealing of hatches and installation of fixed or removeable flood barriers.

- **Sewer Collection System Extension and Meter Manhole | Canton, CT**

Project manager for a sanitary sewer flow rerouting study for the Secret Lake and Southeast service areas. Responsible for the design, permitting and bidding phases of the project, which included 400 linear feet of new gravity sewers, decommissioning of existing gravity sewers and addition of a flow metering manhole.

- **Wastewater Infrastructure Study | Westbrook, CT**

Lead engineer for Phase 3 of the town's Business District Wastewater Infrastructure Study, Responsible for preparing a conceptual wastewater infrastructure layout including collection system, transmission mains, treatment and subsurface disposal facilities to serve the needs of the study area. The study included preparation of a technical feasibility report including an economic analysis as well as presentation of the report findings at a meeting attended by the town's land use agents, health director, WPCA members and the public.

- **Trenchless Replacement of Sewer Force Main | Canton, CT**

Project manager and lead engineer for design, permitting, bidding and construction phases of replacement of 500 linear feet of 6-inch ductile iron force main under a watercourse via Horizontal Directional Drilling (HDD).

- **Trenchless Replacement of Sewer Force Main | Darien, CT**

Project manager and lead engineer for design and construction phases of replacement of 700 linear feet of 10-inch ductile iron force main under a watercourse via Horizontal Directional Drilling (HDD).

- **Sewer Collection System Capacity Evaluation | Tolland, CT**

Project manager for a desktop capacity evaluation of the Town's sanitary sewer collection system including 4 miles of gravity sewers, 4 miles of force mains, 0.5 miles of low-pressure sewers and 4 pump stations. The purpose of this study was to approximate how much flow capacity remains in the Town's collection system for each of their service areas; evaluate whether the pump stations are currently operating at their design capacities; and provide recommendations for.

- **The Metropolitan District Commission Clean Water Project | Hartford, CT**

Project manager during design and CT DEEP permit phases for Upper Albany Avenue Area Contract 3 sewer separation and Phase 2 stormwater outfall project; construction phase of Garden Street Relief Sewer (micro-tunnel) project; and DEEP permit phase of the Granby 1 stormwater outfall project.

- **Sanitary Sewer Study and Replacement Design | Borough of Naugatuck, CT**

Project manager for sanitary sewer system study investigating sources of cross contamination between segments of sanitary and storm sewers utilizing dye testing, smoke testing, closed circuit television inspections, and sampling. A complete report of findings was prepared to comply with a CTDEEP consent order including recommendations for correction and cost estimates and presented to the local WPCA. Following selection of the replacement option, served as project manager for design and construction of the sewer replacement.

- **Sanitary Sewer Collection System | Easton, MA**

Project manager during design, permitting, bidding and construction for a sanitary force main project, which also included new gravity and low-pressure sewers and a carbon adsorption odor control system. The project was identified as a priority sewage disposal needs area based on the Town's Comprehensive Wastewater Management Plan. Included design and construction of over four miles of force main and sewers.

- **Sanitary Sewer Collection System & Pump Station | Easton, MA**

Project manager during design, permitting and bidding of a new sewer collection system and pump station to serve the Town's commercial district. This project was identified as a priority sewage disposal needs area based on the town's Comprehensive Wastewater Management Plan. Included design of over one mile of force main and gravity sewers, including a submersible pump station. Project is CWSRF funded through MA DEP.

- **Wastewater Pump Station Upgrades | Westborough, MA**

TODD D. RITCHIE, PE, BCEE, LEED AP

Project manager for design of upgrades to two of the Town's 25-year old wastewater pump stations with average daily flow capacities of 0.5 and 0.7 MGD. Design included extensive upgrades to address issues related to structural, mechanical, electrical, instrumentation and controls, heating and ventilation, cathodic protection and flood resiliency.

- **Sanitary Sewer Collection Systems | Chatham, MA**

Project design manager for this sanitary sewer extension project. This design was completed on an expedited schedule to comply with requirements of the American Recovery and Reinvestment Act. The project included design of over 5 miles of gravity sewers and transmission force mains and over 1 mile of low-pressure sewers.

- **Sanitary Sewer Collection Systems | Barnstable, MA**

Project design manager for the Town's Area H-1 East and West sanitary sewer extension project. This design was completed on an expedited schedule to comply with requirements of the American Recovery and Reinvestment Act. The project included design of approximately 2 miles of gravity sewers; 2 miles of low-pressure sewers; and a new suction lift sewage pump station and force main.

- **Sanitary Sewer Service Planning Study | New Castle, NY**

Project manager for feasibility study to extend sewer to the Town's business district. The study included preparation of a preliminary wastewater infrastructure layout to serve the needs of the study area, along with a feasibility report including an economic analysis, review of funding options and recommendations for further evaluation.

- **Sanitary Sewer Service Planning Study | Yorktown, NY**

Project engineer for the evaluation of existing septic systems and future sanitary sewer needs for areas located in the Hallocks Mill Sewer District. These areas were of concern to the Town because they were experiencing septic failures; may experience septic failures in the future because of density development and small lot sizes; and have environmental constraints that limit the use of septic systems. The results and recommendations from this study were submitted to the Town and the New York City Department of Environmental Protection for review and approval.

- **Sanitary Sewer Design | Lebanon, NH**

Lead project engineer for design of approximately 5,000 linear feet of new gravity sanitary sewer mains for Contract 12 of the City's CSO separation project.

CENTRALIZED WASTEWATER TREATMENT FACILITIES

- **Water Pollution Control Facility and Pump Station Upgrades | Windsor Locks, CT**

Project manager for preliminary design of upgrades to the Town's main wastewater pumping station and WPCF with a combined estimated project construction value of \$10 million. Responsible for project management, coordination, scheduling, budgeting, resource allocation and monitoring of work progress.

- **On-Call Wastewater Consulting Services | Suffield, CT**

Project manager for various on-call wastewater engineering assignments for the town relative to the WPCF and collection system. Recent projects include design, bidding and construction phase engineering services for replacement of the UV disinfection system for the WPCF and sewer system modifications including sewer extensions and addition of a flow meter manhole.

- **Ultraviolet and Sodium Hypochlorite Disinfection Systems | Manchester, CT**



TODD D. RITCHIE, PE, BCEE, LEED AP

Project engineer during construction phase of these projects and responsible for project coordination, onsite construction monitoring and contract administration.

- **Water Pollution Control Facilities Planning | Westport, CT**

Responsible for evaluating future sewer need and defining the future sewer service area for the Town. This effort involved researching, compiling, and analyzing data on soil types, lot sizes, and septic system failures for various streets. The data was then incorporated into an analytical ranking system to develop a sewer service priority profile. This profile was a critical tool in the planning of future sewer expansion programs and development of a flow rationale for upgrading the existing wastewater treatment facility.

- **Odor-Control Biofilter and Floating Digester Cover | Westport, CT**

Project engineer during construction phase of these projects and responsible for project coordination, onsite construction monitoring and contract administration.

- **Sodium Hypochlorite Storage and Feed System | Danbury, CT**

Project engineer during construction phase of these projects and responsible for project coordination, onsite construction monitoring and contract administration.

- **Water Pollution Control Facility Upgrade | Fairfield, CT**

Project engineer during construction of \$40 million WPCF upgrade responsible for shop drawing coordination, NPDES permit application, contract administration, construction monitoring and field reporting.

- **Water Pollution Control Facility Outfall Repair | Fairfield, CT**

Project manager and lead engineer for study and design of repair to existing leaking 30-inch RCP outfall pipe.

DECENTRALIZED WASTEWATER TREATMENT FACILITIES

- **Onsite Wastewater Treatment & Disposal System Evaluation and Permitting | Guilford, CT**

Project manager and lead engineer responsible for evaluation and permitting of an existing onsite wastewater treatment and subsurface disposal system for a high-profile private medical facility client. Responsible for technical evaluation, condition assessment, reporting, discharge permit re-application and interfacing with CT DEEP.

- **Decentralized Wastewater Facilities Planning | Westbrook, CT**

Project manager and lead engineer for Phase 3 of the Town's Business District Wastewater Infrastructure Study. Responsible for preparing a preliminary wastewater infrastructure layout including collection system, transmission mains, treatment and subsurface disposal facilities to serve the needs of the study area. The study included preparation of a technical feasibility report including an economic analysis as well as presentation of the report findings at a meeting attended by the Town's land use agents, health director, WPCA members and the public.

- **Wastewater Evaluation for Long-Term Planning | Wilton, CT**

Project manager for the evaluation of an existing 10,000 gallon per day subsurface sewage disposal system for the Town's Miller Driscoll Elementary School. This study was part of an overall assessment of the school facility by the Town to determine the expansion capacity of the school site relative to subsurface sewage treatment and disposal.

- **Large Scale On-Site Wastewater Treatment and Disposal System Design | Stamford, CT**

Project engineer during design and permitting of 8,000 gallon per day community subsurface sewage disposal system for



private residential development with design approval and discharge permit issued by CT DEEP.

- **Large Scale On-Site Wastewater Treatment and Disposal System Design | Lakeville, MA**
Project engineer during design of a centralized effluent leaching system for a private residential development in Lakeville, MA for full build-out leaching system design flow of 60,000 gallons per day in compliance with MA DEP and MA Title 5 requirements.
- **Advanced On-Site Wastewater Treatment and Disposal System Design | Putnam County, NY**
Project manager and lead engineer selected by the Putnam County Septic Repair Program for on-call design of advanced septic system repair projects as part of the NYC DEP watershed management program with 30+ individual site evaluations and alternative technology septic designs completed and constructed.

WATER SUPPLY & TREATMENT FACILITIES

- **Water Main Replacement | Barnstable, MA**
Project design manager for water main replacements as part the Town's Area H-1 East and West sanitary sewer extension project. This design was completed on an expedited schedule to comply with requirements of the American Recovery and Reinvestment Act. The project included design of approximately 3 miles of water main replacements and extensions.
- **NYC DEP Shaft 18 Emergency Chlorine Dry Scrubber | Mount Pleasant, NY**
Project manager during construction phase of new chlorine dry scrubber system. Project was under NYC DEP JOC program.
- **Solar-Powered Reservoir Mixing Study | Newburgh, NY**
Project engineer during solar-powered reservoir mixing study at Chadwick Lake reservoir. This project was afforded to the Town by a grant from the New York State Energy Research and Development Authority (NYSERDA) to investigate the use of solar-powered lake circulators, as an alternative to mechanical aeration, in order to achieve reduced manganese levels in raw water entering the Town's water treatment plant. Responsible for biweekly sampling and field analysis of the reservoir, performance tracking of the rented solar-powered mixers, coordination of field efforts with Town personnel and equipment suppliers, and development of a final report of the project and results for submission to NYSERDA.

PEER REVIEW

- **On-Call Peer Reviewer | Bethel, CT**
Provides on-call peer review services to the Town for Planning and Zoning and Inland Wetlands Commission site plan applications.
- **Joshua Heights Residential Development | Bridgewater, CT**
Reviewed site development plans for 100-unit affordable housing development for the Town's planning and zoning commission. Reviewed consistency of design with Town regulations and standards and State guidelines for design of stormwater management systems and erosion and sediment controls. Provided guidance to the commission regarding their concerns.
- **Ridgefield Winter Club | Ridgefield, CT**
Reviewed site development plans for proposed outdoor hockey rink and clubhouse development for the Peaceable Neighbors Alliance. Reviewed consistency of design with Town regulations and standards and State guidelines for design of stormwater

TODD D. RITCHIE, PE, BCEE, LEED AP
management systems and erosion and sediment controls. Provided comments to the Planning and Zoning Commission and Inland Wetlands Board regarding the neighbors' concerns.

- **Peer Reviewer for Land Use Applications | Various Towns, CT**

Responsible for completing engineering peer reviews on an as needed basis for Planning and Zoning Commissions, Inland Wetlands Commissions, Conservation Commissions and Water Pollution Control Commissions. These reviews often involve an understanding of technical issues associated with complex site development projects and require knowledge of state and local regulations relative to stormwater management, stormwater quality, onsite sewage disposal, and erosion and sediment control. Completed peer reviews for the Towns of Middlebury, Fairfield, Westport, Easton, Weston, Darien, and New Canaan, CT.

MISC.

- **Sidewalk Replacement | Bethel, CT**

Project manager for design of replacement sidewalks as part of the Town's Local Transportation Capital Improvement Program (LOTICIP).

- **Sidewalk Replacement | Darien, CT**

Project manager and lead engineer for design of 300 feet of replacement sidewalks along Route 1 in the Town's downtown commercial district for the Department of Public Works.

- **Dam Inspections | Various Towns, CT**

Project manager and lead engineer responsible for performing dam inspections and dam inspection reporting in compliance with the CT DEEP Dame Safety Program.