

# McDill Pond Silt Trap Dredging Project



## McDill Lake District



Proposal for  
Professional Services

October 18, 2017



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services

1250 Centennial Centre Boulevard • Hobart, WI 54155 • 920-662-9641 • www.releeinc.com

October 18, 2017

Ms. Krista Olson, President  
MCDILL LAKE DISTRICT  
3317 Della Street  
Stevens Point, WI 54481

RE: Request for Professional Design Services  
McDill Pond Silt Trap Dredging Project  
Stevens Point, Portage County, WI

Dear Ms. Olson:

Thank you for the opportunity for Robert E. Lee & Associates, Inc., (REL) to provide this professional design services proposal regarding the McDill Pond Silt Trap Dredging Project. The project will include assisting the McDill Lake District with project planning, engineering design, permitting, and locating potential contractor(s) for the dredging project.

REL, in conjunction with its subsidiary, NES Ecological Services, can provide all required services to facilitate this project from our Green Bay office. REL can provide a unique advantage for a project such as this by providing experienced Engineers, Surveyors, and Ecologists, all in a single location. This allows us to streamline processes, and increase communication efficiency with the District, as well as across internal departments.

Our strong reputation within each industry sector and local and state regulators provides our clients confidence that each element of a complex project will be handled professionally and efficiently.

Our recent work on numerous projects has given us the experience necessary to help the District facilitate this dredging plan design process, engineering quality control, and project permitting.

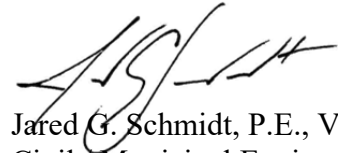
Since 1956, REL has provided full-service consulting engineering services to our clients, with a major focus of our business in servicing the public and private sectors. We deliver a high level of customer service, in part, by maintaining open lines of communication throughout the design process, and by having a firm understanding of your expectations. Our team will work as a direct extension of your District staff, to cohesively work toward our common goal, a successful project.

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MCDILL LAKE DISTRICT  
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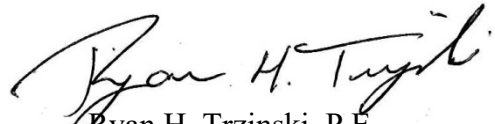
Based upon our experience and overall project approach, we are confident you will find REL is the most qualified to work with the McDill Lake District for the design of McDill Pond Silt Trap Dredging Project. We appreciate your request for our proposal. If you have any questions or need additional information, please contact us at (920) 662-9641.

Sincerely,

ROBERT E. LEE & ASSOCIATES, INC.



Jared G. Schmidt, P.E., V.P.  
Civil / Municipal Engineering Manager



Ryan H. Trzinski, P.E.  
Project Engineer

JGS/RHT/JME

ENC.

# McDill Pond Silt Trap Dredging Project McDill Lake District

October 18, 2017

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**Section 1: Introduction- Firm Overview**



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services

## DISCIPLINES REPRESENTED

Civil Engineering  
Environmental Engineering  
Geology  
Land Surveying  
Transportation Engineering  
Ecology  
Economics  
Environmental Sciences  
Hydrogeology  
Soil Sciences  
Urban and Regional Planning  
Cartography



## PROJECT TYPES

Feasibility Studies  
Concept Development  
Preliminary Engineering Studies  
Grant Application  
Detailed Engineering Design and Specifications  
Permit Application Assistance  
Environmental Assessment  
Construction Observation and Supervision  
Start-up Services

## Introduction to the Firm

**Robert E. Lee & Associates, Inc.**, was established in 1956, and is a full-service consulting firm, specializing in civil and environmental engineering, surveying, and natural resources services. This spectrum of services provides an integrated approach to project management for our commercial, industrial, and municipal clients throughout Wisconsin and Michigan.

## SERVICES OFFERED

Sanitary Sewer Collection Systems  
Solid/Hazardous Waste Management  
Water/Wastewater Engineering  
Construction Administration  
Environmental Investigations  
Land Surveying  
Remediation System Design  
Bridge Painting Observation  
Street & Roadway Design  
Environmental Services  
Natural Resources  
Road and Bridge Engineering  
Site Development  
Storm Water Management  
Land Use Planning  
Agricultural Engineering  
Hydrologic and Hydraulic Engineering  
Flood Studies





# REL Staff Over View



## Professional Registrations & Certifications

- Professional Engineers (11)
- Engineer-In-Training/Designers (3)
- Underground Storage Tank Site Assessors (3)
- Grade III and IV Wastewater Treatment Plant Operator (1)
- Land Surveyors (6)
- Professional Geologist (1)
- Certified Hydrogeologist (3)
- Petroleum Environmental Cleanup Fund Act Consultants (6)
- Asbestos Inspectors (1)
- OSHA Hazardous Waste Site Workers (6)
- Lead Supervisor (1)
- Ecologists (4)

## Construction Certifications

- Environmental Engineering & Sciences
- Civil Engineering                      Aggtec/I/P/IPP
- Economics                                Asphtec I/II/III
- Profilograph                               PCC Tec-1
- Grading

## Disciplines Represented

- Cartography
- Civil Engineering
- Economics
- Environmental Engineering
- Environmental Sciences
- Geographic Information Systems (GIS)
- Geology
- Hydrogeology
- Land Surveying
- Urban and Regional Planning

## Firm Principals

- Mark J. Larson, CPA, CGMA, President/Secretary
- David K. Welsing, Vice President
- Bruce D. Meissner, P.G., Vice President
- Jared G. Schmidt, P.E., Vice President



## Civil Engineering Services



Municipal Engineering  
Transportation Engineering  
Funding Assistance  
Surveying  
Environmental Services  
Ecological Services  
Site Development  
Storm Water Management  
Water Systems  
Waste Water Systems  
Facility Operations  
Marine Engineering  
Construction Services

From initial project planning through construction and start-up, Robert E. Lee & Associates has provided turnkey civil engineering services for municipal, industrial, and commercial clients. REL's clientele include Federal, State, County, Municipal and Town Governments, Metropolitan Sewerage Districts, Sanitary Districts, and private entities.

Robert E. Lee's philosophy of personalized services assigns a project/client manager for each project who is involved from conception through construction and start-up to provide consistency and act as your main point of contact.

REL has experience engineers, designers, surveyors, environmental and ecological staff that can easily coordinate all facets of civil engineering projects.







**NES Ecological Services, a Division of Robert E. Lee & Associates, staffs WDNR Assured Wetland Delineators.**

Wetland delineations conducted by our Assured Delineators do not require review by the WDNR. Once they have completed the fieldwork and report preparation, NES can provide a Letter of Concurrence already issued by the WDNR saving time and money.

**Wetland Related Services**

- Wetland Delineations & Determinations
- Functions & Values Assessment
- Impact & Alternatives Analysis
- Permit Application Preparation
- Mitigation Site Assessment & Planning
- Mitigation Bank Design

**Consulting Services**

- Wetland Delineations
- Ecological Site Assessments
- Native Community, Plant and Tree Inventories
- Bioengineering
- Restoration & Planting Plans
- GPS/GIS Mapping

**Ecological Implementation Services**

- Site Preparation, Seeding, Planting
- Vegetation Protection from Herbivores
- Erosion Control Installation Stream and Shoreline Restoration
- Construction Oversight and Management

**Habitat Management Services**

- Invasive Species Control
- Hand Cutting/Clearing
- Woody Debris Removal
- Prescribed Burning
- Long-term Natural Area Monitoring and Maintenance of all types of Midwestern Ecosystems



# Surveying Services



## **Boundary Surveying**

- Area Development Plans
- Subdivision or Condominium Plats
- Topographic or Certified Survey Maps
- Alta / ACSM, Easement, or Plat of Surveys
- Right-of-Way Plats

## **FEMA Related Surveying**

- Elevation Certificates
- Letter of Map Amendments
- Letter of Map Revision

## **Construction Surveying**

- Foundation / Building Layout
- Bridge / Structure Layout
- Utility Layout
- Street / Highway Layout
- Storm Water Drainage / Pond Layout

## **Miscellaneous Surveying**

- Topographic Surveys
- Route Surveys
- Ground Control Surveys
- As-Built Surveys

## **Survey Mapping**

- Geographic Information System (GIS) Mapping
- Municipal System Maps
- Parcel Mapping

Robert E. Lee & Associates, Inc., land surveying department prides itself on the use of state-of-the-art technology, and developing personal relationships with its clients. Since the establishment of the firm in 1956, the land surveying department has continued to lead the industry through the use of automation and new technology.

As an example of this, the firm's Robotic Total Station combined with their Global Positioning System (GPS) is used by survey crews to work with high accuracy and within any coordinate system.

The combination of this equipment allows the firm to complete projects efficiently without jeopardizing quality. Clients benefit by experiencing fast, dependable, and accurate service.

Our Surveying Staff is made up of Wisconsin Professional Land Surveyors along with Technicians certified by the National Society of Professional Surveyors. Our Survey team takes great pride in producing a quality product from field to finish.



**Section 2: Project Team**



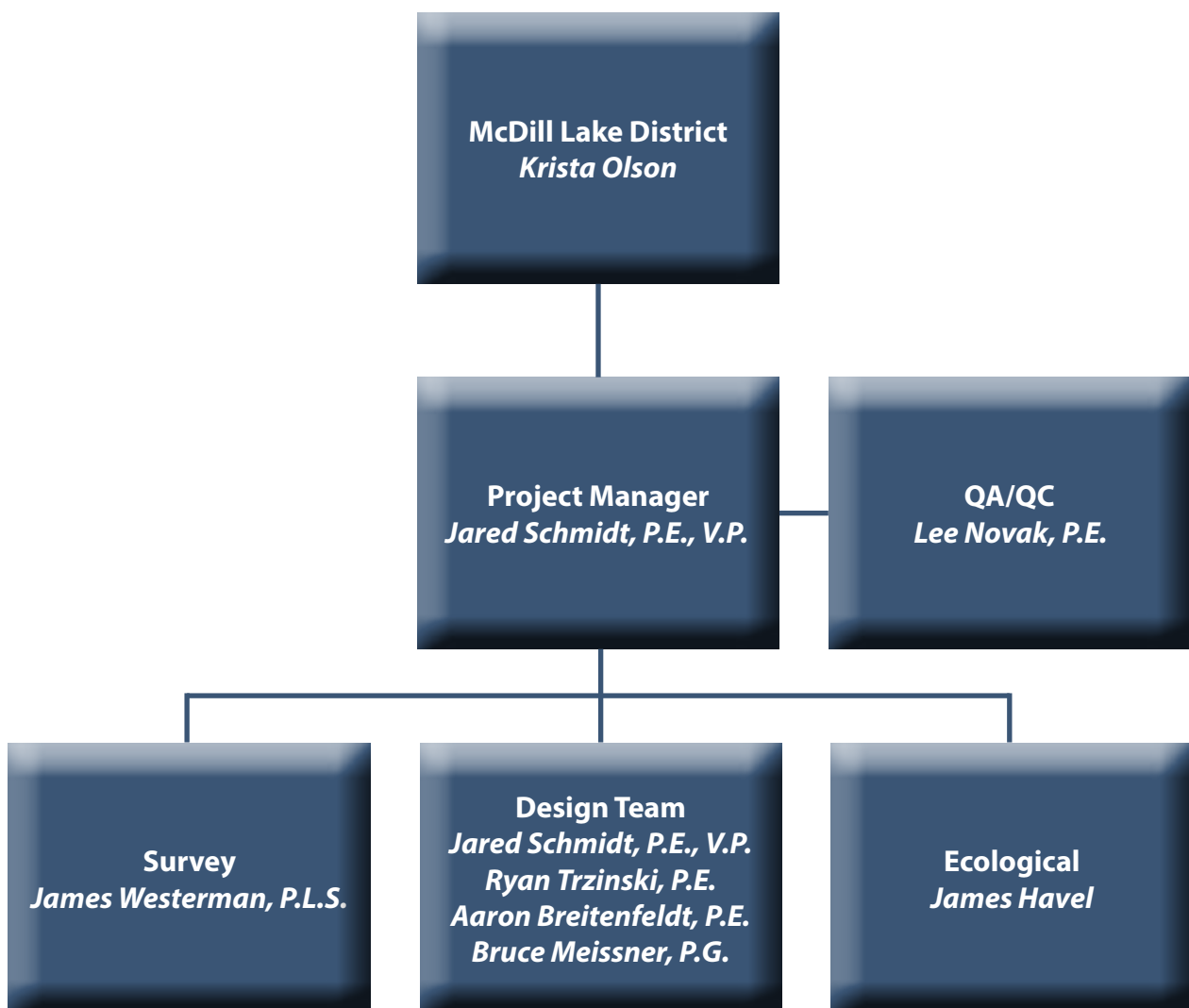
**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services

## Project Team

The engineering services will be provided under the direction of Jared Schmidt. The McDill Lake District will be a key part of the project team. It is the intent of Robert E. Lee & Associates to work as an extension of the District staff to ensure a successful project.

Robert E. Lee & Associates' engineering staff has extensive experience in dredging projects. This includes innovative ideas to provide the most cost-effective and efficient solutions.

The following team organization chart shows the key project members that will be assigned to this project. Resumes of key staff are included in this proposal.







# Jared G. Schmidt, P.E.

*Vice President  
Civil/Municipal Engineering Manager*

## Experience

14 years experience in civil engineering covering the following areas of expertise:

- *Municipal engineering*
- *Site & storm water plan design*
- *Storm water management design*
- *Waterway analysis & design*
- *Recreational design & planning*
- *Material dredging*
- *Federal, state, and local agency permitting*

## Municipal Engineering

Project manager for the design of sanitary sewer, lift stations, water main, storm sewer facilities, material dredging, street and roadway cross sections; development of plans, specifications and necessary contract documents for bidding purposes; coordination between owner, contractor and construction observer. Coordination of public involvement meetings and information for municipal board meetings. Work also includes site design of residential developments, commercial building sites, parking lots, park and recreational areas. Project examples include:

- *East Industrial Park, Kiel, WI*
- *North Avenue Road, Denmark, WI*
- *TID Planning and creation, Hobart, WI*
- *Crivitz Drainage Improvements, Crivitz, WI*
- *83rd Street & 90th Avenue, Pleasant Prairie, WI*
- *Oconto River Dredging, Oconto, WI*
- *Menekaunee Harbor, Dredge & Restoration, Marinette, WI*
- *NWTC Pond Dredging, Green Bay*

## Waterway Analysis & Design

Hydraulic & hydrologic analysis of numerous waterways throughout the state of Wisconsin. Data can be used for FEMA flood planing mapping, a base line for future development, culvert sizing, stream restoration. By utilizing HEC-RAS, detail analysis and design can be performed. Project examples include:

- *Mosher Creek Stream Restoration, North Fond Du Lac, WI*
- *Lane Creek Stream Restoration, Town of Patch, Grant County, WI*
- *Porlier Pier Permitting, Green Bay, WI*
- *Vine Road Box Culvert Replacement, Freedom, WI*
- *Ashwaubenon Creek Flood Plain Analysis, Lawrence, WI*

## Recreational Design & Planning

Planning and development of recreational facilities such as trails, shelters, playgrounds, ballfields, parking lots, and restrooms. Work includes coordination between clients, the users of the facility, and the agencies that oversee it; as well as design layout, cost estimates, specification writing, bid documents, and construction oversight. Project examples include:

- *Memorial Park Ball Diamonds, Village of Pulaski, WI*

## Education

**Marquette University**  
Bachelor of Science  
Civil Engineering, 2003

## Registrations

**Professional Engineer**  
Wisconsin

## Professional Organizations

American Society of Civil Engineers  
Fox Wolf Watershed Alliance, President  
FWWA Conferences, Planning team  
Northeast Wisconsin Storm Water Consortium  
Brown County Home Builders Association,  
Government Affairs Vice Chairman  
Preble Optimist Member

## Continuing Education

Dam break analysis using HEC-RAS  
Source Loading and Management Model  
(SLAMM)  
P8 urban catchment model  
Post-construction storm water management  
Construction erosion control  
Phase II storm water regulation and compliance  
Docks and marinas







# Ryan H. Trzinski, P.E.

## Transportation Engineer

### Experience

10 years experience covering the following areas of expertise:

- *Rural Roadway Design*
- *Urban Street Design*
- *Bridge Design*
- *Recreational Design & Planning*
- *Municipal Engineering*
- *Construction Project Leader (WisDOT)*
- *Resident Project Representative*
- *Dredging Operation Projects*
- *Federal, State, and Local Agency Permitting Projects*

### ***Dredging Operation Projects***

Combine technical and problem-solving expertise that anticipates and avoids project delays and cost overruns. Generating work change directives, negotiating change orders, processing payment requests, record construction activities in daily construction report, complete bathymetric and topographic surveys prior to dredging and post dredging, material sampling, environmental testing of dredge materials if required, maintain appropriate records of fill sites, if applicable complete grant funding documentation, and coordination with WDNR as required through permitting requirements. Project examples include:

- *Menekaunee Harbor, City of Marinette, WI*

### ***Recreational Design & Planning***

Planning and development of recreational facilities such as trails, shelters, playgrounds, ballfields, parking lots, and restrooms. Work includes coordination between clients, the users of the facility, and the agencies that oversee it; as well as design layout, cost estimates, specification writing, bid documents, and construction oversight. Project examples include:

- *Safe Routes to School Trail and Sidewalks, City of Oconto*
- *Pecor Street Multi-Use Trail, City of Oconto*
- *North Pine Tree Multi-Use Trail, Village of Hobart*
- *Centennial Centre Multi-Use Trail, Village of Hobart*
- *Menekaunee Harbor Restoration Project, City of Marinette*
- *South Chanel Habitat Improvement Project, City of Marinette*

### ***Municipal Engineering***

Design of sanitary sewer, lift stations, water main, storm sewer facilities, street and roadway cross sections; development of plans, specifications and necessary contract documents for bidding purposes; coordination between owner, contractor and construction observer. Coordination of public involvement meetings and information for municipal board meetings. Work also includes site design of residential developments, commercial building sites, parking lots, park and recreational areas. Project examples include:

- *Pecor Street City of Oconto*
- *French and Oconto Streets, City of Peshtigo*

### Education

#### **UW-Platteville**

Bachelor of Science  
Civil Engineering, 2007

#### **Mid-State Technical College**

Associates Degree  
Civil Engineering, 2001

### Registrations

Professional Engineer  
Wisconsin

### Professional Organizations

American Society of Civil Engineers  
American Institute of Steel Construction





# Aaron Breitenfeldt, P.E.

## *Civil/Municipal Engineer*

### **Experience**

7 years experience in civil/municipal engineering covering the following areas of expertise:

- *Site & storm water plan design*
- *Waterway analysis & design*
- *Municipal engineering*
- *Federal, state, and local agency permitting*
- *Resident project representative services*

### **Site & Storm Water Plan Design**

Design engineer for various commercial, industrial, and residential site plan designs. Design work includes developing the layout of proposed improvements and providing detailed utility plans, grading plans, and erosion control plans. Storm water management plans are also generally required. Design of storm water management plans includes the analysis of existing and proposed drainage basins, land uses, site specific soils, and storm water conveyance features. Permitting and coordination with local municipalities and state and federal agencies is generally also required. Project examples include:

- *City of Marinette Community Center, Marinette, WI*
- *Town Center Park, Grand Chute, WI*
- *Gordmans, Ashwaubenon, WI*
- *Skyline Estates, Hobart, WI*
- *KI, Inc. Expansion, Bellevue, WI*
- *Soccer and Athletic Field Development, Denmark, WI*
- *Centennial Centre Blvd Extension, Hobart, WI*
- *Community Memorial Hospital, Oconto, WI*
- *Bay Beach Green Infrastructure Parking Lot, Green Bay, WI*

### **Regional/Community Ponds**

- 

### **Waterway Analysis & Design**

Performed hydrologic/hydraulic analysis and design for a variety of projects. Types of projects include stream realignment, stream restoration, and floodplain determination. Most projects involve the analysis of drainage basins and the calculation of flood flows at a given location for multiple design storm events. The HEC-RAS program is then utilized to perform detailed floodplain calculations. Project examples include:

- *Lancaster Creek Stream Realignment, Hobart, WI*
- *State Street Culvert Extension, City of Algoma, WI*
- *Little Suamico River Stream Realignment, Little Suamico, WI*
- *Bower Creek Road Bridge, Village of Bellevue, WI*
- *Fair Road Bridge, Town of Wrightstown, WI*
- *Mud Creek Bridge, Town of Grand Chute, WI*

### **Education**

#### **UW-Platteville**

Bachelor of Science  
Civil Engineering, 2010

### **Registrations**

**Professional Engineer**  
Wisconsin

### **Professional Organizations**

American Society of Civil Engineers





# **Bruce D. Meissner, P.G.**

*Vice President  
Environmental Compliance Manager*

## **Education**

### **St. Norbert College**

Bachelor of Science  
Natural Science/Geology

### **Michigan State University**

Master of Science  
Geochemistry/Hydrogeology

## **Registration & Certification**

### **Professional Geologist**

Wisconsin

### **Hydrogeologist**

per NR700, Wisconsin

### **Environmental Professional**

per ASTM 1527-13, Wisconsin

## **Professional Organizations**

National Groundwater Association  
Wisconsin Groundwater Association  
Federation of Environmental Technologists  
St. Norbert College Geology Department -  
Adjunct Instructor

## **Continuing Education**

Conducting Comprehensive Environmental  
Property Assessments, UW-Madison  
Monitoring Well Tech, UW-Madison  
Improving Hydrogeologic Investigations: glaci-  
ated areas, Ohio State University  
Ground water MODFLOW, Natl Ground Water  
Assoc.

## **Experience**

26 years experience in environmental consulting covering the following areas of expertise:

- *Property Transaction Environmental Due Diligence*
- *Brownfield Redevelopment*
- *Municipal Water Supply Well Siting*
- *Solid Waste Landfill Siting and Monitoring*
- *Contamination Assessment and Remediation*
- *Environmental Compliance*

## **Brownfield Redevelopment**

Knowledgeable of Brownfield grant programs. Experienced grant application preparation, Blight Elimination and Brownfield Redevelopment Grant, Site Assessment Grant and US EPA Site Assessment grant. Quality Assurance Project Plan (QAPP) preparation for US Environmental Protection Agency Brownfields Assessment Grant projects. Project examples include:

- *City of Wisconsin Rapids, \$400,000 EPA Brownfield Assessment Grant*
- *City of Green Bay, EPA Community-Wide Brownfield Assessment Grant*
- *City of Wisconsin Rapids – RCH Enterprises, Brownfield Project*
- *City of New Holstein – Former Tecumseh Facility*
- *City of Kiel – Former Stoelting Manufacturing Property*
- *Village of Hobart – Former West Side Garage Brownfield Property*

## **Contamination Assessment and Remediation**

Contaminant investigations, feasibility studies, remedial design natural attenuation at sites contaminated with: petroleum products, chlorinated solvents and metals. Regulatory agency negotiation and liaison.

### **Redevelopment of Contaminated Properties**

- *Marinette Marine Corporation, Marinette Facility Contaminated Soil Assistance*
- *1428 Main Street, Marinette Phase I/II ESA – NWTC Acquisition of the former Goodwill Industries Building*
- *2209 Roosevelt Street, Two Rivers, WI, Holy Family Hospital acquisition and redevelopment of a former Hamilton Company property*

## **Environmental Compliance**

Assist clients with variety of compliance needs including: SPCC plans, air permitting and reporting, WPDES permitting, land application of industrial & agricultural waste, and hazardous waste management.





# James R. Westerman, P.L.S.

*Survey Manager, C.S.T.*

## Experience

29 years experience in land surveying with a civil engineering emphasis covering the following areas of expertise:

- *ALTA/Land Title Surveys*
- *Construction Staking/Administration*
- *FEMA Surveys*
- *Topographic Surveys*
- *Right-of-Way Surveys*
- *Boundary Surveys*
- *Subdivision Plats*
- *Land Development Surveys*
- *Aerial Surveys*
- *Cadastral Surveys*

## ***ALTA/Land Title Surveys***

The ALTA or Land Title Survey is used when purchasing or refinancing real estate. This survey provides a detailed report on easements, possible encroachments, zoning, flood zones, utilities (visible and underground), infrastructure, vertical relief, ownership of adjoining properties, access to public streets, or any other pertinent improvements. The current title commitment is examined and municipal and county records are researched for any evidence or encumbrances relating to the subject property. Project examples include:

- *General Capital, Appleton, WI*
- *Tadych Investments Partners, Green Bay, WI*
- *Lexington Homes, Pleasant Prairie, WI*

## ***Construction Staking/Administration***

Most civil engineering projects require construction staking. Survey stakeout files are computed from design plan drawings and uploaded to the field surveyor's equipment for staking. This also involves coordination with clients and contractors to ensure that sites are constructed to plan specifications and in the most cost effective manner. Part of making this successful includes good communication between survey field staff members and other parties involved within the project. Project examples include:

- *Festival Foods, Green Bay, WI*
- *Lear Lane, Village of Hobart, WI*
- *Water transmission line, Village of Wrightstown, WI*

## ***Topographic Surveys***

Prior to any civil design, a topographic survey is typically required. These surveys range from full street rights-of-way to simple site developments. Investigation of horizontal and vertical control is completed for each project to ensure site datums are current. Coordination with local communities and utilities is a must to produce accurate and quality maps for civil design. Project examples include:

- *North Pinetree Road Trail, Village of Hobart*
- *STH 32, WisDOT*

## Education

**Northeast Wisconsin Technical College**  
Associates Degree  
Civil Engineering-Public Works, 1987

## Registrations

**Professional Land Surveyor**  
Wisconsin #2242

**Certified Survey Technician, Survey  
Office Manager**

## Professional Organizations

Wisconsin Society of Land Surveyors  
National Society of Professional Surveyors  
NWTC Advisory Committee







# James R. Havel

## NES Ecological Services Manager Senior Ecologist

### Experience

19 years experience in ecological services covering the following areas of expertise:

- *Wetland Delineation/Determination*
- *Wetland Permit Applications*
- *Wetland Mitigation, Planning & Monitoring*
- *Ecological Consulting Services*
- *Ecological Implementation Services*
- *Habitat Management Services*
- *Threatened & Endangered Species Habitat Assessment & Surveys*
- *Environmental Impact Assessments/Studies*
- *Non-metallic Mine Permitting*
- *Grant Writing Assistance*

### Wetland Delineation/Determination

Identify and delineate wetland resources and prepare associated report. WDNR Assured Wetland status eliminates the need for WDNR site reviews, reduces permitting delays and eliminates review fees. Project examples:

- *Town of Freedom, Outagamie County, WI*
- *Town of Grand Chute, Outagamie County, WI*
- *Village of Hobart, Brown County, WI*
- *City of Marinette, Marinette County, WI*
- *Village of Little Chute, Outagamie County, WI*
- *City of Kaukauna, Outagamie County, WI*
- *Village of Bellevue, Brown County, WI*
- *Lakeshore Technical College, Manitowoc County, WI*
- *Verrette Materials, Inc., Marinette County, WI*
- *Mauston School District, Juneau County, WI*

### Wetland Permit Applications

Prepare and submit WDNR and USACE permit applications including completion of wetland functional values assessments and practicable alternatives analysis. Assist with paperwork preparation for in-lieu fee mitigation credit purchases, if necessary. Project examples include:

- *Williams Farms, Inc., Access Road Construction, Oconto County, WI*
- *Village of Howard – Rail Spur Construction, Brown County, WI*
- *Murder Inc. – Non-Metallic Quarry Expansion, Oconto County, WI*
- *McDonald Lumber – Access Road Construction, Brown County, WI*
- *Allen Williams – Business Development, Brown County, WI*
- *Rocky Mountain Excavating – Town of Halsey Quarry Expansion, Marathon County, WI*
- *Rocky Mountain Excavating – Town of Bergen Non-metallic Mine Development, Marathon County, WI*

### Education

**UW-Green Bay**  
Master of Science  
Environmental Science, 1999

### **UW-Stevens Point**

Bachelor of Science  
Wildlife and Biology, 1994

### Certifications

**WDNR Assured Professional Wetland  
Delineator**

### Professional Organizations

Wisconsin Wetland Association  
Wisconsin Society for Ornithology  
Wild Ones, Native Landscaping

### Continuing Education

Wetland Delineation Training  
Advanced Hydric Soils  
Wetland Construction & Restoration  
Natural Lawn & Prairie Restoration Burn &  
Safety Training  
Temporary Traffic Control for Prescribed Burns



# *Section 3: Project Approach*



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services

## Project Approach

The McDill Lake District is seeking a consultant to complete engineering design and permitting for the McDill Pond Silt Trap Dredging Project. Design work would start immediately and is anticipated to be completed by summer of 2018, allowing the District to request proposals from various contractors for 2018 construction. Robert E. Lee & Associates (REL) would be responsible for the bulk of the project design, working with the District to determine dredging limits, depths, and dredge spoil deposit locations. REL will provide the necessary design, specification sections; permit submittals, and obtaining a list of contractors for the District to utilize during the contractor proposal process, facilitated by the District.

The District has requested a large -scale dredge to achieve a designed silt trap loading capacity of at least 15-20 years. REL will begin with a project kick-off meeting to discuss this project in great detail. At this meeting, potential plan ideas from all parties will be discussed, and the preferred work plan will be developed and implemented.

Once the preferred work plan is developed and agreed upon, site topographic survey of the upland areas at the City of Stevens Point Disc Golf Park will be completed, to determine potential staging and dredge spoil deposit areas. REL is also planning to utilize UWSP Bathymetric survey data. To complete our dredge design, REL will supplement Bathymetric surveys within the northern 1,000 feet of McDill pond. Potential sediment deposit rates near the silt trap, will be determined by the project team reviewing river hydrology and hydraulics. Once the estimated sediment deposit rates have been determined, the project team will utilize historical data to determine the potential dredge volume that needs to be removed to allow 15-20 years of siltation in this area. After the volumes have been determined, REL will work with the District to determine the preferred and most economical area to achieve the long-term project goals.

To ensure wetlands are not being impacted or filled as part of this project, and to ensure Preliminary Plans are developed without any wetland impacts, a wetland delineation will need to be completed. Once the preliminary plans are complete, they will be submitted to Wisconsin Department of Natural Resources for permitting. REL has worked with federal, state, and local regulators on past projects and are confident that the permitting process will be completed professionally and efficiently. During the permitting process, WDNR may request sediment sampling of dredged spoil materials. Additional sediment sampling and testing would be considered extra services.

## Project Approach

REL will work through the permitting phase and final design phase to provide the Lake District with a set of construction plans, specifications, and the required permits allowing the District to request proposals from various contractors we will help identify. We have included up to three project meetings in our scope of service. REL is able to provide additional assistance throughout the construction phase, to include construction administration, construction observation, and survey services, as desired by the District.

Robert E. Lee & Associates prides itself on delivering projects on time and on budget. We strive to provide quality estimates, and practical schedules, as part of the quality project, to build trust and sustainability with our clients. Our clients, such as the District, depend on the estimates and schedules we provide for budgeting purposes. We recently completed various dredging projects and feel our broad background ensures our experienced staff will facilitate and deliver high-quality dredge design plans and specification ensuring a successful project for the District.



**Section 4: Project Experience**



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services

## Client References

### **City of Marinette**

Brian Miller  
1905 Hall Avenue  
Marinette, WI 54143  
(715) 732-5134

### **City of Oconto**

Jeremy Wusterbarth  
1616 Main Street  
Oconto, WI 54153  
(920) 834-7779

### **South Bay Marina**

Chester "Chet" McDonald  
2020 Angie Avenue  
Green Bay, WI 54302  
(920) 498-5723

### **Northeast Wisconsin Technical College**

Chet Lamers  
2740 West Mason Street  
Green Bay, WI 54307  
(920) 498-5723

### **Village of Hobart**

Allyn Dannhoff  
2990 South Pine Tree Road  
Hobart, WI 54155  
(920) 869-3809

### **Brown County Port & Resource Recovery Department**

Dean Haen, Director  
2561 South Broadway Street  
Green Bay, WI 54304  
(920) 492-4950





# Menekaunee Harbor Restoration City of Marinette



## REL Staff

Jared Schmidt, P.E., V.P.  
Ryan Trzinski, P.E.  
James Havel

## Coordinating Agencies

WDNR  
US EPA

Menekaunee Harbor is a 13-acre natural embayment of the Menominee River. It is included within the boundaries of the Lower Menominee River Area of Concern (AOC) by the United States Environmental Protection Agency (US EPA). Pollutants contained within the harbor were caused by years of upstream, heavy-industrial manufacturing practices and non-point pollutant storm water run-off. These pollutants contribute to impairments, such as restrictions on fish and wildlife consumption and loss of fish and wildlife habitat, within the AOC.

REL administered and oversaw the dredging of the Menekaunee Harbor Improvement project that dredged the harbor to a navigable depth of 8 feet during low lake levels. Dredged spoils removed from the harbor by both mechanical and hydraulic methods totaled over 70,000 cubic yards were either deposited at the landfill, a suitable containment site (Lot 24), or used as beneficial reuse material within the harbor.

NES developed an ecological restoration plan of Menekaunee Harbor, which restored native vegetation and habitat. It restored habitats for use by native fish species that historically utilize the harbor, established healthy and diverse native vegetation communities, and restored wetland and upland habitat for use by invertebrates, amphibians, reptiles, mammals, and birds.



# Oconto River City of Oconto



## REL Staff

Jared Schmidt, P.E., V.P.  
Aaron Breitenfeldt, P.E.  
James Havel

## Coordinating Agencies

WDNR

REL assisted the City of Oconto with the engineering administration and oversight of the Oconto Dredge Project. Surveyors utilized sonarmite technology to conduct a detailed survey prior to the commencement of dredging activities, establishing a baseline of existing conditions. Additional surveys were completed throughout dredging activities to determine in-place volume of material displaced.

Our staff worked with the contractor to develop a detailed dewatering plan, and assist with the construction site permit submittal. This plan needed to conform to the site identified during the design stage, but included modifications to compensate for on-site wetlands, floodplain considerations, and other physical site limitations. Upon validation of the construction progress, REL assisted the City with payment request processing, and completed the month-end reporting required through the State Harbor Assistant Grant Program.



# South Bay Marina McDonald Lumber Company



For over a decade, REL has been assisting the McDonald Lumber Company with continued development of the South Bay Marina in the City of Green Bay. Various engineering and surveying services have been utilized to continually improve and expand their facility. The Marina is permitted for more than 320 boat slips.

Staff at Robert E. Lee & Associates have completed a bathymetric survey of the marina area, coordinated material testing of existing sediment, reviewed and analyze testing results to identify disposal options, validated results with WDNR Fox River Clean-Up documents, coordinated disposal of contaminated dredge soil with the Brown County Port and Resource Recovery Department and Army Corps of Engineers, developed engineering plans, and coordinated agency permitting for Marina activities including: pier and dock expansion and construction, side slope armoring, pool, pool/club house, parking lot and sidewalk network, and dredging.

## REL Staff

Jared Schmidt, P.E., V.P.  
Aaron Breitenfeldt, P.E.  
James Havel

## Coordinating Agencies

WDNR  
US EPA



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services



# Botanical Garden Dam Rehabilitation NWTC, Green Bay, WI



## REL Staff

Patrick Kuehl, P.E.

Aaron Breitenfeldt, P.E.

## Coordinating Agencies

WDNR

## Services Provided

Topographic Survey

Hydraulic Analysis

Design of Dam Improvements

Restoration Plan

Soils Testing

Permitting

A dam inspection performed for both Northeast Wisconsin Technical College and Green Bay Botanical Garden, which occupies a portion of the campus containing the dam and pond, revealed a number of improvements were required to bring the structure into compliance with current design standards. In addition, the accumulation of sediment was creating poor water quality throughout much of the year. REL was retained for design and construction services to rehabilitate the dam.

Work included raising and widening the earth embankment, and constructing a new primary spillway capable of drawing the dam down for maintenance and dredging contaminated sediment from the impoundment.



**Section 5: Project Cost**



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services



## Project Costs

Robert E. Lee & Associates, Inc., will provide the necessary engineering related services, as noted within the Project Approach. We will provide the services on a unit rate fee, including applicable expenses, on an estimated cost of \$39,458. If modifications to the agreement are needed that result in cost change, work would only continue with written consent of the McDill Lake District.

Items not included, but may be required to complete this project include, dredge sediment sampling and testing, any hazardous waste remediation efforts, temporary limited construction easements, permitting any wetland impacts, bidding services, and construction administration and oversight. All required permit submittal or special printing fees will be passed along as reimbursable expenses above the cost identified.



**Section 6: Closing**



**Robert E. Lee & Associates, Inc.**  
Engineering • Surveying • Environmental Services

## Closing

Robert E. Lee & Associates, Inc., along with NES Ecological Services would like to thank the McDill Lake District for reviewing our proposal and relative project-related experiences. Our team, as illustrated within the proposal, provides high-value engineering services that help guarantee a streamlined and successful project for the District. We look forward to beginning our relationship with the McDill Lake District.

