

Proposal

for Engineering Design Services

Railroad Accessibility Study
Village of Kronenwetter, Marathon County

PSW (5)
3/12/2024



Presented to:

Leonard Ludi
Village Administrator

Village of Kronenwetter

March 11, 2024



330 N. 4th Street
Wausau, WI 54403-5417
715-845-8000

becherhoppe.com



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March 11, 2024

Leonard Ludi
Village Administrator
Village of Kronenwetter
1582 Kronenwetter Drive
Kronenwetter, WI 54455

Subject: Proposal for Engineering Evaluation - Railroad Accessibility Assessment Study

Leonard,

Thank you for the invitation to assist the Village of Kronenwetter with an Engineering Evaluation regarding the RFP for the Railroad Accessibility Assessment Study. Becher Hoppe Associates, Inc. (BHA) and Traffic Analysis and Design, Inc (TADI) have experience performing traffic analysis and evaluating alternatives. We have partnered together on other local street projects and have experience working with the local railroad companies.

Becher-Hoppe Associates, Inc. is pleased to submit this proposal for providing engineering design services. As you will see:

- ✓ Our team of Becher Hoppe and TADI recently completed local street reconstruction and traffic analysis.
- ✓ We have recently completed several street and intersection improvement projects for the City of Schofield, Village of Rothschild, City of Wausau, and Village of Weston.
- ✓ In teaming with Becher Hoppe and TADI, Kronenwetter will have the firsthand local street and railroad knowledge and practical approach to make your project a success.

We wish you the best in achieving all the goals for this project and please know that we are well suited to be a part of your team.

Respectfully,

A handwritten signature in black ink, appearing to read "Matthew Patterson".

Matthew Patterson, PE
Project Manager

A handwritten signature in black ink, appearing to read "Matthew T Graun".

Matthew T Graun
Vice President



Membership

- American Council of Engineering Companies (ACEC)*
- American Public Works Association (APWA)*
- American Society of Civil Engineers (ASCE)*
- American Water Works Association (AWWA)*
- Institute of Transportation Engineers (ITE)*
- International Right of Way Association (IRWA)*
- National Society of Professional Engineers (NSPE)*
- National Society of Professional Surveyors (NSPS)*
- Wisconsin Airport Management Association (WAMA)*
- Wisconsin Society of Land Surveyors (WSLS)*

Awards

- 2019 ACEC Engineering Excellence – Best in State for Special Project: Alexander Airport Park*
- 2017 WisDOT Excellence in Highway Design – Best Rural Project: WIS 54 & CTH U Intersection*
- Engineering Excellence State Finalist Award (ACEC)*
- 2023 – Central Wisconsin Airport Runway/Taxiway Improvements*
- 2021 – City of Schofield Maryland/Radtke Roadways*
- 2014 – Wausau Downtown Airport SRE Building*
- 2013 – Wausau Wastewater Treatment Plant*
- 2012 – City of Wausau - 400 Block*
- Excellence in Airport Engineering (WisDOT Bureau of Aeronautics)*
- 2022 – Price County Airport*
- 2021 – Central Wisconsin Airport*
- 2014 – Price County Airport*
- 2013 – Merrill Municipal Airport*
- 2012 – Crandon-Steve Conway Municipal Airport*
- Project of the Year Award (APWA)*
- 2012 – City of Wausau 400 Block*

Our Mission

To improve communities through engineering excellence.

Becher Hoppe provides professional services to government, business, and individuals from our headquarters in Central Wisconsin. We offer planning, design, and construction services for civil engineering projects that involve airports, highways, roadways, trails, water and wastewater treatment systems, municipal utilities, stormwater management, dams, solid waste facilities, and agricultural site development. Other services include real estate appraisal and acquisition, mapping, land planning, and land surveying. We have been serving our clients since 1954.

Our Core Values

Service, Integrity, Excellence, Partnership

The Associates at Becher Hoppe carefully assess each client's project needs to create innovative solutions. Our employee group is diverse in education, expertise and experience. Employees with construction review responsibilities also have substantial field experience. Our knowledgeable team works hard and enjoys the collaborative effort with our clients to fulfill their project goals.

Company Information

Address: 330 N. 4th Street, Wausau, WI 54403-5417

Telephone Number: 715-845-8000

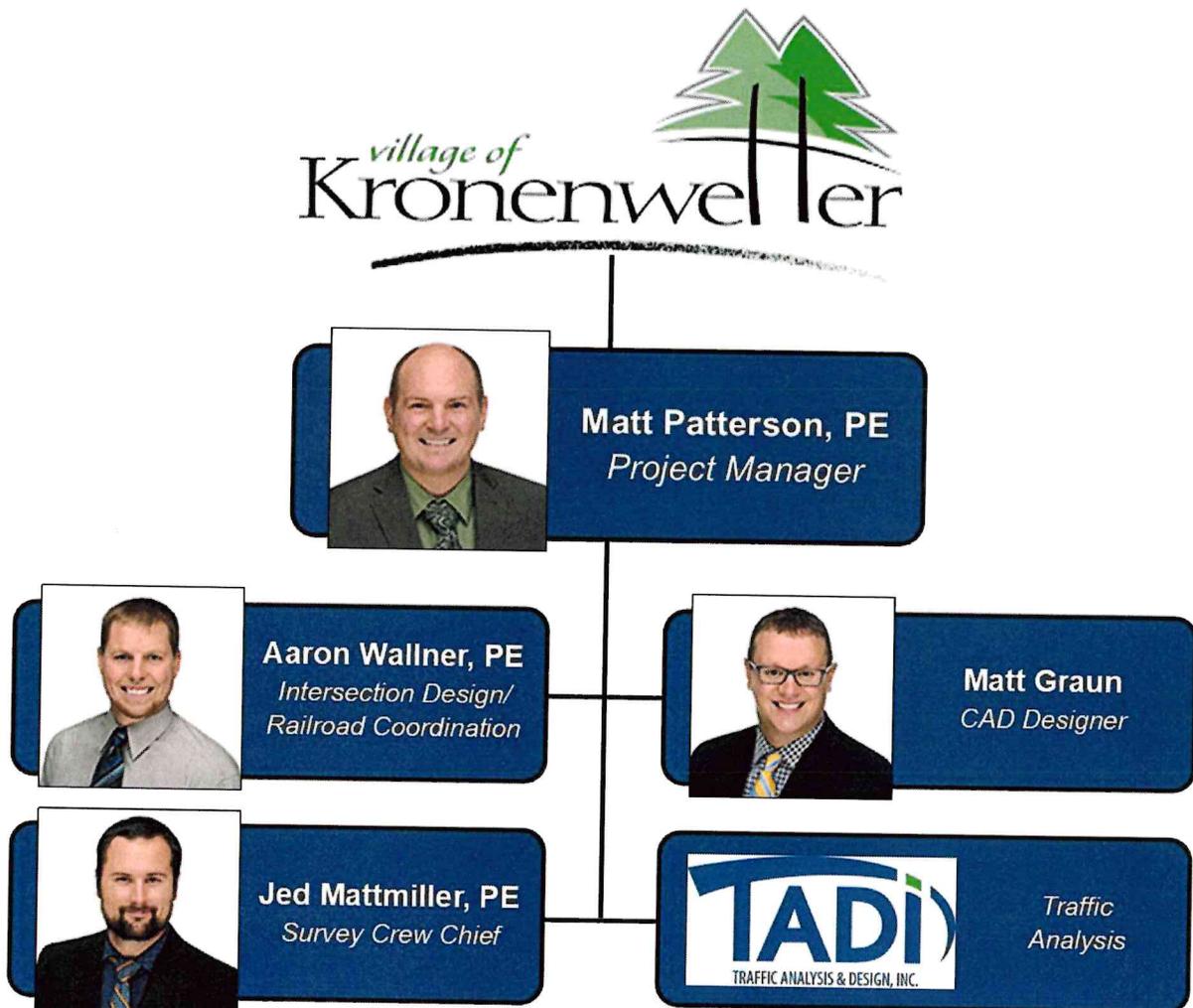
Website Address: www.becherhoppe.com



A Committed Team

Matt Patterson, PE, will manage the project and be the primary point of contact for the Village of Kronenwetter. Matt will utilize his extensive experience to lead the study and coordination. Matt Graun, Vice President, will be the secondary contact and will oversee the engineering and design of the project. Jed Mattmiller, PE, will lead field survey, base maps, Aaron Wallner, PE, will lead the intersection design and be lead contact for communication with the Railroad.

Our team has a close working relationship with Traffic Analysis & Design Inc. (TADI) will provide the traffic analysis required for the study. We have partnered with TADI on numerous occasions in the past and have had great results for our clients.

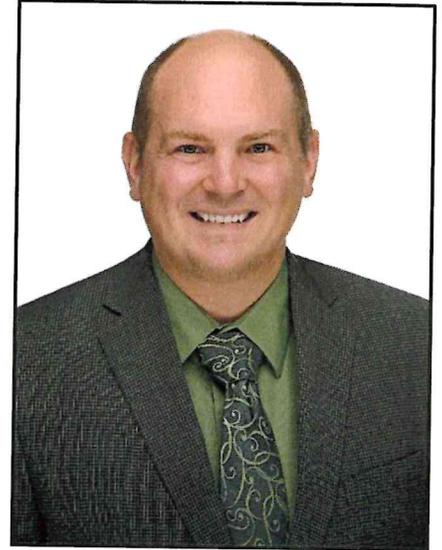


Becher Hoppe has a long and extensive background of providing design and analysis for local street projects for the Village of Kronenwetter and similar-sized communities. Some examples are as follows:

1. Village of Weston
 - a. Zinser Street Utility Extension and Street Reconstruction - Design and Construction Oversight
 - b. Birch Street Reconstruction and Multi-use Path – Design and Construction Oversight.
 - c. Ross Avenue – Metro Drive to Alderson Street - In Design
 - d. Ross Ave – Riverbend Rd to Kramer Ln – In Design
 - e. Fuller Street - Ross Avenue to Schofield Avenue - In Design
2. City of Schofield
 - a. Maryland Ave and Radtke Street Reconstruction – Design and Construction Oversight
 - b. Sternberg Street Reconstruction – Design and Construction Oversight
 - c. Grand Avenue Reconstruction – Design and Construction Oversight
 - d. Drott Street Reconstruction – Design and
 - e. Grossman Drive – Design and Construction Oversight
3. Village of Rothschild
 - a. Edgar and Hazel Street Reconstruction – Design and Construction Oversight
 - b. Schmidt Ave Reconstruction - Design and Construction Oversight
 - c. Military Avenue – Design and Construction Oversight
 - d. Military Avenue/ Business 51 Railroad Crossing – Design and Construction Oversight X
4. Town of Weston
 - a. Gusman Road – In Design
5. Marathon County
 - a. Hwy J and Hwy N Intersection – In design
6. City of Wausau
 - a. Downtown Mall Redevelopment (2nd Street, 3rd Street, Jackson Street) – Design
 - b. West Business Campus – Design and Construction Oversight
 - c. East Riverfront – Construction Oversight
 - d. STH 52 – Lighting and Marking
7. Village of Kronenwetter –
 - a. Construction Inspection – Ponds Subdivision

As shown on the following project data sheets, Becher Hoppe and TADI have substantial experience in completing projects very similar to this RFP.

Becher Hoppe's Project Manager will be Matt Patterson. Matt's areas of specialization include planning and design for water supply, treatment, distribution, and storage facilities and project management of street reconstruction design, traffic analysis, and construction oversight. Matt's experience covers the gamut of work activities for water facilities including:



1. Project management from conception through start-up
2. Bench-scale laboratory water treatment testing
3. Pilot scale water treatment testing
4. Design including cost-effectiveness analyses
5. Project management of variety of projects, including intersection design, street reconstruction, water and wastewater treatment
6. Loan/grant funding applications
7. Bidding of projects
8. On site resident project representative
9. Construction administration
10. Construction performance testing
11. Loan/grant construction administration

Five examples of projects Matt has designed and managed:

Village of Weston

Management of street reconstruction traffic analysis, intersection design, design, bidding, and construction oversight.

City of Wausau Treatment Facility

Bench and pilot testing of iron and manganese oxidants, eventually selecting permanganate oxidation, followed by filtration and anion exchange treatment.

Village of Rothschild PFAS Treatment Facility

Engineering report for treatment alternatives and pilot testing including WNDR coordination, equipment selection, and pilot operation.

Marathon County – Parks Department

Project management, water main design, and restoration plan for water main replacement. Coordination with City of Wausau on watermain connections and street restorations.

Education

*Bachelor of Science
Chemical Engineering
Michigan Technological University*

Registration

Professional Engineer Wisconsin

Membership

*American Waterworks Association
(AWWA)*

*Central States Water Environment
Association
(CSWEAWEF)*

*Wisconsin Rural Water Association
(WRWA)*

Community

*Muddy Waters Retriever Club –
Website Manager*



Mr. Patterson is a Project Engineer in the Water and Wastewater Group. He assists with the planning, design, and construction oversight for water supply and wastewater facilities.

Matt's diverse background in research and development enables him to use information used in prior tasks and apply it to current projects.

Experience

Matt joined Becher Hoppe in January of 2019, with a background in water and wastewater treatment, research and development of wastewater treatment technologies, and chemical applications for treatment systems. Previously a research and development engineer, he brings experience managing project teams while adhering to project budgets and schedules.

Reviewing customer equipment performance and recommending process improvements are other skills Matt brings to his work. He enjoys presenting technical information to stakeholders about new technologies and new solutions.

Projects**Village of Weston**

- Harlyn Avenue Lift Station design, permitting, and construction oversight
- Tanya Street/Tricia Avenue Lift Station design, permitting, and construction oversight
- Zinser Street Utilities permitting and construction oversight
- Birch Street Reconstruction utilities design, permitting, project management and construction oversight
- In design street reconstruction - Ross Ave (Metro to Alderson), Ross Ave (River Bend to Pauls), Fuller (Ross to Schofield)

Rib Mountain Sanitary District

- Main Lift Station Evaluation, design, permitting, and construction oversight

City of Wausau

- Water Treatment Facility pilot design and operation.
- Waste Water Treatment Facility underground piping design, site work and construction oversight.
- Downtown mall redevelopment utility design and permitting

Central Wisconsin Airport

- Design, permitting, and construction oversight of water and sewer extension to Odyssey Aviation Hanger
- Design, permitting, and construction oversight of water and sewer extension to Productivity Advantage Hanger

Education

*Associate Degree
Architectural Residential Design
Northcentral Technical College
Wausau*

*Adjunct Instructor
Northcentral Technical College
Civil Engineering Program*

Certification

*Remote Pilot, Small Unmanned
Aircraft System Rating*

Continuing Education

*Autodesk Certified Professional
Civil 3D*

*ACEC Leadership Institute
Graduate 2019*

*Inside the Factory- International
Autodesk Software Development
Influencing Team*

*Wausau Flying Service –
Ground School (Pilot Training)*

Membership

*Autodesk User Group International
(AUGI)*

*ACEC Wisconsin
Civil 3D User Group Chair*

Awards

*Top Presenter at
Midwest University*

Presentations

*Autodesk University
Las Vegas, Nevada*

*Recognized Presenter
Midwest University*

*ACEC Wisconsin
Civil 3D Workshop*

Contact Information :
mgraun@becherhoppe.com
715-845-0420



Mr. Graun is Vice President and one of the firm's owners. Matthew has 16 years of design and project leadership experience on various civil engineering projects.

His primary responsibilities include aiding in the civil design of projects and managing the firm's resources. Matthew manages all the resources it takes to complete a successful project and run a civil engineering firm. This includes everything from staffing needs to providing cutting edge software and hardware to the team at Becher Hoppe. He also brings a great deal of experience in designing projects from multiple disciplines within the firm.

In addition to Matthew being a leader within the firm, he is also a leader in the industry when it comes to software and technology development. Matthew co-chairs the ACEC Civil 3D User Group in Wisconsin, adjunct teaches at North Central Technical College in the Civil Engineering Program, worked with the software development team at Autodesk, and presented at local, regional, and international conferences on the design software driving the industry.

Projects

STH 54 and CTH U, J-Turn Intersection, Wisconsin Rapids to Plover

CAD 3D Design for a complex intersection focused on traffic safety. Over a 6-year study period, there were 11 crashes at the intersection of STH 54 and CTH U, resulting in 18 injuries. The team at Becher Hoppe recommended a J-Turn intersection for this location, which at the time was only the 2nd one in the state. Matthew was responsible for all CAD modeling and plan production associated with the intersection. This project was awarded Best Rural Project through ACECs WisDOT Excellence in Highway design criteria.

USH 8 and STH 46 Intersection, St. Croix Falls

CAD 3D Design for the intersection of USH 8 and STH 46. Over a 5-year study period, there were 8 crashes at the intersection of USH 8 and STH 46 north, resulting in 3 injuries. The intersection was in need of a safety enhancement and Becher Hoppe was contracted by WisDOT to make the necessary improvements. Matthew aided in the layout and 3D design of this intersection along with developing plans to meet WisDOT requirements.

CTH G, Forest County

CAD 3D Designer for a rural 2-lane major collector connecting the Town of Argonne and Cavour and provides a major trucking route between STH 32/STH 55 and USH 8. The project consisted of pavement improvements as a result of a deteriorated roadway from heavy logging truck traffic, a single span bridge structure, intersection improvements, and culvert replacements. Matt was responsible for all plans and design modeling to accomplish a successful project.

West Grand Avenue, City of Schofield, Marathon County

CAD 3D Designer of this utility replacement and street reconstruction project. The project featured approximately one mile of roadway and utility reconstruction, curb extensions for pedestrian crossing, improved stormwater drainage, and new signage and pavement markings. Responsibilities included intensive software modeling of the entire project including over 75 driveway accesses, multiple phase construction, sidewalk replacements, constricted right of way, and utility improvements. These models aided engineers in the design and construction of this project.

Education

*Bachelor of Science
Engineering
University of Wisconsin-Platteville*

Registration

*Professional Engineer
Wisconsin*

Certification

Highway Technician Certification
Program (WisDOT)

- *Transportation Materials
Sampling*
- *Portland Cement Concrete
Technician I*

Continuing Education

Federal Highway Administration

- *Intro to Highway Hydraulics*
- *Culvert Design*
- *Hybrid Roadside Design*
- *Urban Drainage Design – NHI
Course*

Membership

*American Council of Engineering
Companies, ACEC, WI*

*Wisconsin County Highways
Association*

Midwest Hydro Users Group

*Association of Dam Safety Officials,
Inc.*



Mr. Wallner is a Project Manager responsible for storm water analysis, environmental studies, river studies, and the design of highways, local roads or dams.

Aaron brings extensive experience and knowledge of WisDOT standard procedures and specifications for highway design and construction through his past tenure with the WisDOT Northeast and North Central Regions. He is well-versed in highway rehabilitation requirements set forth in the WisDOT FDM. His experience includes serving as lead designer and construction engineer for interchange, urban highway, and rural highway projects.

Projects**USH 141 and CTH E J-Turn, Oconto County (1490-28-01)***

*While employed at WisDOT

Lead Designer responsible for all agency, utility, and environmental coordination on this rural 0.87-mile reconstruction project which was one of the earlier WisDOT projects fully developed in Civil 3D. This project required close coordination with the regional traffic safety engineer, which resulted in a basic template for J-turns used throughout the region. Extensive public outreach was also required for this project.

Maryland Ave And Radtke Street, City of Schofield (2017.056)

Operated as lead design engineer, standard Civil 3d design, utility coordination, storm sewer, waste water, and watermain design. The project was a full urban reconstruct, replacing all the watermain and a large portion of the storm and sanitary sewer system. This 0.670-mile project also included .239 miles of curb and gutter replacement as well as .431 miles of curb that was replaced with ditches and shoulders.

Oversaw all construction operation, drafted payment requests, reviewed and approved change orders. Coordinated in house survey operations as well as consulted testing procedures. Other operations included grading, block retaining wall construction, BAD placement, and HMA paving.

Tomahawk Bike Trail, City of Tomahawk (2012.054/9862-00-70)

Served as construction project manager while overseeing and inspecting construction operations. The project had a mix of new rural trail construction and urban roadway expansion to expand the paved shoulders. As a WisDOT local program project, coordination was required between the contractor, the City of Tomahawk, and WisDOT. Wet soil conditions required unique problem solving on a tight budget.

Drott Street, City of Schofield (2019.046)

While working as the lead designer, coordinated between the City of Schofield, and RAO Construction, LLC to put together roadway and utility improvement plans as well as site development plans for an adjacent set of parcels. The 0.303-mile-long project included roadway reconstruction, full replacement of watermain and sanitary systems, and earthwork balancing between sites. The project also had several unique features including high ground water, site contamination, and adjacent waterways which limited grading areas.

Education

*Bachelor of Science
Civil Engineering
Michigan Technological University*

Registration

Professional Engineer – Wisconsin

Memberships

ACEC Wisconsin

WSLS Wisconsin

Continuing Education

ACEC Civil 3D User Group

Autodesk Midwest University

Autodesk University

*Wausau Flying Service –
Ground School (Pilot Training)*

*St. Cloud State University
Land Surveying
Certificate Program*

Contact Information :

jmattmiller@becherhoppe.com

715-845-0427



Mr. Mattmiller began his engineering career as an intern on the BH survey crew and never lost touch with the surveying practice as he built his engineering expertise. Jed has gained experience on a wide variety of survey projects including topographic surveys for infrastructure design, underground mapping for utility projects, boundary surveys, flood plain and hydrologic surveys, bathymetric surveys, and construction staking. Jed has surveying experience working for clients such as WisDOT, Wisconsin BOA, Wisconsin DFD, many counties and municipalities, and countless private entities. His engineering fundamentals provide him great understanding and foresight as he plans and executes survey work.

Projects**USH 45, City of Eagle River, Vilas County**

Worked on the survey crew collecting topographic survey and as an engineer on the design team. Designed curb ramps to match existing drainage and produced construction plans for this 4.5-mile resurfacing, lane reconfiguration, and sidewalk improvements for ADA compliance project along STH 45 through Eagle River. Also worked with survey and engineering teams on right-of-way acquisition and associated plat work.

CTH H, Lake Duroy Bridge, City of Phillips, Price County (ID 9480-00-70)

Design engineer for the rehabilitation of the CTH H Lake Duroy Bridge in Phillips. Worked on gradings design on approaches to the bridge, giving attention to adjacent drives and pedestrian walks. Also performed plan production.

Grossman Drive-Industrial Park, City of Schofield, Marathon County

Design engineer for the extension of Grossman Drive serving a new industrial park. Designed intersection layouts using vehicle tracking software to accommodate large trucks, water and sewer mains to service the expansion, and a complex grading model to accommodate multiple industrial users in the challenging site. Assisted in the plan production process.

Marshfield Hangar Area - Marshfield Municipal Airport, Marshfield, WI

Worked as design engineer on the layout of airside and landside infrastructure including taxilanes, hangar sites, access roads, security fencing, and gates. Designed a detailed grading model to provide site drainage now, and in the future as development occurs. Performed earthwork calculations as part of a detailed Engineer's estimate.

West Grand Avenue, City of Schofield, Marathon County

Worked on the survey field crew assisting with topographic design survey. Performed data processing and base mapping within the design software.

Military Road, Village of Rothschild, Marathon County

Worked as the Survey Crew Chief coordinating construction staking services.

Lincoln Ave. Lift Station, City of Marshfield, WI

Worked on the survey field crew performing construction staking for utility installation.



JOHN BIEBERITZ, P.E., PTOE

Senior Traffic Engineer

Specialties:

Traffic Impact Studies
Corridor Studies
School Studies
Parking Studies
Traffic Signal Design & Timing Plans
Traffic Calming
Roundabout Analyses
Teaching and Training

Education:

B.S. Civil Engineering, University of Wisconsin-Milwaukee, 1989
M.S. Transportation Engineering, University of Wisconsin-Milwaukee, 1994

Certifications:

Professional Engineer: Wisconsin, 1992
Professional Traffic Operations Engineer, 2003
WisDOT SE Region Certified TIA Preparer

Professional Affiliations:

Institute of Transportation Engineers, Wisconsin Chapter
Chairman of the ITE Traffic Engineering Workshop
Tau Beta PI, National Engineering Honor Society

1.800.605.3091

Direct: 262.377.1845

jbieberitz@tadi-us.com

www.linkedin.com/in/jbieberitztraffic

Mr. Bieberitz is a Senior Traffic Engineer and also the President of Traffic Analysis & Design, Inc. (TADI). Mr. Bieberitz manages the staff of 30 traffic engineering professionals in addition to project management and traffic engineering tasks. Mr. Bieberitz is responsible for traffic engineering tasks including corridor studies, traffic impact studies, signalized intersection analyses, signal progression analyses, development of traffic signal timing plans, roundabout analyses, traffic calming and traffic simulation.

Mr. Bieberitz has over 35 years of traffic engineering experience ranging from traffic signal designs/timing to traffic impact studies. Mr. Bieberitz has conducted over several hundred traffic impact studies, designed over one hundred traffic signals, and has retimed several hundred traffic signals. Mr. Bieberitz serves as an "on-call" traffic engineer for several Wisconsin communities.

Mr. Bieberitz has presented and published several papers on traffic engineering for both the Institute of Transportation Engineers and the American Society of Civil Engineers. Mr. Bieberitz regularly teaches traffic engineering for the University of Wisconsin-Milwaukee on topics such as traffic impact analyses, access control and site design.



DANIEL BIEBERITZ, P.E., PTOE

Senior Traffic Engineer

Specialties:

Corridor Studies
Traffic Impact Studies
Traffic Signal Timings
Traffic Safety Studies
Comprehensive Safety Action Plans
Pedestrian Safety Studies
Federal and State Aid Applications

Education:

B.S. Civil Engineering,
University of Wisconsin, Milwaukee, 1994

Certifications:

WI Professional Engineer
Professional Traffic Operations Engineer (PTOE)

Mr. Bieberitz has 28 years of traffic engineering experience, which includes 23 years in private consulting and five years at WisDOT Northwest Region.

While at TADI, Dan has completed over 40 traffic studies, including traffic impact studies, operational studies and signal timing studies.

At WisDOT, Dan was the Region's Traffic Safety Engineer. His role at WisDOT included completing over 60 Highway Safety Improvement Program (HSIP) applications which included roundabouts, RCUT/J-Turns, correcting left-turn lane offsets, road diets, and many other intersection and roadway improvements.

Previous to WisDOT, Dan was Project Manager/Traffic Engineer in Ohio and managed/performed numerous traffic signal and interconnect designs, coordinated traffic signal retimings, signing plans, safety studies, corridor improvement projects, redevelopment projects, TIAs, and Safe Routes to School plans.

Employment History:

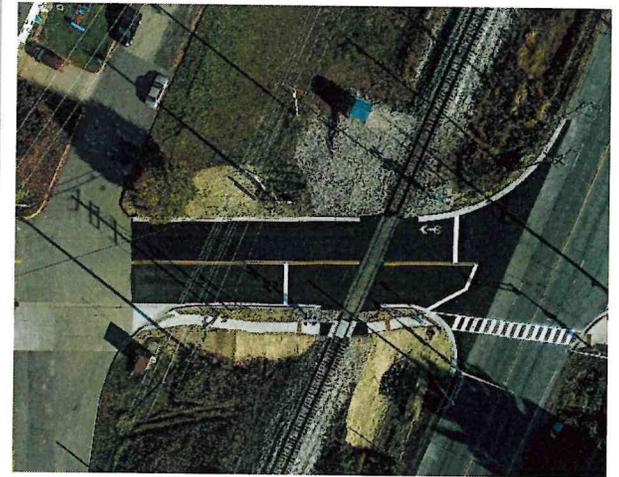
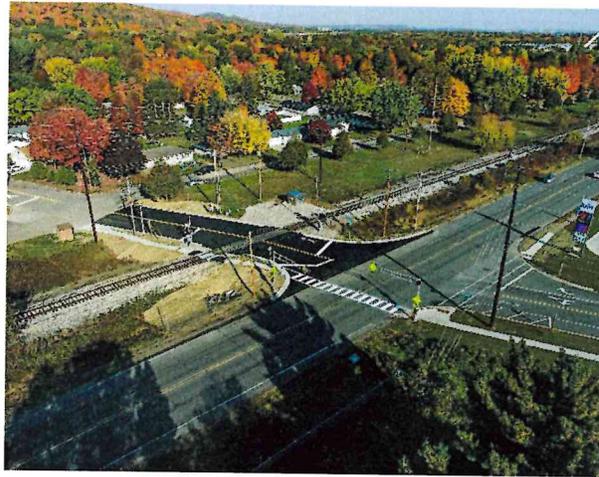
TADI: 2022 to present
WisDOT: 2017 to 2022
DLZ Ohio, Inc: 2004 to 2017
Parsons: 1998 to 2004
MSA Professional Services: 1995 to 1998

Presentations:

Roundabouts – Why They Work, February 2021 at UW-Eau Claire – Barron County

Tallmadge Circle Safety Study, April 2013 at ITE Great Lakes District Annual Meeting

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dbieberitz@tadi-us.com



Project Description

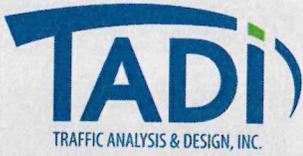
Military Rd in the Village of Rothschild is mostly an east-west urban collector connecting the middle of the Village for both pedestrians and motor vehicle traffic. Military Road provides access to the Marathon County Bike Route 7, which is a popular multi use path along the Wisconsin River, but it also intersects with Business 51, which is a busy roadway. Becher Hoppe was contracted by the Village of Rothschild to provide design engineering services to oversee a project that will provide safe access for pedestrians to access the recreational trail through the busy intersection.

Project Features

- New railroad crossing features
- New sidewalk installed on Military Road
- Installation of signage and Rapid Flashing Beacons to alert traffic of pedestrian crossings
- Additional Pavement Markings
- Enhanced pedestrian crossing with advanced signage and marking

Firm's Involvement

- Design alternatives
- Coordination with state and local agencies
- Public involvement
- Environmental documentation
- Stormwater management plan
- Preliminary and final design of roadway and utilities
- Completion of state applications and review process
- Preparation of project plans, specifications, and cost estimate



1.800.605.3091
www.tadi-us.com

Trans Modal Loading Facility Traffic Study & Public Grad Crossing Closures

Great River Road/STH 35, City of Cochrane, WI



Client: Superior Silica Sands and BNSF Railway

Year: 2014

Contact: Scot J. Balsavich, Vice President; Cooper Engineering (715) 234-7008

Project Description:

TADI performed a traffic study for a proposed rail line trans modal loading facility proposed to be located along the west side of STH 35 at the Foegen Road intersection. The project also included preparation of a Public Grade Crossing Closure Study for the removal of two at-grade rail crossings at Foegen Road and at Herman Street, located adjacent to the proposed facility. The traffic study investigated the amount of truck traffic expected with the new transload facility and analyzed the operation of the adjacent intersections along the transportation network. Peak hour as well as daily traffic volumes were investigated to determine the intersection and roadways cross section modifications necessary to provide for the proposed facility. The closure report looked at alternate routes for the road network including documenting travel distances for the remaining transportation network with the removal of two roadway connections (at-grade rail crossings) within the vicinity. The report also looked at the number of roadway vehicles, number of trains, types of railroad crossing infrastructure as well as location of emergency services and schools for each alternate route. Approaching and clearing sight distance was also documented.

The following elements were conducted as part of this project:

- Data Collection & Trip Generation/Distribution/Assignment
- SYNCHRO analysis and modeling
- Improvements to the roadway network
- At-grade rail crossing closure analysis including sight distance
- Existing and alternate routes distance and timing comparison
- Traffic Impact Analysis report
- Public Grade Crossing Closure report
- Coordination with the Superior Silica Sands and BNSF Railway

Project Understanding

low

Our team understands the Village of Kronenwetter's interest in conducting an engineering study to assess accessibility options west of the CN railroad tracks, spanning from West Nelson Road to Happy Hollow Road, with the area of access extending north to Gardner Park Road. The village aims to scrutinize the current access to these regions, encompassing traffic analysis, and explore alternative solutions to mitigate traffic delays and mitigate impacts on emergency services during instances where train activity restricts access.

Approach – Phase 1: Preliminary Research

During Phase 1, Becher Hoppe and TADI will conduct an examination of the current railroad crossings within the study area. Becher Hoppe will utilize a drone or to gather current imagery and planning grade survey data of the area. Additionally, traffic counts will be conducted at the railroad crossings along Garner Park Road, Cedar Road, Happy Hollow Road, and Nelson Road. This traffic data is crucial for understanding the volume of traffic in the vicinity and determining the crossing needs relative to the railroad. These assessments will furnish essential data for reviewing the crossings' current functionalities concerning emergency access and evacuation. The evaluation process will pinpoint any existing access issues and unveil opportunities for alternative solutions to better cater to the areas. Finally, the identified alternatives will be compared and ranked for review by the Village.

Approach – Phase 2: Qualifications of Preliminary Recommendations

Phase 2 will entail a comprehensive examination of the Village's 2019 Comprehensive Plan and 2019-2024 Strategic Plans. These plans will be analyzed in light of the alternatives identified during Phase 1. Additionally, peak traffic hours at the crossings will be identified based on the traffic counts to gauge the typical traffic flow that would need to be rerouted through alternative routes in the event of railroad crossing blockages.

Phase 2 involves contacting the railroad to gain deeper insight into both present and forthcoming operations within the study area, aiming to discern their impact on access to the area. Utilizing the acquired data, the previously identified alternatives will undergo reassessment, culminating in a recommendation for a primary solution and two additional alternatives. Each alternative will be accompanied by a thorough analysis of its advantages and drawbacks for Village staff review. Furthermore, in addition to the proposed alternatives, the repercussions of leaving the study area unaltered will be presented. Emergency response times will also be calculated based on the alternatives, particularly in scenarios where one or more railroad crossings are obstructed for each alternative.

Approach – Phase 3: Funding Evaluation

In Phase 3, a budgetary cost estimate will be compiled for all three alternatives. Furthermore, our team will conduct a thorough assessment of potential grant funding opportunities, focusing on health and safety funding, as prioritized by the Village of Kronenwetter. The findings will be reviewed and presented to the Village for their consideration.

Approach – Phase 4: Finalize Report

Phase 4 will involve hosting a public information meeting to present the alternatives and their respective budgets. Feedback collected during this meeting will be carefully reviewed with Village Staff, and any relevant suggestions will be integrated into the alternatives as appropriate. Subsequently, utilizing all gathered information, an engineering report will be compiled and presented to Village Staff for review. The report will undergo finalization based on staff input. Additionally, a presentation will be prepared and delivered to both the Village committee and the Village Board.

Additional Services

We can provide additional services as may be required and will provide a Proposal for such services upon request. Additional services may include:

- Land and easement acquisition. Becher Hoppe has a certified general appraiser on staff who specializes in assisting our clients with appraising, negotiating, and acquiring road right-of-way.
- Additional resident outreach/public information meetings.
- Environmental services (wetland delineation, etc.)
- Army Corp of Engineers Coordination
- Additional exhibits and additional preliminary design efforts
- Additional field survey work to support construction of a preferred alternative
- Plans, Specifications, and Estimates for preferred alternative
- Additional access studies outside of the project limits
- Construction services (Resident Engineer, Construction Administration, Construction Staking)

Project Costs – Design

Phase 1: Preliminary Research	
<ul style="list-style-type: none"> Existing railroad crossing review Collection of emergency accessibility and evacuations Define concerns and opportunities Compare alternatives 	\$24,100
Phase 2: Qualifications of Preliminary Recommendations	
<ul style="list-style-type: none"> Review of 2019 Village Comprehensive and 2019-2024 Village Strategic Plans Evaluate existing and future railroad activity Establish one primary and 2 secondary alternatives Define impacts if no improvements are made 	\$15,400
Phase 3: Funding Evaluation	
<ul style="list-style-type: none"> Prepare budgetary cost for alternatives Identify grant opportunities, to include health and safety funding opportunities 	\$10,500
Phase 4: Finalize Report	
<ul style="list-style-type: none"> Participate in public information meeting Prepare draft report for Village Staff review Finalize report, and present to Village Committee and Village Board. 	\$18,500
Total Design (Lump Sum)	\$68,500

Additional Services

Becher-Hoppe Associates, Inc. will provide additional services as may be required, and will provide a Proposal for such services upon your request. Please review the additional services section in our Project Understanding and Approach.

