



City of Ann Arbor
Procurement Unit
c/o Customer Service
301 E. Huron St.
Ann Arbor, MI 48107

June 1, 2018

Reference: **RFP# 18-21 Lower Town Area Mobility Study**

Bergmann Associates, teamed with Progressive AE and Van Dyke - Horn, are pleased to submit this proposal to perform professional consulting services for the City of Ann Arbor.

We believe that this project is complex, and requires strong technical expertise as well as understanding of the needs and behaviors of all transportation system users. Our transportation engineers have that expertise and understanding gained through project experience. We have a breadth of resources available to enhance our capabilities, including experts in complex modeling, urban design, and planning, as well as partnership with the Caliper Corporation.

We also believe that up front engagement with project stakeholders and the interested public is crucial to the success of this project. We are exceptionally pleased to have the experience of Van Dyke - Horn to lead the public engagement campaign with an exceptional level of care for the City and its constituents. Their leadership continues a commitment to moving Cities and Regions forward by partnering with businesses and organizations who share the a common vision for progress.

In choosing Bergmann, Progressive AE, and Van Dyke - Horn, the City of Ann Arbor will have a team of experienced professionals who understand the project requirements, and will collaborate to deliver a product that meets the City's expectations, goals, and objectives. Our Team members continue to successfully solve similar transportation challenges for other municipalities as well as State and County agencies.

Please do not hesitate to contact me if you need additional information or clarification in reviewing our enclosed proposal. I can be reached 517.827.8693 or by email at tlikens@bergmannpc.com. We look forward to working with the City of Ann Arbor staff and its stakeholders on any challenge that arises. **Thank you for considering the Bergmann Team!**

Sincerely,

Timothy J. Likens, PE, PTOE
PROJECT MANAGER



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

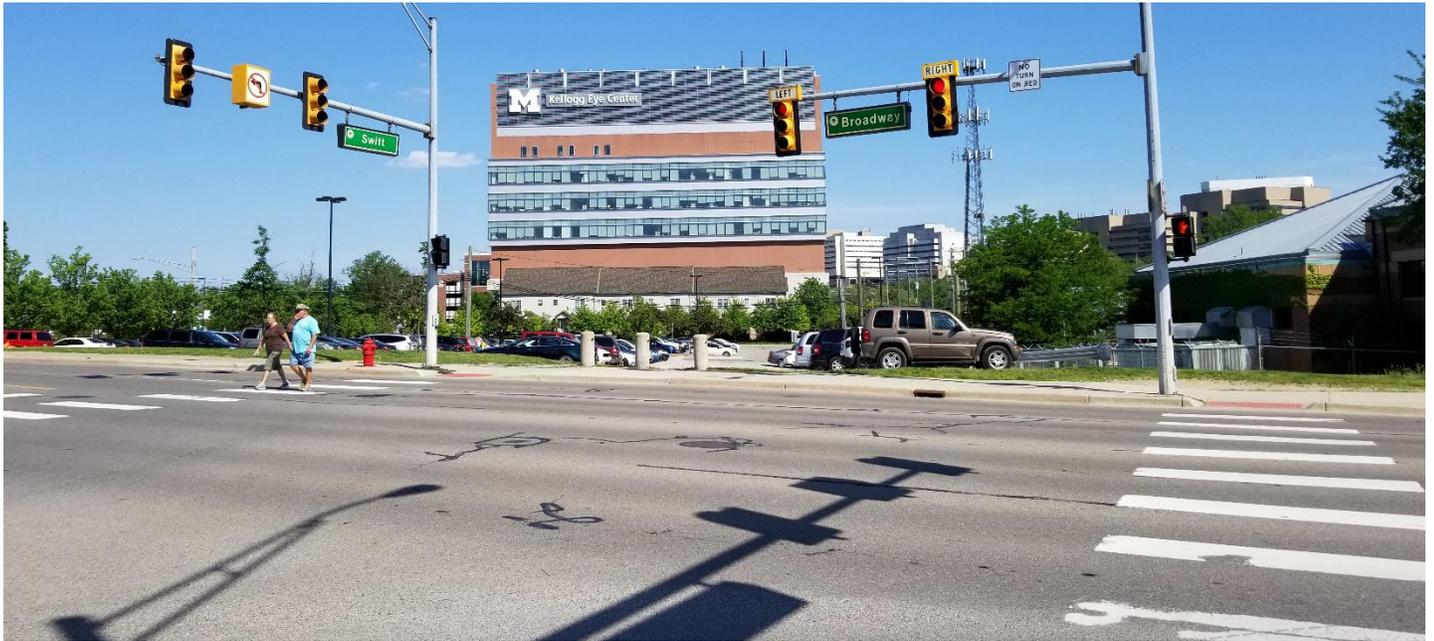
Lower Town Area Mobility Study

CITY OF ANN ARBOR

Public Services / Engineering

RFP # 18-21

June 1, 2018



BERGMANN

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progressive|ae

VANDYKE • HORN



Table of Contents

Lower Town Area Mobility Study

- SECTION A** PROFESSIONAL QUALIFICATIONS
- SECTION B** PAST INVOLVEMENT WITH SIMILAR PROJECTS
- SECTION C** PROPOSED WORK PLAN
- SECTION D** FEE PROPOSAL (SEPARATE ENVELOPE)
- SECTION E** AUTHORIZED NEGOTIATOR
- SECTION F** ATTACHMENTS (CITY FORMS)





Lower Town Mobility Study - City of Ann Arbor

SECTION A - PROFESSIONAL QUALIFICATIONS

Our Project Team has been assembled to provide the variety of experience and expertise necessary for this complex and significant project. Our Team members provide an exceptional combination of:

- High-level technical skills including transportation modeling, forecasting, and capacity analyses;
- Complete understanding of the relative factors involved in all modes of transportation;
- Experience and familiarity in the City of Ann Arbor;
- Specialists in community relations and public engagement;
- Experts that have become leaders through proven dedication to client success.

Bergmann will serve as the Prime Consultant for this project. Our firm was founded in 1980 with a focus on the Transportation market. Over the past four decades, we have evolved to provide full-service road & highway design, rail & transit solutions, as well as bridge development projects. As a result, we have an extensive portfolio of efficient, safe, and aesthetically attractive transportation projects that complement and enhance the culture of our local communities. Our engineers have delivered a variety of projects ranging from traffic impact assessments and complex interchange designs to historic bridge enhancements and safe railways for freight and passenger service.

Our planning professionals are experts in effective land use and community-based transportation planning, public outreach and environmental compliance. Our team employs techniques such as build-out analyses, travel demand forecasting, and alternatives analysis to ensure that future transportation improvements are appropriate and safe. At the individual site level, we routinely work with clients to design the appropriate roadway, intersection, and signal improvements necessary to mitigate the impacts of proposed developments.

Bergmann is partnered with Progressive AE (PAE) for this project, providing 55 years of experience in the architectural and engineering fields. Licensed locally, regionally, and nationally, PAE's civil engineering group is at ease speaking the language of architects, engineers, planning and zoning officials, utilities, environmental advocates, bankers, realtors, developers, and more. PAE's core Transportation services include complete streets planning, corridor studies, intersection safety studies, roundabout analysis & design, site circulation & parking analysis, traffic impact studies, signal system design, and transportation master plans.

The glue of our Team is provided by Van Dyke - Horn (VDH) Public Relations. Founded in Detroit, Van Dyke - Horn is Michigan's largest minority-owned public relations agency. VDH is respected for their skill and integrity and are dedicated to their clients and the community, with a 20-year track record of success. While VDH serves clients globally, their philosophy is to not simply work from the office, but to be deeply ingrained in the community. Van Dyke - Horn's clients benefit from their intentional, relationship-driven philosophy, carried forward by their team of public relations experts.

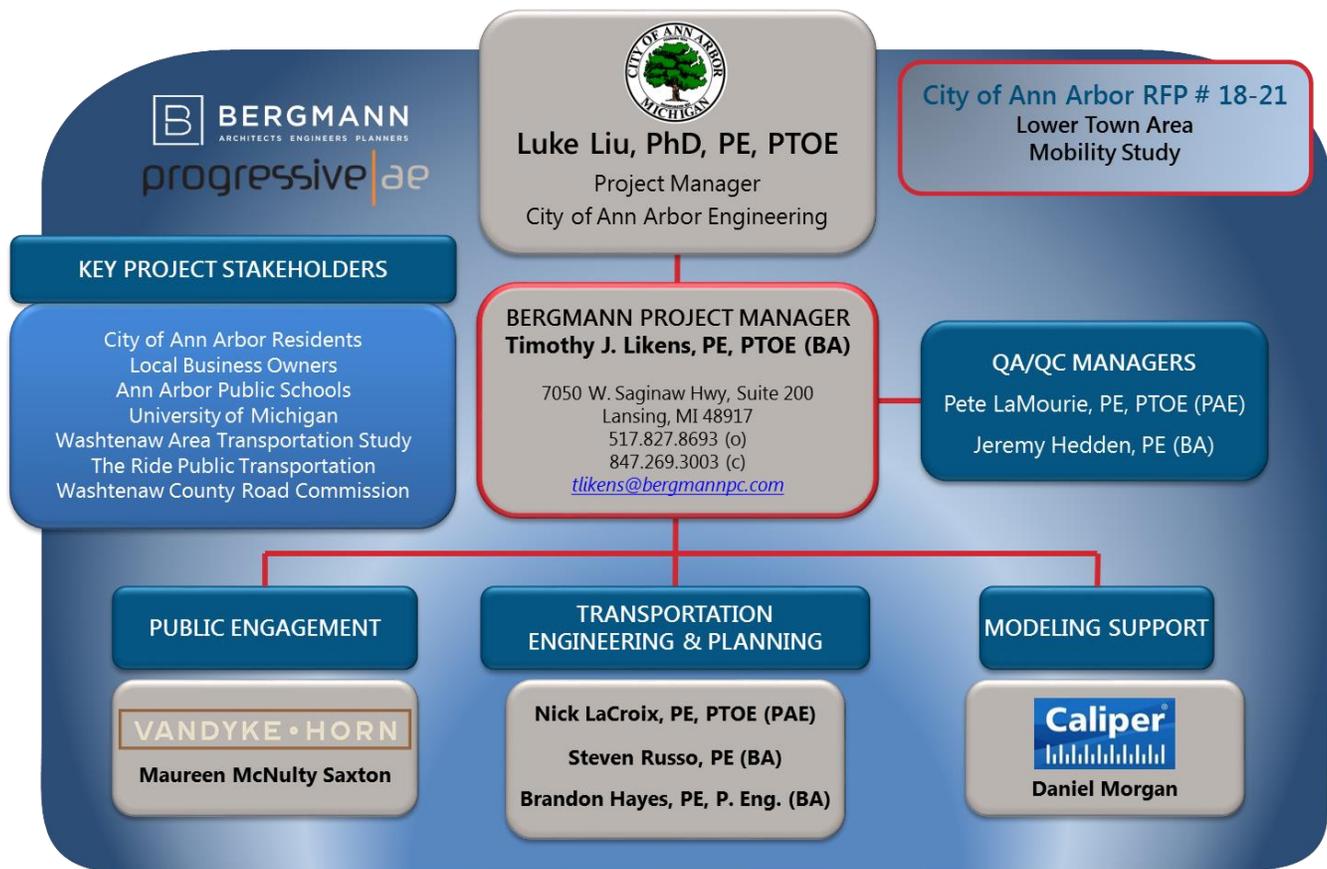
Firm Profiles for each of our Team members is included within this Section of our proposal.

Project work will be directed from Bergmann's Lansing, Michigan office. Two of our transportation engineers (Russo, Hayes) also live and work primarily in Southeast Michigan. We will be supported by transportation engineers and planners with a wide range of urban project experience in Rochester and Buffalo, New York. Progressive AE is seated in Grand Rapids, Michigan, while Van Dyke Horn holds offices in Lansing and Detroit, Michigan.



Our Team will be led by *Project Manager, Timothy J. (TJ) Likens, PE, PTOE*. Mr. Likens has over 10 years of engineering and planning experience in traffic, transportation, and parking related projects. TJ has quickly become a leader in his 2+ years at Bergmann because of his intense attention to detail and the extreme level of care he has provided to his clients. His experience ranges from pedestrian & complete streets projects for municipalities, to traffic studies for development projects, to alternative evaluations at freeway interchanges for the Michigan Department of Transportation. Mr. Likens has led many of these projects from the beginning proposal stages, through engineering and analysis, to reporting and review, and culminating with construction.

Mr. Likens will serve as the primary point of contact for the City and the center point for the Team structure, which is shown in the chart below. Our Team is highlighted by three Professional Traffic Operations Engineers (PTOE) and is supported by a breadth of expertise in each discipline of this project.



Mr. Likens will be supported by our VP of Infrastructure and *QA/QC Manager, Jeremy Hedden, PE*. Mr. Hedden has 20 years of experience and has led several high profile projects in the State of Michigan including the Allen Creek Railroad Berm Opening in Ann Arbor, the award winning Farm Lane Underpass project at Michigan State University, and the 9 Mile over I-75 emergency bridge replacement completed in less than 2 months as part of a design-build delivery system. Jeremy’s reputation and success on these projects has been built by leading from the front, listening to and directly addressing the needs of clients and project stakeholders, and working alongside engineering staff.

Bergmann’s depth is solidified by two exceptionally skilled transportation engineers, *Steven Russo, PE* and *Brandon Hayes, PE, P.Eng.* Steven and Brandon both provide high-level skills in modeling and analyses of transportation systems and intimate knowledge of the applicable standards and guidelines. Their work is founded in a belief that analyses are not done in a “black box”; that is, our team collectively believes that a thorough understanding of the problem, context of alternatives, and priorities of our clients are required to engineer the right solution.



LOWER TOWN AREA MOBILITY STUDY

Progressive AE's work in this project will be led by *Senior Transportation Engineer, Nicholas LaCroix, PE, PTOE*. Mr. LaCroix has over 17 years of experience in transportation engineering analyses and design with focus on projects including transportation planning, traffic signal systems, traffic impact studies, corridor studies, parking studies, campus transportation, traffic calming and walkability, and non-motorized facilities. Nick has extensive experience in Ann Arbor, having completed 30+ projects for the University of Michigan (UM) and others prior to joining Progressive AE in early 2018. Several of these projects are within the immediate vicinity of the Lowertown Area, including traffic analyses for the proposed UM Wall Street West Parking Structure, UM Medical Campus Transportation Study, Ann Arbor Station, and the A2 STEAM school located on Barton Drive.

Mr. LaCroix will be supported by *QA/QC Manager, Pete LaMourie, PE, PTOE*. Mr. LaMourie has more than 25 years of experience directing all firm transportation engineering analyses and designs, as well as providing senior consultation and assistance. His responsibilities include roadway network planning and location studies, site access and parking planning and design, conceptual roadway geometric design, capacity analyses, analysis and design of traffic control devices and signing systems, site impact studies, and access management plans.

Maureen McNulty Saxton is Vice President of Van Dyke - Horn Public Relations, heading the Lansing office with clients in the education, non-profit, international relations, trade and business associations, advocacy, and energy sectors. Mrs. McNulty Saxton has also served clients in homeland and border security. Prior to joining Van Dyke - Horn, Maureen founded and directed PR Edge, LLC, a Lansing-based public relations firm, for 10 years, focused primarily on media relations, issue advocacy, public policy messaging, and public affairs. Maureen also served in several roles with the State of Michigan, heading the press and communications offices for the departments of Treasury, Management and Budget (now Technology, Management and Budget) and History, Arts & Libraries.

As is described in further detail in our Work Plan, we also propose to partner with the expertise of Caliper Mapping & Transportation Software Solutions. Caliper is the proprietor of TransCAD and TransModeler software packages, and will provide technical support, software training, and as-needed engineering services for our Team and the City of Ann Arbor staff. *Daniel Morgan* is a Vice President at Caliper Corporation, managing the development of TransModeler, Caliper's GIS-based traffic simulation software. Mr. Morgan specializes in traffic and transit simulation modeling and has experience in developing computer applications for transportation planning and demand modeling. Mr. Morgan manages projects involving the application of traffic microsimulation and simulation-based dynamic traffic assignment (DTA) to wide area and regional networks using TransModeler.

Meet our key staff, whose résumés are included with this Section of our proposal.



(from left to right)

Top: TJ Likens, Jeremy Hedden,
Steven Russo, Brandon Hayes

Bottom: Nicholas LaCroix, Pete LaMourie,
Maureen McNulty Saxton





FIRM PROFILE

OUR LOCATIONS

Albany, NY
Buffalo, NY
Conshohocken, PA
Grand Rapids, MI
Horseheads, NY
Jacksonville, FL
Lansing, MI
Philadelphia, PA
Rochester, NY
Syracuse, NY
Toledo, OH

Name:

BERGMANN ASSOCIATES

Architects, Engineers,
Landscape Architects &
Surveyors, DPC

Project Office:

Lansing

Address:

7050 W. Saginaw Hwy
Suite 200
Lansing, MI 48917

Phone:

517.272.9835

Website:

www.bergmannpc.com

Bergmann Associates, a Corporation providing Architectural, Engineering, and Planning Services, was founded in 1980. Since that time we have grown to over 400 employees, including over 135 licensed engineers, architects, planners, and land surveyors. Bergmann Associates represents nearly four decades of culture built upon the work of our dedicated, client focused experts. Your Bergmann team will deliver what we promise, on-time and within budget. You will be interacting with design professionals who pride themselves on the highest level of integrity, dependability, ethics and quality of work. Think of Bergmann as an extension of your organization and your “Trusted Advisor”.

Our Midwest Region maintains offices in Lansing, Grand Rapids, and Toledo Ohio. Additional offices include headquarters in Rochester New York and Buffalo, Albany, Syracuse, Philadelphia, Pittsburgh, and Jacksonville providing efficient and comprehensive multi-disciplinary services to our clients throughout the East Coast and Midwest Regions of the United States. Bergmann Associates is incorporated in the State of New York and licensed to operate in the State of Michigan.

Bergmann Associates is a multi-disciplinary firm, providing our clients with complete architecture, engineering, planning, and land development services under one roof. Our variety of in-house capabilities allows us to provide the most efficient, cost-effective and responsive service possible; giving our clients all of the services they may require for the complete execution of their projects. Our core business segments include general building design, transportation, civil works, community planning, energy solutions, retail and research, and manufacturing.

Authorized Rep: Jeremy Hedden, PE

Vice President - Infrastructure

Organization: Corporation

State of Inc: New York

Year Founded: 1980

Tax ID: 25-1407718

DUNS No.: 03-654-9480

Licensed: Michigan

Primary Contact: **Timothy J. Likens, PE, PTOE**

Project Manager

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847.269.3003 (cell)

tlikens@bermannpc.com



Dart Container Corp. Headquarters
Mason, MI

Architecture and Interior Design. Structural, MEP, Civil Engineering and LEED AP Services.



University Drive / I-75 Diverging Diamond Interchange | Auburn Hills, MI



Farm Lane Grade Separation
East Lansing, MI

Two railroad grade separations. Roadway, Bridge and Hydraulic Design. ACEC 2010 Engineering Excellence Award National Finalist.



MDOT I-75
Detroit, MI

The bridge consists of a two span steel composite structure to accommodate a future shift in the pier location.

Bergmann is a multi-disciplinary firm providing services to a number of industries including transportation, education, healthcare, commercial, retail, warehousing & distribution, financial, government and research & manufacturing in the Lansing region since 1998.

Starting with only two employees, Bergmann has grown to now employ nearly 60 talented professionals in the region, many of whom are from the Lansing area, graduated from Michigan State University and continue to be an active part of this community. As stewards of the region, Bergmann supports many local causes, including the Volunteers of America's Lansing Community Kitchen, Michigan State University Safe Place and the MDOT Adopt-a-Highway program along I-96.

Think of us as your trusted advisor

- Architecture & Interior Design
- Mechanical, Electrical, Plumbing & Fire Protection
- Structural Engineering
- Landscape Architecture
- Site and Civil Engineering
- Highway & Traffic Engineering
- Bridge Engineering
- Rail Engineering
- Program Management
- Water Resources
- Master Planning
- GIS, Survey & 3D Scanning
- Energy Solutions
- Sustainable Design & LEED Certification

Let us help you

If you would like to discuss how Bergmann can help your project, please contact us. Please visit our website for additional samples of our work.



BERGMANN

1980

Year Founded

Bergmann was founded in 1980 with seven employees.

400+

Our Staff

We employ more than 400 professional and technical staff.

>90%

Repeat Clients

More than 90% of our work is from repeat clients.

204

Engineering News Record Rank

We ranked 204 in ENR's Top Design Firm rankings for 2017.

99

Architectural Record Rank

We ranked 99 in Architectural Record's rankings for 2017.

6

Roads & Bridges Rank

We ranked 6 for Design Build in Roads & Bridges' rankings for 2016.



AMTRAK - "The Rapid" Passenger Station Relocation | Grand Rapids, MI



O-I Center of Innovation | Perrysburg, OH



US-31 over Manistee River | Manistee, MI

Over three decades of dedicated, client-focused service!

Bergmann is a nationally recognized architecture and engineering firm with offices throughout the Northeast, Midwest and Atlantic regions. With more than 400 talented professionals who pride themselves on the highest level of integrity, dependability, ethics and quality of work, Bergmann has long been recognized as a trusted partner and advisor for architecture, engineering, planning and program management.

Our Vision

Delivering client success, creating opportunities for our people, building our future.

Our Values

Our People
Integrity &
Ethics Service

Teamwork &
Collaboration
Excellence

Contact Us

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NORTHEAST

ALBANY, NY
BUFFALO, NY
HORSEHEADS, NY
ROCHESTER, NY
SYRACUSE, NY

MIDWEST

GRAND RAPIDS, MI
LANSING, MI
TOLEDO, OH

ATLANTIC

CONSHOHOCKEN, PA
JACKSONVILLE, FL
PHILADELPHIA, PA



Creative
people thinking
strategically
and strategic
people working
creatively.

OUR STORY: INNOVATION

Our firm has continued to innovate for more than half a century. We have gained considerable wisdom over those years and seen remarkable growth with offices in Michigan and North Carolina and active work in the 48 contiguous states. With 200+ professionals and a full range of expertise, Progressive AE is leading the way in thought leadership and innovative design.

One thing we know is each client faces one-of-a-kind needs that must be met, while keeping the future in mind. This is exciting to us. No challenge is too great, thanks to our comprehensive range of services.

Whatever discipline is required, we have subject matter experts on hand to find the right solution. Our areas of expertise include:

- Architecture
- Design-build
- Engineering
- Interior Design and Procurement
- Landscape Architecture and Urban Planning
- Planning and Consulting
- Water Resources



Civil Engineering

External environments play a critical role in how communities perform – from roads and utility infrastructure, to parks and sustainable design. Civil engineering enhances the natural beauty of native environments while ensuring the built environment is practical, innovative and beneficial.

We are passionate about enhancing communities, and understand the important role civil engineering plays to make this happen. To this end, Progressive AE employs a dedicated group of civil engineers who are experts in their fields.

Our civil engineers excel in municipal planning, site master planning and design, traffic analysis and signal design and the full range of permitting abilities. They stay abreast of industry trends and best practices, making them well-equipped to speak the language of planning and zoning officials, utility infrastructure managers, environmental advocates, financial stakeholders and real estate developers.

Through projects with both communities and developers, we have a breadth of past experience few firms can match. By offering full-service engineering abilities we're able to guide clients from conceptualization through construction. We're also able to provide complete project design and management services.

We are passionate about problem solving and are anxious to learn more about your unique needs. Together we will determine purposeful solutions to drive performance for your projects.



NOTABLE MUNICIPAL CLIENTS

- City of East Grand Rapids
- City of Grand Rapids
- City of Grandville
- City of Kentwood
- City of Walker
- City of Wyoming
- City of Zeeland

SERVICES

- Complete streets
- Municipal engineering
- Roadway design
- Site plan design
- Storm water management
- Transportation engineering
- Traffic signal design
- Traffic impact studies
- Utility master planning
- Wastewater collection systems
- Water system design

References

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Terry Schweitzer
 Community Development Director
 City of Kentwood
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Muskegon Office
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VANDYKE • HORN

PUBLIC RELATIONS

VAN DYKE • HORN – YOUR COMMUNICATIONS PARTNER

About Van Dyke • Horn

Van Dyke • Horn Public Relations, LLC is Michigan's largest minority-owned public relations firm. We are based in Detroit with an office in Lansing and have more than 20 years of experience in communications across Michigan and nationally, with specific expertise in public engagement. We have earned a reputation in Michigan for our award-winning ability to develop and produce communications strategies that are tailored to resonate with our clients and their community's diverse stakeholder audiences.

Our demonstrated ability to consistently achieve success begins with the experience and wide range of expertise of our associates. Our firm is composed of highly skilled public relations professionals who are dedicated to providing creative, results-driven communications solutions for corporations, cultural institutions, government units and nonprofits alike. Though we serve clients globally, it is Van Dyke • Horn's philosophy not to just work from Michigan, but to be deeply engrained in communities across our state.

Van Dyke • Horn brings the optimal approach to the comprehensive communications services that you need. We have served as top public-affairs strategists and media spokespeople for some of the region's most significant projects and campaigns, and our tactics deliver highly tailored and results-driven communications solutions.

Our Services and Experience

Van Dyke • Horn has a record of more than two decades worth of proven strategies that help achieve goals of statewide and region-specific projects via the use of community outreach and community engagement campaigns.

We have worked with more than 200 clients in a wide range of industries, with extensive experience serving local units of government via an array of customized communications services, including:

- Public Relations
- Public Affairs
- Industry Relations
- Media Relations
- Issues and Crisis Management
- Community Engagement
- Positioning
- Event Management
- Research
- Social Media

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VANDYKEHORN.COM

Agency Bios

The Van Dyke•Horn team is powered by 14 associates with expertise, experience, passion and relationships that serve our clients' needs and reflect the communities our clients serve. Once we have determined the full scope and breadth of services required to provide optimal services to Ann Arbor, we will assemble a team with the experience and expertise to best serve your goals. To learn more about the full Van Dyke•Horn team, [click here](#).

Peter Van Dyke, CEO

Peter Van Dyke is CEO of Van Dyke•Horn. He heads a 14-person team to provide leading communications services to the company's 40-plus clients, which range from global corporations to local charitable organizations. Peter is distinctly renowned for the entrepreneurial spirit he brings to his company and the firm's clients' campaigns. In his 12 years with the firm, Van Dyke has designed and manages communications for several successful coalition and legislative efforts, including Consumers for Innovative Technology, which helped bring cable competition to Michigan, the Detroit Institute of Arts' tri-county millage campaign, Downtown Detroit Business Improvement Zone, and most recently MI Thrive Coalition and MI Impact.

**Maureen McNulty Saxton, Vice President, Lansing**

Our Team leader will be Maureen Saxton, Vice President of Van Dyke•Horn, who heads our Lansing office. Her clients include those in the education, non-profit, international relations, trade and business associations, advocacy and energy sectors. Before joining Van Dyke•Horn, Maureen founded and directed PR Edge, LLC, a Lansing-based public relations firm, for 10 years. PR Edge focused primarily on media relations, issue advocacy, public policy messaging, coalition and trade association work. As part of recently community engagement work, Maureen was responsible for helping create and communicate out to a statewide, grassroots business coalition, formed to deliver messages to their local lawmakers about the benefits of electric competition.

Maureen also served in several roles with the State of Michigan, heading the press and communications offices for the departments of Treasury, Management and Budget (now Technology, Management and Budget) and History, Arts & Libraries. She also served as the spokeswoman, communications director and deputy campaign manager for Gov. John Engler during his third term campaign for governor. Prior to working in public relations, worked at the Detroit Free Press and was a reporter at the Erie Daily Times (PA) and the Grosse Pointe News.

Kaye Byrd, Senior Account Executive

Kaye Byrd joined Van Dyke Horn as a Senior Account Executive in 2018, bringing a wealth of experience in strategic communications, public relations and community engagement. She most recently served as deputy communications director for Wayne County and communications director for its public works department, where she led strategic communications to engage and inform nearly 2 million residents and other stakeholders in 43 communities.

Prior to her work at the county, she worked on Detroit City Council as chief of staff to its Council President. Byrd's background in local and county government provides her with the expertise to represent a large portfolio of Van Dyke Horn's utility clients.

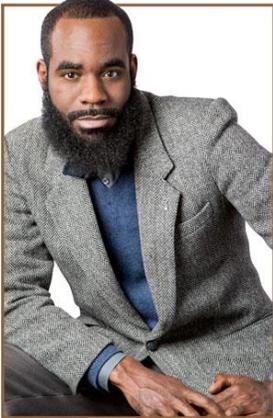


VANDYKE • HORN

PUBLIC RELATIONS

Byrd earned her Bachelor of Arts Degree in Journalism from Wayne State University and was also a member of its Journalism Institute for Minorities program (now Journalism Institute for Media Diversity.) She is a member of the National Association of Black Journalist's Detroit Chapter. When not focused on agency work, she is dedicated to empowering and uplifting women through moderated conversations.

Terrence West, Account Executive



Terrence West joined the Van Dyke Horn team in 2015 and is responsible for managing day-to-day client projects for multiple accounts and supporting the agency with creative ideas, implementing strategies and contributing to campaign tactics to accomplish client objectives. He demonstrates a strong understanding of social media, website management and content marketing.

He has experience conducting strategic research and community outreach, assisting in event planning and management, and providing media relations. Terrence works with clients in a wide range of industries including public entities, non-profits, healthcare, utilities and retail. His current clients include Detroit Future City, Varnum Law Firm, New Detroit, Inc., Youth Development Commission and the Detroit Housing Commission.

Raised in Detroit, Terrence attended the University of Iowa, where he obtained a bachelor's degree in Journalism and Mass Communication and a minor in Theatre Arts. Prior to joining Van Dyke•Horn, he was a project manager for a recording label based in Redding, California.

Terrence volunteers with community-based organizations that serve the needs of at-risk youth. Through his direct involvement in pro bono work at Van Dyke•Horn, Terrence is moved by the opportunity to engage with the community regarding social issues effecting disadvantaged youth in Metro Detroit.

VAN DYKE•HORN – OUR APPROACH

The Van Dyke•Horn team knows that successful community outreach and engagement requires comprehensive planning to engage the community throughout the process, creating allies who buy into the vision and can help us carry it forward. We know that our job is to ensure that any plan that involves change must be well understood and supported by the community.

Our plans include strategies to reach out to leaders in the private, public, government and grassroots community stakeholders to forge partnerships that help us communicate with audiences on all levels. Some tactics we use include one-one-one meetings, community meetings, focus groups, direct and digital mail, social media and other collateral materials.

We would begin the process of stakeholder engagement by holding one-on-one meetings with City of Ann Arbor and any designated governmental officials who can offer their insights into who they believe other key stakeholders are. This also allows us to gain insights into any individual challenges facing residential and business districts/neighborhoods and where the biggest needs are and who our targets are. Barriers to successful community outreach, for example, could include English as a second-language and/or the socio-economic level of a neighborhood. The end result of this process is to establish exactly who the collective stakeholders are and to create list of potential partners in each district.

VANDYKE • HORN

PUBLIC RELATIONS

We believe key stakeholders, in addition to the City of Ann Arbor, will include Ann Arbor Public Schools, University of Michigan, Washtenaw Area Transportation Study (Metropolitan Planning Organization), Ride Public Transit and the Washtenaw County Road Commission.

After working with City officials, we would conduct outreach to business owners, large and small, to establish who key community stakeholders are for focus groups. These focus groups with business leaders/stakeholders will provide us with:

- Opinions for biggest areas of concern
- Opinions on future of mobility, delivery of services, disruption, improvement, and overall quality of life and sustainability
- Further community leaders and neighborhood stewards for future meetings
- Learn what would make doing business in Ann Arbor easier and better

Along with holding focus groups, we would conduct resident-level surveys, including our business stakeholders, trusted in their communities, as ambassadors.

To ensure all Ann Arbor residents are included in this process, we will pay special consideration to outreach necessities such as translation services.

We also believe it is critical to establish an Advisory Committee, to allow for regular reporting and updates among all stakeholders.

Additional offerings that Van Dyke•Horn has employed to achieve successfully community education outreach campaigns include:

- Public Affairs: We prioritize establishing strong working relationships with governmental officials and work regularly with local officials on a variety of projects. Our experience working in City government in Detroit has provided us with unique insights into how government works and enables us to identify the appropriate officials to deal with in any given situation. We have also maintained strong working relationships with members of the Detroit City Council, City of Detroit department heads and regional state legislators that may be very useful as this project moves forward.
 - Research: We conduct focus groups, data analysis, communications audits and public opinion surveys.
 - Crisis Management: We have assisted a number of clients in successfully navigating their way through crises. The most effective crisis management, of course, is to avoid the crisis in the first place and we work with our clients to anticipate potential problems and to develop programs to deal with those problems before they become a crisis. In the event a crisis does occur, we are prepared to move swiftly, working with the client, to address and resolve it in a quick and effective manner.
 - Collateral Materials: We work closely with our clients and graphic designers to develop collateral materials that accurately represent their brand and the scope of the project. We oversee the process from concept to printing to ensure our customer's satisfaction.
-



Timothy Likens, PE, PTOE

PROJECT MANAGER

Mr. Likens has over 10 years of engineering and planning experience in traffic, transportation, and parking related projects. He is intimately familiar with the practices, data, and guidelines published by the Institute of Transportation Engineers (ITE), as well as the Manual on Uniform Traffic Control Devices (MUTCD) and Highway Capacity Manual (HCM). He is active in both the ITE and Urban Land Institute (ULI) Michigan Chapters. As a Professional Traffic Operations Engineer (PTOE), Mr. Likens is well versed in the technical aspects of traffic engineering, as well as evolving best practices to provide safe and desirable facilities for all users.

As part of his experience, he has completed numerous projects on City, County, and State DOT roads including Traffic Impact Studies (TIS), pedestrian accommodation & complete street designs, warrant studies, capacity analyses, and Road Safety Audits (RSA). Mr. Likens has led many projects from the beginning proposal stages, through engineering and analysis, to reporting and review, and culminating with construction. His leadership skills and level of care provide exceptional service for the projects he has managed.

Mr. Likens has provided his expertise to meet the needs of a wide range of public and private clients. He appreciates building trusted relationships and working collaboratively towards acceptable engineering solutions. He takes pride in seeing a vision he has contributed his knowledge to become a reality, and enjoys working directly with his clients to understand their needs, and deliver solutions to meet those needs.

Project Experience

Multi-Modal Transportation Plan | City of Dearborn, MI | Lead Transportation Engineer. Currently working with a project team to develop a new plan to accommodate people who walk, bike, ride, and drive in the City of Dearborn. Our role on this project is to provide specific traffic engineering services to complement the overall plan, while taking into direct consideration the needs for all existing and potential users of the facility. We are participating in collaborative Design Committee meetings as well as presenting technical findings to the Team. As the project moves forward, we will be providing more detailed engineering for individual plan components, expert opinions regarding potential impacts of plan changes on the transportation system, as well as insights on mobility and safety.

Municipal Consulting | Various Michigan Communities | Project Manager. Providing consulting engineering services for several municipalities in Wayne, Oakland, and Livingston Counties related to arterial corridors, local streets, pedestrian & parking facilities, and proposed developments. Reviewed and completed Traffic Impact Studies, developed traffic analysis models, evaluated pedestrian facilities and complete street concepts, applied appropriate traffic engineering standards and local ordinances, evaluated alternatives, and developed recommendations. Tasks included intersection capacity analysis, geometric design, safety analysis, and parking studies. Worked with MDOT and County Road Commissions for projects impacting state trunklines and County roadways. This role often involves presentation at public hearings, Planning Commission, Township Board, and City Council, and close coordination with agency committees and staff.

EXPERIENCE:

Total: 11 Years
Bergmann: 3 Years

EDUCATION

- MS, Transportation Engineering, Michigan State University, 2007
- BS, Civil Engineering, Michigan State University, 2002

LICENSES

- Michigan
- Ohio

CERTIFICATION

NHI-FHWA Road Safety Audits

PROFESSIONAL AFFILIATIONS

- Institute of Transportation Engineers
- Urban Land Institute

OFFICE LOCATION

7050 W. Saginaw Highway
Suite 200
Lansing, MI 48917

CONTACT INFORMATION

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tlikens@bergmannpc.com



Maple Road Traffic Engineering | City of Birmingham, MI | Project Manager. With a previous employer, provided ongoing traffic engineering services for the City of Birmingham. Maple Road is the primary east-west corridor that runs through the City, including the downtown central business district. Completed several analyses for this roadway over the years including design of new pedestrian facilities, traffic signal control, and intersection reconfigurations. To the east of Woodward Avenue (M-1), evaluated complete street concepts and traffic operations with a road diet from 4 to 3 lanes. Project evaluations often required particular consideration of interactions between vehicular and pedestrian traffic. Sample recommendations included “leading pedestrian intervals” to enhance pedestrian visibility and therefore safety at signalized intersections within a predominantly vehicular environment. In proximity to Maple Road, participated in projects including redesign and funding applications for Old Woodward Avenue, as well as geometric and on-street parking design and impact assessments for the conversion of public parking to enlarge the public and greenspace at Shain Park. Participated regularly with the Planning, Engineering, and Police Departments on these studies and presented findings to the Transportation Committee, Planning Commission, and City Council.

US-23 & Silver Lake Road Traffic Study | Green Oak Township, MI | Project Manager. Completed a comprehensive traffic analysis and impact study respective to several development projects located adjacent to the US-23 & Silver Lake Road interchange and Winans Lake Road west of this interchange. The study was performed on behalf of the Township, Livingston County, and MDOT in order to assess the infrastructure needs in an area that is poised to experience significant growth in residential, recreational, and commercial development. The study involved engineering and planning efforts including traffic modeling, future volume forecasting, and conceptual design of new interchange and intersection configurations, including complex roundabouts. The results of the study were presented to the stakeholder agencies at several meetings and the analysis process was closely coordinated with MDOT and County Staff. Study findings will be utilized for future project programming as well as grant applications to fund the infrastructure improvements that will be necessary to facilitate this growth.

Lower Rouge Trail | Canton Township, MI | Project Manager. Responsible for completing traffic engineering services related to this current trail improvement project to enhance pedestrian facilities on Sheldon Road and Lilley Road, and install a new crossing of Lotz Road. Pedestrian safety at these crossings are of primary concern, and a study has been completed to evaluate the most appropriate traffic signing, pavement marking, and potential signalization of these crossings. The study involved collection of traffic and pedestrian volume data and evaluation of these volumes and the physical crossing characteristics versus MDOT and NCHRP 562 guidance. Results were recently shared via meeting with Township staff and the project Team, which include recommendations for enhanced crossing devices that will heighten driver awareness of the crossings with the presence of bicyclists and pedestrians.

Northville Park Place | Northville Township, MI | Project Manager. Responsible for overseeing traffic engineering services for this mixed use development on the SW corner of Haggerty Road & 7 Mile Road. This project required analysis of the currently congested Haggerty Road corridor, including analysis of traffic signal operations and intersection geometrics. The study network was modeled to evaluate traffic delays, intersection Levels of Service, and vehicle queues to identify future lane configurations and traffic signal controls. Study recommendations included road widening, turn lanes, and traffic signal installations, which were approved by the WCDPS and the Phase 1 land uses and infrastructure improvements have been constructed. Also completed a Shared Parking Study to determine the appropriate parking supply for the proposed mix of medical office, retail, and restaurant uses. This analysis was essential to engineer the balance between parking supply, green space, and stormwater detention.

I-69 & I-475 Interchange Study | Michigan DOT | Genesee County, MI | Traffic Engineer. Responsible for analyzing historical crash data, reviewing crash concentrations and patterns, and developing appropriate design countermeasures. Completed Data Driven Safety Analysis (DDSA) to quantify the safety impacts of design alternatives. Additionally, completed capacity analysis for freeway ramps and mainline segments to evaluate design alternatives and provide recommendations for short and long term improvement strategies. This Interchange Study was commissioned to investigate existing and anticipated future conditions on the I-69 corridor including the I-475 interchange located in the City of Flint, Michigan. The findings of this study are intended to be used as a guide for investment decisions and as a tool to help prioritize the need for future projects within the study area.



Nicholas LaCroix, PE
PTOE

Senior Transportation Engineer

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616.447.3411

Nicholas has more than 17 years of experience in transportation engineering analyses and design with focus on projects including transportation planning, traffic signal systems, traffic impact studies, corridor studies, parking studies, campus transportation, traffic calming and walkability, and non-motorized facilities.

Education

Bachelor of Science, Civil Engineering, Michigan State University

I-94/Portage-Kilgore Interchange Analysis, Kalamazoo, MI

Lead traffic engineer for an interchange feasibility study at the I-94/Portage-Kilgore interchange developing several alternatives to improve the interchange, including a Diverging Diamond Interchange (DDI), Single Point Urban Interchange (SPUI), and roundabouts. The analysis included developing detailed microsimulation models of the interchange alternatives using VISSIM software. Conceptual plans and cost estimates were also developed for each alternative for consideration by MDOT Southwest Region.

US-131/M-60 Intersection Study, Three Rivers, MI

Traffic engineer for an intersection scoping study to evaluate several alternatives to the existing US-131/M-60 intersection. The alternatives evaluated included a three-leg intersection, a four-leg intersection, and a roundabout, all of which also considered the ongoing plans to widen US-131 from north of the intersection to Hoffman Road.

I-96/Cascade Road Interchange Study, Grand Rapids, MI

Lead traffic engineer for the interchange feasibility study for the replacement of the existing bridge carrying Cascade Road over I-96. Two interchange configurations were analyzed, including a partial cloverleaf and a Diverging Diamond Interchange (DDI) and conceptual geometrics for both options were developed, including a comprehensive traffic analysis, traffic simulation with VISSIM software, and cost estimates.

Northpointe Boulevard Reconstruction, Elkhart, Indiana

Project manager and lead engineer for the reconstruction of the existing access road to a prominent shopping center located at the Indiana Toll Road interchange with State Road 19, including a new roundabout. The project provided safety improvements, additional capacity at the SR 19/Northpointe Blvd./Toll Road Ramp interchange, new street lighting, landscaping, pedestrian features, and improved access to businesses. Prepared traffic signal design, roundabout design, roadway plans, specifications, and contract documents for approval by the City of Elkhart and the Indiana Department of Transportation.

Other Similar Projects Include:

- US 131/Wealthy Street Interchange Study, Grand Rapids, MI
- Stadium Blvd Reconstruction, Ann Arbor, MI
- University of Michigan On-Call Traffic Engineering, Ann Arbor, MI
- University of Michigan Transportation Facility, Ann Arbor, MI
- University of Michigan Medical Center Campus Transportation Study, Ann Arbor, MI



Jeremy Hedden, PE QUALITY ASSURANCE MANAGER

Mr. Hedden graduated from Michigan State University with a BS degree in Civil Engineering. Since joining the Bergmann team he has participated in over a hundred structural design projects as well as various roadway and railroad projects. Mr. Hedden led the structural design efforts of the award winning Farm Lane Underpass project on the campus of Michigan State University. As a project manager, he has led several high profile projects in the State of Michigan including the 9 Mile over I-75 emergency bridge replacement project which was completed in less than 2 months as part of a design-build delivery system. Mr. Hedden is an active member on AREMA Committee 8 which develops and maintains design specifications for concrete structures, slab track, and foundations involving railroad bridges.

EXPERIENCE:

Total: 20 Years
Bergmann: 20 Years

EDUCATION

- BS, Civil Engineering, Michigan State University, 1998

LICENSES

- Michigan
- Ohio
- New York
- Florida
- Pennsylvania
- North Carolina

PROFESSIONAL AFFILIATIONS

- American Railway Engineering & Maintenance-of-Way Association Committee 8 Member
- American Society of Civil Engineers
- American Institute of Steel Construction

OFFICE LOCATION

7050 W. Saginaw Highway
Suite 200
Lansing, MI 48917

Project Experience

Allen Creek Railroad Berm Opening Feasibility Study | Ann Arbor, MI | Bridge Engineer. Provided oversight and railroad coordination services for a feasibility study investigating whether a new culvert can be placed through the existing RR berm to alleviate flooding issues in this heavily developed area in Ann Arbor, MI. Consideration was also given to also providing pedestrian access through the structure to permit access to the riverfront outside of large storm events. The project is located along the Michigan Line which was purchased by MDOT and maintained by Amtrak.

Washtenaw County Road Commission | 2016 3 Bridge Preventive Maintenance Projects | Lead Bridge Engineer. The project consisted of the design and load rating for 3 bridge preventive maintenance projects located in Washtenaw County. The projects included: HMA overlay, joint replacement and approach work at Mooreville Rd over Saline River; HMA overlay, joint replacement, beam patching, railing repairs and approach work at Maple Rd over Saline River; and HMA overlay, guardrail installation, and approach work at Jerusalem Rd over Mill Creek. The project also included maintenance of traffic which utilized full detours at Maple Rd and Jerusalem Rd, and part-width construction with shoulder widening and temporary signals at Mooreville Rd.

Washtenaw County Road Commission | Ford Blvd over MDOT RR | Project Manager. Completed design plans, specifications, estimate, and railroad coordination for replacement of an existing four span side-by-side box beam bridge in Ypsilanti Township, MI. The new bridge consists of a spread prestressed concrete box beams supported on cap & column piers that are situated in front of new Mechanically Stabilized Earth retaining walls. Due to the existing poor embankment soils, grade raise, and tight right-of-way constraints, 1:1 Reinforced Soil Stabilization (RSS) walls were designed for



the approaches. The project included coordination with the Norfolk & Southern RR early in the project and transitioned to MDOT/Amtrak due to an acquisition that was made during the project. Services included pre and post construction load rating of the new structure as well as the initial NBIS inspection of the new structure.

Ingham County Road Commission | Dobie Road over the Red Cedar River | Okemos, MI | Project Manager. This project included replacement of a structurally deficient bridge near Okemos, MI in Meridian Township. Hydraulic and scour analyses, preliminary through final design, environmental clearance, and construction support were provided on this project. The replacement structure consists of a single span prestressed concrete box beam superstructure supported by wall abutments. The bridge accommodates a township walkway on the west side with barrier separating traffic from the sidewalk. The project included extensive coordination with neighboring landowners, Michigan State University, Meridian Township, MDNRE, and Ingham County. **Design: 2009 | Construction: 2010.**

Michigan State University/MDOT | Farm Lane Underpasses | East Lansing, MI | Lead Bridge Design Engineer. Led the design and detailing of two railroad bridges on the campus of Michigan State University. The CN and CSX railroads cross Farm Lane Road approximately ½ mile apart. The two RR's intersect at a diamond crossing a couple of miles west of Farm Lane which results in long backups for the north-south routes in and around campus. After the project was completed, an estimated 5 hours per day of user delay was eliminated. Farm Lane was lowered beneath the existing tracks at each location after new 115' long two track steel through girder structures were erected. Extensive coordination with numerous stakeholders; including utilities, RR's, MDOT, MDEQ, and MSU was required. Additionally, innovative contracting measures were utilized in order to maximize funding availability by letting separate contracts for steel fabrication and erection.

MDOT | Standard Structures Load Rating As-Needed Services | Project Manager. As-need contract to conduct load ratings for MDOT owned structures throughout the State of Michigan. Load ratings typically use AASHTOWare's BrR Load Rating software and follow AASHTO requirements and MDOT specific guidelines. For unique situations and independent QA/QC analysis, MDX, CONSPAN, and/or finite element (MIDAS CIVIL) software is used to verify results of the ratings. To date, we have rated over 300 structures including steel deck girders, thru-girders, concrete parabolic T beams, prestressed concrete box and I-beams, and steel girder-floorbeam structures. In all cases, federal inventory and operating ratings were determined along with Michigan Legal Loads and Michigan Overloads (Class A-D).

Clinton County Road Commission | Tallman Rd over Morris Drain | Project Manager. The project included replacement of the existing deficient bridge over Morris Drain with a precast three-sided culvert structure supported on drive pile foundations. The replacement structure was a cost effective solution which minimizes future maintenance of the facility. The new bridge has been widened to provide standard travel lane and shoulder widths, incorporating the gravel road section over the bridge. The project length is approximately 100-feet which included nearby drives. Construction was completed during a full detour of vehicular traffic. Bergmann provided construction phase engineering assistance in the winter of 2011. Shop drawing review included precast culvert details. Design staff provided clarifications and recommendations throughout construction until its successful completion.

MDOT | M-85 Over Sexton Kilfoil Drain | City of Lincoln Park, Michigan | Project Manager. Originally developed rehabilitation plans for these two span continuous CIP concrete slab twin structures in the City of Lincoln Park. With the possibility of ARRA funding for the project, the scope of work was modified to total structure replacement and the design required an accelerated schedule. Design of the new structures consisted of single span bridges comprised of side-by-side box beams and a composite concrete deck. This structure type was chosen to minimize profile impacts to avoid ROW takes of neighboring businesses while maximizing the hydraulic capacity of the crossing. The project was coordinated with another consultant performing the roadway design and MOT.



Pete LaMourie, PE
PTOE

Senior Transportation Engineer

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Pete has more than 25 years of experience directing all transportation engineering analyses and designs and provides consultation and assistance. His responsibilities also include roadway network planning and location studies, site access and parking planning and design, conceptual roadway geometric design, capacity analyses, analysis and design of traffic control devices and signing systems, site impact studies, and access management plans.

Education

Bachelor of Science, Civil Engineering, Michigan State University

M-22 Subarea Corridor Analysis/Plan

- Corridor study and plan for approximate 1 mile section of M-22 along the waterfront in Elmwood Township (Leelanau County)
- Focus was on identifying short and longer term improvements that would make this commercial/mixed use section of M-22 more pedestrian and multi-modal oriented on a highway section that carries 20,000+ vehicles
- Existing and 2026 future conditions analyses completed
- Identified numerous improvement opportunities, including short term midblock pedestrian crossings, intersection reconfiguration, and potential longer term realignment of the highway section
- Worked with many local stakeholders including the Township (client) and MDOT, including presenting at two public open houses
- Still working with local representatives with ongoing discussions with MDOT and in pursuit of grant opportunities

South Haven – Business Loop Conversion Study

- Developed conceptual illustrations for expanded on-street parking and improved corridor aesthetic
- Defined safer pedestrian crossing and sidewalk/pathway improvements for both school and resident/visitor sections of the corridor
- Developed technical analyses to confirm long-term viability of completing a 4-to-3 lane street conversion
- Worked closely with city staff and committees to develop an overall plan
- Incorporated bike lanes to add to the overall goal of developing a complete street that also improves upon the business vitality of this key corridor

Cascade Township Village Area Complete Streets Plan

- Developed a plan for creating a more multi-modal friendly environment within the village area that is now bisected by a major regional five-lane roadway
- Worked closely with community leaders and roadway agency to blend the ideas and input obtained from the community stakeholders through public workshops with “best practices” utilized nationally and internationally
- The final plan identified 18 specific short and long term improvements within the village subarea, several of which were constructed within months of the plan adoption

Other Like Projects

- Ada Township - Envision Ada, Traffic Analyses and Preliminary Street Design
- City of Grandville - Chicago Drive Conversion Analyses, Signal Design
- City of Fenton - Silver Lake Road Corridor Study (current)



Brandon Hayes, PE, P.Eng. TRANSPORTATION ENGINEER

Mr. Hayes has over 8 years of engineering and planning experience in traffic, transportation, parking, and safety-related projects. He has a strong technical background, especially with respect to traffic operations and safety. He is intimately familiar with the practices, data, and guidelines published by the Institute of Transportation Engineers (ITE), as well as the Manual on Uniform Traffic Control Devices (MUTCD), the Highway Capacity Manual (HCM), and Michigan Department of Transportation (MDOT) standards. In addition, Mr. Hayes has extensive experience in Ontario, Canada and possesses intimate familiarity with the Ontario Traffic Manual (OTM), and the Ontario Ministry of Transportation (MTO) Geometric Design Standards for Ontario Highways (GDSOH).

He has completed numerous projects on City, County, and MDOT roads, including Traffic Impact Studies (TIS), warrant studies, capacity analyses, Road Safety Audits (RSA), pedestrian & cyclist accommodation analyses, Transportation Demand Management (TDM) studies, and complete street studies. Mr. Hayes has led many projects from the initial proposal stages, through engineering and analysis, to reporting and review. He has provided his expertise to meet the needs of municipalities, institutions, private development entities, Counties, and MDOT. He has expertise in CO³ Software, Synchro, SimTraffic, HCS, ARCADY, Vissim, and Vistro.

EXPERIENCE:

Total: 8.5 Years

Bergmann: 1 Year

EDUCATION:

- B.A.Sc., Civil Engineering
University of Windsor, 2009

LICENSES

- Michigan
- Ontario

PROFESSIONAL AFFILIATIONS

- Institute of Transportation Engineers (ITE)

OFFICE LOCATION

7050 W. Saginaw Highway
Suite 200
Lansing, MI 48917

Project Experience

1140 Broadway Traffic Impact Study | Morningside USA | Ann Arbor, MI | Project Engineer. Project Engineer responsible for conducting a Traffic Impact Study (TIS) for the proposed 1140 Broadway Lower Town development. The proposed development included 616 residential units (545 apartments / 71 condominiums) and 4,900 square feet of retail space. The study identified the pedestrian, bicycle, and vehicle trip-related impacts of the proposed development on the adjacent road

network, including six signalized intersections within the SCOOT network and a proposed roundabout at Maiden Lane & Fuller Road. Proposed improvements included construction of additional turn lanes, traffic signal timing optimizations, and construction of a new traffic circle at a site driveway.

Castlefield-Caledonia Design and Décor District (CCDDD) EA | City of Toronto | Toronto, ON | Project Engineer. Schedule C Environmental Assessment (EA) for road and multi-use trail network improvements including new road links and a bridge crossing of a rail corridor in the City of Toronto with the purpose of reviewing traffic and safety concerns, identifying preferred locations and design, as well as creating a design sympathetic to the surrounding urban and cultural heritage of the area. This EA study concluded that the City's objectives would be best achieved by extending Ingram Drive easterly under the Metrolinx (GO) rail line to connect with Raitherm Road, then continue easterly to connect with both Wingold Avenue and an extension of Ronald Avenue. Additional improvements were also identified related to cycling, pedestrian use, streetscaping, and urban design. The study was carried out in full consultation with the community and stakeholders, and there was widespread support for the recommended plan.



Airport Road Corridor Traffic Signal Study | Jackson County DOT | Blackman Township, MI | Project Engineer. Project Engineer for a Corridor Study in Jackson County, Michigan. Airport Road had been identified as JDOT's busiest corridor, and a key signalized corridor in the County. JDOT requested a study and recommendations to improve traffic flow and safety along Airport Road, from Springport Road / County Farm Road to Boardman Road / O'Neill Drive. There are 5 successive traffic control signals within these limits of roadway length less than one mile, including the I-94 interchange. MDOT owns and operates the two I-94 ramp terminals and associated traffic control signals. The study evaluated traffic operations and provided recommendations for potential improvements.

Multi-Modal Transportation Plan | City of Dearborn | Dearborn, MI | Traffic Engineer. Traffic Engineer working with a multi-disciplinary project team to develop a new plan to accommodate all forms of transportation, including walking, cycling, taking transit, and driving in the City of Dearborn. This project entails specific traffic engineering services to complement the overall plan, while taking into direct consideration the needs for all existing and potential users of all subject study transportation facilities. Mr. Hayes' duties include preparing and presenting technical findings to the Team. As the project moves forward, anticipated duties include providing more detailed engineering for individual plan components, expert opinions regarding potential impacts of plan changes on the transportation system, in addition to insights on road user mobility and safety.

Northwood Shopping Center Redevelopment TIS | Schostak Brothers | Royal Oak, MI | Project Engineer. Project Engineer responsible for conducting a Traffic Impact Study (TIS) for the proposed Northwood Shopping Center mixed-use redevelopment project located in Royal Oak, Michigan. The project site was located on the southwest corner of the Woodward Avenue (M-1) & 13 Mile Road intersection (location of the former Northwood Shopping Center). The mixed-use development was proposed to include a 100-room hotel, 40,992 square feet (SF) of grocery store, 48,237 SF of shopping center, and 34,700 SF of restaurant space. The study identified the vehicle impacts of the proposed development on the adjacent road network, including eight signalized intersections, four of which were located along Woodward Avenue (M-1). Proposed improvements included construction of additional turn lanes, and traffic signal timing optimizations.

S. Saginaw Street Engineering Study | City of Burton DDA | Burton, MI | Project Engineer. Project Engineer responsible for the evaluation of an existing four-lane cross section and lane usage on S. Saginaw Street between Hemphill Road and E. Maple Ave. in Burton, Michigan to determine if a "Road Diet" from a four-lane cross section to a three-lane cross section would enhance operations for all transportation users including drivers, pedestrians, and bicyclists. The recommendations of the study were to restripe S. Saginaw Road to provide two lanes of vehicle traffic, a center left-turn lane, two curbside parking lanes and two adjacent dedicated bicycle lanes.

Maple Road Traffic Impact Study | City of Birmingham | Birmingham, MI | Project Engineer. Project Engineer responsible for the evaluation of an existing four-lane cross section and lane usage on Maple Road between Cranbrook Road and Southfield Road in Birmingham, Michigan to determine if a "Road Diet" from a four-lane cross section to a three-lane cross section would enhance operations for all transportation users including drivers, pedestrians, and bicyclists. The recommendations of the study were reviewed by the City of Birmingham and the City implemented the proposed plan after a trial run for the three-lane conversion.

King-Liberty Pedestrian/Cyclist Bridge EA | City of Toronto | Toronto, ON | Project Engineer. Schedule C Environmental Assessment for new pedestrian / cyclist bridge crossing of a rail corridor in the Liberty Village area of the City of Toronto with the purpose of reviewing traffic and safety concerns and identifying preferred crossing location and design. The Recommended Preferred Design included the provision of an above-grade pedestrian / cyclist link between Douro Street (at the westerly north-south leg) and Western Battery Road (at the westerly north-south leg) with a combination of elevators and stairs on both sides of the bridge. The proposed bridge met the project goals of providing an important new connection in the area-wide pedestrian/cyclist network, promoting the use of alternative modes, and minimizing out-of-the-way travel for residents/employees/customers.



Steven Russo, PE

TRANSPORTATION ENGINEER

Steven is a Transportation Engineer with seven years of experience in conducting traffic engineering and transportation planning studies ranging from traffic operations and safety studies using simulation modeling to preparing conceptual plan designs. He is responsible for technical aspects of design and plan preparation on a variety of transportation projects including crash analyses, pedestrian studies, signal warrant analysis, signal optimization studies, and traffic impact studies using MDOT standards such as the Michigan Manual on Uniform Traffic Control Devices (MMUTCD) and Electronic Traffic Control Device Guidelines as well as standards from FHWA, AASHTO, ITE, and other state and local agencies. Steven is intimately familiar with the data and methodologies published by the Transportation Research Board (TRB) in the Highway Capacity Manual (HCM) and has extensive experience using traffic simulation software including Synchro and SimTraffic, Rodel, Vissim, Vistro, and the Highway Capacity Software (HCS).

EXPERIENCE:

Total: 7 Years
Bergmann: 1 Year

EDUCATION:

- BS Civil Engineering, Michigan State University, 2009

LICENSES

- Michigan

PROFESSIONAL AFFILIATIONS

- Institute of Transportation Engineers (ITE)

OFFICE LOCATION

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Project Experience

North Sky Residential Development | Traffic Impact Assessment | Ann Arbor, MI | Project Engineer. Project Engineer responsible for a Traffic Impact Assessment for a proposed residential development located on the west side of Pontiac Trail between Barton Drive and Dhu Varren Road in the City of Ann Arbor, Michigan. This project required analysis of intersection and roadway capacity and geometrics. The study network was modeled using Synchro to evaluate traffic delays, intersection Levels of Service, and vehicle queues to identify future traffic control requirements, lane configurations, and solutions which would provide acceptable site access.

Washtenaw Commons Redevelopment | Traffic Impact Assessment | Ann Arbor, MI | Project Engineer. Project Engineer responsible for a Traffic Impact Assessment for the proposed redevelopment of the Washtenaw Commons strip center on Washtenaw Avenue (BUS US-23) between Pittsfield Boulevard and Yost Boulevard in the City of Ann Arbor, Michigan. Study analyses included data collection, modeling of the adjacent road network including four signalized intersections within the City's SCOOT system, and identification of traffic impacts of the proposed project. Access management was of particular concern with this project and vehicle queues from adjacent signalized intersections were evaluated to develop solutions which would improve existing access for the site.

Old Woodward Avenue | Corridor Study | Birmingham, MI | Project Engineer. Project Engineer responsible for developing a conceptual plan for the Old Woodward Avenue corridor in downtown Birmingham between Willits Street and Brown Street. The intent of this project was to reconstruct the road surface, and upgrade the roadway design to current standards



including signals and ADA ramps, provide left turn lanes along Old Woodward Avenue, and construct landscape medians and bulb outs to improve traffic channelization and pedestrian facilities along the corridor. Work included data collection, modeling of the study corridor to evaluate traffic delays and intersection Levels of Service, evaluation of potential parking revisions along the corridor, recommendations for future roadway geometries, and optimization of corridor traffic signal timings to improve traffic progression between signalized intersections.

Martin Parkway | Traffic Study | Commerce Township, MI | Project Engineer. Completion of a traffic study for approximately 200 acres of undeveloped property with a large trip making potential and associated traffic impacts on the adjacent roadway network. At the center of the undeveloped property will be a downtown district which will feature diverse walkable shops, recreation, entertainment and common spaces with open spaces connecting public pathways and trail systems. The Township wanted to quantify these impacts and develop a roadway network plan that will adequately accommodate the increased traffic potential and non-motorized users. The study included data collection and analysis for seven signalized intersections within the Road Commission for Oakland County (RCOC) SCATS network, four roundabout intersections, and a review of the development plan for the area. Improvements for the study road network would be required to accommodate the site-generated traffic volumes were identified including non-motorized facilities and the need for additional capacity at the M-5 / Martin Parkway & Pontiac Trail roundabout.

Wing Avenue | Corridor Study | Kentwood, MI | Project Engineer. Project Engineer for a study of Wing Avenue between 60th Street and 52nd Street in Kentwood, Michigan. The study included evaluation of options for the roadway, including non-motorized facilities, a traffic study, and evaluation of utility needs while considering preservation of trees and the unique rural character of the corridor. The study included a series of public meetings, a workshop and presentation of the final report to City Commission.

Birmingham Rail District | Parking Study | Birmingham, MI | Project Engineer. Project Engineer for an evaluation of the existing peak period parking demand within the Birmingham Rail District and an evaluation of pedestrian improvements at intersections identified by the Ad Hoc Rail District Commission for review. The Ad Hoc Rail District Commission members were tasked with developing a plan to address the current and future parking demands within the district that align with both the planning goals and multi-modal opportunities for the Rail District. This study was performed to assist in the development of this plan and achieving their goals. Recommendations included areas to provide shared parking and pedestrian crossing enhancements at several intersections along the corridor.

M-43 Signal Optimization | MDOT | Kalamazoo, MI | Project Engineer. Project Engineer responsible for Synchro / SimTraffic modeling and signal timing optimization for proposed traffic signal at the intersection of M-43 (Michigan Avenue) and Harrison Street in Kalamazoo, Michigan. As part of the study, 16 signalized intersections along the M-43 corridor from Westnedge Road to Riverview Drive were evaluated to determine the optimal signal cycle length, offsets and splits for the corridor with the proposed traffic signal. Measures-of effectiveness (MOEs) were evaluated for the corridor included intersection delays, Levels of Service (LOS), vehicle queues, total delay, total stops, total travel time, and average speeds. This study resulted in recommendations to MDOT to provide a zone split along M-43 at the Harrison Street intersection.

Road Diet | Fenton Road | Flint, MI | Project Engineer. Project Engineer responsible for completing a corridor crash analysis on Fenton Road from the I-69 bridge to Hemphill Road in Flint, Michigan as part of a 3R project. This study evaluated existing crashes along the corridor and determined the projected impact on safety with a proposed four-to-three lane roadway conversion. Crash and injury data was obtained from the TIA Traffic Crash Analysis Tool (TCAT) and all crash data were verified by reviewing UD-10 crash reports. This project used MDOT Crash Reduction Factors to determine the impact on existing crash patterns along the corridor based on the proposed roadway improvements.



DANIEL MORGAN

Vice President

Daniel Morgan is a Vice President at Caliper Corporation. His roles also include Director of Traffic Simulation and Product Manager for TransModeler, Caliper's GIS-based traffic simulation model. Mr. Morgan specializes in traffic and transit simulation modeling and has experience in developing computer applications for transportation planning and in demand modeling. Mr. Morgan manages projects involving the application of traffic microsimulation and simulation-based dynamic traffic assignment (DTA) to wide area and regional networks using TransModeler.

EDUCATION

- MS in Transportation, Massachusetts Institute of Technology
- BS in Civil Engineering, University of Texas, Austin

PROFESSIONAL EXPERIENCE

Mr. Morgan manages the development of TransModeler, Caliper's GIS-based traffic simulation model, and its application to novel and challenging projects around the United States. As a project manager, Mr. Morgan has led the development and calibration of wide-area traffic simulation and DTA models for Caltrans in Northern California, for the Maricopa Association of Governments in Phoenix, for the City of Virginia Beach in Virginia Beach, and elsewhere.

Mr. Morgan leads several ongoing research and development efforts to evolve microsimulation and DTA for integration with activity-based models, connected and autonomous vehicle (CAV) modeling, traffic and revenue (T&R) analysis, modeling of managed lanes and dynamic pricing, and traffic impact analysis. Mr. Morgan manages TransModeler training and technical support services.

Recently, Mr. Morgan has managed a variety of projects involving the application of TransModeler to full-scale regional model networks, wide area urban networks, and large-scale freeway systems. Those projects have included various tasks ranging from model calibration, dynamic origin-destination (O-D) matrix estimation (D-ODME), and simulation-based DTA to traffic simulation and analysis of model results.

Currently, Mr. Morgan is managing an effort to integrate a microsimulation-based DTA for the North Florida Transportation Planning Organization (TPO) region with the TPO's activity-based model. The integrated ABM-DTA environment supports an exploratory modeling and simulation (EMS) framework for the study of CAVs in a transportation planning context.

Prior to the CAV study, Mr. Morgan supervised the completion of a project to expand the Inner Loop microsimulation model of 500 square miles of Phoenix, AZ, previously developed and calibrated for the Maricopa Association of Governments (MAG) in 2013, to the entire MAG service area spanning Maricopa and Pinal Counties. The model development and calibration tasks involve massive data fusion and management elements (e.g., for signal timing and traffic count data) as well as effective application of D-ODME and DTA techniques. In the prior Inner Loop project, Mr. Morgan led a team that tested and evaluated multi-resolution simulation methods (e.g., micro-simulation, meso-simulation, and hybrid combinations of micro- and meso-simulation).

Mr. Morgan served as project manager for a Level 3 T&R study for managed lanes on C-470 in Denver, CO. The study relies upon traffic simulation and DTA tools in TransModeler as the engine for analyzing traffic operations and revenues, as well as custom software tools for automating sensitivity and alternatives analyses of large numbers of pricing and policy strategies.

Mr. Morgan also managed the development and calibration of a microsimulation model of one of the most congested freeway corridors in the United States. Reversible HOV lanes on I-95 in Northern Virginia serving heavy commuter traffic to and from Washington, DC were converted to high occupancy/toll (HOT) lanes by toll road concessionaire and operator Transurban and opened in December 2014. Mr. Morgan led the development of the 40-mile model for a Transurban team that will continue to test and evaluate dynamic pricing strategies and incident management scenarios.

Mr. Morgan is leading a team tasked with evaluating dynamic pricing on reversible lanes on another corridor for the Colorado Department of Transportation. The I-70 Mountain Corridor west of Denver is highly congested during peak summer and winter weekend traffic, when heavy recreational traffic mixes with commercial truck traffic and mountainous terrain along the corridor. Challenging geometries – e.g., horizontal and vertical curvature – pose difficult research and development challenges to the model development and calibration effort.

In addition to project work, Mr. Morgan manages large-scale software development projects at Caliper. Those projects range from development of new commercial transportation analysis products to building highly customized software tools for clients. Mr. Morgan participates in the development of application tools in TransCAD and TransModeler for traffic analysis purposes, including tools for level of service (LOS) analysis, emissions modeling, and planning model-microsimulation integration.

SOFTWARE PACKAGES

Caliper TransCAD	Trafficware Synchro	CORSIM
Caliper TransModeler	Trafficware SimTraffic	ESRI ArcMap

COMPUTER LANGUAGES

C++	C	GISDK
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SELECTED PUBLICATIONS AND PRESENTATIONS

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- Balakrishna, R., Morgan, D., & Sundaram, S. (2013). *Methodological Considerations for Integrating Dynamic Traffic Assignment with Activity Based Models*. 14th TRB National Transportation Planning Applications Conference. Columbus, OH.

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- Morgan, D., & Mayberry, R. (2010). *A Methodology for Estimation and Calibration of a City-wide Microsimulation Model*. 3rd TRB Innovations in Travel Modeling Conference. Tempe, AZ.
- Morgan, D. (2009). *A Dynamic 3D Traffic and GIS Model for Enhanced Visualization in Planning*. 12th TRB National Transportation Planning Applications Conference. Houston, TX.
- Morgan, D. (2009). *GIS Integration of Traffic Simulation Models*. 12th TRB National Transportation Planning Applications Conference. Houston, TX.
- Balakrishna, R., Morgan, D., & Yang, Q. (2009). *Comparing Dynamic Traffic Assignment Approaches for Planning*. 12th TRB National Transportation Planning Applications Conference. Houston, TX.
- Balakrishna, R., Morgan, D., Slavin, H., & Yang, Q. (2009). *Large-Scale Traffic Simulation Tools for Planning and Operations Management*. Presentation, 12th IFAC Symposium on Control in Transportation Systems, Redondo Beach, California.
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- Morgan, D., & Ricotta, P. (2006). *Microsimulation for Transportation Planning for Small Communities*. Presentation, 10th Annual National Conference on Transportation Planning for Small and Medium-Sized Communities: Tools of the Trade, Nashville, TN.
- Morgan, D. (2006). *Innovative GIS Applications for Traffic*. Presentation, 12th Annual California GIS Conference, Santa Barbara, CA.
- Yang, Q., & Morgan, D. (2006). *A Hybrid Traffic Simulation Model*. Presentation, TRB 85th Annual Meeting, Washington, D.C.
- Yang, Q., & Morgan, D. (2003). *A High Fidelity Hybrid Traffic Simulator for Transportation Planners*. Presentation, 10th TRB Transportation Planning Applications Conference, Portland, OR.



Lower Town Mobility Study - City of Ann Arbor

SECTION B - PAST INVOLVEMENT WITH SIMILAR PROJECTS

Our Project Team has specific experience in the project area, as well as diverse experience in other Michigan communities. We are currently working with the City of Ann Arbor on the Allen Creek Berm project. We have completed complex corridor, freeway, and interchange studies and alternative analyses for the Michigan DOT. Additionally, we have resources in cities including Rochester and Buffalo, New York, where we have completed studies of similar size and context.

Nicholas LaCroix, PE, PTOE has extensive experience in Ann Arbor, having completed 30+ projects for the University of Michigan (UM) and others prior to joining Progressive AE in early 2018. Several of these projects are within the immediate vicinity of the Lower Town Area, including traffic analyses for:

- UM Wall Street West Parking Structure;
- UM Medical Campus Transportation Study;
- Ann Arbor Station; and
- A2 STEAM school located on Barton Drive.

Brandon Hayes, PE, P.Eng. and Steven Russo, PE have also completed several projects within the City of Ann Arbor, including traffic analyses for:

- 1140 Broadway Development;
- North Sky Residential Development; and
- Washtenaw Commons Redevelopment.

Included in this section are several project examples from each firm that comprises our Project Team. References to our project experience and quality of work are listed below.

Bergmann Associates

City of Ann Arbor	Anne Warrow	Engineering	734.794.6410	Allen Creek Berm Opening
City of Dearborn	Mohamed Ayoub	Planning	313.943.2173	Multi-Modal Transportation Plan
Green Oak Township	Mark St. Charles	Supervisor	810.231.1333	US-23 & Silver Lake Trans. Study
MDOT	Mike Bellini	Project Mgr.	313.375.2420	I-275/M-153 Operational Study
MDOT	Erik Tamlyn	Project Mgr.	989.737.9128	I-69 & I-475 Alternatives Study
City of Rochester, NY	Jim McIntosh	Engineering	585.428.6828	NY-15 Improvement Project
City of Buffalo, NY	Michael Finn	Engineering	716.851.9632	Niagara Gateway Design

Progressive AE

Ada Township	James Ferro	Planning	616.676.9191
City of Grand Rapids	Chris Zull	Engineering	616.456.3066
City of Kentwood	Lisa Golder	Economic Dev.	616.554.0709

Van Dyke - Horn

Detroit Public Lighting Authority	313.324.8290
Detroit Water and Sewerage Department	313.267.8000

As-Needed Municipal Traffic Engineering Services

VARIOUS MICHIGAN COMMUNITIES

CLIENT REFERENCES:

Mohamed Ayoub
Senior Planner
City of Dearborn
313.943.2173
mayoub@ci.dearborn.mi.us

Patricia Voelker
Director of Planning
Bloomfield Township
248.433.7795
PVoelker@bloomfieldtp.org

Paul O'Meara, PE
City Engineer
City of Birmingham
248.530.1850
pomeara@bhamgov.org

PROJECT COST

Variable

City of Dearborn	Bloomfield Township
City of Birmingham	West Bloomfield Township
Canton Township	Commerce Township

DESCRIPTION

Bergmann has decades of experience providing transportation engineering services for our public clients. We have completed a wide variety of projects ranging from local streets, to urban corridors, to freeway system interchanges. Our staff have specific experience providing traffic and transportation consulting services for local communities, where we listen to the needs of each community we work for. Prior to joining Bergmann, **Timothy (TJ) Likens, PE, PTOE** has served as a trusted consultant to several Michigan communities, including those listed above in Wayne and Oakland Counties. TJ is joined in Michigan by two equally talented traffic engineers with their own breadth of experience: **Brandon Hayes, PE, P.Eng.** and **Steven Russo, PE.** Our engineers and planners in New York, Ohio, and Pennsylvania provide additional expertise and resources that we are able to call upon at any time, for any need.

We are currently working with the **City of Dearborn** to provide as-needed traffic engineering. We are currently on the project team developing the City's **Multi-Modal Transportation Plan**. We are also working with **Canton Township** on a trail project involving 3 County road crossings and enhanced safety devices. Other services have involved traffic impact studies, data collection, site observation, modeling and intersection analysis, site plan/access review, and identification of project impacts on the adjacent road network. Example projects Mr. Likens has previously completed in Birmingham and Bloomfield Township (while with previous firms) are highlighted below:

Maple Road Operational Analyses - This primary E-W arterial roadway runs through the heart of Downtown Birmingham, known as "A Walkable Community." Multiple projects were completed along this corridor, all requiring traffic operational and safety analyses. Completed signalized intersection capacity analyses including the M-1 state trunkline, designed pedestrian facilities, performed crash and safety reviews, and evaluated public parking both on and off-street. Worked regularly with Planning, Engineering, and Police Department staff to address vehicular and pedestrian traffic concerns along throughout the City.



Bloomfield High School Consolidation - The School District recently consolidated their two high schools at one location and a Site Feasibility & Traffic Impact Study was completed for the project which involved modeling the signalized traffic network including US-24, Long Lake Road, and Lahser Road. Provided recommendations for traffic signal operations and roadway geometrics. Completed a site access, circulation, and parking plan which included pick-up / drop-off operations, pedestrian considerations, bus loading, and student parking. Evaluated traffic demands for staging during various phases of construction. Participated in public meetings and coordinated extensively with the Township, County, District leadership, and local residents.

US-23 & Silver Lake Road Transportation Study GREEN OAK TOWNSHIP, MI

CLIENT

Green Oak Township, MI
Mark St. Charles, Township Supervisor
810.231.1333
mark.stcharles@greenoaktwp.com

STUDY COST: \$8,750

COMPLETION DATE: 2018

PROJECT HIGHLIGHTS

- Synchro Traffic Modeling & Analysis
- Agency Coordination & Stakeholder Input
- Roundabout Analysis
- Traffic Demand Forecasting

DESCRIPTION

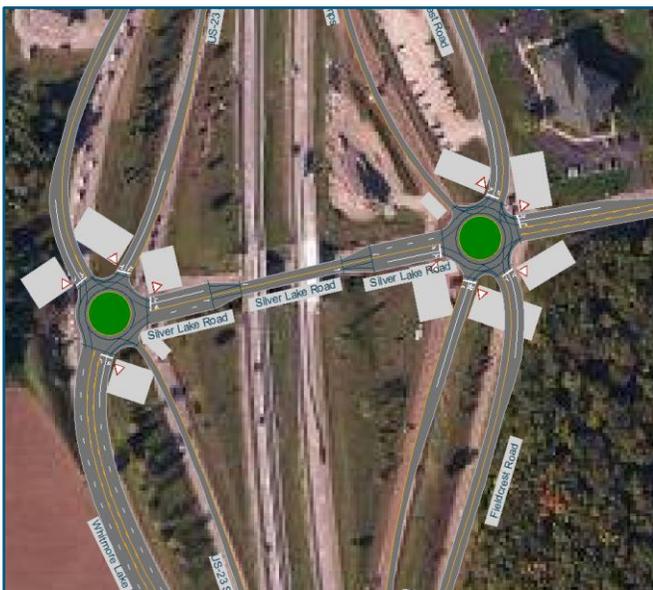
This Traffic Impact Study was completed respective to several development projects along the Silver Lake Road and Winans Lake Road corridors, in proximity to the US-23 interchange. The study was completed on behalf of Green Oak Township in close coordination with MDOT and the Livingston County Road Commission.

The interchange of US-23 & Silver Lake Road is a tight diamond interchange that currently operates under STOP control. During peak periods, traffic conditions are typically congested. This condition would be exacerbated by new residential and commercial development that has already begun breaking ground in this area. In order to increase the capacity of the interchange to accommodate future demands, new intersection configurations were developed and analyzed.

New roundabouts, along with roundabouts along the Winans Lake Road corridor, were determined to provide acceptable traffic operations.

Study analyses included traffic demand forecasting with reference to Institute of Transportation Engineers (ITE) data and methodologies; intersection capacity analysis; network microsimulation; site access evaluations; turn lane warrant and geometrics reviews; and analysis of historical traffic patterns.

Study findings were reviewed with Green Oak Township, MDOT, and Livingston County Road Commission throughout the study process in order to develop and document final recommendations. These findings will be utilized to seek funding opportunities and program available funds for future roadway and interchange improvements.



I-275 / M-153 Operational Improvements Study

CANTON TOWNSHIP, MI

CLIENT

Michigan Department of Transportation
Mike Bellini, PE, Project Manager
313.375.2420
[BelliniM@michigan.gov](mailto:belliniM@michigan.gov)

ESTIMATED CONSTRUCTION COST

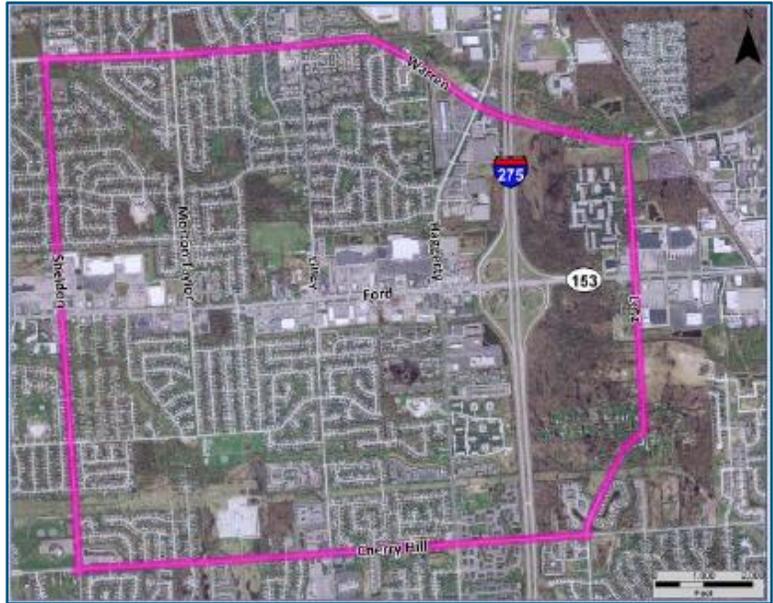
\$1.8M

STUDY & DESIGN FEE

\$272,000

COMPLETION DATE

2015



DESCRIPTION

Ford Road (M-153) serves as the central corridor of the Canton Township "Downtown" Development District. Serving a dual purpose, M-153 is the primary trunkline providing access to the commercial corridor to/from I-275, as well as connectivity to the local network and adjacent residential neighborhoods. As a result, this corridor is plagued by poor traffic operations and safety concerns during not only peak hours but, throughout the daytime hours. Traffic queues regularly extend more than $\frac{3}{4}$ of a mile within the busy M-153 corridor with crash rates significantly higher than averages for similar facilities. Several constraints including right-of-way, parcel access locations, protected wetlands, high-density residential developments, County drains, and industrial developments greatly restrict potential improvements to this corridor.

As part of a previous project, Bergmann analyzed the existing and future conditions traffic and safety within this corridor including facilitation of a Road Safety Audit (RSA) which resulted in several suggested roadway modifications that could realize immediate safety and operational benefits with relatively low cost. This project developed roadway design plans incorporating these low cost recommendations. The scope included: roadway and



ramp reconstruction; turn lane extensions; ramp taper extensions; development of a drainage study and associated modifications based on proposed construction activities; freeway and non-freeway signing; pavement markings; guardrail replacement and upgrade; development of maintenance of traffic plans and specifications based on MDOT's Mobility policy; development of non-motorized facilities including retaining walls beneath the I-275 bridges to accommodate the proposed non-motorized facilities and roadway widening; and soil erosion & sedimentation control.

As a follow up to this study, Bergmann completed design of at the Ford Road/I-275 Overpass related to improve the bridge abutment walls to accommodate a new pedestrian pathway.

Allen Creek Berm Opening / Feasibility Study & Design

ANN ARBOR, MI

CLIENT

City of Ann Arbor
Anne Warrow
734.794.6410

DESIGN FEE

\$650,000

COMPLETION DATE

2017 to 2018



HIGHLIGHTS

- Pre-Disaster Mitigation Grand Funding (Design Phase and Construction Phase)
- Knowledge of Allen Creek Berm Opening project issues and site specific knowledge.
- RR coordination with MDOT Office of Rail, Amtrak, and Norfolk Southern.
- Railroad, hydraulic, and structural engineering.
- Design of new culvert pedestrian RR crossing to connect Ann Arbor with Huron Riverfront.

DESCRIPTION

The railroad berm near the mouth of Allen Creek, just west of the Ann Arbor Amtrak Station, is oriented perpendicular to the overland drainage flow pattern and causes the area floodplain depth to be as deep as 10 feet during heavy storm events (3 to 5 feet upstream). This project is located along the Michigan Line which was purchased by MDOT and is operated and maintained by Amtrak.

In 2013 Bergmann worked with a consultant team and the City to complete a Feasibility Study to investigate whether a new culvert could be placed through the existing RR berm. Bergmann provided oversight and railroad coordination services for the project, and consideration in each alternative was given to construction staging and minimizing service outages for Amtrak and NS RR, which both operated trains on this line at the time.

The feasibility study determined that a dual purpose opening would reduce flooding occurring on the landward side of the railroad berm as well as permit pedestrian access to the riverfront outside of large storm events. As a result, the City was awarded a FEMA grant to fund design of the project (Phase 1) which was completed in late 2017. Bergmann completed design services for the City and will assist with delivering construction of the project in late 2018. The design work includes hydraulic and structural engineering; agency, permitting, and utility coordination; design of railroad construction staging; stakeholder engagement; environmental and historical assessment; and delivery of all project plans, estimates, grant application materials, and specifications.



Niagara Street Phase I & II (Gateway) Design and Streetscape BUFFALO, NEW YORK

CLIENT:

City of Buffalo
Michael J. Finn, PE
City Engineer
716.851.9632

COST: \$5.0 M

DATE: 2012 - 2017

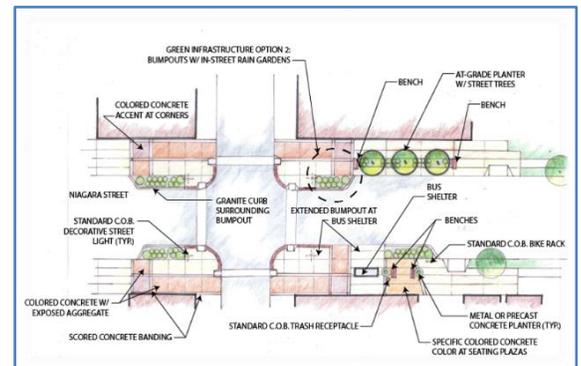
PROJECT HIGHLIGHTS:

- Concept Plan Development
- Gateway to Central Business District
- Complete Streets and Road Diet Design Features
- Streetscape Enhancements
- Innovative Stormwater Management Designs

DESCRIPTION:

Bergmann provided engineering services (preliminary design through construction inspection) for the Niagara Street Corridor from Elmwood Avenue to Porter Avenue. The design created a pedestrian friendly environment that enhanced the function of the current roadway system and provided an entryway into the City of Buffalo Central Business District. The project involved redistributing the roadway Right of Way from a four lane to a three lane vehicular cross section. This created an opportunity for a Complete Street Design, which included bike lanes, curb bumpouts and new sidewalks with ADA compliant ramps and shorter intersection crossing distances for pedestrians. The project also featured multiple streetscape enhancements geared towards the community’s needs, including new benches and a gateway art feature.

Our design team conducted a traffic analysis and used the findings to develop traffic signal timing and phasing plans, as well as, evaluate modifications to lane configurations at the intersecting roadways along the corridor to facilitate heavy peak hour commuter traffic volumes. We reviewed incident summaries and evaluated the findings for traffic calming techniques that support suitable vehicular operations. In addition to calming traffic, these modifications provided a corridor accessible to all modes of travel in order to serve the residents, attract visitors and contribute to economic redevelopment of the area.



Mount Hope Avenue (NY 15) Improvement Project ROCHESTER, NY

CLIENT

City of Rochester
Jim R. McIntosh, P.E., City Engineer
City of Rochester, NY
585.428.6828

PROJECT COST

Construction: \$6 M
Fee: \$700 K

COMPLETION DATE

2014

HIGHLIGHTS

- Locally-Administered Federal-Aid Project
- Access Management Improvements
- Intersection and Mobility Improvements
- Community Involvement
- Streetscape Enhancements
- Transit Accommodations



Award: 2014 APWA (Genesee Valley) Transportation Project of the Year

DESCRIPTION

Situated in the University of Rochester's "College Town" district, the Mount Hope Avenue corridor improvements served as a highly effective catalyst for over \$100 million in redevelopment that is now rising towards completion along the corridor.

This project is the 1st phase of the Mount Hope Avenue Improvement Project, an urban principal arterial bordered by mixed land use and intense commercial business access. The project improved vehicular operations and safety, reconstructed the deteriorated infrastructure, enhanced the aesthetic appearance of the corridor, and improved pedestrian, bicycle, and transit conditions from Rossiter Road to Elmwood Avenue, including portions of Elmwood Avenue and Crittenden Boulevard.

For this project we provided the City of Rochester with engineering expertise from the concept design and public involvement stage through detailed design and construction phase services. Project included full depth pavement widening and reconstruction, installation of a new raised median, recessed on-street parking, a new mid-block signalized intersection, access and drainage improvements, new roadway and pedestrian lighting, streetscape enhancements, and water main replacement.

Access management techniques were designed by Bergmann Associates to help alleviate accidents and congestion along this major urban arterial in the City of Rochester. The 30,000 vehicles traveling this corridor on a daily basis combined with intense commercial business access and pedestrian activity along this corridor have made this section of Mount Hope Avenue one of the highest accident locations in Monroe County. Designing acceptable and realistic Access Management improvements were key elements to the success of the project and long term corridor operations.

City of Newaygo Downtown Safety and Walkability Improvements

Newaygo, MI

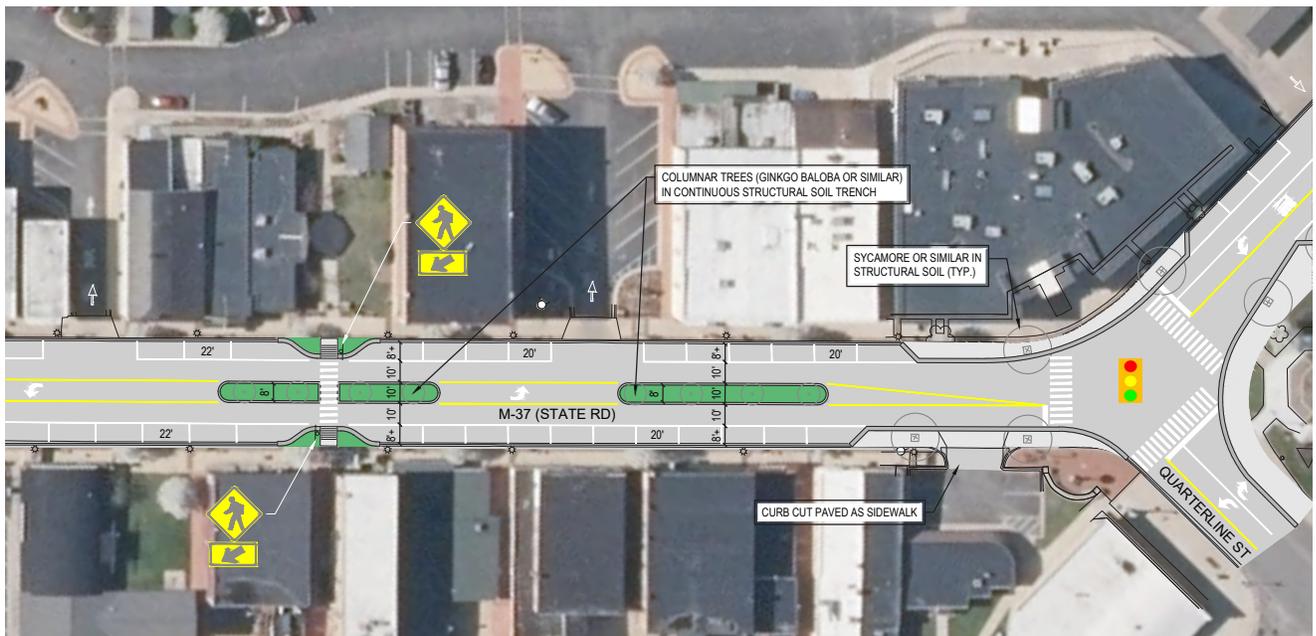
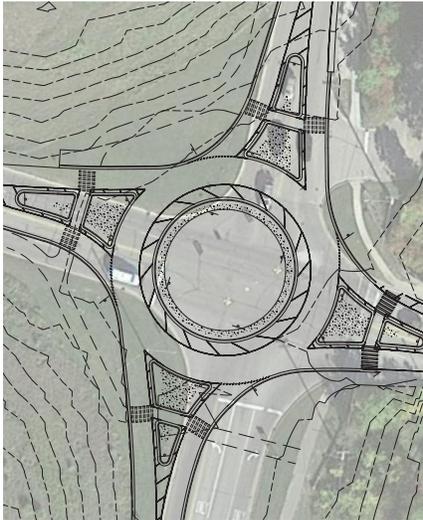
Completion

2018 (ongoing)

Services

Civil engineering, traffic engineering and analysis, non-motorized land planning

- Current project developing street and non-motorized improvement alternatives through and near downtown Newaygo
- Expanding on-street parking to both sides of M-37 (State Street)
- Providing safer pedestrian crossing locations by bumping out curb lines at intersections and midblock crossings and revised street geometrics
- Proposing 4-lane to 3-lane road diet, narrowed lanes, center median islands and street trees as calming measures to reduce through vehicle speeds, particularly large trucks
- Existing and future conditions traffic modeling of M-37 corridor, including proposed roundabout at the M-37/M-82 intersection
- Project includes development of new non-motorized pathways along river frontage to improve connectivity to downtown
- Alternatives include longer term concepts at the north end of town to help reduce vehicle speeds coming from rural highways
- Teaming with Speck & Associates to work with the City and the local economic development organization
- Will include close coordination with MDOT staff for final design parameters and eventual approval



Ada Village

Envision Ada Master Plan and Headley Street Re-Alignment

Ada, MI

Size

40 acres

Cost

Ada Village: \$13,000,000

Headley Street: \$3,390,000

Completion

2015

Services

Stakeholder engagement, master planning, civil engineering, landscape architecture, traffic engineering and analysis, non-motorized land planning

- Master planning process completed over a six-month period engaging diverse stakeholder groups, including the Township, local business owners, property owners and involved community members using community forums, as well as social media tools
- Creation of a sustainable plan which allows the natural feature of the river to be fully realized as a community asset; includes green street design standards, storm water management
- Solutions provide increased accessibility for pedestrian traffic, increased availability of residential properties within the village, and creation of community green spaces as gathering places
- Existing and future conditions modeling of roadway network
- Signal warrant analysis at the M-21 (Fulton Street) / Headley Street intersection
- Development of alternatives for the Headley Street re-alignment
- Traffic signal design
- Streetscape design including median islands, bulb-outs, sidewalks, ornamental lighting, street trees, and site furnishings such as bike racks and benches



City of Fenton Silver Lake Road Corridor Study

Fenton, MI

Completion

2018

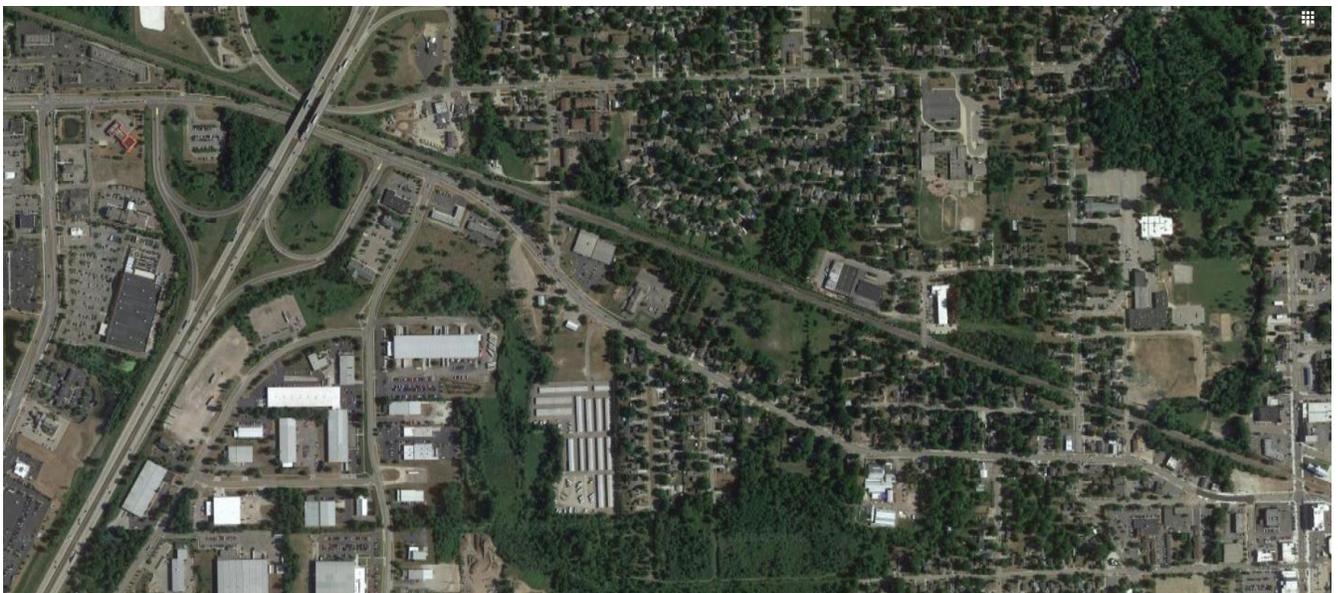
Cost

\$17,000

Services

Transportation planning, traffic engineering, public/stakeholder involvement, system traffic modeling

- 1.7 mile corridor study encompassing seven major intersections from outer commercial zone into city core
- Coordination with three roadway agencies (City of Fenton, Genesee County Road Commission, MDOT)
- SYNCHRO model development of existing and projected 2028 conditions to define current and expected system deficiencies
- Inclusion of two US-23 ramp intersections in study area, including signal warrant analysis at one
- Defined numerous improvement recommendations for 2028, and potential for re-alignment of one street to improve signal spacing and progression
- Provided opportunities for additional non-motorized facilities within and/or adjacent to reconfigured street sections



VANDYKE•HORN

PUBLIC RELATIONS

VAN DYKE•HORN – YOUR COMMUNICATIONS PARTNER

Van Dyke•Horn Experience

Below are summaries of three related case studies, to allow for greater insight into the depth and breadth of community engagement experience by the Van Dyke•Horn team.

Detroit Public Lighting Authority (2013-Present) (313) 324-8290

Van Dyke•Horn leads all communications and marketing for the Public Lighting Authority and has been the PLA's PR team since its inception. Van Dyke•Horn provides all public affairs, media relations, community relations and web development and management for the PLA, and aids in customer service on social media. This includes extensive community meeting engagement in all Detroit neighborhoods and **working cooperatively**



on strategic coordination with Mayor Mike Duggan's office. Our team also writes, produces and distributes the PLA's annual report, as well as public information collateral including door hangers and mailers.

When the PLA's efforts kicked off in 2013, the media narrative reflected low public confidence in any agency's ability to manage the substantial feat of revamping Detroit's city lighting system, which was well-known to have experienced decades of neglect, decay and dysfunction. Other negative preconceptions were built around a perceived lack of sufficient financial resources to address the fact that more than 40 percent of Detroit's streetlights were not working, and the perceived inability of the City to provide for safety concerns and resident anxiety. For the PLA communications team, the greatest challenge would be to address head-on a diverse and diffuse community's deep cynicism and skepticism through **direct communication** between the PLA and Detroit's residents.

Creating and executing a **sustained and coordinated public information and engagement campaign**, Van Dyke•Horn helped generate a steady flow of positive publicity in the media as the PLA took on the task of installing over 65,000 LED street lights. The unprecedented modernization and energy-efficiency project was

3011 West Grand Boulevard | Fisher Building, Suite 2225 | Detroit, Michigan 48202

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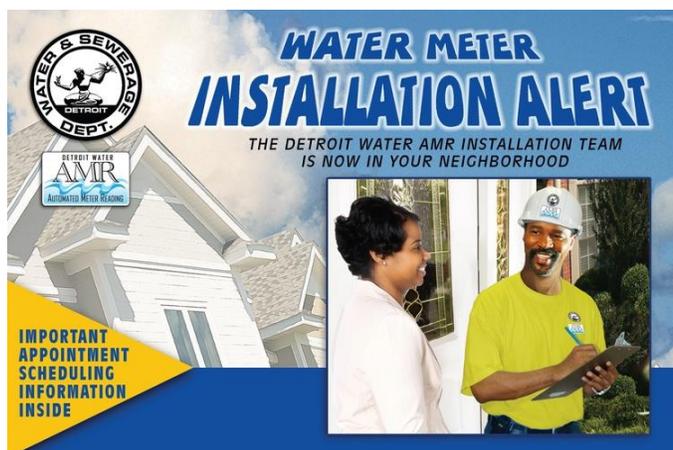
completed both under budget and on time. Subsequently, the reputation of a city service with an overwhelmingly negative impression among residents flipped.

In December 2016, only two years after its formation, Van Dyke•Horn led the PLA's celebration event marking the completion of the total relighting of the City of Detroit. The event and was covered by outlets locally and nationally, including the New York Times, and generated positive news stories enumerating the accomplishments of the PLA since its creation. Notable to our event planning efforts was the comprehensive commitment to sourcing all event support from Detroit-based small businesses.

Detroit Water and Sewerage Department: Automated Water Meter Program (2007-2010) (313) 267-8000

Berg Muirhead, the forerunner of Van Dyke•Horn, was the communications and marketing partner for the Detroit Automated Meter Reading (AMR) Program, a massive citywide effort to replace every water meter in every household across the city over a four-year period.

The sheer magnitude of replacing meters in all 275,000 Detroit residences and 3,000 businesses served by the Detroit Water and Sewerage Department made this a massive effort involving incredible coordination and skill. Another major challenge of the effort was that every household in the city was directly affected and required entry into every home in the city in order to make the swap.



We created an identity for the installation program, carried out communications materials such as a city-wide mailing to nearly 275,000 households and “installation alerts” that customers received in the as installation moved into their neighborhood.

Our firm developed a comprehensive communications program designed to assure that the community was well informed about the AMR program before it began. We conducted focus groups to determine the receptivity of residents to having a new meter installed in their home.

To engage some communities that were slower to respond, we held **informational meetings, block parties, and one-one-one meetings** with “influencers,” such as community and faith leaders. To effectively communicate with all ethnic audiences, we translated the materials into Spanish and Arabic, and worked with local agencies to circulate them in each community.

Our effort also included **an aggressive media outreach campaign**. We came up with creative pitches in order to keep the campaign in the news over the four years of the program, such as inviting reporters into a home for a demonstration of the first meter being installed and the 100,000th. An advertising component, supported by the earned media effort, ensured our audience learned of the AMR program through several mediums. We also produced Public Service Announcements (PSAs) and placed media buys.

Our comprehensive, grassroots-focused communications program led to DWSD enjoying widespread participation and success in the program.

**Detroit Water and Sewerage Department
Upper Rouge Tunnel Project (2009-2010)
(313) 267-8000**

The Upper Rouge Tunnel Combined Sewage Overflow Project was a government-mandated, \$500 million, 7-mile sewage tunnel to be built on Detroit’s west side. Berg Muirhead, the forerunner of Van Dyke•Horn, was in charge of all media and community outreach for this major infrastructure project.

Though the tunnel was to make great strides in improving service and the area’s environmental quality, it could also be a source of contention for consumers because of possible tax increases, higher water bills and construction disruptions. Our firm was tasked with proactively informing Detroit’s civic, residential and business community and offering comprehensive information that would educate the target audiences and alleviate confusion and/or controversy.



Our team **created an informative direct mail piece** that included comprehensive explanations, diagrams and maps, a frequently asked questions section (FAQ), and a response card and hotline number. Despite the technical and complicated specifics of such a major infrastructure project, our firm wrote the direct mail piece in a way that all residents could understand. It answered the expected questions from those living near the construction and highlighted the positive aspects of the project.

Additionally, our team met with city officials, community influencers, and major businesses during the campaign. We also **organized a public forum** at which anyone could attend and speak with the “project experts.” This strategy helped the community not only understand what was happening in their backyard and why, but also made them know that DWSD was listening to them and working to make their lives better.

Through our firm’s efforts to inform the public through community meetings and direct mail, there was minimal negative response toward the project. Our strategy also **forged support and partnerships between the project team and the community**. Our work on this project won two awards from the International Association of Business Communicators.

Though the project was cancelled and the tunnel not built, our outreach efforts demonstrated Van Dyke•Horn’s ability to not only communicate on DWSD’s behalf, but also helped forge support and partnerships between the Water Department and the community.

In addition to these case studies, here are some other clients for which we have conducted public engagement:

- Public Lighting Authority
- Regional Transit Authority
- Detroit Wayne County Airport Authority
- Detroit Institute of Arts -- Tri-County Millage
- John S. and James L. Knight Foundation
- Detroit Public Schools
- State of Michigan
- Skillman Foundation
- University of Michigan
- City of Flint
- Downtown Detroit Business Improvement Zone
- State of Michigan
- Detroit Public Library
- Detroit Water and Sewerage Foundation
- Energy Choice Now (statewide)



Lower Town Area Mobility Study - City of Ann Arbor

SECTION C - PROPOSED WORK PLAN

The work plan outlined herein defines our overall strategy for the project as well as more detailed scope and schedule components. These descriptions are intended to complement the study components, boundaries, and specific requirements outlined in Section II - Scope of Services of the Request for Proposal. The foundation of our proposed work plan is built of three primary components:

- Robust Communication,
- Customized Public Engagement Strategy, and
- Viable Technical Solutions.

Communication

We believe that proactive, regular, and responsive communication are all beneficial and necessary, especially for a project of this size and significance. Communication for this project will be directed by our *Project Manager, Timothy J. (TJ) Likens, PE, PTOE*. Mr. Likens will serve as the primary point of contact for the City and will funnel Team communications via a single channel to the City and project stakeholders.

Proactively, our intent is to develop and implement a robust stakeholder and public engagement program, which is described in further detail below. With a mix of residents, business owners, and commuters, the range of inputs relative to transportation in and through Lower Town is expected to be wide-ranging. The population of vehicular, pedestrian, bicycle, and transit traffic is expected to be diverse. Our goal is to get all interested parties involved early in the process to encourage partnership, avoid re-work, and prevent seizure of progress. Although a single solution is not usually possible to satisfy the desires of every individual, our objective will be to understand all inputs and perspectives up front to properly study and develop solutions that are positive for the community as a whole.

Regularly, we will be in contact with the City throughout the duration of the project. Mr. Likens will provide written status updates via email to the City Project Manager at least once every two weeks. Once per month, written progress briefs will be documented and submitted. These monthly reports will include billing information and invoices, so both our Team and the City are continuously aware of to-date investment in the project with respect to our progress.

We have a long track record of delivering projects on time and on budget. This is due to our diligent level of care as well as our ability to identify and mitigate risks through the project process. Our Project Manager will hold regular Project Team meetings to identify progress, current priorities, and staffing needs. Our Quality Assurance Managers are senior staff with the experience necessary to review Project Team work for quality, completeness, and adherence to the Goals and Objectives of the City. We have an established Quality Committee to which specific roles and processes for Quality Control checks are responsible. If technical errors, conflicts, or budgetary concerns are identified at any point during the project, these issues will be communicated immediately to the City Project Manager with a proposed course of action.

Responsively, TJ Likens will be available by cell whenever project needs arise, and in the City whenever in-person meetings are desired. Although our intent will be to keep the project moving forward on a known path, fires will inevitably pop up which will require immediate response and possibly course correction.



Our Team is designed to be deep, with layers of overlap between our staff capabilities and with leaders selected for their capacity to fill a variety of technical and managerial roles. The technical staff shown on our organizational chart are capable of exchanging work to meet project demands, and our firms regularly participate in teaming partnerships that require continuous communication and coordination. We have experienced personnel resources available in other offices, who are excited about the prospect of working on a dynamic project in the City of Ann Arbor, and who are ready to assist however necessary.

Through our experiences in Ann Arbor, we appreciate the City's commitment to partnership, communication, and responsiveness. We will rely on the City to provide data and background information relevant to this study. We will look to your assistance in developing an inventory of project stakeholders. Considering stakeholder and public input, your direction is paramount in identifying the goals and objectives of this study. We envision this project as a collaborative effort, with us serving as not only your consultant, but as your trusted partner. We will do the heavy lifting, but strong support from City staff will be crucial to develop a plan that is cohesive with the goals of the City and the visions of your residents, businesses, commuters, and visitors alike.

Public Engagement

We believe that up front engagement with project stakeholders and the interested public is crucial to the success of this project. The transportation network in the Lower Town Area serves a variety of abutting land uses including residential neighborhoods, schools, local businesses, large institutions, and recreational spaces. The transportation system serves each of these uses in different ways, and the confluence of the network at two river crossings is likely to result in conflicts between competing demands. There are a variety of modes including vehicular, bicycle, pedestrian, and transit that each have unique requirements, but that must work together. In addition, new projects and redevelopments are poised to impact operations on the existing transportation network.

We cannot plan and design transportation system changes for the Lower Town Area in a vacuum. Heavy reliance will be placed upon data and transportation demand modeling to address the technical components of this study. However, these technical components must mesh with the subjective goals and interests of the system users. Therefore, public engagement will be one of the first components of the project to be carried out. Coupled with existing data, stakeholder and public input will provide the City and our Team with a solid basis for developing and evaluating viable alternatives.

Van Dyke - Horn established their roots in Southeast Michigan, serving the City of Detroit and other municipalities with public relations expertise. Today, their leadership continues their commitment to moving Cities and Regions forward by partnering with businesses and organizations who share the a common vision for progress. We are exceptionally pleased to have their expertise on our Team, as they have the experience to do the job, and the interest to provide an exceptional level of care to the City and its constituents.

Overall, the proposed public engagement process is envisioned to have the following primary components:

- Up-front and intense outreach and information gathering in the early months of the project;
- Establishment of an Advisory Committee to represent stakeholder and public interests;
- Regular communication via web, email, and potential social media outlets;
- Scheduled progress meetings with City Staff and Advisory Committee members; and
- Presentation of findings and plan concepts at project milestones to solicit feedback and implement any necessary adjustments or course corrections.

Under this framework, Van Dyke - Horn will specifically customize solutions that are most beneficial to this project. In the early stages, we will meet with the City and outline campaign details that will be implemented to carry forward the City's public engagement needs. We will identify strategies that fit within the context of the City's Public



Engagement Toolkit to both acquire and disseminate information. We will seek out and go to local organizations and we can organize meetings for them to come to us. We will embrace diverse perspectives and are capable of accommodating possible language barriers. Van Dyke - Horn's approach and experience are further outlined in Sections A and B, respectively, of this proposal.

We have experienced community frustrations with "paralysis by analysis" and "study fatigue". We have to be genuine in our approach and thorough in delivery of our final product to combat these notions. We will do whatever it takes to make the citizens of the Lower Town Area know that they are a vital part of this process, and that this plan is for them. Our desire is to work with the citizens and stakeholders to become more knowledgeable of their needs, and then utilize our technical expertise to develop a plan to enhance their quality of life and meet the City's objectives.

Technical Solutions

We believe that this project is complex, and requires strong technical expertise as well as understanding of the needs and behaviors of all transportation system users. Our transportation engineers have that expertise and understanding gained through project experience. We have a breadth of resources available to enhance our capabilities, including experts in complex modeling, urban design, and planning.

The most significant technical component of this project is modeling of the transportation network. We understand that the City is seeking recommendations for proper modeling software not only to evaluate the Lower Town Area, but that can serve as the framework for an eventual City-wide model. The preferred software package(s) must have the capability for microscopic traffic analysis, and provide easy data transition between the Washtenaw Area Transportation Study (WATS) travel demand model and the microsimulation model. WATS utilizes TransCAD, which combines GIS and transportation modeling capabilities in a single integrated platform. This program allows WATS to maintain and forecast existing and future transportation demands and identify network needs in development of a Long Range Transportation Plan.

TransCAD is a powerful tool developed by the Caliper Corporation that is also used by partnering agencies including the Southeast Michigan Council of Governments (SEMCOG) and the Michigan Department of Transportation (MDOT). A great deal of investment and resources are available by partnering with WATS and developing a program for the City that is compatible. We do not believe that deviating from WATS is technically prudent or financially feasible. For this reason, we recommend that the City invest in software that is compatible with the TransCAD platform and the database maintained by WATS. This will allow the City to build upon the base models that have been developed and validated for Washtenaw County. This will allow the refinement of City-specific travel demand models, while maintaining compatibility and context in a regional perspective.

Traditionally in Michigan, the Synchro / SimTraffic software suite, developed by Trafficware, has been a standard option for macroscopic analysis and small network microsimulation. Although less expensive and simpler to navigate, this package is limited by its inability to handle travel demand modeling, transit considerations, non-motorized activity, and more complex networks. VISSIM, developed by the PTV Group, is one of the most powerful microscopic simulation software programs on the market; however, VISSIM is largely incompatible with TransCAD. Our staff have successfully utilized VISSIM to analyze operations based on TransCAD travel demand models, but the process was very cumbersome, inefficient, and quite honestly frustrating.

Based on this information, our Team recommends the analyses for this study be performed using TransModeler, also developed by Caliper Corporation. As the WATS model is developed using TransCAD, data can easily be transitioned between the two software programs. In fact, TransModeler was developed specifically to provide integration between travel demand modeling and more complex traffic simulation. Demand forecasts from the

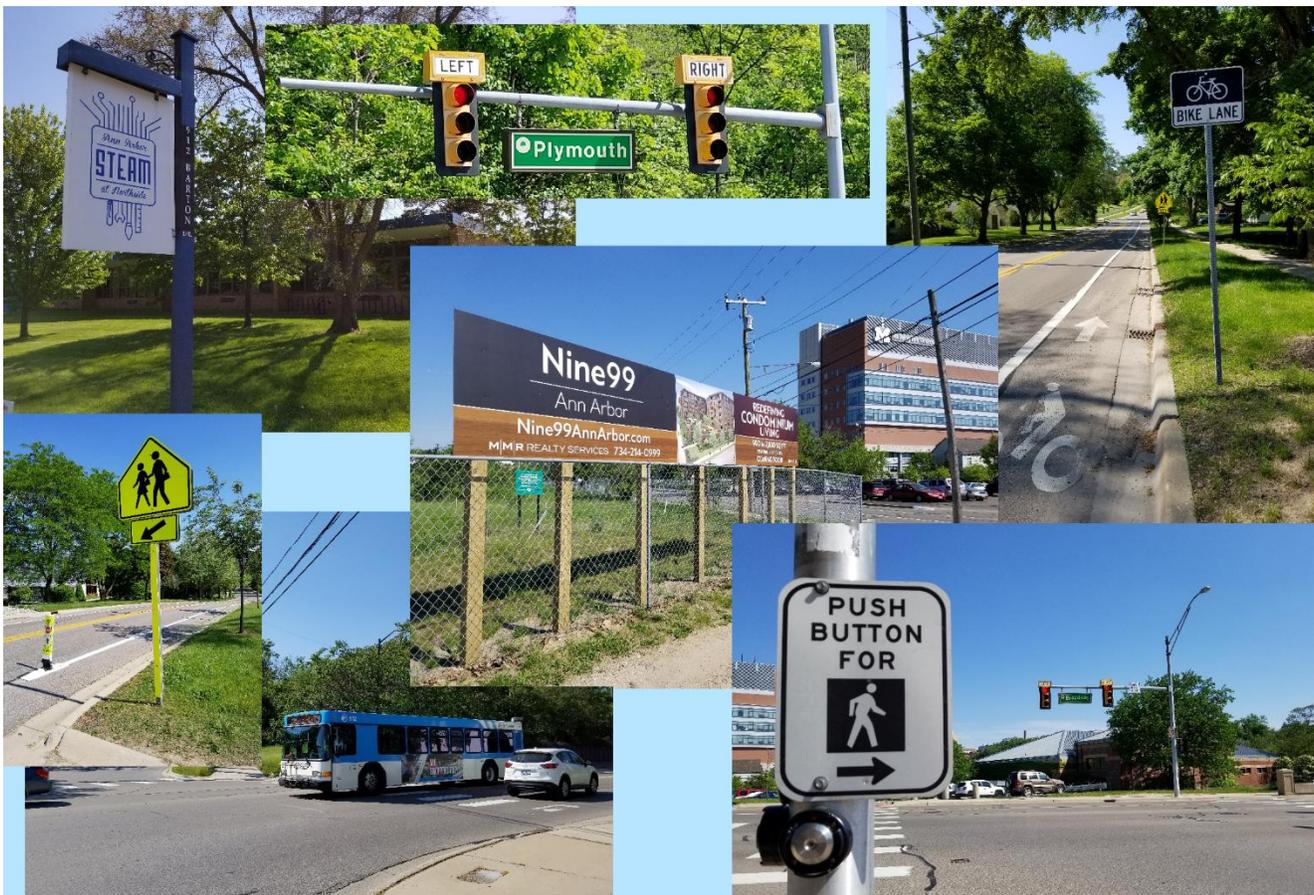


LOWER TOWN AREA MOBILITY STUDY

WATS TransCAD model can provide the foundation for a more detailed operational analysis utilizing the microsimulation capabilities of TransModeler.

TransModeler is a sophisticated traffic microsimulation software package capable of a wide array of traffic modeling tasks. TransModeler utilizes Origin-Destination (O-D) trip matrices to derive the traffic volumes within the network, as opposed to manual entry of turning movement volumes at each intersection. This O-D based assignment allows TransModeler to incorporate a dynamic traffic assignment routing technique, allowing vehicles to re-route their trip within the network when corridors reach capacity and an alternate route is available. Impacts from roadway or lane closures and/or capacity improvements can also be easily quantified as vehicles will seek alternate routes within the network. TransModeler has many other capabilities, of which several features the City may find beneficial, including:

- Multimodal simulation, including transit routes, transit stops, and non-motorized facilities. Mid-block pedestrian crosswalks can be modeled with varying vehicle yielding compliance rates based on observed data;
- Simple and complex signal systems, including coordinated systems, transit signal priority and queue jumping for transit vehicles, signal pre-emption, and ITS applications;
- Application Programming Interface (API), allowing plugins to be programmed to simulate adaptive traffic signal systems such as SCOOT;
- On-street parking simulation, including simulating a vehicle's continued search for a space when none are available at its destination. Delays created by parking maneuvers are also simulated;
- Multiple levels of fidelity: Macroscopic, Mesoscopic, Microscopic, and Hybrid simulations; and
- GIS-based data storage capabilities for signal timing permits, traffic counts, and other city infrastructure.



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SCOPE AND SCHEDULE

We envision this project taking place over the course of approximately 18 months (80 weeks). According to the City’s projected award schedule, we would expect the project to commence in August, 2018, with final delivery of plan documentation in January, 2020. We have developed a project plan that involves three phases, with three key delivery milestones. These milestones are designed at key decision-making points of the process, where our work to date will be presented and City and stakeholder input will be solicited. The components of this work plan are described in further detail below, based on the requirements outlined in the Request for Proposals.

Phase	Key Components	Duration	Start	End
1	Gather Information & Define Objectives	2 months	August, 2018	September, 2018
	Public Outreach & Base Modeling	3 months	October, 2018	December, 2018
Milestone 1 Synthesis of Findings & Study Goals		January, 2019		
2	Detailed Technical Study	4 months	February, 2019	May, 2019
Milestone 2 Presentation of Plan Concepts		June, 2019		
3	Refinement of Alternatives Study	2 months	July, 2019	August, 2019
	Draft Report and Owner / Stakeholder Input	2 months	September, 2019	October, 2019
Milestone 3 Presentation of Plan Recommendations		November, 2019		
Final Delivery		2 months	December, 2019	January, 2020

Phase 1

This phase will include preliminary investigation of all available information as well as a large focus of our public engagement campaign. This phase will involve meeting(s) with the City to kick off the project, review information, and clearly define the study objectives. Additionally, the elements of public engagement will be developed through review of the engagement goals and options with the City. We will set the framework for the technical study phase, with establishment of a base City-wide microsimulation model and a Lower Town Area sub-area model. Further components of this phase include:

- Gather and review all previous and relevant studies and plan documents;
- Compile and inventory all existing data (see below);
- Draft a “literature review” to summarize the gathering of data and information;
- Conduct a thorough public engagement campaign, including outreach to stakeholders, resident groups, civic organizations, institutions, and other citizens that may be impacted or have an interest in this project;
- Establish an Advisory Committee with one representative from these stakeholder and citizen groups that will engage with the Team for the duration of the project;
- Develop means to disseminate project information (potentially) including a website, online surveys, and social media; and
- Commence coordination with WATS to begin the base modeling process and the establishment of existing conditions (once ongoing WATS model updates are complete, anticipated Fall 2018).

Data Collection efforts will involve field studies and observations, as well as the gathering of available information, including:

- Vehicular turning movement and pedestrian counts during peak periods at key study intersections;
- Historical crash data;



LOWER TOWN AREA MOBILITY STUDY

- Inventory of all non-motorized facilities;
- Non-motorized / pedestrian counts at key locations, including unsignalized crossings;
- Origin-Destination Study (see below);
- Observations of pedestrian activity, parent pick-up/drop-off, cut-through traffic, vehicle queues and circulation, etc. at the Ann Arbor STEAM school; and
- SCOOT data to evaluate typical signal operations as well as seasonal (when UM is not in session), monthly, daily, and hourly traffic volumes along Plymouth Road.

Base Modeling efforts will be completed in direct partnership with Caliper Corporation (developer of TransCAD and TransModeler) to create a City-wide TransModeler model to be used as a framework for all analyses performed as part of the Lower Town study. The City-wide model will include all links (roadways) and nodes (intersections) currently within the WATS travel demand model. The data within the WATS model will be used as the baseline for the city-wide TransModeler network and an initial O-D trip matrix. Our goal is to achieve integration with the WATS travel demand model, wherein the models share a common zonal system, centroids and connectors, key modal data, data structures, and O-D trip matrices (by mode).

The City-wide model will require refinement to be operational as a microsimulation model, yet will contain the majority of the roadway network and the O-D trip matrices from the WATS model. Thus, this model will provide an excellent starting point for this project, as well as other future projects throughout the City. Future updates or changes to the WATS model could also be easily updated within this City-wide model as both will share the same data infrastructure. As more traffic analyses are completed, the City-wide model will become increasingly developed with signal timing data, transit routes, non-motorized facilities, and other data.

As the WATS model is currently undergoing updates, which are anticipated to be completed later this year, our Team would propose to obtain the initial O-D trip matrices from WATS after the model update is complete.

Origin-Destination (O-D) Study will be performed within and surrounding the Lower Town Area utilizing Bluetooth wireless detection technologies. The O-D study will show where existing traffic is entering and exiting the study area, aiding in the existing conditions model development and calibration. In addition, travel time data and route choice information will be extracted from the Bluetooth data to further validate the calibration of the existing conditions simulation model.

Our team anticipates placing approximately 20-25 data collectors surrounding and within the study area, including at significant origins and destinations such as the A2 STEAM school, the existing UM parking structure located on Maiden Lane, and along East Medical Center Drive on the UM Medical Campus. Data will be collected for 2-3 continuous days (Tuesday – Thursday) during a typical week while school is in session.

Our team will be seeking assistance from City Staff on the deployment of the data collectors. To maximize the number of data points collected, the Bluetooth devices should be placed 10-12 feet in the air, preferably on an existing street light pole, power pole, or signal pole. City-owned infrastructure will be utilized to the greatest extent possible, with the consultant team seeking the necessary permitting for placement on poles not owned by the City and/or any temporary lane or shoulder closures. Our team will be on-site to supervise the installation and retrieval of the devices; however, we would request the City provide a bucket truck, truck operator, flagmen, traffic control devices, etc. to facilitate installations. It is anticipated the work required would be similar to the process the City would follow to replace a burnt-out street light. To the extent feasible, locations will be selected that minimize the work required.

Phase 1 Completion will be marked by a documented synthesis of findings from information gathering and public engagement. The Project Team will meet with the City and Advisory Committee to communicate these findings and



progress on the technical modeling process. At this point, consensus should be reached regarding a defined list of Study Goals that will be addressed through the technical analyses.

Phase 2

Caliper Corporation has outlined for our Team several flexible opportunities that are available to meet the City's needs for this project and moving forward into the future. Most importantly, Caliper is engaged to help facilitate the modeling process, provide technical support, and provide engineering services as-needed for the project. We have spoken at length with Daniel Morgan, a Vice President at Caliper regarding their potential involvement. Caliper has offered to provide customized on-site training directly to the City, potentially utilizing the existing City-wide model and/or the calibrated existing conditions model as examples in a 3-day comprehensive training course. Additionally, Caliper has offered to negotiate discounted TransModeler licensing based on the needs of the project. Caliper is a valuable resource for our Team in guiding and supporting our modeling efforts, and would provide the same for the City of Ann Arbor moving forward with a City-wide microsimulation model that can be used for other project analyses.

Existing Conditions Analysis will commence following the establishment of base models and completion of the data collection efforts outlined above. The second phase of this project will focus on the technical modeling and analyses required to deliver plan recommendations. At the start of this stage of analysis, data particular to the Lower Town Area will be entered into the overall City-wide model, including confirmation of the geometric configuration of the roadway network, signal timing data, turning movement counts, transit stops, and non-motorized facilities.

Once the City-wide model has been developed with the basic information for the study network, the Lower Town Area will be extracted from the overall model for more detailed analysis, calibration to existing conditions, and validation. This process is called a "sub-area" analysis, which involves refining the origins and destinations within the sub-area, adjusting the traffic analysis zones, and adding external O-D's to the network. Additional origins and destinations will also be added to the model to provide the necessary fidelity for an accurate microsimulation model, including site driveways such as the existing UM parking structure on Maiden Lane.

In addition to the roadways outlined in the Request for Proposals, our Team recommends considering some expansion of these boundaries. The UM Medical campus is a major traffic generator in this area, and the M-14 - Main Street - Depot Street route is utilized heavily by traffic to and from the north. Expansion of the sub-area network may be determined following an initial review of O-D data and evaluation of area traffic patterns.

Once the sub-area has been refined to the necessary level to produce accurate traffic projections within the sub-area network, the model is put through an extensive existing conditions calibration process. This process is completed in four iterative steps:

1. Generate initial network traffic volumes from the regional model O-D trip matrices.
2. Utilize the simulation-based dynamic traffic assignment to equilibrate route choices.
3. Compare existing and simulated traffic count volumes and travel times through the network.
4. Utilize Origin-Destination Matrix Estimation (ODME) tools to improve match with existing traffic data.

Steps 2 – 4 of the above process are repeated in an iterative process until the simulated traffic volumes and travel times match with existing conditions. The O-D and travel time information collected as part of the O-D study will be utilized in this process. The model will be considered calibrated once the simulated traffic volumes and travel times within the model are within acceptable thresholds outlined in FHWA and MDOT guidelines.



Existing bus routes, schedules, and bus stops will be added to the model as part of the development of existing conditions. Transit ridership data, including boarding and alighting data from the Ann Arbor Area Transit Authority (AAATA) and UM will be utilized as available from either agency and/or the WATS travel demand model.

The final existing conditions model will closely replicate the existing traffic conditions within the study area, including passenger vehicle traffic, transit traffic, and non-motorized activity at key locations. Microsimulation model runs will be completed for the weekday morning and afternoon peak periods, with SCOOT data being used to determine any seasonal, monthly, or daily variations that should be accounted for within the existing traffic count data.

Concept Development will be the next stage of the technical scope of this study. The purpose of this stage of analysis will be to develop plan alternatives to address:

- Current network deficiencies, capacity constraints, and demand imbalances (by route and mode);
- Changes in travel demand related to new development, future growth, or possible modal shifts; and
- Ultimately, the Study Goals identified at the conclusion of Phase 1.

A key component of the evaluation of future conditions will be working closely with the WATS staff to incorporate known and potential future development within the study area. At a minimum, the projects outlined in the RFP such as the 1140 Broadway development, will be included within the regional travel demand model. Our Project Team will also identify vacant parcels within the study area, review the City's land use plan and zoning ordinance, and confirm that appropriate land uses are being assumed in the WATS model.

At the completion of this stage, WATS will be able to provide future O-D trip matrices that incorporate future development in the area and overall growth in the Ann Arbor region in general. A critical link analysis can then be performed to determine growth factors on links within the Lower Town Area. Using the existing conditions model as a starting point, new origins and destinations will be added to a future conditions model to account for the proposed developments within the study area. The growth rate from the WATS model and trip generation characteristics of the proposed developments will be layered on top of the existing traffic. Dynamic traffic assignment techniques and ODME procedures will then be utilized to project the future traffic volumes on the roadway network.

Phase 2 Completion will be marked by the identification of plan concepts aimed to address the Study Goals (including particular areas of concern outlined in the RFP). Once the future no-build (maintaining existing infrastructure) model has been developed and future traffic volumes along the study area roadways and intersections have been quantified, network deficiencies, capacity constraints, and opportunities for improvement will be identified. Improvement concepts will be developed and presented to the City and Advisory Committee. These may include physical modifications, operational improvements, and Transportation System Management (TSM) / Travel Demand Management (TDM) strategies.

We intend for this study to comprehensively address the transportation needs of the Lower Town Area. Equally important is our role to move the study forward towards recommendations that can be implemented and constructed to improve conditions and service future demands. To this end, identification of viable alternatives is essential not only to the project budget, but also the schedule, and the vested interests of the community. At the completion of this phase, consensus should be reached on a short list of viable alternatives that will be moved forward for further evaluation. Alternatives that do not pass muster in a conceptual review of alternative components (public input, right-of-way, constructability, order of magnitude costs, etc.) should not be advanced for more detailed and intensive modeling and analysis.



Public engagement is expected to be ongoing through this project through mechanisms such as Advisory Committee meetings, project website, and social media updates. At the conclusion of this Phase in particular, we anticipate a slightly more intense re-engagement of the general public. In order to vet plan concepts, public input and response may be obtained through surveys, collaborative meetings, and other public engagement strategies.

Phase 3

Refinement of Alternatives analyses will be completed to evaluate the detailed impacts of the short list of plan concepts determined to be viable at the conclusion of Phase 2. Based on the results of the detailed analysis of the viable alternatives, a list of plan recommendations will be developed. These recommendations may be considered for implementation in part or whole by the City, based on priority of relative impact, evolving infrastructure needs, and available funding.

The future no-build TransModeler model will be utilized as the basis for the detailed alternatives analyses. The powerful capabilities of TransModeler will allow these alternatives to be evaluated at a microsimulation level by simply modifying the underlying roadway network. Traffic generated within the network will continue to be based on the O-D trip matrix developed for the no-build scenario; however, vehicles will now have alternative routes to get from their origin to their destination. Demand profiles may also be altered based on potential TSM and/or TDM techniques. Similar to the existing conditions, microsimulation model runs will be completed for the weekday morning and afternoon peak periods for each viable alternative.

Based on the results of this detailed analyses, the short list of viable alternatives will be evaluated from both a quantitative and qualitative perspective. Several key factors to this alternatives assessment will be the relative success in mitigating identified network deficiencies, the ability to provide acceptable operations for all road users, and the extent to which each alternative satisfies the Study Goals. Plan recommendations will be made by the Project Team based on the results of this evaluation. Ongoing and programmed City projects will be incorporated into these evaluations.

These recommendations will be presented to the City and stakeholders via a written report including graphical and tabular results. Conceptual graphics will be developed for each alternative suitable for public presentation and discussion. A draft report will be provided to the City (and stakeholders, as directed by the City) for review and comment. City and stakeholder input will be incorporated as appropriate to develop a final plan document, including final recommendations. Plan recommendations will be supported by documentation of:

- Pros and Cons of each alternative and its components;
- Simulation videos depicting network operations with and without improvements;
- Conceptual graphics depicting recommended plan components; and
- Planning-level cost estimates.

As part of this study, the relative costs of various alternatives and components is expected to range significantly. While the goals of this plan may be to identify long-term transportation needs and solutions for the Lower Town Area, it is likely that small, easily implemented enhancements to safety and mobility will be identified as part of the study process. Such improvements will be communicated to the City for consideration as they are identified.



Lower Town Mobility Study - City of Ann Arbor

SECTION D - FEE PROPOSAL

Please find our fee proposal provided in a separate, sealed envelope, submitted as part of this proposal.





Lower Town Area Mobility Study - City of Ann Arbor

SECTION E - AUTHORIZED NEGOTIATOR

I, Jeremy Hedden, PE, certify that I am the person responsible for the decisions regarding fees being offered in this proposal and will not participate in any action contrary to the terms of this provision.

Jeremy A. Hedden, PE
Vice President – Infrastructure
Direct: 517.827.8684
Mobile: 517.214.0282
jhedden@bergmannpc.com



Lower Town Mobility Study - City of Ann Arbor

SECTION F - ATTACHMENTS

The following forms are filled and signed as required per the Request for Proposals # 18-21:

- Attachment B Legal Status of Respondent
- Attachment C City of Ann Arbor Declaration of Compliance (Non-Discrimination Ordinance)
- Attachment D City of Ann Arbor Living Wage Ordinance Declaration of Compliance
- Attachment E Vendor Conflict of Interest Disclosure Form

Additionally, we acknowledge receipt of the following Addenda:

- Addendum 1 Questions and Answers

**ATTACHMENT B
LEGAL STATUS OF RESPONDENT**

(The Respondent shall fill out the provision and strike out the remaining ones.)

The Respondent is:

- A corporation organized and doing business under the laws of the state of New York, for whom Jeremy Hedden bearing the office title of VP-Infrastructure whose signature is affixed to this proposal, is authorized to execute contracts on behalf of respondent.*

*If not incorporated in Michigan, please attach the corporation's Certificate of Authority

- A limited liability company doing business under the laws of the State of _____, whom _____ bearing the title of _____ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.
- A partnership organized under the laws of the State of _____ and filed with the County of _____, whose members are (attach list including street and mailing address for each.)
- An individual, whose signature with address, is affixed to this RFP.

Respondent has examined the basic requirements of this RFP and its scope of services, including all Addendum (if applicable) and hereby agrees to offer the services as specified in the RFP.

Signature Date: 5/25/18,

(Print) Name Jeremy A. Hedden Title Vice President - Infrastructure

Firm: Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors D.P.C

Address: 7050 W. Saginaw Hwy, Suite 200, Lansing, MI 48917

Contact Phone 517-272-9835

Fax 517-272-9836

Email jhedden@bergmannpc.com

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
FILING ENDORSEMENT

This is to Certify that the CERT. OF CHANGE OF REG. OFF./RES. AGENT

for

*BERGMANN ASSOCIATES, ARCHITECTS, ENGINEERS, LANDSCAPE ARCHITECTS &
SURVEYORS, D.P.C.*

ID NUMBER: 60621Y

received by facsimile transmission on September 11, 2015 is hereby endorsed.

Filed on September 11, 2015 by the Administrator.

*This document is effective on the date filed, unless a subsequent effective date within 90 days after
received date is stated in the document.*



*In testimony whereof, I have hereunto set my
hand and affixed the Seal of the Department,
in the City of Lansing, this 11th day
of September, 2015.*

A handwritten signature in cursive script, appearing to read "Alan J. Schefke".

Sent by Facsimile Transmission

*Alan J. Schefke, Director
Corporations, Securities & Commercial Licensing Bureau*

ATTACHMENT E



VENDOR CONFLICT OF INTEREST DISCLOSURE FORM

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	() Relationship to employee
	() Interest in vendor's company
	() Other (please describe in box below)
N/A	

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:		
Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors D.P.C	517-272-9835	
Vendor Name	Vendor Phone Number	
	5/25/18	Jeremy A. Hedden - VP Infrastructure
Signature of Vendor Authorized Representative	Date	Printed Name of Vendor Authorized Representative