



April 25, 2018

Jenny Max, City Administrator
City of Nisswa
5442 City Hall Street
Nisswa, Minnesota 56468

Re: Proposal for Transportation Planning Services for CSAH 77/Nokomis Avenue Area in Nisswa, MN

Dear Ms. Max,

Thank you for the opportunity to present a proposal for a transportation study and planning services in the CASH 77/Nokomis Avenue Area in Nisswa, Minnesota.

The following pages highlight our company, project team, and our approach/scope to this potential project. Our team strengths are based on the following principles:

- **Recognized Experts** in the transportation field with multiple examples of our work on transportation studies and planning efforts.
- **Unbiased Arbitrators** who follow the analyses and information to the ultimate recommendation, not pre-judging results or situations.
- **Successful History** of understanding transportation issues and developing appropriate solutions as well as having the unique experience in the development of policies and processes around traffic requests or issues.

I will be the lead person for your projects. My contact information is:

Address: One Main Street SE, Suite 204
Minneapolis, MN 55414
Phone: 1-888-232-5512
Email: bficek@spackconsulting.com

Details of our company and our approach are included in the following pages. We never miss a deadline and never go over budget. To hold us fully accountable, our work is backed up with an unconditional satisfaction guarantee. We look forward to assisting you in this project.

Sincerely,
Spack Consulting

A handwritten signature in blue ink that reads "Bryant J. Ficek". The signature is fluid and cursive.

Bryant J. Ficek, PE, PTOE
Vice-President

Table of Contents

Project Narrative - Understanding.....	1
Project Narrative – Scope of Services	2
Project Timetable.....	4
Qualifications Summary – Team.....	5
Qualifications Summary – Company Profile	6
Qualifications Summary – Resumes	7
Project Cost.....	9

Project Narrative - Understanding

The historic Grand View Lodge on Gull Lake in Nisswa, Crow Wing County, Minnesota is a mainstay destination and attraction for people from around the world. In 2014, we assisted with initial traffic counts regarding the potential Garden Cottages expansion. That 2014 project ultimately did not move forward, but laid the groundwork for future thinking about how the Grand View Lodge could improve its offerings.

Now Grand View Lodge is proposing a larger expansion, covering new Garden Cottages, a Hotel, an Activities Center, Spa addition, and Wedding Chapel. While an exciting potential addition to the area, the associated traffic could become a significant issue if not properly managed. Necessary considerations for the transportation system include:

- The fluctuation of traffic, with high summer volumes particularly in July at peak tourist season.
- The intersection operations of CSAH 77 with Nokomis Avenue, the subject of many past conversations among the County, City, and Grand View Lodge.
- The shifting of traffic to use an existing private maintenance road and connection to CSAH 77 (west of the Nokomis Avenue intersection) and its impact on CSAH 77 traffic (including operations at the Lower Roy Lake Road intersection).
- The interaction of tourist traffic associated with Grand View Lodge with residential traffic, including for homes and cabins along West Linden Boulevard.
- The connections to and from the proposed new trail on CSAH 77 for pedestrian and bicycle traffic.

The goal of this project is to identify the necessary improvements to provide a safe transportation system that will accommodate future traffic including the proposed Grand View Lodge expansion. Our work will occur under the basic structure of a typical Traffic Impact Study, recognizing the different characteristics and key considerations above that make this a unique undertaking.

As discussed in the RFP, the desired result is a thorough study meeting the goal of the project stated above. Through our work, we will determine improvement alternatives and recommendations as well as potential triggers for those improvements. We will bring our expertise, unbiased view, and history of success to bear in identifying solutions appropriate to the area and future needs.

The following pages explore the three project scope tasks as discussed in the RFP.

Project Narrative – Scope of Services

Task 1 – Information Gathering, Site Visit & Kick-Off Meeting

We will lead a kick-off meeting with the City of Nisswa and Grand View Lodge to review the scope and learn about specific issues. We rely on the information from local authorities to provide us current plans for the future and provide their view on existing issues. Key areas of discussion are likely to include the plans for the future trail on CSAH 77, past conversations regarding potential improvements for the CSAH 77/Nokomis Avenue intersection, and other area development that could influence traffic volumes and operations. We will prepare the agenda for the meeting, including any additional information requests, and meeting minutes for distribution after the meeting.

As part of the kick-off meeting, we will complete a site visit of the study area to further our understanding of the existing conditions. While traffic volumes will be lower at this time (kick-off meeting expected to occur in late May), having first-hand knowledge of the area is very important.

We anticipated completing the desired turning movement counts in mid- to late June, capturing a high traffic time. Using our own developed CountCam2 camera systems to record each intersection's operations over the 96-hour period will allow us to:

- Determine daily volumes on the roadway corridors.
- Establish the true two peak hours of the area, which are not likely to correspond with normal commuter patterns.
- Compare traffic volumes over the four-day period, Thursday through Sunday.
- Keep a visual record of operations for later reference during the remainder of the project.
- Allow additional observations of operations during a busier timeframe.

The Minnesota Department of Transportation's (MnDOT) Continuous Traffic Recorders will be consulted to evaluate seasonal differences. Two recorders, one on Highway 371 and one on CSAH 1 are near enough to the study area to provide this information.

The six study intersections are:

- CSAH 77/Nokomis Avenue
- CSAH 77/Lower Roy Lake Road
- CSAH 77/GVL Maintenance Road
- Nokomis Avenue/Forest Avenue
- Woodward Ave/Existing Parking/Maintenance Rd
- Woodward Avenue/West Linden Boulevard

In a slight adjustment from the RFP, we will model the existing conditions for two peak hours as part of this task. The model will be calibrated against our operations to ensure the accuracy of the results moving forward. We will also complete a review of the report crashes at the study intersections (using MnDOT's Crash Mapping Analysis Tool) and examine the traffic signal volume warrants for the CSAH 77/Nokomis Avenue intersection using current volumes.

We will wrap up this task by completing an Existing Conditions Memorandum to document our observations, analyses, and review. This document will provide a base level of understanding between us, the City, and others involved or interested in the project.

Task 1 Deliverables:

Kick-Off Meeting Agenda, Kick-Off Meeting Minutes, Existing Conditions Memorandum.

Task 2 – Engineering Analysis, Development of Alternatives and Planning Level Layouts

This task represents the bulk of the study work; forecasting, analyses, and determination of improvements.

Using the Grand View Lodge expansion plans and other area development provided by the City, we will develop year 2025 forecasts for the study roads and intersections. Daily volume and two peak hour volume forecasts will be established. We will use national trip generation as well as the data collected in Task 1 to determine the future volumes for the Grand View Lodge expansion elements. Planned roadway modifications to the network will be accounted for in the forecasts.

These forecasted volumes will then be analyzed for potential safety and capacity concerns. Up to three alternatives will be developed to resolve those concerns. Alternative improvements will consider safety, operations, impacts to bicycles and pedestrians, environmental impacts, right-of-way needs, and construction costs as part of the evaluation.

As long-term forecast accuracy can be difficult, we will instead re-examine the potential alternatives in terms of excess capacity. For example, we could determine the additional percentage of growth on CSAH 77 beyond our 2025 forecasts that an improvement could accommodate. The goal is to develop improvement concepts that acceptably handle the short-term forecasts and allow for more long-term growth. Similarly, if we develop an option that may not be suitable immediately, we would identify the necessary growth before that solution is implemented. This situation could occur with a traffic signal if warrants are not satisfied with the existing or 2025 forecasts.

We will prepare concept-level sketches of each improvement alternative along with planning-level cost estimates. The cost estimates will include all project elements. A comparison matrix will be developed to present the evaluation information (pros and cons) for each alternative side-by-side to assist in selecting the preferred alternative.

Task 2 Deliverables:

2025 Daily and Two Peak Hour Forecasts, up to Three Improvement Alternatives Concepts and Cost Estimates, Alternative Accommodation of Additional Long-Term Growth, Comparison Matrix.

Task 3 – Meeting and Final Report Submittal

We will host a second meeting with the City of Nisswa and Grand View Lodge as well as Crow Wing County to present the analysis we have conducted and the alternatives we have developed. An agenda will be developed for the meeting, providing sufficient time for discussion of the comparison matrix. We will take and distribute meeting minutes following this meeting.

Based on the input from the meeting, we will make appropriate adjustments and finalize selection of the preferred alternative. Depending upon the exact alternative ultimately selected, specific improvement timing, triggers, and other phasing information may be necessary.

We will prepare a draft report documenting the process, methodology, and recommendations of this project, including the details of the preferred alternative. This draft will be distributed to the project team members for review and comment. Appropriate comments received will be incorporated and a final report will be submitted.

Task 3 Deliverables:

Meeting Agenda, Meeting Minutes, Preferred Alternative with Detailed Components if needed, Draft Report, Three Bound and One PDF Copy of the Final Report.

Project Timetable

Below is our estimated schedule for the project, which provides for the necessary analysis along with review time for the project team. Spack Consulting has never missed a deadline, and will continue our streak on this project.

	Task	Duration	May	June	July	August
Task 1 Elements	Project Authorization	1 Day	May 16			
	Kick-off Meeting/Site Visit	1 Day	~May 23			
	Turning Movement Counts	2 Weeks		June 27		
	Other Data Collection	3 Weeks		June 13		
	Model Existing Conditions	1 Week			July 6	
	Existing Conditions Memorandum	2 Weeks			July 9	
Task 2 Elements	Forecast Future Volumes	1 Week			July 16	
	Model Future Conditions	2 Weeks			July 23	
	Develop Up to 3 Alternatives	2 Weeks			July 27	
	Concept Layouts and Cost Estimates	2 Weeks			July 31	
	Comparison Matrix	2 Weeks			August 3	
Task 3 Elements	Meeting #2	1 Day				~August 8
	Select Preferred Alternative	1 Week				Aug 15
	Prepare Draft Report	3 Weeks			August 15	
	Review Draft Report, Provide Comments	1 Day				August 24
	Deliver Finalized Report	1 Week				August 31

Qualifications Summary – Team

All key team members listed here work closely and collaboratively, which improves both efficiency in completing work and quality in the final product. We strive to be more than just a consultant team but also a partner, mutually working toward a common goal and successful project.



Bryant Ficek, PE, PTOE, Project Manager

Bryant will lead the project and be the primary point of contact. As the Vice-President of Spack Consulting, he has a 20-year strong background in traffic and transportation planning, operations, and design. In addition to ensuring the project remains on schedule, he will facilitate meetings as well as provide guidance to and oversee the technical aspects. Bryant's resume, detailing additional work experience and expertise, is included later in this document.



Max Moreland, PE

Max will assist Bryant with all aspects of this project, providing a second set of eyes on analyses and report development as well as providing his unique perspective on the potential recommendations. After beginning his career at Spack Consulting in 2009, Max has quickly developed in his role from data collection, to initial analysis, to leading every stage of traffic engineering projects. Max's resume detailing his experience and expertise is also provided in this document.



Jonah Finkelstein, EIT

Jonah is a 2013 graduate of the University of Minnesota with a Bachelor of Civil Engineering degree. He joined Spack Consulting in 2016, after a couple of years at another consulting firm. Jonah has led numerous data collection efforts and is adept at various types of traffic analysis. He also has a strong background with CAD design formed from years of signal design and intersection layout work. Jonah recently took the Spring PE exam and we expect to welcome him to the ranks of Professional Engineers soon. Jonah also provides assistance into the various research and education initiatives undertaken each year by Spack Consulting.



Hailey Pederson, Engineering Tech

Hailey is a 2017 graduate of the University of Minnesota with a Bachelor of Civil Engineering degree. She first began at Spack Consulting as an intern in 2017 and became a full-time member in 2018 after that successful start. Proving to be an enthusiastic employee, Hailey has quickly grown into this position and is preparing to take the EIT exam to start her journey to becoming a Professional Engineer. She assists on all forms of traffic and parking studies. Her typical duties include obtaining and ensuring accurate traffic count data, working with the analysis software to determine existing and future traffic operations, identifying issues and potential solutions, and report preparation.

Availability

Spack Consulting is routinely working on multiple client projects, educational endeavors, and research tasks. We carefully plan our schedules to ensure all work is accomplished on or before its deadline. We are proud that since our founding, we have never missed a deadline. For this project, we will continue in this tradition and make sure all personnel are 100 percent available as needed to complete our work.

Qualifications Summary – Company Profile

Spack Consulting is part of the Spack Enterprise family of businesses, all dedicated to providing quality transportation products and services. Our core focus for every branch, including Spack Consulting, is to Improve Transportation Globally. For nearly two decades, we have done just that, assisting government agencies and others in developing sound solutions to their transportation and traffic issues.

Since its inception as a one-man shop in 2001, Spack Consulting has grown in terms of employees, capabilities, and practice area. Originally focused on traffic impact studies, Spack Consulting is now adept at all aspects of transportation engineering. Coinciding with our core focus, we believe the transportation system must serve more than just cars. Improvement to us means safe travel from A to B no matter what type of “vehicle”, or none at all, you choose. Located in Minneapolis, this small business’ world headquarters is a daily bustle of activity. We routinely complete various project, research, and educational work, examining unique traffic issues and situations from coast to coast.



Mike Spack remains the president of Spack Consulting. Bryant Ficek, as vice-president, oversees all operations and leads the day-to-day action, ensuring that all projects are completed on time and on budget. The rest of our full-time engineering staff includes, Max Moreland, P.E, Jonah Finkelstein, E.I.T., Jacob Rojer, E.I.T. and Hailey Pederson, an engineering technician. Spack Consulting has a flat structure that encourages all employees to work together as a team to serve our clients, complete our projects, and make the work day enjoyable.

Beyond the basics, our company prides itself on providing flexible services to meet our clients’ needs. This commitment shows through our standing as traffic engineer for several cities. We provide trusted traffic expertise and knowledge to complete new or re-development impact studies, answer general traffic questions (i.e., speed limit procedures, stop sign requests), and develop methods or procedures to answer unique questions (such as the traffic impact of eliminating a thru route).

Our Core Values:

- E**ffective
- R**espectful
- I**nnovative
- G**iving

Outside of client work, we spend a considerable amount of our own time examining the way studies are performed and answering our traffic questions. This work has produced white papers, design guides, webinars, and manuals currently used by professionals around the world, including over ten universities. Two current research projects underway are reviewing stop sign compliance and comparing vehicle speeds in posted 25 mph roads compared to posted 30 mph roads. Our goal is to help advance the traffic engineering profession, improve the way traffic studies are performed, and increase our knowledge to ultimately result in better traffic solutions and a safer trip for all users.

Qualifications Summary – Resumes

Bryant Ficek is the Vice-President of Spack Consulting where he is responsible for the firm’s traffic engineering and transportation projects. For over 20 years, he has successfully completed projects for both private and public clients, working as an impartial expert to determine the most appropriate traffic options. With extensive experience with public outreach, Bryant is comfortable talking with the public, formally presenting information to a City Council or County Board and debating finer technical points with professional colleagues.

In addition to his consulting activities, he is active in the transportation engineering community, serving different leadership roles for the local North Central branch of ITE. He is a contributor to the MikeOnTraffic blog, where he shares tips and tricks of working on traffic studies and using simulation software.

Traffic Studies:

Bryant’s traffic and transportation studies cover a wide range, from a simple intersection turn lane review to a detailed corridor evaluation to a comprehensive transportation plan for a City or County. These studies typically have the common elements of an operational analysis of traffic volumes and safety assessment of historic crashes and future risk. Other parts of a traffic study may include warrant analysis, access management, a transit analysis and/or an assessment of non-motorized vehicle amenities.

Traffic Signal Operations:

Signal timing is important to keep traffic moving as well as minimize delays and general driver frustrations. With the potential for multiple phases and patterns, signal timing requires a careful assessment to satisfy often multiple goals. Bryant has helped Spack Consulting pioneer a new approach that combines 48-hour turning movements counts, phasing and timing evaluation over the entire day, and basic maintenance such as checking loop detectors, lights, and push buttons into a complete Traffic Signal Tune-Up package.

Design:

Bryant has a wide range of design experience, leading projects from initial conception and analysis through construction. His experience has been focused in particular on signal design, roundabout design, signing and striping, and traffic control.

Parking Studies:

Parking can be an integral part of the traffic study process; important to minimize in terms of site impacts and important to maximize so drivers can easily find a spot. In addition to standard parking assessments versus codes, Bryant’s parking studies have lately involved analysis of current use and evaluation of overlapping use between sites.

Traffic and Transportation Research:

In addition to co-authoring the [Traffic Study Manual](#), Bryant has completed and continues to work on various types of traffic research. This research provides him a better understanding of traffic engineering and develops useful information to apply to other traffic and transportation studies. Traffic Corner Tuesday is the latest undertaking, a webinar series that explores the finer points of traffic engineering.

Registrations

- Minnesota Professional Engineer
- Certified Professional Traffic Operations Engineer®

Instruction

- Traffic Corner Tuesday (on-going)
Monthly webinar presenting traffic engineering basics and interesting case studies. Viewed by over 1,200 unique participants across 54 countries worldwide.
- TIS/PTV Vistro (2016)
10-session training course on completing Traffic Impact Studies (TIS) and proper use of analysis software.

Professional Organizations

- Institute of Transportation Engineers (ITE)
- American Society of Civil Engineers (ASCE)

www.spackconsulting.com

www.spackacademy.com

www.mikeontraffic.com

Max Moreland is a traffic engineer involved in the majority of Spack Consulting projects, ensuring various traffic engineering and transportation tasks stay on schedule in the completion of the overall projects. As a relatively recent professional engineer, he is also transitioning into a leadership role, providing project management and working with younger staff.

In addition to his consulting activities, Max wears many hats completing roles in other branches of Spack Enterprises, including managing traffic counts in the field (Traffic Data Inc.), ensuring submitted traffic videos are counted (CountCloud.com), and developing our database of local trip generation (TripGeneration.org). He is also active in the transportation engineering community, recently serving as a director for the local North Central branch of ITE.

Traffic Studies:

Max has worked on a wide variety of traffic and transportation studies, including Traffic Impact Studies, Traffic Operations Analyses, Safety Studies, and Pedestrian Facilities Planning to name a few. His studies generally require close coordination with the public agencies to ensure the proper study scope and provide satisfactory forecasting and evaluation. As multi-modal aspects have become more important, he also works to include at least a review of those facilities into the studies.

Data Collection:

Max is the head of the Spack Consulting's data collection arm, Traffic Data Inc., and leads our counting service, CountCloud.com. He routinely works with clients to determine their data needs; customizing traffic counts as necessary to accommodate requirements of projects from standard intersection turning movement counts to pedestrian and boat counts to travel time and other unique requests.

Design:

Max's design experience is primarily associated with signal design and traffic control during construction. He is able to provide design and review in either MicroStation or simple red-line of paper or PDF copies. He has also assisted with the development of special provisions and cost estimating.

Parking Studies:

Parking can often be a very public issue and key point of discussion between public agencies and developers. Max's work on parking studies generally goes beyond simple examination of codes to determining the impacts of shared use parking between developments and potential reductions in parking needs due to transit, bicycle/pedestrian facilities, and/or TDMPs.

Traffic and Transportation Research:

Improving transportation globally is a key initiative of Spack Enterprise, which helps us provide better solutions to traffic issues. Max continues to advance this goal with recent research into vehicle queuing in drive-thru lanes and procedures on comparing field operations to computer results.

Education

- Bachelor of Civil Engineering
University of Minnesota
- Bachelor of Arts
St. John's University
- Signal Design
MnDOT
- Signal Timing & Optimization
MnDOT
- Signal & Lighting
MnDOT

Registrations

- Minnesota Professional Engineer
- Wisconsin Professional Engineer

Professional Organizations

- Institute of Transportation Engineers (ITE)

www.spackconsulting.com

www.trafficedatainc.com

www.spackacademy.com

Project Cost

Our general preference and standard method is to work on a lump sum basis. With a clear goal defined, a lump sum incentivizes us to be efficient in our work process and to get it right the first time. The client is also protected through this structure by eliminated add-ons or hidden fees. We include all costs in our lump sum pricing, including all necessary indirect costs, like mileage and printing. For traffic studies, which are generally under \$25,000 per study, our experience suggests this payment method works best for us and for our clients.

Based on the described tasks, the table below presents our lump sum fees to be billed monthly based on the percentage of work completed:

Item	Description	Unit Price	Quantity	Total Fee
Meeting	Project Management Team Meeting	\$ 1,050	2	\$ 2,100
Traffic Counts	96-Hour Turning Movement Counts	\$ 830	6	\$ 4,980
Traffic Study	Tasks 1, 2, and 3 as Discussed in this Document	\$ 5,060	1	\$ 5,060
Grand Total				\$ 12,140

At Spack Consulting, we further demonstrate our commitment to providing expert traffic engineering analyses and clear communication on every project with our **unconditional client satisfaction guarantee**. If, when the work is done, the client does not feel full value was received, you can decide how much the study was worth and how much to pay (if anything). Our only request to invoke this guarantee is to call us within six business days of receiving the project invoice to provide your honest evaluation and assessment of our service.