

Montana Department of Transportation

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# Montana Transportation Funding Research

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Project No. 10404-954

April 19, 2024

**HIGH STREET**



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## Letter of Interest

Montana Department of Transportation  
Research Section  
2701 Prospect Avenue  
PO Box 201001  
Helena, MT 59620

**Re: Response to RFP# MDT-315480-NO**

On behalf of High Street, I am pleased to submit the enclosed proposal for the Montana Department of Transportation's Transportation Funding Research Project. Our team at High Street, in collaboration with the Western Transportation Institute, is uniquely positioned to deliver cutting-edge insights tailored to the evolving needs of Montana's transportation funding structure, particularly in the face of increasing electric vehicle integration and changing fuel economy standards.

Our proposal is informed by a comprehensive understanding of the challenges posed by the transition from internal combustion engines to electric drivetrains, and the implications for traditional user fee structures. With Montana's specific legislative changes and the national shift toward more stringent emissions standards, our approach is designed to provide MDT with robust forecasting models and innovative funding strategies that respect the unique socio-economic landscape of Montana.

Our methodology combines quantitative rigor with a deep regional understanding, ensuring that all findings are contextually relevant and practically applicable.

Key differentiators of our proposal include:

- **National Perspective with Local Context:** Leveraging our national exposure to bring best practices to Montana, informed by detailed local insights from our team members and partners based in the state.
- **Quantitatively Rigorous Approach:** Utilizing advanced data analytics to enhance policy decisions, ensuring that MDT can capitalize on available data to forecast and plan effectively.
- **Proven Leadership in Transportation Research:** Our track record with the Transportation Research Board (TRB) and numerous state and federal agencies underscores our capability to deliver actionable, innovative research outcomes.

We are excited about the possibility of collaborating with MDT to navigate the forthcoming changes in transportation funding and to develop strategies that ensure sustainable revenue streams for Montana's transportation infrastructure.

For any additional information you may require, please do not hesitate to contact Project Advisor Mark Egge directly at [egge@highstreetconsulting.com](mailto:egge@highstreetconsulting.com) or (406) 548-4488. Thank you for considering our proposal. We look forward to the possibility of contributing to Montana's transportation future.

Best Regards,  
Kyle Schneweis, CEO



Submitted by: High Street Consulting Group  
6937 Blenheim Ct., Pittsburgh, PA 15208

## Executive Summary

High Street, in partnership with the Western Transportation Institute (WTI), is pleased to submit this proposal in response to the Montana Department of Transportation's (MDT) request for proposals for the Transportation Funding Research Project. This proposal outlines our comprehensive approach to understanding and forecasting the future of transportation revenue in Montana amidst the evolving landscape of vehicle technologies and usage patterns.

### Project Background and Rationale

As Montana experiences an increase in electric vehicles (EVs) and more fuel-efficient internal combustion technologies, traditional revenue streams such as motor fuel taxes and Gross Vehicle Weight (GVW) fees face the potential for significant disruptions. Our project aims to address these challenges by developing robust forecasting models, innovative funding mechanisms, and an interactive decision-support tool that will help MDT evaluate transportation revenue and funding alternatives under a wide range of future scenarios.

### Research Objectives

Our primary objective is to provide MDT with actionable insights and data-driven strategies to sustain and enhance transportation funding. This involves:

- Analyzing current revenue structures and their efficacy in light of increasing EV adoption and fuel efficiency improvements.
- Developing long-term revenue forecasts for motor fuel taxes and GVW fees, incorporating scenarios of EV growth, commercial vehicle use, statewide vehicle miles traveled, and changes in vehicle fuel efficiency.
- Identifying and evaluating alternative funding mechanisms that are equitable and can accommodate future technological shifts.
- Developing an implementation report to guide next steps.

### Methodology

Our approach combines quantitative analysis with comprehensive literature research to ensure that all solutions are grounded in real-world applicability and regional specificity. We will utilize data analytics, including trend analysis and econometric modeling, to project future revenue scenarios and assess the impact of potential funding alternatives. This will be complemented by in-depth literature reviews and case studies from other states to incorporate best practices and lessons learned from multiple funding structures.

### Innovative Elements

Unique to our proposal is the development of an interactive decision-support tool that will allow MDT and other stakeholders to simulate different revenue scenarios and funding mechanisms based on variable parameters such as EV adoption rates and changes in vehicle efficiency. This tool will facilitate informed decision-making and scenario planning, ensuring that MDT can adapt to future changes efficiently.

### Team Expertise

High Street and WTI bring together a multidisciplinary team of experts with deep experience in transportation policy, data science, and economic modeling. Our team's expertise is complemented by a profound understanding of Montana's transportation landscape, provided by locally based team members who bring insight into regional issues and local needs.

# Anticipated Risks and Mitigation Strategies

## Unused Results

**Risk:** Traditional PDF reports often end up underutilized, sitting on shelves without influencing policy or decisions.

**Mitigation:** To ensure the usability and practical application of our findings, we will develop an interactive decision-support tool in addition to a traditional report. This tool will allow MDT and its stakeholders to explore various scenarios and directly see the implications of different decisions, thus supporting the development of realistic implementation steps and active utilization of the results.

## "Black Box" Solutions

**Risk:** Complex analytical tools can often be perceived as "black boxes" with opaque methodologies that stakeholders do not trust.

**Mitigation:** We will build transparency into our tool by allowing users to view and understand inputs and methodologies. This transparency will help build trust and acceptance among stakeholders, ensuring they understand how conclusions are drawn.

## Static Scenarios

**Risk:** Predetermined scenarios may not fully capture the dynamic nature of transportation funding, the specific needs of Montana, or ideas from stakeholders.

**Mitigation:** Our proposed decision-support tool will maximize user control, allowing MDT and other stakeholders to adjust funding scenarios and inputs according to their needs. This approach ensures that the research results remain flexible and adaptable to evolving circumstances.

## Inequitable Impacts

**Risk:** Policies might inadvertently favor or disadvantage certain groups, leading to equity concerns.

**Mitigation:** The Task 3.1 (page XX) analysis of costs and flaws will include consideration of demographic and geographic attributes, providing an analysis that considers the impacts of alternative funding strategies on different populations, including rural vs. urban communities, and various vehicle users. Our analysis will also consider the impact of and on out-of-state drivers, ensuring that any proposed changes to funding mechanisms are fair and consider the broader implications for all road users, regardless of residence. This will help in crafting policies that are equitable and inclusive.

## Insufficient Data

**Risk:** Data gaps can hinder the accuracy of forecasting and analysis, leading to less reliable results.

**Mitigation:** We will work closely with MDT to identify all available data sources (see page XX for a discussion of anticipated sources). Our forecasting methods will be tailored to match the available data. Richer data will provide greater confidence in future estimates. We will provide error estimates to indicate the range of potential future outcomes for which we have reasonable statistical certainty.

## Project Understanding

### Background

Montana's state transportation system is paid for primarily through user fees, including state gasoline taxes (\$0.33/gal), diesel taxes (\$.02975/gal) and motor vehicle registration fees such as the Gross Vehicle Weight (GVW) fee applied to motortrucks, truck tractors and buses (\$7.00 to over \$750.00 annually). The replacement of internal combustion engines by electric drive trains and increasing fuel efficiency of gas and diesel vehicles will change both total transportation system funding and the apportionment of how these user fees are assessed. Managing the transition to electric vehicles will require planned coordination between the Montana Department of Transportation and Montana's elected leaders to ensure that transportation revenues are sustainable, while also ensuring that the impacts of the transition will be equitable.

While electric vehicles are currently only a small portion of Montana's vehicle fleet, all indications are that this share will grow over time—and may grow rapidly. According to a legislative interim committee report, as of January 2022, roughly 3,000 light-duty electric vehicles were registered in Montana (roughly 0.2% of all light duty vehicles registered in the state). Argonne National Laboratory reports that nationwide, plug-in electric vehicles accounted for 9.3% of passenger vehicle sales in 2023, up from 6.8% in 2022. In March 2024, the Environmental Protection Agency released its most stringent multi-pollutant emissions standards for future model years. Their analysis indicates that as much as 56 percent of new light-duty vehicles sold in 2032 could be battery electric (BEV) or plug-in hybrid electric (PHEV) to meet emissions standards. While EV adoption rates in Montana lag many other states due to Montana's geography, climate, and other factors, these national regulations and manufacturing trends will still likely impact the mix of vehicles available for purchase and the overall makeup of registered vehicles in the state.

In response, agency administrators and Montana lawmakers have been preparing for this transition. Two noteworthy bills were passed in the 2023 legislative session to offset foregone motor fuel taxes. In April, Governor Gianforte signed House Bill 60 into law, establishing an annual charge for resident electric vehicles based on weight. This was followed shortly by Governor Gianforte's signature in May 2023 of House Bill 55 which imposes a 0.03 per kWh tax on public charging stations in Montana with a rated capacity greater than 25 kw.

While these bills help address the immediate threat of significant transportation funding losses, this research will serve to help establish a long-term vision and plan for managing the future increase of EVs among Montana's road users. Understanding Montana's existing and projected revenue structures will help inform and answer questions related to future baseline revenue levels, alternative funding scenarios and their impacts on revenue, and help ensure that Montana's agency administrators and lawmakers are planning to adequately and fairly fund the investments to meet the future needs of the traveling public.

### Research Objectives

The purpose of this research is to develop a long-term forecast of motor fuel receipts and GVW receipts that incorporates changes occurring with respect to fuel consumption considering the Montana specific characteristics of alternative fuel and high efficiency fleet growth. The research will also consider future scenarios and identify alternative funding implementation strategies. The research will be designed to inform meaningful discussions around the future of transportation funding in Montana within MDT and its stakeholders, if desired.

## Preliminary Literature Review

As the motor vehicle fleet becomes more efficient, drivers will use less gasoline and diesel per vehicle mile traveled. This results in a slowing in the growth, or even a reduction, of revenue from traditional motor fuels taxes, thereby decreasing Montana's ability to fund operational and maintenance needs associated with increasing population and travel demand. Contributing factors include:

- The adoption of high-efficiency motor vehicles (e.g., electric, hybrid, natural gas, other alternative fuel vehicles).
- The increasing fuel efficiency of standard diesel or gasoline-powered engines
- Trends in the commercial and large vehicle sector toward high efficiency motor vehicle use and alternative fuels.
- Static gross vehicle weight fees which have not been adjusted for many years.

To avoid duplicating work or analyses, the High Street team has conducted a preliminary literature review to identify research that focuses on 1) trends contributing to a reduction in revenue from traditional motor fuel taxes, 2) forecasting short and long-term revenue from motor fuel taxes and GVW fees, and 3) assessment of implementation options. The research team will build upon this existing work to analyze and assess the impacts of changes in motor fuel receipts, GVW receipts, and other factors that impact MDT's funding and ability to build and maintain transportation infrastructure into the future.

### Trends Contributing to a Reduction in Revenue from Traditional Motor Fuel Taxes

First, the project team will review the current structure of the motor fuel tax and GVW fees in Montana. Next, the project team will examine recent trends in motor fuel receipts, EV adoption, alternatively fueled vehicle adoption, fuel economy, fuel consumption (for both gasoline and diesel), vehicle miles traveled, and GVW fees. The influence of these trends on the overall level of motor fuel revenue will be conducted at the state level for Montana and its peer states, as well as at the national level. As part of this trends analysis, the project team will survey other transportation departments to determine if similar research reports have been published documenting different tax structures, proposed solutions, alternative funding mechanisms, challenges and lessons learned. Proposed studies include:

- *Cost Allocation Study for the Montana State Highway System Update* (Montana State University and Montana Department of Transportation, 1999 – Complete). The original 1992 study reviews motor vehicle related revenues and highway expenditures in the state of Montana and suggests revisions to the revenue system so that highway costs are paid by motor vehicle operators in proportion to their use of the highway system. The 1999 update found that personal vehicles, single units, and combination trucks were generally paying their fair share of the costs of the Montana state highway system during the study period. [\[Link\]](#)
- *Electric Vehicles in Montana and Other States* (Montana Legislative Services Division - Transportation Interim Committee, 2022 – Complete). This report is a summary of the work of the Transportation Interim Committee, and summarizes EV categories, electric transportation in Montana, various funding mechanisms used in other states, federal guidance, and NEVI funding. [\[Link\]](#)
- *Tax Revenue and Telecommuting* (District Department of Transportation, 2021 – Active). This research investigates the most influential parameters and possible scenarios affecting the Washington DC's Highway Trust Fund revenues due to increased telecommuting and

changes in commute mode to propose a multi-criteria decision-making model for transportation tax revenue generation. [\[Link\]](#)

- *The Impact of EV Infrastructure on Transportation Revenues* (National Center for Infrastructure Transformation, 2023 – Active). This research will examine changes to various revenue scenarios that could be used to recoup the foregone revenue. The research will also consider the environmental cost savings from a switch to EVs taking into account the energy mix of the state. [\[Link\]](#)
- *Understanding Electric Vehicle Impacts on Arizona Fuel-Tax Revenue* (Arizona Department of Transportation, 2024 – Programmed) This study will explore where, when, and how much EVs are driven in Arizona, project changes to this baseline in the future, and develop future scenarios of varying levels of EV use on Arizona’s roadways that will facilitate future analysis of how EV use could affect fuel-tax receipts. [\[Link\]](#)
- *Economic Analysis and Review of Commercial Vehicle Road User Charges* (University of Southern California, 2023 – Complete). This report examines potential Road User Charge scenarios for heavy duty commercial vehicles and conducts an economic impact analysis to estimate the economy wide and distributional impacts of the various scenarios in California. [\[Link\]](#)
- *Evaluating Fuel Tax Revenue Impacts of Electric Vehicle Adoption in Virginia Counties: Application of a Bivariate Linear Mixed Count Model* (TRB, 2019 – Complete). This paper evaluates how increasing EV shares and fuel economy impacts revenue using Virginia as a case study. [\[Link\]](#)
- *Planning for State Transportation Revenue in a Coming Era of Electric Vehicles* (National Governors Association, 2020 – Complete). This report explores a variety of funding methods and identifies best practices from around the country to help states plan for future transportation revenue. [\[Link\]](#)
- *Assessing Highway Revenue Impacts of Electric Vehicles Using a Case Study* (Purdue University, 2023 – Complete). This paper addresses not only the fuel tax revenue loss across all vehicle classes, but also proposes alternative funding mechanisms to recover the loss. The paper also discusses a vehicle-miles-travelled fee and a pay-as-you-charge fee. The study framework is designed to facilitate replication in other states, and the results can provide useful information for assessing the adequacy of the existing revenue models and efficacy of prospective mitigation measures. [\[Link\]](#)
- *Updating Cost Allocation and Revenue Attribution* (Purdue University and Indiana Department of Transportation, 2023 – Active): This research is based on the Indiana Legislature’s request to update Indiana’s 2016 Cost Allocation Study. The goal is to measure/predict/address the impacts of alternative-fuel technology (particularly, electric vehicles) on Indiana’s highway revenue adequacy and equity. [\[Link\]](#)

### **Forecasting Short and Long-term Revenue from Motor Fuel Taxes and GVW Fees**

The project team will forecast the short and long-term motor fuel tax rate receipts and GVW fees receipts for 2024 through 2050 for Montana based on existing conditions and various future scenarios. The project team will compare the Montana forecast against National forecasts. This forecasting analysis will be used to quantify problems, identify, and evaluate scenarios, propose solutions, and recommend changes to mitigate impacts to Montana transportation funding in the short and long term through 2050. Lastly, the project team will analyze and forecast the projected decline in motor fuel receipts and GVW fee losses if no action is taken. Proposed studies to inform this task include:



- *Modernizing Fuel Tax Revenue Forecasting* (National Cooperative Highway Research Program, 2024 – Proposed). The objective of this research is to develop a method and model(s) to help states forecast motor fuel transportation revenues in light of increased fuel efficiency and alternative fuels. [[Link](#)]
- *Improving Long-range Planning Models for Feasibility Analysis of Mileage-based User Fees as an Alternative Revenue Stream* (North Carolina Department of Transportation, 2023 – Active). The goal of this research is to improve the current statewide planning models for investigating the long-term impacts of mileage-based user fees. The research proposes to address this goal through (a) conducting a stated preference survey for estimating model parameters associated with Mileage-Based User Fees (MBUF), (b) developing a methodology for explicitly incorporating MBUF in the long-term planning process, and (c) quantifying the impacts of MBUF under different implementation scenarios. [[Link](#)]
- *Florida's Transportation Revenue Forecasting and Allocation Process and Modeling - Phase I* (Florida Department of Transportation, 2022 – Active). This research project focuses on developing models to better understand the forces (e.g., vehicle technology, energy sources, demographic shifts, and land use changes) that will affect future transportation-related revenues in the state of Florida and delineating the whole process and concerns of allocating the revenue to Districts and metropolitan planning organizations. [[Link](#)]
- *Distribution of Highway Infrastructure Cost Responsibility and Revenue Contribution Shares Among Highway Users in North Carolina: Present Conditions and Future Alternatives* (Transportation Research Board, 2023 – Complete). This study identifies/studies/includes research on? the equity implications, feasibility, and effectiveness of many of the currently available transportation funding mechanisms. [[Link](#)]
- *Impact of High-Efficiency Vehicles on Future Fuel Tax Revenues in Utah* (Utah Department of Transportation, 2021 – Complete). This research developed a 2040 forecast of future gasoline tax revenues in Utah under varying assumptions of EV market penetration for light-duty vehicles. The research utilized FHWA's Energy and Emissions Reduction Policy Analysis Tool to forecast future demographics, travel demand, gasoline consumption and gasoline tax revenues. [[Link](#)]

### Assessment of Implementation Options

Ultimately, the project team will develop a long-term forecast of motor fuel receipts that incorporates the changes that are occurring with respect to fuel consumption and to look at the Montana specific characteristics of alternative fuel and high efficiency fleet growth. The project team will analyze potential implementation, social and economic costs associated with each proposed option including fatal flaws. This analysis will include the development of a cost/benefit assessment for all options or combination of options to ensure adequate transportation funding in Montana. The research will document methodologies, logic, outcomes, and fatal flaws for multiple scenarios and proposed transportation funding solutions. Proposed studies that will inform this task could include:

- *Should Electric Vehicle Drivers Pay a Mileage Tax?* (National Bureau of Economic Research, 2019 – Completed). This research details an empirical analysis aimed at better understanding the current policy landscape for electric vehicles in the United States. Using newly available nationally representative microdata, the authors calculate that electric vehicles have reduced gasoline tax revenues by \$250 million annually. Foregone tax revenue is highly concentrated in a handful of states and is highly regressive, as most

electric vehicles are driven by high-income households, and the authors discuss how this motivates and informs optimal policy. [\[Link\]](#)

- *Practical Analysis of a National VMT Tax System* (American Transportation Research Institute, 2021 – Complete). This report presents an overview of VMT tax and analyzes the national VMT tax system. It looks at technology options, costs, user concerns, rate setting, rules for allocation, and deployment requirements. It conducts a cost analysis of a global positioning system (GPS)-enabled VMT tax system, calculates a truck VMT fee, and estimates administrative and enforcement costs. A framework for VMT tax system design is provided with opportunities, obstacles, and recommendations. [\[Link\]](#)
- *Distributional Impact of a Vehicle Miles Traveled Fee* (Transportation Research Board, 2023 – Complete). Static and dynamic VMT fees were examined in this study. The tax burden in each household by income group and residential area was analyzed under the current fuel tax system and a VMT-based fee system. [\[Link\]](#)
- *Electric Vehicles: Analysis of Revenue Issues and Charging Station Implementation Plans* (Kentucky Transportation Center, 2022 – Complete). This document provides an executive-level summary of recent trends in the EV space. Its purpose is to orient Kentucky Transportation Cabinet leadership to key issues state-level government agencies are contending with. [\[Link\]](#)
- *Evaluating Revenue Neutral Incentive Systems for Zero-emission Light-Duty Vehicles in the United States, with Attention to Equity Impacts* (National Center for Sustainable Transportation, 2021 – Active). This white paper will evaluate revenue-neutral mechanisms to encourage ZEV sales in the US, with no net cost to taxpayers. The researchers will undertake this analysis for light-duty vehicles (LDVs) across the US market. It will also be among the first to consider ZEV-only future scenarios and equity aspects of different feebate structures. [\[Link\]](#)
- *Selecting Revenue Models for Electric Vehicle Charging* (National Cooperative Highway Research Program, 2024 – Active). The objective of this research is to develop a guide and decision-making support tool for state DOTs, other state agencies, and their partners for selecting appropriate revenue models that promote long-term investment and sustainable provision of EV charging services. [\[Link\]](#)
- *Equity Impacts of Transportation Revenue Mechanisms and Changing Trends* (National Cooperative Highway Research Program, 2024 – Proposed). The objective of this research is to develop a tool kit that informs state departments of transportation about equity impacts resulting from alternative revenue structures and includes strategies to mitigate inequities resulting from transportation revenue mechanisms and changing trends. [\[Link\]](#)
- *Electric Vehicle Fee Structuring Research Synthesis* (Minnesota Department of Transportation, 2024 – Complete). This project researched EV fee structuring scenarios that the state could pursue to maintain both current revenue levels and an equitable driving experience. High Street led this research effort. [\[Link\]](#)
- *Explaining the adoption of electric vehicle fees across the United States* (Humphrey School of Public Affairs at the University of Minnesota, 2024 – Complete). In this study, the authors explore the determinants of the adoption of EV fees at the state level using a discrete-time event history analysis. Their findings indicate that state decisions about EV fees hinged upon the reliance on the motor fuel tax, fuel efficiency, growth in EV sales, roadway conditions, the growth in vehicle miles traveled, political environment, and the proportion of neighboring states with an EV fee. [\[Link\]](#)

- *Transitioning Fuel Tax Assessments to a Road Usage Charge* (National Cooperative Highway Research Program, 2023 – Complete). The objective of this research is to evaluate and present viable paths and strategies for implementing road usage charging at the state, multi-state, and regional levels that generate revenues that could supplement, and/or may ultimately replace, motor fuel taxes as the primary funding source for surface transportation. The research will consider the differences among states and the near- and longer-term considerations and challenges to changes in transportation funding. [\[Link\]](#)
- *Vehicle miles traveled fee to complement the gas tax and mitigate the local transportation finance deficit* (University of North Carolina at Charlotte, 2021 – Complete). The objective of this research is to gather data for an urban area, evaluate, and assess the applicability of vehicle miles traveled (VMT) fee to replace or complement the gas tax, and mitigate the local transportation finance deficit. [\[Link\]](#)
- *Data-Driven Analysis of Rural Equity and Cost Concerns for Mileage-Based User Fees in Vermont* (Transportation Research Board, 2023 – Complete). This study examined the impact of replacing the Vermont state fuels tax with a revenue-neutral, mileage-based user fee using mileage and fuel economy data for over 300,000 registered passenger vehicles. The authors found that, on average, Vermont households would pay an additional \$23 per year, with rural households and low-income households facing smaller tax burdens than their urban and high-income counterparts. [\[Link\]](#)
- *Pilots and Feasibility Research from RUC America Member States* (RUC West, Ongoing). RUC America brings together leaders from state transportation organizations to share best practices and research Road Usage Charge. [\[Link\]](#)

## Project Management

### Approach

Our approach to project management focuses on transparency, communication, and accountability.

Prior to the project kick-off meeting, the High Street team will prepare an agenda and meeting materials to introduce MDT and High Street team members, review MDT contractual requirements, discuss and confirm a detailed project scope of work and schedule, and review initial data.

In addition, High Street's administrative and project management team will submit monthly invoices and progress reports prior to the 15<sup>th</sup> of each month including important details related to each tasks' status and progress, percent complete, any issues which may have arisen, accomplishments, discoveries, and fiscal expenditures. The progress reports will document what is discussed at each monthly PM check in.

Finally, due to the iterative and collaborative nature of our approach, we propose scheduling monthly check ins between High Street and the MDT project team to confirm we are understanding and interpreting data appropriately, review methodologies, validate results, and test tool functionality. These regular touchpoints will allow us to review many of the items included in each progress report and incorporate MDT input and insights into subsequent work.

### Communication & QA/QC

#### Quality Control and Technical Reviews

High Street's standard internal quality assurance process requires all deliverables to be reviewed by QA/QC manager to ensure that draft deliverables are clear, concise, technically accurate,



thoroughly documented, and visually compelling before they are submitted to the client. If requested by MDT, written materials may also be reviewed and updated for 508 compliances.

### Addressing Feedback and Making Revisions

High Street anticipates that feedback from the MDT's Research Project Manager will be communicated through multiple regular channels, including:

- **Monthly Project Check-ins:** At each monthly project check-in, the High Street team will develop substantive agendas focused on progress and key decision points. These meetings will ensure the MDT Research Project Manager has the opportunity to review and discuss interim results, confirm methodological approaches, answer questions, and otherwise provide meaningful, regular feedback.
- **Task Reports:** At the conclusion of each of Tasks 1 – 3, High Street will provide a complete and formatted draft Task Report in both Word and PDF formats for MDT review. High Street will provide a line-item response to each MDT comment and will incorporate comments within one week after each of up to three MDT revision cycles.

To effectively deliver revisions and integrate feedback from MDT, the Project Manager will first confirm an understanding of expectations, concerns, and any specific changes requested and will confirm our team's proposed response and timeframe for its completion. The timeframe and progress updates will be provided by the Project Manager, including time for a quality assurance review from the QA/QC advisor.

### Deliverables

- Kick-off meeting agenda, materials, and notes
- Monthly check-in agenda, materials, and notes
- Monthly progress reports and invoices

### Meetings

- Project Kick-off
- Interim Project Check-Ins (monthly)

## Research Approach

We propose grouping MDT's suggested tasks into three major content-related tasks (in addition to project management and final documentation tasks) to streamline the review process and expedite the project schedule. In our proposed approach, the three task reports will be comprehensive and include the related context and interactions of the subtasks outlined in MDT's request for proposal. The data and sources we anticipate using are outlined in the Data section (Page 18)

### Task 1: Evaluate Trends

#### 1.A: Evaluate Current Motor Fuel and GVW Revenue

Understanding the dynamics and trends of Montana's existing motor fuel tax and GVW fees will be critical to accurately estimate future revenue levels and evaluate potential alternatives in future tasks. In this foundational work, the research team will coordinate with MDT to identify and obtain best-available data from 2010 – 2022 for the elements which impact Montana's revenue from motor fuel taxes and GVW fees. The team will reference the Montana Code Annotated (Ch. 15, 18 and Title 61) and the Administrative Rules of Montana (Title 18.15 and 18.8.415), fuel tax receipts, fuel sales, detailed vehicle registration data, statewide vehicle miles traveled, GVW fee

collections, and GVW registrations. We will analyze these data sets to develop a model of existing transportation funding in Montana, including considerations of the impacts of the COVID-19 pandemic.

Depending on the complexity of the inputs and MDT research team's preferences, the model can be built in Excel or free, open-source statistical software R.

If previous studies are available, the research team will evaluate them and leverage their inputs or results if appropriate for this task to reduce duplicating existing work.

### **1.B: Evaluate Trends in EV Adoption and Revenue**

Most forecasts anticipate that BEV and PHEV vehicles will make up an increasing percentage of passenger vehicle sales over the next decades; the Environmental Protection Agency's recent ruling estimates that nationally up to 56 percent of new cars sold in 2032 could be BEV or PHEVs (collectively, "EVs") to meet emissions standards. Understanding historical state-level trends and comparing them to national data will allow us to calibrate future BEV and PHEV adoption scenarios to align with Montana's unique geography, transportation needs, and culture. To do this, in Task 1.B, the research team will identify and evaluate available statewide and national EV adoption data, Montana's National Electric Vehicle Infrastructure (NEVI) plan and related implementation activities, state and national EV incentives and other policies such as through the Infrastructure Investment and Jobs Act (IIJA), and current and historical information about publicly available EV chargers. The team will conduct exploratory data analysis using Excel and/or R to identify and evaluate relationships and trends, which will directly inform the forecasting undertaken in Task 2 (page 14).

### **1.C: Evaluate Trends in Motor Fuel Economy and VMT**

While increasing EV sales and adoption are frequently cited as a high-profile cause of eroding surface transportation funding, the fuel efficiency of the remaining internal combustion engine (ICE) fleet and the overall vehicles miles traveled are likely to continue to be the primary drivers of changes in fuel tax revenues over the 2024-2050 forecast period. Building on Task 1.A (page 12), the team will focus on understanding recent trends in the fuel economy of vehicles being driven in Montana. Depending on what data is available, this could be based on information about the mix of vehicles registered in the state, fuel economy estimates based on VMT and fuel sales, and/or vehicle and fuel economy data from other state agencies such as the Montana Motor Vehicle Division. The team will develop an interactive framework using Excel to illustrate the elements which influence motor fuel consumption; for example, fuel costs, national and statewide economic conditions, mix of registered vehicles, and other elements identified through the analysis (see the Data Needs discussion on page 18).

### **1.D: Analyze MT Fuel Consumption, MPG, VMT, and GVW Fees**

At the conclusion of Task 1, the team will combine, synthesize, and validate the results of subtasks 1.A – 1.C (pages 12– 13) into a high-level model of the elements which have historically influenced transportation revenue in Montana. The historical revenue model will include the fuel efficiency of vehicles (1.C), EV share of the overall fleet (1.B), gasoline and diesel fuel tax revenue and consumption (1.A), vehicle miles traveled (1.C), and revenue from GVW fees (1.A).

### **Task 1 Deliverables**

- Draft and final Task 1 report
- Draft and final historical revenue model (fuel taxes and GVW fees)
- Draft and final data inventory

## Task 2: Forecast Receipts

### 2.E: Forecast MT Motor Fuel Tax and GVW Fee Receipts

After establishing a clear understanding of the dynamics of Montana's existing motor fuels and other user fees, the team will turn to developing models to forecast the future of transportation funding in the state.

Time series forecasting is the go-to modeling technique used to extrapolate trends from historical data to predict the future. These models can range from basic models (linear fit) to high complex (machine learning and neural networks). The key to selecting the right modeling approach depends on the input data, desired outputs, acceptable accuracy and balancing that with the ability to explain and communicate the modeling process and results.

Our approach to developing the models is outlined below:

- 1.) Data Collection: based on the findings from Task 1 (page 12), the project team will meet and discuss potential and desired additional data sources for inclusion in the forecasting model.
- 2.) Exploratory Data Analysis: once the data is collected the High Street team will review all data sources for completeness and temporal alignment for both the target variable and any other exogenous data sources. We will also assess the target variables for time-series forecasting by decomposing the data and reviewing seasonality and stationarity. The project team will meet and review findings from the exploratory data analysis step to decide on what data will be carried forward to model development.
- 3.) Model Development and Assessment: The High Street team will develop a series of models, including but not limited to: a linear model, ETS models, and ARIMA models. The purpose of this step is to gain an understanding of which models fit the target data the best, while also gaining an understanding of any improvement in forecasting accuracy related to additional modeling complexity. The High Street team will review each model's ability to fit the data, as well as each model's ability to accurately forecast future data. Future forecast accuracy is calculated by holding out some of the time-series data (e.g., the last 2 to 12 data points, depending on data frequency). The project team will meet and discuss model results and select a recommended model for use in revenue forecasting. Depending on the data available, there may also be a need to merge various models, for example, a short-term and a long-term model. This approach should be considered anytime the forecast horizon approaches the length of the historical data.

Based on our experience developing time-series forecasting models using transportation data, we expect that an ARIMA model is the right family of models to achieve MDT's forecasting goals for motor vehicle fuel tax, GVW fees, and future EV charging station taxes. This family of models can accommodate a variety of time intervals (annual, monthly, etc.) based on the data available, and account for seasonal and cyclical trends. This approach also allows analysts to incorporate exogenous variables that may influence the forecast (e.g., population, fuel usage, federal tax credits, etc.). It should be noted that if external variables are used in the modeling process, forecasts of those variables will be required to produce forecasts. However, the forecast of these external variables does also allow analysts to provide a range of inputs and perform "what if" analysis.



## 2.F: Compare MT Receipts to National Receipts

Once the Montana-specific forecasts are complete in subtask 2.E (page 14), the High Street team will create a simple and clear comparison of forecasted motor fuel receipts and GVW fees in Montana against national forecasts for motor fuel tax revenues.

### Task 2 Deliverables

- Draft and final Task 2 report
- Baseline MT Motor Fuel Tax and GVW Receipts Forecast (including national comparison)

## Task 3: Identify and Evaluate Alternatives

### 3.J: Analyze Peer State Best Practices

The High Street team will synthesize relevant resources identified in the preliminary literature review section (page 7), plus any additional resources or funding practices identified by MDT, to identify best practices and lessons learned by other states who have made changes based on expected transportation funding shortfalls. The project team will summarize the findings on peer state best practices.

### 3.G: Identify and Explain Transportation Funding Alternatives

Based on the analyses and results from Tasks 1 (page 12) and 2 (page 14), best practices identified in subtask 3.J (page 15), and consultation with MDT, High Street will develop a menu of potential transportation funding alternatives to be explored in all subsequent subtasks. These alternatives will be grounded in the literature review, peer state best practices, and Montana's specific context and funding trends and needs and will be vetted with MDT Research Manager.

Once the funding alternatives have been identified, High Street will draft explanations of each alternative including the reason each was included. If the menu of alternatives is large, High Street will coordinate with MDT to identify list of priority alternatives. These will be evaluated through subtasks 3.H, 3.I, 3.K, and 3.L (pages 15, 17, 17, and 17) and summarized through the Task 3 report.

### 3.H: Develop Implementation and Trade-off Tool

As will be defined through subtask 3.G (page 15), there are numerous different current and emerging methods and approaches employed by different jurisdictions to assess system user fees (motor fuel taxes, mileage-based fees including weight-mile taxes for heavy trucks, vehicle weight registration fees, etc.). In this subtask, the differing approaches that state officials and lawmakers might consider will be listed as a menu of options in an interactive trade-off tool—illustrating the benefits to the state and the implications for the state's roadway users.

In this subtask the research team will flesh out the menu of funding options and connect these options to their benefits and give a high-level description of required implementation activities.

### Revenue Forecasts & Alternative Evaluation Tool

High Street proposes to build for MDT a tool to synthesize the research outputs and allow users to interactively develop future scenarios and evaluate multiple alternatives for future funding. For instance, a user may wish to develop scenarios for high or low EV adoption rates and pair these with differing sets of funding options. The tool will enable informative and interactive exploration of the alternatives and their implications.

The tool will be inspired by the interactive tool that High Street built for the Nebraska Department of Transportation (see Figure 1). The NDOT tool was used to support a legislative hearing in Nebraska on transportation system funding.

The tool will be designed for a broadly defined audience of stakeholders, including MDT staff but also the possibility of sharing the tool with external stakeholders including state lawmakers.

The tool will present the revenue forecasts developed in subtask 2.E (page 14) and allow the user to update forecast parameters to accelerate or slow down electrification rates in differing vehicle classes or among different user groups (rural vs. urban, resident vs. tourist, etc.).

Funding options will be described and evaluated both in terms of: Forecasted receipts. The primary benefit of each option is generation of revenue for future funding of the transportation system. Forecasted future funding forecasts will be shown for the selected option(s). Users will be able to define parameters for the selected options to adjust up or down fees or taxes.

The tool will enable interactive exploration of both the benefits to Montana of each option in terms of revenue generation.

High Street proposes to build a web-based tool (hosted by High Street at no additional cost for a period of not less than two years after the research completion, with source code provided to MDT should it wish to assume hosting responsibility). Alternatively, High Street could also build and provide a spreadsheet-based tool offering similar analysis and forecasts.

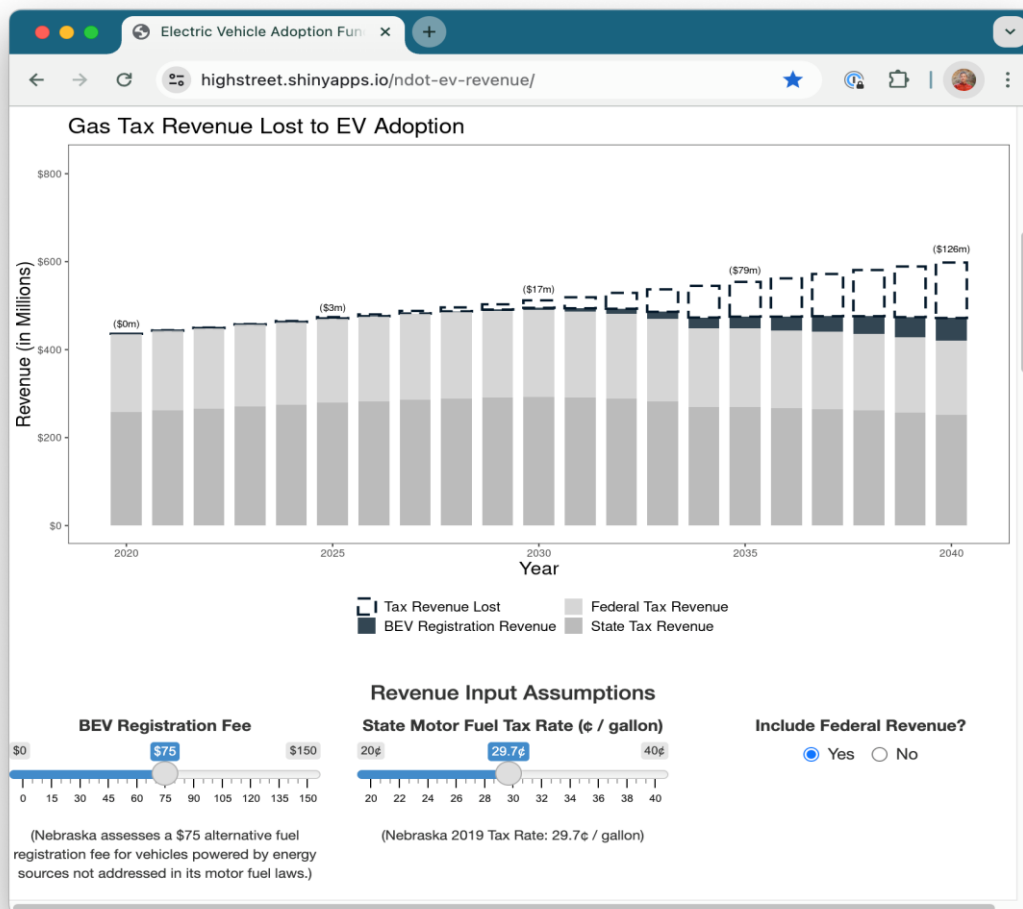


Figure 1: The NDOT EV Revenue Tool (built by High Street) allows users to adjust user fee parameters and see future revenue impacts.

### 3.I: Evaluate Costs and Flaws

The High Street team will review each proposed alternative, note how it varies from the current situation, and then note any potential costs (actual costs of implementation, along with potential social and/or economic costs) or “fatal flaws” of each proposed option. WTI will develop a scale (e.g. “low,” “medium,” or “high”) to highlight the various costs of each option. The costs will also be assessed based on the communities they will impact; for example, rural vs. urban residents, EV vs. internal combustion vehicle owners, and/or Montana residents vs. visitors. The High Street team will also evaluate anticipated administrative requirements, including existing laws pertaining to privacy and taxation which may include additional “fatal flaws”.

In evaluating the costs and flaws, the High Street team will draw on the findings from its literature review, including the Highway Cost Allocation Studies (HCAS) including the 1997 Federal HCAS and the 1999 Montana HCAS.

### 3.K: Develop Cost-Benefit Report

The research team will use the information gained in the previous tasks to assess the trade-offs associated with each using quantitative benefit-cost analysis (BCA) and/or life-cycle cost analyses (LCCA). It is expected that many of these initiatives could have significant start-up costs associated with implementing significant policy changes.

Any changes to current motor fuel receipts, EV charging station taxes, and/or vehicle registration fees will have implications for distribution of highway-user taxes between users. An ideal taxation system would be one in which user fees are proportional to their cost allocation, and are equitable horizontally (that is, among users within the same vehicle class) and vertically (that is, between vehicle classes).

For proposed options, the research team will attempt to quantify and monetize costs associated with administering the policy change (e.g. technology, staff time, etc.) as well as any benefits or costs that may be realized by Montanans or other users on Montana roadways. These could include economic costs, environmental costs, equity ratio changes, and fee offsets. The project team will meet with MDT to establish the analysis boundaries and agree on assumptions (e.g. establishing transfer costs, where needed), using DOT specific values when available, and USDOT or other publicly available sources when needed.

### 3.L: Analyze Projected Decline in Motor Fuel and GVW Fee Receipts

The transportation funding alternatives forecasts developed in Task 3.G (page 15) will be added to the interactive tool displaying future forecasted revenues arising from electrification assuming no changes in current user fee and tax structures. Forecasts will extend to 2050 and future gaps will be shown both with a chart and a numeric summary of cumulative losses if no action is taken.

### Task 3 Deliverables

- Implementation and Trade-off tool
- Cost-Benefit Workbook (Excel format)
- Cost-Benefit Analysis memorandum
- Draft and Final Task 3 Report

### Task 4: Document Results

After completing the analyses in Tasks 1 – 3 (pages 12 – 17), the High Street team will complete final documentation as outlined in the request for proposal if requested by MDT. Any final documentation deliverables requested by MDT will be complete and comprehensive and will include illustrative, 508-compliant graphics. All deliverables will go through High Street’s rigorous



QA/QC and editing procedure as described on page 11. Any oral presentations or webinars will be designed to be interactive and engaging for the audience and will capture MDT's desired feedback through interactive discussion or polling.

Depending on MDT's requests, Task 4 deliverables could include:

- **Final Report** primarily comprising Task 1-3 reports, including a credit reference, project abstract, introduction, background, work plan, methods, data, analyses, findings, implementation steps, and references.
- **Research Project Summary Report** providing a high-level review of the project including introduction, methods, findings, and recommendations.
- **Implementation Report** summarizing implementation next steps and recommendations.
- **Project Poster** summarizing methods, results, and recommendations. High Street will prepare a poster in conformance with MDT External Communications Policy; Public Disclosure of Costs (MCA § 18-7-306); and Power to Contract for Printing- - Exception (MCA § 18-7-101).
- **Performance Measures Report** including relevant performance measures.
- **Final Oral Presentation, Webinar, and/or Implementation Meeting (Optional)** to verbally present the results of the research and recommendations to any interested parties either in-person or virtually using High Street's Microsoft Teams. The High Street team anticipates that many of the materials developed for either the presentation or webinar would be used for both discussions if MDT elects to use both deliverables.

## Data Needs

We anticipate using a range of data from Montana sources such as MDT, Montana Motor Vehicle Division, Montana Department of Commerce Census and Economic Information Center, Montana Department of Environmental Quality:

- Motor fuel consumption (gasoline and diesel)
- Fuel tax receipts
- Vehicle miles traveled
- GVW fee collections
- GVW registration data
- Vehicle registration data
- EV and PHEV registration data
- Commercial vehicle registration data
- Vehicle sales data
- Population projections
- Montana EV financial and incentive programs

We also expect to reference national and international sources including the Alternative Fuels Data Center, Argonne National Lab, the Department of Energy, the Environmental Protection Agency, the Energy Information Administration, the Infrastructure Investment and Jobs Act, the Inflation Reduction Act, and the International Council on Clean Transportation:

- Public EV charging facilities and locations
- EV purchase and maintenance costs
- National EV adoption trends
- National EV adoption forecasts
- National financial incentives and rebate programs

Finally, if possible, we recommend utilizing Montana and national economic forecasts from a reputable source to serve as exogenous variables for forecasting; a data source we have used successfully in North Carolina includes:

- S&P Global Market Intelligence US Regional Economics Service scenario forecasts
- S&P U.S. Macroeconomic Service Long-term trend scenario forecasts

## **IT**

No I.T. purchases are proposed. Forecasts and analytics will be developed using an open-source programming language and delivered to MDT upon request. The interactive scenario and funding option tool will be developed by High Street using open-source technologies and hosted by High Street at no additional cost. A spreadsheet tool alternative could be developed depending on MDT preferences.

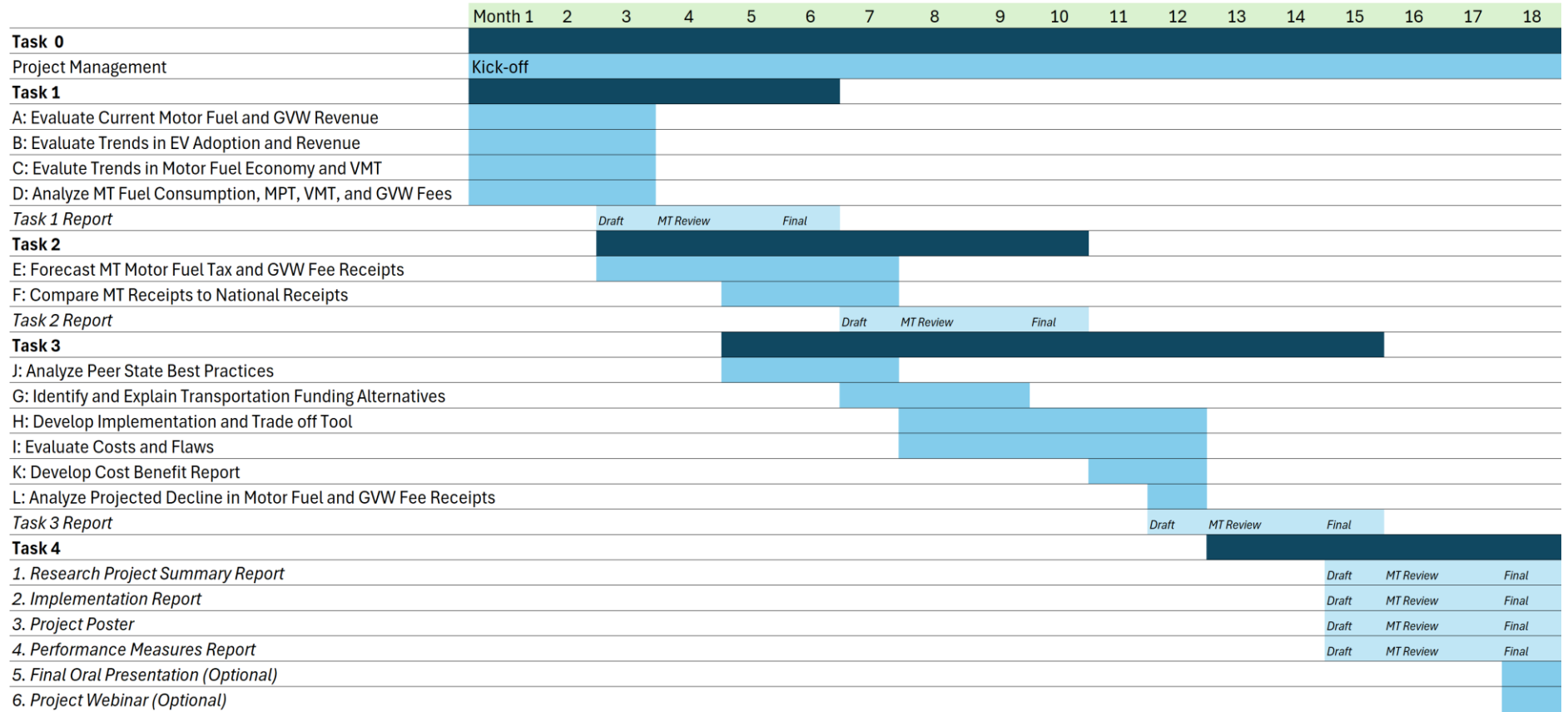
## **Intellectual Property**

We do not anticipate any intellectual property issues with this project. We do not anticipate using any telecommunications or video surveillance equipment.

## **State Involvement**

The required involvement from MDT has been fully described throughout this proposal.

# Schedule



## Staffing

High Street uses resource management software to ensure that staff on each project are available to fulfill their commitments before being assigned to new projects or activities. The High Street team will leverage this technology to ensure that the key staff listed below are available to complete MDT’s research as planned. In the event of unexpected absences, High Street has a deep bench of experienced transportation research professionals who can be quickly brought up to speed to ensure the project is completed to our standards on-time and on-budget.

### Key Project Personnel

#### High Street



**Alice Beattie (Project Manager)** is a Senior Consultant with High Street who has brought her experience in transportation research, planning, policy, and analysis to manage projects for planning districts, MPOs, state DOTs and national transportation organizations on revenue forecasting, electric vehicle infrastructure planning, performance measures, research, long-range planning, project prioritization, freight planning, and implementation. Alice graduated from Carnegie Mellon University’s Heinz College, where she focused on geospatial analysis techniques and research, policy analysis, project management, and planning using quantitative methods and decision analyses. Alice has developed long-range revenue forecast models for statewide plans in Kentucky, Louisiana, and South Carolina. She also leads the development of High Street’s revenue tool in North Carolina, and supported EV fee restructuring research in Minnesota. **Hours: 290 Allocated Time: 10%**

**Years of Experience**  
13

**Education**  
MS, Public Policy and Management, Carnegie Mellon University  
BA, History, Cornell University



**Mark Egge (Lead Developer)** is a Montana native residing in Bozeman; he leads High Street’s Digital Innovation group. Mark empowers great planning through data and technology. As a policy wonk with decades of data analysis and digital transformation experience, Mark is one of the industry’s best matchmakers between agency data, analytical tools, and the information needs of planners, policymakers, and the public. Mark has provided the vision and execution behind many a happy marriage of data needs and technology solutions. His work has spawned a proliferation of tools in use across the industry that planners, policymakers, and the public like, rely upon, and trust. Mark led High Street’s work to develop an interactive revenue scenario tool for Nebraska, “EV Adoption Funding Impacts Tool”. **Hours: 82 Allocated Time: 3%**

**Years of Experience**  
12

**Education**  
Masters, Information Systems Management - Business Intelligence and Data Analytics, Carnegie Mellon University  
BS, Economics, Montana State University  
BA, History, Montana State University



**Damon Fordham, PMP (Research Advisor)** is a national thought leader in sustainable transportation and infrastructure, with experience leading projects covering transportation electrification, infrastructure resilience, emission reduction strategies, innovative vehicle technologies, energy resources, and social equity. Prior to his career in consulting, Damon was Program Manager for Environment at the American Association of State Highway and Transportation Officials (AASHTO). Before that, he supported the Chief of Staff in the Director’s Office of the Oregon DOT, where he conceptualized, designed, and implemented the nation’s first structured state DOT sustainability program. **Hours: 28 Allocated Time: 1%**

**Years of Experience**  
22

**Education**  
MA, Interdisciplinary Studies (Water Resources Engineering and Business Administration), Oregon State University  
MEng., Civil Engineering, University of Nottingham, England





**Ryan Loos, PE (Data Scientist)** is a transportation data scientist with over 16 years of experience in the transportation industry with an emphasis on freeway modeling, system evaluation, economic analysis, performance measures, traffic safety, statistical analysis, and artificial intelligence (AI)/machine learning (ML). Ryan has emphasized understanding client needs to establish the optimal analytical approach to ensure that outcomes provide real business value in the form of cost savings and user satisfaction. Ryan strives to help agencies institutionalize the use of new data tools using innovative and collaborative approaches, clear communication, and strong project management. Ryan’s experience and training as a data scientist blended with his knowledge of transportation business practices make him uniquely suited to assisting agencies in optimizing their transportation systems. Ryan served as the primary data scientist forecasting revenue for North Carolina DOT. **Hours: 184 Allocated Time: 6%**

**Years of Experience**  
16

**Education**  
MS, Data Science, University of Wisconsin La Cross

BS, Civil Engineering, University of Minnesota

**Certifications/Licenses**  
Professional Engineer, MN



**Donner Kahl (Lead Researcher)** is a consultant passionate about public service, dedicated to connecting communities to opportunity safely, sustainably, and equitably. With a B.S. in statistics and a M.S. in public policy, as well as experience in economic consulting and development, he brings both his expertise and passion to the task of improving transportation systems. Donner specializes in the space between qualitative and quantitative work, building models and articulating methodologies and results to audiences with varying depths of analytical knowledge. He applies his knowledge in various computer languages – R, SAS, and Python – and GIS applications to help industry leaders make data-informed decisions. He has experience with both state and local governments on a variety of projects, including revenue forecasting, freight planning, rural transit, economic analysis, and public engagement. **Hours: 201 Allocated Time: 6%**

**Years of Experience**  
5

**Education**  
MS, Public Policy and Management, Carnegie Mellon University

BS, Statistics, Loyola University Chicago



**Amy Link (Communications Advisor)** works with leaders to connect with citizens, legislators, and employees to build consensus for problem solving. Amy specializes in finding unique ways to engage audiences to overcome apathy and make complex topics easily understandable to drive progress. Prior to High Street, Amy served as the speechwriter for the Kansas DOT and led the strategic communication efforts that resulted in the passage of two statewide transportation programs and launched the Kansas Infrastructure Hub. During her time at Kansas DOT, the agency reimagined its local consultation process, which included facilitating meetings on a regional level to help communities better prioritize their needs and stretch transportation dollars further. **Hours: 24 Allocated Time: 2%**

**Years of Experience**  
18

**Education**  
Master of Public Administration, Kansas State University

Bachelor of Journalism, Kansas State University



**Joe Crossett (QA/QC)** is a founding partner of High Street. Over three decades, Joe has worked with transportation agencies across the United States to create innovative data analytics-based techniques that support a diverse array of transportation planning and policy solutions across all modes. A hallmark of Joe’s work is his ability to convey complex issues via crisp communication and compelling ideas that energize audiences, effectively reach leadership and decision makers, and ensure good ideas spread. As new jobs are scoped, he works with the firm’s managers to ensure they and their teams are set up to efficiently deliver quality products. Once work is underway, he supervises managers’ work to ensure jobs stay on time and on budget, while maintaining a

**Years of Experience**  
31

**Education**  
BA, Economics, University of Leeds, 1990

high level of overall quality. Where appropriate, Mr. Crossett provides hands-on quality control of individual final project deliverables. Mr. Crossett began his career at the Wisconsin Department of Transportation, where his work helped the state DOT, and its partners find new ways for streamlining project delivery time and costs while protecting the environment. He brings deep insight from 25 years in consulting to delivering every High Street project successfully, while maintaining a light touch across 60 plus projects the firm is engaged in each year. **Hours: 28 Allocated Time: 1%**



**Ashley Bott (Administrative / Invoicing)** has 22 years of experience in financial management, customer service, and project control. At High Street, she is the firm’s invoice lead on all contracts and invoicing. Ashley manages and plans each contract setup to ensure all contract terms and conditions are met and invoices adhere to each client’s requirements. She

also works closely with our subcontractors so that flow down provisions in their subcontractors are implemented and the monthly invoicing process is smooth. Her ability to understand both project and client-side requests and accounting requirements ensures a consistent process across projects. She is instrumental in day-to-day project activities, including project manager requests, training, and budgeting. Prior to joining High Street, Ashley served as the Treasurer of a local government and worked for many years in accounting-related roles with federal government contractors. **Hours: 34 Allocated Time: 1%**

**Years of Experience**  
16

**Education**  
Master of Business Administration, University of North Dakota

Bachelor of Management & Aviation Administration, University of North Dakota

**Support Staff**

**Ryan Caro (Researcher/Analyst) Hours: 201 Allocated Time: 6%**

**Sydney Joseph (Researcher) Hours: 130 Allocated Time: 4%**

**Mackenzie Bartek (Graphic Design and 508 Compliance) Hours: 48 Allocated Time: 2%**

**Subconsultants**

WTI’s letter of commitment may be found on page 26.

**Western Transportation Institute**



**David Kack (Researcher)** is the Program Manager for Mobility and Public Transportation, and the Director of the Small Urban, Rural and Tribal Center on Mobility, at the Western Transportation Institute. He has twenty-the years of public/private sector transportation design, research, and operations experience. During this time, David has gained experience

in several subjects including coordinated transportation systems, planning and evaluation, public transportation/transit design and analysis, data collection, and cost/benefit analysis. **Hours: 82 Allocated Time: 5%**

**Years of Experience**  
23

**Education**  
Ph.D. Civil Engineering, Purdue University

M.S. Civil Engineering, Purdue University

B.S. Civil Engineering, University of Minnesota



**Natalie Villwock-Witte, PhD, PE (Researcher)** has worked for WTI at MSU for more than thirteen years, tackling a myriad of research challenges from finding solutions for gaps in rural mobility through a Transportation Voucher Program to providing technical assistance to local agencies. Currently, she is working with colleagues to compare how using a tool to collect bicycle

and pedestrian data across the United States (Florida, Montana, New Mexico) varies, impacting how the tool functions. Natalie also has a knack for fostering partnerships.

**Hours: 168 Allocated Time: 3%**

**Years of Experience**  
22

**Education**  
BS, Finance, George Mason University, 2007

## Cost Proposal

The cost proposal for all required elements of the RFP is outlined below for a total cost of \$237,437.

**NONDISCRIMINATION AND EQUAL PAY AFFIRMATION**

High Street Consulting Group LLC (name of entity submitting) hereby affirms it will not discriminate on the basis of race, color, religion, creed, sex, age, marital status, national origin, or because of actual or perceived sexual orientation, gender identity or disability and acknowledges and understands the eventual contract will contain a provision prohibiting discrimination as described above and this prohibition on discrimination shall apply to the hiring and treatments or proposer's employees and to all subcontracts.

In addition, High Street Consulting Group LLC (name of entity submitting) hereby affirms it will abide by the Equal Pay Act of 1963 and Section 39-3-104, MCA (the Montana Equal Pay Act), and has visited the State of Montana Equal Pay for Equal Work "best practices" website, <https://equalpay.mt.gov/BestPractices/Employers>, or equivalent "best practices publication and has read the material.



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Karin DeMoors  
High Street Partner

**Verification of Nondiscrimination Against Firearms Entities/Trade Associations**

- a. High Street does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association during the term of any contract it is awarded under this solicitation, and
- b. High Street will not discriminate against a firearm entity or firearm trade association during the term of any contract it is awarded as a result of this solicitation.



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Karin DeMoors  
High Street Partner



# Letter of Commitment

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Thursday, April 11, 2024

Mark Egge, Director  
High Street Consulting Group  
6937 Blenheim Ct  
Pittsburgh, PA 15208

Dear Mr. Egge:

RE: MDT Transportation Funding Research Project

Please accept this Letter of Intent conveying our agreement to join the High Street Team for the Montana Department of Transportation (MDT) transportation funding/motor fuel receipts opportunity. The Western Transportation Institute will provide expertise in transportation funding alternatives, with an emphasis to evaluate potential implementation, social, and economic costs associated with each proposed option. We will further provide fatal flaws that the High Street Team has identified.

The Western Transportation Institute is not aware of any possible sources of financial or organizational conflict of interest in completing the work contemplated. We will follow through on any other cooperative arrangements called for in the above-referenced RFP. We intend to provide the work described in the Proposal should the High Street be selected for this work.

Sincerely,

DocuSigned by:  
  
FA612FEE027F8401...

Sandy Sward  
Associate Vice President for Research Administration

**Office of Sponsored  
Programs**

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