SAFE STREETS AND ROADS FOR ALL ACTION PLAN 23-RFP-042

EFFINGHAM COUNTY | 10.30.23

FORESITE
group

Foresite Group, LLC
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POINT OF CONTACT: Erik Steavens
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STATEMENT OF QUALIFICATIONS

FORESITE group

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October 30, 2023

Alison, Bruton Purchasing Agent
804 S Laurel St
Springfield, GA 31329

RE: 23-RFP-042 Effingham County, Safe Streets and Roads for All Action Plan

Dear Ms. Bruton and Selection Committee,

We appreciate the opportunity to submit our qualifications for the Effingham County SS4A plan. We are a unique firm that possesses a proper mix of practitioners, planners, and engineers that can guide a truly innovative effort as this. Our goal is to assist the County develop an implementation-based plan that can solicit funding from state and federal partners for its execution.

Foresite Group (Foresite) is a Georgia-based multi-discipline planning, engineering, design, and consulting firm that provides MEP engineering, civil engineering, landscape architecture, structural engineering, traffic engineering, broadband engineering, and wireless services all in-house. Having all these engineering and design disciplines in one place allows for less coordination between consultants and eases the project management process. Our divisions work together on these projects enabling us to come up with creative designs and solutions to satisfy your needs so that each project is successful.

We have also included in the proposal High Street Consulting Group. High Street is a small firm of experienced professionals who help their clients plan, develop, deliver, and evaluate transportation projects, policies, and programs. High Street has a wealth of experience in safety data visualization and plan development for many agencies large and small. They have tremendous expertise and have worked with several State DOT in the development of Statewide Safety Plans.

Effingham County is undertaking a truly unique effort to provide a regional overview while addressing the unique safety challenges of each of its communities. As part of the study effort, we will ensure that the key areas the County wants to accomplish are executed in a manner that will allow it to successfully compete for future SS4A implementation funds.

DATA IS THE KEY.

The Foresite Team will ensure that the appropriate mix of data sources and data assessment tools are used to ensure that all safety concerns in the region are addressed. The Georgia SHSP is a great starting point for the RSAP. GDOT has a great wealth of data on many of the roadways in the region. We will leverage the GIS data that the County has collected and use it in the development of the RSAP. In addition, there are several analysis resources available that the Foresite Team will leverage at the national level from FHWA, TRB, and the Governors Highway Safety Office to name a few.

ROBUST PUBLIC ENGAGEMENT.

The Foresite Team as used several strategies to get critical input from constituents. Our team will work with the County staff on the details of our proposed plan. Approaches for engagement could include:

- Establishing a Working Group.
- Partnering with community-based organizations (CBOs) and neighborhood or district groups
- Community workshops and public forums.
- Online outreach via a project website and surveys .
- Tabling activities near key community services and gathering spaces.

ADDRESSING EQUITY.

The RSAP will be developed using inclusive and representative processes to pursue a comprehensive approach to advancing equity for all, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, Indigenous, and Native Americans, Asian Americans and Pacific Islanders, and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. The RSAP will further focus on the disproportionate, adverse safety impacts that affect certain groups on our roadways, particularly people walking and biking in underserved communities. Underserved communities are identified through data and available regional Environmental Justice Analysis, and in collaboration with community partners.

MAKING AN ACTIONABLE PLAN.

Our proposed project manager, Erik Steavens, has over 30 years working at local, state, and federal transportation agencies. Mr. Steavens was previously the Rail Division Director for TxDOT and knows a great deal about the unique issues in Rosenberg with the confluence of several class one railroads in your community. In his career, he has developed discretionary funding programs at the national level and understands how agencies "fund" projects. He will be guiding the working group's effort with a focus on projects that are practical and effective at solving the safety problems at hand. Our engagement manager, Doug Stoner, is well known in the County and the region having served in the Georgia Legislature. He is well attuned to issues and making sure there can be a political "win" for projects and strategies. Our team collectively will ensure that projects are not just technically but politically viable at the local level and with potential funding agencies. We have worked on bringing over $100M in discretionary projects to local jurisdictions using this approach.   Furthermore, we have a strong team of safety professionals form High Street Consulting in Mark Egge, Kevin Ford, and Rebecca Van Dyke. This team is currently working on a few SS4A plans now across the county.

Our firm and our staff have worked with several communities on practical and innovative safety programs and projects. We are committing in that the team in our proposal will be the team that delivers the project to completion. There is a commitment from both firms that the personnel will be dedicated to delivering an actionable SS4A plan for Effingham County. Furthermore, shall remain in effect and will not be withdrawn for 90 days from the due date of this RFP of October 30, 2023.

We hope to have the opportunity to assist the County and its member jurisdictions make informed decisions on addressing safety for now and the future.

Thanks, and regards,
FORESITE GROUP, LLC

Erik Steavens
Program Manager

The SS4A plan is a means for providing Effingham County with an opportunity to address unique roadway safety needs while contributing to the success of the Georgia Strategic Highway Safety Plan and statewide safety goals. The process of preparing the plan creates a framework to systemically identify and analyze safety problems and recommend safety improvements. Preparing the plan facilitates the development of local agency partnerships and collaboration, resulting in a prioritized list of improvements and actions that can demonstrate a defined need and contribute to the statewide plan. The plan will offer a proactive approach to addressing safety needs and demonstrates Effingham County's responsiveness to safety challenges.

This will be the first comprehensive safety plan for Effingham County. This plan builds on the County's prior roadway safety efforts and will serve as a resource for the County when it applies for future safety infrastructure funding.

WHAT IS THE SS4A APPROACH?

The SS4A plan utilizes the Safe System approach which aims to eliminate fatal and serious injuries for all road users by keeping impacts on the human body at tolerable levels and accommodating human mistakes. Embedded in this approach is a Vision Zero goal, with the creation of a Safe System as the method to achieve that goal. Making a commitment to zero deaths means addressing every aspect of crash risks through the five elements of the Safe System and promoting a holistic approach to safety across the entire roadway system.

Creating a Safe System means shifting a major share of the responsibility from road users to those who design the road transport system. "Individual road users have the responsibility to abide by laws and regulations"6 and do so by exhibiting due care and proper behavior on the transportation system. While road users are responsible for their own behavior, this is a shared responsibility with those who design, operate, and maintain the transportation network: including the automotive industry, law enforcement, elected officials, and government bodies. In a Safe System, roadway system designers and operators take on the highest level of ethical responsibility.

The Safe System approach addresses the five elements of a safe transportation system – safe road users, safe vehicles, safe speeds, safe roads, and post-crash care – in an integrated manner, through a wide range of interventions.
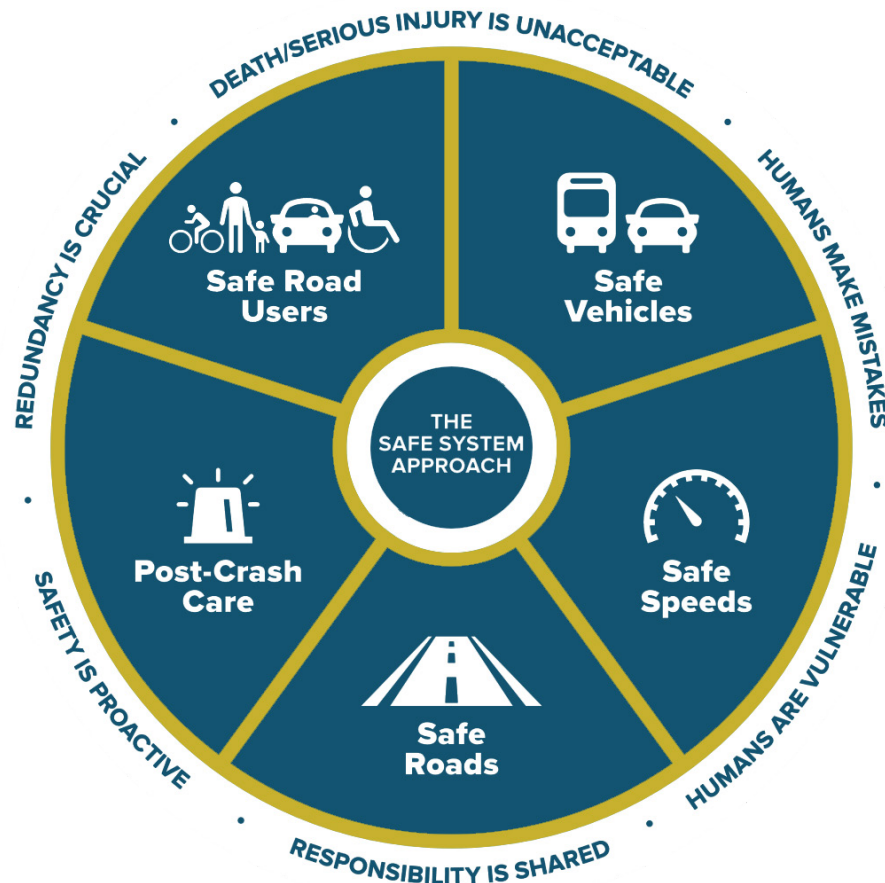
FORESITE group

Foresite Group, LLC is a privately-held, full-service engineering, planning, and design firm. Since January 24, 2003, we have provided comprehensive consulting services to public and private clients throughout the country. Our team takes pride in its accomplishments; we enjoy enhancing and developing the cities and communities where we live, work, and raise our families. Regardless of size, we plan, design, and engineer our projects to positively impact their surroundings and strengthen their communities. With over 155 associates in 18 offices, our experienced, award-winning team understands the complexities of each individual site and is dedicated to providing efficient, effective, and economical solutions.

Our success is driven by our prioritization of our client relationships. We strive to understand our clients' challenges and the maintenance resources they have available to factor into our design approach. Our goal is to understand our clients' goals and priorities and communicate what is most important for the client to our team.

For infrastructure and public works projects, we focus on designing and planning assets that are easy to maintain and have longevity. Our design is also oriented around sustainability, functionality, and efficiency.

Our approach to projects begins by outlining our client's project needs, timeframe, and budget available. From there, we provide concepts with approximate budgets, schedules, benefits, and risks to help the client determine which direction should be taken to best achieve their goals. Along with the client's direction, we coordinate with surveyors, geotechnical engineers, and other design team members to assemble solid base information (as the accuracy of budgets and quality of decisions are only going to be as good as the base information), review the information, and develop the concept into a working design. With updates to budgets and schedules and another round of review with the client to confirm the design appears the best approach to meet their needs, we will proceed with development of construction drawings and specifications for the project to be competitively bid. Foresite Group typically works with clients to also aid during the bid process, conducting meetings to help communicate expectations and answer questions. Finally, Foresite Group remains a partner throughout the construction process to help interpret construction drawings. They will work with the owner to make sure that the contractor or third party is conducting proper testing, close-outs, and provision of as-builts and records needed for operation/main.

We have the capability to handle the majority of your planning and design service needs in-house, which gives us a unique perspective on project communication, design collaboration, schedule management, and cost control. We understand the ins and outs of community projects, and we are committed to providing efficient and economical designs within your schedule and budget. Our multi-disciplinary, collaborative structure has guided our approach to providing comprehensive consulting services to both public and private clients nationwide.

Our team is experienced in using County provided GIS data and moving it into an AutoCAD environment. We also use MicroStation CAD software for projects that must be submitted to Georgia DOT. Our digital resources include: Revit (Building Information Modeling), 3D Studio Max, Sony Vegas Video, AutoCAD, Adobe Creative Cloud, TwinMotion, Bluebeam, and BaseCamp, ESRI GIS (ArcMap 10.3), and Windows Office. We will update our software to the current versions, as you see fit. We readily utilize these programs on our projects, which contributes added value and efficiency to the process.

TRAFFIC ENGINEERING

The experience of our engineers, planners, and designers span multiple modes of transportation. Whether by foot, car, or bike, we are experienced in connecting people to places. Planning and designing for community connectivity is key and understanding the ebb and flow of all types of traffic is essential. This is one reason why our traffic team includes traffic engineering and transportation planning professionals. We attack each problem from multiple angles and collaborate across disciplines to achieve truly sustainable results. Our clients enjoy working with us because our transportation solutions are known for their creativity, safety, and feasibility.

- Bike/Pedestrian Studies
- Corridor Studies
- Forecasting/Modeling
- Intersection Design
- ITS Design
- Legal Traffic Review
- Roundabout Analyses and Design
- Safety and Crash Analyses
- Sidewalk Design
- Signal Design
- Signal Timing and Implementation
- Signal Warrant Analyses
- Signing and Marking Plans
- Traffic Control Plans/MOT
- Traffic Impact Studies
- Traffic Simulation
- Transportation Planning

GEORGIA LOCATIONS
- Atlanta
- Cumming
- Roswell

SUBCONSULTANT FIRM INFORMATION

HIGH STREET

High Street is a small firm of experienced professionals who help our clients plan, develop, deliver, and evaluate transportation projects, policies, and programs.

At High Street, foresight is the essence of our philosophy. We help transportation practitioners understand emerging issues, solve problems, and deliver the best possible future for their constituents. We provide insight and innovation that no other company can through our dedication to seven essential attributes.

Since our inception 16 years ago, High Street Consulting Group, LLC (High Street) has worked at the forefront of U.S. surface transportation policy to provide federal, state, and local government leaders with accurate, objective, and actionable analysis to inform investment decisions. Our experienced professionals take pride in offering a variety of transportation services with safety being the single thread that ties them together:

- Highway Safety Planning
- Performance-based Planning & Programming (PBPP)
- Data Science & Digital Innovation
- Data Visualization
- Clean, Equitable, Resilient Transportation
- Grant Writing
- Strategic Policy Guidance
- Transportation Performance Management (TPM)
- Long-Range Transportation Plans
- Organizational Improvement
- Transportation Asset Management (TAM) Planning
- Transportation Finance

OUR VISION: TO BE THE BEST STRATEGIC DECISION-MAKING TRANSPORTATION CONSULTING FIRM IN THE U.S.

The core values we strive for:

CREATIVITY: We are intellectually curious and apply that curiosity to deliver inventive and imaginative solutions to our clients

EXCELLENCE: We always deliver timely, high quality, thoughtful solutions

DEPENDABILITY: We reliably do what it takes to come through for our clients, our partners, and each other

COLLABORATION: We work as a cooperative team, both internally and externally, that leverages each other's strengths

DIVERSITY: We recognize the value that our diverse backgrounds and perspectives contribute to our products, client services, and company culture

GRIT: We have the passion, perseverance, and resourcefulness to ensure we always deliver our best, even when challenges arise

FLEXIBILITY: We readily adjust to changing project circumstances, respond to evolving client needs, and maintain balance with life outside of work.

AREAS OF EXPERTISE

Impact Analysis:
Safety needs, crash data & equity impacts

HSM 6 Steps:
Implementation & predictive safety tools

Performance:
Metrics, evaluation, tracking & reporting, hot spot identification

Strategic Planning:
Strategic safety plans & integration with long-range plans

Innovative Technology:
Data augmentation, predictive analytics, customizable applications

HSM 6 Steps:
Strategic messaging & material development including infographics

FORESITE GROUP RELEVANT PROJECT EXPERIENCE

BIKE/PEDESTRIAN MASTER PLAN UPDATE | Forsyth County, GA

CLIENT CONTACT INFORMATION
Tim Allen, PE | Assistant Director of Traffic and Transportation Engineering
Forsyth County
o | 770.781.2165
e | tlallen@forsythco.com

DATES OF SERVICE
2015 - 2016

PROJECT BUDGET
$35,000

PROJECT DESCRIPTION
Foresite Group was tasked with updating the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan. In order to update the plan, Foresite Group took an extensive inventory of existing bicycle and pedestrian infrastructure, and reviewed every planned and on-going project in the county that had bicycle and pedestrian aspects. In addition to the existing projects, Foresite Group worked with a team of stakeholders and the County to identify new projects for the county to pursue. In order to identify new projects, Foresite Group utilized data obtained from STRAVA (a fitness app for smartphones) to identify where users were going and how they were getting to their destinations. The data revealed many project corridors that previous plans did not consider and helped to prioritize high-use corridors in desperate need of improvement. The 2015 update to the bicycle and pedestrian plan was published at the end of 2015.

SERVICES PROVIDED
Data Collection, GIS Analysis, Infrastructure, Master Plan Update, Policy and Project Inventory, Public Outreach and Involvement, Safety Analysis Transportation Planning, Visioning

SULLIVAN ROAD OPERATIONAL AND SAFETY IMPROVEMENTS | Coweta County, GA

CLIENT CONTACT INFORMATION
Tom Fravel, PE | Principal Project Engineer
American Engineers, Inc.
o | 770.421.8422
e | tfravel@aei.cc

DATES OF SERVICE
2016

PROJECT BUDGET
$14,500

PROJECT DESCRIPTION
Sullivan Road was a two-lane County road. The 2.05 mile project area begins at Lower Fayetteville Road and ends at the intersection with Oak Hill Boulevard. The existing width was 18 feet with short sections that have been widened to add deceleration lanes at subdivision entrances. Little to no usable shoulders existed and roadway drainage was conveyed via ditches. The purpose of this project was to widen the roadway to provide two 11ft minimum travel lanes and improve horizontal and vertical alignment to meet an increased mph design speed and remove roadside obstructions.

SERVICES PROVIDED
Traffic Counts, Traffic Forecasting, Synchro Modeling, Capacity/Roundabout, Analysis, Concept Report, Traffic Analysis Report, Signal Modification Plan

GDOT SAFE ROUTE TO SCHOOLS (SRTS) | Metro Atlanta, GA

CLIENT CONTACT INFORMATION
Alexander Stone, PE | VP, Atl. Office Director
TranSystems
o | 770.633.7644
e | arstone@transystems.com

DATES OF SERVICE
2014

PROJECT BUDGET
$8,750 (FG SERVICES)

PROJECT DESCRIPTION
Foresite Group is partnered with Mulkey Engineering on this design-build safety project with Baldwin Paving Co. The Safe Routes to School (SRTS) program consists of making improvements in school zones to upgrade Manual on Uniform Traffic Control Devices (MUTCD) standards. This specific project includes improvements for eight schools across Metro Atlanta. Foresite Group is tasked with the design of all traffic engineering components of the project such as signing and marking plans, ADA compliant ramp locations, crosswalks, signals, etc.

SERVICES PROVIDED
Signing and Marking Plans, ADA Compliant Ramp Locations, Crosswalks Design, Signal Design

HIGH STREET RELEVANT PROJECT EXPERIENCE:

High Street's expertise in safety planning is exemplified by a diverse portfolio of projects, including developing and implementing State Highway Safety Plans (SHSPs) in states like South Carolina and Kansas, evaluating the cost-effectiveness of countermeasures like cable barriers for the Nebraska Department of Transportation's (NDOT) Business Intelligence/Data Analytics (LINC-D) initiative, leading historical before/after spatial crash analysis for the Texas Department of Transportation (TxDOT), and incorporating safety impact assessments into project prioritizations for transportation agencies spanning 25+ states.

High Street's experts also regularly contribute towards the advancement of the state of the safety planning practice by publishing insightful NCHRP projects, reports, and web only documents (WOD), including supporting Report 715 and WOD 323 on Highway Safety Manual (HSM) training materials and Project 23-07 on effective methods for setting safety targets. High Street further focuses on best practices for including equity in the full life cycle of project development as evident by our on-going effort NCHRP 08-155 on addressing racial disparities in project delivery; and disseminating visualization best practices via NCHRP project 08-167.

Representative Safety Planning & Policy Qualifications

COMPASS BOISE, IDAHO – SAFE STREETS FOR ALL ACTION PLAN | 2023 - PRESENT
Hunter Mulhall, Principal Planner | 208-475-2231 | hmulhall@compassidaho.org
High Street is strategically combining systemic and location-specific analyses to thoroughly assess and elevate transportation safety. We are identifying features that correlate with severe accidents across the regional network, which could range from inadequate pedestrian infrastructure to speeding-related driver behaviors. Simultaneously, our Location-Specific Analysis is deploying GIS-based tools to pinpoint areas of high incident concentration, providing actionable insights for improvement. Underpinning this effort is an interactive visualization tool that dynamically presents the High Injury Network (HIN) and other analysis results. This tool will serve as a catalyst for planning potential safety enhancements.

CAMPO RALEIGH, NC – REGIONAL MULTIMODAL (SS4A) SAFETY ACTION PLAN | 2023 - PRESENT
Tim Shortley, GIS Programmer/Analyst | 919-996-4405 | timothy.shortley@ccampo-nc.us
High Street is establishing data-driven and community processes to create a SS4A action plan by:

- conducting multimodal crash data analysis, developing a high injury network, performing a risk assessment, conducting an equity analysis, and recommending safety enhancements;
- developing regional goals, objectives, policies, and implementation framework;
- conducting public engagement activities for leadership, stakeholders, and the general public;
- developing a Regional Multimodal Safety Action Plan and providing recommendations for how CAMPO and partners can improve regional safety performance; and
- enhancing MTP prioritization processes in light of identified safety improvement metrics.

KANSAS DOT - STRATEGIC HIGHWAY SAFETY PLAN IMPLEMENTATION | 2020 – 2023
Vanessa Spart, Chief of Transportation Safety | (785) 296-6893 | Vanessa.Spartan@ks.gov
High Street is helping KDOT meet its safety targets by: i) interviewing KDOT leadership, safety staff and members of the Drive to Zero Coalition to inform recommended process changes, ii) developing a quantitative strategy prioritization methodology with stakeholders, and iii) preparing the SHSP Diagnostic Assessment, SSA Foundational Research Report, and Pedestrians & Cyclists Strategy Action Plans.

SOUTH CAROLINA DOT | STRATEGIC HIGHWAY SAFETY PLAN | 2019 - 2020
Emily Thomas, Highway Safety Data and Research Manager | (803) 737-0403 | thomaseg@scdot.org
High Street led the literature review to summarize the effectiveness of numerous engineering, enforcement, and educational safety countermeasures using high-quality safety research. High Street also conducted stakeholder interviews to understand perceived safety issues in the state, and assessed the alignment between the state SHSP and regional safety plans from the perspective of visions, goals, objectives, performance measures, emphasis areas, data, and countermeasures. This work helped shape the plan to align with planning partners' initiatives and to respond to safety priorities identified through data and local knowledge. Finally, High Street developed alternative approaches for setting targets for federal safety performance measures, analyzed historical data to show resulting targets with each approach, and identified the approaches' advantages.

Representative Safety Data Analytics and Tool Development Qualifications

NEBRASKA DOT | LINKING INFRASTRUCTURE CHALLENGES WITH DATA (LINC-D) | PHASE 1: 2017 –2019; PHASE 2: 2020 – PRESENT

Ryan Huff, Chief Strategy Officer | 402.479.3797 | Ryan.Huff@nebraska.gov

Our data scientists help NDOT leverage its existing data to answer questions of organizational importance, leading to meaningful incorporation of data into agency decision-making and optimizing organizational efficiency. We have completed a multitude of safety-related efforts including developing guardrail, pedestrian crossing, and horizontal curves inventories, assessing the cost-effectiveness of cable barriers and alternative shoulder design standards, and a data-driven assessment of NDOT's safety project selection process. The inventory development involved training and applying object-detection models on pavement profile van images, then leveraging location data embedded within the images to create GIS based inventories.

MARICOPA ASSOCIATION OF GOVERNMENT (MAG) | SUN CLOUD CORRIDOR PRIORITIZATION TOOL | 2022 - 2023

Edward "Ted" Brown, Performance Program Manager | 602.452.5082 | EBrown@azmag.gov

High Street developed the Sun Cloud Explorer web application using Esri's Experience Builder Developer framework and the JavaScript API. The 'Explorer' provides planning data to 6 regional associations of governments representing 5 million residents. The tool provides a unified view of investment needs and opportunities, informed by travel demand, equity considerations, broadband access, and safety performance. This effort required a thorough data cleaning and involved estimating excess crashes along roadway segments and at junctions using statewide and regional Safety Performance Functions (SPFs).

[CHICAGO, IL] CMAP | TRANSPORTATION PROJECT ANALYSIS TOOLSET | 2021 - 2023

Martin Menninger, MPO Program Lead | (312) 386-8725 | MMenninger@cmap.illinois.gov

High Street is helping the Chicago MPO enhance their multipurpose project impact evaluation tools to support ON TO 2050 principles of inclusive growth, prioritized investment, and resilience by prioritizing the efficacy of Regionally Significant [multimodal] Projects towards agency goals given limited resources. For safety, High Street has helped automate the identification of vulnerable road users overlaid on the regional high injury network.

WISCONSIN DOT | PEDESTRIAN AND BICYCLE CRASH ESTIMATION STUDY | 2023

Sean Debels, Asset and Performance Management | (715) 365-5740 | Sean.Debels@dot.wi.gov

High Street developed a Machine learning algorithm to predict bicycle and pedestrian crashes on the state highway network based on roadway, traffic, and existing crash data, as well as to prepare more accurate cost estimates. This analysis relies on Replica bicycle and pedestrian counts for non-motorist exposure factors.

[CHICAGO, IL] CMAP | SAFETY SPEED DATA | 2023 - PRESENT

Parry Frank | Data Analyst | (312) 386-8762 | PFrank@cmap.illinois.gov

Focused on processing big Wejo data and creating spatial tools to locate emphasis area crashes, particularly those associated with vulnerable road users to support their county safety action plans. High Street has led the literature review and will help prepare the final Esri-based dashboarding platform to explore the data.

CONNECTICUT DOT | ENHANCING PROJECT CONCEPT SCREENING AND PRIORITIZATION

Edgardo Block, Transportation Supervising Engineer | (860) 594-2495 | Edgardo.Block@ct.gov
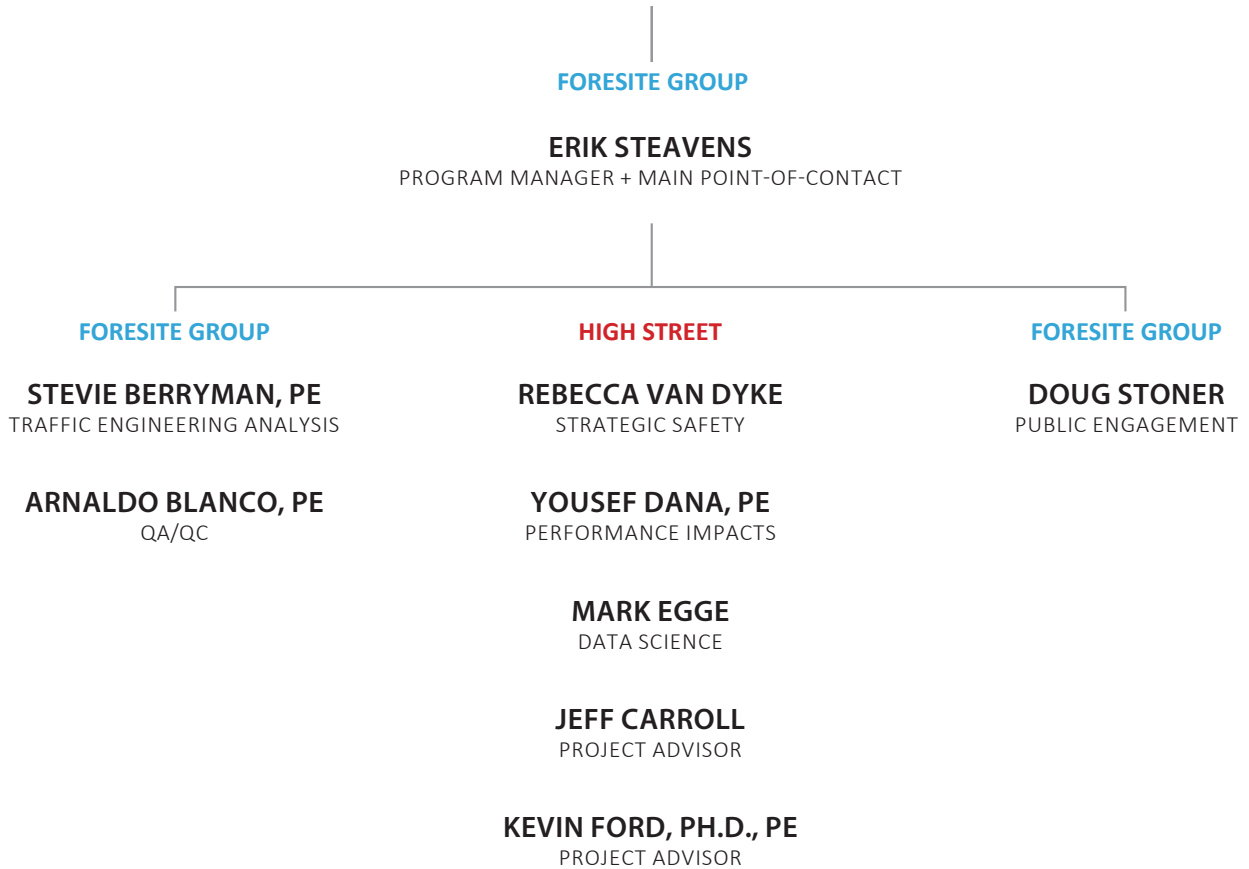
High Street helped CTDOT comply with state legislation to develop performance-based project prioritization processes for significant projects. This involved establishing an impact-oriented prioritization framework for development authority and programming decisions, then developing and implementing a broader strategic roadmap to improve data management and agency analytical capabilities. For safety considerations, High Street leveraged the CRSMS tool to implement the HSM six-step framework with diagnostics for concept screening and SPF/CMF application for evaluation. The team further is pairing Replica with Justice 40 data to capture VRU travel patterns.

TEXAS DOT | PERFORMANCE METRICS: DATA INTEGRATION SYSTEM, TRANSPORTATION ALTERNATIVES, AND STATEWIDE BICYCLE NETWORK PRIORITIZATION TOOLS

Noah Heath, Public Transportation | (361) 876-7184 | Noah.Heath@txdot.gov

High Street supported TxDOT in complying with state legislation by developing a series of impact-oriented project prioritization processes used to score TxDOT's 10-year $75B+ capital program. The data-informed scoring process – inclusive of safety impacts using state-vetted CMFs - was translated into software as part of a statewide data-sharing program with TxDOT districts and state MPOs. The solution automatically extracts data from multiple state databases, transforms the data into predictive performance impacts at the project-level via geospatial crosswalks, and loads that data into a prioritization platform. High Street further developed automated TA program and bike network scoring tools that estimate the reduction in non-motorized crashes and bicyclist level-of-stress. Stakeholders and advocacy groups were brought into the process to identify criteria, form consensus priority weights for scoring, and upload plans to an active transportation spatial repository to support project development. High Street's data assessments helped TxDOT make the case for a $600M Vision Zero Biennium and more broadly increase their 10-year program by $35 B.

EFFINGHAM COUNTY

FORESITE GROUP

ERIK STEAVENS
PROGRAM MANAGER + MAIN POINT-OF-CONTACT

FORESITE GROUP

STEVIE BERRYMAN, PE
TRAFFIC ENGINEERING ANALYSIS

ARNALDO BLANCO, PE
QA/QC

HIGH STREET

REBECCA VAN DYKE
STRATEGIC SAFETY

YOUSEF DANA, PE
PERFORMANCE IMPACTS

MARK EGGE
DATA SCIENCE

JEFF CARROLL
PROJECT ADVISOR

KEVIN FORD, PH.D., PE
PROJECT ADVISOR

FORESITE GROUP

DOUG STONER
PUBLIC ENGAGEMENT

ERIK STEAVENS

Program Manager

esteavens@fg-inc.net | Peachtree Corners, GA

FORESITE group

BACKGROUND

Mr. Steavens has over 30 years of experience in infrastructure development. He is known as a leader driving transportation infrastructure development for federal, state, and local governments. Highly competitive, passionate, persuasive, and articulate, able to achieve results others believed to be impossible. Experienced in multi-modal planning, environmental analysis, partnership building and project management. His past work experience includes Manager, Planning and Operations for FHWA; Senior Policy Advisor, U.S. Senate Environment and Public Works Committee; Senior Transportation Analyst, Georgia State Road and Tollway Authority ; Intermodal Division Director, Georgia DOT; Rail Division Director, Texas DOT; and MPO Administrator, Albany, GA. His planning and programmatic advisory skills are known nationwide.

QUALIFICATIONS

YEARS EXPERIENCE
Foresite Group: <1
Total: 30

EDUCATION
Georgia Institute of Technology
Master of Science in Civil Engineering

Georgia Institute of Technology
Bachelor of Science in Civil Engineering

AFFILIATIONS + ORGANIZATIONS
Georgia Transit Association

Association for the Improvement of American Infrastructure

Association of Metropolitan Planning Organizations

Transportation Research Board, Intercity Passenger Rail Committee

COURSES TAUGHT
National Highway Inst., Intro to Public Involvement

National Transit Institute, Intro to Metropolitan Planning

National Highway Inst., Administration of Planning Funds

National Highway Institute, Intro to NEPA & Transportation Decision-making

HIGHLIGHTED EXPERIENCE

NEW JERSEY TRANSIT
Newark, NJ
Program Manager

TEXAS CENTRAL RAILWAY
Dallas, TX
Program Manager

METROPLEX HIGH SPEED RAIL FEASIBILITY
Dallas, TX
Program Manager

TEXAS / OKLAHOMA PASSENGER RAIL STUDY
Dallas, TX
Program Manager

TOWER 55
Fort Worth, TX
Program Manager

NETEX INTERMODAL FACILITY
Sulphur Springs, TX
Program Manager

BORDER WEST EXPRESSWAY
El Paso, TX
Program Manager

GRAND PARKWAY
Houston, TX
Program Manager

P3 SMART CITY LIGHTING PROGRAM
Terrabone Parrish, LA
Program Manager

ELECTRIC VEHICLE AND CHARGING STATION PROGRAM
State of Hawaii
Program Manager

ADVISORY SERVICES, LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Louisiana
Program Manager

ADVISORY SERVICES, MBTA
Boston, MA
Program Manager

ADVISORY SERVICES, NEW JERSEY TRANSIT
Newark, NJ
Program Manager

PHASE 1, II, & III, PI# 621410, 621415, & 0000291, SR 113/OLD ALABAMA ROAD RELOCATION FROM STATE ROUTE 113 TO I-75
Bartow County, GA
Program Manager

GDOT PROJECT PI# 0004915, 621500, & 621505, WIDENING OF SR 140 FROM SR 53 TO SR 3/US 41
Floyd and Bartow County, GA
Program Manager.

GDOT SR 162/SALEM RD. FM CR 55/FLAT SHOALS RD. TO CR 34/ OLD SALEM RD. (PI 0013628) AND SR 162 FM CR 511/BROWN BRIDGE RD. TO CR 34/OLD SALEM RD. (PI 231210) *Newton and*

Rockdale Counties, GA
Program Manager

285 AT SR 400 INTERCHANGE IMPROVEMENTS
Fulton County, GA
Program Manager

HORIZON MOBILITY GROUP P3 PROPOSAL
Georgia DOT
Program Manager

ALBANY DOUGHERTY REGIONAL TRANSPORTATION PLAN
Albany, GA
Program Manager

YOSEMITE AREA REGIONAL TRANSIT SYSTEM
Yosemite National Park
Program Manager

MARTA COMPREHENSIVE FACILITIES ASSESSMENT
Atlanta, GA
Program Manager

HINESVILLE TRANSIT OPERATIONS RECOMPETE
Hinesville, GA
Program Manager

MARTA RAIL SAFETY OVERSIGHT PROGRAM
Atlanta, GA
Program Manager

GEORGIA STATE HUMAN SERVICE COORDINATION PLAN
Atlanta, GA
Program Manager

GEORGIA STATEWIDE TRANSIT SCHEDULING AND COORDINATION SYSTEM
Atlanta, GA
Program Manager

GEORGIA TRANSIT GRANT PROGRAM *Atlanta, GA*
Program Manager

MANAGEMENT INFORMATION SYSTEM (MIS)
Atlanta, GA
Program Manager

STATE OF GEORGIA TRANSIT DATA FACT BOOK
Atlanta, GA
Program Manager

GEORGIA STATE TRANSIT PLAN
Atlanta, GA
Program Manager

GDOT TRANSIT POLICY AND PROCEDURES MANUALS
Atlanta, GA
Program Manager

GEORGIA STATE TRANSIT MANAGEMENT PLAN
Atlanta, GA
Program Manager

HIGH OCCUPANCY TOLL AND TRUCK ONLY TOLL LANE STUDIES
Atlanta, GA
Program Manager

ATLANTA TO CHATTANOOGA HIGH SPEED GROUND TRANSPORTATION STUDY
Atlanta, GA
Program Manager

ATLANTA TO BIRMINGHAM HIGH SPEED RAIL STUDY
Atlanta, GA
Program Manager

ATLANTA TO CHARLOTTE HIGH SPEED RAIL STUDY
Atlanta, GA
Program Manager

CALIFORNIA ELECTRONIC TRANSPORTATION IMPROVEMENT PROGRAM
Sacramento, CA
Program Manager

MARYLAND TRANSIT ADMINISTRATION SELF INSURANCE CLAIMS MANAGEMENT SYSTEM
Baltimore, MD
Program Manager

CENTRAL HOSPITAL REDEVELOPMENT AUTHORITY – BROADBAND INITIATIVE
Milledgeville, GA
Program Manager

EAST POINT CITY HALL
East Point, GA
Program Manager

CLAYTON COUNTY INTERGENERATIONAL CENTER
Clayton County, GA
Program Manager

MERCEDES BENZ STADIUM
Atlanta, GA
Program Manager

STATE FARM ARENA
Atlanta, GA
Program Manager

HJIA HILTON HOTEL
Atlanta, GA
Program Manager

SAVANNAH ARENA
Savannah, GA
Program Manager

BIG CREEK WASTEWATER TREATMENT PLANT
Roswell, GA
Program Manager

BIRMINGHAM ENERGY PERFORMANCE CONTRACTING PROGRAM
Birmingham, AL
Program Manager

STEVIE BERRYMAN PE

Traffic Engineering Analysis
sberryman@fg-inc.net | Peachtree Corners, GA

FORESITE group

BACKGROUND

Stevie has 19 years of professional engineering experience. His expertise lies in traffic engineering, traffic signal and ITS design, signal timing, signing and marking plans, ADA accessibility standards, project reviews, and design for public and private clients throughout the southeast. Stevie's past experience with Pedestrian Hybrid Beacons includes work with DeKalb County preparing documents for FHWA review for interim approval, prior to their inclusion in the 2009 edition of the MUTCD, at eight locations along Buford Hwy and Candler Road. As part of GDOT and DeKalb County efforts to improve pedestrian safety along Buford Hwy, Stevie designed the ten Pedestrian Hybrid Beacons on Buford Hwy. He also provided the traffic warrant analysis and design for two Pedestrian Hybrid beacon's on GDOT's SR 8/Ponce de Leon safety and pedestrian improvement project. Stevie's comprehensive knowledge of pedestrian design and safety standards as well as ADA accessibility standards contributes to the success of his projects.

QUALIFICATIONS

YEARS EXPERIENCE
Foresite Group: 7
Total: 19

LICENSES + CERTIFICATIONS
GA Professional Engineer #PE036065

Additional Licenses: AL, ID, OR, TX, WA

EDUCATION
Georgia Institute of Technology
Masters in Civil Engineering

Georgia Institute of Technology
Bachelors in Industrial and Systems
Engineering

AFFILIATIONS + ORGANIZATIONS
Institute of Transportation Engineers
(ITE)

Georgia Intelligent Transportation
Society (ITS)

HIGHLIGHTED EXPERIENCE

GEORGIA TECH FERST DRIVE STREETSCAPE
Atlanta, GA
Traffic Engineer

GEORGIA TECH FERST DRIVE AND 6TH STREET INTERSECTION DESIGN
Atlanta, GA
Traffic Engineer

CITY OF CUMMING INDUSTRIAL PARK DRIVE CONNECTION ROAD DESIGN
Cumming, GA
Traffic Engineer

CITY OF CUMMING SAWNEE DRIVE ROAD EXTENSION
Cumming, GA
Traffic Engineer

CITY OF EAST POINT HEADLAND AND DELOWE SIDEWALK IMPROVEMENTS
East Point, GA
Traffic Engineer

GDOT REGIONAL TRAFFIC OPERATIONS PROGRAM
Atlanta Metro Area, GA
Traffic Engineer

GDOT STATEWIDE SIGNAL TIMING PROGRAM
Statewide, GA
Traffic Engineer

GDOT METRO SIGNAL TIMING PROGRAM
Atlanta Metro Area, Georgia

Traffic Engineer

GDOT BUFORD HWY PEDESTRIAN IMPROVEMENTS, PH I, PEDESTRIAN HYBRID SIGNAL CONVERSIONS*
DeKalb County, GA
ITS/Traffic Engineer

GDOT INTERSTATE 75 WIDENING & ARKWRIGHT RD, MACON, GA, SIGNALS AND ITS*
Macon, GA
ITS/Traffic Engineer

GCDOT SR 124 ATMS SYSTEM*
Snellville, GA
ITS/Traffic Engineer

GCDOT MCGINNIS FERRY ROAD EXTENSION, SIGNALS AND ITS*
Gwinnett County, GA
ITS/Traffic Engineer

GCDOT ARCADO ROAD WIDENING, SIGNALS AND ITS*
Lilburn, GA
ITS/Traffic Engineer

CITY OF TUCKER ON-CALL TRAFFIC ENGINEERING SERVICES
Tucker, GA
Traffic Engineer

CITY OF CUMMING ON-CALL ENGINEERING SERVICES
Cumming, GA
Traffic Engineer

DEKALB COUNTY PROGRAM MANAGEMENT
DeKalb County, GA
Traffic Engineer

ARNALDO BLANCO PE

Safety Assessments + Chief Engineer
ablanco@fg-inc.net | Austin, TX

FORESITE group

BACKGROUND

Arnaldo is Chief Engineer for Foresite Group's Broadband Engineering Division. He brings 9 years of professional experience in Telecommunication Engineering & Civil Engineering and is well versed in outside plant design and utility permitting work. Originally from Guaynabo, Puerto Rico, Arnaldo has a Bachelor of Science in Civil Engineering from the Polytechnic University of Puerto Rico and is licensed Professional Engineer with the States of Texas & Washington. Before joining Foresite Group Arnaldo was a Project Manager working on utility permitting projects for telecom and gas companies with ENCO Consulting. He's also been a Design Manager for Google Fiber's Austin project and an Outside Plant Engineer for multiple projects in his native Puerto Rico. Arnaldo's experience also includes providing traffic and transportation engineering services for Foresite Group's Texas region.

QUALIFICATIONS

YEARS EXPERIENCE
Foresite Group: 5
Total: 10

LICENSES + CERTIFICATIONS
TX Professional Engineer #126224
WA Professional Engineer #20106832

EDUCATION
Polytechnic University of Puerto Rico
Bachelor of Civil Engineering

HIGHLIGHTED EXPERIENCE

VERIZON ONE FIBER
Austin, TX
Chief Engineer

VERIZON ONE FIBER
Dallas, TX
Chief Engineer

AT&T MULTIPLE PERMITTING PROJECTS
Austin, TX
Project Manager

TEXAS GAS MULTIPLE PERMITTING PROJECTS
Austin, TX
Project Manager

GOOGLE FIBER
Austin, TX
OSP Design Manager

VERIZON ONE FIBER
Seattle, WA
Permitting Program Manager

VERIZON ONE FIBER
Knoxville, TN
Permitting Program Manager

VERIZON ONE FIBER
Cleveland, TN
Permitting Program Manager

UTOPIA FIBER
Salt Lake City, UT
Chief Engineer

UTOPIA FIBER
Bozeman, MT
Chief Engineer

DOUG STONER

Public Engagement
dstoner@fg-inc.net | Peachtree Corners, GA

FORESITE group

BACKGROUND

Doug is a respected public figure and business leader with a 25+ year record of championing economic/business development and building strategic alliances as a COO, management consultant, elected officeholder (Georgia State Senator, 2005-2013), public servant, and civic volunteer. Doug leverages a deep understanding of business/public affairs to source opportunities, form networks, and engage stakeholders. He is a solution-focused consensus builder able to bridge the divide among diverse factions to create synergy and drive results.

QUALIFICATIONS

YEARS EXPERIENCE
Foresite Group: 3
Total: 25+

EDUCATION
Kennesaw State University
Bachelor of Science in Political Science
Carl Vinson Institute of Government
Development Authority Training

AFFILIATIONS + ORGANIZATIONS
Board Member, Cobb Chamber
Government Affairs Committee,
2013-Present
Board Member, Cobb Chamber
Competitive EDGE Steering Committee,
2011-2012
Chairman, Cobb Chamber
Transportation Committee, 2008-2009
Member, Southern States Energy Board,
2005-2007
Member, Georgia Rail Passenger
Authority Oversight Committee,
2003-2007
Chairman, Cobb Transit Advisory Board,
1999-2002
Board Member, Cobb Transit Advisory
Board, 1995-2002

HONORS + AWARDS
Environmental Leadership Award,
Georgia Conservation Voters, 2006,
2008-2012
Friend of Transit Award, Georgia Transit
Association, 2010
Champions of Mobility Award, Get
Georgia Moving Coalition, 2008
Legislator of the Year Award, Georgia
Association of Educators, 2005
Georgia Legislator of the Year Award,
American Cancer Society, 2003-2005
Distinguished Local Service Award,
American Public Transportation
Association, 2004

HIGHLIGHTED EXPERIENCE

CHAIRMAN, SOUTH COBB REDEVELOPMENT AUTHORITY
2015 - Present

PRESIDENT/PRINCIPAL, LD SQUARED, INC.
2003 - Present

VICE CHAIR, SMYRNA DOWNTOWN DEVELOPMENT AUTHORITY
1991 - 2016

MANAGING DIRECTOR/ CONSULTANT, DEVELOPMENT AUTHORITY OF DEKALB COUNTY
2014

CHAIRMAN, SENATE DEMOCRATIC CAUCUS
2010 - 2012

BUSINESS DEVELOPMENT CONSULTANT, EXELOO, INC.
2003 - 2017

GOVERNMENT AFFAIRS CONSULTANT, ATLANTA BELTLINE PARTNERSHIP, INC.
2015 - 2017

BUSINESS DEVELOPMENT CONSULTANT, VEOLIA TRANSPORTATION
2013 - 2014

BUSINESS DEVELOPMENT CONSULTANT, GAS SOUTH
2010 - 2014

DIRECTOR OF BUSINESS DEVELOPMENT, CROY ENGINEERING, INC.
2011 - 2013

SENIOR BUSINESS DEVELOPMENT MANAGER, ATKINS NORTH AMERICA,
2009 - 2011

VICE PRESIDENT, VEE-JAY INC.
1990 - 2003

GEORGIA STATE SENATOR
2005 - 2013
Ranking Member, Senate Committees: Economic Development | Transportation | Regulated Industries & Public Utilities | State & Local Government Operations | Intermodal, Rail, and Transit Subcommittee (Chairman)

GEORGIA STATE REPRESENTATIVE,
2003 - 2005
Georgia State House

Rebecca Van Dyke
Senior Consultant

Rebecca Van Dyke is a city aficionado and idea-generator with a special love for equitable and sustainable transportation. Rebecca brings a multi-disciplinary background that ranges from operations management and video production to graphic design and data analysis. While at Georgia Tech, she served as President of the Student Planning Association and held a position with the American Planning Association (APA) as the Region II representative on the Student Representatives Council Executive Committee from 2018 to 2020. At High Street, Rebecca has been involved in a variety of projects including software system analyses, freight and safety planning, bicycle and pedestrian focused tasks, and stakeholder and public engagement.

Years of Experience
8

Education
MS, City and Regional Planning, Georgia Institute of Technology, 2018

BA, English Language and Literature, University of Virginia, 2001

Experience

TxDOT – Texas Active Transportation Plan Inventory Tool. Rebecca led a project for TxDOT's Public Transportation Division (PTN) developing a GIS-based bicycle and pedestrian plan inventory tool. This statewide planning tool uses ESRI's ArcGIS Online resources and will enable transportation planning professionals to search a database of active transportation plans using a map and other features. To gauge reception among stakeholders, Rebecca assisted PTN in compiling an Advisory Group that would provide crucial feedback about the tool's functionality and usefulness. The project team held multiple virtual meetings with the Advisory Group, during which Rebecca facilitated feedback sessions among meeting participants.

Bureau of Transportation Statistics (BTS) – Improving Public Transportation Finance Statistics. Rebecca is project manager for an engagement with BTS to identify and develop new data sources and methods for improving the BTS Government Transportation Finance Statistics (GTFS). This work has a particular focus on improving the timeliness and granularity of the GTFS and includes developing baseline documentation of current data sources and timelines for data acquisition and publication. It also includes exploration of potential new data sources and GTFS development methodologies. Rebecca has led the technical report writing and helped plan and execute a visioning workshop focused on the future of the GTFS.

State Amtrak Intercity Passenger Rail Committee (SAIPRC) – Program Management Support for Commercial Performance. Rebecca is serving as the project manager and lead facilitator for the SAIPRC Commercial Performance Working Group. In this role, Rebecca is responsible for planning and facilitating the monthly conference calls with the working group membership. Other activities include coordinating and facilitating regular meetings (2-6 times a month) with the group co-chairs and/or group members as well as organizing other workshops as needed. Rebecca is leading the development of an annual work plan which involves soliciting and documenting stakeholder input, writing and formatting the plan, and collecting feedback.

Texas Department of Transportation (TxDOT) – Texas Transportation Plan (TTP) 2050. Rebecca was involved in nearly every aspect of TxDOT's most recent update to its statewide long-range plan since the project began in 2018. Among her key roles were assisting with the logistics for public meetings and planning and facilitating stakeholder engagement sessions all over the state, developing outreach materials, writing technical memos on statewide bicycle and pedestrian planning and implementation strategies, and co-leading the final plan design effort. She also assisted with the bicycle and pedestrian needs analysis, contributed to the freight technical memo writing, and led the environmental documentation requirement task.

Kansas Department of Transportation (KDOT) – Strategic Highway Safety Plan (SHSP) Implementation. Rebecca is project manager for a 3-year KDOT SHSP implementation contract aimed at assisting the agency with meeting its safety targets. She has contributed to a variety of tasks, including a review of and report on all SHSP and safety-related documentation; interviews with KDOT safety staff, leadership, members of the Executive Safety Council (ESC), FHWA staff, and other stakeholders; best practices research; and developing a key findings report that incorporated recommended changes. She also assisted with developing a quantitative strategy prioritization methodology and led a strategy prioritization workshop with stakeholders. She manages the Pedestrian and Bicycle EAT and is developing an action plan for each of the team's top strategies. She is currently researching and producing a report on high-level plans, studies, and other documents that have any kind of connection to FHWA's Safe System approach in preparation for the next Kansas SHSHP update.

Yousef Dana, P.E.
Senior Consultant

Yousef is a Transportation Engineer, Planner, and Data Analyst with experience in performance-based transportation planning, operations, analytics, and design. His experience mostly lies in assessing statewide transportation needs with predictive safety analysis, performance-based planning, forecasting, and data-driven project prioritization. Yousef focuses on delivering strategic approaches intended to produce measurable results. Converting safety datasets into digestible recommendations via logical, defensible, and replicable methods; particularly implementing HSM methods.

Over his career, Yousef has worked on projects as a transportation engineer and data analyst with various government DOTs, MPOs, and private clients. He utilizes his knowledge and experience in R, GIS, Python, and SQL to implement Safe Systems and HSM approaches, including network screening, diagnosis, and predictive safety analysis.

Years of Experience
7

Education
BS, Civil and Material Engineering, University of Illinois at Chicago, 2018

Certifications/Licenses
Professional Engineer, 2022

Social-Behavioral Educational Researcher, HSR Basic, 2021

Experience

Performance Based Planning, Operations, and Analytics

COMPASS Boise, Idaho MPO – Safe Streets for All Action Plan. High Street is strategically combining systemic and location-specific analyses to thoroughly assess and elevate transportation safety. Yousef is identifying features that correlate with severe accidents across the regional network, which could range from inadequate pedestrian infrastructure to speeding-related driver behaviors. Simultaneously, Yousef is conducting a location specific analysis by deploying GIS-based tools to pinpoint areas of high incident concentration, providing actionable insights for improvement. Underpinning this effort is an interactive visualization tool that dynamically presents the High Injury Network (HIN) and other analysis results. This tool will serve as a catalyst for planning potential safety enhancements.

Maricopa Association of Governments (MAG) – SunCloud Data Dashboard for Sun Corridor. Yousef provided a safety data layer utilizing the five-year crash data from MAG and adapted safety performance functions from the Highway Safety Manual (HSM). He generated five-year data statistics by categorization for segments and intersections. Performance metrics include crash frequency, crash rate, LOSS, and excess expected crashes. Yousef calculated predicted crash measures by utilizing SPFs and adjusting per EB method to determine excess expected crashes and level of service safety. SPF calibration was conducted for the Sun Corridor region of Arizona utilizing historic crashes.

Utah Department of Transportation (UDOT) – STIP Impact Analysis. Yousef was the project manager for the analysis and oversaw the application of various statistical models to forecast both 'no build' and 'build' impacts over a six-year period for projects within the STIP. Outcomes were used to inform future performance bridge, pavement, safety, capacity, and ancillary asset target setting through use of a cross-investment performance dashboard tool. Countermeasures were chosen based on project descriptions and Crash Modification Factors were applied to determine the overall impact of safety related projects relative to baseline measurements.

Connecticut Department of Transportation (CTDOT) – Enhancing Project Prioritization. Yousef has provided a repeatable, transparent project prioritization framework for major highway mobility projects in the categories of pavement, environmental, and bridge conditions. Utilizing several tools with a combination of R and GIS to project performance. The prioritization framework enables CTDOT to communicate the likely performance benefits of their planned major transportation investments more effectively and track performance impacts in alignment with their strategic goals.

Cook County Department of Transportation (CCDOTH) – Highway Safety Improvement Program (HSIP) Projects. Yousef was a lead engineer on the implementation of the six HSIP Projects of multiple intersections and corridors in Cook County. He managed a team of five subcontractors that worked to analyze traffic, crash, geometric, and environmental conditions based on existing data and historical crash data. He also coordinated with various government agencies such as CCDOTH, FHWA (Federal Highway Administration), and IDOT for approval and data retrieval.

Mark Egge
Director

Mark is an expert advisor to transportation agencies on using and integrating data to achieve their agencies' objectives. He is a tenured match maker between analytical tools, agency data, and decision makers' needs. Mark combines his information systems management training with more than a decade of experience building and deploying lightweight tools that brilliantly solve specific needs.

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

Experience

Nebraska DOT – Linking Infrastructure Challenges and Data (LINC-D) (2017 – Present). Mark leads Nebraska DOT's ongoing initiative to incorporate data science into agency decision making. With over twenty successfully completed projects, LINC-D has provided key insights for decision makers, built data literacy and analytics capability across the organization, and supported the use of data to communicate performance and policy issues to the state governor and legislature.

Nebraska DOT – Horizonal Curve Extraction Tool & Inventory (2022). Mark planned and oversaw the development of a horizontal curve inventory for NDOT using their existing roadway linework. This task included porting GIS source code to create a new GIS-based curve extraction tool, fine-tuning parameters to optimize curve identification, and manual review and quality control processing of the automated curve inventory. NDOT has used the resulting inventory for horizontal curve safety analysis.

Wasatch Front Regional Council – Accessibility Impacts Scoring Tool (2022). Mark designed and implemented a GIS-based tool to calculate changes in regional accessibility for individual candidate transportation investments. Accessibility is quantified in terms of Access to Opportunity (ATO) which measures how well residents can access jobs, or how well employers can access the labor force. The solution leverages Esri ArcGIS's Network Analyst to sum the distance-discounted count of households and jobs reachable within a defined travelshed. Projects are simulated via changes to the underlying network and impedance values. ATO impacts are estimated for roadway, transit, active transportation, and land use projects. Results will be integrated into WFRC's project selection processes.

Federal Highway Administration – Data Science Workshop (2022). Mark developed the curriculum and co-instructed the full-day "Data Science 101" workshop at the first annual International Data Science for Pavements Symposium hosted at the Turner-Fairbank Highway Research Center. The workshop was mix of instruction and hands on experience using the R programming language. The lab sections used real-world pavement condition data and introduced participants to analytical tools that can be used with data form their own agencies. During the workshop participants gained familiarity with foundational data science concepts, including exploratory data analysis, data cleaning, supervised and unsupervised machine learning, and data visualization.

Maricopa Association of Governments (MAG) – Sun Cloud Regional Data Portal (2022). Mark is leading the development of new data layers and online analysis tools for the Arizona Sun Cloud open data portal. This work has included data layer development, defining data quality and metadata standards, data lifecycle planning, and GIS application development. Mark's key contributions included significant data management activities (combining heterogenous data sources from many agencies) and developing an innovative equity-focused layer of disadvantaged roadway users. The data portal provides a unified regional view of investment needs and opportunities, informed by travel demand, equity considerations, broadband access, and safety performance.

Idaho Transportation Department – Automated Traffic Count Site Group Assignment (2021). Mark designed the approach and prototype for the automated assignment of temporary traffic count locations to seasonal adjustment factor groups. This assignment is used to accurately estimate an annualized average daily traffic count from a short term counts. The solution implements k-means clustering unsupervised machine learning algorithm to group automated traffic recorders into factor groups, and Naïve Bayes classification to assign short term sites to the appropriate factor group.

Nebraska DOT – Estimating Seat Belt Use via Proxy Data (2021). To better target its outreach, education and enforcement efforts promoting seat belt use, NDOT needs more granular data on seat belt use than its annual statewide survey. Mark led High Street in employing a data fusion approach to produce biannual county-level estimate of seat belt usage from crash data, citation data, and enforcement data.

Jeff Carroll
Partner

Mr. Carroll has 28 years of experience in multimodal transportation planning and policy analysis. He started his career at Georgia DOT Office of Planning and since then he has managed and/or led tasks on 25+ statewide, regional, and metropolitan transportation plans. Jeff further has developed 12 USDOT grant applications which have generated $95 million for his clients.

Years of Experience
28

Education
Master of Public Administration, University of Kentucky, 1997

B.A., Business and Economics, Asbury College, 1990

Experience

South Carolina DOT | Strategic Highway Safety Plan. For this effort, Jeff's team: i) summarized the effectiveness of numerous engineering, enforcement, and educational safety countermeasures using high-quality safety research, ii) conducted stakeholder interviews to understand perceived safety issues in the state, iii) assessed the alignment between the state SHSP and regional safety plans from the perspective of visions, goals, objectives, performance measures, emphasis areas, data, and countermeasures, and iv) developed and demonstrated alternative approaches for setting federal safety targets using historical data.

INFRA Grant: I-44 and US 75 Corridor Improvement Projects: Tulsa, Oklahoma. Jeff was the project manager of the Oklahoma DOT (ODOT) 2020 INFRA Grant. Jeff led the development of the Project Description, Project Location, and Project Parties sections. Jeff worked closely with ODOT and the consultant team to complete the Grant Funds, Sources, Uses of Project Funds, Merit Criteria, Project Readiness, and the Benefit-Cost Analysis section. Jeff met with ODOT weekly during the development of the application.

RAISE Grant application SH-37 BNSF Railroad Crossing: Moore, OK. Jeff was the project manager of the ODOT's 2021 RAISE Grant application SH-37 BNSF Railroad Crossing: Moore, OK. Based on the FHWA debrief, Jeff updated the graphics depicting the project and revised the Environmental Sustainability and Quality of Life Merit Criteria narrative. Jeff worked closely with the team to update other sections based on the FHWA debrief. ODOT was awarded $10 million to help fund improvements to resolve blocked train crossings on State Highway 37 in the city of Moore.

RAISE Grant: Enhancing Safety and Mobility in West Tulsa: I-44 & US-75 Corridor Improvements. Jeff was the project manager of the ODOT 2022 RAISE Grant: Enhancing Safety and Mobility in West Tulsa: I-44 & US-75 Corridor Improvements. Based on FHWA's debrief, Jeff worked closely with the team to finalize all sections of the application. Jeff met with ODOT weekly during the development of the application. FHWA awarded ODOT $85 million in MEGA funds to help fund projects related to improvements of the Interstate 44 and US-75 interchange. This is the largest grant awarded to ODOT.

MPDG RURAL Grant: At-Grade Rail Safety Improvements to Reestablish the Heartland Flyer Northern Extension. Jeff was the project manager, responsible for writing the Project Description, Project Location, and Project Parties sections. He also worked with the team to develop the six Project Outcome criteria, Funding, Benefit-Cost Analysis appendix, Project Readiness, and Environmental Risk. Jeff met with ODOT weekly during application development.

2022 MPDG RURAL Grant: PWF Road Safety & Rehabilitation Improvements. Jeff was the project manager for Jefferson County, Nebraska 2022 MPDG RURAL Grant: PWF Road Safety & Rehabilitation Improvements. Jeff wrote the Project Description, Project Location, Project Parties sections, and the Equity, Multimodal Options, and Quality of Life Criteria sections. He worked with the team to develop and finalize the full application. Jeff met with Jefferson County Chairman weekly during application development and participated in the FHWA debrief.

Bridge Investment Program (BIP) Planning Grant: I-35 Bridge Replacement and Trail Connections over the Oklahoma River. Jeff was the project manager for the ODOT 2022 Bridge Investment Program (BIP) Planning Grant: I-35 Bridge Replacement and Trail Connections over the Oklahoma River. Jeff wrote the Project Description, Criteria #4 Climate Change, Resiliency, and the Environment and Criteria #5 Quality of Life sections. Jeff worked closely with the team to finalize all sections of the application, including the Benefit-Cost Analysis appendix. Jeff met with ODOT weekly during the development of the application.

BIP Bridge Grant: Crossroad of America I-40 BIP Bridge Grant. Jeff was the project manager for the ODOT 2022 Bridge Investment Program (BIP) Bridge Grant: Crossroad of America I-40 BIP Bridge Grant. Jeff completed the FHWA Grant Template and wrote the Project Description, Criteria #4 Climate Change, Resiliency, and the Environment and Criteria #5 Equity, Multimodal Options, and Quality of Life sections. Jeff worked closely with the team to finalize all sections of the application, including the Benefit-Cost Analysis appendix. Jeff met with ODOT weekly during the development of the application.

Kevin Ford
Partner

As High Street's PBPP lead, Dr. Kevin Ford regularly develops and implements innovative data-driven solutions to optimize performance outcomes for his clients. With no outcome more critical than reducing fatalities, Kevin has leveraged his civil engineering and data science background to: i) develop SS4A action plans, ii) create automated GIS tools to visualize high injury networks and evaluate candidate projects, iii) integrate big speed data into VRU analysis, iv) prepare HSM training materials, v) identify and prioritize safety improvement projects with the most potential to reduce fatalities and serious injuries, vi) generate funding by communicating the likely performance implications of different investment levels and quantifying what would be required to achieve aspirational targets, and vii) Incorporating safety into prioritization processes for which Kevin is a nationally recognized expert as evident by having been entrusted by MPOs and State DOTs in 25+ states to build buy-in around investment decisions.

Years of Experience
16

Education
Ph.D., Civil Engineering, Purdue University

M.S., Civil Engineering, Purdue University

B.S., Civil Engineering Valparaiso University

Professional License
PE [IL# 062.075527; NC# 057066]

Experience

Safety Action Plans

[Raleigh, NC] CAMPO – Regional Multimodal (SS4A) Safety Action Plan, Prioritization Lead. Kevin is helping CAMPO blend data-driven and community processes in support of developing a SS4A action plan. This includes providing technical expertise toward conducting multimodal crash data and equity analyses, developing a high injury network, performing a risk assessment, and recommending safety enhancements. Kevin is further enhancing the MTP prioritization process he previously developed with CAMPO to integrate new crash analysis metrics, such as excess expected crashes, developed under this effort.

[Boise, ID] COMPASS – SS4A Action Plan, Technical Quality Manager. Dr. Ford is overseeing the strategic combination of systemic and location-specific analyses (via AASHTOWare Safety) to assess safety needs and plan system enhancements. Kevin and team are identifying design features correlated with severe accidents across the regional network and developing an interactive GIS visualization tool to dynamically present the High Injury Network (HIN) and provide actionable insights.

High Injury Network Development & Safety Concept Screening

[Phoenix, AZ] MAG and PAG –Sun Cloud Aid Grant Corridor Prioritization. Quality Manager. Kevin developed safety and equity methodologies and provided quality control services as part of the Sun Cloud Corridor data portal development. The portal provides a unified assessment of investment needs and opportunities, brought to life through interactive, ESRI-based map viewers and analysis tools. High Street's team developed and published data layers for bridge conditions, safety performance, current and future travel demand, long-range plan projects, broadband access, transit ridership, freight flows, disadvantaged populations and roadway users, and travel time reliability. Kevin identified high-injury locations by blending regional and state SPFs to estimate excess crashes relative to expectations.

Crash Trends & Safety Diagnostics

Virginia DOT – I-81/I-77 Overlap Transportation Study, Traffic & Safety Analyst. Dr. Ford evaluated crash trends and proposed crash countermeasures for the Interstate overlap section of I-81/I-77 in Fort Chiswell,

Virginia DOT - VA Route 7 Corridor Safety Study, Safety Analyst. Dr. Ford assisted with the safety analysis of the VA Route 7 corridor in Wolf Trap, VA by developing automated safety tools including the production of greenband diagrams for gap analysis, and tabular and graphical crash summaries of historical segment and intersection crashes. Countermeasures were proposed to reduce corridor crash rates and severities.

Crash Data & Analytics

[Chicago, IL] CMAP – Safety Speed Data, Quality Manager. Kevin is helping CMAP create spatial tools around big Wejo data to locate emphasis area crashes, particularly those associated with vulnerable road users to support their county safety action plans. Kevin's team led the literature review and will help prepare the final Esri-based dashboarding platform to explore the data.

Wisconsin DOT - Pedestrian and Bicycle Crash Estimation Study, Quality Manager. Kevin's team of data scientists developed a Machine learning algorithm to predict bicycle and pedestrian crashes on the state highway network based on roadway, traffic (using Replica bike/ped counts), and existing crash data, as well as to prepare more accurate cost estimates. Kevin has helped to identify possible non-motorist exposure factors, determine model functional form, and establish goodness-of-fit metrics.

NCHRP 17-38 [and 17-50] - HSM Implementation and Training Materials, Safety Analyst. As part of the NCHRP study, later published as NCHRP Report 715, Dr. Ford performed quality control/quality assurance on the automated spreadsheets designed to replicate HSM statistical analyses. He further aided in the development of examples designed to demonstrate HSM analytical techniques to state highway agencies – now published in Web-Only Document 323.

Safety Prioritization

[Chicago, IL] CMAP –Transportation Project Analysis Toolset, Project Manager. Kevin is helping the Chicago MPO enhance their multipurpose project impact evaluation tools to support ON TO 2050 principles of inclusive growth, prioritized investment, and resilience by prioritizing the efficacy of Regionally Significant [multimodal] Projects towards agency goals given limited resources. For safety, Kevin has helped automate the identification of vulnerable road users overlaid on the regional high injury network.

Connecticut DOT – Enhancing Project Concept Screening and Prioritization, Technical Lead. Kevin helped CTDOT comply with state legislation to develop performance-based project prioritization processes for significant projects. This involved establishing an impact-oriented framework for development authority and programming decisions, then preaping and implementing a broader strategic roadmap to improve data management and agency analytical capabilities. For safety, Kevin leveraged the CRSMS tool to implement the HSM six-step framework with diagnostics for concept screening and SPF/CMF application for evaluation. The team further is pairing Replica with Justice 40 data to capture VRU travel patterns.

Texas DOT – PBPP Investment Planning and Prioritization Tools, Data Scientist. Kevin supported TxDOT in complying with state legislation by developing impact-oriented project prioritization processes – inclusive of safety using state-vetted CMFs - used to score TxDOT's 10-year $75B+ capital program. The data-informed process was translated into software as part of a data-sharing program with districts and MPOs. Dr. Ford's ability to link investment levels to performance outcomes, helped TxDOT secure a $600M Vision Zero biennium and increase the 10-year program by $35B. Kevin further automated TA and bike network scoring tools that estimate the reduction in non-motorized crashes and bicyclist level-of-stress. Stakeholders and advocacy groups were engaged to identify criteria and form consensus priority weights.

Virginia DOT - US 501 Corridor Safety Project Prioritization, Safety Analyst. As part of the evaluation of safety improvement projects recommended for the rural US 501 corridor in southern Virginia, Dr. Ford applied benefit-cost analysis to prioritize projects, by first estimating project costs and service lives, and using the Highway Safety Manual (HSM) to assess potential crash reductions.

Washington, D.C. DOT - Highway Safety Improvement Program Evaluation, Safety Analyst. Dr. Ford performed field visits to evaluate the safety performance of seven intersections in downtown D.C. Having made recommendations, estimated project costs and service lives, and used the HSM to estimate crash reduction, Dr. Ford prioritized recommended projects using life-cycle based benefit-cost analysis.