

# ENGINEERING SERVICES FOR HENDERSON COUNTY ECUSTA RAIL-TRAIL WEST

## Chapter 1: Introduction

August 18, 2023

ATTN: Marcus A. Jones, PE  
County Engineer  
1 Historic Courthouse Square  
Hendersonville, NC 28792

*RE: Request for Letters of Interest (RFLOI)*

Dear Mr. Jones,

Traffic Planning and Design, Inc. (TPD) is pleased to offer our team's expertise in Engineering Services for Henderson County's Ecusta Rail-Trail West.

### THE TPD PROJECT TEAM

TPD is excited about the impact that the Ecusta Trail is having and will have on our region, and we understand the need to get the Ecusta West phase on the ground as soon as possible. With that in mind, we carefully assembled a design team that is committed to meeting Henderson County's goal. We have prepared the following letter of interest (LOI) in partnership with **McAdams, Co.; Equinox Environmental Consultation & Design, Inc.; Summit Design and Engineering Services; and Rummel, Klepper, and Kahl, LLP.**

### THE TPD TEAM ADVANTAGE

**Expertise in Trail Development:** Our team members work on aspects of trail plans and designs every day and our commitment and dedication go beyond our daily work: the project's team members have found their way into this profession from a personal passion for active transportation and recreation projects.

**Experience with Federal Aid:** TPD has shepherded over 60 local design projects through the federal process to deliver Plans, Specifications and Estimates (PS&E) that meet all NEPA permitting and required clearances. From this experience, our team is able to assist Henderson County with implementation and help avoid common challenges that come with federal construction dollars. Our project managers have learned to set goals and meet clients' needs and DOT requirements, while keeping budgets and project schedules under control. TPD also has a full-service construction inspection team as a resource that will enable us to better understand projects and constructability through a contractor's lens. To date, TPD has completed construction inspection services for over 80 federal-aid local projects.

**Local Knowledge:** TPD's team members have years of experience working in Henderson County and our designated Project Manager is also a Henderson County resident. This local lens offers us a perspective for providing context sensitive designs. We have also built relationships with local permitting agencies and stakeholders that we will leverage to assist in project delivery.

**Ecusta-Specific Experience:** TPD worked on the first phase of Henderson County's Ecusta Trail design and will be leading the design team for the City of Brevard's section through Transylvania County. We understand what local agencies are looking for, how they prefer to communicate, and how to ensure project success. Our team offers efficiencies as we plan, design, and permit the adjacent Ecusta Section through Transylvania County. We are also under contract to determine the feasibility of a connection between the Ecusta Trail and Jackson Park (Above the Mud Trail) and a connection between the Ecusta Trail to the future Saluda Grade Trail, allowing our team to understand and plan for region-wide impacts. This Ecusta-specific experience allows us to leverage relationships with community stakeholders and local permitting agencies.



## Chapter 1: Introduction

**Depth and Capacity:** TPD has over 80 licensed professional engineers, including 30 bridge professionals. Many of our engineers work specifically on state and federally funded projects. Individuals on TPD's Multimodal Planning, Traffic, Roadway Design, and Environmental Services departments will be available to provide services or assist on this contract. We have an internal communication and workload sharing process that allows us to pool our collective knowledge and skillsets to deliver successful projects for our clients. Additionally, the TPD Team includes multiple firms with overlapping expertise, allowing for shared resources to expedite project delivery and an opportunity for constructability and peer reviews among the project team to facilitate QA/QC efforts. For example, McAdams provides overlapping hydrologic and hydraulic (H&H) and trail design experience while RK&K and Summit provide additional bridge design capacity. All of our partners have extensive locally led design experience for federally funded projects.

**Proven Partnerships:** TPD has worked on many projects with our teaming partners and we have successfully delivered projects across the region. Our team's proven working relationships will benefit project delivery by ensuring quality communications and information sharing on key design elements.

**Commitment to Trails:** TPD hand-selected a team of people that we know is committed to trail building in our state. The individuals at each firm are champions for delivering bicycle and pedestrian connections across the state, with a focus on both transportation and recreation. Our team members are all willing and able to put the required energy and resources to this project for timely and quality delivery.

### ADDITIONAL INFORMATION

**Statement of Firm Registration:** TPD and our teaming partners are properly registered with the Office of the Secretary of State and with the North Carolina Board of Examiners for Engineers and Surveyors (as applicable) and are in good ethical and professional standing.

**Most Recent Date of Firm Qualification:** TPD's most recent Private Engineering Firm (PEF) prequalification package was approved as of February 2, 2023. The dates of team member approvals are McAdams - May 23, 2023; RK&K - June 19, 2023; Equinox - October 21, 2022; and Summit - May 1, 2023.

**Conflict of Interest Statement:** TPD and its teaming partners have all reviewed the contract and there are no potential conflicts of interest for the work required under this agreement.

### CHAPTER CONTENTS

The following chapters provide more detailed information on the TPD Team's qualifications, experience, and project approach:

- » **Chapter 2:** Team Qualifications (Firm Experience & Similar Projects)
- » **Chapter 3:** Team Experience (Staff Roles, Resumes, Org Chart & Workload)
- » **Chapter 4:** Technical Approach
- » **Appendices:** RS-2 Forms (Prime and Subconsultants)

As the designated contact person for TPD, a resident of Henderson County, and avid trail user, I look forward to the opportunity to provide engineering services for Henderson County's Ecusta Rail-Trail West.

Sincerely,

  
**Christina Staudt, PE**  
**TRAFFIC PLANNING AND DESIGN, INC.**



**CONTRACT PM & POINT OF CONTACT**  
Christina "Christy" Staudt, PE

80 Charlotte Street, Suite 40  
Asheville, NC 28801  
P: 828.575.0133 | F: 610.326.9410  
CStaudt@TrafficPD.com  
NC PE # 045387

### FIRM EXPERIENCE



Founded in 1989, TPD is a multi-disciplined A/E/C firm with offices in the **Carolinas (Asheville, NC, and Greenville, SC)**. We employ a staff of over 300 people across 15 office locations, including more than 80 licensed professional engineers. We employ 7 hydrologic and hydraulic (H&H) engineers; 46 traffic engineers; 2 environmental scientists; 4 certified professionals in erosion and sediment control; 1 landscape architect; and 30 bridge engineers including 13 certified bridge safety inspectors. We are a client-focused, team-oriented firm that prides itself on providing sustainable solutions for our clients and teaming partners. Working seamlessly as “One Company with Multiple Locations,” we can leverage our local knowledge, continuous investment in technology, and emphasis on individual accountability to provide a high level of responsiveness and solutions appropriate for each project.

TPD has worked on **over 80 projects** in the Carolinas since our office opening in 2017, and over **10,000 transportation-related projects company-wide**, giving us a thorough understanding of local priorities and strong relationships with regulatory authorities. Our team is well-versed in greenway and trail projects from conceptual planning to final design and construction, and we are also experts in pedestrian and bicycle planning and design.



McAdams is a full-service civil engineering, land planning, landscape architecture, transportation, and geomatics firm founded and headquartered in North Carolina. Comprised of over 450 professionals, McAdams is passionate about providing unique and engaging experiences for our clients and our clients’ clients. The firm includes over 100 professional engineers and engineering designers; 25 registered landscape architects; eight certified planners; 20 professional land surveyors; 10 LEED® certified professionals; six certified floodplain managers; one certified floodplain surveyor; and one certified professional in erosion and sediment control. McAdams’ in-house geomatics services include but are not limited to surveying, sub-surface utility (SUE) investigations and aerial LIDAR, as well as professional licensed drone pilots. The McAdams Geomatics Department has the latest drone technology, along with SUE vacuum trucks. With over 30 crews working Statewide, these services enable the McAdams Team to deliver projects on compressed schedules by controlling all geomatics tasks ourselves.

McAdams’ greenway design group is led by **Iona Thomas, AICP**, who has helmed some of the most complex and iconic trail projects in North Carolina, including Neuse River Trail (ARRA Stimulus Funded), French Board River Greenway (TIGER Grant), Durham Rail Trail (RAISE Grant) and many more. **She excels at balancing compliance with Federal regulations and trail design that serves the maintenance, operations, and identities of each community.**



Equinox is a consulting, planning, and design firm that has been delivering on conservation, sustainability, and environmentally responsible projects for over 20 years. The Equinox Team has the tools and experience to take a greenway project from feasibility studies and the conceptual stage to site-specific design and construction documents.

Equinox has provided planning services for **90 projects** and over **810 miles of greenways and trails**. Their design work has also led to the implementation of **more than 26 miles of trails**. Work includes trail master plans, trail feasibility studies, construction documents and permitting, and construction oversight for trail projects. The Equinox Team experience includes trail projects with federal funding including Richland Creek Greenway (Waynesville), Hwy 251 Greenway (Buncombe County), Beaverdam Greenway (Town of Woodfin), and Swannanoa Greenway (Asheville). Equinox has also worked on several rail-to-trail projects such as the Virginia Creeper Trail, Mendota Trail, Ecusta Trail (Hendersonville to Horse Shoe), and the Saluda Grade Trail.

## Chapter 2: Team Qualifications (Firm Experience & Similar Projects)



Summit is a design and engineering firm offering innovative solutions for full-service project delivery. The Summit Team possesses multimodal trail experience spanning multiple service departments, across North Carolina and beyond. This includes their **ACEC-NC award-winning Hillsborough Riverwalk project**, which consists of 1.8 miles of greenway along the Eno River. This project involved many service departments, including geotechnical engineering and Construction Materials Testing (CMT). More recently, their team provided geotechnical and CMT services on the Cross Charlotte Trail. Additional relevant experience includes Walnut Creek Nature Trail, Morgan Creek Greenway Trail, and Bolin Creek Trail.

Several team members have trained on and attended Locally Administered Projects Program (LAPP) workshops and are **well-versed in collaborating with the North Carolina Department of Transportation (NCDOT) on LAP projects**, as well as assisting in securing funding for them.



Since their founding in 1923, RK&K has provided multidiscipline planning, design, and construction phase services to both public and private sector clients throughout the Mid-Atlantic and Southeast. RK&K offers responsive people and creative solutions to a variety of projects from 30+ offices, including their firm's second largest office which has operated from Raleigh, NC since 1964. Their 1,550+ team members collaborate with clients and teaming partners to achieve project goals while ensuring a commitment to quality.

RK&K works on bicycle and pedestrian design projects, enabling them to become very familiar with AASHTO Bicycle Design Guidelines, ADA Guidelines, and several others. RK&K has extensive experience administering and inspecting LAP, ARPA, CMAQ, BUILD, CDBG, FTA, and Gold LEAF funded projects throughout North Carolina, including **City of Raleigh, Crabtree Creek Greenway CEI; Mecklenburg County, Wesley Heights Greenways; Town of Cary, Connecting Cary Sidewalks; and Town of Pineville, South Polk Connector.**

*“TPD is one of the best firms I've worked with in my career in local government. The City of Asheville has worked with TPD on many projects over the last several years, including large and controversial projects. They could not be more responsive to our needs and they always approach their work in the most professional and thoughtful way. They routinely go above and beyond and consistently produce exceptional work. Their assistance with key projects has definitely moved the needle in advancing the City's mobility goals.”*

*- Jessica Morriss, AICP, MPA, Assistant Director,  
Transportation Department, City of Asheville, NC*





## SIMILAR PROJECTS

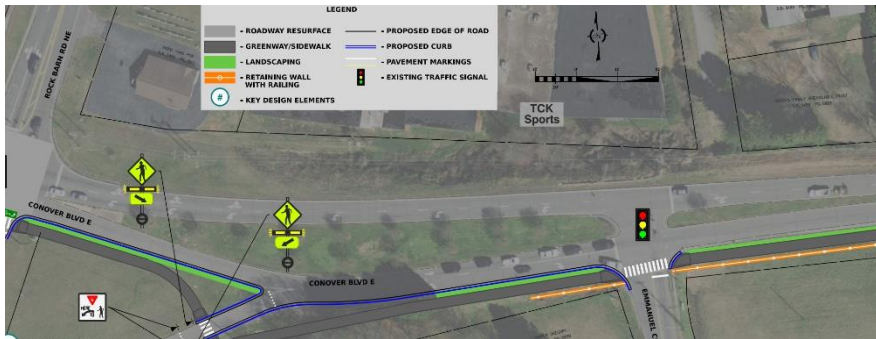
TPD has worked for more than 25 years with local agencies and state DOTs to design and permit transportation projects with federal funding. During that time, we have also shepherded approximately 50 locally led designs through the federal transportation development process to deliver Plans, Specifications and Estimates (PS&E) that meet all NEPA permitting and required clearances. In addition, our partners at McAdams, Equinox, RK&K, and Summit have extensive experience in North Carolina delivering Locally Administered Projects (LAP), including greenways. These firms add depth and resources to ensure our team has the capacity to deliver Ecusta West efficiently and on schedule.

Our firms have dedicated greenway design teams and our passion for trails is combined with decades of practical experience delivering Federal, State, and locally funded greenway projects that range from short “last gap” segments to 30-mile-long river front trails. Below is a sample of our qualifications and similar project experience within the last five (5) years.

### 1<sup>ST</sup> STREET EAST AND WEST (C-5624)

City of Conover, NC

TPD was the lead consultant on this project which included traffic studies, stakeholder meetings, conceptual plan development, preliminary engineering (30% design), NEPA clearance, stormwater evaluations as well as utility, right-of-way, and railroad coordination. TPD developed 30% plans for project elements that included a road diet, sidewalk improvements, pedestrian crossings, signal upgrades and trail design.



#### PROJECT REFERENCE

Erik Schlichting  
City of Conover  
Planning Director  
828.464.1191  
erik.schlichting@conoverncc.gov

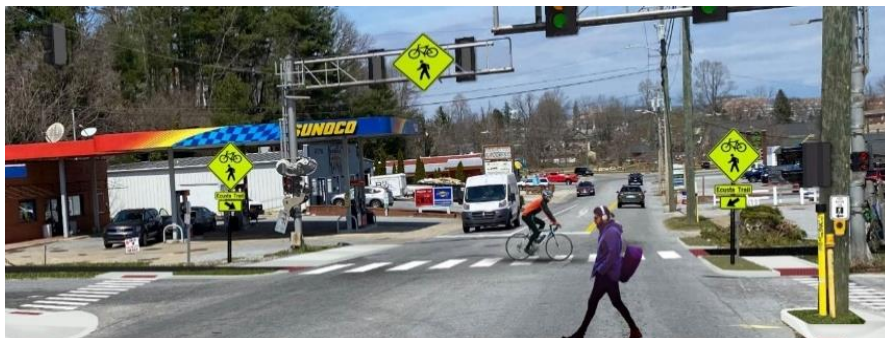
YEAR: 2023



### ECUSTA RAIL TRAIL (BL-0007)

Henderson County, NC

TPD and Equinox were subconsultants to JMT in developing the design and construction documents for a 6-mile stretch of the Ecusta Trail connecting downtown Hendersonville to Horse Shoe, NC. TPD completed planning, engineering, and conceptual plan development for trail roadway crossings (at-grade), as well as support for NCDOT coordination and community engagement. Equinox's role was to support the environmental analysis of the corridor and to develop designs for landscape architecture elements.



#### PROJECT REFERENCE

Marcus Jones, PE  
Henderson County Government  
Project Engineer  
828.962.9855  
mjones@hendersoncountync.gov

YEAR: 2023 (Anticipated)



## Chapter 2: Team Qualifications (Firm Experience & Similar Projects)

### KAREN CRAGNOLIN TRAIL DESIGN AND PERMITTING

City of Asheville, NC

This project involved all aspects of trail design for Phase I of the Karen Cragnolin Park, a River Link project. Tasks included grading plans, stormwater and drainage design, erosion and sedimentation design, pavement marking and signing plans, FEMA floodway modeling and no-rise study, and environmental coordination (including Brownfields coordination). TPD was responsible for City of Asheville Level 1 Commercial development application, contract documents and construction inspection and administration.



#### PROJECT REFERENCE

Lisa Raleigh  
River Link, Inc.  
Executive Director  
828.252.8474 x 116  
lisa@riverlink.org

YEAR: 2023



### OLLE ART WALK (OLD LENOIR WALK MULTI-USE TRAIL, EB-5911)

City of Hickory, NC

TPD was a subconsultant on this project that was funded by the Greater Hickory Metropolitan Planning Organization and NCDOT (TAP and BGDA funds). This project, also known as OLLE Art Walk, designed a multi-use trail, streetscape improvements, and included a road diet conversion that allowed for the trail to be constructed partially within the current roadway to minimize impacts to homes and businesses. OLLE Art Walk included NEPA clearance and PS&E plan sets as a locally administered federal project. It also included railroad considerations and complex street crossings, such as in the rendering illustrated below.



#### PROJECT REFERENCE

John Marshall  
City of Hickory  
Transportation Planning Manager  
828.323.7354  
jmarshall@hickorync.gov

YEAR: 2021



### SALUDA GRADE RAIL TRAIL

North and South Carolina

TPD is serving as the prime consultant for this project which includes the preliminary planning and a feasibility study for the proposed Saluda Grade Rail Trail, as well as an economic impact assessment. The project also includes a feasibility study for connecting the proposed Saluda Grade Rail Trail with the Ecusta Trail and the Daniel Morgan Trail System in Spartanburg County, SC.

#### PROJECT REFERENCE

Kristin Cozza  
Conserving Carolina  
Trails & Greenways Coordinator  
828.697.5777  
kristinc@conservingcarolina.org

YEAR: Ongoing

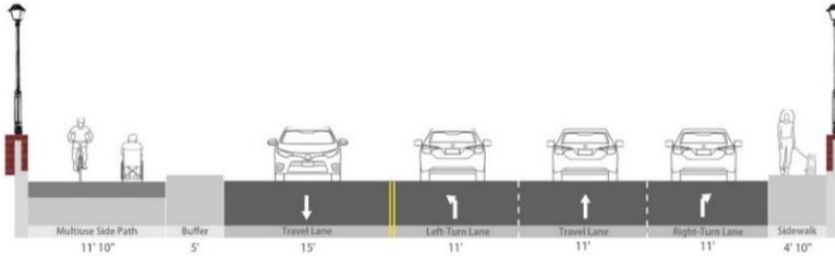


## Chapter 2: Team Qualifications (Firm Experience & Similar Projects)

### SWANNANOA RIVER GREENWAY

City of Asheville, NC

The Swannanoa Greenway Corridor Study analyzed a 3.4-mile urban and industrial corridor in the core of Asheville. Equinox led this project with its team of landscape architects and planners to collaboratively develop greenway alignment options. TPD completed 65% design for a section of the greenway that included sidewalk extensions, bus stop connections, ADA upgrades to signals, and a bicycle lane to greenway transition at a nearby roundabout. TPD also provided ADA ramp evaluations with detailed elevations to maximize compliance to the extent feasible given the grades along the existing bridge and roadway.



### MENDOTA TRAIL MASTER PLAN AND TRESTLE RESTORATION PLAN

City of Bristol, VA

Equinox led a team, including TPD, to create a master plan for the Mendota Trail. The team worked directly with the Conservancy, the City of Bristol, and other stakeholders to ensure all the needs of the trail, including capital projects phasing and funding, were addressed. TPD assisted in developing trail alignments, stakeholder coordination, and project materials and documentation; led coordination with VDOT and City engineering staff, regarding trail crossings and related roadway and intersection modifications; and timber trestle evaluations. A number of the team's recommendations have since been implemented or integrated into future projects that are moving into design and construction.



### OKLAWAHA GREENWAY: NORTH/SOUTH EXTENSION FEASIBILITY STUDIES

Henderson County, NC

Equinox led a team of landscape architects, engineers, and transportation planners to develop greenway corridor feasibility studies for the 8-mile Oklawaha Northern Expansion and the 3-mile Oklawaha Southern Expansion. As a subconsultant, TPD provided support services for the following: stakeholder engagement, existing conditions analysis, identifying barriers and opportunities to trail alignments, recommending and evaluating alternatives, and developing an action plan. TPD led a trail crossing evaluation and provided cost estimates for these accommodations.

#### PROJECT REFERENCE

Lucy Crown  
City of Asheville  
Greenway Coordinator  
828.259.5805  
lcrown@ashevillenc.gov

YEAR: 2022



#### PROJECT REFERENCE

Bob Mueller  
The Mendota Trail Conservancy  
423.723.4363  
bob0804@aol.com

YEAR: 2021



#### PROJECT REFERENCE

Autumn Radcliff  
Henderson County  
Planning Director  
828.694.6558  
aradcliff@hendersoncountync.gov

YEAR: 2019





## Chapter 2: Team Qualifications (Firm Experience & Similar Projects)

### MCDOWELL COUNTY GREENWAY-FONTA FLORA TRAIL (EB-5619)

McDowell County, NC

McAdams, in conjunction with TPD and RK&K, is providing engineering services through final design for the development of the Fonta Flora Trail greenway from Greenlee Park north to Roby Conley Drive and south across the Catawba River. This project includes a 200-foot-long single span pedestrian bridge over the Catawba River and a 100-foot-long single span pedestrian bridge over Nix Creek, both with boardwalk approaches. This project is a locally led design of a federally funded construction project. Tasks include NEPA clearance and extensive floodway modeling. The team will deliver full Plans, Specifications & Estimates (PS&E), as well as all related federal clearances.



#### PROJECT REFERENCE

Blair Melton  
McDowell County  
County Planner  
828.659.0858  
blair.melton@mcdowell.gov

YEAR: 2023



### DURHAM RAIL TRAIL

City of Durham, NC

The Durham Rail Trail will convert an abandoned rail line into a linear public trail that connects all of Downtown Durham. In addition to design, McAdams prepared a successful RAISE Grant that secured \$9M in construction funding. The project is designed to meet all federal requirements and comply with grant reporting requirements. The trail will be a paved, multi-use, ADA-accessible route primarily within the former Norfolk Southern Rail corridor and include a restored rail bridge and new pedestrian bridge. The trail will include accommodations for potential access spurs to adjacent neighborhoods and be designed to accommodate future park improvements along its corridor, as well as encourage trail focused development in the downtown area. The McAdams team is working closely with City staff and community partners to ensure equitable weight is given to all stakeholders during design, construction and planning for future development of the trail.



#### PROJECT REFERENCE

Rod Florence  
City of Durham, NC  
Senior Project Manager  
919.937.7925  
rod.florence@durhamnc.gov

YEAR: 2025 (Anticipated)





## Chapter 2: Team Qualifications (Firm Experience & Similar Projects)

### DAVIS CREEK GREENWAY

*Town of Harrisburg, NC*

Under an on-call contract, RK&K completed the final design plans for the Davis Creek Greenway. The project included a 415-foot extension of Hagler Street with a sidewalk and a new box culvert (two at 8'x7") over Davis Creek, and 1,000 feet of Davis Creek Greenway along the Davis Creek floodplain. A major component of the project was modeling the existing water surface elevations along Davis Creek as well as the proposed conditions after roadway, culvert, and greenway construction. RK&K developed grading strategies to secure a no-rise certification for the Davis Creek floodplain. The project scope included project administration and coordination, roadway design, greenway design, hydraulic design and floodplain modeling, erosion control, natural resources investigation, permitting, utility coordination, geotechnical services, and project surveys.

#### PROJECT REFERENCE

Mallory Hodgson  
Town of Harrisburg, NC  
Public Works Director  
704.206.8779  
mhodgson@harrisburgnc.org

**YEAR:** 2022



### CREEPER RAIL TRAIL MASTER PLAN

*Town of Abingdon & Town of Damascus, VA*

Equinox led a team that developed a long-term and comprehensive master plan for the Virginia Creeper Trail and the Virginia Creeper Trail Conservancy (VCTC). The 34.3-mile rail trail traverses through two counties from Abingdon through Damascus, Virginia, and ending just past Whitetop Station in the Mount Rogers National Recreation Area at the Virginia-North Carolina border. Among other initiatives, the planning process included an organizational assessment of the VCTC to expand its capacity and operations to implement the plan, a technical GIS analysis of the landscape, and early stakeholder outreach with interviews, focus groups, and coordination with local governments and the U.S. Forest Service.

#### PROJECT REFERENCE

Idalina Walker  
Friends of Southwest Virginia  
Dir. of Outreach & Partnership  
276.492.2400  
iwalker@friendsofswva.org

**YEAR:** 2022



### ENKA HERITAGE TRAIL (EB-5824)

*Buncombe County, NC*

Equinox and TPD worked together as subconsultants on this approximately 2-mile long greenway that follows Hominy Creek and connects the Bob Lewis Ballpark, Buncombe County Sports Park, and the Enka Intermediate School. The project was federally funded with a local match and under the authority of the North Carolina Department of Transportation (NCDOT) for administration in accordance with the Federal Highway Administration (FHWA). TPD provided traffic and crossing analysis and design. Equinox provided environmental analysis, a natural and cultural resource assessment, stream and wetland delineations, opportunities and constraints mapping, and conceptual design which included horizontal and vertical alignments, typical sections, edges of pavement, dimensions, estimated easements, bike/ped facility layout, and cross sections.

#### PROJECT REFERENCE

Timothy Love  
Buncombe County  
Intergovernmental Relations  
828.250.5243  
timothy.love@buncombecounty.org

**YEAR:** 2023



## MEET THE TPD TEAM

TPD can provide the County with the services to complete the vision of Ecusta West by delivering innovative results with our hands-on approach. For this contract, TPD has assembled a team of bicycle and pedestrian professionals who are deeply passionate about improving conditions for people walking and biking. Our staff's experience in greenway project development includes all areas of delivery: project identification and scoping, planning, funding, environmental clearances, feasibility, preliminary and final design, construction inspection, and post-implementation observations. This offering of project experience is important to understanding the complexities at each stage of project delivery and producing accurate cost estimates for engineering, permitting, and construction.

One of our **core principles is to support and empower our clients in their mission to serve their communities**; the following members of our team will do just this.



**Classification:** Senior Project Manager

**Office:** Asheville, NC

**Firm:** TPD

### **Christina Staudt, PE** | Contract Project Manager & Trail Design Lead

Christy Staudt is TPD's Regional Lead overseeing work in the Carolinas. Ms. Staudt has 25 years of experience in the transportation field with experience in both public and private transportation planning and design. Her experience ranges from planning to conceptual, preliminary, and final design. Relevant to this contract, Ms. Staudt has experience in project management for federally funded design projects including greenway and multimodal projects. Ms. Staudt also works on traffic safety and roadway safety audits, signal design, school operation studies, and Pavement Marking and Signing Plans. Ms. Staudt serves on the National Committee on Uniform Traffic Control Devices (NCUTCD), Bicycle Technical Committee, and Pedestrian Task Force. She leads training on ADA design and temporary traffic control for pedestrians. **Project Experience:** BL-0007, Ecusta Rail Trail; EB-5827, Fonta Flora State Trail; Karen Cragolin Park Greenway; C-5624, 1st Street East and West Bicycle and Pedestrian Project (and Greenway Design); Swannanoa River Greenway Feasibility Studies and Final Design; Mendota Trail Master Plan; Oklawaha Greenway: North & South Extension Feasibility Studies; EB-5911, OLLE Art Walk (Old Lenoir Walk Multi-Use Trail); Saluda Grade Feasibility Study, Above the Mud Feasibility Study.



**Classification:** Senior Project Manager

**Office:** Asheville, NC

**Firm:** TPD

### **Kristy Carter, AICP** | Public Engagement Lead

Kristy Carter is a skilled community planner who has designed and executed transportation and community impact projects in dozens of communities. Her primary responsibilities include project management, land use and transportation analysis, and public engagement. She doesn't shy away from tough conversations and is dedicated to building equitable places; she leverages the community's voice for positive change to move forward together. **Project Experience:** BL-0007, Ecusta Rail Trail; C-5624, 1st Street East and West Bicycle and Pedestrian Project (and Greenway Design); Swannanoa River Greenway Feasibility Studies and Final Design; Flat Rock Trail Feasibility Plan; Walk Hendo: Comprehensive Pedestrian Plan; College Street and Patton Ave Protected Bike Lanes; Saluda Grade Feasibility Study; and Above the Mud Feasibility Study.



**Classification:** Senior Project Manager

**Office:** Asheville, NC

**Firm:** TPD

### **Colin Kinton, PE, IMSA II** | Design Oversight & Signals Lead

Colin Kinton has over 30 years of experience in the field of transportation planning and traffic engineering, working in both public and private sectors. He has experience in traffic engineering, including signal and signal system designs, corridor management studies, pedestrian crossing design, bike/ped signing and pavement markings, greenway design, traffic signal coordination and transportation operations center/traffic management center communications. Mr. Kinton has expertise in managing projects from initial planning through funding, concept, design, bid letting, construction and operations management. **Project Experience:** BL-0007, Ecusta Rail Trail; Swannanoa River Greenway Feasibility Studies and Final Design; EB-5911, OLLE Art Walk (Old Lenoir Walk Multi-Use Trail); C-5624, 1st Street East and West Bicycle and Pedestrian Project (and Greenway Design); College Street and Patton Ave Protected Bike Lanes.

## Chapter 3: Team Experience (Staff Roles, Resumes, Org Chart, & Workload)



**Classification:** Senior Project Manager

**Office:** Asheville, NC

**Firm:** TPD

### **Teresa Buckwalter, PLA** | *Landscape Architecture & Environmental Res. Lead*

Combining landscape architecture and community and land planning, Teresa Buckwalter brings a 20-year track record of project management for public projects. By combining her love of public space design and outdoor recreation, she has helped communities throughout the Southeast plan and design both engaging and functional spaces for people. **Project Experience:** BL-0007 Ecusta Rail Trail; Karen Cragolin Park Greenway; EB-5827 Fonta Flora State Trail; C-5624, 1st Street East and West Bicycle and Pedestrian Project (and Greenway Design); EB-5911, OLLE Art Walk (Old Lenoir Walk Multi-Use Trail); Saluda Grade Feasibility Study; Above the Mud Feasibility Study; NC 107 Greenway Feasibility Evaluation; Town of Weaverville Bicycle and Pedestrian Plan.



**Classification:** Project Manager

**Office:** Asheville, NC

**Firm:** TPD

### **Christopher Wachter, PE** | *Trail Design Support*

Christopher Wachter currently serves as a Highway Design Engineer and is responsible for the analysis and design of various projects for NCDOT, NJDOT, DeIDOT, PennDOT, the Pennsylvania Turnpike Commission, and other local government clients. He also has extensive experience in construction services as a construction inspector supervisor, where he has worked on hundreds of work orders providing daily oversight and documentation, and preparing estimates and works orders. **Project Experience:** C-5624, 1st Street East and West Bicycle and Pedestrian Project (and Greenway Design); EB-5911, OLLE Art Walk (Old Lenoir Walk Multi-Use Trail); NC 107 Greenway Feasibility Evaluation; Shiloh Sidewalk Project; and Swannanoa River Greenway Feasibility Studies and Final Design.



**Classification:** Senior Project Manager

**Office:** Freehold, NJ

**Firm:** TPD

### **Gregory Bitsko, PE, PP** | *Structures Lead*

Gregory Bitsko leverages his extensive engineering background to serve as a TPD Regional Structures Leader. His experience includes work on all stages of design, inspection, and management of transportation infrastructure projects. Greg's expertise in timber bridges and trestles was developed during his 18 years working in the Monmouth County Engineering Department in New Jersey, where the County maintains nearly 900 structures. Of the nearly 600 structures over five feet in length, more than 70% were timber construction to varying degrees. **Project Experience:** BL-0007, Ecusta Rail Trail; EB-5827, Fonta Flora State Trail; Mendota Trail Master Plan; Swannanoa River Greenway – Bleachery Boulevard Bridge Design; Bridge ML-55 Superstructure Replacement; Replacement of Bridge HL-20 on Church Road over North Branch of The Metedeconk River.



**Classification:** Vice President

**Office:** Durham, NC

**Firm:** MCA

### **Iona Thomas, AICP** | *Trail Design Support*

Iona Thomas is a certified planner who combines her passion for greenways with extensive technical expertise and management skills to design trails throughout the Southeast. She is a passionate supporter of greenways and believes they play an important role in economic development, creating healthy communities, providing alternate modes of transportation, and connecting people with nature. Iona is a national leader in greenways, serving on the East Coast Greenway Board of Trustees, co-chair of the biennial Southeast Greenway Summit, and an active member of NCDOT's Bicycle and Pedestrian Policy Committee. **Project Experience:** EB-5894, Durham Rail Trail; EB-5904, Black Creek Greenway; EB-4702, Snyder Rail Trail Greenway, Phases I + II; EB-5121A Cross City Trail, Phase I.



**Classification:** Director

**Office:** Charlotte, NC

**Firm:** MCA

### **Kevin Baucom, PLS** | *Survey Lead*

Kevin Baucom has 23 years of surveying experience and joined McAdams in 1998. He currently serves as the director of Geomatics for the Charlotte market. During his career in surveying, Kevin has managed a wide variety of projects in various market sectors, including municipal, energy, higher education, and private land development. He leads his team by consistently meeting project deadlines, delivering high-quality work, and focusing on client service through responsiveness and the flexibility to meet the specific needs of each client. **Project Experience:** EB-5782, McAlpine Creek Greenway Design; Sugar Creek Greenway; Pearl Street Park Renovations; New Centre Park Phase II; Carter-Ann Street Stormwater Improvements.



## Chapter 3: Team Experience (Staff Roles, Resumes, Org Chart, & Workload)



**Classification:**  
Project Manager

**Office:** Charlotte, NC  
**Firm:** MCA

### Andrew Hickling, PE | *Trail Design Oversight Support*

Andrew Hickling brings over 14 years of combined civil engineering experience on transportation and public infrastructure projects for state and local government clients across the Mid-Atlantic and Southeastern US. Prior to joining McAdams, Andrew worked as a project manager and engineer in a practice dedicated to the planning and design of greenways and other bicycle and pedestrian facilities. Andrew's relevant experience consists of planning, feasibility studies, public engagement, design, cost estimation and construction administration services for on- and off-street active transportation facilities. **Project Experience:** Sugar Creek Greenway; Mallard Creek Greenway; EB-5894, Durham Rail Trail; EB-5937, Book Walk + EB-5938, Book Walk South; EB-5542, Peavine Rail Trail Feasibility Study; EB-5827, Fonta Flora State Trail.

McADAMS



**Classification:**  
Project Delivery Leader

**Office:** Raleigh, NC  
**Firm:** RK&K

### Greg Goins, PE | *Geotechnical Lead*

Greg Goins has developed and directed subsurface exploration programs, including soil and rock sampling, acoustic tele-viewer (ATV), packer testing, and laboratory testing methods. He is also experienced in using in-situ testing equipment, including dynamic cone penetrometer (CPT), sonic borings, dilatometer tests (DMTs), and Pressuremeter Menard Tests (PMTs). Greg is experienced in field work and drilling in areas of limited right-of-way (ROW), such as dense urban areas, interstates, and rail ROWs. He is experienced in characterizing subsurface conditions, and providing recommendations regarding geotechnical engineering considerations, including bridge and building foundations, mechanically stabilized earth (MSE) walls, earthwork, pavements, and stormwater management (SWM). **Project Experience:** Cape Henlopen State Park Trail Improvements; Anacostia Riverwalk Trail; Six Forks Road Improvements.

RK&K



**Classification:**  
President

**NC Location:** Asheville, NC  
**Firm:** EQU

### David Tuch, PLA | *Threatened & Endangered Species Lead*

David Tuch is the owner and President of Equinox. He worked in Portland, Oregon for a multidisciplinary firm on greenway and trail, recreation planning, and ecological design in the states of Oregon and Washington. His past work experience also includes recreational planning and design for the National Park Service. He worked in Charlotte, NC for a firm focusing on park and greenway master planning and design projects prior to joining Equinox in 2000. David has brought his national experience to the region and has been involved in a variety of trail and greenway projects in the southeast over the past 21 years, working on over 80 greenway and trail related projects. **Project Experience:** Ecusta Rail Trail, Enka Heritage Trail; Swannanoa River Greenway; French Broad River Greenway at New Belgium Brewing; Highway 251 / Woodfin Greenway / Blueway.

EQUINOX  
business through proper planning



**Classification:**  
Senior Ecologist

**NC Location:** Asheville, NC  
**Firm:** EQU

### Owen Carson, Ecologist | *Threatened & Endangered Species Lead*

Owen Carson specializes in Environmental Assessments, Stream and Wetland Delineations, Regulatory Permitting, Natural Resource Inventory, Ecological Monitoring, Biological Surveys, and Non-native Invasive Species Planning & Management. He has provided environmental documentation for greenways in accordance with NCDOT guidelines & requirements, including Type II Ground-Disturbing Categorical Exclusion (CE) and Natural Resources Technical Reports. He also excels at stream and wetland delineations and jurisdictional determinations. He recently completed 401/404 and Section 6 permitting for the Ecusta Rail Trail project from Hendersonville to Horse Shoe. **Project Experience:** Enka Heritage Trail; Highway 251 Greenway; Swannanoa River Greenway.

EQUINOX  
business through proper planning

# Chapter 3: Team Experience (Key Staff Resumes, Org Chart, & Workload)

## ORGANIZATIONAL CHART

Engineering Services for Henderson County Ecusta Rail-Trail West

Henderson County, NC



### Project Team Key

**TPD:** Traffic Planning and Design, Inc.

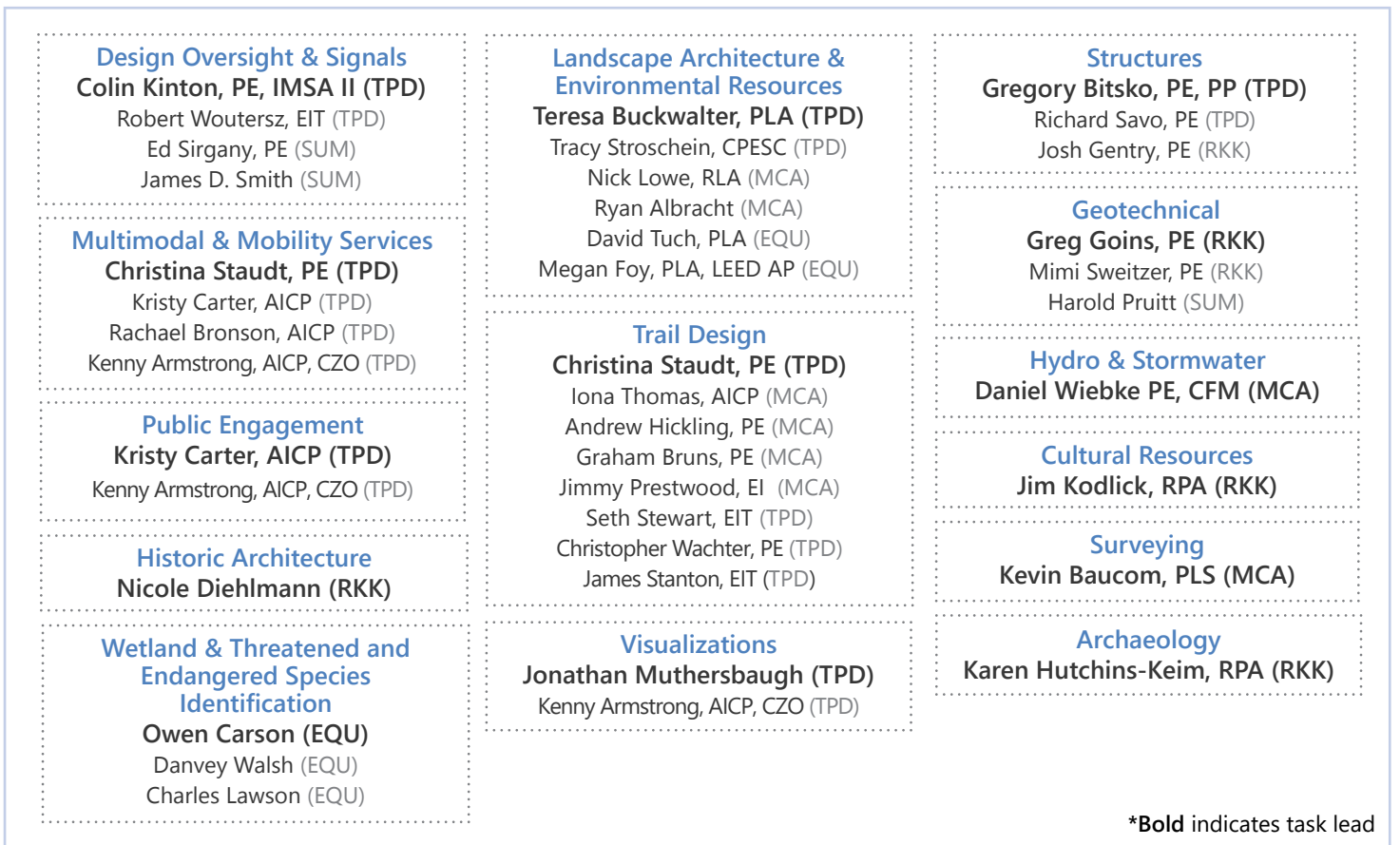
**MCA:** McAdams, Co.

**EQU:** Equinox Environmental Consultation and Design, Inc. \*

**SUM:** Summit Design and Engineering Services

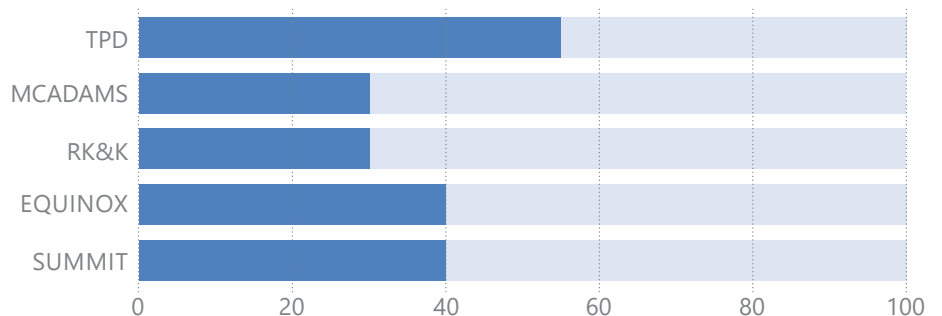
**RKK:** Rummel, Klepper, and Kahl, LLP.

\* Indicates certified SPSF firm.



## CAPACITY CHART

This chart highlights the Team's average availability for this project. This is not a final representation and is subject to change based on task assignments between the team after award.



Ongoing Communication, Schedule Management and Quality Assurance / Quality Control



**Project Initiation**



**Preliminary Engineering Tasks (30% Design)**



**Plan Refinement (60% Design)**



**Permitting and Clearances**



**Finalize Plans, Specifications and Estimates (90% Design)**



**Bidding and Construction**



The TPD Team is committed to timely delivery of the proposed scope of work as outlined in the Henderson County RFLOI for the Ecusta Trail (West), from Horse Shoe to the Henderson/Transylvania County line. We have developed our approach and methodology to address project challenges as we execute the RFLOI scope of work:

**I. Expedited Schedule & Meeting Federal Funding Requirements:** Even with 100% local design funding, any project with federal transportation construction funding must follow federal transportation project development *and* state and local permitting requirements. All too frequently, this leads to longer project delivery timelines compared to projects solely funded with local funds. TPD has been hired to deliver and has successfully implemented accelerated projects like the Ecusta Trail. TPD's Project Manager Christy Staudt managed one of these projects that included planning and public engagement, NEPA documentation, utility and right-of-way clearances, and a full set of permitted Plans, Specifications and Estimates (PS&E) delivered within 9 months to meet an established funding deadline. Achieving that timeline required project tradeoffs, including no right-of-way acquisition, no utility impacts, and minimizing environmental impacts. TPD's work on this project and other locally administered projects has afforded us an opportunity to hone our project development process. Below are some methods we'll propose to employ in Henderson County as we design the Ecusta Trail West:

- » **Mobilize quickly** to establish expectations, hold a kickoff meeting, conduct a corridor tour, and develop a detailed schedule.
- » **Establish clear survey parameters prior to receiving the project Notice to Proceed (NTP).** This means we will have survey crews ready to deploy on Day 1, allowing our teams to begin design work soon after NTP.
- » **Conduct early coordination meetings with all permitting agencies and internal NCDOT Departments** to establish expectations, review timelines, and create a process for documenting decisions. Our team will document the coordination efforts and produce a permit schedule to circulate for concurrence.
- » **Conduct mid-project conference calls with permitting and reviewing agencies** to flag issues early, inform reviewers of our plans to address the issues, and to gain consensus on the proposed approach.
- » Conduct an **early environmental impact and floodway analysis** to identify design criteria and parameters that could impact critical path items or the project schedule.
- » Provide a **written team project management plan** that will include a communication plan, a group email system to keep all team members informed of decisions to avoid missed coordination items, and bi-weekly team meetings to provide a platform for quick decisions and to monitor progress.

**II. Management of Reviews, Permitting Process & Timeline:** Project success begins with TPD, County Staff, and other stakeholders (e.g., NCDOT) working together to reach agreement on the project's budget, schedule and task sequencing, and project communications plan. In addition to the items above, we will develop a team project schedule using Microsoft Project and provide regular schedule updates if unforeseen items arise in the process. When needed, the team will conduct mid-project conference calls with permitting and reviewing agencies to flag issues early and inform reviewers of plans to address issues and establish concurrence on our approach.

**III. Addressing Design Parameters & Related Impacts that Can Affect Schedule:** TPD plans to conduct our primary stream floodway analysis early in the process and to run multiple trail corridor design scenarios using OpenRoads Designer. This allows us to minimize impacts and



## Chapter 4: Technical Approach & Methodology

permitting times and determine a low impact alignment early to avoid last minute project modifications. During this process and throughout design, the team will monitor environmental impacts and permitting implications. We will look at options and solutions to avoid utility conflicts and the need for right-of-way and temporary easements. Where impacts are unavoidable, our team will discuss with Henderson County and the NCDOT project manager, provide options, and identify a clear path forward to minimize delays.

**IV. Communication:** The need to move quickly requires a team like ours - a team that can communicate clearly and often, provide quality information to identify the pros and cons of decisions, leverage existing relationships, and communicate with the many outside stakeholders. To facilitate communication, TPD will develop and circulate a written team communication plan to keep team members informed of decisions and to avoid missed coordination items. During our bi-weekly team coordination meetings, we will review a checklist of critical path items to keep the team on schedule. This meeting will also be used to address design issues, provide a platform for quick decisions, and to monitor progress.

**V. Managing Expectations:** TPD understands that there is considerable public and stakeholder interest in quick implementation of this project. Knowing that there is potential for public misunderstanding of the process and what goes into a design that involves federal funding, TPD plans to work with County staff to develop a public informational guide and platform for providing updates. Our ability to explain complex engineering terms and processes in simple terms will assist the County in managing expectations of all partners and interested parties.

**VI. Consistency with Adjacent Ecusta Sections:** The TPD Team understands that although the three Ecusta Trail sections will be implemented on various timelines, the end experience for future trail users is one consistent trail adventure. If awarded, the TPD Team will be the only team to work on all three sections of the Ecusta. As such, we are prepared to facilitate discussions and build consensus across county and municipal lines.


**VII. Quality Assurance and Avoiding Errors:** The potential for error increases with complex, expedited projects that involve many players. To avoid missteps with communication, permitting, scheduling, invoicing, and plan accuracy, we will employ a Quality Assurance and Quality Check process that includes internal processes such as design and invoicing reviews by senior staff prior to submissions. We also plan to take advantage of the depth of knowledge provided by our partners at McAdams, Equinox, RK&K, and Summit. We will conduct peer reviews of materials by discipline experts to ensure that plans are accurate.

While the above measures are TPD’s approach to project delivery from the technical perspective, we also approach this project as members of the local community and who bring a commitment and passion to this work. Having watched various Ecusta Trail partners work hard for so many years to get the project to this point, we look forward to and would be honored by the opportunity to serve Henderson County as you bring this vision into reality.

### EXAMPLE SCHEDULE

The following example schedule was developed to provide a summary of steps and anticipate timelines based on RFLOI project information. **This schedule will require refinement and revisions during the first month of the project, based on meetings with reviewing and permitting agencies to refine timeline commitments.** TPD will evaluate ways to streamline the schedule as discussed in our approach above.

MILESTONES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Project Initiation: Survey, Data Collection, Develop Permitting Agreements and Refine Schedule																		
30% Plans and Estimates: Trail Design - CAD Model, Floodway Evaluation, Impact Assessment and Plan Refinement and Bridge Assessments																		
60% Plans and Estimates: Trail Design Tasks, Floodway and CE Development and Easement and ROW Evaluations																		
90% Plans, Specifications Estimates (PS&E) + Secure Permits and Clearances																		
Final Plans, Specifications and Estimates (PS&E)																		
Bid Docs Draft, Review, Revisions and Advertisement																		

 = Assumed 1 month review period


**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
PRIME CONSULTANT  
TO BE USED WITH PROFESSIONAL SERVICES CONTRACT ONLY  
RACE AND GENDER NEUTRAL**

**Henderson County Ecusta Rail-Trail West**

*TIP No. and/or Type of Work (Limited Services)*

**Traffic Planning and Design, Inc.**

*(Consultant/Firm Name **ONLY** -- Include **NO PII (Personally Identifiable Information)**)*

<i>SERVICE / ITEM DESCRIPTION</i>	<i>Anticipated Utilization</i>
23 - Bridges (spans Over 200); 24 - Bridges (Spans Under 200); 32 - Categorical Exclusion; 63 Environmental Assessment/Finding of No Significant Impacts; 70 - Erosion Control; 132 - Landscape & Streetscape Design; 155 - Pavement Marking Plans; 171 - Public Involvement	
207- Signal Design; 247 - Traffic Control Plans; 269 - Retaining Wall Investigation & Design; 280 - Wetlands & Stream Delineation; 316 - Multi-Use Trail Design, Survey, & Layout; 433 - Basic Hydrologic & Hydraulic Design; Tier II Complete Hydrologic & Hydraulic Design	50%
<b>TOTAL UTILIZATION:</b>	50%
<b>RECOMMENDED BY:</b> CONSULTANT:	
Traffic Planning and Design, Inc.	
*BY: Christina Staudt, PE 	
TITLE: Regional Manager	
SPSF Status:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

**“PRIME CONSULTANT” (FORM RS-2)**  
**RACE AND GENDER NEUTRAL**

**Instructions for completing the Form RS-2:**

1. Complete a Prime Consultant Form RS-2 for the prime consultant firm.
2. Insert TIP Number and /or Type of Work (Limited Services)
3. Complete the Consultant/Firm name for the primary firm information.
4. Enter Service/Item Description – describe work to be performed by the Prime Firm
5. Enter Anticipated Utilization – Insert dollar value or percent of work to the Prime Firm
6. \*Signature of the Prime Consultant **is required** on each RS-2 Form to be submitted with the Letter of Interest (LOI) to be considered for selection
7. Complete “SPSF Status” section - Check the appropriate box regarding SPSF Status, check Yes if SPSF or No if not SPSF

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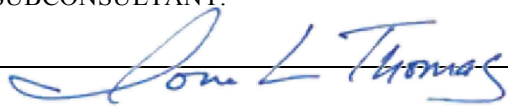

*TIP No. and/or Type of Work (Limited Services)*

**Traffic Planning and Design, Inc.**

*(Consultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

,Co

*(Subconsultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

<b>SERVICE / ITEM DESCRIPTION</b>		<i>Anticipated Utilization</i>
199: Route Location Survey; 433: Basic Hydrologic and Hydraulic Design; 434: Tier II Complete Hydrologic and Hydraulic Design; 316: Multi-Use Trail Design, Survey & Layout; 132: Landscape and Streetscape Design		20%
<b>TOTAL UTILIZATION:</b>		20%
<b>SUBMITTED BY:</b> McAdams SUBCONSULTANT:	<b>RECOMMENDED BY:</b> CONSULTANT:	
		
		Traffic Planning and Design, Inc.
*BY:	*BY: Christina Staudt, PE 	
TITLE:	TITLE: <span style="border: 1px solid black; display: inline-block; width: 50px; height: 15px; vertical-align: middle;"></span>	
		Regional Manager
SPSF Status:    Yes <input type="checkbox"/> No <input type="checkbox"/>		

**“SUBCONCONSULTANT” (FORM RS-2)**  
**RACE AND GENDER NEUTRAL**

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4. Complete the Subconsultant/Sub Firm name for the sub firm information.
5. Enter Service/Item Description – describe work to be performed by the Sub Firm
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7. \*Signatures of both Subconsultant and Prime Consultant **are required** on each RS-2 Form to be submitted with the Letter of Interest (LOI) to be considered for selection
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**Henderson County Ecusta Rail-Trail West**

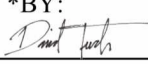

*TIP No. and/or Type of Work (Limited Services)*

**Traffic Planning and Design, Inc.**

*(Consultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

**Equinox Environmental Consultation and Design, Inc. / 55-0789032**

*(Subconsultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

<b>SERVICE / ITEM DESCRIPTION</b>		<i>Anticipated Utilization</i>
243 Threatened & Endangered Species Survey;		
280 Wetlands & Stream Delineation; 132 RLA Lead		10%
<b>TOTAL UTILIZATION:</b>		10%
<b>SUBMITTED BY:</b> SUBCONSULTANT:	<b>RECOMMENDED BY:</b> CONSULTANT:	
Equinox Environmental	Traffic Planning and Design, Inc.	
*BY:  David Tuch, PLA	*BY: Christina Staudt, PE 	
TITLE: President	TITLE: <div style="border: 1px solid black; width: 50px; height: 15px; display: inline-block;"></div>	
SPSF Status:    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Regional Manager</b>	

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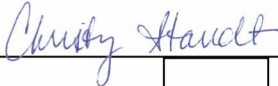
*TIP No. and/or Type of Work (Limited Services)*

**Traffic Planning and Design, Inc.**

*(Consultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

**Summit Design and Engineering Services**

*(Subconsultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

<b>SERVICE / ITEM DESCRIPTION</b>		<b>Anticipated Utilization</b>
207: Signal Design; 23 - Bridges (spans Over 200); 24 - Bridges (Spans Under 200)		
<b>297: Pavement Design Investigation</b>		<b>10%</b>
<b>TOTAL UTILIZATION:</b>		<b>10%</b>
<b>SUBMITTED BY:</b> SUBCONSULTANT: 	<b>RECOMMENDED BY:</b> CONSULTANT:	
Summit Design and Engineering Services	Traffic Planning and Design, Inc.	
*BY: Shane Parker	*BY: Christina Staudt, PE	
TITLE: Director of Operations	TITLE: <input type="text"/>	
SPSF Status:    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Regional Manager</b>	

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*TIP No. and/or Type of Work (Limited Services)*

**Traffic Planning and Design, Inc.**

*(Consultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

**Rummel, Klepper & Kahl, LLP**

*(Subconsultant/Firm Name **ONLY** -- Include NO PII (Personally Identifiable Information))*

<b>SERVICE / ITEM DESCRIPTION</b>	<b>Anticipated Utilization</b>
23 - Bridges (Spans Over 200); 24 - Bridges (Spans Under 200); 32 Categorical Exclusion; 63 Environmental Assessment/Finding of No Significant Impacts; 106 Historic Architectural Surveys of Standing Structures; 143 NBIS Bridge Inspection; 171 Public Involvement	
270 Utility Coordination; 294 Roadway Foundation Investigation & Design; 295 Structure Foundation Investigation & Design; 296 Retaining Wall Investigation & Design	10%
<b>TOTAL UTILIZATION:</b>	10%
<b>SUBMITTED BY:</b> SUBCONSULTANT: <i>B. Keith Skinner</i>	<b>RECOMMENDED BY:</b> CONSULTANT:
Rummel, Klepper & Kahl, LLP	Traffic Planning and Design, Inc.
*BY: B. Keith Skinner, PE	*BY: Christina Staudt, PE <i>Christy Staudt</i>
TITLE: Partner	TITLE: <div style="border: 1px solid black; width: 50px; height: 15px; display: inline-block;"></div>
SPSF Status:    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Regional Manager</b>

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