



# Find your path.

Response to RFQ

**BICYCLE AND PEDESTRIAN  
MASTER PLAN**

**INCOG**

**MAY 3, 2013**



**KITTELSON & ASSOCIATES, INC.**  
TRANSPORTATION ENGINEERING/PLANNING

MOVING **FORWARD** THINKING™

*Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty. Think big. — Daniel Burnham*

Mr. James Wagner, AICP, Project Manager  
Indian Nations Council of Governments  
2 West 2<sup>nd</sup> Street, Suite 800 | Tulsa, OK 74103

May 3, 2013

**RE: Statement of Qualification — Tulsa Transportation Management Area Bicycle/Pedestrian Master Plan**

Dear James,

**Kittelison & Associates, Inc.** in association with **Red Plains Professional, Inc.** and **Vitruvian Planning**, is proud to offer our transportation planning and engineering services to the Indian Nations Council of Governments (INCOG) in support of the Bicycle/Pedestrian Master Plan. Our team brings unparalleled active transportation skills, which—coupled with our recognition as a national leader in traffic operations analysis, transportation planning, and community involvement—will provide INCOG with a plan that “Thinks Big” yet stays grounded, providing connections between the communities and residents of Green Country.

To build community excitement from the onset, we suggest creating a brand and have used the slogan *Find Your Path* in recognition of the existing path network that serves as the backbone of this regional effort. We understand a key focus of this plan will be supplementing the existing pathway network with on-street facilities, regional amenities, policies, and actions that will truly make bicycling and walking a safe, effective, and fun way to travel for all members of the communities.

KAI brings industry leading expertise in pedestrian and bicycle planning and design, as well as traffic and transit operations. KAI led the development of the Multi-modal Level of Service Analysis for Urban Streets methodology included in the *2010 Highway Capacity Manual*, and has extensive experience with a wide variety of bicycle and pedestrian facilities from on-street cycle tracks, bike lanes and “sharrows,” multi-use paths, and rail-trails. Coupled with our traffic operations expertise and understanding of how active transportation modes integrate within the vehicular system, we will be able to identify, prioritize, and tailor the appropriate treatment for each new connection.

We have worked on award winning pedestrian and bicycle plans throughout the country, we look forward to bringing our skills and experiences together on the Bicycle/Pedestrian Master Plan. Our qualifications outlined on the following pages further outline our capabilities.

We greatly appreciate the opportunity to submit these qualifications to INCOG. We are confident in the ability of our team to provide INCOG with a plan that “Thinks Big” but remains grounded in practical research, sound analysis, and thorough consideration of engineering and design. Furthermore, we will, from day one, approach every element by listening to and developing the support of the communities this plan is intended to serve. If you have questions or need further information regarding our proposal or experience, please call me at 208.338.2683.

Sincerely,

  
Sonia Hennem, PTOE  
Associate Engineer

  
Tim Jackson, AICP  
Senior Principal Planner



## PROJECT UNDERSTANDING

Our familiarity with the specific needs and goals for the Bicycle/Pedestrian Master Plan has been developed based on conversations with those leading this effort in the local area. Through these discussions we've distilled the following key themes the plan should address:

### Make the Connections

The Tulsa trail system is world class and provides the “highways” to the system-wide network. However, the system lacks on-street connections to and between the trails. While residential streets provide local bicycle connections, many neighborhoods lack sidewalks. A key focus of this effort will be the development and prioritization of connections between residential neighborhoods, the regional street system, and to the trail network.

### Regional View

Without a regional master plan focused on active transportation, historical bicycle and pedestrian planning has been somewhat piecemeal. The region takes advantage of opportunities to add pedestrian and bicycle facilities as they are presented from either new development or funding sources. By joining together, this effort will seek to set regional priorities and use them to further leverage new opportunities. Having a regional master plan that is flexible and adaptable to a regional vision helps garner public and private support that will provide stronger footing for capital improvement money.

### Education & Promotion for All

Today's bicycle system caters relatively well to cycling enthusiasts and confident riders. However, to fully integrate active modes as viable transportation options we need to establish a network that serves users of more levels and abilities. This plan should identify facilities and

There is no power greater than a community discovering what it cares about. —Margaret J. Wheatley

connections that provide a comfortable environment for commuters, recreational riders, and general travelers including families, pedestrians, people with physical challenges, transit riders, and those outside of the urban centers. In addition, advocacy will teach bicyclists, pedestrians, and drivers how to interact with facilities and each other is key. Education on the diverse benefits of bicycle and pedestrian travel (in schools, of local leaders/decision makers) will help improve priorities and provide the governmental changes needed to enhance the bicycle and pedestrian environment. Previous work we have completed related to the health and economic benefits of bicycle networks has provided us with best practices for communicating with stakeholders from outside the bicycling community.

### World Class Bike/Ped Community

The INCOG area has and is considering many innovative elements to promote walking and biking in the community. This plan should take those ideas that are in place (Tulsa Townies bike share system along the Tulsa River Parks trail, Street CReD, Cyclovia event in 2014, trails and wayfinding, custom bike racks in downtown Tulsa, bicycle friendly community rating, potential hybrid bike lanes on Route 66) and build upon them through this regional effort. The supporting infrastructure, amenities, and community relations are a critical and important piece that will complement on-street facilities to create Complete Streets and develop a community of walkers and cyclists.

### Keep Being SMART

INCOG's Bicycle and Pedestrian Advisory Committee has completed great work to date. The establishment of the SMART goals sets a strong

tone for the start of this plan. The goals are comprehensive and cover engineering, education, amenities, and promotion. The work done to create these goals at the regional level can and should be used for this effort.

## BPAC SMART GOALS

1. Receive silver bicycle-friendly status from the League of American Bicyclists and bronze status from Walk Friendly Communities by the end of 2017.
2. Achieve a 50% reduction in preventable fatal and injury crash rates for pedestrians and bicyclists by year end of 2017.
3. Triple Tulsa's bicycle commuter mode share by the end of 2017 and achieve a 10-fold in-crease by the end of 2022. Raise Tulsa's walking commuter mode share to 3% by end of 2017 and 4% by 2022.
4. Dedicate a minimum of 7% of transportation funding to bicycle and pedestrian infrastructure, beginning with the next funding package and annual budget.
5. Develop and begin implementation of public education campaigns designed specifically for the general public and for law enforcement officers by 2014 and a campaign for Tulsa area public school students, reaching 75 percent of schools by end of the 2014-2015 school year.

We recognize there are many details and nuances beyond this summary that must be addressed through the master plan process. We look forward to refining these ideas and priorities if given the opportunity.

## WHO WE ARE



Kittelston & Associates, Inc. (KAI) provides comprehensive transportation engineering, planning, and research services to government and private organizations. KAI is made up of 13 offices in 2 countries and within 8 states. Our staff of skilled professionals and national experts offer decades of progressive research, technological innovation, and a diverse portfolio of industry-leading work.

From long range transportation plans to neighborhood traffic management, KAI's transportation professionals are committed to working with clients to develop plans that are fully multimodal, comprehensively address community needs, enhance community livability, and work towards sustainable initiatives. We exhibit this commitment by ensuring that each project begins with a fundamental understanding of the problem to solve, issues to overcome, study area characteristics, and key stakeholders. Gaining this understanding at the outset allows us to create products that are targeted, innovative, and feasible.

Our extensive pedestrian and bicycle planning and design experience includes the development of studies and guidebooks, such as the NACTO *Urban Bikeway Design Guide*, as well as participation in NCHRP 07-19: *Innovative Pedestrian-Bicycle Data*. Project work includes planning on-street, pathway, and trail systems for entire cities, resorts, and individual neighborhoods. It also includes designing pedestrian wayfinding signs and other design elements. KAI has been involved in numerous illumination projects, including designing pedestrian scale lighting projects while taking into account the location of lighting posts in relation to the walking area. We recognize that healthy, sustainable societies de-

pend on efficient, active, and safe multimodal transportation that is cost-effective to manage, operate, enhance, and use over time. From site design to statewide transportation system planning, KAI combines transportation and land use to produce integrated and innovative solutions that achieve sustainable community goals.

As a Bicycle Friendly Business and National Complete Streets Coalition Partner, we truly believe in "practice what you preach." While our staff are active transportation enthusiasts, we have the context and breadth to understand how active transportation can fit into and best integrate with the other facets of the transportation system to be most effective.



### Red Plains Professional, Inc.

Red Plains Professional, Inc. (Red Plains) is a civil engineering, GIS, and planning company that was founded in 1997. We are a certified Disadvantaged Business Enterprise located in Edmond, Oklahoma. We are small enough to understand the importance of personal service and large enough to meet the fundamental mission of providing a quality product at an equitable price. We are a well-rounded company with well qualified staff. We believe in advancing our technical knowledge and using our expertise to best serve our clients. Our unique strengths include:

- Individuals with over 25 years of engineering experience;
- Staff with varied prior work experience including Oklahoma DOT, Texas DOT, Bureau of Indian Affairs, and several local municipalities;
- Leadership with experience not only in civil engineering but also in GIS and

project management which includes staff supervision, multidiscipline coordination, and public involvement; and

- Understanding of the complete project process from initial planning to design to implementation and commitment to providing a quality product within the established deadline.

### Vitruvian Planning



Vitruvian Planning was established to

add a new voice to an industry which historically has overlooked its impacts on human health. With a company philosophy Bridging Health and Mobility, Chris Danley aims to infuse health considerations and impacts into the various forms of transportation planning. Having a personal background as a trainer, coach, and triathlete, and a career in transportation planning, his two perspectives allow for a unique skill set that continues to prove beneficial for the many clients Vitruvian Planning has had the pleasure of working with. Chris is well positioned through experience and educational opportunities to expand the breadth of planning to include consideration and measures of public health through tools such as Health Impact Assessment and Health Profiles, and by introducing a planning model called the Activity Connection Plan. Since its inception, Vitruvian Planning has continued to improve the quality of plans including the health lens either entirely or in part into countywide bicycle and greenway plans, a city pedestrian plan, Safe Routes to School plans, Complete Streets Policy assessments, and comprehensive transportation efforts.

Nothing compares to the simple pleasure of a bike ride.

— John F. Kennedy

## OUR EXPERIENCE AND COMPETENCY

KAI has a 27 year history of leadership and innovation in the transportation profession. A hallmark of our firm is the seamless integration of research, planning, engineering, and design. Our planners are engineers and our engineers are planners, meaning we understand the full project cycle from establishing initial goals and objectives and big picture idea creation, all the way through detailed project design and implementation. While our plans are innovative and forward thinking, they are also grounded in practicality and supported with solid implementation steps that can be used to take the big ideas and make them achievable. We, the specific team members that will work on the INCOG plan, love bicycle and pedestrian work. It's our passion and we have been at the forefront of integrating it into the roadway and transit engineering for which KAI is known. There are many elements of our experience and competencies that make the KAI team the best team for this work. Here are what we feel are the most important:

### Broad Context

KAI is known for innovative bicycle and pedestrian planning (see **Our Record of Success**) but we are not exclusively a bike/pedestrian planning firm. **We understand how to evaluate and plan these modes in context of the other transportation system elements** (vehicular, transit) and recognize the great importance of looking at the system in that holistically manner for operations and safety.

### Support Innovation with Evaluation/Analysis

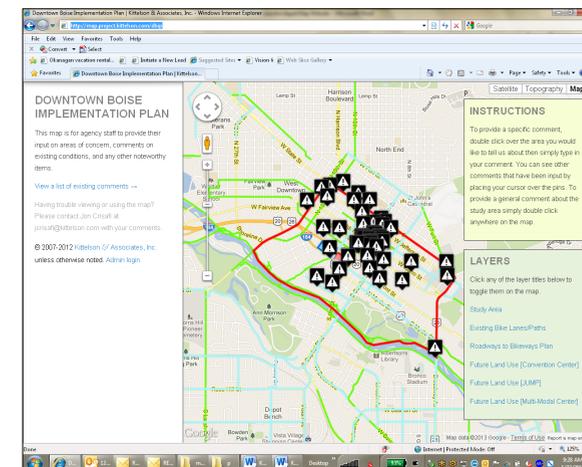
Big picture, innovative planning is no more powerful than when supported by solid, defensible, and communicative analysis. Telling a story through the clear evaluation of the system and alternatives provides substance and clarity to the planning process, can converge conflicting view points, and provides a defensible way to strategize and prioritize resources. Well versed in Multi-Modal Level of Service analysis (KAI developed the procedures and have been at the forefront of applying them throughout the country), we provide expertise in quantitative technical analysis that identifies and weighs the trade-offs of cyclist and pedestrian travel experience.

### Develop Champions

Stakeholder and community investment is the key to taking “Find Your Path” from a plan to reality. Our approach to plan development is truly ground up, begins with listening, and seeks to provide every possible opportunity for input and collaboration. From stakeholder bike tours to interactive commenting maps, we have the approach and tools to ensure this will be the community’s plan and that community members will be just as excited and passionate as we are about moving it forward.

### Make it Practical to Make it Real

We pride our plans on the fact that they are big ideas that actually get done. We have a record of success with MPOs and other organizations in creating innovative and progressive goals that are attached to implementable policies, steps, and projects. We have done so by tying vision to progressive prioritization methods that identify those projects that can be done and that



Interactive Web Comment Map



Bicycle Route String Game



Public Outreach at Farmers Market

will provide the most value for investment. We frequently create these strategies for multi-jurisdiction efforts where multiple agencies need to set regional priorities. Finally, we work collaboratively with stakeholders to base prioritization on innovative yet practical performance measures that best reflect and measure the community's needs and values.

### All Around the Country yet Right Down the Hall

While most of our team members aren't local to the Tulsa area, you might not even realize that once we start working together! KAI has successfully worked collaboratively and remotely on a multitude of national projects even though we are spread across 13 offices. We will bring the technology, tools, and practice we have developed that allows us to do so to the INCOG effort so that you have access and can benefit from this national expertise as if it was in your own backyard. These tools include interactive project web sites for document sharing and editing, as well as online meeting and video conferencing software for face-to-face interaction even while far away. As great as these tools are, we still believe there is no substitute for in-person collaboration and work. That is why we will propose to conduct the bulk of project work through intensive multi-day work sessions while we are there in person in the Tulsa area. This approach allows us to gain maximum value from trips to the project area, work with and not just for the agencies and stakeholders, and do so in a cost efficient manner.

### RECENT, RELEVANT WORK

|  |
|--|
| NACTO Urban Bikeway Design Guide, National   |
| NCHRP 7-17 Pedestrian and Bicycle Facilities along Existing Roads, National        |
| ACHD Pedestrian Facilities Improvement Plan  |
| NSVRC WinFred Bicycle & Pedestrian Plan, VA  |
| Siskiyou Boulevard Pedestrian Improvements, OR                                     |
| ACHD Neighborhood Bicycle & Pedestrian Plans, ID                                   |
| Shamrock Bikeway Concept Study, ID   |
| SW Orlando Transportation Improvement Plan, FL                                     |
| Philomath SRTS Route Plan, OR  |
| DDOT Innovative Bike Facility Evaluation, DC                                       |
| Madras Bicycle & Pedestrian Plan, OR   |
| Fairbanks Non-Motorized Transportation Plan, AK                                    |
| N Rosa Parks Road Diet, OR   |
| Carnegie Mellon Pedestrian Study, MA   |
| FDOT D6 Pedestrian Safety Evaluations, FL  |
| Glacier Highway Bicycle & Pedestrian Project, AK                                   |
| Egan Drive 10 <sup>th</sup> St to Whittier St, AK                                  |
| Holland Orenco Station, OR   |
| Washington County Bike Design Toolkit, OR  |
| Science Park Drive Pedestrian Crossing, OR   |
| THPRD Walker Road Mid-Block Crossing, OR   |
| Forest Grove Pedestrian Crossings, OR  |
| Roseburg Pedestrian Crossings Study, OR  |
| Kings Road Pedestrian Crossing Study, WA   |
| Birch Lane Safety Review, ID   |
| SCAG Bicycle Clearinghouse, CA   |
| California Pedestrian Safety Assessments, CA                                       |
| Maryland DOT Pedestrian/Bicycle Statewide Plan, MD                                 |
| HCM 2010 LOS for Off-street Paths and Uncontrolled Crossings ITE Webinar, National |
| Sanibel Pedestrian & Bicycle Plan, CA  |



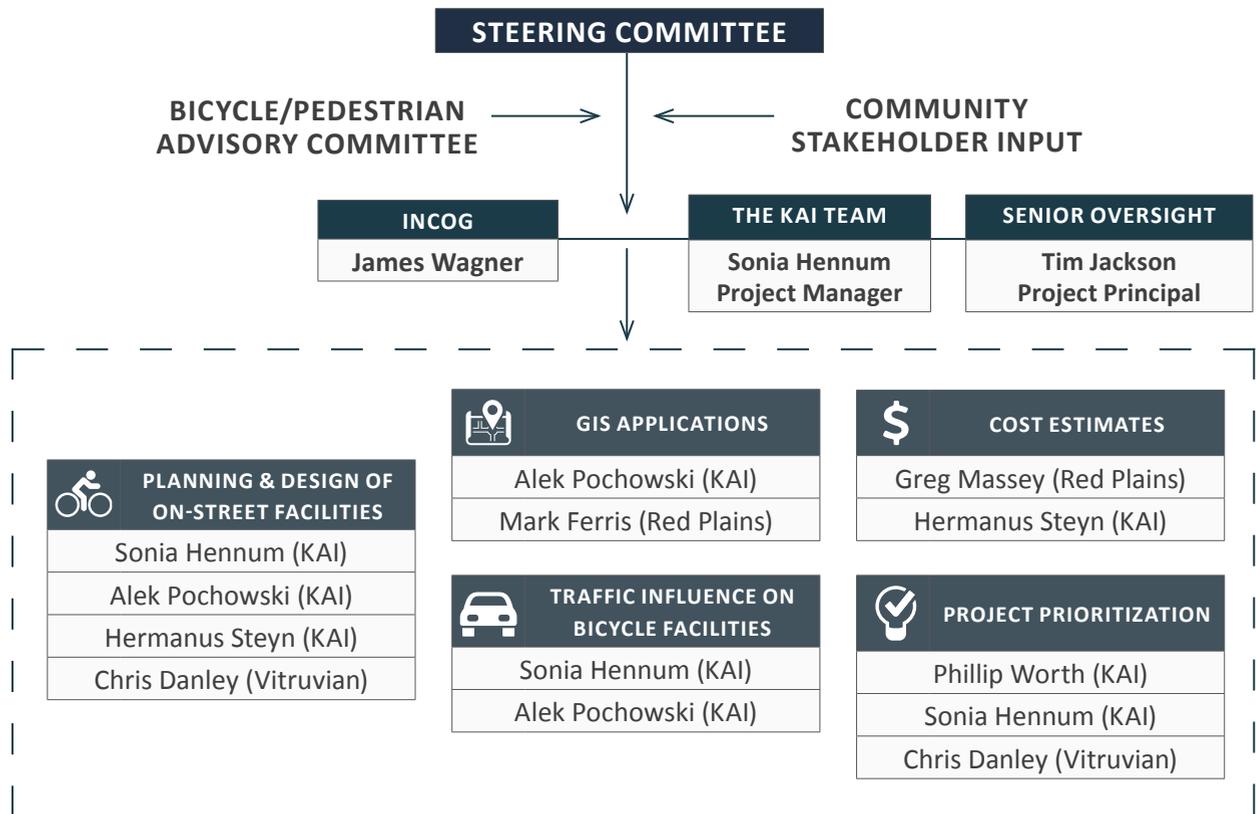
Educational Bike Rodeo



Project Team Bike Tour

## OUR TEAM

The KAI team brings unparalleled experience in the evaluation, planning, and design of bicycle and pedestrian systems. Sonia Hennum, PTOE will serve as the KAI Team Project Manager. With 16 years of transportation planning and engineering experience, her passion for bicycle and pedestrian work has developed through numerous bikeway, neighborhood connection, and regional long-range planning projects. Sonia will be supported by Tim Jackson, AICP a national leader in innovative community planning. The following exhibit show the team’s proposed organization and the specific skills and expertise of our dynamic team of exceptionally qualified and passionate planners.



**SONIA HENNUM, PTOE, ASSOCIATE ENGINEER (16 YEARS EXPERIENCE)**  
BS CIVIL ENGINEERING, QUEEN’S UNIVERSITY AT KINGSTON, ONTARIO, CANADA

Sonia brings a balance of progressive transportation planning with detailed engineering understanding. She has completed financially sound projects that apply context-sensitive principles, support community goals, and cater to the access and mobility needs of all users. She produces successful projects by fostering early and consistent stakeholder participation by clearly communicating technical information.

|   |   |
|---|---|
| Nampa Bike/Ped Plan, Nampa, ID<br>Madras Bike/Ped Plan, Madras, OR<br>Dwntwn Tourism Ped Plan, Juneau, AK | Neighborhood Connection Plans, Ada Co, ID<br>Communities in Motion Regional Long Range Plan – Treasure Valley (Boise), ID |
|---|---|

**TIM JACKSON, AICP, SR PRINCIPAL PLANNER, (34 YEARS EXPERIENCE)**  
MURP, FLORIDA STATE UNIVERSITY  
MCP, GEORGIA INSTITUTE OF TECHNOLOGY  
BS CIVIL ENGINEERING, GEORGIA INSTITUTE OF TECHNOLOGY

Tim has more than 30 years of experience in community planning and design, and in transportation engineering for public and private clients that promote more livable communities through sustainable programs, including master planning, comprehensive planning, multimodal planning, urban design, regional planning, visioning, context-sensitive solutions, and strategic advisory services.

|  |  |
|--|--|
| Connect Atlanta (GA) Comprehensive Transportation Plan<br>Seminole County (FL) Mobility Plan | <i>Alachua County Corridor Design Manual</i> , Gainesville, FL<br>Bike/Pedestrian Toolbox, Atlanta, GA |
|--|--|



**ALEK POCHOWSKI, AICP ENGINEER/PLANNER (5 YEARS EXPERIENCE)**  
 MCRP, GEORGIA INSTITUTE OF TECHNOLOGY  
 MS CIVIL ENGINEERING, GEORGIA INSTITUTE OF TECHNOLOGY  
 BS CIVIL ENGINEERING, IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

Alek has extensive experience in the operations and design of pedestrian and bicycle facilities. He understands the importance of designing for all users, including the most vulnerable. He has evaluated and designed bicycle and pedestrian facilities in a variety of settings, from urban cycle tracks to five-lane suburban arterials.

|  |                                     |
|--|-------------------------------------|
| NSVRC Win Fred MPO Pedestrian and Bicycle Planning | DDOT Innovative Bike Facility Eval. |
| DDOT Ped Safety Corridor Design                    | Volusia County Beach Safety Study   |
|  | Far Northeast Livability Study      |



**PHILLIP S. WORTH, PRINCIPAL PLANNER (25 YEARS EXPERIENCE)**  
 MURP PROGRAM COURSES, PORTLAND STATE UNIVERSITY  
 BS LIBERAL ARTS, OREGON STATE UNIVERSITY

Phill has directed the development of more than 80 long-range transportation system plans, community and area-wide master plans, regional and metropolitan transportation plans, and integrated land use/transportation/economic development plans throughout the United States.

|  |                                     |
|--|-------------------------------------|
| Communities in Motion Regional Long Range Plan – Treasure Valley (Boise), ID | FMATS Non-Motorized Trans Plan, AK  |
|  | 2035 Regional LRTP for Southeast FL |



**HERMANUS STEYN, PE, ASSOCIATE ENGINEER (20 YEARS EXPERIENCE)**  
 B.ENG. CIVIL ENGINEERING,  
 UNIVERSITY OF STELLENBOSCH, SOUTH AFRICA

Hermanus has extensive experience in a variety of transportation studies that include in ped/bike projects ranging from conceptual through detail design to construction. He considers space within the right-of-way, level of comfort for various users, trade-offs, traffic control at conflict points, constructability, and cost estimating in establishing a desirable community-based facility .

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Washington Co Bike/Ped Design Toolkit | Walker Road Ped/Bike Crossing, OR  |
| Science Park Drive Ped Crossing, OR   | Thatcher Road and Gales Creek Road |
| Ped/Bike Kings Road Crossing, OR      | Ped/Bike Crossing Studies, OR      |



**CHRIS DANLEY, TRANSPORTATION PLANNER (14 YEARS EXPERIENCE)**  
 MURP, EASTERN WASHINGTON UNIVERSITY  
 BS SOCIAL SCIENCE, CHAPMAN UNIVERSITY

Chris has been a pioneer in the health/active transportation connection and has authored health impact assessments, developed safe routes to school plans and the Activity Connection Plan® model, and has assisted communities with Complete Street policy implementation. Additionally, Chris has led workshops and presented on the subject throughout the country.

|                                  |                                    |
|----------------------------------|------------------------------------|
| Buncombe County Greenway HIA     | Garden City Livable Streets Plan   |
| Haywood County Bike Plan HIA     | Mountain Home Complete Street Impl |
| Robbinsville Pedestrian Plan HIA | Idaho SRTS Community Plans         |

**MARK FARRIS, PE – CEO/OWNER (29 YEARS EXPERIENCE)**  
 BS – CIVIL ENGINEERING – OKLAHOMA STATE UNIVERSITY  
 ADA COMPLIANCE REVIEW CERTIFIED

Mark’s experience includes site planning, waterline and waste waterline design, roadway and bridge design, parking lot design, and subdivision development and design. He provides project management oversight and quality control/quality assurance checks.

|  |                                      |
|--|--------------------------------------|
| Clinton Indian Hospital, Sidewalk Imps and Walking Trail | ODOT US 77 Bridge, Carter County     |
| Rainy Mountain Creek Bridge, Kiowa Co                    | PC-0415 Bryant Avenue, Oklahoma City |
|  | Edgewater Subdivision, Edmond        |

**GREG MASSEY, PE, PLS, VICE PRESIDENT (31 YEARS EXPERIENCE)**  
 ASSOCIATE IN APPLIED SCIENCE, ENGINEERING TECHNOLOGY,  
 OKLAHOMA STATE UNIVERSITY

Greg has been involved in civil engineering and surveying for over three decades. He has contributed his expertise in engineering design and survey coordination on a variety of projects in the commercial, industrial, institutional, municipal, and residential sectors.

|                                    |                                 |
|------------------------------------|---------------------------------|
| Edwards Park Lake, Oklahoma City   | Bridges at Spring Creek, Edmond |
| Lake Stanley Draper, Oklahoma City | Tuscana, Oklahoma City          |
| Hefner Point, Oklahoma City, OK    | Edmond Trails, Edmond           |

| TEAM MEMBER            | PROJECT   |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|
| KITTELSON & ASSOCIATES | Fairbanks Metropolitan Area Transportation System Non-Motorized Transportation Plan | ●   | ●   | ●   | ●   | ●   |
|                        | NSVRC Win Fred MPO Pedestrian and Bicycle Planning                                  | ●   | ●   | ●   | ●   | ●   |
|                        | Maryland Bicycle Pedestrian Master Plan   | ●   | ●   | ●   | ●   | ●   |
|                        | Ada County Highway District Pedestrian Facility Improvement Plan                    | ●   | ●   |   | ●   |   |
|                        | Ada County Highway District Neighborhood Bicycle & Pedestrian Connection Plans      | ●   | ●   | ●   | ●   | ●   |
|                        | DDOT Innovative Bike Facility Evaluation  | ●   |   | ●   |   | ●   |
|                        | NACTO Urban Bikeway Design Guide & Module II  | ●   |   |   |   | ●   |
|                        | Communities in Motion Regional Long Range Transportation Plan                       | ●   |   | ●   | ●   | ●   |
|                        | FHWA: Advancing Metropolitan Planning for Operations                                |   |   |   | ●   | ●   |
|                        | 2035 Regional Long Range Transportation Plan for Southeast Florida                  | ●   | ●   | ●   | ●   | ●   |
| RED PLAINS             | Clinton Indian Hospital – Sidewalk Improvements and Pedestrian Walking Trail        | ●   | ●   | ●   |   |   |
|                        | Lake Stanley Draper   | ●   | ●   | ●   |   |   |
|                        | Edwards Park  | ●   | ●   | ●   |   |   |
| VITRUVIAN              | Buncombe County (NC) Greenways & Trails Master Plan and Health Impact Assessment    | ●   | ●   |   | ●   | ●   |
|                        | Idaho Transportation Department Safe Routes to School Grants                        | ●   | ●   |   | ●   | ●   |
|                        | Haywood County (NC) Comprehensive Bicycle Plan & Health Impact Assessment           | ●   | ●   |   | ●   | ●   |

 Planning & Design of On-Street Bicycle Facilities

 GIS Applications

 Cost Estimating

 Project Prioritization

 Understanding of Traffic Data related to Bike Facilities

## OUR RECORD OF SUCCESS

The KAI team has worked throughout the country on profession-leading efforts within the bicycle, pedestrian, and regional planning area. The matrix above and the summaries that follow provide a sampling of specific project experience relevant to the INCOG Bicycle/Pedestrian Master Plan.

## KAI PROJECT EXPERIENCE

### FMATS Non-Motorized Transportation Plan

**Location:** Fairbanks, AK

**Date:** 2011 – 2012 | **Contract:** \$135,000

KAI prepared a non-motorized transportation plan for the Fairbanks region for FMATS, the Fairbanks MPO. This plan focuses on the bicycle and pedestrian transportation systems in the region. The project identified gaps and other deficiencies in the existing networks, opportunities for improvements, and policy and program recommendations. The final outcome of the plan included a prioritized list of projects and policy/program

recommendations for implementing the vision for bicycling and walking in the Fairbanks region as it is developed through the project’s public involvement process—a fundamental component of this type of project.

### NSVRC Win Fred MPO Pedestrian and Bicycle Planning

**Location:** Winchester, Frederick County, VA

**Date:** 2012 – 2013 | **Contract:** \$105,000

KAI is working with the City of Winchester, Frederick County Metropolitan Planning Organization (WinFred MPO) on a pedestrian and bicycle plan for the Win-Fred MPO area. This plan will help the

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Coming together is a beginning; keeping together is progress; working together is success. — Henry Ford

MPO identify projects and priorities for improving bicycling and walking in the area in order to create a truly multi-modal transportation network that is accessible to all users. A multimodal level of service analysis for the entire MPO analyzed the current suitability of bicycle and pedestrian facilities. An extensive public outreach effort including an online map for residents to identify their priority connections, and walking and bicycle tours in the MPO alongside project stakeholders allowed the project team to understand and experience the existing facilities from the perspective of the current and potential user groups. A prioritization tool, coupled with bicycle and pedestrian suitability analyses, allowed for the realization of the unmet demand for walking and biking in the area, along with the identification of missing and priority connections. The development of maps and promotional material, including an education and marketing program, alongside guidance provided to local jurisdictions in developing effective improvement strategies will ensure the plan continues to transform and connect the MPO long after the final report is delivered.

### **Maryland Bicycle Pedestrian Master Plan**

**Location:** Maryland (statewide)

**Date:** 2012 – 2013 | **Contract:** \$500,000

As part of an ongoing Transportation Policy and Planning Open-End contract, KAI is currently working as part of a consulting team with the Maryland Department of Transportation (MDOT) to update the 2002 MDOT Bicycle and Pedestrian Master Plan. The project includes a number of tasks to benchmark past progress and expand statewide bicycle and pedestrian

goals and objectives, including: public outreach on local and statewide levels; data collection and existing conditions analysis and mapping; development of new goals and objectives; bicycle suitability analysis and guidance; identification, analysis, development of process and criteria for designating Bicycle-Pedestrian Priority Areas (BPPAs); recommendations of current bicycle and pedestrian policies, programs, and funding priorities; analysis of jurisdictional best practice examples statewide; and a final plan. The Plan is being integrated with numerous statewide and local plans that have been developed since 2002 and is being developed alongside the Maryland Transportation Plan (MTP).

### **ACHD Pedestrian Facility Improvement Plan**

**Location:** Ada County, Idaho

**Date:** 2011 – 2012 | **Contract:** \$30,000

KAI worked with the Ada County Highway District (ACHD) on the Pedestrian Facility Improvement Plan. This worked developed a list of sidewalk infill/repair projects on all arterial and collector roads in the urbanized portions of Ada County, including the cities of Boise, Meridian, Kuna, Garden City, and Star. These projects were segmented into tiers based on prioritization data. KAI used GIS software to group over 2,100 individual segments of missing or severely deteriorated sidewalk into just over 750 logical potential projects and then screened out projects that are currently programmed in ACHD's near-term budget or Five-year Work Plan. KAI categorized the remaining projects into high, medium, and low tiers based on the PBTP data and summarizing relevant information for each project using automated GIS analysis.



### **ACHD Neighborhood Bicycle & Pedestrian Connection Plans**

**Location:** Ada County, Idaho

**Date:** 2011 – 2012 | **Contract:** \$50,000

KAI worked with Ada County Highway District (ACHD) to create a program and complete the first two neighborhood level pedestrian and bicycle plans in Ada County. KAI developed the recommended practice that should be used for both the technical and public involvement efforts for these plans and completed the Boise Central Bench and Downtown Meridian Neighborhood Connection Plans. Efforts included working with area stakeholders to develop a template for conducting these plans, reviewing existing and future conditions, engaging the public through online interactive maps and in-person workshops, and using the results of the technical analysis and public involvement process to identify and preliminarily prioritize projects. KAI is currently completed the next plan for ACHD focused on Downtown Boise.



### DDOT Innovative Bike Facility Evaluation

**Location:** District of Columbia

**Date:** 2011 – 2013 | **Contract:** \$195,000

The District of Columbia DDOT has recently implemented several innovative bicycle facilities intended to improve cyclist comfort and safety by reducing cyclist-motorist conflicts. KAI led a comprehensive analysis of these facilities to evaluate their impact on safety and operations for all modes. The evaluation included before and after video data analysis of conflicts, multi-modal level of service analysis, and user surveys on three facilities within the District. The facilities evaluated include cycle tracks, bike boxes, bicycle signal heads, and contra-flow bike lanes. The evaluation provides a unique opportunity to assess these innovative facilities from the perspective of all roadway users to understand both their benefits and drawbacks. The results of the evaluation will be used to refine the existing designs, as well as to provide guidance on best practices to achieve desired results for future bicycle facility designs within the District.

### NACTO Urban Bikeway Design Guide

**Location:** National

**Date:** 2010 – 2012

**Contract:** \$100,000

KAI worked as part of the consultant team to develop a comprehensive *Urban Bikeway Design Guide*. KAI developed material for the Guide and offered engineering insight into the appropriateness and applicability of the cycling treatments. Bicycle facilities covered by the Guide include a variety of innovative facilities, including bicycle signals, cycle tracks, bike boxes, and intersection improvements. The Guide has two major final products: a web-based version that includes a platform for discussion and information exchange, and a printed summary that will be updated regularly. The National Association of City Transportation Officials and its Cycling for Cities project funded the work which builds on its Emerging Best Practices Sheets. It is anticipated that the dissemination and fine-tuning of this information will help unleash the potential of American cities to reach world-class levels of bicycling.

KAI also developed supplemental material for the NACTO *Urban Bikeway Design Guide* related to bike boulevards and contextual guidance for selecting bike facilities. KAI provided technical review of supplemental content related to bike boulevards and contextual guidance. This project shows as an excellent example of KAI's ability to integrate and evaluate innovative bicycle treatments within the context of other transportation system elements such as vehicular and transit components.



### Communities in Motion Regional Long Range Transportation Plan

**Location:** Ada & Canyon Counties, Idaho

**Date:** 2007 – 2009

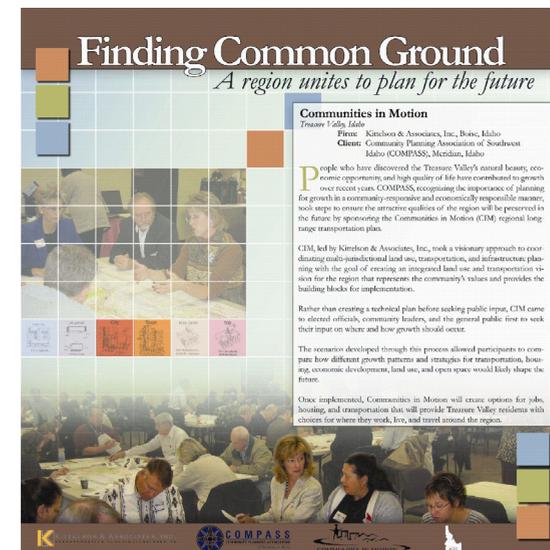
**Contract:** \$1,000,000

KAI led a Project 6586: Communities in Motion - Regional Long-Range Transportation Plan 2030  
**Clients:** COMPASS & ITD

**Location:** Southwest Idaho (Ada, Canyon, Gem, Payette, Boise, and Elmore Counties)

**Contact:** Charles Trainor (208-855-2558)

KAI is led a joint project for the Community Planning Association of Southwest Idaho (COMPASS) and the Idaho Transportation Department (ITD) to prepare a truly regional transportation plan for the Treasure Valley area including Ada, Canyon, Gem, Payette, Boise, and Elmore Counties.



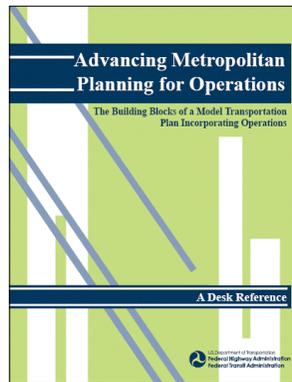
The project used an integrated land-use/transportation approach, through public workshops and scenario planning, to identify the communities long-term vision for growth. The L RTP establish a plan that develops, implements, and maintains an interconnected, multi-modal, and

safe transportation system that supports the regional growth vision, enhances quality of life, and fosters a strong and growing economy throughout the entire region, including a sustainable regional core and dynamic regional activity centers with a mix of jobs, housing, and services in walkable environments. The plan, still the foundation for regional planning in the area, received numerous transportation planning innovation and public outreach awards.

### **FHWA: Advancing Metropolitan Planning for Operations**

**Location:** National  
**Date:** 2008 – 2010  
**Contract:** \$145,000

KAI led the team of experts that developed a desk reference for preparing objectives-driven, performance-based Metropolitan Transportation Plans (MTP) that incorporate operations objectives and acknowledge the related safety benefits of operations programs and strategies. Work to develop the desk reference included a comprehensive literature review, interviews with agencies conducting state-of-the-art planning for operations and safety, and two national workshops with MPO, state DOT, and transit agency representatives. These participants provided vital insights to the challenges MPO planners face and the value they could derive from a desk reference and model plans. The user-friendly desk reference that resulted from this project enables users to build a clear vision for an MTP that incorporates operations and safety objectives, performance measures, and strategies that are relevant to the region. The desk reference offers practitioners a menu of



options for small, medium, and large regions for incorporating this approach and presents model transportation plans that include operations and safety objectives and performance measures. The desk reference has been heralded as a “pivotal resource” in advancing the state of the practice in metropolitan transportation planning.

### **2035 Regional Long Range Transportation Plan for Southeast Florida**

**Location:** Southeast Florida  
**Date:** 2008 – 2010 | **Contract:** \$450,000

With efforts led by KAI, Southeast Florida (Palm Beach, Broward and Miami-Dade Counties) adopted its first Regional Long Range Transportation Plan (RLRTP) in the Spring of 2010. The 2035 Plan created a regional vision that united three individual MPO long-range plans into one. With the RLRTP, the region is now better prepared to receive and apply funds to regionally significant highway and transit facilities. To achieve successful adoption, KAI facilitated the coordination and collaboration of more than ten agencies across the region. To accomplish this regional effort technically, the following activities were undertaken over a two-year period: a consistency/compatibility review of local, regional, and state-wide plans; the creation and adoption of regional goals, objectives, and measures of effectiveness; public involvement activities conducted in conjunction with local LRTP public involvement activities; the completion of a regional travel demand model that was applied at the regional and local plan analysis level; the development of a regional transportation network; the development of both a regional needs and cost-feasible plan; a review and summation of regional revenues and finances; and, lastly, a regional transit quality of service assessment for origin-destination pairs of regional significance. The adopted plan and its supporting documentation may be found at [www.SEFTC.org](http://www.SEFTC.org).

## **RED PLAINS PROFESSIONAL, INC.**

### **Clinton Indian Hospital – Sidewalk Improvements and Pedestrian Walking Trail**

**Location:** Cheyenne and Arapaho Tribes, OK  
**Date:** 2011 – Present

This project for the Cheyenne and Arapaho Tribe consisted of approximately 2.2 miles of pedestrian walking trail and improvements for the Tribal complex. An additional 1380 feet of roadway was also designed, along with approximately 35,000 feet of paved parking area for existing structures. Red Plains was responsible for all project management, consultant and client communication, scheduling, and civil site design work.

### **Lake Stanley Draper**

**Location:** Oklahoma City, OK  
**Date:** 2006

This project provided design services for two new park facilities including accessible parking, sidewalks, restrooms and picnic pavilions as well as construction of an ADA compliant boat dock and fishing pier for the City of Oklahoma City Parks & Recreation Department.

### **Edwards Park**

**Location:** Oklahoma City, OK  
**Date:** 2006

This project provided design and renovation services to an existing park, adding a new public eight-acre fishing lake northeast of Oklahoma City. It features a half-mile fishable shoreline, an irregular shoreline with six coves, two handicapped-accessible fishing piers, accessible picnic pavilion, and walking paths circling the lake and other park amenities.

## VITRUVIAN PLANNING

### Buncombe County (NC) Greenways & Trails Master Plan and Health Impact Assessment

**Location:** Buncombe County, North Carolina

**Date:** 2011 – 2013 | **Contract:** \$130,000

Vitruvian Planning was the lead firm in helping to develop a Health Impact Assessment for Connect Buncombe, a countywide Greenway Master Plan in Buncombe County, North Carolina. As the County's first comprehensive examination of long-term needs for a regional greenways and trails system, Vitruvian Planning engaged stakeholders to determine both the impacts and health-based recommendations for a 20 year planning guide. The HIA integrates custom research, community and stakeholder input, and regional planning efforts to provide both qualitative and quantitative health impacts, inputs to improved greenway design, and prioritization of facilities based on community health issues. The Plan featured a public involvement and stakeholder meeting using on-site walk audits, visual preference surveys, and both audience response surveys and group participation methods to determine health claims used for the assessment piece. The Greenways and Trails Master plan was adopted in October 2012 with a \$50,000 implementation grant from New Belgium Brewing Company.

### Idaho DOT Safe Routes to School Grants

**Location:** Idaho, Statewide

**Date:** 2012 – 2013 | **Contract:** \$45,000

The concept of this statewide project is to provide professional planning assistance to 10 communities to develop a comprehensive Safe Routes to School plan. With a \$50K budget and 12-month schedule, communities ranging from very small agricultural towns to larger more ur-

banized cities, received an infrastructure and non-infrastructure plan including a thorough evaluation of both bicycle and pedestrian facility needs, a prioritized list of warranted and necessary projects, and non-infrastructure activities and programmatic recommendations such as bike rodeos and walking events which will bolster both awareness and daily participation in both walking and bicycling.

### Haywood County (NC) Comprehensive Bicycle Plan & Health Impact Assessment

**Location:** Haywood County, North Carolina

**Date:** 2011 | **Contract:** \$50,000

The first of its kind in Western North Carolina and a federal and state award-winner, the Haywood County Bicycle Plan included the first Health Impact Assessment completed in North Carolina. Vitruvian Planning served as the lead for the Health Impact Assessment, led project health impact analysis and synced engineering and planning data from state and regional agencies, as well as multiple small towns for this plan in the southern Appalachian Mountains. In a multi-pronged approach, Vitruvian Planning collected county-wide health data, held a stakeholder workshop and determined overall likely impacts based on the project findings and health indicators. The Plan included evaluation of health-specific investments and identified project and program priorities through the lens of public health.

When your work speaks for itself, don't interrupt. — Henry J. Kaiser

## REFERENCES

We invite you to contact our references to hear directly how KAI has worked collaboratively on similar efforts.

### Ada County Highway District

**Client Contact:** Justin Lucas, AICP,  
Planning and Programming Supervisor  
208.387.6157 | [jlucas@achdidaho.org](mailto:jlucas@achdidaho.org)

In Reference To: Planning & Design of On-Street Bicycle Facilities, GIS Applications, Cost Estimating, Project Prioritization, Understanding of Traffic Data related to Bike Facilities

### Northern Shenandoah Valley Regional Commission; Winchester-Frederick County Metropolitan Planning Organization

**Client Contact:** John Madera, AICP, Senior  
Transportation Planner  
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In Reference To: Planning & Design of On-Street Bicycle Facilities, GIS Applications, Cost Estimating, Project Prioritization, Understanding of Traffic Data related to Bike Facilities

### Fairbanks Metropolitan Area Transportation System (FMATS)

**Client Contact:** Donna Gardino,  
MPO Coordinator  
907.459.6786 | [djgardino@ci.fairbanks.ak.us](mailto:djgardino@ci.fairbanks.ak.us)

In Reference To: Planning & Design of On-Street Bicycle Facilities, GIS Applications, Cost Estimating, Project Prioritization, Understanding of Traffic Data related to Bike Facilities

A low-angle, close-up photograph of two runners' legs and feet as they jog on a paved path. The runners are wearing light-colored athletic shorts and running shoes. The background is a soft-focus green, suggesting a park or wooded area. The overall mood is energetic and active.

# Run wild.



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