REQUEST FOR QUALIFICATIONS

OCTOBER 10, 2024

PALMER LAKE
SPRUCE MOUNTAIN ROAD PROJECT

PREPARED BY

TOWN OF Palmer Lake COLORADO est. 1889

J·R ENGINEERING

CIVIL ENGINEERING & PLANNING · CONSTRUCTION SERVICES
LANDSCAPE ARCHITECTURE · SURVEYING · TRANSPORTATION · WATER RESOURCES

SERVICE • EXPERTISE • QUALITY

October 10, 2024

Town of Palmer Lake
Stacy DeLozier
42 Valley Crescent
Palmer Lake Town, CO 80133

RE: Request for Qualifications – Palmer Lake Spruce Mountain Road Project

Dear Selection Committee:

JR Engineering (JR) is enthusiastic to have this opportunity of working with the *Town of Palmer Lake* staff to provide exceptional professional surveying and engineering services for the improvements associated with the Spruce Mountain Road project. JR's Project Team has fully reviewed the RFQ, conducted a site visit, and researched available project information to formulate the project approach that will undoubtedly exceed the goals of the *Town. Our strategy is simple; we will employ the time-tested Transportation Engineering and Project Team Management Skills of* JR Engineering, *to efficiently and cost-effectively complete the scope included in this request for proposal*.

Our professional engineers, designers, surveyors and project management team will, among other things:

- Provide all of the project management and coordination efforts associated with the Project Design
- Comply with all of the *Town* project requirements
- Provide the *Town* with Project Initiation, Agency, Stakeholder, and Utility Coordination
- Provide a topographic and SUE survey, as required, along the project corridor
- Coordinate with subconsultants in the preparation of geotechnical reports and environmental documents
- Prepare Final Plans, Construction Specifications, and Final Engineers Estimate of Probable Cost

The project scope will be performed by JR's experienced staff within our Transportation Group with support from our Survey Group, and our Water Resources Group, and our teaming partners (Kumar & Associates, and RockSol Consulting). JR Engineering's Transportation Group primarily focuses on municipal and county transportation and drainage projects, which include elements similar in scope to this roadway project. JR's point-of-contact for the *Town* is our Client Manager, Mr. Glenn Ellis, PE who has over 28 years of public works experience and together, our proposed team has completed over 50 roadway, intersection, and Public Works projects for Colorado municipalities. I will serve as the Project Principal, and along with Mr. Ellis, we will ensure that the *Town's* project is fully supported by our experienced staff, continually monitoring budgets, schedule and project goals.

JR Engineering is committed to delivering all of our projects on time and within budget while meeting the goals of our clients and the surrounding community. JR Engineering would like to be a part of your team and help make the *Town's* Vision a Reality and I look forward to your favorable consideration of our proposal. If additional information or clarification is needed to support our submittal, please feel free to contact me or Mr. Ellis.

I certify that all information and data submitted are true and complete to the best of my knowledge. As JR Engineering's President, I (Aaron Clutter) am authorized to make representations on behalf of JR Engineering and am authorized to enter into a contract with the *Town*. I am also assigning these same authorizations to the Client Manager, Glenn Ellis. Our contact information is below.

Respectfully submitted,

JR ENGINEERING, LLC

Aaron L. Clutter, PE
President
7200 S. Alton Way, Suite C400
Centennial, CO 80112
Ph: (303) 267-6220
Fax: (303) 721-9019
Email: aclutter@jrengineering.com

Glenn Ellis, PE
Client Manager
5475 Tech Center Drive, Suite 235
Colorado Springs, CO 80919
Ph: (303) 267-6241
Fax: (303) 721-9019
Email: gellis@jrengineering.com

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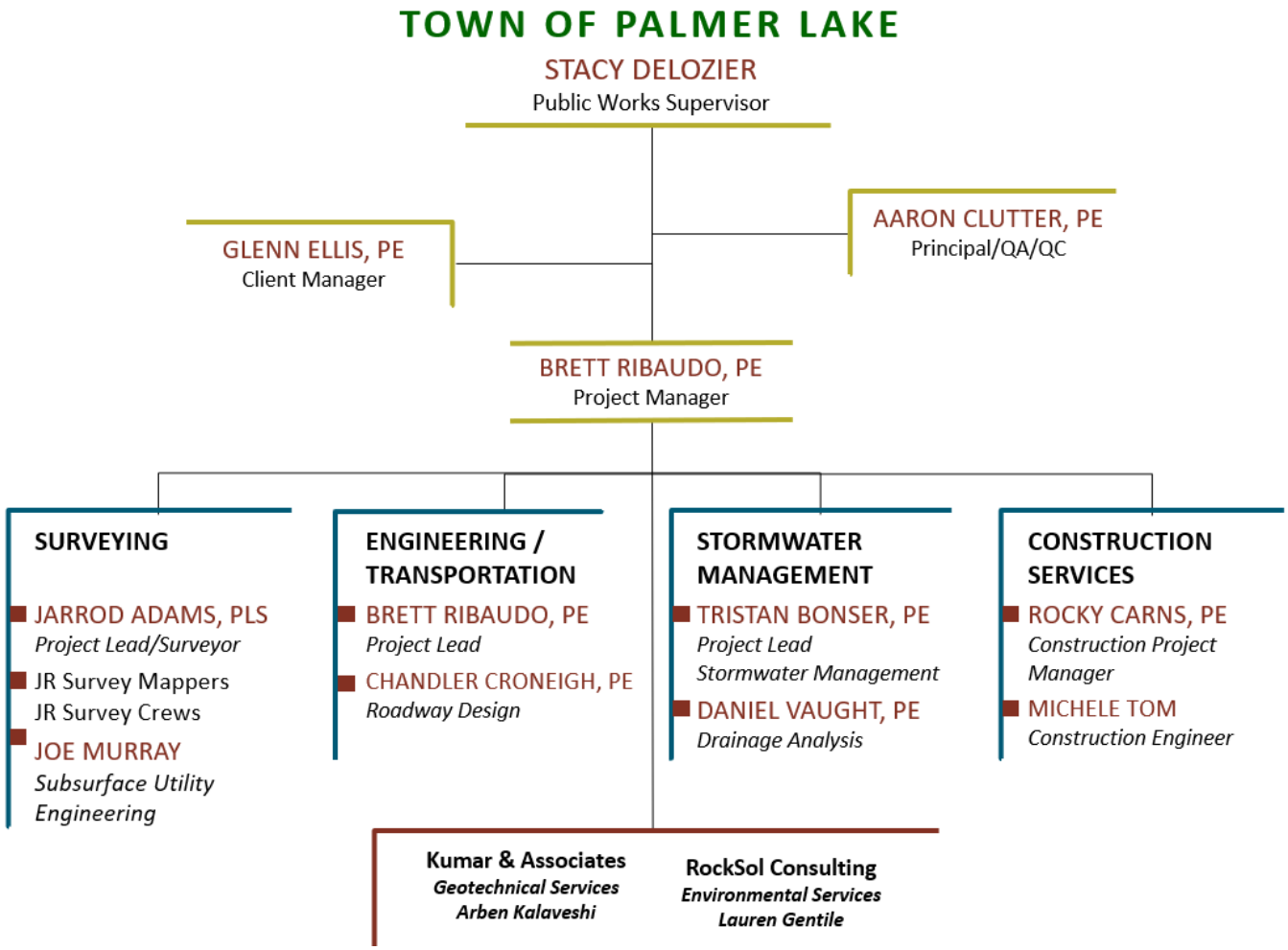
JR Engineering has assembled a strategic, specialized team to collaborate with the *Town of Palmer Lake* and perform the duties outlined in the scope of work. Our team combines decades of expertise to devise creative, cost-effective, and sustainable survey, roadway, drainage, and utility solutions for the *Town*. We have also included the following subconsulting firms as part of our team to perform specialized services identified in the scope of work: (RockSol Consulting – Environmental Services, and Kumar & Associates – Geotechnical Services). JR Engineering has worked with these teaming partners on numerous prior municipal projects and regularly engages these partners for transportation and utility projects. Design leads for most firms are familiar with communicating and coordinating design under JR Engineering's project management direction and, we are comfortable challenging each other to reach the best, most effective, and most affordable design possible. As the prime consultant for this team, JR Engineering will be responsible for regularly coordinating tasks, budgets, and schedules with each of our subconsulting partners.

Organizational Chart

The organizational chart below identifies the key personnel of the JR Engineering team and depicts the lines of authority and anticipated roles and responsibilities of our key team members. We selected our key personnel and sub-consultants based on their technical expertise and ability to provide solutions and improvements for the *Town*.



Résumés for the Project Team are included in the Appendix.

KEY PROJECT PERSONNEL

JR Engineering has set up a qualified and professional project team to complete this project for the *Town*. Key JR Engineering and Teaming Partners staff involved with this project are identified below. Their resumes and the resumes of key sub-consultant personnel can be found in the Appendix.

Glenn Ellis, PE Client/Project Manager B.S. Civil Engineering Utah State University Registration/Associations: Colorado PE ASCE	Mr. Ellis has over 28 years of engineering experience as a City Engineer, Project Manager, and Project Engineer for a wide variety of civil engineering projects and public works programs. Mr. Ellis' experience includes both private and public sector clients involving all aspects of a project including initial scoping, funding, survey, public involvement, easement and right of way acquisition, design, bidding, construction management, and final close-out. Mr. Ellis will serve as the Client and Project Manager, and oversee all aspects of the project. He will coordinate with the design team, sub-consultants, and the *Town*.
Brett Ribaudo, PE Transportation Lead B.S. Civil Engineering Technology Colorado State University – Pueblo Registrations/Associations: Colorado PE ASCE	Mr. Ribaudo has over 10 years of engineering experience as a project manager on a variety of transportation engineering projects associated with the CDOT transportation system. His experience encompasses design, and project management, for transportation projects ranging in value from low to extremely high. He is also experienced in intersection and roadway design, drainage, phasing, traffic control plans, and the development of plans, specifications, and estimates. Mr. Ribaudo will serve as the Transportation Lead and will oversee all elements of the design of the project.
Tristan Bonser, PE Water Resources Lead B.S. Civil Engineering Colorado State University Registrations/Associations: Colorado PE UDFCD Stream Management Academy CDOT Certified Erosion Control Supervisor	Mr. Bonser has 15 years of experience in civil engineering with an emphasis on the design of rural and urban drainage conveyance and stormwater detention/water quality for private entities and state, county, and municipal governments. His areas of expertise include hydrology, hydraulics, groundwater engineering, and water rights. He also has a broad knowledge of hydrologic, hydraulic, and groundwater resources software and regulatory agency criteria through successfully completed projects throughout the state. Mr. Bonser will serve as the Water Resources Design Lead and will oversee all drainage analysis and design.
Jarrod Adams, PLS Survey Lead B.S. Geomatic Engineering Ohio State University Registrations/Associations: Colorado PLS	Mr. Adams has over 15 years of surveying experience. He is responsible for overall management of the survey department. His experiences includes all phases of surveying services, from client relations, project estimating, and staff coordination through project planning, data collection, office reduction, and quality control. He currently oversees all survey projects, including design surveys, ALTA/ACSM land title surveys, utility mapping, right-of-way mapping, and construction surveying. Mr. Adams will serve as the Lead Surveyor and will oversee the field and office survey work in support of the development of the drawing files, and legal descriptions, as required.

Joe Murray Subsurface Utility Engineering Lead Registrations/Associations: Certified Professional SUE Technician and Utility Locator NGA and GPR certified	Mr. Murray has over 8 years of experience in the utility locating/SUE industry. His job site experience includes property locates, full subdivisions, electric sub-station, gas regulator stations, gas pipelines, military bases, solar projects, and site ground penetrating radar investigations. Mr. Murray will serve as the Lead Subsurface Utility Engineer and will oversee all utility locates. He will coordinate with 811, and all identified utility companies in obtaining utility mapping to assist with the field locates, and conduct the field designating of all utilities.
Rocky Carns, PE Construction Management Lead B.S. Civil Engineering University of Wyoming Registrations/Associations: Colorado and Wyoming PE APWA and ITE	Mr. Carns has over 40 years of experience in civil engineering design, project management, and construction administration. He will serve as the Construction Management Lead, and will oversee the construction management services, and coordinate the internal staffing needs to ensure that the project has daily coverage to monitor and track progress of the project. Rocky will make periodic site visits together with Michelle.
Arben Kalaveshi, PE Geotechnical Lead B.S. Mechanical Engineering University of Colorado at Colorado Springs Registrations/Associations: Colorado PE CAGE ASCE	Mr. Kalaveshi has over 20 years of geotechnical engineering and construction materials experience. He is responsible for the development and implementation of geotechnical investigations and providing analysis and recommendations for commercial, municipal, and residential projects, and has significant experience in the installation and measurement of geotechnical instrumentation including slope inclinometers, extensometers, and groundwater sampling wells, as well as in slope stability analysis. Mr. Kalaveshi will serve as the Project Lead for the geotechnical efforts of the project.
Lauren Gentile Environmental Lead B.A. Environmental Studies University of Colorado Registrations/Associations: PMP CDOT PEL	Ms. Gentile has over 14 years of experience in natural resources management and compliance with both state and federal environmental regulations. She specializes in biological resource assessments, vegetation surveys, hazardous materials Initial Site Assessments, and the review and implementation of environmental permits and clearances. Ms. Gentile will serve as the Project Lead for the environmental efforts of the project.

COMPANY INFORMATION

About our Company

JR Engineering, LLC is a privately owned Colorado civil engineering and surveying consulting firm. Aaron Clutter, PE, is president, with Kurtis Williams, PE, LEED® AP, and Daniel Clark, PE as vice presidents.

JR began in 1973 as a surveying and civil consulting firm. Today, we offer a full range of civil engineering, surveying, subsurface utility engineering, and construction management services. We can manage your project from planning and preliminary engineering to final design through construction completion – *on schedule, within budget, and without compromise.* Our expertise includes design-build, transportation, civil engineering, water resources, construction services, utility locates, and surveying. Our multi-disciplined engineers, surveyors, subsurface utility engineering (SUE) locators, and support personnel enable us to respond quickly to demanding assignments, schedules, and changing scopes.

Our public sector focus is at the local level – cities, counties, and districts with projects similar in scope to this project anticipated by the *Town*. We take as much pride in solving small problems as we do in designing and managing large projects. We have substantial experience with roadway projects, intersection and traffic improvements, storm drainage, potable water distribution systems, sanitary collection and transmission systems, pumping stations, sidewalks, trails, curb and gutter, construction management, utility locates, and land surveying.

Our Staff

JR's engineers specialize in municipal engineering and construction management services. Our management team includes past city and county engineers, traffic engineers, and public works directors with decades of practical experience at public agencies across the Rocky Mountain Region. The Client Manager for this contract, Glenn Ellis, has over 16 years of experience working for cities, most recently being the City Engineer for the City of Sioux City, Iowa.

JR's staff of 86 employees includes 25 designers with EIT certifications, five licensed transportation PEs, five water resource engineers, 22 land development PEs and personnel, 15 field crew & office surveyors, six construction management engineers, 1 SUE locator, and seven professional support personnel. We have a certified Professional Traffic Operations Engineer (PTOE), three licensed professional land surveyors (PLS), and two LEED® accredited professionals (LEED AP).

Our Structure

A client manager is your primary contact. They have multi-disciplinary experience and understand your goals and objectives. Skilled design engineers from our *Transportation, Water Resources, Construction Services, Land Development, and Land Surveying Groups* support them. We assemble a team for each project to meet the needs and scope and deliver flexible, efficient, quality services.

Our Locations

Headquartered in Centennial, at I-25 and Dry Creek, we also have offices in Fort Collins, Colorado Springs, and Genesee. Our Client Manager, Glenn Ellis, works on projects throughout Southern Colorado from the Colorado Springs office. Team members across all offices work on multiple projects concurrently, using state-of-the-art work-sharing methods combined with our exceptional communication standards.

STATEMENT OF QUALIFICATIONS

TRANSPORTATION

JR Engineering's *Transportation Group* primarily focuses on municipal, county, and metropolitan district transportation projects. We offer a full range of transportation services to assist our clients in new and reconstructed roadway projects, intersection projects, traffic signal design, safety improvement projects, pedestrian and bicycle facilities, trail design, and transportation planning.

Transportation Services

Our team of experienced design engineers is led by a management team comprised of past city, county, city traffic engineers, and public works directors, with decades of practical experience working for public agencies throughout the Rocky Mountain Region.

First, we develop an understanding of our client's true needs, goals, and critical success factors. We then combine our design skills with our project experience including transportation planning, alternative analysis, safety studies, public involvement, utility coordination, contract document preparation, bidding services, and construction management; to provide a full complement of engineering services and lead your project from conception to completion – *on schedule, within budget, and without compromise.*

JR has the capability to provide the following transportation and traffic services:

Civil Engineering Design

- Roadway and Intersections
- Roundabouts
- Interchanges
- Bicycle and Pedestrian
- Bus Pullouts and Pads
- Streetscapes

Traffic Engineering

- Access Management
- Traffic Impact Studies
- Intersection Capacity Analyses
- Traffic Signal Design
- Safety Studies

Transportation Planning

- Preliminary Design Studies
- Alternative Analyses
- Safe Routes to School
- Transportation Master Plans

Municipal Roadway Experience

Out *Transportation Group* focuses on county and municipal roadway and intersection projects and has the experience and knowledge to lead these projects. Many of these involve CDOT funding and require following the CDOT Local Agency procedures, including its Right-of-Way plan format, and utility and environmental clearance requirements.

WATER RESOURCES

JR's *Water Resource* engineers specialize in developing innovative, practical, and cost-effective solutions to a wide variety of stormwater and utility-related projects. Our water resource engineers also work side-by-side with our roadway engineers. In combination with our roadway projects, our drainage engineers have designed over 30 miles of storm sewer systems, potable, and non-potable water, and 22 miles of sanitary sewer in the last 10 years. These storm systems range from 18 to 84 inches to major box culvert outfall systems. Waterline designs have ranged from 6-inch to 36-inch transmission lines, and sanitary sewer designs include 6-inch to 20-inch major outfall systems.

Our managers make certain that our client's issues are understood and each issue is addressed while meeting schedule and budgetary goals.

To support these goals JR's *Water Resources Group* has the experience and understanding necessary to lead the project to successful completion; from preliminary concepts and analysis, detailed engineering plans, compressive bid documents, agency coordination, and final construction.

JR has the capability to provide the following hydraulic and hydrologic design services:

- Bridge and Culvert Design
- Storm Sewer Systems
- Floodplain Delineation
- FEMA Map Revisions
- Master Drainage Plans
- Sediment Transport Studies
- Drop and Grade Control Structures
- Open Channel Design
- Scour Analysis, Floodplain Mitigation, and Remediation
- Stream Stabilization, Hydrologic Studies, and Reservoir Hydraulics
- Stormwater Management
- Potable and Non-Potable Waterline Design
- Sanitary Sewer Design
- Water and Wastewater System Modeling
- Pump Stations
- Water Storage Tanks
- Raw Water Production and Wells

LAND SURVEYING

JR's *Land Surveying Group* has been a cornerstone of our business since its inception in 1973. We take great pride in the reputation we have earned for delivering the highest level of quality and efficiency while maintaining the flexibility required to provide custom service. JR's surveyors are adept at working as value-added members of multi-disciplined teams.

JR is available to assist your team with the following services:

- Boundary Surveys
- Right-of-way and Property Research
- Topographic Mapping
- Construction Staking
- Route Surveying
- ALTA Surveys
- Control Networks
- Legal Descriptions
- Land Survey Plats
- As-built Surveys

SUBSURFACE UTILITY ENGINEERING (SUE)

JR's *Subsurface Utility Engineering Group* works alongside the *surveying division* in providing utility locating and designating services following CRS 9-1.5-101 and ASCE 38-22 guidelines. JR's experienced staff prepare plans that document utilities at the following Quality Levels (simplified): Quality Level D (record drawings), Quality Level C (observable features), Quality Level B (designating via geophysical equipment), and Quality Level A (excavation and exposure). JR's *SUE Group* will research utility information from available sources (811, private utility companies, etc.), designate these utilities in the field, coordinate with the survey group to record the utility location information and work with partner excavation (test hole) companies to excavate utilities to document utility type, size, depth, and condition to ensure that design drawings accurately portray the underground network on utilities. The SUE group is made up of surveyors, utility designators, and public works engineers.

Professional Surveying Services

Our experienced survey staff will obtain utility data with an accuracy of 0.1 feet vertically and 0.2 feet horizontally. All marks, features, and exposed utilities will be collected via the latest technology and processed as CAD deliverables. Utility manholes will be investigated and measured for depth, slope, size, direction, material, etc.

Utility Designation

Our *Utility Designation Staff* has experience locating and designating utilities on the most complex of projects using various means of locating, including but not limited to, radio detection, magnetic locating, and ground penetrating radar.

Reports and Plans

Our *Public Works Engineering Group* will prepare final SUE plans and QL-A reports based on the data found to the greatest accuracy possible. A PE will stamp the plans and reports to certify the quality, completeness, and accuracy of the information collected to the best of our knowledge and abilities.

TEAMING PARTNERS

Kumar & Associates

Kumar & Associates, Inc. is an employee-owned consulting engineering firm providing professional and technical services in the areas of geotechnical engineering, environmental sciences, engineering geology, construction observation, and materials testing. The firm was established in 1989 and has a current staff of more than 140 professional engineers and geologists, environmental scientists, engineering technicians, and support personnel. Their offices are located in Denver (HQ), Parker, Colorado Springs, Fort Collins, Glenwood Springs, and Summit County, Colorado.

RockSol Consulting

RockSol Consulting Group, Inc. is a Colorado-based firm that provides engineering services for the analysis, design, and construction of roadways, bridges, structures, retaining walls, pavements, foundations, underground excavations, rock slopes, and concrete and earthen structures that have been in business since 1996. Their capabilities include geotechnical, structural, and civil engineering, roadway design, traffic engineering, environmental services, construction management, inspection, and materials testing. RockSol's staff consists of over 180 highly experienced staff members including a full geotechnical engineering team and laboratory materials testers who have worked on numerous transportation projects for local, state, and federal agencies.

EXPERIENCE

BRIDGE STREET WIDENING

CLIENT: CITY OF BRIGHTON
CONTACT: CHRISTOPHER MONTOYA, PE
ASSISTANT PW DIRECTOR/ (303) 655-2037
CMONTOYA@BRIGHTONCO.GOV
500 SOUTH 4TH AVENUE, BRIGHTON, COLORADO 80601

DESIGNED: 2022-2023
COST: $1,236,356
CONSTRUCTION ESTIMATE: $20,000,000

JR Engineering prepared the design for the Bridge Street Widening project, a critical corridor in the City of Brighton that connects the community. The project scope included roadway reconstruction and widening, a culvert widening/extension, four traffic signals, water line and storm sewer installation, pond modifications, utility relocations, and sidewalk/trail design.

The critical issues within the site include issues with lack of road widening, storm sewer system capacity issues, lack of stormwater quality treatment, new and replacement of traffic signals, water line additions and replacements, and needed traffic and pedestrian safety improvements. JR Engineering was tasked with providing *Brighton* with a design that improves the roadways and drainage within the site while providing more pedestrian connectivity. The majority of the roadway required widening and reconstruction of the pavement.

JR Engineering was also tasked with analyzing existing roadway drainage and the existing storm sewer system to identify capacity issues within the system, which led to the design of a new storm sewer system, pond modifications, and water quality improvements for the corridor. Utility conflicts were prevalent as well, so many utility relocation and coordination efforts were required.

JR prepared specifications and cost estimates for the *City* in conformance with CDOT templates. JR also prepared Right-of-Way Plans for the required Right-of-Way Acquisition and temporary construction easements.

Personnel Involved:
Daren Sterling, PE – Client Manager
Alex Iuga – Roadway Design Engineer
Kelly Unkrich – Stormwater Design Engineer
Eric Lee, PE – Project Manager (Transportation)
Tristan Bonser, PE – Project Manager (Stormwater Management)

MANITOU AVENUE FROM PARK AVENUE TO SERPENTINE DRIVE (MAPS)

CLIENT: CITY OF MANITOU SPRINGS
CONTACT: DOLE GREBENIK, PE (Not with the City)
CITY ENGINEER/(303) 705-0236
DOLE.GREBENIK@CASTLEPINESCO.GOV
101 BANKS PLACE, MANITOU SPRINGS, CO 80829

CONSTRUCTED: 2021-2023
COST: N/A
CONSTRUCTION ESTIMATE: N/A

JR Engineering is providing City oversight and Inspection Services for the City's streetscape and drainage improvements of Manitou Avenue (CDOT Business Highway 24). JR is acting on behalf of the City, and managing all aspects of the construction management efforts. These services include submittal review, RFI coordination, field design revisions, pay application review, change order (force account) review, compliance with City and CDOT standards, and construction inspection. The Manitou Avenue project consists of the construction of a collector roadway through downtown Manitou Springs, from Park Avenue to Serpentine Drive (approximately 1/3 mile). Other elements of the project include the construction of an asphalt pavement roadway, a new storm sewer system, new water mains, landscaping, as well as underground conversion of overhead utilities.

Personnel Involved:
Rocky Carns, PE – Construction Project Engineer

MILL STREET CORRIDOR COMPLETE STREET DESIGN

CLIENT: CITY OF ASPEN
CONTACT: JUSTIN FORMAN
(970)-429-2783
JUSTIN.FORMAN@CITYOFASPEN.COM
130 SOUTH GALENA STREET
CITY OF ASPEN, CO 81611

DESIGNED: 2017-2020
COST: $100,000
CONSTRUCTION ESTIMATE: $1,000,000

Mill Street is a 4-lane major collector roadway within downtown Aspen that provides access to Main Street, the Public Library, and the City's Rio Grande events park. It provides the main connection with large residential areas north of town. Traffic volumes along the corridor did not require the existing 4-lane configuration, providing opportunities to utilize the existing roadway width to accommodate other modes of transportation and streetscaping elements.

The goals of the project were to: improve safety and comfort for pedestrians and cyclists, improve the function and safety of pedestrian crossings along the corridor, integrate bicycles into the right-of-way, improve mobility, and enhance Aspen's character as a bicycle and pedestrian-friendly community. As a Complete Street, the City wanted to create a corridor that was safe, functional, comfortable, and enjoyable for pedestrians, cars, and vehicles alike and enhance the community's access to the City's network of trails via connectivity through and beyond the project area.

With direction from the City Council and the Civic Master Plan, the City of Aspen commissioned a conceptual design study to develop and determine the feasibility and implementation of pedestrian crossings, streetscape improvements, shared bicycle lanes, and traffic calming into the Mill Street Corridor.

These goals were referenced throughout the conceptual design phase to continually focus discussions and solutions on the project's purpose and need.

The conceptual design study provided an overview of the study process including the traffic corridor analysis, development, and screening of corridor improvement alternatives, and recommendations for Complete Street design solutions to be used in the preliminary and final design of the Mill Street Corridor.

Personnel involved:
Eli Farney, PE, PTOE – Project Manager
Alex Iuga – Project Designer

BERKELEY GARDENS NEIGHBORHOOD

CLIENT: ADAMS COUNTY
CONTACT: LONG NGUYEN, PE
SENIOR ENGINEER
(720)-523-6808
LHNGUYEN@ADCOGOV.ORG
4430 S. ADAMS COUNTY PARKWAY, SUITE W5700
BRIGHTON, CO 80601

DESIGNED: 2017-2020
COST: $993,900
CONSTRUCTION ESTIMATE: $16,500,000

JR Engineering developed a comprehensive plan for updating the infrastructure within the Berkeley Gardens neighborhood in Adams County. This area, covering approximately 0.2 square miles, comprises nearly 300 individual plots, including a mix of residential homes, commercial enterprises, places of worship, an electric substation, and multiple dwelling units. To address the community's outdated transportation, stormwater, and utility systems, Adams County commissioned this project.

The neighborhood faced several challenges, such as improper roadway gradients, insufficient capacity of the storm sewer system, a lack of stormwater treatment facilities, and the need for traffic and pedestrian safety enhancements. JR Engineering's role was to redesign the roadways to enhance vehicle and pedestrian pathways. This entailed either completely rebuilding or resurfacing the majority of roads within the area.

JR conducted a thorough analysis of the existing road drainage and storm sewer systems to pinpoint and address capacity issues. Their findings led to a redesign that complied with Adams County's standards, requiring coordination with various utility providers. Remarkably, the redesign necessitated minimal relocation of existing utilities, despite the area's dense utility infrastructure. Additionally, the plan called for the construction of a detention and water quality pond designed to treat most of the site's runoff and to allow for its discharge to Clear Creek, navigating beneath an existing irrigation ditch.

JR Engineering also prepared detailed specifications and cost estimates for Adams County, aligning with the Colorado Department of Transportation (CDOT) guidelines. This included creating Right-of-Way Plans to facilitate the acquisition of necessary land and temporary construction easements, ensuring a comprehensive approach to the redevelopment of Berkeley Gardens' infrastructure.

Personnel Involved:
Daren Sterling, PE – Client Manager
Alex Iuga – Roadway Design Engineer
Kelly Unkrich – Stormwater Design Engineer
Eric Lee, PE – Project Manager (Transportation)
Tristan Bonser, PE – Project Lead (Stormwater Management)

EAST 112TH AVENUE (PHASE 1) INFRASTRUCTURE AND ROAD IMPROVEMENTS

CLIENT: CITY OF COMMERCE CITY
CONTACT: BRENT SODERLIN, PE
CITY ENGINEER/(303) 795-3863
BSODERLIN@LITTLETONGOV.ORG
8602 ROSEMARY STREET
COMMERCE CITY, COLORADO 80112

DESIGNED: 2018-2019
COST: $1,000,000
CONSTRUCTION ESTIMATE: $9,000,000

JR Engineering spearheaded the design of a pivotal 1-mile segment of 112th Avenue from Chambers Road to Parkside Drive in Commerce City, marking the first phase in a comprehensive plan to revamp and widen 112th Avenue from Potomac Street to Tower Road. The project ambitiously aimed to upgrade the roadway into a Multimodal Arterial, incorporating sidewalks, trails, drainage systems, intersection enhancements, and necessary utilities, including a new parking facility for the Buffalo Run Golf Course. This effort was coordinated in-house, emphasizing seamless integration and innovation.

This multifaceted initiative required collaboration with several jurisdictions, including Commerce City, Adams County, the South Adams County Water and San District, and the Reunion Metropolitan District, to address the diverse needs and requirements of the project. JR Engineering meticulously prepared all construction documents, managed utility relocations—including the undergrounding of power lines—secured rights-of-way, and set up intergovernmental agreements to ensure shared cost and maintenance responsibilities.

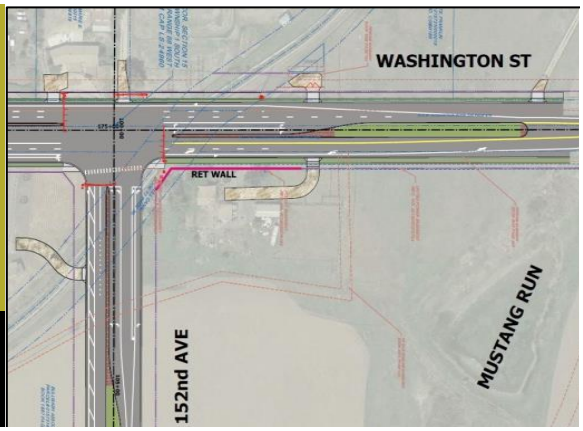
Significant elements of the design included the installation of about a mile of 16" PVC non-potable water lines, updates to potable water systems, a detention pond, new traffic control solutions, and comprehensive construction phasing and detour planning. As construction commenced in early 2020, JR Engineering provided ongoing design support and construction staking services, ensuring the project's execution aligned with its intended design and goals.

Personnel Involved:

Aaron Clutter, PE – Client Manager
Alex Iuga – Project Designer
Eric Lee, PE – Project Manager
Tristan Bonser, PE – Drainage Engineer

WASHINGTON STREET WIDENING (150TH AVENUE TO E-470)

CLIENT:	CITY OF THORNTO
CONTACT:	PETE BRESZALL PROJECT MANAGER (720) 977-6251 PETE.BREZALL@THORNTONCO.GOV 12450 WASHINGTON ST. THORNTON, CO 80241-2405
DESIGNED:	2012-2021
COST:	$900,000
CONSTRUCTION ESTIMATE:	$15,000,000



Located in Thornton's northern area, Washington Street, a two-lane rural road, is facing a transition due to increased traffic demands. The City of Thornton has plans to expand it into a six-lane major arterial roadway and to realign the intersection at 152nd Avenue and Washington Street for enhanced traffic flow and safety.

To address these needs, JR Engineering conducted a comprehensive review of the intersection, focusing on ensuring adequate sight distances and proposing adjustments to the roadway's design to support the repositioned intersection. The team detailed design plans adhering to the Colorado Department of Transportation (CDOT) standards, ensuring that all technical and safety requirements were met.

JR developed Right-of-Way plans in the CDOT format to outline the necessary property acquisitions for the project's execution. An integral part of this redevelopment included relocating a segment of the Bull Canal. Specifically, 1000 feet of the canal was redirected into a concrete box culvert, a move that required careful planning and execution to maintain drainage efficacy while accommodating the road's expansion and the intersection's realignment. This comprehensive approach ensures that the updated Washington Street will meet the city's growing transportation needs while adhering to state standards and enhancing local infrastructure resilience.

Personnel Involved:

Daren Sterling, PE – Client Manager
Jason Tarry, PE – Drainage Lead
Angela Reid, PE – Roadway Design
Jarrod Adams, PLS – Survey Manager
Eli Farney, PE – Project Manager
Tristan Bonser, PE – Drainage Design
Alex Iuga – Roadway Design
Trent Marshall, PE – Construction Manager

In addition to the contact information provided in these write-ups for projects with municipalities, JR Engineering has provided engineering design efforts for the following municipalities:

1. City of Manitou Springs (Roy Chaney – Public Works Director, (719) 499-1642, rchaney@manitouspringsco.gov)
2. City of Colorado Springs (Robin Allen – Civil Engineer III, (718) 385-5407, robin.allen@coloradosprings.gov)
3. Pueblo County (Karim Ayoub – Project Manager, (719)-583-4753, karima@pueblocounty.us)

UNDERSTANDING

JR Engineering understands that the *Town of Palmer Lake* is proposing to make roadway improvements along Spruce Mountain Road between County Line Road and the Douglass County line, including areas between County Line Road and Highway 105. The proposed improvements include bike lanes and drainage improvements. The Town has also indicated that improvements to the right-turn lane from County Line Road would be beneficial to larger trucks as they currently are unable to make the turn without crossing into the opposing lane and at times, knocking over the Yield Sign on the corner.

In reviewing the corridor, the cross-section appears to be consistent throughout, and modifications to it would not necessarily be needed. Adjacent to the edge of roadway and shoulders the topography drops off to areas that contain wetlands. Modify the cross-section would impact these areas, thus complicating the project efforts and timeline. Additionally, just under half of the total length of roadway falls within the floodplain, and will be evaluated to ensure there is no impact. It is anticipated that a Floodplain Development permit will be needed, and a No-Rise Certification will be provided.

To summarize our understanding of the elements and goals of the project, the improvements along the project corridor include the following:

- Roadway and drainage improvements design, potentially including intersection layout and design
- Multi-modal improvements (addition of bike lanes)
- Right-of-way research
- Floodplain impacts
- Subsurface Utility Engineering
- Construction documents and cost estimates
- Assist the *Town* in applying for state and federal grants

The project includes Conceptual, Preliminary, and Final design. The Scope is Services is well-defined and will be the basis for the project development and deliverables.

JR's Design Team has experience in all aspects of the project. The Project Experience section of this proposal contains project descriptions and contact information for projects similar to this project.

CRITICAL ISSUES

Based on our knowledge of the project location, JR Engineering has identified the following critical issues that will need to be addressed to accomplish the goals of this project:

1. Intersection configuration
2. Floodplain impacts

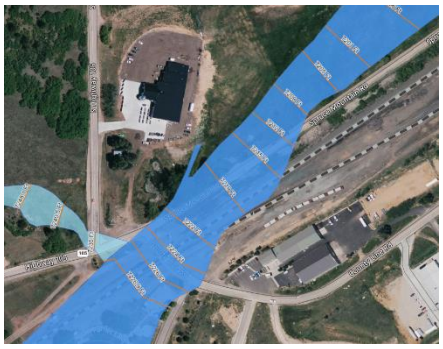
Critical Issue 1 – Intersection Configurations

Based on a review of the layout of the Spruce Mountain Road and County Line Road intersection, modifications can be made to improve mobility of the turn lanes. Coordination with Mountain View Electric would be required as the utility pole on the east corner may be impacted and would need to be relocated to accommodate any realignment or widening of the intersection.

JR will review the configuration of the intersection with the right-of-way, and work with the *Town* in proposing alternative configurations that better align with the traffic movements at the intersection.

Critical Issue 2 – Floodplain Impacts

Spruce Mountain Road crosses through the floodplain from the outlet of Palmer Lake along Carpenter Creek. Any roadway improvements made within the floodplain will need to analyzed to ensure impacts are minimized. This can be achieved by not impacting the roadway profile with additional fill. It is anticipated that a No Rise Certification will be required.



JR will determine the extent of the impacts, and work with the County Floodplain Manager to ensure impacts are documented and a Floodplain Development permit can be issued for the project.

APPROACH

JR's Team has reviewed the Scope of Services included in the *Town's Request for Qualifications* and is prepared to perform all tasks identified therein, or a modified list developed through negotiations. The following project concept highlights our specific approach to completing significant project tasks. These services are outlined to coincide with the services identified in the RFQ.

Data Collection and Conceptual Design

After the award of the project, JR will prepare project documentation, and begin the Data Collection and Conceptual Design Task by performing the following duties.

Project Kickoff Meeting

The project team will attend an initial project kickoff meeting with *Town* Staff. The purpose of the meeting will be to finalize project scope understanding and responsibilities, set project milestones within the schedule, and establish progress meeting times.

Topographic and Boundary Survey

JR's Survey Division will initiate the field survey. JR's surveyors will perform a detailed topographic survey of the project corridor and adjacent improvements. JR will prepare AutoCAD base files containing the results of the field investigation and topographic survey. All project base mapping will be prepared in AutoCAD Civil3D 2023 format and it is assumed that the project coordinate system will be NAD83 Colorado State Plane, South Zone, US Foot. After the project, all CAD-based mapping and design files will be provided to the *Town*. JR will utilize deeds and public records to establish property boundaries.

Subsurface Utility Engineering (SUE) (QL-B)

JR will provide utility locates along the project corridor. JR will ensure that the limits of the locates are within the project limits as identified by JR and confirmed with the *Town*. The utilities will be thoroughly investigated to limit potential utility conflicts. The utilities located will be certified to Quality Level B per ASCE 38 criteria, which requires the subsurface identification of utilities. JR will also survey the locates and incorporate them into a certified Subsurface Utility Engineering (SUE) set of plans. At this time, it is not anticipated that Subsurface investigation (QL A) will be required.

Geotechnical Investigation

JR has teamed with Kumar & Associates, who will perform a geotechnical investigation by collection soil samples for the roadway subgrade determination. The borings will provide information on the subsurface soil profiles, including depth to groundwater. The data obtained will be used to provide a recommendation for the roadway pavement section, subgrade, and embankment backfill materials, and compaction requirements.

Environmental Investigation / Permitting

JR has teamed with RockSol Consulting to provide the environmental investigations and reporting for the project which will likely be required if state or federal funding is secured. The wetlands will be delineated, and the area will be investigated for historical, archaeological, and cultural resources.

Drainage Analysis

JR will obtain the floodplain modeling from FEMA to utilize in establishing baseflow elevations within the roadway footprint, and begin an analysis of the drainage patterns and flows. The analysis will be outlined to follow the criteria requirements of the El Paso County's *Storm Drainage Design Criteria Manual* for the Drainage Report, and subsequent Floodplain Development permit.

Progress Meetings and Coordination
JR will conduct regular progress meetings with the *Town* throughout the duration of this phase, and provide coordination efforts with the subconsultants and other entities. In the meetings, JR will provide an update on the status of the project, and discuss upcoming design-related elements to keep the project progress moving forward.

Upon review of the findings of the data collected, JR will begin design efforts in preparation for the conceptual design submittal.

Conceptual Intersection Design
JR will begin conceptual design of the intersection of Spruce Mountain Road and County Line Road. This concept will look to modify the intersection configuration to improve turning movements.

Conceptual Design Review Meeting
JR will prepare the design package, and coordinate a Conceptual Design Review meeting with the *Town* for plan review. Before the meeting, the design package will be distributed to the *Town* for review.

Preliminary and Final Design

Upon completion of the Conceptual Design Review meeting with the *Town*, JR will prepare all required design plans and documents following *Town* Standards and Criteria.

Corridor Improvement Design
JR will progress and finalize the design of the corridor, an d incorporate signage and striping plans into the plan set. The plans will include detailed information pertaining to the cross-section of the corridor, including horizontal and vertical information.

Intersection Design
JR will utilize the information from conceptual design review to finalize the layout the intersection improvements. JR will review the right-of-way, existing improvements within the intersection footprint, adjacent parcel improvements, and utility infrastructure to determine how the proposed improvements will impact these other improvements.

No-Rise Certification
JR will prepare a No-Rise Certification letter for work within the floodplain and will provide all necessary information that shows the improvements will cause no impact to the 100-year base flood elevation. JR understands that the improvements with this project cannot exceed the parameters required with the No-Rise Certification letter.

Traffic Control/Construction Phasing
JR will prepare designs with constructability in mind. We will evaluate the impacts on the construction phasing and traffic control, and work with the *Town* to put together a final plan that best fits within the project schedule and budget. We will develop complete construction phasing and traffic control plans so that bidding contractors are aware of the lane and road closure requirements. This will result in consistent bids and limit impacts on the traveling public during construction.

Construction Specifications
JR will finalize construction specifications following the *Town's and CDOT's* construction standards and specifications. Project Special Provisions will be prepared showing revisions to CDOT specifications that better align with the Town's Construction Design Standards and Specifications. Additionally, specifications will be incorporated as required by the funding sources.

Cost Estimate
JR will review the final plans, and update the quantities and cost estimate for the proposed improvements. JR will review this estimate before the FOR meeting to ensure that the budget is not exceeded, and to look for any areas that could impact the budget before finalizing the plans.

Field Investigation Review (FIR) and Final Office Review (FOR) Meetings
JR will prepare the design package, and coordinate FIR and FOR meetings with the *Town* for plan review. Before the meetings, the design package will be distributed to the *Town* for review.

State and Federal Grant Assistance

Utilizing the design package and cost estimate, JR will work with the *Town* in identifying potential funding sources, and assist in the preparation of application and submittal documents. If funding is secured, JR will work with the *Town* to modify the design package to ensure that all funding source requirements are prepared and submitted.

Construction Documents

Upon completion of the FOR meeting with the *Town*, JR will coordinate with the *Town* regarding the overall project budget before proceeding with the preparation of the construction documents.

Construction Documents

JR will assist the *Town* by providing stamped construction documents (drawings, specifications, and bid tabulations), electronic drawing files, final cost estimate, and bid tabulation in electronic format in preparation for the *Town* advertising the project for bidding.

Construction Bidding, Construction Assistance, and Design Support [Alternate]

Although not part of the original scope for the project, JR can provide bidding and construction assistance for the *Town* as an alternate to be negotiated and accepted at a later date.

Bidding Assistance

JR will provide the *Town* with the necessary documents to support their bidding package preparation. JR will also assist with bidding by attending the pre-bid meeting, providing answers to questions, addenda, reviewing of the bids, and providing a contractor recommendation based on the bid results.

Construction Observation

JR will visit the project on a daily basis to observe the progress of the work and field check for general conformance to the construction documents and standards and specifications. Full time observation can be provided as required, but is not anticipated. Daily reports, utilizing CDOT Form 266, will be generated documenting the location of work, scope of work, number of workers, type of equipment, quantities removed/installed, and any other pertinent information associated with the site visit (i.e. traffic control setup, weather conditions, safety observance, etc.). The report will also track overall contract time, as well as contract time associated with the specific project location. Material delivery tickets will be collected and documented during this time.

Construction Design Support

JR will assist the *Town* by reviewing and responding to contractor's Requests for Information, and submittals, as well as providing design support if issues are encountered during construction and assisting in the resolution of critical construction issues as needed.

Material Sampling and Testing

JR will work with our teaming partner, Kumar & Associates, during construction to assist the *Town* by provide material sampling and testing as requested.

Construction Meetings

JR will attend the pre-construction meeting and will attend progress meetings as needed to support the *Town* and contractor by addressing questions required to progress the construction of the project.

APPENDIX

RÉSUMÉS

GLENN D. ELLIS, PE

Mr. Ellis has over 27 years of engineering experience as a Client Manager, City Engineer, Project Manager, and Project Engineer for a wide variety of civil engineering projects and public works programs. These include transportation, roadways, drainage, stormwater, water, wastewater, and traffic signalization. As a Client Manager, Mr. Ellis has worked with local developers and governmental agencies in the design of private development, as well as public works infrastructure projects. When serving as the City Engineer for the City of Sioux City, Iowa, and the City of Commerce City, Colorado, he was responsible for identifying, developing, and implementing the full spectrum of Capital Improvement Programs. This included development of project scope and budgets, and making presentations to budget committees and City Councils.

GLENN ELLIS | CLIENT MANAGER | PE

BACHELOR OF SCIENCE – CIVIL ENGINEERING

UTAH STATE UNIVERSITY 1995

REGISTRATIONS AND PROFESSIONAL AFFILIATIONS

Professional Engineer #38861/Colorado and #22079/Iowa (not renewed) | American Society of Civil Engineers

YEARS OF EXPERIENCE » 27 YEARS

YEARS WITH JR ENGINEERING » 6 YEARS

RELEVANT PROJECT EXPERIENCE

Jackson Creek Parkway Corridor Improvements – Stormwater and Utility Design/Coordination – Monument, CO

Lewis Palmer School District 38 Trail System – Monument, CO

Vineland Area Outfall Systems Plan – Pueblo County, CO

Manitou Avenue Fiber Optic Installation Design – Manitou Springs, CO

Clarksley Road & Mountain View Road Water and Waste Water Replacement – Manitou Springs, CO

Manitou Avenue Pedestrian and Drainage Improvements (MAPS) Design Review and Construction Observation – On-Call Contract, Manitou Springs, CO

30th Street Corridor Improvements – Utility Design, Colorado Springs, CO

Christian Brothers Automotive Facilities, Colorado Springs, and Falcon, CO

Calvary Chapel Castle Rock, Castle Rock, CO

I-29 Utility Relocations, Sioux City, IA

Pierce Street Reconstruction, Sioux City, IA

Sanitary Sewer Lift Station Improvements, Sioux City, IA

Prairie Gateway and Dick's Sporting Goods Park Infrastructure, Commerce City, CO

Quebec Street Corridor Improvements, Commerce City, CO

104th Avenue Corridor Improvements, Commerce City, CO

Railroad Crossing Gate Installations, Commerce City, CO

BRETT RIBAUDO, PE

With 10 years of experience, Mr. Ribaudo serves as a Project Lead on a variety of transportation engineering projects for the public works transportation group. These include transportation, roadways, drainage, stormwater, water, wastewater, and traffic signalization. While working at CDOT, Region 2, he was responsible for coordinating with CDOT specialty units, and other project stakeholders. Brett has served as the CDOT representative to public, local, State and Federal entities, businesses and other parties involved with projects.

BRETT RIBAUDO | PROJECT LEAD | PE

BACHELOR OF SCIENCE – CIVIL ENGINEERING TECHNOLOGY

COLORADO STATE UNIVERSITY - PUEBLO 2014

REGISTRATIONS AND PROFESSIONAL AFFILIATIONS

Professional Engineer #60165 | American Society of Civil Engineers

YEARS OF EXPERIENCE » 10 YEARS

YEARS WITH JR ENGINEERING » 1 YEARS

RELEVANT PROJECT EXPERIENCE

Brookside Water System Improvements – Brookside, CO

Manzanola Water System Improvements – Manzanola, CO

Huerfano Wastewater Improvements – Walsenburg, CO

Santa Fe Avenue Improvements – 4th Street to Baxter Street – Pueblo, CO

US50B & 21st/23rd Lane Improvements – Pueblo County, CO

SH96D Overlay – Eads to Sheridan Lake Improvements – Kiowa County, CO

US50B Improvements – Fowler to Manzanola – Otero County, CO

Ruxton Corridor Improvements – Manitou Springs, CO

Creek Walk Trail, Phase 6 – Manitou Springs, CO

Creek Walk Trial, Phase 4 – Manitou Springs, CO

I-25 Exit 108 Interchange Improvements – Pueblo County, CO

I-25 Exit 104 Interchange Improvements– Pueblo, CO

SH96 & SH115 Critical Culverts – Various Counties, CO

JARROD ADAMS, PLS

Mr. Adams has over 15 years of experience in surveying. He is responsible for overall department management, boundary analysis, establishing control networks, and deed research. Mr. Adams has experience in all phases of surveying services, from client relations, project estimating, and staff coordination through project planning, data collection, office reduction, and quality control. He currently oversees all survey projects including design surveys, ALTA/ACSM land title surveys, utility mapping, Right-of-way mapping, and construction surveys.

JARROD ADAMS | SURVEY MANAGER | PLS

BACHELOR OF SCIENCE – GEOMATICS ENGINEERING

OHIO STATE UNIVERSITY 2006

REGISTRATIONS AND PROFESSIONAL AFFILIATIONS

Professional Land Surveyor #38252/Colorado

YEARS OF EXPERIENCE » 15 YEARS

YEARS WITH JR ENGINEERING » 15 YEARS

RELEVANT PROJECT EXPERIENCE

Pole Canyon Wind and Transmission Line, Huerfano County, CO

Tri-State Generation Transmission Line, Adams County, CO

Metro Wastewater Boundary and Mapping, Adams County, CO

Littleton Fire Protection District Mapping, Littleton, CO

Las Vegas Wastewater Treatment Plant Mapping, Colorado Springs, CO

Douglas County Schools Topographic Survey, Douglas County, CO

East 104th Ave. Expansion Right-of-way Mapping, Commerce City, CO

NORAD ALTA/ACSM Land Title Survey, Cheyenne Mountain, CO

Anschutz Medical Campus Design Surveys, Aurora, CO

University of Denver Academic Commons, Denver, CO

Washington St. Widening Right-of-Way Mapping, Thornton, CO

JOE MURRAY

Mr. Murray has over 8 years of experience in the utility locating/SUE industry, he has experienced a tremendous amount of change in utility locating over the years. He serves as the SUE Manager/Project Lead for all SUE or Locating related services. His experience includes many different types of SUE efforts on job sites in many different states along the East Coast, Texas, Illinois, and Colorado. His job site experience includes property locates, full subdivisions, electric sub-stations, gas regulator stations, gas pipelines, military bases, 1 to 16-mile 115KV re-routes, solar projects, and site GPR investigations. Has worked side by side with many well-known utility companies, including Eversource, National Grid, PSEG, Duke Energy, Xcel Energy, Texas Natural Gas, Piedmont Natural Gas, Verizon, AT&T, Comcast, MCI, Zayo, Century Link, RG&E, Orange and Rockland (NY) and many more.

JOE MURRAY | SUBSURFACE UTILITY ENGINEERING MANAGER

REGISTRATIONS AND PROFESSIONAL AFFILIATIONS

Certified Professional SUE Technician and Utility Locator | NGA and GPR Certified

YEARS OF EXPERIENCE » 8 YEARS

YEARS WITH JR ENGINEERING » 1 YEAR

RELEVANT PROJECT EXPERIENCE

Eversource

- Line 250 115KV Re-Route, Boston, MA
- Line 1704-1733 115KV Re-Route, Hartford CT
- Line 282 115KV Re-Route, Watertown MA
- Line 110 115KV Re-Route, Brookline MA
- Line 1744 115KV Re-Route, Danbury CT
- Old Saybrook Substation Rebuild, Old Saybrook CT
- Medway Substation Rebuild, Medway MA
- Cape Cod Space Force Fiber Duct Locate, Barnstable MA
- Brockton SUE Survey, Brockton MA
- Ludlow Substation As-Built, Ludlow MA

Stantec Portland Jetport Runway GPR Investigation, Portland ME

Duke

- Simpsonville Regulator Station Rebuild, Simpsonville SC
- Pierpont Regulator Station Rebuild, Pierpont OH

National Grid Tewksbury Pipeline Build, Tewksbury MA

Haskell, Hood Milk Plant As-Built Survey, Batavia, NY

Quincy Federal Building Parking Lot Solar Port Build, Quincy MA

Ossining School District Solar Port Build, Ossining NY

Cultech Solar Port Build, South Plainfield, NJ

TRISTAN BONSER, PE

Mr. Bonser is JR's Water Resource Group Lead and has 16 years of experience in civil engineering and construction management as a design engineer, project engineer, and project manager on both public infrastructure and development projects. His area of expertise is in water resources engineering, with an emphasis on hydrologic and hydraulic analysis and modeling, design of water and wastewater utility infrastructure, design of open channels and naturalized channel design, urban drainage design, stormwater water quality/detention, and pump stations/lift stations. He also has expert knowledge of AutoCAD Civil 3D; hydrologic, hydraulic, and groundwater resources software; and regulatory agency criteria.

TRISTAN BONSER | WATER RESOURCES GROUP LEAD | PE

BACHELOR OF SCIENCE – CIVIL ENGINEERING

COLORADO STATE UNIVERSITY 2007

REGISTRATIONS AND PROFESSIONAL AFFILIATIONS

Professional Engineer #47602/Colorado

YEARS OF EXPERIENCE » 16 YEARS

YEARS WITH JR ENGINEERING » 16 YEARS

RELEVANT PROJECT EXPERIENCE

Lutz Reservoir Non-Potable Pump Station; Brighton, CO

Phase II Culvert Project; Brighton, CO

Vineland Area Outfall Systems Plan Phase A; Pueblo County, CO

Sand Creek Channel Restoration; El Paso County, CO

Chesapeake Potable Water Line Replacement; Highlands Ranch, CO

Second Creek Reach 3 Improvements: Chambers Road to BNSF Railroad; Commerce City, CO

Swan Meadow Village Water Line Replacement; Dillon, CO

Ragweed Draw Hydrologic Analysis; Commerce City, CO

Las Vegas Street Drop Structure; Sand Creek; Colorado Springs, CO

South Platte River S Tributary 6 & Fairgrounds Tributary Improvements; Thornton, CO

High Line Canal Operational SWMM Model; Douglas County, CO

T-88 Basin Master Drainage Plan; Commerce City, CO

Kettle Creek Drainage Basin Planning Study (DBPS); Colorado Springs, CO

Dogwood Gulch Channel Improvements; Denver, CO

Tanglewood Creek Channel Improvements; Westminster, CO

Peña Station Sanitary Lift Station; Denver, CO

Reunion Irrigation System Conversion; Commerce City, CO

Pine Bluffs Water Master Plan; Pine Bluffs, WY

Arben Kalaveshi, P.E.
Senior Project Engineer

Education
University of Colorado at Colorado Springs
B.S., Mechanical Engineering, 2002

Professional Registration
Registered Professional Engineer:
Colorado License No. 45969

Professional Affiliations
Colorado Association of Geotechnical Engineers (CAGE)

American Society of Civil Engineers (ASCE)

Qualifications Summary

Mr. Kalaveshi has over **20 years of experience** in the geotechnical engineering and construction materials testing industry. He is responsible for the development and implementation of geotechnical investigations and providing analysis and recommendations for commercial, municipal, and residential projects, and has significant experience in the installation and measurement of geotechnical instrumentation including slope inclinometers, extensometers, and groundwater sampling wells as well as in slope stability analysis.

His background includes conducting construction observations for various municipal and commercial projects, including the inspection of reinforcing steel in several residential and commercial buildings; as well as, for drilled shaft foundations, and is experienced in reading plans and specifications.

Professional Experience

- **Pueblo Memorial Airport Runway Reconstruction** (Pueblo, CO): Conducted a geotechnical investigation for the reconstruction and rehabilitation of the existing runways and taxiways using FAA design methodology.
- **Plum Creek Widening Project** (Castle Rock, CO): Conducted a geotechnical investigation for approximately 1½ miles of widened roadway.
- **Founder's Parkway and Crowfoot Valley Road Expansion Project** (Castle Rock, CO): Conducted a geotechnical investigation and construction support for the construction of about 7,000 lineal feet of new roadway, and about 650 feet of retaining wall. Roadway pavement recommendations were developed using both AASHTO 1993 methodology, and CDOT's newly adopted Mechanistic-Empirical design procedure.
- **Powers and I-25 Interchange Project** (Colorado Springs, CO): Conducted a geotechnical investigation for the construction of about 5 miles of new two and three-lane roadway, including 6 bridge structures, and 5 box culverts. Roadway pavement recommendations were developed using CDOT's newly adopted Mechanistic-Empirical design procedure. Special considerations included pervious soils and the presence of groundwater above the anticipated cut depths of up to about 40 feet.
- **Jordan Widening Project** (Parker, CO): Provided geotechnical recommendations and pavement section design for the widening of Jordan road from 2 lanes to 4 lanes.
- **Mountain View Repaving Project** (Mountain View, CO): Conducted a geotechnical investigation for the reconstruction and rehabilitation of the existing pavements town wide.
- **Kings Point Road** (Parker, CO): Conducted a geotechnical investigation for the construction of about 2,900 lineal feet of roadway. Special considerations include the presence of highly expansive soils.
- **Motsenbocker Widening Project** (Parker, CO): Conducted a geotechnical investigation for the widening of Motsenbocker Roadway for a total of about 3,500 lineal feet.
- **Cottonwood Drive Expansion Project** (Parker, CO): Conducted geotechnical investigation for the expansion of Cottonwood Drive including the addition of a new 5-span bridge section over Cherry Creek. Construction of a partial foundation was completed during the construction of the original bridge over 25 years ago. Analysis and review of the in-place foundation elements was included in providing LRFD recommendations using the existing elements to reduce overall construction costs. Construction of this project is planned soon.
- **Colorado Center Re-pavement** (El Paso County, CO): Provided recommendations for the rehabilitation or reconstruction of the existing pavement within the 135-acre subdivision.

Lauren Gentile | Environmental Services Manager

SUMMARY OF QUALIFICATIONS

Lauren has 14 years of experience in natural resources management and compliance with both state and federal environmental regulations. As the environmental project manager during the design phase, she is able to anticipate environmental requirements that will need to be met prior to construction, reducing project costs and delays due to environmental related permitting and clearances. She specializes in biological resource assessments, vegetation surveys, hazardous materials Initial Site Assessments, and the review and implementation of environmental permits and clearances. Lauren has worked on several large road construction projects ensuring the contractor meets environmental compliance requirements for stormwater, dewatering, APEN, SB 40, and 404 permits and certifications, and NEPA mitigation measures.

EXPERIENCE

Ruxton Avenue Improvements | City of Manitou Springs

Environmental Manager. (2021 – Present). Lauren is managing the completion of NEPA clearances required to obtain the Categorical Exclusion (CatEx) in partnership with JR Engineering. An environmental resource assessment was conducted for the early stages of design to determine environmental impacts and clearances required. The project takes place in Mexican spotted owl critical habitat. Lauren is leading the coordination efforts with CDOT and USFWS to comply with the threatened and endangered species act.
Scope: This project consists of road engineering and design improvements along Ruxton Avenue from Manitou Avenue (which is the historic alignment of U.S. Highway 24 (US 24)), to near the Barr Lot. RockSol will be providing environmental resource impact assessment to develop the 50% plans.

120th Street over Coal Creek Bridge Rehabilitation | City of Lafayette

Environmental Manager. (2023 – Present). Lauren is managing the completion of NEPA clearances required to obtain the Categorical Exclusion (CatEx) for this project. Environmental tasks include wetland/waters of the U.S. delineation, preparation an individual 404 certification to USACE, biological resources, hazardous materials initial site assessment (ISA), 4(f) impacts, providing regulatory assistance (SWMP, MS4, CDOT), cultural resource assessment and SHPO consultation.
Scope: RockSol is providing Engineering services to design the replacement of the entire top slab of the bridge culvert and bridge railing for the 120th Over Coal Creek box culvert. RockSol will coordinate directly with the City and with CDOT to ensure all design needs, clearances, and approvals are met for the final design of this extended project.

Alkire Street, 78th to 80th Avenue Trail | City of Arvada

Environmental Manager. (2020 – 2023). Lauren is serving as the environmental project manager, ensuring the submission of all environmental permits and clearances for this local agency project. Environmental tasks include biological resources, Waters of the U.S/ wetlands delineation, 404 compliance, hazardous materials initial site assessment (ISA), and SWMP plan design. Ms. Gentile completed the 404 Self Certification Letter, biological resources report, and ISA for this project.
Scope: The project is funded through a CDOT TAP grant and will construct a new concrete trail along Alkire Street between W 78th Avenue and W 80th Avenue. The trail, combined with a planned trail project south of 78th Avenue, provides a vital missing link in the community to connect schools and nearby residential neighborhoods where limited options exist more safely. Project work includes trail, roadway, and pedestrian bridge design, right-of-way plan development, ditch coordination, environmental permitting, utility identification and relocation, and final construction plans.

Total Years of Experience
14 years

Total Years with RockSol
5 years

Education

- B.A., Environmental Studies, B.A., Geography, University of Colorado

Certifications and Training

- Project Management Professional (PMP)
- Envision Sustainability Professional (ENV SP)
- CDOT SWMP Preparer
- Transportation Erosion Control Supervisor (TECS)
- Raptor Identification
- Preble's Meadow Jumping Mouse Identification
- Traffic Noise Fundamentals and TNM 2.5
- Section 4(f) Compliance for Historic Properties
- CDOT PEL Training
- OSHA 10-Hour Road Construction