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Adding rail to the Basin will open opportunities to take Basin Crude to market, import critical materials to produce crude more efficiently as well as diversify our economy. I can’t believe my luck to have your project in my home state. As the national freight rail leader, a 113-year Utah-based company with offices throughout Utah, including an office for the Basin (Vernal), I have assembled a team I personally know will make rail a reality in the Basin. As you might expect for a freight rail engineer, most of my projects take me away from Utah—home. To say I’m thrilled would be an understatement at the prospect of leading a railway project of this magnitude at home.

As I have already shared with some of you at the Coalition, I am passionate about freight railway projects because they consistently catalyze and diversify the economy of communities these projects touch. I recognize potential benefits as well as challenges of permitting and implementing Uinta Basin Railway and sincerely commend you for proactively moving forward. I am confident the future of our communities will benefit from our actions today.

Along with my colleagues and team members, we recognize that timely delivery is critical to success. We feel your urgency and acknowledge recent agency policies that provide a unique window of opportunity. Fortunately, the Coalition has been contemplating this project for quite some time and given us an opportunity to assemble resources you need.

I am proud of our team and trust you will agree that our team is best qualified and best positioned to help the Coalition successfully advance this important project to implementation. The enclosed proposal presents each of our team members and demonstrates our combined qualification and strengths to successfully deliver on-time engineering, base environmental, and right-of-way work for Uinta Basin Railway.

As you review our enclosed proposal, please look for examples of the following unique qualifications and capabilities that differentiate our team from others:

- **Local Freight Rail Expertise**—As a Utah-based manager with specialized freight rail expertise, I will manage your project aligning resources to meet Coalition objectives. Because the majority of our team is nearby, we are more accessible to the site.

- **Maximized Local Team Resources**—I look forward to working with the amazing partners that we have assembled into a team and think you will too. As the most local team, we can be more cost effective, better informed, and more committed to your success.

- **Resources and Approach for On-Time Delivery**—I have to admit, the aggressive schedule concerned me at first. But now that we have an incredible team and a solid approach, I say “game on!” By joining forces, our team members are ready to set new railway development records given I’ll be fully available to lead our team.

- **Efficient Use of Public Funds**—When comparing apples to apples in terms of scopes of work or value contribution, we are confident that our costs will be lowest because they reflect lower rates and added productivity of local team members.

In short, together as a team, we offer the Coalition a mix of world classrail-specific expertise and local know-how for on-time completion of a project that is implementable and meets your objectives.

Sincerely,

CRS Engineers

Darren Eyre, Project Manager
1. Project Team

1.1 Why this Team?
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WHY THIS TEAM?

QUALIFICATIONS & EXPERIENCE

CRS has diligently become familiar with Seven County Infrastructure Coalition’s (Coalition) Uinta Basin Railway (UBRy) project and has organized a team of specialists needed for each discipline that can successfully permit and design UBRy through completion. Our team understands the vital importance of exporting Uinta Basin oil and gas to national markets via a new rail line which will secure jobs, import and export other products which will bolster and diversify Uinta Basin’s economy, and create tax revenue to reinvest in infrastructure.

We are uniquely made up of local firms with employees that live in the Uinta Basin and Utah community our entire lives. We have more at stake than just winning a project; we must perform at the highest level on this project to maintain the respect and relationships with the Coalition and local railroad staff because we will be here after the project ends. Our future livelihood depends on successfully completing this project.

In addition to the local relationships we have developed over decades, we have the technical expertise needed for this project, specifically freight railroad experience. The experts on our team have planned, designed, permitted, and managed construction of hundreds of miles of track for many rail users such as Union Pacific Railroad, BNSF Railway, multiple shortline railroads, and private industries who are served by these railroad companies.

Our team has the horses in the stable to run this race. Our team has strategically partnered together to provide the capacity needed to complete the project under a tight schedule. We have worked together before and have no doubt that we can work as a successful team again, this time for the Coalition.

CRS’ Team has planned, designed, and managed construction of $1.24 Billion of Freight Railroad projects in the last 3 years.
### Arcadis

**Rail Design**

Arcadis has been serving the North American railroad industry since 1994. They serve all seven Class I railroads and have completed more than 6,000 projects for their rail clients. The Arcadis railroad team is your trusted partner, delivering solutions which meet all your needs because — like you — they live railroading, everyday.

### SWCA

**Environmental**

SWCA is a unique environmental consulting firm with more than 850 employees across the United States. We have had an established presence in Utah for 25 years and an office in Vernal since 2006. SWCA is unique in its field as a strictly environmental consulting firm with a reputation of exceptional client service and permitting acumen. We regularly help our clients navigate their projects through the Endangered Species Act, Clean Water Act, National Historic Preservation Act, National Environmental Policy Act (NEPA), and more. SWCA is qualified as a third-party environmental contractor by the Surface Transportation Board.

### CIVCO

**Survey Engineer**

CIVCO has been and is providing survey services, right-of-way design, utility coordination, complete project management, environmental clearances, roadway, drainage, and structure design for several agencies including the federal, state, county, and municipal projects throughout Utah and Colorado. CIVCO’s team of highly skilled employees consists of 5 registered professional engineers, 3 engineering technician, 3 CAD technicians, 10 certified construction inspectors, 2 registered land surveyor, 3 survey chiefs, and 8 office technicians.

### RailPros

**Rail Design**

RailPros Field Services provides professional engineering design services and field support staff for infrastructure projects on or near railroad facilities. The organization is led and operated by a team with extensive railroad construction and maintenance experience. They provide trained, experienced, and qualified personnel to work in the railroad environment. “Rail isn’t a part of our business; it is our business.” Unlike other firms, rail is all they do. The RailPros Field Services staff have extensive previous construction and maintenance experience directly with Class 1 and short line properties. This firsthand knowledge of railroad operations, construction, and maintenance will provide SCIC with on schedule, on budget projects.

### CRS Engineers

**Prime, Freight Rail Lead, Multi-Disciplined**

CRS Engineers solves complicated civil engineering challenges. We specialize in complex freight railroad infrastructure projects. Like Arcadis, we have been serving Class 1 railroads since 1993, helping hundreds of railroad communities, companies, government agencies, and private industries with feasibility studies, cost analyses, design, construction management of railroad tracks and terminals throughout the nation with emphasis in Utah and Colorado. We’ve played a pivotal role in development of hundreds of miles of track in main lines, branch lines, yards, industry spurs, and railroad crossings. CRS’ involvement with rail lines has included projects for branch line feasibility studies, rail served industrial parks, rail served ports, oil refineries, ethanol plants, coal terminals, transload facilities, intermodal yards, automotive yards and other rail facilities essential for the growth and sustainability of our nation’s economy. Working with Class 1 and short line railroad companies on a daily basis has helped CRS establish strong personal relationships, technical knowledge, and an intimate understanding of railroad permitting and approval processes. In addition to local railroad professionals, CRS has four offices in Utah, including one in Vernal.
WSP USA
Environmental & Structures
30+ Years in Business
350+ Rail Projects

WSP is a leader in rail transportation consulting, is a local firm with national resources. This means we can pull in subject matter experts when needed but also have local professionals who understand the local vision and context. They have experience in all facets of rail engineering, environmental, permitting, right-of-way planning, and related services. WSP has served Utah for over 30 years and helped study, program, and build over 70 miles of rail in Utah and hundreds of miles throughout the U.S. Their rail experts are well versed in the rail transportation of bulk commodities, including crude oil. They’re experts at identifying risks and developing innovative approaches to manage these risks in a time- and cost-efficient manner. They also understand how to reliably address the needs of a viable rail line. They can leverage our team’s relationships with local and national rail carriers to ensure we deliver all the elements necessary for a complete turnkey railroad that works with the realities of rail industry.

Kleinfelder
Geotechnical
17 Rail Projects
125 Basin Projects

Kleinfelder is uniquely qualified to provide geotechnical services on this project because of our successful work history providing geotechnical support for numerous large transportation projects throughout Utah and Colorado over the past 25 years and have extensive experience with the unique geotechnical and geologic conditions in the Uinta Basin and surrounding areas. By applying the experience of our staff, we can provide efficient solutions that benefit our clients and minimize project costs. In addition to our strong, long-term local presence, we have the ability to draw on specialized expertise from over 1,800 employees in our other offices. Kleinfelder’s local team has extensive experience working on large design-build and design-bid-build transportation and rail projects, and has worked closely on many past transportation projects with members of the current project team.

Monument
Management & Permits
19 Years Experience
200+ Projects Managed

Monument provides planning, engineering, and advisory services for transportation infrastructure projects like the Uinta Basin Railway. Monument specializes in early stages of infrastructure development, including project management, stakeholder engagement, environmental planning and permitting, engineering, and cost estimating. Monument offers a proven project management approach that first seeks to understand the community context for infrastructure needs and then applies technical expertise to drive success. Monument is proud to currently serve the Coalition and eastern Utah on other efforts.

Railroad Industries
Shortline Operations
30 Years in Business
30 Rail Projects

Railroad Industries Incorporated (RII) has been a premier consulting firm for over 30 years. We have successfully helped clients to plan more streamlined operations and build revenue, to solve issues and develop partnerships, and to create lasting transportation programs. Their hands-on focus with transportation, with most personnel having individual experience in the transportation industry, coupled with their professional project management practices provides for a client-centered process and smooth projects. Their innovative Out of the Box ideas help to solve problems and create win-win solutions for new systems that truly maximize transportation systems and new infrastructure technologies.

Greg Buxton, PE established Civil Engineering Technologies, LLC (CET) in November 2010. Greg has developed a professional and personal relationship with many of the Tribal Business Committee members which has helped him with the completion of project on Tribal Lands. Greg, located in Roosevelt, UT, has provides professional engineering, surveying and right of way services to the Ute Indian Tribe and other local governmental agencies. Greg has demonstrated his ability to navigate Ute Indian Tribe processes to successfully complete projects in their jurisdiction. Greg will provide Tribal coordination and act as a liaison between the project Team and the Ute Indian Tribe.
KEY PERSONNEL STRENGTHS

Daren Eye, PE
Project Manager
19 Yrs. of Exper. 300+ Similar Projects
I provide senior engineering reviews and support Uinta Basin and Western Colorado to get things done.

Matt Collier, PE
Rail, Track Crossing, Grading Design
19 Yrs. of Exper. 100+ Similar Projects
I design challenging freight rail corridors that positively impact local communities.

Basin-speciﬁc
I provide knowledge and relationships with local governments and utilities in the project area to facilitate cost effective relocation of utilities.

Diego Carroll, PE, MBA
Project Manager
19 Yrs. of Exper. 200+ Projects Managed
I will apply a mix of business and infrastructure capabilities to support the PM to drive on-time delivery and coordination across disciplines.

Shawn Marshall, PE
Rail, Track Crossing, Grading Design
13 Yrs. of Exper. 100+ Similar Projects
I plan and design freight railways and supporting facilities essential to connecting short lines to Class I carriers.

Matt Hirst, PE
Principal in Charge
24 Yrs. of Exper. 200+ Similar Projects
As the president for CRS, I oversee quality of deliverables, allocation of resources, and client satisfaction to facilitate a successful project.

Troy Ostler, PE
Survey/ROW/Local Liaison
40 Yrs of Exp. 1000+ Projects
I will apply vast knowledge and relationships in the Uinta Basin and Western Colorado to get things done right and ensure we meet your needs.

Matt Hirst, PE
Principal in Charge
24 Yrs. of Exper. 200+ Similar Projects
As the president for CRS, I oversee quality of deliverables, allocation of resources, and client satisfaction to facilitate a successful project.

Troy Ostler, PE
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40 Yrs of Exp. 1000+ Projects
I will apply vast knowledge and relationships in the Uinta Basin and Western Colorado to get things done right and ensure we meet your needs.

Carrene Gilbert, PE
Rail Operations, Signals, & PTC
23 Yrs. of Exper. 50+ Similar Projects
I design railroad signal and positive train control to maximize freight rail transport reliability and safety.

Gary Hunter
Shortline Operations
47 Yrs of Exp. 100+ Projects
I apply recent UPRR on-the-job engineering acumen to design at-grade crossings that are practical, safe, and worthy of approvals.

CERTIFICATIONS & LICENSES
See Appendix A: Resumes for technical certiﬁcations & all license information.

Matt Fowler, PE
Structures/Tunnels
25 Yrs. of Exper. 200+ Similar Projects
Backed by world renowned tunneling resources, I lead state-of-the-art designs for robust tunnels in complex conditions.

Martin Kaplansky, PE
Hydrology & Hydraulics
17 Yrs of Exper. 50+ Similar Projects
I design drainage facilities that meet railroad standards and protect the longevity of the railway and protect natural streams.

Ben Rood, PE
Hydrology & Hydraulics
25 Yrs of Exper. 100+ Similar Projects
I will apply land surveying best-practices to verify survey data and develop reliable design base maps.

Josh Sletten, SE
Structures/Tunnels
17 Yrs of Exper. 50+ Similar Projects
I design bridge and drainage structures that are innovative and implementable.

Danny Petreloss, Survey & ROW
I apply land surveying best-practices to verify survey data and develop reliable design base maps.

Scott Vernon, Survey & ROW
25 Yrs of Exper. 600+ Similar Projects 400+ Basin Projects
I provide knowledge and relationships with local governments and utilities in the project area to facilitate cost effective relocation of utilities.

Bret Reynolds, PE
Utilities & ROW Lead
28 Yrs of Exper. 500+ Similar Projects 100+ Basin Projects
I provide knowledge and relationships with local governments and utilities in the project area to facilitate cost effective relocation of utilities.

Chuck Eaton, RPA
Environmental Lead
20 Yrs of Exper. 30+ Similar Projects 10+ Basin Projects
I bring together engineering and environmental resources to develop workable and effective solutions to support NEPA.

Jason Bright
NEPA Process Lead/Land Use Resources
25 Yrs of Exper. 30+ Similar Projects
I help clients succeed by providing multi-agency NEPA support to address client needs through federal agency procedures.

OBLIGATIONS/AVAILABILITY

Scott Vernon
Survey & ROW
25 Yrs of Exper. 600+ Similar Projects 400+ Basin Projects
I provide knowledge and relationships with local governments and utilities in the project area to facilitate cost effective relocation of utilities.

John Bale, PE
Alternative Delivery/CM
32 Yrs of Exper. 300+ Similar Projects 100+ Basin Projects
I apply experience modeling operations for freight railway projects

David Brown
STB Studies Lead
16 Yrs of Exper. 25+ Similar Projects 120+ Basin Projects
I lead teams experienced with STB, BLRM, and environmental resources to prepare analyses that meet STB requirements.

John Diamond, PE, DBIA
Alternative Delivery/CM
32 Yrs of Exper. 300+ Similar Projects 100+ Basin Projects
I provide knowledge and relationships with local governments and utilities in the project area to facilitate cost effective relocation of utilities.

Greg Buxton, PE
Tribal Coordination
29 Yrs. of Exp. 15 Similar Projects
I provide proven positive relationships with the Ute Indian Tribe.

Daron Anderson, SE
Local Liaison
22 Yrs of Exp. 300 Projects
I provide senior engineering reviews and support which create project efficiencies based on Uinta Basin-specifics.

Lance Kippen, PE
DOT Rail Crossing
15 Yrs of Exp. 100+ Projects
I apply recent UPRR on-the-job engineering acumen to design at-grade crossings that are practical, safe, and worthy of approvals.

Bret Reynolds, PE
Utilities & ROW Lead
28 Yrs of Exper. 500+ Similar Projects 100+ Basin Projects
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Greg Buxton, PE
Tribal Coordination
29 Yrs. of Exp. 15 Similar Projects
I provide proven positive relationships with the Ute Indian Tribe.
2. Capability of Consultant

Capability to Perform ..............................................2.1
Control Systems ......................................................2.1
Relevant Experience ................................................2.2
Resources Available (Team Organization Chart) ......2.6
SIMILAR PROJECT EXPERIENCE

Our team members have planned, designed, permitted, and managed construction of hundreds of miles ($1.24 Billion) of freight rail and associate facilities, including similar features such as branch lines, interchange yards between Class 1 and smaller shortlines, repair and maintenance shops, sidings, road crossings, structures, utility relocation / protection, and private industry loading and unloading facilities. Industry loading and unloading facilities,

As noted in our project experience, we deliver our projects on time and on budget. We also have experience assisting our clients in procuring federal funding/grants.

CAPABILITY TO PERFORM WORK

INTERNAL REVIEW OF QUALITY PROCESS

Our CRS Internal Review Procedure has three integrated standards: Project Planning checklist is established for each project. For larger projects, a customized critical path schedule is used showing key milestones and deliverables. Project schedule and budget are reviewed weekly by team. Management software allows us to track daily the status of the budget and work completed allowing real time information and the ability to identify items that are behind schedule.

Quality Control (QC) standards apply to every submittal, including plans, calculations, reports, specifications, and estimates. All individuals responsible for QC sign and date the internal review checklist after completing their review. A review checklist is required for all projects. Each document is reviewed by a designer, digital file review, hard copy review, and project manager review. CRS staff track and file completed QC process documents in our deliverable file for future reference. This QC process ensures each item has been properly reviewed and completed.
RELEVANT EXPERIENCE

**West Memphis RailPort Logistics Park Phase 1**

**Project:** West Memphis RailPort Logistics Park Phase 1

**Client:** City of West Memphis

**Location:** West Memphis, AR

**Team Members:**
- Darren Eyre, PE | Project Manager
- Chuck Easton | Environmental Team

**Project Description:** Master plan - 2,500 acre rail served industrial park, 28 miles of railroad and branch line design (interchange yards, industrial leads, and private spurs), 3 miles of rail construction, roadways, two bridges, two at-grade railroad crossings, utilities, drainage, and a port on the Mississippi River. CRS assisted the City to obtain an $11 million federal TIGER grant and RRIF funding.

**Client Reference:**
Phillip Sorrel, Economic Development Director / City Engineer | City of West Memphis | 205 S. Redding, West Memphis, AR 72303 | 870.514.9751

**Utah Inland Port**

**Project:** Utah Inland Port

**Client:** Private Developer

**Location:** Salt Lake City, UT

**Team Members:**
- Darren Eyre, PE | Project Manager
- Matt Collier, PE | Design Engineer
- Matt Hirst, PE | Principal In Charge

**Project Description:** Being part of one of the most impactful freight railroad projects in Utah’s recent history has been a career highlight for the engineers at CRS Engineers. Our team has assisted the owner and developers of 4,000 acres of land to design and master plan 15 miles of future rail in Salt Lake City’s northwest quadrant.

**Client Reference:**
Corey Mellor Senior Engineer, Board of Directors AME | UTTR Hill AFB | 5948 South Gate Ave, Ste. 200, Hill AFB, UT 84056 | 801.777.2644

**13-Mile Utah Test and Training Range Branch Line - Construction Economic Feasibility Study**

**Project:** 13-Mile Utah Test and Training Range Branch Line - Construction Economic Feasibility Study

**Client:** Hill Air Force Base

**Location:** Utah Test and Training Range, West Desert, UT

**Team Members:**
- Darren Eyre, PE | Project Manager
- Matt Hirst, PE | Principal In Charge

**Project Description:** Railroad feasibility study for a 13-mile branch line in Utah’s west desert. Conceptual 10% design for Union Pacific Railroad, survey boundary lines and land topography, obtaining easements on private and state-owned land, environmental baseline survey, preliminary plan and profile drawings, horizontal and vertical placement of the track, permitting at-grade railroad crossings with UDOT, and construction cost estimates.

**Client Reference:**
Corey Mellor Senior Engineer, Board of Directors AME | UTTR Hill AFB | 5948 South Gate Ave, Ste. 200, Hill AFB, UT 84056 | 801.777.2644
## RELEVANT EXPERIENCE

<table>
<thead>
<tr>
<th>Prime Firm</th>
<th>Relevant Project Components</th>
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<tbody>
<tr>
<td>CRS Engineers</td>
<td>Freight Rail Engineering Planning</td>
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<td>CRS Engineers</td>
<td>Environmental Permitting</td>
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<tr>
<td>CRS Engineers</td>
<td>Corridor Impact Analysis</td>
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</tbody>
</table>

### Pecos Hi-Crush Facility

- **Project**: Freight Rail Engineering Planning
- **Client**: Environmental Permitting
- **Corridor Impact Analysis**: Design - Build

**Relevant Experience**

Matt Collier, PE | PM/Design Engineer
Matt Hirst, PE | Principal In Charge

**Team**

- **Location**: Pecos, TX
- **Matt Collier, PE | PM/Design Engineer**: Designed two mainline switches, two ways, three-unit train loop tracks, and four manifest tracks. The total design track footage included 44,000 ft. of track. The design included drainage and grading of nearly 300 acres of raw ground, including ditches, culverts, and detention basins.

**Client Reference**

Jeremy Thompson, General Manager | EPC | Quicksand | PO Box 8727, Fayetteville, AR 72703 | 479.236.1465
Kipp Hearne, General Manager | Quicksand | PO Box 8727, Fayetteville, AR 72703 | 479.263.2030

### Nevada Northern Railway

- **Project**: Freight Rail Engineering Planning
- **Client**: Environmental Permitting
- **Corridor Impact Analysis**: Alternative Delivery Method Analysis

**Relevant Experience**

Darren Eyre, PE | Design Engineer

**Team**

- **Location**: Between Wendover & Ely, NV
- **Matt Collier, PE | PM/Design Engineer**: Designed two mainline switches, two ways, three-unit train loop tracks, and four manifest tracks. The total design track footage included 44,000 ft. of track. The design included drainage and grading of nearly 300 acres of raw ground, including ditches, culverts, and detention basins.

**Client Reference**

Luke Papez, Project Associate | LS Power Development LLC | 400 Chesterfield Center, Ste. 110, St. Louis, MO 63017 | 636.532.2200

### Western Arkansas Railroad Reconstruction Project

- **Project**: Freight Rail Engineering Planning
- **Client**: At-Grade Railroad Crossings
- **Right of Way Planning**: Licenses/Permits
- **Corridor Impact Analysis**: Implemented into State Rail Plan

**Relevant Experience**

Darren Eyre, PE | Project Manager, Design Engineer
Matt Hirst, PE | Principal In Charge

**Team**

- **Location**: Howe, OK to Danville, AR
- **Darren Eyre, PE | Project Manager, Design Engineer**: Corridor feasibility study evaluating 80 miles of abandoned railroad corridor with over 100 road crossings from Howe, OK to Danville, AR. Analysis of track alignment and grade, earthwork quantities, construction cost estimates, impacts to private, federal, state and tribal lands, conflicts with drainages, roadways, utilities, and environmentally sensitive areas.

**Client Reference**

Stacey McCollough, Executive Director | South Logan Chamber of Commerce | 210 East Main, Booneville, AR 72927 | 479.675.2666
## RELEVANT EXPERIENCE

<table>
<thead>
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<th>Project</th>
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<td><strong>Arcadis</strong></td>
<td><strong>Freight Rail Engineering</strong></td>
<td><strong>Union Pacific Railroad</strong></td>
<td><strong>Spafford, TX</strong></td>
<td>Design and construction management new railyard facilities including: car repair facility, storage building, modular operation buildings, yard air, industrial wastewater storage, yard vehicle fueling station, yard electrical power and lighting</td>
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<tr>
<td>**CIVCO</td>
<td>WSP</td>
<td>Monument**</td>
<td>Environmental Planning</td>
<td><strong>Uintah, Grand/Duchesne Counties, UT</strong></td>
</tr>
<tr>
<td><strong>ARCADIS</strong></td>
<td><strong>Freight Rail Engineering</strong></td>
<td><strong>Canadian Pacific Railway</strong></td>
<td><strong>Golden, CO</strong></td>
<td>Design and construction management for a fast-track conversion of an existing car shop to a diesel shop including: wheel truing machine, drop table, inspection pit and service platforms, building modifications, progression system, wastewater treatment plant.</td>
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### Eastern Utah Regional Connection (EURC) & Book Cliffs Corridor Study

**Project**

**SCIC and UTSSD**

**Client**

**Uintah, Grand/Duchesne Counties, UT**

**Team**

Troy Ostler | EURC Project Manager
Diego Carroll | Corridor Study
Bret Reynolds | Key Staff

**Client Reference**

Adam Massey, Executive Director | UTSSD | PO Box 144, 320 N. Aggie Blvd., Vernal, UT 84078 | 435.789.4636 and Mike McKee, Executive Director | SCIC | 435.823.5010

### Fast Track Diesel Shop

**Project**

**CP**

**Client**

**Golden, CO**

**Team**

Chris Evensen, PE | Project Manager
Al Kostelnik, PE | Principal in Charge

**Client Reference**

Allan Amundson, PE, Sr. Project Manager–Facilities | Canadian Pacific Railway | 1290 Central Parkway West, Mississauga, ON L5C 4R3 | 647.458.4521
## RELEVANT EXPERIENCE

### CIVCO

**Prime Firm**

<table>
<thead>
<tr>
<th>Project</th>
<th>Relevant Project Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seep Ridge Road</td>
<td>Planning, Environmental Scope, Right of Way Planning, Licenses/Permits, Regulatory Approvals, Conceptual/Preliminary</td>
</tr>
</tbody>
</table>

**Client**

<table>
<thead>
<tr>
<th>Client</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTSSD</td>
<td>Uintah County</td>
</tr>
</tbody>
</table>

**Project Description**

45 miles reconstruction roadway design - topography data, establishing right-of-way and documentation utility coordination, address impacts to existing facilities. Obtained Title 5 Right-of-Way from the BLM, oversaw acquisition of rights-of-way from SITLA and private property owners, and drafted a BLM environmental document.

**Team**

<table>
<thead>
<tr>
<th>Professional</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troy Ostler, PE</td>
<td>Project Manager</td>
</tr>
</tbody>
</table>

### Railroad Industries Incorporated

**Prime Firm**

<table>
<thead>
<tr>
<th>Project</th>
<th>Relevant Project Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel River Infrastructure</td>
<td>Freight Rail Engineering Planning, Conceptual/Preliminary</td>
</tr>
</tbody>
</table>

**Client**

<table>
<thead>
<tr>
<th>Client</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel River Infrastructure Partners</td>
<td>San Francisco, CA</td>
</tr>
</tbody>
</table>

**Project Description**

Due diligence for acquisition of Steel River system including 11 short line railroads throughout the U.S. including inspection of equipment and track assets, rehabilitation costing, examining all traffic and operating plans, agreements and developing operational feasibility. Project revenues and profitability including capital costs and ongoing maintenance and expenses.

**Team**

<table>
<thead>
<tr>
<th>Professional</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gary Hunter</td>
<td>Project Manager</td>
</tr>
</tbody>
</table>

### SWCA Environmental

**Prime Firm**

<table>
<thead>
<tr>
<th>Project</th>
<th>Relevant Project Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Gateway Transmission Expansion Program</td>
<td>Linear Alternative Analysis, Strategy Development Design to Delivery, NEPA, Section 106 of NHPA, BLM, BIA, SHPO, USACE, State of Colorado, State of Utah</td>
</tr>
</tbody>
</table>

**Client**

<table>
<thead>
<tr>
<th>Client</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacificorp / Rocky Mountain Power</td>
<td>Utah, Wyoming, and Idaho</td>
</tr>
</tbody>
</table>

**Project Description**

Since 2008, SWCA has been providing full-time on-site environmental support planning, design, permitting, construction, and development of over 2,000 miles of new extra high voltage transmission. Service expertise includes biology, cultural, paleontology, wetlands, agency coordination, and full permitting support.

**Team**

<table>
<thead>
<tr>
<th>Professional</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Dave Brown, Principal in Charge</td>
<td>Principal in Charge, Technical Project Mgr.</td>
</tr>
<tr>
<td>Matt Edwards, Alyson Eddie and Georgia Knauss</td>
<td>Key Staff</td>
</tr>
</tbody>
</table>
RESOURCES AVAILABLE

CRS’ Team members are committed up to 100% availability depending on phase to achieve the Coalition goals and objectives.
3. Approach to Project

Overview ................................................................................. 3.1
Communication Plan ........................................................ 3.1
3rd Party Consultants .................................................... 3.1
Why We Have the Best Approach .................................... 3.2
Detailed Approach ............................................................. 3.3
  Project Management ......................................................... 3.3
  Kickoff/Site Visit ............................................................ 3.3
  Stakeholder Coordination ............................................... 3.3
  Environmental Investigation ........................................ 3.4
  Right-of-Way ................................................................. 3.6
  10-15% Design ............................................................... 3.7
  Preliminary Vertical Design ......................................... 3.10
Risks and Solutions ............................................................ 3.12
APPROACH OVERVIEW

EFFICIENT EXECUTION

Our team’s work over the next two years will be critical to permit and construct Uinta Basin Railway to move freight by December 1, 2023. With a clear understanding of urgency, we have defined an approach that will successfully deliver baseline environmental work and studies, prepare railway designs, and identify right-of-way needs. Our detailed approach is on the following pages.

3RD PARTY CONSULTANTS

Although the Coalition will not have influence over STB NEPA work, quality and focus of our work and the way our team interacts with STB’s consultant can impact NEPA process efficiencies. Steps to provide environmental investigation and design information that allow STB and its consultant to move quickly through NEPA include:

- Leverage our STB environmental experience to anticipate and immediately launch resource studies required by STB;
- Coordinate efforts with STB consultant as soon as they are selected; and
- Proactively respond to STB consultant needs and inquiries. CRS’ detailed approach describes additional steps to minimize cost and time to obtain permits for construction of Uinta Basin Railway.

COMMUNICATION PLAN

We propose a systematic approach to fully engage with the Coalition and its consultants and to effectively collaborate with STB’s third-party environmental consultant, government agencies, tribes, Class I carriers, and other stakeholders. As illustrated here, our structured communications approach includes identifying the audience, communications tools, method and frequency of delivery, and the source of the message. Result is an organized set of process controls allowing the project team to make informed choices, including:

- Collaboration, resulting in shared consensus and commitment;
- Implementing consistent and firm project controls;
- Verifying project supports for the Coalition goals, budgets, schedule and design vision;
- Communicating roles and responsibilities of CRS’ team and the Coalition as well as finalizing tasks, deliverables and approvals expected at each phase of design;
- Setting clear expectations and communication protocols; and
- Seeking creative solutions within budget and schedule.

<table>
<thead>
<tr>
<th>Type (may vary by audience)</th>
<th>Frequency</th>
<th>Message Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-Face</td>
<td>Daily</td>
<td>Engineering team</td>
</tr>
<tr>
<td>Conference Call</td>
<td>Weekly</td>
<td>Coalition Board</td>
</tr>
<tr>
<td>On-line/Digital</td>
<td>Monthly</td>
<td>Coalition Consultants</td>
</tr>
<tr>
<td>Public Open House</td>
<td>Quarterly</td>
<td>Class I Carriers</td>
</tr>
<tr>
<td>Letter/Reports</td>
<td>As-Needed</td>
<td>STB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tribes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other Stakeholders</td>
</tr>
</tbody>
</table>

Identify Audience
- Uinta Rail Users & Stakeholders
- STB 3rd Party Consultant
- Coalition
- Engineer of Record
- Coalition
- Legal Consultant
- Non-Governmental Organizations

Delivery Method
- Meeting
- Info Presentation
- Formal Presentation
- Maintain Mailing Lists
- Social or News Media

ASSUMPTION: Preliminary design is based on 10-15% conceptual horizontal design to meet STB, UPRR, and BNSF criteria and advance permitting process. To achieve an alternative delivery approach, CRS assumes a preliminary vertical design will be prepared, including typical cross sections.
WHY?

WHY OUR APPROACH WORKS BEST FOR UBRY?
Our approach speaks for itself. Although a comprehensive description of our scope of work would be too detailed and lengthy for our proposal, we have prioritized a lot of space in our document to describe the course of action we propose to meet project objectives. Our detailed approach is clear evidence that our team is best suited to define and implement an approach that meets your needs. In addition to merits of our approach description itself, we offer the best approach for Uintah Basin Rail given we have:

- Depth of expert resources;
- Deep local understanding and experience;
- Sincere commitment to UBRy success; and
- Flexibility to adapt our approach to meet your needs.

Desktop Environmental Investigations
Although our team is willing and able to complete extensive environmental resource surveys, we recommend a desk-top focused approach that is more cost and time effective. We propose environmental investigations based primarily on desktop reviews and supplemented by high-level field reconnaissance. This approach will result in preliminary resource reports that guide initial railway designs and form baseline for STB consultant to advance NEPA process. This approach moves permitting process forward without wasting project funds on field investigations for alternatives that can be screened and eliminated without field surveys.

Supplemental Base Map Preparation
Our approach focuses on using mapping data provided by the Coalition and its consultant and supplementing those efforts as needed. Because survey data parameters to be provided are unclear in the RFP, our approach is based on high level assumptions of supplemental data collection needs. However, we propose immediately engaging the Coalition’s engineer of record to clarify how we will use mapping data and refine survey efforts by the Coalition as well as our team. As noted for environmental surveys, we caution the Coalition to avoid overly detailed topographical surveys for alignments that can be screened and eliminated without those details. Early and close collaboration with the Coalition and the engineer will help us adapt our resources to expedite delivery and save costs.

Multiple Design Levels
Our approach to design the railway focuses on first identifying a preferred alternative and informing the design efforts and then advancing designs to the level needed to procure a contractor. The initial 10-15% design will provide necessary design information to select the preferred alternative and baseline design information to advance STB’s NEPA process. Level of design needed to procure a contractor could range from 10% (or less) to 100% depending on the preferred delivery method (design-bid-build, design-build, CMGC, etc.). To support the permitting process and optimize delivery time frame for construction, we recommend advancing 10-15% design requested by the RFP to a preliminary vertical design level. This approach would allow our team to either work with a CMGC contractor at the 10-15% level or procuring a design-builder at preliminary vertical design level. Although not specifically required by the RFP, this approach allows our design team to continue to advance designs with or without a contractor.

We have done this before. Our approach is best because it is based on our proven experience on similar freight rail projects. We have assembled a highly qualified team experienced with the permitting, design, and construction of freight railways and collectively engaged them to identify critical pitfalls and proven solutions.

We understand the project context. Our approach is also best because we understand your needs the best. Our approach reflects our local knowledge and our understanding of the context for the project. To help develop a scope of work that is relevant and effective, our efforts to engage expert resources included extensive discussions about the unique needs, challenges, and opportunities for the project area.

We are brutally honest. Our approach is also best because it is based on a candid assessment of conditions for the project. Because we are ultimately committed to the success of this project, we can assure you that our approach represents an honest estimate of the steps we anticipate to successfully deliver the outcomes defined in the RFP.

We are flexible. Because the RFP was written to accommodate a broad range of responses, we recognize that our approach could be refined and improved by working in close collaboration with the Coalition and its consultants. Ultimately, our approach is best because we welcome the opportunity to work with you to refine our approach and corresponding cost to better meet your needs and objectives.
# Detailed Approach

## Project Management

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly meetings with Coalition and Jones &amp; Demille (J&amp;D)</td>
<td>Project management will be provided throughout the duration of the project. It will focus on keeping the project moving and meeting project objectives, including obtaining permitting as well as measured and constant communication (weekly meetings with the Coalition, weekly internal team meetings, schedule monitoring, and budget reporting) is critical. Real-time reporting tools will be used to allow everyone on the project team, including the Coalition and J&amp;D to view action items and “to-do” lists in real-time as well as provide transparency.</td>
</tr>
<tr>
<td>Weekly internal team meetings</td>
<td></td>
</tr>
<tr>
<td>Weekly schedule monitoring</td>
<td></td>
</tr>
<tr>
<td>Monthly budget reporting</td>
<td></td>
</tr>
<tr>
<td>Microsoft Teams/One Note real-time reporting</td>
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</tbody>
</table>

**Deliverables:** Weekly status reports, monthly progress reports

## Kickoff Site Visit

<table>
<thead>
<tr>
<th>Tasks</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Prepare field visit maps for note taking</td>
<td>Our team will perform an up-front field visit of alignments prepared by J&amp;D to better understand field conditions and project constraints. Prior to the field visit, maps will be prepared allowing staff to document conditions observed during project tour. In addition to field notes, drone video recordings and geo-referenced photographs will be taken along proposed corridors. Drone video footage to be recorded in FAA allowed and easily accessible areas. Geo-referenced photographs to be uploaded into a private Google Earth file allowing CRS team members, the Coalition, and J&amp;D to see where and what compass direction photographs were taken.</td>
</tr>
<tr>
<td>Team field review (using GIS corridor alignment data provided by J&amp;D)</td>
<td>CRS has participated in many long distance freight railroad corridor designs and found this approach of up-front data collection saves a great deal of time and cost. Greatly reducing number of follow-up site visits normally required. CRS’ team office staff, Coalition review staff, and J&amp;D will visualize the project without the need for a site visit.</td>
</tr>
<tr>
<td>Drone flight of proponent alignments photography (not survey grade, but to visualize existing conditions without expense of a site visit)</td>
<td></td>
</tr>
<tr>
<td>Geo-referenced photo log and upload to Google Earth (shows where photos were taken and compass direction)</td>
<td></td>
</tr>
</tbody>
</table>

**Deliverables:** Photo log for consultant team and Coalition use.

## Stakeholder Coordination

<table>
<thead>
<tr>
<th>Tasks</th>
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<tbody>
<tr>
<td>Refine and implement communications plan for each stakeholder including: UPRR, BNSF, UDOT, CDOT, PUC, Tribes, SITLA, BLM, Cities, Counties, STB, Public, etc.</td>
<td>As part of the communications plan described above, our team will prepare a list of potential stakeholders to meet with immediately to gain added insights and better understand design constraints. The communications plan for individual stakeholders will be subject to Coalition approval. It is understood the Coalition is in the process of selecting a public involvement firm, which may perform most meetings needed with stakeholders. Our team is prepared to work with and support the public involvement consultant. The enclosed pricing, dictated by the RFP, includes one meeting with each entity. Additional meetings will be needed with Tribes and with the STB consultant. We recommend that our team meet with UPRR, BNSF, UDOT, CDOT, and PUC to better understand Class 1 railroad connection requirements at each location (Mack or Rifle) and at-grade crossing requirements along proposed corridors.</td>
</tr>
</tbody>
</table>

**Deliverables:** Meeting Minutes
## ENVIRONMENTAL INVESTIGATION

### Description of the Proposed Action and Alternatives:
CRS will support SCIC with a description of proposed action, including operations or maintenance practices. CRS to develop reasonable alternatives to proposed action, and illustrate with readable, detailed maps and drawings clearly delineating.

### Draft Purpose and Need Statement:
CRS will carefully craft each point of our project justification such that project alternatives can be appropriately narrowed, following the NEPA process of the next phase.

### Local and Regional Transportation Effects:
CRS will coordinate with CDOT, UDOT and other transportation agencies to compare existing and future transportation performance on local systems—key for at-grade roadway crossings.

### Transportation of Energy Resources Effects:
CRS will provide a corridor analysis of the alignments capacity to impact or benefit transportation of energy resources, including rail performance, capacity constraints, infrastructure planning and development.

### Air emissions impacts:
Air quality improvements by capturing truck traffic that would normally be used to transport the same amount of product.

### Noise and vibration:
Our team will determine a study area for noise and vibration analyses, and during the desktop analysis, quantify potentially impacted receptors. Existing noise and vibration levels will be estimated as design progresses, with projections provided to streamline the NEPA process.

### Public health, safety, hazmat:
We will provide a summary of public health impacts, such as dust and criteria air pollutants, and safety impacts such as at-grade roadway crossings, risk of accidents, and utilities crossings. We will provide a corridor analysis of documented hazardous waste sites within 500 feet of each alternative.

### T&E, Sensitive Species, Critical Habitat:
Our team will obtain available resource information from Utah Division of Wildlife Resources and Colorado Parks and Wildlife’s list of Utah sensitive species for Uintah County, Utah and Colorado Natural Heritage Program’s available GIS data for lease areas, Utah Division of Wildlife Resources and Colorado Parks and Wildlife’s mapped habitats, and U.S. Fish and Wildlife Service Information for Planning and Conservation (IPaC) on-line review tool. We will evaluate and describe an alternative’s potential impact on endangered or threatened species, areas designated as a critical habitat, wildlife sanctuaries or refuges, and National or State parks or forests. Our goal is to refine alternatives to reduce impacts to the point where formal Section 7 consultation with USFWS would not be needed.

### Waters of the US:
We will utilize the U.S. Fish and Wildlife Service National Wetland Inventory and U.S. Geological Survey National Hydrography Dataset to determine an alternative’s impact on jurisdictional waters of the United States and flood plains, and the subsequent need for permitting under Section 404 of the Clean Water Act. Our aim is to minimize alternatives’ impact to reduce the need for individual permits and water quality certifications. We have extensive experience with these permit requirements in Utah and Colorado, therefore, a robust project file to support USACEs 404(b)1 guidelines.
### DETAILED APPROACH

#### ENVIRONMENTAL INVESTIGATION (continued)

<table>
<thead>
<tr>
<th>Tasks</th>
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</thead>
<tbody>
<tr>
<td><strong>Environmental Baseline Studies:</strong></td>
<td><strong>Cultural, Historic, and Paleontology Resources:</strong> We will conduct a desktop analysis via literature search (a review of available records). The search identifies previous cultural and paleontology resource projects and previously documented sites within one mile of project area and will help predict types and numbers of cultural resources present in the project area. Information is used to prepare Historic Report for STB application. Our experts will assist with development of a Programmatic Agreement to guide consultation.</td>
</tr>
<tr>
<td><strong>Land use:</strong></td>
<td>In coordination with local and regional planning agencies, we will provide a review of planning documents, and summary of land uses along each corridor and discuss the rail project’s compatibility with each. We will incorporate the criteria that constitutes Areas of Environmental Concern as listed by the Bureau of Land Management regarding open lands to firmly establish existing and planned land use.</td>
</tr>
<tr>
<td><strong>Socioeconomic and Environmental Justice Impacts:</strong></td>
<td>As alternatives are developed, we will evaluate socioeconomic or environmental justice impacts (as dictated by Executive Order 12898) to minority and low-income populations, with attention to tribal lands, using EPA’s “EJSCREEN” and latest US Census data to identify potential areas to avoid disproportionately high and adverse effects.</td>
</tr>
<tr>
<td><strong>Section 4(f):</strong></td>
<td>We will identify known properties protected under Section 4(f) of the DOT act through available data on historic properties, wildlife and waterfowl refuges, and public recreation areas for each alternative to quantify potential 4(f) impacts. Unfortunately, this analysis would be cursory due to the relative lack of information on 50-year old structures that would be considered eligible for inclusion on the National Register of Historic Places. Due to this unknown, once we have identified potential structures we will assume National Register status and protection under Section 4(f) until field verification is obtained. This would minimize the risk to alternatives development.</td>
</tr>
<tr>
<td><strong>Mitigation Measures:</strong></td>
<td>Mitigation measures will be gauged throughout the environmental resource analysis and assessed with greater detail at 10% and 25% engineering design completion. As part of our mitigation analysis, we will maintain a register of potential risks to the project schedule and cost, in addition to potential permitting and mitigation measures.</td>
</tr>
<tr>
<td><strong>Transition to NEPA Phase:</strong></td>
<td><strong>Transition:</strong> Our comprehensive risk register will be a pivotal document in creating a smooth transition from our “pre-NEPA” team to the team selected for the full NEPA analysis. This register will be accompanied by concise resource maps for each alternative with estimates of effect. We will ease the transition between “pre-NEPA” and “full-NEPA” phases by providing a more accurate estimation of impacts by obtaining 25% design of alternatives. With a highly defensible project Purpose and Need, alternatives description, and stakeholder involvement required as part of this preliminary project phase, the full-NEPA team will be well-positioned to streamline the scoping phase and obtain early approval of the Purpose and Need and alternatives. Our more accurate estimate of impacts (understood by proceeding into 25% design) will streamline the alternatives screening phase by providing the full-NEPA team with well-documented alternatives and a highly defensible NEPA process.</td>
</tr>
</tbody>
</table>

**DELIVERABLE(s):** Environmental Resource and pre-NEPA analysis memoranda.
**DETAILED APPROACH**

### RIGHT-OF-WAY

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
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</table>
| Survey              | Review data from J&D and supplement to fill gaps by contacting state/local governmental offices. We will ground proof data by driving the area to verify utilities, roadways, river and other features are shown.  
  - GIS ownership-parcel data: Develop property ownership GIS maps to assess ROW impacts.  
  - Land use / zoning: Contact counties, city and states to obtain planning documents that show future planned facilities and land use.  
  - Utilities: Contact each utility company to verify data, obtain additional data and to ask for possible future facilities.  
  - Topography: Develop design basemaps.  
  - Roadway network: Contact state DOTs, Counties and cities to obtain roadway network of each.                                                                                      |
| Compile desktop data| Upon completion of obtaining environmental, geotechnical, and survey information from a desktop review, data will be compiled into a multilayer GIS database. An engineering base map will be created in AutoCAD Civil 3D using this data which will be used in the engineering portion of the project. The data will also be exported to Google Earth to allow Coalition members to view this data without the need for special GIS software purchases or technical training. This step in the project will assist the team during the design phase to avoid or minimize impacts. |

**DELIVERABLE(s):** Design and GIS Base Maps
### 10-15% Design

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
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</thead>
<tbody>
<tr>
<td>Review design constraints using geotechnical, environmental and survey reviews</td>
<td>After existing conditions and constraints base map is prepared, alignments previously prepared by J&amp;D will be overlaid and compared to inform project constraints. This will help minimize and avoid environmental impacts. Streamline STB’s NEPA process. It will help to lower cost of design and construction.</td>
</tr>
<tr>
<td>Operational analysis</td>
<td>Estimated train counts and shipping volumes provided to CRS by the Coalition or from previous studies will be modeled to determine requirements for mainline connections with Class 1 railroads, number and length of interchange tracks, number and length of passing sidings, locomotive counts per train, and end of track turnarounds and switching yards. For modeling purposes, it is assumed a shortline railroad will operate track between Class 1/shortline interchange at Rifle/Mack ending at Uinta Basin track.</td>
</tr>
<tr>
<td>Divide project into segments</td>
<td>Due to size and complexity of this project, more than one engineer is required to complete the project within the Coalition’s desired time frame. To achieve schedule success, CRS has assembled a team of industry experts in the field of freight railroad engineering. These teams will divide the project alignments from Roosevelt to Rifle and Mack into multiple segments and simultaneously design each segment. All designs will be overseen by Darren Eyre to provide continuity between design squads. If desired by SCIC, CRS will investigate a Utah only railroad corridor to eliminate the need to obtain approvals in Colorado, with a separate scope of work.</td>
</tr>
</tbody>
</table>
| Preliminary horizontal alignment design                              | Preliminary horizontal alignments will be designed for:  
  - Mainline connection  
  - Interchange yard between Class 1s and shortline railroad  
  - Sidings  
  - End of track turnaround & switching yard  
  - Industry loading and unloading terminal (provide one concept loop track and loading area)  

Using UPRR and BNSF geometric design standards, the CRS team will prepare 10% horizontal plan view drawings for an alignment from Duchesne County, UT to Mack, CO and Rifle, CO. This includes the mainline connection, interchange yard, sidings, end of track turnaround and switching yard, one industry loading and unloading terminal, and rail car repair facility. Drawings from the mainline connection to end of interchange yard will be provided to the Coalition, UPRR and BNSF for review. Information depicted on drawings will include data for design speed of track, locations and radii of curves, turnout sizes, derail types, railroad crossings, bridges, culverts, track centers, end of track devices, right of way locations, and other information required by the railroads during review process. |
| Geotechnical                                                         | Proposed geotechnical scope of work to consist of a preliminary desktop geotechnical and geologic hazards assessment that will include a review of available published literature and maps to identify readily observable and/or previously documented geologic conditions and potential hazards along the proposed routes. The desktop review will provide a general sense of geologic and geotechnical issues that will likely be encountered along the proposed alignments to assist the Coalition in selecting a preferred route. The review will include:  
  - Review published geologic literature, maps, and aerial photography, and previous geotechnical reports completed in proposed vicinity of proposed alignments;  
  - Identification of potential hazards, including mapped faults, areas of shallow bedrock, areas of shallow groundwater, and locations where bridge structures or tunnels may be required; and  
  - Recommendations for minor alterations to proposed routes to avoid potential geologic or geotechnical hazards. |
## DETAILED APPROACH

### 10-15% DESIGN (continued)

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative of designing new rail in the location of existing roads and moving the roadways</td>
<td>Designing new rail in location of existing roadway in some segments could save time and cost, mitigating impact on utilities, streams, wetlands, structures, and properties given restrictive design constraints applicable to freight rail such as large curve radii and flat slopes, as opposed to more flexible design standards applicable to roadways. Additionally, roadway loadings on drainage pipes, bridges, and utilities are much less than freight train loadings, which could save the Coalition cost. In these constrictive corridors, it may be faster and more cost effective to design and construct a roadway with much less impact to the items listed above.</td>
</tr>
<tr>
<td>Railroad crossings / diagnostic reviews: UDOT, CDOT, Public Utilities Commission, Cities, Counties</td>
<td>A major permitting item is viability to construct new at-grade railroad crossings versus separated grade crossings. CRS’ team to meet with applicable DOTs and other jurisdictional state and local agencies to perform diagnostic surveillance reviews to verify if at-grade crossings will be allowed in lieu of separated grade crossings as well as what type of advanced warning devices will be required such as lights and gates versus cross buck signs.</td>
</tr>
<tr>
<td>Impact analysis after completion of 10% design</td>
<td><strong>Right-of-way.</strong> Based on GIS and county plat parcel map data previously obtained, the CRS team will identify the number of parcels affected and assess which parcels are critical to obtain. Parcel ownership contact information and a corresponding map will be prepared and provided to the Coalition and their public involvement consultant. <strong>Drainage.</strong> Based on previous J&amp;D work, it is assumed many of required culvert locations and sizes have already been determined at a preliminary level, therefore, preliminary locations to be reviewed and confirmed. At this early stage, it is assumed that a detailed drainage analysis of watershed delineation and storm water calculations will not be required but rather, observations of upstream and downstream culvert/bridge sizes. New drainage structures to be estimated of equal or slightly larger size than those of existing upstream and downstream conditions. <strong>Roadways.</strong> In addition to railroad crossing impacts mentioned, longitudinal roadway impacts to be determined studying safety and clear zone requirements. Discussions to be held with various road authorities to determine permit requirements if the proposed rail line is designed within existing roadway right of way. <strong>Utilities.</strong> Preliminary discussions will be held with Blue Stakes of Utah, Colorado 811, and known utility companies to determine extent of impacts and how to address conflicts. <strong>Structures and Tunnels.</strong> At this early stage, it is assumed that detailed structural design will not be required but rather, identification of approximate structure sizes, locations, and construction posts.</td>
</tr>
</tbody>
</table>
10-15% DESIGN (continued)

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact analysis 10-15% design alignment</td>
<td><strong>Environmental:</strong> Impact analysis begins at 10% design when each preliminary alternative has been defined. The first step in this analysis will be to refine each alternative study area and thus refine resource data to reduce or avoid impacts. Key to the process is consideration for NEPA analysis among alternatives to be equivalent such that one alternative is not analyzed more than another. Our analysis for each alternative will be applied equally to provide balanced impact data. Once we complete this first level of impacts screening, we will evaluate the need for additional data to provide a second level of impacts screening. Additional data will be acquired through refining our desktop analyses, and assessing the need, in consultation with the STB, for in-field analysis. Once impacts screening at 10% design is complete, we will propose preliminary applicant-committed measures to minimize impacts and incorporate best practices. At the 10% and 25% design milestones, our team will re-evaluate the study area for each preliminary alternative, update them if needed, and conduct additional analyses to refine potential impacts.</td>
</tr>
</tbody>
</table>

**Deseret Power Railroad:** It is understood there could be significant cost and schedule savings if Deseret Power Railroad’s (DPR) existing track could be utilized by the Coalition’s proposed train service—CRS’ team will meet with DPR, Coalition and J&D to investigate. If DPR agrees to share trackage rights with the Coalition, CRS will work with DPR to determine what modifications to the locomotives or power systems would be required to make this track share possible. This may include modifications to overhead catenary systems, modifications to locomotives, or utilizing electric locomotives in this segment of track rather than traditional diesel powered locomotives. Additionally, a review will be performed of DPR’s existing FRA inspection reports.

Field review of plans with project team: (CRS team, Coalition, J&D).

After 10% plans have been prepared and impacts have been analyzed, a field drawing review to be performed by the project team, including CRS team members, Coalition members, and J&D.

**DELIVERABLE(s):** 10-15% design documents; Geotechnical desktop study report.
## DETAILED APPROACH

### PRELIMINARY VERTICAL DESIGN

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary vertical profile design</td>
<td>After the Coalition and J&amp;D approve recommended horizontal design alignment prepared by the CRS team, a preliminary vertical design will be prepared for the preferred alignment. This includes preparing plan, profile, and cross section drawings, estimating quantities of earthwork cut and fill, and depicting square footages of land to be impacted. Depending on cut/fill and other impacts, proposed alignment location will be modified to reduce impacts. Due to tunnel-related costs, the level of effort for this more detailed design could be considerably higher for the Mack alignment than Rifle alignment. To avoid unnecessarily inflating costs for a scenario that does not include tunnels, the project cost estimate for the preferred alignment is based on the Rifle alignment. However, our team is prepared to work with the Coalition to refine the scope as needed to advance tunnel designs. Additionally, there may be a need to perform some preliminary vertical design during the 10% design level to evaluate approximately 50 miles of the Mack and Rifle corridors in steeper grade areas. It has not been included in the project cost estimate; however, if the Coalition and J&amp;D believe there would be a value added service, CRS can employ an automated subscription service to provide automated analysis of alignments and comparison of cost estimates to further optimize the rail alignment.</td>
</tr>
<tr>
<td>Cross section design</td>
<td></td>
</tr>
<tr>
<td>Impact analysis</td>
<td>We will provide a higher level of impact analysis at the preliminary vertical design milestone for the following items:</td>
</tr>
<tr>
<td></td>
<td>• Right-of-way</td>
</tr>
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<td></td>
<td>• Drainage</td>
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<td></td>
<td>• Roadways</td>
</tr>
<tr>
<td></td>
<td>• Utilities</td>
</tr>
<tr>
<td></td>
<td>• Structures and Tunnels</td>
</tr>
<tr>
<td></td>
<td>• Geotechnical</td>
</tr>
<tr>
<td></td>
<td>• Environmental</td>
</tr>
<tr>
<td></td>
<td>This effort will serve as a second level of screening to further refine preliminary alternatives and to define impact data. Once this second level of screening has been performed, our team will identify areas where field surveys would be required, clarifications of impacts needed, and where plans to avoid, minimize, or mitigate resource impacts would be recommended. During this process, and into our hand-off to the NEPA team, we will review any design revisions and advise on potential impacts to simplify STB’s environmental document.</td>
</tr>
<tr>
<td>Horizontal route modifications</td>
<td>Horizontal route modifications will be made to alter preferred alignment to reduce or avoid impacts after impact analysis is performed.</td>
</tr>
<tr>
<td>Construction cost estimate analysis</td>
<td>After the Coalition and J&amp;D approve recommended horizontal and vertical 25% design for the preferred alignment. Cost estimates will be prepared for the preferred alternative. Unit costs for various construction items such as track, turnouts, earthwork, structures, etc. to be obtained by talking with contractors, examining construction cost publications, and reviewing bid tabulations on recently completed projects by the CRS team.</td>
</tr>
</tbody>
</table>
DETAILED APPROACH

PRELIMINARY VERTICAL DESIGN (continued)

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field review of plans with project team (CRS team, Coalition, J&amp;D)</td>
<td>After preliminary vertical plans have been prepared and impacts have been analyzed, a field review of the drawings will be performed by the project team including CRS team members, the Coalition members, and J&amp;D staff.</td>
</tr>
<tr>
<td></td>
<td><strong>DELIVERABLE(s):</strong> 25% Design Documents</td>
</tr>
</tbody>
</table>

BID PACKAGES

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Description of Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative delivery method analysis</td>
<td>The goal of advertising construction bid documents by December 1, 2020 can be accomplished by several means, including alternative contracting methods such as CMGC, CMAR, and design-build are great tools used to expedite construction. Our team has been at the forefront of alternative delivery projects in Utah. The most recent alternative delivery methods trends are for owners to stay engaged longer in the design process to gain benefits of collaboration among owner, designer and contractor. Progressive design-build is a relatively new design-build delivery approach that cut it’s teeth mostly in the water and waste water sectors, but has made great in-roads into transportation projects as it maximizes benefits of owner engagement while placing responsibility of delivery on contracting and design team. CMGC and CMAR similarly utilizes significant owner involvement through the design process. Our team knows these delivery types, understands contracts and has helped owners deliver more than 40 projects using alternative contracting with each project having unique delivery criteria. John Bale is a certified instructor for the Design-Build Institute of America, who teaches classes of design-build best practices to owners and practitioners around the Country. He has authored several publications for DBIA regarding best practices for design-build delivery.</td>
</tr>
<tr>
<td>Prepare construction bid documents</td>
<td>Once a delivery method is selected, CRS will prepare bid documents to allow contractors to prepare a guaranteed maximum price (GMP). Each delivery method mentioned above requires different levels of effort to prepare various methods of bidding documents. For purposes of providing an engineering fee, it is assumed bid documents will be prepared for a CMGC type contract. Bid documents for CMGC delivery include preparing a qualifications based selection package. We recommend a two step process. This approach is beneficial when there are numerous qualified firms because it allows SCIC to focus final selection of a team on what matters most. There may be many qualified teams. However, in today’s busy market by using a two step approach we can better select the most qualified team. Firs step is to short list a team based on collective experience. Second phase we delve deeper into who understand the project best. We request each team provide a detailed project approach and risk mitigation plan. We further enhance selection by requiring monetary commitments to overhead and/or profit to determine a guaranteed maximum price these elements of pricing are pre-determined. Additional bid documents include contract language, general conditions, performance specifications, and preliminary or schematic designs for establishing a baseline for the project. A similar philosophy can be used in design-build specifically progressive design-build.</td>
</tr>
<tr>
<td></td>
<td><strong>DELIVERABLE(s):</strong> Bid packages as determined by project need.</td>
</tr>
</tbody>
</table>
Our experience delivering freight rail projects and working closely with government agencies, such as the STB, provides key insights to the unique issues for the project and risks that must be mitigated to successfully advance the project through implementation. Our local experience in the project area and experience working with Class I and shortline provide further insights to potential risks and how to successfully mitigate them. Also, because the Uinta Basin Railway represents more than “just another project” for our team, our risks mitigation insights extend beyond the scoped project itself and look to the successful implementation and operation of the railway itself.

To be concise, we have highlighted in the table below some of the most impactful issues and risks that are critical to successful and on-time delivery of the project. Along with each risk, we highlight solutions and mitigations that our team is qualified to implement. Additional insights to issues and solutions are presented in the “Local Knowledge and Experience” tab of this proposal. Additional issues addressed include potential opposition from non-governmental organizations, potential challenges of a Coalition-led project in Colorado, unanticipated environmental impacts, potential delays to the engineering and construction schedule, complexities of tunnels, and potential impacts of numerous at-grade roadway crossings needed for the project and the potential for grade separated crossings.

<table>
<thead>
<tr>
<th>Risk</th>
<th>Our Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material availability: Use of federal funds to construct the railway will pose Buy America constraints. US suppliers may not be able to readily supply 150+ miles of railway materials. Steel material constraints could impact the schedule and cost of construction.</td>
<td>Our recent experience on large-scale rail projects provides insights to the availability of rails and ties for major rail construction. Also, ramp up to produce materials could take a year or more. To mitigate potential schedule and cost risk, our team will contact multiple rail and tie material suppliers to define a strategy and provide ample notice for suppliers to respond to the material needs of the project.</td>
</tr>
<tr>
<td>NEPA Control: Because the NEPA process will be led by STB (or some other federal agency), the Coalition will have limited control or influence over the NEPA process. This could impact project characteristics, such as the preferred agency alternative, and project delivery, such as the schedule.</td>
<td>Our approach is to leverage our experience with STB to complete timely and relevant environmental resource studies that will be used by the STB’s consultant. We will work with the Coalition to define a draft purpose and need that is acceptable to the STB and lead to a project solution that meets the needs and objectives of the Coalition. We will also coordinate proactively with the STB’s consultant to create efficiencies and to anticipate and respond to their needs.</td>
</tr>
<tr>
<td>Tribes: Working Tribal Lands to accommodate a portion of the Uinta Basin Railway can represent a significant hurdle for the project. Failed negotiations with Tribal Lands could increase project by 20 miles and consequently increase costs.</td>
<td>We will enhance the Coalition’s on-going discussions with the Ute Tribe by engaging our team member’s (Greg Buxton, Troy Ostler, etc) relationships with the tribe. Based on our successful track record with the Ute Tribe, we propose to support the Coalition’s Director by holding in person meeting with the Tribal Business Committee and developing technical support documents to support negotiations with the tribe.</td>
</tr>
</tbody>
</table>
4. Local Knowledge and Experience

(Similar projects, local experience, relationships and issues are addressed in the following key local areas of expertise)

Benefits of our Local Team ........................................... 4.1
Local Coalition Champion ........................................... 4.2
Use of Public Funds .................................................. 4.2
Access to Railway Corridor ........................................ 4.2
Access to Commissioners & State Officials .................. 4.2
Environmental Groups .............................................. 4.3
Class 1 Carrier Relationships ..................................... 4.3
Tribal Lands ............................................................ 4.3
Uinta Crude to Market .............................................. 4.4
Environmental Resources ........................................... 4.4
Colorado Railway ..................................................... 4.4
THE MOST LOCAL TEAM

We are proud to offer you a team that is more local than any other. We can honestly claim the most local team because we know the make-up of local professionals. A local-focused team is beneficial to the Coalition because local resources are more cost effective, better informed to define workable solutions, and more committed to project success because in part, it’s our project too. As such, a local-focused team can best deliver a project that meets the Coalition’s needs and objectives.

To assemble the most qualified and local team, we first engaged professionals from the Basin, we next engaged Utah-based professionals, then Colorado-based professionals, and finally national resources. Based on our proposed team and approach, we anticipate 80% of the project work to be completed by Utah-based team members and nearly 90% by combined Colorado and Utah-based resources. More importantly, team resources will be led by a local project manager with local task leads. This means that resources will be flexible and prioritized to ensure efficiencies that have real impact on schedule and quality of deliverables.

As presented in the Project Team and Capability sections of this proposal, our local resources offer national rail, environmental, and right-of-way expertise. By assembling a team well in advance of the anticipated project RFP, we offer the Coalition a team that leverages both local and national expertise. As a result, our team is highly qualified and able to apply solutions that are relevant to the Uinta Basin and the Coalition.

BENEFITS OF OUR LOCAL TEAM

Following is a description of the local knowledge and experience that our team offers to successfully deliver the Uinta Basin Railway project. To emphasize benefits to the Coalition and the project, our team’s value contributions are organized by describing key local issues that our team is uniquely qualified to address.

Our local presence and longstanding relationship with the Coalition helps our team members understand the political and economic forces driving an expedited schedule for the permitting and construction of the railway. The following descriptions of issues and our local knowledge and experience to address those issues demonstrate our team’s proven ability to deliver the engineering, permitting, and right-of-way planning in two years and then continue to support the Coalition for on-time implementation of the railway.

- Local Coalition Champion
- Cost/Public Funds
- Access to Corridor
- Access to Commissioners and State Officials
- Environment Group Pushback
- Class 1 Carrier Relationships
- Uinta Crude to Market
- Tribal Lands
- Environmental Resources
- Colorado Railway
BENEFITS OF OUR LOCAL TEAM

As a local-based team, we can act as a local champion for the Coalition because we understand unique needs of eastern Utah and will apply technical resources to address those needs. This does NOT mean that we are biased on technical matters. Rather, because we are close to you, we understand your needs and can apply technical expertise to define innovative, technically sound, and implementable solutions that meet your needs. Failure of the previous Uinta Basin Rail effort in 2014 can be attributed, in part, to a lead agency and consultant team that failed to define solutions that fit local community needs and objectives. As a result, features of the selected rail solution were escalated to a point where the cost, in essence, killed the project. On the other hand, our team has a successful track record of providing solutions that fit the need of eastern Utah communities. For example, Troy Ostler and CIVCO guided Seep Ridge Road through environmental permits, design, and construction completion in 5 years while the NEPA process alone was anticipated to take 7 years. By acting as your champion, our team can help you achieve on-time delivery of a railway solution that is implementable and relevant to the Coalition’s objectives.

Utahn’s are cost-conscious and proud of it. Responsible use of public funds is an important responsibility of Coalition board’s elected officials as well as consultants who support its efforts. As a local-focused team, we offer lower rates than national firms and the ability to provide higher levels of productivity and efficiencies because we are close to the project and close to the client. We are confident that when comparing apples to apples, our costs will be lower than competitors proposing more national personnel and you’ll get more time and attention. When comparing scopes of work or value added to the competition, our rates are lower. Also, because our local presence gives us a better understanding of your needs, we have defined a scope of work that will meet your needs while minimizing costs. As a result, our team can help public funds invested in this project go further.

The location of our team members gives us ready Access to the Railway Corridor. Our proximity to the project site creates added familiarity with the corridor and added efficiencies for site visits and field work. For example, because of our proximity, in August of this year, our team completed a pre-proposal site visit of the various railway alignments under consideration. Our proximity to the railway corridor will result in cost and schedule savings for the project. Many of the pictures included in this proposal are pictures of route alternatives for the Uinta Basin Railway captured during that site visit.

Being close to the project gives our team easy Access to Commissioners and State Officials. This benefits both you and our team by providing timely communication with the Coalition’s director, consultant, and board members. We are near you and—with our established relationships—you can comfortably reach out to us anytime you need information. We have found that if we maintain direction coming from the right channels (in this case the J&D and the Coalition’s Director), access means increased credibility and productivity for everyone. Our relationships with other officials can also foster credibility and create opportunities. For example, CRS was recently asked by the Community Impact Board to review the RL Banks Study. Also, elected officials will often turn to Troy Ostler for engineering advise. Our credibility, combined with unmatched access, will provide efficiencies needed to expedite delivery of the Uinta Basin Railway project.

Opposition from special interest Environmental Groups will almost certainly happen on this project. We expect this because some special interest groups will see the Uinta Basin Railway as aiding the development of hydrocarbons.

Massadona to White River City alignment between Highway 64 and the White River near White River City, view to the north.
We have witnessed this opposition on previous local projects, including the extension of Seep Ridge Road to Interstate 70 in Grand County. As part of that project, team members WSP, Monument, and CIVCO, held public and stakeholder meetings in the Moab area. These meetings were well attended by both supporters and opponents of the roadway connection. Both Diego Carroll and Troy Ostler successfully conducted and managed these meetings. Our ability to control the atmosphere of the meetings, allowed meetings to be civil. Also, our ability to communicate proactively helped manage misinformation. Our proven local experience means our team can communicate effectively and thus reduce distractions and mitigate risks related to pushback from environmental groups.

Strong Local Class I Carrier Relationships (UPRR and BNSF) given they represent an important link to implementing an operable and successful short line that connects the Uinta Basin to national markets. Class I carriers UPRR and BNSF represent an important link to implementing an operable and successful short line that connects the Uinta Basin to national markets. For example, UPRR and/or BNSF will need to review and approve Coalition plans for interchange yards and connections to Class I carriers. Our team is experienced working with Class I on local projects. CRS has worked with local economic and industrial development staff for UPRR and BNSF for over 50 rail projects in Utah and Colorado, including projects completed for the Class I carriers themselves. Our local relationships with Class I carriers and our experience with their processes and requirements will help our project team obtain timely responses from Class I carriers, and thus expedite delivery and implementation of Uinta Basin Railway.

Anticipated routes for Uinta Basin Railway alignment may have an impact on Tribal Lands. Working with Tribal government and obtaining rights-of-way on Tribal Lands can represent a significant hurdle. However, crossing Tribal Lands could reduce length of construction by up to 20 miles. A reduction of 20 miles would provide considerable cost savings. Our local experience working with Ute Indian Tribe on rights-of-way is a tremendous value to the Coalition and the Uinta Basin Railway project. We understand that the Coalition has been in discussion with the Tribal Business Committee. Our team members Troy Ostler (CIVCO), Greg Buxton (CET), and Daren Anderson (CRS) have worked with the Ute Tribal Business Committee on successful right of way procurements. For example, our team members have obtained rights-of-way and permission to construct infrastructure for Seep Ridge Road in Uintah County, US-40 Widening near Myton in Duchesne County, and Woods Road project in Uintah County. Additionally, Troy Ostler and Greg Buxton have worked with the Ute Indian Tribe and have an established and trusted relationship with the tribe. As a result, our team provides unique local experience and capabilities to help the Coalition facilitate necessary rights-of-way and permits.
BENEFITS OF OUR LOCAL TEAM

Uinta Crude to Market represents a unique local transportation challenge for this project. Although we offer experience transporting oil via railways, we recognize that other oil transport operations are not the same as those contemplated for the Uinta Basin Railway project. As such, we plan to engage our expert rail professionals together with Coalition resources, such as your waxy crude consultant, Marc Eccles, to define project solutions. This means our designs, base environmental, and right-of-way efforts will result in more viable solutions, practical for transporting Uinta crude. New and innovative solutions which engage tribal lands, turn tribal involvement from a potential risk to a catalyst for success.

Our understanding the Unique Environmental Resources for the project area in eastern Utah and Western Colorado give our team a distinct local advantage to complete the environmental baseline work. Because our team members CRS, SWCA, Kleinfelder, and CIVCO have had offices in eastern Utah for many years, our team members have acquired a lot of critically-important resource knowledge that will lower the cost and time needed to complete the environmental baseline work for the project. For example, we can provide cost and time savings related to siting routes through populations of special-status species. As the lead authors of the 2014 Conservation Agreement and Strategy for biological resources in the Uinta Basin, our team member SWCA developed creative solutions to confront Basin-specific environmental issues. Our team is also familiar and experienced with northwest Colorado issues, including the prevalence of Greater sage-grouse habitat that will also require innovation to minimize permitting and mitigation expenses. Our team will apply unique local knowledge of these type of issues to proactively integrate resource challenges into our environmental baseline work and minimize the need to conduct costly field surveys. Our team’s combined local experience will result in the highest quality advice and risk, schedule, and budget insights to support decisions for the alignment and design characteristics of the Uinta Basin Railway.

Our team has experience with Colorado Railway elements that affect the railroad network and communities of Colorado. Colorado team members have a long history of extensive experience working with rail in western Colorado. Their work extends back to the Meeker-Piceance Basin Rail Feasibility Study in 1981 and Isolated Empire Rail Project in 2001. Our team has extensive rail experience in Colorado, includes Randy Grauberger’s (WSP) lead role to prepare CDOT’s Colorado State Rail Freight and Passenger Rail Plan and Lance Kippen’s (RailPros) recent employment with UPRR in Colorado as the Engineering Manager of Industry and Public Projects. Lance spent several years reviewing and managing at-grade and grade separated crossing projects throughout the State, working closely with CDOT’s Program Manager - Railroads and the Colorado Public Utilities Commission’s Chief Rail Safety Coordinator. Other team members, including CRS, CIVCO, and SWCA, also have working relationships with CDOT, western Colorado county commissioners, and the politically influential Club 20 organization in western Colorado. Combined with Utah-based folks, our team’s relationships with Colorado stakeholders and partners will help define solutions that meet common objectives of eastern Utah and western Colorado stakeholders.
5. Cost

Total Cost .................................................................5.1
Cash Flow Schedule by Quarter ...............................5.1
Detailed Cost .............................................................5.2
The following are preliminary assumptions that were made to determine costs. These assumptions may be modified during the scoping and contract negotiation phase between CRS and SCIC.

- While waiting for J&D provided design data to arrive in May, CRS’ team will obtain other available preliminary design data to begin conceptual designs, including obtaining all existing data from J&D.
- J&D will provide all detailed survey and boundary data.
- Alignments to be designed by CRS will be within 1/4 mile of the alignments previously designed by J&D. Alignment deviations further than this are not included.
- Site visit field reviews to be completed in one week period for high level observations. Only areas with public right-of-way will be accessed.
- No intensive-level pedestrian surveys will be performed for the following: historic properties; archaeological resources; paleontological resources; water resources (wetlands, intermittent or ephemeral streams, connectivity analysis, hydrophytic soils); Threatened and Endangered, Candidate, or Special-Status species.
- Public outreach such as mailers, social media, websites, and press releases will not be performed as part of this project phase.
- Individual meetings with landowners or business owners are limited to those who would be directly affected by a proposed action where feedback is required to progress preliminary design.

CASH FLOW SCHEDULE

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2019</th>
<th>2020</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost</td>
<td>Cost</td>
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</tr>
<tr>
<td>Q1</td>
<td>$1,106,306</td>
<td>$1,475,074</td>
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<tr>
<td>Q2</td>
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<td>Q3</td>
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<td>Q4</td>
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<tr>
<td>TOTAL</td>
<td>$7,375,371</td>
<td>$7,375,371</td>
<td>$7,375,371</td>
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</tbody>
</table>

Percentage

- Cost:
  - 15% for 2019
  - 20% for 2020
  - 10% for Total
- Percentage:
  - 10% for 2019
  - 5% for 2020
  - 2% for Total

Cumulative

- Cost:
  - $1,106,306 for 2019
  - $2,581,380 for 2020
  - $6,637,834 for Total
- Percentage:
  - 100% for Total
<table>
<thead>
<tr>
<th>TASK NAME</th>
<th>FTE MONTHS</th>
<th>Task Subtotal</th>
<th>Subtotal Labor Dollars and ODC's</th>
<th>Per. Mi ODC's</th>
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<tbody>
<tr>
<td>Construction cost estimate</td>
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<tr>
<td>LAND USE</td>
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<td>Land use</td>
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<tr>
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<td>Design</td>
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<tr>
<td>SURVEY / GROUNDPROOF DATA</td>
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<td>Survey / groundproof data</td>
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<tr>
<td>ENV I / GIS</td>
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<tr>
<td>ENV I / GIS</td>
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<tr>
<td>PREPARE BASE MAPPING</td>
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<tr>
<td>Prepare base mapping</td>
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<tr>
<td>PRELIMINARY VERTICAL PROFILE</td>
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<tr>
<td>Preliminary vertical profile</td>
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<tr>
<td>INTERCHANGE YARD</td>
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<td>Interchange yard</td>
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<tr>
<td>SELECTION OF SCIC'S PREFERENCE</td>
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<td>Selection of SCIC's preference</td>
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<td>TOTAL</td>
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<td>238</td>
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**Notes:**
- This table represents the project cost estimate with details on various tasks and their associated costs.
6. Schedule Control

Project Schedule .................................................. 6.1
Project References .................................................. 6.1
### Schedule Control

#### Project Schedule Dates:

<table>
<thead>
<tr>
<th>Project Management</th>
<th>Kick Off Site Visit</th>
<th>Preliminary Stakeholder Coordination</th>
<th>Environmental Investigation</th>
<th>Base Map Preparation</th>
<th>10% - 15% Engineering Design</th>
<th>Preliminary Vertical Design</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

#### Schedule Example

CRS is no stranger to time-critical schedules. A recent example, West Memphis RailPort Logistics Park project received an $11M TIGER grant which was tied to specific deliverable deadlines. CRS set up a schedule and action item monitoring plan, paving the way for the project to be completed within the time-sensitive schedule. Continuous communication made this a success. Web conferences were held 1-2 times per week to review critical path items.

Cloud-based software facilitated real-time sharing of data and action items to meet critical path tasks. Adaptability to unforeseen items allowed for updated action plans, and adjusting priorities to keep the project on schedule.

In summary, the project was a success due to communication, accountability, and follow-up technology and the ability to adapt to unforeseen circumstances. These same principles will be followed on the Coalition’s project to achieve the same success.

### Examples & References

**Union Pacific Railroad**
- Melissa Meier, Regional Manager-Economic & Industrial Development | 801.573.3299 | mmeier@up.com

**REFERENCE FOR:** CRS has an excellent relationship with Melissa and has worked with her on many projects in Utah and Colorado. Please call Melissa and ask her about our technical qualifications, customer service, relationship with UPRR staff, and knowledge of their review and approval process.

**BNSF Railway**
- Ean Johnson, Regional Manager-Economic Development | 480.225.0304 | ean.johnson@bnsf.com

**REFERENCE FOR:** CRS has an excellent relationship with Ean. We have worked with him on multiple projects, most recently the Utah Inland Port project. Please call Ean and ask him about our technical qualifications, customer service, relationship with BNSF, and knowledge of their review and approval process.

**Marathon Oil/Andeavor/Tesoro/AE/Big West Oil/Flying J**
- Brian Hess, Freight Rail Division Manager | 385.414.2011 | brian.w.hess@andeavor.com

**REFERENCE FOR:** Brian has hired CRS to design rail for him at every energy company he’s worked for over the last 10 years. We have designed multiple industrial tracks for oil, gas, and frac sand loading and unloading facilities. Please call Brian and ask him about our ability to meet project deadlines, our understanding of technical specifications, and our ability to get project approval with multiple Class 1 and shortline railroad companies.

**City of West Memphis**
- Phillip Sorrell, Economic Development Director / City Engineer | 870.514.9751 | psorrell@citywm.com

**REFERENCE FOR:** CRS assisted the city in obtaining an $11 million TIGER grant, master planned a 2,500 acre railport logistics park, prepared construction drawings for Phase 1, bid the project, and performed construction management and project closeout. Please call and ask Philip about our ability to meet tight schedules, comply with FRA and USDOT reporting methods for federally funded projects, customer service, and the ability to obtain approvals from Class 1 railroad companies.

**Ute Tribe**
- Crystal Adams | 435.724.3830 | crystala@utetribe.com

**REFERENCE FOR:** Greg Buxton from Civil Engineering Technologies (CET) has an excellent relationship with the tribe. He has successfully negotiated for his clients with the tribe. Please call Crystal with the Ute Tribe and ask her about Greg’s relationship with and ability to help clients interface with the tribe.

**Utah Department of Transportation**
- Eric Cheng, Chief Railroad Engineer | 801.633.6402 | echeng@utah.gov

**REFERENCE FOR:** CRS has worked with Eric for the last eight years for the additions and safety upgrades of at-grade railroad crossings throughout Utah. Please call and ask Eric about our ability to cooperatively work with UDOT for the development of railroad crossings.

**Colorado Department of Transportation**
- Rob Martinlade, Railroad Crossing Safety Coordinator | 970.210.5913 | Rob.martinlade@state.co.us

**REFERENCE FOR:** Lance Kippen from RailPros has an excellent relationship with Rob and has worked on many at-grade railroad crossings and bridges with him. Please call Rob and ask him about Lance’s ability to cooperatively coordinate about permitting of railroad crossings and bridges.

**LETTERS OF RECOMMENDATION**

- City of West Memphis - Appendix
- Ute Tribe - Appendix
DARREN EYRE, PE  

VICE PRESIDENT, RAIL LEAD  
Darren has 19 years of experience in the fields of engineering and surveying, with an emphasis in freight rail. His extensive railroad corridor experience makes him uniquely qualified for this specific project. His experience includes hundreds of miles of corridor studies, design, and construction oversight of railroad infrastructure throughout Utah, Colorado and many other states in the country. He specializes in railroad infrastructure and has played a pivotal role in the design and construction of main lines, branch lines, yards, industry spurs, and railroad crossings. He has also provided consulting services for rail served industrial parks, rail served ports, transload facilities, automotive and intermodal yards, ethanol plants, coal terminals, oil refineries and other railroad facilities vital for the growth and sustainability of our economy.

Darren actively serves in AREMA and regularly participates in the Yards and Terminals Committee 14. He is currently acting as the subcommittee group leader for the bulk fluids committee, helping develop new standards for crude oil and other terminals around the nation. This voluntary, extracurricular activity has helped Darren gain invaluable experience understanding requirements for the design and construction of railroad infrastructure. He communicates with railroad employees on a daily basis which has helped him develop strong working relationships, technical knowledge, and the ability to understand the railroad’s permitting and approval process.

RELATED EXPERIENCE  

- **West Memphis Railport Logistics Park**  
  2,500 acres of land, 28 mile of rail master plan, 3 miles of Phase 1 rail construction, 2 road crossings | West Memphis, Arkansas | 2016-2018

- **Utah Inland Port**  
  15 miles of rail, 4,000 acres of land | Salt Lake City, Utah | 2018

- **Rehabilitation Plan of the Nevada Northern Railway**  
  100 miles of rail, 35 road crossings, 135 culverts, 11 sidings | Wendover to Ely, NV | 2006-2009

- **Utah Test and Training Range Branch Line**  
  13 miles of rail design and surveying, environmental baseline studies | West Desert, Utah | 2015-2018

- **Western Utah County Branch Line**  
  22 Miles | Utah County, UT | 2012

- **Golden Spike Transcontinental Railroad Rehabilitation Study**  
  8 miles of rail, 7 road crossings, environmental studies and permitting | Corinne, UT | 2012

- **Tahoe Reno Industrial Center - Rail Served Industrial Park**  
  5 miles of rail, interchange yard, private spurs | McCarlon, Nevada | 2009-2018

- **Western Arkansas Railroad**  
  80 miles of rail, 100 rail crossings | Hawe, OK to Danville, AR | 2012
DIEGO CARROLL, PE, MBA
Principal
Uinta Basin Rail Deputy Project Manager

Key Relevant Qualifications
As a seasoned infrastructure professional, Diego offers 19 years of experience in the assessment, permitting, design, and construction of a broad range of transportation infrastructure projects. Diego’s education includes an MBA as well as Bachelor and Master’s degrees in Civil Engineering. His mix of business and engineering education and on-the-job training give him critical insights to lead permitting and administrative elements of the project so that Darren can focus more time on engineering critical path elements and further expedite delivery of the Uinta Basin railway. Diego’s recent and ongoing experience with the environmental and engineering analysis for the Uinta Basin and Book Cliffs, including the Eastern Utah Regional Connection project, give him clear understanding of the context to for this project and the need for expedited delivery. As the Deputy Project Manager, Diego will oversee the project schedule and drive multi-disciplinary tasks so that they are completed on-time. In this role, Diego will also review technical work to ensure consistency with the objectives of the Coalition and project stakeholders. He will also own responsibility for delivery of the permitting documents and interface with STB’s third-party consultant. By providing clear roles, our dual management team approach provides critical checks to enhance quality and speed while avoiding redundancies.

Sample Relevant Project Experience
Eastern Utah Regional Connection (Book Cliffs) NEPA, Uintah and Grand Counties, Utah: Diego is the deputy project manager for this project, which together with WSP and CIVCO team members, is supporting the Coalition as it seeks to advance a transportation corridor to connect Seep Ridge Road in Uintah County to I-70 in Grand County.

Book Cliffs Corridor Economic Study, Uintah, Grand, and Duchesne Counties, Utah: Diego was the project manager for this project, which investigated the economic desirability and impacts of improving a transportation corridor to link Seep Ridge Road to I-70. The study analyzed industry (oil, natural gas, oil shale, and oil sands) and tourism economic impacts to Grand, Duchesne, and Uintah counties and the state as a whole.

Point of the Mountain Transportation Analysis, Utah and Salt Lake Counties, Utah: Diego was the project manager for this project, which advised transportation agencies and municipalities about multi-modal transportation investment needs for the high-growth area in northern Utah and southern Salt Lake counties. Modes considered included rail light and heavy rail systems.

Integrated Corridor Management (ICM) Deployment Planning Project, Utah and Salt Lake Counties, Utah: Diego was the project manager to prepare a concept of operations for integrated corridor management in Salt Lake and Utah Counties. The project considered opportunities to deploy state-of-the-art technologies and investments to improve the operational performance of multi-modal transportation systems, including multi-modal rail.

Mountain Accord, Cottonwood Canyons Transportation, Salt Lake County, Utah: Diego first served as project manager and then technical advisor to for the transportation analysis, including the evaluation of rail infrastructure investments for the Cottonwood Canyons in Salt Lake County.

Education
Master of Business Administration
Strategy and Finance, Brigham Young University, Marriott School of Business
Master of Science, Civil Engineering
Transportation Planning and Design, Brigham Young University, Fulton College of Engineering
Bachelor of Science, Civil Engineering
Brigham Young University, Fulton College of Engineering

Professional Registrations
Professional Engineer:
Utah (5047539)
Idaho (14961)
Montana (21022)
Wyoming (13399)

Professional Affiliations
Institute of Transportation Engineers (ITE) Utah Member
American Council of Engineering Companies (ACEC) Utah Board Member
Troy D. Ostler
Professional Engineer, Principal of Firm
1256 West 400 South, Suite 1 • Vernal, Utah • 435-789-5448 • 435-790-5448
troyostler@civcoengineering.com

—Professional Experience—

Experience Summary
Mr. Ostler has been a professional engineer in the State of Utah since 1985. Since 1987 he has been the principal in various civil/structural engineering firms. CIVCO Engineering, Inc. was founded by Mr. Ostler in Vernal, Utah in 2000.

His career has involved environmental assessments, geotechnical and geological investigations, pavement design, major and minor structural design, surveying and mapping services, ROW services along with complete preconstruction and construction engineering. He has the understanding and knowledge required to complete any size or complexity of project from start to finish. He has assisted several clients in developing projects and submitting and obtaining federal monies for the projects.

He has been the Engineer of Record for more than a 1000 civil/structural design projects valued at more than $250,000,000 during his career as a professional engineer. His experience includes more than 100 highway design and construction projects (UDOT administered). He is intimately familiar with roadway design and construction.

As the principal of CIVCO Engineering, Inc., he strives to ensure that each project meets the needs of the client(s) and that quality, schedule and budget commitments are met.

Recent Project Summary
Mr. Ostler’s more recent experiences with the liner infrastructure-type projects include:

- **Seep Ridge Road in Uintah County**: The project involved the planning, ROW federal applications, ROW SITLA acquisition, ROW private property acquisition, Environmental Assessment, design and construction management of a new 45 mile long highway.

- **Eastern Utah Regional Connection (EURC)**: The project involved the preparation of the Plan of Development (POD), ROW Federal Application, environmental studies and public coordination for a 40+ mile new roadway in Grand County.

- **Redwash Road**: The project involved the design and construction management for 12.5 miles of roadway, consisting of 6 miles of new alignment and 6.5 miles of reconstruction. The project also involved right of way acquisition, drainage design, environmental clearances, pavement design, box culvert design and safety features.

- **Uintah County Transportation Master Plan**: The project involved master planning of approximately 535 miles of paved roadways and 1,500 miles of gravel surfaced roadways, with cost estimates for maintenance, reconstruction or rehabilitation and the design of roadway maintenance, projects and future needs.
TEAM RESUMES

MATT COLLIER, PE

PROJECT ENGINEER

Matt is an outstanding project manager and engineer with a wide breadth of experience. He leads the CRS Rail Team and has successfully designed and managed a variety of rail projects including road crossings, transload facilities, and rail loading and storage facilities for coal mines, refineries, bio-fuel and ethanol plants, and many other products. Matt is a CEMT certified Resident Engineer for UDOT construction projects, a FEMA certified floodplain manager (CFM), and spent three years as the consultant City Engineer for West Bountiful City. During the 19 years of his engineering career, Matt has designed rail facilities, waterlines, pump stations, water tanks, storm drain pipes, and roadways for municipalities across the State. On every project his goal is to earn the trust of his client, give excellent service, and deliver a quality product.

RELATED EXPERIENCE

19 10 15
YEARS EXPERIENCE SIMILAR PROJECTS YEARS WITH CRS

ARB/Hi-Crush Crude Oil Terminal and Frac Sand Transload
Project Manager | $130,000 | 80,000 ft of track for crude oil/frac sand terminal | Big Sand, TX | June 2016

CITGO Refining Rail Expansion connect to BNSF Yard
Project Manager | $50,000 | 9,500 ft of track for two separate projects, (1) expand the existing CITGO rail yard, (2) connect to a nearby BNSF rail yard to simplify switching | Lemont, IL | April 2016

River Ridge Pellet Facility
Project Manager | $75,000 | 2,700 ft of new track and 10 miles of track rehabilitation | Potlatch, ID | December 2016

Quicksand/Hi-Crush Frac Sand Terminal
Project Manager | $140,000 | 40,000 ft of track for unit train, manifest yard, and unloading facilities | Pecos, TX | April 2017

CRE Development and Shipping of Hydrophobic Pellets
Project Manager | $270,000 | Develop technology for producing hydrophobic pellets and design sending and receiving unit train facilities | Potlatch, ID | Port of Portland, OR | May 2017

Quicksand/Hi-Crush Frac Sand Terminal
Project Manager | $30,000 | Evaluate locations for unit train frac sand terminals | Bens Run, WV | November 2017

Finley Resources Uinta Crude by Rail
Project Manager | $20,000 | Evaluate options for sending unit train of crude from Uinta Basin to gulf coast refineries | Helper, UT | September 2018

Genesis Alkali/Tronox/FMC Soda Ash Rail Yard Expansion
Project Manager | $150,000 | 50,000 ft of track for several expansions on UPRR property | Westvaco, WY | October 2018

Education
M.E. Civil Engineering Water Resources
B.S. Civil Engineering Water Resources/Structural Engineering
University of Utah, 2003

Registration

Associations
Association of State Floodplain Managers Utah Floodplain and Stormwater Managers Association AREMA

matt.collier@crsengineers.com
Team Resumes

Key Personnel Resumes

**SHAWN MARSHALL, PE**  
**Project Manager/BNSF Industry Track Design Lead**

<table>
<thead>
<tr>
<th>Education</th>
<th>Registrations</th>
</tr>
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<tbody>
<tr>
<td>BS, Civil Engineering, University of Utah</td>
<td>Registered Civil Engineer - Utah No. 8550209-2202</td>
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<tr>
<td>Professional Affiliations</td>
<td>Registered Civil Engineer - Iowa No. 22605</td>
</tr>
<tr>
<td>Member, American Railway Engineering and Maintenance of Way Association (AREMA)</td>
<td>Registered Civil Engineer - Washington No. 54178</td>
</tr>
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<td></td>
<td>Registered Civil Engineer - Colorado No. 0051854</td>
</tr>
</tbody>
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**Summary of Qualifications**

Mr. Marshall is a professional engineer specializing in rail and site design, including rail facilities and commercial/industrial site layout, track, grading, drainage, and pavement design. He has designed or led the design of several projects for both Class I and Class II railroads and industrial rail users. Shawn has managed and led the design of pavement reconstruction projects for Class I railroads including program management and coordination. He is dedicated to providing quality services and meeting client expectations, and uses his technical and personal skills to represent clients in a professional manner.

**Project Experience**

**UDOT I-15 Widening Project, Midvale, Utah**

Mr. Marshall managed and provided engineering services for track design for three locations where the proposed roadway widening crosses the Union Pacific Railroad.

- **7200 South Track Shoofly and Bridge Replacement**: Mr. Marshall managed and led the design of track plans for the replacement of the railroad bridge over 7200 South to accommodate the 7200 South roadway widening. This included design of shoofly tracks to phase construction of the bridge and provide an additional track over the bridge. He coordinated with the RailPros structural engineers, geotechnical engineers, surveyors, UDOT, the Union Pacific Railroad, Utah Railway (Genesee and Wyoming Railroad), and Savage. Scope includes submitting 100% Track Design Plans and 30% Structure Plans for Bridge.

- **UTA 7200 South Bridge Replacement**: This project also included design of crossovers of the two UTA Trax lines over 7200 South for phasing construction of the bridge replacement. Scope includes submitting 30% Track Design Plans and 30% Signal Design Plans.

**Union Pacific Railroad California High Speed Rail Coordination and Engineering Services, Fresno, CA**

Mr. Marshall led the design for various track design project, concept layouts, and provided engineering services in reviewing designs from other consultants on behalf of UPRR for the following projects:

- **Union Pacific Railroad CTC Improvements**: Mr. Marshall managed and provided engineering services for the design of CTC improvements for the UPRR Fresno Subdivision. This project consisted of replacing existing turnouts with new power turnouts, signal, crossing improvements, mainline track shift for a new universal crossover, and a lead extension. Plans, profiles, typical sections, cross sections, culvert and grading details, grading and drainage plans, and erosion control plans were developed. Mr. Marshall coordinated with the railroad for utility protection and relocation. He also developed the storm water management plans, bid documents, estimates, and project specifications.

- **Union Pacific Railroad Francis Materials Yard**: Mr. Marshall managed and provided engineering services for the design of an industrial yard. This project consisted of replacing existing turnouts and relaying existing track for the lead into this facility and design of two new rail spurs into this materials storage facility for the proposed industry. Plans, profiles, typical sections, cross sections, grading and drainage plans, and erosion control plans were developed. Mr. Marshall coordinated with the railroad for utility protection and relocation.
SEAN MARKEY, PE
SR. PROJECT MANAGER – RAILROAD PROJECTS

EDUCATION
BS, Civil Engineering, Lehigh University, 1993

YEARS OF EXPERIENCE
Total – 25
With Arcadis – 7

PROFESSIONAL REGISTRATIONS
Professional Engineer – FL, PA
E-Rail Certification – E-Rail US

PROFESSIONAL ASSOCIATIONS
American Society of Civil Engineers
American Railroad Development Association (Real Estate Committee)
American Railway Engineering and Maintenance of Way Association (Committee 28 – Clearances)

Mr. Markey is a Senior Project Manager with considerable experience in the administration, project management, inspection, rehabilitation, design, review, and construction of various freight railroad projects. His experience includes the design and oversight of various freight railroad projects. Many projects that he has been involved with have short schedules and involve coordination of multiple team disciplines to achieve the project goals.

Project Experience

National Gateway
CSX Transportation, Ohio, Pennsylvania, West Virginia, District of Columbia, Maryland & Virginia

Overall Program Manager for the Vertical Clearance Improvements for the National Gateway Initiative. National Gateway is a freight intermodal project involving 64 vertical obstructions requiring modification, replacement or removal to achieve a minimum of 21’-0” of clearance from top of rail to the bottom of the obstruction. Project management involves leading several teams of professions with schedule, funding pursuit, design activities and various procurement activities. Project involves modification of 13 mountain tunnels, replacement of the Virginia Avenue Tunnel (Washington, DC), and replacement of several overhead highway bridges throughout the corridor along with other locations involving trails and other railroads. Project packages include the development of several Design-Build Packages for advertisement on complex projects. AECOM has been tasked with providing weekly reports and coordination of this large effort to progress the designs for all locations through the various identified agencies for review. Funding for the project involves TIGER funding, State Funding from Pennsylvania and Ohio along with all various requirements with ARRA funding. The construction cost is estimated at $360 million for the vertical clearance improvements and $850 million for the total efforts.

Intermodal Container Transfer Facility (ICTF) Design Criteria Package and Construction Management
Port of Jacksonville, FL

Design Project Manager for the development of the design build criteria package. This project involved creating a 30% design for a new intermodal container transfer facility connecting to Confidential Client Transportation for JAXPORT. Responsibilities included oversight and guidance of staff
Key Personnel Resumes

TERRY M. TATE

UP Coordination

Education

MBA, Finance, Brandman University, Roseville
BS, Accounting/Finance/Transportation, University of Colorado

Summary of Qualifications

Mr. Tate has over 41 years of continuous experience in transportation operations management, with the majority of his career spent as an employee of Union Pacific Railroad (UP) and Southern Pacific Railroad. He was closely involved with the Utah Transit Authority (UTA) as they built their passenger railroad and has negotiated with both internal and external entities. He possesses strong project management acumen, solid analytical skills, and detailed knowledge of rail operations.

Project Experience

General Director, Quality Service, UP, Roseville, CA
As the General Director of Quality Service for UP, Mr. Tate was responsible for the Western Region Transportation Plan, including patterns of train operations and asset utilization for the UP’s territory in Washington, Oregon, California, Nevada, Utah, Idaho, Arizona, and New Mexico. He was also responsible for Customer Development in the Region. He interacted with many UP departments, including Marketing & Sales, Business Development, and Joint Facilities.
By its nature, the Region involved multiple commuter and intercity passenger services, including ACE, Capitols, Caltrain, Surf Liners, and Metrolink. Part of Terry’s role was to understand those services, how they would interact with UP’s freight traffic, and the infrastructure needs (both current and forecast) associated with them.

Director, Transportation Service, UP, Salt Lake City, UT
Mr. Tate was both the Chief Transportation Officer and previously the Director of Terminal Operations for Union Pacific’s Salt Lake Service Unit, with overall responsibility for operations on a territory reaching from western Wyoming to eastern California and to southern Idaho. He held overall budgetary responsibilities for the Service Unit and worked with Marketing and Sales on the development of new business.
During this time, Mr. Tate worked with the Utah Transit Authority to develop the terms under which Utah Transit Authority would use and/or purchase portions of the UP Corridor between Ogden and Provo. Mr. Tate helped identify the requirements of UP’s transportation plan, and subsequently worked with UP’s engineering staff to determine infrastructure configurations that would support that plan. This effort included identifying the physical space UP would need to allow for future expansions, and identifying upgrades or relocations of existing facilities, such as the Salt Lake City Intermodal Ramp, to allow for the construction of the $600 million commuter line. He also served as the Union Pacific’s representative on the Partnership Committee, which along with Utah DOT and UTA, worked to identify win-win solutions as the commuter rail infrastructure was developed.

Senior Director, Harriman Dispatch Center – Western Region, UP, Omaha, NE
Mr. Tate was responsible for the dispatching operations of Union Pacific’s Western Region at the Harriman Dispatching Center. This assignment capitalized on Mr. Tate’s understanding of regional and operating unit transportation plans and daily traffic flows, and his previous experience as a field manager, addressing the day-to-day complexities of rail operations. His responsibility included freight operations in ten states, as well as several corridors which also hosted passenger operations.
Lance Kippen

2546 White Wing Rd., Johnstown, CO
Cell: 402.689.7027   Email: lance.kippen@railpros.com

CAREER SUMMARY

- Excel in collaborating with clients, contractors, and government agencies to meet or exceed design, timeline, and budget expectations.
- Excellent leader with over 14 years experience as an engineer, team leader, and project manager.
- Proven ability to manage and coordinate projects to successful completion.

Education \ Certification

BS Civil Engineering – University of Utah (2005)
Professional Engineer - UT # 7908392-2202 (2011)

PROFESSIONAL EXPERIENCE

Union Pacific Railroad (UP), Denver, Colorado        Nov. 2011-2018

Senior Project Engineer – Industry and Public Projects
Represent the railroad to plan, negotiate, design, schedule, manage, and monitor construction of industry track & signal, crossing signal, crossing surface, grade separation, crossing inventory, and other projects that protect and enhance Union Pacific’s franchise. Develop the scope, budget, and schedule of engineering projects including both track and signal.
- Provide technical assistance and coordination between outside agencies / industries and UP track, signal, structures, operating, law, and real estate.
- Prepare and review agreements with agencies, industries, other railroads, and private parties.
- Coordinate construction efforts between agency/industry contractors and UP track and signal construction.
- Assess crossings for the UP CAP program utilizing a standard work process.

Manager Special Projects – Terminal Design
Manage the design development of Intermodal and Automotive expansion and reconstruction projects throughout the UP network. Provide overall engineering coordination on all project aspects associated with engineering concepts, designs, and construction contracts.
- Manage the scope, budget, permitting, and schedule of engineering projects from concept through TOTO.
- Provide for the coordination of all departments and parties involved in the design process and integration of their ideas into a comprehensive design.
- Ensure all designs are in compliance with governmental regulations and company standards.


Team Leader – Rail Services
Engineered and managed design work of industrial railroad, railroad crossings, pavement rehabilitation and expansion, utility relocation and design, along with commercial development projects. Coordinated and communicated with local and state authorities, clients, and consultants to maximize efficiency during design and construction. Managed a team of engineers and designers ensuring high quality design projects within the schedule and budget constraints.
Key Personnel Resumes

CARRENE GILBERT, PE

Signals and Communications Specialist

**Education**

BS, Electrical Engineering, Georgia Institute of Technology

**Professional Affiliations**

AREMA Member – Committee 37

**Registrations**

Registered Electrical Engineer - Texas No. 88498, California No. 20387, Colorado No. 508322, Utah No. 8811253-2202, Washington No. 50838, Louisiana No. 40091, North Dakota No. 10540, New York No. 93470, New Jersey No. 24GE53827, Massachusetts No. 50614, Florida No. 83546

**Summary of Qualifications**

Ms. Carrene Gilbert is an Electrical Engineer with over 23 years experience in the rail and transit industry. Her experience has involved signals, systems, and communications elements. For the last seven years at RailPros, she has led the signals and systems team. Carrene understands the design and integration of systems and is able to review and inspect existing systems to provide comments to eliminate service interruptions. She has worked extensively with rapid transit authorities on a number of systems engineering projects.

**Project Experience**

**Oceanside Quiet Zone, City of Oceanside, CA (2014 – Present)**

Carrene is the Systems Project Manager responsible for the railroad signal and PTC design modifications required by the addition of pedestrian treatments and gates to establish a quiet zone through the City.

**Van Nuys Station Project, Los Angeles County Metropolitan Transportation Authority (2014 – Present)**

Carrene is the Systems Project Manager responsible for the railroad signal and PTC design modifications required by the station platform reconstruction. The project provided operational and passenger improvements by eliminating the narrow center island platform, replacing it with a center island platform with under-grade access. The operational improvements facilitated by the project included elimination of the hold-out rule, elimination of delayed-in-block provisions by addition of signals near the ends of the new platform, and also increased speeds for through trains (those not stopping at the platform) by revision of existing curvature, superelevation, and tangents between reverse curves. Track revisions also allowed speed improvements for freight trains entering/Exiting the main at the adjacent Gemco yard. The increased train speeds required subsequent signal re-spacing, as well as modifications to grade crossing warning devices. The platform improvements include customer information display systems and new ticket machines, as well as the associated communications equipment, as well as relocation of existing third-part fiber optic.

**St. George Interlocking Constructability Review, Staten Island Railroad, NY (1/2014)**

Carrene performed a signal System Constructability Review of design modifications due to Hurricane Sandy.


Carrene was the Signals Designer providing the crossing equipment layout and performance specifications for the bidding process. The project includes a new at-grade crossing to improve vehicular movement in the City of West Jordan. Coordination with the following agencies was required: Utah Department of Transportation, Union Pacific Railroad, and the City of West Jordan; as construction documents were required to meet their standards.

**Pier T Lead Grade Crossing Relocation, Port of Long Beach, CA (2013-2015)**

Carrene was the Signal Design Manager responsible for the relocation of the highway-rail grade crossing warning equipment at the Pier T lead due to the Pier T lead and Highway 710 realignment.
KEY PERSONNEL – GARY V. HUNTER

Railroad Industries Incorporated
Full Service Transportation Consulting
Gary V. Hunter
gvh@railroadindustries.com
775-825-6570

Experience

Railroad Industries Incorporated
Chairman and Chief Executive Officer - Reno, Nevada 1997-Present
Chairman and Chief Executive Officer - Hot Springs, Arkansas 1993-1997
President - Reno, Nevada 1983-1993

Mr. Hunter put his rail hands-on experience into his own consulting firm to provide expertise to rail shippers, railroads, public transportation and economic development agencies, private investors and other transportation service companies across the country. Work has included branch line analysis, equipment utilization and analysis, development of operating plans, market development, transportation costing, intermodal analysis, merger studies, developing short line railroads, and financial analysis. Mr. Hunter serves as the Chairman and CEO of the firm, managing all major business decisions, in addition to serving as Project Manager for most projects. He ensures quality control and provides most input for contract negotiations between Class I’s, shippers and short line railroads, alternative operations scenarios and traffic development strategies. Projects of note include Expert witness services for injury, rate, equipment, operations, right of way, STB and contract issues; Project Management for Utah Coal Rail Line development; 100’s of NLV and GCV evaluations for short line, regional and branch line railroads; yard and terminal operations analysis for 12 BNSF Railways’ terminals nationwide; Contract switching, operations and economics analysis for shippers nationwide, including Procter and Gamble, Cargill Grain, AK Steel, Palladon Iron, Sierra Pacific Power, Martin Marietta Materials and Bayer Materials; and rail abandonment and acquisition projects in Maine, California, Louisiana, Oregon and Utah to protect rail service for future economic development.

Arkansas Midland Railroad, General Manager 1993-1994
Jones Mill, Arkansas

Mr. Hunter was responsible for the overall operations of a $5 million short line railroad which includes 131 miles of track, 37 employees, and 21,000 annual carloads. The maintenance of way, maintenance of equipment, operations, marketing and agency departments all reported to Mr. Hunter. In addition, Mr. Hunter was responsible for all purchasing activities and real estate transactions for the company.

Transportation Marketing Services, Inc., Consultant 1987-1989
Pleasant Hill, California

Mr. Hunter was responsible for achieving revenue and profit objectives of the firm as directed by the President. His duties included market development, strategic planning, equipment analysis, physical distribution analysis, branch line acquisition analysis, competitive analysis, market research, contract rate negotiations, sales development, operations analysis, and development of business plans. He prepared testimony, traffic and revenue projections diversion estimates, and traffic flow analyses for the Anschutz Corporation and Rio Grande Industries in their acquisition of the Southern Pacific Transportation Company. Clients included the government, shippers, transportation companies, and port authorities.
Benjamin Rood, PE, CFM  
Water Resources Engineer  
benrood@msn.com  
801.372.8112

Education  
MS, Civil Engineering,  
University of Utah, 2011  
BS, Civil Engineering,  
University of Utah, 2009

Registrations  
Professional Engineer, Utah  
Certified Floodplain Manager

Years of Experience  
With Current Firm: 10  
With Other Firms: 0

Mr. Rood is a senior team leader and project manager of the Surface Water Department in the AECOM Salt Lake office. He has ten years of experience working in several surface-water disciplines including, hydraulic modeling, hydrology, flood hazard mapping, FEMA letter of map changes, steady and unsteady modeling using 1D and 2D methods, hydraulic structure and scour analysis. Mr. Rood leads a team with 2 senior and 3 junior level engineers. Mr. Rood has experience in both the private and public sectors. The majority of his public sector work has been working for the Utah Department of Emergency Management, FEMA, Salt Lake County Flood Control, and UDOT.

Project Experience

Project Manager, UDOT Drainage Manual of Instruction, Utah Department of Transportation: Mr. Rood was the project manager for the UDOT Drainage Manual of Instruction produced June 2018. As project manager Mr. Rood organized a team of experts in hydrology, data collection, stormdrain systems, bridge hydraulics, open channels, detention ponds, and culverts to write the criteria for UDOT roadway drainage design. This manual provides the criteria that are used for all UDOT roadway projects throughout the State of Utah.

Project Manager, FHWA/UDOT Every Day Counts (EDC) Collaborative Hydraulics: Advancing to the Next Generation of Engineer (CHANGE). Mr. Rood was project manager for the UDOT EDC-CHANGE initiative to use photogrammetry, 2D rain-on-grid hydrology, 2D HEC-RAS and SRH-2D to provide bridge scour evaluations for the UDOT 0C-836 and 0C-816 bridges on the Dirty Devil River and San Juan River respectively. This was the first project UDOT sponsored through the FHWA EDC CHANGE initiative and will be presented at the UFSMA and UDOT Conference in 2018.

Project Manager, Surplus Levee Deficiency Rehabilitation Project, Salt Lake County Flood Control: Mr. Rood is the project manager for this multi-year levee rehabilitation project. This project encompasses a full range of stormwater improvements and design, levee design, utilities, right of way, survey, permitting, construction and stakeholder management. Successful milestone completion has been achieved through close coordination with USACE to help reinstate the surplus levee into the Levee Safety Program. The goal of this project is to provide levee certification through remediation of all encroachment violations.

Deputy Project Manager, Provo River Levee Analysis and Mapping Plan, Utah Department of Homeland Security FEMA Risk MAP Update Project: Mr. Rood developed engineering hydrologic and hydraulic modeling to provide a detailed analysis of 9 miles of levee along the Provo River in Utah County, Utah. Mr. Rood was instrumental in forming and cooperating with the Local Levee Partnership Team consisting of over 15 stakeholder organizations for the Provo River. Mr. Rood performed hydraulic analysis using 1D & 2D HEC-RAS modeling.
MATT FOWLER
Professional Associate

CAREER SUMMARY
Matt has three decades of project management and engineering experience in the analysis and design of tunnels, shafts, and mined and cut-and-cover structures for transit, highway, water, mining, communications, and underground storage. Based in San Francisco, Matt has managed or held technical roles on a broad range of underground projects involving excavations in urban settings, protection of sensitive structures, utility relocations, seismic retrofit, deep foundations, ground improvement, geologic investigations, shoring, and instrumentation.

SELECTED PROFESSIONAL EXPERIENCE
— SFMTA Central Subway Phase II, San Francisco, CA: for the preliminary design of this 1.7-mile-long twin-tunnel subway with three underground stations, Matt served as Tunnel and Station Design Lead, responsible for identifying alignment alternatives with feasible portals and work sites, assessing construction methods, and preparing preliminary designs for the tunnels and stations. For the final design phase, Matt served as Project Manager with a team of 14 subconsultants who prepared final plans, specifications and quantity estimates for the $20M utility relocation contract and the $241M tunnel contract. A major challenge successfully addressed in the tunnel design and construction was the crossing of the BART and SFMTA Tunnels under Market Street, which required extensive numerical modeling and coordination with BART during the design phase and the inclusion of real-time monitoring and settlement mitigation measures during construction. Matt was involved throughout construction of the twin bores that were excavated using EPB TBMs.

— LA Metro Red Line, Hollywood to Universal City, CA: As Lead Tunnel Engineer, Matt was responsible for preparation of plans, specifications, and a geotechnical design summary report for the excavation and lining of twin, 20-foot-diameter tunnels to extend the subway 2.5 miles through the Santa Monica Mountains. Required elements of project included selection and design of ground support systems for the TBM tunnels; design of permanent rock dowel and shotcrete ground support systems for large-span caverns, intersections, and crossovers; and development of instrumentation programs to monitor ground convergence. The tunnels cross the Hollywood Fault, where a unique oversized tunnel cross-section employing a ductile and flexible lining of shotcrete, lattice girders, and dowels was designed to accommodate possible future fault movement.

— Westside Corridor Project, Portland, OR: project tunnel engineer on the team responsible for the preparation of plans, specifications, and cost estimates for twin 19-foot-diameter, three-mile-long tunnels and a 260-foot-deep underground station-the deepest underground transit station in North America—for the $692M, 11.5-mile westward extension of the Banfield light rail transit line. Matt was responsible for selection and design of initial ground support for shafts, portals, tunnels, and caverns for a broad range of volcanic rock and soil conditions. The resulting specifications included TBM and drill and blast excavation methods. He has continued his involvement on the project during construction, providing as-needed technical assistance to the resident engineer by inspecting installed initial ground support, reviewing contractor ground support designs, and assessing value engineering proposals.
JOSHUA J. SLET TEN, S.E.
Senior Supervising Structural Engineer

CAREER SUMMARY
Josh Sletten has over 17 years of experience in the transportation industry, successfully managing and executing projects as well as supervising staff. Josh is currently the I-15 Lehi Tech Corridor structures segment lead for 11 bridges, working directly with Ames and the Utah Department of Transportation (UDOT). He was also the project manager for I-80 Wildlife Crossing Overpass, a two-span bridge delivered using CMGC, which is now under construction.

Josh was formerly the UDOT bridge management engineer; during that time, he actively participated in the development and review of UDOT’s Structures Division QC/QA procedures and design manuals (PDN, SDDM, and BMM). He has an excellent understanding of each document. As the UDOT bridge management engineer, his responsibilities covered the Bridge Inspection Program, the Underwater Bridge Inspection Program, the Bridge Load Rating Program, the Bridge Scour Program, the Bridge Planning Program, bridge programming, asset management, bridge maintenance, emergency response, and local government outreach and coordination.

During his initial five years in transportation, he designed or helped design over 30 bridges as well as several retaining walls, box culverts, and noise walls. For the past two years, Josh has been involved in over 20 bridge projects for WSP. These have included all facets of delivery including planning, asset management, preliminary and final design, and construction. Josh was introduced to project management and department supervision in 2007. Today, he supervises a department of seven people within the WSP Structures Division.

PROFESSIONAL EXPERIENCE

Structural Engineer

UDOT I-15 Lehi Tech Corridor, Utah: the I-15; Lehi Main to SR-92 project consists of the reconstruction of I-15 from Lehi Main Street to SR-92, including appropriate transitions into existing roadway features to the south and north of the project limits. WSP designed 11 bridges.

Railroad Safety Project Management; UDOT; Salt Lake City, Utah: as project manager, Josh managed and implemented UDOT’s safety program responsible for statewide projects dealing with at-grade railroad crossings of vehicular streets and roads. Together with UDOT’s Chief Railroad Engineer, Josh was responsible for clearly defining this program’s objectives and implementing a plan to improve safety at select at-grade crossings across the State of Utah.

TRAX Airport Line Preliminary Engineering; UTA; Salt Lake City, Utah: as lead structural engineer, Josh was responsible for leading the preliminary structural engineering phase of this nearly 6-mile light rail extension from downtown Salt Lake City to the Salt Lake City International Airport. The corridor required eight structures to accommodate the proposed alignment. The primary structure involved the incorporation of the light rail corridor with the existing North Temple Viaduct, an 11-Span 1,390-foot-long bridge over the UPRR corridor, FrontRunner tracks, and city streets.

UDOT’s I-80 Wildlife Crossing Overpass, Salt Lake County, Utah: project manager for designing a new 365-ft-long, 45-ft-wide bridge spans I-80. Josh worked collaboratively with UDOT and the CMGC contractor to develop a structures design for a two-span bridge over I-80.
John W Diamond, PE
Project Manager

John Diamond has been a geotechnical project manager on many highway projects in Utah, including the I-15 CORE project, where he managed the instrumentation program during construction. He has worked on projects that have included design and construction of roadways, bridges, diverging diamond interchanges, embankments, Mechanically Stabilized Earth (MSE) walls, towers, tanks, pipelines, commercial development, and multi-story office buildings. His technical experience includes instrumentation, analysis and monitoring of consolidation settlements, foundation design, seismic analysis, evaluation including liquefaction and lateral spread potential, slope stability, and pavement design. John’s experience includes project management, report preparation, engineering analysis, laboratory testing, instrumentation, and field supervision. He has provided geotechnical recommendations for walls, embankments, and foundations constructed on soil conditions from soft, saturated clay soils with large settlements and stability concerns to dense sands and gravels throughout the State of Utah.

RELEVANT EXPERIENCE
Union Pacific Railroad Communal Track at Promontory Point, Box Elder County, UT, Senior Engineer

Mid-Coast Corridor Transit TO2, San Diego, CA, Senior Engineer.

I-15 Technology Corridor Reconstruction Project, Utah County, Utah: Design Project Manager

State Route 248; Proposed Widening, Park City, Utah, Project Manager.

US- 191; Passing Lane Additions, San Juan County, Utah, Project Manager.

I-15 CORE Reconstruction Project, Utah County, Utah: Design Assistant Project Manager

Interstate 80: Climbing Lane from Lamb’s Canyon to Parley’s Summit, Summit County, Utah, Project Manager.

Wahlquist Bridge Widening, Farr West, Utah, Project Manager.


Interstate 15 Widening: 90th South to 106th South, Sandy, Utah. Assistant Project Manager and Project Geotechnical Engineer

State Route 10; Quitchupah Passing Lane, Emery County, Utah, Project Geotechnical Engineer.

Interstate 405 Sepulveda Pass Widening Project, California; Project Geotechnical Engineer.

Legacy Parkway in Salt Lake and Davis Counties, Utah; Staff Geotechnical Engineer.

Mona to Oquirrh 345 kV Transmission Line, Northern Utah, Project Manager.

I-405 Sepulveda Pass HOV, Los Angeles, CA, Project Engineer.

Years of Experience: 16 total; 12 Years Highway Design Experience

 Licenses and Registrations:
- Professional Engineer, Civil Utah #5959080-2202
- Professional Geologist, Utah #5959080-2250

Education and Training:
- B.S. Applied Geoscience
- M.S. Geological Engineering
- M.B.A. Business Administration

Areas of Expertise:
- Project Management
- Design Build
- Geotechnical engineering related to transportation projects
- Geotechnical Instrumentation
JOHN BALE, PE, MBA

VP/TRANSPORTATION

John has over 32 years of experience as a Project Manager and managing project managers on large civil and transportation projects. His extensive experience in design, construction, QA/QC, materials testing and environmental compliance.

Since 2000, John has worked exclusively in the transportation sector including more than 40 alternative contracting projects most of which involved federal funds. He can quickly and easily identify project risks, present solid solutions and ideas that will benefit a project, and facilitate project teams through challenging project issues. John’s career is one of facilitation, collaboration and communication.

32 10 1
YEARS EXPERIENCE SIMILAR PROJECTS YEARS WITH CRS

Education
M.A. Business Administration
University of South Carolina
B.S. Civil Engineering
University of Wyoming

Registration
Professional Engineer:
Utah, Wyoming, Nebraska,
Colorado, North Dakota,
Minnesota
UT# 4835780
WY# 5804
NE# E-7630
CO# 29644
ND# 4098
MN# 49387

Associations
Design-Build Institute of America
john.bale@crsengineers.com

I-15 South Davis Operational Upgrade Project F-I15-7[301]313
Designed the schedule, budget and quality from North Salt Lake to Farmington 200 North Exit (2014-2015). He successfully managed design of roadway utilities, structures, and acquisition of right-of-way.

SR-92 Timpanogos Highway Design-Build Project F-0092[12]1
John assisted in training project personnel in this $120 million design-build project, and created proper documentation needs for the project. He directed the project documentation system set-up to ensure documentation was in place for all aspects of the project for Federal Participation.

US-89 Farmington to I-84 in Weber County
Provided high level consultation under a project management contract with the UDOT program director (2017-2018). On this $250-$300 million project, John managed risks and delivery approaches include assisting in establishing the first Progressive Design Build RFP for UDOT.

SR-232 & I-15 Hillfield Road Interchange Modification
John was responsible for leading his team in the SOQ process and in project delivery on this approximate $28 million design-build project.

Independent Quality Manager Legacy Highway Phase I Design-Build Project
John served as the first independent quality manager in Utah leading a team that was contracted to the design-builder and reported jointly to the owner and design-builder.

Consultant Resident Engineer Riverdale Road CMGC Project
John managed the first phase of construction engineering for an urban arterial roadway project. He managed the documentation in UDOT’s PDBS system for this $40 million project.
Key Personnel Resumes

RENA J. ROBISON

AVP Real Estate & Development

Education and Training

| The University of Nebraska, BS in Political Science |
| John F. Kennedy School of Government, Harvard University-Leadership for the 21st Century |

Professional Certifications

| National Development Council, 1999- Certified Economic Development Finance Professional |
| Economic Development Institute, University of Oklahoma, 1995 |

Summary of Qualifications

Renay has been involved in real estate for over 25 years. She began her career in her family’s real estate and appraisal businesses while attending college. After graduation, she worked in a title company before starting with her spouse, her own company High Point Ventures, LLC. Renay Robison is an experienced, hard-working individual. She has in-depth knowledge of railroads having worked for one of the largest railroad companies in the nation. She provides leadership, management, and advanced sales expertise in all areas of her work.

Project Experience

RailPros, Assistant Vice President, Real Estate and Development (2018 - Present)

Renay works to develop and oversee RailPros’ real estate management services in the national railroad market including application and occupancy permitting process; contract preparation and management; rental management; acquisition and property sales oversight; and negotiations and fair market value pricing of railroad real estate.

UNION PACIFIC RAILROAD, Omaha, NE (2008 - 2018)

North America’s premier railroad franchise, covering 23 states in the western two-thirds of the United States.

Director/Assistant Director – Real Estate

In this position, Renay provided leadership to real estate contract managers for negotiation and preparation of contracts with utilities, public and private entities, and individuals who wished to access or occupy the Railroad’s property. She advised or represented Contracts Group in negotiations with public and private utilities in contract revisions and disputes, complex projects and litigation. Renay also developed internal and external systems and procedures to ensure licensee and lessees where compliant with Railroad’s engineering and safety standards. She managed annual rent collection, rental redeterminations and rental dispute resolutions and supported Government Affairs by providing written responses and oral testimony on pending legislation that affected the Railroad’s real estate interests.

Manager – Real Estate (May 2008 - July 2010)

As manager of real estate, Renay marketed and sold Union Pacific surplus real estate and established relationships with developers, realtors, adjacent property owners and other potential buyers. She conducted market research, reviewed comparable sales, appraised and set property value as well as structured and negotiated sales contracts and prepared letters of understanding, purchase and sales agreements, and deed documents. Oversaw internal and external sales closing processes.

Senior Vp, Economic Development; Executive Director, Greater Davenport Redevelopment Corporation; Executive Vice President, NewVentures Initiative, DAVENPORTONE, Davenport, IA (2005 - 2008)

$2.8 million chamber of commerce and economic development organization with over 1200 member businesses.
TEAM RESUMES

DAVID BROWN, M.L.A., NATURAL RESOURCES PROGRAM DIRECTOR

Mr. Brown specializes in electric transmission line permitting and project development. He currently serves as the Natural Resources Program Director for SWCA’s Salt Lake City office and a senior project manager with more than 16 years of experience in environmental permitting with an emphasis on the electric transmission industry. Mr. Brown has served as the project manager for numerous projects including Xcel Energy’s 345-kilovolt (kV) expansion program in southeast New Mexico. He is familiar with each phase of project development from initial feasibility studies and agency coordination through permitting, construction, and operation. Mr. Brown’s experience includes line and substation siting, technical engineering and design studies, federal, state, and local permitting, right-of-entry and right-of-way acquisition, contractor procurement and request for proposals development, community outreach, landowner coordination, environmental compliance, mitigation planning and implementation, and environmental compliance. In his professional career, Mr. Brown has worked extensively on projects requiring compliance with the National Environmental Policy Act (NEPA), Clean Water Act, National Historic Preservation Act, and Endangered Species Act.

SELECTED TRANSMISSION PROJECT EXPERIENCE

Energy Gateway Owner’s Environmental Consultant; Salt Lake County, Utah; PacifiCorp. SWCA has been engaged since 2008 as the Owner’s Environmental Consultant for PacifiCorp’s Energy Gateway Expansion Program. In this role, SWCA staff function as an extension of the Owner and are primarily tasked with the oversight of the permitting and construction phases of several concurrent projects. Role: Project Manager overseeing team of 5-15 specialists and responsible for all deliverables and related project controls.

Hobbs-China Draw 345-kV Transmission Line Project; New Mexico; Xcel Energy. SWCA is assisting Xcel Energy in siting, permitting, and environmental compliance for a 345-kV transmission expansion program in southeast New Mexico. Mr. Brown provided expert testimony before the New Mexico Public Service Commission supporting the project’s siting process and adherence to Rule 592 of the New Mexico Administrative Code. Role: Project Manager overseeing execution of EA, POD, and responsible for all deliverables and related project controls.

Parvin 138-kV Transmission Line Project; Texas; Sandbrock Investments. SWCA provided expert testimony as part of Brazos electric’s application to amend a certificate of convenience and necessity submitted to the Texas Public Utilities Commission (PUC). Mr. Brown testified in support of the utility’s adherence to PUC Substantive Rule 25.101 and Texas Utility Code § 37.056. The final decision ruled in favor of the utility’s preferred route. Role: Production of environmental report and expert witness testimony.

Southline Transmission Environmental Impact Statement; New Mexico and Arizona; Southline Transmission LLC. SWCA is serving as the third-party NEPA consultant to the Bureau of Land Management (BLM) and the Western Area Power Administration for a proposed project

YEARS OF EXPERIENCE
16

EXPERTISE
Transmission facility siting, design, and permitting
Environmental permitting
Land use planning
Project management
Expert witness testimony

EDUCATION
Master of Landscape Architecture, e: Stream Restoration; Utah State University, Logan; 2003
B.A., Architecture; University of California, Berkeley; 1992

TRAINING
FERC Compliance Training, FERC; 2013
The Cultural Side of NEPA, SWCA Environmental Consultants; 2008
NEPA for Project Managers, SWCA Environmental Consultants; 2005
Project Manager Bootcamp, PSMJ Resources, Inc.; 2005

Environmental Mitigation Cost Study; Salt Lake County, Utah; Western Electricity Coordinating Council. SWCA prepared an environmental mitigation costs study for Western Electricity Coordinating Council to inform the development of their long range planning tool. Role: Project Manager. Prepared the environmental mitigation costs study. As part of the study, Mr. Brown contacted individual developers for 29 different projects in the Western Interconnect to gather mitigation cost information that was ultimately used to identify specific factors that typically drive a project’s environmental mitigation risk.
TEAM RESUMES

CHUCK EASTON, RPA

ENVIRONMENTAL/PI

Chuck serves as CRS’ Environmental Manager with 20 years’ experience in project compliance with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), Section 404 of the Clean Water Act, and Section 4(f) of the Department of Transportation Act. This includes developing and writing Purpose and Need statements, alternatives development and screening, environmental resource analysis, and public and stakeholder coordination. Having written hundreds NEPA documents of all levels, he has a thorough working knowledge of all other resources considered in NEPA such as Land Use, Environmental Justice, traffic noise and air quality impacts analysis, hazardous materials, and indirect and cumulative effects.

Chuck has been managing and supporting the Public Involvement and Public Relations efforts for dozens of preliminary design and environmental projects, including large EISs and EAs. Chuck is a skilled communicator, with expertise in public involvement, strategic communication planning, conflict resolution and facilitation. His responsibilities in public involvement include early identification of potential project stakeholders, preparing strategic communication plans for large projects with potentially significant impacts, presenting projects and their impacts to elected officials and other elected bodies, forming project stakeholder groups to better understand and resolve project concerns, preparing and conducting public hearings and open houses.

SELECTED EXPERIENCE

- **West Memphis Railport Logistics Park**
  2,500 acres of land, 28 mile of rail master plan, 3 miles of Phase 1 rail construction, 2 road crossings | West Memphis, Arkansas | 2016-2018

- **Hill Air Force Base - Utah Test and Training Range**
  New railroad spur spanning 14.6 miles, in addition to 65 acre USAF/UPRR land exchange, multiple alternatives plus 200 feet buffer | Hill Air Force Base | 2016

- **Rock Point Canal Environmental Assessment**
  8.2 miles of proposed pipeline, covering 600 acres of multiple alternatives, within Uinta Basin | Uintah County | 2016-2017

- **Tooele Midvalley Highway EIS and Re-Evaluation***
  10 miles of new roadway, covering a 7,000 acre study area of multiple alternatives. Rural, commercial, industrial, and residential areas | Tooele County, Utah | 2009-2010, 2015

- **Pleasant View Skyline Drive Environmental Assessment***
  2 miles of new roadway, covering a study area of 5,000 acres, over 20 roadway alternatives, oppositional private interests | Weber County, Utah | 2014-2015

- **US Forest Service - Wheeler Creek Environmental Assessment/CatEX**
  Diversion structure replacement, 2 miles of pipeline within a 40-acre study area. Project area within a steep-walled canyon. Multiple T&E Species, historically significant structures | Weber County, Utah | 2017-Present

- **Elberta Mega Site Environmental Analysis**
  600 acre study area located in undeveloped open land. Federal, state, and local coordination and collaboration | Utah County | 2017

20 YEARS EXPERIENCE

20+ SIMILAR PROJECTS

2 YEARS WITH CRS

Education

M.A. History
B.S. Anthropology
The University of Utah

Registration

Professional Archaeologist
Utah PLPCO Permit #43

Associations

UPAC

chuck.easton
@crsengineers.com

Prior Employment

PEC - 5 years
J-U-B - 1 year
UDOT - 5 Years
SWCA - 4 years
UofU Faculty - 3 years
CAREER SUMMARY
Jason Bright has 25 years of environmental problem-solving experience in planning, environmental review, and construction projects. Jason’s experience includes the full range of federal requirements under the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation, with extensive experience in Utah and Colorado. He works in WSP’s Colorado and Utah offices, and previously worked in UDOT Region 3, which includes much of the Coalition’s area.

SELECTED PROFESSIONAL EXPERIENCE

Honolulu Rail Transit Project, Honolulu Authority for Rapid Transportation, Honolulu, HI: Jason managed a team of environmental planners as part of a three-year, $150M GEC contract for the $5.2B transit project. He supported HART by providing environmental documentation and compliance for a dozen construction contracts. Responsibilities included managing a team of several WSP staff and sub-consultants to provide wetlands, wildlife, cultural resources, and daily stakeholder engagement. The planning and environmental tasks included $20M.

I-70 Floyd Hill Environmental Document, CO: Jason supported CDOT in a NEPA Analysis of Alternatives for six miles of I-70 through an important and sensitive corridor in the mountains west of Denver. The project is a Tier 2 document, studying alternatives to the existing alignment, which has safety and geometric concerns.

US 50 East Tier 1 EIS, CDOT Region 2: The Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT) are working with government agencies, communities, and the public in the analysis and development of proposed improvements to US 50. During the process of developing this US 50 Corridor East Tier 1 Draft EIS, the project team evaluated alternative corridor locations for future improvements versus the No-Action Alternative based on the project’s purpose and need.

I-70 East EIS, Denver, CO: Jason is supporting CDOT in completing the Supplemental DEIS, FEIS and ROD. The EIS analyzes impacts from multiple build alternatives for the reconstruction of 11 miles of Interstate 70 through Denver. Since the signing of the ROD, Jason assisted with four re-evaluations for the construction project.

Tooele Midvalley Highway Corridor EIS, Tooele, UT: As Project Manager, Jason led a team of planners, engineers and subconsultants in producing an Environmental Impact Statement and preliminary roadway and drainage design for multiple alternatives for 11-13 miles of new freeway through Tooele Valley, UT. The project was a local government project for Tooele County, providing additional north-south capacity to SR-36, and the Lake Point Interchange on I-80.

I-15 South Corridor Environmental Impact Statement, Utah County, UT: As Environmental Manager, Jason assisted in the preparation of the draft EIS, and then became the Task Leader assigned to complete the Final EIS and Record of Decision. The effort involved responding to all public comments, including agency review, public meeting attendance, and producing the FEIS. Jason also managed subconsultants to complete a Biological Assessment for an endangered fish.
TEAM RESUMES

CHRISTOPHER M. VANEK, P.E.
Senior Engineer

CAREER SUMMARY
Chris Vanek has extensive experience working in multiple design-build and innovative projects, including accelerated bridge construction (ABC) techniques and complex bridge expansions. Through his career, Chris has extensive experience in various design media for accelerated bridge construction techniques including precast concrete, hybrid composite beams (HCB) and inverse modular bridge deck units. He is proficient in using Midas Civil, SAP 2000, LEAP Bridge Suite, MDX, FB-Multipier, and Microstation.

SELECTED PROFESSIONAL EXPERIENCE

— Interstate 15 (I-15) Tech Corridor Design-Build, Utah County, Utah: providing oversight for the structures design on this $278.4-million design-build project. The project involves reconstructing and widening to add to new lanes to I-15 between Lehi Main Street to State Road (SR) 92. A one-way frontage road system will also be constructed from 2100 North to SR 92. Interchange reconstruction will occur on I-15 at SR 92 and 2100 North. Thirteen bridges will be replaced and a new bridge will be constructed over I-15 at 2300 West. Bicycle and pedestrian movements will be improved. NM 6/Main Street Bridge over the Rio Grande River, New Mexico: structures engineer responsible for this design-bid-build replacement of the existing Rio Grande River crossing. Chris’ responsibilities include the evaluation and implementation of ABC techniques for the proposed crossing.

— Texas High-Speed Rail Public-Private-Partnership (P3), Dallas, Texas: structural engineer for preliminary design for this 240-mile new high speed rail line located between Dallas and Houston. The project will include the design of a two-way track, with approximately 60% of the track located on elevated viaduct, allowing for under-the-facility travel by assorted domestic and wild life, while local roads and expressways will go above or below the tracks. Unique design features will accommodate the N700-I Tokaido Shinkansen bullet train vehicle, with a travel time of approximately 90 minutes between Dallas and Houston, with maximum speeds of 205 mph in a fully sealed corridor. The project will be delivered in 10 design segments, including maintenance of way facilities and station facilities. At an estimated cost of $70 billion, the project is being funded by the Country of Japan.

— Veterans Memorial Bridge Replacement, Volusia County, Florida: structures engineer responsible for plan preparation and substructure and superstructure design of this signature high-level fixed bridge to replace the deteriorated existing bascule bridge. The replacement bridge will be on approximately the same alignment as the existing bridge to minimize environmental and right-of-way impacts. The new bridge will have a vertical clearance of 65 feet and a horizontal clearance of 125 feet. The typical section consists of two 11-foot through lanes, one in each direction, and five-foot outside shoulders. Five-foot sidewalks, separated by a 1.5-foot railing on both sides of the bridge.

— State Road (SR) 83 (US 331) over Choctawhatchee Bay Design-Build, Florida Department of Transportation (FDOT) District Three, Walton County, Florida: lead structures engineer on this $118M design-build project in the Florida panhandle. This project includes construction of a new northbound bridge, relocation of a local park, and deep ground improvements to the causeway surrounding the bridge. At project’s end, the bridge and causeway will be two lanes each way, to promote traffic flow and provide a better evacuation route from the island in case of hurricanes. All permitting was completed during the construction phase.
DAREN ANDERSON, PE, SE

UTAH LOCAL LIAISON

As Senior Review Engineer, Daren will provide QA/QC and act as a technical advisor as needed on pipeline materials selection due to “hot soils” in JVWCD proposed project area and benefit cost analysis options for the District’s approval. Daren will be present at every critical District design review meeting.

Daren’s major projects have included managing design and construction of Union Canal Piping Project; Vernal City 5.5+ mile waterline replacement, and 6+ miles of the Island Ditch Piping Project. Other projects include transportation systems, water, wastewater, irrigation systems, roads, hydrologic and hydrology studies, master plans and site development.

22 10 4
YEARS EXPERIENCE SIMILAR PROJECTS YEARS WITH CRS

Education
B.S. Civil Engineering
University of Utah

Registration
Professional Engineer:
Utah, Wyoming, North Dakota,
New Mexico
Structural Engineer: Utah

Associations
American Society of Civil Engineers
Rural Water Association of Utah

daren.anderson@crsengineers.com

Prior Employment
Engineering Services, Inc.
18 Years

RELATED LARGE DIAMETER PIPELINE EXPERIENCE

24” Vernal City Raw Waterline
Principal | 30,000 ln.ft 24-inch PVC | Vernal | 2015

30” HDPE M & S Pipeline
Project Manager | 12,000 ln.ft. 30” HDPE | Uintah County | 2013

Vernal City 500 East Storm Drain
Principal | 1,000 ln.ft. 42-inch Poly | Vernal | 2013

Simplot 42” and 30” Steel Pipe
Principal | 8,000 ln.ft. 42-inch Steel Pipe & 2,000 ln.ft. 30-inch Steel Pipe | Vernal, UT | 2011

Oaks Park Canal Pipe Project
Project Manager | 13,000 ln.ft. 42-inch HDPE & 18,000 ln.ft. 36-inch HDPE | Vernal | 2009

Island Ditch Pipe Project
Project Manager | 19,000 ln.ft. 24-inch PVC | Vernal | 2007
TEAM RESUMES

MATT HIRST, PE

PRINCIPAL IN CHARGE

Matt brings over 22 years of experience to CRS Engineers. He has extensive experience in program management in transportation, roadways, railroads, and utilities. He has extensive experience in large scale roadway and utility design such as UDOT’s $2 Billion Access Utah County project. Many of the projects he is asked to assist with have included extensive negotiation and arbitration with Federal, State and Local agencies including the United States Bureau of Reclamation, Utah Department of Transportation, multiple municipalities, regulated utility companies and private telecommunications providers.

Matt recently completed his work for the I-15 CORE Design-Build projects as the 3rd Party Manager & Utility Coordinator for the Provo River Constructors team, responsible for over 120 individual design and utility relocation packages totaling approximately $14 million dollars in work. During the project Mr. Hirst was responsible for 200 agreements between UDOT, the Design-Builder and fifty 3rd Party utility companies. This is the largest design build project for the State of Utah, totaling well over $1.1 billion dollars in total construction. During the execution of the project he conducted well over 1000 project and public meetings to execute his responsibilities for this project.

RELATED RAILROAD EXPERIENCE

- Emery Refining: Principal | $12 Million | New oil refinery, 400 acres of land, grading, drainage, utilities, roadways, railroad tracks, highway connection | Green River, UT | 2012-2013
- Malt-o-Meal: Principal | $ Million | Cereal and other product distribution plant, 100 acres of land, pavement, grading, drainage, utilities, railroad tracks | Tremonton, UT | 2008-2010
- Ogden Trackline Industrial Park: Principal | $12 Million | Rail served industrial park, roads, utilities, surveying, railroad tracks | Ogden, UT | 2011-2013
- West Memphis Rail Port Logistics Park Master Plan: Principal | $12K | (2,500 acres of land, 28 miles of rail, 2 road crossings, grading, drainage, utilities | West Memphis, AR | 2011-2013
- QEP LNG Facility: Principal | $12 Million | Questar liquid natural gas transfer facility, 10 acres, grading, drainage, railroad tracks | Verne, WY | 2012-2013
- Union Pacific Railroad GIS mapping, asset management and GPS data acquisition: Project Manager | $120M & CRS Fee: $5M | Asset management for $28 of rail facilities, rail yards, create database and GIS to track system upgrades, repair, and maintenance | Systemwide | 2004-2018
- I-15 Core Design-Build: 3rd Party Manager and Utility Coordinator | design and utility relocation packages, agreements with stakeholders, public involvement and coordination with stakeholders | 2012
- Access Utah County: SR-77, Pioneer Crossing, SR-92 and Vineyard Connector | $400M & CRS Fee: $3.2M | Lead Utility and Railroad 3rd Party Manager | As a member of the UDOT management team for AUC, Mr. Hirst is responsible for all the utility and railroad procurement related documents, over fifty (50) master utility agreements, a dozen (12) railroad agreements, and 3rd party and design-builder coordination during the construction of each project | 2012

Education
- M.S. Civil Engineering
- B.S. Civil Engineering
  - University of Utah

Registration
- Licensed Professional Engineer:
  - Utah, Arizona, Colorado, Hawaii, Idaho, Kansas, Missouri, North Dakota, Texas
  - UT # 313039-2202
  - ID # 11596
  - AZ # 41634
  - HI # 11485
  - CO # 39633
  - MO # 2008012192

Associations
- ASCE- American Society of Civil Engineers
- ACEC- American Council of Engineering Companies
- ESRI - Authorized Consultant/ Business Partner/Reseller
- University of Utah, Department of Civil and Environmental Engineering (CvEEN) Industrial Advisory Board Member

matt.hirst@crsengineers.com
Bret Reynolds
Professional Engineer
1256 West 400 South, Suite 1 • Vernal, Utah • 435-789-5448 • 435-790-5624
bretreynolds@civcoengineering.com

—Professional Experience—

Experience Summary
Mr. Reynolds’ career has focused on the quality control, design, construction oversight and project management of small to complex projects. He has been involved in all aspects of projects, including funding, management, planning, traffic analysis, geometric design, hydraulic design, structural design, traffic engineering, public involvement, inspection and testing, utility coordination, right-of-way, data collection, and agency coordination. Mr. Reynolds has dealt with state and federal government agencies, cities, and counties throughout the State of Utah, Colorado and other states.

Mr. Reynolds’ focus is to provide a quality project that meets the project schedule, budget and standards and is properly documented. His experience in working in various states and on complex projects brings valuable knowledge of the variety of solutions available. He is familiar with AASHTO and state highway design standards and keeps current with them by attending various seminars and classes throughout the year.

Recent Project Summary
Mr. Reynolds has recently been the lead designer, project manager, field engineer, or resident engineer on several projects that have included public involvement, utility coordination, roadway design, drainage design, right of way, culvert design, stormwater lines, irrigation lines, survey and mapping, construction inspection and management, and material testing. Below is a listing of recent relevant projects:

- **US-40 Gusher:** The project involved the widening of 6 miles of a major arterial through a developed area. Involved relocation of utilities and coordination with the Bureau of Indian Affairs and the Ute Tribe.

- **Seep Ridge Road in Uintah County:** The project involved the planning, ROW federal applications, ROW SITLA acquisition, ROW private property acquisition, Environmental Assessment, design and construction management of a new 45 mile long highway.

- **Eastern Utah Regional Connection (EURC):** The project involved the preparation of the Plan of Development (POD), ROW Federal Application, environmental studies and public coordination for a 40+ mile new roadway in Grand County.

- **Woods Road:** The project involved the design and construction management for 6 miles of roadway. The project also involved right of way acquisition, drainage design, environmental clearances, pavement design, box culvert design and safety features.
TEAM RESUMES

RANDY GRAUBERGER
Senior Principal Technical Specialist

Years of Experience
44 (14 with WSP; 30 with others)

Education
B.S., Mathematical Engineering, Colorado School of Mines, 1973
Additional Training: Rail Transportation Seminar, University of Tennessee at Knoxville

Key Qualifications
Randy Grauberger is a team-oriented transportation project manager with extensive project management and professional experience in the broad range of planning activities of WSP and previously at the Colorado Department of Transportation (CDOT). Mr. Grauberger achieves successful projects while working with stakeholders maintaining very different points of view. His expertise includes project management related to rail planning, transit planning, corridor, regional and statewide planning, pavement management, and traffic analysis.

Railroad Transportation

- Denver Rock Island Railroad (DRIR) Consolidation/Relocation Project: WSP Project Manager for an effort to relocate/consolidate DRIR rail lines through the National Western Center complex in NE Denver. Effort includes participating in negotiations between City of Denver and DRIR, interchanger negotiations between DRIR and BNSF Railway’s Short Line Development Group, and preparation of conceptual design of new DRIR rail lines and facilities. Randy also managed a subconsultant that conducted a valuation of DRIR’s rail lines and assets as a part of this Project. 1/2017 - Current

- Colorado State Freight and Passenger Rail Plan: WSP Project Manager for the development of PRIAA compliant State Rail Plan. Plan developed in accordance with Federal Railroad Administration (FRA) and state guidelines. Managed sub-consultants and led extensive public involvement effort by way of the Rail Plan Steering Committee and two rounds of stakeholder workshops and open houses held around the state. 1/11 to 3/12

- Railroad Relocation Implementation, Eastern Plains, Colorado: WSP Project Manager for this 2008 $1.75 million study for CDOT. The purpose of the study was to identify a 100+-mile railroad bypass of the Colorado Front Range onto the Eastern Plains of Colorado for north/south through rail freight movements of the BNSF Railway and Union Pacific Railroad. Key elements of the study were to determine steps necessary to carry out the formation of a public-private partnership, to define and finalize the rail infrastructure project scope and costs, to investigate available funding sources and determine a financing plan for the project and to conduct an environmental overview. 6/07 – 1/09

- Short Line Railroad Program Analysis, Kansas: WSP Project Manager for this 2005 study of the effectiveness of Kansas Department of Transportation’s (DOT) loan/grant program for short line railroad infrastructure improvements. This $255,000 study analyzed whether or not 1999 legislation creating a $3 million per year program should be extended-expanded or eliminated. Randy personally conducted 42 face-to-face interviews with Class I and short line railroads, shippers and local economic development agencies as part of this Study. Randy also managed an economic sub-consultant on this Study which led to the Kansas Legislature extending the KDOT Short Line Loan/Grant program. 5/2005 to 11/2005

Prior to joining WSP, Mr. Grauberger was responsible for rail programs at CDOT serving as a Branch Manager in CDOT’s Transportation Planning Division.
TEAM RESUMES

GREG L. BUXTON, P.E.
383 East Lagoon St.
Roosevelt, UT 84066
(435)725-5678 Office
(435) 823-2468 Mobile
gbengineer@gmail.com

REGISTRATION:
Nevada  Professional Engineer  16675
Utah   Professional Engineer  176961
Colorado Professional Engineer  34154
Colorado Land Survey Intern  Oct. 2001

EDUCATION:
BS Civil Engineering, 1989, Utah State University
Utah Technical College, 1985 Course Work in Drafting & Design
Associates of General Education, Dixie College, 1984, St. George, Utah

PROFESSIONAL AFFILIATIONS:
American Public Works Association (APWA) – Member

BRIEF STATEMENT OF EXPERIENCE:
Mr. Buxton’s experience includes preparation of a variety of civil engineering plan sets, for highway & rural roadway design, water & sewer systems conveyance & collection, and land development residential/commercial projects. Additional skills include water system modeling, contract document preparation, drainage studies, fluency with Land Development Desktop, materials testing, and construction/boundary surveying.  Mr. Buxton has over 30 years of experience in the civil engineering profession.

President – Civil Engineering Technologies, LLC.  Henderson NV/ Roosevelt UT  January 2011 – Present
  ○ Project Liaison/Owners Representative Ute Tribe Justice Center construction cost $37,000,000.  See below
  ○ Ute Tribe Justice Center – Provided all civil engineering and construction inspection for a 15 acre development
  ○ Ute Tribe Head Start Admin. Building topography survey, grading plan, utility plan, and construction staking
  ○ Ute Tribe V.A. Memorial Park grading plan, utility plan, topography survey
  ○ Ute Tribe Fiber Optic Project – A 5 mile fiber optic planning project looping throughout Fort Duchesne Utah
  ○ 5 Miles of Utility Corridor Mapping in support of a 5 mile fiber optic project for the Ute Indian Tribe
  ○ 20 Acre topography survey prepared in support of a 100,000+ sq.ft. Justice Center for the Ute Indian Tribe
  ○ Site Design and Utility Design & Quality Assurance Inspection Ute tribe Justice Center

Ute Indian Tribe – Justice Center
Fort Duchesne, Utah – Completed June 2016 – Construction Cost $37,000,000
Reference: Crystal Adams, Ute Tribe Justice Facility Planner (435)725-4027

Civil Engineering Technologies, LLC was contracted by the Ute Indian Tribe to provide all civil engineering and preliminary topography surveying aspects.  Additionally CET was contracted to be the owner’s representative to pursue the construction of a 15 acre, master planned, $37,000,000 correctional facility.  Master planning translated into construction of all utilities for a future justice court and four at risk shelters.  CET supported the tribe in the feasibility of various site locations, soliciting and selection of a qualified architect, geotechnical engineer, and the general contractor (CM/GC).  CET further provided the construction inspection of all civil engineering components and employed a quality assurance inspector for building code compliance.  CET also reviewed all testing results for verification of all material test requirements per the contract documents and specifications.  CET provided review of all contractor pay applications and change orders and enforced completion of all punch list items prior to release of retention funds to the CM/GC.
LETTERS OF RECOMMENDATION

CITY OF WEST MEMPHIS
ECONOMIC DEVELOPMENT
205 South Redding • P.O. Box 1728 • West Memphis, Arkansas • 72301-1728 • (870)732-7500

To whom it may concern:

I am writing to recommend the services of CRS Engineers. My relationship with CRS and Darren Eyre span a period from 2013 to 2018. In my positions of City Engineer and Economic Development Director for the City of West Memphis, I served as the Program Manager with oversight of a $10.9M federal TIGER IV grant funded by the USDOT through the Federal Railroad Administration (FRA). In 2012, the City performed a national search for a consulting firm to assist in the grant application process and CRS was selected. Their involvement was instrumental in the application and ultimately the award of the grant.

The City received funding and executed the grant in December, 2016. CRS was hired to perform project design and construction management services through the conclusion of the project in July of 2018. CRS was responsible for development of the overall project schedule. Every schedule milestone was met or exceeded, even those with some very tight timelines. All elements of costs, construction or otherwise, were closely monitored by CRS with all costs brought in within budget. CRS went above and beyond their contractual responsibility to fully maximize the grant funds to the benefit of the City. Most importantly, CRS maintained compliance with all USDOT and FRA grant requirements which were many.

CRS’ relationships with the railroads involved (UPRR & BNSF) were greatly beneficial in the grant application process by gaining their support and input into the development of project scope. During the design and construction phase, these relationships helped provide timely permitting and design approvals.

In my 40 year professional career, I have never worked with a company more focused on customer service and customer needs. The depth, quality and professionalism of their staff is truly outstanding. I would welcome the opportunity to work with CRS on another project and without hesitation, recommend CRS to you.

Sincerely,

Phillip Sorrell, P.E.
Director of Economic Development
City of West Memphis
870.732.7507
October 25, 2018

Seven County Infrastructure Coalition

RE: In Support of Interest on Behalf of the Ute Indian Tribe.

Darrin.

This letter of support on behalf of the Ute Indian Tribe to be included in any interests that the will beneficial to the economic system of the Tribe. We will be interested to take part in any discussion on how we will fit into this massive undertaking. We are confide that Mr. Greg Buxton will keep us engaged and informed of any meetings and other information that will need to be given to the Tribe for any approval or recommendations in the dissemination of information to the Tribe as a whole.

We are pleased you have chosen Mr. Buxton to be a part of your team and will continue to serve your firm as well as the Tribe’s liaison throughout this process.

Your consideration for the tribe’s interest is admirable.

Regards,

Crystal Adams
Grants Planner/Monitor
Ute Indian Tribe