

# Town of Frisco

## ENERGY PERFORMANCE CONTRACTING SERVICES

INVESTMENT GRADE AUDIT AND EPC PROJECT

FRISCO, COLORADO  
SEPTEMBER 29, 2023

Together, Building a Thriving Planet



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September 29, 2023

Adam Neustaedter  
Buildings Supervisor  
Town of Frisco  
AdamN@townoffrisco.com

## Re: Request for Proposals, Energy Performance Contracting Services Investment Grade Audit and EPC Project Proposal

Dear Mr. Neustaedter and Town of Frisco Evaluation Committee,

On behalf of McKinstry Essention, LLC (McKinstry), we are honored to have the opportunity to present our proposal for an Investment Grade Audit and Energy Performance Contracting (EPC) project for the Town of Frisco. McKinstry is a pre-qualified Energy Service Company (ESCO) through the State of Colorado's Energy Office. Based on McKinstry's experience working with several municipalities throughout Colorado, we know that Energy Performance Contracting can meet or exceed your facility goals set out in the Summit Community Climate Action Plan. By leveraging a holistic approach and by selecting the right partner to accompany you on this journey, you can exceed these goals and continue being a leader in the community. Below are a few reasons why McKinstry is the right choice for the Town of Frisco.

- 1. The largest EPC-focused ESCO team in Colorado - 100+ Energy Professionals in Golden, Colorado backed by nearly 1,800 Energy Experts nation-wide.** We design and manage all our Colorado projects with local staff and subcontractors, enhanced with specific design, energy, commissioning and construction expertise from our Golden, CO office. **Our Colorado office is locally owned and operated and has been 100% dedicated to keeping dollars and resources in the Colorado marketplace since 2007.** We assure you that our local team and resources and the team proposed within the organizational chart will have the bandwidth and knowledge to focus solely on your project over the proposed timeline and provide Frisco with several cost-efficiencies compared to other ESCOs that subcontract out scopes and/or must fly in resources. **Our dedicated internal teams in Colorado include renewable energy and storage team, mechanical design and engineering, fleet and building electrification team, in-house construction, and lighting team** led by our Colorado Project Director, Stephan Rank.
- 2. Collaborative and integrated implementation approach to optimizing energy, resiliency, cost and facility performance within local governments.** The first step in our auditing process is to **collaborate with the Frisco team to learn and understand all goals that your team would like to accomplish** through this project such as energy and water efficiency upgrades, potential renewable energy systems, and identify funding and financing potentials. GHG reductions, maintenance and comfort concerns, planning efforts surrounding your decarbonization efforts, deferred maintenance and capital improvements, resiliency, and community engagement are all part of the approach McKinstry will take. From there, our team will work collaboratively with you during the audit to best optimize the equipment and systems in your facilities through the implementation of efficiency upgrades such as building control optimization, HVAC upgrades, and any remaining LED lighting along with collaborating with your staff to optimize your building operations on-going after construction has been completed. McKinstry will then collaborate with Frisco and Xcel Energy on the right combination of any future renewable energy sources for your facilities (that don't already have solar deployed) and how to best maximize rebate, stimulus, and grant dollars.

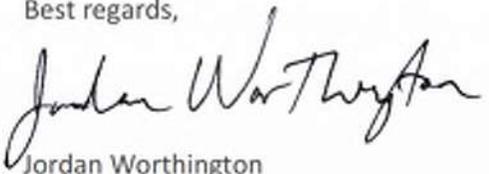


**3. Extensive Colorado and Local Government Experience.** McKinstry has provided more than \$160 million worth of energy services to the Colorado municipal market sector in the last five years and has partnered with 200+ cities, counties, and government agencies nationwide. Our team has partnered locally with **30+ Colorado local government entities similar to Frisco** including Town of Grandby, Town of Hayden, City of Craig, Town of Yampa, Town of Oak Creek, and City of Steamboat Springs. Additionally, we have successfully and safely conducted all this effort around work schedules with little-to-no interruption to operations, successfully navigated the supply chain issues, and monitored market conditions for our clients. We understand all Colorado Energy Office protocols, standards and procedures and have worked under their program more than any other ESCO over the last 10 years – which in turn will help to facilitate the overall project and streamline any timeline that your team would like to meet.

**4. Dedicated Funding and Grant Writing Resource.** The Town of Frisco will have a dedicated funding specialist on your energy project. In the last two years alone, McKinstry has been able to secure over \$6M in Colorado grants, rebates and stimulus funding to offset the initial project costs for multiple partners throughout the State – including two Department of Local Affairs grants - which McKinstry can help Frisco apply for and secure during this EPC project to offset up to \$1M of initial project costs. We track all free funding sources and present these updates during our normal weekly coordination meetings.

We encourage you to reach out to **Jeff Wong, Senior Sustainability Planner at the City of Lakewood**, at 303-987-7507 to hear first-hand about the City’s personal experience working with McKinstry and check out our [McKinstry website](#) to view our team values around Transforming the Built World. Please feel free to contact me at 303.656.6152 or email me at [jordanw@mckinstry.com](mailto:jordanw@mckinstry.com) should you have any questions. We very much appreciate your consideration of McKinstry for this project and look forward to participating in any future interview process.

Best regards,



Jordan Worthington  
Colorado Municipal Account Executive



Dan Gacnik  
Business Development Manager

“The McKinstry team has been great to work with. **Their knowledge and expertise in all areas of HVAC systems, lighting, and boilers** has resulted in putting together an attainable project that will benefit the city with updating essential equipment, **improve overall energy savings and help to meet our sustainability goals.**”

— Wally Piccone, Projects & Maintenance Manager  
City of Lakewood



# Contents

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“McKinstry is an **excellent partner...** their **willingness to be flexible** in creating a complex, but **highly impactful** project for the Denver community”

—Jonathan Rogers,  
Renewable Energy Specialist,  
City and County of Denver

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Please note that this response provides the basic economic terms on which McKinstry would be willing to perform the scope of services outlined here. This response does not cover all of the terms and conditions relevant to a definitive agreement about these services. Nothing in this response approves legal terms such as warranties, indemnification, insurance requirements, and limitations of liability, even if those terms were included in the request for proposal. The details of those terms must be negotiated by the parties and set forth in a definitive agreement with respect to McKinstry’s services.

Section

1

Management  
Approach



# 1. Management Approach

## 1.1 Project Management and Coordination

*Provide ESCO's organization chart (by name as available) for implementing and managing the proposed project, including the title of each individual shown and the lines of authority within the overall organization. Identify portions of the effort, if any, that are proposed to be subcontracted and provide the same information for subcontractor organization and personnel.*

### **TOWN OF FRISCO - DEDICATED, LOCAL COLORADO TEAM**

Our commitment to the Town of Frisco is to assign a **dedicated team of local - Golden, CO-based - qualified energy professionals** with the required skills, understanding of the Town of Frisco's needs to evaluate facilities for energy and water efficiency upgrades, potential renewable energy systems, identify funding and financing, and available time to develop and implement a successful investment grade audit and subsequent energy performance contract with on-going support. Our proposed key personnel bring a wealth of hands-on experience in implementing energy audits, energy performance contracting construction projects, renewable and resiliency projects, and consulting services throughout the Mountain Region area and, more specifically, with municipalities. This team has been carefully selected to create a cost-effective solution for the Town of Frisco. **Every primary EPC team member listed on this chart is focused on serving our Colorado EPC partners with recent and relevant experience.**

Should we need sub-contractors, our team will **focus on leveraging any construction and trade subcontractors in the local, Summit County area to give back to your local economy** before reaching out to the greater Colorado and national community. We believe in supporting the local communities we work in and giving back dollars to those specific communities. All subcontractors will be reviewed and approved in-conjunction with your team ensure that your team is comfortable with each potential firm selected.

*Please see our organization chart on the next page.*



# 1. Management Approach

## ORGANIZATION CHART



“McKinstry does a good job of hiring **good, strong people to deliver a great service.**”

— Stu Reeves, City of Fort Collins

# 1. Management Approach



## PROJECT APPROACH

Our approach to projects relies on the integration of **people, process, innovation, and technology.**

**People**—Our local project directors, construction managers, and energy and commissioning engineers bring experience within many types of energy conservation projects, including municipalities, like the Town of Frisco. Our people are the primary reason we succeed. Their client-centric focus will create a collaborative atmosphere with the Town, utility providers, and local subcontractors.

We assign a customized team of qualified and devoted professionals to every project, as detailed in the organizational chart above, with the required skills to develop and implement a successful project. All phases are led by a dedicated Project Director who plays a vital role in communicating with the Town. The Project Director, Stephan Rank, is the Town of Frisco's single point of contact throughout the entire project, including both the Development and Construction phases and quarterbacks the team ensuring overall success and the Town's satisfaction.



Our Project Director, **Stephan Rank**, is supported by:



Analysis and solutions development, auditing, and engineering led by a Project Development Manager, **Brian Gamet.**



On-time solutions implementation led by the Construction Manager, **Ace Martin.**



Assured savings and on-going performance assurance led by our On-Going Services Program Manager, **Leanne Matthews.**

This collaborative approach ensures the Town receives the appropriate expertise at every step without introducing multiple points of contact.

**Process**—We have developed standard processes for nearly every aspect of an EPC project, from audit planning and cost estimating to managing hazardous materials and applying for grants/incentives. We are also very flexible and attentive to our client's requirements and standards and find that some of our best practices are derived from our clients' input and direction. We actively engage with your team—especially your operations and maintenance staff—to understand and integrate their ideas and suggestions. They know the Town's buildings and the challenges they face daily and provide a reality-based approach to our retrofit ideas. In fact, one of our processes is a periodic client check-in. We have found that this helps guide our clients by developing an energy performance contract and building trust through dialogue.

**Innovation**—We encourage creativity and entertain out-of-the-box ideas to determine if they are sound. We encourage our engineers to think things through and dream of the best possible solutions, using the most efficient and appropriate technologies. Our team has the tools and skills to vet and quantify these innovative ideas properly. This allows McKinstry to push the envelope with confidence in a guaranteed cost and savings environment and provide the best solutions for our client's facilities. We encourage our designers to help our

# 1. Management Approach



clients experience new levels of pride in their facility stewardship through innovative, budget-beneficial design.

**Technology**—Technology is an accelerator, and it furthers our people’s ability to provide the best solutions. McKinstry’s energy engineers use a combination of commercially available calculation programs and custom calculation tools. Specifically, our team in the Rocky Mountain Region utilizes technologies such as EnergyPlus and fault detection and diagnostic software to integrate with all major BAS vendors to collect and analyze data for our clients. Using a wide variety of tools enables us to identify the best way to combine accuracy, simplicity, and time efficiency within an Energy Performance Contract. McKinstry’s energy engineers develop custom calculations for measures that do not fit commercial technologies’ standard calculations. Therefore, we have an extensive library of customized tools from past projects to reference as needed.

## 1.2 Appropriate Market Sector Experience/Expertise

*Provide information that emphasizes ESCO’s experience and expertise in our specific market sector.*

Since establishing our Colorado presence in 2007, McKinstry has implemented more than 50+ EPC projects and \$200M+ in work with municipal and public sector clients – which is more than any other ESCO over the same time frame in the Colorado market. Many have retained us for multiple project phases implemented over several years, a testament to the strength of our project implementation, results, and high-level customer care.

Our team completed several directly applicable projects relevant to the project that we will be completing at The Town of Frisco, and our team can apply this knowledge to you. These include:

- 2021 Energy Performance Contract with the City and County of Denver. This was a \$17M EPC contract with multiple funding sources, included similar facilities such as fire stations, 24/7 public safety centers and administration buildings, and had a mixed portfolio of solar and maintenance measures to drive strategic goals of the City.
- 2022 Phase 2 Energy Performance Contract with Foothills Park and Recreation District. Our project with the District focused initially on energy efficiency and renewable energy with a second phase focused on HVAC design, major mechanical equipment replacements and deferred maintenance.
- 2022 Solar and Storage Feasibility Study with the City of Lakewood evaluating PPAs, community solar, virtual net metering and owner direct solar. This study followed a completed Energy Performance Contracting project in 2019 that included energy efficiency retrofits, water efficiency projects, capital improvement measures, and deferred maintenance. There have been multiple phases of work with Lakewood and the city has similar sustainability and facility goals to Frisco.

Below is a map of our Colorado municipal experience and similar facilities that our team has recently worked in – many relevant to The Town of Frisco. We can provide contact information for any project listed below. Our team prides itself on our long-term relationships and client references.



# 1. Management Approach

## RELEVANT FACILITY EXPERIENCE TO THE TOWN OF FRISCO

McKinstry’s list of local government clients is extensive. Company- wide, **we have completed more than 500 projects for more than 85 municipal agencies including partnerships with over 30 local government agencies within Colorado alone.** The matrix details projects that the proposed team has worked on together while at McKinstry displaying our vast experience working together within facilities that are like those within the Town of Frisco.



McKinstry has built a strong partnership with our city and has developed relationships with our staff members. These efforts have facilitated effective collaboration and communication throughout the development, implementation, and commissioning efforts.”

— Joe Castro PE, Facilities and Fleet Manager, City of Boulder

	CITY AND COUNTY OF BROOMFIELD	CITY AND COUNTY OF DENVER	CITY OF GOLDEN	COMMERCE CITY	CITY OF BOULDER	CITY OF LAKEWOOD	MOFAT COUNTY/CITY OF CRAIG	JEFFERSON COUNTY	CITY OF LONG-MONT	CITY OF DURANGO	CITY OF CORTAZ	CITY OF ASPEN	FOOTHILLS PARK & RECREATION DISTRICT	SOUTH SUBURBAN PARK & RECREATION DISTRICT	EVERGREEN PARK & RECREATION DISTRICT
CITY HALL/ ADMIN.	X	X	X	X	X	X		X	X	X		X	X	X	X
PUBLIC WORKS FACILITY	X	X	X		X		X	X	X	X	X				
COMMUNITY/ RECREATION CENTER	X	X	X	X	X	X			X	X	X	X		X	X
FIRE STATION		X	X		X				X	X					
AQUATIC CENTER	X		X	X	X	X			X	X	X	X		X	X
EVENT CENTER	X	X			X				X	X		X			
WASTE-WATER/WATER PLANT	X				X		X		X	X	X	X			
POLICE/PUBLIC SAFETY	X	X			X	X	X		X	X	X				
ROAD & BRIDGE SHOP	X					X		X					X		
PARKS, OPEN SPACE, FAIRGROUNDS	X	X	X	X	X	X		X	X	X			X	X	X

# 1. Management Approach

## 1.2 Appropriate Market Sector Experience/Expertise

List in one table the Energy Performance Contracting projects developed and implemented by your firm in our specific market sector within the past five years. Only include projects where work was directly conducted by your company.

### COLORADO'S EPC PROJECTS IMPLEMENTED BY MCKINSTRY'S TEAM

This list only includes recent relevant regional EPC experience that has been implemented by McKinstry. A comprehensive list of all experience can be provided upon request.

PROJECT NAME	FACILITY TYPE/ PROJECT TYPE	CITY & STATE	PROJECT SIZE (\$)	SQUARE FEET	YEAR COMPLETED
Huerfano County	Government	Walsenburg, CO	Expected \$2-\$3M	157,313	Ongoing
City of Gunnison	Government	Gunnison, CO	\$4M	TBD	Ongoing
City and County of Broomfield	Government	Broomfield, CO	TBD	394,056	Ongoing
Adams 12 School District	K-12	Thornton, CO	\$2,097,692	400,949	2023
Aurora Public Schools	K-12	Aurora, CO	\$7.8M	415,632	Ongoing
Cotopaxi School District	K-12	Cotopaxi, CO	\$2.3M	50,161	In Construction
City of Boulder Phases 1 - 4	Government	Boulder, CO	\$16M	1,500,000	In Construction
Denver International Airport	Government	Denver, CO	\$82-\$84M	8,000,000	In Construction
City of Phoenix	Government	Phoenix, AZ	In Progress	1,600,000	In Construction
City of Ogden	Government	Ogden, UT	In Progress	1,000,000	Ongoing
City of Henderson	Government	Henderson, NV	\$5.1M	n/a (parks & trails)	Ongoing
City and County of Denver	Government	Denver, CO	\$42M	1,800,000	In Construction
Foothills Park and Recreation District Phase 2	Government	Littleton, CO	\$8M	358,400	In Construction
Moffat County	Government	Craig, CO	\$490,000	50,000	2022
Routt County – Phase 2	Government	Hayden, CO	\$1.3M	200,000	2022
Fremont RE-2 School District	Government	Florence, CO	\$3.2M	400,000	2022
City of Steamboat Springs – Phase 2	Government	Steamboat Springs, CO	\$989,000	100,000	2022
Town of Hayden	Government	Hayden, CO	\$1.1M	150,000	2022
Town of Yampa	Government	Yampa, CO	\$68,000	8,000	2022
Town of Oak Creek	Government	Oak Creek, CO	\$75,000	8,000	2022
Moffat County School District	Government	Craig, CO	\$560,000	150,000	2022
City of Craig	Government	Craig, CO	\$1.1M	100,000	2022
City of Durango	Government	Durango, CO	In Progress	298,200	2021
University of Colorado Boulder	Higher ED	Boulder, CO	\$2.4M	289,205	2020
Denver Public Schools Phase 1A	K-12	Denver, CO	\$31.4M	>4,000,000	2020
City of Clearfield	Government	Clearfield, UT	\$2M	153,000	2019
City of St. George	Government	St. George, UT	\$2M	477,724	2019
City of Lakewood	Government	Lakewood, CO	\$2.4M	254,631	2019
Jefferson County Phase 2	Government	Golden, CO	\$1.6M	533,100	2019
Montrose County School District	K-12	Montrose & Olathe, CO	\$4.1M	730,000	2019
Platte Canyon School District	K-12	Bailey, CO	\$1.2M	245,602	2019
Montezuma-Cortez District	K-12	Cortez, CO	\$1M	500,000	2018
Highlands Ranch Community Association	Government	Highlands Ranch, CO	\$2.6M	330,685	2018
City of Golden Phase 2 Solar	Government	Golden, CO	\$3.2M	N/A (solar-only)	2018
South Suburban Parks & Recreation	Government	Littleton, CO	\$5.7M	702,062	2017

# 1. Management Approach



*If your firm has EPC projects performed in our specific market sector by staff members of your team within the past five years, while they were an employee by another firm, clearly identify the firm with overall responsibility for that project, the individual's name, and their role in the project.*

**The majority of our team members have been with McKinstry for longer than five years.** For the few individuals who have not, we have provided their project history on their individual resumes and have marked all projects not completed at McKinstry with an asterisk (\*). All resumes are in Appendix A.

## **RELEVANT EPC PROJECT EXPERIENCE**

On the following pages, we highlight relevant and recent EPC experience in Colorado. We have included various project types to reflect the Town of Frisco's diverse needs in achieving its economic, political, and sustainability goals.



# 1. Management Approach

## City and County of Denver | INVESTMENT GRADE AUDIT, ENERGY PERFORMANCE CONTRACT & COMMUNITY SOLAR GARDEN

### LOCATION

Denver, CO

### PROJECT SIZE

22 Buildings  
3,200,000 SF  
15 MW Solar PV

### PROJECT COST

\$17,000,000 EPC  
\$25,000,000 Community Solar Garden

### PROJECT DATES

Audit: 11/2019 – 08/2022  
Construction: 07/2021 – Ongoing

### PARTNERSHIP HIGHLIGHTS

- \$16.3M total savings expected over the life of the project
- 8,500 metric tons of carbon emissions reduced yearly
- 2M SF of city space will soon feature upgraded HVAC, lighting and control systems
- 15MW of solar currently planned across 16 sites in Denver community with 30% dedicated to Low-income residents

### CONTACT

Johnathan Rogers  
Renewable Energy Specialist  
203.912.4664  
johnathan.rogers@denvergov.org



### PROJECT SUMMARY

The City and County of Denver has established a bold, aggressive and multifaceted program for working toward a sustainable, resilient and climate-safe future for the entire community. The city has built a productive long-term relationship with McKinstry. From partnering with Denver’s leadership to develop the city’s strategic energy roadmap to designing a visionary solar energy project that includes sharing with impacted residents and a workforce development component, these collaborations have cemented successful progress points along Denver’s journey to reduce greenhouse gas emissions by 100% by 2040.

**Investment Grade Audit** - The IGA included 22 facilities across 1.9M square feet within the City – all with higher energy use intensities (EUIs). The goal of the IGA was to improve energy efficiency, investigate renewable energy opportunities, leverage energy savings to upgrade City facilities, unburden future capital expense requirements amongst the teams within CCD, reduce maintenance challenges, and progress the City’s sustainability goals outlined in the 80x50 Climate Action Plan

**Energy Savings Performance Contract** - McKinstry is implementing the ESPC with a total project investment of \$17M with utility savings expected to produce over \$700,000 in cost savings and over 8,100 metric tons of carbon savings for the City each year. The project will include the following energy conservation measures: Solar PV arrays at 6 facilities, HVAC improvements, Building envelop upgrades, Behavior engagement program, LED lighting upgrades, An asset management program, Controls upgrades and optimization.

**Community Solar Garden (CSG)** - McKinstry is currently engaged with the City and County of Denver providing development, construction, and asset management services to their ambitious Renewable Denver Community Solar project. The current portfolio consists of 15 MW of CSGs distributed across 16 sites throughout Denver.

### Relevance to Town of Frisco:

Municipality that had facility, renewable energy and sustainability goals to accomplish during an EPC. Additionally, many of the audited facilities were fire stations, police, and other 24/7 high security buildings within Xcel territory.

# 1. Management Approach

## Jefferson County | ENERGY PERFORMANCE CONTRACT, PHASES 1-2

### LOCATION

Golden, CO

### PROJECT SIZE

15 Buildings  
1,400,000 SF

### PROJECT COST

\$7,000,000 (2 Phases)

### PROJECT DATES

2008 – 2020  
Facility Condition Assessment -  
Ongoing

### SERVICES PROVIDED

- Solar PV
- Solar thermal system
- HVAC improvements
- LED lighting upgrades
- Occupancy sensor controls
- Water conservation
- Wind turbines
- Community engagement
- Facility condition assessment

### CONTACT

Anne Panza  
Assistant Director Construction  
Services  
303.271.5026  
apanza@jeffco.us



### PROJECT SUMMARY

McKinstry completed an Energy Savings Performance Contract (ESPC) for Jefferson County in six facilities including the County Courthouse and the District Attorney Building. With over \$425,000 in measured and verified annual savings, the County moved forward to partner with McKinstry again for another ESPC contract.

McKinstry developed a project that focused on nine additional facilities throughout the county: Central Shops, Evergreen Shop, South Shops, Fairgrounds, Remington Building, Parfet Building, Wheat Ridge Head Start, Arvada Head Start, the South Service Center, and various other facilities.

McKinstry conducted a technical energy audit that identified the following opportunities:

- Lighting upgrades and occupancy sensor controls
- HVAC equipment improvements
- Installation of variable frequency drives on heating water pumps
- Water conservation measures including high efficiency toilets and urinals
- Addition of engine block heater controllers
- Solar thermal system to provide year-round hot water to restrooms, showers, kitchen and laundry facilities for Jefferson County Detention Center
- Five separate solar photovoltaic (PV) systems totaling 335kW at Laramie Building, Central Shops, Jefferson County Airport, Jefferson County Fairgrounds, and the Evergreen Shop
- Two small-scale wind turbines and small-scale solar PV system at Courts and Administration Building
- Public kiosks at Courts and Administration Building in order to educate residents and staff about renewable energy and the County's efforts

### Relevance to Town of Frisco:

Similar building profile to Town of Frisco and had facility maintenance and sustainability goals to achieve within an EPC model.

# 1. Management Approach

## City of Boulder | ENERGY PERFORMANCE CONTRACT, PHASES 1-4

### LOCATION

Boulder, CO

### PROJECT SIZE

66 Buildings  
1,500,000 SF  
1.5 MW Solar PV (12 sites)

### PROJECT COST

\$17,000,000 (4 Phases)

### PROJECT DATES

2009 – Ongoing

### SERVICES PROVIDED

- Solar PV
- Solar thermal pool
- HVAC improvements
- LED lighting upgrades
- Water conservation
- powerED
- EV charging



### PROJECT SUMMARY

In June 2009, the City of Boulder chose McKinstry as its energy performance contracting partner for energy savings upgrades to 66 city facilities, encompassing 1.5 million sq. ft. The City and McKinstry implemented three phases of EPC from 2010 to 2013, installing a combination of energy conservation measures, smart building solutions and renewable energy technologies to significantly reduce carbon emissions and costs. McKinstry was re-selected in 2016 to perform additional work for the next 5 years with the City. Phases 1 – 3 included:

- Large solar thermal installations for pool water heating (19,300 Therms/year)
- Solar photovoltaic installations at 12 buildings totaling 1.15MW
- Installation of energy efficient lighting and controls
- Retro-commissioning of several facilities to reduce consumption and improve comfort
- Process improvements at the City's Wastewater Treatment Plant
- Weatherization of building envelopes
- Mechanical replacements (chillers, boilers, air handlers, etc.) totaling \$1,830,000 in future capital avoidance
- Water conservation measures saving over 2.8 million gallons/year
- Systems integration of 22 building automation systems with Smart Buildings technology for real-time active energy management through remote monitoring
- powerED Energy Awareness and Behavior Modification Program
- Electric vehicle charging station installations at multiple locations using demand limiting controls

### Relevance to Town of Frisco:

Community with sustainability and carbon goals. Projects focused on fleet and EV, renewable energy, and involved similar facilities to Town of Frisco.

# 1. Management Approach

## City of Golden | ENERGY PERFORMANCE CONTRACT

### LOCATION

Golden, CO

### PROJECT SIZE

18 Buildings  
161,079 SF

### PROJECT COST

Audit: \$24,866 Lump Sum  
Phase 1: \$1,183,691 GMAX EPC  
Solar: \$3,213,735 GMAX EPC

### PROJECT DATES

Audit: 10/2007 – 03/2008  
Phase 1: 09/2008 – 04/2009  
Solar: 08/2013 – 03/2014  
Utility Dashboard and Renewable  
Energy Monitoring: 2018 - Ongoing

### SERVICES PROVIDED

- Solar PV
- HVAC improvements
- LED lighting upgrades

### CONTACT

Theresa Worsham  
Sustainability Coordinator  
303.384.8117  
TWorsham@cityofgolden.net



### PROJECT SUMMARY

In 2007, Golden’s City Council passed Resolution 1792, which included a goal of reducing energy consumption by 20% and producing 50% of the city’s total energy consumption by renewable energy by 2017. Through the Colorado Governor’s Energy Office’s energy performance contracting program and a competitive bid process, the city chose McKinstry as its sustainability partner.

McKinstry began with a technical energy audit of city facilities in October 2007 and developed a project utilizing an energy performance contract in 2009. The project included lighting retrofits and occupancy sensors in nearly every building, with a major redesign of the Community Center pool lighting to meet code compliance and reduce electricity consumption and a retrofit of outdoor lighting to meet Dark Sky compliance. The Community Center received new air handling systems, an updated energy management system, and a solar pool heating system with dehumidifier optimization for maximum savings. Work at other city buildings included controls upgrades and optimization, VFDs on pump motors, HVAC improvements, and a new boiler at the Public Works Building.

To continue progress towards meeting the City’s renewable energy goals, fixed-axis solar PV systems totaling 668.45 kW were installed at nine different sites in 2013 using the services of local solar installers. The systems are a mix of ground-mounted systems, roof-mounted systems, and carports and will supply approximately 10% of the City’s energy usage. The solar project generated over \$155,000 in annual savings with lifetime savings of nearly \$2,000,000.

### Relevance to Town of Frisco:

Community in Xcel territory with a similar building profile including fleet buildings, community center, recreation center, and maintenance shops. Goals of carbon reduction and increased renewable energy.

# 1. Management Approach

## City of Lakewood | ENERGY PERFORMANCE CONTRACT AND SOLAR FEASIBILITY STUDY

### LOCATION

Lakewood, CO

### PROJECT SIZE

4 Buildings EPC  
13 Buildings Solar  
254,631 SF

### PROJECT COST

\$2,500,000 EPC  
Annual Guaranteed Cost Savings:  
\$123,000  
\$72,450 Solar Feasibility Study

### PROJECT DATES

Audit: 01/2017 – 03/2018  
Construction: 03/2018 – Ongoing M&V  
Solar Study: 2022 - 2022

### SERVICES PROVIDED

- Solar PV arrays at 6 facilities
- HVAC improvements
- Building envelope upgrades
- Behavior engagement program
- LED lighting upgrades
- Asset management program
- Controls upgrades and optimization

### CONTACT

Jeff Wong, PE, LEED AP  
Senior Sustainability Planner  
303.987.7507  
[jefWon@lakewood.org](mailto:jefWon@lakewood.org)



### ENERGY PERFORMANCE CONTRACT

In January of 2017, the City of Lakewood engaged McKinstry to perform a technical energy audit through a selective bid process facilitated by the Colorado Energy Office (CEO). The technical energy audit consisted of four facilities within the City to help achieve its 2025 energy and sustainability goals.

The comprehensive audit of public buildings and two recreation centers recommended energy savings measures across a spectrum of categories to reduce energy costs and to upgrade aging infrastructure. Measures included a comprehensive LED lighting retrofit, an ERV replacement, a City-wide process-focused behavioral modification program, water conservation measures, and boiler replacements. The total project cost was about \$2.5 million with annual savings of about \$123,000. These measures not only addressed cost and utility savings but also improved comfort within the City's facilities.

### SOLAR FEASIBILITY STUDY

In March 2022, the City of Lakewood (Lakewood) competitively selected and contracted with McKinstry to perform a feasibility study for solar and resiliency across 9 different sites throughout the city including the following buildings: Carmody Recreation Center, Bear Creek Lake Park, Civic Center North, Civic Center South, Link Recreation Center, Urban Parks Shop, Urban Parks Office, Whitlock Recreation Center, and the Public Safety Center. The result of McKinstry's feasibility study focused on accomplishing the following:

- Attain 45% of municipal energy from renewable sources by 2025
- Reduce energy and utility costs at Lakewood facilities
- Improve energy reliability
- Identify opportunities to increase resiliency and back-up generation across sites
- Offset grid energy usage at each site
- Progress Lakewood's 2015 Sustainability Plan

### Relevance to Town of Frisco:

Community in Xcel territory with similar building profile. Goals of carbon reduction and increased renewable energy in similar geographic region.

# 1. Management Approach

## Foothills Park and Recreation District | ENERGY PERFORMANCE CONTRACT, PHASE 1-2

### LOCATION

Littleton, CO

### PROJECT SIZE

15 Buildings; 433,000 SF  
100 kW Solar PV

### PROJECT COST

\$11,000,000 (2 Phases)

### PROJECT DATES

Audit Ph. 1: 05/2009 – 11/2009  
Audit Ph. 2: 08/2019 – 08/2021  
Construction Ph. 1: 10/2020 – 09/2011  
Construction Ph. 2: 01/2022 - Ongoing  
Solar O&M: Ongoing

### SERVICES PROVIDED

- Solar PV
- HVAC improvements
- Building envelope upgrades
- LED lighting upgrades
- Ball field lighting retrofits
- Controls upgrades and optimization
- Water conservation measures
- Building automation systems integration
- Variable flow pool pumping controls
- Heat recovery system

### CONTACT

Terry Green  
Special Projects Coordinator  
303.409.2116 | [terryg@fhprd.org](mailto:terryg@fhprd.org)



### PROJECT SUMMARY

Foothills Park & Recreation District (FHPRD) experienced an 8%-15% annual increase in their utility costs. The district also lacked sufficient capital to fund much needed repairs and upgrades at their facilities. FHPRD turned to the Colorado Energy Office for assistance and chose McKinstry to perform a Technical Energy Audit and Energy Performance Contract for 2 separate phases of work.

**ESPC Phase 1** - FHPRD applied for a Jefferson County Open Space grant, receiving \$299,000 for ball field lighting retrofits. McKinstry and Foothills also worked together to apply and receive \$180,000 of Xcel Energy rebates for energy efficiency and \$40,000 in Denver Water rebates. The district also entered into a contract with Xcel Energy under their Solar Rewards Program through which they received a \$200,000 rebate for the installation of the solar PV system and will receive monthly payments for Renewable Energy Credits for the next 20 years.

The project facility improvement measures included the installation of 100kW solar PV array, waste heat recovery from the ice rink chiller plant to heat the nearby recreation center pools, new direct digital control systems, pool lighting redesign, air handling system re-commissioning and rebalancing, new windows, and mechanical retrofits to maximize heat recovery. The project saves FHPRD over \$305,000/year in utility and maintenance costs.

**ESPC Phase 2** - In August 2019, FHPRD contracted with McKinstry to perform a Phase 2 ESPC project with goals of reducing maintenance challenges, decreasing the frequency of emergency repairs/building shutdowns, improving building comfort, addressing end-of-life equipment and deferred maintenance, redirecting the District's utility costs and operational costs to fund project, lowering on-going utility costs, and improving all facilities across the District. The project will include facility improvement measures including LED lighting upgrades, control system upgrades, retro-commissioning, HVAC system upgrades, and end-of-life equipment replacements. The phase 2 facility improvements will result in \$163,363 in annual utility cost savings. Providing FHPRD the best long-term value.

### Relevance to Town of Frisco:

Local government entity in Xcel territory with a similar building profile. Heavy HVAC scope for Phase 2 focused on end of life equipment replacements to extend life of existing facilities.

# 1. Management Approach



## 1.3 Project Personnel and Staffing

*Identify each individual(s) who will have primary responsibility for the following tasks: technical analyses, engineering design, construction management, construction, training, post construction measurement and verification, and other services. Include a table to identify and describe the individual(s) who will have primary responsibility for each task. Also include any added expertise and capability of staff available through other branch offices, subcontracts, etc., that you can provide.*

We have hand-selected a team for The Town of Frisco with recent and relevant experience and diverse project capabilities. Our team below is well-versed in the unique challenges faced by cities such as Frisco: pressure from residents to enhance the community and provide opportunities for all generations and cultures to thrive, aging infrastructure, rising utility and operational costs, demand for a better work and community environment, goals of greater economic development, and heightened security and resiliency concerns. McKinstry is the leading implementer of energy performance contracts for cities in Colorado owning 50-60% of the municipal market share over the last decade. Our completed projects include over 30 municipalities in Colorado alone including City of Boulder (4 phases), City and County of Denver (community solar and EPC; energy partner since 2010), Jefferson County (2 Phases), City of Lakewood (solar and EPC), and City of Golden (2 phases). We know the unique environments municipalities including enterprise and general funded buildings, water and wastewater infrastructure, 24/7/365 buildings, fleet and transportation infrastructure, police and fire facilities, Town halls, and other unique features. We have had great success helping our partners save on utility, capital, operational, and maintenance budgets and maintaining good relationships wanting our partners to continue optimizing buildings with our teams through additional phases of work.

**This team selected below has robust experience working throughout unique municipal facilities within Colorado communities and will ensure that The Town of Frisco has the most successful project possible that drives economic development, climate goals, and capital upgrades.** We are ready to apply this recent experience and all lessons learned to create the optimal project for the Town of Frisco.

The following table and chart show our proposed key personnel for The Town of Frisco and their expected roles throughout the project. The table details explicitly each person's role, responsibilities, qualifications, and the estimated percentage of time they will be involved in the various tasks throughout the life of the Town's project.



# 1. Management Approach

Percentage of time on project will vary based on phase of project and measures that are being investigated/implemented.

NAME, TITLE	POTENTIAL ROLE ON THE TOWN OF FRISCO PROJECT	% OF TIME ON PROJECT	LEVEL OF EXPERTISE	BASE LOCATION
Jordan Worthington, EIT Account Executive/Grant Coordinator	Client relationship and account manager throughout project. Assists with financing strategy, client engagement, and contracts.	25-50%	8+ years of industry experience	Golden, CO
Stephan Rank, PE, CEM Project Director	Single point of contact throughout life of project: oversees team leads on development, construction, M&V and on-going services.	60-80%	27+ years of industry experience	Golden, CO
Brian Gamet, CEM Project Development Director	Oversees the development phase of EPC including initial needs analysis, energy auditing, energy calculations, engineering, project scoping, and financial analysis and all technical energy audit documentation.	10-20%	31+ years of industry experience	Golden, CO
John Runnels, PE Mechanical Design Engineer	Designs systems based on existing field conditions, overlaying code requirements as applicable with detailed drawings for implementation.	20-50%	10+ years of industry experience	Golden, CO
Adam Allington, PE, CEM Senior Energy Engineer	Performs technical analysis of utility data, auditing, and assists with field data gathering. Works closely with design team to develop scopes of work and guaranteed energy savings calculations.	90-100%	16+ years of industry experience	Golden, CO
Martin Beggs, PVIP Renewable Energy Expert	Leads renewable energy strategy, development, and implementation efforts for the City.	10-20%	15+ years of industry experience	Phoenix, AZ
Brad Liljequist, LFA, LEED-AP Fleet and Building Electrification Specialist	As zero carbon lead, Brad will provide high-level perspective and strategy into wholistic strategies for achieving zero carbon, chiefly regarding carbon metrics and certifications.	10-20%	28+ years of industry experience	Seattle, WA
Thomas Richardson, CLCP Lighting/Street Lighting Expert	Develops, manages, and executes staff engagement and lighting solution strategy, with the City.	10-20%	12+ years of industry experience	Reno, NV
Ace Martin, LEED AP Senior Construction Manager	Responsible for all construction management functions: hiring and managing subcontractors, project budget and critical path schedule.	20-50%	22+ years of industry experience	Golden, CO
Dave Edsall Site Superintendent	Responsible for construction, including onsite supervision and coordination of all trades and subcontractors' field activities.	10-90%	23+ years of industry experience	Golden, CO
Shayli Volk Senior Construction Engineer	Responsible for supporting the Request for Proposal and procurement processes as well as reviewing contracts, drawings, specifications, and other resources.	25-50%	10+ years of industry experience	Golden, CO
Leanne Matthews, CMVP, EIT On-Going Services Program Manager	Develops performance assurance and M&V programs for each measure with client. Produces the Post Installation Report (PIR) and annual M&V report.	10-20%	2+ years of industry experience	Golden, CO
Jaymes McMullin, CEM, CMVP, LEED GA Behavior Engagement Program Manager	Develops, manages and executes staff engagement and behavioral modification program with the City.	10-30%	15+ years of industry experience	Golden, CO
Maya Combs-Hurtado, CEM, CMVP Measurement and Verification Specialist	Supports Program Manager in performance assurance and M&V programs for each measure with client.	10-30%	4+ years of industry experience	Golden, CO
Tom Alvarez Sr. Safety Program Manager	Project safety and coordination throughout.	5-10%	12+ years of industry experience	Golden, CO

# 1. Management Approach

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## **RESUMES**

*Include resumes/historical information for each member of the proposal project team. Include a list of their relevant projects during the last five years including role, type of project, project cost, and any other information to support their skills/knowledge.*

Please see one-page resumes provided in Appendix A that reflect relevant project experience to the Town of Frisco. Full resumes for our project team are available upon request.

Section

# 2

## Project Approach

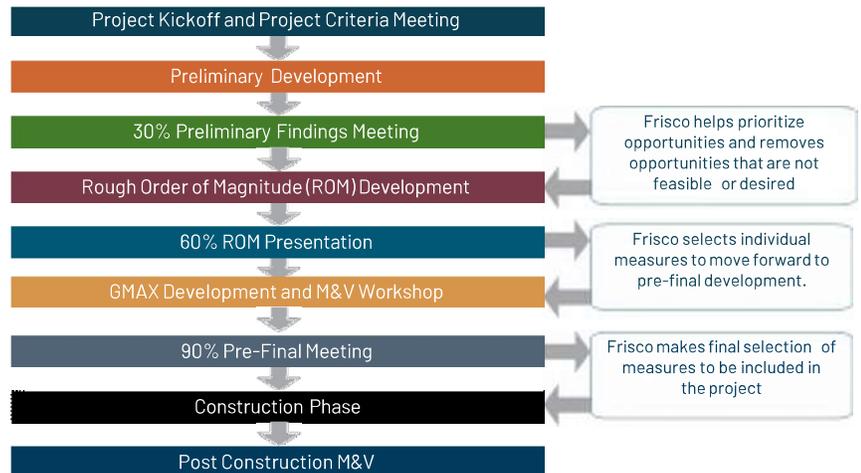


## 2. Project Approach



### PROJECT APPROACH

*The expectation is that there will be schematic and design development phases where client input and approvals will be required prior to construction document development. Additionally, the client will provide design build design intent specifications for the major mechanical, electrical, plumbing and technology improvements that may be looked at for energy savings. The requirements of these specifications will need to be incorporated into the design documents and final construction.*



McKinstry's approach to the investment grade audit and performance contracting can be summarized in three words: collaboration, flexibility, and transparency. We believe first and foremost that successful energy performance contracting relationships hinge on a high degree of collaboration and communication with our clients. We are not your vendor: the nature of energy performance contracting is that **we are your long-term energy efficiency and facilities improvement partner**. For us to provide value, we must understand your vision, your goals, your preferences, and your expectations. Throughout the investment grade audit phase, we work closely with you to gather all the necessary information and develop a holistic program that meets everyone's needs, assuage any concerns of decision-makers and implement the desired improvements. We listen to your preferences for equipment, subcontractor choices and will work diligently on your behalf to implement the projects most effectively and efficiently possible. We do not manufacture any products or equipment and we have no hidden agenda; our only desired outcome is to implement a program that makes our clients proud of their energy efficiency projects and how they affect their residents, staff, and the environment. Our clients typically define a partner with the following examples:

- **An ESCO familiar with municipal building types and systems – Town administration buildings, fire stations, recreation centers, community centers, 24/7 police facilities, etc.** For McKinstry, an IGA isn't an exercise in writing a report; it is an opportunity for us to leverage past experience on similar facilities, learn about your facilities and how you operate them, and apply that knowledge to create the best menu of options and project for the Town of Frisco.
- This project isn't just another cookie-cutter project where we do lighting retrofits, solar, and superficial controls upgrades. We will learn about your toughest and long-standing challenges across the Town

## 2. Project Approach



to analyze deep energy retrofit potential, renewable energy opportunities, and utility savings measures through our audit and discussions with you about your buildings' operations. Then, we will use our experience, cross-functional team to develop and implement innovative solutions to meet the needs of your facilities. We have audited complex, 24/7/365 facilities and have gained the experience and implemented necessary safety protocols that we can directly apply to the Town of Frisco's facility profile. We will use our team to leverage lessons learned, implement safety protocols, and utilize our power of bulk purchasing on the front range to provide the highest value and lowest cost project to the Town of Frisco.

- **As a partner to Town of Frisco, we understand the need for critical meetings with key decision-makers, including Council, staff, Xcel Energy, and the community, to guide this project and other essential facility operations decisions over the course of this project.** We genuinely want to build your trust in McKinstry and work as an extension of your staff by providing guidance for these critical stakeholder meetings. Additionally, we are the kind of partner that your operations team can call up when there is a question with the building systems, and – anytime – we can help to provide an answer. We are eager to assist your team whenever a question arises and seek to be a supportive partner to Frisco and provide you with flexibility and options throughout the life of the project.
- **Aligned with your values** – McKinstry is aligned through our vast experience working with similar communities in Colorado– such as City of Lakewood, City of Gunnison, City of Aspen, Town of Vail, City of Louisville, City and County of Broomfield, City and County of Denver, and Commerce City - and we are fully prepared to address the challenges that Colorado brings based on our current and recent experience. We are here to help promote economic development, sustainability, safety, provide training and engagement opportunities to your team and community, and help your team to address infrastructure and community challenges.

### 2.1 Design

*Discuss your firm's design approach.*

McKinstry's design-build approach has been developed for optimal flexibility and value, allowing for continuously updated life-cycle costs, construction budgets, and design decisions. We routinely perform design-build services as part of an integrated team approach, and we achieve success by engaging all team members from the very beginning of the project. We focus strongly on planning and idea-generating in early project phases. Once decisions are made in the design stage and details are finalized, changes become increasingly difficult to execute throughout the rest of the project. Our approach is to bring together an integrated team of experts early on and encourage them to contribute and build on one another's energy and visions. This approach can affect strong change, profoundly challenge a paradigm, and establish elegant and highly beneficial solutions that transcend basic requirements. *Prior to beginning any design related work, McKinstry will review any of Frisco's internal Design Standards and/or meet with your design team to ensure that our design process and any proposed energy conservation measures comply with the Standards. Any proposed deviations will be submitted to the Town for consideration early in the design process.*

This project will require a team that will work collaboratively with the Town's leadership, facility, and any architectural teams (internal or external) to assure we are all on the same page relative to the basis of design. As stated above, McKinstry's audit, energy engineering, and design teams will engage our construction team from the beginning of the design process to solicit valuable insight pertaining to cost, constructability, schedule, availability of any local/recycled materials, and implications for construction waste and key equipment availabilities (which has been a significant construction challenge related to supply chain issues resulting from the COVID pandemic).

## 2. Project Approach

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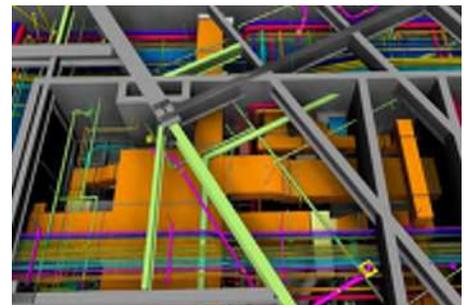
We will draw **our specialized design expertise** from across our 300+ energy, design, and engineering professionals at McKinstry to form sub-teams to identify and refine strategies. This includes:

- Electrical Capacity & Modeling
- Building Envelope & Thermal Imaging
- Electric and Gas Kitchens
- Window Selection and Retrofit
- Heating, Cooling, And Ventilation
- Plug Load/Occupancy
- Daylighting/Lighting/Lighting Controls
- Plumbing and domestic water infrastructure
- Renewable Energy & Storage – including PPA and geothermal analysis
- 

### **OUR PERSPECTIVE ON PERFORMANCE-BASED DESIGN-BUILD**

- Performance-based design-build describes a project that has clear project and facility performance benchmarks, including a way to quantify, measure, verify, and guarantee project performance.
- Projects must include comprehensive life-cycle performance or Total Cost of Ownership (TCO) analysis that substantiates the value of a specific equipment, design, system, etc. for lower total operational costs over time. TCO ensures the best life-cycle performance.
- Performance-based design-build mandates a vendor, equipment, design, and/or a fuel-neutral process. Final designs and equipment selection will be determined solely on their own merit and life-cycle performance.
- Decisions are made in an integrated design and delivery process with the design-build contractor, integrated design team, and owner examining the modeling analysis to determine the best design-build solution.
- Each component of the project—from engineering to construction to maintenance—is subject to rigorous commissioning to ensure that the design is constructed and installed properly and that it also operates as originally designed.

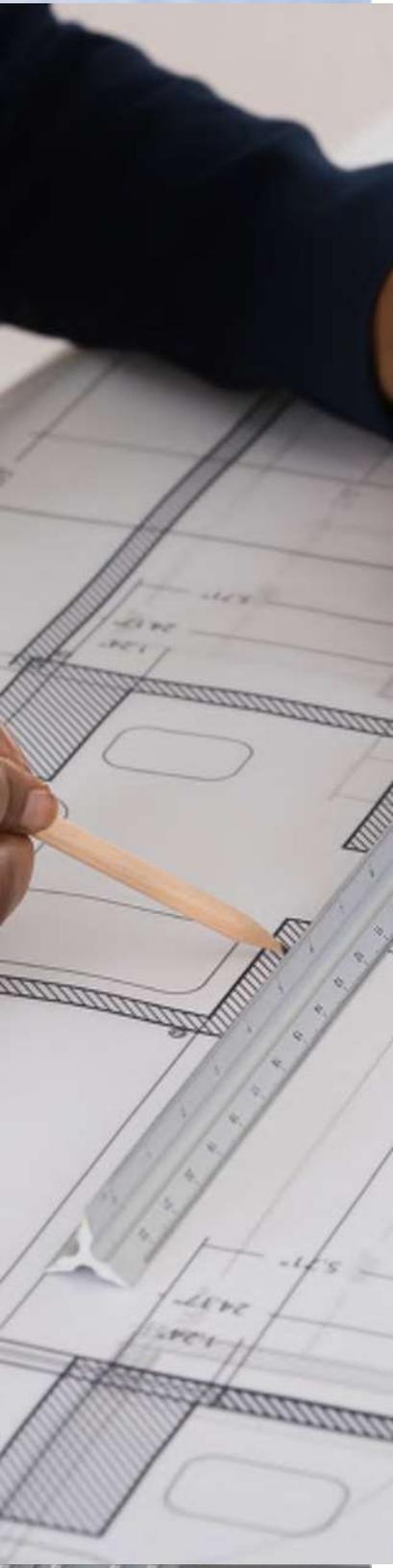
Our integrated delivery approach to design-build brings together architects, engineers, and trades professionals under one roof to provide clients with a single-source solution for any project. This holistic approach – and the expertise gained through its application – feeds into the design of each project, providing us with knowledge that we can leverage again and again in service of your best interests, all with respect and adherence to your core design intent.



*McKinstry personnel use Building Integrated Modeling to check for equipment conflicts before projects come under construction. This helps minimize costly field changes and keep the project on schedule.*

### **SCHEMATIC DESIGN PROCESS DURING OUR ENERGY PROJECTS**

## 2. Project Approach



McKinstry will schedule a design kickoff meeting to reiterate the vision, goals, and results of the Project Criteria Development Phase, and to present the design plan, key milestones, schedule, and project deliverables. The roles and responsibilities for each team member are reviewed and the framework for project communications is established. As the design team works to produce schematic design documents, the Construction Manager and McKinstry Budget Services Group begin to create budgetary project costs for a base design and each of the design options—keeping careful watch for potential constructability barriers. The information put together by the project team will be combined with the results of any building energy models performed by McKinstry’s energy engineers to build a **Total Cost of Ownership (TCO) model**. **This model will look at all long- and short-term facility costs and will assess the impact of each design option as it relates to the life-cycle cost of the specific design options.** McKinstry can even work with Town of Frisco to quantify dissimilar metrics such as GHG emissions and occupant productivity and incorporate these variables into the TCO model.

The Schematic Design (SD) documents and the TCO model will be presented to the Town at the conclusion of the SD Phase. This meeting will serve as a decision-making point, where design options are prioritized and evaluated based on the project vision and goals. Some design elements might be assigned to future phases depending on the project costs and budget.

Once the basic model is set up and assumptions validated, we evaluate and compare different project scenarios. This can be done for both high-level, global analyses and detailed subcomponent design. Finally, after design is complete, the TCO tool can be used as the basis for developing an operating plan that optimizes operational choices for the selected design. The operating plan also serves as a benchmark for future measurement and facility management.

### **DESIGN DEVELOPMENT PHASE**

The Design Development (DD) Phase further cultivates the ideas and decisions made in the SD phase and produces the appropriate design collateral for review and discussion. The project team functions in much the same way that it did in the SD phase, with an increased focus on accuracy and improved resolution. Further refinements are made to the project budget, cost estimates, energy model, and TCO model while our Program Manager continues to evaluate the project’s triple-bottom-line. The updated design documents and TCO model will be presented to Town of Frisco after the DD phase. Further decisions will be made about phasing and alternates, using an up-to-date customer budget and the project goals as a guide. The Investment Grade Audit (IGA) will have developed an initial plan and at this stage it is further refined and tested.

### **CONSTRUCTION DOCUMENTS/PRE-CONSTRUCTION PLANNING**

During the Construction Document (CD) phase, we further develop the design documents while simultaneously beginning pre-construction activities. Once the 50% CDs have been completed, McKinstry and the Town can evaluate and competitively select (if desired) the major subcontractors and material suppliers for the specific project scope and integrate them with the project team. Once they are in place, we will begin planning construction activities and develop a preliminary schedule and an onsite staging and sequencing plan.

Our Project Engineer will begin assisting the construction teams in developing project-specific strategies to enhance the sustainability of the construction process, acting as a resource for ideas on green deconstruction, minimizing waste, and local sourcing of new or recycled materials.

We will conduct the final pre-construction update of the TCO model and project budget, and the project team will solidify any phasing plans. The design team will use this information to finish the construction documents and issue permit documents to the local authority.

Material procurement is always one of our highest priorities. We build material procurement logs and expediting logs to assure that all steps in the process are completed in a timely manner that

## 2. Project Approach



fully supports the project schedule. This includes identification of long lead-time equipment and specialty subcontractors that may need to be released sooner than normal to maintain the schedule, save costs and increase coordination.

### COLORADO DESIGN & Professional Engineering RESOURCES

McKinstry has significant engineering knowledge related to designing utility and energy conservation measures to meet short and long-term goals. We employ a highly skilled engineering staff and have a unique position in the ESCO industry as a 62-year-old full service design, build, operate, and maintain company that has substantially increased our engineering knowledge capital. Our engineers have access to trades people and construction professionals, a blend of strong engineering with real world construction, which allows for constructability consideration in the design phase and overall project seamlessness. Our in-house, design engineering professionals include:



Clay Herrin, PE  
Engineering Manager



Zin Min Aye  
Mechanical Designer II



Jason Maulin, PE  
Design Engineer



Josh Bolton  
Designer/Engineer



John Runnels, PE  
Mechanical Engineer



Phillip Alexander  
Mechanical Designer III



Paul Highley, PE  
Electrical Eng. Manager

**Independent Field Inspections** | Our Engineering team maintains a successful working relationship with our construction team by being a strong part of the quality control effort. Our engineering group reviews and stamps all submittals and shop drawings prior to them being forwarded to the construction team for review. Through significant cross collaboration, our engineering and development teams have an intimate knowledge of the construction effort through collaborative conversations with the McKinstry Construction Manager assigned to the project and will also perform independent field inspections alongside the construction teams.

**Quality Control** | McKinstry has spent 62 years earning a reputation of taking pride in not only the final construction product, but also the design and pre-construction services offered early in the project. Our engineering group has been an intimate player working aggressively on every design/build project to assure high quality installations with good value to the owner. Our engineering staff reports through their Director to the company president. With guaranteed savings on the line, our team performs most due diligence prior to construction to minimize risk and maximize system and equipment performance.

### DESIGN COLLABORATION

McKinstry is in the unique position as the only full service, design/build mechanical and electrical contractors that also performs EPC work in Colorado. This gives the team a single point responsibility for the entire mechanical and electrical systems versus having to go through an un-known third party contractor or one that is unfamiliar with state statute and policies. By performing all trades with in-house personnel, it gives us a full understanding of all issues, needs and requirements. Our pre-construction process routinely implements formal constructability risk and technical reviews

## 2. Project Approach

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during the design phase. This is a review process where our field teams review with the designers the details of the design at specific milestones in the schedule.

This input has proven to be invaluable to our projects because we can catch potential conflicts on paper before they become a problem in the field. We draw from extensive years of experience our personnel have, including value engineering ideas that help to improve the overall project design, save on first cost but not limit the owner in the function of the facility.

## 2. Project Approach



### MCKINSTRY'S DESIGN CAPABILITIES:

- Engineering
- Energy retrofits
- Energy and environmental planning
- Innovative value engineering solutions
- Financial modeling
- Drawing permitting and stamping
- Operational modeling
- Commissioning
- Building Information Modeling (BIM), CAD, CAD 3D, super plot drafting and detailing
- Renewable energy (biomass, solar, geothermal)
- Total Cost of Ownership (TCO) analysis
- Mechanical, Electrical, Telecommunications, Fire Protection, Architectural Metals design
- Design process guidance
- Critical decisions guidance
- Code compliance
- Integrated delivery
- System selection
- Sustainable planning and design
- LEED® certification
- Geothermal Design & modeling

### SUBCONSULTING

McKinstry can self-perform all the work we provide. However, when there is a financial advantage or expectations to meet other project goals, we will reach out to preferred subconsultants. Having performed design/build work in the Colorado region for nearly 15 years, we have many relationships with local consulting firms and contractors that we can leverage for this project. This presents an opportunity to enhance the local Town of Frisco participation, drive local economic value, and adhere to the 80% local participation statute.

### EXAMPLE OF THE TOWN OF FRISCO PROJECT MEASURES FOR DESIGN/ENGINEERING

MEASURE DESCRIPTION	UTILITY SAVINGS	CONSTRUCTION COST	TYPICAL SIMPLE PAYBACK (YEARS)
LED Lighting Upgrades (interior, exterior, and Street lighting)	\$\$\$	\$\$	5 - 20
Domestic Water Conservation	\$	\$	<10
Solar Photovoltaic - analysis of existing PPAs and future systems	\$\$\$	\$\$	11 - 25
HVAC Replacements	\$	\$\$\$	10 - 50
Building Envelope	\$	\$\$	15 - 50
Windows	\$	\$\$\$	Capital
Roof repairs	\$	\$\$\$	Capital
Controls and RCx	\$\$\$	\$	5 - 10
Engagement Program (sustainability, community)	\$	\$	<5
\$ = Low energy savings or cost \$\$ = Medium savings or cost \$\$\$ = High savings or cost			

## 2. Project Approach

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**Ogden City is now realizing over \$450,000 in annual savings from our project and will continue our journey to a sustainable community of which this EPC project with McKinstry is an important part.**

*—Justin Anderson, PE, Office of City Engineer, Ogden City,  
Department of Public Services*

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## 2. Project Approach

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### POTENTIAL TOWN OF FRISCO MEASURES FOR OUR DESIGN AND ENGINEERING PROCESS

#### **LED LIGHTING UPGRADES - INTERIOR AND EXTERIOR**

Town of Frisco has gradually converted their facilities to LED technology. Continuing the conversion to LED would potentially reduce lighting energy usage by up to 40% and standardize your need for different spare lighting materials. The long life associated with LEDs will reduce ongoing maintenance costs and the burden on maintenance staff.

An effective lighting retrofit program will begin with a detailed audit that collects over 28 attributes per space to determine the right upgrade solution for the remaining fixtures.

McKinstry's internal lighting system experts will evaluate all of the interior and exterior light fixtures to determine the most cost-effective LED retrofit/replacement solution.

During traditional lighting retrofits, designers select a replacement lamp that will exceed the illumination needs of every space so that they can minimize their design efforts.

Our in-house lighting designers will evaluate the best lighting for the Town's needs. This will include detailed analysis of offices, meeting rooms, hallways, pool lighting, maintenance areas, and exterior lighting common areas across the Town's facilities along with adding lighting to the Service Center parking areas around the facility. Our goal is to optimize the performance of the lighting system to improve comfort and maximize energy and operational savings.

McKinstry utilizes a "optimal solution" approach, whereby we perform sample installations (or mockups) of proposed lighting products in select areas so that the amount of light can be adjusted based on the needs of individual spaces and Town of Frisco preferences. Through this process we will adjust the number of lamps in our retrofit solution and/or design a system that can be dimmed during commissioning to achieve the desired light levels and maximize savings. In addition, McKinstry will consider the opportunity to determine if color tunable systems might be an effective option. This is also known as "tunable white LED", "Human Centric Lighting" and "Circadian Support Lighting." This technology involves a single light source that can be adjusted manually or on a schedule to mimic the sun's daily schedule.

McKinstry will also investigate lighting controls including the potential for occupancy sensors, scheduling, dimming, daylight harvesting and implement a optimal lighting control strategy by facility.

In summary, an effective lighting design will not only save energy but also create an improved working environment for your staff.

#### **DOMESTIC WATER CONSERVATION**

McKinstry is well-versed in water conservation strategies and will tailor a solution to fit the Town's goals and needs. Within the Town of Frisco, possible interior water conservation measures include toilet and urinal replacement or retro-commissioning, flush valve tuning, low-flow faucet aerators, and low-flow shower heads. For all public shower retrofits, we will work with the Town to conduct pilots of any potential showerhead flow reductions to ensure all patrons are happy with any flow adjustments.

McKinstry will also evaluate exterior opportunities such as irrigation systems for additional water savings opportunities such as evapotranspiration-based smart controller, fixing irrigation system leaks and investigating weather based water strategies.

## 2. Project Approach



### SOLAR PHOTOVOLTAIC – OWNER DIRECT AND COMMUNITY SOLAR

An installation of a solar photovoltaic system can be an excellent way to produce electricity and to provide Town of Frisco with a highly visible representation of the Town’s conservation efforts. McKinstry will analyze each facility’s potential based on existing utility rates, renewable energy credits, outside funding sources, the potential for rate changes, and site conditions to make smart recommendations on the most cost-effective locations for solar PV installations.

We have vast experience installing over 12 megawatts of Solar PV right here in Colorado within energy performance contracts and currently have a project being developed that has 4.5 megawatts of capacity across multiple sites that has an 11-year return on investment for the owner directly purchasing the systems rather than them entering into a power purchase agreement (PPA). We will investigate the best application of solar for Town of Frisco including roof-mounted applications, ground-mounted systems, and solar-covered parking.

	On-Site Solar	Community Solar
Use the energy you produce locally	✓	
Include other energy/capital improvements	✓	
Visible commitment to renewable energy	✓	
Retain ownership of Renewable Energy Credits (RECs)	✓	
Reduce grid reliance	✓	
Demand savings potential	✓	
No host maintenance or equipment risk		✓
No need to provide physical space		✓
Predictability in energy rates		✓

### OWNER DIRECT SOLAR

On-Site Solar, also known as behind-the-meter solar, is constructed on the building or property where the building is located. The solar system connects to the building’s electric service, reducing the facility’s energy consumption, and reducing utility costs. This reduced energy usage and utility cost savings can pay for the solar system and even generate additional savings each month. On-site solar is deployed through rooftop, ground mount, and solar canopy installations.



### PPA EVALUATION OF YOUR EXISTING SYSTEMS

Understanding the financial performance of existing Power Purchase Agreements (PPAs) and evaluating PPA buyout options is not a straightforward undertaking. McKinstry’s approach is centered on understanding the financial value created by a PV system. Key value drivers typically include utility bill savings, incentive payments, and physical PV system performance. Value estimation includes bottom-up techno-economic modeling of bill savings based on facility load characteristics, PV system production, utility rate structures, and incentive policy. We next review the PPAs to understand key contractual elements, including remaining effective term, pricing and escalation rates, buyout terms

## 2. Project Approach



and conditions, how values flow to the parties post-buyout, etc. Finally, we synthesize and translate this information – incorporating the Town’s input along the way – into clear decision criteria regarding potential PPA buyouts. While owning PV systems can generate better net savings and return on investment, it also requires assumption of owner’s risks. Our analysis will equip Frisco with the technical and financial knowledge needed to make an informed decision that best suits the Town’s needs.

### **HVAC EQUIPMENT REPLACEMENT**

The Town has several facilities that are older and the HVAC systems contained within may be nearing their life expectancy and/or are already experiencing problems and are in need of repairs. McKinstry’s energy engineers closely coordinate with McKinstry’s design engineers and the Town to make sure that the replacement systems are the right system for the application based on facility operation, energy use, the owner’s maintenance capabilities and that of nearby service providers, first cost and total cost of ownership.

### **BUILDING ENVELOPE ASSESSMENT, REPAIR AND IMPROVEMENTS**

Improving building envelope performance can have a large effect on a building’s total energy consumption needs. We will examine each building with the ESPC project scope for the Town, looking for improvements such as: improved insulation, highly insulated windows, advanced thin insulation, lower cost dynamic shading and glazings, reflective roof materials and air-sealing.

The most critical and essential function of the building envelope system is the building diagnostics and assessment performed by our engineers. They will complete a detailed and thorough visual inspection and use an infra-Red Thermal Imaging camera to identify both heating and cooling concerns in the structure. This will assess the building envelope to identify air leakage, poor thermal performance and energy losses.

Specifically, Windows and roof replacement was identified as an area to evaluate during the audit. Windows will be investigated to compare replacement to resealing. Roofs will be visually inspected and in combination with any historical information available to review will provide the baseline to determine estimate remaining life, needed repairs or replacement.

This will guide the assessment and evaluation of potential measures including but not limited to:

- Building weatherization and sealing
- HVAC airside weather-stripping
- Thermal load reducing roof systems
- Double or triple pane window replacement

### **CONTROLS REPAIR, REPLACEMENT AND OPTIMIZATION**

Control systems allow for precise control of building systems and can empower building owners with the ability to maintain occupant comfort while minimizing energy consumption. Building automation and control systems come in many varieties, types, and ages. McKinstry will assess the condition and capabilities of the control systems in your buildings and will make recommendations on replacement, expansion, or modification based on the specific needs of



## 2. Project Approach



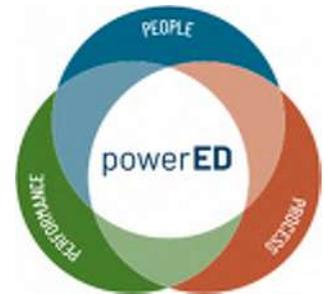
each building. We have staff that are adept in the many different control systems, automation training, and trim and respond optimization strategies.

**Retro-commissioning (RCX)** - Retro-commissioning is a good measure for older buildings that already have control system. Typically these older control system are still working but are not working in the most optimized way. This is results in wasted energy, impacting occupant comfort and requiring manual adjustment by the Maintenance Staff. McKinstry would identify and make recommendation to replace/upgrade the faulty components, restore the functionality of the system and use the energy savings achieved by optimizing the control of the system (retro-commissioning) to offset the cost of the controls work.

### ENGAGEMENT PROGRAM – BLENDING SUSTAINABILITY, EQUITY AND COMMUNITY

McKinstry offers a community and staff engagement program called powerED to address the behavioral and operational elements of energy and sustainability. The program is made up of three modules: People, Process, and Performance.

As part of our audit process, we will consider the value of, and co-develop, an engagement and sustainability action plan that aligns with the Town’s goals and current efforts in this area through our powerED program. PowerED is a behavior-focused energy awareness and operational efficiency program designed to continuously reduce costs and increase efficiency. Our program promotes active participation from employees, other local agencies, and constituents of the Town through careful tracking of resources, the creation of a targeted campaign based upon the Town’s goals, and competitions with rewards and prizes to encourage participation. Successful plans involve up-front and ongoing training, prescribed reinforcement through visual and auditory cues, and rewarding new and desirable attitudes/ behaviors at an administrative, staff, and individual level. When correctly implemented, these programs result in a higher degree of energy and cost savings within a performance contract and can ultimately have a significant impact in reducing overall energy consumption long into the future. The City of Boulder, South Suburban Park and Recreation District and City of Lakewood have all seen success through this program in Colorado and you can [view more online here on the McKinstry powerED site.](#)



## 2.2 Product Selection

*Discuss your firm’s product specification procedures.*

**McKinstry does not represent any products or manufacturers and is completely vendor neutral.** As a design-build professional services and construction company, we endeavor to use products and materials that our customers request or prefer, or are simply the most competitive in value and price. For this project, McKinstry will rely on a combination of Town of Frisco’s preferences and our engineer’s expertise in determining needs such as capacity, redundancy, physical size of equipment (fitting into available space), weight (especially when placed on roofs), vendor product support, efficiency, available utilities on site (natural gas, propane, electricity, etc.), system conditions (water supply temperature, etc.) and other factors depending on your situation. We will own the full process and review the option matrix with your team in order to select the equipment and products most desired by the Town.

## 2.3 Construction

*Discuss your firm’s construction approach, including:*

- *Work plan development and coordination of identified client work requirements*
- *Communication with users and facilities personnel throughout process*
- *Methods of procedures submittals and approvals*
- *Support for client calendar and events*
- *Safety practices and procedures*

## **CONSTRUCTION WORK PLAN DEVELOPMENT AND COORDINATION**

McKinstry has developed construction management tools over the course of many years based on our own experiences as well as feedback from clients and teammates. Among our key tools are:

- **Microsoft Project, Procore or similar scheduling software** – McKinstry construction managers use industry-standard tools such as Microsoft Project and Procore to formulate schedules. We update and report the schedule status to you each week. This keeps you informed about where construction will be occurring so that McKinstry and the Town of Frisco can plan work, keep stakeholders informed and schedule shutdowns in a way that minimizes disruption.
- **Construction work plan** – This plan details all major construction tasks and includes information about required completion dates for each task, task status, responsible party, potential risks, and proactive measures taken to mitigate and minimize possible risks.
- **Aggressive goal setting** – At the start of construction, we meet with all foremen to set aggressive but obtainable labor goals; then, throughout the project, we track field performance against the goals.
- **Scope Coordination Matrix** – This matrix lists all involved parties and assigns the numerous scope issues between them. The team decides the right allocation of responsibilities and includes all detail necessary to avoid gaps or duplicative work.
- **Budget Control Log** – We track all cost issues in this log and report the budget status to you and the team each week. This helps ensure that budget and scope issues are identified and addressed early, based on informed decisions.
- **Calendar and Work Schedule Coordination** – Our construction team is well-versed in scheduling and performing work based around building occupancy and the Town's calendar. To minimize disruptions, we will collaborate with the Town throughout the audit process to determine a work schedule that best fits the needs and events of each building. This approach allows us to minimize any potential disruptions to business as usual within the buildings and minimize impact to the building occupants.

## 2. Project Approach

### CONSTRUCTION STRATEGIES AND MANAGEMENT METHODS

For this project, we know that it will be important to avoid disrupting the operations of the people occupying the spaces to be retrofitted based on our experience working in critical care facilities. For this reason, we have put together some project approach strategies, which are responsible to the budget and schedule. To add value and serve the best interest of the project, we offer the following key items:

TOPIC	KEY POINT(S)	NARRATIVE
SITE SUPERVISION	On-site designated representative	McKinstry supervision will be present during significant site work, or we will designate a subcontractor representative who will be responsible for addressing issues or concerns that may arise during installation.
SHIFT WORK	Configure shifts that perform outside of normal business hours when necessary	To minimize disruptions, we recommend that our teams perform the work on a predefined shift that is an alternative to the normal construction shift. Our day shift for our crews and staff is typically from 7:30am until 4:30pm. Our night shift for our crews and staff is typically from 6:00pm until 2:00am, thus avoiding disruptions to the building occupants. A detailed building-by-building work schedule will be reviewed and agreed upon prior to contract.
MOBILIZATION & ON-SITE PLAN	Custom plan to ensure client goals and requirements are met	We will write a custom plan for your project prior to mobilization, aligning with the Town's rules and strategies. Once on-site, we will work from this plan and ensure all project goals and requirements for on-site work are met.
SHUT-DOWN COORDINATION	Early notifications	Should a building shut-down be required, we are well-versed in properly coordinating all shut-down work inside a building including early notifications to all building occupants and utility company coordination. Often these shut-downs need to be performed after hours. An alternate shift schedule will accommodate this after-hours schedule in order to fit the needs of the occupants.
SITE SAFETY PROCEDURES	Custom site safety plan	For every project, we create a custom site safety plan to assure safe working conditions for our crews and all occupants. Our team will adhere and ensure that all parties involved are adhering to the local and state guidelines and these plans are approved by the Town.
JUST-IN-TIME DELIVERY	Coordinate tight schedules with suppliers	Through our purchasing department, we work to coordinate tight schedules with our equipment manufacturers and material suppliers for equipment and materials to arrive on-site just in time for installation, so minimal on-site staging is required.

### HAZARDOUS WASTE DISPOSAL OR RECYCLING

McKinstry takes responsibility to properly dispose of non-asbestos containing hazardous waste generated during our construction project. A typical example of this is proper disposal of fluorescent lamps and ballasts that are replaced with an LED retrofit. If McKinstry encounters asbestos containing materials, we will work with Town of Frisco to have that material removed properly before beginning construction.

### CONSTRUCTION ADMINISTRATION, SUBMITTALS, AND APPROVALS

McKinstry reviews all submittals throughout the entire EPC process in full detail keeping the overall facility operations and facility function in mind. McKinstry's Construction Manager on Town of Frisco project team will ensure that all items are submitted in conformance with appropriate contract documents, or have been addressed by previous submittal review comments. The McKinstry construction team will review all submittals received from our subcontractors for completeness, create a submittal cover sheet, and forward to the development team and our Mechanical Design Engineer for review. Our project development team continues to be a strong part of the quality control effort throughout this phase of construction. Because the submittal review process is the last chance to ensure that the correct equipment, materials, and control strategies are provided and implemented, the McKinstry team uses a review strategy that encompasses building systems integration as a whole in the submittal review. Our engineering group reviews and stamps all submittals and/or shop drawings prior to them being forwarded onto the Town for review. Once the Town's review is completed and the comments are returned to McKinstry, the Construction Manager will forward the document(s) to the subcontractor and ensure all comments are addressed. If needed, a revised submittal is then drafted and received.

## 2. Project Approach

### COMMUNICATION & OUTREACH THROUGHOUT THE PROCESS – ADHERING TO LOCAL HEALTH & SAFETY PROTOCOLS

McKinstry’s team will work closely with Town of Frisco to adhere to all of the proper state and local protocols throughout the project and communication process as policies continue to evolve. We are well-versed in all online platforms for communication and have actively and safely been auditing critical facilities throughout the pandemic. We will work alongside all necessary Town of Frisco stakeholders to identify targeted messaging groups, desired outcomes, and the optimal strategies to achieve the required level of communication for constituent groups regarding our energy project – on the platforms most desired by the Town. Some examples follow of the various communication strategies that McKinstry can implement or support and has previously deployed on our projects include public relations activities,

lunch and learns, community workshops, media/press releases, marketing flyers, brochures, or posters, on-site information kiosks, groundbreaking, ribbon-cutting, and/or open house celebrations for media, public, and officials, and legislator outreach. Our behavioral program, powerED, utilizes several of these tools as well should the Town choose to pursue that program and we can transition most of these to online platforms, if preferred and safer for everyone.



### SAFETY PRACTICES AND PROCEDURES

McKinstry focuses on jobsite and company safety and has enjoyed excellent safety ratings for over 15 years in Colorado. As a people-first company, we will never compromise safety for the sake of efficiency.

McKinstry has a full-time safety engineer in our Golden office supported by a corporate safety team dedicated to preventing loss and maintaining a safe and healthy work environment. Our safety policies are tested and evaluated by each of our departments, and we expect full implementation of our safety program by all employees at all levels.

Our corporate and local safety teams ensure that all field projects have McKinstry safety manuals, material safety data sheets, federal and state standards, documentation support (accident/injury/near miss report forms, etc.) and training to properly fill out the necessary documentation.

Prior to job start-up, a site-specific Safety Training Program will be prepared and mandatory training provided to all jobsite supervision. The project Safety team will provide training for all project personnel in the numerous aspects of construction safety, including specific guidelines in areas of personal protective equipment (PPE), fall protection, lock-out/tag-out procedures, hazardous communications, waste disposal, assured grounding, and other identified risk areas. We will conduct frequent, ongoing toolbox safety training to maintain the highest safety standards.

For every project, we develop a site-specific safety plan that factors in specific project risk areas and focuses on preventative safety measures to assure safe working conditions for our crews and all occupants. This very-detailed safety plan will be presented to building management staff prior to the start of work. Safety credentials of subcontractors and their assigned employees will be required and kept on file with us. Everyone on site will be qualified to safely perform required tasks—verified by documentation evidencing appropriate safety training.



“The safety represented by the EPC Team has been outstanding.”  
— Brett Collins, South Suburban Parks and Recreation County

## 2. Project Approach



*McKinstry's rigorous safety requirements have translated to a safety record that's among the best in the country.*

**Construction Manager Safety Responsibilities** - Our Construction Manager, **Ace Martin**, has the ultimate responsibility for safety on this project. Responsibility and leadership in establishing and maintaining a safe working environment starts at the top.

**Site Superintendent Safety Responsibilities** - Our Site Superintendent has the front-line responsibility for safety in the field. The Site superintendent will hold weekly toolbox safety meetings where topics range from safety planning for up-coming tasks to site observations or lessons learned. Foremen are charged with making sure field employees know how to work safely, have the proper tools and equipment to do so, and that they follow the safety regulations set forth by McKinstry's Corporate Safety team.

**Safety Engineer Responsibilities** - Our Safety Engineer, **Tom Alvarez**, is responsible for safety leadership, safe work planning, safety training, construction safety and health, behavior-based safety, incident/injury-free environment, project safety audits, job hazard analysis, and overall safety coordination. She will work closely with advisory groups to ensure safe work planning is being used on-site to reduce the risk of incident and injury. This practice of planning safety into each task will ensure that the Town of Frisco customized safety program is proactive, identifying potential risks before they have the chance to occur—reinforcing the safety culture and preventing incidents on your project.

### 2.4 Closeout

*Discuss your firm's approach to the following critical closeout activities: Systems Commissioning, Owner Training for, Post-implementation Report, which is a reconciliation of the EPC savings guarantee with any modifications during project implementation, and Provision of Record Documents – i.e. As-Builts/Operation & Maintenance manuals.*

#### COMMISSIONING

At McKinstry, commissioning (Cx) is an essential part of our integrated project delivery, with expertise derived from extensive experience, a sizable certified in-house team, and dedicated testing, adjusting, and balancing (TAB) staff with experience in a wide variety of environments and systems. McKinstry's commissioning engineers review and help optimize every aspect of design and integrated delivery. They are involved early in the project, identifying what will be commissioned and how the commissioning phase will be carried out.

We employ an integrated Cx review process in the design phase of our work that ensures proper design; similar to the way construction Cx is a quality assurance process that ensures proper construction. Our years of Cx experience have taught us that operational issues uncovered and corrected during overall Cx are about 50% design and 50% construction.

Additionally, McKinstry uses advanced technologies to improve collaboration throughout commissioning and achieve substantial time savings in addressing these issues throughout the design/build process. BIM 360 Field is one such technology, selected by our Cx professionals for multiple reasons:

- **Mobility**—BIM 360 Field allows our commissioning team to complete test documents in the field, via an iPad application, and create the commissioning report while the Cx work is being completed. This also allows us to readily update documents and changes due to varying field conditions.
- **Issue Management**—As issues are identified in the field they are logged and assigned to the appropriate party in real time. This significantly speeds up the resolution process since issues do not have to be transferred to a master issue log (typically in Excel) and distributed to the team when the Cx engineer returns to the office. Project partners such as contractors, subs,



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and the owner are able to access the issue log via a web browser at any time to either update information or check project status.

- **Communication**—All information is hosted on a cloud server that can be accessed by anyone who is given a username/password. This improves transparency and communication throughout the commissioning process and provides a more efficient method of tracking Cx status.
- **Revit and As-Built Collaboration**—If the project is designed in Revit, BIM 360 Field can be connected to the Revit model via the cloud. This ties all commissioning documents, issues, and changes back to the Revit model, so the client ends up with a true As-Built model with all the specific installed equipment information.
- **Data Output**—The data captured throughout the commissioning process (equipment, make, model, serial number, location, etc.) can easily be exported from BIM 360 Field to most systems.

As the phases of construction near completion, McKinstry’s commissioning engineers will begin testing mechanical, electrical, and control systems for proper functionality. They will work closely with our construction manager to enable timely testing. This is of critical importance in occupied critical spaces as un-commissioned systems are not acceptable. The goal of the commissioning process is to deliver a final product with 100% confidence in the performance of the building and its ability to meet the customer’s goals and the performance that McKinstry has provided.

### OWNER TRAINING

Facilities staff have a direct impact on annual-savings achievements, maintenance of occupant comfort, and extension of equipment life; thus, staff training is a critical component of all McKinstry projects, large or small. We will **host an on-site training session and record this to post on Frisco’s sharepoint site** (or multiple sessions, if needed) for all pertaining elements of the Town of Frisco projects. The McKinstry Site Superintendent will facilitate the training, an engineer will review the entire system, and the appropriate vendor will address equipment specifics.

McKinstry will first develop a training agenda and schedule, working with the Town to incorporate any specific topics you wish to address. Typically, trainees include building operators, maintenance personnel, utility staff, sustainability specialists, and others identified by the Town. We can provide initial on-site training by equipment vendors and, in some cases, by a factory-certified instructor. These sessions can be recorded for future review or for training new employees. As part of the training program, McKinstry provides instruction on planning and strategies for building maintenance – crucial for long-term savings, occupant comfort, and sustainability.



TRAINING	PROPOSED QUANTITY	DURATION	TOPICS
Traditional EPC Measures	Multiple	1-6 hours	<ul style="list-style-type: none"> <li>• Proper maintenance and operation, warranty procedures</li> </ul>
Solar PV	As-needed	1hr	<ul style="list-style-type: none"> <li>• Maintenance of solar</li> <li>• Cleaning of panels</li> <li>• Warranty – labor and parts</li> </ul>

### MCKINSTRY WARRANTIES/GUARANTEES

We commission projects to ensure all equipment and systems installed will meet or exceed performance standards. We guarantee installation and labor for at least one year on the entire

## 2. Project Approach

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project against defects. For individual equipment, we carry the standard manufacturer’s warranties, yet based on our relationship with local vendors, we will extend warranties at no or low cost and transition these over to your team after the full project one year warranty is completed. Your warranty time period starts at date of substantial project completion or occupancy. If equipment is used for temporary service, its warranty date typically will start when it is put into service. If Town of Frisco desires, we can upload warranty information and expiration dates into any CMMS so that if a work order is generated for an asset under warranty, the maintenance staff will know and be able to have the problem resolved at low or no cost. Similarly, we can create work orders for preventative maintenance that will ensure that warranties will be honored and we can also extend the full project 1-year warranty if the Town desires.

McKinstry offers more options due to our network of buying power – being a general contractor in Colorado - and our relationships with local equipment providers. We are able to reduce the initial cost of equipment, in addition to being able to arrange for extensions to the warranty period of the equipment. This combination of strong buying power and extended warranties gives us a value-added advantage we will pass on to you.

### **POST-INSTALLATION REPORT**

The results of the Measurement and Verification activities conducted immediately following project installation are documented in a Post-Installation Report. Although this report is not mandated by the State of Colorado’s master EPC contract, its use is strongly recommended and something that our team performs for every EPC project. The Post-Installation Report is completed within 90 days of construction close-out and documents the results of M&V activities conducted after project implementation. Additionally, this report will document any potential changes in the contracted project scope and the expected energy savings based on the actual installed conditions, confirming or updating estimated values regarding the performance of the new equipment. The Post-Installation Report provides an important piece of project documentation as it accounts for any project changes that may otherwise be unclear in retrospect. This will ease any concern that Town of Frisco may have at this point regarding savings.

### **PROVISION OF RECORD DOCUMENTS**

We develop detailed as-built drawings for the project and combine these into a comprehensive set of record drawings that depict the actual work completed.

We will listen to what is of value to the building owner and operator and meet their needs with what and how we turn over documents.

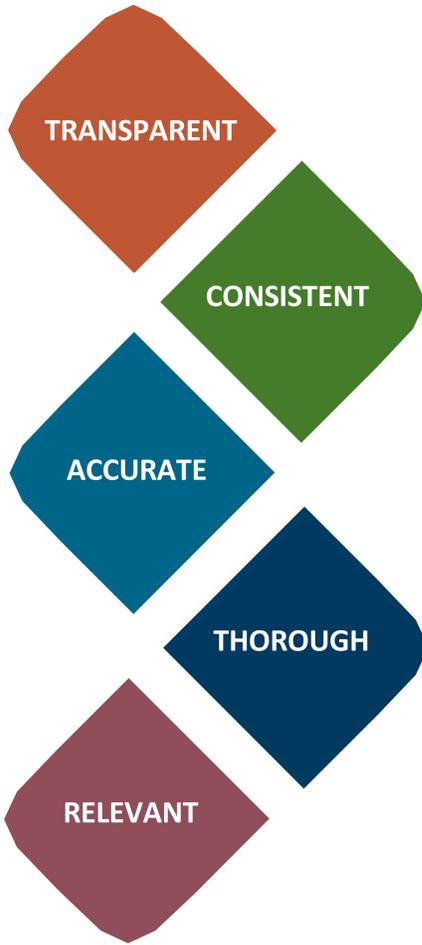
## 2.5 Measurement and Verification (M&V) for EPC Measures

*Discuss your firm’s approach to measurement and verification. Describe how your team works with clients to identify and report on energy savings and/or potential energy savings shortfalls.*

M&V is a very important part of the EPC process, and our team wants to ensure that Town of Frisco has a full understanding of how its energy savings will be proven, measured, and verified on an annual basis. We will host two separate M&V workshops for Town of Frisco – one 101 session and a more detailed selection session- which is designed to explain how the EPC project performance will be measured and verified by using the protocols outlined in the International Performance Measurement and Verification Protocol (IPMVP).

# 2. Project Approach

## FUNDAMENTALS OF M&V



During this second meeting, we develop the preliminary M&V plan for the measures being developed and begin discussions on what key performance indicators (KPIs) will need to be measured to verify performance. If select KPIs require additional equipment to be installed during construction, we will work with our subcontractors to get accurate prices to include such equipment in our guaranteed maximum price. We discuss the cost to measure and verify versus the risks taken by McKinstry or the customer. We recommend that our customers have their third-party representative from the Colorado Energy Office attend this meeting to help make decisions on how M&V is done for each scope item.

This is your project and M&V requires collaborating with Town stakeholders to ensure that we select a plan that meets the Town’s expectations and needs for the during of the M&V period. We want facilities and finance involved in the initial conversations to ensure that everyone is on the same page.

### WHY MEASURE AND VERIFY?

With ever-increasing utility rates, shrinking operating budgets, and increasingly complex operating systems, owners are faced with numerous challenges in delivering high performance operations in a demanding market.

Increasing compliance requirements from governments and awareness of economic, environmental, health and social costs of greenhouse gas emissions are additional compelling incentives on both public and private sector owners to increase the rigor and transparency of energy performance of their facilities.

Determination of energy savings is a challenge, and requires both accurate measurement and repeatable methodology, known as measurement and verification (M&V) protocol. M&V methods are used to measure and verify, in a defined, disciplined, rigorous, and transparent way, the energy savings resulting from implementation of Energy Conservation Measures (ECMs), of a specific facility or group of specific facilities.

### BEST PRACTICES FOR M&V

M&V for energy projects assists in accurately determining the success of energy efficiency efforts by:

- Increasing the reliability and level of savings
- Reducing transaction costs by providing agreed upon M&V methodologies for the national industry
- Lowering the financing costs and risks by providing standardization of M&V for specific projects

### STEPS FOR M&V



## 2. Project Approach

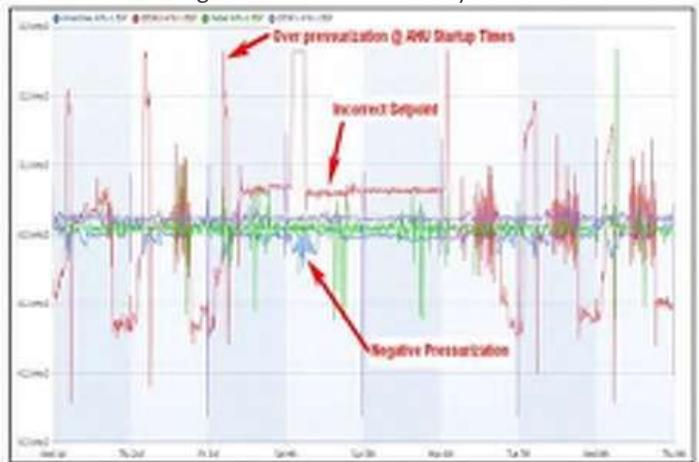


### INDUSTRY PROTOCOLS

The Efficiency Valuation Organization (EVO) is a non-profit organization dedicated to creating M&V tools to promote building efficiency. EVO publishes the International Performance Measurement & Verification Protocol (IPMVP) Volume 1, “Concepts and Options for Determining Energy and Water Savings”, which provides the guidelines and protocols for M&V. In addition, federal projects follow a similar protocol under the Federal Energy Management Plan (FEMP) guidelines. These guidelines provide four options for M&V including Option A: Retrofit Isolation with Key Parameters; Option B: Retrofit Isolation with All Parameters; Option C: Whole-Building Data Analysis; and Option D: Whole-Building Calibrated Simulation.

### ABOVE AND BEYOND M&V: REAL TIME MONITORING OF SAVINGS

We will propose that the Town leverages McKinstry’s real-time monitoring of energy systems can identify problems that might otherwise have gone unnoticed. These systems also have the opportunity for greater efficiency even when systems are being operated as intended. Monitoring allows for relatively easy reductions in energy use, and it allows those reductions to be more consistent and persistent. Commissioning can identify if a boiler was installed according to the manufacturer’s recommendations, but it cannot determine whether



that boiler is running longer than originally intended or how a simple adjustment of the temperature may impact the efficiency of the entire building. McKinstry will combine remote data analytics and human-based on-site engineering analysis. Real time monitoring engages the building operators to identify previously unrecognized inefficiencies in energy system operations, facilitates the application of diagnostic protocols, documents energy savings from operational improvements, and ensures persistence of savings through ongoing commissioning (Cx). This will be of value to Town of Frisco and help all teams ensure persistent savings for years post-construction.

Other benefits include:

- Continuous Cx of systems throughout the building Cx process
- Quick detection of outliers and underperforming equipment
- Scales across building automation systems
- Persistence of Energy Savings and Performance Testing
- Additional resources and engagement to facilitate energy savings throughout Town from real-time data

## 2. Project Approach

### 2.6 Other

*Discuss your firm's experience in other, supporting areas, such as: staff engagement; behavior modification, anticipated Schedule and Milestones*

#### **OUR STAFF AND COMMUNITY ENGAGEMENT AND BEHAVIOR MODIFICATION PROGRAM**

As part of our energy performance contract, we have the ability to co-develop a behavioral engagement platform with Town of Frisco through our powerED program. Given the long-term goals of the State of Colorado and the residents in Frisco for energy and renewable energy, this may be of interest to the Town of Frisco and its Council as it will help to provide training opportunities, education around installed measures, and communication/PR for staff and the community – all bringing positive media to the Town.

PowerED is a behavior-focused energy awareness and operational efficiency program designed to reduce costs, increase efficiency, and promote environmentally conscious operations within facilities across the Town to facilitate further GHG emissions reductions and cost savings after the EPC has been constructed driving additional



cost and energy savings for years to come. Our program promotes active participation from Town employees and residents with careful tracking of resources, a targeted campaign, and competitions with rewards and prizes to encourage participation. Additionally, powerED contains an interactive, online dashboard that can be accessed and displayed across multiple Town facilities as a highly effective communication tool to emphasize the staff's role in achieving measurable results and improving transparency. We also have a phone application that the community can log into to follow along on sustainability progress!

McKinstry has seen success through powerED with other Colorado EPC clients such as the City of Boulder, City and County of Denver, City of Lakewood, Colorado School of Mines ([video here!](#)), and South Suburban Parks and Recreation – all of whom would be more than happy to speak with you about our current engagement projects with their team. We believe that by adopting a strategic cultural and an operational approach throughout the Town, Town of Frisco can increase efficiency and achieve substantial, quantifiable financial results through the powerED program. We do guarantee savings through this program and have quantified these – through a rigorous M&V process – for many of our clients across the nation **exceeding over \$23M in utility savings since 2010 through this program alone.**



Section

# 3

## Cost and Pricing



# 3. Cost and Pricing

## 3.1 IGA Pricing

*The CEO has standard pricing for IGAs, based on the location and square footage of the public sector commercial building to be audited. (See following table.)*

McKinstry acknowledges and accepts the CEO standard IGA pricing shown in the table below and will use this pricing structure in our project with the Town of Frisco. The cost of the IGA will be fully funded from savings and rolled into the final EPC project cost.

STANDARD IGA PRICING TABLE				
Tiered Pricing (\$/sq ft)		Total Facility Square Footage		
		Under 250K	250 – 500K	500K +
DISTANCE FROM CEO 1580 LOGAN, DENVER	UNDER 75 MILES	\$ 0.250	\$ 0.225	\$ 0.200
	75 – 150 MILES	\$ 0.275	\$ 0.250	\$ 0.225
	OVER 150 MILES	\$ 0.300	\$ 0.275	\$ 0.250

## 3.2 Project Pricing

*Please use Attachment B Cost and Pricing Tool to identify the percentages proposed for this specific Project that are equal to or less than the maximum rates stated in your Base Contract with CEO, based on the size, scope and location of the specific Project.*

### LOWER OVERHEAD & DEDICATED PROJECT FUNDING RESOURCE

Our approach to delivering energy services is different than the other ESCOs within our industry. Some of our competitors will have you believe that the final project cost is relatively the same for all ESCOs. This simply is not true. **McKinstry is a privately held firm with no public shareholder costs and ALL of our key team members are located here in Colorado and all decisions are made at a local level from our Colorado office.** The result is that McKinstry’s overhead and profit expectations are up to **10% lower than most national ESCO firms.** This allows McKinstry to be one of the most cost-effective energy services firms in the region, which means more dollars available to fund your project. We also provide full and true open-book disclosure, allowing our clients to see and receive all levels of project costs.

Additionally, the Town of Frisco will have a dedicated resource to assist with project funding including: building cash flows, application for grants and stimulus funding (as needed), coordination and breakdown of funding between enterprise and general funds and presentation of funding options. All will be done under Dodd Frank legislation.

### FINANCIAL STABILITY & BONDING CAPACITY

We are **locally-operated, financially strong,** and can fully bond any project desired by the team. We work diligently to maintain an extensive bonding capacity. Over our **62-year history,** McKinstry has been profitable every year except one, which speaks to our ability to guarantee project costs and savings over the long term. McKinstry can provide a performance bond for our phase of the work, if required. The premium would be based on contract amount. **Our total bonding capacity as a company is \$350,000,000 with a per-project total of \$100,000,000.** We are here to stay. We have been a successful company for the last 62 years and will truly be here for the life of your building.

## 3. Cost and Pricing

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### **CEO COST AND PRICING WORKSHEET**

As requested, McKinstry has included the completed CEO Cost Estimate Tool in Excel spreadsheet below. Based on our previous experience working with clients such as Town of Frisco and your strategy for integration of EPC, we feel it is important to understand how the project costs might be applied to a very large, straightforward project greater than \$5 million or a small, complex project of \$1 million. Therefore, we have included percentages that can apply towards the smaller cost range of projects with the ability to come under these percentages depending on size and complexity of a potential future project. Additionally, if it is decided that lower priority buildings be removed from the scope we can readjust pricing to reflect those decisions upon award.

	Project Costing Categories	IGA Contract Maximum % of Total Project Cost	Actual Final IGA Calculated % of Total Project Cost	Actual Final IGA Cost	Sub-Totals	Totals
1	Investment Grade Audit (IGA)					
2	Total Facility Area	71,177		\$71,177.00		
3	\$ / Sq Ft	\$ 0.25		\$0.25		
4	Investment Grade Audit Total Cost			\$	17,794	
5						
6	Implementation Costs					
7	Pre-Construction Costs*					
8	Design and Other Engineering	8.00%	0.00%			
9	Pre-Construction Services	5.00%	0.00%			
10	Other Pre-Construction Costs	4.00%	0.00%			
11	Pre-Construction Cost Subtotal		0.00%	\$	-	
12	Construction Costs*					
13	Trade Subcontracts		0.00%			
14	Design/Build Subcontracts		0.00%			
15	Direct Purchase Equipment		0.00%			
16	Construction Management	8.00%	0.00%			
17	Project Engineering	4.00%	0.00%			
18	General Conditions	4.00%	0.00%			
19	Construction Completion	8.00%	0.00%			
20	Other Construction Costs	10.00%	0.00%			
21	Construction Cost Subtotal		0.00%	\$	-	
22	Implementation Costs Subtotal*					\$ -
23						
24	Profit*	10.00%				\$ -
25						
26	Estimated Project Amount*					\$ -
27						
28	Contingency*	7.00%				\$ -
29						
30	Total Funded Amount*					\$ 17,794

# 3. Cost and Pricing

## 3.3 Annual Costing

*Provide estimated anticipated costs for Warranty, Measurement and Verification, and other pertinent categories below and how they are determined and applied to a project. Costs for the Project shall not exceed the maximums established in the table below.*

McKinstry is providing further explanation for each annual cost category as described below.

CATEGORY OF ANNUAL COST	TOTAL ANNUAL COST	HOW PRICE IS DETERMINED	YEARS APPLIED (ONE TIME, ANNUAL, ETC.)
<b>Warranty</b>	Determined based on finalized scope of measures installed.	Actual cost percentage and/or price is highly dependent upon the measures installed as part of the final project.	One year on the entire project will be automatically included with the option to extend beyond that period, if desired. All manufacturer's equipment warranties will be transferred to the Town after the parts and labor project warranty has terminated.
<b>Measurement and Verification</b>	5-10% of annual project savings. Dependent on final scope and M&V strategy selected.	Actual cost percentage and/or price is a collaborative process with the Town and is determined based on the final measures installed, recommendations from our team and the Colorado energy office, and highest value approach for the Town.	The first three (3) years are required under the Colorado Energy Office program and State legislation with the option to extend at the request of the Town.
<b>Other</b>	Costs will be determined if other annual services are needed or desired.	Actual cost percentage and/or price is highly dependent upon the final measures installed as part of the project and other services selected by Town.	The Town will have the option to determine years of service and scope of any post-construction services such as behavior engagement, on-going retro commissioning, etc.

## Federal Funding Requirements and Compliance

If portions of this project are funded through federal funds, McKinstry acknowledges all of the provisions and requirements outlined in the RFP that need to be met in accordance with this type of funding. Our team is well-versed in the integration of federal funds into our construction projects. We have integrated requirements such as David Bacon wages, prevailing wages, and Buy America requirements into several of our Colorado projects and will leverage this experience in the Frisco project if your team elects to use federal funding for project

implementation. We will also help the Town to track and monitor any additional state, local or federal grant, stimulus and loan funding sources to help with buying down the initial cost of the project. Ashley Brasovan – your decided funding resource – has helped to secure over \$120M in EPC project funding throughout Colorado over the last 18 months.

Section

# 4

## Best Value



# 4. Best Value



## 4.0 Best Value

*Briefly describe how the company's approach to performance contracting delivers best value for the investment. The responding company shall also describe any utility rebates or other financial incentives or grants it can potentially provide and/or facilitate.*

### **MCKINSTRY IS THE RIGHT FIT FOR THE TOWN OF FRISCO BECAUSE...**

#### **We are SMALL enough to provide:**

1. Flat Organizational Structure—More Cost Effective
2. Long-term, Highly Customized Services – Solar & Storage evaluation, dedicated & local funding resource, PPA analysis experts in-house, Community outreach/PR/media personalized for Frisco
3. Vendor Neutrality
4. Local, Colorado Based Team of 100+ Energy Professionals fully committed to Frisco
5. Single Point of Accountability

#### **We are also LARGE enough to provide:**

6. Substantial and Successful Facility Experience
7. True General Contractor Management & Substantial Savings in Construction
8. National Purchasing Power with over 28 US offices and 2200+ Energy Professionals & ability to navigate current supply chain issues
9. Colorado-based IN-HOUSE Engineering, Design, Construction, and Measurement & Verification
10. Total Cost of Ownership Analysis and Deep Energy Retrofit Team
11. Dedicated Frisco resources for Funding, Mechanical and Electrical Design, and Renewable Energy
12. Best-in-Class Warranties and Performance Guarantees

### **WE ARE COMMITTED TO THE TOWN OF FRISCO'S SUCCESS!**

Our goal is to continue providing the Town of Frisco with services **“for the life of your building”** to help create a healthy and resilient Frisco, and to help your team drive a robust sustainability vision is critical to ensuring that your community thrives into the future.

Our efforts are always collaborative, flexible, and outcome focused. No quick fixes. Instead, we take responsibility for your long-term success. Our partnership and drive to integrate and deliver a successful outcome for the Investment Grade Audit and Energy Performance Contracting project is not something we take lightly. We sincerely appreciate the opportunity to partner with the Town of Frisco to progress your goals. We are fully invested in our people and the Town of Frisco, and we are committed to bringing the right approach, agility, and personnel every day to this project to ensure it is successful. Here are the ways below that we plan to align this project with the strategic initiatives of the Town:

## 4. Best Value

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Our extensive Colorado municipal experience is unmatched by our competition. **McKinstry has owned over 50% of total energy projects won through the CEOs EPC program vs other ESCOs** for each of the last three years which demonstrates our experience in bringing together collaborative teams to our clients. We have also learned valuable lessons from past projects that

## 4. Best Value



**15 Years Experience  
with CEO Protocols**



**Municipal partners  
since 1962**



**Robust financial, grant,  
and rebate assistance**

we use as takeaways to consistently improve our EPC process. No project is too large or too small—our projects in Colorado have ranged from a \$200 retro-commissioning of a single piece of equipment to a \$100,000,000 multi-phased performance contract with a single client, all performed with minimal impact to the work environment and surrounding community. We are excited to partner with the Town of Frisco on this energy project to **help create a healthy and resilient Frisco.**

### **RECENT AND RELEVANT PROJECT EXPERIENCE ON THE FRONT RANGE**

The Town of Frisco will greatly benefit from McKinstry's recent leadership and knowledge of Colorado EPC projects. **In the last year alone, our team has worked with 15+ municipalities throughout Colorado including the City of Gunnison, Town of Grandby, City of Louisville, City and County of Broomfield, City and County of Denver, Jefferson County, City of Golden, and City of Lakewood.** McKinstry has partnered with all of these clients to drive high value EPC projects and has secured over \$4M in grants in the last 18 months in the State to buy down EPC project costs. We have worked in several Town facilities over the last year including multiple fire stations in Denver, the water treatment plant, fleet electrification and street lighting in Broomfield, recreation centers at Foothills Park and Recreation District, and community centers in Fort Collins. We believe that we can bring this knowledge – and lessons learned - to collaborate with your team on the highest value energy and resilient project to have the largest impact in the community. We understand all Colorado Energy Office protocols and Colorado state statute, standards and procedures and have worked under their program more than any other ESCO over the last 10 years – which in turn will help to facilitate the overall project and streamline any time constraints that your team would like to meet.

### **DEDICATED FUNDING RESOURCE FOR FRISCO**

The selected McKinstry team has vast experience working on the funding and financing of EPC projects throughout Colorado as well and we plan to include the following strategies through a dedicated Project Funding Resource for the Town:

#### **Inflation Reduction Act (IRA) Funding**

There are some very impactful incentives built into the Inflation Reduction Act. Most notably, **nonprofit entities will be eligible for “direct pay” of credits.** Treasury has 180 days to produce the exact mechanism for the IRA, but we want to let you know that McKinstry has an internal taskforce tracking this daily for all our clients. We want our clients to know firsthand of all funding opportunities.

The Inflation Reduction Act (IRA) represents an unprecedented opportunity to innovate waste and climate harm out of the built environment. It invests \$386 billion over 10 years in clean energy spending and tax incentives, making it the largest investment ever made by the federal government to slow climate change and reduce our reliance on fossil fuels responsible for our climate crisis. The IRA quickens deployment of clean energy technologies, lowers energy costs, delivers energy resiliency, and strengthens our economy. Investments driven by the bill are expected to lower greenhouse gas emissions by 40 percent compared to a 2005 baseline by 2030. Now is the time to think big and act boldly to accelerate zero-carbon and energy resiliency planning, clean energy deployment and high-performing building retrofits. The IRA presents opportunities to meet the Town of Frisco's energy needs sooner while readying your operations for long-term resiliency, decarbonization and equitable outcomes.

# 4. Best Value

Identified Funding Sources Below to Be Further Investigated within the Investment Grade Audit

## REBATES

- Maximize available utility incentives & programs through Xcel – Renewable Energy Credits, CSG program, custom, self-direct, street lighting
- Virtual/offsite net metering – TBD 2023

## GRANTS

### State stimulus/grants

- \$12M+ currently in the Governor’s budget for energy and beneficial electrification.

### Federal stimulus/grants

- \$1T passed in infrastructure bill and Inflation Reduction Act (IRA)
  - Up to 30% credit for renewable projects (geothermal and solar)
- Energy efficiency and conservation block grant (\$550M) – focus on RE

### DOLA RENEW & EIAF grant

- Up to \$750,000 to offset initial project costs
- Secured \$4M+ in last 18 months for Colorado Clients

## THIRD-PARTY FINANCING

- Tax Exempt Lease Purchase (TELP)
- Certificate of Participation (COP) ; Bonds



## 4. Best Value



### UTILITY FUNDING



Seeking and securing utility-based incentives for a customer is a critical part of the funding strategy an ESCO brings to a performance contract, and McKinstry has the expertise and resources to secure these funds. Our local team in the Rocky Mountain Region has significant experience working with Xcel and is familiar with the unique programs that will be applicable to this project around streetlighting, partners in energy, and renewable energy (owner direct and community solar). Since 2007, approximately 20% of our EPC project dollars have been provided through grants and rebates. Our team has extensive experience working with the always changing incentive programs offered by utilities and **we will complete and coordinate all rebate applications on your behalf**, including seeking custom rebates for specific measures and ensuring that the final rebate amounts paid are maximized.

### GRANT OPPORTUNITIES

Before seeking financing, McKinstry will diligently explore all opportunities to bring additional funding to your program for the capital needs such as roof replacements, windows, and new HVAC equipment - through grants and rebates. We are the local experts when it comes to leveraging state and federal grant and stimulus funding for energy efficiency projects and **can write and/or support all grant requests on the Town's behalf**. We will work closely with you to help determine and develop the Town's priorities for grant funding, including technology-specific applications and will pursue all funding opportunities available to enhance your program. **In the last eight years, we've helped secure over \$30 million in outside grant/rebate funding for our Colorado clients' energy projects. The following opportunities are applicable for the Town's project: DOLA RENEW grant, Inflation Reduction Act tax credits, state stimulus funding for beneficial electrification, Charge Ahead Colorado for EV infrastructure, and many others still in the legislative session.** With McKinstry, you will receive the greatest amount of capital infusion from outside sources for your project!

If Frisco requires financing to complete the funding package for this project, McKinstry will work with your financial team to secure the optimum financing package. Our interest lies in maximizing the scope of work completed within the budget as we believe our clients would rather spend valuable financial resources on tangible projects rather than on interest and financing fees. McKinstry first seeks to understand your critical issues from a financial perspective. Based on past experience, critical issues typically revolve around the interest rate and loan term; however, other criteria often apply. Based on this information, we then determine the best avenue for delivering a financing package for your project.

We work diligently with our clients to secure funding that meets your criteria. We have a dedicated financing team, led by your Account Executive, Ashley Brasovan, who will work with our project directors to access many creative funding options. We are financially strong with the ability to directly secure funding for large or small EPC projects or partner with third-party financial institutions to arrange the optimum funding mechanism for the County. We will coordinate with utility companies to secure any available incentives and rebates. McKinstry also offers support in sourcing, evaluating, applying for, and administering any available grants to help buy-down project costs.

Finally, a critical piece of the project is getting everyone on the same page within the community for project funding. McKinstry will be your ESCO partner who is able to get all of the necessary stakeholders on board as soon as possible to navigate this piece of the energy performance contract. **It will be critical to select an ESCO partner that has previous experience with navigating complex financing under Dodd Frank legislation within Colorado and securing grants.** No other

## 4. Best Value



ESCO has secured more grants in Colorado for Energy Performance Contracts. In 2020 alone, McKinstry was able to secure over \$5M in grants to offset the initial project costs for multiple partners throughout Colorado – including two Department of Local Affairs EIAF grants - which McKinstry can help the Town apply for during this EPC project to offset up to \$1M of initial project costs.

### **BUYING POWER THROUGH BULK PURCHASING AND BEATING THE SUPPLY CHAIN**

As a mechanical contractor with nearly \$600 million in annual revenues, McKinstry is a major buyer of mechanical equipment, renewable energy products, and controls systems. Our procurement departments will leverage this buying power to ensure that you receive the best equipment pricing possible and in a timely manner with the current state of construction market conditions, cost fluctuations, and supply chain issues. We will work diligently to ensure that we meet your specifications and achieve your operational goals through the most cost-effective approach for Frisco. We have worked diligently with many other front range communities to navigate the complex world that it construction over the last 24 months and will apply these lessons learned to your team.

### **LOCAL SUB-CONTRACTOR EXPERTISE**

If subcontractor are needed, McKinstry is committed to engaging the local subcontractor community in the Town to help promote and enhance the local economy. Our team has experience working with other entities and their desire to hire and recruit local subs familiar with the region. Leveraging our current contractor relationships in Colorado, we will drive a seamless process during construction free of any overlap of duties and ensure that the Town of Frisco receives the best pricing, subcontractors, and performance while also meeting all stated project goals.

We also have the ability to partner with the community and local contractors to host work-force training workshops locally if this is something the County is interested in. We are working with Denver right now on a similar concept with our solar project to train the upcoming workforce in the renewable energy field and enhance the local economy while leveraging MWBE sub-contractors as well.

**Our team focuses on a collaborative and integrated implementation approach to optimizing energy, cost and facility performance within local government while focusing on economic development and resiliency in the community.** The first step in our auditing process is to collaborate with the Frisco team to learn and understand all goals that your team would like to accomplish around long-term facility, water, and energy goals through this project – upgrades mentioned within the Xcel SEM analysis, maintenance and comfort concerns, future redevelopment and re-utilization of facilities, renewable energy desires, community engagement, workforce training, etc. From there, our team will work collaboratively with you during the audit to best optimize the equipment and systems in your facilities through the implementation of efficiency upgrades such as LED lighting, fleet electrification, building controls, and HVAC upgrades along with collaborating with your staff to optimize your building operations on-going after construction has been completed. McKinstry will then collaborate with the Town and on the right combination of renewable energy sources and potential electrification opportunities for your facilities.

# 4. Best Value

## COLORADO'S IN-HOUSE RENEWABLES



Solar and Geothermal



Smart Cities



## COLORADO IN-HOUSE RENEWABLE energy Team – Geothermal and Solar

It wasn't long ago when people questioned the viability of adding renewables to an energy retrofit project or questioned the cost of going all-electric. Today, the economics of these technologies are stronger than ever. Couple this with the bench strength of McKinstry's team, dedicated Colorado resources, and the company's long history of delivering successful energy projects, you'll know you are in good hands when you select McKinstry as your partner.

We are one of the few ESCOs that has **all renewable energy and electrification design/engineering services in-house** and has extensive community solar, PPA and owner direct solar experience. We will work to collaborate with Xcel Energy and the Town on all the options to find the one that is most suitable for the Town and to evaluate the existing PPAs across the Town facilities to determine the potential options for continuing or transitioning out of those contracts. This will drive current and future solar costs down (vs other ESCOs that outsource this service and add mark-ups) and allow our team to more closely collaborate with you to integrate renewable energy and building design into your overall project.

**Over the last year, McKinstry has constructed over 8MW of solar in Colorado alone including both owner direct and community solar. We have a fully dedicated renewable energy resource, Martin Beggs, and a fully dedicated electrification**

**resource for your project to work with the Town on evaluating holistic solutions that make the most sense for the Town's long-term goals in sustainability and drive high economic value.** Our team also provides on-going O&M services in-house if the Town does not prefer to do that with their current staff.



McKinstry's renewable energy dashboard can help to aggregate all Town systems, track, and maintain your current and future solar arrays.

## ONGOING SUPPORT AND TECHNICAL EXPERTISE

With a team of 100+ Energy Professionals in Colorado backed by nearly 2,200 Energy Experts nation-wide, McKinstry has the ability to provide all on-going support after construction for our Colorado clients. Our Colorado office is locally owned and operated and has been 100% dedicated to the Colorado marketplace since 2007. For the Town of Frisco, we have O&M services, consulting, and behavior engagement programs in-house should the Town wish to have continued



support throughout the life of the project. Typically, we work in conjunction with Town staff to ensure the smoothest transition possible to operations and we are right down the road (and a call away) if anything at all is needed.



### **ACTION FOR IMPACT**

McKinstry’s Action for Impact initiative will lead a transformation within our industry to innovate waste and climate harm from the built environment. By 2025, McKinstry aspires to be known for our leadership, ingenuity, and outsized and positive impact on carbon, climate, and the environment.

In the built environment, emerging, complex building technologies are unlocking the ability to radically reduce carbon emissions and operate buildings with startling efficiency. McKinstry is committed to pursuing these technologies to serve our clients and our communities. Thanks to the nature of our work, our company will utilize our expertise and extensive services to optimize building systems, bringing our climate commitment to the forefront of all projects.

We have self-developed and built what will be the world’s largest Zero Energy certified building, Catalyst. We are currently going through our own electrification process and decarbonizing our operations across 25 offices nationally – so we understand the challenges, costs, and benefits.

McKinstry believes in making a positive difference for both people and the planet. So much so that these are guiding pillars in our legal operating agreements. Headquartered in Washington, McKinstry supports the WA State Legislature’s work in 2012 to create a Social Purpose Corporation statute, Washington’s version of B-corps. As a result, McKinstry updated our own operating agreements to become the largest social purpose business and first social purpose LLC in Washington state in alignment with this statute. In doing this, McKinstry has committed that the purpose of our business is not necessarily to maximize investment returns for our owners but rather to balance profit with the interests of our employees and our environment.

#### **McKinstry has been awarded multiple environmental/sustainable awards including:**

- Company of the Year, Community Impact Award - Seattle Business Magazine (2016)
- McKinstry is pursuing zero-carbon certification from the International Living Future Institute (ILFI) for our innovative Catalyst project.
- Ethics in Business Award - Rotary Club of Golden (2017)

Appendix

A

# Resumes



# Appendix A: Resumes



## EDUCATION

The University of Georgia,  
Athens, B.S., Environmental  
Engineering

## ACCREDITATIONS

Engineer in Training (E.I.T.)

## TENURE

In the industry since 2015 and  
with McKinstry since 2019.

## Jordan Worthington, E.I.T. | ACCOUNT EXECUTIVE

### WHY JORDAN?

- ✓ Jordan will leverage his technical background and expertise to ensure excellence throughout the entire project lifecycle.
- ✓ He is motivated to create long-term relationships with clients and to provide custom services that benefit both the client and surrounding community.

### JORDAN'S ROLE

As Account Executive, Jordan will provide account management to ensure client objectives and goals are met, any issues are addressed, and schedule/deliverables are met in a coordinated and timely manner.

### PROJECT EXPERIENCE

#### Adams 12 Five Star School District; Thornton, CO

Account Executive for Investment Grade Audit and Energy Performance Contract; \$2.1M.

#### Aurora Public Schools; Aurora CO

Account Executive for Investment Grade Audit.

#### Cotopaxi School District; Cotopaxi, CO

Account Executive for design-build construction project; \$2.3M.

#### North Park School District; Walden, CO

Account Executive for Investment Grade Audit and Energy Performance Contract; \$1.3M.

#### JeffCo Public Schools, Phase 1; Lakewood, CO

Account Executive for design-build LED lighting retrofit project; \$1.5M.

#### JeffCo Public Schools, Phase 2; Lakewood, CO

Account Executive for design-build LED lighting retrofit project; \$2.7M.

#### Atlanta Neighborhood Charter School Elementary Campus\*

Energy and water assessment including implementation support for web-based HVAC controls, LED lighting and controls, window film, high-performance plumbing fixtures, and solar electricity. Projected \$28,000 annual utility savings.

#### Chatsworth Boys and Girls Club\*

Nearly net-zero energy project and energy and water assessment including implementation support for web-based HVAC controls, high-performance HVAC, insulation upgrades, LED lighting and controls, high-performance plumbing fixtures, and solar electricity. Projected \$6,000 annual utility savings.

*\*Denotes project completed with another firm.*

# Appendix A: Resumes



## EDUCATION

California State Polytechnic University, San Luis Obispo, B.S., Mechanical Engineering

## ACCREDITATIONS

Professional Engineer (P.E.) in: CO, CA, AZ, UT, WY, NV

Certified Energy Manager (C.E.M.)

## TENURE

In the industry since 1998 and with McKinstry since 2019.

## Stephan Rank, P.E., C.E.M. | PROJECT DIRECTOR

### WHY STEPHAN?

- ✓ Stephan brings extensive experience in energy audits, energy conservation measure development, cost estimating, utility rate analysis and optimization, heating and cooling load calculations, and life cycle cost analysis.

### STEPHAN'S ROLE

As Project Director, Stephan is the single point of contact throughout the life of the project and will oversee team leads on development, construction, M&V, and on-going services. Stephan is responsible for overall client satisfaction and project success.

### PROJECT EXPERIENCE

#### City and County of Denver; CO

Project Director for Investment Grade Audit of 22 facilities across 1.9M square feet and Energy Performance Contract that included 15MW of solar PV arrays at six facilities; \$17M.

#### Foothills Park and Recreation District, Phase 1-2; Littleton, CO

Project Director for 15-building Investment Grade Audit and Energy Performance Contract; \$11M.

#### Salt Lake City School District; UT

Project Director for Investment Grade Audit; \$29.3M.

#### Adams 12 Five Star School District; Thornton, CO

Project Director for Investment Grade Audit and Energy Performance Contract; \$2.1M.

#### Boulder Community Hospital Complex; Boulder, CO\*

Sustainable Interior Deconstruction

#### Persigo Wastewater Treatment Plant; Grand Junction, CO\*

Energy Performance Contract

#### City of Arvada; Arvada, CO\*

Energy Performance Contract

#### Arapahoe County, Phase 2; Various Cities, CO\*

Energy Performance Contract; \$7.9M

#### Colorado Department of Transportation; Various Cities, CO\*

Statewide Energy Performance Contract; \$9.5

#### Fremont Sanitation District; Canon City, CO\*

Energy Performance Contract; \$600K

*\*Denotes project completed with another firm.*

# Appendix A: Resumes



## EDUCATION

Trinidad State Junior College,  
A.A.S., Occupational Safety  
and Health

## ACCREDITATIONS

NFPA 70E Standards  
OSHA 500 Course Instructor  
Confined Space Trainer  
Confined Space Air Monitor  
Technician  
Fall Protection Competent  
Inspector

## TENURE

In the industry since 2002 and  
with McKinstry since 2022.

## Tom Alvarez | SENIOR SAFETY PROGRAM MANAGER

### WHY TOM?

- ✓ Tom's 20 years of experience in Health & Safety allows him to create, monitor, and maintain safe projects. He works closely with advisory groups to ensure safe work planning is being used on-site to reduce the risk of incident and injury

### TOM'S ROLE

Tom delivers construction safety experience for the project and is responsible for McKinstry's safety planning, training, compliance, and overall coordination. His expertise includes safety leadership, safe-work planning, safety training, construction safety and health, behavior-based safety, incident/injury-free environment, project safety audits and job-hazard analysis. Tom helps the team maintain our zero recordables record.

### PROJECT EXPERIENCE

#### Air Force Hospital Addition\*

Director of Safety

#### Rocky Mountain Region VA Medical Center\*

Director of Safety

#### National Institute of Standards and Technology (NIST) ED1-B Expansion\*

Director of Safety

#### Denver Health Addition\*

Director of Safety

#### Denver International Airport (various expansion projects)\*

Director of Safety

#### Salt Lake City Airport Expansion\*

Director of Safety

#### Gaylord of the Rockies\*

Director of Safety

#### Ameri-Star Hotel Addition\*

Director of Safety

#### Denver Convention Center Hotel\*

Director of Safety

#### Executive Towers Renovation\*

Director of Safety

#### Leprino Foods\*

Director of Safety

*\*Denotes project completed with another firm.*

# Appendix A: Resumes



## EDUCATION

South Dakota, School of Mines, B.S., Mechanical Engineering

University of Wisconsin, Electrical Systems Design

University of Wisconsin, Piping Systems Design

## ACCREDITATIONS

Certified Energy Manager (C.E.M.)

## AFFILIATIONS

Association of Energy Engineers

## TENURE

In the industry since 1993 and with McKinstry since 2020.

## Brian Gamet, C.E.M. | PROJECT DEVELOPMENT DIRECTOR

### WHY BRIAN?

- ✓ Brian has lead teams that have implemented and developed \$500 +million in project construction and energy performance of EPC as well as design build programs internationally. He has experience in federal, regional state and local government facilities, as well as schools, hospitals, and universities.

### BRIAN'S ROLE

Brian's primary responsibilities are to lead the regional development organization in the development of Energy Performance Contracts. He supports the analysis, energy auditing, engineering, project scoping, financial feasibility analysis as well as technical documentation for driving best value in self-funding facility improvement and energy conservation measures.

### PROJECT EXPERIENCE

#### City and County of Denver; CO

Project Development Director for Investment Grade Audit of 22 facilities across 1.9M square feet and Energy Performance Contract that included 15MW of solar PV arrays at six facilities; \$17M.

#### Foothills Park and Recreation District, Phase 2; Littleton, CO

Project Development Director for Investment Grade Audit and Energy Performance Contract; \$7.9M.

#### City and County of Broomfield; CO

Project Development Director for Investment Grade Audit and Energy Performance Contract. \$96,000 (audit).

#### Denver International Airport; CO

Account Executive for 8.5 million sq. ft. Phase I audit; \$83M.

#### Huerfano County; CO

Project Director for 33 building energy performance contract; \$2-3M construction contract pending.

#### Northwest Colorado Regional Solar and Resiliency Project; Craig, Steamboat, Yampa, Hayden, and Oak Creek, CO

Project Development Director for solar and resiliency project across 15 different sites; \$6M.

#### Adams 12 Five Star School District; Thornton, CO

Project Development Director for Investment Grade Audit and Energy Performance Contract; \$2.1M.

# Appendix A: Resumes



## EDUCATION

University of Colorado at Boulder, B.S., Architectural Engineering, with emphasis in Building Systems and Sustainability

## ACCREDITATIONS

Professional Engineer (P.E.)  
Colorado #0055840

## AFFILIATIONS

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Member

## TENURE

In the industry since 2012 and with McKinstry since 2021.

## John Runnels, P.E. | MECHANICAL ENGINEER

### WHY JOHN?

- ✓ John has extensive experience working in a variety of building types with a vast array of mechanical systems giving him the creative problem-solving skills to design efficient and complex projects.

### JOHN'S ROLE

As Mechanical Engineer, John is responsible for reviewing designs for functionality, designing HVAC and plumbing systems for new and existing buildings, reviewing engineering design and energy model outputs, and assisting project teams with the implementation of project designs.

### PROJECT EXPERIENCE

#### City and County of Denver; CO

Lead Mechanical Engineer for Investment Grade Audit of 22 facilities across 1.9M square feet and Energy Performance Contract that included 15MW of solar PV arrays at six facilities; \$17M.

#### Denver International Airport; Denver, CO

Lead Mechanical Engineer for airport-wide Energy Performance Contract including lighting retrofits, water conservation, controls retrofits, and solar PV installation; \$83M.

#### Cotopaxi School District; Cotopaxi, CO

Lead Mechanical Engineer for design-build construction project; \$2.3M.

#### Coolidge Unified School District; Coolidge, AZ

Lead Mechanical Engineer for renovation/refurbishment of an abandoned school building, including complete replacement of all HVAC and plumbing systems.

#### Denver Public Schools; Denver, CO\*

Project Manager and Lead Designer on repurposing a two-story, 115,000 square foot former office building as a public charter school for Denver Public Schools. Facilitated complete redesign and replacement of HVAC plant and distribution system, major plumbing redesign, and building update for code compliance including piping types and asbestos. Existing drawings were often incorrect or missing, requiring extensive surveying.

#### Gates Family Foundation; Denver, CO\*

Lead Mechanical Designer for tenant improvement in historic building that was certified as LEED Gold office space. Utilizing a variable refrigerant flow (VRF) system with a dedicated outdoor air unit (DOAS), this project was designed for sustainability using cutting edge technology.

*\*Denotes project completed with another firm.*

# Appendix A: Resumes



## EDUCATION

Iowa State University, B.S.,  
Mechanical Engineering

## ACCREDITATIONS

Professional Engineer (P.E.)  
Certified Energy Manager  
(C.E.M.)

## AFFILIATIONS

ASHRAE — Chapter offices  
held: President, Vice  
President, Secretary,  
Treasurer, Research  
Promotion Chair

## TENURE

In the industry since 2004 and  
with McKinstry since 2019.

## Adam Allington, P.E., C.E.M. | SENIOR ENERGY ENGINEER

### WHY ADAM?

- ✓ Adam has extensive experience gathering and documenting project information, including utility data, facility profiles, system operating characteristics, and site drawings. He performs detailed engineering assessments, including baseline profiles, end-use and retrofit analysis as well as identifying opportunities for conservation or efficiency.

### ADAM'S ROLE

Adam performs technical analysis of utility data, auditing, and assists with field data gathering. He works closely with the design team to develop scopes of work and guaranteed energy savings calculations.

### PROJECT EXPERIENCE

#### City and County of Denver; CO

Senior Energy Engineer for Investment Grade Audit of 22 facilities across 1.9M square feet and Energy Performance Contract that included 15MW of solar PV arrays at six facilities; \$17M.

#### Foothills Park and Recreation District, Phase 1-2; Littleton, CO

Senior Energy Engineer for 15-building Investment Grade Audit and Energy Performance Contract; \$11M.

#### City and County of Broomfield; CO

Senior Energy Engineer for Investment Grade Audit and Energy Performance Contract. \$96,000 (audit).

#### Huerfano County; CO

Senior Energy Engineer for 33 building energy performance contract; \$2-3M construction contract pending.

#### Denver Public Schools, Phase 1 and 2; Denver, CO

Senior Energy Engineer for two phases Energy Performance Contract; \$8.5M.

#### Adams 12 Five Star School District; Thornton, CO

Senior Energy Engineer for Investment Grade Audit and Energy Performance Contract; \$2.1M.

#### Fremont RE-2 School District, CO; Florence, CO

Senior Energy Engineer for Investment Grade Audit and Energy Performance Contract; \$7M.

#### Cotopaxi School District; Cotopaxi, CO

Senior Energy Engineer for design-build construction project; \$2.3M

#### Aurora Public Schools; Aurora CO

Senior Energy Engineer for Investment Grade Audit.

# Appendix A: Resumes



## EDUCATION

University of California, Davis, B.S., Environmental Biology and Management

Solar Energy International – National Electric Code and PV Systems

Heatspring – Comprehensive Solar Plus Storage

## ACCREDITATIONS

NABCEP Certified PV Installation Professional (#091209-10)

Residential Wireman, State of Colorado (#600076)

## AFFILIATIONS

IESNA Member

## TENURE

In the industry since 2008 and with McKinstry since 2019.

## Martin Beggs, P.V.I.P. | RENEWABLES PROGRAM MANAGER

### WHY MARTIN?

- ✓ Martin has over a decade of work experience in the solar industry, installing, managing, designing, and developing solar PV and energy storage projects, primarily ranging from 5kW to 5MW.
- ✓ Martin brings a patient, can-do presence to solar design and development that is contagious and calming.

### MARTIN'S ROLE

As Renewables Program Manager, Martin will take the lead on technical development, design, and modelling of solar PV and energy storage solutions. Martin will coordinate and collaborate with project teams, utilities, jurisdictions, technical consultants, and product vendors to identify renewable energy applications that are best suited to each project site.

### PROJECT EXPERIENCE

#### City and County of Denver; CO

Renewables Program Manager for renewable energy solutions for Investment Grade Audit of 22 facilities across 1.9M square feet and Energy Performance Contract that included 15MW of solar PV arrays at six facilities; \$17M.

#### Foothills Park and Recreation District, Phase 1-2; Littleton, CO

Renewables Program Manager for 15-building Investment Grade Audit and Energy Performance Contract; \$11M.

#### City and County of Broomfield; CO

Renewables Program Manager for Investment Grade Audit and Energy Performance Contract. \$96,000 (audit).

#### Denver International Airport; CO

Renewables Program Manager for airport-wide Energy Performance Contract including lighting retrofits, water conservation, controls retrofits, and solar PV installation; \$83M.

#### City of Lakewood; CO

Renewables Program Manager for Energy Performance Contract and Solar Feasibility Study; \$2.5M (EPC), \$72K (SFS).

#### Huerfano County; CO

Renewables Program Manager for 33 building energy performance contract; \$2-3M construction contract pending.

#### Northwest Colorado Regional Solar and Resiliency Project; Craig, Steamboat, Yampa, Hayden, and Oak Creek, CO

Renewables Program Manager for solar and resiliency project across 15 different sites; \$6M.

# Appendix A: Resumes



## EDUCATION

University of Washington,  
Evans School of Public Policy  
and Governance, MPA,  
Environmental Policy

Georgetown University, B.A.,  
History

University of Saint Andrews,  
Divinity

Seattle Central College,  
Sustainable Building Advisor  
Program

## ACCREDITATIONS

Living Future Accredited  
(L.F.A.)

LEED Accredited Professional  
(LEED AP)

## TENURE

In the industry since 1998 and  
with McKinstry since 2018.

## Brad Liljequist, L.F.A., LEED AP | DIRECTOR OF ZERO CARBON SOLUTIONS

### WHY BRAD?

- ✓ Brad's 30+ years of creating earth-positive buildings and communities gives him a pragmatic, yet creative approach to delivering deeply sustainable and functional buildings as he contributes key insights and improvements to projects.
- ✓ Brad excels at providing zero energy design leadership and process management, nature-based systems and services design, user load reduction, and zero energy specific integrated design.

### BRAD'S ROLE

Brad is a nationally respected leader in decarbonization, well known for both thought leadership and achieving actual results. A serial climate solutions innovator, he is now dedicated to accelerating decarbonization via EPC. Brad will provide high-level perspective and strategy into holistic strategies for achieving zero carbon, chiefly regarding carbon metrics and certifications.

### PROJECT EXPERIENCE

#### Salt Lake City School District; UT

Comprehensive Zero Over Time roadmap for the District to achieve full zero carbon performance in their facilities by 2040, including facility electrification over five phases; \$29.5M.

#### Seattle Central College Campus District Energy Feasibility Study; WA

EcoDistrict to serve over 500,000 sq. ft. of mixed-use developments and existing campus infrastructure. The initial study and assessment included a full-energy analysis, as well as thermal and energy performance modeling of a baseline system and a district energy plant with heat recovery systems. The study and future EcoDistrict will determine strategies to lower electricity cost and potential carbon emissions.

#### South Landing Catalyst; Spokane, WA

Led zero carbon strategy for world's largest dual certified Zero Energy and Zero Carbon building, heated and cooled by an advanced all electric district energy system; \$8.3M.

#### South Lake Union Energy District; Seattle, WA

1.4M sq. ft. sewage/thermal heat recovery study adding biotech and affordable housing in the heart of Seattle.

#### Living Community Challenge, Worldwide; Seattle, WA\*

While at the International Living Future Institute, Brad was launch director for the Living Community Challenge, considered to be the most stringent green community standard in the world.

*\*Denotes project completed with another firm.*

# Appendix A: Resumes



## EDUCATION

University of Colorado at Boulder, Bachelors, Architecture

## ACCREDITATIONS

NALMCO Certified Lighting Controls Professional

## AFFILIATIONS

IESNA Member

## TENURE

In the industry since 1999 and with McKinstry since 2020.

## Thomas Richardson, C.L.C.P. | PROGRAM MANAGER, LIGHTING SOLUTIONS DEVELOPMENT

### WHY THOMAS?

- ✓ Thomas has been working on lighting projects since 2008.
- ✓ His extensive experience from both the estimating and development sides of LED lighting retrofit projects gives him the ability to identify the most cost-effective solutions for our clients.

### THOMAS'S ROLE

As a Program Manager with a focus on lighting solutions development, Thomas is responsible for identifying opportunities and developing projects, overseeing energy audits and utility analysis, and managing the cost estimating and energy savings for the lighting solutions portions of each project.

### PROJECT EXPERIENCE

#### Denver International Airport; CO

Lighting Solutions Development Program Manager for airport-wide Energy Performance Contract including lighting retrofits, water conservation, controls retrofits, and solar PV installation; \$83M.

#### Honolulu Department of Transportation Airport Lighting Upgrades; HI\*

LED lighting retrofit at all airport facilities on seven islands. Interior and exterior lighting was retrofit with new LED lamps, drivers and fixtures. Lutron Quantum advanced controls systems were implemented at the Honolulu International Airport.

#### University of Hawaii Community Colleges; HI\*

Multiple campus LED lighting and advanced controls upgrade. All campus site lighting was redeveloped with new LED fixtures and Limelight advanced mesh network controls system. Interior lighting was retrofit with LED lamps and drivers. Lutron Vive advanced networked controls system.

#### University of Santa Clara; CA\*

Retrofit of multiple building across campus to new LED lighting. Design includes all lighting and controls adhering to California Title 24 requirements. Retrofit of historic buildings with LED kits to maintain original fixtures in place.

*\*Denotes project completed with another firm.*

# Appendix A: Resumes



## **Ace Martin, LEED AP | OPERATIONS MANAGER, CONSTRUCTION**

### **WHY ACE?**

- ✓ Ace has deep roots in construction management complemented by his technical background in environmental, mechanical, and architectural engineering.
- ✓ He has demonstrated abilities to manage staff, costs, documentation, and subcontractors for schedule driven projects.

### **ACE'S ROLE**

As Construction Operations Manager, Ace is responsible for managing the MTN region construction team and all construction management related-functions including hiring and managing subcontractors, managing project budget and critical path schedule, all project-related contractual documents, and site supervision management support.

### **PROJECT EXPERIENCE**

#### **Huerfano County; CO**

Construction Manager for 33 building energy performance contract; \$2-3M construction contract pending.

#### **City of Lakewood; CO**

Construction Manager for Energy Performance Contract and Solar Feasibility Study; \$2.5M (EPC), \$72K (SFS).

#### **South Suburban Parks & Recreation District; Centennial, CO**

Construction Manager for Energy Performance Contract; \$5.7M.

#### **City of Henderson; NV**

Construction Manager for Energy Performance Contract; \$3.1M.

#### **City of St. George; UT**

Construction Manager for Energy Performance Contract; \$2M.

#### **City of Clearfield; UT**

Safety Engineer for Energy Performance Contract; \$2M.

#### **Denver International Airport; CO**

Construction Manager for 8.5 million sq. ft. Phase I audit; \$83M.

#### **University of Colorado Boulder, MacAllister Building; CO**

Construction Manager for Energy Performance Contract; \$10.7M.

#### **University of Colorado Boulder, Coors Event Center; CO**

Construction Manager for Energy Performance Contract; \$2.9M.

#### **Denver Public Schools; Denver, CO**

Construction Manager for for Montbello High School Energy Performance Contract; \$8.5M.

### **EDUCATION**

University of Colorado, Boulder, M.S., Civil, Environmental, and Architectural Engineering, Construction Engineering and Management Program

Texas A & M, B.S., Mechanical Engineering

### **ACCREDITATIONS**

LEED Accredited Professional (LEED AP)

Utah Contractor's License #9214588-5501

### **TENURE**

In the industry since 1998 and with McKinstry since 2012.

# Appendix A: Resumes



## EDUCATION

Naval Nuclear Power School

## ACCREDITATIONS

OSHA 10 Hour Certification

Air Conditioning and Refrigeration Certificate Course

Construction Management Certificate Course

ABB/Bailey PCU Configuration and CAD

## TENURE

In the industry since 1997 and with McKinstry since 2008.

## Dave Edsall, SITE SUPERINTENDENT

### WHY DAVE?

- ✓ Dave's combination of hands-on field experience, education, and management gives him a unique perspective and skill set to successfully manage a construction team.
- ✓ He fosters excellent relationships with owners, architects, subcontractors, trades and vendors, ensuring compliance throughout the project

### DAVE'S ROLE

Dave is responsible for on-site supervision and coordination of all trades and subcontractors' field activities. He is also responsible for daily project documentation as well as overseeing compliance with on-site safety and environment issues.

### PROJECT EXPERIENCE

#### City of Golden; CO

Site Superintendent for Energy Performance Contract, Phase 1.

#### Jefferson County, Phase 1-2; CO

Site Superintendent for Energy Performance Contract, Phase 1-2; \$5.4M (Ph. 1) and \$1.7M (Ph. 2).

#### City of Longmont, Phase 3; CO

Site Superintendent for Energy Performance Contract, Phase 3; \$1M.

#### Routt County; CO

Site Superintendent for Energy Performance Contract; \$1.5M.

#### Denver Public Schools; CO

Site Superintendent for Montbello High School Energy Performance Contract; \$8.5M.

#### Douglas County School District, Phase 1-2; CO

Site Superintendent for Energy Performance Contract, Phase 1-2; \$8.5M (Ph. 1) and \$4.7M (Ph. 2).

#### Clark County School District; NV

Site Superintendent for Energy Performance Contract; \$13M.

#### U.S. General Services Administration, Region 8; CO, MT, ND, SD, UT, WY

Project Engineer for Energy Performance Contract; \$10.8M.

#### University of Colorado Boulder, Wilderness Place; CO

Site Superintendent for Energy Performance Contract; \$6.3M.

#### John Madden Company - Fiddler's Green; Greenwood Village, CO

Site Superintendent for Energy Performance Contract; \$7.1M.

# Appendix A: Resumes



## EDUCATION

B.S., Business Mechanical Engineering

## ACCREDITATIONS

OSHA 30 Certification

## TENURE

In the industry since 2017 and with McKinstry since 2019.

## Shayli Volk | CONSTRUCTION PROJECT ENGINEER

### WHY SHAYLI?

- ✓ Shayli is responsible for gathering and documenting project information, including utility data, facility profiles, system operating characteristics, and site drawings. She performs detailed engineering assessments, including baseline profiles, end-use and retrofit analysis as well as identifying opportunities for conservation or efficiency and prepares energy savings calculations.

### SHAYLI'S ROLE

As Construction Project Engineer, Shayli will perform technical analysis of utility data, auditing, and assists with field data gathering. She will work closely with the design team to develop scopes of work and guaranteed energy savings calculations.

### PROJECT EXPERIENCE

#### City and County of Denver; CO

Construction Project Engineer for Investment Grade Audit of 22 facilities across 1.9M square feet and Energy Performance Contract that included 15MW of solar PV arrays at six facilities; \$17M.

#### Foothills Park and Recreation District, Phase 1-2; Littleton, CO

Construction Project Engineer for 15-building Investment Grade Audit and Energy Performance Contract; \$11M.

#### Denver International Airport; Denver, CO

Construction Project Engineer for airport-wide Energy Performance Contract including lighting retrofits, water conservation, controls retrofits, and solar PV installation; \$83M.

#### Huerfano County; CO

Construction Project Engineer for 33 building energy performance contract; \$2-3M construction contract pending.

#### Northwest Colorado Regional Solar and Resiliency Project; Craig, Steamboat, Yampa, Hayden, and Oak Creek, CO

Construction Project Engineer for solar and resiliency project across 15 different sites; \$6M.

#### Denver Public Schools; Denver, CO

Construction Project Engineer for Montbello High School Energy Performance Contract; \$8.5M.

#### North Park School District; Walden, CO

Construction Project Engineer for Investment Grade Audit and Energy Performance Contract; \$1.3M.

# Appendix A: Resumes



## **Leanne Matthews, Ph.D., C.M.V.P., E.I.T. | MEASUREMENT & VERIFICATION PROGRAM MANAGER**

### **WHY LEANNE?**

- ✓ Leanne brings 7 years of leadership experience to McKinstry from her prior work as a U.S. Navy nuclear officer. Her ability to collaborate effectively with a diverse group of people offers a fresh perspective.
- ✓ She is passionate about educating clients on M&V, the energy performance contracting process and how McKinstry verifies energy savings.
- ✓ Leanne is highly organized and can track dozens of ongoing M&V projects while staying detail-oriented and ensuring excellent project execution.

### **LEANNE'S ROLE**

As Measurement & Verification (M&V) Program Manager, Leanne is responsible for providing direction and oversight of post-construction activities including performance assurance and M&V programs, sustainability services, ongoing commissioning, and monitoring to ensure client goals are met.

### **PROJECT EXPERIENCE**

#### **City and County of Denver; CO**

M&V Program Manager for Investment Grade Audit of 22 facilities across 1.9M square feet and Energy Performance Contract that included 15MW of solar PV arrays at six facilities; \$17M.

#### **Huerfano County; CO**

M&V Program Manager for 33 building energy performance contract; \$2-3M construction contract pending.

#### **City of Lakewood; CO**

M&V Program Manager for Energy Performance Contract and Solar Feasibility Study; \$2.5M (EPC), \$72K (SFS).

#### **Northwest Colorado Regional Solar and Resiliency Project; Craig, Steamboat, Yampa, Hayden, and Oak Creek, CO**

M&V Program Manager for solar and resiliency project across 15 different sites; \$6M.

#### **Denver International Airport; Denver, CO**

M&V Program Manager for airport-wide Energy Performance Contract including lighting retrofits, water conservation, controls retrofits, and solar PV installation; \$83M.

#### **Foothills Park and Recreation District, Phase 2; Littleton, CO**

M&V Program Manager for Investment Grade Audit and Energy Performance Contract; \$7.9M.

### **EDUCATION**

University of Minnesota,  
Ph.D., Mechanical Engineering

University of Minnesota, M.S.,  
Mechanical Engineering

Valparaiso University, B.S.,  
Mechanical Engineering

### **ACCREDITATIONS**

Certified Measurement and  
Verification Professional  
(CMVP-IT), Association of  
Energy Engineers (AEE)

Engineer in Training (EIT), IN

### **AFFILIATIONS**

Tau Beta Pi - Alumni Member

AEE - Corporate Delegate

### **TENURE**

In the industry and with  
McKinstry since 2022.

# Appendix A: Resumes



## EDUCATION

Colorado State University,  
B.S., Mechanical Engineering

## ACCREDITATIONS

Certified Energy Manager  
(C.E.M.)

Certified Measurement and  
Verification Professional  
(C.M.V.P.)

LEED® Accredited Professional  
(LEED AP)

## TENURE

In the industry since 2006 and  
with McKinstry since 2010.

## Jaymes McMullin, C.E.M., C.M.V.P., LEED GA | BEHAVIOR ENGAGEMENT PROGRAM MANAGER

### WHY JAYMES?

- ✓ Jaymes brings a thorough understanding of building systems, integration of mechanical and electrical systems, and optimizing controls strategies for energy conservation.
- ✓ His strong background in managing and optimizing existing buildings, including auditing, analysis, reporting and implementation, and has led energy analysis and conservation projects for a diverse range of clients.

### JAYMES'S ROLE

As Behavior Engagement Manager, Jaymes is responsible for sustainability consulting and behavioral management program development and implementation.

### PROJECT EXPERIENCE

#### Denver International Airport; CO

Behavior Engagement Program Manager for 8.5 million sq. ft. Phase I audit; \$83M.

#### Jefferson County, Phase 1-2; CO

Behavior Engagement Program Manager for Energy Performance Contract, Phase 1-2; \$5.4M (Ph. 1) and \$1.7M (Ph. 2).

#### Highlands Ranch Community Association; Highlands Ranch, CO

Behavior Engagement Program Manager for energy Performance Contract; \$2.6M.

#### Foothills Park and Recreation District; Littleton, CO

Behavior Engagement Program Manager for Energy Performance Contract; \$3.2M.

#### Evergreen Parks and Recreation District; Evergreen, CO

Behavior Engagement Program Manager for Energy Performance Contract; \$3.2M.

#### University of Colorado Boulder, Coors Event Center; CO

Behavior Engagement Program Manager for Energy Performance Contract; \$2.9M.

#### University of Colorado Boulder, Wilderness Place; CO

Behavior Engagement Program Manager for Energy Performance Contract; \$6.3M.

#### University of Colorado Boulder, MacAllister Building; CO

Behavior Engagement Program Manager for Energy Performance Contract; \$10.7M.

# Appendix A: Resumes



## EDUCATION

University of Michigan, M.S.,  
Design Science & Engineering  
The University of New Mexico,  
B.S., Mechanical Engineering

## ACCREDITATIONS

Certified Measurement and  
Verification Professional  
(C.M.V.P.)

## AFFILIATIONS

Hispanic Engineering and  
Science Organization  
Society of Women Engineers  
American Society of  
Mechanical Engineers (ASME)

## TENURE

In the industry since 2016 and  
with McKinstry since 2018.

## Maya Combs-Hurtado, C.M.V.P. | PERFORMANCE ASSURANCE SPECIALIST

### WHY MAYA?

- ✓ Maya's expertise allows her to blend engineering theory and practical application to audit and portray accurate savings performance through M&V and enclosure commissioning.
- ✓ She has worked with multiple local government agencies over the last few years developing and analyzing energy audits and energy savings measures.

### MAYA'S ROLE

As Performance Assurance Specialist, Maya is responsible for supporting the development, documentation, and generation of detailed Measurement and Verification (M&V) plans and reports.

### PROJECT EXPERIENCE

#### Northwest Colorado Regional Solar and Resiliency Project; Craig, Steamboat, Yampa, Hayden, and Oak Creek, CO

Performance Assurance Specialist for solar and resiliency project across 15 different sites; \$6M.

#### Huerfano County; CO

Performance Assurance Specialist for 33 building energy performance contract; \$2-3M construction contract pending.

#### Denver International Airport; Denver, CO

Performance Assurance Specialist for airport-wide Energy Performance Contract including lighting retrofits, water conservation, controls retrofits, and solar PV installation; \$83M.

#### University of Northern Colorado; Greeley, CO

Performance Assurance Specialist for Phase I Energy Performance Contract and powerED; \$8.7M.

#### Colorado School of Mines, Phase 2; Golden, CO

Performance Assurance Specialist for Energy Performance Contract; \$5M.

#### Clark County School District; Las Vegas, NV

Performance Assurance Specialist for Energy Performance Contract and powerED; \$13M.

#### Washoe County School District; Reno, NV

Performance Assurance Specialist for district-wide Energy Performance Contract and powerED; \$11.3M.

#### Pueblo City School District 60; Pueblo, CO

Performance Assurance Specialist for Energy Savings Performance Contract and powerED; \$10.4M.