

REQUEST FOR QUOTE
PROJECT NO. DGS C-0579-0009 Phase 1
State Correctional Institute (SCI) Houtzdale - HVAC Improvements



Submitted To:

Jason Smith/Trimble
Department of General Services
Bureau of Capital Projects - Design Management
Arsenal Building, 1800 Herr Street
Harrisburg, PA 17103

TECHNICAL SUBMISSION

Due Date/Time:

August 27, 2026, 2:00 pm

Submitted By:





August 21, 2026

Jason Smith

Department of General Services Bureau of Capital Projects - Design Management
Arsenal Building, 1800 Herr Street
Harrisburg, PA 17103

**RE: Request for Quote – PROJECT NO. DGS C-0579-0009 Phase 1
State Correctional Institute (SCI) Houtzdale - HVAC Improvements**

Dear Mr. Smith:

C.J. Brown Energy & Engineering, P.C. (C.J. Brown Energy) is pleased to submit our proposal to provide commissioning services for the HVAC and associated work improvements at the Pennsylvania State Correctional Institute. Our proposal is provided in response to the RFQ issued July 30, 2026.

C.J. Brown Energy's proposal includes the requested information provided in: (1) Technical Submission and (2) Cost Submission.

In regard to the Relationship to Commonwealth Agencies: The Commissioning Agent (CxA) contract will be between DGS and the Commissioning Agent. Binding directions to the CxA selected for a Commissioning Agent Project will come only from DGS. Commonwealth Agencies, as clients of DGS, will be involved with programming, design, fit out, and occupancy schedule. The selected CxA, along with the Design Professional, shall work directly with the Client Agency, with varying degrees of intensity and at various stages of the Project, to facilitate the collecting of information required for the Project to meet the intended purpose and needs of the Client Agency. During this interaction, the CxA shall not engage in any services unilaterally requested by the Client Agency that are in addition to those contracted, without written authorization from DGS. C.J. Brown Energy, as CxA, understands and acknowledges that the Client Agency shall have no authority to direct the CxA in any Commissioning Agent Project.

We thank you for considering our firm for this project. Should you have any questions or require any additional information, please do not hesitate to contact us.

Very truly yours,

C.J. BROWN ENERGY & ENGINEERING, P.C.

Christopher M. Sendker, PE, LEED AP, CBCP
Principal/Commissioning Services Manager



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1. TECHNICAL SUBMISSION

A. Prior Experience - Projects Similar in Scope

I. Project Name: Genesee County New County Jail | Batavia, NY

Project Start and End Dates: Construction Start Date: 5/2022 | Construction Completion Date: 3/2024

Brief Description of the Project: C.J. Brown Energy provided commissioning services for the \$70M, 99,830 SF jail. The two-level facility serves an inmate population of 184.

Spaces include housing, intake/release, healthcare, kitchen, laundry, security operations, maintenance, storage, administrative areas, educational/program areas an arraignment room, and offices for the Genesee Justice Program. The project included a 1,500 SF maintenance building and a small sanitary building.

Commissioning Scope of Work: Pre-construction through warranty in compliance with the New York State 2020 Energy Conservation Construction Code. Our commissioning process helped ensure that systems were installed, tested and operate according to the design intent and Owner requirements.

Commissioned Systems: Chillers/condensing units, boilers, pumps, ERUs/MAUs, RTUs, dehumidification, exhaust/supply fans, VAVs, unit heaters, split A/C, domestic hot water/booster systems, sanitary grinder, lighting controls, and TAB.

II. Contract Cost: Gross Construction Cost: \$70M | Amount Firm Responsible For/Firm Fee: \$69,102.00

III. Reference: Paul Osborn | Genesee County | Tel (585) 344-8508



I. Project Name: Barnstable County Correctional Facility | Barnstable, MA

Project Start and End Dates: Construction Start Date: 12/2020 | Construction Completion Date: 12/2021

Brief Description of the Project: C.J. Brown Energy provided commissioning services for the ~ 180,000 SF, phased Automatic Temperature Control System and Variable Frequency Drives Upgrade project of the correctional facility's energy management system. The project included replacement of the existing automatic temperature controls, variable frequency drives, associated sensors and actuators, and associated control wiring.

Commissioning Scope of Work: Construction through warranty in accordance with the attached Section 019113 General Commissioning Requirements.

Commissioned Systems: AHUs, boilers, chillers, cooling towers, heat pumps, MAUs/RTUs, pumps, exhaust/supply fans, unit heaters, VAVs, domestic water heaters, refrigerant monitoring, and BMS controls.

II. Contract Cost: Gross Construction Cost: N/A - Commissioning | Amount Firm Responsible For/Firm Fee \$74,660.00

III. Reference: Barnstable County Sheriff's Office | 508-563-4343



I. Project Name: Coxsackie Correctional Facility – Training Academy Firing Range and Training Building | West Coxsackie, NY

Project Start and End Dates: Construction Start Date: 12/2021 | Construction Completion Date: 1/2025

Brief Description of the Project: C.J. Brown Energy provided commissioning services for the \$36.3M outdoor firing range and training facility. The project included a 5,000 SF classroom training building for 60 trainees; a shooter's shelter; steel escalator bullet trap; and a 16-station, 100-yard baffled firing range. The facility includes a separate CS-gas training building and a heated outdoor access corridor with six eyewash stations to support four-season capsicum spray training.

Commissioning Scope of Work: Pre-bid through warranty to comply with the NYS OGS Design Procedures Manual. Commissioning services were provided for the NYS OGS DOCCS project as a subconsultant to the LiRo Group.

Commissioned Systems: Dust collection, condensing units, air curtains, ERU, exhaust fans, VRF fan coils, radiant panels, unit heaters, domestic water heaters, lighting controls/occupancy sensors, public address system, and TAB.

II. Contract Cost: Gross Construction Cost: \$36.3M | Amount Firm Responsible For/Firm Fee: \$36,257.00

III. Reference: New York State Department of Corrections and Community Supervision | 518-457-8126



Projects Similar in Size

I. Project Name

Lawrence and Eris Field Building Renovation - Baruch College | New York, NY

Project Start and End Dates: Construction Start Date: 5/2017 | Construction Completion Date: 5/2021

Brief Description of the Project

C.J. Brown Energy commissioned a \$109M phased renovation of a 285,000 SF, 16-story occupied institutional building with major central plant and MEP infrastructure upgrades.

Commissioning Scope of Work: Design through warranty phase to meet CUNY program directives and the USGBC LEED Rating System.

Commissioned Systems: Chiller/cooling tower; heat exchangers; AHUs; HVAC pumps; VAVs; exhaust/relief air; fan coils; unit heaters; DHW; controls.

II. Contract Cost: Gross Construction Cost: \$295,084.20 T&M NTE/ \$242,934 Final Cost | Amount Firm Responsible For/Firm Fee: Services were provided to CUNY directly.

III. Reference: James Gaspari, Vice President, The LiRo Group | gasparij@liro.com | 917-373-0542



I. Project Name

University at Albany - Renovate Former High School Building | Albany, NY

Project Start and End Dates: Construction Start Date: 4/2023 | Construction Completion Date: Phase IV & Phase V: 1/2024. Phase VI: Ongoing

Brief Description of the Project

C.J. Brown Energy provided comprehensive commissioning services for the \$180M adaptive reuse of a 129,000 SF historic institutional building with extensive HVAC, controls, piping, electrical, and envelope modernization.

Commissioning Scope of Work: Design through warranty phase to meet State University Construction Fund Program Directive 1B-6 and the USGBC LEED Rating System.

Commissioned Systems: ERUs; heat exchangers; pumps; exhaust fans; WSHPs; VAVs; DHW; lighting controls; envelope; TAB; controls; ductwork/piping.

II. Contract Cost

Gross Construction Cost: \$180M | Amount Firm Responsible For/Firm Fee: IV \$56,548; V \$60,316 final; VI ~\$99,920.00

III. Reference: James Gaspari, Vice President, The LiRo Group | gasparij@liro.com | 917-373-0542



I. Project Name

SUNY Buffalo State University Renovate Elms Hall | Buffalo, NY

Project Start and End Dates: Construction Start Date: 4/2022 | Construction Completion Date: Ongoing

Brief Description of the Project

Originally constructed in 1972, Elms Hall (formerly the Classroom Building) is an approximately \$86M renovation and adaptive reuse of a 92,000 SF academic building on the SUNY Buffalo State University campus. Included complete MEP modernization and system integration.

Commissioning Scope of Work: Design through warranty phase commissioning services for the three phased renovation to meet the State University Construction Fund (SUCF) program directives.

Commissioned Systems: Boilers, hydronic pumps with VFDs, energy recovery units, rooftop air handling units, exhaust fans, cabinet unit heaters, VAV boxes with reheat, split A/C units, domestic hot water systems, hydronic piping systems, TAB, and temperature controls/BAS.

II. Contract Cost: Gross Construction Cost: \$86M | Amount Firm Responsible For/Firm Fee: \$144,974.00

III. Reference: Facilities Design & Construction - Clinton Center 221 | Email paviscm@buffalostate.edu; Tel (716) 878-3670



Projects Similar in Building Type and Complexity

I. Project Name

Buffalo Niagara International Airport Baggage Claim Expansion - Niagara Frontier Transportation Authority | Buffalo, NY

Project Start and End Dates: Construction Start Date: 5/2020 | Construction Completion Date: 12/2021

Brief Description of the Project

C.J. Brown Energy commissioned a \$72M expansion within an active, highly secure international airport requiring phased construction, restricted access, continuous operations, and integrated mission-critical systems.

Commissioning Scope of Work: Construction through warranty phase commissioning; installation/startup/TAB verification; controls/integration testing; functional testing.

Commissioned Systems: BMS; packaged RTUs; ERUs; VAVs; exhaust/hydronic systems; smoke control; fire alarm; access/CCTV; telecom; emergency/normal power; lighting controls.

II. Contract Cost: Gross Construction Cost: \$72M | Amount Firm Responsible For/Firm Fee: \$112,790 - Services were provided directly to the Niagara Frontier Transportation Authority (NFTA).

III. Reference: Kendall Rush, Niagara Frontier Transportation Authority | kendall.rush@nfta.com | 716-855-7375



I. Project Name

University at Buffalo - Ellicott Welcome Center with Asbestos and Hazardous Material Abatement | Buffalo, NY

Project Start and End Dates: Construction Start Date: 5/2023 | Construction Completion Date: 5/2025

Brief Description of the Project

C.J. Brown Energy commissioned a \$12M, 24,000 SF renovation within a partially occupied 24/7 facility, requiring phased work, hazardous-material abatement, and existing-system integration.

Commissioning Scope of Work: Design through warranty phase in accordance with the Dormitory Authority of the State of New York (DASNY) Building Commissioning Guidelines.

Commissioned Systems: Condensing units; ERUs; exhaust fans; VAVs; boilers; pumps; heat exchangers; split A/C; lighting/temperature controls; TAB.

II. Contract Cost: Gross Construction Cost: \$12M | Amount Firm Responsible For: Commissioning services - value to confirm | Firm Fee: \$56,291 / Services were provided under C.J. Brown Energy's DASNY Commissioning Services Term Contract.

III. Reference: UB Ellicott Welcome Center with Asbestos and Hazardous Material Abatement, Ellicott Complex, 125 Lee Road, Buffalo, NY 14228 | 716-645-2000



I. Project Name

University at Buffalo - Renovate Crosby Hall | Buffalo, NY

Project Start and End Dates: Construction Start Date: 12/2021 | Construction Completion Date: 2/2024

Brief Description of the Project

C.J. Brown Energy provided design-through-warranty commissioning for the \$28M renovation of a 79,000 SF historic academic building, including complete HVAC modernization and integration of new mechanical and controls systems within existing infrastructure.

Commissioning Scope of Work: Design through warranty to meet State University Construction Fund Program Directive 1B-6 and the USGBC LEED Rating System.

Commissioned Systems: Water-source heat pumps; energy recovery units; exhaust fans; pumps; VAV systems; DHW; lighting controls; building envelope; TAB; temperature controls; ductwork and piping.

II. Contract Cost: Gross Construction Cost: \$28M | Amount Firm Responsible For/Firm Fee: \$48,460 Final

III. Reference: Bruce Majkowski - Associate Dean and Adjunct Professor, University at Buffalo | bruce@buffalo.edu | 716-829-3335





B. Understanding Project Requirements

With respect to the SCI Houtzdale – HVAC Improvements project, DGS Project No. C-0579-0009 Phase 1, C.J. Brown Energy understands the project to be as follows, as identified in the Request for Quote (date July 30, 2026); Attachment A – Scope of Work; and the SCI Houtzdale – HVAC Improvements Project Brief (date May 20, 2026):

C.J. Brown Energy understands the project to be a significant HVAC infrastructure modernization effort intended to improve the reliability, maintainability, operational performance, and long-term functionality of mechanical systems serving multiple housing units and the Dietary Building at the Pennsylvania State Correctional Institution at Houtzdale located at 209 Institution Drive in Houtzdale, Pennsylvania.

SCI Houtzdale, located in Clearfield County, is an all-male correctional institution which opened in 1996. Since its opening, it has gone through two expansions, first in 1998 adding two additional housing units and again in 2011 adding a dormitory-style housing unit. Currently, SCI Houtzdale stands as the third largest correctional facility in Pennsylvania, housing up to 2,800 inmates. SCI Houtzdale encompasses 277 acres and includes 35 operational structures including 11 housing units, utilizing an average of 620 staff to maintain the institution. The housing units are concrete masonry construction with a butterfly design each having 124 cells with the capability of housing between 260-275 inmates.

The institution has five (5) boilers servicing all the buildings for heat and steam production. Air conditioning for the institution is provided by three (3) Carrier chillers in the Central Utility Plant. The conditioned air is delivered throughout the buildings via ductwork. The Department of Corrections will have completed a re-roofing project at SCI Houtzdale previous to this project moving into construction. Extra care will need to be taken with any roof work including setting equipment, penetrations, curbing, and movement on roofs especially on buildings I & J in regards to the new proposed roof top units.

The purpose of this project is to replace some of the facility's rooftop units and air handling units, which have surpassed their intended service life and no longer meet operational standards. The aging systems present increasing challenges: replacement parts are difficult to procure in a timely manner, the R-22 refrigerant used by the rooftop units is now largely unavailable due to regulatory phase-outs, and the existing air handler design inhibits the completion of proper duct cleaning procedures. Upgrading this equipment is essential to ensuring reliable climate control, improving maintenance efficiency, and supporting a better mechanical infrastructure for the facility.

Per our review of the RFQ, Attachment A – Scope of Work, and supporting Project Brief, C.J. Brown Energy understands the primary project characteristics and commissioning considerations to include:

- Removal and replacement of ten (10) existing rooftop units located on Housing Units I and J, including four units serving inmate housing and one unit serving staff areas on each housing block.
- Removal and replacement of twenty-one (21) air handling units serving Housing Units A through G, including two units serving inmate housing and one unit serving administration areas within each housing unit.
- Removal and replacement of four (4) additional air handling units serving the Dietary Building.
- Modification and integration of the new HVAC equipment with the facility's existing ductwork, piping, controls, and Building Automation System (BAS).



- Testing, balancing, controls verification, functional performance testing, and documentation necessary to confirm the new equipment operates as a coordinated system rather than as individual equipment components.
- Maintaining safe and reliable facility operations during design, construction, equipment replacement, testing, and commissioning activities within an active secure correctional environment.
- Coordination of construction and commissioning activities around inmate movement, staff safety, tool control, restricted access, facility security requirements, and required project phasing.
- Protection of recently completed roofing systems, particularly at Housing Units I and J, during removal and installation of rooftop equipment, equipment setting, curbing, roof penetrations, and movement across finished roof surfaces.
- Verification of long-term maintainability, equipment accessibility, operating reliability, staff training, and complete turnover documentation

I. HVAC Equipment Replacement and System Performance

C.J. Brown Energy understands that replacement of the existing rooftop and air handling units is the principal focus of the project. However, successful completion of the project will require more than simply confirming that the replacement equipment starts and operates.

The new equipment must perform successfully as part of the existing building systems serving Housing Units A through G, I and J, and the Dietary Building. Each replacement unit must be properly coordinated with the existing duct distribution, piping, electrical infrastructure, controls, sensors, and BAS network serving the facility. The commissioning process will therefore focus on verifying that the new systems are properly designed, selected, installed, started, balanced, controlled, integrated, tested, and documented in accordance with the Owner's Project Requirements (OPR), Basis of Design (BoD), Construction Documents, and DGS requirements.

Particular attention will be given to:

- Equipment installation, accessibility, and service clearances.
- Airflow delivery and TAB verification.
- Temperature control and environmental performance.
- Sensor calibration and accuracy.
- Equipment safeties, alarms, and shutdown functions.
- Sequence-of-operation verification.
- BAS communication and control integration.
- Coordination between new equipment and existing ductwork and piping.
- Seasonal operating modes.
- Maintenance access and long-term serviceability.

Because the project includes numerous similar equipment replacements distributed across several housing units, our firm recognizes the importance of identifying installation and controls issues early in the construction process. Early pre-functional verification and first-in-kind testing can identify recurring deficiencies before they are duplicated across multiple units, reducing rework, improving consistency, and supporting the overall project schedule.

II. Existing-System and BAS Integration

C.J. Brown Energy recognizes that one of the most important technical challenges of this project will be integration of new HVAC equipment with existing facility infrastructure. The Scope of Work specifically requires



necessary modifications to integrate the new air handling units and rooftop units with existing ductwork, piping, and building automation systems. Accordingly, commissioning must evaluate system-level performance and not merely individual equipment operation. During the design phase, C.J. Brown Energy will review the developing system designs and Basis of Design with emphasis on:

- Compatibility between new and existing systems.
- Equipment sizing and operating requirements.
- Control-point requirements.
- Sequences of operation.
- Sensor locations and accessibility.
- BAS communication requirements.
- TAB requirements.
- Maintainability and service access.
- Testability of the completed systems.

During construction and functional performance testing, our team will verify the operational interfaces between equipment, controls, sensors, BAS programming, and associated system components.

The RFQ requires the CxA to write, direct, witness, and document Functional Performance Testing and to confirm proper operation of control sequences for seasonal operation. Testing will therefore include verification of equipment enable/disable commands, temperature control, safety, alarms, interlocks, operating modes, sensor performance, and sequence response.

Where appropriate, BAS trend data will be utilized to supplement functional testing and evaluate system operation over time. Trend analysis can assist in identifying issues such as unstable control loops, short cycling, improper equipment staging, simultaneous heating and cooling, sensor inaccuracies, and other conditions that may not be evident during short-duration functional testing.

III. Secure Facility Operations, Construction Phasing, and Roof Protection

C.J. Brown Energy understands that SCI Houtzdale will remain an active correctional institution throughout design and construction. As a result, project logistics and security requirements will be integral to the commissioning process. The Project Brief specifically identifies inmate movement, staff safety, tool control, access restrictions, and security procedures as important considerations affecting design, construction sequencing, and scheduling. The Project Brief further notes that construction sequencing will include relocation of inmates while work is occurring within housing units.

Commissioning activities must therefore be carefully coordinated with DGS, Department of Corrections personnel, the Design Professional, contractors, BAS personnel, TAB personnel, and facility operations staff. Site observations, equipment startups, TAB verification, controls testing, and functional performance testing will need to be carefully coordinated. Our firm will coordinate commissioning activities with the approved construction sequencing so that required verification and testing can be completed efficiently without creating unnecessary disruption to institutional operations.

A second significant project-specific consideration is the recently completed roofing work at SCI Houtzdale. DGS specifically notes that extra care is required during equipment setting, roof penetrations, curbing, and movement across roof surfaces, particularly at Housing Units I and J where the rooftop units will be replaced. C.J. Brown Energy will consider these interfaces during design review and construction observations, with attention to equipment curbs, penetrations, drainage conditions, service clearances, installation coordination, and other conditions that could impact either the roof system or long-term equipment maintainability.

C. Geographic Location

C.J. Brown Energy & Engineering, P.C. is located at 4245 Union Road, Suite 204, Buffalo, NY 14225, which is approximately 170 miles (one way) from SCI Houtzdale in Houtzdale, PA. Travel time (one way) is approximately three hours. Travel time associated with required site visits and on-site commissioning activities will be billed in accordance with the labor categories and rates included within the Cost Proposal.

The commissioning work associated with this project will be performed from C.J. Brown Energy's office. Key personnel assigned to the project who may work remotely or from alternate locations will remain readily available throughout the duration of the project to support project requirements, scheduling needs, and coordination with DGS, the Department of Corrections, the design team, contractors, and SCI Houtzdale facility staff.

Our team will be supported on this project by CPL, which maintains Pennsylvania offices in Hollidaysburg, Johnstown, and State College. These locations provide additional regional support and enhanced responsiveness for project coordination, site visits, meetings, commissioning activities, and unforeseen or emergency project needs. The combined resources of C.J. Brown Energy and CPL provide the staff depth, flexibility, and geographic coverage necessary to efficiently support the SCI Houtzdale HVAC Improvements project throughout all phases of design, construction, testing, and closeout.

Our firm recognizes the importance of maintaining efficient communication and minimizing unnecessary project costs associated with travel and site visits. Whenever appropriate, project meetings, commissioning coordination meetings, design reviews, and routine discussions will be conducted virtually through conference calls, Microsoft Teams, or other web-based meeting platforms. Routine communication will also be supported through phone, email, and electronic collaboration tools to facilitate timely coordination among all project stakeholders.

When on-site meetings and visits are required, our firm will typically schedule a full workday around commissioning meetings and perform other tasks while on-site (verification of RTU and AHU installation, prefunctional checkouts, equipment start-up observations, controls/BAS verification, witnessing of functional performance tests, etc.). We identify milestones in the commissioning process and coordinate meetings/site visits around key start-up and operational checkout points, thus avoiding unnecessary additional visits.

As the project progresses, the frequency of site visits typically increases as more equipment is installed/goes on-line and the project progresses from equipment-level to system-level verification. Intensive functional testing is conducted by appropriate personnel and is scheduled over periods of several days. Meetings and site visits are coordinated with the project manager, owner's representative, and the project team (architect, engineers, consultants, trades, TAB, O&M staff, etc.) as appropriate.

All meetings and site visits will be coordinated with DGS, the Owner's representatives, the design team, contractors, TAB personnel, controls contractors, and facility operations staff, as appropriate, to support project requirements, scheduling needs and successful commissioning outcomes.

D. Project Work Plan

I. High-Level Summary of Tasks, Deliverables, and Approach

C.J. Brown Energy has developed and utilizes a comprehensive, integrative commissioning (Cx) process based on our extensive commissioning project experience, in-depth knowledge of HVAC systems, controls/BAS integration, and energy conservation measures, and ongoing research into evolving commissioning tools, technologies, and industry best practices. Our approach is guided by the principle that “resolving issues earlier on paper is better than correcting them later in the field.” The commissioning process is a proactive and collaborative quality management process that extends throughout the life of the project. Our methodology encourages continuous communication among DGS, the Department of Corrections, SCI Houtzdale facility staff, the Design Professional, contractors, and other project stakeholders to identify and resolve issues early in the design and construction process, when low-cost or no-cost solutions are still feasible.

As the Commissioning Agent (CxA), our team will support DGS’s quality management program by validating and documenting that commissioned systems meet the design intent, Owner’s Project Requirements (OPR), and Department of Corrections operational needs. DGS identifies the CxA as responsible for ensuring quality delivery of building functionality and verifying that systems meet DGS and Client Agency requirements. All required correspondence, documentation, deliverables, and official commissioning activities will be managed through Trimble.

The commissioning scope will focus on the HVAC systems identified in the SOW, including heating, ventilation, refrigeration, HVAC controls, and associated duct sensors. Particular emphasis will be placed on the replacement of ten rooftop units on Housing Units I and J, twenty-one air handling units serving Housing Units A through G, and four air handling units serving the Dietary Building, including integration with existing ductwork, piping, and BAS controls.

During the Design Phase, our firm will participate in development of the OPR, prepare the Commissioning Plan, review the Basis of Design and design documents, participate in DD and CD design reviews, back-check commissioning comments, and develop commissioning specifications. The RFQ anticipates approximately 22 weeks of biweekly design meetings. Our reviews will emphasize equipment reliability, maintainability, accessibility, controls integration, sequence of operation, TAB requirements, and system testability.

During the Construction Phase, our firm will perform submittal reviews, attend construction and commissioning meetings, conduct field observations, maintain the Issues and Resolution Log, review startup documentation, coordinate TAB and controls activities, and perform pre-functional and functional performance testing. Particular emphasis will be placed on identifying recurring installation or controls deficiencies early so that issues are not repeated across multiple similar RTU and AHU installations.

Commissioning activities will be coordinated with the project schedule and construction phasing so that installation verification, startup, TAB, controls checkout, and functional testing occur at the appropriate stage for each housing unit and system. C.J. Brown Energy will maintain the Commissioning Issues and Resolution Log throughout the project to identify responsible parties, track corrective actions, verify resolution, and prevent unresolved deficiencies from affecting subsequent phases of work.

Our firm will write, direct, witness, document, and evaluate Functional Performance Testing and verify proper operation of control sequences for required seasonal operating modes. Testing will include applicable

equipment operation, sensor performance, safety, alarms, interlocks, BAS communications, airflow and temperature control, and sequence-of-operation verification.

C.J. Brown Energy will also support development of the Systems Manual, verify contractor training of DOC operations and maintenance personnel, and prepare the required Preliminary, Final, and End-of-Warranty Commissioning Reports.

Project deliverables will include:

- Owner's Project Requirements (OPR) workshop participation and documentation
- Commissioning Plan
- Commissioning specifications
- DD/CD design review comments and back-check reviews
- Submittal review comments
- Prefunctional checklists and inspection documentation
- Functional Performance Testing procedures and reports
- Commissioning Issues and Resolution Log
- Meeting agendas and meeting minutes
- TAB and BAS/controls verification
- Systems Manual documentation support
- Training verification documentation
- Preliminary Commissioning Report
- Final Commissioning Report
- End-of-Warranty Commissioning Report

II. Resources, Staff Assignments, Consultants, and Reimbursements

C.J. Brown Energy will assign experienced commissioning personnel with expertise in HVAC systems, rooftop and air handling equipment, BAS/controls integration, TAB coordination, equipment startup, functional testing, and existing-system integration. The project team will include personnel responsible for project management, OPR development, Commissioning Plan preparation, design and submittal reviews, field verification, controls coordination, functional performance testing, documentation, and closeout.

CPL will provide regional support and supplemental resources for meetings, field observations, commissioning activities, and rapid-response needs during construction and testing. CPL's Pennsylvania offices in Hollidaysburg, Johnstown, and State College provide additional geographic flexibility and responsiveness for SCI Houtzdale.

Resources anticipated for the project include:

- Certified commissioning professionals with extensive project management and commissioning experience.
- Mechanical/HVAC commissioning personnel experienced in rooftop units, air handling systems, equipment startup, TAB coordination, installation verification, and functional performance testing.
- Controls/BAS integration specialists experienced in DDC systems, programming review, point-to-point verification, sensor calibration, controls integration, sequence-of-operation verification, and system troubleshooting.
- Field personnel experienced in equipment startup, installation verification, TAB coordination, and functional performance testing.
- Administrative and documentation support resources for coordination, scheduling, issue tracking, Trimble management, commissioning documentation, and project closeout.
- Supplemental regional support resources provided by CPL for field coordination, meetings, observations, and commissioning/testing activities.

Reimbursable expenses may include travel associated with required site visits, project meetings, design reviews, commissioning observations, equipment startups, TAB activities, functional testing, overnight accommodations if necessary, and other project-related expenses consistent with the Professional Agreement and Cost Proposal.

III. Project Risks, Inefficiencies, and Mitigation Strategies

Our firm understands that the project presents several operational, technical, and logistical challenges requiring careful planning and coordination.

A primary consideration is that work will occur within an active secure correctional institution. The Project Brief identifies inmate movement, staff safety, tool control, access limitations, security procedures, and construction sequencing as significant project considerations. Construction sequencing will also include inmate relocation while work occurs in housing units. Our team will coordinate observations, startup, TAB, controls checkout, and testing with DGS, DOC facility personnel, and the project team around approved access periods, security requirements, and facility operations.

A second risk is integration of new HVAC equipment with existing ductwork, piping, and BAS systems. C.J. Brown Energy will emphasize early design review, detailed submittal review, field verification, and first-in-kind observations to identify recurring installation or programming deficiencies before they affect multiple units.

Because the project includes multiple similar RTU and AHU replacements across several housing units, our team will use early installation observations and first-in-kind testing as a quality-control strategy. Lessons learned from the initial installations, equipment startups, controls checkout, and functional testing will be communicated to the project team and applied to subsequent units. This approach will help identify recurring installation, programming, accessibility, or performance issues before they are repeated throughout the facility, reducing rework and supporting consistent system performance.

The recently completed roofing work is another project-specific consideration. DGS notes that extra care will be required during equipment setting, curbing, roof penetrations, and movement on the roofs, particularly at Housing Units I and J. Commissioning observations will consider equipment-curb interfaces, penetrations, service access, and installation coordination where applicable.

To minimize travel inefficiencies, site visits will be coordinated around major milestones, equipment installation, startup, TAB, controls checkout, functional testing, and retesting. Multiple commissioning tasks will be completed during each visit whenever practical, with Microsoft Teams, Trimble, phone, and email used for activities not requiring physical site presence. This coordinated approach will minimize unnecessary travel and testing delays while maintaining responsiveness to field conditions and the security, access, phasing, and operational constraints associated with an active correctional institution.

IV. Anticipated Hours

C.J. Brown Energy has reviewed the Scope of Work and anticipated project requirements associated with DGS Project No. C-0579-0009, Phase 1 – SCI Houtzdale HVAC Improvements. Based on our understanding of the project scope, number of systems and equipment involved, design-phase requirements, secure-facility constraints, phased construction requirements, existing-system integration, coordination needs, and anticipated commissioning activities, we anticipate approximately 213 total commissioning hours will be required to complete the work associated with this project. *The final allocation of hours among project phases and personnel classifications will be reflected within the Cost Proposal and associated labor-effort documentation.*

Personnel and Qualifications - Resumes for C.J. Brown Energy team members highlighting relevant project experience are provided below.



Christopher M. Sendker, PE, LEED AP, CBCP

Principal/Commissioning Services Manager

Summary

Mr. Sendker has over 40 years of experience in all aspects and phases of mechanical engineering. His areas of expertise include commissioning, retro-commissioning and control system design. He is particularly skilled in verifying sequences of operation, investigating operational issues, and liaising with stakeholders/project team members. He is also experienced in quality assurance reviews, field inspections, compliance with applicable standards and directives, and project technical support. Mr. Sendker is a member of the Building Commissioning Association.

Project Experience

Coxsackie Correctional Facility Provide Training Academy Firing Range and Training Building | West Coxsackie, NY

Pre-bid through warranty phase commissioning for the \$36.3M outdoor firing range and training building consisting of a 5,000 SF classroom building for 60 trainees; a shooter's shelter; a steel escalator bullet trap; and a 16-station, 100-yard baffled firing range.

Buffalo State University Renovate Elms Hall (Phase I/II/III) | Buffalo, NY

Design through warranty phase commissioning for the \$86M renovation of the former Classroom Building constructed in 1972. Phase 1: demolition, hazardous materials abatement, commissioning of the building envelope. Phase 2: interior fit-out including all MEP and fire protection systems. Phase 3: system integration, testing, and commissioning verification.

State University Construction Fund — Commissioning projects include:

- Baruch College Lawrence and Field Building Renovation (\$109M)
- University at Albany Renovate Former Albany High School (\$89M)
- Buffalo State University Renovate Elms Halls Phase 1 and 2 (\$78M)
- Binghamton University Rehabilitate Lecture Hall Student Wing (\$14.8M)
- Binghamton University Science III/IV Addition (\$26.4M)
- Binghamton University Education and Community Center (\$16.4M)
- University at Buffalo Foster Hall Renovation (\$33M)
- Binghamton University Smart Energy Research Building (\$70M)
- University at Albany Renovate Former Albany High School (\$89M)
- SUNY Potsdam Renovate Maxcy Hall Field House (\$16.7M)

Dormitory Authority – State of New York

- University at Buffalo's Ellicott Welcome Center (\$12M)
- Buffalo State University Bishop Hall Renovation (\$16.1M)
- Buffalo State University Tower 1, 2 & 3 Renovation (\$43.6M)
- SUNY College at Brockport Eagle Hall New Residence Hall (\$21M)
- SUNY College at Geneseo Renovations to Monroe Residence Hall with Asbestos Abatement (\$14.4M)
- SUNY College at Oswego Funnelle Hall Bathroom Renovations (\$13.7M)

Education

Clarkson University
B.S. Mechanical & Industrial
Engineering

Registration

New York, 1997, #074242

Professional Experience

C.J. Brown Energy &
Engineering, P.C.
1999 – Present
Commissioning Services Manager

Babinsky Klein Engineering
1988 – 1999
Team Leader

Trautman Associates
1984 – 1988
Mechanical Group Leader

Certifications

USGBC LEED Accredited Professional
2004

Association of Energy Engineers
Certified Building
Commissioning Professional
2014



Jeremy A. Wacker, EIT, CBCP, ACP, RFI

Commissioning Department Manager/Senior
Commissioning Specialist

Summary

An experienced commissioning project manager with a proven track record of leading multidisciplinary teams through hundreds of successfully completed commissioning projects across Western New York. Extensive experience delivering commissioning and retro-commissioning services for commercial, institutional, and multifamily buildings. Mr. Wacker has a strong background in mechanical engineering, building systems optimization, and construction-phase coordination. Adept at translating design intent into field execution through rigorous testing, documentation, and collaborative issue resolution. Expertise includes HVAC, domestic hot water, lighting, controls, and envelope-related testing.

Project Experience

Genesee County New Jail Facility | Genesee County, NY

Pre-construction through warranty phase commissioning for the \$70M, 99,830 SF, two level building consisting of pod direct supervision housing units and support spaces to serve a population of 184 inmates. Includes housing, educational/program space, intake/release, healthcare, kitchen, laundry, security operations, maintenance, storage, and administrative spaces including an arraignment room and an office suite.

Buffalo Niagara International Airport Baggage Claim Expansion | Buffalo, NY

Construction through warranty phase commissioning for the \$72M, 140,000 SF expansion and modernization of BNIA's baggage claim and terminal facilities within an active international airport environment. Led commissioning and functional performance verification of integrated airport operational, life safety, and security systems including HVAC, electrical, emergency power, fire alarm, smoke control, building management, telecommunications, public address/paging, access control, and CCTV/security systems.

University at Buffalo Ellicott Welcome Center | Buffalo, NY

Design through construction phase commissioning for the \$12 million renovation of the approximately 24,000 SF campus welcome center, including asbestos and hazardous material abatement. The project included upgrades to mechanical, plumbing, electrical, and controls systems to support improved building performance and occupant comfort.

State University Construction Fund Commissioning: Services for student housing/dormitory new construction and renovation projects including:

- University at Albany Renovate High School Building (\$89M) | Albany, NY
- SUNY Buffalo State University Renovate Elms Hall (\$78M) | Buffalo, NY
- SUNY University at Buffalo Renovate Foster Hall (\$33M) | Buffalo, NY
- SUNY University at Buffalo Renovate Crosby Hall (\$28M) | Buffalo, NY
- SUNY University at Buffalo Governors Hall (\$5.5M) | Buffalo, NY
- SUNY Erie "STEM" Building (\$33.1M) | Williamsville, NY

Education

State University of New York
at Buffalo
B.S. Mechanical Engineering
Technology

Erie Community College
A.A.S. Mechanical Engineering
Technology

Professional Experience

C.J. Brown Energy &
Engineering, P.C.
2018 – Present
Commissioning Project Manager/
Senior Commissioning Specialist

Roswell Park Cancer Institute
2017 - 2017
Project Coordinator/
Mechanical Engineer

John W. Danforth Company
2015 – 2017
Project Engineer

Certifications

Association of Energy Engineers
Certified Building
Commissioning Professional
2025

Building Commissioning Certification
Board (ACP) 2018

Certified RESNET Rated Field
Inspector (RFI) 2020



Mark S. Jankowiak

Commissioning Specialist/Controls

Summary

Mr. Jankowiak has over 22 years of experience in the development installation and commissioning of building controls systems including DDC and pneumatic controls, hydraulic, hydronic, and mechanical systems. His expertise includes field verification, testing, operation, O&M and graphic creation for building management systems. He also has a background in project management, field supervision, HVAC equipment, and technical support of HVAC systems. He possesses extensive hands-on programming, point to point verification, and program testing of building controls systems. He has 15 years of knowledge and experience in industry (mechanical, electrical, hydronic) working as machinery maintenance mechanic, and facilities manager. He has developed team skills with project managers, tradesmen, engineers and architects.

Project Experience

SUNY Buffalo State University Renovate Elms Hall | Buffalo, NY

Design through warranty phase commissioning for the \$86M three phased renovation of the 129,000 SF former "Classroom Building" constructed in 1972. Includes replacing building systems and finishes and a deep energy retrofit to improve building performance.

University at Albany Renovate Former High School Building | Albany, NY

Design through warranty phase commissioning for Phase VI of the \$89M renovation and adaptive reuse of the historic 129,000 SF Phillip Schuyler School to create the new College for Engineering and Applied Sciences. Includes the gut rehab of the building's interior south wing and four floors of the north wing, new labs and classrooms, maker/tinker space, renovated auditorium, offices and new MEP systems.

University at Buffalo Renovate Foster Hall | Buffalo, NY

Design through warranty phase commissioning for the \$33 million renovation of the 77,400 SF, 1921 historic building. Included an exterior stone facade restoration; complete interior gut renovation; new mechanical, sprinkler, plumbing, electrical and fire alarm systems; and a new elevator.

Lancaster Central School District 2018 Capital Improvement | Lancaster, NY

Construction through warranty phase commissioning services for Phase 5 of the 2018 \$77.1M capital project consisting of renovations at John Sciole Elementary School and 295 Pleasant View Administration Building.

Edwards Vacuum | Alabama, NY

Construction through warranty phase commissioning services for \$127M, 240,000 SF manufacturing, warehouse, and administrative facilities. The all-electric facility, powered primarily by hydroelectricity, manufactures dry vacuum pumps, a vital component to controlling the highly sensitive environment of semiconductor manufacturing processes. Performed all site work across multiple building systems and supported LEED certification documentation and coordination efforts.

Education

Johnson Controls Institute for-
Building Commissioning,
Programming, Building Graphic
Design, and Equipment (Chillers, Air
Handlers, Rooftops, Unit Ventilators,
FanCoils, Exhaust Fans, Variable
Speed Drives)

Professional Experience

C.J. Brown Energy
& Engineering, P.C.
2025 – Present
Commissioning Specialist/Controls

Johnson Controls, Inc.
2004-2025
Installation Systems Technician,
Project Engineer, Systems Designer