

**AGREEMENT TO PROVIDE COMMISSIONING SERVICES FOR THE
LARAMIE COUNTY DETENTION CENTER HVAC MODIFICATION**

**Between
LARAMIE COUNTY and IMEG CORPORATION**

THIS AGREEMENT is made and entered into by and between Laramie County, 310 W. 19TH St., Suite 320, Cheyenne, WY 82001 ("COUNTY"), and IMEG Corp., 7600 E. Orchard Road, Suite 250-S, Greenwood Village, CO 80111 ("CONTRACTOR"). The parties agree as follows:

I. PURPOSE

The purpose of this Agreement is to secure the services of CONTRACTOR in providing a comprehensive commissioning plan and functional testing services for newly installed equipment at the Laramie County Detention Center.

II. TERM

This Agreement shall commence on the date last executed by the duly authorized representatives of the parties, and shall remain in full force and effect until terminated in accordance with the provisions herein.

III. RESPONSIBILITIES OF COUNTY

A. COUNTY shall pay CONTRACTOR an agreed upon amount not exceeding \$37,050.00 Dollars, taking into account a five percent (5%) discount, for the services described in the Laramie County Detention Center HVAC RCx Modification Request for Proposal (RFP), attached and incorporated by reference into this Agreement as "Attachment A."

CONTRACTOR shall bill COUNTY by detailed invoice submitted to the Laramie County Clerk. Payments shall be in accordance with WYO. STAT. ANN. § 16-6-602 (2009). No payment shall be made before the last signature is affixed to this Agreement.

IV. RESPONSIBILITIES OF CONTRACTOR

A. CONTRACTOR shall coordinate and provide the services described in Attachment A, including but not limited to functional testing of the Air Handling Unit, kitchen HVAC Make-up Air Units, VAV Boxes, Fire alarm system, Smoke control system, and Boilers.

B. CONTRACTOR agrees to retain all required records for five (5) years after the COUNTY makes final payment and all other matters relating to the Agreement are concluded. CONTRACTOR agrees to permit access by the COUNTY or any of its duly authorized representatives to any books, documents, papers and records of CONTRACTOR which are directly pertinent to this specific Agreement for purposes including but not limited to audit, examination, excerpts, and transcriptions. It is agreed that finished or unfinished documents,

data or reports, prepared by CONTRACTOR under this contract shall be considered the property of the COUNTY and upon completion of the services to be performed, or upon termination of this Agreement for cause, or for the convenience of the COUNTY, will be turned over to the COUNTY.

V. GENERAL PROVISIONS

A. Independent Contractor: The services to be performed by CONTRACTOR are those of an independent contractor and not as an employee of COUNTY. CONTRACTOR will be treated as an independent contractor for federal tax filing purposes. CONTRACTOR assumes responsibility for its personnel who provide services pursuant to this contract and will make all deductions required of employers by state, federal and local laws and shall maintain liability insurance for each of them. CONTRACTOR is free to perform the same or similar services for others.

B. Acceptance Not Waiver: COUNTY approval of the reports, and work or materials furnished hereunder shall not in any way relieve CONTRACTOR of responsibility for the technical accuracy of the work. COUNTY approval or acceptance of, or payment for, any of the services shall not be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

C. Termination: This Agreement may be terminated (a) by either party at any time for failure of the other party to comply with the terms and conditions of this agreement; (b) by either party, with thirty (30) days' prior written notice to the other party; or (c) upon mutual written agreement by both parties.

D. Entire Agreement: This Agreement (5 pages), and Attachment A (12 pages) and the IMEG Proposal (33 pages) represent the entire and integrated agreement and understanding between the parties and supersede all prior negotiations, statements, representations and agreements, whether written or oral.

E. Assignment: Neither this Agreement, nor any rights or obligations hereunder shall be assigned or delegated by a party without the prior written consent of the other party.

F. Modification: This Agreement shall be modified only by a written agreement, duly executed by all parties hereto.

G. Invalidity: If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, or if the COUNTY is advised of any such actual or potential invalidity or unenforceability, such holding or advice shall not invalidate or render unenforceable any other provision hereof. It is the express intent of the parties that the provisions of this Agreement are fully severable.

H. Applicable Law and Venue: The parties mutually understand and agree this Agreement shall be governed by and interpreted pursuant to the laws of the State of Wyoming.

If any dispute arises between the parties from or concerning this Agreement or the subject matter hereof, any suit or proceeding at law or in equity shall be brought in the District Court of the State of Wyoming, First Judicial District, sitting at Cheyenne, Wyoming. The foregoing provisions of this paragraph are agreed by the parties to be a material inducement to CONTRACTOR and to COUNTY in executing this Agreement. This provision is not intended nor shall it be construed to waive COUNTY's governmental immunity as provided in this Agreement.

I. Contingencies: CONTRACTOR certifies and warrants no gratuities, kick-backs or contingency fees were paid in connection with this Agreement, nor were any fees, commissions, gifts or other considerations made contingent upon the award of this Agreement.

J. Discrimination: All parties agree they will not discriminate against any person who performs work under the terms and conditions of this Agreement because of race, color, gender, creed, handicapping condition, or national origin.

K. ADA Compliance: All parties agree they will not discriminate against a qualified individual with disability, pursuant to a law as set forth in the Americans with Disabilities Act, P.L. 101-336, 42 U.S.C. § 12101, *et seq.*, as amended, and/or any properly promulgated rules and regulations relating thereto.

L. Governmental/Sovereign Immunity: COUNTY does not waive its Governmental/Sovereign Immunity, as provided by any applicable law including W.S. § 1-39-101 *et seq.*, by entering into this Agreement. Further, COUNTY fully retains all immunities and defenses provided by law with regard to any action, whether in tort, contract or any other theory of law, based on this Agreement.

M. Indemnification: To the fullest extent permitted by law, CONTRACTOR agrees to indemnify and hold harmless COUNTY, its elected and appointed officials, employees and volunteers from any and all liability for injuries, damages, claims, penalties, actions, demands or expenses arising from or in connection with work performed by or on behalf of CONTRACTOR for COUNTY except to the extent liability is caused by the proportionate neglect or willful misconduct of COUNTY or its agents. CONTRACTOR shall carry liability insurance sufficient to cover its obligations under this provision and provide COUNTY with proof of such insurance when requested.

N. Third Parties: The parties do not intend to create in any other individual or entity the status of third party beneficiary, and this Agreement shall not be construed so as to create such status. The rights, duties and obligations contained in this Agreement shall operate only between the parties to the Agreement, and shall inure solely to the benefit of the parties to this Agreement.

O. Conflict of Interest: COUNTY and CONTRACTOR affirm, to their knowledge, no CONTRACTOR employee has any personal beneficial interest whatsoever in the agreement described herein. No staff member of CONTRACTOR, compensated either partially or wholly

with funds from this Agreement, shall engage in any conduct or activity which would constitute a conflict of interest relative to this Agreement.

P. Force Majeure: Neither party shall be liable to perform under this Agreement if such failure arises out of causes beyond control, and without the fault or the negligence of said party. Such causes may include, but are not restricted to, Act of God or the public enemy, fires, floods, epidemics, quarantine restrictions, freight embargoes, and unusually severe weather. In every case, however, a failure to perform must be beyond the control and without the fault or the negligence of said party.

Q. Limitation on Payment: COUNTY's payment obligation is conditioned upon the availability of funds which are appropriated or allocated for the payment of this obligation. If funds are not allocated and available for the continuance of the services and equipment provided by CONTRACTOR the Agreement may be terminated by COUNTY at the end of the period for which funds are available. COUNTY shall notify CONTRACTOR at the earliest possible time of the services which will or may be affected by a shortage of funds. At the earliest possible time means at least thirty (30) days before the shortage will affect payment of claims, if COUNTY knows of the shortage at least thirty (30) days in advance. No penalty shall accrue to COUNTY in the event this provision is exercised, and COUNTY shall not be obligated or liable for any future payments due or for any damages as a result of termination under this provision. This provision shall not be interpreted or construed to permit COUNTY to terminate this Agreement in order to acquire similar services from another party.

R. Notices: All notices required and permitted under this Agreement shall be deemed to have been given, if and when deposited in the U.S. Mail, properly stamped and addressed to the party for whom intended at such parties' address listed herein, or when personally delivered personally to such party. A party may change its address for notice hereunder by giving written notice to the other party.

S. Compliance with Law: CONTRACTOR, and all work performed by CONTRACTOR pursuant to this Agreement shall comply with all applicable laws, regulations and ordinances, whether Federal, State or Local. Further, CONTRACTOR warrants that its work will be, at a minimum, in accord with accepted industry standards.

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LARAMIE COUNTY DETENTION CENTER HVAC MODIFICATION**
between
LARAMIE COUNTY and IMEG CORPORATION

Signature Page

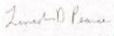
LARAMIE COUNTY

By: Linda M Heath Date 9/30/19
Linda Heath, Chairman, Laramie County Board of Commissioners

ATTEST:

By: Debra K Lee Date 9-30-2019
Debra Lee, Laramie County Clerk

CONTRACTOR: IMEG CORPORATION

By:  Date September 20, 2019

Title: Senior Principal

This Agreement is effective the date of the last signature affixed to this page.

REVIEWED AND APPROVED AS TO FORM ONLY:

By:  Date 9/27/19
Gladys Ayokosok
Deputy Laramie County Attorney



REQUEST FOR PROPOSAL
COMMISSIONING AGENT (Cx) SERVICES
LARAMIE COUNTY DETENTION CENTER HVAC RCx MODIFICATION
CHEYENNE, WYOMING

Submittals Due
2:00 PM July 16, 2019

REQUEST FOR PROPOSAL
COMMISSIONING AGENT (Cx) SERVICES
Laramie County Detention Center HVAC RCx Modification

I. ADVERTISEMENT

Laramie County (the County) proposes to modify the existing mechanical infrastructure in the Detention Center as a result of a Retro-commissioning study completed on December 28th, 2016.

The County has retained an engineering firm to complete Construction Drawings and provide Construction Administration. The County seeks to retain the services of a highly qualified Commissioning Agent to provide a comprehensive commissioning plan and functional testing services for newly installed equipment. The Commissioning Agent shall act as an independent agency to ensure that installed equipment functions according to the design documents and manufacturers specifications. The Commissioning Agent will be responsible to develop an approved comprehensive Commissioning Plan, to produce a Preliminary Commissioning Report and a Final Commissioning Report. The agency selected to perform these services will be required to coordinate with the CMAR and the County for all required services.

The Commissioning Agent will be required to develop a Commissioning Plan based on the information contained in the Construction Documents and Specifications. These documents are available for download through the Counties website at: <http://www.laramiecounty.com> click on the link to "Project Bid Information at QuestCDN" or at <http://www.questcdn.com>. The schedule for on-site inspections will be coordinated through the CMAR for each phase of project completion. Questions regarding this service or any other information should be directed to Ben Hornok, Laramie County Owners Representative at bhornok@laramiecounty.com.

The County will select a Commissioning Agent based on the response to this RFP. Submit your firm's qualification statement, your project approach and a cost proposal outlining the services you anticipate will be required. Include any additional rates for labor and site visits. The County will make a selection based on the proposals received proving the ability of the Agent to meet the schedule and needs of the County.

The County's objective is to complete the Project on time and on budget, while maintaining the County's commitment to quality, efficiency, value, innovation, sustainability, and compliance with all applicable regulatory requirements.

For additional information and to obtain all drawings and specs for this project, please visit Laramie County's website at: <http://www.laramiecounty.com> click on the link to "Project Bid Information at QuestCDN". A ten dollar (\$10.00) fee will be charged.

Proposals shall be received by email to bhornok@laramiecounty.com by 2:00 P.M. Mountain Time, July 16, 2019.

II. PROJECT OVERVIEW

1. The Laramie County Detention Center was originally constructed in 1986. An addition was constructed in 2001 and an expansion project is currently underway.
2. In 2016, a Retro-commissioning Study Report (RCx) for the Laramie County Detention Center was completed. This work involved a full review of the existing mechanical equipment to identify the current condition and potential for future capacity. After the RCx, determination was made for many of the critical infrastructure products to be carried forward. The RCx lists recommended projects that would positively impact the building and reduce energy consumption, reduce operation and maintenance expenses and improve comfort and control.
3. Funds were approved in 2017 by voters to construct an addition onto the existing Detention Center. Construction of this expansion project is currently underway and will include a five story addition on the northwest corner as well as additions in the kitchen and laundry service spaces. Construction completion is scheduled for the fall of 2019.
4. Mechanical improvements of the existing building are necessary in order to supply the required infrastructure for the function and operation of the Phase II Expansion project.
5. The RCx report lists Recommended Projects (RP-#) that would positively impact the building and reduce energy consumption, reduce operation and maintenance expenses and improve comfort and control. The work during Design narrowed scope and developed efficiencies within these RP's. The Recommended Projects that are designed and underway include:

RP-1 Central Control System and AHU-1

1. Remove the entire C-29 Air Handling Unit including evaporative cooling system from main mechanical room. Replace with a new roof top unit with new variable flow heating/cooling systems. Ductwork from the new unit is proposed to be routed and reconnected to existing ductwork thru an existing chase above the mechanical room.
2. Existing pneumatic controls system will be removed and replaced with DDC controls. All new equipment will be provided with DDC controls and be tied into the new control system. Existing fan powered VAV Boxes and all heating only VAV Boxes located throughout the facility will be replaced.
3. All pneumatic valves, actuators and dampers will be replaced with DDC controlled valves, actuators and dampers.

RP-3 Replace existing Kitchen HVAC Unit and Kitchen Hood Make-up Air Unit

1. Remove existing C-16a Kitchen HVAC and C-16b Kitchen Hood Make-up Air units in their entirety. Replace with new air handling units with variable flow heating/cooling systems. The new Kitchen HVAC unit and Make-up Air unit will be located in the existing mechanical room. Ductwork from the HVAC and Make-up Air units will be modified as required to reconnect to existing kitchen ductwork.
2. All controls will be from the new DDC control system.
3. Roof mounted Kitchen Hood Exhaust Fan will remain.

RP-4 Boiler System Replacement

1. Remove two existing dual fuel boiler/burners from the main mechanical room. Replace with three new dual fuel boiler/burners including piping for a fourth future in existing mechanical room. New boilers will include capacity for the new proposed addition. Piping from the new boilers will be routed and reconnected to piping in the existing mechanical room and new roof top equipment thru an existing chase.
2. Remove and replace the existing main primary heating water pumps with variable flow pumping system.
3. Remove and replace the 2001 addition primary heating water pumps and combine flows with main variable flow pumping system.
4. Remove the 2001 addition plate heat exchanger, glycol feeder, secondary main heating water pumps and controls. Provide new heating water system accessories, piping and controls to provide a complete combined system.

RP-5 Chilled Water System Replacement

1. Remove the existing roof mounted air-cooled chiller, chilled water pumps, equipment, accessories, piping and controls. Replace with new variable flow chilled water system including a new multiple multi-stage air-cooled chiller with additional capacity for the new proposed addition and Kitchen unit(s).
2. Provide with new primary chilled water pumping system.
3. Chilled water piping throughout the building will be modified to add chilled water cooling and controls to new HVAC systems.
4. Stub-outs will be provided for the addition of a future chiller and associated piping to add chilled water cooling to other HVAC systems currently on separate independent chiller systems.

RP-6 Variable Flow Systems

1. Remove all secondary heating coils, heating system and cooling system pumps for all HVAC systems in RP-1 thru RP-5 above.
 2. Modify existing main heating and chilled water piping systems as required for new flow rates.
 3. Pumps will be VFD controlled and included in new DDC building automation controls system.
6. Currently, the projected construction timeframe is as follows:
Construction Start Date: December 2018.
Construction End Date: November 2019.

III. GENERAL SCOPE OF SERVICES

The objective of commissioning is to provide documented confirmation that a facility fulfills the functional and performance requirements of the building owner, occupants and operators. To reach this goal, it is necessary for the commissioning process to plan, verify and document the owner's criteria for system function, performance and maintainability. This work will take place during construction, start-up and the initial period of operation. Assurance of informational Operation and Maintenance Manuals and training of the building operators will be included.

It is the owner's intent to seek the services of a qualified independent third party Commissioning Agent to provide services to support the construction phase, acceptance phase and occupancy of this project, specifically addressing the building systems including the typical mechanical,

plumbing, and electrical. Additional work may need to be integrated with other building systems such as fire suppression, fire alarm, security, lighting control, building automation, and communications systems included in the project. The Cx firm will be expected to work with the project team and their representatives in providing professional industry standard commissioning services by providing, but not limited to, the services noted in Section A.

It is the duty of the Commissioning Agent to provide properly trained personnel for all services performed. Personnel must understand the methods and techniques used in general construction operations as well as all requirements specifically detailed within the plans and specifications.

The Commissioning Agent's personnel shall adhere to all safety requirements of the CMAR while on-site and will need to pass a security screening by the Sheriff's Office in order to operate in the secured areas of the building.

The work of the Commissioning Agent will be done so as to not cause unnecessary disruption to the scheduled completion of the Phase II Expansion project and the ongoing operations of the Detention Center. The building will be fully occupied throughout functional testing. All tests must be coordinated with the Sheriff's Department.

A. INCLUDED SERVICES

The Commissioning Agent (Cx) shall be responsible for carrying out the following tasks. The proposer is free to suggest changes and improvement to the following task list, but for this request it is assumed that these tasks will be completed.

CONSTRUCTION PHASE

1. Coordinate and direct the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties, frequently updated timelines and schedules and technical expertise.

4. Prepare the Construction Phase Commissioning Plan. The plan will be a guide, at a minimum, outlining roles and responsibilities, communication methods, contact names and numbers, and a general overview of the commissioning process. The Commissioning Plan will include written Installation Verification and Start-Up Checklists, Functional Performance Testing Protocols, a Commissioning Schedule that is integrated into the master construction schedule and a detailed Training Plan. The initial Commissioning Plan will be prepared within 15 days from the date of authorization to proceed and submitted to the Owner for review. The approved Commissioning Plan will be used during the Kick-Off Commissioning Meeting and revised as necessary to reflect changes as the project evolves.

3. Installation Verification and Start-Up Checklists. The Commissioning Agent will be responsible for developing the Installation Verification and Start-Up Checklists for all equipment and system components included in the Commissioning Program. The checklists will include a list of component tests and items to inspect and verify proper installation for start-up. The Commissioning Agent will utilize contractor submittal data, manufacturer installation and start-up procedures and their professional experience to develop these checklists. The checklists will be incorporated into the Construction Phase Commissioning Plan. The Commissioning Agent will verify that all Start-Up Checklists have been completed by the installer prior to the performance of any functional testing.

4. Functional Testing Protocols. The Commissioning Agent will be responsible for developing functional testing protocols to confirm system operation and inter-system operation to demonstrate that the system is performing in accordance with the specified sequence of operations and the basis of design. The format of the functional performance test forms will be submitted to the Owner, Design Professional and Construction Manager at Risk for review and approval. The Functional Test Protocols shall be incorporated into the Construction Phase Commissioning Plan. At a minimum the functional performance test form will incorporate the following:

- a. List of test participants and witnesses
- b. Calibration Checks of Sensors
- c. Calibration Checks of Control Devices
- d. Test Protocols with step-by-step procedures for checking operational performance in every specified sequence of operation
- e. Test Protocols for checking operation of all safeties
- f. Note section to identify testing deficiencies and comments related to the testing
- g. A place to indicate the outcome of the test and whether retesting will be required

The Commissioning Agent will verify that pre-function checks have been done and systems are ready for Functional Testing.

5. Commissioning Schedule. Coordinate the commissioning work and, with the contractor, ensure that commissioning activities are being scheduled and integrated into the master construction schedule. The Commissioning Agent will facilitate meetings, as necessary, with the construction contractors to review the construction progress and integrate commissioning milestones into the construction schedule. Testing times will be coordinated with the Owner.

6. Chair Commissioning Meetings. Plan and conduct commissioning meetings as needed and distribute minutes to the commissioning team. The initial Commissioning Kick-Off Meeting will be scheduled within 30 days of the project bid date. At a minimum, thereafter monthly commissioning meetings will be held to discuss such issues as system/equipment start-up, outstanding issues from commissioning site visits, schedule coordination, testing documentation, training, deficiencies and problem resolution. The frequency of the commissioning meetings shall increase as construction advances and systems become operational. Commissioning meeting will be scheduled during normally scheduled site observation visits. Commissioning Meeting Minutes will be published and distributed within three (3) business days of the meeting.

7. Site Observation Visits. Prior to the commencement of Functional Performance Testing, perform site observation visits, as necessary, to become familiar with and observe component and system installations. Attend selected job-site progress meetings to obtain information on construction progress. Assist in resolving any discrepancies. Conduct Commissioning Meetings as appropriate during the site visit. The scheduling of the visits, when feasible, will coincide with scheduled field testing such as HVAC piping pressure tests, piping flushing and cleaning, duct leakage tests, electrical acceptance tests, etc. Also site visits will be scheduled to witness critical system start-up activities.

The Commissioning Agent will prepare a site visit report after each visit to identify construction activities observed, discussions/decisions made, and issues identified during the visit and status of open issues from previous visits. Site Visit reports will be distributed by the Commissioning Agent within three (3) business days of the visit.

ACCEPTANCE PHASE

1. Functional Performance Testing. Coordinate, witness and document functional performance tests. The functional testing shall include operating the system and components through each of the written sequences of operation, and other significant modes and sequences, including start-up, shutdown, unoccupied mode, seasonal adjustments, manual mode, staging, miscellaneous alarms, power failure, emergency alarm, security alarm when impacted and interlocks with other systems or equipment. Sensors and actuators shall be calibrated by the Contractor during their Installation Verification and Start-Up Checklist activities, and spot checked by the Commissioning Agent during functional testing. Separate Functional Testing Discrepancy Reports will be issued and distributed by the Commissioning Agent within one (1) business day of the testing.

The testing activities should result in repeatable performance and conformance to operational expectations. Some retesting is expected during the acceptance phase. However, significant level of retesting is not considered within the scope of the basic services. For the purposes of this contract, the Commissioning Agent is to assume that partial retesting to confirm correction of deficiencies will be required on all systems.

2. Track Commissioning Deficiencies. The Commissioning Agent will track efforts of the Contractor and / or Design Professional in addressing functional test discrepancies to satisfactory closure. This effort shall be continued as necessary beyond construction completion until such time as the deficiencies have been addressed to the satisfaction of the Owner.

3. Compile a Final Commissioning Report. Within thirty days of the Project Substantial Completion Date, compile a Final Commissioning Report that shall include:

- a. An Executive Summary that outlines the Commissioning Program by system. For each system the following should be commented on:
 - i. A brief description of the system and the list of system set points
 - ii. A summary of test results including dates of testing
 - iii. Outstanding issues resulting from both site observation issues and functional performance test discrepancy reports.
 - iv. A disposition of the Commissioning Agent regarding the adequacy of the equipment, documentation and training meeting the design documents and the basis of design.
- b. As separate Tabs in the report, include the supporting commissioning documentation such as issues log, commissioning plan, progress reports, installation verification and start-up checks, functional performance test documentation, trend logs and analysis, etc.
- c. Include both a hard copy and electronic version of the functional performance testing protocols for use by the Owner for future recommissioning.

4. Near End-Of Warranty Site Visit. Upon the Owner's discretion, return to the site at the 10th month of the Warranty Period to review with facility staff the current building operation and the condition of outstanding issues related to the original and seasonal commissioning. Also interview facility staff and identify problems or concerns they have with operating the building as originally intended. Make suggestions for improvements and for recording these changes in the O&M Manuals. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports and documents and requests for services to remedy outstanding issues.

B. SYSTEMS TO BE COMMISSIONED

This list is meant to give the respondent an idea of what may be included within the required scope of work. This list is not meant to be inclusive. Additional services may be required per the plans and specifications. It is the responsibility of the respondent to ensure that all necessary services are included in the cost proposal.

1. HVAC and service water-heating control systems shall be tested to document that control devices, components, equipment and systems are calibrated and adjusted and operate in accordance with approved plans and specifications. Sequences of operation shall be functionally tested to document they operate in accordance with approved plans and specifications.

a. Systems Include:

- i. Air Handling Units
- ii. Exhaust Fans
- iii. Supply Fans
- iv. Make-up Air Fans
- v. Heat Exchangers
- vi. VAV Control Boxes
- vii. VAV Temperature Control Systems
- viii. Glycol Feeders
- ix. Circulation Pumps
- x. Air/Dirt Separators
- xi. Cove Radiant Heaters
- xii. Boilers
- xiii. Chilled Water System

EXCLUDED SERVICES

The following tasks are given to provide the basis of services not included in this scope:

1. Testing, Adjusting and Balancing
2. Kitchen Equipment Testing
3. Electronic Security Controls
4. Surveillance System Testing
5. Communication Systems
6. Laundry Equipment Testing

IV. FEE, RATES, and ESTIMATED COSTS:

The services of the Commissioning Agent will be complete under a Professional Service fixed-fee contract. Procurement of this service will be through review of the RFP, no interview is required. The County may seek to negotiate with the responds prior to award of the contract. Fee proposals shall include:

1. Itemized list of services to be performed.
2. Fixed Fee.
3. Hourly rates to be used throughout the duration of the project.
4. Estimate of the number of site visits.
5. Itemized list of fees for additional services.
6. Potential Fee savings based on award of multiple projects.
7. Include an alternate price to conduct a functional test of the Fire Alarm system per NFPA Commissioning requirements.
8. Off hours testing should be included as necessary.

All fee proposals shall include all insurance required by the County, all submittal and equipment information reviews to be performed, transportation to and from the jobsite, printing, mailing, documentation, reporting, office overhead, profit, lodging, per diem, etc.

Should contract negotiations with the selected firm be unsuccessful, the County reserves the right to move to the next firm and begin negotiations.

V. INSTRUCTIONS TO RESPONDENTS

SUBMISSION: In order to be considered, proposals must arrive via email at the address below by 2:00 P.M. Mountain Time, July 16, 2019. Submitters shall submit one PDF file copy of their completed statement of qualifications and fee schedules to the County at the following address:

bhornok@laramiecounty.com

Please include the following reference in the subject line of the email:

LCDC HVAC COMMISSIONING AGENT PROPOSAL

It is the responsibility of the Respondent to ensure that their responses are received on or before the submission date and time. Allow sufficient delivery time to ensure receipt by the date and time specified.

- Response to any Respondent's inquiries will be made by the County in a timely manner to all known prospective Respondents. Inquiries and questions shall only be received by Laramie County via email at the following address: bhornok@laramiecounty.com.

CLARIFICATIONS OR SUPPLEMENTS TO REQUEST FOR PROPOSAL: In the event that it becomes necessary to revise any part of this RFP, a notice of any clarifications will be emailed to each Respondent who received the original RFP at the required website. It is the responsibility of Respondents, prior to submission date, to inquire as to addenda issued and to ensure their response reflects any and all changes. The County will maintain a register of holders of this RFP via the required website.

INCURRING COSTS: The County is not liable for any cost incurred by respondents prior to issuance of a legally executed contract. No property interest, of any nature, shall accrue until a contract is awarded and signed by all concerned parties.

RFP CANCELLATION: The County reserves the right to cancel this Request for Proposal at any time, without penalty.

NON-DISCRIMINATION: The respondent shall comply with all applicable state and federal laws, rules and regulations involving non-discrimination on the basis of race, color, religion, national origin, age, sex, or sexual orientation.

AVAILABILITY OF FUNDS: Financial obligations of the County payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available. In the event funds are not appropriated, any resulting contract will become null and void, without penalty to the County.

VI. STATEMENT OF QUALIFICATIONS

SOQs shall not be voluminous and should, if possible, be kept below 5 MB; but shall provide sufficient information to allow the Owner to evaluate the firm's cost proposal, approach, experience, staff and availability.

The proposer shall:

1. Responders shall provide information on the firm's experience on projects of similar size, function, and complexity including similar types of construction. Projects should demonstrate the firm's capabilities to perform on the project at hand. Provide contact information for each project referenced.
2. Responders shall be clear with respect to the:
 - Company's credentials
 - The local office's credentials, and
 - The project team's credentials
3. List key personnel to be assigned to this project. Resumes should include experience, licenses, certifications and other relevant information.
4. Discuss your firm's capabilities to meet time and project requirements and ability to perform the work taking into account your current and projected workload.
5. Explain your plan to protect the interest of and be an advocate for Laramie County during the project.
6. Special Qualifications. Describe what unique or extraordinary skills or qualifications your firm brings to the project. How would selection of your firm add value to the project?
7. Identify the location of your primary place of business.

VII. PRE-SUBMITTAL WALK-THROUGH:

A walk-through of the facility will not be conducted.

VIII. ADDITIONAL CONDITIONS

- 1) The successful respondent will be expected to enter into a contract, including insurance requirements, with Laramie County upon terms acceptable to the County. The contents of this RFP, the respondent responses to same and all provisions of the successful qualifier deemed pertinent by the County may be incorporated into a contract and become legally binding.
- 2) The County reserves the right to award the contract to the respondent(s) that the County deems to offer the best overall proposal(s). The County is therefore not bound to accept a proposal on the basis of lowest price. The County reserves the right to reject any or all proposals submitted and/or to waive or ignore any irregularities and/or omissions in any submission and to accept any proposal, portion of proposal, combination of proposal and or to reject or accept any proposal for any reason in its discretion

- 3) The County at its sole discretion, reserves the right to cancel this RFP, to modify the services sought, to reject any and all proposals, to waive any and all informalities and/or irregularities, or to re-advertise with either the identical or revised specifications, if it is deemed to be in the best interest of the County to do so. The County also reserves the right to make multiple awards, based on experience and qualifications if it is deemed to be in the County's best interest.
- 4) Laramie County does not waive its Governmental/Sovereign Immunity, as provided by any applicable law including W.S. § 1-39-101 et seq., by issuing this Request and/or entering into any agreement with any successful Respondent. Further, Laramie County fully retains all immunities and defenses provided by law with regard to any action, whether in tort, contract or any other theory of law, based on this RFP and any subsequent agreement(s).
- 5) Any errors or omissions discovered in this request for proposal, or any additional information needed to clarify any issues in the request, will be communicated to all firms who have expressed an interest in the engagement. The communication will amend the requests accordingly
- 6) If a respondent discovers any ambiguity, conflict, discrepancy, exclusionary specifications, omission, or other error in this document, the respondent shall immediately notify the County's representative. If respondent fails to notify the County of any error, ambiguity, conflict, discrepancy, exclusionary specifications, or omission in this RFP, the respondent shall submit a response at its own risk and under such conditions. If the respondent is awarded a contract, then such respondent will not be entitled to additional compensation, relief, or time by reason of the error or its later correction
- 7) It is incumbent upon each respondent to carefully examine all specifications, terms, and conditions contained herein and in all referenced data and documents. Any inquiries, suggestions, or requests concerning interpretation, clarification or additional information shall be made in writing, through the County contact named above. The County will not be responsible for any oral representation(s) given by any employee, representative or others. The issuance of a written addendum is the only official method by which interpretation, clarification or additional information can be given.
- 8) Respondents are advised that Laramie County is a governmental entity in the State of Wyoming. Public works projects, such as that referenced herein, carried out by governmental entities are subject to certain legal and regulatory requirements which may or may not be applicable to private entities. Any contract with a successful respondent will contain a requirement to monitor and secure compliance on the project with all applicable laws and regulations including, but not limited to, those contained in Wyoming statute WS 16-6-101 et seq.
- 9) If it becomes necessary for the County to revise or amend any part of this RFP, notice may be obtained by accessing the County web site. Respondents in their proposal must acknowledge receipts of amendments. Each respondent should ensure that they have received all addenda and amendments to this RFP before submitting their proposal. Please check the Laramie County web site at <http://www.laramiecounty.com> for a copy of the RFP and addenda.
- 10) All proposals submitted in response to this request become property of the County and public records, so they may be subject to public review. The laws of Wyoming require that the contents of all proposals shall be placed in the public domain and be open to inspection by interested parties. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld if clearly identified as such in the proposal. The respondent must mark in bold red letters the term "CONFIDENTIAL" on that part of the response, which the respondent believes to be confidential. The respondent may be required to submit in writing specific detailed reasons, including any relevant legal authority, stating why the respondent believes the material to be confidential. Vague and general claims as to confidentiality will not be accepted. Laramie County will be the sole judge as to whether a claim is general and/or vague in nature. The entire proposal cannot be designated as proprietary or a trade secret. If a request is received to examine portions designated as proprietary or a trade secret, Laramie County will notify the respondent to permit the respondent to defend the proprietary nature of the information.

11) The County reserves the right to request additional information, or request clarification, or reject in its sole discretion any and all proposals. Firms may submit a joint proposal.

12) Invalidity: If any provision of this RFP is held invalid or unenforceable by any court of competent jurisdiction, or if the County is advised of any such actual or potential invalidity or inability to enforce, such holding or advice shall not invalidate or render unenforceable any other provision hereof. It is the express intent of that the provisions of this RFP are fully severable.

13) By submitting in response to this RFP, respondent agree and understand that this RFP as well as any subsequent agreements shall be governed by and interpreted pursuant to the laws of the State of Wyoming. If any dispute arises between the parties from or concerning this RFP or the subject matter hereof, any suit or proceeding at law or in equity shall be brought in the District Court of the State of Wyoming, First Judicial District, sitting at Cheyenne, Wyoming. The foregoing provisions of this paragraph are agreed by the parties to be a material inducement to Responders and to County. This provision is not intended nor shall it be construed to waive County's governmental immunity as provided in this Agreement.

ADDITIONAL INFORMATION

For additional information, including the Construction Documents and Specifications for this project, please visit Laramie County's Site at: <http://www.laramiecounty.com> click on the link to "Project Bid Information at QuestCDN" or www.questcdn.com.

END OF DOCUMENT



Laramie County Detention Center HVAC RCx Modifications Commissioning Services | July 16, 2019



Firm Overview





IMEG is one of the largest engineering consulting firms in the U.S. specializing in high performing building systems, infrastructure, and construction-related services. With a global footprint of 40 offices and a deep bench of nearly 1,200 team members, IMEG strives to build long-lasting client relationships through our guiding principles, expertise, and collaborative project approach.

Founded originally in 1955, IMEG's strength is our willingness to collaborate and reach beyond the status quo, challenging ourselves to be thought leaders and innovators in the A/E/C industry. IMEG's vast talent consists of program managers, design engineers, and dedicated construction administration personnel.

IMEG engineers have a long track record of helping public institutions create facilities that are safe, secure, flexible, reliable, redundant and energy efficient. We have engineered nearly every type of municipal government facility, from administrative offices, maintenance facilities, public works, police, fire and village halls, to maintenance facilities, jails, transportation centers, parking ramps, waste and water treatment facilities, parks, zoos, and more. Our municipal work includes small and large scale projects, both renovation and new construction.

IMEG's corporate headquarters is in Rock Island, IL; our primary place of business for Wyoming is our Cheyenne location.

AT-A-GLANCE

- Founded in 1955
- Employee-Owned
- 1,200 Employees
- 40 Locations
- 350+ Licensed Engineers
- 100+ LEED AP's
- \$150 Million in Annual Revenue
- Top 6 Engineering Firm in U.S.

SERVICES

- Commissioning
- Structural
- Mechanical
- Electrical
- Plumbing
- Fire Protection
- Technology
- Civil
- Survey
- Security
- Acoustics
- Architectural Lighting
- Bridge Engineering
- Construction Support Services
- Energy Modeling
- Medical Equipment Planning
- Process Engineering
- Utility Infrastructure

MARKET FACTS

- Top 20 Government Sector Engineering Firm in U.S.
- 175 clients (city and county)
- 500 projects (past 5 years)
- \$700 million in construction value (past 5 years)

FACILITY TYPES

- Bus Stations / Garages
- City and Village Halls
- Detention Centers
- Parks and Recreation
- Police Stations
- Fire Stations
- Public Safety
- Public Works
- Maintenance Bays
- Water Treatment Facilities
- Wastewater Treatment Facilities

Firm/Team Experience



Laramie County Detention Center

RETRO-COMMISSIONING



The Laramie County Detention Center was constructed in two major phases; the original 63,000-sf three-story 1986 building, and the 37,000-sf five-story 2001 addition. The original building includes the sheriff's offices and supporting administrative spaces plus inmate housing and auxiliary support spaces. The main floor is comprised of the sheriff's administrative areas with central booking, locker/shower, central laundry, kitchen, evidence processing and storage, vehicle sally port, and the main mechanical room. The second floor includes a medical clinic, an exercise gym, detention cell pods, and day rooms. The third floor is an upper level of additional detention cells that communicate with each of the respective original cell pods. The original building also has a partial basement that is used for an indoor firing range.

IMEG (formerly MKK Consulting Engineers, Inc.), provided retro-commissioning services and a building assessment for the detention center. The initial purpose of the study was to identify environment comfort issues including temperature and building pressures issues and to identify the current condition of the HVAC equipment. The study focused on the existing systems with considerations for capacity that might be available future additions.

The retro-commissioning process revealed many issues including the pneumatic HVAC control system, which was recommended for replacement, along with the two multizone units serving the cells, chiller, boiler system, kitchen MAU, and kitchen HVAC unit. With the systems in their current condition it proved difficult to optimize any of the system. IMEG recommended upgrades to many systems be implemented and then new control strategies or sequences could be implemented.

Location

Cheyenne, WY

Size

100,000-sf Total

RetroCost

\$4 million

Completion

2016

Reference

Gary Ford, Maintenance Supervisor
307.633.4822
gford@laramiecounty.com

City of Peoria

POLICE PATROL SERVICES BUILDING - LEED GOLD



IMEG provided LEED Fundamental and Enhanced Commissioning services for the new 17,000-sf City of Peoria Police and Patrol Services Building.

Work included commissioning services from the design phase through the warranty phase of the project, providing commissioning-focused design reviews to the design team and performing the commissioning of all mechanical, electrical, and plumbing/domestic hot water systems as required by LEED.

The HVAC system is a high-efficiency variable refrigerant volume system controlled by the manufacturer's control system integrated with the owner's citywide building automation system. Lighting control and daylight control systems were also commissioned to ensure proper lighting levels at all times during the day and to save energy.

In addition to the systems commissioned, the City requested IMEG to separately verify the installation and operation of the photovoltaic system installed after the building was completed.

The project was LEED Gold certified and was also awarded an Arizona Forward Environmental Excellence Award from the Salt River Project, one of the Phoenix area's electric utility providers.

Location
Peoria, AZ

Size
17,000-sf New

Cost
\$11 million

Completion
2017

Reference
Ann Durkin, Architect, City of Peoria City
623.773.7149
ann.durkins@peoriaaz.gov

City of Rock Island

NEW POLICE DEPARTMENT - COMMISSIONING



IMEG provided engineering design and services for the City of Rock Island's new police station. The 44,500-sf building doubled the space available to the police department, which had outgrown its current, 22,000-sf, 75-year-old facility. The new building and its modern technology allows the department to increase efficiency and upgrade services to the community.

The police station includes offices, interview rooms, holding cells, training and simulation areas, a weight room, locker rooms, and 911 communications center. An existing 12,000-sf warehouse located on the 4½-acre site was renovated to house the crime lab and evidence processing and storage areas.

IMEG provided MEP, fire protection, technology design, construction administration, and commissioning services for the new building and renovated warehouse. The firm collaborated with the architect, owner and end-users in group meetings to ensure the design met the unique requirements of the different divisions and spaces within the building, including:

IMEG provided commissioning services for the HVAC and Control Systems, as well as Lighting Controls, Communications/IT Systems, and Emergency Power System. The commissioning was performed for the Construction Manager, Gilbane Building Company. IMEG commissioning team worked closely with the Design Team, Construction Team, City Officials, and Police Department Staff over the course of the project.

Location

Rock Island, IL

Size

44,500-sf New; 12,000-sf Renovation

Cost

\$20 million

Completion

2015

Reference

Jeffrey Venhuizen, Chief of Police
309.732.2701

City of Clayton

OFFICE BUILDING RENOVATION TO POLICE HEADQUARTERS - LEED PLATINUM



IMEG provided MEP engineering services and Systems Commissioning for a 78,000-sf renovation of a 7-story office building into Police Headquarters for the City of Clayton. In addition to the police department, the building houses the Information Systems department, additional city offices, and two federal tenants.

Design challenges included: low floor-to-floor heights with limited plenum space for mechanical and electrical systems, ensuring critical operations power system requirements were met, urban setting restricted accessibility with limited site options, and electrical utility service modification requirements on a limited site.

The project was funded in part through two energy grants distributed from the American Recovery and Reinvestment Act (ARRA) for a 100 KW photovoltaic array and to increase the energy efficiency of the mechanical and lighting systems.

Our Commissioning team was able to dissect the operations of the VRF system that was the main HVAC controls for this LEED building. We found that the original design did not account for an occupancy schedule, night setback, morning warmup, or other options that would offer the client energy savings that are required per LEED. Our team worked tirelessly with the vendor and BAS contractor to achieve the OPR for the VRF system.

MAIN SYSTEMS COMMISSIONED

- Air handling units
- Chilled water system
- Boiler hot water system
- Variable refrigerant flow system
- Generator
- Fire alarm system
- Building automation system
- Photovoltaic

Location

Clayton, MO

Size

78,000-sf Renovation

Cost

\$12.6 million

Completion

2013

Reference

Craig Owens (former City Manager)
City of Lawrence, Kansas
785.832.3400
craigowens@lawrenceks.org

Firm/Team Credentials



Firm/Team Credentials



Our team's responsiveness to our clients and our compliance with project schedules is paramount to us. Communication between the design, construction and commissioning team is key to a successful project and our approach is one of collaboratively engaging the team so our comments are addressed in the design early. Building this constructive relationship maximizes the value of the end product for the owner.

With each project, we review our current workload and plan consistent staffing accordingly. This assures the owner of our availability and our commitment to complete this project according to schedule. Should additional resources become necessary, IMEG has a 18-member strong dedicated commissioning team to support our proposed team. We are a part of IMEG's broader staff of more than 1200 employees.

To further demonstrate our depth of experienced personnel and ability to sustain the loss of personnel without compromising quality and timeliness of performance, below is the dedicated IMEG commissioning team members.

IMEG's Rocky Mountain commissioning team is currently providing commissioning services for 32 projects. Nation-wide we have a dedicated 18-member commissioning team, as well as more than 1,200 engineering design professional, and we have the resources to augment staff to accommodate any schedule need.

For this project our primary office location is our Cheyenne, Wyoming office.

IMEG Commissioning Team		
Team Members	Years Experience	Home Office
Jeff Jameson, PE, LEED AP, BEAP, CxA	35	Chicago, IL
Pablo Benitez, PE, CxA	10	Chicago, IL
Greg Eisenmann, PE, CxA, QCxP	5	Chicago, IL
John Graham, CxA	13	Novi, MI
Noelle Thornton, PE, CxA	15	St. Louis, MO
Mike Vandenberg, PE, CxA	22	St. Louis, MO
Cody Haby, PE, CxA	14	San Antonio, TX
Lincoln Pearce, PE, LEED AP, BEAP	24	Des Moines, IA
Guy Gooslin	25	Tempe, AZ
Randy Despain, LEED AP, CPMP, CEM, CEA, BEP	25	Tempe, AZ
Chuck Herman, CxA	32	Tempe, AZ
Rick Gilson	40	Tempe, AZ
Tyler Hill, PE, FPE	10	Tempe, AZ
Jack Chapman	28	Tempe, AZ
Matt Carsner, CBCP	27	Salt Lake City, UT
Philip St. Martin, TAB, CPT	30	Salt Lake City, UT
Troy Kelley	5	Salt Lake City, UT
Michael Giere	1	Salt Lake City, UT

Key Personnel





Project Manager, Lead Commissioning Authority

Matthew leads the Rocky Mountain Region's commissioning services and is IMEG's owner representative on commissioning projects. Matthew brings over 20 years of professional design and commissioning experience with an additional 7 years in construction including mechanical and electrical design, architectural design, chemical design, and structural design. His specialties include HVAC building systems, industrial design, semiconductor facilities, base build, and equipment installation design and is well-versed in managing and providing commissioning services throughout planning, design, construction, and completion phases. Matthew leads the entire commissioning process including developing the scope and fee for all projects. He has vast experience developing owners' project requirements (OPRs) and basis of design (BOD). His team supports the design team's intent and makes regular site visits during the construction phase to ensure their expectations are met. Matthew is well versed in creating and supervising the creation of design reviews, commissioning specifications, commissioning plans, commissioning issues logs, visual documentation of site visits, commissioning schedules, final report, and USGBC report creation and assembly and managing project support.

EXPERIENCE

27 Total, 6 with IMEG

ACCREDITATIONS

Certified Building Commissioning Professional (CBCP) Association of Energy Engineers

PROFESSIONAL AFFILIATIONS

Trace Load Calculation Software Certified, AUTOCAD Technician, EPA/AHERA

Pennsylvania Asbestos Building Inspector, EPA/AHERA

New Jersey Asbestos Contractor Supervisor Certification

New Jersey DCA Certified Asbestos Safety Technician (AST)

PROJECT EXPERIENCE

Division of Facilities Construction and Management, Salt Lake City, UT

- Utah State Correctional Facility Security System Design Phase - Commissioning
- 8,000-sf New Great Salt Lake Nature Visitors Center - Commissioning
- 140,000-sf New Utah National Guard Readiness Center with Assembly Hall, Classrooms, Kitchen, Toilets/Shower, Offices, Storage, Locker Rooms, Function Spaces, and Site Improvements - Commissioning
- Dixie State University Burns Arena Addition
- Dixie State Human Performance Center Commissioning
- Utah State University Lassonde Studios
- West Valley State Liquor and Wine Store
- Department of Environmental Quality Technical Support Center
- Utah Department of Transportation Cottonwood Heights Maintenance Bay

City of Moab, Moab, UT

- 95,000-sf Renovation of Three Buildings - Retro-Commissioning

University of Utah, Salt Lake City, UT

- 160,000-sf Pierre Lassonde Studios
- 2 Chiller Plants and one Central Chiller Plant Expansion
- Primary Children's and Families Research Center at Huntsman Cancer Institute*

Southern Utah University, Cedar City, UT*

- Science Center for Health and Molecular Sciences

Sorenson Molecular Biotechnology Building, Salt Lake City, UT*

- 208,000-sf New Facility

Douglas County School District, Lone Tree, CO

- Teddy Lane K8 Renovation Commissioning

Lincoln County School District #1, Diamondville, WY

- Mechanical Plant Upgrade Commissioning

Digital Global, Westminster, CO

- 480,000-sf Digital Globe Campus Office Building - Retro-Commissioning

* indicates experience prior to joining IMEG



Commissioning Agent

Phil has more than three decades of testing and balancing, and commissioning experience, for many high profile projects in the built environment. As a seasoned technical professional and successful mechanical consultant, Phil has performed services in various facilities including: industrial, medical and laboratory, penitentiaries and jails, corporate office buildings, central plants, and more. Phil is certified by NEBB in Test and Balance of air and hydronic systems at the supervisory level, which provides building owners a high performance system that is optimally tested, adjusted, and balanced while maintaining a minimal operating cost. He is also a NEBB Certified Supervisor in building systems commissioning, leading, planning, coordinating, and managing commissioning teams to implement commissioning processes in new and existing buildings. The certification is a combination of education and experience requirements and demonstrates his knowledge of HVAC systems commissioning. Phil has been commissioning building systems for over five years and has completed many prominent projects throughout the State of Utah.

EXPERIENCE

30 Total, 3 with IMEG

ACCREDITATIONS

NEBB Certified Supervisor in Building Systems Commissioning

NEBB Certified Supervisor in Air and Hydronic Balancing

NEBB Certified Technician in Cleanroom Performance and Compliance

PROFESSIONAL AFFILIATION

Sheet Metal Workers Journeyman

PROJECT EXPERIENCE

Division of Facilities Construction and Management, Salt Lake City, UT

- Utah State Correctional Facility Security System Design Phase - Commissioning
- 140,000-sf New Readiness Center with Assembly Hall, Classrooms, Kitchen, Toilets/Shower, Offices, Storage, Locker Rooms, Function Spaces, and Site Improvements - Commissioning
- Dixie State Human Performance Center Commissioning
- Utah State University Lassonde Studios

Utah Penitentiary, Bluffdale, UT*

- Remodel of Cell Block D - Testing and Balancing
- New Women's Secure Facility - Testing and Balancing
- Chapel Remodel - Testing and Balancing
- Administration Building - Testing and Balancing
- Geo Thermal Systems Serving Laundry, Cellblock, and Trades Buildings - Testing and Balancing
- New Cell Block - Testing and Balancing

Central Utah Correctional Facility, Gunnison, UT*

- Cell Block Remodel - Testing and Balancing

Davis County Jail, Farmington, UT*

- New Construction - Testing and Balancing

Salt Lake County Jail, Salt Lake, UT*

- Remodel - Testing and Balancing

Ute Tribal Justice Center, Fort Duchesne, UT*

- 106,000-sf New Justice Center - Commissioning

City of Moab, Moab, UT

- 95,000-sf Renovation of Three Buildings - Retro-Commissioning

University of Utah, Salt Lake City, UT

- Merrill Engineering & Warnock Engineering
- Chemistry Building (2 projects, both entire building remodels)

* indicates experience prior to joining IMEG



EXPERIENCE

1 Total, 1 with IMEG

EDUCATION

University of Utah, BS Mechanical Engineering 2019

Commissioning Support

Michael, a recent graduate from the University of Utah, has contributed to numerous projects requiring extensive research, mathematical calculations, team coordination, and engineering design. Michael's knowledge of fluid dynamics, heat transfer thermodynamics, and coding is useful when examining building systems and their efficacy to design intent.

In the past year Michael has gained commissioning and retro-commissioning experience, familiarity with energy efficient building, and has conducted site surveys for projects documenting and photographing existing facility conditions, and collecting building documentation and design drawings. He has identified equipment, written and performed functional tests on building systems and reported on performance. Combining system manuals, CFRs, and O&M plans, Michael has provided consolidated documents for building owners and operators to effectively run equipment and ensure longevity by reducing system failures. Michael's experience includes interaction with all project team members to ensure the systems' designs are code-compliant and meet the owner's needs. He has also confirmed the mechanical, lighting, plumbing, and control systems are installed and perform per design intent.

PROJECT EXPERIENCE

Division of Facilities Construction and Management, Salt Lake City, UT

- 140,000-sf New Utah National Guard Readiness Center with Assembly Hall, Classrooms, Kitchen, Toilets/Shower, Offices, Storage, Locker Rooms, Function Spaces, and Site Improvements - Commissioning

Department of Environmental Quality, Salt Lake City, UT

- Technical Support Center - Commissioning

Raytheon Vista Station, Sandy, UT

- Tenant Improvement - Commissioning

Division of Facilities Construction and Management, Salt Lake City, UT

- 8,000-sf New Great Salt Lake Nature Visitors Center - Commissioning

Paradise Valley Estates, Fairfield, CA

- Memory Care Retirement Community - Commissioning

Mick Riley Golf Course, Murray, UT

- Clubhouse - Commissioning

TD Ameritrade, Greenville, SC

- Office Building - Commissioning

TD Ameritrade, Beachwood, OH

- Office Building - Commissioning

TD Ameritrade, Denver, CO

- Office Building - Commissioning

TD Ameritrade, Oakbrook, IL

- Office Building - Commissioning



Senior Commissioning Authority

Randy is a Senior Commissioning Authority and energy engineer with 26 years of experience. This vast experience includes both commissioning and retro-commissioning to both new and existing facilities. His expertise is also prevalent with energy audits, modeling and design to the aviation, healthcare, commercial entertainment and municipal sectors. Randy has evaluated, developed and implemented several million dollars of energy projects and upgrades for building, mechanical and electrical systems. During his career, Randy has commissioned or retro-commissioned more than 50 buildings.

EXPERIENCE

26 Total, 10 with IMEG

EDUCATION

Master of Architecture in Energy Conscious Design, Arizona State University
BS in Design, Arizona State University

ACCREDITATIONS

Commissioning Process Management Professional 2012
Certified Energy Manager 1998
Certified Energy Auditor 2009
LEED Accredited Professional 2008
Certified Business Energy Professional 2005

AFFILIATIONS

Association of Energy Engineers
U.S. Green Building Council

US NAVY VETERAN

PROJECT EXPERIENCE

City of Peoria, Peoria, AZ

- 17,000-sf Police Patrol Services Building - LEED Gold - Commissioning

Maricopa County, Phoenix, AZ

- Retro-Commissioning Mechanical Systems and Lighting Control of 29 Government Buildings including:
 - Durango Jail
 - Durango Juvenile Detention Center
 - Towers Jail
 - Estrella Jail
 - Madison Street Jail
 - 4th Avenue Jail

City of Chandler, Chandler, AZ

- City Hall Cooling Tower RCx
- Public Safety Training Center
- Tumbleweed Rec Center HVAC

City of Phoenix, Phoenix, AZ

- 91st Ave WWTP Solids Building
- 91st Ave WWTP Solids Building Tech Assessment
- Energy Audits for APSES
- Goode Building Assessment Update
- Goode Building Humidity Control
- Goode Building Piping Inspection
- Goode Building Refurbishment
- Independent Energy Audit Advocate
- ITOC HVAC Cost Study
- Regency Garage CA & CX



Security Specialist

Jeff works in the Colorado offices as an electrical designer. He has an extensive background in the design of power, motor control, fire alarm, lighting, and communications systems in all varieties of building classifications. His 26 years of experience has armed him with a broad knowledge of all phases of construction management, from concept to occupancy. Jeff is also a security designer with a certification from ASIS International as a Physical Security Professional specializing in the design and application of security electronic technologies. Over the past 30 years, Jeff has developed a special expertise in the design of integrated security electronics system through the execution of myriad justice, correctional and detention facility projects.

EXPERIENCE

26 Total, 10 with IMEG

ACCREDITATIONS

Registered Designer of Electrical Systems in Wisconsin
ASIS International Certified Physical Security Professional

AFFILIATIONS

American Society of Industrial Engineers
American Corrections Association
American Jail Association

AWARDS

Wisconsin Association of Consulting Engineers "Grand Award" - 2001
Consulting/Specifying Engineer magazine "Integrator of the Year Award" - 2001

PROJECT EXPERIENCE

Johnson County Courthouse, Buffalo, WY

City of Aspen, Aspen, CO

- Aspen Police and City Office Building
- Aspen City Hall

City of Thornton, Thornton, CO

- Thornton Fire and Police Substation

Cheyenne River Detention Center, Eagle Butte, SD

- Security Upgrades

City of Denver, Denver, CO

- Denver County Jail East Housing Addition
- Denver Public Works Central Platte Campus - LEED Gold

Dunn County, Menomonie, WI*

- Judicial Center

Eau Claire County, Eau Claire, WI*

- Justice Center

Garfield County Sheriff's Detention Center, Glenwood Springs, CO

- Security Upgrades

Jefferson County, Jefferson County, CO

- Sheriff's Department Expansion

Lookout Mountain Youth Services Center, Golden, CO

- Security Upgrades

Milwaukee County, Milwaukee, WI*

- Safety Building, Criminal Justice Facility, Dispatch and Emergency Government Center

Mower County, Austin, MN*

- Justice Center

Department of Human Services, Greeley, CO

- Platte Valley Youth Services Center Security Upgrades

* indicates experience prior to joining IMEG



EXPERIENCE

6 Total, 2 with IMEG

EDUCATION

University of Colorado at Boulder, BS
Mechanical Engineering 2013

REGISTRATIONS

Professional Engineer
Wyoming

Electrical Engineer

Weston, a licensed Professional Electrical Engineer, has developed a strong knowledge and skill in electrical engineering. With years of field and design experience in electrical engineering, Weston understands the complexity of mechanical and electrical coordination and makes efforts to ensure fluency and longevity of his systems. With field knowledge of construction complexities, he discovers issues early within design to efficiently prevent hassle and coordination difficulties during construction. He has experience in educational, commercial, tenant improvement, residential, industrial, oil and gas, and multi-family projects. His experience includes electrical and lighting design, fault current analysis, fire alarm systems, low voltage systems, one-line diagrams, lighting control sequences, electrical specifications, and construction administration.

PROJECT EXPERIENCE

City of Helena, Helena, MT

- Remodel of Existing Building into New Police Station and Sheriff's Office

Big Brothers Big Sisters, Laramie, WY

- 17,000-sf Building Renovations: \$573K

Sidney Boy's and Girl's Club, Sidney, MT

Cheyenne Regional Medical Center, Cheyenne, WY

- 18,000-sf PACE Medical Office Building Remodel: \$120K

Freedom Elementary School, Cheyenne, WY

- Classroom Addition

Fort Washakie School K-12, Ft. Washakie, WY

- New Building

Lincoln County Elementary School, Kemmerer, WY

- Renovation

Elder Grove Middle School, Billings, MT

- Renovation

St. Vrain Innovation Center, Longmont, CO

- Renovation

Compositive Academy PK-5, Aurora, CO

- Renovation

Platte County School District, Chugwater, WY

- High School Boiler Upgrade

University of Wyoming, Laramie, WY

- 126,000-sf Mick and Susie McMurry High Altitude Performance Center Renovation

Laramie County Community College, Cheyenne, WY*

- Student Center, Pathfinder, Flex Tech Building

Laramie County Detention Center, Cheyenne, WY

- Retro-Commissioning Modifications



EXPERIENCE

37 Total, 37 with IMEG

EDUCATION

Michigan State University, BS Agricultural Engineering 1981

REGISTRATIONS

Professional Engineer
CT, MI, WY

ACCREDITATIONS

LEED Accredited Professional

Mechanical Engineer

Doug currently functions as a senior mechanical engineer in IMEG's Cheyenne office. Doug has designed mechanical building systems for educational, healthcare, correctional, office buildings, and transportation support facilities. In addition to overseeing mechanical design, his responsibilities include business development, and quality assurance. He frequently serves as the prime consultant on projects and is responsible for integrating and overseeing all design team efforts. As a senior engineer, and often project manager, Doug works hard to cultivate strong client relationships. He has established working partnerships with several clients for more than 20 years, and works closely with owners to maintain clear communication, ensuring long-term corporate goals are both considered and addressed.

PROJECT EXPERIENCE

Laramie County, Laramie, WY

- Replacement Evidence Building with Processing and Intake Areas, Short and Long Term Storage, Drug and Bio Hazard Storage, High Value Storage, and Garage Vehicle Processing Bay

Laramie County Detention Center, Cheyenne, WY

- Building Assessment For Future Capacity and Retro-commissioning

City of Cheyenne, Cheyenne, WY

- 63,000-sf New Public Safety Building Housing Police Department, Fire Administration, Laramie County Joint Communications and Emergency Operations Centers, and 24,000-sf Basement Garage

Wyoming Law Enforcement Academy, Douglas, WY

- Fire Alarm System Replacement

Rock Springs Police Department and City Hall, Rock Springs, WY

- Systems Upgrades Including New Boilers, Building Lighting, and Controls

Monument Homebuilders Corporate Headquarters, Cheyenne, WY

Big Brothers Big Sisters, Laramie, WY

- 17,000-sf Building Renovations: \$573K

University of Wyoming, Laramie, WY

- 126,000-sf Mick and Susie McMurtry High Altitude Performance Center: \$44M

Laramie County School District #2, Pine Bluffs, WY

- Pine Bluffs Elementary School

Laramie County School District #1, Cheyenne, WY

- Freedom Elementary School

Douglas County School District #RE-1, Lone Tree, CO

- Teddy Lane Tenant Finish

Clark County School District (CCSD), Las Vegas, NV

- Elementary School Prototype Projects

San Antonio Water, San Antonio, TX

- System Anderson Pump Station Improvements
- System Hildebrand Elevated Storage Tank and Control Center

Time and Project Workload Capabilities



Time and Project Workload Capabilities

Discuss your firm's capabilities to meet time and project requirements and ability to perform the work taking into account your current and projected workload.

We will be active participants in working with the team on each project schedule. We'll rely on the timely delivery of information provided by others, and we understand that others will rely on us delivering timely information to them. Because of our experience in multiple project types and delivery methods, we understand the time required for each step and will be active participants in the scheduling process so that there are no assumptions or surprises.

IMEG's Rocky Mountain commissioning team is currently providing commissioning services for 32 projects. Nation-wide we have the resources to augment staff to accommodate any schedule need.

Team Member % Availability for Laramie County Detention Center through 2021				
IMEG Cx Team Members	Construction			
	Aug 2019 - Jan 2020	Feb 2020 - July 2020	Aug 2020 - Jan 2021	Feb 2021 - July 2021
Matthew Carsner, CBCP <i>Associate, Commissioning Lead</i>	20%	30%	40%	40%
Jeffrey Geiger, DE, PSP <i>Security Specialist</i>	20%	30%	30%	30%
Phil St. Martin, TAB, CPT <i>Commissioning Agent</i>	40%	60%	60%	80%
Michael Giere <i>Commissioning Agent</i>	40%	40%	50%	60%
Randy Despain, BCxP, CEM, CEA <i>Commissioning Agent</i>	20%	50%	60%	60%
Weston Vorderberg, PE, <i>Professional Engineer</i>	30%	40%	50%	50%
Douglas Wissner, PE, LEED AP <i>Professional Engineer</i>	20%	30%	30%	30%

Interest and Advocacy



Our company has experience working on the Laramie County Detention Center providing our retro-commissioning services in 2016 and, as such, we understand the standards that the county expects. We also understand the county's desire for highly efficient and easily maintainable buildings.

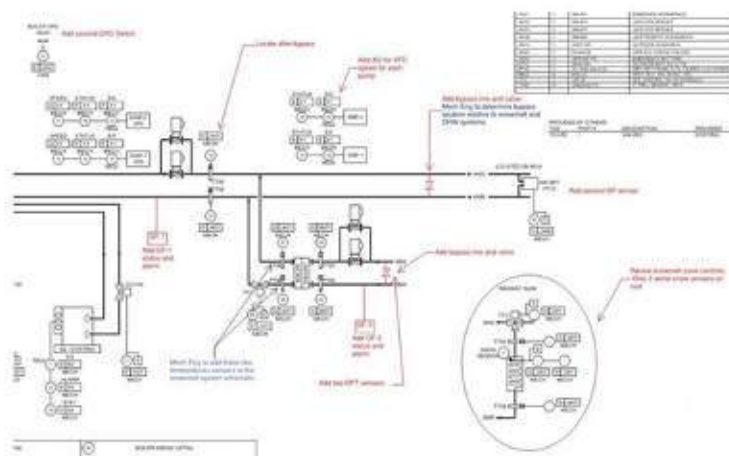
The first step in the project for IMEG will be to review all design documents, specifications and submittals, and create the commissioning plan for the project. The entire commissioning process, with each team members' responsibilities, will be laid out in the plan. We will include our installation verification and startup checklist that we call Pre-Testing Check (PTC) Sheets. IMEG's commissioning agents will create and fill out the pre-testing checklists to be utilized in equipment startups. On a project this size we have found it to be cost effective for us to fill out the PTCs ourselves instead of having the sub-contractors complete them. We will use the information gathered during this process to determine the equipment's readiness for testing. IMEG will also witness all major equipment startups to ensure the equipment is properly installed and will report to the team any issues identified during startup. We will include the commissioning milestones for the project in the commissioning plan. IMEG will integrate these milestones into the master construction schedule with the GC and track them during all phases of the project.

IMEG's commissioning agents will create Functional Tests to be utilized in the testing phase. We will utilize the design document and specification's sequence of operation, as well as the submittals and vendor information. We will also develop our Point-to-Point checkout list.

IMEG's commissioning agents will integrate the commissioning mile stones from the commissioning plan into the master construction schedule with the general contractor. We will track the progress of these activities and make adjustments with the GC and subs as necessary.

IMEG's commissioning agents will hold Cx Meetings at all phases of the project. We estimate 12 meetings via Internet or when we are onsite. These meeting include the Cx Kick off meeting, monthly check-in, and controls review meetings.

One critical submittal we recommend IMEG review for this project will be the controls submittal. IMEG recommends we provide a thorough review, concurrent with the engineer, to ensure the controls being installed are sufficient to meet the requirements of the sequences of operation and future flexibility. The engineers, controls contractor, the Laramie County facility staff, and commissioning agents will all gather in a controls charrette to discuss the results of the controls submittal review. We have found this to be an invaluable meeting, ensuring a smooth controls installation process.



The result of the controls charrette is a consensus by the key decision makers and clear direction for the controls contractor on how the system should function in great detail.

The following is an example of lessons learned on other projects that we will apply to the new detention center's controls charrette: The controls charrette was extremely useful for the Utah National Guard (UNG) Camp Williams Readiness Center and University of Utah (U of U) Lassonde Studios projects. The entire team was able to come together in one room and discuss larger items such as naming convention of equipment, sump level control, outside air lockout, lead/ lag staging, refrigerant alarm operation, and solids separator control. IMEG was also able to communicate to the control's contractor small inaccuracies in the control's submittal such as incorrect sensor location, unclear point labels, and lack of sufficient open controller points. Had these large and small items not been addressed up front, they may have led to incorrect installation and delays in the construction and testing processes. After the control's charrette, the controls contractor had the direction they needed to improve the accuracy of the install and update the as-built controls drawings.

Listed below are several comments from UNG Camp Williams controls charrette:

- Are CO and NO2 sensors required in loading dock even though the vehicle exhaust system is provided?
- How is economizer function being accomplished with AC-17 through AC-22?
- Temperature sensors need to be 15 feet from unit discharge
- Are dampers provided integral to unit?
- Freezestat shall be prior to heating coil unless MAT sensor will also act as freeze protection if heating coil fails
- Provide duct smoke detector on controls diagram
- Should control valves be provided on WHP-1/WHP-2 and WHP-3 or do these flow continuously?
- Should LWT on CHW system sensors be provided on WHP-1/WHP-2 and WHP-3?
- Should control valves be provided for CWR/CWS side of PX-1 heat exchanger?

All review comments were discussed with the design team, owner, and controls contractor during the controls charrette and solutions to each were determined.

Construction Site Visits

Early on in the construction phase, IMEG's commissioning agents will perform site visits, during which installation will be monitored and testing will be witnessed, per the specifications. The visits can be performed more frequently as necessary to coordinate with the construction schedule. The site visits offer a method of quality control, enabling the agents to identify issues early before they are repeated, or before solutions may affect the project schedule and budget. After each site visit we will generate a site visit report which will include all findings from the site visit (positive and negative). Issues identified will be noted and tracked in the issues log.

Construction site visits for the project will include looking at the following project specific potential risks:

- Noise Criteria. Observing mechanical and electrical equipment has been properly installed will minimize potential rattling or vibration noises.
- Ensure VAV coils are piped correctly from the beginning of mechanical rough in. We ask the contractors to mock-up one of the VAVs in the field before all of them are piped in. This assures mistakes are not repeated on multiple boxes. We compare the piping to the details in the drawings and use our experience to help troubleshoot field conditions.

- Proper clearances for installed equipment such as AHU's, coils, fan motors, boilers, VAV's, UPS equipment and electrical panels. IMEG will verify equipment clearances adhere to the specifications, submittals, NEC, and manufacturers written installation instructions.
- Specified installation requirements like access and maintainability of equipment. Visual documentation of these potential issues with solutions will be on the reports.
- Protection of equipment and materials during delivery and storage. The requirements should be listed in the specifications during the design phase, and the on-site practices will be tracked and documented. Damaged equipment will be identified and replaced before functional testing begins. IMEG will witness the delivery of all main equipment to document and verify it was not damaged during delivery and unloading.
- Installation deviations on all equipment from what was required in the design documents. By pointing out these issues early on and establishing a working relationship with the installing contractors, as well as the design engineer, unnecessary deviations will likely become less frequent. Recognizing that field modifications are occasionally necessary, having an understanding in advance for the work changes and documenting these changes will enhance the construction process.
- Control equipment installation. Many times a space sensor is placed directly below a supply diffuser. Catching these issues early on will speed up testing at the end of the project. We will verify all terminal units control wiring is complete before startup.

ACCEPTANCE PHASE

TAB Plan and Validation

Engineers are being asked to design more efficient systems. This usually means that there is little room for error. In order to implement the design intent, a solid Test and Balance (TAB) contractor is required. IMEG will rely on information obtained from the TAB contractor in order to evaluate building performance. Before TAB activities, IMEG will review company and personal qualifications. The TAB contractor will test the HVAC equipment at the extremes and record data. A good TAB technician knows what issues may arise during normal operation. (i.e. noise or vibration). During TAB, IMEG will consult the contractor and observe the procedures used in the TAB activities. After the TAB report is issued, IMEG will review the report in its entirety, focusing not only on individual outlet percentages, but looking at pressure and flow relationships to evaluate equipment performance. The TAB report is then included with the commissioning documents.

Point-to-Point Testing

One commissioning activity that IMEG has deemed essential to the commissioning process is the method of manual 100% "Point-to-Point" testing. This method is essential for the new detention center because of the potential complex systems typically associated with a high performance facility of this nature, together with the critical occupant health impacts of the HVAC systems. Not all commissioning agents perform this type of testing on projects. The controls contractor will usually have their own process of point-to-point testing. However, having the commissioning agent perform 3rd party 100% point-to-point testing has proven invaluable on many projects. The process involves testing each sensor and control point at the physical location to ensure sensors are calibrated, reading accurately, and have been mapped back to the appropriate location in the building automation system (BAS).

The value of point-to-point testing was made clear during the commissioning of the University of Utah Pierre Lassonde Studios. IMEG completed point-to-point testing on all of the fan coil units in the building. This process proved to be beneficial as several of the chilled water and hot water valves were found to be stuck in position or wired incorrectly. This caused the valves to display as if they were open on the BAS, when in reality the valves were closed, or vice versa. This would have not only led to temperature complaints in the associated spaces but wasted energy as well. In addition to point/equipment failures, the 100% point-to-point checkout also helped to identify several pieces of equipment that did

not have proper maintenance access. As IMEG visually inspected each component/sensor on the fan coil units we were able to determine if access was suitable for proper maintenance. Then, once the areas of concern were identified, IMEG worked with the construction team to determine the best way to provide better access.

Functional Acceptance Testing

Each piece (100%) of equipment will have its sequence of operations tested to verify that it will function per the design documentation in any scenario. Deficiencies identified during functional testing will be documented and tracked in the issues log. IMEG will coordinate with the engineer to approve any changes to the sequences of operations or design documentation as found through functional testing. IMEG will not offer design direction or approval of changes. We will facilitate the identification and tracking of issues, as well as communication with the design engineers and Laramie County to provide final direction.

The functional testing will include looking at the following project-specific potential risks:

- Often individual systems can test out as fully functional systems but overall building function is not acceptable. Integration of all systems is performed through testing all systems together. Adjustments to each system may be required for better building function. Building pressure is one thing that can become erratic until all systems are tuned with each other. In this building, kitchens, and industrial areas with intermittent exhaust fan operation, combined with evaporative 100% outside air systems, can create unwanted pressure changes. For example a pressurized kitchen will send odor and fumes into connecting corridors.
- Many times the programming is completed by the controls contractor and all alarms have not been verified. IMEG will confirm all alarms in the functional test. Valve positions and sensor calibration always require adjustments as a result of testing. IMEG will require a thorough point-to-point check out to minimize these risks.
- Air handling units (AHU) functional testing includes:
 1. Calibration of all air and humidity sensors. Often these sensors are found incorrectly installed or out of calibration and replacement is sometimes required.
 2. Exercising all dampers positions and installation results in adjustments that make the system more efficient.
 3. Valve visual confirmation as well as BAS readout confirmation assures efficient operation.
 4. Freeze stats are tested with ice and correct installation of sensors will be verified.
 5. All fan VFD's will be confirmed at the controllers and in the BAS
 6. The AHU will be put through the entire sequence of operation identifying where adjustments need to be made so the unit functions to the engineer's intent.
- The boiler design temperatures and controls sequences will be reviewed to ensure the condensing boilers do not run over 140°F to maximize the condensing function of the units. IMEG will look at flue and combustion air ducts to make sure they don't terminate in the same location on the roof, per manufacturer's recommendations, in order to maintain consistent wind effects. IMEG will also observe the startup to make sure the combustion analysis is performed to standards. The boilers will be run through the sequence of operations to ensure they achieve optimal turndown and cycle to the designated set-points.
- Pressure, humidity and lighting will be verified using calibrated test instruments. Any spaces with critical temperature, humidity, or light level requirements will be thoroughly tested to ensure the specific criteria are met under all conditions.
- It is important to review heat pump systems: Heat pump systems, if not operated correctly, become a maintenance issue. IMEG has seen these systems disabled by facility personnel because of various issues. IMEG will review the control systems and maintenance requirements so that these systems stay in operation.
- IMEG will thoroughly test any equipment that is expected to operate on emergency power and ensure it operates per the specifications. IMEG tested the HPER plant in all modes of operation, including refrigerant alarm and

emergency purge. In doing so, it was discovered that the refrigerant alarms were not annunciating as dictated by the sequence of operations, the condenser water pumps did not disable, and the exhaust fan did not enable during emergency purge mode. The programming was added by the control's contractor, and IMEG was able to retest the sequence to verify the functionality of the alarms and purge sequence. Had these items not been tested, identified, and resolved, facility personnel could have unknowingly walked into a dangerous environment in the case of a refrigerant leak in the plant.

Issue Resolution and Tracking

IMEG will perform as much retesting as is necessary to ensure all issues are closed out and the facility is fully operational. Each issue will be tracked throughout the life of the project until 100% of the issues are resolved. This will ensure that the project has a fully functional and optimized facility when it is occupied. We will track all issues from the time we start the project to completion on the commissioning issues log. The log will be updated and issued after each site visit and during testing. We will meet with the GC every day after testing to go over the issues. We will share the log with the owner and facilities team before each meeting.

Project Closeout Plan

IMEG often recommends to the building owners that the contractors not receive final payment on projects until the commissioning issues log items are all closed out.

The following outlines the process we follow at the end of a project:

Statement of Acceptance for Each System

- A Statement of Acceptance will be issued for each commissioning system functionally tested during the Acceptance phase of the project
- We will recommend that substantial completion will not be granted until all statements are provided

O&M Manual Review

- Perform and document an O&M manual review
- Review for content listed in the specifications
- Review as-built documentation included in the manual
- Document any issues found and show how they were resolved the issues log

Lessons Learned

- Lead a commissioning lessons learned meeting with the commissioning team
- Lessons will be documented and included in the final report

Final Commissioning Report

- Assemble a final commissioning report containing our procedures performed and all of the information collected during the commissioning process. We will include all commissioning documents utilized above from the commissioning process.
- Include all contractor documentation for the commissioned systems listed in the master equipment list

Warranty Services

IMEG will follow the project beyond the functional testing into the warranty phase to ensure the building systems operate per the intended sequence throughout every season. Warranty services will include:

Seasonal Testing (if needed)

- Re-test six (6) months after functional testing, taking place in the opposite season of the original functional testing period

- Meet with the facilities operators to address any issues they have experienced within the six (6) month period
- Provide a post occupancy Warranty Issues log for any issues that need to be resolved

Warranty Walk

- Participate in the warranty walk to shed light on issues and help track and resolve them. All issues on the Warranty Issues log will be resolved by the end of the warranty period.

Coordination with Project Team

Our team utilizes the cloud-based software CxAlloy throughout the entire project. It allows for a transparent commissioning process, is free for each user, and is intuitive enough to require little to no training for the contractors. The entire team has access to the project dashboard, which provides a snapshot for project progress, including number of issues identified, number of issues resolved, project schedule process, issues outstanding per contractor, and several other metrics. CxAlloy can be utilized online or offline at any time via mobile applications or Chrome browser, enabling the project team to perform documentation in real-time on-site. This will expedite the documentation process for the entire team. Pictures can be directly attached to issues or checklists, enabling a contractor on-site to get rapid feedback from the commissioning agent and/or design team. It is a central location from which commissioning documentation can be disseminated to and gathered from the contractors. IMEG is able to issue site visit reports, document testing procedures, note and assign issues, and track issues through to resolution. All the documentation is gathered at the close of the project and presented to the owner for reference throughout the life of the building. CxAlloy is one of the most powerful tools we've found as commissioning agents, providing a system of communication that is effective, keeping the owners and design team involved, and yet not bogging the contractor down in excessive paperwork.

SPECIAL QUALIFICATIONS

1. We will bring the experience of our commissioning team and design engineers to deliver the most efficient systems in terms of HVAC and Lighting Controls. Our engineering team has designed multiple penitentiaries and jails. This experience will bring value to the project throughout all phases of construction. We will look at different ways to operate these systems to maximum efficiency. Over head of our commissioning agents are professional engineers. We utilize our wide range of design engineers for our reviews since we are a full-service engineering firm. Not only do we utilize MEP engineers, but we also have structural engineers who can help with seismic and vibration isolation reviews on all equipment. **IMEG is inherently different from other solely commissioning firms**, which allows us to provide additional value to each project by utilizing the wealth of knowledge available in our team of 800 design engineers. **This is not an attempt to re-design each project, but rather to offer a second set of eyes and collaborate with the project's design team to identify future maintenance issues, find lower cost, or higher efficiency options for design components, or optimization opportunities for sequences of operation.**
2. Depth of Resource: A key benefit of our commissioning services compared to others is our team's experience and commitment to our services. Our commissioning team is a dedicated staff of 18 who focus solely on commissioning work; they are not working on competing design projects and deadlines which detract from their focus and availability. Our staff have backgrounds in design engineering, testing and balancing, controls, and contracting, which is invaluable to the commissioning process. In addition to our team's direct experience, engaging IMEG's commissioning services brings along the resources, experience, and capabilities of the hundreds of other design staff within IMEG who are only a call away if their input is needed to support your project.

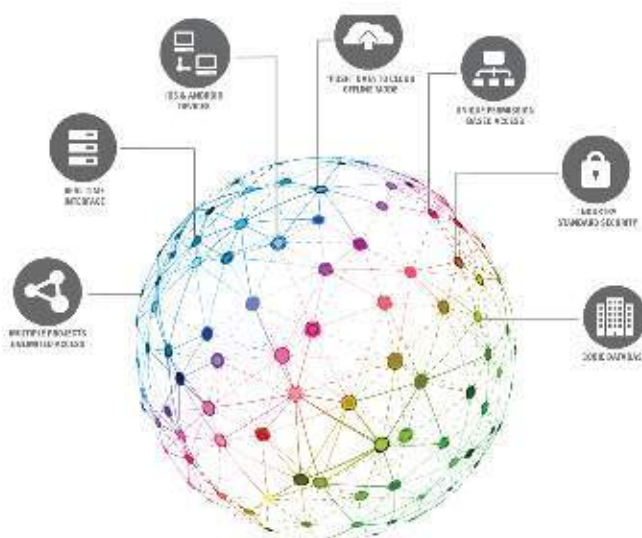
Special Qualifications



What makes us different from other commissioning providers? Here are a few key differentiators we believe are unique to our team and will provide you true value:

- Our commissioning team is a **dedicated group of staff** who only do commissioning work. This is their specialty. Our team is not made of design engineers or control technicians who commission on the side when time allows. Our team is made of licensed and certified staff with extensive design and construction experience who have dedicated themselves to the commissioning service.
- Our commissioning staff has **extensive design and field experience**. Many staff members are Professional Engineers or former Testing and Balancing (T&B) contractors. This experience allows us to understand complex designs and engage during design in a meaningful way. In addition, every one of these individuals has **experience and expertise with LEED, IECC, and ASHRAE requirements**.
- We have the support of one of the largest full service engineering firms in the country, and the **breadth and depth of resources** that comes with it.
- Our extensive **commissioning experience**.
- Our **use of Cx Alloy**, and the transparency and accountability this process provides
- Our **functional performance tests are custom-written** for each project, and based on data as opposed to simple PASS/FAIL tests. We record set points and operating conditions in our testing, which provides data rich test reports and systems manuals for use by facility operators.
- **We are present for the functional testing**. We do not pass the functional tests off to the contractors to complete alone. We are at the project site with the contractors to direct, observe, and document the functional testing

In addition to providing commissioning as a service with dedicated commissioning authorities, IMEG is an engineering design firm of over 1,200 building engineers and support staff. Our engineering design staff are always available to us to support our commissioning efforts if and when needed. We believe our combined experience in commissioning and design provides owners considerable resources most other firms cannot match. Our commissioning team's experience and capability is backed by the many industry certifications our staff carry. **Many of our commissioning authorities hold professional engineering licenses. In addition to these certifications, our staff also hold the following certifications: CxA, QCxP, CPMP, CEM, CEA, BEP, CBCP, CPT, and ASHRAE BCxP and BEAP.** Our team's BEAP certified professionals can provide valuable input from concepts to final closeout to ensure your building meets your energy performance goals.



Web-based tool information dashboard

Fee, Rates, and Estimated Costs



COMMISSIONING SCOPE

IMEG will comply with the scope requirements as identified in the Request for Proposal. The following description of services confirms this intent and provides some additional information.

Systems To Be Commissioned

Based on review of the RFP information, we have estimated the following commissioned systems, equipment, and quantities.

Equipment/System	Quantity	Sampling Strategy ¹
Air Handling Units	4	
Exhaust Fans	10	40%
Supply Fans	20	40%
Makeup Air Fans	20	40%
Heat Exchangers	2	
VAV Control Boxes	25	25%
VAV Temperature Control Systems	25	25%
Glycol Feeder	1	
Circulation Pumps	4	
Air Direct Separator	1	
Cove Radiant Heaters	10	
Boilers	2	
Chilled Water System		

¹ All equipment will be commissioned at 100% unless noted otherwise

Verification of the operation and performance of the commissioned equipment and systems consists of testing to confirm they perform the intended functions through various modes of operation. Tests are typically performed by overriding temperature, flow, pressures, or adjusting setpoints in the building control system (or at the local controls for standalone controlled equipment) to simulate conditions in the sequence of operations. The response of the system will be observed at the graphic workstation or in the field, and documented on test procedure forms.

We propose the following scope of work from design through occupancy phases:

COMMISSIONING

The commissioning (Cx) scope below, focused on what was specified in the supplied RFP from LCDC.

- ☒ Review the Project Requirements (OPR), Basis of Design (BOD) and project design
- ☒ Develop and implement a Cx Plan
- ☒ Develop and distribute Pre-Testing Checklists for all equipment
- ☒ Host Cx kickoff meeting (1 Visit or video Go-To meeting)
- ☒ Create Functional Acceptance Testing procedures
- ☒ Integrate Cx Milestones in the master construction schedule and manage timeline for Cx activities
- ☒ Hold Cx Meetings at all phases of the project (We estimate 12 meetings Via Internet or When we are onsite)
- ☒ Review and comment on controls submittals
- ☒ Validate installation by reviewing contractor startup checklists/Pre-Testing Checklists
- ☒ Perform site visit observations (startup/pre-functional inspections) during construction. (3 visits)

- ☒ Review and comment on TAB report
- ☒ Execute Functional Acceptance Testing procedures, including manual point-to-point and sequence testing (1 people x 1.5 week's initial testing. 1 person x 4 days follow up issue closeout verification)
- ☒ Create and maintain Issues and benefits Log
- ☒ Prepare and distribute Final Cx Report
- ☒ Verify seasonal testing (1 visit, 1 person)
- ☒ Review building operations 10 months after substantial completion (1 visit, 1 person)

Assumptions

1. IMEG will complete the services indicated above but will require the contractors to operate the systems and provide any required specialized equipment
2. Site visits and meetings required above and beyond what is stated in this Proposal will be addressed with the client and will be considered additional services
3. IMEG will be given remote viewing access to the building automation system during the testing phase allowing IMEG to comprehensively evaluate longer term trending of systems performance.
4. IMEG is entitled to rely on the completeness and accuracy of all information provided by the Owner/design team. IMEG shall not be held responsible in any way for errors or omissions contained in any drawings or specifications prepared by others or for errors or omissions by others in incorporating IMEG's recommendations into the project reports, drawings, or specifications.

COMPENSATION

We propose to provide the services described above for a fixed fee of \$39,000.

If Multiple projects are awarded to IMEG by Laramie County a 5% reduction will be made to this fee.

EXPENSES

The following expenses **are** included in the above fee.

1. Meals and lodging, when required to travel overnight
2. Travel expenses

ADDITIONAL SERVICES

IMEG can include the following as additional services. Additional services will be performed on a time and material basis using IMEG's standard hourly rates in effect at the time the service is performed, or for a negotiated fee, and only after approved in writing.

1. Controls point-by-point verification during functional performance testing. This will be part of the checklists and will be required to be provided by the Temperature Control Contractor.
2. Commissioning of systems, equipment, or quantities not listed in the Proposal.
3. Field testing, adjusting, balancing, or field time to assist installation contractor. Initial startup is the responsibility of the various contractors and/or subcontractors.
4. Verifying accuracy or completeness of record documents.
5. Review contractor's training program to be presented to the Owner. Perform systems level overview training, which provides design intent and systems operations to the maintenance personnel.
6. Support the Owner with development of specific equipment maintenance activities. Coordinate activities within the Owner's Computerized Maintenance Management System (CMMS).

Fee, Rates, and Estimated Costs



IMEG STANDARD HOURLY RATES	
ROLE	RATE PER HOUR*
Client Executive	\$250
Project Executive	\$225
Senior Commissioning Authority/Engineer	\$165
Project Commissioning Authority/Engineer	\$140
Commissioning Authority/Engineer	\$120
Senior Virtual Design Coordinator	\$95
Virtual Design Coordinator	\$90
Virtual Design Technician	\$80
Administrative Assistant	\$75