

STATE OF MINNESOTA (REV 10/20/2014)

Professional Technical Services Master Contract --Encumbrance Form (For State Use Only)

RECS Project ID.:	N/A	Project Mgr.:	Eric Radel	Contract Specialist:	Samantha Hicks
				RFP Event ID (if applicable)	PT4738
Project Name: Building Commissioning Services Master Contract					

Total Amount of Contract:	N/A	Amount of Contract First FY:		Vendor Number:	0000350835
Category Code:	81101508	Category Code:		Category Code:	
Account:		Account:		Account:	
Amount:	N/A	Amount:		Amount:	

Accounting Distribution 1:	Accounting Distribution 2:	Accounting Distribution 3:
Business Unit:	Business Unit:	Business Unit:
Accounting Date:	Accounting Date:	Accounting Date:
Fund:	Fund:	Fund:
DeptID:	DeptID:	DeptID:
AppropID:	AppropID:	AppropID:
Project ID: N/A	Project ID:	Project ID:
Activity:	Activity:	Activity:
Amount: N/A	Amount:	Amount:

SWIFT Contract No: 275000/T#2602A

SWIFT Order: _____ -
Number / Date/ See Signature Page

Number/Date/Entry Initials

[Individual signing SWIFT Order or Contract certifies that funds have been encumbered as required by Minn. Stat. §§ 16A.15 and 16C.05]

NOTICE TO CONSULTANT: You are required to provide your social security number or Federal employer tax identification number and Minnesota tax identification number if you do business with the State of Minnesota.

Contractor Name and Address: **Questions & Solutions Engineering, Inc.
1079 Falls Curve
Chaska, MN 55318**

Master Contract Execution Date: 08/26/2025

Master Contract End Date: 06/30/2030

(*Note: According to Minn. Stat. 16C.08 Subd. 3(5), the combined contract and amendment cannot exceed five years, unless otherwise provided for by law.)

Contact Person: **Rebecca Ellis**
Contact Person Phone: **612.309.0503**
Contact Person Email: Rebecca.Ellis@QSEng.com



State of Minnesota

Professional and Technical Services Master Contract

SWIFT Contract No.: 0000000000000000000275000

Master Contract T-Number: 2602A

This Master Contract is between the State of Minnesota, acting through its Commissioner of Administration ("State") and **Questions & Solutions Engineering, Inc., 1079 Falls Curve, Chaska, MN 55318** ("Consultant"). State and Consultant may be referred to jointly as "Parties."

Recitals

1. Under Minn. Stat. § 15.061 the State is empowered to engage such assistance as deemed necessary.
2. The State is in need of **Building Commissioning services**;
3. State issued a solicitation identified as RECS PT4738, Professional Services for **Building Commissioning Services on May 5, 2025, for Building Commissioning Services: Mechanical, Electrical, Plumbing (MEP) and Building Envelope**. Continuously Open RFP ("Solicitation");
4. Consultant provided a response to the Solicitation indicating its interest in and ability to provide the services requested in the Solicitation; and
5. The Consultant represents that it is duly qualified and agrees to perform services described in this master contract and performed under work order contracts to the satisfaction of the State.
6. Subsequent to an evaluation in accordance with the terms of the Solicitation and negotiation, the Parties desire to enter into a contract.

Accordingly, the Parties agree as follows:

Master Contract

1. Term of Master Contract

- 1.1 **Effective Date:** The date the State obtains all required signatures under Minn. Stat. § 16C.05, subd. 2, whichever is later. **The Consultant must not accept work under this Master Contract until this Master Contract is fully executed and the Consultant has been notified by the State's Authorized Representative that it may begin accepting Work Order Contracts.**
- 1.2 **Work Order Contracts.** The term of work under work order contracts issued under this master contract may not extend beyond the expiration date of this master contract.
- 1.3 **Expiration Date:** **June 30, 2030**, or until all obligations have been satisfactorily fulfilled, whichever occurs first.
- 1.4 **Survival of Terms.** The following clauses survive the expiration or cancellation of this master contract and all work order contracts: Indemnification; State Audits; Government Data Practices and Intellectual Property; Publicity and Endorsement; Governing Law, Jurisdiction, and Venue; and Data Disclosure.

2. Scope of Work

The Consultant, who is not a state employee, may be requested to perform any of the following services under individual work order contracts: **Task and work to be provided for Full Building Commissioning services including:**

2.1 MECHANICAL ELECTRICAL AND PLUMBING SYSTEMS (MEP)

Commissioning Process During the Design Phase

The Commissioning Process activities completed by the Commissioning Authority during the Design Phase include:

- Works with Owner and design team to provide assistance with the Basis of Design in regard to the Owners Project Requirements.
- Develops a Commissioning Plan encompassing the Design, Construction, Occupancy and Operations Phases.
- Determines the commissioning requirements and activities to include in the Construction Documents, with review by the design team, for integration into the project's construction specifications.
- Reviews the in-depth design documentation developed by the design professionals and performs statistically based quality design review at 75% completion of the drawings and specifications. Not intended to be a full peer review, focus shall be on components identified in the construction phase.
- All B3/SB2030 commissioning documentation

Commissioning Process During the Construction Phase

The Commissioning Process activities accomplished by the Commissioning Authority during the Construction Phase include:

- Organizes the Commissioning Process components and conducts a pre-bid and pre-construction meeting where the Commissioning Process requirements are reviewed with the Commissioning Team.
- Conducts site inspections as required/recommended to ensure compliance and satisfactory work by contractor.
- MEP system functional testing and sequence verification. Verify system components are wired and mapped to the building automation system correctly and verify all system components are controlled to accomplish the intent of the control sequences. Testing shall include but not be limited to:
 - 100% point to point verification of all MEP component operations
 - 100% verification of sequences of control
 - 100% alarm verification
 - 100% graphic representation accuracy
 - Lighting control system verification. Verify system components are installed correctly to accomplish intent of the lighting control system. Testing shall include but not be limited to:
 - Occupancy sensors and photocells. Verification that components are calibrated, located, adjusted and programmed per design intent and manufacturer's installation instructions.
 - Lighting control relay panel/time clock. Confirm components follow assigned time schedule for turning lights on/off.
 - Luminaires. Conduct onsite photometric measurements of each typical space. Measure 25% of each typical space type and compare to computer simulation calculations provided by design professional.
 - Generator, Transfer Switches and Essential Electrical Power Distribution Equipment verification. Verify components are installed and programmed correctly to accomplish intent of essential electrical power system. Testing and verification shall include but not be limited to:
 - Work with Contractors to implement an integrated test to ensure emergency components operate as intended during utility power failure, on-site power generation and utility power restoration. Coordinate and lead a kick-off meeting prior to start of test to establish expectations.
 - Verify breakers in all essential power distribution equipment are set per coordination study.
 - Photovoltaic System. Verify components are installed correctly in order to maximize performance. Testing shall include but not be limited to:
 - Field test each component as required by start-up procedures.
 - Verify mechanical installation and supports.
 - Measure and verify electrical parameters including power output and metering equipment accuracy.

- Organizes and conducts periodic Commissioning Team meetings necessary to plan, develop the scope of, coordinate, and schedule activities and resolve problems.
- Reviews major MEP submittals concurrent with the design professional's review.
- Develop and implement equipment specific start-up test procedures to validate major equipment start-up by contractors. Verify checklists and witness start-up of equipment.
- Witness all hydronic flushing procedures performed by the contractor and provide a report of all activities to demonstrate compliance with the specification requirements.
- Coordinate and lead a test and balance kick-off meeting to include the Test and Balance Contractor, Temperature Controls Contractor, and the Mechanical Contractors prior to the commencement of preliminary system balancing to establish quality expectations.
- Review the Test & Balance report for accuracy and spot check report values in the field. Provide comments to the project team.
- Works with Contractors in completing Construction Checklists and tracking of Checklist completion.
- Statistically samples completion of Construction Checklists on a periodic basis to verify that Contractor's quality process is achieving the Owner's Project Requirements.
- Develops specific test procedures. The Contractors review the procedures.
- Directs the execution of the tests by the Contractors.
- Documents the results of the tests.
- Documents the correction and retesting of noncompliance items by the Contractor.
- Reviews the Systems Manual for achieving the Owner's Project Requirements.
- Reviews, pre-approves, and verifies the training provided by the Contractors.
- Verifies delivery of the Systems Manual.
- All B3/SB2030 commissioning documentation

Commissioning Process During the Occupancy and Operations Phase

The Commissioning Process activities accomplished by the Commissioning Authority during the Occupancy and Operations Phase include:

- Schedules and verifies deferred and seasonal testing by the Contractor.
- Verifies continuing training.
- Accomplishes a review of warranties with the operations and maintenance staff two months prior to expiration of warranty.
- Schedules, organizes, and attends a lessons-learned workshop. The workshop is facilitated by an independent member of the Commissioning Authority's firm.
- Completes the Final Commissioning Process Report.
- All B3/SB2030 commissioning documentation

2.2 BUILDING EXTERIOR, INCLUDING ROOF

Commissioning Process During the Design Phase

The Commissioning Process activities completed by the Commissioning Authority during the Design Phase include:

- Works with Owner and design team to provide assistance with the Basis of Design in regard to the Owners Project Requirements.
- Develops a Commissioning Plan encompassing the Design, Construction, Occupancy and Operations Phases.
- All exterior commissioning to be included, punch areas, penetrations, roofing, water proofing, air barrier, etc
- Determines the commissioning requirements and activities to include in the Construction Documents, with review by the design team, for integration into the project's construction specifications.
- Reviews the in-depth design documentation developed by the design professionals and performs statistically based quality design review at 75% completion of the drawings and specifications. Not intended to be a full peer review, focus shall be on electrical components identified in the construction phase.
- All B3/SB2030 commissioning documentation

Commissioning Process During the Construction Phase

The Commissioning Process activities accomplished by the Commissioning Authority during the Construction Phase include:

- Organizes the Commissioning Process components and conducts a pre-bid and pre-construction meeting where the Commissioning Process requirements are reviewed with the Commissioning Team.
- Organizes and conducts periodic Commissioning Team meetings necessary to plan, develop the scope of, coordinate, and schedule activities and resolve problems.
- Conducts site inspections as required/recommended to ensure compliance and satisfactory work by contractor.
- Reviews major roofing, window, waterproofing, air barrier, punch and penetration points of the building and equipment submittals concurrent with the design professional's review.
- Works with Contractors in completing Construction Checklists and tracking of Checklist completion.
- Statistically samples completion of Construction Checklists on a periodic basis to verify that Contractor's quality process is achieving the Owner's Project Requirements.
- Develops specific test procedures. The Contractors review the procedures.
- Directs the execution of the tests by the Contractors.
- Documents the results of the tests.
- Documents the correction and retesting of noncompliance items by the Contractor.
- Reviews the Systems Manual for achieving the Owner's Project Requirements.
- Reviews, pre-approves, and verifies the training provided by the Contractors.
- Verifies delivery of the Systems Manual
- All B3/SB2030 commissioning documentation

Commissioning Process During the Occupancy and Operations Phase

The Commissioning Process activities accomplished by the Commissioning Authority during the Occupancy and Operations Phase include:

- Schedules and verifies deferred and seasonal testing by the Contractor.
- Verifies continuing training.
- Accomplishes a review of warranties with the operations and maintenance staff two months prior to expiration of warranty.
- Schedules, organizes, and attends a lessons-learned workshop. The workshop is facilitated by an independent member of the Commissioning Authority's firm.
- Completes the Final Commissioning Process Report.
- All B3/SB2030 commissioning documentation

The Contractor understands that only the receipt of a fully executed work order contract authorizes the Contractor to begin work under this master contract. Any and all effort, expenses, or actions taken before the work order contract is fully executed is not authorized under Minnesota Statutes and is undertaken at the sole responsibility and expense of the Contractor. A sample work order contract is attached and incorporated into this master contract as Exhibit A.

The Contractor understands that this master contract is not a guarantee of a work order contract. The State has determined that it may have need for the services under this master contract but does not commit to spending any money with the Contractor.

3. Representations and Warranties

3.1 Under Minn. Stat. §§ 15.061 and 16C.03, subd. 3, and other applicable law the State is empowered to engage such assistance as deemed necessary.

3.2 Consultant warrants that it is duly qualified and shall perform its obligations under this Contract in accordance with the commercially reasonable standards of care, skill, and diligence in Consultant's industry, trade, or profession, and in accordance with the specifications set forth in this Contract, to the satisfaction of the State.

3.3 Consultant warrants that it possesses the legal authority to enter into this Contract and that it has taken all actions required by its procedures, by-laws, and applicable laws to exercise that authority, and to lawfully authorize its undersigned signatory to execute this Contract, or any part thereof, and to bind Consultant to its terms.

4. Time

The Consultant must comply with all the time requirements described in work order contracts. In the performance of work order contracts, time is of the essence.

5. Consideration and Payment

5.1 Consideration. The State will pay for all services satisfactorily performed by the Consultant for all work order contracts issued under this master contract. The total compensation of all work order contracts may not exceed **\$1,000,000.00**. All costs will follow the Consultant's fee schedule attached as **Exhibit B** and incorporated into this agreement. The Consultant may revise its fee schedule **once a year after the execution date** of this Agreement. However, hourly rates may not exceed a **3%** increase each year. Revised fee schedules meeting the requirements of this section will be effective on the date received by the State.

5.2 Travel Expenses. There is no allowable travel or other reimbursable expenses for travel to Projects located **within 100 miles** roundtrip of the Responder's office location (accumulative mileage to and from site), the State **will not** pay for travel time. All such expenses are included in the Consultant's fee schedule of hourly rates. On projects located **over 100 miles** round trip of the Responder's office location, the State **will** pay for travel time and Reimbursable Expenses per day for all work days (Monday through Sunday and State Holidays).

5.3 Reimbursable Expenses: The State reserves the right to modify the allowable reimbursable expenses prior to execution of Work Order Contracts. In the event expenses are reimbursed, they shall be reimbursed in the same manner and in no greater amount than provided in the current "Commissioner's Plan" promulgated by the Commissioner of Minnesota Management and Budget. A copy of the Commissioner's Plan is available on the web at: at <https://mn.gov/mmb/employee-relations/labor-relations/labor/commissioners-plan.jsp>. The Consultant will not be reimbursed for travel and subsistence expenses incurred outside Minnesota unless it has received the State's prior written approval for out of state travel. Minnesota will be considered the home state for determining whether travel is out of state.

Subconsultant and testing services, when approved by the State's Project Manager, will be negotiated as an additional service at one (1.0) times Responder's cost. There are no other allowable reimbursable expenses.

6. Payment

6.1 Invoices. The State will promptly pay the Consultant after the Consultant presents an itemized invoice for the services actually performed and the State's Authorized Representative accepts the invoiced services. Invoices must be submitted timely no more frequently than monthly.

6.2 Retainage. Under Minn. Stat. § 16C.08, subd. 2(10), no more than 90 percent of the amount due under any work order contract may be paid until the final product of the work order contract has been reviewed by the State's agency head. The balance due will be paid when the State's agency head determines that the Consultant has satisfactorily fulfilled all the terms of the work order contract.

6.3 Conditions of Payment. All services provided by the Consultant under a work order contract must be performed to the State's satisfaction, as determined at the sole discretion of the State's Authorized Representative and in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations. The Consultant will not receive payment for work found by the State to be unsatisfactory or performed in violation of federal, state, or local law.

7. Authorized Representatives and Project Managers

The State's Authorized Representative for this master contract is Samantha Hicks, Contracts Specialist, 651.201.2389 or Eric Radel, Project Operations Manager, 651.201.2380 their successor, and has the responsibility to monitor the Consultant's performance.

The State's Project Manager will be identified in each work order contract.

The Consultant's Authorized Representative is **Rebecca Ellis, PE (President), 612.309.0503**. If the Consultant's Authorized Representative changes at any time during this master contract, the Consultant must immediately notify the State.

The Consultant's Project Manager will be identified in each work order contract.

8. Assignment, Amendments, Waiver, and Contract Complete

8.1 Assignment. The Consultant may neither assign nor transfer any rights or obligations under this master contract or any work order contract without the prior consent of the State and a fully executed Assignment Agreement, executed and approved by the same parties who executed and approved this master contract, or their successors in office.

8.2 Amendments. Any amendment to this master contract or any work order contract must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original contract, or their successors in office.

8.3 Waiver. If the State fails to enforce any provision of this master contract or any work order contract, that failure does not waive the provision or its right to enforce it.

8.4 Contract Complete. This master contract and any work order contract contain all negotiations and agreements between the State and the Consultant. No other understanding regarding this master contract or work order contract, whether written or oral, may be used to bind either party.

9. Termination

9.1 Termination for Convenience. The State or Commissioner of Administration may cancel this Master Contract and any Work Order Contract at any time, with or without cause, upon 30 days' written notice to the **Consultant**. Upon termination for convenience, the Consultant will be entitled to payment, determined on a pro rata basis, for services or goods satisfactorily performed or delivered.

9.2 Termination for Breach. The State may terminate this Master Contract and any Work Order Contract, with cause, upon 30 days' written notice to Consultant of the alleged breach and opportunity to cure. If after 30 days, the alleged breach has not been remedied, the State may immediately terminate the Contract.

9.3 Termination for Insufficient Funding. The State may immediately terminate this Master Contract and any Work Order Contract if it does not obtain funding from the Minnesota Legislature, or other funding source; or if funding cannot be continued at a level sufficient to allow for the payment of the services addressed within this Contract. Termination must be by written notice to the Consultant. The State is not obligated to pay for any services that are provided after notice and effective date of termination. However, the Consultant will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed to the extent that dedicated funds are available. The State will not be assessed any penalty if the Contract is terminated because of the decision of the Minnesota Legislature, or other funding source, not to appropriate funds. The State must provide the **Consultant** notice of the lack of funding. This notice will be provided within a reasonable time of the State's receiving notice.

10. Force Majeure

Neither party shall be responsible to the other or considered in default of its obligations within this Master Contract and any Work Order Contract to the extent that performance of any such obligations is prevented or delayed by acts

of God, war, riot, disruption of government, or other catastrophes beyond the reasonable control of the party unless the act or occurrence could have been reasonably foreseen and reasonable action could have been taken to prevent the delay or failure to perform. A party relying on this provision to excuse performance must provide the other party prompt written notice of the inability to perform and take all necessary steps to bring about performance as soon as practicable.

11. Indemnification

11.1 In the performance of this Master Contract and any Work Order Contract, the Indemnifying Party must indemnify, save, and hold harmless the State, its agents, and employees, from any claims or causes of action, including attorney's fees incurred by the State, to the extent caused by Indemnifying Party's:

- Intentional, willful, or negligent acts or omissions; or
- Actions that give rise to strict liability; or
- Breach of contract or warranty.

The Indemnifying Party is defined to include the Consultant, Consultant's reseller, any third party that has a business relationship with the Consultant, or Consultant's agents or employees, and to the fullest extent permitted by law. The indemnification obligations of this section do not apply in the event the claim or cause of action is the result of the State's sole negligence. This clause will not be construed to bar any legal remedies the Indemnifying Party may have for the State's failure to fulfill its obligation under this Contract.

11.2 Nothing within this Master Contract and any Work Order Contract, whether express or implied, shall be deemed to create an obligation on the part of the State to indemnify, defend, hold harmless or release the Indemnifying Party. This shall extend to all agreements related to the subject matter of this Contract, and to all terms subsequently added, without regard to order of precedence.

12. Governing Law, Jurisdiction, and Venue

Minnesota law, without regard to its choice-of-law provisions, governs this master contract and all work order contracts. Venue for all legal proceedings out of this master contract and/or any work order contracts, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

13. Government Data Practices and Intellectual Property

The Consultant and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, (or, if the State contracting party is part of the Judicial Branch, with the Rules of Public Access to Records of the Judicial Branch promulgated by the Minnesota Supreme Court as the same may be amended from time to time) as it applies to all data provided by the State under this Master Contract and any Work Order Contract, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Consultant under this Master Contract and any Work Order Contract. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data governed by the Minnesota Government Practices Act, Minn. Stat. Ch. 13, by either the Consultant or the State.

If the Consultant receives a request to release the data referred to in this clause, the Consultant must immediately notify and consult with the State's Authorized Representative as to how the Consultant should respond to the request. The Consultant's response to the request shall comply with applicable law.

14. Foreign Outsourcing of Work Prohibited.

All services under this Master Contract and any Work Order Contract shall be performed within the borders of the United States. All storage and processing of information shall be performed within the borders of the United States. This provision also applies to work performed by all subconsultants.

15. Payment to Subconsultants

(If applicable) As required by Minnesota Statute § 16A.1245, the prime Consultant must pay all subconsultants, less any retainage, within 10 calendar days of the prime Consultant's receipt of payment from the State for undisputed

services provided by the subconsultant(s) and must pay interest at the rate of one and one-half percent per month or any part of a month to the subconsultant(s) on any undisputed amount not paid on time to the subconsultant(s).

16. Data Disclosure

Under Minnesota Statute § 270C.65, Subdivision 3 and other applicable law, the Consultant consents to disclosure of its social security number, federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and state agencies and state personnel involved in the payment of state obligations. These identification numbers may be used in the enforcement of federal and state laws which could result in action requiring the Consultant to file state tax returns, pay delinquent state tax liabilities, if any, or pay other state liabilities.

17. Government Data Practices.

The Consultant and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, (or, if the State contracting party is part of the Judicial Branch, with the Rules of Public Access to Records of the Judicial Branch promulgated by the Minnesota Supreme Court as the same may be amended from time to time) as it applies to all data provided by the State under this Master Contract and any Work Order Contract, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Consultant under this Master Contract and any Work Order Contract. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data governed by the Minnesota Government Practices Act, Minn. Stat. Ch. 13, by either the Consultant or the State.

18. Intellectual Property Rights.

18.1 Definitions. For the purpose of this Section, the following words and phrases have the assigned definitions:

- 18.1.1 “Documents” are the originals of any databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, disks, or other materials, whether in tangible or electronic forms, prepared by the Consultant, its employees, agents, or subConsultants, in the performance of this Master Contract and any Work Order Contract.
- 18.1.2 “Pre-Existing Intellectual Property” means intellectual property developed prior to or outside the scope of this Master Contract and any Work Order Contract, and any derivatives of that intellectual property.
- 18.1.3 “Works” means all inventions, improvements, discoveries (whether or not patentable), databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, and disks conceived, reduced to practice, created or originated by the Consultant, its employees, agents, and subConsultants, either individually or jointly with others in the performance of this Master Contract and any Work Order Contract. “Works” includes Documents.

18.2 Ownership. The State owns all rights, title, and interest in all of the intellectual property rights, including copyrights, patents, trade secrets, trademarks, and service marks in the Works and Documents created and paid for under this Master Contract and any Work Order Contract. The Documents shall be the exclusive property of the State and all such Documents must be immediately returned to the State by the Consultant upon completion or cancellation of this Master Contract and any Work Order Contract. To the extent possible, those Works eligible for copyright protection under the United States Copyright Act will be deemed to be “works made for hire.” The Consultant assigns all right, title, and interest it may have in the Works and the Documents to the State. The Consultant must, at the request of the State, execute all papers and perform all other acts necessary to transfer or record the State’s ownership interest in the Works and Documents.

18.3 Pre-existing Intellectual Property. Each Party shall retain ownership of its respective Pre-Existing Intellectual Property. The Consultant grants the State a perpetual, irrevocable, non-exclusive, royalty free license for Consultant’s Pre-Existing Intellectual Property that are incorporated in the products, materials, equipment, deliverables, or services that are purchased through the Master Contract and any Work Order Contract.

18.4 Obligations.

- 18.4.1 Notification. Whenever any invention, improvement, or discovery (whether or not patentable) is made or conceived for the first time or actually or constructively reduced to practice by the Consultant, including its employees and subConsultants, in the performance of this Master Contract and any Work Order Contract, the Consultant will immediately give the State's Authorized Representative written notice thereof, and must promptly furnish the State's Authorized Representative with complete information and/or disclosure thereon.
- 18.4.2 Representation. The Consultant must perform all acts, and take all steps necessary to ensure that all intellectual property rights in the Works and Documents are the sole property of the State, and that neither Consultant nor its employees, agents, or subConsultants retain any interest in and to the Works and Documents. The Consultant represents and warrants that the Works and Documents do not and will not infringe upon any intellectual property rights of other persons or entities.
- 18.4.3 Indemnification. Notwithstanding any other indemnification obligations addressed within this Master Contract and any Work Order Contract, the Consultant will indemnify; defend, to the extent permitted by the Attorney General; and hold harmless the State, at the Consultant's expense, from any action or claim brought against the State to the extent that it is based on a claim that all or part of the Works or Documents infringe upon the intellectual property rights of others. The Consultant will be responsible for payment of any and all such claims, demands, obligations, liabilities, costs, and damages, including but not limited to, attorney fees. If such a claim or action arises, or in the Consultant's or the State's opinion is likely to arise, the Consultant must, at the State's discretion, either procure for the State the right or license to use the intellectual property rights at issue or replace or modify the allegedly infringing works or documents as necessary and appropriate to obviate the infringement claim. This remedy of the State will be in addition to and not exclusive of other remedies provided by law.

19. Copyright.

The Contractor shall save and hold harmless the State of Minnesota, its officers, agents, servants and employees, from liability of any kind or nature, arising from the use of any copyrighted or noncopyrighted compositions, secret process, patented or nonpatented invention, article or appliance furnished or used in the performance of the Master Contract and any Work Order Contract.

20. Contractor's Documents.

Any licensing and maintenance agreement, or any order-specific agreement or document, including any pre-installation, linked or "click through" agreement that is allowed by, referenced within or incorporated within the Master Contract or any Work Order Contract whenever the Master Contract or any Work Order Contract is used for a State procurement, whether directly by the Contractor or through a Contractor's agent, subcontractor or reseller, is agreed to only to the extent the terms within any such agreement or document do not conflict with the Master Contract or any Work Order Contract or applicable Minnesota or Federal law, and only to the extent that the terms do not modify, diminish or derogate the terms of the Master Contract and any Work Order Contract or create an additional financial obligation to the State. Any such agreement or document must not be construed to deprive the State of its sovereign immunity, or of any legal requirements, prohibitions, protections, exclusions or limitations of liability applicable to this Master Contract and any Work Order Contract or afforded to the State by Minnesota law. A State employee's decision to choose "accept" or an equivalent option associated with a "click-through" agreement does not constitute the State's concurrence or acceptance of terms, if such terms are in conflict with this section.

21. State Audits

Under Minnesota Statute§ 16C.05, subdivision 5, the Consultant's books, records, documents, and accounting procedures and practices relevant to any work order contract are subject to examination by the State and/or the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this master contract.

22. Contingency Fees Prohibited.

Pursuant to Minn. Stat. § 10A.06, no person may act as or employ a lobbyist for compensation that is dependent upon the result or outcome of any legislation or administrative action.

23. Non-discrimination (in accordance with Minn. Stat. § 181.59).

The Contractor will comply with the provisions of Minn. Stat. § 181.59.

24. Affirmative Action Requirements

The State intends to carry out its responsibility for requiring affirmative action by its Consultants.

24.1 Covered Contracts and Consultants. If the Contract exceeds \$100,000 and the Consultant employed more than 40 full-time employees on a single working day during the previous 12 months in Minnesota or in the state where it has its principle place of business, then the Consultant must comply with the requirements of Minnesota Statute § 363A.36 and Minnesota Rule Parts 5000.3400-5000.3600. A Consultant covered by Minnesota Statute § 363A.36 because it employed more than 40 full-time employees in another state and does not have a certificate of compliance, must certify that it is in compliance with federal affirmative action requirements.

24.2 Minnesota Statute § 363A.36. Minnesota Statute § 363A.36 requires the Consultant to have an affirmative action plan for the employment of minority persons, women, and qualified disabled individuals approved by the Minnesota Commissioner of Human Rights ("Commissioner") as indicated by a certificate of compliance. The law addresses suspension or revocation of a certificate of compliance and contract consequences in that event. A contract awarded without a certificate of compliance may be voided.

24.3 Minnesota Rule Parts 5000.3400-5000.3600.

24.3.1 General. Minnesota Rule Parts 5000.3400-5000.3600 implement Minnesota Statute § 363A.36. These rules include, but are not limited to, criteria for contents, approval, and implementation of affirmative action plans; procedures for issuing certificates of compliance and criteria for determining a Consultant's compliance status; procedures for addressing deficiencies, sanctions, and notice and hearing; annual compliance reports; procedures for compliance review; and contract consequences for non-compliance. The specific criteria for approval or rejection of an affirmative action plan are contained in various provisions of Minnesota Rule Parts 5000.3400-5000.3600 including, but not limited to, parts 5000.3420-5000.3500 and 5000.3552-5000.3559.

24.3.2 Disabled Workers. The Consultant must comply with the following affirmative action requirements for disabled workers.

AFFIRMATIVE ACTION FOR DISABLED WORKERS

- 24.3.2.1 The Consultant must not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Consultant agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled persons without discrimination based upon their physical or mental disability in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- 24.3.2.2 The Consultant agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.
- 24.3.2.3 In the event of the Consultant's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minnesota Statutes Section 363A.36, and the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.
- 24.3.2.4 The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the commissioner of

the Minnesota Department of Human Rights. Such notices must state the Consultant's obligation under the law to take affirmative action to employ and advance in employment qualified disabled employees and applicants for employment, and the rights of applicants and employees.

24.3.2.5 The Consultant must notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Consultant is bound by the terms of Minnesota Statutes Section 363A.36, of the Minnesota Human Rights Act and is committed to take affirmative action to employ and advance in employment physically and mentally disabled persons.

24.3.3 Consequences. The consequences for the Consultant's failure to implement its affirmative action plan or make a good faith effort to do so include, but are not limited to, suspension or revocation of a certificate of compliance by the Commissioner, refusal by the Commissioner to approve subsequent plans, and termination of all or part of this contract by the Commissioner or the State.

24.3.4 Certification. The Consultant hereby certifies that it is in compliance with the requirements of Minnesota Statute§ 363A.36 and Minnesota Rule Parts 5000.3400-5000.3600 and is aware of the consequences for noncompliance.

25. Workers' Compensation and Other Insurance

Consultant certifies that it is in compliance with all insurance requirements specified in Exhibit D1.

Further, the Consultant certifies that it is in compliance with Minnesota Statute§ 176.181, subdivision 2, pertaining to workers' compensation insurance coverage. The Consultant's employees and agents will not be considered State employees. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of these employees or agents and any claims made by any third party as a consequence of any act or omission on the part of these employees or agents are in no way the State's obligation or responsibility.

26. Publicity and Endorsement

26.1 Publicity. Any publicity regarding the subject matter of a work order contract must identify the State as the sponsoring agency and must not be released without prior written approval from the State's Authorized Representative. For purposes of this provision, publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Consultant individually or jointly with others, or any subconsultants, with respect to the program, publications, or services provided resulting from a work order contract.

26.2 Endorsement. The Consultant must not claim that the State endorses its products or services.

27. E-Verify Certification (In accordance with Minn. Stat. §16C.075)

For services valued in excess of \$50,000, Consultant certifies that as of the date of services performed on behalf of the State, Consultant and all its subconsultants will have implemented or be in the process of implementing the federal E-Verify program for all newly hired employees in the United States who will perform work on behalf of the State. Consultant is responsible for collecting all subconsultant certifications and may do so utilizing the E-Verify Subconsultant Certification Form available at <http://www.mmd.admin.state.mn.us/doc/VerifySubCertForm.doc>. All subconsultant certifications must be kept on file with Consultant and made available to the State upon request.

28. Certification of Nondiscrimination (In accordance with Minn. Stat. § 16C.053)

The following term applies to any contract for which the value, including all extensions, is \$50,000 or more: Consultant certifies it does not engage in and has no present plans to engage in discrimination against Israel, or against persons or entities doing business in Israel, when making decisions related to the operation of the vendor's business. For purposes of this section, "discrimination" includes but is not limited to engaging in refusals to deal, terminating business activities, or other actions that are intended to limit commercial relations with Israel, or persons or entities doing business in Israel, when such actions are taken in a manner that in any way discriminates on the basis of nationality or national origin and is not based on a valid business reason.

29. Equal Pay Certification.

If required by Minn. Stat. §363A.44, the Contractor must have a current Equal Pay Certificate prior to contract execution. If Contractor's Equal Pay Certificate expires during the term of this Master Contract, Contractor must promptly re-apply for an Equal Pay Certificate with the Minnesota Department of Human Rights and notify the State's Authorized Representative once the Contractor has received the renewed Equal Pay Certificate. If Contractor claims to be exempt, the State may require Contractor to verify its exempt status.

30. Diverse Spend Reporting.

If the total value of a Work Order Contract may exceed \$500,000, including all extension options, Contractor must track and report, on a quarterly basis, the amount paid to diverse businesses both: 1) directly to subcontractors performing under the Work Order Contract, and 2) indirectly to diverse businesses that provide supplies/services to your company (in proportion to the revenue from the Work Order Contract compared to Contractor's overall revenue). When this applies, Contractor will register in a free portal to help report the Tier 2 diverse spend, and the requirement continues as long as the Master Contract is in effect.

31. Schedule of Exhibits

The following exhibits are attached and incorporated into this Master Contract.

Exhibit A: Sample Work Order

Exhibit B: Fee Schedule

Exhibit C: Consultant's Qualifications

Exhibit D:

1. State Insurance Requirements

2. Consultant Certificate of Insurance

Exhibit E: Workforce and Equal Pay Declaration

Exhibit F: Certification Regarding Lobbying

Exhibit G: Not Used

Exhibit H: Not Used

Exhibit I: Affidavit of Noncollusion


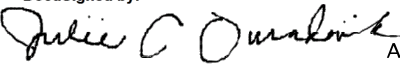


Distribution:

Consultant

Agency

State's Authorized Representative

Signatures

Title	Name	Signature	Date
President	Rebecca Ellis	DocuSigned by:  12B6A0B75FE343E...	August 22, 2025
Accounting Technician	Julie C. Ouradnik	DocuSigned by:  9417904E36A0440...	August 22, 2025
Construction Ops Mgr	Radel, Eric Alan	DocuSigned by:  6B7A6FF4AA564AB...	August 22, 2025
Contracts Specialist	Sherry Van Horn	DocuSigned by:  39BE997DB28140C...	August 26, 2025

Admin ID

Exhibit A



State of Minnesota Professional and Technical Services Work Order Contract

SWIFT Contract Number: _____

Master Contract T-Number: _____

This Work Order Contract is between the State of Minnesota, acting through its Commissioner of Administration, **Real Estate and Construction Services, 309 Administration Building, 50 Sherburne Ave., St. Paul, MN 55155** ("State") and **[Contractor]** whose designated business address is **[Contractor's business address]** ("Contractor"). This Work Order Contract is issued under the authority of Master Contract T-Number **[#####]**, SWIFT Contract Number **[#####]**, and is subject to all provisions of the Master Contract which is incorporated by reference.

Contract

1. Term of Contract

- 1.1 **Effective date.** The date the State obtains all required signatures under Minn. Stat. § 16C.05, subd. 2. **The Contractor must not begin work under this contract until this contract is fully executed and the Contractor has been notified by the State's Authorized Representative to begin work.**
- 1.2 **Expiration date.** **[Spell out full date (e.g., March 31, 2020)]**, or until all obligations have been satisfactorily fulfilled, whichever occurs first.

2. CONSULTANT's Duties

The CONSULTANT shall perform all duties described in this Contract to the satisfaction of the State.

The CONSULTANT, who is not a state employee, will perform **[FILL IN BRIEF DESCRIPTION OF CONSULTANT DUTIES]**, including the duties identified in attached Exhibit **[A]**, dated **[Month Day, Year]**, which is incorporated by reference and made a part of this Work Order. No terms and conditions of the CONSULTANT's proposal will be construed to modify, diminish or derogate the terms and conditions of this Work Order.

3. Consideration and Payment

- 3.1 Consideration. The State will pay for all services performed by the CONSULTANT under this work order contract as follows:

- 3.1.1 **Compensation.** Compensation in an amount not to exceed **[## CONSULTANT FEE]**, as provided in attached Exhibit **[A]**, dated **[Month Day, Year]** which is incorporated by reference and made a part of this Work Order and in accordance with Master Contract No. **[Master Contract T-Number [#####], SWIFT Contract Number [#####]]**, fee schedule on file with the STATE.
- 3.1.2 **Travel Expenses.** Reimbursement for travel and subsistence expenses actually and necessarily incurred by the Contractor as a result of this Work Order Contract will not exceed \$**[##]**. In the event these expenses are reimbursed, they shall be reimbursed in the same manner and in no greater amount than provided in the current "Commissioner's Plan" promulgated by the Commissioner of Minnesota Management and Budget, which is incorporated in the contract by reference. A copy of the Commissioner's Plan is available on the Web at: <http://www.mmb.state.mn.us/comp-commissioner> (click on "Commissioner's Plan" in the right side column). The CONSULTANT will not be reimbursed for travel and subsistence expenses incurred outside Minnesota unless it has received

the State's prior written approval for out of state travel. Minnesota will be considered the home state for determining whether travel is out of state.

3.1.3 Total Obligation. The total obligation of the State for all compensation and reimbursements to the Contractor under this Work Order Contract will not exceed \$[##]. [This must be the combined total of compensation and travel expenses, if applicable.]

3.2 Invoices. The State will promptly pay the CONSULTANT after the CONSULTANT presents an itemized invoice for the services actually performed and the State's Authorized Representative accepts the invoiced service, pursuant to clause 4.2 of Master Contract [Master Contract T-Number [#####], SWIFT Contract Number [#####]]. Invoices must be submitted timely and according to the following schedule:

CONSULTANT shall use the STATE's "Pay Request Form for Consultant" to request payment for services. Pay Request Forms shall identify hours worked, services performed, and detailed information on reimbursable expenses. A Pay Request Form shall be submitted monthly for work completed and shall be marked as a partial or final billing. A copy of the Pay Request Form is available on the Web at: <http://mn.gov/admin/business/vendor-info/construction-projects/manuals-guidelines-forms/forms/index.jsp>

4. Project Managers/Authorized Representative:

The STATE's Authorized Representative for the purposes of administration of this work order is [name, telephone number]. T Such representative shall have final authority for acceptance of CONSULTANT's services and if such services are accepted as satisfactory, shall so certify on each invoice submitted for payment.

The CONSULTANT's Authorized Representative for the purposes of administration of this Work Order is [name, telephone number]. If the CONSULTANT's Project Manager changes at any time during this work order contract, the CONSULTANT must immediately notify the State.

5. If the final product of the contract is a written report, the Consultant must file a copy with the State of Minnesota Legislative Reference Library in accordance with Minnesota Statute 16C.08 Sub. 6. One (1) electronic copy (Word, PDF, URL) to reports@lrl.leg.mn and two (2) print copies to:

Legislative Reference Library
645 State Office Bldg.
100 Rev. Dr. MLK Jr. Blvd.
St. Paul, MN 55155

[IF CONTRACT WILL EXCEED \$50,000, THE FOLLOWING CLAUSE MUST BE INCLUDED if not already included in Master Contract:]

Certification of Nondiscrimination (In accordance with Minn. Stat. § 16C.053)

The following term applies to any contract for which the value, including all extensions, is \$50,000 or more: Contractor certifies it does not engage in and has no present plans to engage in discrimination against Israel, or against persons or entities doing business in Israel, when making decisions related to the operation of the vendor's business. For purposes of this section, "discrimination" includes but is not limited to engaging in refusals to deal, terminating business activities, or other actions that are intended to limit commercial relations with Israel, or persons or entities doing business in Israel, when such actions are taken in a manner that in any way discriminates on the basis of nationality or national origin and is not based on a valid business reason.

IN WITNESS WHEREOF, the parties have caused this Work Order to be duly executed intending to be bound thereby.

[The number of signatures required for your work order depends on the number required by the Department of Administration's master contract certification form.]

SAMPLE

Hourly Fee Schedule (Exhibit B)

Questions & Solutions Engineering's Hourly Fee Schedule is included below which includes the following Team Member Name, Title, and Bill Rate as required on page 6 of the RFP.

QSE understands the fee schedule may be revised once a year after the awarded firms' execution/start date of their Master Contract, however, hourly rates may not exceed a 3% increase each year. Revised fee schedules meeting the requirements of this section will be effective on the date received by the State.

QSE Hourly Fee Schedule

Name	Title	Hourly Bill Rate
Rebecca Ellis, PE, LEED AP, CCP, BCxP, CxA	Principal	\$ 228
Alex Fleming, PE, LEED AP BD+C, CHCPEW, CxA	Mechanical Professional Engineer	\$ 181
Brett Kubly, PE, CxA	Mechanical Professional Engineer	\$ 181
Brian Salisbury, CPD, FASPE	Senior Commissioning Specialist	\$ 181
Charles Sellner, CHCPEW	Commissioning Specialist	\$ 171
Catherine Newkold, PE, LEED AP, BCxP	Senior Electrical Engineer	\$ 195
Daniel Yuhas, EIT	Electrical Engineer	\$ 158
Jackie Longendyke, LEED AP, CHCPEW, CxA	Senior Commissioning Specialist	\$ 181
John Hebert, PE, LEED AP, GGP	Senior Electrical Engineer	\$ 195
Jen-Li Burnett	Junior Mechanical Engineer	\$ 133
Molly Meyer, PE, LEED AP, CEM, CHFM, CHCPEW, CCP	Associate	\$ 215
Miles Ryan, PE, CCP, CEM, CHCPEW	Senior Mechanical Professional Engineer	\$ 195
Matt Malinosky, PE, LEED AP BD+C, CCP	Associate	\$ 215
Roger Thue, PE, LEED Green Associate, GGP, CxA	Mechanical Professional Engineer	\$ 181
Bob deVeyra, LEED AP BD+C, CHCPEW, QCxP, CxA	Senior Commissioning Specialist	\$ 181
Shannon Ellis, EIT, CHCPEW	Mechanical Engineer	\$ 158
Steph Gallatin, PE, LEED AP BD+C, CEM, GBE, CxA, CHCPEW	Mechanical Professional Engineer	\$ 181
Theresa Warner, CxA	Senior Commissioning Specialist	\$ 181
Timothy O'Keefe	Commissioning Specialist	\$ 171
Tim Thatcher, LEED AP	Senior Commissioning Specialist	\$ 195
Michael Frech	BECx Executive Vice President	\$ 324
Ryan Krug, BECxP, CxA+BE	BECx National Practice Lead	\$ 303
Ryan Kohl, BECxP, CxA+BE, RRC	BECx Director of Operations	\$ 283
Brian Koons, PE	BECx Senior Consultant	\$ 219
Henry Wehlage, RRO	BECx Senior Specialist	\$ 196
Richard Fick, RRO	BECx Senior Specialist	\$ 196
Patrick O'Neil	BECx Specialist	\$ 185

Exhibit C
~~RFP-EXHIBIT A~~
BUILDING COMMISSIONING SERVICES

Name of Firm Questions & Solutions Engineering, Inc. (QSE) Dated July 11, 2025

Responder shall indicate by checking the boxes below the categories of building commissioning for which the firm is qualified.

***Attach project experience and reference information for each bolded category of service selected; a minimum of three (3) project references for each bolded category of service selected is required (see RFP Selection Process items 2 and 3 for further information).**

MECHANICAL ELECTRICAL AND PLUMBING SYSTEMS (MEP)

- ☒ Commissioning Process During the Design Phase
- ☒ Commissioning Process During the Construction Phase
- ☒ Commissioning Process During the Occupancy and Operations Phase

BUILDING EXTERIOR, INCLUDING ROOF

- ☒ Commissioning Process During the Design Phase
- ☒ Commissioning Process During the Construction Phase
- ☒ Commissioning Process During the Occupancy and Operations Phase

Comments:

A. Describe Responder’s qualifications, including unique qualifications:

Questions & Solutions Engineering (QSE) was founded in 2005 and is heavily **staffed with commissioning professionals who have worked together since the late 1990’s**. QSE's technical personnel have a combined **360 years of commissioning experience**, averaging more than **18 years each**.

Unique Qualifications

- **QSE is a Certified Commissioning Firm (CCF)**, accredited by the Building Commissioning Association.
- Commissioning Services only firm
- QSE commissioning portfolio includes 1300+ construction/major renovation projects, totaling more than \$18 billion in construction and more than 75 million square feet. We have identified and tracked to completion more than 92,000 commissioning issues.
- Minnesota B3 Sustainability Building Guidelines Experience
 - Contributed to the development of the Minnesota Sustainable Building Guidelines (B3+SB2023) and is listed on the Minnesota B3 Project Team and Advisory Team
 - Participated in 27+ Minnesota Building, Benchmarks & Beyond (B3) projects since 2007
 - Totaling more than 1.7 million square feet and \$693+ million in construction costs
- Rebecca Ellis, President of QSE, regularly delivers training on new construction commissioning and existing building retro-commissioning /recommissioning/on-going commissioning to industry groups across the country.

PROJECT NO. 1

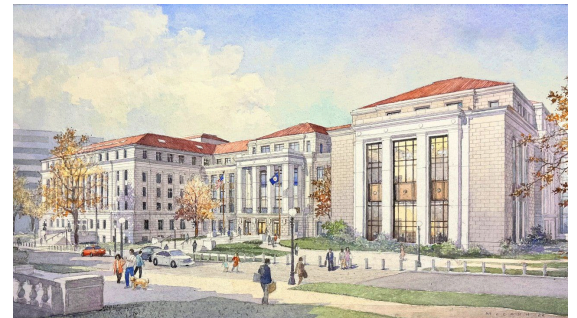
1. Project Title:

State of Minnesota, State Office Building Renovation / Addition Minnesota B3
Commissioning

2. Scope:

MEP and Building Exterior Commissioning during Design, Construction, and Occupancy & Operations Phases

The Minnesota State Office Building Renovation and Addition project is designed to preserve the historic structure of the State Office Building while expanding and upgrading it to meet modern needs. It will support Minnesota House members, legislative staff, and the Secretary of State, providing updated hearing rooms, office spaces, and public areas. This project is a Buildings, Benchmarks & Beyond (B3) project.



Questions & Solutions Engineering's commissioning scope for the Minnesota State Office Building Renovation and Addition project includes:

Scope by Phases:

- **Design Phase:** Review of plans and specifications to ensure systems are designed for performance and maintainability.
- **Construction Phase:** On-site inspections, equipment verification, and functional performance testing
- **Occupancy and Operations Phase:** Final testing, training of operations staff, and documentation handover

Systems Commissioned:

- **Mechanical, Electrical, and Plumbing (MEP) systems**
 - HVAC systems, including air handling units, chillers, boilers, and ventilation
- **Building envelope** components, including roofing and exterior walls
- Life safety systems, such as fire alarms and emergency power
- Lighting and controls

3. Dates started and completed:

06/29/2023 - 10/01/2027 (estimated)

4. Name and number of years' experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Matt Malinosky, PE, LEED AP BD+C, CCP is QSE's staff member supervising this project. Matt Malinosky has **22 years of experience** managing commissioning and retro-

commissioning projects, including facilities for government, commercial, healthcare, education, residential, entertainment, sports, and manufacturing. His specialties include building systems data trending and analysis, systems functional performance testing and test procedure development, and operations and maintenance training planning.

Mr. Malinosky is a **licensed mechanical professional engineer (Minnesota License Number: 49054)**, a **BCxA Certified Commissioning Professional (CPP)**, and a USGBC LEED Accredited Professional.

5. Client's company name, mailing address:

State of Minnesota
Minnesota Department of Administration
Real Estate & Construction
309 Administration Building
50 Sherburne Avenue
Saint Paul, MN 55155

6. Client's contact person name, position title, telephone and fax numbers

Eric Radel (Construction Operations Manager)
Minnesota Department of Administration
Real Estate & Construction
(651) 201-2380
eric.radel@state.mn.us

PROJECT NO. 2

1. **Project Title:** Oak Ridge National Laboratory Craft Resources Support Facility (CRSF) Commissioning

2. **Scope:**

MEP and Building Exterior Commissioning during Design, Construction, and Occupancy & Operations Phases

Oak Ridge National Laboratory (ORNL) is managed by UT-Battelle, LLC for the U.S. Department of Energy (DOE). It is the largest DOE science and energy laboratory and conducts basic and applied research to deliver transformative solutions to compelling problems in energy and security.



Questions & Solutions Engineering, Inc. (QSE) is providing Commissioning Services for the new Craft Resources Support Facility (CRSF) facility at the ORNL main campus in Oak Ridge, Tennessee. The CRSF facility will relocate and consolidate craft resource services that are currently housed in multiple, inadequate facilities which are spread across the campus. The consolidation will support 28 different trades ranging from automotive mechanics to instrument technicians. CRSF will support and maintain ORNL's 5.7 million square feet of space, maintain a fleet of 400 vehicles, and campus utilities.

QSE's is providing design-through-occupancy commissioning of the following systems.

- **Building Enclosure Systems:** Metal panels, sheet metal flashing & trim, joint sealers, aluminum windows/glazing, louvers, and roof system
- **Plumbing Systems:** Domestic hot water, rainwater, wastewater, compressed air, and lubricant (oil) distribution system and collection systems
- **HVAC/Mechanical Equipment/Systems:** Building automation system, heating water, chilled water, exhaust systems, air handlers, terminal units, unit heaters, fan coil units, egress pressurization,
- **Electrical Systems:** Transformers, switchboards, panels, power distribution, lighting controls, grounding, path of egress lighting, and low voltage wiring
- **Other Systems:** Fire protection, fire alarm, and cranes

3. **Start and End Date:**

08/01/2020 through 08/01/2026 (estimated)

4. **Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):**

Catherine Newkold, PE, LEED AP, BCxP is QSE's supervising Team Member for this project. Ms. Newkold has **42 years of engineering, commissioning and project management experience**. Ms. Newkold is an experienced commissioning professional, having provided project management, design review, functional test procedure development, and field testing for a variety of systems commissioning assignments. Ms. Newkold has experience

with commissioning of electrical systems, including incoming medium and low voltage power, emergency power, mission critical power, and material handling systems. She also has experience with low power systems and building-wide “Loss of Power Response” testing.

Ms. Newkold is a **licensed professional electrical engineer (Minnesota License Number: 42336), an ASHRAE Building Commissioning Professional (BCxP),** and a USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

UT-Battelle, LLC Oak Ridge National Laboratory)
Bethel Valley Road
PO Box 2308
Oak Ridge, TN 37831

6. Client Reference:

Randall C. Pickens, PE, PMP (Team Lead – New Building Projects for the Laboratory Modernization Division)
Oak Ridge National Laboratory
(865) 576-3975
pickensrc@ornl.gov

PROJECT NO. 3

1. Project Title:

City of Minneapolis' New Public Service Building Commissioning

2. Scope:

MEP and Building Exterior Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering (QSE) provided commissioning services for the new Public Service Building in downtown Minneapolis, Minnesota. The 300,000 square foot facility includes 12 floors (1 below grade) of a variety of spaces including crime lab, conference center, staff commons, fitness center, open and enclosed offices, and support spaces.



The project is seeking certification under Leadership in Energy and Environmental Design (LEED) version 4 and QSE's scope accounted for 5 points under the enhanced commissioning energy and atmosphere credit, including the development of a monitoring-based commissioning process.

In addition to the **heating, ventilation, and air conditioning (HVAC) systems**, domestic hot water, lighting controls, normal power, and renewable energy systems, which are required by the LEED program, QSE also commissioned the fire alarm, fire protection, emergency power, and uninterruptible power supply systems. Lerch Bates commissioned the **Building Envelope** on this project.

3. Start and End Date:

11/01/2017 through 03/30/2024

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Matt Malinosky, PE, LEED AP BD+C, CCP was QSE's staff member supervising this project. Matt Malinosky has **22 years of experience** managing commissioning and retro-commissioning projects, including facilities for government, commercial, healthcare, education, residential, entertainment, sports, and manufacturing. His specialties include building systems data trending and analysis, systems functional performance testing and test procedure development, and operations and maintenance training planning.

Mr. Malinosky is a **licensed mechanical professional engineer (Minnesota License Number: 49054)**, a **BCxA Certified Commissioning Professional (CPP)**, and a USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

City of Minneapolis
Finance & Property Services
350 South 5th Street – Room 108
Minneapolis, MN 55415

6. Client Reference:

Chris Backes (Senior Project Manager)
City of Minneapolis
(612) 673-3774
Chris.Backes@MinneapolisMN.gov

PROJECT NO. 4

1. Project Title:

Northwestern College Health & Natural Sciences Building Commissioning

2. Scope:

MEP and Building Exterior Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering, Inc. (QSE) provided commissioning services for the construction of a new educational facility to house the health and natural science departments at Northwestern College. The commissioned spaces included 60,000 square feet of laboratories classrooms, offices, and support spaces for the Nursing, Biology, and Chemistry programs.



QSE commissioned the new **HVAC systems** including an ice-enhanced chilled water system, chilled beam water system, heating hot water system, two (2) energy recovery units, an air handling unit, laboratory exhaust system, laboratory zone HVAC systems, a facility-monitoring system, greenhouse HVAC system, and terminal units. The lab control zones included laboratory-grade air control valves, reheat coils, chilled beams, fume hoods, and radiant ceiling panels. The commissioned Plumbing systems included domestic hot water, vacuum pump, laboratory compressed air, and a high purity water system. The fire alarm, emergency power including loss of power testing, and **building enclosure systems** were also included in the commissioning scope.

3. Start and End Date:

08/01/2016 through 12/30/2018

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Rebecca Ellis was QSE's supervising team member for this project. Ms. Ellis has **42 years of experience** engineering, commissioning and managing a variety of HVAC system projects. She is a specialist in the design, analysis, and commissioning of intricate temperature and humidity control systems. She has extensive experience in the design and the analysis of museum, laboratory, and animal research facility HVAC systems. The majority of Ms. Ellis' HVAC engineering has been for renovations, often in occupied buildings, where the confines of existing and often unknown conditions constrain the design and installation of new systems. This experience has resulted in a keen appreciation of the need for close coordination between all parties involved in a design and construction project.

Ms. Ellis is a licensed professional mechanical engineer (**Minnesota License Number: 22339**), an **ACG Certified Commissioning Authority (CxA)**, a **BCxA Certified Commissioning Professional (CCP)**, **ASHRAE Building Commissioning Professional (BCxP)**, and USGBC LEED Accredited Professional.

Ms. Ellis is a nationally recognized leader in the commissioning industry. She has helped define mainstream commissioning services and is a much sought after speaker, author, and trainer. Ms. Ellis wrote a monthly column about commissioning for Engineered Systems magazine for 25 years. Prior to founding QSE in 2005, she developed and led the largest commissioning service group in the country.

5. Client Name & Mailing Address:

Northwestern College
Doug Beukelman
101 7th Street SW
Orange City, IA 51041

6. Client Reference:

Mr. Richard Scholtens (Director of Facilities Management)
(712) 707-7172
richard.scholtens@nwcsiowa.edu

PROJECT NO. 5

1. Project Title:

Northern State University Regional Science Education Center LEED v4 Commissioning

2. Scope:

MEP and Building Exterior Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering (QSE) provided Professional Commissioning Services in compliance with the LEED EA Prerequisite 1: Fundamental Commissioning and EA Credit 3: Enhanced Commissioning requirements for the new Regional Science Education Center at Northern State University (NSU).



The facility was approximately 50,000 square foot 2-story building housing Biology, Chemistry, Physics including laboratories, classrooms, offices, and support spaces.

QSE commissioned the mechanical systems including laboratory exhaust with energy recovery systems, laboratory zone HVAC systems, anatomy lab dedicated cooling system, and greenhouse HVAC systems. QSE also commissioned the facility's domestic hot water, fire alarm interface, metering interface, lighting control systems, electrical service and distribution, emergency power system equipment, building-wide loss of power response, and the building enclosure systems. Commissioning produced 272 design review comments and 174 submittal review comments.

QSE advocated for the definition and documentation of critical design criteria, such as room pressurization offsets, as part of the design package. This was an effort to provide clear expectations for equipment performance and implementation directions to contractors. QSE orchestrated the performance testing process, verifying the installed systems were fully integrated.

This facility included a laboratory control system which required detailed integration with the building automation system. As the level of integration increased, so did the risk of error. Through the design review and submittal review process, QSE helped facilitate the coordination integration of all equipment and systems.

QSE's scope of services also included **building envelope commissioning**. Initial testing identified failures in the window assemblies which were remedied by the contractors and retested by the commissioning team.

The project earned **LEED Silver certification**.

3. Start and End Date:

08/01/2017 through 02/30/2019

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Roger Thue, PE, LEED Green Associate, GGP, CxA was the QSE's staff member supervising this project. Mr. Thue has **37 years of experience in engineering design, commissioning, project management**, performing design reviews, operations of HVAC systems, and central plant steam and chilled water distribution systems. Over 19 of those years were on staff in the South Dakota State University Facilities and Services Department. His technical strengths include building automation systems, HVAC system operations, HVAC energy conservation, steam heating plants and distribution systems, and chilled water plants and distribution systems. With many years as a building owner and operator, Mr. Thue possesses the ability to see projects from an owner's point of view. He has a keen appreciation for equipment to be readily accessible for service, low in maintenance, energy efficient, and simple enough to understand that the owner's staff can operate it as intended.

Mr. Thue is a licensed professional mechanical engineer (licensed in South Dakota), an ACG Certified Commissioning Authority (CxA), and a Green Globes Professional (GGP), and a USGBC LEED Associate.

5. Client Name & Mailing Address:

South Dakota Office of the State Engineer
523 East Capitol Avenue
Pierre, SD 57501

6. Client Reference:

Monte Mehlhoff (Facilities Director)
Northern State University
(605) 626-7779
Monte.Mehlhoff@northern.edu

PROJECT NO. 6

1. Project Title:

South Dakota School of Mines & Technology McLaury Building Renovation
Commissioning

2. Scope:

MEP Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering, Inc. (QSE) provided heating, ventilating, and air conditioning (HVAC) commissioning services for the South Dakota School of Mines & Technology McLaury Renovation.

The 23,000 square foot, 3-story building includes offices, classrooms, and a variety of laboratory spaces. The project was a phased renovation including both mechanical and architectural upgrades.



The commissioned systems included **air handling units supplying ventilation to four-pipe induction beams equipped with constant airflow regulators for indoor climate control.** Flat plate convectors provided heat to perimeter spaces, and unit heaters were installed in stairwells. A split system air conditioner served the IT room requiring year-round cooling. A steam-to-hot water heat exchanger produced heating hot water for the heating coils and flat plate convectors, and existing chilled water served the cooling coils. The building systems were controlled via a central building automation system.

3. Start and End Date:

02/01/2018 through 12/30/2020

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Matt Malinosky, PE, LEED AP BD+C, CCP was QSE's staff member supervising this project. Matt Malinosky has **22 years of experience** managing commissioning and retro-commissioning projects, including facilities for government, commercial, healthcare, education, residential, entertainment, sports, and manufacturing. His specialties include building systems data trending and analysis, systems functional performance testing and test procedure development, and operations and maintenance training planning.

Mr. Malinosky is a **licensed mechanical professional engineer (Minnesota License Number: 49054), a BCxA Certified Commissioning Professional (CPP),** and a USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

South Dakota Office of the State Engineer
523 East Capitol Avenue
Pierre, SD 57501

6. Client Reference:

Jerilyn Roberts (Associate VP for Facilities – SDSMT)
(605) 394-6729
Jerilyn.Roberts@sdsmt.edu

PROJECT NO. 7

1. Project Title:

Thrivent Financial New Corporate Headquarters Commissioning

2. Scope:

MEP Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering, Inc. (QSE) provided commissioning services for the new Thrivent Financial Corporate Headquarters constructed in downtown Minneapolis, Minnesota.



The 264,000 square foot office building includes 8 floors above grade with a variety of spaces, including open and enclosed offices, conference rooms, staff commons, a fitness center, museum and art storage spaces, coffee shop, catering area, and support spaces. There are 2 additional levels below grade with approximately 103,000 square feet of parking space. The new building is connected to the Minneapolis skyway system.

Two large gas-fired/DX rooftop units serve variable air volume boxes (VAVs) on each floor for ventilation and indoor climate control. Condensing boilers provide hot water to VAV reheat coils and other terminal units. Also, water-cooled computer room air conditioners and water-source heat pumps serving support spaces will reject heat through a dry cooler. There are also two variable refrigerant flow (VRF) systems which are being used to provide temperature control for the skyway and coffee shop while the main rooftop units are off. A central building automation system will control the building systems through direct control as well as interface with packaged equipment controllers. In addition to heating and cooling systems, QSE is also commissioning the domestic water, lighting controls, and emergency power systems.

3. Start and End Date:

11/01/2017 through 10/30/2021

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Matt Malinosky, PE, LEED AP BD+C, CCP was QSE's staff member supervising this project. Matt Malinosky has **22 years of experience** managing commissioning and retro-commissioning projects, including facilities for government, commercial, healthcare, education, residential, entertainment, sports, and manufacturing. His specialties include building systems data trending and analysis, systems functional performance testing and test procedure development, and operations and maintenance training planning.

Mr. Malinosky is a **licensed mechanical professional engineer (Minnesota License Number: 49054)**, a **BCxA Certified Commissioning Professional (CPP)**, and a USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

Thrivent Financial for Lutherans
600 Portland Avenue S., Suite 100
Minneapolis, MN 55415

6. Client Reference:

Eric Merriman (Director, Real Estate Development)
Thrivent Financial
(612) 844-5731
Eric.Merriman@Thrivent.com

PROJECT NO. 8

1. Project Title:

Hennepin County Regional Medical Examiner Facility Commissioning

2. Scope:

MEP Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering, Inc. (QSE) provided Commissioning Services for Hennepin County's new Regional Medical Examiner Facility being constructed in Minnetonka, Minnesota.



The new 68,500 square foot facility included an administration wing with offices, reception, and meeting rooms to support its autopsy wing which includes a main autopsy suite, cooler and freezer areas, imaging, tissue procurement and storage, neuropathology, anthropology, specimen, evidence, morgue, sensitive storage, cart wash, and clean/dirty rooms.

QSE commissioned the heating, ventilating, and air conditioning systems, including the administration wing's central VAV air handling system. In the autopsy wing, a 100% outside air unit and dedicated exhaust served terminal supply and exhaust air valves, respectively, to maintain the strict pressure relationships between spaces. All autopsy HVAC systems were N+1 redundant and served by emergency power.

The commissioned systems also included a heating hot water boiler system, a chilled water system, domestic water systems, sump pumps, lighting controls, and normal and emergency power systems. A building automation system controlled the building systems through direct control and interfaces to packaged equipment controllers.

3. Start and End Date:

12/01/2018 through 07/30/2023

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Matt Malinosky, PE, LEED AP BD+C, CCP was QSE's staff member supervising this project. Matt Malinosky has **22 years of experience** managing commissioning and retro-commissioning projects, including facilities for government, commercial, healthcare, education, residential, entertainment, sports, and manufacturing. His specialties include building systems data trending and analysis, systems functional performance testing and test procedure development, and operations and maintenance training planning.

Mr. Malinosky is a **licensed mechanical professional engineer (Minnesota License Number: 49054)**, a **BCxA Certified Commissioning Professional (CPP)**, and a USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

Hennepin County
Hennepin County Facility Services
A2240 Government Center – MC 228
300 South Sixth Street
Minneapolis, MN 55487

6. Client Reference:

Gail Manning (Facilities Project Manager, Registered Architect)
Hennepin County Facility Services Department
(612) 348-4079
gail.manning@hennepin.us

PROJECT NO. 9

1. Project Title:

South Central College's STEM & Healthcare Renovation & Renewal Minnesota B3 Commissioning

2. Scope:

MEP Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering, Inc. (QSE) provided commissioning services for the renovation of the Science, Technology, Engineering, & Mathematics (STEM) and Healthcare area of South Central College's North Mankato campus. The renovated area is more than 80,000 square feet and contains a variety of spaces including classrooms, labs, offices, collaboration spaces, and other support spaces.



Construction of this project was implemented in multiple phases. Renovation work was performed in isolated construction zones while maintaining service to the otherwise fully occupied and functional educational facility.

The project was required to comply with Minnesota's Buildings Benchmarks and Beyond (B3) version 3.0 and QSE's scope complied with the commissioning requirements of that program. The commissioning process applied to the heating, ventilation, and air conditioning (HVAC); domestic hot water; and lighting control systems.

3. Start and End Date:

07/01/2018 through 07/01/2021

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Matt Malinosky, PE, LEED AP BD+C, CCP was QSE's staff member supervising this project. Matt Malinosky has **22 years of experience** managing commissioning and retro-commissioning projects, including facilities for government, commercial, healthcare, education, residential, entertainment, sports, and manufacturing. His specialties include building systems data trending and analysis, systems functional performance testing and test procedure development, and operations and maintenance training planning.

Mr. Malinosky is a **licensed mechanical professional engineer (Minnesota License Number: 49054)**, a **BCxA Certified Commissioning Professional (CPP)**, and a USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

South Central College
1920 Lee Blvd.
North Mankato, MN 56003

6. Client Reference:

Steve Knight (Project Manager and Owner's Representative)
Knights Inspect
(763) 307-3968
Steve@KnightInspect.com

PROJECT NO. 10

1. Project Title:

Mayo Clinic Capital Project Commissioning

2. Scope:

MEP Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering, Inc. (QSE) has been selected by Mayo Clinic's Divisions of Facilities Project Services, Architectural & Engineering Design Services and Facilities Operations to provide commissioning services for capital construction projects.



The Mayo Clinic is committed to commissioning all capital projects to verify that systems are designed, installed, and functioning properly and that facility staff has adequate system documentation and training to proficiently operate and maintain building systems. In order to achieve this goal, Mayo selected QSE as a preferred commissioning provider due to their long-established relationship. QSE's in-depth understanding of Mayo's existing mechanical, electrical, plumbing, communications, and life safety systems in every building enhances the value of the commissioning process QSE brings to each project. QSE has successfully provided or is currently providing commissioning services for over 250 projects since 2017.

Under this program, QSE provides the following activities:

- Perform design and documentation review of contract documents
- Prepare and submit the Commissioning Plan
- Conduct and document Commissioning Team meetings
- Perform site visits to observe component and system installations
- Review and comment on Submittals
- Review and comment on Contractor-prepared documents, including Operating & Maintenance Manuals and Training Plans.
- Write Verification Test Procedures and Integrated System Test Procedures
- Witness, verify, and document results of Verification Tests and Integrated System Tests
- Compile Commissioning Report

The following is a typical list of systems to be commissioned under this program:

- Building automation systems
- Chilled water systems
- Steam systems
- Heating hot water system
- Air handling units
- Energy recovery units
- Terminal equipment

- Fan coil units, vertical and horizontal
- Exhaust and specialty fans
- Unit heaters and unit ventilators
- Domestic water heating system
- Pneumatic tubes and conveyors
- Fire protection system
- Fire alarm system and associated interlocks to other systems
- Fire, smoke and fire/smoke dampers
- Nurse call system
- Paging system
- Lighting and day-lighting control systems
- Emergency power system
- Electrical service and distribution

3. Start and End Date:

01/01/2017-On-going

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Rebecca Ellis is QSE's supervising team member for this project. Ms. Ellis has **42 years of experience** engineering, commissioning and managing a variety of HVAC system projects. She is a specialist in the design, analysis, and commissioning of intricate temperature and humidity control systems. She has extensive experience in the design and the analysis of museum, laboratory, and animal research facility HVAC systems. The majority of Ms. Ellis' HVAC engineering has been for renovations, often in occupied buildings, where the confines of existing and often unknown conditions constrain the design and installation of new systems. This experience has resulted in a keen appreciation of the need for close coordination between all parties involved in a design and construction project.

Ms. Ellis is a licensed professional mechanical engineer (**Minnesota License Number: 22339**), an **ACG Certified Commissioning Authority (CxA)**, a **BCxA Certified Commissioning Professional (CCP)**, **ASHRAE Building Commissioning Professional (BCxP)**, and USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

Mayo Clinic
Facilities Project Services
200 1st Street SW
Rochester, MN 55905

6. Client Reference:

Andrew Reese, PE (Program Manager - Facilities Project Services)
(507) 293-3382
reese.andrew@mayo.edu

PROJECT NO. 11

1. Project Title:

American Swedish Institute's Turnblad Mansion Carriage House Rehabilitation Commissioning

2. Scope:

MEP Commissioning during Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering (QSE) provided commissioning services for the rehabilitation of the Turnblad Mansion Carriage House in Minneapolis, Minnesota. The Turnblad Mansion was designated to the National Register of Historic Places in 1971 and for Heritage Preservation by the City of Minneapolis in 1974. The facility currently serves as home to the American Swedish Institute.



In the on-going efforts to preserve the historic facility, the project consisted of rehabilitating 13,600 square feet of the Carriage House. The renovation created an accessible and functional space for staff and volunteers in a way that encourages creativity and collaboration.

Key commissioning activities included performing a commissioning review of the project's construction documents and submittals, commissioning site observation, and, ultimately, functionally testing the systems to confirm compliance with the design and contract documents. Documentation included a commissioning plan, functional performance test procedures for each system, an on-line commissioning action list and review comment tracking system, and a commissioning report.

The commissioned HVAC systems included variable refrigerant flow, energy recovery ventilators, central steam heating plant with steam radiation heating, kitchen exhaust, existing heat pumps, and building automation systems. Other commissioned systems included domestic hot water and lighting controls.

3. Start and End Date:

06/01/2022 through 07/01/2023

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Rebecca Ellis was QSE's supervising team member for this project. Ms. Ellis has **42 years of experience** engineering, commissioning and managing a variety of HVAC system projects. She is a specialist in the design, analysis, and commissioning of intricate temperature and humidity control systems. She has extensive experience in the design and the analysis of museum, laboratory, and animal research facility HVAC systems. The majority of Ms. Ellis' HVAC engineering has been for renovations, often in occupied buildings, where the confines of existing and often unknown conditions constrain the design and installation of new systems. This

experience has resulted in a keen appreciation of the need for close coordination between all parties involved in a design and construction project.

Ms. Ellis is a licensed professional mechanical engineer (**Minnesota License Number: 22339**), an **ACG Certified Commissioning Authority (CxA)**, a **BCxA Certified Commissioning Professional (CCP)**, **ASHRAE Building Commissioning Professional (BCxP)**, and USGBC LEED Accredited Professional.

5. Client Name & Mailing Address:

American Swedish Institute
2600 Park Avenue
Minneapolis, Minnesota 55407

6. Client Reference:

Peggy Korsmo-Kennon (Chief Operations Officer)
American Swedish Institute
(612) 870-3379
PeggyKK@ASIMN.org

PROJECT NO. 12

1. Project Title:

South Dakota State University American Indian Student Center LEED v4 Commissioning
South Dakota State University

2. Scope:

MEP and Building Exterior Commissioning during Design, Construction, and Occupancy & Operations Phases

Questions & Solutions Engineering (QSE) provided Professional Commissioning Services in compliance with the LEED EA Prerequisite 1: Fundamental Commissioning and EA Credit 3:

Enhanced Commissioning requirements for the **American Indian Student Center**. The new building consists of office space, meeting rooms, multipurpose rooms, technology resources, academic and support spaces.



QSE commissioned the **heating, ventilating, and air conditioning (HVAC) systems**, metering interface, domestic hot water system, fire alarm interface to BAS, electrical incoming service, electrical service and distribution systems, photovoltaic system, and lighting control systems. In addition, **QSE's subconsultant commissioned the building enclosure systems**.

QSE joined the project team in the design phase and was able to help South Dakota State University document project requirements. This documentation was used as the basis against which QSE will verify that those requirements are achieved throughout the design, construction, and early occupancy phases of the project.

The project earned **LEED Gold certification**.

3. Start and End Date:

06/04/2018 – 07/01/2021

4. Name and number of years experience of Responder's staff member supervising the project (must be minimally 5 years of experience and must be licensed, registered or certified in the State of MN):

Roger Thue, PE, LEED Green Associate, GGP, CxA was the QSE's staff member supervising this project. **Mr. Thue has 37 years of experience in engineering design, commissioning, project management, performing design reviews, operations of HVAC systems, and central plant steam and chilled water distribution systems.** Over 19 of those years were on-staff in the South Dakota State University Facilities and Services Department. His technical strengths include building automation systems, HVAC system operations, HVAC energy conservation, steam heating plants and distribution systems, and chilled water plants and distribution systems. With many years as a building owner and operator, Mr. Thue possesses the ability to

see projects from an owner's point of view. He has a keen appreciation for equipment to be readily accessible for service, low in maintenance, energy efficient, and simple enough to understand that the owner's staff can operate it as intended.

Mr. Thue is a licensed professional mechanical engineer (**licensed in South Dakota**), an **ACG Certified Commissioning Authority (CxA)**, and a **Green Globes Professional (GGP)**, and a USGBC LEED Associate.

5. Client Name & Mailing Address:

South Dakota State University
Facilities & Services Engineering
Facilities & Services Building 100, Box 2150
Brookings, SD 57007

6. Client Reference:

Reed Leibel (Project Manager/Engineer)
South Dakota State University
Facilities & Services Engineering
(605) 688-4136
Reed.Leibel@sdstate.edu

Exhibit D1
PROFESSIONAL/TECHNICAL CONTRACTS
GENERAL INSURANCE REQUIRMENTS

A. Contractor shall not commence work under the contract until they have obtained all the insurance described below and the State of Minnesota has approved such insurance. Contractor shall maintain such insurance in force and effect throughout the term of the contract.

B. Contractor is required to maintain and furnish satisfactory evidence of the following insurance policies:

1. **Workers' Compensation Insurance:** Except as provided below, Contractor must provide Workers' Compensation insurance for all its employees and, in case any work is subcontracted, Contractor will require the subcontractor to provide Workers' Compensation insurance in accordance with the statutory requirements of the State of Minnesota, including Coverage B, Employer's Liability. Insurance **minimum** limits are as follows:

\$100,000 – Bodily Injury by Disease per employee
\$500,000 – Bodily Injury by Disease aggregate
\$100,000 – Bodily Injury by Accident

If Minnesota Statute 176.041 exempts Contractor from Workers' Compensation insurance or if the Contractor has no employees in the State of Minnesota, Contractor must provide a written statement, signed by an authorized representative, indicating the qualifying exemption that excludes Contractor from the Minnesota Workers' Compensation requirements.

If during the course of the contract the Contractor becomes eligible for Workers' Compensation, the Contractor must comply with the Workers' Compensation Insurance requirements herein and provide the State of Minnesota with a certificate of insurance.

2. **Commercial General Liability Insurance:** Contractor is required to maintain insurance protecting it from claims for damages for bodily injury, including sickness or disease, death, and for care and loss of services as well as from claims for property damage, including loss of use which may arise from operations under the Contract whether the operations are by the Contractor or by a subcontractor or by anyone directly or indirectly employed by the Contractor under the contract. Insurance **minimum** limits are as follows:

\$2,000,000 – per occurrence
\$2,000,000 – annual aggregate
\$2,000,000 – annual aggregate – Products/Completed Operations

The following coverages shall be included:

Premises and Operations Bodily Injury and Property Damage
Personal and Advertising Injury
Blanket Contractual Liability
Products and Completed Operations Liability
Other; if applicable, please list _____
State of Minnesota named as an Additional Insured

3. **Commercial Automobile Liability Insurance:** Contractor is required to maintain insurance protecting it from claims for damages for bodily injury as well as from claims for property damage resulting from the ownership, operation, maintenance or use of all owned, hired, and non-owned autos which may arise from operations under this contract, and in case any work is subcontracted the contractor will require the subcontractor to maintain Commercial Automobile Liability insurance. Insurance **minimum** limits are as follows:

Exhibit D1

\$2,000,000 – per occurrence Combined Single limit for Bodily Injury and Property Damage

In addition, the following coverages should be included:

Owned, Hired, and Non-owned Automobile

4. Professional/Technical, Errors and Omissions, and/or Miscellaneous Liability Insurance

This policy will provide coverage for all claims the contractor may become legally obligated to pay resulting from any actual or alleged negligent act, error, or omission related to Contractor's professional services required under the contract.

Contractor is required to carry the following **minimum** limits:

\$2,000,000 – per claim or event

\$2,000,000 – annual aggregate

Any deductible will be the sole responsibility of the Contractor and may not exceed \$50,000 without the written approval of the State. If the Contractor desires authority from the State to have a deductible in a higher amount, the Contractor shall so request in writing, specifying the amount of the desired deductible and providing financial documentation by submitting the most current audited financial statements so that the State can ascertain the ability of the Contractor to cover the deductible from its own resources.

The retroactive or prior acts date of such coverage shall not be after the effective date of this Contract and Contractor shall maintain such insurance for a period of at least three (3) years, following completion of the work. If such insurance is discontinued, extended reporting period coverage must be obtained by Contractor to fulfill this requirement.

C. Additional Insurance Conditions:

- Contractor's policy(ies) shall be primary insurance to any other valid and collectible insurance available to the State of Minnesota with respect to any claim arising out of Contractor's performance under this contract;
- If Contractor receives a cancellation notice from an insurance carrier affording coverage herein, Contractor agrees to notify the State of Minnesota within five (5) business days with a copy of the cancellation notice, unless Contractor's policy(ies) contain a provision that coverage afforded under the policy(ies) will not be cancelled without at least thirty (30) days advance written notice to the State of Minnesota;
- Contractor is responsible for payment of Contract related insurance premiums and deductibles;
- If Contractor is self-insured, a Certificate of Self-Insurance must be attached;
- Contractor's policy(ies) shall include legal defense fees in addition to its liability policy limits, with the exception of B.4 above;
- Contractor shall obtain insurance policy(ies) from insurance company(ies) having an "AM BEST" rating of A- (minus); Financial Size Category (FSC) VII or better, and authorized to do business in the State of Minnesota; and

Exhibit D1

- An Umbrella or Excess Liability insurance policy may be used to supplement the Contractor's policy limits to satisfy the full policy limits required by the Contract.
- D. The State reserves the right to immediately terminate the contract if the contractor is not in compliance with the insurance requirements and retains all rights to pursue any legal remedies against the contractor. All insurance policies must be open to inspection by the State, and copies of policies must be submitted to the State's authorized representative upon written request.
- E. The successful responder is required to submit Certificates of Insurance acceptable to the State of MN as evidence of insurance coverage requirements prior to commencing work under the contract.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/25/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Kraus-Anderson Insurance Agency, Inc. 420 Gateway Blvd Burnsville MN 55337	CONTACT NAME: Certificates Department PHONE (A/C, No, Ext): 9527078200 FAX (A/C, No): 952-890-0535 E-MAIL ADDRESS: certificates@kainsurance.com														
INSURED Questions & Solutions Engineering Inc 1079 Falls Curve Chaska MN 55318	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">INSURER(S) AFFORDING COVERAGE</th> <th style="text-align: center;">NAIC #</th> </tr> <tr> <td>INSURER A: RLI Insurance Company</td> <td>13056</td> </tr> <tr> <td>INSURER B: Continental Casualty Company</td> <td>20443</td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: RLI Insurance Company	13056	INSURER B: Continental Casualty Company	20443	INSURER C:		INSURER D:		INSURER E:		INSURER F:	
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INSURER D:															
INSURER E:															
INSURER F:															

COVERAGES**CERTIFICATE NUMBER:** 1680529755**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> XCU/Cont. Liab. <input checked="" type="checkbox"/> Broad Form PD GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input type="checkbox"/> OTHER:	Y		PSB0002214	5/23/2025	5/23/2026	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ Included GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			PSB0002214	5/23/2025	5/23/2026	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 0	Y		PSE0001655	5/23/2025	5/23/2026	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	PSW0001952	5/23/2025	5/23/2026	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	Professional Liability & Pollution Incident Liability - Claims Made & Reported			MCH276183431	5/23/2025	5/23/2026	Per Claim 2,000,000 Aggregate 3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Master Contract Award Notification - Building Commissioning Services T#2602A

The State of Minnesota is an Additional Insured under the Commercial General Liability and Excess Liability when required by written contract.

Professional Liability Retroactive Date: Full Prior Acts

30 Day Notice of Cancellation Applies

CERTIFICATE HOLDER**CANCELLATION**

The State of Minnesota
 Department of Administration
 Real Estate & Construction Services
 50 Sherburne Avenue, Suite 309
 Saint Paul MN 55155

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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Exhibit E

Workforce and Equal Pay Declaration Page

This form is **required for all businesses** executing government contracts under the following:

Select one:

- ☒ Businesses executing a contract with **State or Metropolitan agencies** in excess of \$100,000 ([Workforce Certificate](#)) and if applicable \$500,000 ([Equal Pay Certificate](#))
- ☐ Businesses executing a contract with **University of Minnesota** for general obligation bond funded capital projects in excess of \$100,000 ([Workforce Certificate](#)) and if applicable \$500,000 ([Equal Pay Certificate](#))
- ☐ Businesses executing a contract with **Political Subdivisions** for general obligation bond funded capital projects in excess of \$250,000 ([Workforce Certificate](#)) and if applicable \$1,000,000 ([Equal Pay Certificate](#))

Select all that apply:

We are a Certificate holder:

- ☐ Workforce Certificate under the name: _____
- ☐ Equal Pay Certificate under the name: _____

We are applying/have applied for the following certificate(s):

- ☐ Workforce Certificate Application date (MM/DD/YYYY): _____
- ☐ Equal Pay Certificate Application date (MM/DD/YYYY): _____


We have not applied for one or both certificates:

- ☐ Our Company does not yet have a Workforce Certificate or Equal Pay Certificate. We acknowledge that a Workforce and, if applicable, Equal Pay Certificate, or approved exemption by MDHR is required before a contract can be executed.

We are Exempt:

- ☒ We attest to MDHR that we have not employed 40 or more employees on a single day during the prior 12 months in Minnesota or the state in where we have our primary place of business. MDHR may request the names of our employees during the previous 12 months, the date of separation, if applicable, and the current employment status and count.

Business Information

0000350835	Questions & Solutions Engineering, Inc.	
Vendor/Supplier ID	Business Name	Name of Contracting Agency
Rebecca Ellis	President	July 11, 2025
Authorized Signatory Name	Title	Date
	Rebecca.Ellis@QSEng.com	612.309.0503
Signature	Email	Phone

For assistance with this form, email the Minnesota Department of Human Rights Compliance.MDHR@state.mn.us

Exhibit F**CERTIFICATION REGARDING LOBBYING**

For State of Minnesota Contracts and Grants over \$100,000

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Questions & Solutions Engineering, Inc.

Organization Name

Rebecca Ellis, President

Name and Title of Official Signing for Organization

By: Rebecca T. Ellis

Signature of Official

July 11, 2025

Date

Exhibit I

Affidavit of Noncollusion

State of Minnesota

Request for Proposals

Firm Name: Questions & Solutions Engineering, Inc.

Instructions: Please return your completed form as part of the Response submittal.

I swear (or affirm) under the penalty of perjury:

1. That I am the Responder (if the Responder is an individual), a partner in the company (if the Responder is a partnership), or an officer or employee of the responding corporation having authority to sign on its behalf (if the Responder is a corporation).
2. That the attached proposal submitted in response to the ___ Building Commissioning Services: Mechanical, Electrical, Plumbing (MEP) and Building Envelope_ Request for Proposals has been arrived at by the Responder independently and has been submitted without collusion with and without any agreement, understanding or planned common course of action with, any other Responder of materials, supplies, equipment, or services described in the Request for Proposals, designed to limit fair and open competition.
3. That the contents of the proposal have not been communicated by the Responder or its employees or agents to any person not an employee or agent of the Responder and will not be communicated to any such persons prior to the official opening of the proposals.
4. That I am fully informed regarding the accuracy of the statements made in this affidavit.

Authorized Signature

Responder's firm
name: Questions & Solutions Engineering, Inc.

Print authorized representative
name: Rebecca Ellis, PE Title: President

Authorized
signature: Rebecca T. Ellis Date
(mm/dd/yyyy): 07/11/2025

Notary Public

Subscribed and sworn to before me this:
11 day of July, 2025

Theresa Ann Warner

Notary Public signature

01/31/2028

Commission expires (mm/dd/yyyy)

