Women's Rights National Historical Park
Statement of Work

The installation of a new high efficiency replacement central air conditioning system for the historic M'Clintock House

PMIS # 330415

NATIONAL PARK SERVICE

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1 Project Overview

1.1 Location and Facilities

This project involves the M'Clintock House, located in Waterloo, New York as part of Women's Rights National Historical Park. This facility is located at 14 E Williams Street, Waterloo, NY 13165. The facility is a historic 1,922 square foot two-story brick structure that is open seasonally for visitor talks and tours.

1.2 Project Description

This Statement of Work (SOW) outlines the requirements for removing an existing residential central air conditioning system and installing a new, high-efficiency unit. The building has a new (RUUD Model # R962V1155A24M43CAP) forced air furnace that was replaced in 2025 using the existing air conditioning equipment.

The Contractor shall be responsible for all necessary work to achieve required project outcomes, including labor, equipment, tools, personal protective equipment (PPE), internal construction permits, incidental design, travel, and other related expenses.

1.3 Project Description and Scope

The contractor shall provide all labor, materials, equipment, and supervision to replace the existing residential central A/C unit, including the outdoor condensing unit and indoor evaporator coil (matched system), ensuring full compliance with manufacturer specifications, local building codes, and safety regulations.

- **Project Scope Includes:**
  - **Site Preparation:** Protecting flooring/surroundings, obtaining necessary permits, and verifying electrical capacity.
  - **Removal:** Safe evacuation of existing refrigerant and a log or proper tracking of types and amounts of the refrigerant disposal, this would also include new refrigerant being used for the new system. disconnecting electrical/control lines, and removal/disposal of old condenser, coil, and pads.
  - **Installation:** Installing new matched, high-efficiency (SEER 15+) condenser unit and evaporator coil. / New condensate pump/non-submersible.
  - **Infrastructure:** Replacing refrigerant lines (line-set), installing a new, properly sized disconnect box/whip, and upgrading the condensate drain line with a trap.
  - **System Startup & Testing:** Pressure testing with nitrogen, evacuation (vacuum pump), charging with new refrigerant, and testing system performance (temperature split).
  - **Finalization:** Clean-up of site and providing owner education on system operation.
  -

1.4 Detailed Task Breakdown

- **Pre-Installation:** Perform a load calculation (Manual J) industry standard for load calculations to ensure proper sizing. Verify new equipment model numbers match the

approved proposal, kick off meeting with park staff and Section 106 coordinator to review requirements.

- **Equipment Removal:** Disconnect electrical power at the breaker panel. Reclaim refrigerant from the existing system in accordance with EPA regulations. Remove and replace the existing condenser, evaporator coils, and associated line set. **Perform all work without drilling new penetrations in the historic building fabric.**
- **New Unit Installation:**
    - **Outdoor Unit:** Set new condensing unit on a new level composite pad. Provide clearances in accordance with the manufacturer's guidelines.
    - **Indoor Unit:** Install a new, matched (A-Coil) evaporator coilin existing discharge of the existing Ruud forced air furnace. Ensure airtight sealing with mastic or aluminum tape.
    - **Refrigerant Lines:** Install new copper refrigerant line-set, insulating the suction line, and install a new filter drier.
    - **Electrical/Controls:** Install a new safety disconnect box and flexible "whip" to the outdoor unit. Connect the existing thermostat and low-voltage wiring.
    - **Drain Line** Install a new PVC drain line with a trap and a new condensate pump/non-submersible to prevent water damage.
- **System Startup:**
    - **Pressure Test:** Pressurize with nitrogen to verify no leaks.
    - **Vacuum:** Apply a vacuum of 500 microns or less to ensure a dry, air-free system.
    - **Charge:** Charge with manufacturer-specified refrigerant or New York State requirements (**R-454B** or **R-32) also track refrigerant types and amount for the park EPA report.**
- **Testing:** Measure refrigerant pressures, superheat/subcooling, and temperature differential (air-in vs. air-out).

1.5 Materials and Equipment to be submitted for review and approval. (Submittals)

- **Condensing Unit:** [Insert Brand/Model], SEER rating, [X] Tons.
- **Evaporator Coil:** [Insert Brand/Model] (matched to condenser).
- **Included Accessories:** New pad, disconnect box, electrical whip, filter drier, line Set copper lines, drain pan/float switch.
- **Refrigerant** manufacturer-specified refrigerant or New York State requirements.
- **Plan** for how contractors will perform the work/methods for compliance.
- **SDS** Any sealants to be used as part of project requiring SDS?

2 Summary of Requirements and Objectives

Project requirements are described in this SOW. The Contractor shall site verify all existing conditions prior to commencing work on site.

Work to be completed within 60 calendar days of contract award.

3 Codes and Standards

The Contractor is responsible for securing all needed permits and for ensuring compliance with all federal, state, and local codes and design standards, latest editions, including the following. If discrepancies are found between the SOW and codes or standards as referenced in this SOW, the codes or standards shall govern, unless noted otherwise.

A. International Code Council (ICC, International Code Council) (Most current edition)
B. International Mechanical Code (IMC, International Code Council) (Most current edition)
C. International Plumbing Code (IPC, International Code Council) (Most current edition)
D. National Electrical Code (NFPA 70) (Most current edition)
E. National Fire Protection Association Codes (NFPA)
F. American Society of Heating, Refrigerating, and Air-Conditioning Engineers Standards (ASHRAE)
G. Air-Conditioning, Heating, & Refrigeration Institute Standards (AHRI)
H. Sheet Metal & Air Conditioning Contractors' National Association Standards (SMACNA)
I. National Environmental Balancing Bureau Standards (NEBB)
J. National Electrical Equipment and Medical Imaging Manufacturers (NEMA)
K. Occupational Safety and Health Administration (OSHA)
L. US Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD)

4 Approved Equivalents

Contractor proposed equivalents shall be submitted for review during the solicitation period as Requests for Information (RFI). Proposed equivalents shall not be reviewed after the solicitation period.

5 Product and Material Specifications

5.1 Residential. Central air conditioning system. High efficiency.

A. General:
    1. Remove and dispose of old existing equipment.
    2. Submit detailed manufacturers drawings showing physical dimensions, rated capacities, weights, motor data, and accessories.
    3. Submit wiring diagrams detailing wiring for power and control systems differentiating between factory and field installed wiring.
    4. Supply and install matched, high-efficiency (SEER 15+) condenser unit and evaporator coil. New condensate pump/non-submersible, and accessories in accordance with the manufacturer specifications.
        - Adapt the new (A-coil) evaporator coil to existing Plenum duct

work. Include any additional duct work that requires replacement at time of installation.

- Connect to existing electric supply and ductwork.
- Complete condensate removal system with connection to furnace and sanitary drain.
- New condenser unit to be set on new composite pad.
- 10-year parts and labor warranty. Provide copy of manufacturer's warranty.
- All labor and material to complete the job included.
- Complete start-up, safety check, adjustments, operational instructions to staff, and operational service and parts manuals.
- Clean up basement area, staging, and all other areas impacted from project. Any damage to be repaired to satisfy the government at contractor's expense.

B. Outdoor Condensing Unit
   1. Electrical Characteristics
      a. Volts:208/230
      b. Phase: 1
      c. Hertz: 60

C. Acceptable Manufacturers: Carrier, Trane Goodman, Lennox or approved equivalent.

5.2 Thermostat / Controllers

A. General: Existing Thermostat/Controllers shall be fully compatible with the installed system. Contractors shall provide all required components, sensors, accessories, wiring, interface modules, etc. as required for a fully operational system in accordance with this SOW.

5.3 Mechanical Systems Insulation

A. Ductwork: existing will be used.

6 Sequences of Operation

A. General: The Contractor shall provide all required components, accessories, wiring, interface modules, etc. as required for fully operational replacement systems in accordance with this SOW.
   1. Occupied Period
      a. Ventilation Control
         1) Fans shall operate continuously at a fixed speed throughout the occupied period
   2. Unoccupied Period
      a. Ventilation Control

1) Fans shall operate only when there is a call for heating and cooling (unoccupied set points)

b. Space Temperature Control

1) Units shall operate under their own controls to meet indoor temperature set points (unoccupied set points).

7 Pre-Functional Testing

A. The Contractor shall provide pre-functional testing for designated mechanical equipment using manufacturer forms, checklists, or installation and operation manuals. Pre-functional testing shall be performed by the installation contractor and shall demonstrate satisfactory installation in accordance with manufacturer's requirements. Pre-functional testing shall be complete prior to functional testing.

B. The Contractor shall provide pre-functional testing and manufacturer reports for the following equipment:
   1. Residential central air conditioning unit.

8 Start-up and Functional Testing

A. The contractor shall conduct equipment start-up and functional testing in accordance with manufacturer's requirements. Submit record of start-up and functional testing.

B. The contractor shall provide functional testing and manufacture reports for the following equipment:
   1. Residential central air conditioning unit.

9 Operation and Maintenance Manual

A. Provide an Operation and Maintenance (O&M) Manual within fourteen (14) days after project completion. The O&M Manual shall include the following at a minimum:
   1. All approved submittals
   2. Manufacturer maintenance instructions for all installed equipment
   3. Table of manufacturer, model, and serial number of all installed equipment

10 Training

A. The Contractor shall submit a proposed training agenda for park facility maintenance staff. This agenda shall include all relevant topics for the operation and maintenance of installed systems, including the following at a minimum:
   1. Thermostat/controller operation
   2. Cooling system operation
   3. Manufacturer recommended maintenance for all installed systems
   4. Troubleshooting
   5. Safety

B. The contractor shall provide onsite training to park facility maintenance staff in

accordance with the approved training agenda. The contractor shall provide a record of training attendance. Training shall be provided by individuals thoroughly trained in the operation and maintenance of installed systems. The contractor shall coordinate training schedule with the COR.

11 Additional Requirements

11.1 Project Schedule

A. The Contractor shall develop a detailed project schedule. This schedule shall include key milestones of the project, including start and finish dates, as well as proposed work times. The Contractor shall submit this schedule for review and approval prior to work proceeding. The Contractor shall actively maintain and update the schedule as required by the COR. Work hours are Monday through Friday 7-3:30pm. No weekend or federal holidays are to be worked unless approved by the Contracting Officer. No work to be performed July 18-21, 2026, due to a special event at the park.

11.2 Safety

A. The Contractor shall submit the following prior to work proceeding and maintain a copy onsite during the project:
    1. Safety Data Sheets (SDS) for any sealants or chemicals to be used as part of project requiring an (SDS)
    2. Project specific site safety plan. This plan shall include the following at a minimum:
        a. Description of work methods to ensure integrity of historic structure in consultation with park 106 coordinator/cultural resource specialist.
        b. Nomination of project management staff, including site safety representative
        c. Contact information for project management staff
        d. Contact and location information for local emergency services
        e. Description of anticipated high safety risk activities, including activity hazard analyses and safety control measures
        f. Site protection and traffic control measures, including sketches to illustrate provisions.
B. Contractor shall be responsible for strict compliance with the park policies.
C. The contractor shall fully comply with 29 CFR 1926.
D. The contractor shall provide temporary safety barriers, as necessary, to provide a safe, hazard-free space for workers, pedestrians, and vehicles during construction.
E. The contractor shall install protective measures to contain dust and debris during construction to ensure a safe and irritant free work environment for building occupants. Return all areas to the original condition at the conclusion of work.
F. The contractor shall remove and dispose of excess materials, debris, or waste at an approved off-site location in accordance with applicable local, tribal, state and federal laws and regulations, and pay any related fees. Burning or burial of materials is not

permitted.

11.3 Security

A. The contractor shall secure new equipment and materials. Limited storage space is available for the contractor. However, the location of trailers, storage, sheds and staging areas shall be approved by the COR.
B. The contractor shall comply with all park security policies.

11.4 Quality Assurance

A. The contractor shall develop and maintain a quality program to ensure services are performed in accordance with commonly accepted commercial practices. The quality of all work shall be the responsibility of the contractor. Inspect and test all work as needed to ensure that the quality of materials, workmanship, work, finish, and functional performance is in compliance with the SOW.
B. The government shall periodically evaluate the contractor's performance in accordance with this SOW.
C. All new equipment shall conform to the manufacturer's instructions and guidelines for installation and start-up.

11.5 Travel

A. Contractor shall be responsible for all travel related expenses for this project, including mobilization of equipment, tools, materials, labor, lodging, meals, and per diem.

11.6 Progress Payments

A. Progress payments during work will be based on the percentage of work completed on items listed on the approved Bid Schedule, Schedule of Values or by contract line item. Actual work completed and in place will form the basis for payment. Verification of the percentage (%) complete shall be initiated by the contractor for approval by the COR. The contractor shall make the computations for payment based on the government's verification of work completed and in place for any periods for which progress payments are requested.
B. The contractor shall furnish the originals of all field notes, invoices and payroll reports, and all other records relating to the basis for payment, to the CO, who shall use them as necessary to determine the final amount of progress payments. The contractor shall retain copies of all such material furnished to the CO.

11.7 Project Meetings

A. Pre-construction meeting: The CO will arrange a pre-construction meeting with the contractor. A pre-award site visit is recommended to understand the existing conditions and complexity of project. Notes of the meeting shall be recorded by the contractor and will be distributed after the meeting. The meeting agenda shall include

the following as a minimum:

1. Park rules and regulations
2. Correspondence procedures
3. Progress meetings
4. Lines of authority
5. Roles and responsibilities
6. Coordination of sub-contractors
7. Submittal process
8. Project schedule
9. Progress payments
10. Acceptance/rejection of the work
11. Labor standards and labor law application
12. Payroll reports
13. Modifications
14. Accident Prevention Plan and accident reporting
15. Medical emergency processes, availability, emergency numbers, and contacts
16. Park permits, burning work waste, rules of the road, alcohol use, housekeeping, firearms, pets, natural and cultural resource concerns
17. Visitation, access, and public relations
18. Site and schedule coordination

11.8 Substantial Completion and Final Inspection

A. Submit written certification that project, or designated portion of project, is substantially complete, and request, in writing, a final inspection. Upon receipt of written request that project is substantially complete, the CO will proceed with inspection within 10 calendar days of receipt of request or will advise the contractor of items that prevent the project from being designated as substantially complete.

B. When work is determined to be substantially complete, the COR will prepare a list of deficiencies ("Punch List") to be corrected before final acceptance. The CO will issue a Letter of Substantial Completion. If work is not determined to be substantially complete, the CO will notify the contractor in writing. After completing work, the contractor shall resubmit certification and request a new final inspection.

C. If, following final inspection, the work is determined to be substantially complete, CO will prepare a list of deficiencies to be corrected before final acceptance and issue a Letter of Substantial Completion. The contractor shall complete the work described on the list of deficiencies within 15 calendar days, as weather permits. If the contractor fails to complete the work within this time frame, the CO may either replace or correct the work with an appropriate reduction in the contract price or charge for re-inspection costs in accordance with the Inspection of Work clause of the contract.

12 Site Coordination

12.1 Existing Conditions and Coordination

A. The contractor shall fully inform themself regarding all peculiarities and limitations of the spaces available for the installation of all work and materials furnished and installed under the contract. Coordinate with all other trades, as well as with existing conditions, in advance of the work, including requirements for openings, recesses and chases in the walls, partitions, framing or openings and routing of piping, conduit, etc. relative to each trade to alleviate conflicts.
B. Due to the historic nature and construction of the structure, the basement area where the furnace is located has a low ceiling, where stooping, kneeling, and being aware of head clearance may be needed.

C. Special Construction Conditions

- Scheduling of work shall be in close cooperation with the COR.
- Contractor requests to work after hours shall be approved by the Contracting Officer's Representative (COR). Requests to work outside normal business hours shall be submitted in writing to the COR not less than 48 hours in advance of the proposed after-hours work.

12.2 Staging Areas

A. Work sites shall be limited to the smallest feasible area. Ground disturbances and site management shall be carefully controlled to prevent undue damage to vegetation, soil, and archeological resources and to minimize air, water, soil, and noise pollution.
B. Confine storage of work materials and equipment to immediate vicinity of project site, unless directed otherwise by the COR. All staging will be done from paved areas. Care should be taken not to damage the bulkhead or stairs in any way. Use wood or ground cloth to protect the exposed ground surface between the driveway and the cellar stairs. All staging areas shall be returned to pre-work conditions once work is complete. Standards for this, and methods for determining when the standards are met, shall be developed in consultation with the COR. If used, all temporary water, sewer, sanitary facilities, electric and other utilities and utility connections shall be completely removed upon project completion.

12.3 Work Zones

A. Do not disturb portions of project site beyond areas in which the work is indicated. Work zones may require work barrier fencing, chain link, plastic or portable fencing as directed by the COR. The fencing shall define the work zone and confine activity to the minimum area required for work. All protection measures shall be clearly stated in the work documents, and workers will be instructed to avoid conducting activities beyond the work zone as defined by the work zone fencing.
B. Confine limits of work to the smallest safe and efficient working areas. Prevent compaction of soils by equipment, and do not damage existing plantings or their root systems. All left over construction material shall be disposed of by contractor.
C. Establishment of a construction camp shall not be permitted.

12.4 Protection of Public

A. The contractor shall fence, barricade, or otherwise block off the immediate work area to prevent unauthorized entry. Erect and maintain fencing, barricades, lights, signals, and warning signs in accordance with MUTCD-2003 as applicable (that does not cause ground disturbance).

12.5 Parking of Work Vehicles

A. Parking of vehicles shall be limited to existing parking lots, in designated areas close to the jobsite, and within approved staging area.

12.6 Temporary Materials, Equipment and Services

A. Temporary materials may be new or used but shall be adequate in capacity for the required usage, shall not create unsafe conditions, and shall not violate requirements of applicable codes and standards.

12.7 Hot Work Permit

A. A Hot Work Permit in accordance with park policies is required for any welding, cutting, brazing, soldering or any work that generates sparks or excessive heat. Contractor shall provide at least a 24-hour advanced notice to obtain a Hot Work Permit. A capable and qualified person shall be placed in charge of fire protection. The responsibilities shall include providing and maintaining fire protection equipment and establishing and maintaining safe torch cutting and welding procedures.

12.8 Smoking

A. Smoking or vaping at the work site is prohibited.

12.9 Electricity

A. WORI will provide electricity from existing receptacles in mechanical rooms / closets for construction.

12.10 Telephone

A. Cell phone service is occasionally not available at the project site. The contractor will require an alternate means of communication if emergency services are needed at the site.

12.11 Water

A. Water is available at project site as advised by WORI.

12.12 Sanitary Facilities

A. Restrooms are available in the existing building.

12.13 Hauling Restrictions

A. Comply with all legal and local load restrictions in the hauling of materials.

12.14 Waste Management

A. Employ processes that ensure the generation of as little waste as possible. Minimize waste generation due to over-packaging, poor planning, breakage, mishandling, contamination, error or other factors. Of the waste generated, as much as is economically feasible shall be reused, salvaged or recycled. Waste disposal in landfills shall be minimized. All material unsuitable for recycling shall be disposed of, in a legal manner, at public or private dumping areas outside the park.
B. Contractor shall provide a solid waste diversion report estimating amount of construction waste produced (in pounds) to COR upon completion of project. Waste diversion report shall specifically include:
    1. Total amount of solid waste generated on-site during period of performance.
    2. Total percentage of waste diverted from landfill through reuse and/or recycling.

13 Submittals

A. Submit the items listed below for review within 14 calendar days of contract award and receipt of contractor bonds (unless otherwise noted). Government review comments will be returned within 10 business days after receipt of submittals. Contractor mobilization or performance of work shall not begin until submittals have been approved.

    1. Schedule of values
    2. Project schedule
    3. SDS Safety data sheets
    4. Safety and Preservation Plan
    5. Work plan
    6. Product data
        a. Condensing Unit.
        b. (A-coil) evaporator coil
        c. Electrical disconnects
        d. Condensate pump
        e. Refrigerant line set.
    7. Pre-Functional testing forms/checklists (submit prior to functional testing)
    8. Functional test report (submit after functional testing and prior to punch-list site visit)
    9. Waste diversion report (submit after functional testing and prior to training)
    10. Training agenda (submit prior to training)

B. **Release of NPS Reference Manual RM 50B Occupational Safety and Health Program, Revised Contractor Operations Chapter**

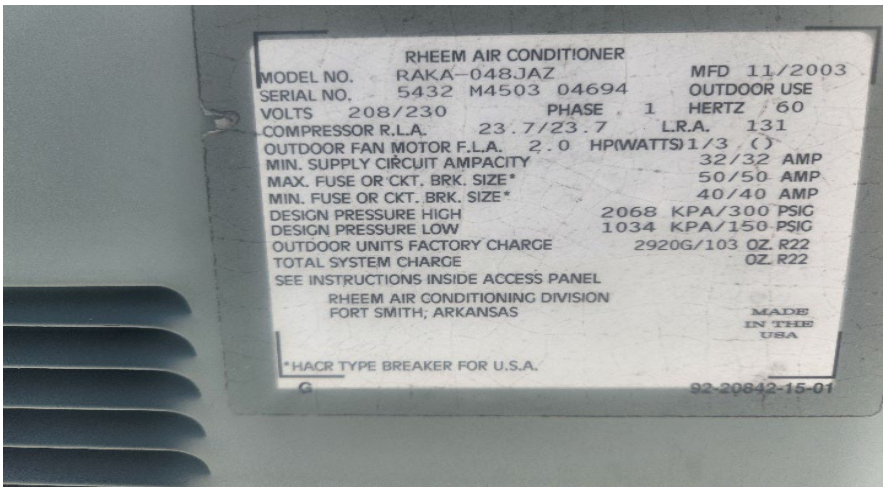
- In accordance with updated RM50B Chapter 21.5.2, The Contracting Officer (CO) is responsible for:
    1. Including the appropriate safety and health compliance terms and conditions in solicitations (e.g., the contractor shall comply with all applicable local, state, and federal safety and environmental regulations and requirements, whichever is more stringent).
    2. Submitting the contractor Site-Specific Safety Plan to the COR for review with as much lead time for review as possible prior to work commencing.
    3. Accepting the Site-Specific Safety Plan from the contractor after review and concurrence (with or without comments) is received from the COR.
    4. As needed, meeting with the COR, NPS safety representative, contractor, and contractor safety representative to discuss worksite safety before authorizing work to begin.
    5. During the period of performance, transmitting any notices received of unsafe or unhealthful conditions to the contractor and ensuring that corrective action is taken within established timeframe.
    6. Checking to see all manufacturers' specifications, As-Built drawings, operations manuals, or other safety data has been provided to the COR before work is undertaken and/or contractor payments are made.
    7. Where applicable, per Policy Memorandum 23-01 "Adoption of Nationally Recognized Building Codes," assuring a Certificate of Occupancy is issued before releasing the contractor and facility for use.

14 Final Deliverables

A. Contractor shall provide the following within seven (7) calendar days of project completion and prior to the punch-list site visit. Submit draft versions of these items electronically (PDF). Once reviewed and approved, provide deliverables in two (2) 3-ring binders with section dividers for each deliverable. Final deliverables shall include a CD (or thumb drive) with all approved deliverables in electronic form (PDF). Contractor shall provide the following PRIOR TO FINAL PAYMENT.
    1. Warranty Certificates – 2 hard copies and 1 digital (PDF)
    2. Operation and Maintenance Manual - 2 hard copies and 1 digital
    3. Record of training attendees – 2 hard copies and 1 digital
    4. Waste diversion report- 1 hard copy and 1 digital

15 Photographs

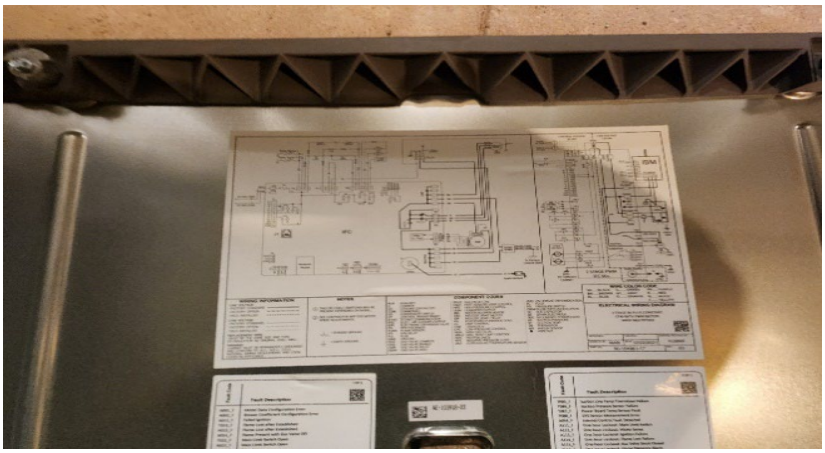
Bilko doors for entrance and exit of materials needed for the job



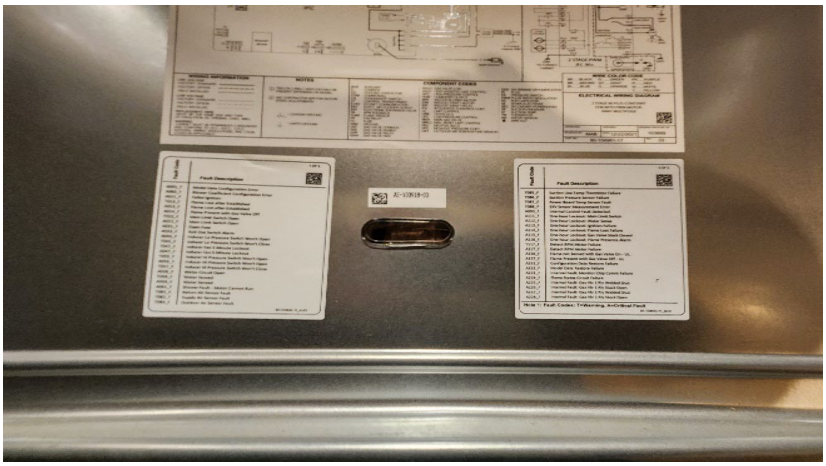
Existing outside Rheem condensing unit to be replaced

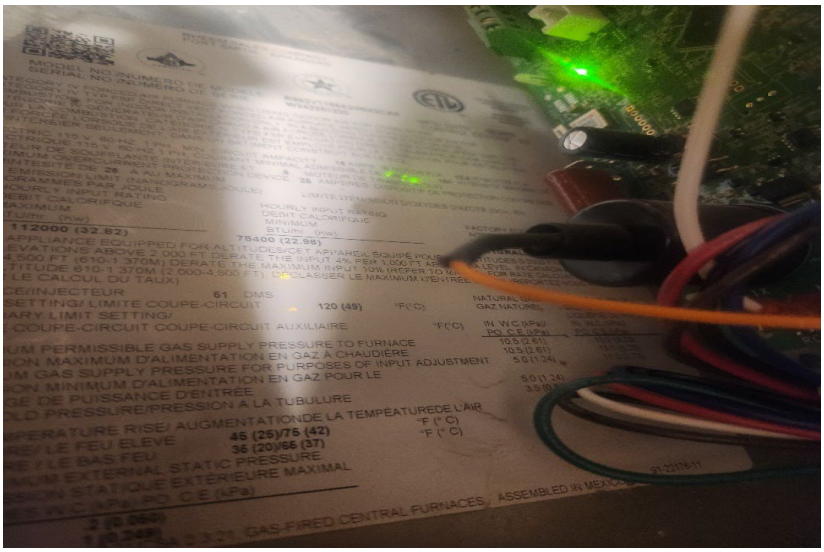
Outside safety switch to be replaced by a new compatible switch

Existing new Ruud forced Air furnace



Existing Ruud forced Air furnace





Existing thermostat.