REQUEST FOR BIDS #21-01 Commercial Hood Installation

Table of Contents

Section 1	General Information and Standard Terms and Conditions	Page 2
Section 2	Eligibility Requirements	Page 4
Section 3	Scope of Services	Page 5
Section 4	Vendor Information and Qualifications	Page 5
Section 5	Bidder Responses and Evaluation Criteria	Page 6
Section 6	Additional Information	Page 8
Exhibits:		
Exhibit A	Scope of Services	
Exhibit B	Project Drawings	
Exhibit C	Vendor Registration Form	
Exhibit D	Taxpayer Identification Form W9	
Exhibit E	Purchasing Affidavit	
Exhibit F	WV Ethics Commission Disclosure Statement	
Exhibit G	Agreement Addendum	
Exhibit H	Title Page	
Exhibit I	EFT Payment Set-Up	

Proposals will be received until 12:00PM EST, Wednesday June 16, 2021

REQUEST FOR BIDS

RFB #21-01

SECTION 1: GENERAL INFORMATION AND STANDARD TERMS AND CONDITIONS

- 1.1 Purpose: The purpose of this Request for Bids (RFB) is to solicit bids from qualified firms to obtain a contract for a commercial hood installation.
- 1.2 Schedule of Events:

Release of RFB: May 10, 2021 Proposal Due Date: June 16, 2021 Target Award Date: June 23, 2021

1.3 Bidder's Point of Contact: The sole point of contact for questions, clarification and inquiries concerning this Request for Bids (RFB) is:

Kevin Cappello Procurement & Purchasing Card Manager Blue Ridge Community & Technical College 13650 Apple Harvest Drive Martinsburg, WV 25403 kcappell@blueridgectc.edu

- 1.4 Posting of Information: This RFB and any addenda, will be posted on the Blue Ridge CTC website, https://www.blueridgectc.edu/finance-office/purchasing/procurement/
- 1.5 Questions and Answers: Questions concerning this RFB will be received via email by the point of contact until June 4, 2021. When submitting questions please reference RFB 21-01 in the subject line. Questions, if any, will be answered by addendum and posted to the webpage identified in Section 1.4 above.
- 1.6 Bid Submission: Deliver an original and four (4) copies of the bid on or before the date required in Section 1.2. The outside of the envelope should sealed and prominently reflect "RFB #21-01 Commercial Hood Installation". All proposals must be received at 13650 Apple Harvest Drive, Martinsburg, WV 25403 by 12:00pm EST deadline.

Proposals received after June 16, 2021 12:00pm EST will not be considered. It is the bidder's sole responsibility to ensure timely delivery of the proposal.

- 1.7 Bids shall remain in effect ninety (90) days from the submission date.
- 1.8 Conflict of Interest: By signing the bid, the bidder affirms that it and its' officers, members and employees have no actual or potential conflict of interest, beyond the conflicts disclosed in its' bid. Bidder will not acquire any interest, direct or indirect, that would conflict or compromise in any manner or degree with the performance of its services under this contract. If any potential conflict is later discovered or if one arises, the bidder must disclose it to the institution promptly.
- 1.9 Independent Bid: A bid will not be considered for award if the price in the bid was not arrived at independently, without collusion, consultation, communication or agreement as to any matter relating to such prices with any other offer or with any competitor.
- 1.10 Rejection of Bids: The College reserves the right to accept or reject any or all bids, in part or in whole, at its discretion. The College reserves the right to withdraw this RFB at any time for any reason. Submission of, or receipt by, the College confers no rights upon the bidder nor obligates the institution in any manner.
- 1.11 Expenses: The institution will not be held liable for any expenses incurred by any bidder responding to this RFB including expenses to prepare or deliver the bid or attend any oral presentation.
- 1.12 Interviews: Discussions and/or interviews may be held with the bidders under final consideration prior to making a selection for award; however, the RFB may be awarded without such discussions or interviews.
- 1.13 Oral Statements and Commitments: Any oral representations made or assumed to be made during discussions held between the bidder's representatives and the institution personnel are not binding. Only the information issued in writing and added to the RFB by an official written addendum is binding.
- 1.14 Award: It is anticipated that a single contract will be awarded for all services. However, the institution reserves the right to configure the contract in whatever manner is in its' best interests.
- 1.15 Public Record: All documents submitted in response to the RFB and any documents created as a result of this RFB are considered public record. All bids, proposals or offers submitted shall become public information and will be available for inspection during normal business hours at the institution.

The only exception for public record is disclosure information listed in WV Code § 29B-1-4. Primarily, only trade secrets are considered exempt from public disclosure.

1.16 Contract: The RFB and the bidder's response will be incorporated into the contract by reference. The order of precedence is the contract, the RFB and any addendum, and the bidder's proposal in the response to the RFB.

- 1.17 Contract Term: This contract will be effective upon award and shall extend until the project is completed.
- 1.18 Contract Changes: Any changes to the original contract will be made via a Change Order issued by the institution. No change is official until a signed Change Order is produced.
- 1.19 Contract Termination for Unavailability of Funds. If funds are not appropriated or allocated for the services provided under this contract, the institution may terminate the contract at the end of the affected current fiscal period without charge or penalty. The institution shall give the vendor written notice of such non-appropriation or non-allocation of funds as soon as possible after the institution receives notice.
- 1.20 Contract Termination for Failure to Perform: The institution may terminate the contract resulting from this RFB immediately at any time the vendor fails to meet the terms of the contract.
- 1.21 Payment of fees will be made upon successful completion of the required services. Progress payments for services satisfactorily completed may be made pursuant to a payment schedule which is deemed satisfactory to the Systems and is included in the bidder's response to this RFB.
- 1.22 Invoices: The vendor shall submit invoices, in arrears. State law prohibits payment of invoices prior to receipt of services. State law does not provide for interest payments on late payments. Invoices properly prepared and submitted in accordance with the terms and conditions of the contract are usually paid within thirty (30) days.
- 1.23 Governing Law: This contract shall be governed by the laws of the State of West Virginia.

SECTION 2: ELIGIBILITY REQUIREMENTS

- 2.1 Vendor Registration WV Code § 5A-3-12. The West Virginia Code requires that all vendors be registered with the WV Department of Administration, Purchasing Division, <u>prior to receiving</u> a purchase order for competitive products and/or services exceeding \$25,000. See Exhibit C.
- 2.2 Debarment WV Code §5A-3-33 through §5A-3-33F. Vendors that have been debarred by the federal government are not eligible to offer on or receive contracts to supply goods or services to the state and its subdivision for a specified period of time.
- 2.3 West Virginia Secretary of State. The vendor must be in compliance with the Secretary of State and should provide a copy of their business license with the bid. For more information, contact the WV Secretary of State.

- 2.4 Taxpayer Identification Information. The Internal Revenue Service (IRS) requires the institution to request a taxpayer identification number (TIN) for tax reporting purposes. IRS Form W9 is used to obtain this information. See Exhibit D.
- 2.5 Purchasing Affidavit WV State Code §5A-3-10a. WV State Code requires all vendors to submit an affidavit regarding any debt owed to the State. The Affidavit (Exhibit E) should be completed, signed and returned with the bidder's proposal.
- 2.6 WV Ethics Commission Disclosure Statement WV State Code §6D-1-2 requires that for contracts with an actual or estimated value of at least \$1,000,000, the vendor must submit a disclosure of interested parties form prior to contract award. See Exhibit F.

SECTION 3: SCOPE OF SERVICES

Please see Exhibit A for full project description and scope of services.

Please see Exhibit B for project drawings.

SECTION 4: VENDOR INFORMATION AND QUALIFICATIONS

Provide a statement/response to each of the following:

- 4.1 Identify and provide a statement of qualifications of individuals to be assigned direct responsibility for the services.
- 4.2 Describe the experience that key personnel have, their length of service with the firm, as well as other relevant skills.
- 4.3 Describe the Firm's size, illustrating its ability to fulfill the terms of the RFB.
- 4.4 Describe fabrication capabilities off and on site.
- 4.5 Describe engineering and drafting capabilities to build prints.
- 4.6 Provide proof of all current industry certifications to include:
 - OSHA 10 or 30 hour safety
 - Welding
 - First aid and AED
 - Electrical
 - Plumbing
 - General Contracting

- 4.7 Describe the guarantee provided on work performed.
- 4.8 Provide a current copy of liability insurance.
- 4.9 Provide the names, telephone numbers and mailing addresses of at least three clients and the contact person from whom references may be obtained for both the firm and the key personnel assigned to the engagement. References should be from clients comparable to the type and scope of services solicited in this RFB.
- 4.10 Provide an estimate for total cost of the scope of services.

SECTION 5: BIDDER RESPONSE AND EVALUATION CRITERIA

- 5.1 Economy of Preparation: Bids should be prepared simply and economically, providing a straightforward, concise description of the bidder's ability to satisfy the requirements of the RFB. Emphasis should be placed on completeness and clarity of content.
- 5.2 Bids should be limited to 10 pages. Additional material may be presented as exhibits to the main proposal.
- 5.3 A Title Page (Exhibit H) should be provided. The Title Page includes the RFB Number, Addenda Received check boxes, the Bidder's business name, business address and telephone number, a contact name and e-mail address and includes a signature line and date for the individual authorized to obligate the business. Note: The Title Page is the preferred method of providing the bidder's information. If the bidder does not utilize the Title Page, the bid must provide a cover letter with, at a minimum, the signature of an individual authorized to obligate the company and a date.
- 5.4 The proposal will be evaluated on a one hundred (100) point scale with points assigned as outlined below.
 - 5.4.1 Vendor Information and Qualifications 50 points

Responses to Section 4.1 - 4.9 will be reviewed and evaluated here.

5.4.2 Price -50 points

The low bid will receive the full 50 points. Each higher bid will receive a percentage of the 50 points on a ratio basis compared to the low bid cost.

- 5.5 Award will be made to the bidder receiving the highest point total.
- 5.6 In the event that mutually acceptable terms cannot be reached within a reasonable period of time, with the highest ranked bidder, the institution reserve the right to undertake negotiations with the next highest ranked bidder and so on until mutually acceptable terms can be reached.

SECTION 6: ADDITIONAL INFORMATION

- 6.1 By submitting a proposal in response to this RFB, a firm shall be deemed to have accepted all the terms, conditions, and requirements set forth in herein unless otherwise clearly noted and explained in writing. Any exception(s) or additional terms and conditions a firm wishes to offer for consideration must be clearly itemized and explained. Otherwise, the RFB in total shall be incorporated into the contract by reference. The Systems may accept or reject the Firm's proposed exceptions as it deems appropriate and in the best interests of the Systems.
- 6.2 The State's Agreement Addendum (WV-96) is attached to demonstrate the State law and guidelines which must be adhered to in any contracts presented to the Systems for execution (See Exhibit G). A copy of additional terms and conditions that a firm wishes to offer for consideration should be enclosed with the proposal. The West Virginia Attorney General's Office must accept or reject proposed modifications to the WV-96.

Blue Ridge Technical College Commercial Hood Installation (LSG 20-069)

Mechanical/Electrical/Plumbing General Commercial Specifications

Permit Set

4-23-21

—TABLE OF CONTENTS—

Section

15010	Mechanical General Provisions
15100	Basic Products and Methods
15180	Insulation
15400	Plumbing
15500	Fire Protection Sprinkler System
15800	HVAC
16010	Electrical - General Provisions
16100	Basic Materials & Methods
16400	Service & Distribution
16010	Electrical - General Provisions
16100	Basic Materials & Methods
16400	Service & Distribution
16721	Fire Alarm System

L.S. GRIM CONSULTING ENGINEERS

19922 Jefferson Blvd., Hagerstown, MD 21742-4367 Phone: 301.797.1702 □ FAX: 301.797.4931

SECTION 15010MECHANICAL GENERAL PROVISIONS

The General Conditions, Supplementary General Conditions, and Division 1 - General Requirements, are parts of this Section.

WORK INCLUDED

- A. Furnish all supervision, labor, materials, tools, equipment and service necessary and incidental to install all mechanical work and related systems shown on the drawings, indicated in this Specification or necessary to provide a finished installation. The finished installation shall be in perfect working condition and be ready for continuous and satisfactory operation.
- B. Work Included: The installation of the mechanical systems shall include but not be limited to the following:
 - 1. Complete plumbing system including hot and cold domestic water, fixtures, final connections, trim and connection to the point of connection. (p.o.c.).
 - 2. Kitchen Exhaust Hood, exhaust ductwork.
 - 3. HVAC Equipment installed with ductwork, insulation, grilles, and diffusers.
 - 4. Sprinkler piping and accessories.
 - 5. Other work as indicated on the plans.

CODES, STANDARDS, AND MATERIALS

- A. All equipment furnished under this Specification shall be free from defects in workmanship and materials. All equipment, systems, and work shall meet the requirements published by the following organizations as minimum standards:
 - 1. National Fire Protection Association
 - 2. Air Moving and Conditioning Association
 - 3. Underwriter's Laboratories, Inc.
 - 4. American Society of Heating Refrigeration Air Conditioning Engineers.
 - 5. American National Standards Institute.
 - 6. International Mechanical Code, Latest Edition.
 - 7. National Standard Plumbing Code, latest edition.
 - 8. Local codes and amendments.

B. All Work shall also meet the minimum requirements of codes and standards of agencies having jurisdiction.

REVIEW OF MATERIALS

- A. All materials and equipment furnished and installed under this Division of the contract shall be new, of standard first grade quality and correctly designed for their specific purpose.
- B. Where a Subcontractor proposes to use an item of equipment other than the specified or detailed item on the drawings that is approved by the Engineer and that requires redesign of the structure, partitions, foundations, piping, wiring, or any other part of the mechanical, electrical or architectural layout, then such redesign, new drawings, and detailing required for it shall be prepared by the Subcontractor without extra compensation. Redesign shall be approved by the Engineer prior to execution.

PRODUCTS

- A. SUBMITTAL: The Contractor shall provide submittals as follows:
 - 1. The Contractor shall indicate on the submittal the specification section to which the submittal applies.
 - 2. All submittal items must have the salient features of the specified items.
 - 3. The Contractor by his submittal indicates his understanding and approval of the submitted item for its intended use. The Contractor by his submittal indicates that he is complying with the contract documents. The Contractor shall note on the submittal any deviations with the contract documents.
 - 4. The submittal which has been reviewed and approved by the Engineer, with or without comments, does not relieve the Contractor from the requirements of complying with the contract documents. Only submittals which explicitly request the Engineer to review deviations with the contract documents relieve the Contractor from the specific item of compliance.
 - 5. The specifications may indicate features of basic models and units. The contractor shall refer to the plans, schedules, and model numbers for required features, accessories, and options.

MINOR DEVIATIONS

A. The locations shown on the drawings are approximate, and are to serve as a guide for installation. The shifting of locations to meet conditions (before installation) will be expected, and this shall be done at no increased cost.

- B. The Contractor shall coordinate the mechanical work and equipment with the work to be performed and equipment to be provided under other divisions of this specification.
- C. It shall be the responsibility of this Contractor to inform the Electrical Contractor as regards to the exact service requirements for each piece of mechanical equipment.
- D. Renovation work: For renovation work the Contractor shall visit the existing facility and note the existing conditions and job site limitations, prior to bidding.

WARRANTY

A. All materials, equipment and workmanship shall be warranted to be free from defects and shall be maintained (i.e., provide filters and seasonal maintenance) by the Contractor for a period ending one (1) year from the date of formal completion and acceptance of the project. The acceptance of the project and length of warranty shall be as defined in the General Conditions section of the Specifications.

LICENSES, PERMITS, AND CERTIFICATES

A. This Contractor shall procure and pay for all licenses, permits, and certificates necessary to construct and place in operation all work done under this section.

SECTION 15100BASIC PRODUCTS AND METHODS

GENERAL

SCOPE

A. Application: The products and methods specified in this are to be used wherever applicable in other sections of this Division.

PRODUCTS

MATERIALS

- A. Pipe:
 - 1. Copper Tubing, Type L ASTM B-88
 - 2. PVC Pipe: Schedule 40 DWV
 - 3. Steel Pipe: ASTM A-53 Schedule 40
 - 4. Service Weight Cast Iron
- B. Valves:
 - 1. Gate valves shall be NIBCO S-180-125# Solder Type
 - 2. Stop and waste valves shall be NIBCO 726-125# Solder Type.
 - 3. Other valves as indicated on drawings.

EXECUTION

INSTALLATION

- A. Piping General
 - 1. For purposes of clearness and legibility, piping drawings are essentially diagrammatic and indicate only sizes, connection points, and routes. It is not intended or implied that all offsets, rises, and drops are shown.
- B. Pipe Joints and Connection:
 - 1. PVC Pipe: Cut pipe square and clean surfaces to be joined. Apply cement to both surfaces and turn pipe slightly while inserting.
 - 2. Copper Tubing: Thoroughly clean mating surfaces with emery cloth or steel wool before assembly. Solder with 95-5 and a non-corrosive flux. Defective joints shall be disassembled, cleaned, and resoldered. Do not use acid solder.

- 3. Fixture Connection: Copper, brass, bronze, and chromed pipe and connections from fixtures will show no tool marks.
- 4. Steel Pipe: Apply pipe dope to the male thread only.
- 5. Cast Iron: B & S—Lubricate gasket before assembly; No Hub—Tighten N.H. bands to proper torque.
- C. Valves: Install valves at all branch run-out from mains, service connections, and equipment.
- D. Cutting and Patching: Provide all cutting and patching required for the complete installation of your discipline.
- E. Tests: Leave concealed or insulated work uncovered until required tests have been completed.
- F. Exposed piping: No rough-in piping material shall be exposed to general view or concealed within cabinets. All visible piping shall be chromium plated.
- G. Escutcheons: Provide all exposed plumbing short branch connections to fixtures and/or equipment passing through walls or floors with pressed brass, chromium-plated, solid-type escutcheon.

SECTION 15180 INSULATION

GENERAL

SCOPE

- A. Work included shall be as follows:
 - 1. Insulate domestic water piping.
 - 2. Insulate supply and return ductwork.

SHOP DRAWING AND LITERATURE

A. Submit product literature on all insulation.

PRODUCTS

MATERIAL

- A. Domestic Hot and Cold Water Piping (NOTE: Foam insulation is not acceptable.)
 - 1. Insulation: Snap-on four (4) pound nominal density fiberglass pipe insulation with K factor of .22 at 75□F.
 - 2. Jacket: Provide fire retardant vapor barrier jacket with self-seal lap (FRJ-SSL)
 - 3. Thickness: Refer to IECC code for thickness requirements.

EXECUTION

GENERAL

- A. Items shall be tested before insulating and insulation shall be applied over clean, dry surfaces, butting adjoining sections firmly together and shall be Johns-Manville, Owens-Corning, Gustin-Bacon, or C.S.G.
- B. Apply insulation according to manufacturer's published recommendations.

SECTION 15400 PLUMBING

GENERAL

A. Provide a hot and cold water distribution system beginning at the point of connection with connections to each plumbing fixture. Provide a complete system of sanitary piping beginning at the point of connection (p.o.c.) and continuing to all plumbing fixtures.

BASIC PRODUCTS AND METHODS

- A. The basic products as specified to Section 15100 shall be used as follows:
 - 1. Domestic Water Piping
 - a. Pipe: Type L Copper Tubing (hard).
 - b. Fittings: Wrought Copper.
 - c. Joints: 95-5 Solder.
 - 2. Sanitary, Vent and Storm Water (refer to plans for any notes regarding which material to use, use cast iron in any air plenums)
 - a. Pipe: Schedule 40 PVC or service weight cast iron.
 - b. Fittings: Drainage.
 - c. Joints: Solvent weld or no Hub.
- B. Cleanouts
 - 1. Exposed Zurn Z-1445 or approved equal.
- C. Wall Hydrants Refer to Schedule.
- D. Tests (Drainage and Vent)
 - 1. A hydrostatic test shall be applied by the contractor to the drainage system either in its entirety or in sections. All openings shall be tightly closed except the highest opening and the system filled with water to point of overflow. The test shall consist of at least ten (10) foot head of water (except the uppermost ten <10> feet). The water shall be kept in the system for a period of thirty (30) minutes before inspection and the system shall be tight at all points.
 - 2. The water lines shall be tested hydrostatically at 100 psi for four (4) hours and proved tight.

3. A written record of all tests shall be maintained in a binder at the job site; tests shall be witnessed by the plumbing inspector. The Record of Tests shall be provided to the Owner at project closeout for the Owner's records.

E. Plumbing Fixtures and Trim

- 1. All fixtures shall be furnished, set, and properly connected. All proper protective paper, labels, etc., shall be removed and the fixtures and fittings shall be thoroughly cleaned after all trades have completed their work, and shall be left in condition acceptable to the Owner.
- 2. Fixtures shall be Kohler, American Standard or Equal.
- 3. Water Heater: Provide as scheduled in accordance with IECC, UL with limit controls. Unit shall carry a three (3) year warranty and be AO Smith, Ruud, or State.
- 4. All exposed piping to a fixture shall be chrome plated. No rough-in piping shall be visible.

F. Disinfection:

1. Completely disinfect the piping and system components with a solution of sodium hypochlorite as directed by the local Health Department.

SECTION 15500 FIRE PROTECTION SPRINKLER SYSTEM

GENERAL

1.1 DESCRIPTION

- A. Scope of Work- Adjust Existing Fire Protection System to Accommodate New Cooking Hood.
- B. Work included: Design, fabricate, install, and secure required approvals of a complete fire protection automatic sprinkler system where shown on the Drawings, as specified herein, and as needed for a complete and proper installation in accordance with pertinent requirements of the Fire Rating Bureau and governmental agencies having jurisdiction.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. In addition to complying with pertinent codes and regulations of governmental agencies having jurisdiction, comply with:
 - 1. Recommendations of the Fire Rating Bureau having jurisdiction;
 - 2. Pertinent recommendations contained in NFPA Pamphlet No. 13, "Standards for Sprinkler System Installations."

1.3 SUBMITTALS

- A. Comply with pertinent provisions of General Conditions.
- B. Product data:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Design drawings, stamped as having been approved by the Fire Rating Bureau having jurisdiction, showing the complete overhead sprinkler system and indicating ceiling air diffusers, lighting fixtures, and beams;
 - 3. A plan drawing showing location of underground connections, control valves, and related items;
 - 4. Details and sections as required to clarify the design.

C. Record Drawings:

- 1. Comply with pertinent provisions of General Conditions.
- 2. Include a copy of the Record Drawings in each copy of the operation and maintenance manual described below.

1.4 PRODUCT HANDLING

A. Comply with pertinent provisions of General Conditions.

PRODUCTS

2.1 DESIGN

- A. Provide a design which is complete in all regards including, but not necessarily limited to:
 - 1. Overhead sprinkler system.
- B. Arrangement:
 - 1. In areas having ceilings, conceal all pipes.
 - 2. In storage and service areas, pipe may be exposed but hold to the minimum practicable distance below the ceiling.

2.2 MATERIALS

- A. Sprinkler heads:
 - 1. Provide 1/2" automatic closed type sprinkler heads of "ordinary degree" temperature rating, complying with NFPA Pamphlet No. 13. Viking Model M or approved equal.
 - 2. Above ceilings, provide standard upright type.
 - 3. In finished ceilings, provide semi-recessed type, chrome plated, with white escutcheon plates Model E-1 manufactured by Viking Corporation.
 - 4. Residential systems utilize appropriate fast action residential sprinkler heads as necessary.
 - 5. Do not locate sprinkler heads in any luminous ceiling. Devise methods for sprinklering such areas as approved by the Fire Rating Bureau and governmental agencies having jurisdiction.
- B. Valve seals, tags, and charts:

- 1. Seals: Provide brass cross-link chain, all brass padlock, and two keys for each manually operated shutoff valve required to be sealed in the open position.
- 2. Signs: Provide identification signs of standard design, fastened securely at designated locations in accordance with NFPA Pamphlet No. 13.
- 3. Tags: Provide 2" diameter brass tags, stamped with designation numbers, secured with 12 gage copper wire to spindle of the control valves.
- 4. Charts:
 - a. Provide two copies of the approved "As-Built" sprinkler system diagram and valve chart, giving designated number, function, and location of each valve;
 - b. Mount in painted glass frames, and locate where directed by the Architect.
- C. Provide supports, hangers, inserts, and associated items to properly support sprinkler piping in accordance with pertinent provisions of NFPA Pamphlet No. 13.

2.3 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the contractor subject to the approval of the Architect.

EXECUTION

3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. Coordinate as necessary with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.

B. Install the work of this Section in strict accordance with the approved design drawings and the requirements of the Fire Marshal, governmental agencies, and Fire Rating Bureau having jurisdiction.

3.3 TESTING AND ACCEPTANCE

- A. Upon completion of the installation, provide necessary personnel and equipment and test and retest the complete system, making adjustments as required, and secure all necessary approvals.
- B. When the system has been completely approved, secure a letter of final acceptance from the Fire Rating Bureau having jurisdiction, and forward two copies of the letter to the Architect.

SECTION 15800 HVAC

GENERAL

- A. Scope-of-Work included shall be as follows:
 - 1. Provide exhaust fans, exhaust ductwork, and Cooking Hood.
- B. SUBMITTALS-Provide shop drawings and description literature for the following:
 - 1. Cooking Hood
 - 2. Exhaust Fans

PRODUCTS

MATERIALS

A. Sheet Metal: Welded 16 Ga. Black Steel with grease duct Insulation

EQUIPMENT

- A. Equipment: As scheduled on the drawings.
- B. Exhaust Fans: As scheduled on the drawings.
 - 1. Kitchen up-blast fans 16 GA (minimum) powder coated steel with regreasable cast iron housing bearings, external disconnect, and welded curb. Greenheck or approved equal.

EXECUTION

MATERIALS

- A. Ductwork
 - 1. Fabricate and install ductwork and accessories in accordance with ASHRAE Guide and SMACNA Duct Manual

EQUIPMENT

- A. Equipment, Exhaust Fans.
 - 1. Installation: Install in accordance with the specified manufacturer's recommendations.

B. Test and Reports

- 1. The Contractor shall balance the system in accordance with the air volumes as shown on the drawings and make other minor adjustments as directed. Provide an independent air balance report, AABC Certified.
- 2. The contractor shall submit the name and qualifications of the balancing contractor. The engineer reserves the right to reject any balancing contractor without cause. The contractor shall submit an alternative balancing contractor without any adjustments to contract bid fee/price. The rejection is not a cause for a change order of the balancing contractor.

SECTION 16010ELECTRICAL - GENERAL PROVISIONS

The General Conditions, Supplementary General Conditions, and Division 1 - General Requirements, are a part of this section.

WORK INCLUDED

- A. Furnish all supervision, labor, materials, tools, equipment and services, necessary and incidental to install all electrical work and related systems shown on the drawings, indicated in this specification or necessary to provide a finished installation. The finished installation shall be in perfect working condition and be ready for continuous and satisfactory operation.
- B. The following definitions shall apply:
 - 1. Where the word *provide* is used, in connection with a system, equipment or item, it shall be construed to mean the furnishing and installing of the system, equipment, or item.
 - 2. Where the phrase *as directed* is used, it shall be construed to mean as directed by the Engineer or his authorized representative.
- C. Work Included: The installation of the electrical systems shall include but not be limited to the following:
 - 1. Electrical service, panelboards, lighting, branch wiring, and receptacles as shown on the drawings.
 - 2. All disconnects and final equipment connections.

LOCAL CONDITIONS

A. Supports for electrical work shall be by means of securely attached fasteners adequately spaced and of type utilizing metal. Wood plugs, plastic or composition plug supports shall not be used.

PERMITS AND INSPECTIONS

- A. Obtain and pay for all necessary drawings, permits, and certificates required by the various governing agencies having jurisdiction.
- B. Furnish and pay for both local and Fire Underwriter's certificates of inspection and approval of the work.

CODES, STANDARDS, AND MATERIALS

- A. All equipment furnished under this Specification shall be free from defects in workmanship and materials. All equipment, systems, and work shall meet the requirements published by the following organizations as minimum standards.
 - 1. National Fire Protection Association.
 - 2. National Electric Code, latest edition.
 - 3. Underwriter's Laboratories, Inc.
 - 4. National Electrical Manufacturer's Association.
 - American National Standards Institute.
 - 6. Local Power Company Regulations.
 - 7. Local codes and amendments.

SHOP DRAWINGS

- A. Submit detailed, dimensioned shop drawings covering all items of equipment and brochures for the following:
 - 1. Panelboards.
 - 2. Lighting Fixtures.
 - 3. Wiring devices.

MINOR DEVIATIONS

A. The general arrangement of conduit, wiring, and equipment shall be as shown on the contract drawings. Detailed drawings of proposed changes because of field conditions or other causes shall be submitted to the Architect for approval. Such changes shall be made without the additional cost to the owner. The Contractor shall carefully examine all contract drawings and shall be responsible for the proper fittings of materials and equipment in each location as indicated, without substantial alteration.

CUTTING AND PATCHING

A. All openings around cables, sleeves, etc., shall be sealed for weather and air infiltration.

SECTION 16100BASIC MATERIALS AND METHODS

IDENTIFICATION

A. Provide typed directories for panelboards.

OUTLET BOXES

- A. Provide an outlet box for each and every outlet, device, fixture, etc., called for on the drawings, specified and required by the NEC. Outlet boxes shall be of approved design, construction form, and dimension suitable for the specific location, the kind of device, fixture, etc., to be used, the number of wires used, the arrangement of conduit connected.
- B. Generally, outlet boxes concealed in construction shall be galvanized steel type. Exterior boxes shall be cast aluminum with tapped openings, cast aluminum covers, and rubber gaskets. Boxes shall be set so that the edge of the collar is flush with the finished plaster, masonry or other finished surfaces.

WIRE AND CABLES

- A. Unless otherwise indicated, all wire cable for feeder and branch circuits shall be coated, soft drawn copper, and shall have 600 volt insulation. Minimum size shall be no. 12 American Wire Gauge. Conductors shall be rated 75 degrees, minimum and suitable for use in wet or dry locations.
- B. Unless otherwise noted on the drawings, general branch circuit wiring shall be copper, Type THWN cable with ground.
- C. Conceal all electrical wiring in finished areas. Where wiring is exposed in unfinished areas, it shall be in conduit, 3/4" min. Provide wiring in conduit as follows:
 - 1. Indoors, above grade Home Runs: EMT with compression fittings.
 - Below slab on grade: PVC
 - 3. In concrete: PVC
 - 4. Outdoors, exposed: IMC
 - 5. Outdoors, below grade: PVC
 - 6. Concealed branch circuits downstream of home run junction, "MC Cable."

WIRE CONNECTIONS AND DEVICES

A. For wire No. 10 AWG and smaller, splices shall be made with wire caps.

SWITCHES

A. Standard flush tumbler switches shall be 20 amps, 120 volts (AC), single-pole, double-pole, three way or four way as indicated on the drawings. Color: Ivory.

RECEPTACLES

- A. Duplex receptacles shall be 20 amps, 120 volt (AC), 3-wire grounding type with grounding terminal and shall have screw terminals arranged for side or back wiring. Color: Ivory.
- B. Specialty receptacles shall be as required for the equipment to be served, confirm type and amperage with owner prior to installation.

PLATES

A. Provide brushed stainless steel #302 wall plates of appropriate type and size for all switches, receptacles, wiring and control devices, and signal and telephone outlets.

SECTION 16400 SERVICE AND DISTRIBUTION

SERVICE DESCRIPTION

A. Principal electrical distribution within the building shall be as indicated on the plans.

PANELBOARDS

- A. Panelboards shall be Cutler-Hammer with cover, door and ground bar or approved equal by Square-D or General Electric.
- B. Provide an aluminum nameplate, (Seton #2065-30-PA, 3 line), for exterior panels or a Seton Ply nameplate, (Seton #2060-30-PA, 3 line), for Interior panels, labeling the panel callout, voltage and amperage.

TRANSFORMERS

- A. Transformers shall be Cutler-Hammer with KVA Rating and options as stated on plans or
 - Approval equal by Square-D or General Electric.
- B. Provide an aluminum nameplate, (Seton #2065-30-PA, 3 line), for exterior transformers or a Seton Ply nameplate, (Seton #2060-30-PA, 3 line), for interior transformer, labeling which panel this transformer feeds, voltage in/out and KVA rating.

DISCONNECTS

- A. Disconnects shall be Cutler-Hammer with fused or non-fused component as stated on plans or approved equal by Square-D or General Electric.
- B. Provide engraved aluminum plates, (Seton #2065-30-PA, 3 line), for all exterior disconnects, labeling which equipment it serves and voltage and amperage. Provide Seton Ply nameplates, (Seton #2060-30-PA, 3 line), for all interior disconnects labeling which equipment it serves and voltage and amperage.

SECTION 16721FIRE ALARM SYSTEM

GENERAL

- 1.1 DESCRIPTION: Scope of Work- Interface the existing Fire Alarm System with the New Cooking Hood fire suppression system.
- 1.2 SUBMITTALS: Submit manufacturer's literature for manual stations, control panel including all required modules, alarm bells, horns, wire and raceway, and batteries. The Contractor shall submit erection drawings and completed wiring diagrams for approval by Fire Marshall and Engineer.
- 1.3 QUALITY ASSURANCE:
 - A. The system and all individual components shall meet the requirements of NEC, NFPA, UL, and ADA. Individual components shall be UL listed. All devices shall be of one manufacturer and UL cross listed.
 - B. The complete commercial system shall be provided by Simplex, Edwards, Notifier, or approved equal.
- 1.4 CLOSEOUT SUBMITTALS: As specified in General Conditions. Submit operation and maintenance data.

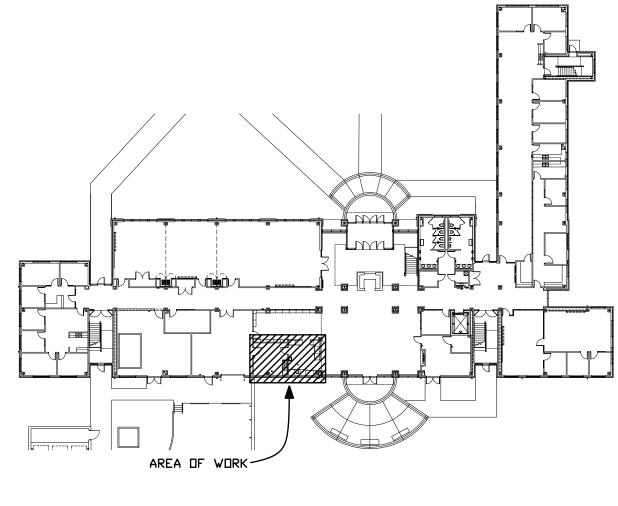
PRODUCTS

- 2.1 COMMERCIAL DETECTOR SYSTEM (ADDRESSABLE SYSTEM):
 - A. Provide components to match the existing building Fire Alarm System.

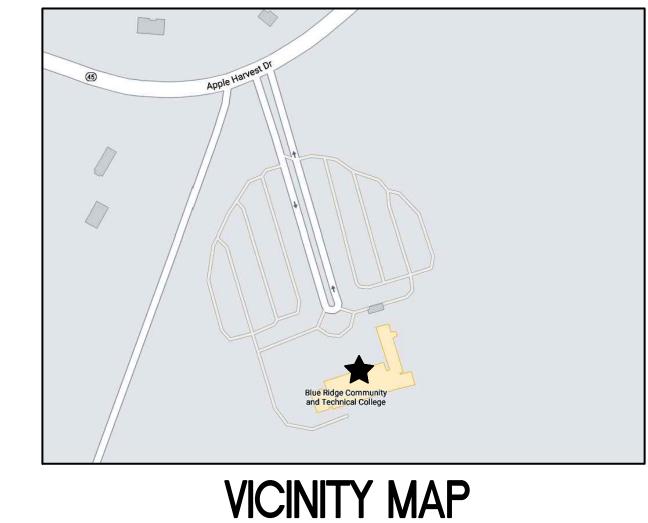
EXECUTION

- 3.1 COMMERCIAL DETECTION SYSTEM:
 - A. Install in accordance with manufacturer's recommendations.
 - B. Wiring: Where possible, conceal wiring in walls and ceiling.
 - C. Provide Programming to interface new cooking hood system with existing building fire alarm system.
- 3.2 TESTING: When system is installed, manufacturer's representative shall test entire installation in the presence of the owner's representative and the local Fire Marshall.

BLUE RIDGE COMMUNITY AND TECHNICAL COLLEGE SERVERY ROOM 1142 RENOVATIONS







NOT TO SCALE

PROJECT DESCRIPTION AND SCOPE OF WORK (SOW) SUMMARY

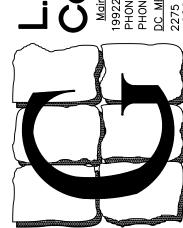
THE FOLLOWING IS A SUMMARY OF THE NATURE AND INTENT OF THE WORK, IT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- 1) DEMOLITION OF A PORTION OF THE SERVERY TO ALLOW FOR INSTALLATION OF A NEW COOKING HOOD.
- 2) MODIFICATIONS TO THE EXISTING SRVERY (GENERAL CONSTRUCTION) TO ALLOW FOR INSTALLATION OF NEW COOKING HOOD.
- 3) INSTALLATION OF NEW COOKING HOOD INCLUDING DUCTWORK, FANS AND ACCESSORIES.
- 4) MODIFICATIONS TO EXISTING SPRINKLER AND FIRE ALARM SYSTEMS TO ALLOW FOR INSTALLATION OF NEW COOKING HOOD.
- 5) ELECTRICAL MODIFICATIONS TO ACCOMMODATE NEW HOOD INSTALLATION.

DRAWING LIST

C-0.0	PROJECT COVER SHEET
G-1.0	GENERAL ARRANGEMENT - DEMOLITION PLAN
G-2.0	GENERAL ARRANGEMENT - NEW WORK PLAN
M-0.0	MECHANICAL COVER SHEET
P-0.0	PLUMBING COVER SHEET
MP-1.0	MECHANICAL AND PLUMBING - NEW WORK PLAN
MP-2.0	COOKING HOOD DATA
E-0.0	ELECTRICAL COVER SHEET
E-0.1	ELECTRICAL STANDARDS AND DETAILS
E-1.0	ELECTRICAL NEW WORK PLAN

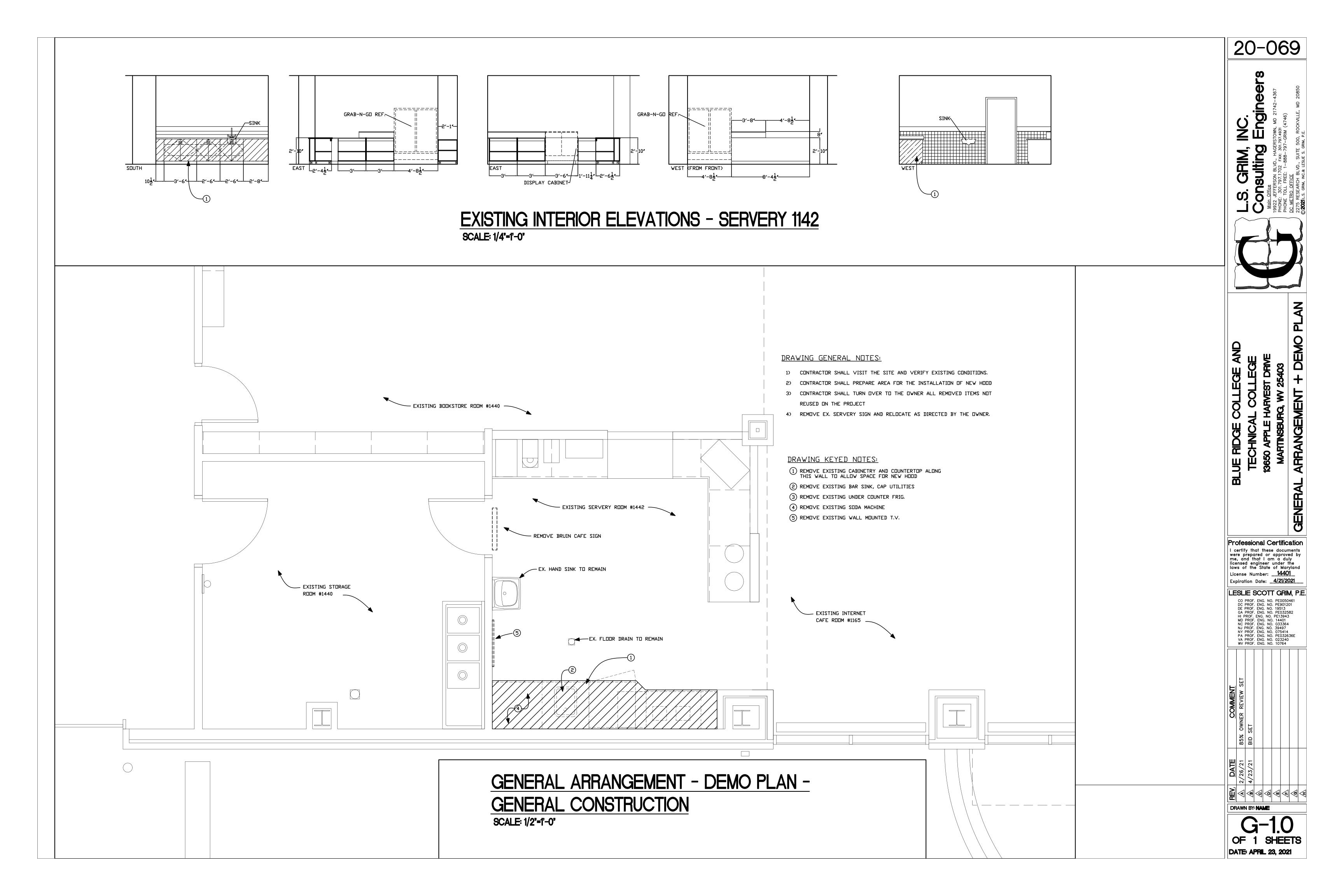
20-069

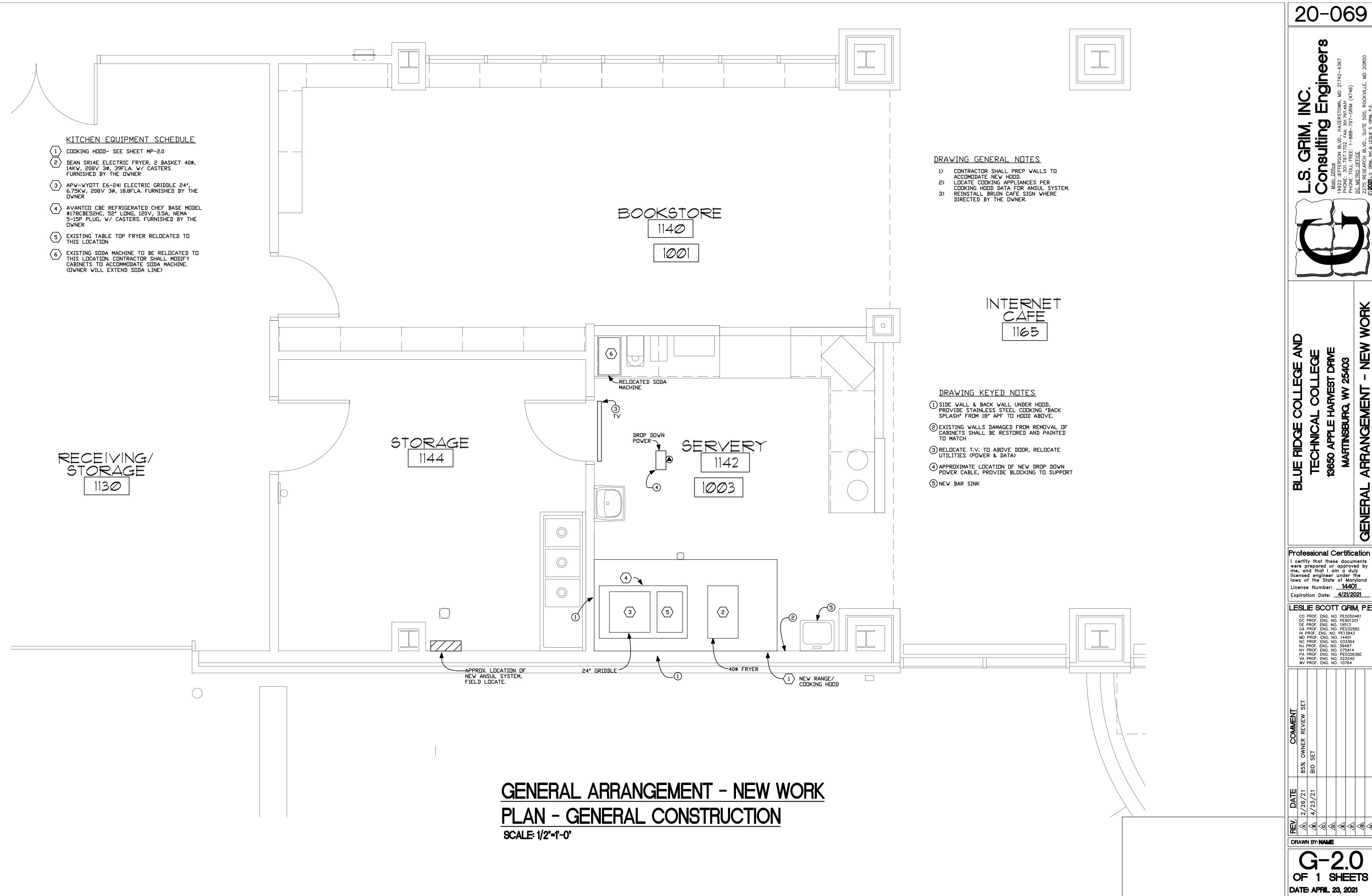


Professional Certification I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland

Expiration Date: <u>4/21/2021</u> LESLIE SCOTT GRIM, P.E.

DATE: APRIL 23, 2021





MECHANICAL NOTES AND REQUIREMENTS

- 1. FOR RENOVATION WORK THE MECHANICAL CONTRACTOR SHALL INSPECT ANY EXISTING MECHANICAL ITEMS TO BE REUSED FOR DEFECTS AND REPORT TO THE ARCHITECT/ENGINEER AND THE OWNER ANY DIFICIENCIES PRIOR TO PERFORMING ANY WORK.
- 2. CONTRACTOR SHALL BALANCE THE AIR DISTRIBUTION SYSTEM TO AIR QUANTITIES INDICATED ON THE DRAWINGS AND SUBMIT (3) COPIES OF THE BALANCE REPORT TO THE ENGINEER FOR APPROVAL.
- 3. CONTRACTOR SHALL SPRAY PAINT INSIDE OF DUCT BLACK, BEHIND ALL GRILLES AND REGISTERS.
- 4. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL, FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE STANDARDS AND SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" EXCEPT THAT DUCTWORK SHALL BE A MINIMUM THICKNESS OF 24 GAUGE. TRUNK DUCTS OVER 18" SHALL BE "DUCTMATE" OR EQUIVALENT GASKETED JOINTS.
- 5. FLEXIBLE DUCTWORK SHALL BE RATED CLASS I, WHEN TESTED UNDER THE REQUIREMENTS OF UL 181. FLEXIBLE DUCT SHALL NOT EXCEED (6) FEET IN LENGTH. FLEX DUCT SHALL BE EQUAL TO CERTAINTEED "CERTAFLEX" G25 FLEXIBLE HOSE PREINSULATED WITH 1-1/2 INCH THICK FIBERGLASS INSULATION WITH POLYETHYLENE JACKET. HOSE SHALL BE POLYESTER WITH EMBEDDED HELICAL STEEL WIRE.
- 6. HVAC UNIT FLEXIBLE DUCT CONNECTIONS SHALL BE A MINIMUM OF 6 INCHES LONG AND HELD IN PLACE WITH HEAVY METAL BANDS, SECURELY ATTACHED TO PREVENT ANY LEAKAGE AT THE CONNECTION POINTS. FLEXIBLE CONNECTIONS SHALL BE FABRICATED FROM APPROVED FLAME PROOF FABRIC CONFORMING TO NFPA 90A.
- 7. ALL PIPING SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS IN A NEAT WORKMANSHIP-LIKE MANNER AND BE SUPPORTED AS REQUIRED BY CODES. PIPING SHALL BE SET UP AND DOWN AND OFFSET AS REQUIRED TO SUIT FIELD CONDITIONS. DIELECTRIC COUPLINGS SHALL BE USED WHERE DISSIMILAR METALS ARE JOINED.
- 8. PIPING HANGERS SHALL BE SPACED SO AS TO PREVENT SAG AND PERMIT PROPER DRAINAGE AND SHALL NOT BE SPACED MORE THAN EIGHT FEET APART UNLESS A GREATER SPACE IS INDICATED ON THE DRAWINGS. A HANGER SHALL BE PLACED WITHIN (1) FOOT OF EACH HORIZONTAL ELBOW.
- 9. ISOLATE AND DRAIN EXISTING PIPING SYSTEM AS REQUIRED TO ACCOMMODATE INSTALLATION OF THE NEW WORK.
- 10. HOT WATER AND CHILLED WATER SUPPLY AND RETURN PIPING SHALL BE BLACK STEEL PIPE, SCHEDULE 40 FOR 2-1/2 INCH AND LARGER, SEAMLESS COPPER TYPE "L" FOR 2 INCH AND BELOW.
- 11. REFRIGERANT PIPING OTHER THAN PRECHARGED TUBING SETS FURNISHED BY AIR CONDITIONING MANUFACTURER SHALL BE TYPE "ACR" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS. PIPING SHALL BE INSTALLED IN ACCORDANCE WITH ARI STANDARDS. USE EASY-FLO OR SAFETY SILVER BRAZING ALLOY TO MAKE JOINTS. RUN ALL HORIZONTAL LINES DEAD LEVEL TO ENSURE PROPER GAS RETURN TO COMPRESSOR.
- 12. CONDENSATE DRAIN PIPING AND FITTINGS SHALL BE SCHEDULE 40 PVC OR TYPE M COPPER, COPPER SHALL BE USED IN PLENUM CEILINGS.
- 13. THE TOP OF ALL DUCTWORK EXPOSED TO WEATHER SHALL BE PITCHED TO PREVENT PONDING OF WATER ON DUCTWORK.
- 14. THE INSTALLATION OF ALL INSULATION SHALL BE PERFORMED BY AN EXPERIENCED CRAFTSMAN IN A NEAT WORKMANSHIP-LIKE MANNER AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN PUBLISHED RECOMMENDATIONS FOR SERVICE INTENDED.
- 15. ALL MATERIALS OF INSULATION SHALL BE OF THE TYPE AND QUALITY AS MANUFACTURED BY ARMSTRONG, CERTAINTEED, OWENS-CORNING OR MANVILLE. ALL MATERIAL AND EQUIPMENT SPECIFIED TO BE INSULATED SHALL BE THOROUGHLY TESTED AND APPROVED PRIOR TO APPLYING THE INSULATION.
- 16. ACOUSTICALLY LINED DUCTWORK DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. SHEET METAL DIMENSIONS SHALL BE INCREASED TO ACCOMMODATE LINING THICKNESS.
- 17. REFRIGERATION SUCTION AND HOT GAS BY-PASS SHALL BE INSULATED WITH 1 INCH THICK ARMSTRONG "ARMAFLEX" OR EQUAL. EXTERIOR INSULATION SHALL BE COATED WITH ULTRAVIOLET RESISTANT MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, OR USE UL RATED PRODUCT. DO NOT INSULATE THE LIQUID LINE.
- 18. ALL EXTERIOR EXPOSED WATER PIPING SHALL BE INSULATED WITH 2 INCH PREFORMED FIBERGLASS INSULATION WITH VAPOR JACKET AND SELFSEALING TAPE EQUAL TO OWENS-CORNING ASJ/SSL-II. COVER INSULATION WITH .016 INCH THICK ALUMINUM JACKET.
- 19. MECHANICAL CONTRACTOR SHALL FURNISH A COMBINATION STARTER SIZED IN ACCORDANCE WITH THE MOTOR RATING OF THE MECHANICAL EQUIPMENT STARTER SHALL BE SUPPLIED WITH FUSES OR CIRCUIT BREAKERS, CONTROL TRANSFORMER, OVERLOADS, ONE N.O. AND ONE N.C. AUXILIARY CONTACT AND H.O.A. SWITCH MOUNTED IN THE COVER. STARTER ENCLOSURE SHALL BE NEMA RATED FOR ITS LOCATION. STARTER SHALL BE INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.
- 20. CONTRACTOR SHALL PROVIDE ALL AIR TEMPERATURE CONTROLS INCLUDING WIRING, TUBING AND THERMOSTATS (WITH LOCKING COVERS) AND ALL MISCELLANEOUS APPURTENANCES TO MEET THE INTENT OF THESE DOCUMENTS
- 21. EQUIPMENT AND MAINS SHUT DFF VALVES SHALL BE EQUAL TO NIBCO MODEL S-113 LF SOLDERED JOINT, MODEL T-113 LF THREADED JOINT, BRONZE GATE VALVE NONRISING STEM, 300 PSI W.O.G., 125 PSI S.W.P. CONTRACTOR MAY SWAP AN EQUIVALENT BALL VALVE FOR THE GATE VALVE.
- 22. BALL VALVES SHALL BE EQUAL TO NIBCO, S-585-66-LF, BRONZE, RATED FOR 600 W.O.G.
- 23. VIBRATION ISOLATORS FOR HANGING EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL 30N, COMBINATION SPRING AND DOUBLE DEFLECTION NEOPRENE HANGER, OR DEFLECTION AS RECOMMENDED BY
- 24. VIBRATION ISOLATORS FOR BASE MOUNTED EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL SLF, DEFLECTION AS RECOMMENDED BY MANUFACTURER.

- 25. KITCHEN RANGE HOOD EXHAUST DUCTS SHALL BE CONSTRUCTED WITH 16 GAUGE STEEL UP TO 155 SQUARE INCHES, 14 GAUGE UP TO 225 SQUARE INCHES AND 10 GAUGE FOR GREATER CROSS SECTION DUCT AREA, AND SHALL BE PROVIDED WITH WELDED SEAMS AND JOINTS. PROVIDE CLEANOUTS AT ALL CHANGES IN DIRECTION AND CLEANOUT DOORS EVERY 20 LINEAR FEET OF RUN OR AS PER CODE REQUIREMENTS, WHICHEVER IS THE MOST STRINGENT. HORIZONTAL DUCT SHALL BE GRADED BACK TO HOOD FOR DRAINAGE. PROVIDE RESIDUE TRAP AND CLEANOUT AT BASE OF ALL VERTICAL RISERS. PROVIDE FIRE WRAP INSULATION AS REQUIRED.
- 26. DUCTWORK EXPOSED TO WEATHER SHALL BE WEATHERPROOFED AS FOLLOWS: RUBBER ROOFING OR EQUIVALENT OVERDUCT INSULATION
- 27. ALL EQUIPMENT AND MATERIAL FURNISHED SHALL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL. ALL EQUIPMENT AND MATERIALS SHALL MEET THE REQUIREMENTS OF ALL CODES AND STANDARDS OF LOCAL AND STATE AGENCIES HAVING JURISDICTION.
- 28. WHERE A SUBCONTRACTOR PROPOSES TO USE AN ITEM OR EQUIPMENT OTHER THAN THE SPECIFIED OR DETAILED ITEM ON THE DRAWINGS THAT IS APPROVED BY THE ENGINEER AND THAT REQUIRES REDESIGN OF THE STRUCTURE PARTITIONS, FOUNDATIONS, PIPING, WIRING OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL, OR ARCHITECTURAL LAYOUT, THEN SUCH REDESIGN, NEW DRAWINGS, AND DETAILING REQUIRED FOR IT SHALL BE PREPARED BY THE SUBCONTRACTOR WITHOUT EXTRA COMPENSATION.
- 29. THE SUBMITTAL WHICH HAS BEEN REVIEWED BY THE ENGINEER, WITH DR WITHDUT COMMENTS, DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF COMPLYING WITH THE CONTRACT DOCUMENTS. ONLY SUBMITTALS WHICH EXPLICITY REQUEST THE ENGINEER TO REVIEW DEVIATIONS WITH THE CONTRACT DOCUMENTS RELIEVE THE CONTRACTOR FROM THE SPECIFIC ITEM OF COMPLIANCE.
- 30. THE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE, AND ARE TO SERVE AS GUIDE FOR THE INSTALLATION. THE SHIFTING OF LOCATIONS TO MEET CONDITIONS (BEFORE INSTALLATION) WILL BE EXPECTED, AND THIS SHALL DONE AT NO INCREASED COST.
- 1. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, MECHANICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE ONLY SIZES, CONNECTION POINTS, AND ROUTES. IT IS NOT INTENDED OR IMPLIED THAT ALL OFFSETS, RISES, AND DROPS ARE AS SHOWN.
- 32. PROVIDE HOLLOW-FORMED CURVED METAL TURNING VANES IN ALL RECTANGULAR ELBOWS.
- 33. THE CONTRACTOR SHALL BALANCE THE SYSTEM IN ACCORDANCE WITH THE AIR VOLUMES AS SHOWN ON THE DRAWINGS AND MAKE OTHER MINOR ADJUSTMENTS AS DIRECTED.
- 4. CONTRACTOR SHALL PROVIDE SMOKE DETECTOR WITH RESET AND ONE SET OF DRY CONTACTS FOR ALL HVAC OVER 2000 CFM EACH OR SERVING A COMMON PLENUM EXCEEDING 2000 CFM IN PLENUM. PROVIDE DETECTOR ON RETURN AND SUPPLY OF EACH UNIT (2 PER UNIT)
- 5, CONTRACTOR SHALL SUBMIT A MINIMUM OF TWO AIR BALANCING CONTRACTORS, THE ENGINEER WILL MAKE THE FINAL SELECTION OF THE AIR BALANCING CONTRACTOR TO BE USED, REFER TO SPECIFICATIONS.

GENERAL NOTES - MECHANICAL - WORKMANSHIP / COORDINATION

- GN-1. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO DEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.
- GN-2. NO PIPING, EQUIPMENT, ETC. SHALL BE REMOVED, DISCONNECTED OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE OWNER AND/OR ENGINEER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED, IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL OR DISCONNECTION, SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE OWNER INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR, AND FOR HOW LONG A PERIOD OF TIME.
- GN-3. ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF AS PER THE OWNER'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNERS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- GN-4. THIS CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLVE.
- GN-5. ALL SHUT DOWNS OF EXISTING SYSTEMS SHALL BE SCHEDULED AND APPROVED BY THE OWNER PRIOR TO COMMENCING WITH WORK.
- GN-6. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.

FLEXIBLE DUCT CONNECTION

AIR FLOW MEASURING DEVICE

SD SPLITTER DAMPER

FIRE DAMPER (PROVIDE TO MATCH

RISE IN DUCT (DIRECTION OF AIR FLOW)

DROP IN DUCT (DIRECTION OF AIR FLOW)

PREFABRICATED ROUND BRANCH FITTING

FLEXIBLE DUCTWORK BRANCH FITTING

3 WAY SPLIT IN MAINS. AREA "A" IS

2 WAY SPLIT IN MAINS. AREA "A" IS

2 WAY SPLIT AT END OF MAIN. AREA "A"
IS EQUAL TO SUM OF AREAS "B", "C".

-SQUARE ELBOW WITH TURNING VANES.

RADIUS ELBOW (MAY BE USED IN LIEU OF SQUARE ELBOW WITH TURNING VANES)

DIFFUSER (4 WAY UNLESS NOTED)

NECK SIZE & CFM NOTED

EQUAL TO SUM OF AREAS "B", "C".

ALL DUCT SIZES ARE NET CLEAR

INSIDE DIMENSIONS.

RETURN

EXHAUST

EQUAL TO SUM OF AREAS "B", "C", "D".

MANUAL VOLUME DAMPER

FIRE RATING OF ASSEMBLY)

MOTOR OPERATED DAMPER

BRANCH WITH EXTRACTOR

BRANCH WITH 45° TAP

WITH VOLUME DAMPER

WITH VOLUME DAMPER

TRANSITION

SMOKE DAMPER

DOUBLE LINE

_ — — VD

FD

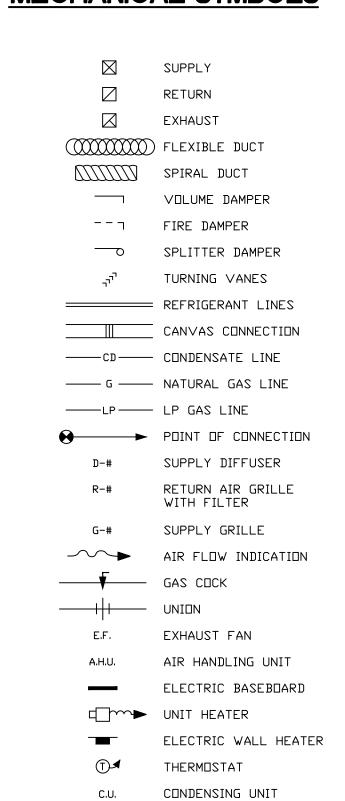
- GN-7. USE OF THE OWNER'S ELEVATORS AND BUILDING CORRIDORS FOR FOR HANDLING OF THE OWNER AND REMOVED EQUIPMENT AND MATERIALS SHALL BE AT THE DIRECTION OF THE OWNER AND SHALL BE COORDINATED WITH HIS OPERATIONS.
- GN-8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
- GN- 9. SUCCESSFULLY PRESSURE TEST ALL PIPING SYSTEMS.
 TEST SHALL BE PERFORMED AT NORMAL SYSTEM OPERATING
 PRESSURES. REPAIR AND RETEST AS REQUIRED UNITL SYSTEMS
 PROVE TIGHT.
- GN-10. EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED AS BEING RELOCATED.
- GN-11. PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.
- GN-12. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
- GN-13. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION, PURCHACE AND/OR INSTALLATION OF ALL WORK.

 GN-14. MECHANICAL CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENT

OF ANY EQUIPMENT WITH G.C. AND ELECTRICAL CONTRACTOR PRIOR TO

GN-15. THE CONTRACTOR SHALL REFER TO PROJECT SPECIFICATIONS FOR ANY ADDITIONAL PROJECT REQUIREMENTS

MECHANICAL SYMBOLS



UNDERCUT DOOR

MECHANICAL DRAWING SHEET

M-0.0 MP-1.0 MP-2.0

ROUGH-IN.

MECHANICAL COVER SHEET

MECHANICAL/ PLUMBING NEW WORK PLAN

MECHANICAL/ PLUMBING - HOOD DATA

BLUE RIDGE CC TECHNICAL (

20-069

INC. Engine

CO PROF. ENG. NO. PE0050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
GA PROF. ENG. NO. PE032582
HI PROF. ENG. NO. PE13943
MD PROF. ENG. NO. 14401
NC PROF. ENG. NO. 0.33364
NJ PROF. ENG. NO. 39497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. 075414
PA PROF. ENG. NO. 075414
PA PROF. ENG. NO. 023240
WV PROF. ENG. NO. 10764

 DATE
 COMMENT

 2/26/21
 85% OWNER REVIEW SET

 4/23/21
 BID SET

DRAWN BY: LSQ

MODE

OF 3 SHEETS

DATE: APRIL 23, 2021

FIRE STOPPING NOTES

ALL PIPES, DUCTS, CONDUITS AND CABLES PASSING THROUGH RATED FLOORS/WALLS/CEILINGS SHALL BE FIRE STOPPED WITH 3M FIRE BARRIER CAULK CP 25 OR EQUAL. INSTALL PER MANUFACTURE'S INSTRUCTIONS AND TO SATISFY THE FIRE RATING REQUIREMENTS OF THE ASSEMBLY:

1) ELEVATOR MACHINE ROOM
2) MECHANICAL ROOM
3) STAIR TOWER

4) OTHER FIRE SEPARATIONS

- HE ROOM 2 HOUR FIRE RATING FOR WALLS AND CEILING UNLESS NOTED OTHERWISE ON THE PLANS 1 HOUR FIRE RATING FOR WALLS AND CEILING UNLESS NOTED OTHERWISE ON THE PLANS
 - 2 HOUR FIRE RATING UNLESS NOTED OTHERWISE ON THE PLANS
 PROVIDE TO MATCH ASSEMBLY RATING INDICATED ON THE PLANS AND REQUIRED BY INC. CODE.

DUCTWORK SYMBOLS

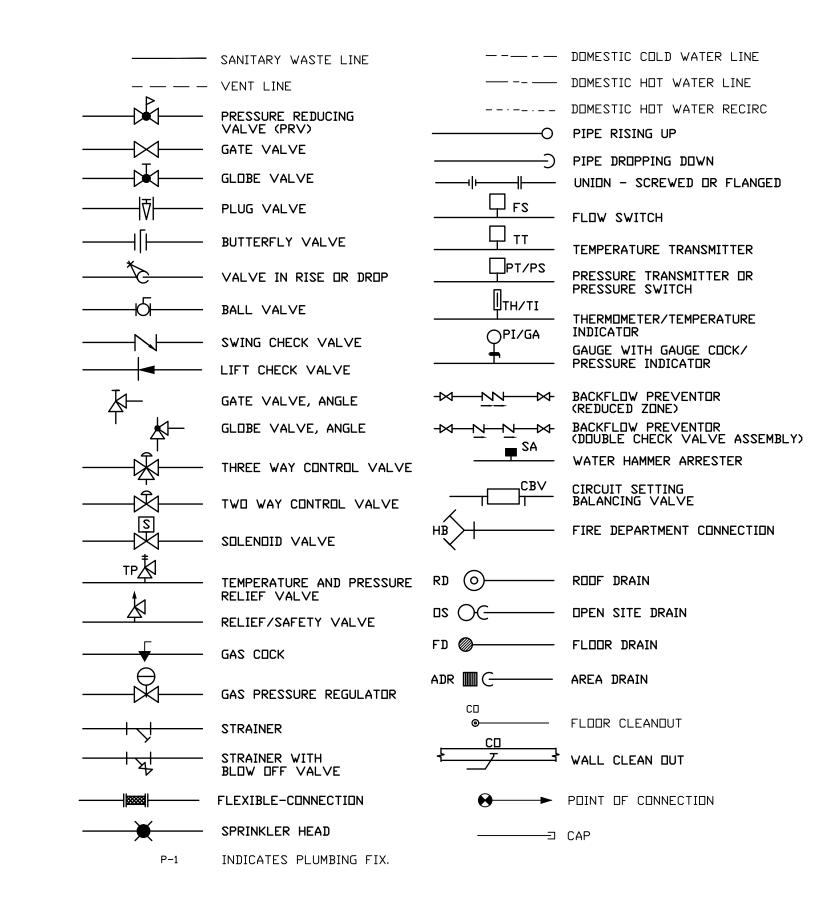
GENERAL PLUMBING NOTES

- 1. FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND SERVICE NECESSARY AND INCIDENTAL TO INSTALL ALL PLUMBING WORK AND RELATED SYSTEMS AS SHOWN ON DRAWINGS AND INDICATED IN THE SPECIFICATIONS AS NECESSARY TO PROVIDE A FINISHED INSTALLATION. THE FINISHED INSTALLATION SHALL BE IN PERFECT WORKING CONDITION AND READY FOR CONTINUOUS AND SATISFACTORY
- 2. ALL EQUIPMENT AND MATERIAL FURNISHED SHALL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL. ALL EQUIPMENT AND MATERIALS SHALL MEET THE REQUIREMENTS OF ALL CODES AND STANDARDS OF LOCAL AND STATE AGENCIES HAVING JURISDICTION.
- 3. WHERE A SUBCONTRACTOR PROPOSES TO USE AN ITEM OF EQUIPMENT OTHER THAN THE SPECIFIED OR DETAILED ITEM ON THE DRAWINGS THAT IS APPROVED BY THE ENGINEER AND THAT REQUIRES REDESIGN OF THE STRUCTURE, PARTITIONS, FOUNDATIONS, PIPING, WIRING, OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL, OR ARCHITECTURAL LAYOUT, THEN SUCH REDESIGN, NEW DRAWINGS, AND DETAILING REQUIRED FOR IT SHALL BE PREPARED BY THE SUBCONTRACTOR WITHOUT EXTRA COMPENSATION.
- 4. THE CONTRACTOR'S SUBMITTAL INDICATES HIS/HER UNDERSTANDING AND APPROVAL OF THE SUBMITTED ITEM FOR ITS INTENDED USE. THE CONTRACTOR'S SUBMITTAL INDICATES THAT HE/SHE IS COMPLYING WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOTE ON THE SUBMITTAL AND DEVIATIONS WITH THE CONTRACT DOCUMENTS.
- 5. THE SUBMITTAL WHICH HAS BEEN REVIEWED BY THE ENGINEER, WITH OR WITHOUT COMMENTS, DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF COMPLYING WITH THE CONTRACT DOCUMENTS. ONLY SUBMITTALS WHICH EXPLICITLY REQUEST THE ENGINEER TO REVIEW DEVIATIONS WITH THE CONTRACT DOCUMENTS RELIEVE THE CONTRACTOR FROM THE SPECIFIC ITEM OF COMPLIANCE.
- 6. THE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE, AND ARE TO SERVE AS A GUIDE FOR THE INSTALLATION. THE SHIFTING OF LOCATIONS TO MEET CONDITIONS (BEFORE INSTALLATION) WILL BE EXPECTED, AND THIS SHALL BE DONE AT NO INCREASED COST.
- 7. THE CONTRACTOR SHALL COORDINATE THE PLUMBING WORK AND EQUIPMENT WITH THE WORK TO BE PERFORMED AND THE EQUIPMENT TO BE PROVIDED UNDER OTHER DIVISIONS OF THE PROJECT.
- 8. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO INFORM THE ELECTRICAL CONTRACTOR AS REGARDS TO THE EXACT SERVICE REQUIREMENTS OF EACH PIECE OF PLUMBING EQUIPMENT.
- 9. RENOVATION WORK; FOR RENOVATION WORK THE CONTRACTOR SHALL VISIT THE EXISTING FACILITY AND NOTE THE EXISTING CONDITIONS AND JOB SITE LIMITATIONS, PRIOR TO BIDDING.
- 10. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, PIPING DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE ONLY SIZES, CONNECTION POINTS, AND ROUTES. IT IS NOT INTENDED OR IMPLIED THAT ALL OFFSETS, RISES, AND DROPS ARE AS SHOWN.
- 11. PROVIDE AND INSTALL ALL CUTTING, PATCHING, FIREPROOFING, AND FIRE STOPPING REQUIRED FOR THE COMPLETE INSTALLATION OF YOUR DISCIPLINE.
- 12. ALL DOMESTIC WATER PIPING, HOT, COLD, AND HOT WATER RE-CIRCULATION PIPING SHALL BE INSULATED. SEE SPECIFICATIONS FOR SIZE AND TYPE.
- 13. PROVIDE A HOT AND COLD WATER DISTRIBUTION SYSTEM BEGINNING AT THE POINT OF CONNECTION WITH CONNECTIONS TO EACH PLUMBING FIXTURE, PROVIDE A COMPLETE SYSTEM OF SANITARY PIPING BEGINNING AT POINT OF CONNECTION AND CONTINUING TO ALL PLUMBING FIXTURES.
- 14. ALL FIXTURES SHALL BE FURNISHED, SET, AND PROPERLY CONNECTED. ALL PROPER PROTECTIVE PAPER, LABELS, ETC., SHALL BE REMOVED AND FIXTURES AND FITTINGS SHALL BE THOROUGHLY CLEANED AFTER ALL TRADES HAVE COMPLETED THEIR WORK. THEY SHALL BE LEFT IN CONDITION ACCEPTABLE TO THE OWNER.
- 15. COMPLETELY DISINFECT THE PIPING AND SYSTEM COMPONENTS WITH A SOLUTION OF SODIUM HYPO CHLORITE AS DIRECTED BY LOCAL HEALTH DEPARTMENT.
- 16. ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATIONS SHALL BE CORRECTED BY THE CONTRACTOR.
- 17. SUPPORT NEW PIPING FROM BUILDING STRUCTURE AND OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING.
- 18. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
- 19. REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES IN MAKING UP THE WORK PROPOSAL.
- 20. SEAL ALL OPENINGS AROUND PIPES THROUGH PARTITIONS AND WALLS WITH APPROVED FIRE-STOPPING MATERIAL MEETING ASTM E814 AND NFPA-101.
- 21. PROVIDE ALL NECESSARY FLASHING AND COUNTER-FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPES, DUCTS, CONDUIT AND EQUIPMENT.
- 22. ALL EXISTING MATERIAL AND EQUIPMENT REMOVED UNDER THIS CONTRACT SHALL BE REMOVED FROM THE SITE OR RETURNED TO THE BUILDING OWNER AT THE OWNER'S DISCRETION.
- 23. ACCESS TILE IDENTIFICATION: PROVIDE BUTTONS, TABS AND MARKERS TO IDENTIFY LOCATION OF CONCEALED VALVES AND EQUIPMENT. ALL MATERIAL AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED.
- 24. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING BUILDING, EQUIPMENT, ETC., WHICH AFFECT THIS WORK, AND THE ACCESS TO SUCH SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION.
- 25. PLUG DR CAP ALL PIPING. DD NDT LEAVE PIPING DPEN ENDED.
- 26. THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTIONS, ETC.
- 27. CONTRACTOR SHALL COORDINATE AND PLUMBING OR PIPING SYSTEM SHUTDOWN WITH THE OWNER 48 HOURS IN ADVANCE.
- 28. THE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED PER LOCAL CODE AND PER AUTHORITY HAVING JURISDICTION REQUIREMENTS.
- 29. ALL (VTR'S) VENT THRU ROOF PENETRATIONS INDICATED ON PLANS ARE PRELIMINARY, FINAL LOCATIONS SHALL BE COORDINATED WITH ALL TRADES. ALL VTR'S SHALL BE A MINIMUM OF 10'-0' FROM ALL FRESH AIR INTAKE OPENINGS.
- 30. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK, WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLVE.
- 31. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
- 32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
- 33. PRIOR TO STARTING CONSTRUCTION, DETERMINE EXACT INVERT ELEVATION, SIZE, DEPTH AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY ARCHITECT OR ENGINEER OF ANY DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS. WORK BACK TOWARD BUILDING FROM UTILITY CONNECTION FOR ALL PIPING SYSTEMS.
- 34. INSTALL ALL FROST PROOF HYDRANTS 30 INCHES ABOVE FINISHED GRADE.
- 35. INSTALL ALL SHOCK ABSORBERS IN ACCORDANCE WITH THE LATEST "PLUMBING AND DRAINAGE INSTITUTE STANDARDS" FOR WATER HAMMER ARRESTORS.
- 36. LOCATE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND WALLS FOR ALL VALVES, SHOCK ABSORBERS, CLEANOUTS AND ALL OTHER ITEMS THAT REQUIRE ACCESS TO PROPERLY MAINTAIN OR SERVICE THE BUILDING, REFER TO SPECIFICATIONS.
- 37. PROVIDE CLEANOUTS AT THE BASE OF ALL SANITARY DRAINAGE, PROCESS WASTE, AND RAIN WATER

MARK	DESCRIPTION	C.W.	H.W.	VENT	WASTE	MANUFACTURER	REMA
P-1	PRESSURE ASSISTED TANK TYPE WATER CLOSET	1/2″	-	2″	4"	AMERICAN STANDARD ELONGATED CADET 1.6 GAL PRESSURE ASSISTED #2292.100 W/OPEN SEAT, SUPPLY & STOPS	
P-1A	PRESSURE ASSISTED TANK TYPE WATER CLOSET	1/2″	_	2″	4"	AMERICAN STANDARD ELONGATED CADET 1.6 GAL PRESSURE ASSISTED #2168.100 W/OPEN SEAT, SUPPLY & STOPS	
P-2	STANDARD WALL HUNG LAVATORY	1/2″	1/2"	1-1/2"	1-1/2"	AMER. STD ROXALYN 0195.073 CONCEALED ARM CARRIER, W/CHICAGO 559-2350 MTRING FAUCET W/GRID DRAIN, SUPPLIES AND STOP	
P-2A	HANDICAPPED WALL HUNG LAVATORY	1/2″	1/2"	1-1/2"	1-1/2"	SAME AS P-2 EXCEPT MOUNT TO HANDICAPPED STANDARDS. PROVIDE SUPPLY & TRAP INSULATORS, TRUE BRO OR EQUAL.	
P-3	STANDARD WALL HUNG URINAL	3/4"	_	1-1/2"	2"	AMERICAN STANDARD WASHBROOK #6501.010 W/SLOAN ROYAL #186-1 FLUSHVALVE	
P-3A	HANDICAPPED WALL HUNG URINAL	3/4″	-	1-1/2"	2"	SAME AS P-3 EXCEPT MOUNT TO HANDICAPPED STANDARDS	
P-4	STANDARD VANITY LAVATORY	1/2″	1/2"	1-1/2"	1-1/2"	AMERICAN STANDARD RONDALYN #0491.019 W/CHICAGO #559-2350 METERING FAUCET W/ GRID DRAIN, SUPPLIES & STOPS	
P-4A	HANDICAPPED VANITY LAVATORY	1/2″	1/2"	1-1/2"	1-1/2"	SAME AS P-4 EXCEPT MOUNT TO HANDICAPPED STANDARDS, PROVIDE SUPPLY & TRAP INSULATORS, TRUE BRO OR EQUAL.	
P-5	STANDARD FLUSH VALVE WATER CLOSET	1″	_	2″	4"	AMERICAN STANDARD MADERA EL 1.6 GAL #2234.015 W/DPEN SEAT, RDYAL SLDAN #111 FLUSHVALVE	
P-5A	HANDICAPPED FLUSH VALVE WATER CLOSET	1″	_	2″	4"	AMERICAN STANDARD CADET 17"H EL 1.6 GAL #3043.102 W/OPEN SEAT, ROYAL SLOAN #111 FLUSHVALVE	
P-6	HANDICAPPED WATER COOLER HIGH/LOW	1/2″	-	1-1/2"	1-1/2"	ELKAY HIGH/LOW SEMI RECESSED MODEL ERHP2-8 HANDICAP/STANDARD UNIT	
P-7	DOUBLE BOWL KITCHEN SINK	1/2″	1/2"	1-1/2"	2"	ELKAY/DAYTON ELITE MODEL #DSE-23322 W/MOEN MODEL #7841-B FAUCET W/SPRAY & STRAINERS W/BASKETS	
P-8	STAINLESS STEEL SINGLE BOWL SINK	1/2″	1/2"	1-1/2"	2"	ELKAY/DAYTON MODEL #DSE-12522 W/MOEN MODEL #87415 FAUCET & SPRAY W/STRAINER, SUPPLIES & STOPS	
P-9	BAR SINK	1/2″	1/2"	1-1/2"	1-1/2"	KROWNE METAL - STAINLESS STEEL HS-9L-12W W/ GOOSE NECK FAUCET OR EQUAL	
P-10	LAUNDRY TUB	1/2″	1/2"	1-1/2"	2"	FIAT MODEL #FL-1 W/#A-1 BRASS FAUCET W/STOPPER, SUPPLIES & STOPS	
P-11	MOP SINK	1/2″	1/2"	1-1/2"	1-1/2"	FIAT MODEL #MSB-2424 W/#830AA FAUCET W/VACUUM BREAKER #832AA HOSE & HOSE BRACKET, #889CC MOP HANGER & STRAINER	
P-12	FLOOR SINK	-	-	1-1/2"	3″	ZURN #Z-1900 LESS GRATE W/6" DEEP SEAL TRAP W/TRAP PRIMER CONNECTION	
P-13	FLOOR DRAIN	-	-	1-1/2"	3″	ZURN #Z-415 W/'B' STRAINER & 6" DEEP SEAL TRAP	
P-14	TRAP PRIMER DEVICE	1/2″	_	_	_	PRIME TRAP PRIMER VALVE MODEL #PR-500 W/SS-8 & DU-2	
P-15	FROSTPROOF WALL HYDRANT	3/4"	-	-	-	ZURN Z1350 W/ BACKFLOW PREVENTOR	
P-16	SERVICE FAUCET	3/4"	3/4"	-	-		
P-17	WATER HEATER	3/4"	3/4"	-	3/4"		
P-18	WATER HEATER	1"	1"	_	1"		
P-19	SHOWER	1/2″	1/2"	1-1/2"	2"	MOEN #8375 PRESSURE BALANCING VALVE/SHOWER W/GRID DRAIN	
P-19A	H.C. SHOWER	1/2″	1/2"	1-1/2"	2"	MOEN #8345 PRESSURE BALANCING VALVE W/GRID DRAIN	
P-20	TUB/SHOWER	1/2″	1/2"	1-1/2"	2"		
P-21	RESIDENTIAL DISHWASHER	1/2″	1/2"	1-1/2"	2"	PROVIDED BY OTHERS AND CONNECTED BY PLUMBING CONTRACTOR	
P-22	RESIDENTIAL CLOTHES WASHER	1/2″	1/2"	1-1/2"	2"	PROVIDED BY OTHERS AND CONNECTED BY PLUMBING CONTRACTOR	
P-23	HANDICAP DRINKING FOUNTAIN	1/2″	_	1-1/2"	1-1/2"	SEMI RECESSED ELKAY #EDFP-19-C	
P-24	RECESSED YARD HYDRANT	1/2″	_	N/A	N/A	ZURN Z1360 W/ BACKFLOW PREVENTOR	
P-25	SUMP PUMP	-	_	1-1/2"	2"	MYERS #525 W/SUMP & FLOOD 1/4 HP 120V, 10GPM @ 20 FEET	
P-26	SEWAGE GRINDER PUMP	-	_	1-1/2"	2"	MYERS SIMPLEX PACKAGE 30X36 W/BASIN, CONTROLS/ALARM. 1-1/2 HP 30GPM @30 FT	
P-27	COMPACT ELECTRIC	1/2"	1/2"	_	_	RUUD EGLS 30S, 3KW	

^{1.} THIS IS A STD. PLUMBING FIXTURE SCHEDULE, PLUMBING FIXTURE DESIGNATIONS MAY APPEAR ON SCHEDULE BUT MAY NOT BE UTILIZED ON THE PLAN. REFER TO PLANS FOR ACTUAL PLUMBING FIXTURES USED ON THE PROJECT.

PLUMBING/PIPING SYMBOLS



PLUMBING DRAWING LIST

P-0.0 PLUMBING COVER SHEET

MP-1.0 MECHANICAL/PLUMBING NEW WORK PLAN

MECHANICAL/PLUMBING - HOOD DATA

20-069

S. GRIM, INC.

Mai Mai Mai Na M

E COLLEGE AND

13650 APPLE H MARTINSBUR

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland License Number: 14401

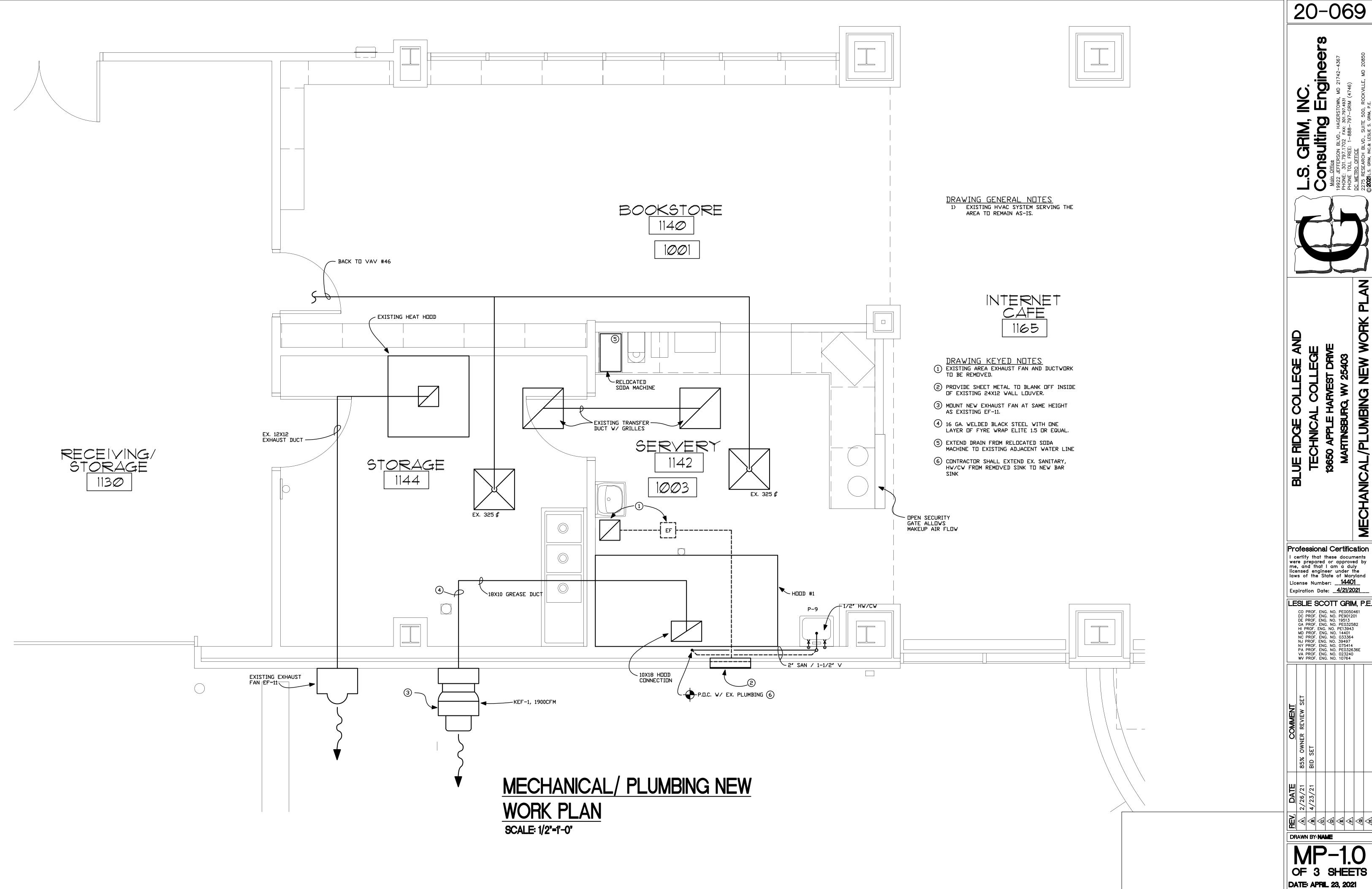
Expiration Date: 4/21/2021

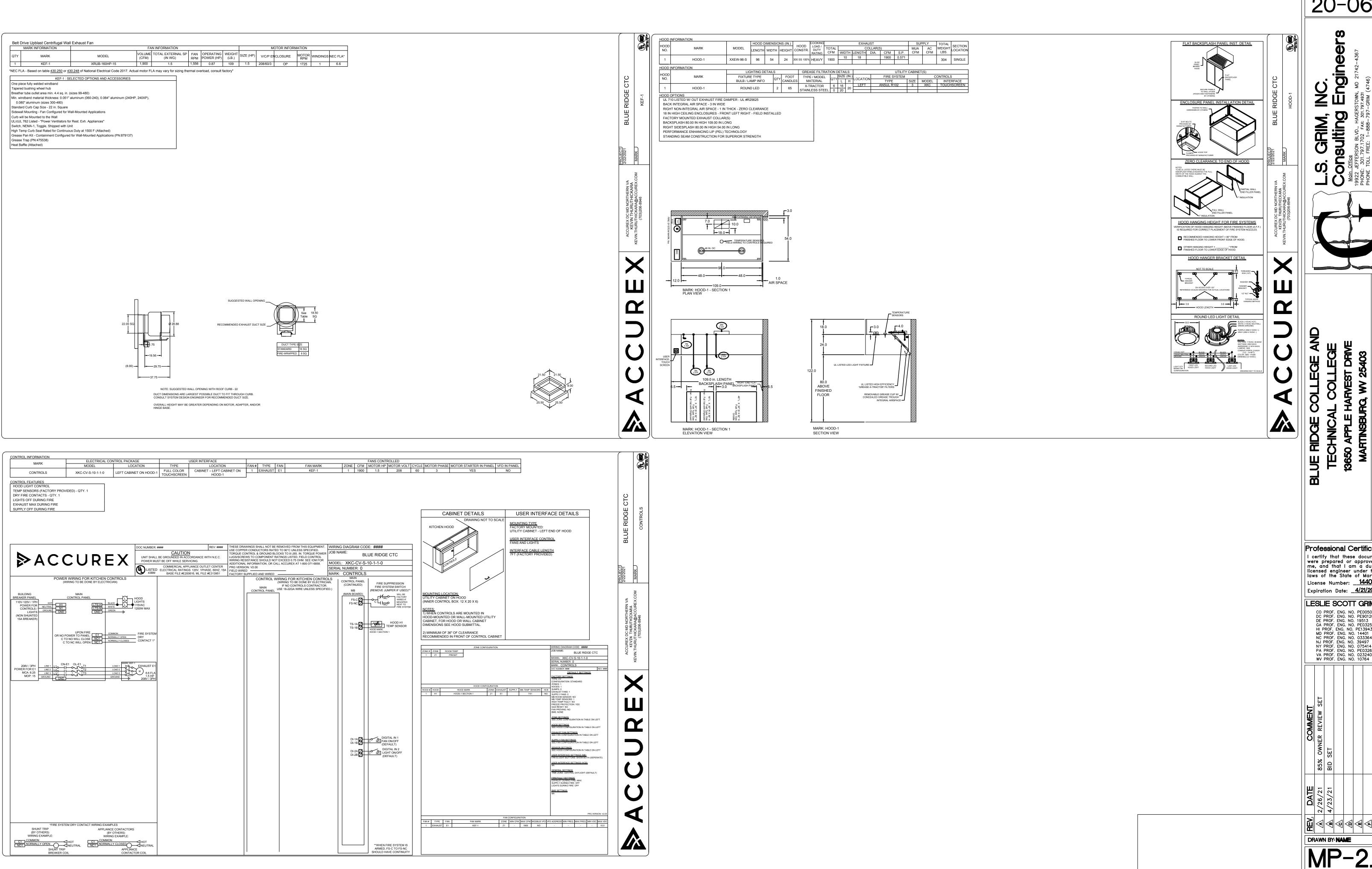
LESLIE SCOTT GRIM, P
CO PROF. ENG. NO. PE0050461
DC PROF. ENG. NO. PE901201 DF PROF. FNG. NO. 19513
GA PROF. ENG. NO. 19313
HI PROF. ENG. NO. PE13943
MD PROF. ENG. NO. 14401 NC PROF. FNG. NO. 033364
NJ PROF. ENG. NO. 33497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. PE032636E VA PROF. FNG. NO. 023240
WV PROF. ENG. NO. 10764

	ŒV.	A	\	ভ	V	Æ	Æ	\oldot
	DATE	2/26/21	4/23/21					
	COMMENT	85% OWNER REVIEW SET	BID SET					

P-0.

OF 3 SHEETS
DATE: APRIL 23, 2021





20-069

Professional Certification I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland Expiration Date: <u>4/21/2021</u>

LESLIE SCOTT GRIM, P.E. CO PROF. ENG. NO. PE0050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
GA PROF. ENG. NO. 19513
GA PROF. ENG. NO. PE032582
HI PROF. ENG. NO. PE13943
MD PROF. ENG. NO. 14401
NC PROF. ENG. NO. 033364
NJ PROF. ENG. NO. 39497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. PE032636E
VA PROF. ENG. NO. 023240
WV PROF. ENG. NO. 10764

OF 3 SHEETS

DATE: APRIL 23, 2021

GENERAL ELECTRICAL NOTES

- MATERIALS, EQUIPMENT, AND SYSTEMS SHALL MEET ALL PERTINENT REQUIREMENTS OF THE AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM), 2015-NATIONAL-ELECTRIC-CODE (NEC). THE UNDERWRITERS LABORATORY (UL), THE NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION (NEMA), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AND OTHER NATIONALLY RECÓGNIZED AGENCIES AS WELL
- ANYTHING DRAWN OR SPECIFIED SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY LOCAL, MUNICIPAL OR STATE LAW, REGULATION OR ORDINANCE WHICH GOVERNS THE INSTALLATION OF ANY ELECTRICAL OR RELATED WORK. ITEMS SHALL NOT BE INSTALLED IN CONFLICT WITH THE N.E.C. RESOLVE ANY AND ALL CONFLICTS BEFORE INSTALLATION AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL ELECTRICAL EQUIPMENT SHALL BE LISTED AND LABELED FOR THE QUALIFIED USE. VERIFY CIRCUIT BREAKER INTERRUPT CAPACITY NEEDED FOR EACH PANEL WITH LOCAL UTILITY. FOR BID PURPOSES, ASSUME 65,000 AIC FOR SERVICE ENTRANCE EQUIPMENT, AND 25,000 AIC ELSEWHERE. BALANCE THE POWER EQUALLY (+/-10%) ON ALL PHASES.
- THE SYSTEMS SHOWN ON DRAWINGS SHALL BE PROVIDED TO SERVE ALL FIXTURES, EQUIPMENT, AND AREAS WITHIN THE CONTRACT LIMIT LINES AS SET FORTH BY THE ARCHITECTURAL SOLUTION FOR THE PROJECT. THE BIDDING AND CONTRACT REQUIREMENTS, GENERAL REQUIREMENTS, AND GENERAL PROVISIONS SHALL APPLY TO THIS SECTION. SYSTEMS SHALL INCLUDE ALL EQUIPMENT, APPURTENANCES, SAFETY DEVICES, AND CONTROLS NECESSARY FOR THE INTENDED SERVICE.
- ALL PERMITS AND FEES REQUIRED FOR THE WORK SHALL BE SECURED AND PAID FOR BY THE ELECTRICAL CONTRACTOR AND INCLUDED IN BID PRICE.
- WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE OWNER.
- BIDDERS SHALL BE LICENSED CONTRACTORS IN ACCORDANCE WITH LOCAL AND STATE LAWS.
- ALL EQUIPMENT SHALL BE NEW AND UNUSED. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT CONFORMANCE TO MANUFACTURER'S RECOMMENDATIONS, EXCEPT WHERE THESE SPECIFICATIONS REQUIRE A HIGHER QUALITY INSTALLATION THAN RECOMMENDED BY THE MANUFACTURER.
- ALL INSTALLED SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED IN PLACE ON SITE. REPLACE ANY AND ALL CONTRACTOR—SUPPLIED DEFECTIVE DEVICES, ITEMS OR SYSTEMS AT CONTRACTOR'S OWN EXPENSE BEFORE COMPLETION OF THE PROJECT.
- CONTRACTOR SHALL GUARANTEE ALL WORK FOR WHICH MATERIALS ARE FURNISHED, FABRICATED OR FIELD ERECTED, ALL FACTORY ASSEMBLED EQUIPMENT FOR WHICH NO SPECIFIC MANUFACTURER'S GUARANTEE IS FURNISHED, AND ALL WORK IN CONNECTION WITH INSTALLING MANUFACTURER'S GUARANTEED EQUIPMENT. THIS CONTRACTOR'S GUARANTEE SHALL EXIST FOR A PERIOD OF TWO (2) YEAR FROM THE DATE OF FINAL OWNER ACCEPTANCE OF THE WORK AND SHALL APPLY TO DEFECTS IN MATERIAL AND TO DEFECTIVE WORKMANSHIP OF ANY KIND.
- VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED. VERIFY ALL DIMENSIONS BY FIELD
- SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF ELECTRICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING-IN THE BUILDING. COORDINATE THE CUTTING AND PATCHING OF BUILDING COMPONENTS TO ACCOMMODATE INSTALLATION OF ELECTRICAL EQUIPMENT AND MATERIALS.
- COORDINATE THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT ABOVE CEILINGS WITH SUSPENSION SYSTEM, MECHANICAL EQUIPMENT AND SYSTEMS, AND STRUCTURAL COMPONENTS. COORDINATE ELECTRICAL EQUIPMENT AND MATERIALS INSTALLATION WITH OTHER BUILDING
- WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL ELECTRICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE. INSTALL ELECTRICAL EQUIPMENT TO FACILITATE MAINTENANCE AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.
- COORDINATE CONNECTION OF ELECTRICAL SYSTEMS WITH EXTERIOR UNDERGROUND AND OVERHEAD UTILITIES AND SERVICES. COMPLY WITH REQUIREMENTS OF GOVERNING REGULATIONS, FRANCHISED SERVICE COMPANIES, AND CONTROLLING AGENCIES. PROVIDE REQUIRED CONNECTION FOR EACH
- 16. DO NOT ENDANGER OR DAMAGE INSTALLED WORK THROUGH PROCEDURES AND PROCESSES OF ITING AND PATCHING. ARRANGE FOR REPAIRS REQUIRED TO RESTORE OTHER WORK, BECAUSE OF DAMAGE CAUSED AS A RESULT OF ELECTRICAL INSTALLATIONS.
- BIDDERS SHALL THOROUGHLY ACQUAINT THEMSELVES WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THEY SHALL EXAMINE ALL SERVICES, EQUIPMENT, SURFACES, ETC., WHICH THIS WORK IS IN ANY WAY DEPENDENT UPON, AND BRING ANY DISCREPANCIES DETERMINED OR OMISSIONS FOUND IN THE DRAWINGS TO THE OWNER'S ATTENTION BEFORE
- VERIFY MECHANICAL EQUIPMENT SWITCH AND CONNECTION REQUIREMENTS, ITEM BY ITEM, WITH THE MECHANICAL CONTRACTOR, BEFORE WIRING EQUIPMENT. RESOLVE ALL DISCREPANCIES WITHOUT
- ALL WIRING SHALL BE IN CONDUIT, 3/4" EMT MINIMUM WITH SET SCREW FITTINGS SUPPORTED AT
- ALL WIRING SHALL BE THHN/THWN COPPER (NO. 12 AWG MINIMUM) UNLESS OTHERWISE NOTED. WIRE AND CONDUIT SIZES ARE SHOWN ON THE PANEL SCHEDULE.
- ALL LIGHTS SHALL BE SUPPORTED AND SECURED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THE SUPPORT SHALL BE FROM A BUILDING SUPPORT MEMBER AND NOT THE FIRE PROTECTION SYSTEM OR OTHER PIPES.
- 22. ALL PANELS, CONTROL DEVICES AND MISCELLANEOUS ELECTRICAL APPARATUS SHALL BE CLEARLY MARKED FOR EASY IDENTIFICATION AND SAFETY. USE BLACK PLASTIC OR BAKELITE NAME PLATE ENGRAVED WITH WHITE LETTERS 1/4" HIGH. PUNCHED TAPE IS NOT ACCEPTABLE.
- 23. PANELS SHALL BE PROVIDED WITH A TYPEWRITTEN DIRECTORY AFFIXED TO INSIDE OF PANEL DOOR WITH A CLEAR PLASTIC SLEEVE.

ELEVATOR NOTES

C) TOP OF THE SHAFT

BREAKER FOR THE ELEVATOR. ALSO, FURNISH, INSTALL & WIRE BACK TO THE FEEDER

4. FURNISH & INSTALL 120V, 20A CIRCUIT WITH DISCONNECT SWITCH AND WIRE TO THE ELEVATOR CAB

5. FURNISH & INSTALL GFCI, DUPLEX, RECEPTACLE IN ELEVATOR MACHINE ROOM CIRCUIT AS SHOWN

6. FURNISH & INSTALL ELEVATOR PIT LIGHT AND GFCI, DUPLEX, RECEPTACLE IN ELEVATOR PIT CIRCUIT

7. FURNISH, INSTALL & CONNECT TO POWER UNIT TELEPHONE LINE FOR USE BY THE ELEVATOR

MACHINE ROOM AND THE TOP OF THE SHAFT.

ON THE PANEL SCHEDULE.

EMERGENCY TELEPHONE.

AS SHOWN ON THE PANEL SCHEDULE.

CONTACTS ALSO WIRED TO THE ELEVATOR POWER UNIT.

LIGHT CIRCUIT (CIRCUIT AS SHOWN ON THE PANEL SCHEDULE).

- 24. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND ARE FOR CIRCUIT ALLOCATION ONLY. DO NOT
- ELECTRICAL CONTRACTOR SHALL FURNISH RECORD SET OF DRAWINGS WITH ANY DEVIATIONS MARKED IN

ELECTRICAL NOTES:

SCOPE OF WORK:

- A. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS TO THE EXTENT POSSIBLE, CONCEALED CONDITIONS EXCLUDED. FIELD VERIFY ALL ELECTRICAL EQUIPMENT.
- B. FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION.
- C. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UNDERWRITERS LABORATORIES LIST OF APPROVED ITEMS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT.
- D. ALL WORK TO BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (2015).
- E. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION PROCEDURES.
- F. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE ELECTRICAL SYSTEM, READY FOR CONTINUOUS USE WHETHER SPECIFIED OR IMPLIED.

A. SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTION CERTIFICATES.

A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL BE IN ACCORDANCE WITH GENERAL CONDITIONS AND SHALL BEAR STAMP OF THE GENERAL CONTRACTOR SHOWING THAT HE HAS REVIEWED AND APPROVED THEM. LACK OF SUCH CONTRACTOR'S APPROVAL WILL BE CAUSE FOR REJECTION WITHOUT REVIEW BY THE ARCHITECT OR ENGINEER.

B. SUBMIT SHOP DRAWINGS/ MATERIAL SUBMITTER IN A PDF FORMAT.

INTERIOR BRANCH CIRCUITS (EXPOSED)

A. THE TYPE OF CONDUIT SHALL BE AS FOLLOWS FOR ALL FEEDERS AND DISTRIBUTION CIRCUITS, UNLESS OTHERWISE SPECIFIED.

<u>APPLICATION</u> BURIED IN CONCRETE PVC - SCHED. 40 IN MASONARY EMT OR IMC EXPOSED ABOVE GRADE RIGID STEEL, SCHED. 40 PVC - SCHED. 40 UNDERGROUND SUPPLY TO DISTRIBUTION PANELS INTERIOR BRANCH CIRCUITS (CONCEALED)

A. WIRE SHALL BE SINGLE CONDUCTOR COPPER WITH 600 VOLT INSULATION. #10 AND SMALLER SHALL BE SOLID. #8 AND LARGER SHALL BE STRANDED. MINIMUM WIRE SIZE SHALL BE #12 EXCEPT #14 MAY BE USED FOR CONTROL. ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES. ALL WIRING OF ANY TYPE SHALL BE IN CONDUIT. • GENERAL WIRING SHALL BE THW OR THHN (ALUMINUM CONDUCTORS ARE NOT PERMITTED).

EMT

WIRE CONNECTORS SHALL BE EQUAL BY SCOTCHLOCK FOR #6 AND SMALLER AND T & B "LOCK-LITE" FOR #8 AND LARGER.

A. LIGHTING FIXTURES AND LAMPS (UNLESS NOTED OTHERWISE) SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL INSTALL ALL FIXTURES

WIRE DEVICES:

OF THE ASSEMBLY:

3) STAIR TOWER

2) MECHANICAL ROOM

1) ELEVATOR MACHINE ROOM

4) OTHER FIRE SEPARATIONS

A. RECEPTACLES SHALL BE 20 AMP, 3-WIRE GROUNDING TYPE EQUAL TO HUBBELL 5362 (MOUNTING @ 18"A.F.F.).

'EQUIPMENT NO.' INSERT ACTUAL

'PANEL NO.' - INSERT SOURCE

SWITCHES SHALL BE STANDARD GRADE RATED 20 AMP AT 120 VOLT (MOUNTING @48"A.F.F.)

FIRE STOPPING NOTES

EQUIPMENT NO.

PANEL NO.

ALL PIPES, DUCTS, CONDUITS AND CABLES PASSING THROUGH RATED FLOORS/WALLS/CEILINGS SHALL BE FIRE STOPPED WITH 3M FIRE BARRIER CAULK CP 25 OR EQUAL. INSTALL PER MANUFACTURE'S INSTRUCTIONS AND TO SATISFY THE FIRE RATING REQUIREMENTS

- 2 HOUR FIRE RATING - UNLESS NOTED OTHERWISE ON THE PLANS

C. SPECIAL DEVICES SHALL BE A SPECIFICATION GRADE.

8. SAFETY SWITCHES:

- A. PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NONFUSED, AS CALLED FOR ON DRAWINGS AND AS REQUIRED BY CODE. SWITCHES SHALL BE HEAVY DUTY, LOAD AND HORSEPOWER RATED AS MANUFACTURED BY SQUARE D, GOULD, ITE OR EQUAL.
- B. MANUAL MOTOR STARTERS WITH OVERLOAD PROTECTION MAY BE USED FOR FRACTIONAL HORSEPOWER MOTORS. SINGLE PHASE STARTERS SHALL BE SQUARE D OR EQUAL. THREE PHASE STARTERS SHALL BE PROVIDED WITH OVERLOAD DEVICES IN EACH PHASE. MAGNETIC MOTOR STARTERS SHALL BE USED FOR INTEGRAL HORSEPOWER MOTORS, COMBINATION STARTERS, WHEN USED, SHALL CONTAIN FUSIBLE SWITCHES.

- A. OUTLET BOXES AND COVERS SHALL BE GALVANIZED, ONE-PIECE PRESSED STEEL KNOCKOUT.
- B. JUNCTION, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL, CODE GAUGE SIZE

A. PROVIDE ELECTRICAL SERVICE AS SHOWN ON THE DRAWINGS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE OWNER OR POWER COMPANY SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CLOSELY CO-ORDINATE ENTIRE INSTALLATION WITH OWNER AND POWER COMPANY AS REQUIRED

- A. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS CHANNELS, RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE FASTENED TO STEEL, CONCRETE OR WOOD, BUT NOT TO PIPING. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES WHEREVER THEY RUN ALONG SIDE OR ACROSS SUCH LINES. CONDUCTORS SHALL BE IN CONDUIT, DUCTS OR APPROVED RACEWAYS.
- B. THE CONTRACTOR SHALL DO ALL CUTTING, CHASING OR CHANNELING AND PATCHING REQUIRED FOR ANY WORK UNDER THIS DIVISION. ANY CUTTING SHALL HAVE PRIOR APPROVAL OF OWNER. SLEEVES SHALL EXTEND AT LEAST TWO (2") INCHES ABOVE FINISHED FLOOR AND ALL SLEEVES, OPENINGS, ETC., THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED AFTER CONDUIT INSTALLATION TO REMAIN THEIR FIRE
- C. THE FOLLOWING EQUIPMENT SHALL BE IDENTIFIED WITH ENGRAVED BAKELITE NAMEPLATES AS TO NAME AND/OR FUNCTION; DISTRIBUTION PANEL, LIGHTING PANELS, MOTOR STARTERS, TIME CLOCKS, AND DISCONNECT SWITCHES.
- D. THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND THE ENGINEER SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ADDITIONAL COST.
- E. ELECTRICAL CONTRACTOR SHALL RECORD ALL FIELD CHANGES IN HIS WORK AS THE JOB PROGRESSES. ("RED LINE" AS BUILT PLANS)

- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF TWO (2) YEARS FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
- B. FOR THE SAME PERIOD, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

13. FINALLY:

A. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED.

ELECTRICAL SYSTEM GROUNDING NOTES

ONE OF THE MOST IMPORTANT PARTS IN THE INSTALLATION OF ELECTRICAL SYSTEMS IS GROUNDING. PROPER GROUNDING WILL PROVIDE PROTECTION OF PERSONNEL, EQUIPMENT, AND CIRCUITS BY ELIMINATING THE POSSIBILITY OF DANGEROUS OR EXCESSIVE VOLTAGES.

- GROUNDING SYSTEM MUST BE IN ACCORDANCE WITH APPLICABLE NATIONAL, STATE OR LOCAL ELECTRICAL
- THE GROUND PATH MUST BE PERMANENT AND CONTINUOUS, AND THE RESISTANCE OF THE GROUND PATHS MUST NOT EXCEED TWO (25) OHMS.
- ALL GROUNDING ELECTRODES OF DIFFERENT SYSTEMS
- METALLIC CONDUIT USED TO ENCLOSE A GROUNDING CONDUCTOR MUST BE BONDED TO THE GROUNDING CONDUCTOR AT BOTH ENDS TO REDUCE IMPEDANCE.
- ALL ISOLATED GROUNDING TYPE RECEPTACLES MUST BE INDIVIDUALLY CONNECTED TO GROUND (NOT SERIALLY) TO ASSURE THE CONTINUITY OF THE
- RECEPTACLE BOXES MUST BE GROUNDED BY RACEWAY BACK TO THE GROUNDED PANEL.
- * IF FLEXIBLE OR PVC CONDUIT IS USED, OR WHERE REQUIRED BY LOCAL CODE, THEN A SEPARATE MECHANICAL GROUND WIRE MUST CONNECT THE OUTLET BOX TO THE PANEL MECHANICAL GROUND BUS.
- ISOLATED GROUNDING SYSTEM FOR THE ISO GRD PANEL MUST BE BONDED TO THE MAIN DISTRIBUTION PANELBOARD GROUNDING SYSTEM AND IN TURN BONDED TO THE SYSTEM'S NEUTRAL.

REQUIRED GROUNDING TESTS

AFTER INSTALLATION OF THE ISO GRD PANEL, TESTS MUST BE PERFORMED TO CHECK THE FOLLOWING:

- EXCESSIVE GROUND POTENTIAL DIFFERENCES BETWEEN DIFFERENT AREAS, DO NOT EXIST.
- * GROUNDING SYSTEM INTEGRITY

TESTS TO BE PERFORMED ARE:

- * GROUND LOOP CONTINUITY
- * GROUND LOOP RESISTANCE
- * GROUND POTENTIAL DIFFERENCE MEASUREMENT

MD PROF. ENG. NO. 14401 NC PROF. ENG. NO. 033364 NJ PROF. ENG. NO. 033364 NJ PROF. ENG. NO. 075414 PA PROF. ENG. NO. PE032636E VA PROF. ENG. NO. 023240 WV PROF. ENG. NO. 10764

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly

licensed engineer under the laws of the State of Maryland

License Number: __14401_

Expiration Date: <u>4/21/2021</u>

LESLIE SCOTT GRIM, P.E

DC PROF. ENG. NO. PE901201 DE PROF. ENG. NO. 19513 GA PROF. ENG. NO. PE032582 HI PROF. ENG. NO. PE13943

20-069

INC. Engine

DRAWN BY: LSG

| DATE: APRIL 23, 2021

SITE ELECTRICAL NOTES

. FURNISH, INSTALL & WIRE BACK TO THE ELEVATOR POWER UNIT, SMOKE DETECTORS, WITH .ELECTRICAL WORK ON THIS PROJECT SHALL BE PERFORMED NORMALLY CLOSED (NC), DRY CONTACTS IN LOCATIONS LISTED BELOW: IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY OTHER STATE OR LOCAL CODE HAVING JURISDICTION. A) INSIDE MACHINE ROOM

- .CABLE RUNS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWING B) OUTSIDE EACH LANDING FINAL ROUTING SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR AND APPROVED BY THE OWNER. . SPRINKLERS ARE TO BE INSTALLED, FURNISH A SHUNT TRIP DEVICE ONTO THE FEEDER CIRCUIT B. ALL LIGHTING POLES, BOLLARDS AND SIGNS SHALL BE
- CIRCUIT BREAKER SHUNT TRIP DEVICE TWO (2) HEAT DETECTORS (MACHINE ROOM & TOP OF SHAFT GROUNDED AS REQUIRED BY THE NATIONAL ELECTRIC CODE. WITH A TRIP TEMPERATURE 20 DEGREES BELOW THE SPRINKLER HEAD TEMPERATURE PROTECTING TH .UNDERGROUND CABLE SHALL BE IN SCHEDULE 40 P∨C CONDUIT .CABLE TRENCH SHALL BE 36" DEEP WITH 4" SAND BEDDING 🛛 R 3. FURNISH, INSTALL AND WIRE TO THE ELEVATOR POWER UNIT A DISCONNECT SWITCH (CIRCUIT AS EQUAL AND 4" SAND COVER OR EQUAL INSTALLED OVER CABLE SHOWN ON THE PANEL SCHEDULE), COMPLETE WITH A SET OF FORM 'C' TYPE OF AUXILIARY, DRY, BEFORE BACKFILLING, BACK FILL SHALL OF ROCKS/DEBRIS.
 - CABLE RUNS SHALL BE MARKED WITH RED PLASTIC MARKING TAPE INSTALLED IN THE TRENCH DNE FOOT BELOW SURFACE.

NAME PLATES

– 2 HOUR FIRE RATING FOR WALLS AND CEILING – UNLESS NOTED OTHERWISE ON THE PLANS

- 1 HOUR FIRE RATING FOR WALLS AND CEILING - UNLESS NOTED OTHERWISE ON THE PLANS

PROVIDE TO MATCH ASSEMBLY RATING INDICATED ON THE PLANS AND REQUIRED BY INC. CODE.

- .MAIN PANEL/GEAR SHALL BE FACTORY ASSEMBLED, METAL ENCLOSED BRACED FOR THE REQUIRED AVAILABLE FAULT CURRENT, AND WITH ALL EQUIPMENT, BUSSING CONNECTIONS, CURRENT LIMITING FUSES, CIRCUIT BREAKERS, AND ALL SIMILAR COMPONENTS REQUIRED FOR PROPER OPERATION, THE SWITCHBOARD SHALL BE SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST NEMA PB-2 AND UL-891 STANDARDS.
- CURRENT LIMITING CLASS L FUSES OR AN INSULATED CASE POWER CIRCUIT BREAKER. THE MAIN PROTETIVE DEVICE SHALL INCLUDE INTEGRAL GROUND FAULT PROTECTION IN ACCORDANCE WITH NEC 230-95.
- (WITH CURRENT LIMITING FUSES, IF REQUIRED).
- 4. FUSES, AS REQUIRED, SHALL BE CURRENT LIMITING AND SHALL BE MANUFACTURED BY BUSSMAN, GOULD-SHAWMUT, OR LITTELFUSE.
- 5. NAMEPLATES: ALL BRANCH CIRCUIT AND MAIN PROTECTIVE DEVICES SHALL
- EQUIPMENT AND CONNECTION OF SYSTEM GROUNDING CONDUCTOR SEE POWER COMPANY HAVING JURISDICTION STANDARD DRAWINGS AND SPECIFICATIONS. GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE, GROUND ROD ELECTRODES SHALL

PANEL/GEAR NOTES

2.MAIN PROTECTIVE DEVICE SHALL BE EITHER A BOLTED PRESSURE SWITCH WITH

3. BRANCH CIRCUIT PROTECTIVE DEVICE SHALL BE MOLDED CASE CIRCUIT BREAKERS

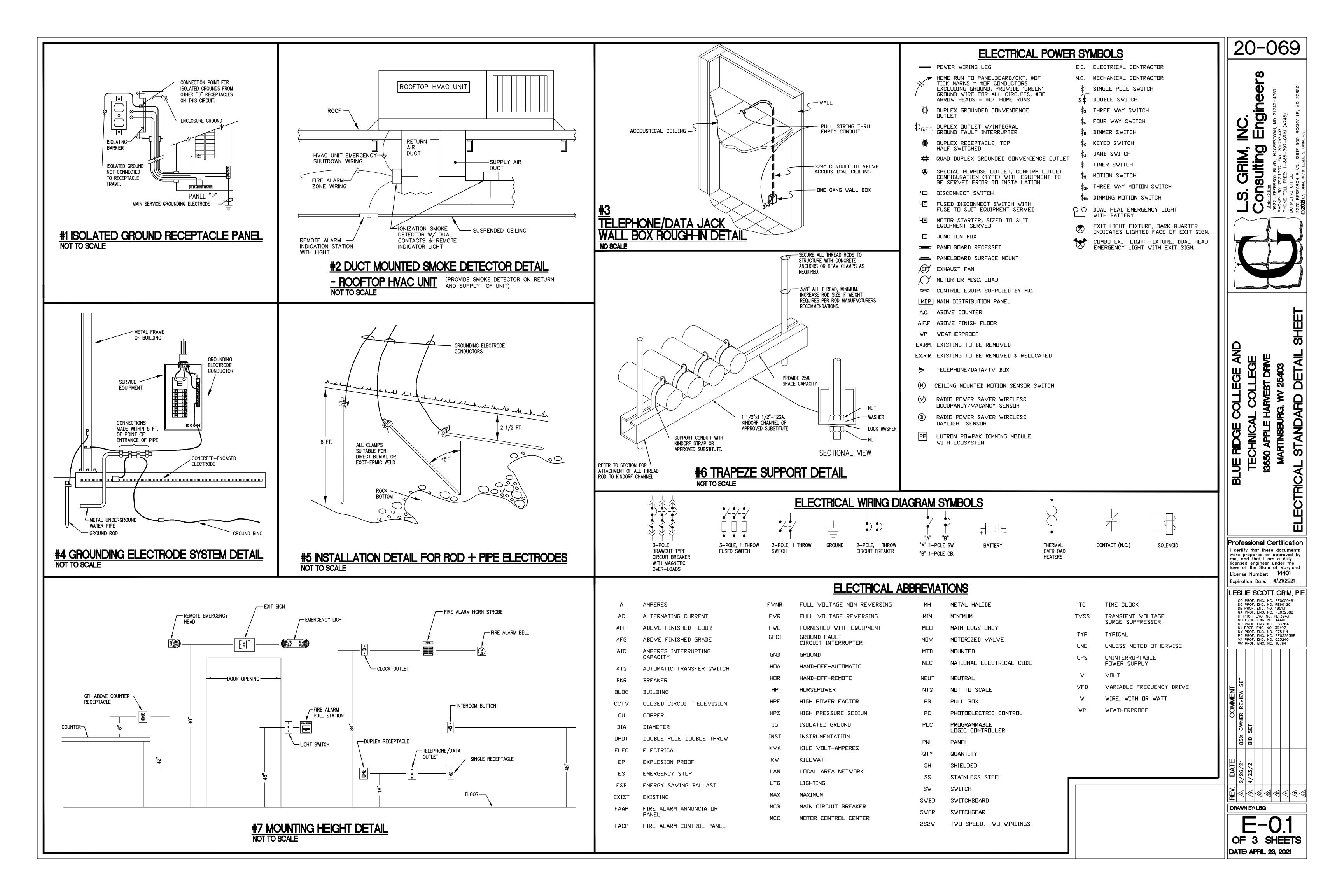
HAVE AN ENGRAVED LAMACIOD (BLACK LETTERING ON WHITE BACKGROUND)

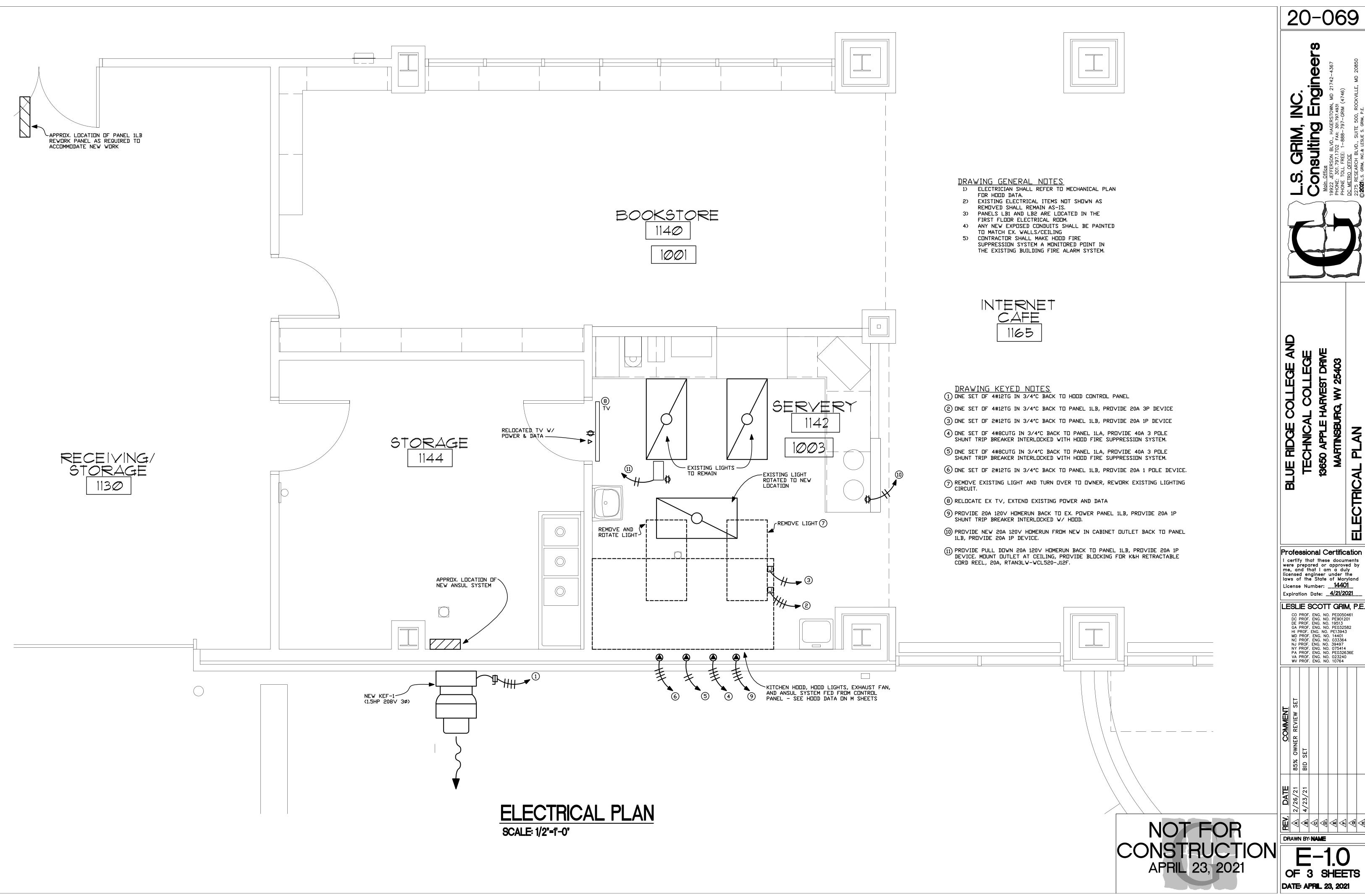
6.FOR DIMENSIONAL AND WIRING DETAILS OF C.T. COMPARTMENT AND METERING BE 3/4", 10' LONG COPPER WITH STEEL CORE.

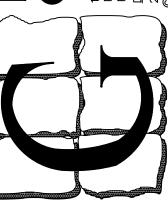
ELECTRICAL DRAWING LIST

E-0.0 ELECTRICAL COVER SHEET

ELECTRICAL STANDARD DETAIL SHEET ELECTRICAL NEW WORK PLAN







STATE AGENCY:

☐ New ☐ Update

STATE OF WEST VIRGINIA - PURCHASING DIVISION

VENDOR REGISTRATION AND DISCLOSURE STATEMENT AND SMALL, WOMEN-, AND MINORITY-OWNED BUSINESS CERTIFICATION APPLICATION

Before a vendor is eligible to sell goods and/or services to the State of West Virginia, the *West Virginia Code* §5A-3-12 requires all vendors to have on file with the West Virginia Purchasing Division a completed Vendor Registration and Disclosure Statement. Vendors supplying sole source goods or services to West Virginia state agencies, or competitive purchases of \$1,000 or less annually are required to complete the Vendor Registration and Disclosure Statement (WV-1A form). If the amount for competitive purchases exceed \$1,000 in any one year, a \$125.00 annual fee is required. Payment of the annual fee includes email notifications on bid opportunities based on the commodities and services selected upon registering in the Vendor Self-Service (VSS) portal at *wvOASIS.gov*. Please complete Part I of this form in its ENTIRETY and return to the state agency listed below for their completion of Part II. The agency will forward this form to the West Virginia Purchasing Division for processing. Incomplete forms will not be processed and will be returned to the vendor. Please return all correspondence to:

	ADDRESS:
	CITY, STATE, ZIP:
١	Whenever a change occurs in the information submitted, such change shall be reported immediately in

Whenever a change occurs in the information submitted, such change shall be reported immediately in the same manner as required in the original disclosure statement (*West Virginia Code* §5A-3-12). Vendors doing business with the State of West Virginia are expected to abide by the **Vendor Code of Conduct** available online at http://www.state.wv.us/admin/purchase/vrc/vendorconduct.pdf.

Privacy Notice: The Purchasing Division is required to collect certain information as stated in **West Virginia Code** §5A-3-12, other applicable sections of the **West Virginia Code**, the Vendor Registration and Disclosure Statement forms, and other documents to facilitate the state bidding and contract administration processes. This information is stored in a secure environment, but unless specifically protected under state law, any information provided may be inspected by or disclosed to the public.

Vendors are also required to be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or other state agencies or political subdivisions. Failure to do so may result in delay of or disqualification from a contract award, pursuant to **West Virginia Code of State Rules** §148-1-6.1.7. If you have any questions concerning this **Vendor Registration and Disclosure Statement**, please contact the Purchasing Division at (304) 558-2311.

PLEASE TYPE OR CLEARLY PRINT ALL INFORMATION Part 1: To Be Completed by the Vendor and Returned to the State Agency Listed Above

1.	Legal Name of Company/Individual		
	DBA, if any		
	Bidding Address		
	City, State, Zip		
	Principle Contact Person		
	Telephone Number	Fax Number	

PLEASE TYPE OR CLEARLY PRINT ALL INFORMATION

To Be Completed by the Vendor and Returned to the Purchasing Division

2. Ve	Indor Classified As: Individual Sole Proprietor Partnership Corporation Board Member Trust Estate			Government Medical Corporation Attorney Corporation Non-Profit Organization Payroll Employee
corpor	do not have a EIN, ple	with employees must have	e an EIN. Number (S correct be	
West N minori of Stat compe Virgini soliciti	Virginia Code §5A-3-5 ty-owned businesses te Rules §148-2-1 et s eting resident (West V tia Code §5A-3-37. Thi ng business in other s	. Requirements related to the eq. Note that this certification (irginia) vendors that have a scertification may assist re	ent certifice the certifiction prover applied for	cation program in West Virginia for small, women-, and ication program are provided in the <i>West Virginia Code</i> ides nonresident vendors preference that is equivalent to or resident vendor preference, in accordance with <i>West</i> mall, women-, and minority-owned businesses when
	minority individuals least fifty-one perce company or other e	or in the case of a corpora ent of the equity ownership	ation, par p interest nore mind	n that is at least fifty-one percent owned by one or more thership, or limited liability company or other entity, at in the corporation, partnership, or limited liability ority individuals and both the management and daily ority individuals.

- A "minority individual" means an individual who is a citizen of the United States or a noncitizen who is in full compliance with United States immigration law and who satisfies one or more of the following definitions:
 - African American means a person having origins in any of the original peoples of Africa and who is regarded as such by the community of which this person claims to be a part.
 - Asian American means a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands, including, but not limited to, Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Mariana, the Philippines, a U.S. territory of the Pacific, India, Pakistan, Bangladesh, or Sri Lanka and who is regarded as such by the community of which this person claims to be a part.

PLEASE TYPE OR CLEARLY PRINT ALL INFORMATION To Be Completed by the Vendor and Returned to the Purchasing Division

- Hispanic American means a person having origins in any of the Spanish-speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who is regarded as such by the community of which this person claims to be a part.
- Native American means a person having origins in any of the original peoples of North America and
 who is regarded as such by the community of which this person claims to be a part or who is
 recognized by a tribal organization.

	recognized by a tribal organization.			
	Small Business [2] means a business, independently owned or operated by one citizens of the United States or noncitizens who are in full compliance with Unit which, together with affiliates, has two hundred fifty or fewer employees, or a \$10 million or less averaged over the previous three years.	ted States immig	gration	ı law,
	Women-owned Business [3] means a business concern that is at least fifty-one women who are citizens of the United States or noncitizens who are in full comimmigration law, or in the case of a corporation, partnership or limited liability fifty-one percent of the equity ownership interest is owned by one or more would United States or noncitizens who are in full compliance with United States immigration and daily business operations are controlled by one or more work States or noncitizens who are in full compliance with United States immigration	npliance with Un company or oth men who are cit nigration law, an nen who are citi	ited St er ent tizens o d both	ates ity, at least of the the
Addition Code o t proced	her Federal Designations onally, by providing the following information, I represent that this enterprise is a federal Regulations, Title 13, Part 121, as appended - which contains detailed lures - and/or the characteristics of the enterprise's control, operation and/or or information provided. Check all that apply.	industry definiti	ons an	nd related
	Disabled Small Business Ownership [4]			
	Veteran Small Business Ownership [5]			
5. Are	you registering as a new vendor with the Purchasing Division?	☐ No		Yes
6. Are	you updating the information previously submitted?	☐ No		Yes
7. Are	you completing this form to register a branch/division/subsidiary?	☐ No		Yes

PLEASE TYPE OR CLEARLY PRINT ALL INFORMATION

To Be Completed by the Vendor and Returned to the Purchasing Division

	nent addresses are	ame for ordering and paym different for the Parent Co		No es, divisions	Yes or subsidiaries,
Ordering	Payment				
Address:					
City, State, Zip:					
Ordering	Payment				
Address:					
City, State, Zip:					
provide you with bid o	opportunity alerts a	or commodity codes for to and notifications should you as) Portal at wvOASIS.gov.	•	-	
9. List the name, title	, city and state of r	esidence for all owners/of	icers.		
partners sharing in his name and city and sta created under the law residence of the presion names and city and st	s or her business, I ate of residence of ws of this state or dent, vice presiden ate of residence of	her name and city and state ist their names and city and each member, partner or authorized to do busines at, secretary, treasurer and feach stockholder of the cotional sheet if space is need.	nd state of residence associate of the firr s in this state, list t general manager, if corporation owning o	e. If the venon. If the venon he names a any, of the	dor is a firm , list the ador is a corporation and city and state o corporation; and the
Name		Position	City and	d State of Re	esidence
If the vendor has only	one owner/officer,	list name, position, and ci	ty/state of residence	above and p	please initial:
11. List the name and	telephone number	of one or more banking in	stitutions to serve as	reference f	or the vendor.
12. What is the latest	Dun & Bradstreet r	number and rating on the v	endor?		

PLEASE TYPE OR CLEARLY PRINT ALL INFORMATION

To Be Completed by the Vendor and Returned to the Purchasing Division

13. Is the vendor acting as an agent for some of principal authorizing such representation.	ther individual, firm or corp	oration? If yes, attach statement of the No Yes
By signing below and submitting this form, the certifications, and authorizations necessary to assertions made by completing this form and dewith the applicable law and rules. As authorized information is true and complete, in accordance	lawfully conduct business elivering it to the Purchasin d agent of the vendor name	in the state of West Virginia; and 2) that the g Division are accurate and true in accordance ed herein, I do solemnly swear that the above
In the event that the vendor is applying for cersignature below further certifies that: 1) the stadoes not deny a like certification to a West Vistate in which the vendor has its headquarters women-owned, or minority-owned firms that is and understands this form, along with the law owned business.	ite in which the vendor has irginia based small, women s or principal place of busi s unavailable to West Virgi	its headquarters or principal place of business n-owned, or minority-owned business; 2) the ness does not provide a preference to small, nia based businesses; and, 3) that it has read
Authorized Agent of Vendor (Print Na	ame)	PURCHASING DIVISION USE ONLY
Authorized Agent (Signature)		Vendor ID:
Title		Action:
Date		Entered by:
Part II: FOR STATE USE ONLY - To Be Considered a brief, but concise description code, if applicable.	n of the goods and/or servi	ces the vendor is providing and the exemption
2. Are the goods and/or services considered sol Procedures Handbook?	e source of listed as all exe	No Yes
3. Will the goods and/or services provided by th	nis vendor exceed \$1,000?	□ No □ Yes
State Agency Procurement Officer Signature Telephone No.	Date FAX No.	Return to: WV Purchasing Division Vendor Registration 2019 Washington Street, East Charleston, WV 25305-0130



Request for Taxpayer Identification Number and Certification

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

	1	Name (as shown on your income tax return). Name is required on this line; do not leave this line blank					
	2	Business name/disregarded entity name, if different from above					
Print or type. Specific Instructions on page 3.	3	Check appropriate box for federal tax classification of the person whose name is entered on line 1. Cl following seven boxes. Individual/sole proprietor or C Corporation S Corporation Partnership single-member LLC		y one of the rust/estate	4 Exemption certain entition instructions (es, not indi on page 3):	viduals; see
ype	١	Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partne	ership) ►			0 0000 (0.	
Print or type c Instruction		Note: Check the appropriate box in the line above for the tax classification of the single-member of LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a sin is disregarded from the owner should check the appropriate box for the tax classification of its owner should check the appropriate box for the tax classification of its owner should check the appropriate box for the tax classification of its owner should check the appropriate box for the tax classification of its owner should check the appropriate box for the tax classification of the single-member o	wner. D owner o	f the LLC is	Exemption fr code (if any)	om FATCA	reporting
ecifi	١	Other (see instructions)			(Applies to accour	nts maintained (outside the U.S.)
Sp	5	Address (number, street, and apt. or suite no.) See instructions.	Reque	ester's name a	and address (c	ptional)	
See							
	6	City, state, and ZIP code					
	7	List account number(s) here (optional)					
Pai	t I	Taxpayer Identification Number (TIN)					
		ur TIN in the appropriate box. The TIN provided must match the name given on line 1 to a		Social sec	curity number		
reside	nt s, i	vithholding. For individuals, this is generally your social security number (SSN). However, alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other t is your employer identification number (EIN). If you do not have a number, see <i>How to g</i> .] -	
-		he account is in more than one name, see the instructions for line 1. Also see <i>What Name</i>	and	Or Employer	identification	number	
		To Give the Requester for guidelines on whose number to enter.	anu		-		
Par	t II	Certification					
Unde	pe	enalties of perjury, I certify that:					
2. I ar Sei no	n n vic lon	umber shown on this form is my correct taxpayer identification number (or I am waiting for ot subject to backup withholding because: (a) I am exempt from backup withholding, or (to e (IRS)) that I am subject to backup withholding as a result of a failure to report all interest ger subject to backup withholding; and) I have	e not been n	otified by the	e Internal	
O 1		II O a Company and a Character O and a company of the Company of t					

- 3. I am a U.S. citizen or other U.S. person (defined below); and
- 4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

	cquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments the chair interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.		
Sign Here	Signature of U.S. person ▶	Date ►	

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

• Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

- 1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
 - 2. Certify that you are not subject to backup withholding, or
- 3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- 4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- · An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

- 1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
 - 2. The treaty article addressing the income.
- 3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
- 4. The type and amount of income that qualifies for the exemption from tax.
- 5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

- 1. You do not furnish your TIN to the requester,
- 2. You do not certify your TIN when required (see the instructions for Part II for details),
 - 3. The IRS tells the requester that you furnished an incorrect TIN,
- 4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
- 5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see Special rules for partnerships, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

- b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.
- c. Partnership, LLC that is not a single-member LLC, C corporation, or S corporation. Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.
- d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.
- e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n)	THEN check the box for
Corporation	Corporation
 Individual Sole proprietorship, or Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes. 	Individual/sole proprietor or single- member LLC
LLC treated as a partnership for U.S. federal tax purposes, LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
Partnership	Partnership
Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2-The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5-A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8-A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10-A common trust fund operated by a bank under section 584(a)
- 11-A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for	THEN the payment is exempt for
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

- A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)
 - B—The United States or any of its agencies or instrumentalities
- C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)
- E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)
- F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state
 - G-A real estate investment trust
- H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940
 - I-A common trust fund as defined in section 584(a)
 - J-A bank as defined in section 581
 - K-A broker
- $L\!-\!A$ trust exempt from tax under section 664 or described in section 4947(a)(1)

M-A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester,* later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

- 1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.
- 2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.
- **3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.
- **4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).
- 5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account 1
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i) (A))	The grantor*
For this type of account:	Give name and EIN of:
Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
Association, club, religious, charitable, educational, or other tax- exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

- ¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.
- ² Circle the minor's name and furnish the minor's SSN.
- ³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.
- ⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

*Note: The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN.
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to <code>phishing@irs.gov</code>. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at <code>spam@uce.gov</code> or report them at <code>www.ftc.gov/complaint</code>. You can contact the FTC at <code>www.ftc.gov/idtheft</code> or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see <code>www.ldentityTheft.gov</code> and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

Page 6

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name:			
Authorized Signature:	!	Date:	
State of			
County of, to-wit:			
Taken, subscribed, and sworn to before me this day	of		, 20
My Commission expires	, 20		
AFFIX SEAL HERE	NOTARY PUBLIC		

West Virginia Ethics Commission



Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or "Interested parties" means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission **Disclosure of Interested Parties to Contracts**

(Required by W. Va. Code § 6D-1-2)

Na	ame of Contracting Business Entity:	Address:	_
Na	ame of Authorized Agent:	Address:	_
Co	ontract Number:	Contract Description:	_
G	overnmental agency awarding contract:		-
	Check here if this is a Supplemental Disclos	sure	
	st the Names of Interested Parties to the contract vitity for each category below (attach additional pa	which are known or reasonably anticipated by the contracting busines ages if necessary):	38
1.	Subcontractors or other entities performing ☐ Check here if none, otherwise list entity/indiv		
2.	Any person or entity who owns 25% or more ☐ Check here if none, otherwise list entity/indiv	e of contracting entity (not applicable to publicly traded entities ridual names below.	;)
3.	Any person or entity that facilitated, or ne services related to the negotiation or draftin ☐ Check here if none, otherwise list entity/indiv	· · · · · · · · · · · · · · · · · · ·	а
Si	gnature:	Date Signed:	
N	otary Verification		
C+			
Si	ate of	, County of	:
I, _		, County of, the authorized agent of the contracting busines e that the Disclosure herein is being made under oath and under the	: 16
I, _ en pe	ntity listed above, being duly sworn, acknowledge enalty of perjury.		: 16

STATE OF WEST VIRGINIA ADDENDUM TO VENDOR'S STANDARD CONTRACTUAL FORMS

State Agency, Board, or Commission (the "State"):

Vendor:

Contract/Lease Number ("Contract"):

Commodity/Service:

The State and the Vendor are entering into the Contract identified above. The Vendor desires to incorporate one or more forms it created into the Contract. Vendor's form(s), however, include(s) one or more contractual terms and conditions that the State cannot or will not accept. In consideration for the State's incorporating Vendor's form(s) into the Contract, the Vendor enters into this Addendum which specifically eliminates or alters the legal enforceability of certain terms and conditions contained in Vendor's form(s). Therefore, on the date shown below each signature line, the parties agree to the following contractual terms and conditions in this Addendum are dominate over any competing terms made a part of the Contract:

- ORDER OF PRECEDENCE: This Addendum modifies and supersedes anything contained on Vendor's form(s) whether or not
 they are submitted before or after the signing of this Addendum. IN THE EVENT OF ANY CONFLICT BETWEEN VENDOR'S
 FORM(S) AND THIS ADDENDUM, THIS ADDENDUM SHALL CONTROL.
- 2. **PAYMENT** Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software licenses, subscriptions, or maintenance may be paid annually in advance.
 - Any language imposing any interest or charges due to late payment is deleted.
- 3. **FISCAL YEAR FUNDING** Performance of this Contract is contingent upon funds being appropriated by the WV Legislature or otherwise being available for this Contract. In the event funds are not appropriated or otherwise available, the Contract becomes of no effect and is null and void after June 30 of the current fiscal year. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.
- 4. **RIGHT TO TERMINATE** The State reserves the right to terminate this Contract upon thirty (30) days written notice to the Vendor. If this right is exercised, the State agrees to pay the Vendor only for all undisputed services rendered or goods received before the termination's effective date. All provisions are deleted that seek to require the State to (1) compensate Vendor, in whole or in part, for lost profit, (2) pay a termination fee, or (3) pay liquidated damages if the Contract is terminated early.
 - Any language seeking to accelerate payments in the event of Contract termination, default, or non-funding is hereby deleted.
- 5. **DISPUTES** Any language binding the State to any arbitration or to the decision of any arbitration board, commission, panel or other entity is deleted; as is any requirement to waive a jury trial.
 - Any language requiring or permitting disputes under this Contract to be resolved in the courts of any state other than the State of West Virginia is deleted. All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.
 - Any language requiring the State to agree to, or be subject to, any form of equitable relief not authorized by the Constitution or laws of State of West Virginia is deleted.
- 6. **FEES OR COSTS:** Any language obligating the State to pay costs of collection, court costs, or attorney's fees, unless ordered by a court of competent jurisdiction is deleted.
- 7. GOVERNING LAW Any language requiring the application of the law of any state other than the State of West Virginia in interpreting or enforcing the Contract is deleted. The Contract shall be governed by the laws of the State of West Virginia.
- 8. **RISK SHIFTING** Any provision requiring the State to bear the costs of all or a majority of business/legal risks associated with this Contract, to indemnify the Vendor, or hold the Vendor or a third party harmless for any act or omission is hereby deleted.
- 9. LIMITING LIABILITY Any language limiting the Vendor's liability for direct damages to person or property is deleted.
- 10. TAXES Any provisions requiring the State to pay Federal, State or local taxes or file tax returns or reports on behalf of Vendor are deleted. The State will, upon request, provide a tax exempt certificate to confirm its tax exempt status.
- 11. NO WAIVER Any provision requiring the State to waive any rights, claims or defenses is hereby deleted.

WV-96 1/1/2019

- 12. STATUTE OF LIMITATIONS Any clauses limiting the time in which the State may bring suit against the Vendor or any other third party are deleted.
- 13. **ASSIGNMENT** The Vendor agrees not to assign the Contract to any person or entity without the State's prior written consent, which will not be unreasonably delayed or denied. The State reserves the right to assign this Contract to another State agency, board or commission upon thirty (30) days written notice to the Vendor. These restrictions do not apply to the payments made by the State. Any assignment will not become effective and binding upon the State until the State is notified of the assignment, and the State and Vendor execute a change order to the Contract.
- 14. **RENEWAL** Any language that seeks to automatically renew, modify, or extend the Contract beyond the initial term or automatically continue the Contract period from term to term is deleted. The Contract may be renewed or continued only upon mutual written agreement of the Parties.
- 15. INSURANCE Any provision requiring the State to maintain any type of insurance for either its or the Vendor's benefit is deleted.
- 16. **RIGHT TO REPOSSESSION NOTICE** Any provision for repossession of equipment without notice is hereby deleted. However, the State does recognize a right of repossession with notice.
- 17. **DELIVERY** All deliveries under the Contract will be FOB destination unless the State expressly and knowingly agrees otherwise. Any contrary delivery terms are hereby deleted.
- 18. CONFIDENTIALITY Any provisions regarding confidential treatment or non-disclosure of the terms and conditions of the Contract are hereby deleted. State contracts are public records under the West Virginia Freedom of Information Act ("FOIA") (W. Va. Code §29B-a-1, et seq.) and public procurement laws. This Contract and other public records may be disclosed without notice to the vendor at the State's sole discretion.
 - Any provisions regarding confidentiality or non-disclosure related to contract performance are only effective to the extent they are consistent with FOIA and incorporated into the Contract through a separately approved and signed non-disclosure agreement.
- 19. **THIRD-PARTY SOFTWARE** If this Contract contemplates or requires the use of third-party software, the vendor represents that none of the mandatory click-through, unsigned, or web-linked terms and conditions presented or required before using such third-party software conflict with any term of this Addendum or that is has the authority to modify such third-party software's terms and conditions to be subordinate to this Addendum. The Vendor shall indemnify and defend the State against all claims resulting from an assertion that such third-party terms and conditions are not in accord with, or subordinate to, this Addendum.
- 20. **AMENDMENTS** The parties agree that all amendments, modifications, alterations or changes to the Contract shall be by mutual agreement, in writing, and signed by both parties. Any language to the contrary is deleted.

Notwithstanding the foregoing, this Addendum can only be amended by (1) identifying the alterations to this form by using *Italics* to identify language being added and strikethrough for language being deleted (do not use track-changes) and (2) having the Office of the West Virginia Attorney General's authorized representative expressly agree to and knowingly approve those alterations.

State:	Vendor:
Ву:	Ву:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:

TITLE PAGE

The undersigned declares that he/she has read the RFP and that the following proposal is submitted as a good faith response.

The undersigned declares that he/she has the authority to obligate the company.

The undersigned acknowledges receipt of the following addenda, if released. If no addenda are released, this section is to be left blank:

Addendum 1	(initial receipt)
Addendum 2	(initial receipt)
Addendum 3	(initial receipt)
(Signature of Signee)	
(Name of Signee)	
(Title)	
(Company Name)	
(Street Address)	
(City, State, Zip)	
(Telephone Number)	
(E-mail)	
(Date)	

COMPANY eVENDOR AGREEMENT SETUP FORM INSTRUCTIONS

The following fields need to be completed on the form:

- 1. Vendor Name
- 2. FEIN/SSN
- 3. wvOasis Vendor # Optional
- 4. Payment Address: List all payment addresses to be set up for EFT and sent to the account indicated on the form. If you have multiple payment addresses and want each address to be sent to a different account, you will need to complete a separate form.
- 5. Contact Name & Phone Number
- 6. Financial Institution Name
- 7. Routing & Account Number Please indicate if the account is Checking or Savings.
- 8. Include a voided check (Counter Checks are not acceptable.) or a letter from the financial institution (on Financial Institution letterhead) listing the account information, printed name, and signature of financial institution representative, title and contact information.
- 9. IAT Question must be completed. Please select Yes or No.
- 10. Email address will be necessary for notification of payment.
- 11. Select the method to receive your remittance information. If none is selected it will automatically default to the remittance advice email.
- 12. Authorized Signature and Date.
- 13. Print name and Title of Signatory.

Once the form has been completed, please mail or fax along with the account documentation to:

West Virginia State Auditor's Office

ePayments Division State Capitol, Bldg. 1, Room W-100 1900 Kanawha Blvd. E. Charleston, WV 25305

Fax: (304) 340-5084

For any questions regarding this form, please contact the ePayments Division at 1-800-500-4079.

WOASIS Company eVendor Agreement Setup

West Virginia State Auditor's Office, ePayments Division
Telephone: 1-800-500-4079 Fax: (304) 340-5084 www.wvsao.gov

VENDOR NAME:		
FEIN/SSN:		
wv0ASIS VENDOR #:		
PAYMENT ADDRESS 1:		
PAYMENT ADDRESS 2:		
CITY:	STATE:	ZIP CODE:
CONTACT NAME:		PHONE NUMBER:
ACCOUNT INFORMATION		
FINANCIAL INSTITUTION NAME:		Checking - Attach a voided check
ROUTING #:		Savings
ACCOUNT #:		
IN ORDER TO PROCESS THIS AGREEMENT	ONE OF THE F	OLLOWING IS REQUIRED
VOIDED CHECK (COUNTER CHECKS ARE NOT ACCEPTAB	,	
A LETTER FROM THE FINANCIAL INSTITUTION (ON FI LE	TTERHEAD) LISTING	GITHE ACCOUNT INFORMATION, PRINTED NAME

IAT - INTERNATIONAL ACH TRANSACTION - ONE BOX MUST BE CHECKED

AND SIGNATURE OF FINANCIAL INSTITUTION REPRESENTATIVE, TITLE AND CONTACT INFORMATION.

ARE FUNDS RECEIVED BEING DEPOSITED IN A U.S. FINANCIAL INSTITUTION AND THE AMOUNT SUBSEQUENTLY FORWARDED TO A FINANCIAL INSTITUTION IN A FOREIGN COUNTRY? $_{\rm YES} \qquad _{\rm NO}$

West Virginia State Auditor's Office, ePayments Division
Telephone: 1-800-500-4079 Fax: (304) 340-5084 www.wvsao.gov

PAYMENT NOTIFICATION & REMITTANCE INFORMATION
EMAIL ADDRESS:
PLEASE SELECT THE METHOD YOU WISH TO RECEIVE YOUR REMITTANCE INFORMATION:
REMITTANCE ADVICE VIA EMAIL
CTX FORMAT (ANSI ASC X12 820 VERSION 4010)
AUTHORIZATION
I hereby authorize the State of West Virginia, hereinafter called State, to initiate credit entries to my (our) depository financial institution as indicated, hereinafter called Depository, and to credit the same to such account. I further authorize the State to initiate debit entries as adjustments for credit entries made in error. Also I acknowledge that the origination of ACH transactions to my (our) account must comply with the provisions of U.S. law and the rules as set forth by the National Automated Clearing House Association (NACHA). The State will not be responsible for any loss that may arise solely by reason of error, mistake or fraud regarding information provided on this agreement. This agreement is to remain in full force and effect until the State has received a written notice of termination from me, or a company representative, in such time and manner to afford the State a reasonable opportunity to act on it.
AUTHORIZED SIGNATURE:
DATE:
PRINT NAME: