

## Request for Bids Health Sciences Rehab for Rooms 226 & 236

# Rogers State University Claremore, OK

RFB 2425-10



**REQUEST FOR BID No.: RFB 2425-10** 

NON -MANDATORY PRE-BID MEETING DATE / TIME: February 7, 2025, at 1:30 pm PRE-BID MEETING LOCATION: Claremore Campus – Physical Plant Conference Room.

#### BID DUE DATE: March 5, 2025

BID OPENING TIME: 2:30 pm\*

\*Bids received more than ninety-six (96) hours before the time set for receiving bids as well as bids received after the time set for receipt of bids will not be considered and will be returned unopened.

#### SEALED BIDS ARE TO BE SENT TO:

1701 W. Will Rogers Blvd. Claremore, OK 74017

Attention: Christie Lamberson – Procurement Coordinator RE: RFB 2425-10 – Health Sciences Rehab for Rooms 226 & 236

Bid documents may be obtained by calling the purchasing contact listed below. Project documents can also be obtained online at http://www.rsu.edu/about/offices-services/purchasing/bids-proposals/. Sealed Bids are to be turned into the purchasing contact listed below before the due date and time. Late bids may be returned and not considered as a valid response. Contractors are encouraged to respond with a no-bid if they do not wish to be considered for this opportunity but do wish to remain on the active contact list. Electronic or unsealed bids are not acceptable.

#### **UNIVERSITY CONTACTS:**

Contractors are encouraged to contact the using Division's personnel to obtain clarification of the technical requirements of this "Request for bid". However, any modification to the requirements of this "Request for bid" must be enacted by the issuance of a written addendum from the Purchasing Department. Conflicting instructions given by personnel within the using Division, that are not substantiated by a written addendum issued by the Purchasing Department, will not be binding upon the University.

|                 | For information regarding the general provisions of this 'Request for bid', contact: | For clarification of the technical requirements of this 'Request for bid', contact: |
|-----------------|--|---|
|                 |  |   |
| NAME:           | Christie Lamberson,  | Karl Reynolds Physical Plant Director or  |
|                 | <b>Procurement Coordinator</b>   | George Proctor Assistant Director   |
| TELEPHONE No.:  | 918.343.7790   | 918-343-7818  |
| FAX No.:        | 918.343.7817   | 918-343-7808  |
| E-MAIL ADDRESS: | clamberson@rsu.edu   | kreynolds@rsu.edu or gproctor@rsu.edu   |

#### **NON-MANDATORY PRE-BID MEETING:**

Contractors are encouraged to attend a pre-bid meeting on Friday, February 7, 2025 at 1:30 pm at the Claremore Campus

 - Physical Plant Conference Room. This meeting will include a tour of the proposed site located on the Claremore Campus.

#### **BID STATUS AND SUBMISSION INFORMATION:**

- 1. Rogers State University shall have the right to reject any or all bids and solicit contractors again as herein provided if the best in tere end to group of the State of Oklahoma would be best served by so doing. Further, the University reserves the right to award on an all or none basis, by item or groups of items in order to achieve the overall lowest cost.
- 2. Offers may be withdrawn at any time prior to the closing date, but no respondent may withdraw a bid after that date.
- 3. RFBs must demonstrate an understanding of the scope of service to be provided and the ability to accomplish the tasks set forth and must include information that will enable the University to determine the respondent's overall qualifications.
- 4. Any bid received by Rogers State University or an officer or employee thereof after the time set for the opening of bids may be returned unopened and not considered as a valid response to the RFB.
- 5. The University reserves the right to request additional information or clarification on any matter included in the bid.
- 6. All signatures must be affixed and notarized on the forms and attachments provided in this bid.
- 7. All bids shall be sealed and opened only at the time and place mentioned herein.
- 8. Submission of a bid will constitute an incontrovertible representation by the contractor; that (s) he has complied with every requirement of this bid.
- 9. The University reserves the right to waive minor informalities in bids and to split the award if in the best interest of the University.

#### **CONDITIONS:**

- 1. The University reserves the right to require the successful contractor to execute a written agreement for the provision of the product(s) and / or service(s) offered as a result of this bid solicitation. The resulting contract will incorporate this RFB solicitation, the response thereto, all additional agreements and stipulations, and the results of any final negotiations. All of these documents will constitute the final contract.
- 2. The contract shall contain all specifications, terms, and conditions in the bid and the bid form except as amended in the 'Award Notice'.
- 3. All changes to the contract must be mutually agreed to, in writing, prior to execution.
- 4. The parties hereby agree that no trade usage, prior course of dealing or course of performance under other contracts shall be a part of this agreement or shall be used in the interpretation or construction of this agreement.
- 5. Any exceptions taken by the contractor which are not included in the 'Award Notice' will not be part of the contract.
- 6. No delay or failure to enforce any provision of this agreement shall constitute a waiver or limitations of the University's rights under any resulting contract.
- 7. By submitting a bid to Rogers State University, the Contractor is required to adhere to and submit the following forms at the time of the bid submittal:
  - a. The contractor agrees to comply with Equal Employment Opportunity and Affirmative Action requirements as stipulated in Executive Order 11246 and Executive Order 11375 (see attached).
  - b. Oklahoma laws require each contractor submitting a competitive offer to the State of Oklahoma for goods or services to furnish a notarized sworn 'Statement of Non-Collusion' (see attached).
  - c. Each contractor shall execute and forward a 'Business Relationship Affidavit' with the bid (see attached).
  - d. Oklahoma laws require each contractor submitting an offer to the State of Oklahoma for goods or services to furnish a notarized sworn "Sex Offender Affidavit" (see attached).

- e. Oklahoma laws require each contractor submitting an offer to the State of Oklahoma for goods or services to furnish a Bid Bond.
- 8. By submitting a bid to Rogers State University, the contractor is required to adhere to and submit the following forms at the time of contract:
  - a. Successful Suppliers shall, prior to beginning any work under any contract that may result under this RFP, as applicable, or as required by State or Federal law, acquire and have in effect minimum insurance coverage as set forth in the following table. The said minimum amounts are not intended to limit and do not or reduce any Supplier's liability:

| Coverage Type:                                | Minimum Amount: |
|---|-----------------|
| Workers' Compensation                         | Statutory       |
| Commercial General Liability Insurance        | \$1,000,000     |
| Property Damage                               | \$1,000,000     |
| Auto-Owned, Hired and Non-Owned               | \$1,000,000     |
| Per-Occurrence for All Claimants and Coverage | \$2,000,000     |

- b. Successful Suppliers shall carry on their work in accordance with the requirements of the workers compensation law of the State of Oklahoma, and shall not reject the provisions thereof during the life of the contract. Successful Suppliers shall also protect themselves using liability coverage against any and all claims for damages to persons or property which may arise out of operations under the contract, whether such operations be by the contractor, subcontractor, or anyone directly employed by either of them.
- c. Prior to commencement of work under any contract which may result from this RFP, Successful Suppliers shall purchase and maintain property insurance coverage for the full insurable value of the property at the site of such work. If the policy evidencing such insurance coverage stipulates a deductible amount, Successful Suppliers shall pay the difference attributable to such deductible in any payments made by the insurance carrier on claims paid by such carrier. The University will not purchase insurance relative to this RFP unless otherwise stated herein.
- 9. Successful Suppliers shall file certificates of such insurance with the University, and such related coverage shall be subject to the University's approval.
- 10. Rogers State University is exempt from State Sales Tax and Federal Excise Tax. The exemption authority is Oklahoma State Tax Code, Title 68, OS 1981, Article 13, Section 1356 and Federal Tax Exempt No. 736017987.
- 11. It is mutually agreed by and between the University and the contractor that the University's acceptance of the contractor's offer by the issuance of an 'Award Notice' shall create a contract between the parties thereto.
- 12. In the event of a conflict between the terms and conditions of the bid and information submitted by a contractor, the terms and conditions of this bid and resulting "contract" will govern.
- 13. **Termination for Cause -** The University may terminate the Contract for default or other just cause with a 30-day written request and upon written approval from the procuring agency. The University may terminate the Contract for default or any other just cause upon a 30-day written notification to the contractor.

The University may terminate the Contract, in whole not in part, without penalty or expense, at the end of any fiscal year of the University, if the legislature or other appropriate governmental entity fails to allocate sufficient funds to the University for the payments required or activities contemplated under the Contract.

The University may terminate the Contract immediately, without a 30-day written notice to the supplier, when violations are found to be an impediment to the function of an agency and detrimental to its cause, when conditions preclude the 30-day notice, or when the procuring agency determines that an administrative error occurred prior to Contract performance.

If the Contract is terminated, the University shall be liable only for payment for products and/or services delivered and accepted.

14. **Termination for Convenience -** The University may terminate the Contract, in whole or in part, for convenience if the procuring agency determines that termination is in the University's best interest. The procuring agency shall terminate the Contract by delivering to the supplier a Notice of Termination for Convenience specifying the terms and effective date of Contract termination. The Contract termination date shall be a minimum of 60 days from the

date the Notice of Termination for Convenience is issued by the procuring agency.

15. To the extent applicable by Okla. Stat. Ann. tit. 25, §1313, or Exec. Order No. 12989, 8 USCA §1324a (Feb. 13, 1996) as amended in 73 Fed. Reg. 33285 (June 6, 2008), Consultant or Contractor certifies that it is registered with and participates in the Status Verification System (SEVIS"). Further, in accordance with Okla. Stat. Ann. tit. 68, §2385.32, Consultant or Contractor verifies that it and its employees are authorized to work in the United States in accordance with the employment authorization found in 8 U.S.C. §1324(a)(4)."

#### 16. Public Record

After response acceptance and execution of all contracts and agreements resulting from this RFB, each Respondents bid will become public record and will be available by written request to RSU Purchasing Department. 1701 W Will Rogers Blvd, Claremore, OK 74017, FAX 918-343-7817.

#### GRATUITIES AND KICKBACKS.

- 1. A Rogers State University official or employee, or their immediate relatives, shall not accept anything of value whether in the form of a gift, service, loan, donation or promise from any person which may impair his or her independence of judgment or action in the performance of his or her official duties.
- No donation or payment of a gratuity or kickback shall be made by or on behalf of any person and be accepted by any Rogers State University official or employee as an inducement or reward for the action in procuring the award of any contract or order.

#### INDEMNIFICATION REQUIREMENTS.

- 1. The following requirements are mandatory for protecting the interests of the University:
- 2. The successful contractor shall keep the University free and clear from all liens asserted by any person or firm for any reason arising out of the furnishing of services or materials by or to the contractor.
- 3. The successful contractor shall indemnify and hold the University harmless from all contractors' performance under the resulting contract.
- 4. The resulting contract shall be construed under the laws of the State of Oklahoma and venue in any action to enforce the contract shall be in a court of competent jurisdiction in Oklahoma.
- 5. The actions of the successful contractor with third parties are not binding upon the University. The contractor is not a division of the University.
- 6. The Contractor shall protect and indemnify the University, its officers, and agents against any claims of liability arising from or based on any violation thereof.

#### **OBSERVING LAWS AND REGULATIONS.**

- 1. The Contractor shall remain fully informed of, and shall faithfully observe, all laws, national and state, and all ordinances and regulations affecting the responsibility to the University, or affecting the rights of his / her employees.
- 2. Provider shall not discriminate because of race, color, religion, sex, age, national origin, sexual orientation, genetic information, disability or status as a Vietnam veteran, as defined and prohibited by applicable law, in any of its policies, practices or procedures. In addition, each party affirms that it is an equal opportunity and affirmative action employer and shall comply with all applicable federal, state and local laws and regulations including, but not limited to, Executive Order 11246 as amended by 11375 and 12086; 12138; 11625; 11758; 12073; the Rehabilitation act of 1973, as amended; the Vietnam Era Veterans Readjustment Assistance Act of 1975; Civil Rights Act of 1967;

Immigration Reform and Control Act of 1986; Public Law 95-507; the Americans With Disabilities Act and any additions or amendments thereto.

3. Provider shall participate in the E-Verify program as required by Oklahoma statutes to enforce the provision of Oklahoma's immigration law to prove the legal status of the provider's employees. The E-Verify website is: <a href="http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=75bce2e261405110VgnVCM1000007718190aRCRD.">http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=75bce2e261405110VgnVCM1000007718190aRCRD.</a> The E-Verify program, formerly known as the Department of Homeland Security's Basic Pilot Program or the Employment Eligibility Verification System, is jointly administered by the Department of Homeland Security through the United States Citizenship and Immigration Services and the Social Security Administration. This Program allows participating employers to verify whether newly hired employees are authorized to work in the United States by checking the information provided by the employees on their Form I-9 against the Department of Homeland Security through the United States Citizenship and Immigration Services, and the Social Security Administration databases.

#### **QUALIFICATIONS OF CONTRACTORS.**

- Rogers State University may make such investigations as deemed necessary to determine the ability of the contractor
  to perform the work or provide a product, and the contractor shall furnish to Rogers State University all such
  information and data for this purpose.
- 2. Rogers State University reserves the right to reject any bid if the evidence submitted by, or investigation of, such contractor fails to satisfy that they are qualified to carry out the obligations of the contract and to complete the work or provide the product contemplated therein.
- 3. Each contractor must be prepared to submit, within five (5) days of the University's request, written evidence such as financial data, previous experience and evidence of authority to conduct business in the jurisdiction where the project is located.

#### **SUB-CONTRACTORS:**

- A. Form 347-Payroll shall be kept daily and submitted to RSU weekly for general contractor and subcontractors.
- B. The Contractor is responsible to furnish, upon request, to RSU the following information and to keep it on file for a period of seven (7) years as required by DOL
- 1. Federal and State Tax Identification numbers.
- 2. A written Contract with each Sub-Contractor, to which shall be attached the following items:
  - A. Bid tabulation
  - B. Copy of the Prevailing Wages determined for this Contract.
  - C. A copy of Subcontractor Acceptance, and letter showing RSU's acceptance of said subcontractor(s), EEO, and Non-Collusive Affidavit.

#### **RECOMMENDED PREPARATION:**

Before submitting a bid, it is recommended that each interested party perform the following actions:

- 1. Visit the site to familiarize himself / herself with local conditions that may in any manner affect cost, progress, or performance of the work.
- 2. Familiarize himself / herself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress, or performance of the work.
- 3. Make any investigations and tests the contractor may deem necessary to determine his/her bid for performance of the work in accordance with the time, price, and other terms and conditions of the contract documents.
- 4. Determine the bid documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work.
- 5. Ensure all information required herein be submitted with the bid response. Failure to provide the information may

result in rejection of the offer.

#### **BID SUBMISSION FORMAT:**

1. Each contractor shall include all requirements, terms or conditions they may have and shall not assume that an opportunity will exist to add such matters after the bid has been submitted. Unacceptable terms and conditions added by the contractor may cause the University to award to another contractor, despite other factors of the evaluation.

#### **BID SECURITY:**

1. Each Bid must be accompanied by a certified or cashier's check, or bid bond in an amount equal to five percent (5%) of the total amount of the Bid and all Alternates as a guarantee that, if awarded the contract, the Bidder will execute the contract and furnish bonds and insurance as required. The State reserves the right to hold the bid security of the three (3) lowest Bidders until the successful Bidder has executed the contract and furnished the required bonds and proof of insurance. No bid security is required if the total of the Base Bid and Alternates is Fifty Thousand Dollars (\$50,000.00) or less.

#### **ASSURANCE OF COMPLETION**

- 1. Unless otherwise provided in State law, the successful bidder shall furnish an assurance of completion prior to the execution of any contract under this solicitation in the form of a performance, payment, and defect bond in a penal sum of 100 percent of the contract price; or, as may be required or permitted by State law;
- 2. Bonds must be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the State of Oklahoma where the work is to be performed.

#### TIME FOR COMPLETION

The work shall be commenced at the time stipulated in the "Notice to Proceed" to the Contractor and shall be completed on or before August 14, 2024.

### BID FORM HEALTH SCIENCES REHAB FOR ROOMS 226 & 236

TO: ROGERS STATE University Claremore, Rogers County, Oklahoma

To Whom It May Concern,

Having Carefully Examined the Specifications and Having Visited the Site & Examined all Conditions Affecting the Work, the Undersigned Proposes to Furnish All Labor, Materials, and Incidentals Called for by Said Documents for Complete Services Described Herein:

| The Undersigned Agrees to Perform all Work Re   | equired by the Request for bid for the sum of:                                     |
|---|--|
| (\$   | )  |
| (   | Dollars)   |
| (Amount shall be shown in both words  | s and figures; in case of discrepancy, the amount in writing shall govern.)        |
| BID GUARANTEE   |  |
| For bids including all alternates, totaling in exc<br>form ofSpecifications.              | cess of \$50,000.00, a 5% security in the sum of                                   |
| ACKNOWLEDGMENT OF ADDENDA (if ap  | oplicable):  |
| Addendum No. 1 DateAddendu  | m No. 2 DateAddendum No. 3 Date  |
| I hereby certify that I have the author ity to submit an offer of pricing on behalf of my | y company and that I have read and understand the terms and conditions of the bid. |
| (Typed or Printed Name)   | (Signature)  |
| (Title)   | (Date)   |
| (Company Name)  | (Federal Identification #)   |
| (Company Address)   | (Company Telephone Number) (Company  |
| City, State & Zip Code)   | (Company Fax Number  |
| Subscribed and sworn to before me this  | day of   |
| (Notary Public (or Clerk or Judge)  | My Commission Expires):  |

| Check-list of Items required at the time of bid submittal:                              |
|---|
| Bid Bond  |
| Signed and notarized copy of the entire bid request                                     |
| Addendum (if any)   |
| 2 CFR 200 APPENDIX II (A-I) affidavit   |
| Business-relationship affidavit   |
| Non-collusion affidavit   |
| Equal Employment Opportunity and Affirmative Action affidavit                           |
| Sex Offenders Affidavit   |
| Failure to provide necessary documents and/or bonds will invalidate your bid submittal. |

#### 2 CFR 200 APPENDIX II (A-I)—CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

- (A) Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.
- (B) All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.
- (C) Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."
- (D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Contractor and Subcontractors shall comply with the Davis-Bacon Act. Contractors and Subcontractors working on a federally funded project will be subject to prevailing wage rates and certified payroll.

Under the Davis-Bacon and Related Acts and Reorganization Plan No. 14 of 1950, the U.S. Department of Labor is responsible for determining prevailing wages, issuing regulations and standards to be observed by federal agencies that award or fund projects subject to Davis-Bacon labor standards, and overseeing consistent enforcement of the Davis-Bacon labor standards.

The Davis-Bacon and Related Acts apply to contractors and subcontractors performing on federally funded or assisted contracts in excess of \$2,000 for the construction, alteration, or repair (including painting and decorating) of public buildings or public works. Davis-Bacon Act and Related Act contractors and subcontractors must pay their laborers and mechanics employed under the contract no less than the locally prevailing wages and fringe benefits for corresponding work on similar projects in the area.

The Davis-Bacon Act directs the Department of Labor to determine such locally prevailing wage rates. The Davis-Bacon Act applies to contractors and subcontractors performing work on federal or District of Columbia contracts.

### 2 CFR 200 APPENDIX II (A-I)—CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS (CONTINUED)

The Davis-Bacon Act prevailing wage provisions apply to the "Related Acts," under which federal agencies assist construction projects through grants, loans, loan guarantees, and insurance.

For prime contracts in excess of \$100,000, contractors and subcontractors must also, under the provisions of the Contract Work Hours and Safety Standards Act, as amended, pay laborers and mechanics, including guards and watchmen, at least one and one-half times their regular rate of pay for all hours worked over 40 in a workweek. The overtime provisions of the Fair Labor Standards Act may also apply to DBA-covered contracts.

- (E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- (F) Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.
- (G) Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
- (H) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.
- (I) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

## 2 CFR 200 APPENDIX II (A-I)—CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS (CONTINUED)

| CERTIFICATION                                  |              |  |  |
|--|--------------|--|--|
| If awarded this contract                       |              |  |  |
|  |              |  |  |
| (Company)                                      |              |  |  |
| agrees to comply with the provisions in Clause | s A-I above. |  |  |
|  |              |  |  |
| (Signature)                                    | -            |  |  |
| (Date)   | -            |  |  |
| (Title)  |              |  |  |
| Subscribed and sworn before me this            | day of       |  |  |
|  |              |  |  |
| NOTARY PUBLIC (or CLERK or JUDGE)              |              |  |  |
| (My commission expires)                        |              |  |  |

#### Non Collusion Affidavit

| State Of:  |
|--|
| County Of:   |
| duly sworn, on (Name) (title), of lawful age being first   |
| duly sworn, on (Name) (title)  |
| oath says that:  |
| 1 (s)he is the duly authorized agent of, the contractor and/or Contractor submitting the bid and/or procuring the contract which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among contractors and between contractors and state officials or employees, as well as, facts pertaining to the giving or offering of things of value to the government personnel in return for special consideration in the letting of any contract to which this statement is attached; |
| 2 (s)he is the fully aware of the facts and circumstances surrounding the making of the bid and/or the procurement of the contract to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bids; and  |
| 3 Neither the contractor nor anyone subject to the contractor's direction or control has been a party:   |
| <ul><li>a) to any collusion among contractors in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from submitting a bid;</li><li>b) to any collusion with any state official or employee as to quantity, quality or price in the prospective contract, or</li></ul>  |
| as to any other terms of such prospective contract, or as to any other terms of such prospective contract, nor c) in any discussions between contractors and any state official concerning exchange of money or other thing of   |
| <ul><li>value for special consideration in letting of a contract,</li><li>d) to paying giving or donating or agreeing to pay, give or donate to any officer or employee of the State of Oklahoma any money to other thing of value, either directly or indirectly, in procuring the contract to which this statement is attached.</li></ul>  |
| Subscribed and sworn before me thisday of, 2   |
| NOTARY PUBLIC (or CLERK or JUDGE)  |
| (My commission expires)  |

#### Business Relationship Affidavit

#### BUSINESS RELATIONSHIPS AFFIDAVIT

| STATE OF)  |
|--|
|  |
| Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the preparing company and any officer or director of the architectural or engineering firm or other party to the project is as follows: |
| Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:   |
| (If none of the business relationships herein above mentioned exist, affiant should so state.)   |
| Subscribed and sworn to before me this   |
| Notary Public (or Clerk or Judge) (My Commission Expires):   |

#### **Executive Order 11246**

IMPORTANT: THIS MUST BE READ, SIGNED, AND RETURNED WITH BID

Certificate of Compliance with Executive Order 11246 (as amended) for Contracts in Excess of \$10,000.

In entering into any resulting contract over \$10,000, the Contractor agrees to comply with the Equal Employment Opportunity requirements stipulated in Executive Order 11246 as amended by Executive Order 11375. These specific requirements state:

1. "Equal Opportunity Clause"

During the performance of this/these contract(s) the contractor agrees as follows:

A. The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion or transfer; recruitment or recruitment advertising; lay-off or termination; rates of pay or other forms—of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to—employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this—nondiscrimination clause.

- B. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color or national origin.
- C. The contractor will send to each labor union or representative or workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 204 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965 and the rules, regulations and relevant orders of the Secretary of Labor.
- E. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- F. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or part and the contractor may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. The contractor will include the provisions of Paragraphs A through G in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 207 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor.

The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter such litigation to protect the interests of the United States.

#### **Executive Order 11246**

(Continued)

#### 2. Certification of Non-segregated Facilities

CEDTIFICATION

By the submission of this bid and/or acceptance of purchase order(s) during the above period, the contractor, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained.

He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The contractor, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods).

#### 3. Disabled Veteran and Vietnam Era Veteran Affirmative Action Program Requirements

In entering into any contract which exceeds \$10,000, the contractor agrees to comply with Disabled Veteran and Vietnam Era Veteran Affirmative Action Program Requirements as stipulated in Public Law 93-508 and all amendments thereto. Failure to comply with the requirements of Public Law 93-508, Title 41, CFR60-250 and Title 41, CFR60-741 and all amendments thereto shall be deemed a material breach of this agreement and shall subject this contract to cancellation and rescission at the option of the University of Oklahoma. Copies of the applicable portions of this law are available from the University of Oklahoma Purchasing Office if required.

| CERTIFICATION                                 |                         |
|---|-------------------------|
| If awarded this contract                      |                         |
|   |                         |
| (Company)                                     |                         |
| agrees to comply with the provisions in Claus | es I, II and III above. |
| (Signature)                                   | _                       |
| (Date)  | _                       |
| (Title)                                       |                         |

#### SECTION 00660

#### SEX OFFENDERS AFFIDAVIT

IMPORTANT: THIS MUST BE READ, SIGNED, AND COMPLETED AT THE TIME OF CONTRACT Sex Offenders Affidavit State of \_\_\_\_\_ SS. County of \_\_\_\_\_ The undersigned (Architect, Supplier, Engineer or Supervisory Official), of lawful age, being duly Sworn, on oath says that no employee allowed to be working on School Premises under the Authority of the undersigned, has been convicted in this state, the United States or another state of: Any sex offense subject to the Sex Offenders Registration Act in this state or subject to another state/s or the federal sex offender registration; or Any felony offense except as provided in Subsection C of Section 4, 70 O.S 1991, Section 6-101.48 or when ten (10) years has elapsed since the date of the original conviction or the employee has received a Presidential or Gubernatorial pardon for the criminal offense. (Contractor or Supplier) (Signature) Subscribed and Sworn to Before Me this Notary Public\_\_\_\_ My Commission Number:

My Commission Expires:

#### 1.1 WORK INCLUDED

#### PROJECT DESCRIPTION

#### A/V Classroom 236- 2,193 SF

Rehabilitation of A/V classroom which includes, but is not limited to, replacement of the HVAC equipment and ductwork within the room and adding acoustical wall treatments. Interior updates for the room include updating existing lighting, selecting new flooring and wall finishes and coordinating A/V design. Existing ceiling grid to remain, re-use existing furniture.

#### NOTE:

1. The audio/video equipment was installed in Rm. 236 in 2024 by Ford Audio. It is required that the equipment (monitors, audio, podium) will be removed for installation of new finishes and then reinstalled by Ford Audio. Contractor shall subcontract and coordinate with Ford Audio for these services. Contact at Ford Audio:

Dan Berg

Sr. Account Manager | Tulsa, OK

Office: (918) 664-2420 Direct: (918) 281-3711 Cell: (918) 260-7164 bergd@fordav.com

HVAC 5 tons and larger require smoke duct detection device. Existing system located in Rm 236 has duct detection device. Contractor will ensure that new system has life safety equipment installed and operational.

#### Nursing Sim. Lab 226-780 SF

Renovate existing Control Booth to enhance visibility of the Lab. Interior updates to include new lighting and new flooring and wall paint. Existing ceiling grid to remain. Existing furniture and lab equipment to remain.

See attached project specifications and drawings for specific work details..

#### A. QUALITY ASSURANCE

Prior to start of work, contractor will provide "shop drawings" and a copy of manufacturer's installation recommendations for all products or systems that require a submittal, as indicated in the project manual.

#### **B. EXAMINATION OF SITE**

Failure to Visit Site will not relieve Contractor from necessity of furnishing materials or performing work that may be required to complete work in accordance with the project manual without additional cost to RSU.

#### C. CONTRACTOR USE OF PREMISES

- 1. Contractor's may utilize University provided utilities.
- 2. Restrict access to extent required, allowing for ongoing activities at site.
- 3. Operations of Contractor are limited to areas where work is indicated.
- 4. Take precautions to allow for continued operations including public access and other outside activities on the occupied portions of the site.

5. Schedule and coordinate such operations with RSU Physical Plant Director.

END OF SECTION

#### SECTION 01015 EXISTING CONDITIONS

#### 1.1 EXISTING CONDITIONS

- A. Dimensions: Contractor shall verify dimensions at site for built-in work, and for work adjoining that of other trades and for dimensions shown to existing structures or installations.
- B. Possession, use, and responsibility for site: Keep the building site free of rubbish at all times. Remove all waste and site debris promptly.
- C. Existing conditions: In submitting a bid, Contractor acknowledges that he/she has visited the site and reviewed existing conditions. While every attempt has been made to identify locations of work items, the Contractor is to remedy as specified all problems discovered that are of the same nature as Work Items listed in the Specifications.

#### D. Demolition:

- 1. Contractor shall use extreme care in the demolition, removal, repair or relocation of existing items in order to protect remaining items from damage. Replace any items or areas so damaged with matching, new items of equal quality.
- 2. Where operations involve the demolition, removal or repair of existing items in the exterior envelope of existing structures, the Contractor shall provide temporary protection as required to maintain the structure in a weather tight, structurally sound, environmentally stable condition at the end of each day and/or end of activity that is associated with these operations.

END OF SECTION

#### 1.1 QUALITY ASSURANCE

- A. Reference Standards: For products or workmanship specified or indicated by association, trade or Federal Standards comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. No provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change duties and responsibilities of RSU or Contractor or any of their consultants, agents or employees from those set forth in Contract Documents, nor shall it be effective to assign to Physical Plant Director any duty or authority to supervise or direct furnishing or performance of Work or any duty or authority to undertake responsibilities contrary to provisions of General Conditions.
- C. Where wording of referenced standard is permissive, or where requirements of more than one reference standard apply, provide under more restrictive and higher requirement.
- D. Comply with recommendations of reference standards even though they are not mandatory in standard.
- E. Notify Physical Plant Director of any conflicts between referenced standards and requirements specified in Specifications or indicated on Drawings before proceeding with work.
- F. Detailed Requirements: Be familiar with and verify detailed requirements of referenced standards to verify that items and their installation provided under Work of this Contract meet or exceed standard's requirements.
- G. Tolerances: Tolerances may vary from standards of different sections. Make adjustments necessary to assure proper fitting of different elements. Tolerances may be plus or minus as indicated but in sum shall be compensating, not cumulative.
- H. Effective Date: Date of standard is that in effect as of documents date except when specific date is specified or when standard is part of applicable code which includes edition date.
- I. Copies: When required by individual sections obtain copy of standard. Maintain copy at job site during work.
- J. Certificates: When required by Contract Documents, or when requested in writing by Physical Plant Director, submit Certificate of Compliance or Manufacturer's Certificate that materials or workmanship, or both comply with requirements of referenced standard.

#### **PART 1 GENERAL**

#### 1.1 REQUIREMENTS INCLUDED

- A. Participation IS NOT required in pre-bid conference
- B. Participation IS required at preconstruction conference.
- C. Contractor administration of progress meetings and pre-installation conferences required.

#### 1.2 RELATED REQUIREMENTS

- A. Section 01010 Summary of Work
- B. Section 01015 Existing Conditions
- C. Section 01091 Reference Standards
- D. Section 01340 Submittals
- E. Section 01600 Material and Equipment
- F. Section 01700 Contract Close Out

#### 1.3 PREBID AND PRECONSTRUCTION CONFERENCES

- A. RSU Physical Plant Director will administer pre-bid conference at RSU offices for clarification of RSU and Contractor responsibilities in use of site and for review of administrative procedures. The bidders will then be taken to the site to review the buildings.
- B. RSU Contract Administrator will administer the preconstruction conference at RSU offices. Project start and completion date will be determined and other administrative procedural responsibilities will be reviewed.

#### 1.4 PROJECTMEETINGS

Schedule and administer Project meetings through progress of the Work as deemed necessary by the RSU Physical Plant Director.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

**END OF SECTION** 

#### PART 1 - GENERAL

#### 1.1 MANUFACTURED ARTICLES:

Manufactured articles, materials, equipment to be applied, installed, connected, erected, used, cleaned, conditioned as directed by manufacturer's printed instructions unless otherwise specified. Where materials are specified by more than one name for one use, select any of those specified. Keep copies of such printed recommendations at job site, and deliver one to RSU.

#### 1.2 CONSTRUCTION SCHEDULE:

Within seven (7)) days of award of contract or initial endorsement, submit for approval, construction schedule to RSU Physical Plant Director.

#### 1.3 SUBCONTRACTORLIST:

Prepare a list of proposed subcontractors including material suppliers. Submit for approval before sub-contracts are awarded. No sub-contractors to be employed on work unless approved by RSU.

#### 1.4 CHANGE ORDERS:

If during construction, RSU authorizes additional work, contractor will provide detailed estimates listing all items of labor and material with quantities and unit prices extended for each item. This applies to all sub-contract work as well as work done by the General Contractor and to all estimates.

#### 1.5 SHOP DRAWINGS AND SAMPLES:

Transmit each shop drawing, sample, or submittal to RSU with Contractor's transmittal form or letter, not by sub-contractor's or supplier's form. Identify each item submitted with Contractor's name, date, project, material, quantity and other pertinent data.

#### 1.6 SHOP DRAWINGS - SUBMITTAL

- A. Material list identifying materials and equipment to be used. Submit not less than three (3) copies to RSU for approval. Materials found to be acceptable and not requiring further clarification shall be approved on basis of the materials listed. Materials rejected must be re-submitted as an amendment to the material list. Material requiring the submittal of additional information will be marked for second stage submittal. Material list shall include:
  - 1. Specification sub-section number and title.
  - 2. Manufacturers, type, model and size.
  - 3. Identification of vendor for specifically fabricated items such as structural or miscellaneous steel, reinforcing, doors and frames, millwork, etc.
- B. Samples, colors, patterns, textures for approval or selection: Submit all materials required for color selection or approval.

No selections possible by RSU until all materials received so complete coordination possible. Submit sufficient samples to show range of shades, tones, values, pattern, texture and other features as specified or directed. Label or tag each sample or set of samples indicating:

- 1. Manufacturer, brand name, catalog or manufacturer's no.
- 2. Project title.
- 3. Intended use.

Two copies manufacturer's catalog sheets showing illustrated cuts of items furnished, scale details, sizes, dimensions, capacities, controls, performance characteristics, wiring diagrams and all other pertinent information. One copy of approved and/or disapproved submissions will be returned to Contractor. Contractor shall make corrections as required and furnish two corrected copies to RSU and others as needed.

#### SECTION 01600 MATERIAL AND EQUIPMENT

#### 1.1 REQUIREMENTS INCLUDED

A. Products C. Storage and Protection E. Substitutions

B. Transportation and Handling D. Product Option

#### 1.2 RELATED REQUIREMENTS

- A. Section 01010 Summary of Work
- B. Section 01015 Existing Conditions
- C. Section 01090 Reference Standards
- D. Section 01340 Submittals
- E. Section 01700 Contract Close Out

#### 1.4 PRODUCTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.

#### 1.5 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Contractor shall be aware of vandalism and theft and is advised not to leave tools or materials unattended at the job site.

#### 1.6 STORAGE AND PROTECTION

Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.

#### 1.7 PRODUCT OPTIONS

A. Products specified by naming one or more manufacturers with a provision for substitution: Submit a request for substitution for any manufacturer not specifically named.

#### 1.8 SUBSTITUTIONS

- A. All products proposed for use, including those specified by required attributes and performance shall require approval of RSU before being incorporated into the work. Do not substitute materials, equipment, or methods unless substitution has been specifically approved by RSU.
- B. Submit to RSU, according to the requirements of this section, all substitution requests ten (10) days prior to bid opening date. Substitutions are reviewed for general compliance with specifications. The Contractor is responsible for conforming quantities, dimensions, site conditions, coordinating with other trades and complying with applicable building codes and local ordinances.
- C. RSU will determine acceptability of proposed substitution, and will notify Contractors of acceptable or rejection in writing within a reasonable time.

#### **END OF SECTION**

#### 1.1 REQUIREMENTS INCLUDED

- A. Close-Out Procedures.
- B. Project Record Documents.

#### 1.2 CLOSE-OUTPROCEDURES

When Contractor considers work has reached final completion, submit written certification that Contract Documents have been reviewed, Work has been inspected, and that work is complete in accordance with Contract Documents and is ready for RSU to inspect.

#### 1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site. Contractor shall not use waste containers at the site.
- C. Clean exterior surfaces exposed to view of all foreign substances.
- D. Clean interior surfaces exposed to view; remove temporary labels, stains and foreign substances.

#### 1.4 PROJECT RECORD DOCUMENTS

- A. Store documents separate from those used for construction. Keep documents current; do not permanently conceal work until required information has been recorded.
- B. At Contract Close-Out:
  - 1. Submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.
  - 2. Submit set of drawings reflecting changes as indicated on Project Record Drawings.
  - 3. Warranty Contractor shall provide a One (1) year warranty for all materials and labor associated with the content of the contract.

#### **END OF SECTION**

"General Decision Number: OK20250052 01/03/2025

Superseded General Decision Number: OK20240052

State: Oklahoma

Construction Type: Building

Building Construction -does not include residential construction consisting of single family homes and apartments up to and including 4 stories. (Including building projects on industrial sites and treatment plants)

County: Rogers County in Oklahoma.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

```
| If the contract is entered | Executive Order 14026
into on or after January 30, | generally applies to the
2022, or the contract is
                        contract.
renewed or extended (e.g., an |. The contractor must pay
option is exercised) on or | all covered workers at
                          least $17.75 per hour (or
after January 30, 2022:
                    the applicable wage rate
                    listed on this wage
                    determination, if it is
                    higher) for all hours
                    spent performing on the
                    contract in 2025.
If the contract was awarded on. Executive Order 13658
or between January 1, 2015 and generally applies to the
|January 29, 2022, and the | contract.
|contract is not renewed or |. The contractor must pay all|
extended on or after January | covered workers at least |
30, 2022:
                     | $13.30 per hour (or the
                    applicable wage rate listed
                    on this wage determination,
                    if it is higher) for all
                    hours spent performing on |
                    that contract in 2025.
```

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the

Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number Publication Date 0 01/03/2025

BROK0005-004 06/01/2023

Rates Fringes

BRICKLAYER.....\$ 26.92 13.09

.....

ELEC0584-006 06/01/2024

Rates Fringes

ELECTRICIAN (Excludes Low Voltage Wiring and

Installation of Alarms and

Sound and Communication

Systems).....\$ 36.38 7%+10.20

-----

ELEC0584-019 06/01/2024

Rates Fringes

ELECTRICIAN (Low Voltage

Wiring Only).....\$ 36.38 7%+10.20

ELEV0083-003 01/01/2024

Rates Fringes

ELEVATOR MECHANIC......\$ 49.05 37.885+a+b

#### PAID HOLIDAYS:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving, and Christmas Day.

b. Employer contributes 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years; 6% for less than 5 years' service.

\_\_\_\_\_

| Rates | Fringes |
|-------|---------|
|       |         |

#### POWER EQUIPMENT OPERATOR:

#### POWER EQUIPMENT OPERATOR

GROUP 1: All Crane Type Equipment 200 ton and larger and including 400 ton capacity cranes. All Tower Cranes.

GROUP 2: All Crane Type Equipment 100 ton capacity and larger cranes, and less than 200 ton capacity.

GROUP 3: All Crane Type Equipment 50 ton capacity and larger cranes, and less than 100 ton capacity. Crane Equipment (as rated by mfg.) 3 cu. yd. and over Guy derrick Whirley Power Driven Hole Digger (with 30' and longer mast).

GROUP 4: CRANES with Boom Incl. Jib less than 100 ft and less than 3 cu. Yd.; Overhead Monorail Crane and Bulldozer.

GROUP 8: ForkLift

GROUP 10:Oiler; Semi- Trailer Truck Driver

\_\_\_\_\_

IRON0584-025 06/01/2024

Rates Fringes

IRONWORKER (Ornamental,

Reinforcing and Structural).....\$ 30.35 16.83

.....

PLUM0430-010 07/01/2024

Rates Fringes

PLUMBER (Excludes HVAC Pipe

and Unit Installation)......\$ 36.65

\_\_\_\_\_

PLUM0430-019 07/01/2024

Rates Fringes

HVAC MECHANIC (Installation

of HVAC Unit Only, Excludes Installation of HVAC Pipe and

Duct).....\$36.65

\_\_\_\_\_\_

PLUM0430-021 07/01/2024

|   | Rates                  | Fringes   | 1           |         |      |
|---|------------------------|-----------|-------------|---------|------|
| PIPEFITTER (Inclu<br>Pipe Installation)               |                        |           | 17.60       |         |      |
| ROOF0143-001 07                                       | //01/2024              |           |             |         |      |
|   | Rates                  | Fringes   | i.          |         |      |
| ROOFER  | \$ 26                  | .30       | 10.34       |         |      |
| SHEE0270-006 06                                       | /01/2020               |           |             |         |      |
|   | Rates                  | Fringes   |             |         |      |
| SHEET METAL W<br>Installation Only)                   |                        |           |             |         |      |
| SUOK2012-032 0  | 7/30/2012              |           |             |         |      |
|   | Rates                  | Fringes   |             |         |      |
| CARPENTER (Dry Only)                                  | wall Hangi<br>\$ 15.07 | ng<br>**  | 1.22        |         |      |
| CARPENTER, Exc<br>Hanging, and Form                   |                        |           | ** 0        | 0.00    |      |
| CAULKER   | \$ 2                   | 0.00      | 1.61        |         |      |
| CEMENT MASON  | /CONCRE                | ΓΕ FINIS  | SHER\$ 1    | 4.26 ** | 1.27 |
| DRYWALL FINISI  | HER/TAPE               | R         | \$ 13.00 ** | 0.00    |      |
| ELECTRICIAN (A Installation)                          |                        | 0         | 3.20        |         |      |
| ELECTRICIAN (So<br>Communications Sy<br>Installation) | stems                  | 6         | 2.64        |         |      |
| FORM WORKER   |                        | \$ 14.17  | ** 0        | .38     |      |
| LABORER: Comm   | non or Gene            | eral\$    | 13.23 **    | 3.95    |      |
| LABORER: Masor  | n Tender - E           | Brick\$ 1 | 2.52 **     | 0.00    |      |
| LABORER: Masor<br>Cement/Concrete                     |                        | 13.00 **  | 1.91        |         |      |
| LABORER: Pipela                                       | yer                    | .\$ 12.39 | ** 0.       | 00      |      |
| OPERATOR: Aspl  | nalt Paver             | \$ 16.8   | 88 **       | 0.00    |      |

| $\Omega$ | PE. | R۸ | T   | $\cap$ | p. |
|----------|-----|----|-----|--------|----|
| ()       | PE. | KΑ | ١I١ | U      | ĸ: |

Backhoe/Excavator/Trackhoe......\$ 17.64 \*\* 0.38

OPERATOR: Bulldozer.....\$ 19.34 1.90

OPERATOR: Grader/Blade.......\$ 14.28 \*\* 1.70

OPERATOR: Loader (Front End)....\$ 16.18 \*\* 0.00

PAINTER: Brush, Roller and

Spray, Excludes Drywall

Finishing/Taping......\$ 12.22 \*\* 0.00

SHEET METAL WORKER, Excludes

HVAC Duct Installation......\$ 22.18 5.06

SPRINKLER FITTER (Fire

Sprinklers).....\$ 21.86

TRUCK DRIVER: Dump and

Flatbed Truck......\$ 11.00 \*\* 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

\_\_\_\_\_

\*\* Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.75) or 13658 (\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO

is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

-----

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

#### Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

#### Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the

collective bargaining agreements on which the rate is based.

#### Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

#### State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

\_\_\_\_\_

#### WAGE DETERMINATION APPEALS PROCESS

- 1) Has there been an initial decision in the matter? This can be:
  - a) a survey underlying a wage determination
  - b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests

for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210.

#### **U.S. Department of Labor**

#### **Davis-Bacon and Related Acts Weekly Certified Payroll Form**

Wage and Hour Division

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)



Rev. January 2025 OMB No.: 1235-0008

Unless otherwise noted, the information requested is specific to the named project below.

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

| SUBMISSION OF FINAL DBRA CERTIFIED PAYROLL FORM |                  |                      |                             |                           |   |                         |   |                                     |   |   | PRI | PRIME CONTRACTOR SUBCONTRACTOR Expires: 01/31/2028 |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|---|------------------|----------------------|-----------------------------|---------------------------|---|-------------------------|---|-------------------------------------|---|---|-----|--|---|---------------|--|---------------------------------------|------------------|--------------------------------------|---|------|--|---------------------|--|------------------|-------|--|
| PROJI   | ECT NAME         |                      | PROJECT NO. or CONTRACT NO. |                           |   |                         |   | CERTIFIED PAYROLL NO.               |   |   |     | . PRI  | PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME    |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   |                                     |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
| PROJI   | ECT LOCATION     | J                    |                             | WAGE DETERMINATION NO.    |   |                         |   |                                     | WEEK ENDING DATE                          |   |     | PRI  | PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS ADDRESS |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   |                                     |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
| (1A) (1B) (1C) (1D)                             |                  |                      |                             | (1E)                      | (2)   | (3)                     |   |                                     | (4)                                       |   |     | (5)  | 5) (6   | (6A)          | (6B)                                   | (6C)                                  | (7A)             | (7B)                                 | (8)                                     |      |  | (9)                 |  |                  |       |  |
| NO.   | WORKER LAST NAME |                      | l                           |                           | KER   |                         |   | IME                                 | (TOP) DAYS OF WORK WEEK<br>(BOTTOM) DATES |   |     | EEK  |   | ATE<br>O OT   |  | OF                                    | VED.             | NED NED                              | DEDUCTIONS FOR ALL WORK                 |      |  | X<br>E<br>R         |  |                  |       |  |
| WORKER ENTRY NO.                                |                  | RST                  | WORKER MIDDLE INITIAL       | WORKER<br>IDENTIFYING NO. | rwor<br>ERD<br>E                                  | NOIL                    |   | ST = STRAIGHT TIME<br>OT = OVERTIME |   |   |     |  | RS<br>OR W  |               | HOURLY WAGE RATE<br>PAID FOR ST AND OT | GE<br>EDIT                            | N LIEU<br>JEFITS | GROSS AMT EARNED                     | GROSS AMT EARNED<br>FOR <u>ALL WORK</u> |      |  | T (S)               | . SN                                     | WOF<br><b>ZK</b> |       |  |
|   |                  | ER FI                | ER M                        | ER<br>IFYIN               | (J) JOURNEYWORKER<br>(RA) REGISTERD<br>APPRENTICE | LABOR<br>CLASSIFICATION |   | rraig<br>Vert                       |   |   |     |  |   | HOU<br>ED F(  |  | LY W/                                 | FRIN             | NT IN                                | AMI                                     | LI W | TAX WITH-<br>HOLDINGS                        |                     | (MUS<br>7, SEE<br>CTION                  | CTIO             | 4√ TO |  |
|   | VORK             | WORKER FIRST<br>NAME | VORK                        | VORK                      |   |                         |   | T = S1                              | HOURS WORKED                              |   |     | TOTAL HOURS<br>WORKED FOR WEEK                     |   | IOUR<br>AID F | TOTAL FRINGE<br>BENEFIT CREDIT         | PAYMENT IN LIEU OF<br>FRINGE BENEFITS | ROS              | GROSS AMT EAI<br>FOR <u>ALL WORK</u> | AX W                                    | FICA | OTHER (MUST<br>SPECIFY, SEE<br>INSTRUCTIONS) | TOTAL<br>DEDUCTIONS | NET PAY TO WORKER<br>FOR <u>ALL WORK</u> |                  |       |  |
|   | >                | > 2                  | > =                         | > =                       | .;  | L C                     |   | ST                                  | EACH DAY                                  |   |     |  | F >   |               | т Ф                                    |                                       | а ц              | 0                                    | 0 11                                    | F +  | 4  | s                   | - 0                                      | 2 11             |       |  |
|   |                  |                      |                             |                           |   |                         | • | OT                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ST                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ОТ                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ST                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ОТ                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ST<br>OT                            |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ST                                  |   | + |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         | • | OT                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ST                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ОТ                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             | _                         |   |                         |   | ST                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ОТ                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | ST<br>OT                            |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |
|   |                  |                      |                             |                           |   |                         |   | UI                                  |   |   |     |  |   |               |  |                                       |                  |                                      |   |      |  |                     |  |                  |       |  |

While use of Form WH-347 itself is optional, covered contractors and subcontractors performing work on Federal or federally assisted construction contracts are required by the DBRA regulations and the contract clauses to submit payroll information on a weekly basis. The Copeland Act (40 U.S.C. § 3145) requires contractors performing work on Federally financed construction contracts to, on a weekly basis, "furnish a statement on the wages paid each employee during the prior week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors and subcontractors to submit weekly certified payrolls to the appropriate Federal agency if the agency is not such a party, to the appropriate pederal agency is a party to the contract (or, the agency is not such a party, to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the Federal agency). Each certified payroll must be accompanied by a signed "Statement of Compliance" (e.g., page 2 of the WH-347 or another document with identical wording) indicating that the certified payrolls are accurate and complete, and that each laborer or mechanic has been paid not less than the required Davis-Bacon prevailing wage rate(s) (including any fringe benefits) for the work performed. DOL and contracting agencies receiving this information review the information to determine whether workers have received legally required wages and fringe benefits.

#### **Public Burden Statement**

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

| PRO.   | IECT NAME  |                             |          | PROJECT N          | NO. or CONTRA | ACT NO.            | PAYROLL NO | ).                 | PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME |                    |          |                    |          |        |  |  |
|--------|--|-----------------------------|----------|--------------------|---------------|--------------------|------------|--------------------|--|--------------------|----------|--------------------|----------|--------|--|--|
|        |  |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
| PR∩    | IECT LOCATION  |                             |          |                    |               |                    | WEEK ENDI  | NG DATE            | CERTIFYING OFFICIAL'S NAME AND TITLE             |                    |          |                    |          |        |  |  |
| 1103   | LCT LOCATION   |                             |          |                    |               |                    | WEEK ENDI  | NO DAIL            | CENTIL TING OFFICIALS INAIVIL AIND TITLE         |                    |          |                    |          |        |  |  |
|        |  |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
| I paid | d or supervised the payn   |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        | The payroll information submitted with this statement is correct and complete for the above project during the above period, and the wage and fringe benefit rates paid to the workers, including credit taken for the reasonably anticipated costs of a bona fide fringe benefit plan, fund or program, are not less than the applicable wage and fringe benefits rates for the classification(s) of work actually performed, as specified in the wage determination(s) incorporated into the contract. |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        | All regular payrolls and all other basic records that the contractor is required to maintain for this payroll period are complete and accurate and will be made available upon request from the agency or the Department of Labor.   |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        | The classifications reported for each laborer or mechanic are the classification(s) of work that each worker actually performed.   |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        | Any workers paid as apprentices during the above period are duly registered in a bona fide apprenticeship program registered with the Office of Apprenticeship, Employment and Training Administration, United States Department of Labor ("OA"), or a State Apprenticeship Agency ("SAA") recognized by Department of Labor. I have verified the registered apprenticeship program information provided below as accurate and applicable to any apprentices identified on page 1 of this form.          |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        | APPRENTICESHIP PROC  | APPRENTICESHIP PROGRAM NAME |          |                    |               |                    |            |                    | NAME OF LABOR CLASSIFICATION                     |                    |          |                    |          |        |  |  |
|        |  |                             |          |                    |               |                    | OA         | SAA                |  |                    |          |                    |          |        |  |  |
|        |  |                             |          |                    |               |                    | OA         | SAA                |  |                    |          |                    |          |        |  |  |
|        | =  | OA .                        | SAA      |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        | Fringe benefits have been paid in cash and/or to bona fide fringe benefit plans, funds, or programs. Where the contractor is claiming an hourly credit for their contributions to or reaso anticipated costs of a bona fide fringe benefit plan, fund, or program, provide plan information and the hourly credit claimed for each worker listed on the previous page of this form.  |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        | HOURLY CREDIT FOR FRINGE BENEFITS  If an amount is listed in (6B) on the first page of this certified payroll form, enter the hourly credit claimed under each plan name, type and number for each worker and check whether the plan is funded or unfunded.  |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        |  | FB NAME<br>FB TYPE          |          | FB NAME<br>FB TYPE |               | FB NAME<br>FB TYPE |            | FB NAME<br>FB TYPE |  | FB NAME<br>FB TYPE |          | FB NAME<br>FB TYPE |          | TOTAL  |  |  |
|        | NAME OF WORKER   | PLAN NO.                    |          | PLAN NO.           |               | PLAN NO.           |            | PLAN NO.           |  | PLAN NO.           |          | PLAN NO.           |          | HOURLY |  |  |
|        |  | Funded                      | Unfunded | Funded             | Unfunded      | Funded             | Unfunded   | Funded             | Unfunded   | Funded             | Unfunded | Funded             | Unfunded | CREDIT |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hourly Credit      | \$       | \$     |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hourly Credit      | \$       | \$     |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hourly Credit      | \$       | \$     |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hourly Credit      | \$       | \$     |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hourly Credit      | \$       | \$     |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hourly Credit      | \$       | \$     |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hourly Credit      | \$       | \$     |  |  |
|        |  | Hourly Credit               | \$       | Hourly Credit      | \$            | Hourly Credit      | \$         | Hourly Credit      | \$   | Hourly Credit      | \$       | Hrly Credit        | \$       | \$     |  |  |
|        | All workers on the project have been paid the full weekly wages earned, and no rebates or deductions have been or will be made either directly or indirectly, other than permissible deductions as defined in 29 CFR part 3.   |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
| ADD    | ADDITIONAL REMARKS   |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
|        |  |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |
| SIGN   | ATURE OF CERTIFYING C  | FFICIAL                     |          |                    |               |                    | DATE       |                    | TELEPHONE  | NUMBER             |          | EMAIL ADDRESS      |          |        |  |  |
|        |  |                             |          |                    |               |                    |            |                    | ()   |                    |          |                    |          |        |  |  |
|        | /ILLFUL FALSIFICATION OF ANY<br>), AS WELL AS DEBARMENT FRO  |                             |          |                    |               |                    |            |                    |  |                    |          |                    |          |        |  |  |

## 100% CONSTRUCTION DOCUMENTS

05.17.2024

## RSU NURSING CLASSROOMS RENOVATION

1701 W WILL ROGERS BLVD. CLAREMORE, OK 74017



OPYRIGHT BECK ASSOCIATES ARCHITECTS, PLLC; DBA BECK DESIGN - 05.17.2024

TULSA

110 WEST SEVENTH, SUITE 7
TULSA, OK 74119
T: 918.583.5300
F: 918 585 1967

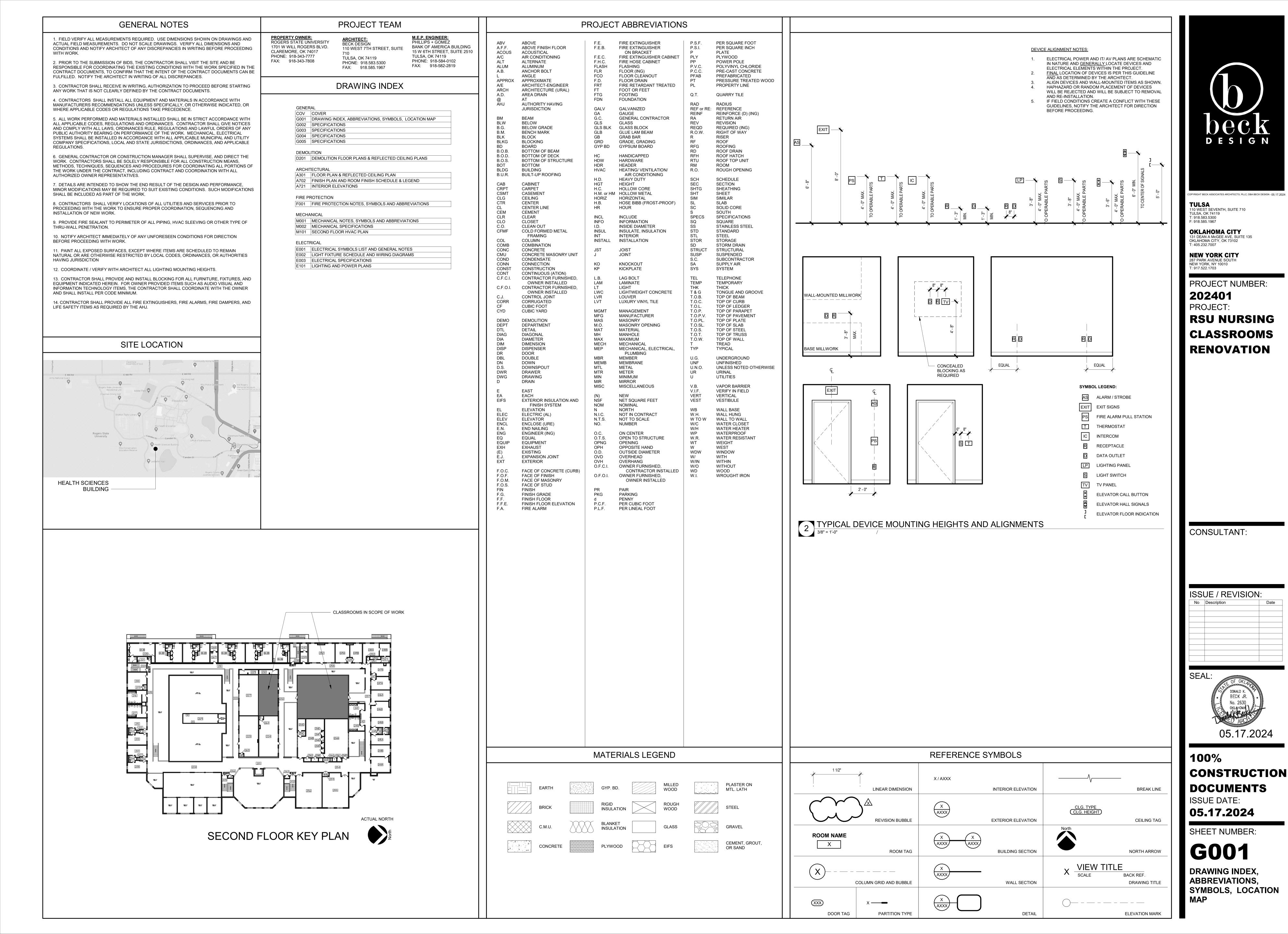
OKLAHOMA CITY

131 DEAN A McGEE AVE, SUITE 13

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917 522 1703

PROJECT NO: 202401

SU NURSING CLASSROOMS RENOVATION



1. CITY OF TULSA: CONTRACTOR SHALL PREPARE AND SUBMIT PERMIT APPLICATION, PROCESS APPLICATION

a. TAKE FIELD MEASUREMENTS AND VERIFY FIELD CONDITIONS. COMPARE FIELD MEASUREMENTS.

CONDITIONS, LOCATIONS OF SURVEY BENCHMARKS, AND OTHER INFORMATION KNOWN TO

b. BE RESPONSIBLE FOR DETERMINING CONDITIONS OF PROJECT SITE, INCLUDING ALL EXISTING

IMPROVEMENTS, EXISTING UTILITY SERVICES IN AREA OF WORK, EXISTING CONSTRUCTION IN AREA

THRU CITY OF TULSA, PAY ALL REQUIRED FEES AND OBTAIN CONSTRUCTION PERMIT FOR THE WORK.

2. OTHER PERMITS: CONTRACTOR SHALL OBTAIN AND PAY FOR ANY OTHER REQUIRED PERMITS.

CONTRACTOR, WITH CONTRACT DOCUMENTS BEFORE STARTING WORK.

C. EXAMINATION OF EXISTING CONDITIONS:

1. VISIT PROJECT SITE TO DETERMINE EXISTING CONDITIONS:

OF WORK AND ADJACENT CONSTRUCTION.

## 4.IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN OR PURCHASE APPROVED SPECIFIED PRODUCTS IN A TIMELY MANNER TO AVOID DELAYS IN THE PROJECT. A SUBSTITUTION REQUEST WILL NOT BE CONSIDERED FOR FAILURE TO OBTAIN THE SPECIFIED PRODUCTS DUE TO THE CONTRACTOR'S DELAY IN PURCHASING OR FAILURE TO ADHERE TO THE PROJECT SCHEDULE. 3.03 RESOLUTION A. ARCHITECT MAY REQUEST ADDITIONAL INFORMATION AND DOCUMENTATION PRIOR TO RENDERING A DECISION. PROVIDE THIS DATA IN AN EXPEDITIOUS MANNER. B. ARCHITECT WILL NOTIFY CONTRACTOR IN WRITING OF DECISION TO ACCEPT OR REJECT REQUEST. 1. ARCHITECT'S DECISION FOLLOWING REVIEW OF PROPOSED SUBSTITUTION WILL BE NOTED ON THE SUBMITTED FORM 3.04 ACCEPTANCE A. ACCEPTED SUBSTITUTIONS CHANGE THE WORK OF THE PROJECT. THEY WILL BE DOCUMENTED AND INCORPORATED INTO WORK OF THE PROJECT BY ADDENDUM, CHANGE ORDER, CONSTRUCTION CHANGE DIRECTIVE, ARCHITECTURAL SUPPLEMENTARY INSTRUCTIONS, OR SIMILAR INSTRUMENTS PROVIDED FOR IN THE CONDITIONS OF THE CONTRACT. M. PREDEMOLITION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE. 1. COORDINATE OWNERSHIP OF DEMOLITION WASTE WITH OWNER. 2. INSPECT AND AND DISCUSS CONDITION OF CONSTRUCTION TO BE ELECTIVELY DEMOLISHED. 3. REVIEW AREAS WHERE EXISTING CONSTRUCTION IS TO REMAIN AND REQUIRES PROTECTION. N. CLOSEOUT SUBMITTALS PART 1 GENERAL 1.01 SUBMITTALS A. PROJECT RECORD DOCUMENTS: SUBMIT DOCUMENTS TO ARCHITECT WITH CLAIM FOR FINAL APPLICATION FOR B. OPERATION AND MAINTENANCE DATA: 1. SUBMIT TWO COPIES OF PRELIMINARY DRAFT OR PROPOSED FORMATS AND OUTLINES OF CONTENTS BEFORE START OF WORK. ARCHITECT WILL REVIEW DRAFT AND RETURN ONE COPY WITH COMMENTS. 2. FOR EQUIPMENT, OR COMPONENT PARTS OF EQUIPMENT PUT INTO SERVICE DURING CONSTRUCTION OPERATED BY OWNER, SUBMIT COMPLETED DOCUMENTS WITHIN TEN DAYS AFTER ACCEPTANCE. 3. SUBMIT ONE COPY OF COMPLETED DOCUMENTS 15 DAYS PRIOR TO FINAL INSPECTION. THIS COPY WILL PART 3 EXECUTION WORK:

BE REVIEWED AND RETURNED AFTER FINAL INSPECTION, WITH ARCHITECT COMMENTS. REVISE CONTENT OF ALL DOCUMENT SETS AS REQUIRED PRIOR TO FINAL SUBMISSION 4. SUBMIT TWO SETS OF REVISED FINAL DOCUMENTS IN FINAL FORM WITHIN 10 DAYS AFTER FINAL C. WARRANTIES AND BONDS: 1. FOR EQUIPMENT OR COMPONENT PARTS OF EQUIPMENT PUT INTO SERVICE DURING CONSTRUCTION WITH OWNER'S PERMISSION. SUBMIT DOCUMENTS WITHIN 10 DAYS AFTER ACCEPTANCE. 2. MAKE OTHER SUBMITTALS WITHIN 10 DAYS AFTER DATE OF SUBSTANTIAL COMPLETION, PRIOR TO FINAL APPLICATION FOR PAYMENT. 3. FOR ITEMS OF WORK FOR WHICH ACCEPTANCE IS DELAYED BEYOND DATE OF SUBSTANTIAL COMPLETION, SUBMIT WITHIN 10 DAYS AFTER ACCEPTANCE, LISTING THE DATE OF ACCEPTANCE AS THE BEGINNING OF THE WARRANTY PERIOD. 3.01 PROJECT RECORD DOCUMENTS A. MAINTAIN ON SITE ONE SET OF THE FOLLOWING RECORD DOCUMENTS; RECORD ACTUAL REVISIONS TO THE 2. SPECIFICATIONS. ADDENDA. 4. CHANGE ORDERS AND OTHER MODIFICATIONS TO THE CONTRACT. 5. REVIEWED SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES. 6. MANUFACTURER'S INSTRUCTION FOR ASSEMBLY, INSTALLATION, AND ADJUSTING. B. ENSURE ENTRIES ARE COMPLETE AND ACCURATE, ENABLING FUTURE REFERENCE BY OWNER. C. STORE RECORD DOCUMENTS SEPARATE FROM DOCUMENTS USED FOR CONSTRUCTION. D. RECORD INFORMATION CONCURRENT WITH CONSTRUCTION PROGRESS. E. SPECIFICATIONS: LEGIBLY MARK AND RECORD AT EACH PRODUCT SECTION DESCRIPTION OF ACTUAL PRODUCTS INSTALLED, INCLUDING THE FOLLOWING: 1. MANUFACTURER'S NAME AND PRODUCT MODEL AND NUMBER. 2. PRODUCT SUBSTITUTIONS OR ALTERNATES UTILIZED. 3. CHANGES MADE BY ADDENDA AND MODIFICATIONS. F. RECORD DRAWINGS AND SHOP DRAWINGS: LEGIBLY MARK EACH ITEM TO RECORD ACTUAL CONSTRUCTION 1. MEASURED HORIZONTAL AND VERTICAL LOCATIONS OF UNDERGROUND UTILITIES AND APPURTENANCES, REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. 2. MEASURED LOCATIONS OF INTERNAL UTILITIES AND APPURTENANCES CONCEALED IN CONSTRUCTION, REFERENCED TO VISIBLE AND ACCESSIBLE FEATURES OF THE WORK. 3. FIELD CHANGES OF DIMENSION AND DETAIL. 4. DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS. 3.02 OPERATION AND MAINTENANCE DATA A. SOURCE DATA: FOR EACH PRODUCT OR SYSTEM, LIST NAMES, ADDRESSES AND TELEPHONE NUMBERS OF SUBCONTRACTORS AND SUPPLIERS, INCLUDING LOCAL SOURCE OF SUPPLIES AND REPLACEMENT PARTS. DATA APPLICABLE TO INSTALLATION. DELETE INAPPLICABLE INFORMATION. C. DRAWINGS: SUPPLEMENT PRODUCT DATA TO ILLUSTRATE RELATIONS OF COMPONENT PARTS OF EQUIPMENT AND SYSTEMS, TO SHOW CONTROL AND FLOW DIAGRAMS. DO NOT USE PROJECT RECORD DOCUMENTS AS D. TYPED TEXT: AS REQUIRED TO SUPPLEMENT PRODUCT DATA. PROVIDE LOGICAL SEQUENCE OF INSTRUCTIONS FOR EACH PROCEDURE, INCORPORATING MANUFACTURER'S INSTRUCTIONS. 3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES A. FOR EACH PRODUCT, APPLIED MATERIAL, AND FINISH 1. PRODUCT DATA, WITH CATALOG NUMBER, SIZE, COMPOSITION, AND COLOR AND TEXTURE 2. INFORMATION FOR RE-ORDERING CUSTOM MANUFACTURED PRODUCTS. B. INSTRUCTIONS FOR CARE AND MAINTENANCE: MANUFACTURER'S RECOMMENDATIONS FOR CLEANING AGENTS AND METHODS, PRECAUTIONS AGAINST DETRIMENTAL CLEANING AGENTS AND METHODS, AND RECOMMENDED SCHEDULE FOR CLEANING AND MAINTENANCE. C. ADDITIONAL INFORMATION AS SPECIFIED IN INDIVIDUAL PRODUCT SPECIFICATION SECTIONS. D. WHERE ADDITIONAL INSTRUCTIONS ARE REQUIRED, BEYOND THE MANUFACTURER'S STANDARD PRINTED INSTRUCTIONS, HAVE INSTRUCTIONS PREPARED BY PERSONNEL EXPERIENCED IN THE OPERATION AND MAINTENANCE OF THE SPECIFIC PRODUCTS. 3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS A. FOR EACH ITEM OF EQUIPMENT AND EACH SYSTEM: 1. DESCRIPTION OF UNIT OR SYSTEM, AND COMPONENT PARTS. 2. IDENTIFY FUNCTION, NORMAL OPERATING CHARACTERISTICS, AND LIMITING CONDITIONS. 3. INCLUDE PERFORMANCE CURVES, WITH ENGINEERING DATA AND TESTS. 4. COMPLETE NOMENCLATURE AND MODEL NUMBER OF REPLACEABLE PARTS. B. WHERE ADDITIONAL INSTRUCTIONS ARE REQUIRED, BEYOND THE MANUFACTURER'S STANDARD PRINTED INSTRUCTIONS, HAVE INSTRUCTIONS PREPARED BY PERSONNEL EXPERIENCED IN THE OPERATION AND MAINTENANCE OF THE SPECIFIC PRODUCTS. C. PANELBOARD CIRCUIT DIRECTORIES: PROVIDE ELECTRICAL SERVICE CHARACTERISTICS, CONTROLS, AND D. OPERATING PROCEDURES: INCLUDE START-UP, BREAK-IN, AND ROUTINE NORMAL OPERATING INSTRUCTIONS AND SEQUENCES. INCLUDE REGULATION, CONTROL, STOPPING, SHUT-DOWN, AND EMERGENCY INSTRUCTIONS. INCLUDE SUMMER, WINTER, AND ANY SPECIAL OPERATING INSTRUCTIONS E. MAINTENANCE REQUIREMENTS: INCLUDE ROUTINE PROCEDURES AND GUIDE FOR PREVENTATIVE MAINTENANCE AND TROUBLE SHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY INSTRUCTIONS; AND ALIGNMENT, ADJUSTING, BALANCING, AND CHECKING INSTRUCTIONS F. PROVIDE SERVICING AND LUBRICATION SCHEDULE, AND LIST OF LUBRICANTS REQUIRED. G. INCLUDE MANUFACTURER'S PRINTED OPERATION AND MAINTENANCE INSTRUCTIONS. H. INCLUDE SEQUENCE OF OPERATION BY CONTROLS MANUFACTURER. I. PROVIDE ORIGINAL MANUFACTURER'S PARTS LIST, ILLUSTRATIONS, ASSEMBLY DRAWINGS, AND DIAGRAMS J. PROVIDE CHARTS OF VALVE TAG NUMBERS, WITH LOCATION AND FUNCTION OF EACH VALVE, KEYED TO FLOW AND CONTROL DIAGRAMS K. INCLUDE TEST AND BALANCING REPORTS. L. ADDITIONAL REQUIREMENTS: AS SPECIFIED IN INDIVIDUAL PRODUCT SPECIFICATION SECTIONS. 3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS A. ASSEMBLE OPERATION AND MAINTENANCE DATA INTO DURABLE MANUALS FOR OWNER'S PERSONNEL USE, WITH DATA ARRANGED IN THE SAME SEQUENCE AS, AND IDENTIFIED BY, THE SPECIFICATION SECTIONS. B. WHERE SYSTEMS INVOLVE MORE THAN ONE SPECIFICATION SECTION, PROVIDE SEPARATE TABBED DIVIDER C. BINDERS: COMMERCIAL QUALITY, 8-1/2 BY 11 INCH THREE D SIDE RING BINDERS WITH DURABLE PLASTIC COVERS; 2 INCH MAXIMUM RING SIZE. WHEN MULTIPLE BINDERS ARE USED, CORRELATE DATA INTO RELATED CONSISTENT GROUPINGS. D. COVER: IDENTIFY EACH BINDER WITH TYPED OR PRINTED TITLE OPERATION AND MAINTENANCE INSTRUCTIONS; IDENTIFY TITLE OF PROJECT; IDENTIFY SUBJECT MATTER OF CONTENTS E. PROJECT DIRECTORY: TITLE AND ADDRESS OF PROJECT; NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF ARCHITECT, CONSULTANTS, CONTRACTOR AND SUBCONTRACTORS, WITH NAMES OF RESPONSIBLE PARTIES. F. TABLES OF CONTENTS: LIST EVERY ITEM SEPARATED BY A DIVIDER, USING THE SAME IDENTIFICATION AS ON THE DIVIDER TAB; WHERE MULTIPLE VOLUMES ARE REQUIRED, INCLUDE ALL VOLUMES TABLES OF CONTENTS IN EACH VOLUME, WITH THE CURRENT VOLUME CLEARLY IDENTIFIED. G. DIVIDERS: PROVIDE TABBED DIVIDERS FOR EACH SEPARATE PRODUCT AND SYSTEM; IDENTIFY THE CONTENTS ON THE DIVIDER TAB; IMMEDIATELY FOLLOWING THE DIVIDER TAB INCLUDE A DESCRIPTION OF PRODUCT AND MAJOR COMPONENT PARTS OF EQUIPMENT. H. TEXT: MANUFACTURER'S PRINTED DATA, OR TYPEWRITTEN DATA ON 20 POUND PAPER. I. DRAWINGS: PROVIDE WITH REINFORCED PUNCHED BINDER TAB. BIND IN WITH TEXT; FOLD LARGER DRAWINGS TO SIZE OF TEXT PAGES. J. ARRANGEMENT OF CONTENTS: ORGANIZE EACH VOLUME IN PARTS AS FOLLOWS: 1. PROJECT DIRECTORY. 2. TABLE OF CONTENTS, OF ALL VOLUMES, AND OF THIS VOLUME. 3. OPERATION AND MAINTENANCE DATA: ARRANGED BY SYSTEM, THEN BY PRODUCT CATEGORY. a. SOURCE DATA. b. OPERATION AND MAINTENANCE DATA. c. FIELD QUALITY CONTROL DATA. d. PHOTOCOPIES OF WARRANTIES AND BONDS. 3.06 WARRANTIES AND BONDS A. OBTAIN WARRANTIES AND BONDS, EXECUTED IN DUPLICATE BY RESPONSIBLE SUBCONTRACTORS, SUPPLIERS AND MANUFACTURERS, WITHIN 10 DAYS AFTER COMPLETION OF THE APPLICABLE ITEM OF WORK. EXCEPT FOR ITEMS PUT INTO USE WITH OWNER'S PERMISSION, LEAVE DATE OF BEGINNING OF TIME OF WARRANTY UNTIL DATE OF SUBSTANTIAL COMPLETION IS DETERMINED. B. VERIFY THAT DOCUMENTS ARE IN PROPER FORM, CONTAIN FULL INFORMATION, AND ARE NOTARIZED. C. CO-EXECUTE SUBMITTALS WHEN REQUIRED. D. RETAIN WARRANTIES AND BONDS UNTIL TIME SPECIFIED FOR SUBMITTAL. E. MANUAL: BIND IN COMMERCIAL QUALITY 8-1/2 BY 11 INCH THREE D SIDE RING BINDERS WITH DURABLE PLASTIC F. COVER: IDENTIFY EACH BINDER WITH TYPED OR PRINTED TITLE WARRANTIES AND BONDS, WITH TITLE OF PROJECT; NAME, ADDRESS AND TELEPHONE NUMBER OF CONTRACTOR AND EQUIPMENT SUPPLIER; AND NAME OF RESPONSIBLE COMPANY PRINCIPAL. G. TABLE OF CONTENTS: NEATLY TYPED, IN THE SEQUENCE OF THE TABLE OF CONTENTS OF THE PROJECT MANUAL, WITH EACH ITEM IDENTIFIED WITH THE NUMBER AND TITLE OF THE SPECIFICATION SECTION IN WHICH SPECIFIED, AND THE NAME OF PRODUCT OR WORK ITEM. SEPARATE EACH WARRANTY OR BOND WITH INDEX TAB SHEETS KEYED TO THE TABLE OF CONTENTS LISTING. PROVIDE FULL INFORMATION. USING SEPARATE TYPED SHEETS AS NECESSARY. LIST SUBCONTRACTOR, SUPPLIER, AND MANUFACTURER, WITH NAME, ADDRESS, AND TELEPHONE NUMBER OF RESPONSIBLE PRINCIPAL. O. ALTERNATES **PART 1 GENERAL** 1.01 SECTION INCLUDES A. DESCRIPTION OF ALTERNATES 1.02 ACCEPTANCE OF ALTERNATES A. ALTERNATES QUOTED ON BID FORMS WILL BE REVIEWED AND ACCEPTED OR REJECTED AT OWNER'S OPTION. ACCEPTED ALTERNATES WILL BE IDENTIFIED IN THE OWNER-CONTRACTOR AGREEMENT. COORDINATE RELATED WORK AND MODIFY SURROUNDING WORK TO INTEGRATE THE WORK OF EACH ALTERNATE. 1.03 SCHEDULE OF ALTERNATES A. ALTERNATE NO. 1 - ADD DEMOLITION OF EXISTING LIGHT FIXTURES WITHIN CLASSROOM AND PROVIDE NEW LIGHT FIXTURES TO MATCH NEW LAY-IN FIXTURES IN CLASSROOM 236. ALTERNATE NO. 2 - EXTEND EXISTING WALL ASSEMBLY OF CLASSROOM ABOVE CEILING AND SEAL TO UNDERSIDE OF DECK ABOVE: PART 2 PRODUCTS - NOT USED PART 3 EXECUTION - NOT USED

**SPECIFICATIONS** 

OPERATIONS. PROVIDE POSITIVE MEANS TO PREVENT AIR-BORNE DUST FROM DISPERSING INTO 4. NOISE CONTROL: PROVIDE METHODS, MEANS, AND FACILITIES TO MINIMIZE NOISE PRODUCED BY 1. DRAWINGS SHOWING EXISTING CONSTRUCTION AND UTILITIES ARE BASED ON CASUAL FIELD OBSERVATION a. VERIFY THAT CONSTRUCTION AND UTILITY ARRANGEMENTS ARE AS INDICATED. b. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION. c. BEGINNING OF DEMOLITION WORK CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS THAT WOULD BE APPARENT UPON EXAMINATION PRIOR TO STARTING DEMOLITION. 2. MAINTAIN WEATHERPROOF EXTERIOR BUILDING ENCLOSURE EXCEPT FOR INTERRUPTIONS REQUIRED FOR REPLACEMENT OR MODIFICATIONS; TAKE CARE TO PREVENT WATER AND HUMIDITY DAMAGE. 3. REMOVE EXISTING WORK AS INDICATED AND AS REQUIRED TO ACCOMPLISH NEW WORK. a. PREVENT MOVEMENT OF STRUCTURE; PROVIDE SHORING AND BRACING IF NECESSARY. b. PERFORM CUTTING TO ACCOMPLISH REMOVALS NEATLY AND AS SPECIFIED FOR CUTTING NEW WORK. c. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING REMOVAL WORK. C. SALVAGE: CAREFULLY REMOVE EXISTING SIGNAGE WHERE INDICATED TO BE REMOVED FOR NEW CONSTRUCTION, 1. VERIFY THAT EXISTING CONDITIONS AND SUBSTRATE SURFACES ARE ACCEPTABLE FOR SUBSEQUENT WORK. 2. VERIFY THAT EXISTING SUBSTRATE IS CAPABLE OF STRUCTURAL SUPPORT OR ATTACHMENT OF NEW WORK 3. TAKE FIELD MEASUREMENTS BEFORE CONFIRMING PRODUCT ORDERS OR BEGINNING FABRICATION, TO 4. VERIFY THAT UTILITY SERVICES ARE AVAILABLE, OF THE CORRECT CHARACTERISTICS, AND IN THE CORRECT 5. PRIOR TO CUTTING: EXAMINE EXISTING CONDITIONS PRIOR TO COMMENCING WORK, INCLUDING ELEMENTS SUBJECT TO DAMAGE OR MOVEMENT DURING CUTTING AND PATCHING. AFTER UNCOVERING EXISTING WORK, ASSESS CONDITIONS AFFECTING PERFORMANCE OF WORK. BEGINNING OF CUTTING OR PATCHING 6. REPORT IN WRITING TO ARCHITECT PREVAILING CONDITIONS THAT WILL ADVERSELY AFFECT SATISFACTORY EXECUTION OF THE WORK OF THIS SECTION. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY 7. BY BEGINNING WORK, CONTRACTOR ACCEPTS CONDITIONS AND ASSUMES RESPONSIBILITY FOR CORRECTING UNSUITABLE CONDITIONS ENCOUNTERED AT NO ADDITIONAL COST TO THE OWNER. 1. CLEAN SUBSTRATE SURFACES PRIOR TO APPLYING NEXT MATERIAL OR SUBSTANCE 2. SEAL CRACKS OR OPENINGS OF SUBSTRATE PRIOR TO APPLYING NEXT MATERIAL OR SUBSTANCE. 3. APPLY MANUFACTURER REQUIRED OR RECOMMENDED SUBSTRATE PRIMER, SEALER, OR CONDITIONER PRIOR TO APPLYING ANY NEW MATERIAL OR SUBSTANCE IN CONTACT OR BOND. 1. DRAWINGS SHOWING EXISTING CONSTRUCTION AND UTILITIES ARE BASED ON CASUAL FIELD OBSERVATION a. VERIFY THAT CONSTRUCTION AND UTILITY ARRANGEMENTS ARE AS INDICATED. b. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION. c. BEGINNING OF ALTERATIONS WORK CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS. 2. MAINTAIN WEATHERPROOF EXTERIOR BUILDING ENCLOSURE EXCEPT FOR INTERRUPTIONS REQUIRED FOR REPLACEMENT OR MODIFICATIONS; TAKE CARE TO PREVENT WATER AND HUMIDITY DAMAGE. a. WHERE OPENINGS IN EXTERIOR ENCLOSURE EXIST, PROVIDE CONSTRUCTION TO MAKE EXTERIOR b. INSULATE EXISTING DUCTS OR PIPES THAT ARE EXPOSED TO OUTDOOR AMBIENT TEMPERATURES 3. REMOVE EXISTING WORK AS INDICATED AND AS REQUIRED TO ACCOMPLISH NEW WORK. a. REMOVE ROTTED WOOD, CORRODED METALS, AND DETERIORATED MASONRY AND CONCRETE; d. WHERE NEW SURFACE FINISHES ARE TO BE APPLIED TO EXISTING WORK, PERFORM REMOVALS PATCH, AND PREPARE EXISTING SURFACES AS REQUIRED TO RECEIVE NEW FINISH; REMOVE EXISTING FINISH IF NECESSARY FOR SUCCESSFUL APPLICATION OF NEW FINISH. e. WHERE NEW SURFACE FINISHES ARE NOT SPECIFIED OR INDICATED, PATCH HOLES AND DAMAGED SURFACES TO MATCH ADJACENT FINISHED SURFACES AS CLOSELY AS POSSIBLE. 4. SERVICES (INCLUDING BUT NOT LIMITED TO HVAC, PLUMBING, FIRE PROTECTION, ELECTRICAL, AND TELECOMMUNICATIONS): REMOVE, RELOCATE, AND EXTEND EXISTING SYSTEMS TO ACCOMMODATE NEW a. MAINTAIN EXISTING ACTIVE SYSTEMS THAT ARE TO REMAIN IN OPERATION: MAINTAIN ACCESS TO EQUIPMENT AND OPERATIONAL COMPONENTS; IF NECESSARY, MODIFY INSTALLATION TO ALLOW b. WHERE EXISTING SYSTEMS OR EQUIPMENT ARE NOT ACTIVE AND CONTRACT DOCUMENTS REQUIRE REACTIVATION, PUT BACK INTO OPERATIONAL CONDITION; REPAIR SUPPLY, DISTRIBUTION, AND c. WHERE EXISTING ACTIVE SYSTEMS SERVE OCCUPIED FACILITIES BUT ARE TO BE REPLACED WITH NEW SERVICES, MAINTAIN EXISTING SYSTEMS IN SERVICE UNTIL NEW SYSTEMS ARE COMPLETE AND 1) DISABLE EXISTING SYSTEMS ONLY TO MAKE SWITCHOVERS AND CONNECTIONS; MINIMIZE 2) PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN EXISTING SYSTEMS IN d. VERIFY THAT ABANDONED SERVICES SERVE ONLY ABANDONED FACILITIES. REMOVE ABANDONED PIPE, DUCTS, CONDUITS, AND EQUIPMENT, INCLUDING THOSE ABOVE ACCESSIBLE CEILINGS; REMOVE BACK TO SOURCE OF SUPPLY WHERE POSSIBLE, OTHERWISE CAP STUB AND TAG WITH IDENTIFICATION; PATCH HOLES LEFT BY REMOVAL USING MATERIALS SPECIFIED a. PREVENT MOVEMENT OF STRUCTURE; PROVIDE SHORING AND BRACING IF NECESSARY b. PERFORM CUTTING TO ACCOMPLISH REMOVALS NEATLY AND AS SPECIFIED FOR CUTTING NEW c. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING REMOVAL WORK. 6. ADAPT EXISTING WORK TO FIT NEW WORK: MAKE AS NEAT AND SMOOTH TRANSITION AS POSSIBLE a. WHEN EXISTING FINISHED SURFACES ARE CUT SO THAT A SMOOTH TRANSITION WITH NEW WORK IS NOT POSSIBLE, TERMINATE EXISTING SURFACE ALONG A STRAIGHT LINE AT A NATURAL LINE OF b. WHERE REMOVAL OF PARTITIONS OR WALLS RESULTS IN ADJACENT SPACES BECOMING ONE, REWORK FLOORS, WALLS, AND CEILINGS TO A SMOOTH PLANE WITHOUT BREAKS, STEPS, OR BULKHEADS. c. WHERE A CHANGE OF PLANE OF 1/4 INCH OR MORE OCCURS IN EXISTING WORK, SUBMIT RECOMMENDATION FOR PROVIDING A SMOOTH TRANSITION FOR ARCHITECT REVIEW AND REQUEST 7. PATCHING: WHERE THE EXISTING SURFACE IS NOT INDICATED TO BE REFINISHED, PATCH TO MATCH THE SURFACE FINISH THAT EXISTED PRIOR TO CUTTING. WHERE THE SURFACE IS INDICATED TO BE REFINISHED, a. WHERE ROOMS OR SPACES ARE INDICATED TO BE REFINISHED, REFINISH ALL VISIBLE EXISTING SURFACES TO REMAIN TO THE SPECIFIED CONDITION FOR EACH MATERIAL, WITH A NEAT b. IF MECHANICAL OR ELECTRICAL WORK IS EXPOSED ACCIDENTALLY DURING THE WORK, RE-COVER 10. REMOVE DEMOLITION DEBRIS AND ABANDONED ITEMS FROM ALTERATIONS AREAS AND DISPOSE OF OFF-11. DO NOT BEGIN NEW CONSTRUCTION IN ALTERATIONS AREAS BEFORE DEMOLITION IS COMPLETE. 1. WHENEVER POSSIBLE, EXECUTE THE WORK BY METHODS THAT AVOID CUTTING OR PATCHING. c. PROVIDE OPENINGS FOR PENETRATION OF MECHANICAL, ELECTRICAL, AND OTHER SERVICES. REMOVE SAMPLES OF INSTALLED WORK FOR TESTING WHEN REQUESTED. 4. EXECUTE WORK BY METHODS THAT AVOID DAMAGE TO OTHER WORK AND THAT WILL PROVIDE APPROPRIATE SURFACES TO RECEIVE PATCHING AND FINISHING. IN EXISTING WORK, MINIMIZE DAMAGE AND RESTORE TO 5. EMPLOY ORIGINAL INSTALLER TO PERFORM CUTTING FOR WEATHER EXPOSED AND MOISTURE RESISTANT 6. CUT RIGID MATERIALS USING MASONRY SAW OR CORE DRILL. PNEUMATIC TOOLS NOT ALLOWED WITHOUT 7. RESTORE WORK WITH NEW PRODUCTS IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS 8. FIT WORK AIR TIGHT TO PIPES, SLEEVES, DUCTS, CONDUIT, AND OTHER PENETRATIONS THROUGH SURFACES. 9. AT PENETRATIONS OF FIRE RATED WALLS, PARTITIONS, CEILING, OR FLOOR CONSTRUCTION, COMPLETELY SEAL VOIDS WITH FIRE RATED MATERIAL IN ACCORDANCE WITH SECTION 07 84 00, TO FULL THICKNESS OF a. FINISH PATCHED SURFACES TO MATCH FINISH THAT EXISTED PRIOR TO PATCHING. ON CONTINUOUS SURFACES, REFINISH TO NEAREST INTERSECTION OR NATURAL BREAK. FOR AN ASSEMBLY, c. REPAIR PATCHED SURFACES THAT ARE DAMAGED, LIFTED, DISCOLORED, OR SHOWING OTHER

**SPECIFICATIONS** 

3. DUST CONTROL: EXECUTE WORK BY METHODS TO MINIMIZE RAISING DUST FROM CONSTRUCTION

2. VENTILATE ENCLOSED AREAS TO ASSIST CURE OF MATERIALS, TO DISSIPATE HUMIDITY, AND TO PREVENT

**DIVISION 2 - EXISTING CONSTRUCTION** 

B. DEMOLITION:

D. EXAMINATION:

E. PREPARATION:

F. ALTERATIONS:

A. PROJECT CONDITIONS:

1. USE OF EXPLOSIVES IS NOT PERMITTED.

CONSTRUCTION OPERATIONS.

ACCUMULATION OF DUST, FUMES, VAPORS, OR GASES.

d. PATCH AS SPECIFIED FOR PATCHING NEW WORK.

START OF WORK MEANS ACCEPTANCE OF EXISTING CONDITIONS.

MINIMIZE WASTE DUE TO OVER-ORDERING OR MISFABRICATION.

MEANS ACCEPTANCE OF EXISTING CONDITIONS.

CONDITIONS HAVE BEEN CORRECTED.

AND EXISTING RECORD DOCUMENTS ONLY.

ENCLOSURE WEATHERPROOF.

REPLACE WITH NEW CONSTRUCTION SPECIFIED.

b. REMOVE ITEMS INDICATED ON DRAWINGS.

ACCESS OR PROVIDE ACCESS PANEL

DURATION OF OUTAGES.

SERVICE.

DIVISION AND MAKE RECOMMENDATION TO ARCHITECT.

PATCH SO THAT THE SUBSTRATE IS READY FOR THE NEW FINISH.

12. COMPLY WITH ALL OTHER APPLICABLE REQUIREMENTS OF THIS SECTION.

b. FIT PRODUCTS TOGETHER TO INTEGRATE WITH OTHER WORK

e. REPAIR AREAS ADJACENT TO CUTS TO REQUIRED CONDITION

h. REMOVE AND REPLACE DEFECTIVE AND NON-CONFORMING WORK.

IMPERFECTIONS DUE TO PATCHING WORK. IF DEFECTS ARE DUE TO CONDITION OF SUBSTRATE,

11. ACOUSTICAL CONSTRUCTION PATCHING: OPENINGS IN ACOUSTICALLY SIGNIFICANT CONSTRUCTION, AS

. MAINTAIN AREAS FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH. MAINTAIN SITE IN A CLEAN AND

3. BROOM AND VACUUM CLEAN INTERIOR AREAS PRIOR TO START OF SURFACE FINISHING, AND CONTINUE

OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE SELECTIVE DEMOLITION

5. COLLECT AND REMOVE WASTE MATERIALS, DEBRIS, AND TRASH/RUBBISH FROM SITE PERIODICALLY AND

7. SUBSTANTIAL COMPLETION AND FINAL COMPLETION CLEANING: SPECIFIED IN SECTION 01 7700 -CLOSEOUT

3. PROVIDE TEMPORARY AND REMOVABLE PROTECTION FOR INSTALLED PRODUCTS. CONTROL ACTIVITY IN

4. PROVIDE PROTECTIVE COVERINGS AT WALLS, PROJECTIONS, JAMBS, SILLS, AND SOFFITS OF OPENINGS.

6. PROTECT WORK FROM SPILLED LIQUIDS. IF WORK IS EXPOSED TO SPILLED LIQUIDS, IMMEDIATELY REMOVE

7. PROHIBIT TRAFFIC OR STORAGE UPON WATERPROOFED OR ROOFED SURFACES. IF TRAFFIC OR ACTIVITY IS

9. REMOVE PROTECTIVE COVERINGS WHEN NO LONGER NEEDED; REUSE OR RECYCLE COVERINGS IF POSSIBLE.

5. PROTECT FINISHED FLOORS, STAIRS, AND OTHER SURFACES FROM TRAFFIC, DIRT, WEAR, DAMAGE, OR

NECESSARY, OBTAIN RECOMMENDATIONS FOR PROTECTION FROM WATERPROOFING OR ROOFING

4. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION

2. REMOVE DEBRIS AND RUBBISH FROM PIPE CHASES, PLENUMS, ATTICS, CRAWL SPACES, AND OTHER

DEFINED BY THE PENETRATION CONTROL DRAWINGS, SHALL BE PATCHED TO BE AIRTIGHT AND HAVE

2. SEE ALTERATIONS ARTICLE ABOVE FOR ADDITIONAL REQUIREMENTS.

d. MATCH WORK THAT HAS BEEN CUT TO ADJACENT WORK.

f. REPAIR NEW WORK DAMAGED BY SUBSEQUENT WORK.

3. PERFORM WHATEVER CUTTING AND PATCHING IS NECESSARY TO:

FOR NEW CONSTRUCTION.

8. REFINISH EXISTING SURFACES AS INDICATED

AND REFINISH TO MATCH.

a. COMPLETE THE WORK.

ELEMENTS, AND SIGHT EXPOSED SURFACES.

THE PENETRATED ELEMENT.

ORDERLY CONDITION.

PROCEDURES

I. PROTECTION OF INSTALLED WORK:

MATERIAL MANUFACTURER.

CLEANING TO ELIMINATE DUST.

DISPOSE OFF-SITE; DO NOT BURN OR BURY.

IMMEDIATE WORK AREA TO PREVENT DAMAGE.

8. PROHIBIT TRAFFIC FROM LANDSCAPED AREAS.

REFINISH ENTIRE UNIT.

b. MATCH COLOR, TEXTURE, AND APPEARANCE.

REPAIR SUBSTRATE PRIOR TO REPAIRING FINISH

CLOSED OR REMOTE SPACES. PRIOR TO ENCLOSING THE SPACE.

6. COMPLY WITH OWNER PROGRESS CLEANING REQUIREMENTS.

SIMILAR SURFACE WEIGHT COMPARED TO SURROUNDING CONSTRUCTION.

1. PROTECT INSTALLED WORK FROM DAMAGE BY CONSTRUCTION OPERATIONS.

2. PROVIDE SPECIAL PROTECTION WHERE SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS.

MOVEMENT OF HEAVY OBJECTS. BY PROTECTING WITH DURABLE SHEET MATERIALS.

PROTECTIVE COVERINGS, DRY OUT WORK, AND REPLACE PROTECTIVE COVERINGS.

9. CLEAN EXISTING SYSTEMS AND EQUIPMENT.

TRANSITION TO ADJACENT FINISHES.

5. PROTECT EXISTING WORK TO REMAIN

c RELOCATE ITEMS INDICATED ON DRAWINGS

BY ALTERATIONS WORK.

ATMOSPHERE AND OVER ADJACENT PROPERTY.

AND EXISTING RECORD DOCUMENTS ONLY.

4. PROTECT EXISTING WORK TO REMAIN.

CLEAN AND STORE FOR REINSTALLATION.

BEING APPLIED OR ATTACHED.



10 WEST SEVENTH, SUITE 710

ULSA, OK 74119 T· 918 583 5300 918.585.1967

OKLAHOMA CITY 1 DEAN A McGEE AVE, SUITE 135 OKLAHOMA CITY, OK 73102 : 405.232.7007

**NEW YORK CITY** 87 PARK AVENUE SOUTH NFW YORK. NY 10010 : 917.522.1703

**CONSULTANT:** 

ISSUE / REVISION:

I CONSTRUCTION **DOCUMENTS** 

SHEET NUMBER

FOR FIRE TESTING; 2010 (REAPPROVED 2017).

RIGHT BECK ASSOCIATES ARCHITECTS, PLLC; DBA BECK DESIGN - 05.17.2024

10 WEST SEVENTH, SUITE 710 ULSA, OK 74119 T· 918 583 5300 : 918.585.1967

**OKLAHOMA CITY** 1 DEAN A McGEE AVE. SUITE 135 OKLAHOMA CITY, OK 73102 T: 405.232.7007

**NEW YORK CITY** 87 PARK AVENUE SOUTH NEW YORK, NY 10010 : 917.522.1703

PROJECT: RENOVATION

**CONSULTANT:** 

**ISSUE / REVISION:** 

SEAL:

CONSTRUCTION

**DOCUMENTS** 

**ISSUE DATE:** 

05.17.2024

SHEET NUMBER

D. MAINTENANCE MATERIALS: FURNISH THE FOLLOWING FOR OWNER'S USE IN MAINTENANCE OF PROJECT.

2. SUBSTITUTIONS: SEE SECTION PRODUCT REQUIREMENTS AND SECTION SUBSTITUTION PROCEDURES.

2. SUBSTITUTIONS: SEE SECTION PRODUCT REQUIREMENTS AND SECTION SUBSTITUTION PROCEDURES.

A. METAL SUSPENSION SYSTEMS - GENERAL: COMPLYING WITH ASTM C635/C635M; DIE CUT AND INTERLOCKING

B. EXPOSED STEEL SUSPENSION SYSTEM: FORMED STEEL, COMMERCIAL QUALITY COLD ROLLED; HEAVY-DUTY.

A. SUPPORT CHANNELS AND HANGERS: GALVANIZED STEEL; SIZE AND TYPE TO SUIT APPLICATION AND CEILING

A. ASTM E648 - STANDARD TEST METHOD FOR CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS USING A

B. VERIFICATION SAMPLES: SUBMIT TWO SAMPLES, 4 BY 4 INCH IN SIZE ILLUSTRATING COLOR AND PATTERN FOR

CHARACTERISTICS; INCLUDING SIZES, PATTERNS AND COLORS AVAILABLE; AND INSTALLATION INSTRUCTIONS.

1. FOR ANY PRODUCT NOT IDENTIFIED AS "BASIS OF DESIGN," SUBMIT INFORMATION AS SPECIFIED FOR

B. ASTM E662 - STANDARD TEST METHOD FOR SPECIFIC OPTICAL DENSITY SMOKE GENERATED BY SOLID

C. PRODUCT DATA: PROVIDE DATA ON SPECIFIED PRODUCTS, DESCRIBING PHYSICAL AND PERFORMANCE

B. SUBSTITUTIONS: SEE SECTION PRODUCT REQUIREMENTS AND SECTION SUBSTITUTION PROCEDURES.

A. PRIMERS AND ADHESIVES: WATERPROOF; TYPES RECOMMENDED BY WALL BASE MANUFACTURER.

A. THIS SECTION APPLIES TO FLOORS IDENTIFIED IN CONTRACT DOCUMENTS THAT ARE RECEIVING THE

FINISHES THAT REQUIRE PREPARATION NOT SPECIFIED IN OTHER SECTIONS.

PREPARATION OF NEW AND EXISTING CONCRETE FLOOR SLABS FOR INSTALLATION OF FLOOR

REMEDIATION OF CONCRETE FLOOR SLABS DUE TO UNSATISFACTORY MOISTURE OR ALKALINITY (PH)

1. CONTRACTOR SHALL PERFORM ALL SPECIFIED REMEDIATION OF CONCRETE FLOOR SLABS. IF SUCH

REMEDIATION IS INDICATED BY TESTING AGENCY'S REPORT AND IS DUE TO A CONDITION NOT UNDER

CONTRACTOR'S CONTROL OR COULD NOT HAVE BEEN PREDICTED BY EXAMINATION PRIOR TO ENTERING

SECTION 014000 - QUALITY REQUIREMENTS: ADDITIONAL REQUIREMENTS RELATING TO TESTING AGENCIES

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL: HANDLING OF EXISTING FLOOR

SECTION 033000 - CAST-IN-PLACE CONCRETE: CONCRETE ADMIXTURE FOR SLABS TO RECEIVE ADHERED

SECTION 033000 - CAST-IN-PLACE CONCRETE: LIMITATIONS ON CURING REQUIREMENTS FOR NEW

ASTM C109/C109M - STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF HYDRAULIC CEMENT

ASTM C472 - STANDARD TEST METHODS FOR PHYSICAL TESTING OF GYPSUM, GYPSUM PLASTERS, AND

ASTM D4259 - STANDARD PRACTICE FOR PREPARATION OF CONCRETE BY ABRASION PRIOR TO COATING

ASTM F710 - STANDARD PRACTICE FOR PREPARING CONCRETE FLOORS TO RECEIVE RESILIENT FLOORING

ASTM F1869 - STANDARD TEST METHOD FOR MEASURING MOISTURE VAPOR EMISSION RATE OF CONCRETE

ASTM F2170 - STANDARD TEST METHOD FOR DETERMINING RELATIVE HUMIDITY IN CONCRETE FLOOR

COORDINATE SCHEDULING OF CLEANING AND TESTING, SO THAT PRELIMINARY CLEANING HAS BEEN

FLOOR COVERING AND ADHESIVE MANUFACTURERS' PRODUCT LITERATURE: FOR EACH SPECIFIC

REMEDIAL MATERIALS PRODUCT DATA: MANUFACTURER'S PUBLISHED DATA ON EACH PRODUCT TO BE

CERTIFICATE: MANUFACTURER'S CERTIFICATION OF COMPATIBILITY WITH TYPES OF FLOORING

SPECIMEN WARRANTY: COPY OF WARRANTY TO BE ISSUED BY COATING MANUFACTURER AND

TEST REPORTS INDICATING COMPLIANCE WITH SPECIFIED PERFORMANCE REQUIREMENTS,

DESCRIPTION OF AREAS TESTED; INCLUDE FLOOR PLANS AND PHOTOGRAPHS IF HELPFUL.

CERTIFICATE: INCLUDE CERTIFICATION OF ACCURACY BY AUTHORIZED OFFICIAL OF TESTING

SUBMIT REPORT NOT MORE THAN TWO BUSINESS DAYS AFTER CONCLUSION OF TESTING.

FLOOR MOISTURE TESTING TECHNICIAN CERTIFICATE: INTERNATIONAL CONCRETE REPAIR INSTITUTE

SEE SECTION 013000 - ADMINISTRATIVE REQUIREMENTS FOR SUBMITTAL PROCEDURES.

COMBINATION OF SUBSTRATE, FLOOR COVERING, AND ADHESIVE TO BE USED; SHOWING:

PERFORMED BY NATIONALLY RECOGNIZED INDEPENDENT TESTING AGENCY.

RECOMMENDATIONS FOR REMEDIATION OF UNSATISFACTORY SURFACES.

MANUFACTURER'S REQUIRED BOND/COMPATIBILITY TEST PROCEDURE.

VISUAL OBSERVATION REPORT: FOR EXISTING FLOOR COVERINGS TO BE REMOVED.

MOISTURE AND ALKALINITY (PH) LIMITS AND TEST METHODS.

CERTIFICATE OF UNDERWRITER'S COVERAGE OF WARRANTY.

PRODUCT DATA FOR RECOMMENDED REMEDIAL COATING.

(ICRI) CONCRETE SLAB MOISTURE TESTING TECHNICIAN- GRADE I CERTIFICATE.

RFCI (RWP) - RECOMMENDED WORK PRACTICES FOR REMOVAL OF RESILIENT FLOOR COVERINGS; 2018.

TESTING OF CONCRETE FLOOR SLABS FOR MOISTURE AND ALKALINITY (PH).

FLOORING, TO PREVENT MOISTURE CONTENT-RELATED FLOORING FAILURES.

INTO THE CONTRACT, A CONTRACT MODIFICATION WILL BE ISSUED.

MORTARS (USING 50 MM [2 IN.] CUBE SPECIMENS); 2023.

SUBFLOOR USING ANHYDROUS CALCIUM CHLORIDE; 2023.

COMPLETED FOR AT LEAST 24 HOURS PRIOR TO TESTING.

MANUFACTURER'S QUALIFICATION STATEMENT.

MANUFACTURER'S INSTALLATION INSTRUCTIONS.

SUMMARY OF CONDITIONS ENCOUNTERED.

COPIES OF SPECIFIED TEST METHODS.

SUBMIT REPORT TO ARCHITECT.

ADHESIVE BOND AND COMPATIBILITY TEST REPORT.

MOISTURE AND ALKALINITY (PH) TEST REPORTS.

APPLIED OVER REMEDIAL PRODUCT.

SLABS USING IN SITU PROBES; 2019A.

USED FOR REMEDIATION.

TESTING AGENCY'S REPORT:

COPY OF RFCI (RWP).

D. MAINTENANCE MATERIALS: FURNISH THE FOLLOWING FOR OWNER'S USE IN MAINTENANCE OF PROJECT.

1. ANGLE MOLDING: L-SHAPED, FOR MOUNTING AT SAME ELEVATION AS FACE OF GRID.

COMPONENTS, WITH PERIMETER MOLDINGS, HOLD DOWN CLIPS, STABILIZER BARS, CLIPS, AND SPLICES AS

a. FOR ANY PRODUCT NOT IDENTIFIED AS "BASIS OF DESIGN," SUBMIT INFORMATION AS SPECIFIED

1. EXTRA ACOUSTICAL UNITS: QUANTITY EQUAL TO 5 PERCENT OF TOTAL INSTALLED.

1. BASIS OF DESIGN: ARMSTRONG CEILINGS- REFER TO INTERIOR FINISH SCHEDULE

**PART 2 PRODUCTS** 

2.01 MANUFACTURERS

2.02 ACOUSTICAL UNITS

2.04 ACCESSORIES

D. RUBBER BASE.

**PART 1 GENERAL** 

1.02 SUBMITTALS

2.01 MANUFACTURERS

**PART 1 GENERAL** 

1.01 SECTION INCLUDES

1.01 REFERENCE STANDARDS

MATERIALS; 2018

2.03 SUSPENSION SYSTEM(S)

A. ACOUSTIC PANELS:

B. SUSPENSION SYSTEMS:

FOR SUBSTITUTIONS.

A. ACOUSTICAL UNITS - ACT-1: ASTM E1264, CLASS A.

B. ACOUSTICAL UNITS - ACT-2: ASTM E1264, CLASS A.

SYSTEM FLATNESS REQUIREMENT SPECIFIED.

EACH WALL BASE PRODUCT SPECIFIED.

E. COMMON WORK RESULTS FOR FLOORING PREPARATION

CARPET TILE.

PATCHING COMPOUND.

COVERINGS REMOVED.

APPLICATION; 2018.

1.04 ADMINISTRATIVE REQUIREMENTS

1.05 SUBMITTALS

CONCRETE FLOOR SLABS.

1.02 RELATED REQUIREMENTS

1.03 REFERENCE STANDARDS

REMEDIAL FLOOR COATINGS.

WHERE APPLICABLE.

1. SAME MANUFACTURER AS FOR ACOUSTICAL UNITS.

B. HANGER WIRE: 12 GAUGE, 0.08 INCH (2 MM) GALVANIZED STEEL WIRE.

E. GYPSUM BOARD: SPECIFIED IN SECTION GYPSUM BOARD ASSEMBLIES.

D. TOUCH-UP PAINT: TYPE AND COLOR TO MATCH ACOUSTICAL AND GRID UNITS.

. ASTM F1861 - STANDARD SPECIFICATION FOR RESILIENT WALL BASE; 2016.

1. EXTRA WALL BASE: 40 LINEAR FT. OF EACH TYPE AND COLOR.

A. BASIS OF DESIGN: JOHNSONITE: SEE ROOM FINISH SCHEDULE

FOLLOWING TYPES OF FLOOR COVERINGS:

REMOVAL OF EXISTING FLOOR COVERINGS.

RESILIENT TILE AND SHEET.

A. SEE SECTION 01 30 00- ADMINISTRATIVE REQUIREMENTS FOR SUBMITTAL PROCEDURES.

C. PERIMETER MOLDINGS: SAME METAL AND FINISH AS GRID.

1. PRODUCT BASIS OF DESIGN: USG MILLENNIA 24 BY 48 INCH SYSTEM

1. PRODUCT BASIS OF DESIGN: USG MILLENNIA 24 BY 24 INCH SYSTEM

#### WITH ASTM C109/C109M OR ASTM C472. WHICHEVER IS APPROPRIATE. REMEDIAL FLOOR COATING: SINGLE- OR MULTI-LAYER COATING OR COATING/OVERLAY COMBINATION INTENDED BY ITS MANUFACTURER TO RESIST WATER VAPOR TRANSMISSION TO DEGREE SUFFICIENT TO MEET FLOORING MANUFACTURER'S EMISSION LIMITS, RESISTANT TO THE LEVEL OF ALKALINITY (PH) FOUND, AND SUITABLE FOR ADHESION OF FLOORING WITHOUT FURTHER TREATMENT. THICKNESS: AS REQUIRED FOR APPLICATION AND IN ACCORDANCE WITH MANUFACTURER'S

INSTALLATION INSTRUCTIONS.

PRODUCTS: BASIS OF DESIGN: UZIN UTZ NORTH AMERICA, INC; UZIN PE 460 WITH UZIN PE 280 AND UZIN NC 170 LEVELSTAR: HTTPS://US.UZIN.COM/#SLE. SUBSTITUTIONS: SEE SECTION 016000 - PRODUCT REQUIREMENTS.

**PART 3 EXECUTION** 3.01 CONCRETE SLAB PREPARATION FOLLOW RECOMMENDATIONS OF TESTING AGENCY. PERFORM FOLLOWING OPERATIONS IN THE ORDER INDICATED:

EXISTING CONCRETE SLABS (ON-GRADE AND ELEVATED) WITH EXISTING FLOOR COVERINGS: VISUAL OBSERVATION OF EXISTING FLOOR COVERING, FOR ADHESION, WATER DAMAGE, ALKALINE DEPOSITS, AND OTHER DEFECTS. REMOVAL OF EXISTING FLOOR COVERING.

EXISTING CONCRETE SLABS WITH COATINGS OR PENETRATING SEALERS/HARDENERS/DUSTPROOFERS: DO NOT ATTEMPT TO REMOVE COATING OR PENETRATING MATERIAL. DO NOT ABRADE SURFACE. REMOVE EXISTING COATINGS, CURING AGENTS, AND MATERIALS FROM SURFACE ACCORDING TO RECOMMENDATIONS OF REMEDIAL COATING MANUFACTURER. PREPARE SURFACE ACCORDING TO RECOMMENDATIONS OF REMEDIAL COATING

MANUFACTURER AND ACCORDING TO ASTM D4259. PRELIMINARY CLEANING. MOISTURE VAPOR EMISSION TESTS; 3 TESTS IN THE FIRST 1000 SQUARE FEET (100 SQUARE METERS) AND ONE TEST IN EACH ADDITIONAL 1000 SQUARE FEET (100 SQUARE METERS), UNLESS OTHERWISE INDICATED OR REQUIRED BY FLOORING MANUFACTURER.

INTERNAL RELATIVE HUMIDITY TESTS; IN SAME LOCATIONS AS MOISTURE VAPOR EMISSION TESTS, UNLESS OTHERWISE INDICATED. ALKALINITY (PH) TESTS; IN SAME LOCATIONS AS MOISTURE VAPOR EMISSION TESTS, UNLESS OTHERWISE INDICATED. SPECIFIED REMEDIATION, IF REQUIRED

PATCHING, SMOOTHING, AND LEVELING, AS REQUIRED. OTHER PREPARATION SPECIFIED. ADHESIVE BOND AND COMPATIBILITY TEST. PROTECTION. REMEDIATIONS:

ACTIVE WATER LEAKS OR CONTINUING MOISTURE MIGRATION TO SURFACE OF SLAB: CORRECT THIS CONDITION BEFORE DOING ANY OTHER REMEDIATION; RE-TEST AFTER CORRECTION. EXCESSIVE MOISTURE EMISSION OR RELATIVE HUMIDITY: IF AN ADHESIVE THAT IS RESISTANT TO THE LEVEL OF MOISTURE PRESENT IS AVAILABLE AND ACCEPTABLE TO FLOORING MANUFACTURER. USE THAT ADHESIVE FOR INSTALLATION OF THE FLOORING: IF NOT. APPLY REMEDIAL FLOOR COATING OR REMEDIAL SHEET MEMBRANE OVER ENTIRE SUSPECT FLOOR ARE

EXCESSIVE ALKALINITY (PH): IF REMEDIAL FLOOR COATING IS NECESSARY TO ADDRESS EXCESSIVE MOISTURE, NO ADDITIONAL REMEDIATION IS REQUIRED; IF NOT, IF AN ADHESIVE THAT IS RESISTAN TO THE LEVEL PRESENT IS AVAILABLE AND ACCEPTABLE TO THE FLOORING MANUFACTURER, USE ADHESIVE FOR INSTALLATION OF THE FLOORING; OTHERWISE, APPLY A SKIM COAT OF FIED PATCHING COMPOUND OVER ENTIRE SUSPECT FLOOR AREA. 3.02 REMOVAL OF EXISTING FLOOR COVERINGS COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND RECOMMENDATIONS OF RFCI (RWP), AS

ICABLE TO FLOOR COVERING BEING REMOVED. DISPOSE OF REMOVED MATERIALS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS AS SPECIFIED. PRELIMINARY CLEANING A. CLEAN FLOORS OF DUST, SOLVENTS, PAINT, WAX, OIL, GREASE, ASPHALT, RESIDUAL ADHESIVE, ADHESIV OVERS, FILM-FORMING CURING COMPOUNDS, SEALING COMPOUNDS, ALKALINE SALTS, EXCESSIVE

ANCE, MOLD, MILDEW, AND OTHER MATERIALS THAT MIGHT PREVENT ADHESIVE BOND. DO NOT USE SOLVENTS OR OTHER CHEMICALS FOR CLEANING. 3.04 MOISTURE VAPOR EMISSION TESTING WHERE THE FLOOR COVERING MANUFACTURER'S REQUIREMENTS CONFLICT WITH EITHER THE ENCED TEST METHOD OR THIS SPECIFICATION, OMPLY WITH THE MANUFACTURER'S REQUIREMENTS.

WHERE THIS SPECIFICATION CONFLICTS WITH THE REFERENCED TEST METHOD, COMPLY WITH THE REQUIREMENTS OF THIS SECTION. TEST IN ACCORDANCE WITH ASTM F1869 AND AS FOLLOWS. PLASTIC SHEET TEST AND MAT BOND TEST MAY NOT BE SUBSTITUTED FOR THE SPECIFIED ASTM TEST METHOD, AS THOSE METHODS DO NOT QUANTIFY THE MOISTURE CONTENT SUFFICIENTLY.

IN THE EVENT THAT TEST VALUES EXCEED FLOOR COVERING MANUFACTURER'S LIMITS, PERFORM REMEDIATION AS INDICATED. IN THE ABSENCE OF MANUFACTURER LIMITS, PERFORM REMEDIATION IF TEST VALUES EXCEED 3 POUNDS PER 1000 SQUARE FEET (1.4 KG PER 93 SQUARE METERS) PER 24 HOURS. REPORT: REPORT THE INFORMATION REQUIRED BY THE TEST METHOD. 3.05 INTERNAL RELATIVE HUMIDITY TESTING WHERE THE FLOOR COVERING MANUFACTURER'S REQUIREMENTS CONFLICT WITH EITHER THE

REFERENCED TEST METHOD OR THIS SPECIFICATION, COMPLY WITH THE MANUFACTURER'S REQUIREMENTS WHERE THIS SPECIFICATION CONFLICTS WITH THE REFERENCED TEST METHOD, COMPLY WITH THE REQUIREMENTS OF THIS SECTION. TEST IN ACCORDANCE WITH ASTM F2170 PROCEDURE A AND AS FOLLOWS TESTING WITH ELECTRICAL IMPEDANCE OR RESISTANCE APPARATUS MAY NOT BE SUBSTITUTED FOR THI

SPECIFIED ASTM TEST METHOD, AS THE VALUES DETERMINED ARE NOT COMPARABLE TO THE ASTM TEST VALUES AND DO NOT QUANTIFY THE MOISTURE CONTENT SUFFICIENTLY. IN THE EVENT THAT TEST VALUES EXCEED FLOOR COVERING MANUFACTURER'S LIMITS, PERFORM REMEDIATION AS INDICATED. IN THE ABSENCE OF MANUFACTURER LIMITS, PERFORM REMEDIATION IF ANY TEST VALUE EXCEEDS 75 PERCENT RELATIVE HUMIDITY.

3.06 ALKALINITY TESTING WHERE THE FLOOR COVERING MANUFACTURER'S REQUIREMENTS CONFLICT WITH EITHER THE REFERENCED TEST METHOD OR THIS SPECIFICATION, COMPLY WITH THE MANUFACTURER'S THE FOLLOWING PROCEDURE IS THE EQUIVALENT OF THAT DESCRIBED IN ASTM F710, REPEATED HERE

USE A WIDE RANGE ALKALINITY (PH) TEST PAPER, ITS ASSOCIATED CHART, AND DISTILLED OR PLACE SEVERAL DROPS OF WATER ON A CLEAN SURFACE OF CONCRETE, FORMING A PUDDLE APPROXIMATELY 1 INCH (25 MM) IN DIAMETER. ALLOW THE PUDDLE TO SET FOR APPROXIMATELY 60 SECONDS, THEN DIP THE ALKALINITY (PH) TEST PAPER INTO THE WATER, REMOVE IT, AND RE IMMEDIATELY TO CHART TO DETERMINE ALKALINITY (PH) READING. USE OF A DIGITAL PH METER WITH PROBE IS ACCEPTABLE; FOLLOW METER MANUFACTURER'S C. IN THE EVENT THAT TEST VALUES EXCEED FLOOR COVERING MANUFACTURER'S LIMITS, PERFORM

REMEDIATION AS INDICATED. IN THE ABSENCE OF MANUFACTURER LIMITS, PERFORM REMEDIATION IF

ALKALINITY (PH) TEST VALUE IS OVER 10. 3.07 PREPARATION SEE INDIVIDUAL FLOOR COVERING SECTION(S) FOR ADDITIONAL REQUIREMENTS. COMPLY WITH RECOMMENDATIONS OF TESTING AGENCY.

REPORT: REPORT THE INFORMATION REQUIRED BY THE TEST METHOD.

FOR THE CONTRACTOR'S CONVENIENCE.

COMPLY WITH REQUIREMENTS AND RECOMMENDATIONS OF FLOOR COVERING MANUFACTURER. FILL AND SMOOTH SURFACE CRACKS, GROOVES, DEPRESSIONS, CONTROL JOINTS AND OTHER NON-MOVING JOINTS, AND OTHER IRREGULARITIES WITH PATCHING COMPOUND.

DO NOT FILL EXPANSION JOINTS, ISOLATION JOINTS, OR OTHER MOVING JOINTS. 3.08 ADHESIVE BOND AND COMPATIBILITY TESTING A. COMPLY WITH REQUIREMENTS AND RECOMMENDATIONS OF FLOOR COVERING MANUFACTURER. 3.09 APPLICATION OF REMEDIAL FLOOR COATING A. COMPLY WITH REQUIREMENTS AND RECOMMENDATIONS OF COATING MANUFACTURER.

3.10 PROTECTION A. COVER PREPARED FLOORS WITH DURABLE COVERING. DO NOT USE ASPHALT BUILDING PAPER.

F. LUXURY VINYL TILE FLOORING. PART 1 GENERAL

RADIANT HEAT ENERGY SOURCE; 2015.

1.01 REFERENCE STANDARDS A. ASTM E648 - STANDARD TEST METHOD FOR CRITICAL RADIANT FLUX OF FLOOR-COVERING SYSTEMS USING A RADIANT HEAT ENERGY SOURCE: 2017. B. ASTM F710 - STANDARD PRACTICE FOR PREPARING CONCRETE FLOORS TO RECEIVE RESILIENT FLOORING; C. ASTM F1861 - STANDARD SPECIFICATION FOR RESILIENT WALL BASE: 2016. D. NFPA 253 - STANDARD METHOD OF TEST FOR CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS USING A

1.02 SUBMITTALS A. SEE SECTION 01 30 00- ADMINISTRATIVE REQUIREMENTS FOR SUBMITTAL PROCEDURES. B. VERIFICATION SAMPLES: SUBMIT TWO SAMPLES, 4 BY 4 INCH IN SIZE ILLUSTRATING COLOR AND PATTERN FOR EACH WALL BASE PRODUCT SPECIFIED. C. PRODUCT DATA: PROVIDE DATA ON SPECIFIED PRODUCTS, DESCRIBING PHYSICAL AND PERFORMANCE CHARACTERISTICS: INCLUDING SIZES, PATTERNS AND COLORS AVAILABLE: AND INSTALLATION INSTRUCTIONS. D. MAINTENANCE MATERIALS: FURNISH THE FOLLOWING FOR OWNER'S USE IN MAINTENANCE OF PROJECT. 1. EXTRA RESILIENT FLOORING: 100 SQUARE FEET OF EACH TYPE AND COLOR

A. LUXURY VINYL TILE: SOLID VINYL WITH COLOR AND PATTERN THROUGHOUT THICKNESS 1. MANUFACTURERS: SEE "ROOM FINISH SCHEDULE" ON DRAWINGS 2. MINIMUM REQUIREMENTS: COMPLY WITH ASTM F1700, OF CLASS CORRESPONDING TO TYPE SPECIFIED. 3. SIZE: REFER TO FINISH SCHEDULE 4. PATTERN: AS INDICATED ON DRAWINGS.

A. SUBFLOOR FILLER: WHITE PREMIX LATEX; TYPE RECOMMENDED BY ADHESIVE MATERIAL MANUFACTURER. B. PRIMERS, ADHESIVES, AND SEAM SEALER: WATERPROOF; TYPES RECOMMENDED BY FLOORING C. MOLDINGS, TRANSITIONS, FEATURE STRIPS, AND EDGE STRIPS: 1. REFER TO FINISH LEGEND FOR TRANSITION STRIPS.

A. ASTM D2859 - STANDARD TEST METHOD FOR IGNITION CHARACTERISTICS OF FINISHED TEXTILE FLOOR B. ASTM E648 - STANDARD TEST METHOD FOR CRITICAL RADIANT FLUX OF FLOOR-COVERING SYSTEMS USING A C. ASTM F710 - STANDARD PRACTICE FOR PREPARING CONCRETE FLOORS TO RECEIVE RESILIENT FLOORING;

SUBFLOOR USING ANHYDROUS CALCIUM CHLORIDE; 2016A. E. ASTM F2170 - STANDARD TEST METHOD FOR DETERMINING RELATIVE HUMIDITY IN CONCRETE FLOOR SLABS F. CRI 104 - STANDARD FOR INSTALLATION OF COMMERCIAL CARPET; 2015.

1.02 QUALITY ASSURANCE AND REGULATORY REQUIREMENTS QUALIFICATIONS OF INSTALLERS: ALL WORK SHALL BE DONE BY INSTALLATION FIRMS SPECIALIZING IN COMMERCIAL CARPET INSTALLATION. IT IS REQUIRED, THAT THE FIRM OR INDIVIDUAL SHALL BE A MEMBER OF THE FLOOR COVERING INSTALLATION CONTRACTORS ASSOCIATION (FCICA) AND/OR CERTIFIED BY THE CERTIFIED FLOORCOVERING INSTALLERS ASSOCIATION (CFI). FLOORING CONTRACTOR TO BE SPECIALTY CONTRACTOR NORMALLY ENGAGED IN THIS TYPE OF WORK AND SHALL HAVE THREE (3) YEARS MINIMUM DOCUMENTED EXPERIENCE IN COMMERCIAL INSTALLATION OF THESE MATERIALS AND PARTICIPATION IN MANUFACTURER'S ENVIRONMENTAL PROGRAM INCLUDING RESPONSIBLE CARPET REMOVAL, RECYCLING,

FLOORING CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER PRODUCT INSTALLATION, INCLUDING FLOOR PREPARATION IN ALL THE AREAS INDICATED IN THE DRAWINGS TO RECEIVE CARPET. THE CARPET INSTALLATION STANDARD WILL BE AS LISTED IN THE CARPET AND RUG INSTITUTE'S STANDARD FOR INSTALLATION OF COMMERCIAL CARPET CRI-104, THE STANDARD THAT ESTABLISHES THE MINIMUM

FLOORING CONTRACTOR TO PROVIDE OWNER A WRITTEN WARRANTY THAT GUARANTEES THE COMPLETED INSTALLATION TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF NO LESS THAN TWO (2) YEARS AFTER JOB COMPLETION.

SUBMIT TO ARCHITECT AND/OR OWNER TEN (10) DAYS PRIOR TO BID, TWO (2) 12" X 12" FINISHED SAMPLES OF THE EXACT TYPE OF CARPET PROPOSED. INCLUDING QUALITY, PATTERN, COLOR, AND BACKING. SUBMIT MANUFACTURER'S WARRANTIES, INSTALLATION INSTRUCTIONS AND MAINTENANCE INSTRUCTIONS BEFORE BID DATE.

MAINTENANCE MATERIALS: FURNISH THE FOLLOWING FOR OWNER'S USE IN MAINTENANCE OF PROJECT. 1. EXTRA CARPET TILES: QUANTITY EQUAL TO 5 PERCENT OF TOTAL INSTALLED OF EACH COLOR AND

PART 2 PRODUCTS 2.01 MANUFACTURERS

A. TILE CARPETING BASIS OF DESIGN: SEE "ROOM FINISH LEGEND" 2.02 ACCESSORIES A. SUBFLOOR FILLER: WHITE PREMIX LATEX; TYPE RECOMMENDED BY FLOORING MATERIAL MANUFACTURER. B. EDGE STRIPS: INDICATED ON "FINISH FLOOR PLANS" ON DRAWINGS.

D. CARPET TILE ADHESIVE: RECOMMENDED BY CARPET TILE MANUFACTURER; RELEASABLE TYPE.

G. SOUND- ABSORBING WALL AND CEILING UNITS **PART 1 GENERAL** 

1.01 SECTION INCLUDES SOUND-ABSORBING PANELS

TESTS; 2023.

1.02 REFERENCE STANDARDS ASTM C423 - STANDARD TEST METHOD FOR SOUND ABSORPTION AND SOUND ABSORPTION COEFFICIENTS BY THE REVERBERATION ROOM METHOD: 2023. ASTM E84 - STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS ASTM E795 - STANDARD PRACTICES FOR MOUNTING TEST SPECIMENS DURING SOUND ABSORPTION

1.03 SUBMITTALS SEE SECTION 013000 - ADMINISTRATIVE REQUIREMENTS FOR SUBMITTAL PROCEDURES PRODUCT DATA: MANUFACTURER'S PRINTED DATA SHEETS FOR PRODUCTS SPECIFIED. SHOP DRAWINGS: FABRICATION AND INSTALLATION DETAILS, PANEL LAYOUT AND FABRIC ORIENTATION. SELECTION SAMPLES: MANUFACTURER'S COLOR CHARTS FOR FABRIC COVERING, INDICATING FULL

RANGE OF FABRICS, COLORS, AND PATTERNS AVAILABLE. VERIFICATION SAMPLES: FABRICATED SAMPLES OF EACH TYPE OF PANEL SPECIFIED; 12 BY 12 INCH (305 BY 305 MM), SHOWING CONSTRUCTION, EDGE DETAILS, AND FABRIC COVERING. TEST REPORTS: CERTIFIED TEST DATA FROM AN INDEPENDENT TEST AGENCY VERIFYING THAT PANELS MEET SPECIFIED REQUIREMENTS FOR ACOUSTICAL AND FIRE PERFORMANCE.

MANUFACTURER'S QUALIFICATION STATEMENT. MAINTENANCE MATERIALS: FURNISH THE FOLLOWING FOR OWNER'S USE IN MAINTENANCE OF PROJECT. SEE SECTION 016000 - PRODUCT REQUIREMENTS, FOR ADDITIONAL PROVISIONS. EXTRA PANELS: QUANTITY EQUAL TO 5 PERCENT OF TOTAL INSTALLED, BUT NOT LESS THAN ONE OF EACH TYPE.

1.04 QUALITY ASSURANCE MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS OF THE TYPE SPECIFIED IN THIS SECTION, WITH AT LEAST TEN YEARS OF DOCUMENTED EXPERIENCE. 1.05 DELIVERY, STORAGE, AND HANDLING

PROTECT ACOUSTICAL UNITS FROM MOISTURE DURING SHIPMENT, STORAGE, AND HANDLING. DELIVER IN FACTORY-WRAPPED BUNDLES; DO NOT OPEN BUNDLES UNTIL UNITS ARE NEEDED FOR INSTALLATION. STORE UNITS FLAT, IN DRY, WELL-VENTILATED SPACE; DO NOT STAND ON END. PROTECT EDGES FROM DAMAGE. 1.06 MOCK-UPS

A. SEE SECTION 014000 - QUALITY REQUIREMENTS FOR ADDITIONAL MOCK-UP REQUIREMENTS. CONSTRUCT MOCK-UP OF ACOUSTICAL UNITS AT LOCATION AS INDICATED BY ARCHITECT. MINIMUM MOCK-UP DIMENSIONS; 96 BY 96 INCHES (2440 BY 2440 MM). MOCK-UP MAY REMAIN AS PART OF WORK.

PART 2 PRODUCTS 2.01 PLASTIC SOUND-ABSORBING UNITS

A. MANUFACTURERS: BASIS-OF-DESIGN SOELBERG: WWW.SOELBERGI.COM.

SUBSTITUTIONS: SEE SECTION 016000 - PRODUCT REQUIREMENTS B. POLYESTER PANELS FOR WALLS: ACOUSTICAL FELT PANELS, TYPE AP-1.

SURFACE BURNING CHARACTERISTICS: FLAME SPREAD INDEX OF 25 OR LESS AND SMOKE DEVELOPED INDEX OF 450 OR LESS, WHEN TESTED IN ACCORDANCE WITH ASTM E84. SOUND ABSORPTION: NOISE REDUCTION COEFFICIENT (NRC) OR SOUND ABSORPTION AVERAGE (SAA) OF 0.30 OR GREATER WHEN TESTED IN ACCORDANCE WITH ASTM C423 FOR TYPE A

MOUNTING, COMPLYING WITH ASTM E795. MATERIAL: 100% POLYESTER (PET) FELT. PANEL SIZE: AS INDICATED ON DRAWINGS. THICKNESS: 1/2-INCH (12 MM)

MOUNTING: INDUSTRIAL ADHESIVE SURFACE PATTERN: SEAM REPEAT, AS INDICATED ON DRAWINGS.

2.02 FABRICATION A. TOLERANCES: FABRICATE TO FINISHED TOLERANCE OF PLUS OR MINUS 1/8 INCH (3.2 MM) FOR THICKNESS, OVERALL LENGTH AND WIDTH, AND SQUARENESS FROM CORNER TO CORNER. 2.03 ACCESSORIES

A. PANEL ADHESIVE: ACCEPTABLE TO ACOUSTICAL PANEL MANUFACTURER FOR APPLICATION AS INDICATED 3.01 EXAMINATION A. EXAMINE SUBSTRATES FOR CONDITIONS DETRIMENTAL TO INSTALLATION OF ACOUSTICAL UNITS. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.02 INSTALLATION INSTALL ACOUSTICAL UNITS IN LOCATIONS AS INDICATED, FOLLOWING MANUFACTURER'S INSTALLATION INSTALL MOUNTING ACCESSORIES AND SUPPORTS IN ACCORDANCE WITH SHOP DRAWINGS. ALIGN PANELS ACCURATELY, WITH EDGES PLUMB AND TOP EDGES LEVEL. SCRIBE TO FIT ACCURATELY AT

ADJOINING WORK AND PENETRATIONS. CLEAN SOUND-ABSORPTIVE PANELS UPON COMPLETION OF INSTALLATION FROM DUST AND OTHER FOREIGN MATERIALS, FOLLOWING MANUFACTURER'S INSTRUCTIONS.

PROVIDE PROTECTION OF INSTALLED ACOUSTICAL PANELS UNTIL DATE OF SUBSTANTIAL COMPLETION. REPLACE PANELS THAT CANNOT BE CLEANED AND REPAIRED TO SATISFACTION OF THE ARCHITECT.

H. VINYL WALL COVERING. **PART 1 GENERAL** 1.01 REFERENCE STANDARDS 1.01 SECTION INCLUDES

SURFACE PREPARATION AND PRIME PAINTING. SURFACE PREPARATION IS THE RESPONSIBILITY OF THE WALL COVERING INSTALLER.

CUSTOM DIGITALLY PRINTED WALL COVERING AND GRAPHICS. 1.02 RELATED REQUIREMENTS A. SECTION 016116 - VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS.

1.03 REFERENCE STANDARDS ASTM D1308 - STANDARD TEST METHOD FOR EFFECT OF HOUSEHOLD CHEMICALS ON CLEAR AND PIGMENTED COATING SYSTEMS; 2020

ASTM E84 - STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING ASTM F793/F793M - STANDARD CLASSIFICATION OF WALL COVERINGS BY USE CHARACTERISTICS; 2020 1.04 SUBMITTALS

SEE SECTION 013000 - ADMINISTRATIVE REQUIREMENTS, FOR SUBMITTAL PROCEDURES. PRODUCT DATA: PROVIDE DATA ON WALL COVERING AND ADHESIVE. SHOP DRAWINGS: INDICATE WALL ELEVATIONS WITH SEAMING LAYOUT. FOR EACH TYPE OF WALL COVERING INDICATED.

SHOW INTERFACE WITH ADJACENT WORK. SUBMIT ONE COLOR PROOF FOR REVIEW PRIOR TO MANUFACTURE OF A FULL SIZE MINIATURE MURAL. SUBMIT FULL SIZE MINIATURE STRIKE-OFF FOR REVIEW PRIOR TO MANUFACTURE OF FULL SIZE MURAL. SUBMIT FULL-SIZE SAMPLES, 54 INCHES WIDE BY 36 INCHES LONG, CUT FROM CURRENT PRODUCTION OF EACH GROUND WALLCOVERING SELECTED TO DEMONSTRATE QUALITY, WEIGHT, COLOR AND **EMBOSSING** 

TEST REPORTS: INDICATE VERIFICATION OF FLAME AND SMOKE RATINGS, WHEN TESTED BY UL. MANUFACTURER'S INSTALLATION INSTRUCTIONS: INDICATE SPECIAL PROCEDURES. MAINTENANCE DATA: SUBMIT DATA ON CLEANING, TOUCH-UP, AND REPAIR OF COVERED SURFACES. MANUFACTURER'S QUALIFICATION STATEMENT.

INSTALLER'S QUALIFICATION STATEMENT.

SPECIFICATIONS

MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM TEN YEARS OF DOCUMENTED EXPERIENCE. INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN PERFORMING WORK OF THE TYPE SPECIFIED AND WITH AT LEAST TEN YEARS OF DOCUMENTED EXPERIENCE AND APPROVED BY MANUFACTURER. 1.06 DELIVERY, STORAGE, AND HANDLING

PROTECT PACKAGED ADHESIVE FROM TEMPERATURE CYCLING AND COLD TEMPERATURES. DO NOT STORE ROLL GOODS ON END. 1.07 FIELD CONDITIONS DO NOT APPLY MATERIALS WHEN SURFACE AND AMBIENT TEMPERATURES ARE OUTSIDE THE TEMPERATURE RANGES REQUIRED BY THE ADHESIVE OR WALL COVERING PRODUCT MANUFACTURER.

INSPECT ROLL MATERIALS AT ARRIVAL ON SITE, TO VERIFY ACCEPTABILITY.

MAINTAIN THESE CONDITIONS 24 HOURS BEFORE, DURING, AND AFTER INSTALLATION OF ADHESIVE AND WALL COVERING PROVIDE LIGHTING LEVEL OF 80 FT CANDLES (860 LX) MEASURED MID-HEIGHT AT SUBSTRATE SURFACES

A. SUBMIT MANUFACTURER'S 5 YEAR WRITTEN WARRANTY AGAINST MANUFACTURING DEFECTS. PART 2 PRODUCTS 2.01 WALL COVERINGS

GENERAL REQUIREMENTS: SURFACE BURNING CHARACTERISTICS: FLAME SPREAD/SMOKE DEVELOPED INDEX OF 25/50, MAXIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM E84. CHEMICAL AND STAIN RESISTANCE: NO VISIBLE STAINING OR DISCOLORATION AND NO DAMAGE TO SURFACE TEXTURE WHEN TESTED IN ACCORDANCE WITH ASTM D1308.

BACKING: WOVEN, OSNABURG FABRIC. COLOR: AS INDICATED ON DRAWINGS. PATTERN: AS INDICATED ON DRAWINGS. PATTERN MATCH: AS INDICATED ON DRAWINGS

COMPLY WITH ASTM F793/F793M, CATEGORY V, TYPE II.

TOTAL WEIGHT: 20 OZ/SQ YD (567 G/SQ M).

ROLL WIDTH: 50-54 INCHES (1371 +/- MM).

WALL COVERING: DIGITALLY PRINTED WALLCOVERING MURAL, VINYL ROLL

REPEAT: AS INDICATED ON DRAWINGS SURFACE TEXTURE: AS INDICATED ON DRAWINGS. OVERCOATING: MANUFACTURER'S STANDARD COATING FOR STAIN RESISTANCE. MANUFACTURERS

BASIS-OF-DESIGN: KOROSEAL INTERIOR PRODUCTS, LLC SUBSTITUTIONS: SEE SECTION 016000 - PRODUCT REQUIREMENTS. ADHESIVE: TYPE RECOMMENDED BY WALL COVERING MANUFACTURER TO SUIT APPLICATION TO

SUBSTRATE TERMINATION TRIM: STAINLESS STEEL, COLOR AS SELECTED. SUBSTRATE FILLER: AS RECOMMENDED BY ADHESIVE AND WALL COVERING MANUFACTURERS:

COMPATIBLE WITH SUBSTRATE. SUBSTRATE PRIMER AND SEALER: ALKYD ENAMEL TYPE.

PART 3 EXECUTION 3.01 EXAMINATION VERIFY THAT SUBSTRATE SURFACES ARE PRIME PAINTED AND READY TO RECEIVE WORK, AND COMPLY WITH REQUIREMENTS OF WALL COVERING MANUFACTURER.

MEASURE MOISTURE CONTENT OF SURFACES USING AN ELECTRONIC MOISTURE METER. DO NOT APPLY WALL COVERINGS IF MOISTURE CONTENT OF SUBSTRATE EXCEEDS LEVEL RECOMMENDED BY WALL COVERING MANUFACTURER. VERIFY FLATNESS TOLERANCE OF SURFACES DOES NOT VARY MORE THAN 1/8 INCH IN 10 FEET (3 MM

IN 3 M) NOR VARY AT A RATE GREATER THAN 1/16 INCH/FT (1.5 MM/300 MM) 1.02 PREPARATION FILL CRACKS IN SUBSTRATE AND SMOOTH IRREGULARITIES WITH FILLER; SAND SMOOTH. WASH IMPERVIOUS SURFACES WITH TETRA-SODIUM PHOSPHATE, RINSE AND NEUTRALIZE: WIPE DRY.

SURFACE APPURTENANCES: REMOVE OR MASK ELECTRICAL PLATES, HARDWARE, LIGHT FIXTURE TRIM, ESCUTCHEONS, AND FITTINGS PRIOR TO PREPARING SURFACES OR FINISHING. SURFACES: CORRECT DEFECTS AND CLEAN SURFACES THAT AFFECT WORK OF THIS SECTION. REMOVE EXISTING COATINGS THAT EXHIBIT LOOSE SURFACE DEFECTS.

MARKS: SEAL WITH SHELLAC THOSE THAT MAY BLEED THROUGH SURFACE FINISHES. APPLY TWO COATS OF PRIMER SEALER TO SUBSTRATE SURFACES. ALLOW TO DRY. LIGHTLY SAND VACUUM CLEAN SURFACES FREE OF LOOSE PARTICLES.

1.03 INSTALLATION

1.05 QUALITY ASSURANCE

APPLY ADHESIVE AND WALL COVERING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS APPLY ADHESIVE TO WALL SURFACE IMMEDIATELY PRIOR TO APPLICATION OF WALL COVERING. RAZOR TRIM EDGES ON FLAT WORK TABLE. DO NOT RAZOR CUT ON GYPSUM BOARD SURFACES. APPLY WALL COVERING SMOOTH. WITHOUT WRINKLES, GAPS OR OVERLAPS. ELIMINATE AIR POCKETS AND ENSURE FULL BOND TO SUBSTRATE SURFACE. BUTT EDGES TIGHTLY.

OVERLAP ADJACENT PANELS AS RECOMMENDED BY MANUFACTURER. HORIZONTAL SEAMS ARE NOT ACCEPTABLE. DO NOT SEAM WITHIN 2 INCHES (50 MM) OF INTERNAL CORNERS OR WITHIN 6 INCHES (150 MM) OF EXTERNAL CORNERS.

INSTALL WALL COVERING BEFORE INSTALLATION OF BASES AND ITEMS ATTACHED TO OR SPACED SLIGHTLY FROM WALL SURFACE. DO NOT INSTALL WALL COVERING MORE THAN 1/4 INCH (6 MM) BELOW TOP OF RESILIENT BASE. APPLY WALL COVERING TO ELECTRICAL WALL PLATES PRIOR TO REPLACING.

APPLY WITH CONTACT ADHESIVE WITHIN 6 INCHES (150 MM) OF WALL COVERING

WHERE WALL COVERING TUCKS INTO REVEALS, OR METAL WALLBOARD OR PLASTER STOPS,

TERMINATION. ENSURE FULL CONTACT BOND. INSTALL TERMINATION TRIM. REMOVE EXCESS ADHESIVE WHILE WET FROM SEAM BEFORE PROCEEDING TO NEXT WALL COVERING SHEET. WIPE CLEAN WITH DRY CLOTH.

A. CLEAN WALL COVERINGS OF EXCESS ADHESIVE, DUST, DIRT, AND OTHER CONTAMINANTS. B. REINSTALL WALL PLATES AND ACCESSORIES REMOVED PRIOR TO WORK OF THIS SECTION.

A. DO NOT PERMIT CONSTRUCTION ACTIVITIES AT OR NEAR FINISHED WALL COVERING AREAS.

I. INTERIOR PAINTING PART 1 GENERAL

1.01 REFERENCE STANDARDS A. ASTM D16 - STANDARD TERMINOLOGY FOR PAINT, RELATED COATINGS, MATERIALS, AND APPLICATIONS; 2016. B. ASTM D4258 - STANDARD PRACTICE FOR SURFACE CLEANING CONCRETE FOR COATING; 2005 (REAPPROVED C. ASTM D4414 - STANDARD PRACTICE FOR MEASUREMENT OF WET FILM THICKNESS BY NOTCH GAGES; 2013. D. ASTM D4442 - STANDARD TEST METHODS FOR DIRECT MOISTURE CONTENT MEASUREMENT OF WOOD AND WOOD-BASED MATERIALS; 2016.

E. MPI (APL) - MASTER PAINTERS INSTITUTE APPROVED PRODUCTS LIST; MASTER PAINTERS AND DECORATORS ASSOCIATION; CURRENT EDITION. F. MPI (APSM) - MASTER PAINTERS INSTITUTE ARCHITECTURAL PAINTING SPECIFICATION MANUAL; CURRENT

G. PDCA P1 - TOUCH UP PAINTING AND DAMAGE REPAIR, CURRENT EDITION. H. SSPC-SP 1 - SOLVENT CLEANING; 2015, WITH EDITORIAL REVISION (2016). I. SSPC-SP 2 - HAND TOOL CLEANING; 1982, WITH EDITORIAL REVISION (2004). J. SSPC-SP 6 - COMMERCIAL BLAST CLEANING; 2007.

K. SSPC-SP 13 - SURFACE PREPARATION OF CONCRETE; 1997 (REAFFIRMED 2003). PART 2 PRODUCTS

C. COLORS: AS INDICATED ON DRAWINGS "ROOM FINISH SCHEDULE."

2.01 MANUFACTURERS

A. BASIS OF DESIGN: SHERWIN WILLIAMS COMPANY: WWW.SHERWIN-WILLIAMS.COM. B. OTHER ACCEPTABLE MANUFACTURERS: PROVIDE EITHER THE PRODUCT IDENTIFIED AS "BASIS OF DESIGN" OR AN EQUIVALENT PRODUCT OF ONE OF THE MANUFACTURERS LISTED BELOW. 1. BENJAMIN MOORE & COMPANY: WWW.BENJAMINMOORE.COM. 2. PPG PAINTS: WWW.PPGPAINTS.COM.

C. SUBSTITUTIONS: SEE SECTION PRODUCT REQUIREMENTS AND SECTION SUBSTITUTION PROCEDURES. 1. FOR ANY PRODUCT NOT IDENTIFIED AS "BASIS OF DESIGN," SUBMIT INFORMATION AS SPECIFIED FOR SUBSTITUTIONS.

2.02 PAINTS AND FINISHES - GENERAL A. PAINTS AND FINISHES: READY-MIXED, UNLESS INTENDED TO BE A FIELD-CATALYZED PAINT. 1. PROVIDE PAINTS AND FINISHES OF A SOFT PASTE CONSISTENCY, CAPABLE OF BEING READILY AND UNIFORMLY DISPERSED TO A HOMOGENEOUS COATING, WITH GOOD FLOW AND BRUSHING PROPERTIES AND CAPABLE OF DRYING OR CURING FREE OF STREAKS OR SAGS. 2. SUPPLY EACH PAINT MATERIAL IN QUANTITY REQUIRED TO COMPLETE ENTIRE PROJECT'S WORK FROM A SINGLE PRODUCTION RUN.

3. DO NOT REDUCE, THIN, OR DILUTE PAINT OR FINISHES OR ADD MATERIALS UNLESS SUCH PROCEDURE IS SPECIFICALLY DESCRIBED IN MANUFACTURER'S PRODUCT INSTRUCTIONS. 4. WOOD BASE - INTERIOR: PRE-CATALYZED WATERBASED EPOXY SEMI-GLOSS K46-1150. B. SHEENS: PROVIDE THE SHEENS SPECIFIED; WHERE SHEEN IS NOT SPECIFIED, SHEEN WILL BE SELECTED LATER BY ARCHITECT FROM THE MANUFACTURER'S FULL LINE.

1. EXTEND COLORS TO SURFACE EDGES; COLORS MAY CHANGE AT ANY EDGE AS DIRECTED BY 2. IN UTILITY AREAS, FINISH EQUIPMENT, PIPING, CONDUIT, AND EXPOSED DUCT WORK IN COLORS ACCORDING TO THE COLOR CODING SCHEME INDICATED. 3. HOLLOW METAL DOOR AND FRAME COLORS: INDICATED ON DRAWING "DOOR SCHEDULE" SHEET NOTES - DOORS.

A. PAINT I-OP - INTERIOR SURFACES TO BE PAINTED, UNLESS OTHERWISE INDICATED: INCLUDING GYPSUM BOARD, CONCRETE, CONCRETE MASONRY UNITS, BRICK, WOOD, PLASTER, UNCOATED STEEL, SHOP PRIMED STEEL, GALVANIZED STEEL, ALUMINUM, AND ACOUSTICAL CEILINGS. 1. TWO TOP COATS AND ONE COAT PRIMER.

2. TOP COAT(S): HIGH PERFORMANCE ARCHITECTURAL INTERIOR LATEX; MPI #138, 139, 140, OR 141. 3. TOP COAT SHEEN: a. FLAT: MPI GLOSS LEVEL 1; USE THIS SHEEN FOR CEILINGS AND OTHER OVERHEAD SURFACES. b. EGGSHELL: MPI GLOSS LEVEL 3; USE THIS SHEEN AT ALL LOCATIONS. 4. PRIMER: AS RECOMMENDED BY TOP COAT MANUFACTURER FOR SPECIFIC SUBSTRATE.

B. PAINT I-OP-MD-DT - MEDIUM DUTY DOOR/TRIM: FOR SURFACES SUBJECT TO FREQUENT CONTACT BY OCCUPANTS, INCLUDING METALS AND WOOD: 1. MEDIUM DUTY APPLICATIONS INCLUDE DOORS, DOOR FRAMES, RAILINGS, HANDRAILS, GUARDRAILS, AND BALUSTRADES.

2. TWO TOP COATS AND ONE COAT PRIMER. 3. TOP COAT(S): HIGH PERFORMANCE ARCHITECTURAL INTERIOR LATEX; MPI #138, 139, 140, OR 141.

a. SEMI-GLOSS: MPI GLOSS LEVEL 5; USE THIS SHEEN AT ALL LOCATIONS. 5.PRIMER: AS RECOMMENDED BY TOP COAT MANUFACTURER FOR SPECIFIC SUBSTRATE.

2.04 PRIMERS A PRIMERS: PROVIDE THE FOLLOWING UNLESS OTHER PRIMER IS REQUIRED OR RECOMMENDED BY MANUFACTURER OF TOP COATS. 1. INTERIOR INSTITUTIONAL LOW ODOR/VOC PRIMER SEALER; MPI #149. 2. INTERIOR/EXTERIOR LATEX BLOCK FILLER; MPI #4.

3. CONCRETE FLOOR PRIMER, WATERBORNE. 4. INTERIOR DRYWALL PRIMER SEALER. 5. ALKYD PRIMER FOR GALVANIZED METAL. 2.05 ACCESSORY MATERIALS A. ACCESSORY MATERIALS: PROVIDE PRIMERS, SEALERS, CLEANING AGENTS, CLEANING CLOTHS, SANDING MATERIALS, AND CLEAN-UP MATERIALS AS REQUIRED FOR FINAL COMPLETION OF PAINTED SURFACES.

B. PATCHING MATERIAL: LATEX FILLER.

C. FASTENER HEAD COVER MATERIAL: LATEX FILLER.



10 WEST SEVENTH, SUITE 710 ULSA, OK 74119

T· 918 583 5300 : 918.585.1967 OKLAHOMA CITY

1 DEAN A McGEE AVE SUITE 135

OKLAHOMA CITY, OK 73102 T: 405.232.7007 **NEW YORK CITY** 287 PARK AVENUE SOUTH

NEW YORK, NY 10010

T: 917.522.1703

PROJECT NUMBER: PROJECT:

RENOVATION

**CONSULTANT:** 

ISSUE / REVISION:

SEAL:



I CONSTRUCTION **DOCUMENTS** 

**ISSUE DATE:** 05.17.2024

SHEET NUMBER:

(RIGHT BECK ASSOCIATES ARCHITECTS, PLLC; DBA BECK DESIGN - 0.5. 17. 2024)

TULSA: OK 74119 T: 918 583 5300 F: 918.585.1967

10 WEST SEVENTH, SUITE 710

**OKLAHOMA CITY** 31 DEAN A McGEE AVE, SUITE 135 OKLAHOMA CITY, OK 73102 T: 405.232.7007

**NEW YORK CITY** 287 PARK AVENUE SOUTH NFW YORK, NY 10010 T: 917.522.1703

202401 PROJECT: RENOVATION

**CONSULTANT:** 

ISSUE / REVISION:



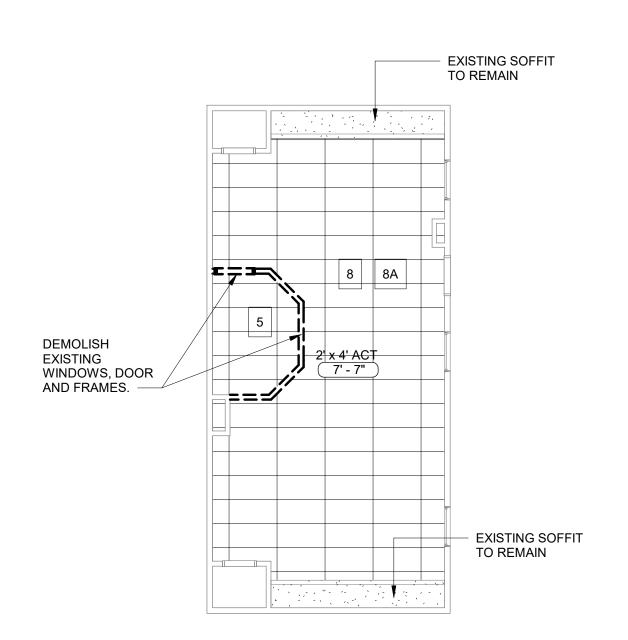
I CONSTRUCTION DOCUMENTS

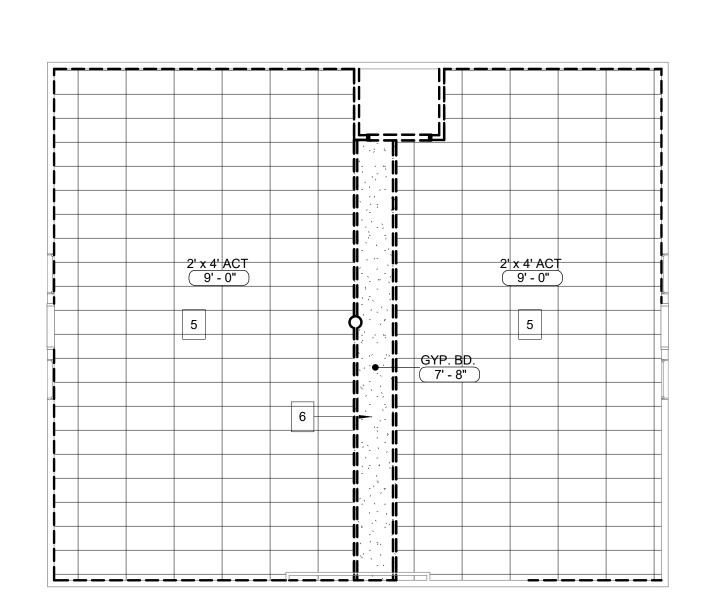
**ISSUE DATE:** 

05.17.2024

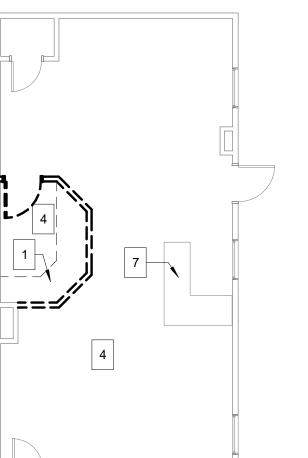
SHEET NUMBER:

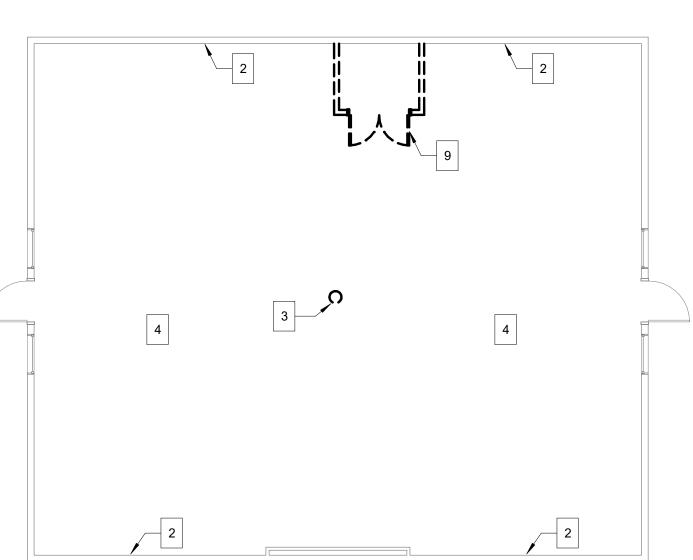
**SPECIFICATION** 





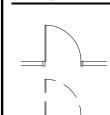






1 CLASSROOM -DEMOLITION FLOOR PLANS
1/8" = 1'-0"





EXISTING DOOR AND FRAME TO REMAIN

EXISTING WALL OR PARTITION TO REMAIN

EXISTING DOOR AND FRAME TO BE DEMOLISHED

EXISTING WALL OR PARTITON TO BE DEMOLISHED 

### **SHEET NOTES - DEMOLITION**

1. THE TOTAL AMOUNT OF DEMOLITION REQUIRED FOR THE PROJECT IS NOT INDICATED ON THE DEMOLITION PLANS. THEY ARE INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THEY INDICATE THE GENERAL EXTENT OF THE REMOVAL WORK REQUIRED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FULLY INSPECT THE BUILDING AND VERIFY ALL CONDITIONS AND FULL EXTENT OF DEMOLITION PRIOR TO SUBMITTING BID.

2. THE SUBCONTRACTORS FOR PLUMBING, ELECTRICAL,

HVAC AND FIRE PROTECTION ARE RESPONSIBLE FOR ESTABLISHING THE SCOPE OF DEMOLITION REQUIRED TO PERFORM THE WORK FOR THEIR RESPECTIVE TRADE. DEMOLITION DRAWINGS FOR THESE DISCIPLINES ARE INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. 3. MAINTAIN BUILDING IN STRUCTURALLY SOUND CONDITION AT ALL TIMES. DO NOT REMOVE ANY PORTION OF THE BUILDING STRUCTURE INCLUDING COLUMNS, LOAD BEARING WALLS, BEAMS FLOOR CONSTRUCTION, PERIMETER WALLS OR FIREPROOFING OF STRUCTURAL ELEMENTS UNLESS SPECIFICALLY NOTED.

4. PROTECT ALL FINISHES AND COMPONENTS OF BUILDING WHICH ARE TO REMAIN. ANY DAMAGED MATERIAL, EQUIPMENT OR ITEMS TO REMAIN SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING CONSTRUCTION, AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.

5. VERIFY CONCEALED CONSTRUCTION CONDITIONS PRIOR TO REMOVAL OF ANY ITEMS. CAREFULLY ASSESS EACH ITEM TO BE REMOVED FOR DETRIMENTAL RESULTS IF REMOVED. PERFORM EXPLORATORY DEMOLITION TO DETERMINE METHODS OF ATTACHMENTS, UTILITY INTERFACES, INTERCONNECTIONS AND OTHER CONCEALED CONDITIONS PRIOR TO DEMOLITION.

6. ITEMS DESIGNATED TO BE REMOVED AND SALVAGED SHALL BE DELIVERED TO A SAFE REMOTE LOCATION FOR RETROFITTING OR A SAFE LOCATION ON SITE FOR CLEANING AND STORAGE BY THE CONTRACTOR.

. MAINTAIN CODE COMPLIANT AND UNOBSTRUCTED EXIT PATHS AT ALL TIMES.

8. PRIOR TO DEMOLITION WORK, THE CONTRACTOR SHALL ASSESS AND IDENTIFY UTILITIES WITHIN THE DEMOLITION AREA THAT SERVE OCCUPIED SPACES OUTSIDE OF THE AREA OF THAT PHASE OF WORK. THOSE UTILITIES SHALL BE PROTECTED AND RESUPPORTED WHERE NECESSARY TO MAINTAIN CONTINUITY OF SERVICE.

9. AREAS SURROUNDING THE AREA OF THIS CONTRACT SHALL REMAIN FULLY OCCUPIED DURING THE WORK. CAREFULLY SCHEDULE AND COORDINATE THIS WORK WITH THE OWNER TO MINIMIZE DISRUPTION TO ANY ACTIVITIES. SOME OF THE WORK MAY NEED TO BE PERFORMED OFF

NECESSARY TO PERFORM NEW WORK, THAT AREA SHALL BE REMOVED AS NECESSARY AND REFINISHED/REPLACED TO MATCH THE EXISTING CONTIGUOUS CONSTRUCTION. 11. CONTRACTOR TO MAINTAIN ALL EXISTING FIRE ASSEMBLIES AS REQUIRED.

10. WHERE PARTIAL DEMOLITION IS NOT INDICATED BUT IS

12. DEMOLISH EXISTING CEILINGS TO THE EXTENT NECESSARY TO PERFORM NEW CONSTRUCTION. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXTEND OF NEW CEILINGS AND EXISTING CEILINGS TO REMAIN.

13. DEMOLISH EXISTING WALL BASE.

14. PREPARE REMAINING WALLS, DOORS, AND FRAMES TO RECEIVE NEW FINISH/PAINT. REFER TO FINISH SCHEDULE.

15. DEMOLISH EXISTING WINDOW BLINDS.

16. DEMOLISH EXISTING RECEPTACLE & SWITCH COVER

17. CONTRACTOR TO COORDINATE REMOVAL, SALVAGE, AND/OR STORAGE OF EXISTING FURNITURE, FIXTURES OR EQUIPMENT WITHIN THE WORK AREA.

## **DEMOLITION KEY NOTES:**

- DEMOLISH EXISTING BUILT-IN MILLWORK COUNTER & BRACKETS
- DEMOLISH EXISTING WALL MOUNTED WHITE BOARDS & BRACKETS
- 3 DEMOLISH EXISTING COLUMN COVER
- DEMOLISH EXISTING FLOOR FINISH AND WALL BASE THIS AREA.
- DEMOLISH EXISTING CEILNG, LIGHTING FIXTURES, DIFFUSERS IN THIS AREA. REFER TO MECHANICAL &
- ELECTRICAL DRAWINGS DEMOLISH EXISTING SOFFIT AND METAL FRAMING
- ABOVE CEILING EXTENDING TO BOTTOM OF DECK. REMOVE AND STORE EXISTING MILLWORK DESK FOR
- EXISTING CEILING GRID AND LIGHTS TO REMAIN.
- DEMOLISH EXISTING CEILING TILES.
- 8A ALTERNATE 1, DEMOLISH LIGHT FIXTURES, ETC.

9 SALVAGE EXISTING DOOR, DOOR HARDWARE AND FRAME FOR RE-USE.

RE-INSTALLATION AFTER NEW FLOORING IS INSTALLED



110 WEST SEVENTH, SUITE 710 TULSA, OK 74119 T: 918.583.5300

F: 918.585.1967

OKLAHOMA CITY 131 DEAN A McGEE AVE, SUITE 135 OKLAHOMA CITY, OK 73102 T: 405.232.7007

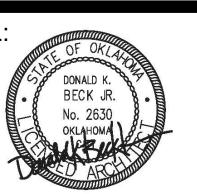
**NEW YORK CITY** 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

PROJECT NUMBER: 202401 PROJECT: **RSU NURSING CLASSROOMS** 

RENOVATION

**CONSULTANT:** 

| ISSUE / REVISION: |             |      |  |  |  |
|-------------------|-------------|------|--|--|--|
| No                | Description | Date |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |



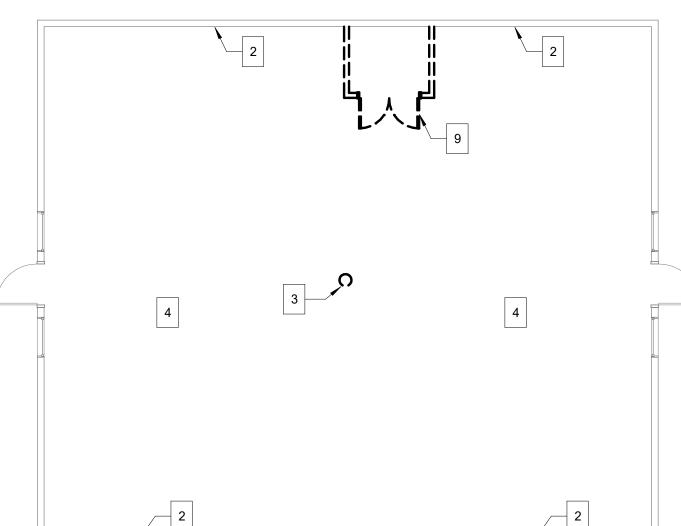
CONSTRUCTION DOCUMENTS

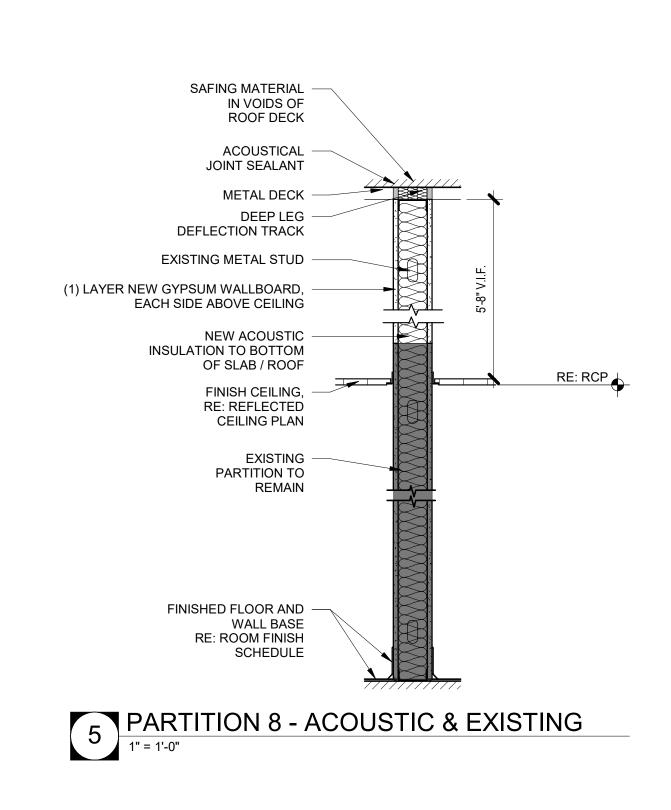
ISSUE DATE: 05.17.2024

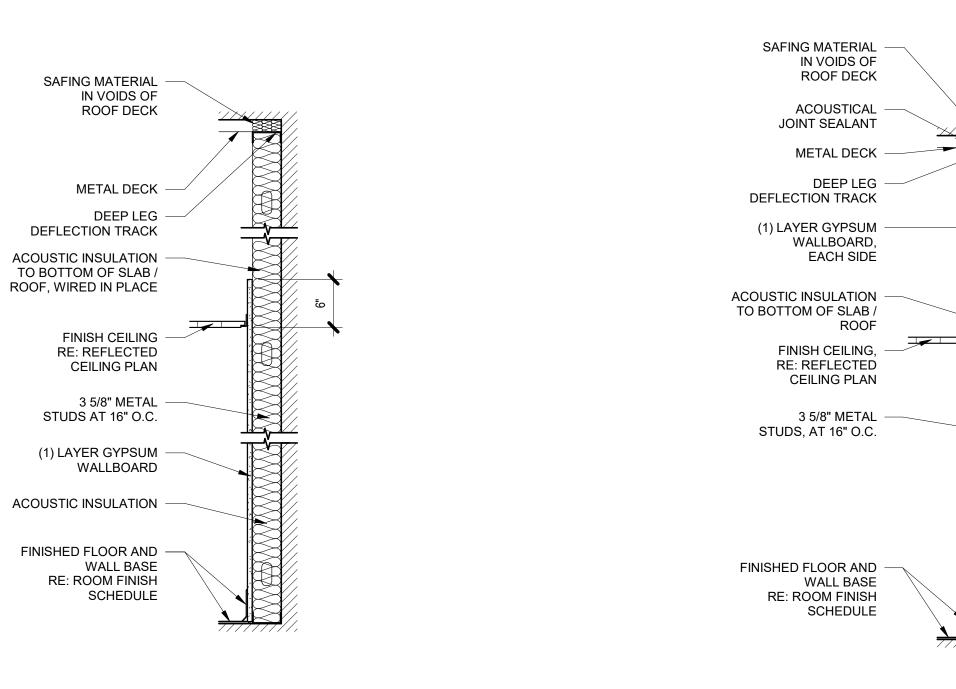
SHEET NUMBER:

**D201** 

**DEMOLITION FLOOR** PLANS & REFLECTED **CEILING PLANS** 



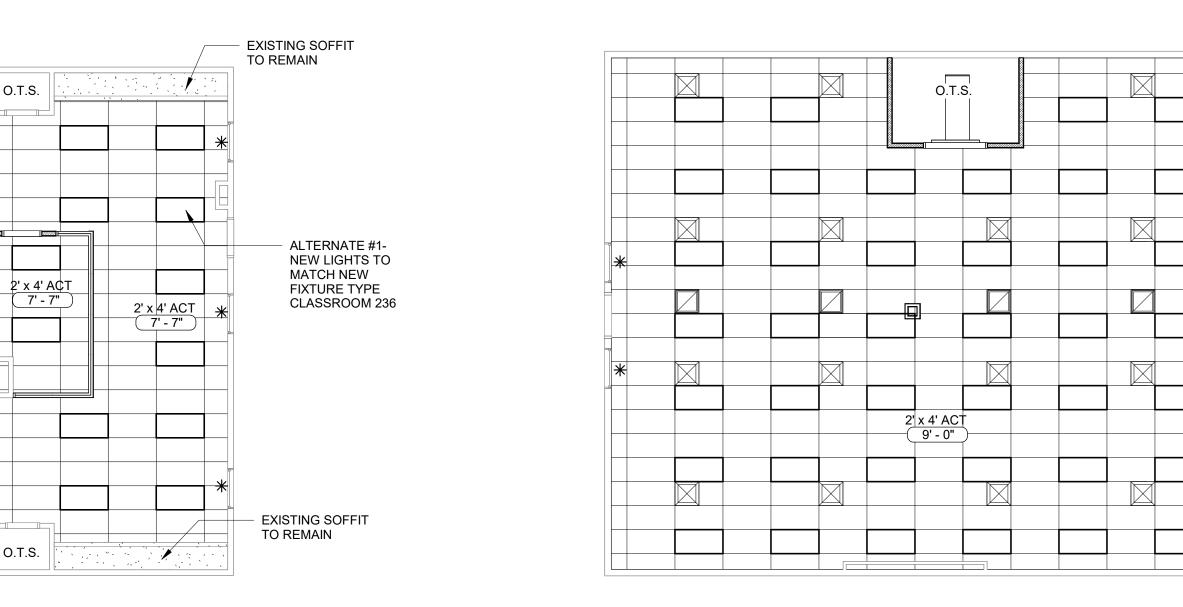




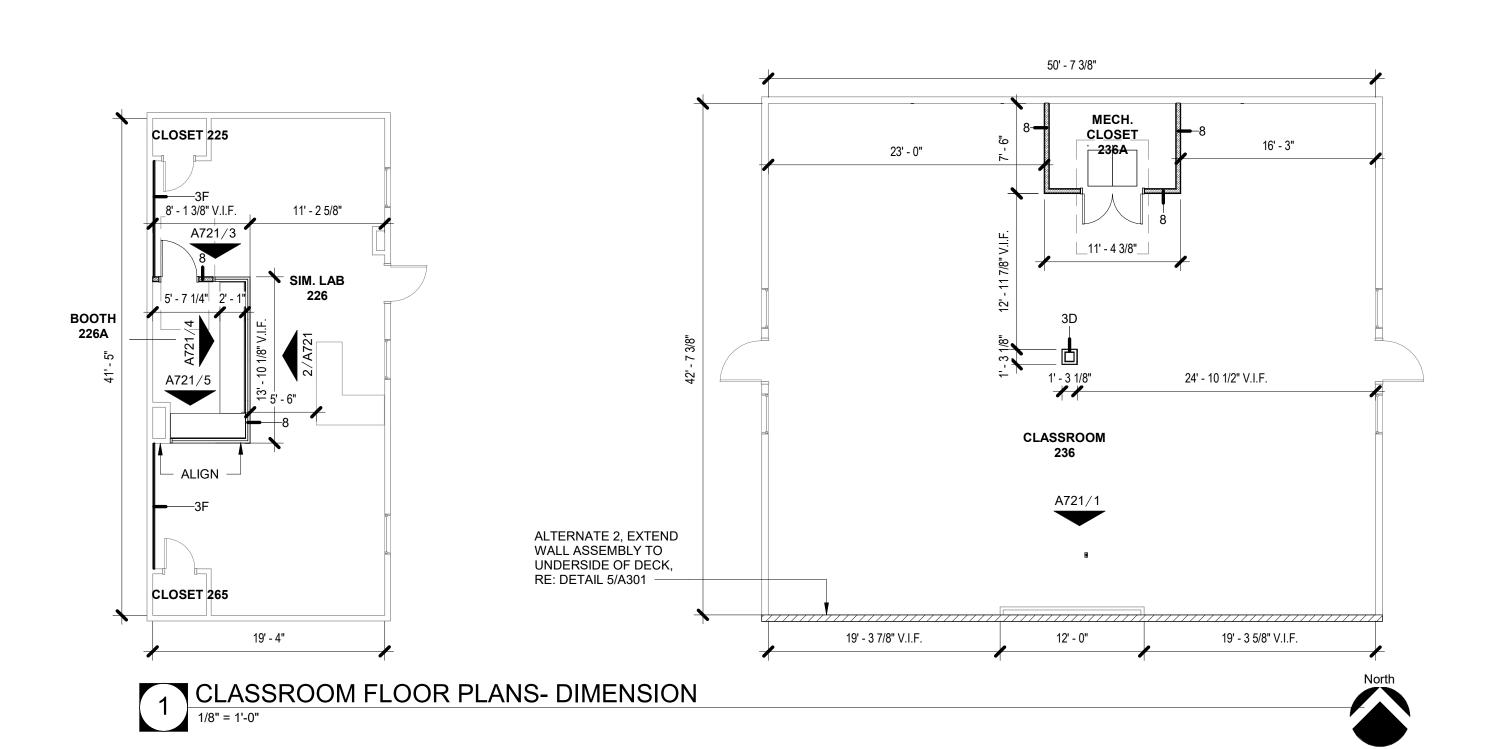
PARTITION 3D - 2 1/2" STUD / OMIT ACOUSTIC INSULATION PARTITION 3F- 7/8" FURRING CHANNEL/ OMIT ACOUSTIC INSULATION

4 PARTITION 3 - FURRING
1" = 1'-0"

# PARTITION 8A - 6" STUD IN LIEU OF 3 5/8" 3 PARTITION 8 - ACOUSTIC







SHEET NOTES - CEILING PLAN

1. ALL CEILING HEIGHT NOTATIONS TAKEN FROM FINISHED FLOOR ELEVATION OF THIS LEVEL UNLESS NOTED OTHERWISE.

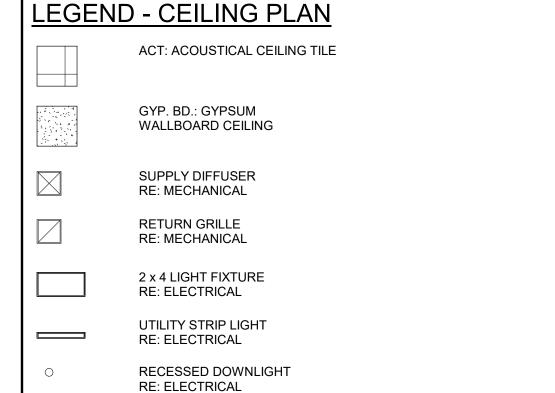
2. ALL LAY-IN CEILING GRIDS SHALL BE CENTERED IN ROOM AS GRAPHICALLY

SHOWN IN PLAN, UNLESS DIMENSIONED OTHERWISE. 3. FURNISH AND INSTALL ACCESS PANELS IN CEILINGS AND WALLS AS REQUIRED FOR PLUMBING AND HVAC VALVES, SWITCHES, DAMPERS, BOXES, DEVICES, ETC. RE: MEP DRAWINGS. COORDINATE FINAL LOCATION WITH ARCHITECT. PAINT TO

MATCH ADJACENT SURFACE.

4. REPLACE CEILING TILES AND GRID IN AREAS WITHIN SCOPE OF WORK.

5. FIRE SPRINKLER HEADS SHALL BE ADDED, RELOCATED OR ADJUSTED BY A CONTRACTOR LICENSED IN THE STATE OF OKLAHOMA AS REQUIRED TO COMPLY WITH ALL APPLICABLE CODES, REGULATIONS, ORDINANCES AND AUTHORITIES HAVING JURISDICTION.



NEW METAL BLINDS, REFER TO FINISH LEGEND

#### **SHEET NOTES - DIMENSION**

1. ALL PARTITIONS SHALL BE TYPE 1 UNLESS NOTED OTHERWISE. RE: PARTITION TYPES. 2. FIELD VERIFY ALL DIMENSIONS LOCATED IN EXISTING CONSTRUCTION PRIOR TO PROCEEDING WITH ANY WORK. 3. REFERENCE ENLARGED PLANS AND DETAILS FOR ADDITIONAL DIMENSIONAL INFORMATION.

4. UNLESS OTHERWISE NOTED, DIMENSIONS ARE AS FOLLOWS: -MASONRY: TO THE FACE OF MASONRY -CONCRETE: TO THE FACE OF CONCRETE -INTERIOR PARTITIONS: TO FINISHED FACE OF WALL -STOREFRONT: TO FINISHE DOPENING FOR PERIMETER MULLIONS; TO CENTERLINE OF ALL OTHER MULLIONS

5. GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL ARCHITECTURAL DRAWINGS WITH ARCHITECTURAL SCHEDULES. ANY DISCREPANCY REASONABLY DISCOVERABLE WITH DUE DILIGENCE SHALL BE NOTED AS A QUALIFICATION TO THE GENERAL CONTRACTOR'S BID SUBMISSION. ANY REASONABLY DISCOVERABLE DISCREPANCY NOT INDICATED AS A QUALIFICATION SHALL BE CONSTRUED IN FAVOR OF THE OWNER AT NO COST.

6. CONTRACTOR TO SURVEY ALL FLOOR SURFACES PRIOR TO CONSTRUCTION TO DETERMINE OUT-OF-LEVEL CONDITIONS THAT WOULD PROHIBIT THE LEVEL PLACEMENT OF FLOORING, FURNITURE OR INTERFERE WITH INSTALLATION OF ARCHITECTURAL OR MILLWORK ELEMENTS. ANY UNACCEPTABLE AREAS SHALL BE REPAIRED PRIOR TO ANY WORK BY OTHER TRADES.

7. OUTSIDE EDGE OF DOOR FRAME SHALL BE LOCATED 4" FROM FINISHED FACE OF ADJACENT WALL, UNLESS NOTED OTHERWISE.

PYRIGHT BECK ASSOCIATES ARCHITECTS, PLLC; DBA BECK DESIGN - 05.17.2024

TULSA 110 WEST SEVENTH, SUITE 710 TULSA. OK 74119 T: 918.583.5300 F: 918.585.1967

**OKLAHOMA CITY** 31 DEAN A McGEE AVE, SUITE 135 OKLAHOMA CITY, OK 73102 T: 405.232.7007

**NEW YORK CITY** 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

PROJECT NUMBER: 202401 PROJECT: **RSU NURSING CLASSROOMS RENOVATION** 

**CONSULTANT:** 

| ISSUE / REVISION: |             |      |  |  |  |
|-------------------|-------------|------|--|--|--|
| No                | Description | Date |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |
|                   |             |      |  |  |  |

100% CONSTRUCTION **DOCUMENTS** 

ISSUE DATE:

05.17.2024

SHEET NUMBER:

**A301** 

FLOOR PLAN & REFLECTED CEILING PLAN

|                  |                    |  | FINIS                            | H LEGEND                                  |   |  |
|------------------|--------------------|--|----------------------------------|---|---|--|
| FINISH<br>CODE   | MANUFACTURER       | MODEL / TILE   | COLOR NAME / NUMBER              | PATTERN                                   | DESCRIPTION   | LOCATION / NOTES   |
| BASE<br>RB-1     | TARKETT            | TRADITIONAL VINYL 1/8" WALL<br>BASE WITH TOE           | MATCH EXISTING COLOR             |   | VINYL BASE  | RE: ROOM FINISH SCHEDULE   |
| CEILING<br>ACT-1 | ARMSTRONG          | ULTIMA LAY-IN- 24"X48"                                 | WHITE                            |   | SQUARE LAY-IN 15/16" EDGE,<br>PRELUDE XL 15/16" SUSPENSION<br>SYSTEM ONLY WHERE NEW CEILING<br>GRID IS CALLED FOR | RE: RCP  |
| O.T.S.           |                    |  |                                  |   | OPEN TO STRUCTURE, LEAVE AS IS  | LOCATION / NOTES   |
| EL OOD           |                    |  |                                  |   |   |  |
| FLOOR<br>CPT-1   | J&J FLOORING       | INTRINSIC ACCENT 7311                                  | INNATE ACCENT 3570               | ASHLAR INSTALL                            | 24" X 24" CARPET TILE W/ NEXUS<br>MODULAR BACKING   | RE: FINISH PLAN  |
| LVT-1            | PATCRAFT           | TIMBER GROVE II- 20 mil, I421V                         | SPROUT 00173                     | STAGGER INSTALL                           | 5.96" X 48" LUXURY VINYL PLANK  | RE: FINISH PLAN  |
| SC-1             |                    | -  | -                                | -   | SEALED CONCRETE   | RE: FINISH PLAN  |
| MILLWORI         | <i>(</i>           |  |                                  |   |   |  |
| PLAM-1           | WILSONART          | HPL  | FASHION GREY D381-60             |   | MATTE FINISH  | CONTROL BOOTH, RE: INTERIOR ELEVATIONS   |
| SS-1             | WILSONART          | SOLID SURFACE  | YUKON RIVERSTONE 9196RS          |   | 1/2" SOLID SURFACE, MATTE FINISH  | NURSING LAB BOOTH, RE: INTERIOR ELEVATION  |
| MISC.            |                    |  |                                  |   |   |  |
| CG               | CORNER GUARD STORE | 18-GAUGE STAINLESS STEEL<br>CORNER GUARD, 90 DEG.      | STAINLESS STEEL                  |   | 48"H X 1.5" X 1.5"  | CLASSROOM 236, RE: FINISH PLAN. CORNER<br>GUARD TO START ABOVE WALL BASE               |
| MB-1             | DEKO MARKERBOARDS  | 50" X 120"   | DIAMOND                          |   | STANDARD CORNERS, FIT<br>SETTING/INSTALLATION, INCLUDE<br>(2)18" MAGNETIC MARKER TRAYS                            | CLASSROOM 236, RE: INTERIOR ELEVATION  |
| MC-1             | CR LAURENCE        | CRL SATIN ANODIZED 1/2"<br>ALUMINUM U-CHANNEL, #DV750A | SATIN ANODIZED                   |   | 1" HIGH   | USE WITH GLAZING IN NEW CONTROL BOOTH. RE: INTERIOR ELEVATIONS                         |
| ΓS-1             | SCHLUTER           | VINPRO-U   | BRUSHED NICKEL ANODIZED ALUMINUM |   | METAL FLOORING TRANSITION-<br>COORDINATE PROFILE HEIGHT WITH<br>FLOORING TYPES AT TRANSITION                      | RE: FINISH PLAN  |
| WF-1             | ULINE OR EQUAL     | ONE-WAY MIRROR FILM ROLL,<br>#S-23616                  | MIRROR                           |   | ROLL SIZE 48"W X 25'  | USE WITH GLAZING IN NEW CONTROL BOOTH, RE: INTERIOR ELEVATIONS                         |
| WS-1             | SWF CONTRACT       | CLASSICS 1" MINI BLINDS                                | WHITE SATIN 205                  |   | ALUMINUM WINDOW BLINDS  | RE: REFLECTED CEILING PLAN. MOUNT ON CLASSROOM SIDE OF WINDOW, TOP MOUNT WITHIN FRAME. |
| WALLS            |                    |  |                                  |   |   |  |
| AP-1             | SOELBERG           | MENSA PANELS   | BLUEBERRY                        | LINES TO RUN VERTICAL                     | 42"X96" ACOUSTICAL FELT PANELS  | CLASSROOM 236, RE: INTERIOR ELEVATION  |
| PT-1             | SHERWIN WILLIAMS   |  | FIRST STAR SW7646                |   | PAINT   | RE: SPECS AND ROOM FINISH SCHEDULE   |
| PT-2             | SHERWIN WILLIAMS   |  | EVENTIDE SW9643                  |   | ACCENT PAINT  | SIM. LAB, RE: SPECS AND ROOM FINISH SCHEDULE   |
| PT-3             | SHERWIN WILLIAMS   |  | GRAY MATTERS SW7066              |   | PAINT   | EXISTING DOOR & WINDOW FRAMES  |
| PT-4             | SHERWIN WILLIAMS   |  | CHARCOAL BLUE SW2739             |   | PAINT   | RE: SPECS AND ROOM FINISH SCHEDULE   |
| VWC-1            | KOROSEAL           | DIGITAL MURALS   | <b> </b>                         | RE: CD240593-1 ROGERS<br>STATE UNIVERSITY | VINYL WALLCOVERING WITH CUSTOM GRAPHIC PRINT  | SIM. LAB, RE: ROOM FINISH SCHEDULE   |

|          | ROOM FINISH SCHEDULE |       |      |       |      |       |            |         |                              |
|----------|----------------------|-------|------|-------|------|-------|------------|---------|------------------------------|
|          | WALLS                |       |      |       |      |       |            |         |                              |
| ROOM NO. | ROOM NAME            | FLOOR | BASE | NORTH | EAST | SOUTH | WEST       | CEILING | COMMENTS                     |
|          |                      |       |      |       |      |       |            |         |                              |
| 003      | CLASSROOM 236        | CPT-1 | RB-1 | PT-1  | PT-1 | AP-1  | PT-1       | ACT-1   |                              |
| 004      | MECH. CLOSET 236A    | SC-1  | RB-1 | PT-1  | PT-1 | PT-1  | PT-1       | OTS-1   |                              |
| 005      | SIM. LAB 226         | LVT-1 | RB-1 | PT-2  | PT-2 | PT-2  | VWC-1/PT-2 | ACT-1   | RE-USE EXISTING CEILING GRID |
| 007      | CLOSET 265           | SC-1  | RB-1 | PT-1  | PT-1 | PT-1  | PT-1       | OTS-1   |                              |
| 008      | CLOSET 225           | SC-1  | RB-1 | PT-1  | PT-1 | PT-1  | PT-1       | OTS-1   |                              |
| 226A     | BOOTH 226A           | LVT-1 | RB-1 | PT-1  | PT-1 | PT-1  | PT-1       | ACT-1   |                              |



1. ALL FLOOR TRANSITIONS ARE TO OCCUR AT THE CENTERLINE OF DOOR WHEN DOOR IS IN CLOSED POSITION, UNLESS NOTED OTHERWISE.

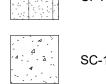
2. PROVIDE EXTRUDED ALUMINUM TRANSITION STRIP BETWEEN DIFFERENT FLOOR MATERIALS. SIZE

ACCORDINGLY FOR HEIGHT DIFFERENCES. 3. PAINT NEW AND EXISTING DOOR FRAMES PT-3, UNLESS NOTED OTHERWISE.

4. PAINT WINDOW FRAMES ON CLASSROOM SIDE TO MATCH WALL COLOR, RE: ROOM FINISH SCHEDULE.

<u>LEGEND - FINISH PLAN</u>





LEGEND - TRANSITIONS

| LEGEND - INANSITIONS |   |              |          |                         |  |  |  |
|----------------------|---|--------------|----------|-------------------------|--|--|--|
| TAG                  | DESCRIPTION   | MANUFACTURER | PRODUCT  | FINISH                  |  |  |  |
| TS-1                 | CARPET TO EXISTING MCT, CARPET/<br>LVT TO SEALED CONCRETE | SCHLUTER     | VINPRO-U | BRUSHED NICKEL ANODIZED |  |  |  |

MECH. CLOSET 236A

CLASSROOM 236

OKLAHOMA CITY

131 DEAN A McGEE AVE, SUITE 135
OKLAHOMA CITY, OK 73102
T: 405.232.7007

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

TULSA 110 WEST SEVENTH, SUITE 710 TULSA, OK 74119

T: 918.583.5300 F: 918.585.1967

PROJECT NUMBER: 202401 PROJECT: **RSU NURSING** CLASSROOMS RENOVATION

OPYRIGHT BECK ASSOCIATES ARCHITECTS, PLLC; DBA BECK DESIGN - 05.17.2024

CONSULTANT:

ISSUE / REVISION: No Description

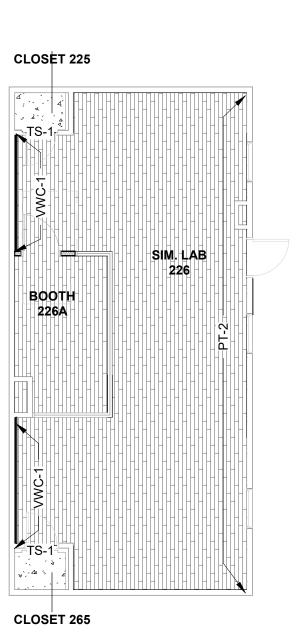


100% CONSTRUCTION DOCUMENTS
ISSUE DATE:

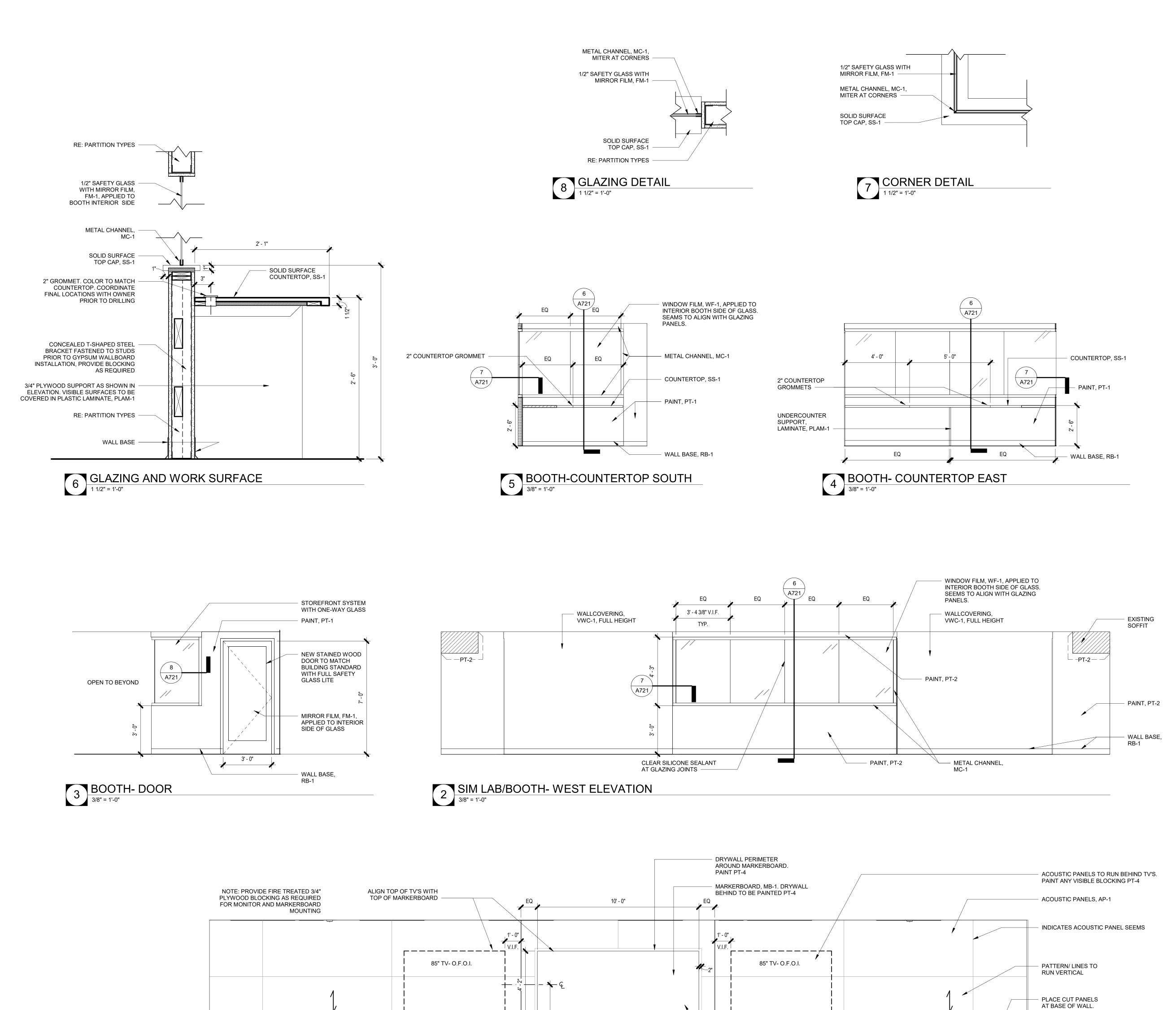
05.17.2024 SHEET NUMBER:

A702

FINISH PLAN AND ROOM FINISH SCHEDULE & LEGEND







L\_\_\_\_\_\_\_

EQ

 CENTER MARKERBOARD AND ACOUSTICAL PANELS ON WALL BUMP OUT

L\_\_\_\_\_\_

1 CLASSROOM 236- S. TEACHING WALL
3/8" = 1'-0"

9



TULSA 110 WEST SEVENTH, SUITE 710 TULSA, OK 74119 T: 918.583.5300 F: 918.585.1967

OKLAHOMA CITY
131 DEAN A McGEE AVE, SUITE 135
OKLAHOMA CITY, OK 73102
T: 405.232.7007

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

PROJECT NUMBER:
202401
PROJECT:
RSU NURSING
CLASSROOMS
RENOVATION

CONSULTANT:

ISSUE / REVISION:

No Description Date

DONALD K.

BECK JR.

No. 2630

OKLAHOMA

100% CONSTRUCTION

DOCUMENTS
ISSUE DATE:

05.17.2024

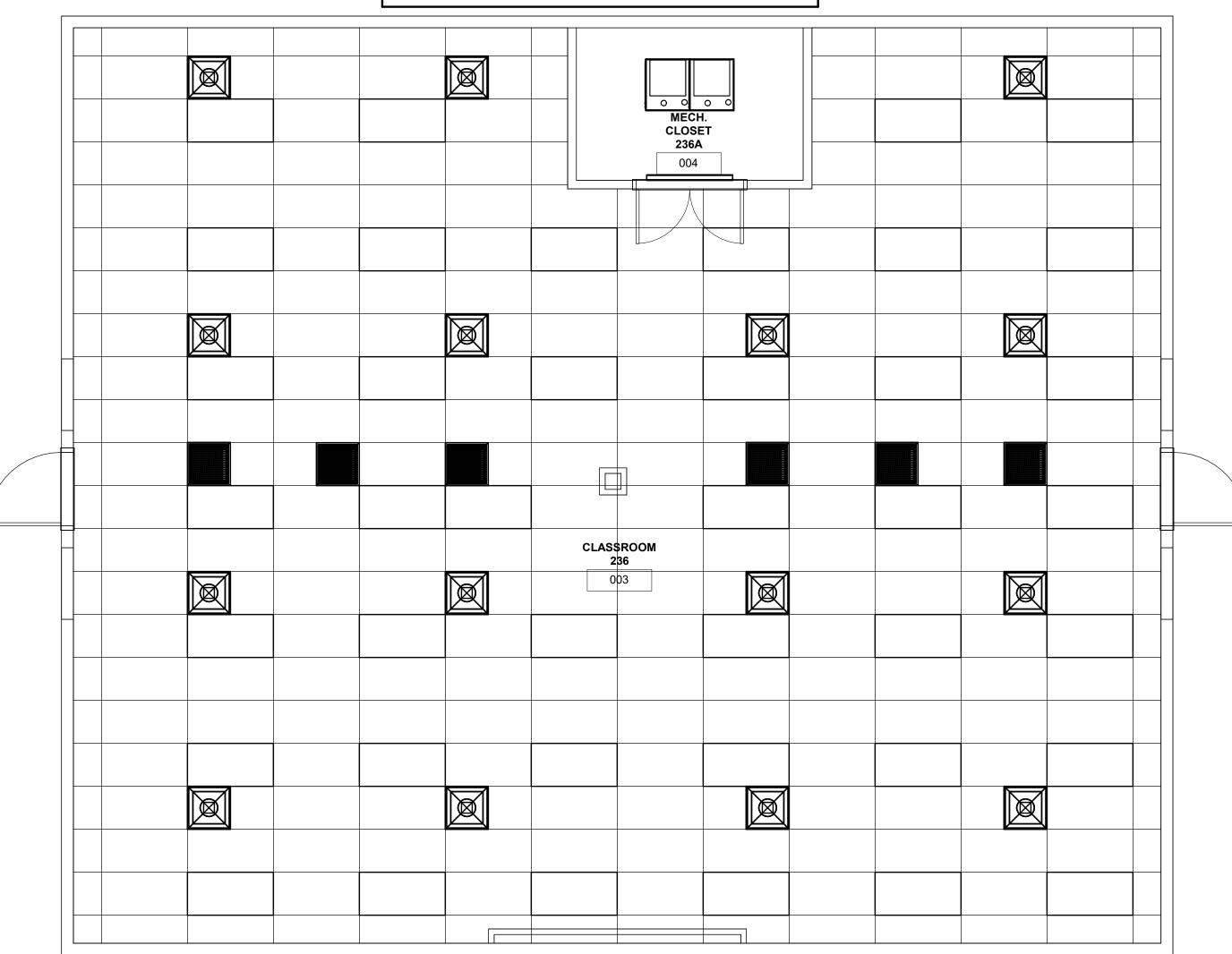
SHEET NUMBER:

PANELS TO STOP AT TOP OF WALL BASE

WALL BASE, RB-1

INTERIOR ELEVATIONS

THERE IS AN EXISTING WET-PIPE SPRINKLER SYSTEM. UNLESS NOTED OTHERWISE RELOCATE EXISTING WET-FIFE SPRINKLER STSTEM. UNLESS NOTED OTHERWISE RELOCATE EXISTING HEADS AND PROVIDE NEW HEADS AS REQUIRED TO PROVIDE COVERAGE FOR THE SCOPE OF WORK INDICATED. COORDINATE DESIGN WITH ARCHITECTURAL REFLECTED CEILING PLAN. THE WET-PIPE FIRE PROTECTION SYSTEM SHALL BE DESIGNED AND HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA 13 AND ALL APPLICABLE LOCAL CODES.







| ABBREVIATIONS:   |   | SYMBOLS:               |   | GENERAL NOTES:   |
|--|---|------------------------|---|--|
| ROUND ABOVE ABOVE ARCADRAIN ADDENDUM F ABOVE FINISHED FLOOR ANNUAL FUEL UTILIZATION EFFICIENCY ALTERNATE ACCESS PANEL ACCESS PANEL ACHITECT/ARCHITECTURAL F BELOW FINISHED FLOOR W BELOW U BRITISH THERMAL UNITS U BRITISH THERMAL UNITS PER HOUR APPORT ADDENDUM CAPACITY CAPACITY CAPACITY CAPACITY CAPACITY COLD WATER DEGREE DOWN U DISTILLED WATER CEC ELECTRICAL ADJUN EQUIPMENT ELECTRIC WATER TEMPERATURE ECC ELECTRICAL AUD EQUIPMENT CHECK EXHAUST AIR AUST EXISTING DEGREES FAHRENHEIT COLOR CLEAN OUT COLOR DRAIN FIRE DAMPER COLOR CLEAN OUT COLOR CLEAN OUT COLOR CLEAN OUT CHOOR CLEAN OUT CHOO | LVR LOUVER LWT LEAVING WATER TEMPERATURE M/A MIXED AIR MAX MAXIMUM MBH ONE THOUSAND BTU PER HOUR MCF ONE THOUSAND CUBIC FEET MD MOTORIZED DAMPER MECH MECHANICAL MFR MANUFACTURER MIN MINIMUM MISC MISCELLANEOUS MTR MOTOR MU/A MAKE-UP/AIR NC NOISE CRITERIA NC NORMALLY CLOSED NIC NOT IN CONTRACT NO NUMBER NO NORMALLY OPEN NTS NOT TO SCALE O OXYGEN O/A OUTSIDE AIR ORD OVERFLOW ROOF DRAIN PD PRESSURE DROP PIV POST INDICATOR VALVE PLBG PLUMBING PRESS PRESSURE PRV PRESSURE REDUCING VALVE PSI POUNDS PER SQUARE INCH PSIG POUNDS PER SQUARE INCH GAUGE PWR POWER R DUCT RISER R/A RETURN AIR RCP RADIANT CEILING PANEL RD ROOF DRAIN REC RECESSED RED REDUCER RH RELATIVE HUMIDITY RL/A RELIEF AIR RM ROOM RPM REVOLUTIONS PER MINUTE RW RAIN WATER SF SQUARE FOOT SJA SUPPLY AIR SAN SANITARY SF SQUARE FOOT SJA SUPPLY AIR THERMOSTAT TO TEMPERATURE TYP TYPICAL UG UNDERGROUND VAC VACUUM V VENT VAV VARIABLE AIR VOLUME VENT VENTILATION VTR VENT THROUGH ROOF W WASTE WB WET BULB WCO WALL CLEAN OUT WH WALL HYDRANT | SYMBOLS:  1/8" / 1'-0" | REVISION NUMBER - SHOWN ON PLANS  POINT WHERE NEW CONNECTS TO EXISTING  DETAIL NUMBER ON SHEET SHEET NUMBER WHERE DETAIL APPEARS  KEYNOTE  CONTINUATION SYMBOL  ABOVE GROUND PIPING PIPE SLOPE TAG BELOW GROUND PIPING PIPE INVERT ELEVATION TAG  NEW  EXISTING PIPE TAG PIPING BEING DEMOLISHED  ON SYMBOLS:  FIRE LINE  UPRIGHT SPRINKLER HEAD  PENDENT SPRINKLER HEAD  RECESSED SPRINKLER HEAD  CONCEALED SPRINKLER HEAD  SIDEWALL SPRINKLER HEAD  EXTENDED COVERAGE SIDEWALL SPRINKLER HEAD  FIRE RISER  FIRE DEPARTMENT CONNECTION | GENERAL NOTES:  1. COMPLY WITH CURRENT BUILDING, MECHANICAL, PLUMBING AND OTHER GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND RECULATIONS OF REGULATORY BODIES HAVING JURISDICTION.  2. INSTALL ALL PIPING AND FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTYL-LACHIEVE PERMANENTYL-LACHIEVE PERMANENTYL-LACHIEVE PERMANENTYL-LACHIEVE OF PERFORMING EACH INDICATED SERVICE WITHOUT FAILURE OR DEGRADATION OF SERVICE.  3. ALL MATERIALS EXPOSED IN RETURN AIR PLENUM TO COMPLY WITH NFPA 90A FLAME SPREAD UNDER 25, SMOKE DEVELOPED AND FUEL CONTRIBUTED UNDER 50 FOR RETURN AIR PLENUMS.  FIRE PROTECTION  GENERAL NOTES:  1. PROVIDE FIRE PROTECTION SYSTEM HYDRAULICALLY DESIGNED AND CALCULATED IN ACCORDANCE WITH NFPA-13 AND ALL APPLICABLE LOCAL CODES AND OWNERS INSURANCE UNDERWEITER RECUREMENTS. REFER TO SPECIFICATIONS FOR OTHER GENERAL REQUIREMENTS IN ADDITION TO INFORMATION PROVIDED ON THE DRAWNINGS.  2. ALL AREAS SHALL BE FULLY SPRINKLED AND SPRINKLER HAZARD CLASSIFICATIONS SHALL BE IN ACCORDANCE WITH NFPA.  3. REFER TO ARCHITECTURAL PLANS INCLUDING REFLECTED CEILING PLAN AND THE MECHANICAL AND ELECTRICAL PLANS FOR LOCATIONS OF CEILING, DIFFUSES, LIGHTS AND OTHER CEILING ORNAMENTATION. FIELD VERIFY ALL FINAL SPRINKLER LOCATIONS AND PIPE ROUTING AND MAKE ALL DECESSARY ADJUSTMENTS IN FABRICATION TO ELIMINATE CONFLICTS.  4. ALL PIPE REDUCTIONS SHALL UTILIZE STANDARD REDUCING FITTINGS. REDUCING-TYPE MECHANICAL COUPLINGS ARE STRICTLY PROHIBITED.  5. AVOID ROUTING SPRINKLER PIPING THROUGH SWITCHGEAR ROOMS, ELECTRICAL CLOSETS, TELEPHONE EQUIPMENT CLOSETS, COMMING PLOYERS DATA PROCESSING ROOMS, ELEVATOR MACHINE ROOMS, DUMBWAITERS, AND SIMILAR SPACES.  6. PROVIDE FREEZE PROOF HEADS OR FREEZE PROOF SYSTEM IN ANY AREA SUBJECT TO FREEZE.  7. CONTACT CITY OF HULBERT WATER DEPARTMENT FOR CURRENT WATER FLOW INFORMATION.  8. PROVIDE FREEZE PROOF HEADS OR FREEZE PROO |
| EQUIPMENT ABI  ACCU AHU AHU AR COOLING CONDENSING UNIT AIR COOLING UNIT AIR SEPARATOR B B BOILER CH CHILLER CT COOLING TOWER CHWP CHILLED WATER PUMP DOED DOMESTIC WATER BOOSTER PUMP DOED DOMESTIC WATER CIRCULATING PUMP EF EXHAUST FAN ELECTRIC DUCT COIL   | ET EXPANSION TANK EWH ELECTRIC WATER HEATER FCU FAN COIL UNIT FP FIRE PUMP GI GREASE INTERCEPTOR GRV GRAVITY ROOF VENTILATOR HWP HEATING WATER PUMP HRU HEAT RECOVERY UNIT PRV POWER ROOF VENTILATOR RE RETURN/EXHAUST FAN RTU ROOFTOP UNIT   |                        | WATER MOTOR GONG  VALVE WITH POSITION INDICATOR   | <ol> <li>ACCURATELY ALIGN SPRINKLER HEADS IN HUNG CEILING AREAS SYMMETRICALLY WITH DIFFUSERS, GRILLES, LIGHTING FIXTURES AND CEILING TILES.</li> <li>INSTALL HEADS IN CENTER OF TILES, THIS MAY RESULT IN ADDITIONAL HEADS WHICH SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER UNLESS INDICATED OTHERWISE.</li> <li>PITCH SPRINKLER PIPING TO MAIN AND AUXILIARY DRAIN OUTLETS TO PROVIDE FOR COMPLETE DRAINAGE. NUMBER OF DRAIN OUTLETS TO PROVIDE FOR COMPLETE DRAINAGE. NUMBER OF DRAIN OUTLETS SHALL BE KEPT TO A MINIMUM.</li> <li>SLOPE OF HORIZONTAL RUNS OF DRAIN PIPING SHALL BE 1/8 IN. PER FT FOR 2 1/2 INCH DIAMETER AND LESS AND 1/16 INCH PER FOOT FOR LARGER DIAMETERS.</li> <li>INSTALL PIPING APPROXIMATELY AS INDICATED AND MODIFY TO SUIT BUILDING CONDITIONS AND TO AVOID INTERFERENCES WITH OTHER TRADES. MAINTAIN ACCESS TO ALL PARTS OF PIPING SYSTEMS AND DUCT WORK AND MAINTAIN REQUIRED PITCH.</li> <li>PROVIDE ADDITIONAL OFFSETS, FITTINGS, VALVES, DRAINS, ETC., WHERE REQUIRED BY CONSTRUCTION AND WORK OF OTHER TRADES.</li> <li>RUN IN CHASES, RECESSES, SHAFTS, HUNG CEILINGS AND BEAM CUTS WHERE APPLICABLE. DO NOT COVER BEFORE EXAMINATION AND TESTING. RUN PARALLEL WITH OR AT RIGHT ANGLES TO WALLS AND OTHER PIPING, NEATLY SPACED AND WITH PLUMBING RISERS.</li> <li>PROVIDE CONTROL VALVES WHERE NOTED OR REQUIRED. VALVES SHALL BE ACCESSIBLE, BUT NO GATE VALVE HANDLE SHALL BE PONITING DOWN. BUTTERFLY VALVE SHALL BE INSTALLED WITH OPERATOR ON SIDE.</li> <li>PROVIDE MAIN AND AUXILIARY DRAIN CONNECTIONS</li> <li>THROUGHOUT AS REQUIRED FOR COMPLETE DRAINAGE OF PIPING.</li> <li>ROUTE SPRINKLER BRANCH PIPING DIRECTLY TO SPRINKLER HEADS AND AVOID ROUTING MAINS ABOVE IT. AND CONTROL ROOMS, PROVIDE DRIP PANS UNDER PIPING IF CANNOT AVOID ROUTING ABOVE EQUIPMENT.</li> <li>FLEXIBLE SPRINKLER HEAD CONNECTIONS NOT ALLOWED.</li> <li>OWNERSHIP OF DOCUMENTS: ALL DRAWINGS, SPECIFICATIONS AND OTHER WORK PRODUCT OF THE ENGINEER FOR THE MICHERY SIEK AND THE INSTRUMENTS OF SERVICE FOR THE SENGIERE SY T</li></ol>   |
|  |   |                        |   | * NOTE *  ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO  ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND  ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE  USED IN THIS SET OF DRAWINGS.  |



COPYRIGHT BECK ASSOCIATES ARCHITECTS, PLLC; DBA BECK DESIGN - 05.18.2024 TULSA 110 WEST SEVENTH, SUITE 710 TULSA, OK 74119 T: 918.583.5300 F: 918.585.1967

OKLAHOMA CITY

131 DEAN A McGEE AVE, SUITE 135
OKLAHOMA CITY, OK 73102
T: 405.232.7007

PROJECT NUMBER:

**RSU NURSING** 

CLASSROOMS

RENOVATION

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

202401

PROJECT:

CONSULTANT:

Phillips+Gomez •

15 W 6th St., Suite 2510 Tulsa, OK 74119 PH. 918.584.0102

Oklahoma Certificate of Authorization #CA1395 Renewal Date: 06.30.25

ISSUE / REVISION:

No Description



100% CONSTRUCTION DOCUMENTS ISSUE DATE:

05.17.2024 SHEET NUMBER:

F001

FIRE PROTECTION NOTES, SYMBOLS AND ABBREVIATIONS

| SPLIT S         | YSTEM SCHEDULE                    |                     |                     |  |
|-----------------|-----------------------------------|---------------------|---------------------|--|
| JNIT PLAN NO.   |                                   | 1                   | 2                   |  |
| MANUFACTUREF    | R                                 | DAIKIN              | DAIKIN              |  |
| SEER (AT AHRI C | CONDITIONS)                       | 13                  | 13                  |  |
| SENSIBLE CAP /  | TOTAL CAP (AT AHRI CONDITIONS)    | 41.5 MBH / 53.9 MBH | 41.5 MBH / 53.9 MBH |  |
| OUTSIDE AIR FLO | OW                                | 175                 | 175                 |  |
|                 | UNIT DESIGNATION                  | F                   | F                   |  |
|                 | MODEL NO.                         | DM96SN0804CN        | DM96SN0804CN        |  |
|                 | NOMINAL TONNAGE                   | 5                   | 5                   |  |
| NDOOR           | AIR FLOW - CFM                    | 1,750               | 1,750               |  |
| JNIT            | FAN TYPE                          | ECM, MULTI SPEED    | ECM, MULTI SPEED    |  |
|                 | EXTERNAL STATIC PRESSURE - IN. WO | 0.6                 | 0.6                 |  |
|                 | VOLTS/PHASE/HERTZ                 | 115/1/60            | 115/1/60            |  |
|                 | MCA / MOCP                        | 13.7 / 20           | 13.7 / 20           |  |
|                 | CAPACITY - INPUT MBH              | 80                  | 80                  |  |
| GAS HEATING     | CAPACITY - OUTPUT MBH             | 76.88               | 76.88               |  |
|                 | NO. OF STAGES                     | 1                   | 1                   |  |
|                 | UNIT DESIGNATION                  | CU                  | CU                  |  |
|                 | MODEL NO.                         | DX13SA0603          | DX13SA0603          |  |
| CONDENSING      | NOMINAL TONNAGE                   | 5                   | 5                   |  |
| UNIT            | COMPRESSOR TYPE                   | SCROLL              | SCROLL              |  |
|                 | VOLTS/PHASE/HERTZ                 | 208/3/60            | 208/3/60            |  |
|                 | MCA / MOCP                        | 21.3 / 35           | 21.3 / 35           |  |
| REMARKS         |                                   | 1,2,3,4,5,6,7       | 1,2,3,4,5,6,7       |  |

I. OTHER APPROVED MANUFACTURERS: LENNOX, TRANE.

4. NATURAL GAS HEAT, AND R-410A REFRIGERANT.

5. FILTER BOX, WITH 2" FILTER, MERV 7 MINIMUM.

7. PROVIDE WITH UNIT CONDENSATE PUMP.

B. CONDENSING UNIT HAIL GUARD.

6. CONDENSATE OVERFLOW SWITCH.

2. WALL MOUNTED, PROGRAMMABLE COMMUNICATING THERMOSTAT.

B. PROVIDE 2-POSITION LOW VOLTAGE MOTORIZED OUTSIDE AIR DAMPER INTERLOCKED WITH UNIT.

| A D D E V / A T I O N I O  | CDILLES DECISTEDS & DIFFLISEDS TAG   | OENEDAL NOTEO  |
|--|--|--|
| ABREVATIONS:  Ø ROUND LVR LOUVER   | TYPE (SEE SCHEDULE)————————————————————————————————————                    | GENERAL NOTES:  1 COMPLY WITH CURRENT BUILDING MECHANICAL PLUMBING AND OTHER   |
| ABV ABOVE LWT LEAVING WATER TEMPERATURE AC AIR CONDITIONING M/A MIXED AIR AD AREA DRAIN MAX MAXIMUM  | 3-CONE DIFFUSER A 400 CFM NECK SIZE / MODULE SIZE                          | <ol> <li>COMPLY WITH CURRENT BUILDING, MECHANICAL, PLUMBING AND OTHER<br/>GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND REGULATIONS<br/>OF REGULATORY BODIES HAVING JURISDICTION.</li> </ol>   |
| ADD ADDENDUM MBH ONE THOUSAND BTU PER HOUR AFF ABOVE FINISHED FLOOR MCF ONE THOUSAND CUBIC FEET AFUE ANNUAL FUEL UTILIZATION EFFICIENCY MD MOTORIZED DAMPER ALT ALTERNATE MECH MECHANICAL AP ACCESS PANEL MFR MANUFACTURER ARCH ARCHITECT/ARCHITECTURAL MIN MINIMUM  | PERFORATED DIFFUSER  | <ol> <li>INSTALL ALL PIPING AND FITTINGS IN ACCORDANCE WITH RECOGNIZED<br/>INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTLY-LEAKPROOF<br/>PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE<br/>WITHOUT FAILURE OR<br/>DEGRADATION OF SERVICE.</li> </ol>                                      |
| BFF BELOW FINISHED FLOOR MISC MISCELLANEOUS BLW BELOW MTR MOTOR BTU BRITISH THERMAL UNITS MU/A MAKE-UP/AIR BTUH BRITISH THERMAL UNITS PER HOUR NC NOISE CRITERIA CAP CAPACITY NC NORMALLY CLOSED   | ROUND DIFFUSER LOUVERED GRILLE   | <ol> <li>ALL MATERIALS EXPOSED IN RETURN AIR PLENUM TO COMPLY WITH NFPA 90A FLAME SPREAD UNDER 25, SMOKE DEVELOPED AND FUEL CONTRIBUTED UNDER 50 FOR RETURN AIR PLENUMS.</li> </ol>  |
| CB CATCH BASIN NIC NOT IN CONTRACT CFM CUBIC FEET PER MINUTE NO NUMBER CLG CEILING NO NORMALLY OPEN CO CLEAN OUT NTS NOT TO SCALE  | LINEAR SLOT DIFFUSER LINEAR BAR GRILLE                                     | DEMOLITION GENERAL NOTES:  |
| CW COLD WATER O OXYGEN D DEGREE O/A OUTSIDE AIR DB DRY BULB ORD OVERFLOW ROOF DRAIN  | IN CEILING LOUVERED GRILLE   | REMOVE / MODIFY EXISTING SYSTEMS, EQUIPMENT, ETC. TO MAKE WAY FOR NEW CONSTRUCTION. AVOID DISRUPTION OF SERVICES DURING NORMAL   |
| DIA DIAMETER PD PRESSURE DROP DN DOWN PIV POST INDICATOR VALVE DW DISTILLED WATER PLBG PLUMBING EA EACH PRESS PRESSURE   |  | BUSINESS HOURS. ALL SYSTEM SHUT-DOWNS AND DISRUPTION OF BUILDING SERVICES SHALL BE COORDINATED WITH OWNER AND SCHEDULED AFTER NORMAL BUSINESS HOURS OR AS OTHERWISE APPROVED BY OWNER.   |
| EAT ENTERING AIR TEMPERATURE ELEC ELECTRICAL EQUIP EQUIPMENT EWC ELECTRIC WATER COOLER EWT ENTERING WATER TEMPERATURE  PRV PRESSURE REDUCING VALVE PSI POUNDS PER SQUARE INCH GAUGE PWR POWER R DUCT RISER   |  | <ol> <li>MEET WITH OWNER PRIOR TO REMOVING TO IDENTIFY WHETHER EXISTING<br/>MATERIALS, SYSTEMS, EQUIPMENT, ETC. ARE CONSIDERED SALVAGE OR<br/>DEBRIS. REMOVE DEBRIS FROM SITE AND DISPOSE OF IN APPROVED MANNER.<br/>RETURN SALVAGE TO OWNER IN A LOCATION AND MANNER AS DIRECTED BY<br/>OWNER.</li> </ol> |
| E/A EXHAUST AIR R/A RETURN AIR EXIST EXISTING RCP RADIANT CEILING PANEL F DEGREES FAHRENHEIT RD ROOF DRAIN FCO FLOOR CLEAN OUT REC RECESSED  | MECHANICAL EQUIPMENT TAGS  | 3. TERMINATE DEMOLISHED SYSTEM SERVICES IN A CONCEALED LOCATION IN AN APPROVED MANNER CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID). ALL ABANDONED SYSTEM SERVICES (INCLUDING BUT NOT  |
| FD FLOOR DRAIN RED REDUCER FD FIRE DAMPER RH RELATIVE HUMIDITY FDV FIRE DEPARTMENT VALVE RL/A RELIEF AIR FL FLOOR RM ROOM  | UNIT CLEARENCE   | LIMITED TO EQUIPMENT, DUCTWORK, DIFFUSERS, PIPING, CONTROLS, WIRING, ETC.) SHALL BE COMPLETELY REMOVED WHETHER INDICATED ON THE DRAWINGS OR NOT. REMOVE ALL ASSOCIATED PIPING BACK TO MAIN(S) AND CAP IN AN APPROVED MANNER.   |
| FO FUEL OIL RPM REVOLUTIONS PER MINUTE FOV FUEL OIL VENT RW RAIN WATER FOR FUEL OIL RETURN SF SQUARE FOOT FOS FUEL OIL SUPPLY S/A SUPPLY AIR   | <u>VAV-XX</u> ── TYPE (SEE SCHEDULE)                                       | 4. DEFINITIONS:  |
| FPM FEET PER MINUTE SAN SANITARY FS FLOOR SINK SF SQUARE FOOT FT FOOT/FEET SD SMOKE DAMPER   |  | REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY OF THEM OFF-SITE UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVAL AND REINSTALLED.   |
| FTR FIN TUBE RADIATION SM SURFACE MOUNT GAL GALLON SP STANDPIPE GC GENERAL CONTRACTOR SP STATIC PRESSURE GPM GALLONS PER MINUTE STM STEAM  | (E) EXISTING (E)VAV-XX EQUIPMENT TO REMAIN                                 | REMOVE AND SALVAGE: CAREFULLY DETACH FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE, AND DELIVER TO OWNER.  REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONSTRUCTION,  |
| GW GREASE WASTE T THERMOSTAT  HB HOSE BIB TD TEMPERATURE DROP  HP HORSE POWER TDR TRENCH DRAIN  HTG HEATING TEMP TEMPERATURE   | (R) EXISTING   | PREPARE FOR REUSE, AND REINSTALL WHERE INDICATED.  EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE   |
| HTR HEATER TYP TYPICAL HW HOT WATER UG UNDERGROUND HYD HYDRANT VAC VACUUM  | RELOCATED (R)VAV-XX EQUIPMENT  | NOT TO BE PERMANENTLY REMOVED CAN THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVE AND SALVAGE, OR REMOVED AND REINSTALLED.  |
| ID INDIRECT V VENT IN INCH VAV VARIABLE AIR VOLUME INV INVERT VENT VENTILATION LB POUND VTR VENT THROUGH ROOF  |  |  |
| LB/HR POUNDS PER HOUR W WASTE  LAT LEAVING AIR TEMPERATURE WB WET BULB  LP LOW PRESSURE WCO WALL CLEAN OUT  LPG LIQUEFIED PETROLEUM GAS WH WALL HYDRANT  |  | HVAC GENERAL NOTES:  |
| THE THE PARTY OF T | DATA DEVICE TAGS   | COORDINATE ALL DUCT AND HVAC PIPE ROUTING WITH PLUMBING, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL TRADES PRIOR TO INSTALLATION. TRANSITION AS REQUIRED TO ROUTE DUCT UNDER STRUCTURAL REAMS.   |
|  | EQUIPMENT ID   | STRUCTURAL BEAMS.  2. ROUTE ALL DUCT AND HVAC PIPING HIGH AS POSSIBLE.   |
|  | TH TEMP. & HUMIDITY SENSOR HUMIDISTAT H                                    | ALL DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.  3. COORDINATE ACCESS DOOR REQUIREMENTS AND LOCATIONS WITHARCHITECT AND GENERAL CONTRACTOR.  |
| EQUIPMENT ABREVATIONS:   | T TEMPERATURE SENSOR HUMIDITY SENSOR HS S SENSOR CARBON MONOXIDE SENSOR CO | 4. A MAXIMUM OF 5 FEET OF FLEXIBLE DUCT CAN BE PROVIDED AT CEILING DIFFUSER RUN OUTS. FLEXIBLE DUCT IS NOT ALLOWED ABOVE INACCESSIBLE CEILINGS (I.E. GYPBOARD CEILINGS, ETC.)  |
| AC AIR CONDITIONING UNIT ET EXPANSION TANK ACCU AIR COOLING CONDENSING UNIT EWH ELECTRIC WATER HEATER  | T THERMOSTAT NITROGEN DIOXIDE SENSOR NO2                                   | 5. PROVIDE TURNING VANES IN ACCORDANCE WITH SPECIFICATIONS, ALTHOUGH NOT ALL ARE SHOWN ON THE DRAWINGS.  |
| AHU AIR HANDLING UNIT FCU FAN COIL UNIT AS AIR SEPARATOR FP FIRE PUMP B BOILER GI GREASE INTERCEPTOR CH CHILLER GRV GRAVITY ROOF VENTILATOR  | MS MANUAL SWITCH CARBON DIOXIDE SENSOR CO2                                 | 6. PROVIDE DAMPER REGULATOR AND EXTENSION CABLE/ROD FORALL<br>DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS AND CHASES.<br>COORDINATE EXACT LOCATION OF CEILING MOUNTED CONTROLLER WITH  |
| CT COOLING TOWER  CUH CABINET UNIT HEATER  CHWP CHILLED WATER PUMP  DBP DOMESTIC WATER BOOSTER PUMP  RE RETURN/EXHAUST FAN   |  | ARCHITECT PRIOR TO INSTALLATION.  7. PROVIDE BALANCE DAMPERS AT ALL BRANCH DUCTS AND BRANCH RUNOUTS TO DIFFUSERS AND GRILLES, ALTHOUGH ALL ARE NOT SHOWN ON  |
| DC DUCT MOUNTED COIL RTU ROOFTOP UNIT DCP DOMESTIC WATER CIRCULATING PUMP SP SUMP PUMP EF EXHAUST FAN UH UNIT HEATER EDC ELECTRIC DUCT COIL WH WATER HEATER  |  | THE DRAWINGS.  8. PROVIDE EASEMENTS WHERE LOW-PRESSURE DUCTWORK  |
| EDC ELECTRIC DOCT COIL WH WATER HEATER   | DAMPER TAGS  FIRE DAMPER  F  B  MANUAL BALANCING DAMPER                    | CONFLICTS WITH STRUCTURAL AND PIPING, LIGHTS, OR OTHER EQUIPMENT; WHERE EASEMENTS EXCEED 10% DUCT AREA, SPLIT INTO TWO DUCTS MAINTAINING ORIGINAL DUCT AREA, OFFSET DUCTS AROUND OBSTRUCTIONS, OR TRANSITION DUCT TO AN  |
|  | SMOKE DAMPER S REMOTE MANUAL BALANCING DAMPER                              | EQUIVALENT DUCT SIZE USING ASHRAE TABLE OF EQUIVALENT RECTANGULAR AND ROUND DUCTS. NOTIFY ENGINEER FOR APPROVAL BEFORE EASEMENTS, DUCT SPLITS, OFFSETS AND TRANSITIONS ARE MADE. INCLUDE ALL COSTS FOR EASEMENTS,  |
|  | MOTORIZED DAMPER D BACKDRAFT DAMPER  C COMBINATION FIRE/SMOKE              | SPLIT DUCTS, OFFSETS AND TRANSITIONS NECESSARY TO COMPLETE THE INSTALLATION, ALTHOUGH NOT ALL ARE SHOWN ON THE DRAWINGS.   |
|  | DAMPER   | 9. INCREASE DUCT HEIGHT OR WIDTH WHERE LOW-PRESSURE<br>DUCTWORK DIMENSIONS SHOWN ARE LESS THAN THAT REQUIRED OR<br>CONNECTION OF BRANCH DUCTS AND CONICAL OR STRAIGHT SPIN-INS.<br>WHERE APPROPRIATE, DUCT MAIN MAY BE ROTATED 90 DEGREES TO ALLOW   |
|  | PIPE ACCESSORIES   | BRANCH DUCT CONNECTION TO OTHER SIDE OF MAIN DUCT; OR TRANSITION DUCT TO AN EQUIVALENT DUCT SIZE USING ASHRAE TABLE OF EQUIVALENT RECTANGULAR AND ROUND DUCTS. NOTIFY CITY CONTRACT ADMINISTRATOR FOR APPROVAL BEFORE ROTATIONS AND TRANSITIONS ARE  |
|  | ■ DOMESTIC WATER METER MOTORIZED CONTROL VALVE                             | MADE. INCLUDE ALL COSTS FOR ROTATIONS AND TRANSITIONS NECESSARY TO COMPLETE THE INSTALLATION, ALTHOUGH NOT ALL ARE SHOWN ON THE DRAWINGS.  |
|  | 路 BALANCING VALVE 場 3-WAY MOTOR CONTROL VALVE                              | 10. PROVIDE TEMPORARY FILTERS TO ALL AFFECTED AIR HANDLING EQUIPMENT<br>DURING CONSTRUCTION, REPLACE WITH FINAL FILTERS UPON PROJECT<br>COMPLETION, PRIOR TO TEST AND BALANCE.   |
|  | □ BALL VALVE PRESSURE REDUCING VALVE  S REFRIGERANT SOLENOID VALVE         | 11. ALL INTERIOR DUCT, HVAC PIPING, AND MECHANICAL EQUIPMENT<br>SHALL BE PAINTED TO MATCH THE CEILING OR UNDERSIDE OF<br>SLAB.   |
|  | 路 3-WAY MIXING VALVE 的 BUTTERFLY VALVE                                     |  |
|  | ⋈ SHUT-OFF VALVE   | CONTROLS GENERAL NOTES:  |
|  |  | 1. PROVIDE COMMUNICATING THERMOSTAT AND CONNECT TO EXISTING DDC CONTROL SYSTEM.  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | OWNERSHIP OF DOCUMENTS: ALL DRAWINGS, SPECIFICATIONS AND OTHER WORK PRODUCT OF THE ENGINEER FOR THIS PROJECT ARE INSTRUMENTS OF SERVICE FOR THIS PROJECT ONLY AND SHALL REMAIN THE PROPERTY OF THE ENGINEER WHETHER  |
|  |  | THE PROJECT IS COMPLETED OR NOT. REUSE OF ANY OF THE INSTRUMENTS OF SERVICE OF THE ENGINEER BY THE OWNER ON EXTENSIONS OF THIS PROJECT WITHOUT WRITTEN PERMISSION OF THE ENGINEER SHALL BE AT THE OWNER'S RISK AND THE OWNER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ALL CLAIMS.   |
|  |  | DAMAGES, AND EXPENSES INCLUDING ATTORNEYS' FEES ARISING OUT OF UNAUTHORIZED REUSE OF THE ENGINEER'S INSTRUMENTS OF SERVICE BY THE OWNER OR BY OTHERS ACTING THROUGH THE OWNER.   |
|  |  | <u>* NOTE *</u><br>ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO   |
|  |  | ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO  ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND  ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE  USED IN THIS SET OF DRAWINGS.  |
|  |  | USED IIN THIS SET OF DRAWINGS.   |



**TULSA**110 WEST SEVENTH, SUITE 710
TULSA, OK 74119
T: 918.583.5300

F: 918.585.1967

OKLAHOMA CITY

131 DEAN A McGEE AVE, SUITE 135
OKLAHOMA CITY, OK 73102
T: 405.232.7007

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

202401
PROJECT:
RSU NURSING
CLASSROOMS
RENOVATION

PROJECT NUMBER:

CONSULTANT:

Phillips+Gomez

15 W 6th St., Suite 2510 Tulsa, OK 74119 PH. 918.584.0102 Oklahoma Certificate of Authorization #CA1395 Renewal Date: 06.30.25

ISSUE / REVISION:

No Description Date
1 Addendum 1 5-30-24

SEVI .



100%
CONSTRUCTION
DOCUMENTS

ISSUE DATE:

05.17.2024

SHEET NUMBER:

M001

MECHANICAL NOTES, SYMBOLS AND ABBREVIATIONS

#### GENERAL PROVISIONS

- 1.01 FURNISH ALL LABOR, MATERIALS, EQUIPMENT, FIXTURES, APPARATUS, SPECIAL OR OCCASIONAL SERVICES, AND OTHER APPURTENANCES REQUIRED FOR COMPLETE INSTALLATION OF MECHANICAL SYSTEMS AS INDICATED IN THE DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS. THIS WORK SHALL INCLUDE ALL MATERIALS, APPARATUS, AND APPLIANCES NOT SPECIFICALLY MENTIONED HEREIN OR NOTED ON THE DRAWINGS AS BEING FURNISHED AND INSTALLED UNDER ANOTHER SECTION.
- 1.02 INSTALL ALL PIPING AND FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTLY-LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT FAILURE OR DEGRADATION OF SERVICE.
- 1.03 NOT USED.
- 1.04 COORDINATION OF MECHANICAL WORK/DRAWINGS: IT IS RECOGNIZED THAT THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND SHOW CERTAIN PHYSICAL RELATIONSHIPS WHICH MUST BE ESTABLISHED WITHIN THE MECHANICAL WORK AND IN ITS INTERFACE WITH OTHER WORK, INCLUDING UTILITIES AND ELECTRICAL WORK. THIS ESTABLISHMENT IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR.
- 1.05 PERMITS AND INSPECTIONS: OBTAIN ALL PERMITS AND INSPECTIONS AND PAY ALL FEES FOR COMPLETION OF
- 1.06 CODES AND STANDARDS: COMPLY WITH CURRENT BUILDING, MECHANICAL, PLUMBING AND OTHER GOVERNING CODES, STATE STATUTES, CITY ORDINANCES, AND REGULATIONS OF REGULATORY BODIES HAVING
- 1.07 SUBMITTALS AND REVIEW OF MATERIALS, SAMPLES, AND DRAWINGS: SUBMIT PRODUCT DATA, SHOP DRAWINGS, AND COORDINATION DRAWINGS. SUBMIT NO LESS THAN TWO (2) COPIES PROPERLY BOUND, IDENTIFIED, INDEXED, AND TABBED IN 3-RING BINDER. SHOP DRAWINGS SHALL HAVE THE ARCHITECT/ENGINEER'S APPROVAL PRIOR TO ORDERING OR FABRICATING EQUIPMENT.
- 1.08 GUARANTEES AND WARRANTIES: PROVIDE A ONE-YEAR WARRANTY FOR ALL MATERIALS AND SYSTEMS
- 1.09 NOT USED (SERVICE MAINTENANCE CONTRACT)

REQUESTING FINAL ACCEPTANCE OF THE INSTALLATION.

INSTALLED UNDER THIS SECTION.

- 1.10 OWNER'S MANUAL, SERVICE TOOLS, AND RECORD OF TESTING: PREPARE AND SUBMIT FOR APPROVAL IN ELECTRONIC (PDF) FORM WITH INDEX FOR EACH SECTION AS DESCRIBED HEREIN . INCLUDE PRECAUTIONS AND INSTRUCTIONS FOR SERVICING EACH ITEM OF THE SYSTEM AND VALVE TAG CHART.
- UPON APPROVAL, SUBMIT TWO (2) COPIES OF THE OWNER'S MANUAL TO THE OWNER INCLUDING ELECTRONIC (PDF)
  COPY. PROVIDE AND DELIVER TO THE OWNER'S AUTHORIZED REPRESENTATIVE ANY SPECIAL TOOLS REQUIRED
  FOR MAINTENANCE OF SYSTEMS, EQUIPMENT, AND APPARATUS INSTALLED UNDER THIS DIVISION PRIOR TO
- 1.11 DELIVERY, STORAGE, HANDLING, AND PROTECTION OF MATERIALS: PROTECT ALL ITEMS INSTALLED UNDER THIS DIVISION FROM PHYSICAL AND MOISTURE DAMAGE.
- 1.12 ALL MATERIALS IN HVAC SYSTEMS OR EXPOSED IN RETURN AIR PLENUM TO COMPLY WITH NFPA 90A FLAME SPREAD UNDER 25, SMOKE DEVELOPED AND FUEL CONTRIBUTED UNDER 50 FOR RETURN AIR PLENUMS.
- 1.13 PROVIDE ACCESS DOORS WHERE INDICATED ON DRAWINGS AND /OR AS REQUIRED TO PROPERLY OPERATE, ADJUST AND MAINTAIN ALL EQUIPMENT. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO
- 1.14 CAULKING AND FLASHING: SEAL ALL FLOOR, WALL AND ROOF PENETRATIONS WATER TIGHT WITH SUITABLE SEALANT. SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH MINIMUM 1" THICKNESS 3M BRAND FIRE BARRIER CAULK CP-25 (OR OTHER APPROVED MANNER) TO MAINTAIN RATING OF ASSEMBLY.
- 1.15 CLEANING AND STERILIZATION: DISINFECT HOT AND COLD WATER SYSTEMS AS FOLLOWS: FILL SYSTEMS WITH WATER SOLUTION CONTAINING 50 PPM AVAILABLE CHLORINE; ALLOW TO STAND FOR 24 HOURS, OPENING AND CLOSING ALL VALVES SEVERAL TIMES DURING THIS PERIOD; THOROUGHLY FLUSH; REFILL AND PLACE SYSTEM IN SERVICE; ENSURE A RESIDUAL CHLORINE CONTENT OF 2.5 PPM. THE PROCEDURE SHALL BE REPEATED IF IT IS SHOWN BY A BACTERIOLOGICAL EXAMINATION MADE BY THE LOCAL AUTHORITY THAT CONTAMINATION IS STILL PRESENT IN THE SYSTEM. PROVIDE A CERTIFIED COPY OF THE TEST RESULTS VERIFYING COMPLIANCE WITH THIS REQUIREMENT.
- THOROUGHLY CLEAN AND DISINFECT ALL PLUMBING FIXTURES, INCLUDING ALL EXPOSED TRIM. ADJUST ALL FLUSH VALVES FOR PROPER FLUSHING, BUT WITHOUT EXCESS USE OF WATER. DEMONSTRATE TO THE ARCHITECT THAT THE ENTIRE PLUMBING SYSTEM AND ALL COMPONENTS THEREOF ARE FUNCTIONING PROPERLY.
- 1.16 TESTING: PLUMBING EQUIPMENT SHALL BE BLANKED OFF DURING TESTS. TESTS SHALL BE PERFORMED BEFORE PIPING IS ENCLOSED IN WALLS, FLOORS, PARTITIONS, OR IN ANY OTHER WAY CONCEALED FROM VIEW. TESTS MAY BE PERFORMED IN SECTIONS.
- POTABLE WATER SYSTEM: TEST HOT AND COLD WATER SYSTEMS HYDROSTATICALLY TO A PRESSURE OF 100 PSIG OR 1 1/2 TIMES WORKING PRESSURE, WHICHEVER IS GREATER, FOR A PERIOD OF 4 HOURS. REPAIR ALL LEAKS, REPLACING MATERIALS AS NECESSARY, AND REPEAT TESTS UNTIL SYSTEMS ARE PROVEN TIGHT.
- SOIL, WASTE, AND VENT PIPING: TEST SOIL AND VENT PIPING BY PLUGGING ALL OPENINGS AND FILLING SYSTEM TO HEIGHT REQUIRED BY CITY PLUMBING INSPECTOR, BUT NO LESS THAN 20 FEET. INSPECT ALL JOINTS FOR
- LEAKS, REPAIR ANY LEAKS FOUND, AND RETEST UNTIL PIPING IS DEMONSTRATED TO BE FREE FROM LEAKS.

  GRAVITY CONDENSATE DRAINAGE PIPING: TEST CONDENSATE DRAINAGE PIPING SYSTEM AS INDICATED ABOVE FOR SOIL, WASTE, AND VENT PIPING SYSTEM.
- FINAL TEST AND BALANCE: TOTAL SYSTEM TEST AND BALANCE SHALL BE PERFORMED BY A CERTIFIED CONTRACTOR (AABC OR NEBB) THAT HAS COMPLETED A MINIMUM OF 10 PREVIOUS PROJECTS WHICH HAVE RENDERED SATISFACTORY SERVICE. SYSTEMS SHALL BE BALANCED TO WITHIN 10 PERCENT (PLUS OR MINUS) OF DESIGN REQUIREMENTS. SUBMIT FINAL COMPILATION OF DATA FOR EVALUATION AND APPROVAL. UPON COMPLETION OF BALANCING THE CONTRACTOR SHALL MAKE SUCH ADDITIONAL ADJUSTMENTS AS REQUIRED TO PRODUCE SATISFACTORY SPACE CONDITIONS.
- 1.17 START-UP: START-UP EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- ON DATES SELECTED BY OWNER, OPERATE THE ENTIRE SYSTEM FOR THE INSTRUCTION OF THE DESIGNATED MAINTENANCE ENGINEER, INDOCTRINATING HIM AND THE PERSONNEL HE SELECTS IN THE MAINTENANCE AND OPERATION OF THE SYSTEM.
- 1.18 EQUIPMENT AND SYSTEMS INSTALLATION: INSTALL EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS AND ALL APPLICABLE CODES.

1.19 PROJECT RECORD DOCUMENTS: MAINTAIN PROJECT RECORD DOCUMENTS AT THE SITE AND SUBMIT THREE (3)

- COPIES FOR APPROVAL.

  1.20 OWNER FURNISHED EQUIPMENT: OWNER-FURNISHED EQUIPMENT SHALL BE RECEIVED AND INSTALLED BY THIS
- 1.20 OWNER FURNISHED EQUIPMENT: OWNER-FURNISHED EQUIPMENT SHALL BE RECEIVED AND INSTALLED BY THIS CONTRACTOR IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND OTHER REQUIREMENTS OF THE OWNER. START-UP FOR THIS EQUIPMENT SHALL BE BY THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE AND THE START-UP COSTS INCLUDED BY THIS CONTRACTOR.
- 1.21 SPACE REQUIREMENTS: DETERMINE IN ADVANCE OF PURCHASE THAT THE EQUIPMENT AND MATERIALS PROPOSED FOR INSTALLATION WILL FIT INTO THE CONFINES INDICATED, LEAVING ADEQUATE CLEARANCES FOR ADJUSTMENT, REPAIR, OR REPLACEMENT.
- 1.22 SUPERVISION: CONTRACTOR SHALL PERSONALLY OR THROUGH AN AUTHORIZED AND COMPETENT REPRESENTATIVE SUPERVISE THE WORK FROM BEGINNING TO COMPLETION AND WITHIN REASON, MAINTAIN THE SAME WORKMEN AND FOREMAN ON THE PROJECT THROUGHOUT THE PROJECT DURATION.
- 1.23 MATERIALS AND WORKMANSHIP: ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF BEST GRADE AND QUALITY, AND STANDARD PRODUCTS OF REPUTABLE MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH MATERIALS AND EQUIPMENT. WORK SHALL BE EXECUTED AND ALL MATERIALS INSTALLED IN ACCORDANCE WITH THE BEST PRACTICE OF THE TRADES IN A THOROUGH, SUBSTANTIAL, WORKMANLIKE MANNER BY COMPETENT WORKMEN.
- 1.24 EQUIPMENT SCHEDULED: THE DESIGN IS BASED ON THE EQUIPMENT SCHEDULED; MANUFACTURERS NAMED IN THE SPECIFICATIONS SHALL HAVE PRIOR APPROVAL OF THE ARCHITECT/ENGINEER AND SHALL MATCH IN EVERY RESPECT, INCLUDING PERFORMANCE CHARACTERISTICS, THE EQUIPMENT SCHEDULED AND SPECIFIED.
- 1.25 CUTTING AND PATCHING: PLACE ALL EQUIPMENT IN TIME TO AVOID CUTTING NEW CONSTRUCTION. UNDERTAKE NO CUTTING OR PATCHING WITHOUT FIRST SECURING APPROVAL FROM ARCHITECT/STRUCTURAL ENGINEER. ALL PATCHING SHALL CREATE A SURFACE WHICH IS STRUCTURALLY AND AESTHETICALLY EQUAL TO THE SURFACE SURROUNDING THE AREA PATCHED.
- 1.26 ROTATING SHAFTS: SHAFTS FOR ROTATING EQUIPMENT, SUCH AS FANS, SHALL BE DESIGNED, SIZED, AND FABRICATED SO THAT THE SHAFT WILL NOT PASS THROUGH THE FIRST CRITICAL SPEED WHEN ACCELERATING FROM REST TO NORMAL OPERATING SPEED. THIS PROVISION SHALL INCLUDE THE EFFECT OF THE DRIVEN EQUIPMENT, SUCH AS FAN BLADES AND RELATED APPURTENANCES, THAT MAY INFLUENCE PERFORMANCE.
- 1.27 BELT AND COUPLING GUARDS: PROVIDE METAL BELT GUARDS FOR ALL BELT-DRIVEN EQUIPMENT. GUARDS SHALL BE CONSTRUCTED SUFFICIENTLY RIGID TO PROVIDE THE REQUIRED PROTECTION AND SHALL BE NOISE-FREE WHEN THE EQUIPMENT IS IN OPERATION. PROVIDE COUPLING GUARDS FOR ALL FLEXIBLE COUPLINGS. COUPLING GUARDS AND BELT GUARDS MAY BE PERFORATED METAL TO ALLOW VISUAL INSPECTION.
- 1.28 NOISE AND VIBRATION: IT IS THE INTENT TO SPECIFY AND FOR THE CONTRACTOR TO PROVIDE EQUIPMENT AND SYSTEMS THAT, AS DEFINED HEREIN, SHALL BE QUIET AND FREE OF APPARENT VIBRATION IN OPERATION.
- IT IS INTENDED THAT VIBRATION SHALL NOT BE APPARENT TO THE SENSES IN OCCUPIED AREAS OF THE BUILDING. TO THIS END, BOTH THE BALANCING OF ROTATING MACHINERY AND THE INSTALLATION OF VIBRATION ISOLATION AT VARIOUS LOCATIONS IS REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN EQUIPMENT THAT IS QUIET IN OPERATION AS COMPARED TO OTHER AVAILABLE EQUIPMENT OF ITS SIZE, CAPACITY, AND TYPE; TO INSTALL EQUIPMENT SO THAT A MINIMUM AMOUNT OF NOISE OR VIBRATION IS TRANSMITTED TO THE BUILDING; AND TO FABRICATE THE DUCT SYSTEM SO THAT AIR NOISES GENERATED IN THE SYSTEM ARE HELD TO AN ABSOLUTE MINIMUM.

### 1.29 IDENTIFICATION:

PIPING: PROVIDE MANUFACTURER'S STANDARD PRE-PRINTED, SELF-ADHESIVE PIPE LABEL WITH FLOW DIRECTIONAL ARROWS AT BOTH ENDS: PRINTED PLASTIC WITH CONTACT TYPE, PERMANENT-ADHESIVE BACKING, COMPLYING WITH ANSI A13.1. MARKERS SHALL INCORPORATE FLOW DIRECTIONAL ARROWS. FOR EXTERNAL DIAMETERS LESS THAN 6 INCHES INCLUDING INSULATION, PROVIDE FULL-BAND PIPE MARKERS EXTENDING 360 DEGREES AROUND PIPE FASTENED WITH COLOR-CODED PLASTIC ADHESIVE TAPE NOT LESS THAN 3/4 INCH WIDE; INSTALL IDENTIFICATION AFTER COMPLETION OF COVERING AND PAINTING AND PRIOR TO CONCEALMENT (I.E. ACOUSTICAL CEILINGS).

SYSTEM DCW DHW DHWR LABEL / COLOR CODE LETTERS / BACKGROUND

DOMESTIC COLD WATER / WHITE / GREEN

DOMESTIC HOT WATER / WHITE / GREEN

DOMESTIC HOT WATER RET / WHITE / GREEN

## EQUIPMENT: PROVIDE SEATON (OR EQUAL) 1/16 INCH THICK ENGRAVED PHENOLIC PLASTIC NAMEPLATES WITH ADHESIVE BACKING ON ALL MECHANICAL AND PLUMBING EQUIPMENT (I.E. FANS, FAN COIL UNITS, WATER HEATERS, CONTROLS PANELS, ETC.) LETTERING SHALL BE 7/8 INCH HIGH BLACK LETTERS (CORE) ENGRAVED IN A WHITE BACKGROUND (FACE).

- VALVE TAGS: PROVIDE ENGRAVED BRASS OR ALUMINUM TAGS WITH BEADED CHAINS ATTACHED TO EACH VALVE IN DOMESTIC HOT AND COLD WATER SYSTEMS. AT COMPLETION OF PROJECT SUBMIT VALVE CHART INCLUDING TAG NUMBER, SERVICE, FUNCTION, NORMAL VALVE POSITION (OPEN OR CLOSED), AND ANY SPECIAL PROCEDURES OR SEQUENCES FOR OPERATING CERTAIN VALVES.
- OTHER ACCEPTABLE MANUFACTURERS: W.H. BRADY CO., WESTLINE CO., EMED CO., INC.

#### 1.30 FINAL REVIEW: UPON COMPLETION OF THE WORK,

- PERFORM A FINAL REVIEW OF THE ENTIRE SYSTEM. THE SYSTEM SHALL BE OPERATING PROPERLY WITH ALL WATER AND AIR VOLUMES BALANCED AND ALL TEMPERATURE CONTROLS ADJUSTED.
- AFTER THE REVIEW, ANY CHANGES OR CORRECTIONS NOTED AS NECESSARY FOR THE WORK TO COMPLY WITH THE CONTRACT DOCUMENTS SHALL BE ACCOMPLISHED WITHOUT DELAY IN ORDER TO SECURE FINAL ACCEPTANCE OF THE WORK.
- 1.01 WORK INCLUDED: ALL FIRE PROTECTION SPRINKLER SYSTEMS.

SPRINKLER SYSTEMS. ALL EQUIPMENT SHALL BE UL LISTED.

- 1.02 REFERENCE STANDARDS: INSTALLATION SHALL COMPLY WITH NFPA 13 STANDARD FOR INSTALLATION OF
- 1.03 SUBMITTALS: SUBMIT SHOP DRAWINGS OF ENTIRE SPRINKLER SYSTEM TO FIRE MARSHAL FOR APPROVAL. SUBMIT PROOF OF APPROVAL TO ARCHITECT/ENGINEER.
- 1.04 SPRINKLER HEADS: TEMPERATURE RATING ON FUSIBLE LINKS TO SUIT SPECIFIC HAZARD AREA WITH MINIMUM MARGIN OF SAFETY 50 F.

#### SPRINKLER HEAD TYPES: SUSPENDED CEILING: MATCH EXISTING

FIRE PROTECTION SYSTEM

- 1.05 PIPING: SCHEDULE 40 BLACK STEEL PIPE ASTM, A-120. CLASS 150 BLACK MALLEABLE ASME B16.3 FITTINGS. THREADED, GROOVED, FLANGED OR WELDED JOINTS.
- 1.06 HAZARD RATING: PROVIDE SYSTEM TO NFPA 13 HAZARD OCCUPANCY REQUIREMENTS OR AS OTHERWISE INDICATED ON DRAWINGS.
- 1.07 INSTALLATION REQUIREMENTS: COMPANY SPECIALIZING IN SPRINKLER SYSTEMS WHO IS STATE CERTIFIED FOR DESIGN AND INSTALLATION OF SPRINKLER SYSTEMS. SPRINKLER HEADS SHALL BE INSTALLED WHERE INDICATED. LOCATE IN CENTER OF CEILING TILE WHERE APPLICABLE. COORDINATE EXACT LOCATION OF SPRINKLER HEADS WITH LIGHTS, DIFFUSERS, CEILING GRID AND OTHER ARCHITECTURAL FEATURES.
- 1.08 PAINTING: EXPOSED SPRINKLER PIPING SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. DO NOT PAINT SPRINKLER HEADS. PIPING IN EQUIPMENT ROOMS IS NOT CONSIDERED EXPOSED.
- 1.09 SPRINKLER CONTRACTOR SHALL INFORM THE BUILDING OWNER/SECURITY OFFICE ON EVERY DAY WHEN SHUTDOWN OF SPRINKLER SYSTEM IS REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL RECONNECT AND FILL THE SPRINKLER SYSTEM INTO WORKING CONDITION AT THE END OF EACH WORKING DAY TO ASSURE PROTECTION DURING UNOCCUPIED PERIODS.

#### PIPING SYSTEMS

- 1.01 WORK INCLUDED: INSTALLATION OF ALL PIPING SYSTEMS. ALL VALVES, FITTINGS, AND PIPING SHALL BE SUITABLE FOR INTENDED SERVICE AND SYSTEM PRESSURES AND TEMPERATURES. VERIFY EXISTING PRESSURES AND TEMPERATURES PRIOR TO ANY SYSTEM TIE-INS. ALL NEW MATERIALS SHALL MEET OR EXCEED PERFORMANCE OF MATERIALS USED ON EXISTING SYSTEMS.
- 1.02 DOMESTIC WATER: TYPE "L" HARD COPPER ASTM B-88 PIPE. WROUGHT COPPER ASTM B16.22 FITTINGS. SWEAT 95-5 TIN ANTIMONY SOLDER JOINTS. USE TYPE "K" COPPER BELOW GRADE (NO JOINTS ALLOWED BELOW FLOOR SLAB INSIDE BUILDING).
- FLOOR SLAB INSIDE BUILDING).

  1.03 UNIT CONDENSATE DRAIN: COPPER. DRAINAGE PATTERN ASTM D2729 FITTINGS. SOLDER 95/5 JOINTS. DO NOT USE PVC IN RETURN AIR PLENUMS EXCEPT WHERE ALLOWED BY CODE. PIPING IN RETURN AIR PLENUMS SHALL

BE SAME AS DOMESTIC WATER EXCEPT USE DRAINAGE PATTERN FITTINGS WITH THREADED CLEANOUT PLUGS

- AT ALL CHANGES IN DIRECTION.

  1.04 SOIL, WASTE AND VENT: SERVICE WEIGHT ASTM A74 OR NO-HUB CISPI 301 C.I. SOIL PIPE DRAINAGE PATTERN FITTINGS. RUBBER GASKET OR NO-HUB ASTM C564 JOINTS. NO-HUB PIPING NOT ALLOWED UNDERGROUND.
- 1.05 ACID WASTE AND VENT: PP DRAINAGE PIPE AND FITTINGS: ASTM F 1412, PIPE EXTRUDED AND DRAINAGE-PATTERN FITTINGS MOLDED, WITH SCHEDULE 40 DIMENSIONS, FROM PP RESIN WITH
- FIRE-RETARDANT ADDITIVE COMPLYING WITH ASTM D 4101; WITH FUSION- AND MECHANICAL-JOINT ENDS.

  1.06 GAS PIPING (INTERIOR PIPING AND EXTERIOR PIPING ABOVE GROUND):
- 5PSI OR HIGHER DELIVERY PRESSURE: ALL SIZES, BLACK STEEL, SCHEDULE 40, FACTORY-FABRICATED STANDARD WELDED FITTINGS. BELOW 5 PSI DELIVERY PRESSURE: 2" DIAMETER AND SMALLER, BLACK STEEL, SCHEDULE 40, CLASS 150 MALLEABLE IRON, BLACK, THREADED FITTINGS. 2-1/2" DIAMETER AND LARGER, BLACK STEEL, SCHEDULE 40, BLACK FACTORY-FABRICATED STANDARD WELDED FITTINGS. GAS PIPING ROUTED IN RETURN AIR PLENUMS MUST BE WELDED.
- 1.07 CHILLED AND HEATING WATER 2 1/2" SIZE AND LARGER SCHEDULE 40 BLACK STEEL PIPE / STANDARD WELD FITTINGS / WELDED JOINTS. 2" SIZE AND SMALLER SCHEDULE 40 BLACK STEEL PIPE / CLASS 150 MALLEABLE IRON FITTINGS SCREWED FITTINGS. SYSTEM TO BE SUITABLE FOR 150 PSIG MINIMUM OPERATING PRESSURE AT 250°.
- 1.08 SHOCK ABSORBERS: PROVIDE PDI WH-201 APPROVED SHOCK ABSORBERS AT ALL EQUIPMENT SUBJECT TO WATER HAMMER. INSTALL IN ACCESSIBLE LOCATION OR PROVIDE ACCESS DOOR.
- 1.09 PIPE HANGERS AND SUPPORTS: PROVIDE PIPE HANGERS AND SUPPORTS DESIGNED TO CARRY THE LOAD WITH A SAFETY FACTOR OF 5 OR LARGER.

ARCHITECT/ENGINEER.

- 1.10 VALVES AND COCKS: UNLESS OTHERWISE INDICATED, USE VALVES SUITABLE FOR 125 MINIMUM PSIG SWP AND 450 F, AND 170 PSIG WOG AND 250°F. FIELD VERIFY SYSTEM PRESSURES PRIOR TO CONNECTING TO EXISTING SYSTEMS AND PROVIDE VALVES WITH HIGHER RATING WHERE REQUIRED. ALL VALVES SHALL BE OF A SUITABLE TYPE FOR THE INTENDED SERVICE. USE GLOBE VALVES OR BALL VALVES WITH LEVER-LOCK HANDLES FOR BALANCING WATER FLOW. USE BALL VALVES OR BUTTERFLY VALVES IN DOMESTIC COLD WATER SYSTEMS INTERCHANGEABLY IN PLACE OF GATE OR GLOBE VALVES. MTHW VALVES: PROVIDE HIGH-TEMPERATURE FULL PORT BALL VALVES RATED AT 325 F AT 150 PSIG.
- 1.11 BALL VALVES: TWO-PIECE, FULL PORT, BRONZE VALVE WITH BRONZE TRIM, PTFE, MPTFE OR TFE SEAT, 150 SWP, CHROME-PLATED BRASS; NIBCO T-585-70 OR APPROVED EQUAL; OTHER ACCEPTABLE MANUFACTURERS: AMERICAN VALVE, APOLLO, CRANE, MILWAUKEE, WATTS.
- 1.12 CHECK VALVES: NPS 2 AND SMALLER: BRONZE SWING CHECK VALVE, CLASS 125 WITH BRONZE; NIBCO T-413 OR APPROVED EQUAL; OTHER ACCEPTABLE MANUFACTURERS: CRANE, STOCKHAM, WATTS.
   NPS 2-1/2 TO NPS 12: CLASS 125, IRON, GLOBE, SPRING LOADED, CENTER-GUIDED CHECK VALVE WITH METAL SEAT; NIBCO F-910-B OR APPROVED EQUAL; OTHER ACCEPTABLE MANUFACTURERS: METRAFLEX, MILWAUKEE
- 1.13 STRAINERS: UNLESS OTHERWISE INDICATED, USE STRAINERS WITH BALL VALVE AND UNION CONNECTION, SUITABLE FOR 125 MINIMUM PSIG SWP AND 450° F (MTHW), AND 170 PSIG WOG AND 250° F (CHW). FIELD VERIFY SYSTEM PRESSURES PRIOR TO CONNECTING TO EXISTING SYSTEMS AND PROVIDE STRAINERS WITH HIGHER RATING WHERE REQUIRED.
- 1.14 BALANCE VALVES: CWP RATING 125 PSIG MINIMUM, 250°F MAXIMUM OPERATING TEMPERATURE, BRONZE BODY, BALL OR PLUG TYPE WITH CALIBRATED ORIFICE OR VENTURI, BRASS OR STAINLESS STEEL BALL, RESIN PLUG, PTFE SEAT, THREADED OF SOCKET END CONNECTIONS, INTEGRAL SEALS FOR PORTABLE DIFFERENTIAL PRESSURE METER ON PRESSURE GAGE CONNECTIONS, LEVER HANDLE WITH MEMORY STOP TO RETAIN SET POSITION, BELL & GOSSETT DOMESTIC PUMP; A DIVISION OF ITT INDUSTRIES OR APPROVED EQUAL.
- 1.15 PIPING INSTALLATION: PROVIDE UNIONS AND ISOLATION VALVES AT ALL EQUIPMENT TO FACILITATE REMOVAL
   1.16 SLOPE ALL DRAIN LINES IN DIRECTION OF FLOW 1/4" PER FOOT MINIMUM UNLESS OTHERWISE APPROVED BY
- 1.17 KEEP BOTTOM ELEVATION OF ALL PIPE MINIMUM 8" ABOVE FINISHED CEILING TO AVOID CONFLICT WITH LIGHTS.
  1.18 SEAL ALL FLOOR PENETRATIONS WATERTIGHT. SEAL AROUND ALL MECHANICAL WALL PENETRATIONS. CAULK WITH REQUIRED THICKNESS 3M BRAND FIRE BARRIER CAULK CP-25 (OR OTHER APPROVED METHOD) TO
- 1.19 DOUBLE NEEDLE VALVES (LABORATORY NATURAL GAS): PROVIDE SERVICE FITTINGS AS FOLLOWS: MODEL 981-VR909CAGCP BY CHICAGO FAUCETS:
   A. UNIT SHALL HAVE STOP VALVE AND REGULATING FLOW VALVES. UNIT SHALL HAVE FORGED BRASS BODY WITH 3/8\* IPS FEMALE OUTLET FOR ATTACHMENT OF SERRATED HOSE ENDS, QUICK DISCONNECTS OR OTHER OUTLET FITTINGS. ANTI-ROTATIONAL DECK PIN IN FAUCET BODY TO PREVENT TURNING. VALVES SHALL HAVE A SELF-CENTERING REPLACEABLE STAINLESS STEEL FLOATING CONE AND A

MAINTAIN FIRE RESISTANCE RATING OF FIRE RATED ASSEMBLES.

TESTED AT 300-PSI HELIUM UNDER WATER. MAXIMUM WORKING PRESSURE SHALL BE 125-PSI PRESSURE.

B. PROVIDE UNIT WITH PROVISIONS TO ACCEPT 1/8" ® INSTRUMENT PIPING. SPARE FITTINGS: IN ADDITION TO THOSE GAS SERVICE FITTINGS SHOWN IN THE DRAWINGS, PROVIDE 8 ADDITIONAL SPARE UNITS, DELIVERED TO THE OWNER IN UNOPENED CONTAINERS.

C. PROVIDE IN 180° FITTING FOR DECK MOUNTING.

REPLACEABLE BRASS VALVE SEAT. NEEDLE VALVES SHALL BE FULLY ASSEMBLED AND INDIVIDUALLY

#### PIPING AND DUCT INSULATION

FIBERGLASS, ASJ-VB.

- 1.01 WORK INCLUDED: ALL PIPING AND DUCT SYSTEM INSULATION AND ACOUSTICAL LINER.
- 1.02 DOMESTIC COLD WATER: PIPE SIZES TO 3/4"; 1/2" THICK. PIPE SIZES 1" AND LARGER; 1" THICK PREFORMED
- 1.03 DOMESTIC HOT WATER AND RETURN: PIPE SIZES TO 1 1/4"; 1" THICK. PIPE SIZES 1 1/2" AND LARGER; 1 1/2" THICK
- 1.04 SANITARY WASTE: ALL PIPE SIZES; 1" THICK PREFORMED FIBERGLASS, ASJ-VB.
- 1.05 STORM DRAINAGE: ALL PIPE SIZES; 1" THICK PREFORMED FIBERGLASS, ASJ-VB.
- 1.06 CONDENSATE DRAIN: PIPE SIZES TO 3/4"; 1/2" THICK. PIPE SIZES 1" AND LARGER; 1" THICK PREFORMED
- FIBERGLASS, ASJ-VB.
- 1.07 CHILLED WATER AND HEATING WATER ALL PIPE SIZES 2" THICK PREFORMED FIBERGLASS, ASJ-VB.
- 1.08 INSTALL ALL HANGERS OVER OUTSIDE SURFACE OF INSULATION. PROVIDE SHEET METAL INSULATION SHIELD BETWEEN HANGER AND INSULATION TO PREVENT INSULATION FROM COMPRESSING EXCESSIVELY (PROVIDE INSULATION INSERTS WHERE REQUIRED).
- 1.09 PROVIDE ZESTON 2000 PVC (OR APPROVED EQUAL) PRE-MOLDED INSULATED FITTING COVERS AND JACKETING AT ALL ELBOWS, TEES, VALVES, FLANGES, CAPS AND SIMILAR FITTINGS ON PIPING SYSTEM INSULATED WITH FIBERGLASS. INSTALLATION SHALL BE ACCORDING TO MANUFACTURER RECOMMENDATIONS.
- 1.10 SEAL ALL INSULATION JOINTS ON COLD PIPING VAPOR TIGHT.
- 1.11 DUCT ACOUSTICAL LINER: LINE ALL RECTANGULAR TRANSFER, EXHAUST, SUPPLY, RETURN, AND OUTSIDE AIR DUCTS WITH 1" THICK, NOMINAL 1½ PCF LINER. LINER SHALL HAVE AN ACRYLIC, ANTI-MICROBIAL COATING ON EXPOSED SURFACES. LINER TO BE JOHNS-MANVILLE LINACOUSTIC STANDARD OR EQUAL. LINED DUCTS DO NOT
- 1.12 WHERE TIE-INS TO EXISTING SYSTEMS ARE MADE, PATCH AND REPAIR DAMAGED INSULATION WITH INSULATION TYPE AND THICKNESS TO MATCH EXISTING.
- 1.13 PATCH AND REPAIR ALL EXISTING PIPING INSULATION AT SYSTEM TIE-INS AND OTHER DAMAGE RESULTING FROM NEW CONSTRUCTION.
- 1.14 BASE BID MANUFACTURER: ARMAFLEX, ARMACELL OR APPROVED EQUAL.
- 1.15 COMBUSTION AIR INTAKE DUCT INSULATION: INSULATE ALL ROUND DUCTS WITH 2" THICK R-5 MINIMUM FACED DUCTED WRAP FIBERGLASS INSULATION (SEAL AND TAPE ALL JOINTS AND SEAMS).
- TEMPERATURE CONTROLS AND INSTRUMENTATION 230900
- 1.01 WORK INCLUDED: CONTROL APPARATUS FOR A COMPLETE OPERATING SYSTEM.
- 1.02 GENERAL: TEMPERATURE CONTROLS SYSTEM SHALL BE BY BASE BUILDING TEMPERATURE CONTROLS
  CONTRACTOR (ABS). WHERE NEW DEVICES INCLUDING CONTROLLERS ARE REQUIRED THE CONTROLS
  CONTRACTOR SHALL PROVIDE THE LATEST TECHNOLOGY. ALL SYSTEM COMPONENTS AND INSTALLATION
  SHALL MATCH BUILDING STANDARDS. SUBMIT TEMPERATURE CONTROLS SHOP DRAWINGS AND DATA SHEETS
  FOR APPROVAL PRIOR TO INSTALLATION. PROVIDE ALL ELECTRICAL POWER AND INTERLOCK WIRING
  ASSOCIATED WITH THE TEMPERATURE CONTROLS SYSTEM AS DESCRIBED HEREIN.
- 1.03 SUBMITTALS: PROVIDE CONTROL WIRING DIAGRAMS.

SHALL BE IN CONDUIT OR SHALL BE RATED FOR PLENUM USE.

- 1.04 ACCEPTABLE MANUFACTURES: ABS.
- 1.05 ALL EXISTING THERMOSTATS SHALL BE RELOCATED OR REMAIN AS SHOWN. WHERE SHOWN LOCATED DIRECTLY NEXT TO LIGHT SWITCH, MOUNT THERMOSTAT 4" TO SIDE OF SWITCH. IN CASES WHERE GANGS OF LIGHTS
- SWITCHES EXIST, MAINTAIN THE SAME SPACING ESTABLISHED BETWEEN SWITCHES.

  1.06 ELECTRICAL WIRING: ALL CONTROL WIRING, POWER WIRING FOR CONTROL SYSTEM COMPONENTS, INTERLOCK WIRING, AND OTHER ELECTRICAL DEVICES IN CONJUNCTION WITH THE CONTROL APPARATUS OF THE CONTROL SYSTEM SHALL BE PROVIDED BY THE TEMPERATURE CONTROLS CONTRACTOR. ALL WIRING IN AIR PLENUMS
- 1.07 PROVIDE FULL ELECTRONIC COPIES OF THE CONTROLS SEQUENCES AS WELL AS POINTS LIST.

#### AIR DISTRIBUTION

- 1.01 WORK INCLUDED: ALL DUCT DISTRIBUTION, GRILLES, REGISTERS, DAMPERS, ETC. REQUIRED FOR A COMPLETE OPERATING SYSTEM.
- 1.02 REFERENCE STANDARDS: FABRICATE ALL DUCTWORK IN ACCORDANCE WITH LATEST EDITION SMACNA DUCT MANUALS, ASHRAE HANDBOOKS AND LOCAL CODES. CONSTRUCT DUCTWORK TO NFPA 90A STANDARD FOR AIR CONDITIONING AND VENTILATING SYSTEMS, AND NFPA 90B STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING.
- 1.03 DUCT SIZES: ALL DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. WHERE DUCT SIZES ARE NOT INDICATED, SIZE ALL DUCT AT 0.08"/100' MAXIMUM PRESSURE DROP.
- 1.04 DUCT PRESSURE CLASS: LOW PRESSURE CLASS STATIC PRESSURE IN DUCT LESS THAN 2" W.G. AND VELOCITIES LESS THAN 2400 FPM. MEDIUM PRESSURE CLASS STATIC PRESSURE IN DUCT LESS THAN 6" W.G. AND VELOCITIES GREATER THAN 2400 FPM.
- ALL LOW PRESSURE RECTANGULAR DUCTS TO BE SHEET METAL WITH LINER. LINER SHALL BE JOHNS-MANVILLE PERMACOTE LINACOUSTIC STANDARD FIBERGLASS LINER WITH ACRYLIC ANTI-MICROBIAL COATING, OR EQUAL. LINER SHALL BE 1 INCH THICK WITH A CONDUCTANCE AT 75 DEG. F. OF 0.25 BTU/HR SF DEG. F. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. ALL LOW PRESSURE ROUND DUCTS TO SHEET METAL WITH 2 INCH THICK, 1 PCF FIBERGLASS INSULATION WITH VAPOR BARRIER. FABRICATE IN ACCORDANCE WITH BASE BUILDING SPECIFICATIONS AND LATEST EDITION OF SMACNA.
- ALL MEDIUM PRESSURE RECTANGULAR DUCTS TO BE SHEET METAL WITH FLANGED JOINTS (DUCT-MATE OR APPROVED EQUAL) AND LINER. LINER SHALL BE SCHULLER PERMACOTE LINACOUSTIC STANDARD FLEXIBLE FIBERGLASS LINER WITH ACRYLIC ANTI-MICROBIAL COATING, OR APPROVED EQUAL. LINER SHALL BE 1 INCH THICK WITH A CONDUCTANCE AT 75°F. OF 0.25 BTU/HR SF °F. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. ALL MEDIUM PRESSURE ROUND DUCTS TO BE SHEET METAL SPIRAL DUCT WITH 2" THICK, 1 PCF FIBERGLASS INSULATION WITH VAPOR BARRIER. DUCTWORK DOWNSTREAM OF VAV AIR HANDLING UNITS AND UPSTREAM OF TERMINAL BOXES SHALL BE CONSIDERED MEDIUM PRESSURE. FABRICATE IN ACCORDANCE WITH BASE BUILDING SPECIFICATIONS AND LATEST EDITION OF SMACNA. SEAL ALL JOINTS, TRANSVERSE AND LONGITUDINAL, WITH HEAVY LIQUID SEALANT (HARDCAST GALVIGRIP OR APPROVED EQUAL) TO PREVENT LEAKAGE.
- 1.05 DUCT MATERIAL: GALVANIZED SHEET METAL.

REQUIRED BY CODE.

1.06 LABORATORY EXHAUST SYSTEM DUCTS TO BE WELDED STAINLESS STEEL SS316 FABRICATED IN ACCORDANCE WITH SMACNA STANDARDS. CONSTRUCT FOR LIQUID TIGHT SEAL. USE LONG RADIUS FITTINGS WITHOUT TURNING VANES. INSULATE ALL DUCTWORK EXPOSED TO WEATHER AND PROVIDE HEAVY GAUGE ALUMINUM RECOVERING JACKET SEALED WEATHER TIGHT. ALL DUCT INSULATION SHALL COMPLY WITH ASHRAE 90.1.

1.08 FLEXIBLE DUCTS: MAXIMUM ALLOWABLE LENGTH IS 6'0". AVOID TIGHT RADIUS TURNS THAT RESTRICT AIR FLOW.

- 1.07 JOINTS: SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS WITH HEAVY LIQUID (HARDCAST GALVAGRIP) SEALANT. SCREW OR RIVET ALL ROUND DUCT JOINT CONNECTIONS.
- WHERE TIGHT RADIUS TURNS ARE NECESSARY, PROVIDE RIGID SHEET METAL ELBOWS. ONLY USE IN ACCESSIBLE AREAS.

  1.09 DAMPERS: PROVIDE BALANCE DAMPERS AT ALL DUCT BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES AND
- REGISTERS. LOCATE DAMPER AS CLOSE AS PRACTICAL TO MAIN DUCT BRANCH CONNECTION. PROVIDE DAMPER ROD EXTENSION AND CEILING FLANGE WHERE DAMPERS ARE CONCEALED AND INACCESSIBLE.

  1.10 GRILLES, REGISTERS, AND DIFFUSERS: PROVIDE IN ACCORDANCE WITH SCHEDULE OR NOTATIONS ON DRAWINGS. ACCEPTABLE MANUFACTURES ARE NAILOR, TITUS, PRICE AND CARNES. UNLESS OTHERWISE
- MATCH EXISTING BUILDING STANDARD.

  1.11 FIRE DAMPERS: PROVIDE UL LISTED FIRE DAMPERS WHERE INDICATED ON THE DRAWINGS OR OTHERWISE
- 1.12 PROVIDE AIR FOIL TURNING VANES AT ALL LOW PRESSURE RECTANGULAR DUCT TURNS GREATER THAN 30
- DEGREES. THIS DOES NOT PERTAIN TO LABORATORY EXHAUST SYSTEM.

  1.13 DUCT-MOUNTED DOUBLE WALL ACCESS DOORS INCLUDING FULL LENGTH PIANO HINGE AND CAM LOCK, DOUBLE GASKETED, HIGH DENSITY FIBERGLASS INSULATION, GALVANIZED SHEET METAL, AND CONSTRUCTED IN ACCORDANCE WITH SMACNA. DUCTMATE INDUSTRIES OR EQUAL.

NOTED, ALL CEILING SUPPLY AIR DIFFUSERS AND LIGHT TROFFERS, AND RETURN AIR REGISTERS ARE TO

- 1.14 SEAL ALL FLOOR PENETRATIONS WATERTIGHT. SEAL AROUND ALL MECHANICAL WALL PENETRATIONS. CAULK WITH REQUIRED THICKNESS 3M BRAND FIRE BARRIER CAULK CP-25 (OR OTHER APPROVED METHOD) TO MAINTAIN FIRE RESISTANCE RATING OF FIRE RATED ASSEMBLES.
- 1.15 PROVIDE TEMPORARY FILTERS AT THE BASE BUILDING MAIN RETURN AIR DUCT(S) AND/OR AIR HANDLER(S) TO LIMIT THE INFUSION OF DUST AND FUMES GENERATED AS A RESULT OF THE PERFORMANCE OF WORK FOR THIS PROJECT. FILTERS ARE TO BE CHANGED AT A MINIMUM BIWEEKLY THROUGHOUT THE DURATION OF THE PROJECT. FILTERS AND ANY TEMPORARY BRACKETS ARE TO BE REMOVED AT THE COMPLETION OF PROJECT. THE COST OF THIS WORK IS TO BE INCLUDED IN THE MECHANICAL CONTRACTOR'S PRICE.
- 1.16 LOCATE DUCTS WITH SUFFICIENT SPACE AROUND EQUIPMENT TO ALLOW NORMAL OPERATION AND MAINTENANCE ACTIVITIES.



TULSA
110 WEST SEVENTH, SUITE 710
TULSA. OK 74119

T: 918 583 5300

: 918.585.1967

T: 405.232.7007

OKLAHOMA CITY

131 DEAN A McGEE AVE, SUITE 135

OKLAHOMA CITY, OK 73102

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

202401
PROJECT:
RSU NURSING
CLASSROOMS
RENOVATION

CONSULTANT:

Phillips+Gome

15 W 6th St., Suite 2510 Tulsa, OK 74119 PH. 918.584.0102 Oklahoma Certificate of Authorization #CA1395 Renewal Date: 06.30.25

| ISS | ISSUE / REVISION: |      |  |  |  |  |  |
|-----|-------------------|------|--|--|--|--|--|
| No  | Description       | Date |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |
|     |                   |      |  |  |  |  |  |

SEAL:



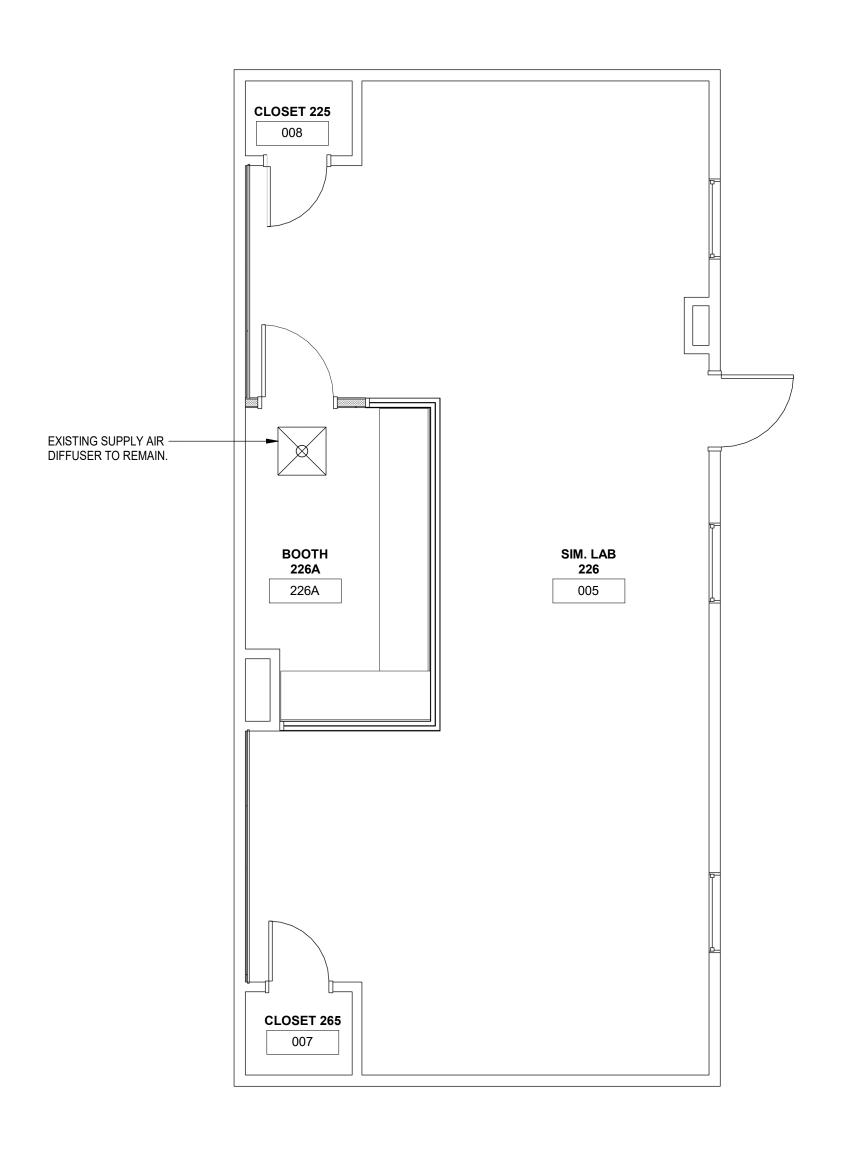
100%
CONSTRUCTION
DOCUMENTS

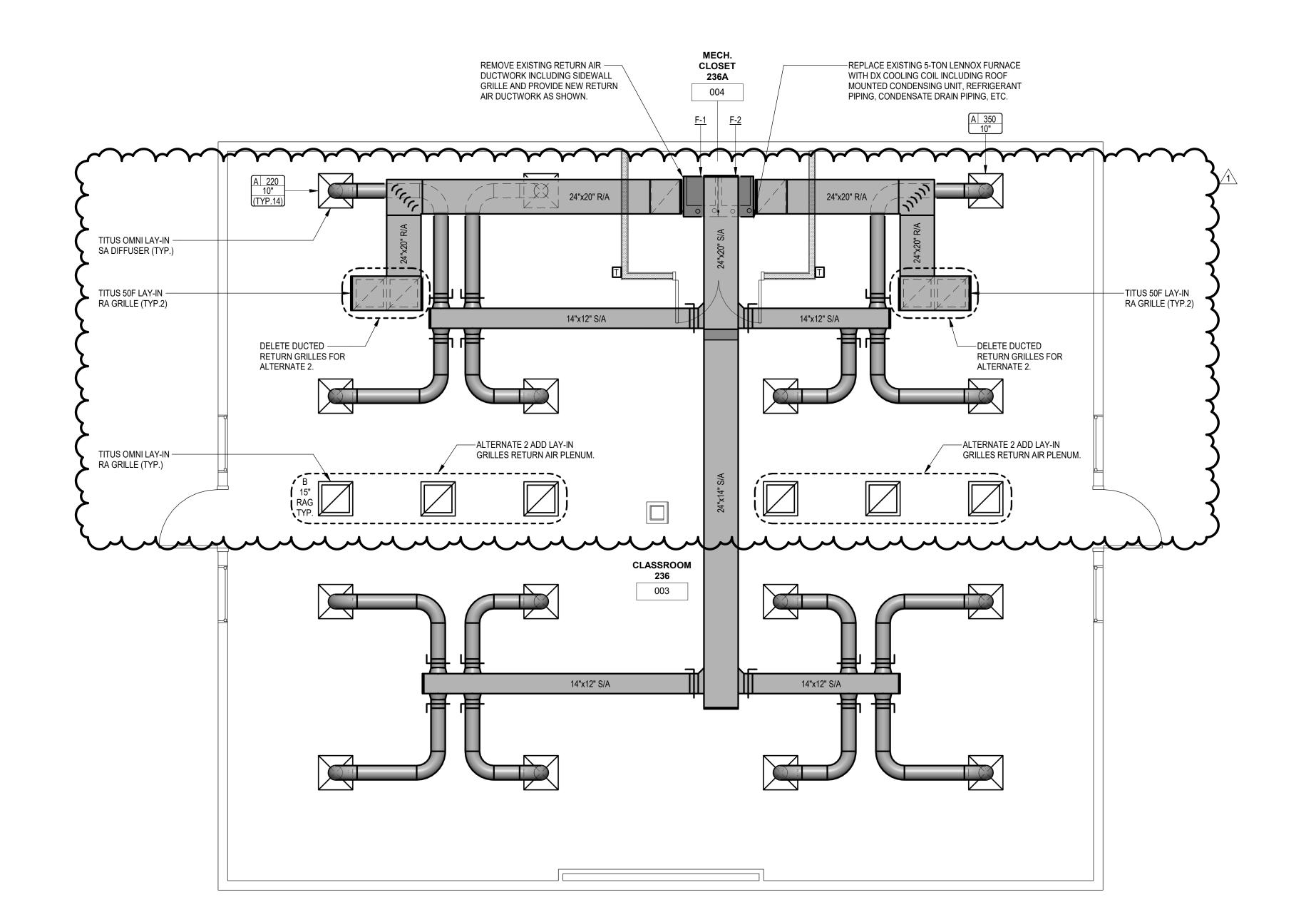
**05.17.2024**SHEET NUMBER:

**ISSUE DATE:** 

**M002** 

MECHANICAL SPECIFICATIONS





2 SECOND FLOOR HVAC PLAN

1/4" = 1'-0"

1 SECOND FLOOR HVAC PLAN
1/4" = 1'-0"





TULSA
110 WEST SEVENTH, SUITE 710
TULSA, OK 74119
T: 918.583.5300
F: 918.585.1967

OKLAHOMA CITY

131 DEAN A McGEE AVE, SUITE 135
OKLAHOMA CITY, OK 73102
T: 405.232.7007

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

PROJECT NUMBER:
202401
PROJECT:
RSU NURSING
CLASSROOMS

RENOVATION

CONSULTANT:

Phillips+Gomez

Consulting Engineers

15 W 6th St., Suite 2510 Tulsa, OK 74119
PH. 918.584.0102

Oklahoma Certificate of Authorization
#CA1395 Renewal Date: 06.30.25

ISSUE / REVISION:

No Description Date
1 Addendum 1 05-30-24

SEV

100%
CONSTRUCTION
DOCUMENTS

ISSUE DATE:

05.17.2024

SHEET NUMBER:

M101

SECOND FLOOR HVAC PLAN

ADA APPROVED SMOKE DETECTOR, DUCT MOUNTED,

BASE BUILDING FIRE ALARM SYSTEM.

INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM

SWITCH HEIGHT AND AT LEAST 6" FROM CEILING AND IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

INTERCONNECT TO BASE BUILDING FIRE SYSTEM

ADA APPROVED FIRE ALARM HORN, RECESSED, INTERCONNECT TO

ADA APPROVED CARBON MONOXIDE DETECTOR. MOUNT AT LEAST

| ELEC                  | DUPLEX CONVENIENCE OUTLET, +18" A.F.F. U.O.N., NUMBER DENOTES CIRCUIT, (EXAMPLE 3).  | WF   | SPRINKLER SYSTEM FLOW SWITCH. INTERCONNECT TO BASE   |
|-----------------------|--|------|--|
| ⊖2                    | SIMPLEX CONVENIENCE OUTLET, +18" A.F.F. U.O.N., NUMBERDENOTES CIRCUIT, (EXAMPLE 2).  | VPI  | BUILDING FIRE SYSTEM .  VALVE POSITION INDICATOR, INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM .  |
| GFI                   | GFI DENOTES GROUND FAULT INTERRUPTER.  | D    | DOOR HOLD OPEN DEVICE, INTERCONNECT TO BASE BUILDING FIRE  |
| ⊖WP                   | WP DENOTES IN-USE WEATHERPROOF COVER.  |      | ALARM SYSTEM . FIREMAN'S COMMUNICATION JACK.   |
| ⊖IG                   | IG DENOTES ISOLATED GROUND.  | •    | SOUND SYSTEM PAGING SPEAKER.   |
| $\Theta$              | SPECIAL RECEPTACLE OUTLET CONFIGURATION.   | S    |  |
|                       | DOUBLE DUPLEX RECEPTACLE OUTLET.   | F    | DISCONNECT SWITCH, FUSED.  |
| ^                     | WALL MOUNTED JUNCTION BOX FOR POWER SERVICE TO PANEL SYSTEM.   |      | DISCONNECT SWITCH, NON-FUSED.  |
| $\langle j \rangle_1$ | NUMBER DENOTES CIRCUIT, EXAMPLE: 1)  | F    | COMBINATION STARTER, FUSED.  |
| <u>J</u>              | JUNCTION BOX, NUMBER DENOTES CIRCUIT (EXAMPLE 1)   |      | COMBINATION STARTER, NON-FUSED.  |
| J C                   | FLOOR MOUNTED OUTLET FOR POWER SERVICE, DATA SERVICE, AND TELEPHONE SERVICE TO PANEL SYSTEM. PROVIDE FINAL   | ST   | MANUAL MOTOR STARTER WITH THERMAL OVERLOAD.  |
| 1                     | CONNECTIONS TO PANEL SYSTEM. NUMBER DENOTES CIRCUIT TYPICAL (EXAMPLE: 1).  | VFC  | VARIABLE FREQUENCY CONTROLLER, PROVIDED BY ELECTRICAL  |
|                       | COMBINATION POWER/TELEPHONE/DATA FLOOR BOX SERVICE FITTING.  | 2    | ELECTRIC MOTOR, NIEC, MAKE CONNECTIONS ONLY. NUMBER DENOTES HORSEPOWER. (EXAMPLE: 2HP)   |
| ľ¥                    | POWER SERVICE FOR FLOOR BOX SERVICE FITTING.   |      | PANELBOARD, SURFACE MOUNTED.   |
|                       |  |      | PANELBOARD, RECESSED MOUNTED.  |
|                       | TELEPHONE SERVICE FOR FLOOR BOX SERVING FITTING. INSTALL TELEPHONE COVERPLATE IN SERVICE FITTING.  |      | _ CONDUIT RUN BELOW SLAB OR UNDERGROUND.   |
|                       | DATA CARLE SERVICE 140" A FELLO NU DROVIDE DI ASTER DINO AND DULL  |      | CONDUIT HOMERUN, CONTINUOUS RUN TO PANEL OR EQUIPMENT  |
| С                     | DATA CABLE SERVICE, +18" A.F.F U.O.N., PROVIDE PLASTER RING AND PULL STRING TO ACCESSIBLE CEILING SPACE.   | _    | CABINET.   |
| В                     | JUNCTION BOX WITH BLANK COVER PLATE +18" A.F.F U.O.N., PROVIDE PLASTER RING AND PULL STRING TO ACCESSIBLE CEILING SPACE.   |      | CROSSMARKS ON BRANCH CIRCUIT CONDUIT RUNS INDICATE THE QUANTITY OF CONDUCTORS, EXCEPT NO CROSSMARKS INDICATE TWO #12 AWG CONDUCTORS.   |
| <b>T</b>              | OUTLET FOR CABLE TV. +18" A.F.F. U.O.N. FURNISH AND INSTALL CONDUIT AND CABLE AS REQUIRED TO COMPLETE A FULLY OPERABLE SYSTEM.   |      | LONG CROSSMARKS INDICATE PHASE CONDUCTORS AND SHORT CROSSMARKS WITHOUT DESIGNATION ARE NEUTRAL CONDUCTORS. SHORT CROSSMARKS WITH "G" ARE SEPARATE EQUIPMENT GROUNDING CONDUCTORS.  |
| $\triangleleft$       | COMBINATION TELEPHONE/DATA SERVICE, +18" A.F.F. U.O.N. PROVIDE PLASTER RING AND PULL STRING TO ACCESSIBLE CEILING  |      | ALL CONDUCTORS SHALL BE #12 AWG U.O.N.   |
| $\triangleleft$       | SPACE.  COMBINATION TELEPHONE/DATA OUTLET, +18" A.F.F. U.O.N. INSTALL  |      | ALL PVC CONDUITS SHOULD HAVE SEPARATE GROUNDING CONDUCTOR.   |
| ·                     | 4" SQUARE EXTRA DEEP BOX WITH SINGLE GANG RAISED COVER (MUD RING) AND 3/4" C. STUBBED INTO ACCESSIBLE CEILING  | ٤    | FLEXIBLE METALLIC CONDUIT.   |
|                       | SPACE. IN CEILING PLENUM, THE CONDUIT SHALL BE FURNISHED WITH A PROTECTIVE BUSHING AND PULL STRING. REFER TO COMMUNICATIONS DETAILS FOR FURTHER INFORMATION. CABLE                                     | HE   | EMERGENCY POWER OFF PUSHBUTTON WITH LIFT COVER +46" A.F.F. U.O.N.  |
|                       | INSTALLATION BY OTHERS. PROVIDE ONE DEDICATED CONDUIT PER OUTLET.  |      | SINGLE POLE TOGGLE OR MOMENTARY CONTACT SWITCH, +46"   |
|                       | TELEPHONE OUTLET, +18" A.F.F. U.O.N. PROVIDE PLASTER RING AND PULL STRING TO ACCESSIBLE CEILING SPACE.   | S a  | A.F.F. U.O.N. "a" INDICATES FIXTURES SWITCHED. ALSO USED IN LOW VOLTAGE SWITCHING TO CONTROL REMOTE CONTACTOR OR IN DIRECT LINE VOLTAGE SWITCHING.   |
| $\leq_{W}$            | TELEPHONE OUTLET. WALL MOUNTED +46" A.F.F. U.O.N. PROVIDE  | s 3  | THREE-WAY TOGGLE SWITCH, +46" A.F.F. U.O.N.  |
| √ VV                  | PLASTER RING AND PULL STRING TO ACCESSIBLE CEILING SPACE.  | s D  | WALL BOX DIMMER SWITCH, +46" A.F.F. U.O.N.   |
| FACP                  | FIRE ALARM CONTROL PANEL.  | _    | WALL MOUNTED OCCUPANCY SENSOR WITH MANUAL OVER-RIDE  |
| F                     | ADA APPROVED FIRE ALARM MANUAL PULL STATION, +46" A.F.F. U.O.N. INTERFACE TO BASE BUILDING FIRE ALARM SYSTEM.  | s os | SWITCH, +46" A.F.F. U.O.N.   |
| SB                    | ADA APPROVED STROBE LIGHT. MATCH BUILDING STANDARD. MOUNT  | OS   | CEILING MOUNTED OCCUPANCY SENSOR.  |
| ОВ                    | BOTTOM OF DEVICE AT 80" A.F.F. INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM. PROVIDE POWER SUPPLIES AS  | OS   | WALL MOUNTED OCCUPANCY SENSOR.   |
| A<br>SB               | ADA APPROVED STROBE LIGHT WITH AUDIBLE ALARM. MATCH BUILDING STANDARD. MOUNT BOTTOM OF DEVICE AT 80" A.F.F. INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM.   | B 3  | LED OR FLUORESCENT FIXTURE. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, "a". UPPER CASE LETTER INDICATES FIXTURE TYPE, i.e. "B". NUMERAL INDICATES PANEL CIRCUIT NUMBER, i.e. "3". SWITCH, FIXTURE TYPE, AND CIRCUIT NUMBERS ARE TYPICAL FOR ALL LIGHTING FIXTURES. WHERE TWO SWITCHING DESIGNATIONS |
|                       | ADA APPROVED CEILING MOUNTED STROBE LIGHT. MATCH BUILDING STANDARD. INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM. PROVIDE POWER SUPPLIES AS REQUIRED.   |      | ARE SHOWN CIRCUIT ONE LAMP OF TWO LAMP FIXTURES AND OUTER LAMPS OF 3 AND 4 LAMP FIXTURES TO THE FIRST SWITCHING DESIGNATION SHOWN. AND THE REMAINING LAMP(S) TO THE SECOND DESIGNATION SHOWN.  |
| F                     | ADA APPROVED CEILING MOUNTED STROBE LIGHT WITH AUDIBLE ALARM. MATCH BUILDING STANDARD. INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM BUILDING FIRE ALARM SYSTEM. PROVIDE POWER SUPPLIES AS REQUIRED. |      | EMERGENCY LED OR FLUORESCENT FIXTURE. PROVIDE FIXTURE WITH INTEGRAL BATTERY BACKUP, TYPICAL FOR ALL LIGHTING FIXTURES. REFER TO EMERGENCY BALLAST WIRING DIAGRAM.  |
| $\bigcirc$ S          | ADA APPROVED FIRE ALARM VOICE ALARM SPEAKER. INTERFACE   |      | LED OR FLUORESCENT STRIP FIXTURE.  |
| FA                    | WITH FIRE ALARM SYSTEM.  |      | LED, INCANDESCENT, FLUORESCENT OR H. I. D. FIXTURE.  |
| SD                    | ADA APPROVED SMOKE DETECTOR, INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM.  | Ю    | LED, INCANDESCENT, FLUORESCENT OR H. I. D. FIXTURE, WALL MOUNTED.  |

LED, INCANDESCENT, FLUORESCENT OR H. I. D. SCONCE.

WALL MOUNTED EGRESS FIXTURE.

CEILING MOUNTED EGRESS FIXTURE.

LED, INCANDESCENT, FLUORESCENT OR H. I. D. WALL WASHER.

SINGLE FACE EXIT FIXTURE, CEILING OR WALL MOUNTED, PROVIDE DIRECTIONAL ARROW IF SHOWN, BRACKET DENOTES WALL MOUNTING. MOUNT FIXTURE FACE PARALLEL TO ADJACENT DOOR WHERE APPLICABLE.

DOUBLE FACE EXIT FIXTURE, CEILING OR WALL MOUNTED, PROVIDE DIRECTIONAL ARROWS AS SHOWN. BRACKET DENOTES WALL MOUNTING. MOUNT FIXTURE FACE PERPENDICULAR TO ADJACENT DOOR WHERE APPLICABLE.

NUMBERED NOTE: REFER TO SHEET CONTAINING NUMBERED NOTES.

WIRELESS ACCESS POINT, FURNISHED AND INSTALLED BY OWNER. CABLING, TERMINATIONS, TESTING AND MAPPING BY THE CONTRACTOR. REFER TO SPECIFICATION SECTION 270500

SECURITY CAMERAS, FURNISHED AND INSTALLED BY OWNER. CABLING, TERMINATIONS, TESTING AND MAPPING BY THE CONTRACTOR. REFER TO SPECIFICATION SECTION 281000

DOOR STRIKE FOR SECURITY/ACCESS CONTROL. CABLING, TERMINATIONS, TESTING AND MAPPING BY THE CONTRACTOR. TO SPECIFICATION SECTION 281000

BREAK GLASS DEVICE, CEILING MOUNTED FOR SECURITY/ACCESS CONTROL. CABLING, TERMINATIONS, TESTING AND MAPPING BY THE CONTRACTOR. REFER TO SPECIFICATION SECTION 281000

AUDIO/VISUAL DEVICE, WALL MOUNTED.

TELEPHONE/POWER POLE

MICROPHONE OUTLET, 18" A.F.F. U.O.N., PROVIDE PLASTER RING AND PULL STRING TO ACCESSIBLE CEILING SPACE.

CEILING OR WALL MOUNTED PHOTOCELL.

RECESSED CLOCK OUTLET, +80" A.F.F. U.O.N., NUMBER DENOTES CIRCUIT (EXAMPLE 1).

CARD READER, +46" A.F.F U.O.N.

SOLENOID VALVE.

DOOR POSITION MONITOR SWITCH.

DOOR SWITCH, COORDINATE EXACT LOCATION WITH DOOR FRAMING.

ELECTRIC DOOR LOCK, INTERCONNECT TO BASE BUILDING FIRE ALARM SYSTEM.

HEAT DETECTOR. INTERCONNECT TO BASE BUILDING FIRE ALARM

**GAS SENSOR** 

GAS HORN, RECESSED TYPE.

LIQUID SENSOR LOCATED BELOW RAISED FLOOR.

DOOR RELEASE PUSHBUTTON, +46" A.F.F. U.O.N.

KEY PAD.

KEY OVERRIDE. ⊢KO

INTERCOM, +46" A.F.F. U.O.N.

BACKGROUND MUSIC SPEAKER

WALL MOUNTED PUSHBUTTON FOR INTERCOM, +46" A.F.F. U.O.N.

INTERRUPTION CAPACITY

VOLTS ISOLATED GROUND

GROUND

PHASE DESIGNATION (EXAMPLE 3 PHASE)

NUMBER OF CONDUCTORS (EXAMPLE 3 WIRES)

CONDUIT SIZE (EXAMPLE 3" CONDUIT)

#### ELECTRICAL GENERAL NOTES

- THE SPACE ALLOCATION SHOWN ON THE PLAN DRAWINGS ARE BASED ON ONLY ONE MANUFACTURER. THE CONTRACTOR SHALL VERIFY THAT THE PROPOSED SWITCHGEAR (INCLUDING SWITCHBOARDS, PANELBOARDS AND TRANSFORMERS) WILL SATISFY THE SPACE REQUIREMENTS SHOWN ON THE DRAWINGS.
- WHERE CEILING SPACE IS A RETURN AIR PLENUM, ALL WIRING IN CEILING SPACE MUST BE IN CONDUIT OR USE TEFLON JACKETED CABLE TO MEET RETURN AIR PLENUM REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR SURVEYING THE SITE TO DETERMINE ALL EXISTING CONDITIONS RELATED TO THE NEW BUILDING. THIS INCLUDES ALL EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL MAKE PROVISIONS FOR CROSSING, DISCONNECTING IN THE EVENT NEW UTILITY SERVICE TO NEW BUILDING ARE ROUTED THRU THESE AREAS.
- SURFACE MOUNTED PANELS, DEVICES, AND RACEWAY WILL ONLY BE ALLOWED IN MECHANICAL AREAS.
- COMBINATION OF HOMERUN CIRCUITS SHALL BE AS FOLLOWS:
- A. ALL CIRCUITS WITH SEPARATE HOMERUN ARROWS SHALL BE INSTALLED IN DEDICATED CONDUITS. DO NOT COMBINE WITH OTHER BRANCH CIRCUITS.
- B. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO PANEL.
- C. A MAXIMUM OF SIX 20A BRANCH CIRCUIT PHASE CONDUCTORS IN COMMON HOMERUN.
- MINIMUM BRANCH CIRCUIT CONDUCTOR SHALL BE #12AWG, THHN.
- ALL 120V CIRCUITS SERVING NON-LIGHTING BRANCH CIRCUITS SHALL HAVE SEPARATE #12 AWG EQUIPMENT GROUNDING CONDUCTOR.
- ELECTRICAL CONTRACTOR TO COORDINATE THE MOUNTING HEIGHTS OF ALL COMMUNICATION OUTLETS AND RECEPTACLES WITH ARCHITECTURAL DETAILS.
- IN AREAS WHERE COMMUNICATION OUTLETS ARE INSTALLED IN WALL OF ROOM WITH A GYPBOARD CEILING, CONTRACTOR SHALL INSTALL 3/4" CONDUIT FROM OUTLET TO ACCESSIBLE CEILING.
- CONTRACTOR TO COORDINATE WITH LANDSCAPE PLANS FOR ACTUAL LOCATION OF ALL EXTERIOR LANDSCAPE FIXTURES.
- ALL 120 AND 277V BRANCH CIRCUITS GREATER THAN 100' SHALL BE #10 THHN, MINIMUM.
- 10. CONTRACTOR SHALL INSTALL A PULL STRING IN ALL EMPTY CONDUITS.
- 11. CONTRACTOR SHALL MAINTAIN MINIMUM SEPARATION OF 24" BETWEEN COMMUNICATIONS CONDUIT AND PRIMARY CONDUIT.
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING STARTER TYPE OVERLOAD SIZE, AND DISCONNECT SIZE FOR ALL MOTORS WITH MECHANICAL CONTRACTOR
- 13. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR DEVICES. LOCATIONS SHALL BE IN ACCORDANCE WITH ALL UNDERWRITERS LABORATORIES AND LOCAL AUTHORITY REQUIREMENTS. IN NO CASE SHALL FIRE RATED POKE-THROUGH DEVICES BE INSTALLED LESS THAN 24" ON CENTER AND/OR MORE THAN ONE (1) PENETRATION PER 65 SQUARE FEET OF FLOOR AREA OF BEAM
- 14. CONTRACTOR TO LOCATE ALL LIGHTING FIXTURES PER ARCHITECTURAL REFLECTED CEILING PLANS.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING ELECTRICAL SERVICE TO ALL REMAINING AREAS OF THE FACILITY THROUGHOUT THE PROJECT EXCEPT DURING SCHEDULED SHUTDOWN TIMES.
- 16. ANY SHUTDOWNS OF THE EXISTING FACILITY SHALL BE MUTUALLY AGREED UPON BY OWNER AND CONTRACTOR. CONTRACTOR SHALL GIVE OWNER MINIMUM OF TWO WEEKS NOTICE OF ANY SHUTDOWNS OF EXISTING FACILITY.
- 17. ALL NEW ELECTRICAL PANELS SHALL BE INSTALLED A MINIMUM OF 8" FROM ADJACENT PERPENDICULAR WALLS (TO ALLOW FOR FUTURE INSTALLATION OF ELECTRICAL PANELS ON ADJACENT PERPENDICULAR WALLS).
- 18. INSTALL ALL TRANSFORMERS A MINIMUM OF 6" FROM WALLS.
- 19. CONTRACTOR SHALL REVIEW ALL TRENCHING ON SITE WITH LANDSCAPE ARCHITECT AND OBTAIN APPROVAL BEFORE PERFORMING WORK.
- 20. CONTRACTOR SHALL ALLOW A MAXIMUM OF 3% VOLTAGE DROP ON ALL EMERGENCY BRANCH CIRCUITS THROUGHOUT THE AREAS UNDER THIS CONTRACT. CONTRACTOR SHOULD SIZE THE EMERGENCY BRANCH CIRCUITS FEEDERS ACCORDINGLY TO MAINTAIN THE MAXIMUM VOLTAGE DROP AS LISTED ABOVE.
- 21. CONTRACTOR TO REFER TO FIRE PROTECTION DRAWINGS FOR EXACT LOCATION OF ALL FLOW SWITCHES. CONTRACTOR TO PROVIDE CONNECTION TO FLOW SWITCHES FROM FIRE ALARM SYSTEM. CONTRACTOR TO ALSO PROVIDE CONNECTION TO ALL TAMPER SWITCHES FOR EXACT LOCATIONS COORDINATE WITH FIRE PROTECTION (SPRINKLER) CONTRACTOR.
- 22. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE A COMPLETE INSTALLATION IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING NEC PLUS ANY LOCAL CODES. IT SHOULD BE NOTED THAT BASED ON OUR DESIGN STANDARDS THE DRAWINGS WILL HAVE AREAS THAT WILL EXCEED CODE REQUIREMENTS. THE AREAS ON THE CONTRACT DOCUMENTS THAT EXCEED CODE REQUIREMENTS SHOULD BE CONSIDERED PART OF THE SCOPE OF THE PROJECT AND SHOULD BE INCLUDED IN THE ELECTRICAL CONTRACTOR'S BID.
- 23. CONTRACTOR REPONSIBLE FOR COORDINATING EXACT ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH MANUFACTURER PRIOR TO INSTALLATION.
- 24. CONTRACTOR REPONSIBLE FOR COORDINATING EXACT ELECTRICAL REQUIREMENTS OF ALL OWNER PROVIDED EQUIPMENT WITH MANUFACTURER PRIOR TO INSTALLATION.
- 25. CONTRACTOR PRIOR TO INSTALLATION OF WIRING DEVICES AND DATA/PHONE/TV OUTLETS SHALL COORDINATE LOCATION WITH LATEST ARCHITECTURAL FURNITURE AND CABINET DETAILS.
- 26. ALL PUMPS AND OTHER MECHANICAL EQUIPMENT LOCATED IN MECHANICAL ROOMS OR EXTERIOR LOCATIONS SHALL HAVE LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT.

## ELECTRICAL DEMOLITION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING ELECTRICAL SERVICE TO ALL REMAINING AREAS OF THE FACILITY THROUGHOUT THE PROJECT EXCEPT DURING SCHEDULED SHUTDOWN TIMES. ANY SHUTDOWNS OF THE EXISTING FACILITY SHALL BE MUTUALLY AGREED UPON BY OWNER AND CONTRACTOR. CONTRACTOR SHALL GIVE OWNER MINIMUM OF TWO WEEKS NOTICE OF ANY SHUTDOWNS OF EXISTING FACILITY.
- CONTRACTOR SHALL SURVEY THE SITE TO CONFIRM FIELD CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THESE CONDITIONS.
- UNLESS OTHERWISE NOTED ALL EXISTING ELECTRICAL EQUIPMENT/DEVICES FIRE ALARM EQUIPMENT/DEVICES, AND COMMUNICATIONS EQUIPMENT/DEVICES SHALL BE REMOVED. EQUIPMENT/DEVICES SHALL INCLUDED, BUT NOT BE LIMITED TO: SWITCH BOARDS. PANELBOARDS. FEEDERS. TRANSFORMERS. DISCONNECTS, ELECTRICAL OUTLETS, CONDUITS, JUNCTION BOXES, CONDUCTORS, LIGHT FIXTURES, FIRE ALARM CABLES, SMOKE DETECTORS, PULL STATIONS, HORNS, STROBES, COMMUNICATION CABLES, COMMUNICATION

ITEMS TO REMAIN SHALL INCLUDE:

A. EXTERIOR "PERIOD" FIXTURES AND THEIR ASSOCIATED CONDUITS (REMOVE EXISTING EXTERIOR SURFACE MOUNTED HID FIXTURES AND SURFACE MOUNTED CONDUIT). CONTRACTOR SHALL PROVIDE A PULL STRING IN CONDUITS SERVING FIXTURES. EXISTING UNDERGROUND, IN-SLAB, AND SERVICE ENTRANCE CONDUITS.

EXISTING COMMUNICATION (COPPER AND FIBER) SERVICE ENTRANCES.

CONTRACTOR TO COORDINATE DEMOLITION WITH OWNER.

CONTRACTOR SHALL COORDINATE WITH THE OWNER AS TO DISPOSITION OF ANY EXISTING SALVAGEABLE ELECTRICAL DEVICES, LIGHT FIXTURES, OR ELECTRICAL EQUIPMENT.

CONTRACTOR SHOULD NOT START ANY OF THE DEMOLITION UNTIL ALL EQUIPMENT AND DEVICES ARE REMOVED THAT THE OWNER WANTS TO SALVAGE.

CONTRACTOR SHOULD NOT BEGIN REMOVAL OF ANY OF THE TELEPHONE, DATA OR FIRE ALARM SYSTEMS UNTIL:

- OWNER HAS REMOVED TELEPHONE OR DATA DEVICES. CONTRACTOR HAS COORDINATED WITH OWNER THE DISPOSITION OF ALL TELEPHONE, DATA AND FIRE ALARM EQUIPMENT.
- REFER TO THE ARCHITECTURAL DEMOLITION PLANS AND DIVISION 1 SPECIFICATION FOR FURTHER INFORMATION.
- CONTRACTOR COORDINATE THE REUSE OF ANY EXISTING OUTLET/SWITCH BOXES IN WALLS SCHEDULED TO REMAIN. REFER TO THE ARCHITECTURAL DEMOLITION DOCUMENTS. CONTRACTOR SHALL REMOVE BRANCH CIRCUIT WIRING TO NEAREST ACCESSIBLE JUNCTION BOX.
- 10. CONTRACTOR SHALL DIRECTLY SUPERVISE THE WORK FROM BEGINNING TO COMPLETION.
- 11. ALL EXISTING FLOOR OUTLETS SHALL BE REMOVED AND THE SLAB PENETRATION SHALL BE REPAIRED TO RESTORE ORIGINAL FIRE RESISTANCE AND STRUCTURAL INTEGRITY.



10 WEST SEVENTH, SUITE 710 TULSA: OK 74119

T: 918.583.5300 : 918.585.1967 **OKLAHOMA CITY** 

31 DEAN A McGEE AVE, SUITE 135

OKLAHOMA CITY, OK 73102 Г: 405.232.7007 **NEW YORK CITY** 87 PARK AVENUE SOUTH

NFW YORK, NY 10010

: 917.522.1703

PROJECT NUMBER: 202401 PROJECT: **RSU NURSING CLASSROOMS** RENOVATION

**CONSULTANT:** Phillips+Gomez • Consulting Engineers

PH. 918.584.0102 klahoma Certificate of Authorization #CA1395 Renewal Date: 06.30.25

W 6th St., Suite 2510 Tulsa, OK 74119

**ISSUE / REVISION:** No Description

SEAL:



100% CONSTRUCTION **DOCUMENTS** 

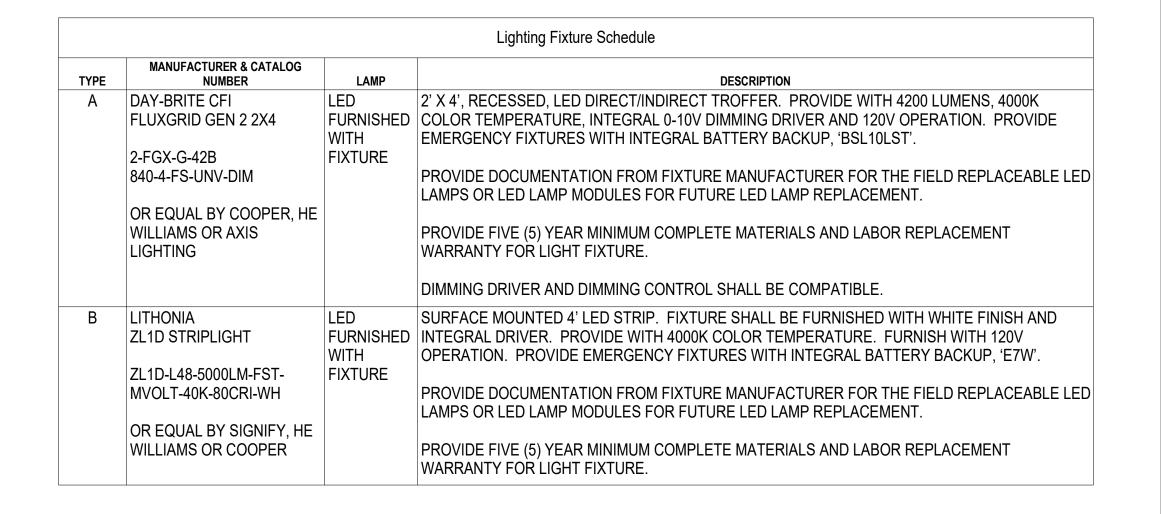
**ISSUE DATE:** 

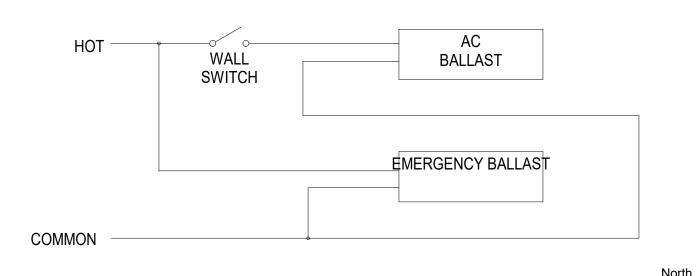
05.17.2024

SHEET NUMBER:

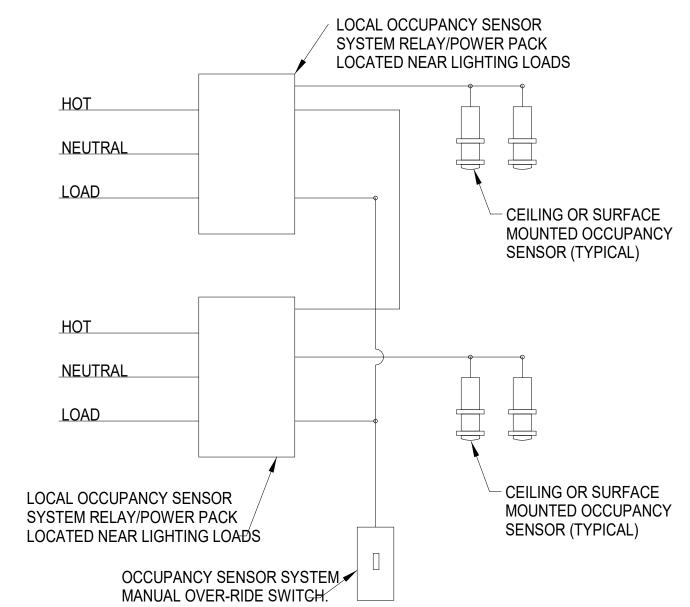
**E001** 

**ELECTRICAL** SYMBOLS LIST AND **GENERAL NOTES** 



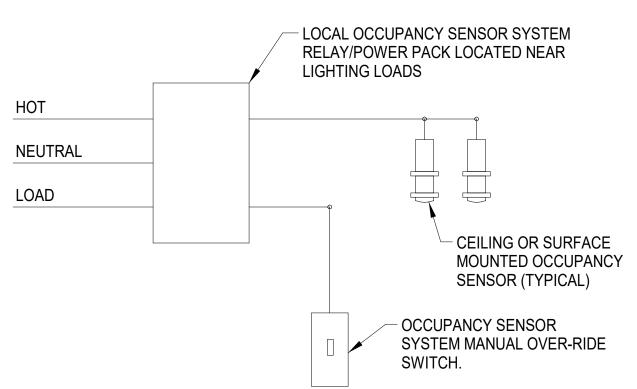












TYPICAL LARGE OFFICE OR AREA
OCCUPANCY SENSOR WIRING DIAGRAM
1/8" = 1'-0"



WALL-MOUNTED COMBINATION OCCUPANCY SENSOR AND MANUAL OVER-RIDE SWITCH.

HOT
NEUTRAL
LOAD

TYPICAL OFFICE WALL MOUNTED

OCCUPANCY SENSOR WIRING DETAIL

1/8" = 1'-0"





COPYRIGHT BECK ASSOCIATES ARCHITECTS, PLLC; DBA BECK DESIGN - 05.18.2024

TULSA 110 WEST SEVENTH, SUITE 710 TULSA, OK 74119 T: 918.583.5300 F: 918.585.1967

OKLAHOMA CITY
131 DEAN A McGEE AVE, SUITE 135
OKLAHOMA CITY, OK 73102
T: 405.232.7007

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

PROJECT NUMBER:
202401
PROJECT:
RSU NURSING
CLASSROOMS
RENOVATION

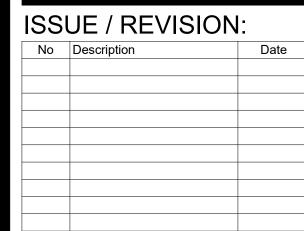
CONSULTANT:

Phillips+Gomez

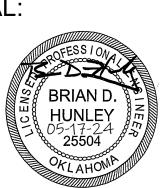
Consulting Engineers

Consulting Engineers

15 W 6th St., Suite 2510 Tulsa, OK 74119
PH. 918.584.0102
Oklahoma Certificate of Authorization
#CA1395 Renewal Date: 06.30.25



SEVI .



100%
CONSTRUCTION
DOCUMENTS

ISSUE DATE:

05.17.2024

SHEET NUMBER:

**E002** 

LIGHT FIXTURE SCHEDULE AND WIRING DIAGRAMS

#### 1.01 DESCRIPTION

A. GENERAL: FURNISH LABOR, MATERIALS, APPARATUS, TOOLS, EQUIPMENT TRANSPORTATION, TEMPORARY CONSTRUCTION AND SERVICES AS REQUIRED TO MAKE A COMPLETE WORKING ELECTRICAL INSTALLATION, AS SHOWN ON THE DRAWINGS OR DESCRIBED IN THESE SPECIFICATIONS. THE WORK SHALL INCLUDE MATERIALS, APPLIANCES AND APPARATUS NOT SPECIFICALLY MENTIONED HEREIN OR NOTED ON THE DRAWINGS, BUT REQUIRED FOR A COMPLETE INSTALLATION. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND UNUSED UNLESS OTHERWISE SPECIFIED. IN ADDITION, IT SHALL INCLUDE CONNECTION, INTERCONNECTION, AND POWER FOR ELECTRICAL EQUIPMENT FURNISHED UNDER OTHER SECTIONS.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL CEILING PLANS, ARCHITECTURAL DETAILS, DOOR HARDWARE SCHEDULES, AND MECHANICAL DOCUMENTS. ALL POWER SERVICE WIRING. BRANCH CIRCUIT WIRING, CONTROL WIRING OR OTHER WIRING NECESSARY FOR COMPLETE OPERATION OF EQUIPMENT OR FIXTURES, NOT SPECIFICALLY REQUIRED TO BE INSTALLED UNDER ANOTHER SECTION OF THIS SPECIFICATION, SHALL BE PROVIDED WHETHER OR NOT SUCH WIRING IS SPECIFICALLY SHOWN ON ELECTRICAL DRAWINGS OR DESCRIBED IN DIVISION 16 SPECIFICATIONS.

### B. WORK INCLUDED:

#### WORK DESCRIBED IN DIVISION 16.

- 2. ELECTRICAL WORK REQUIRED FOR CORRECT ELECTRICAL OPERATION OF EQUIPMENT AND APPARATUS FURNISHED UNDER DIVISION 15.
- 3. ELECTRICAL WORK REQUIRED FOR CORRECT ELECTRICAL OPERATION OF EQUIPMENT FURNISHED UNDER ALL OTHER DIVISIONS OF THIS SPECIFICATION OR ON DRAWINGS.
- C. WORK FURNISHED AND INSTALLED UNDER ANOTHER SECTION REQUIRING POWER SUPPLY WIRING AND/OR CONNECTIONS UNDER THIS SECTION:
- 1. ELECTRIC MOTORS. . PACKAGE MECHANICAL EQUIPMENT; FANS, PUMPS, COMPRESSORS, ETC. 3. TEMPERATURE CONTROL EQUIPMENT POWER SUPPLY WIRING.
- D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, ARCHITECT AND CONSTRUCTION MANAGER IF THE DELIVERY SCHEDULE OF ANY SPECIFIED PRODUCT WILL PROHIBIT THE CONSTRUCTION TO BE COMPLETED AS SCHEDULED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXPEDITED DELIVERY COSTS WHICH MAY BE NECESSARY TO ACCOMPLISH THE COMPLETION SCHEDULE. ALL NOTIFICATIONS SHALL BE MADE IN WRITING A MINIMUM OF SEVEN BUSINESS DAYS PRIOR TO THE BID DATE.
- E. ALL REQUESTS FOR PRODUCT SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER, ARCHITECT AND CONSTRUCTION MANAGER. ALL REQUESTS SHALL BE MADE IN WRITING A MINIMUM OF SEVEN BUSINESS DAYS PRIOR TO THE BID

#### 1.02 GENERAL REQUIREMENTS, CODES AND STANDARDS

- A. REFERENCE TO CODES, STANDARDS, SPECIFICATIONS AND RECOMMENDATIONS OF TECHNICAL SOCIETIES, TRADE ORGANIZATIONS AND GOVERNMENTAL AGENCIES SHALL MEAN THAT LATEST EDITION OF SUCH PUBLICATIONS ADOPTED AND PUBLISHED PRIOR TO SUBMITTAL OF THE BID PROPOSED. SUCH CODES OR STANDARDS SHALL BE CONSIDERED A PART OF THIS SPECIFICATION AS THOUGH FULLY REPEATED HEREIN
- B. WHEN CODES, STANDARDS, REGULATIONS, ETC. ALLOW WORK OF LESSER QUALITY OR EXTENT THAN IS SPECIFIED UNDER THIS DIVISION, NOTHING IN SAID CODES SHALL BE CONSTRUED OR INFERRED AS REDUCING THE QUALITY. REQUIREMENTS OR EXTENT OF THE DRAWINGS AND SPECIFICATIONS.
- C. WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF ALL GOVERNING CODES, RULES AND REGULATIONS, INCLUDING THE FOLLOWING MINIMUM STANDARDS, WHETHER STATUTORY OR
- NATIONAL ELECTRIC CODE (NEC)
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). AMERICAN DISABILITY ACT (ADA) LOCAL CODES AND AMENDMENTS
- 5. ADOPTED ENERGY CODE 6. BASE BUILDING STANDARDS
- 7. UNIFORM BUILDING CODE (UBC)
- D. EQUIPMENT AND MATERIALS SPECIFIED UNDER THIS DIVISION SHALL CONFORM TO THE FOLLOWING STANDARDS WHERE APPLICABLE:
- 1. UNDERWRITER'S LABORATORIES (UL) AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM). CERTIFIED BALLAST MANUFACTURERS (CBM).
- INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA). 5. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA). 6. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI). 7. ELECTRICAL TESTING LABORATORIES (ETL).
- BASE MATERIAL SHALL BE ASTM AND/OR ANSI STANDARDS. ELECTRICAL APPARATUS FURNISHED UNDER THIS SECTION SHALL CONFORM TO NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) STANDARDS AND THE NEC AND BEAR THE UNDERWRITER'S LABORATORIES (UL) LABEL WHERE SUCH LABEL IS APPLICABLE

### 1.03 CUTTING, PAINTING AND PATCHING

- A. STRUCTURAL MEMBERS SHALL IN NO CASE BE DRILLED, BORED OR NOTCHED IN SUCH A MANNER THAT WILL IMPAIR THEIR STRUCTURAL VALUE. CUTTING OF HOLES, IF REQUIRED, SHALL BE DONE WITH CORE DRILL AND ONLY WITH THE APPROVAL OF THE ARCHITECT AND OF THE BUILDING MANAGEMENT.
- 1.04 PENETRATIONS:
- A. METAL SLEEVES: EXPOSED EXTERIOR CONDUIT RUNS PASSING THROUGH CONCRETE FLOORS OR WALLS. FOLLOWING CONDUIT INSTALLATION, SEAL ALL PENETRATIONS USING NON-IRON BEARING, CHLORIDE FREE, NON-SHRINKING, DRY-PACK GROUTING COMPOUND. CONDUITS PENETRATING EXTERIOR BUILDING WALLS AND BUILDING FLOOR SLAB SHALL BE RIGID STEEL.
- B. FIRE SEPARATION WALLS/FLOORS: PACK OPENING AROUND CONDUITS OR CABLES WITH FIRE BARRIER CAULK 3M CP 25 NELSON FLAMESEAL.
- 1.05 SUPERVISION
- A. CONTRACTOR SHALL PERSONALLY OR THROUGH AN AUTHORIZED AND COMPETENT REPRESENTATIVE CONSTANTLY SUPERVISE THE WORK FROM BEGINNING TO COMPLETION AND WITHIN REASON, KEEP THE SAME WORKMEN AND FOREMAN ON THE PROJECT THROUGHOUT THE PROJECT DURATION.

### 1.06 PROTECTION

- A. KEEP CONDUITS, JUNCTION BOXES, OUTLET BOXES AND OTHER OPENINGS CLOSED TO PREVENT ENTRY OF FOREIGN MATTER. COVER FIXTURES. EQUIPMENT, DEVICES, APPARATUS AND PROTECT THEM AGAINST DIRT, PAINT, WATER, CHEMICAL OR MECHANICAL DAMAGE, BEFORE AND DURING CONSTRUCTION PERIOD. RESTORE TO ORIGINAL CONDITION ANY FIXTURE, APPARATUS OR EQUIPMENT DAMAGED PRIOR TO FINAL ACCEPTANCE. PROTECT BRIGHT FINISHED SURFACES AND SIMILAR ITEMS UNTIL IN SERVICE. NO RUST OR DAMAGE WILL BE PERMITTED.
- 1.07 EXAMINATION OF SITE
- A. THE CONTRACTOR SHALL VISIT THE SITE AND DETERMINE THE LOCAL, WORKING CONDITIONS, CONFLICTING UTILITIES AND THE CONDITIONS IN WHICH THE ELECTRICAL WORK WILL TAKE PLACE. NO ALLOWANCES WILL BE MADE SUBSEQUENTLY FOR ANY COSTS WHICH MAY BE INCURRED BECAUSE OF ANY ERROR OR OMISSION DUE TO FAILURE TO EXAMINE THE SITE AND TO NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND ACTUAL SITE CONDITIONS.

### 1.08 SUBSTITUTIONS

A. DURING THE BIDDING PROCESS, THE CONTRACTOR MAY SUBMIT PERTINENT TEST DATA. CATALOG CUTS AND PRODUCT INFORMATION REQUIRED TO SUBSTANTIATE THAT THE PRODUCT IS IN FACT EQUAL. REFER TO GENERAL CONDITIONS AND DIVISION 1 FOR REQUIREMENTS. ONLY ONE SUBSTITUTION WILL BE CONSIDERED FOR EACH PRODUCT SPECIFIED EXCEPT FOR WIRING DEVICES. SUBSTITUTION REQUESTS SHOULD BE SUBMITTED IN A TIMELY FASHION TO ALLOW TIME FOR REVIEW AND PUBLICATION TO ALL CONTRACTORS. SUBSTITUTION REQUESTS WHICH DO NOT ALLOW FOR THE PRECEDING WILL NOT BE CONSIDERED.

#### 1.09 SUBMITTALS

- A. GENERAL: REFER TO GENERAL CONDITIONS FOR SUBMITTAL PROCEDURES AND 1.01 DESCRIPTION
- B. FORMAT: FURNISH SUBMITTAL DATA NEATLY BOUND IN AN 8-1/2" X 11" FOLDER OR BINDER WITH A TABLE OF CONTENTS LISTING SPECIFICATION SECTION AND PARAGRAPH NUMBER. DRAWINGS REQUIRED TO BE SUBMITTED SHALL BE PREPARED BY COMPETENT DRAFTING PEOPLE ACCORDING TO GENERALLY ACCEPTED DRAFTING PRACTICES. THESE DRAWINGS AND SUBMITTAL DATA ON ALL ELECTRICAL EQUIPMENT (PANELBOARDS, LIGHT FIXTURES, ETC.) SHALL BE MODIFIED, AS NECESSARY, TO BECOME "AS BUILT" DOCUMENTS.
- C. SUBMITTALS SHALL CONSIST OF DETAILED SHOP DRAWINGS, SPECIFICATIONS, "CATALOG CUTS" AND DATA SHEETS CONTAINING PHYSICAL AND DIMENSIONAL INFORMATION, PERFORMANCE DATA, ELECTRICAL CHARACTERISTICS, MATERIALS USED IN FABRICATION. MATERIAL FINISH AND SHALL CLEARLY INDICATE THOSE OPTIONAL ACCESSORIES WHICH ARE INCLUDED AND THOSE WHICH ARE EXCLUDED.
- D. SUBMIT SHOP DRAWINGS FOR:

#### PANELBOARDS.

- E. SUBMIT MANUFACTURER'S DATA FOR: LIGHTING FIXTURES.
- 2. WIRING DEVICES AND DEVICE PLATES (ALL TYPES). 3. FIRE ALARM DEVICES. TRANSFORMERS.
- DISCONNECT SWITCHES. 6. PANELBOARDS 7. MOTOR STARTERS

8. METERS

#### 1.10 DRAWINGS

- A. LAYOUT: GENERAL LAYOUT SHOWN ON THE DRAWINGS SHALL BE FOLLOWED EXCEPT WHERE OTHER WORK MAY CONFLICT WITH OTHER EQUIPMENT. IN SUCH CASE, ENGINEER SHOULD BE NOTIFIED.
- B. ACCURACY:
- 1. DRAWINGS FOR THE WORK UNDER THIS SECTION ARE DIAGRAMMATIC.
- 2. CONTRACTOR SHALL VERIFY LINES, LEVELS AND DIMENSIONS SHOWN ON THE DRAWINGS AND SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE SETTING OUT OF WORK AND FOR ITS STRICT CONFORMANCE WITH EXISTING CONDITIONS AT THE SITE.

### 1.11 EQUIPMENT LOCATION

- A. SURFACE MOUNTED PANELS, DEVICES, AND RACEWAY WILL ONLY BE ALLOWED IN MECHANICAL EQUIPMENT AREAS OR WHERE SUCH CONSTRUCTION ALREADY EXISTS.
- 1.12 WORKMANSHIP
- A. PREPARATION, HANDLING AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND TECHNICAL DATA PARTICULAR TO THE PRODUCT SPECIFIED AND/OR ACCEPTED EQUAL EXCEPT AS OTHERWISE SPECIFIED. COORDINATE WORK AND COOPERATE WITH OTHERS IN FURNISHING AND PLACING THIS WORK. REVIEW SHOP DRAWINGS FOR WORK DONE BY OTHER TRADES AND TO FIELD MEASUREMENTS AS NECESSARY TO
- B. CONFORM TO THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION'S "STANDARD OF INSTALLATION" FOR GENERAL INSTALLATION PRACTICE.
- A. ALL SPECIAL TOOLS FOR PROPER OPERATION AND MAINTENANCE OF THE EQUIPMENT PROVIDED UNDER THIS SECTION SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE.

#### 1.14 PROJECT RECORD DRAWINGS

- A. REFER TO GENERAL CONDITIONS. PROVIDE PROJECT RECORD DRAWINGS. SUCH DRAWINGS SHALL FULLY REPRESENT INSTALLED CONDITIONS, INCLUDING ACTUAL LOCATION OF OUTLETS, TRUE PANELBOARD CONNECTIONS FOLLOWING PHASE BALANCING ROUTINES, CORRECT CONDUIT AND WIRE SIZING AS WELL AS ROUTING, REVISED FIXTURE SCHEDULE LISTING THE MANUFACTURER AND PRODUCTS ACTUALLY INSTALLED AND REVISED PANEL SCHEDULE. CHANGES TO DRAWINGS SHALL BE MADE BY QUALIFIED DRAFTSPERSONS TO MATCH EXISTING LINEWORK AND LETTERING AS CLOSE AS POSSIBLE. CHANGES SHALL BE MADE ON REPRODUCIBLE MYLAR SEPIAS OF ORIGINAL DRAWINGS FURNISHED BY CONTRACTOR. DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL
- B. TYPEWRITTEN PANEL SCHEDULES SHALL BE PROVIDED FOR PANELBOARDS INDICATING THE LOADS SERVED AND THE CORRECT BRANCH CIRCUIT NUMBER. SCHEDULES SHALL MATCH THE FORMAT SHOWN ON THE PANEL SCHEDULES CONTAINED ON THE CONTRACT DOCUMENTS.

#### 1.15 CLEANING

A. AFTER OTHER WORK SUCH AS SANDING, PAINTING, ETC. HAS BEEN COMPLETED, CLEAN LIGHTING FIXTURES. PANELBOARDS. SWITCHBOARDS AND OTHER ELECTRICAL EQUIPMENT TO REMOVE DUST, DIRT, GREASE OR OTHER MARKS AND LEAVE WORK IN CLEAN CONDITION.

### 1.16 VOLTAGE CHECK

A. AT COMPLETION OF JOB, CHECK VOLTAGE AT SEVERAL POINTS OF UTILIZATION ON THE SYSTEM WHICH HAS BEEN INSTALLED UNDER THIS CONTRACT. DURING TEST, ENERGIZE INSTALLED LOADS.

### 1.17 TESTS

- A. PERFORM TESTS AS SPECIFIED TO PROVE INSTALLATION IS IN ACCORDANCE WITH CONTRACT REQUIREMENTS. TESTS SHALL BE CONDUCTED DURING THE CONSTRUCTION PERIOD AND AT COMPLETION TO DETERMINE CONFORMITY WITH APPLICABLE CODES AND WITH THESE SPECIFICATIONS. TYPED RECORDS OF ALL THE FOLLOWING TESTS SHALL BE INCLUDED IN MAINTENANCE INSTRUCTIONS. TESTS, IN ADDITION TO SPECIFIC SYSTEM TEST DESCRIBED ELSEWHERE, SHALL INCLUDE:
- 1. CIRCUIT CONTINUITY: TEST FEEDER AND BRANCH CIRCUITS FOR CONTINUITY. TEST NEUTRALS FOR IMPROPER GROUNDS.
- 2. EQUIPMENT OPERATIONS: TEST MOTORS FOR CORRECT OPERATION AND
- 3. CIRCUIT NUMBERING VERIFICATION: SELECT ON A RANDOM BASIS. VARIOUS CIRCUIT BREAKERS IN THE PANELBOARDS AND CYCLE THEM ON AND OFF TO VERIFY COMPLIANCE OF THE TYPED PANEL DIRECTORIES WITH ACTUAL
- 4. PRODUCT FAILURE: PRODUCTS WHICH FAIL DURING THE TESTS OR ARE RULED UNSATISFACTORY BY THE ARCHITECT SHALL BE REPLACED, REPAIRED OR CORRECTED AS PRESCRIBED BY THE ARCHITECT AT THE EXPENSE OF THE CONTRACTOR. TESTS SHALL BE PERFORMED AFTER REPAIRS, REPLACEMENTS OR CORRECTIONS UNTIL SATISFACTORY
- 5. MISCELLANEOUS: INCLUDE TEST RESULTS IN THE MAINTENANCE MANUAL. COST, IF ANY, FOR ALL TESTS SHALL BE PAID BY THE CONTRACTOR.

PERFORMANCE IS DEMONSTRATED.

- 6. FIRE ALARM AND INTERLOCK SYSTEMS: PRODUCE MALFUNCTION SYMPTOMS IN OPERATING SYSTEMS TO TEST ALARM AND INTERLOCK SYSTEMS. EACH FIRE ALARM SIGNAL INITIATING DEVICE, INCLUDING ALL SMOKE DETECTORS. SHALL BE ACTIVATED TO VERIFY PROPER ZONE ANNUNCIATION AND ALARM SIGNAL INTERLOCKS. ACTIVATION OF IONIZATION TYPE SMOKE DETECTORS, BOTH CEILING AND DUCT TYPE, SHALL BE ACCOMPLISHED BY MEANS OF A SMOKE EMITTING DEVICE PER MANUFACTURER'S RECOMMENDATIONS. PHOTOELECTRIC TYPE SHALL BE TESTED BY INTERRUPTING LIGHT BEAM. CORRECT OPERATION OF ALARM CIRCUIT ANNUNCIATION IN THE FIRE ALARM ZONE ANNUNCIATION PANEL SHALL BE VERIFIED. ALL FIRE ALARM DEVICES, BOTH EXISTING AND NEW, INSTALLED ON THE TENANT FLOORS SHALL BE TESTED.
- 7. EMERGENCY LIGHTING AND EXIT LIGHT: CONTRACTOR SHALL TEST IN FIELD AFTER INSTALLATION EACH EMERGENCY LIGHT AND EXIT LIGHT. TEST RESULTS SHALL BE DOCUMENTED IN TYPE WRITTEN REPORT AND SUBMITTED TO ENGINEER.

#### **BASIC MATERIALS & METHODS**

#### PART I GENERAL

- A GENERAL WORK SPECIFIED IN THIS SECTION ENCOMPASSES PRODUCTS ASSEMBLIES AND BASIC INSTALLATION METHODS REQUIRED FOR ELECTRICAL PROJECT SYSTEMS SPECIFIED UNDER THIS SECTION AND INCLUDES, BUT IS NOT
- LIMITED TO:
- 1. CONDUIT, RACEWAYS AND FITTINGS. WIRES AND CABLES.
- WIRE CONNECTIONS AND DEVICES. OUTLET BOXES.
- PULL AND JUNCTION BOXES. SWITCHES AND RECEPTACLES. DEVICE PLATES.

8. MOTOR STARTERS

9. DISCONNECT SWITCHES. 10. CIRCUIT BREAKERS. 11. BRANCH CIRCUIT PANELBOARDS 12. LOW VOLTAGE DRY-TYPE TRANSFORMERS

#### 13. LIGHTING FIXTURES PART 2 PRODUCTS

- 2.01 CONDUIT AND FITTINGS
- A. ELECTRICAL METALLIC TUBING: 1. CONDUIT: FORMED OF COLD ROLLED STRIP STEEL, ELECTRICAL RESISTANCE WELDED CONTINUOUSLY ALONG THE LONGITUDINAL SEAM AND HOT-DIP GALVANIZED AFTER FABRICATION. CONFORM TO ANSI C80.3 AND
- 2. COUPLINGS: STEEL, ZINC PLATED SET SCREW COUPLINGS. OZ/GEDNEY 5000 B. CAST METAL BOXES: USE STANDARD CAST MALLEABLE IRON OUTLET OR DEVICE

#### B. FLEXIBLE METALLIC CONDUIT:

MEET UL REQUIREMENTS.

- 1. CONDUIT: FABRICATED IN CONTINUOUS LENGTHS FROM GALVANIZED STEEL STRIP, SPIRAL WOUND AND FORMED TO PROVIDE AN INTERLOCKING DESIGN. 2.06 RECEPTACLES AND SWITCHES
- 2. FITTINGS: ONE SCREW (USE TWO SCREW WHEN AVAILABLE) DOUBLE CLAMP A. GENERAL: VARIETY CONNECTORS WITH CAST MALLEABLE IRON BODIES AND THREADED MALE HUBS WITH INSULATED THROATS.
- : LIQUID TIGHT FLEXIBLE METALLIC CONDUIT:
- 2. FITTINGS: CONNECTOR BODY AND GLAN NUT SHALL BE OF CADMIUM PLATED CAST MALLEABLE IRON, WITH TAPERED, MALE THREADED HUB; INSULATED THROAT AND NEOPRENE "O" RING GASKET RECESSED INTO THE FACE OF THE STOP NUT. THE CLAMPING GLAND SHALL BE OF MOLDED NYLON WITH AN INTEGRAL BRASS PUSH-IN FERRULE.

. CONDUIT: ANACONDA TYPE UA, COLEMAN TYPE UXT1.

#### 2.02 WIRES AND CABLES

- A. GENERAL:
- 1. APPROVED MANUFACTURERS: AMERICAN INSULATED WIRE, SOUTHWIRE, ROME CABLE, OR TRIANGLE.
- 2. CONDUCTOR MATERIAL: ALL WIRE AND CABLE SHOWN ON THE DRAWINGS IS INSULATED COPPER CONDUCTOR UNLESS OTHERWISE NOTED.
- 3. MINIMUM CONDUCTOR SIZE: AWG NO. 12 FOR POWER AND LIGHTING BRANCH CIRCUITS. ALL BRANCH CIRCUITS EXCEEDING 100' SHALL UTILIZE # 10 MINIMUM CONDUCTOR. AWG NO. 14 FOR SIGNAL AND CONTROL CIRCUITS UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFIED HEREIN.
- 4. COLOR CODING: COLOR CODING SHALL CONFORM TO ALL LOCAL AND GOVERNING CODES, RULES AND REGULATIONS. SYSTEM CONDUCTORS SHALL BE IDENTIFIED AS TO VOLTAGE AND PHASE CONNECTIONS BY MEANS OF COLOR IMPREGNATED INSULATION OR APPROVED COLOR MARKING TAPE AS FOLLOWS:
- PHASE B RED PHASE C - BLUE NEUTRAL - WHITE

GROUND - GREEN

A. FOR 120/208 VOLT, 3 PHASE, 4 WIRE SYSTEMS:

- ISOLATED GROUND -GREEN WITH A YELLOW TRAVELER B. FOR 277/480 VOLT, 3 PHASE, 4 WIRE SYSTEMS:
- PHASE A BROWN PHASE B - ORANGE PHASE C - YELLOW NEUTRAL - GRAY **GROUND - GREEN**

#### C. SECONDARY WIRE, 0 TO 600 VOLTS:

THWN IN WET LOCATIONS. 2. NEC TYPE THHN FOR WIRE INSTALLED IN FIXTURE RACEWAYS AND USED AS

1. NEC TYPE THHN FOR FEEDERS AND BRANCH CIRCUITS IN DRY LOCATIONS,

BRANCH CIRCUIT FEEDERS IN DRY LOCATIONS. 3. MC CABLE MAY BE USED FOR 20A GENERAL PURPOSE BRANCH CIRCUITS. MC-IG CABLE MAY BE USED FOR COMPUTER BRANCH CIRCUITS, AS DESIGNATED WITH A "D". MC AND MC-IG CABLE IS PROHIBITED IN THE EQUIPMENT ROOM. EACH MC-IG CABLE SHALL HAVE A DEDICATED ISOLATED GROUND CONDUCTOR AND A DEDICATED NEUTRAL CONDUCTOR FOR EACH PHASE CONDUCTOR, REFER TO THE ISOLATED GROUND DETAIL. MC AND

#### ENGINEER APPROVED EQUAL. 2.03 WIRE CONNECTIONS AND DEVICES

CONNECTIONS.

A. WIRE JOINTS: WIRES IN SIZES FROM NO. 18 TO NO. 8 AWG. SOLID OR STRANDED CONDUCTOR, WITH INSULATION RATED 105°C. OR LESS SHALL BE JOINED WITH ELECTRICAL SPRING CONNECTORS OF THREE-PART CONSTRUCTION INCORPORATING A NON-RESTRICTED, ZINC COATED STEEL SPRING ENCLOSED IN A STEEL SHELL WITH AN OUTER JACKET OF VINYL PLASTIC WITH A FLEXIBLE INSULATING SKIRT.

MC-IG CABLE MAY BE INSTALLED IN VERTICAL WALLS ONLY. AFC OR

- B. MECHANICAL COMPRESSION CONNECTORS AND TAPS: STRANDED CONDUCTORS FROM NO. 6 AWG TO 750 MCM SHALL BE JOINED OR TAPPED JSING BOLTED PRESSURE CONNECTORS HAVING CAST BRONZE COMPRESSION BOLTS. FITTINGS SHALL BE WIDE RANGE-TAKING AND DESIGNED TO FACILITATE THE MAKING OF PARALLEL TAPS, TEES, CROSSES OR END-TO-END
- C. FIXTURE CONNECTIONS: SPLICE FIXTURE WIRE TO CIRCUIT WIRING WITH SOLDERLESS CONNECTORS IN ACCORDANCE WITH PARAGRAPH A, PART 2, 2.03.
- D. TERMINATING LUGS: CONDUCTORS FROM SIZE NO. 6 AWG TO 750 MCM. COPPER, SHALL BE TERMINATED USING TIN PLATED COPPER COMPRESSION LUGS ATTACHED WITH HAND OR HYDRAULICALLY OPERATED CRIMPING TOOLS AND DIES AS STIPULATED BY THE LUG MANUFACTURER. LUGS SHALL BE 3M "SCOTCHLOK" SERIES 30014, BURNDY TYPE Y-AL SERIES.
- E. SPLICING AND INSULATING TAPE (600 VOLTS AND BELOW): GENERAL PURPOSE ELECTRICAL TAPE SHALL BE SUITABLE FOR TEMPERATURES FROM MINIMUM 18° C. 105°C., SHALL BE BLACK, ULTRAVIOLET PROOF, SELF-EXTINGUISHING, 7 MIL THICK WITH A DIELECTRIC STRENGTH OF 10,000 VOLTS.
- F. INSULATING PUTTY (600 VOLTS AND BELOW): PADS OR ROLLS OF NON CORROSIVE, SELF-FUSING, 1/8 INCH THICK RUBBER PUTTY WITH PVC BACKING SHEET. PUTTY SHALL BE SUITABLE FOR TEMPERATURES FROM MINUS 17.8°C. TO 80°C. AND SHALL HAVE A DIELECTRIC STRENGTH OF 570 VOLTS/MIL MINIMUM.

G. INSULATING RESIN: TWO-PART LIQUID EPOXY RESIN WITH RESIN AND CATALYST

APPROXIMATELY 30 MINUTES AT 21.1°C. AND SHALL HAVE THERMAL AND

DIELECTRIC PROPERTIES EQUAL TO THE INSULATION PROPERTIES OF THE CABLES IMMERSED IN THE RESIN. H. TERMINAL STRIP CONNECTORS: TERMINATE WIRE IN LOCKING TONGUE STYLE, 2.10 SEPARATELY ENCLOSED COMBINATION STARTERS PRESSURE TYPE, SOLDERLESS LUG WHERE APPLICABLE.

#### 2.04 OUTLET BOXES A. STANDARD OUTLET BOXES: GALVANIZED, ONE-PIECE, DIE FORMED OR DRAWN

- STEEL, KNOCK-OUT TYPE OF SIZE AND CONFIGURATION BEST SUITED TO THE APPLICATION INDICATED ON THE PLANS. MINIMUM BOX SIZE, 2 INCH IN WIDTH, 3-1/2 INCH IN HEIGHT AND 2-1/2 INCH IN DEPTH.
- B. CONCRETE RINGS: GALVANIZED STEEL, 4 INCH OCTAGON RINGS WITH MOUNTING LUGS, BACKPLATE AND ADAPTER RING AS REQUIRED. SELECT HEIGHT AS NECESSARY TO POSITION KNOCKOUTS ABOVE CONCRETE REINFORCING STEEL.
- C. SWITCH BOXES: 2 INCH WIDE BY 3 INCH LONG GALVANIZED STEEL SWITCH BOXES USED FOR THE INSTALLATION OF SINGLE SWITCHES. INSTALL MULTIPLE SWITCHES IN STANDARD GANG BOXES WITH RAISED DEVICE COVERS SUITABLE FOR THE APPLICATION INDICATED.
- D. TILE BOXES: OUTLET BOXES INSTALLED IN TILE; STEEL CITY GW SERIES, APPLETON M SERIES. STANDARD OUTLET BOXES WITH RAISED, SQUARE
- CORNERED, DEVICE COVERS ARE ACCEPTABLE. E. CAST METAL OUTLET BOXES: 4 INCH, CAST IRON ALLOY WITH THREADED HUBS 2.12 PROTECTIVE DEVICES AND MOUNTING LUGS AS REQUIRED. BOXES SHALL BE FURNISHED WITH CAST

COVER PLATES OF THE SAME MATERIAL AS THE BOX AND NEOPRENE COVER

GASKETS. CROUSE-HINDS FS AND FD SERIES. APPLETON JBX SERIES.

#### 2.05 PULL AND JUNCTION BOXES

- A. SHEET METAL BOXES: USE STANDARD OUTLET OR CONCRETE RING BOXES WHEREVER POSSIBLE, OTHERWISE USE MINIMUM 16 GAUGE GALVANIZED SHEET METAL. NEMA 1 BOXES, SIZED TO CODE REQUIREMENTS WITH COVERS SECURED BY CADMIUM PLATED MACHINE SCREWS LOCATED 6 INCHES ON CENTERS. CIRCLE AW PRODUCTS, HOFFMAN ENGINEERING COMPANY.
- BOXES WHEREVER POSSIBLE; OTHERWISE USE CADMIUM PLATED, CAST MALLEABLE IRON JUNCTION BOXES WITH BOLT-ON, INTERCHANGEABLE CONDUIT HUB PLATES WITH NEOPRENE GASKETS. CROUSE HINDS SIDEWALK BOXES, TYPE WJBF OR APPLETON RS SERIES.

- 1. ALL GENERAL PURPOSE 20 AMPERE, 125/250 VOLT RECEPTACLES AND 120/277 VOLT SWITCHES (NEMA WD-1).
- 2. UNLESS OTHERWISE NOTED BY THE ARCHITECT, THE COLOR OF ALL DEVICES SHALL BE IVORY EXCEPT DEDICATED COMPUTER (ISOLATED GROUND) RECEPTACLES SHALL BE WHITE WITH AN ORANGE TRIANGLE.
- 3. UNLESS OTHERWISE NOTED BY THE ARCHITECT, THE FINISH OF ALL DEVISE PLATES SHALL BE WHITE.
- B. RECEPTACLES, NEMA 5-20R, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE, GROUNDING

1. GENERAL PURPOSE SINGLE OUTLET SELF-GROUNDING, SIDE WIRED, WITH

- BINDING HEAD STAKED TERMINAL SCREW. LEVITON 5351 OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL. GENERAL PURPOSE DUPLEX RECEPTACLES SELF-GROUNDING, SIDE WIRED. WITH BINDING HEAD STAKED TERMINAL SCREWS AND BREAK-OFF STRIP FOR
- TWO CIRCUIT WIRING. LEVITON 5342 OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL. 3. ISOLATED GROUND DUPLEX RECEPTACLES SELF-GROUNDING, SIDE WIRED WITH BINDING HEAD STAKED TERMINAL SCREWS. LEVITON 5362-IG-I OR
- EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL. 4. CLOCK RECEPTACLE/HANGER, SIDE WIRED WITH BINDING HEAD STAKED TERMINAL SCREWS. LEVITON 628-I OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL.
- C. LIGHT SWITCHES: TWENTY AMPERE 120/277 VOLT, FAST MAKE-FAST BREAK, QUIET TYPE SWITCH WITH SILVER CADMIUM ALLOY CONTACTS, BINDING HEAD TERMINAL SCREWS, SIDE WIRED.
- 1. SINGLE-POLE, SINGLE-THROW: LEVITON 1121 SERIES OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL.
- 2. DOUBLE-POLE, SINGLE-THROW: LEVITON OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL. MATCH ITEM 1 STYLE.
- 3. THREE-WAY: LEVITON OR EQUAL BY GENERAL ELECTRIC, PASS AND SEYMOUR, HUBBELL. MATCH ITEM 1 STYLE. D. DIMMER(S) SHALL BE LUTRON NOVA T SERIES, SIZE AND DERATE IN ACCORDANCE WITH LUTRON'S RECOMMENDATIONS. SWITCHES AT DIMMER
- LOCATIONS SHALL BE LUTRON NOVA T SERIES. AT LOCATIONS WHERE BOTH DIMMER CONTROLS AND SWITCHES ARE SHOWN CONTRACTOR SHALL FURNISH AND INSTALL ONE-PIECE MULTIGANG FACEPLATE WHICH SHALL INCLUDE DIMMERS AND SWITCHES. UNLESS OTHERWISE NOTED BY THE ARCHITECT, THE COLOR OF ALL DIMMERS AND FACEPLATES SHALL BE WHITE. E. MOTOR RATED SWITCHES: FRACTIONAL HORSEPOWER MANUAL STARTERS

OFF/HANDLE GUARD. 1 OR 2 POLE, 115/230 VOLT, SQUARE D, CLASS 2510.

WITH MELTING ALLOY TYPE THERMAL OVERLOAD RELAY, PILOT LIGHT AND LOCK-

- FURNISH DEVICE PLATES FOR SWITCHES AND RECEPTACLES. DEVICE PLATE COLOR AND MATERIAL SHALL BE SELECTED BY ARCHITECT AT SUBMITTAL TIME REGARDLESS OF WHAT IS SPECIFIED BELOW.
- 2. PLATES: SMOOTH AND FREE OF GROOVES, EMBOSSING OR OTHER EMBELLISHMENT.
- 3. MOUNTING SCREWS: MATCH PLATE FINISH.
- 4. MARKER PLATES: PERMANENTLY ENGRAVED WITH 1/8 INCH HIGH PAINT FILLED LETTERS, UNLESS OTHERWISE NOTED. B. PLASTIC DEVICE PLATES: SOLID .100" THICK WITH OPENINGS TO ACCOMMODATE

DEVICES INDICATED ON THE DRAWINGS. LEVITON, PASS AND SEYMOUR,

C. STAINLESS STEEL DEVICE PLATES: SOLID 0.032" THICK TYPE 430 WITH OPENINGS TO ACCOMMODATE DEVICES INDICATED ON THE DRAWINGS. LEVITON, PASS AND SEYMOUR, HUBBELL

- 2.08 MOTOR STARTERS A. FULL VOLTAGE STARTERS: ACROSS-THE-LINE, MAGNETIC TYPE, DOUBLE-BREAK SILVER ALLOY CONTACTS, GRAVITY DROP-OUT, MOLDED OPERATING COIL AND MELTING ALLOY THERMAL OVERLOAD RELAYS ON PHASE CONDUCTORS. 120V CONTROL WITH TRANSFORMER. SIZE: 0 MINIMUM. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR
- B. OVERLOAD RELAYS AND THERMAL UNITS:
- ELEMENTS FOR 100% FULL LOAD CURRENT FOR 55°C. RISE MOTORS OR 115% FULL LOAD CURRENT FOR 40°C. RISE MOTORS AND SHALL BE AMBIENT COMPENSATED.

2. IF THE OVERLOAD ELEMENTS ARE OF THE WRONG SIZE FOR THE

- NAMEPLATE RATING OF THE MOTOR, REPLACE WITH ELEMENTS OF THE CORRECT SIZE.
- 2.09 FIRE RATED POKE THROUGH IN PREMEASURED, SEALED MIXING POUCH. RESIN SHALL HAVE A SETUP TIME OF A. SERVICE FITTING: CAST ALUMINUM HOUSING WITH FINISH SELECTED BY ARCHITECT. REFER TO 2.06 FOR RECEPTACLE SPECIFICATION. PROVIDE COMPLETE BARRIER BETWEEN LOW TENSION AND 120 VAC SERVICE. SUBMIT TO ENGINEER PRIOR TO INSTALLATION.

  - A. MEET THE REQUIREMENTS OF MOTOR STARTERS. IN ADDITION, STARTER AND FUSED DISCONNECT DEVICE SHALL BE HOUSED TOGETHER IN ENCLOSURE OF REQUIRED TYPE MEETING OR EXCEEDING NEMA STANDARDS. GREEN "RUNNING" INDICATING LAMP WITH PUSH TO TEST FEATURE. HAND/OFF/AUTO CONTROL SWITCH ON COVER. 120 VOLT CONTROL VOLTAGE. NEMA 1 FOR NDOORS AND NEMA 3R FOR OUTDOORS OR AS SHOWN ON DRAWINGS. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.

#### 2.11 DISCONNECT SWITCHES

- A. SWITCH INTERIOR: DEAD-FRONT CONSTRUCTION WITH HINGED ARC SUPPRESSER AND SWITCH BLADES WHICH ARE FULLY VISIBLE IN THE "OFF" POSITION AND WITH DOOR OPEN.
- B. SWITCH MECHANISM: QUICK-MAKE AND QUICK-BREAK OPERATING HANDLE AND MECHANISM WITH A DELETE DUAL COVER INTERLOCK TO PREVENT UNAUTHORIZED OPENING OF THE SWITCH DOOR IN THE "ON" POSITION OR CLOSING THE SWITCH MECHANISM WHILE THE DOOR IS OPEN. AN ELECTRICAL INTERLOCK SWITCH SHALL BE PROVIDED TO DEGENERIZE CONTROL WIRING AS REQUIRED. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.
- C. RATINGS: SWITCHES HORSEPOWER RATED FOR 600 VOLTS, 60 HZ AND WHERE INDICATED TO BE FUSED SHALL HAVE PROVISIONS FOR FUSES.
- D. ENCLOSURES: NEMA 1, CODE GAUGE SHEET STEEL WITH HINGED COVER, UNLESS USED WHERE EXPOSED TO THE WEATHER, IN WHICH CASE, USE NEMA

## A. FUSED SWITCHES:

- 1. GENERAL: FUSED SWITCHES FOR SIZES 30 AMP THROUGH 1200 AMP.
- 2. FUSIBLE SWITCHES: QUICK-MAKE, QUICK-BREAK OF THE SIZES SHOWN ON THE DRAWINGS. APPROVED BY UNDERWRITER'S LABORATORIES AND, WHERE APPLICABLE, DUAL HORSEPOWER RATED FOR BOTH STANDARD ONE-TIME OR DUAL ELEMENT FUSES. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.
- B. UNITS PADLOCKING: IN THE "OFF" POSITION AND THE OPERATING HANDLING POSITION SHALL GIVE POSITIVE SWITCH INDICATION, I.E., HORIZONTAL "OFF". DIAGONAL "ON". SWITCHES SHALL PASS INDUSTRY STANDARD I-SQUARED-T WITHSTANDABILITY TEST AND FUSE RACE TEST.

#### B. CIRCUIT BREAKERS:

- 1. CIRCUIT BREAKERS: INTERRUPTING CAPACITY AS NOTED ON THE DRAWINGS AND IF NOT SHOWN, BREAKERS FOR 208 VOLT SYSTEM SHALL HAVE INTERRUPTING CAPACITY OF NOT LESS THAN 10,000 AMPS. CIRCUIT BREAKERS FOR 480 VOLT SYSTEM SHALL HAVE A MINIMUM INTERRUPTING RATING OF 18,000 AMPS. CIRCUIT BREAKERS MOLDED CASE, TRIP INDICATING, THERMAL MAGNETIC TYPE, 40°C., AMBIENT TEMPERATURE COMPENSATED 40°C. RATED OR AMBIENT COMPENSATED. ALL LINE AND LOAD TERMINALS OF THE DEVICE RATED 100 AMPERES OR LESS SHALL BE RATED FOR 75°C.
- 2. FACTORY CERTIFICATION OF TRIP CHARACTERISTICS PROVIDED WITH THE SUBMITTALS FOR EVERY CIRCUIT BREAKER.
- 3. COVERS: SEALED ON NON-INTERCHANGEABLE TRIP BREAKERS AND TRIP UNIT COVERS SEALED ON INTERCHANGEABLE TRIP BREAKERS TO PREVENT TAMPERING. BREAKER CIRCUIT RATINGS CLEARLY VISIBLE AFTER INSTALLATION OR ENGRAVED NAMEPLATES STATING THE RATING. FERROUS PARTS PLATED TO MINIMIZE CORROSION.
- 4. BREAKERS: BOLT ON, TOGGLE, QUICK-MAKE AND QUICK-BREAK OPERATING MECHANISMS WITH TRIP-FREE FEATURE TO PREVENT CONTACTS BEING HELD CLOSED AGAINST OVERCURRENT CONDITIONS IN THE CIRCUIT. TRIP POSITION OF THE BREAKERS SHALL BE CLEARLY INDICATED BY OPERATING HANDLES MOVING TO A CENTER POSITION.
- AUTOMATIC TRIPPING. INTERPOLE BARRIERS SHALL BE PROVIDED INSIDE THE BREAKER TO PREVENT ANY PHASE-TO-PHASE FLASHOVER. EACH POLE OF THE BREAKERS SHALL HAVE ADEQUATE MEANS OF ARC EXTINCTION. 6. CIRCUIT BREAKERS OF STANDARD RATINGS: UNDERWRITER'S

LABORATORIES, INC. LABEL AND NATIONAL ELECTRIC MANUFACTURERS

5. MAGNETIC TRIP ELEMENT: EACH POLE BEING INDIVIDUALLY CALIBRATED

MULTIPLE BREAKERS SHALL HAVE A SINGLE HANDLE TO OPEN AND CLOSE

CONTACT SIMULTANEOUSLY IN BOTH MANUAL OPERATING AND UNDER

- ASSOCIATION PUBLICATION AB-1-1975. 7. ALL 20 AMP CIRCUIT BREAKERS SHALL BE RATED FOR FREQUENT
- C. FUSES, UNLESS OTHERWISE NOTED ON THE DRAWINGS: 1. MOTOR CIRCUITS, FEEDERS AND FEEDERS FOR CIRCUIT BREAKER PANEL

BOARDS - DUAL ELEMENT FUSES: 0-600 AMPS, BUSSMAN LOW-PEAK (LPN-RK,

#### 2.13 ELECTRICAL SUPPORTING DEVICES

LPS-RK), CLASS RK-1.

SWITCHING, SWD RATING.

A. CONCRETE FASTENERS: PHILLIPS "RED-HEAD". POWER DRIVEN CONCRETE PIN FASTENERS, LOW VELOCITY TYPE. POWER DRIVEN FASTENERS SHALL BE REMINGTON, RAMSET OR HILTI POWER DRIVEN CONCRETE PIN FASTENERS, LOW VELOCITY TYPE.

B. CONDUIT STRAPS: HOT-DIP GALVANIZED, CAST MALLEABLE IRON, ONE HOLE

OZ/GEDNEY NO. 14-50G STRAP AND NO. 141G SPACER; EFCOR NO. 23L STRAP

TYPE STRAP WITH CAST CLAMP-BACKS AND SPACERS AS REQUIRED.

- AND NO. 131 SPACER. . CONCRETE INSERTS: PRESSED GALVANIZED STEEL, SPOT INSERT WITH OVAL SLOT CAPABLE OF ACCEPTING SUPPORT NUTS OF 1/4 INCH TO 1/2 INCH
- DIAMETER THREAD. UNISTRUT NO. M2506 SERIES, GLOBE-STRUT CSI SERIES. D. CONSTRUCTION CHANNEL: 1 5/8 INCH BY 1 5/8 INCH 12 GAUGE GALVANIZED STEEL CHANNEL WITH 17/32 INCH DIAMETER BOLT HOLES, 1-1/2 INCH ON CENTER,

IN THE BASE OF THE CHANNEL. KINDORF 905 SERIES, UNISTRUT P-1000-HS.

F. FASTENERS (GENERAL): WOOD SCREWS FOR FASTENING TO WOOD. MACHINE

SCREWS FOR FASTENING TO STEEL. TOGGLE BOLTS FOR FASTENING TO

- E. CABLE TIES AND CLAMPS: THOMAS AND BETTS CO. "TY-RAPS" PANDUIT "PAN-TY", ONE-PIECE, NYLON, REUSABLE TYPE LASHING TIES.
- GYPSUM BOARD OF PLASTER WALLS. EXPANSION ANCHORS FOR ATTACHMENTS TO PREPOURED CONCRETE.
- A. ALL FIRE ALARM SYSTEM COMPONENTS SHALL BE BASE BUILDING UNLESS

OTHERWISE NOTED.

2.14 FIRE ALARM SYSTEM

- 2.15.1 BRANCH CIRCUIT PANELBOARDS
- A. MANUFACTURE SHALL BE CUTLER-HAMMER, SQUARE D, GENERAL ELECTRIC, CHALLENGER OR ITE SIEMENS.. B. CONSTRUCTION: CABINETS SHALL BE PROVIDED WITH STRETCHER LEVELED STEEL DOORS AND TRIM OF CODE THICKNESS, COMPLETE WITH CONCEALED BUTT HINGES. PROVIDE COMBINATION SPRING CATCH AND LOCK ON INSIDE

EDGE OF DOOR TRIMS WITH FLUSH FITTING JOINT BETWEEN DOOR AND TRIM.

C. BUS ASSEMBLY: 1. BUS SHALL BE PLATED ALUMINUM WITH TAPS ARRANGED FOR "DISTRIBUTED

LOCKS ON ALL PANELBOARDS SHALL BE KEYED ALIKE.

PHASE" CONNECTIONS TO BRANCH CIRCUIT BREAKERS. 2. SPACE CONNECTORS SHALL BE DRILLED AND TAPPED FOR BOLT ON CIRCUIT BREAKER CONNECTIONS, ARRANGED FOR DOUBLE ROW PLACEMENT OF BREAKERS AND DESIGNED TO PERMIT REMOVAL OR ADDITION OF

PROTECTIVE DEVICES WITHOUT DISTURBING ADJACENT BREAKERS OR

- D. FINISH: FIVE-STEP ZINC PHOSPATIZING PRE-TREATMENT, ONE COAT RUST
- INHIBITING DICHROMATE PRIMER, ONE COAT BAKED-ON ENAMEL. E. TERMINAL LUGS: APPROVED FOR USE WITH COPPER CONDUCTORS.

DOWN THE RIGHT HAND SIDE.

F. MISCELLANEOUS REQUIREMENTS:

FOLLOWING:

REMOVING MAIN BUS CONNECTIONS.

- 1. CIRCUIT NUMBERING: STARTING AT THE TOP, ODD NUMBERED CIRCUITS IN SEQUENCE DOWN THE LEFT HAND SIDE AND EVEN NUMBERED CIRCUITS
- 2. DIRECTORIES: A CIRCUIT DIRECTORY FRAME AND CARD WITH CLEAR PLASTIC COVERING SHALL BE PROVIDED INSIDE THE PANEL DOOR.
- 4. REFER TO PANEL SCHEDULES AND ELECTRICAL DRAWINGS FOR THE

3. EQUIPMENT GROUND BUS: PROVIDE A SEPARATE EQUIPMENT GROUNDING

- A. SERVICE VOLTAGE. B. TERMINAL LUG SIZE, LOCATION AND QUANTITY. (WHERE NOT SPECIFIED, USE
- ARRANGEMENT COMPATIBLE WITH EXTERNAL WIRING.) C. BUS AMPACITY D. INTERRUPTING CAPACITY OF BUS AND BREAKERS. (USE BREAKER RATING
- SPECIFIED IN SECTION 16100 WHEN NOT SPECIFIED ON SCHEDULE). E. QUANTITY, POLES AND RATING OF PROTECTIVE DEVICES.

#### 2.16 LOW VOLTAGE K-RATED DRY-TYPE TRANSFORMER

A. SHALL HAVE THE FOLLOWING FEATURES:

ACCEPTED.

- 1. SELF-COOLED BY NATURAL CONVECTION, ISOLATING WINDINGS, INDOOR, DRY TYPE APPROVED BY THE UL. AUTOTRANSFORMERS WILL NOT BE
- 2. RATINGS AND WINDING CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS. UNLESS OTHER SPECIFIED TRANSFORMERS SHALL BE 480-208Y/120V, DELTA CONNNECTED PRIMARY AND WYE CONNECTED SECONDARY.
- 3. RATINGS INDICATED ARE FOR CONTINUOUS DUTY WITHOUT THE USE OF COOLING FANS.
- 4. TEMPERATURE RISE SHALL NOT EXCEED 150°C WITH LIMITING TEMPERATURE IN ACCORDANCE WITH NEMA STANDARDS.
- CORE AND COIL ASSEMBLIES:

CURRENTS AND ROUGH HANDLING DURING SHIPPING.

B. CORES SHALL BE COMMON CORE CONSTRUCTION HAVING LOW HYSTERISIS AND EDDY CURRENT LOSSES. CORE FLUX DENSITY SHALL BE BELOW SATURATION

A. RIGIDLY BRACED TO WITHSTAND THE STRESSES CAUSED BY SHORT CIRCUIT

#### **SECTION 260923** LIGHTING CONTROL DEVICES

PINT AT RATED HARMO

### PART 1 - PRODUCTS

- A. IN OTHER PART 2 ARTICLES WHERE TITLES BELOW INTRODUCE LISTS, THE
- FOLLOWING REQUIREMENTS APPLY TO PRODUCT SELECTION: MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS

#### PROVIDE PRODUCTS BY ONE OF THE MANUFACTURERS SPECIFIED. 1.2 INDOOR OCCUPANCY SENSORS

A. MANUFACTURERS:

- WATT STOPPER (THE). LUTRON
- B. MANUFACTURER PRODUCT SERIES: 1. WATT STOPPER (THE) DIGITAL LIGHTING MANAGEMENT (DLM) SYSTEM.
- a. PROVIDE INDEPENDENT AND NON-NETWORKED OCCUPANCY SENSOR SYSTEM(S) UTILIZING DLM COMPONENTS TO ALLOW FOR FUTURE NETWORKED INTEGRATION FOR OCCUPANCY SENSOR SYSTEM(S). b. THE DLM COMPONENTS SHALL ONLY BE UTILIZED FOR CEILING
- MOUNTING OCCUPANCY SENSORS AND SYSTEM(S) INDICATED ON THE DRAWINGS c. NETWORK BRIDGES, ADDITIONAL CATEGORY CABLING AND OTHER NETWORKING TYPE COMPONENTS SHALL NOT BE REQUIRED.
- MOUNTED COMBINATION OCCUPANCY SENSOR AND MANUAL OVER-RIDE CONTROL STATIONS (EXAMPLE: OFFICES AND STORAGE ROOMS WITH \$OS SYMBOLOGY).

a. PROVIDE LUTRON MODEL #MS-OPS6M2-DV-XX DEVICES FOR ALL WALL-

2. LUTRON MAESTRO OCCUPANCY SENSING SWITCH.

WITH A SEPARATE RELAY UNIT.

SOURCE AS DEFINED BY NFPA 70.

OUTLET BOX.

HIGH CEILING.

AN 8-FOOT- HIGH CEILING.

1. OPERATION: UNLESS OTHERWISE INDICATED, TURN LIGHTS ON WHEN COVERED AREA IS OCCUPIED AND OFF WHEN UNOCCUPIED; WITH A TIME

DELAY FOR TURNING LIGHTS OFF, ADJUSTABLE OVER A MINIMUM RANGE OF

277-V AC, FOR 13-A TUNGSTEN AT 120-V AC, AND FOR 1 HP AT 120-V AC.

POWER SUPPLY TO SENSOR SHALL BE 24-V DC, 150-MA, CLASS 2 POWER

b. RELAY: EXTERNALLY MOUNTED THOUGH A 1/2-INCH KNOCKOUT IN A

C. GENERAL DESCRIPTION: WALL- OR CEILING-MOUNTING, SOLID-STATE UNITS

- 1 TO 15 MINUTES. 2. SENSOR OUTPUT: CONTACTS RATED TO OPERATE THE CONNECTED RELAY, COMPLYING WITH UL 773A. SENSOR SHALL BE POWERED FROM THE RELAY 3. RELAY UNIT: DRY CONTACTS RATED FOR 20-A BALLAST LOAD AT 120- AND
- MOUNTING: a. SENSOR: SUITABLE FOR MOUNTING IN ANY POSITION ON A STANDARD
- CONCEALED BEHIND HINGED DOOR. 5. INDICATOR: LED, TO SHOW WHEN MOTION IS BEING DETECTED DURING

c. TIME-DELAY AND SENSITIVITY ADJUSTMENTS: RECESSED AND

6. BYPASS SWITCH: OVERRIDE THE ON FUNCTION IN CASE OF SENSOR 7. AUTOMATIC LIGHT-LEVEL SENSOR: ADJUSTABLE FROM 2 TO 200 FC; KEEPS

WHEN MOUNTED ON A 10-FOOT- HIGH CEILING

D. PIR TYPE: CEILING MOUNTING; DETECT OCCUPANCY BY SENSING A

TESTING AND NORMAL OPERATION OF THE SENSOR.

STANDARD ELECTRICAL ENCLOSURE

COMBINATION OF HEAT AND MOVEMENT IN AREA OF COVERAGE. 1. DETECTOR SENSITIVITY: DETECT OCCURRENCES OF 6-INCH MINIMUM

MOVEMENT OF ANY PORTION OF A HUMAN BODY THAT PRESENTS A TARGET

LIGHTING OFF WHEN SELECTED LIGHTING LEVEL IS PRESENT.

OF AT LEAST 36 SQ. IN. 2. DETECTION COVERAGE (ROOM): DETECT OCCUPANCY ANYWHERE IN A CIRCULAR AREA OF 1000 SQ. FT. WHEN MOUNTED ON A 96-INCH- HIGH

3. DETECTION COVERAGE (CORRIDOR): DETECT OCCUPANCY WITHIN 90 FEET

CLASSROOMS, MEETING ROOMS, STORAGE ROOMS, BREAKROOMS, CORRIDORS, LOBBIES AND OTHER PUBLIC AREAS, EXCLUDING RESTROOMS. E. ULTRASONIC TYPE: CEILING MOUNTING; DETECT OCCUPANCY BY SENSING A

CHANGE IN PATTERN OF REFLECTED ULTRASONIC ENERGY IN AREA OF

4. PIR TYPE OCCUPANCY SENSORS SHALL BE USED IN ALL OFFICES,

1. DETECTOR SENSITIVITY: DETECT A PERSON OF AVERAGE SIZE AND WEIGHT MOVING AT LEAST 12 INCHES IN EITHER A HORIZONTAL OR A VERTICAL MANNER AT AN APPROXIMATE SPEED OF 12 INCHES/S. 2. DETECTION COVERAGE (SMALL ROOM): DETECT OCCUPANCY ANYWHERE

WITHIN A CIRCULAR AREA OF 600 SQ. FT. WHEN MOUNTED ON A 96-INCH-

ANYWHERE WITHIN A CIRCULAR AREA OF 1000 SQ. FT. WHEN MOUNTED ON

4. DETECTION COVERAGE (LARGE ROOM): DETECT OCCUPANCY ANYWHERE

6. ULTRASONIC TYPE OR DUAL-TECHNOLOGY TYPE OCCUPANCY SENSORS

WITHIN A CIRCULAR AREA OF 2000 SQ. FT. WHEN MOUNTED ON A 96-INCH-HIGH CEILING 5. DETECTION COVERAGE (CORRIDOR): DETECT OCCUPANCY ANYWHERE WITHIN 90 FEET WHEN MOUNTED ON A 10-FOOT- HIGH CEILING IN A CORRIDOR NOT WIDER THAN 14 FEET.

SHALL ONLY BE INSTALLED IN RESTROOMS

3. DETECTION COVERAGE (STANDARD ROOM): DETECT OCCUPANCY



10 WEST SEVENTH, SUITE 710 ULSA, OK 74119 T: 918 583 5300 918.585.1967

1 DEAN A McGEE AVE. SUITE 135 OKLAHOMA CITY, OK 73102 T: 405.232.7007 **NEW YORK CITY** 

87 PARK AVENUE SOUTH

NEW YORK, NY 10010

T: 917.522.1703

OKLAHOMA CITY

202401 PROJECT: **RSU NURSING** RENOVATION

PROJECT NUMBER:

**CONSULTANT:** 

#CA1395 Renewal Date: 06.30.25 **ISSUE / REVISION:** No Description

5 W 6th St., Suite 2510 Tulsa, OK 74119

klahoma Certificate of Authorization

PH. 918.584.0102



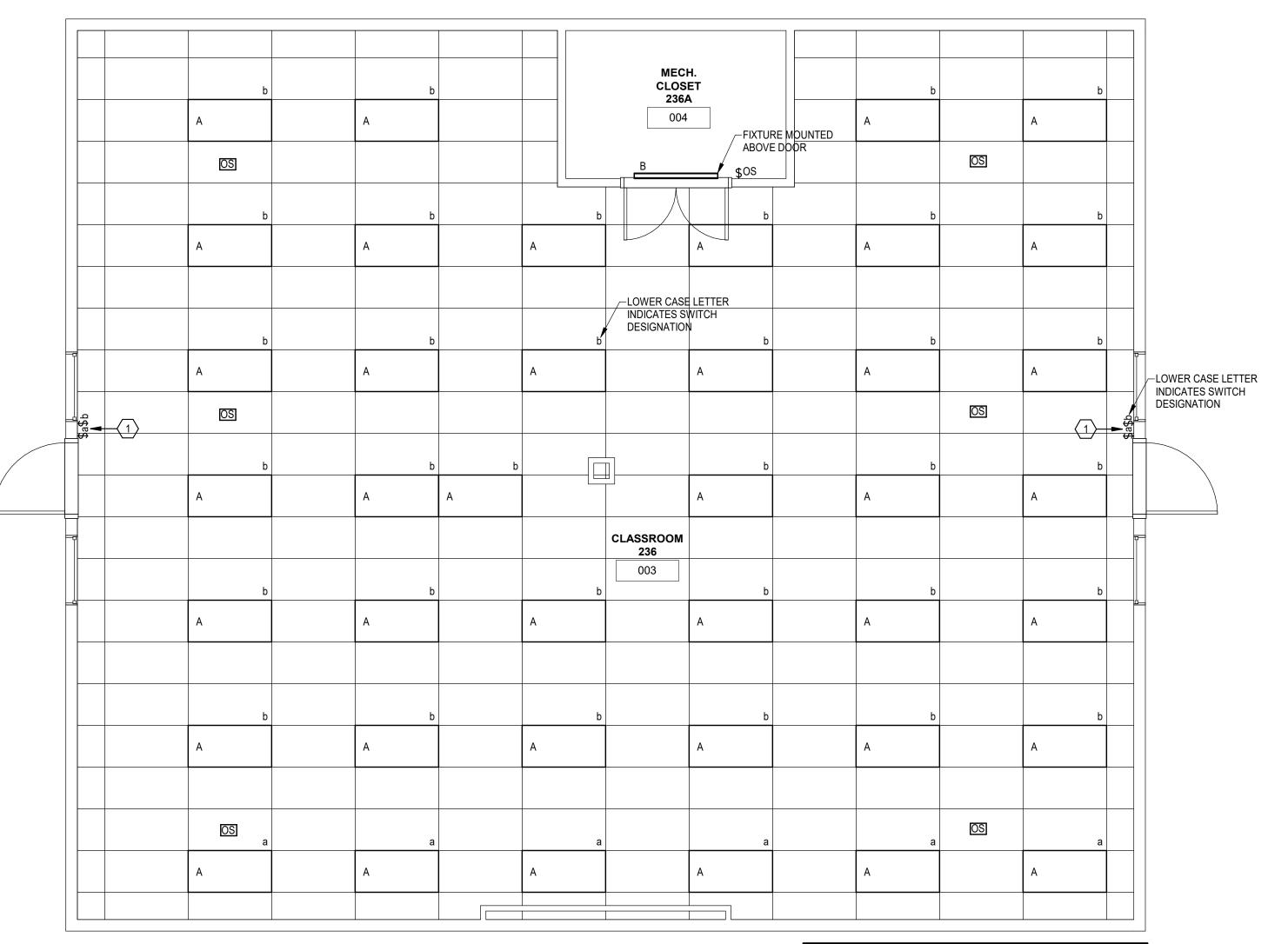
**DOCUMENTS** 

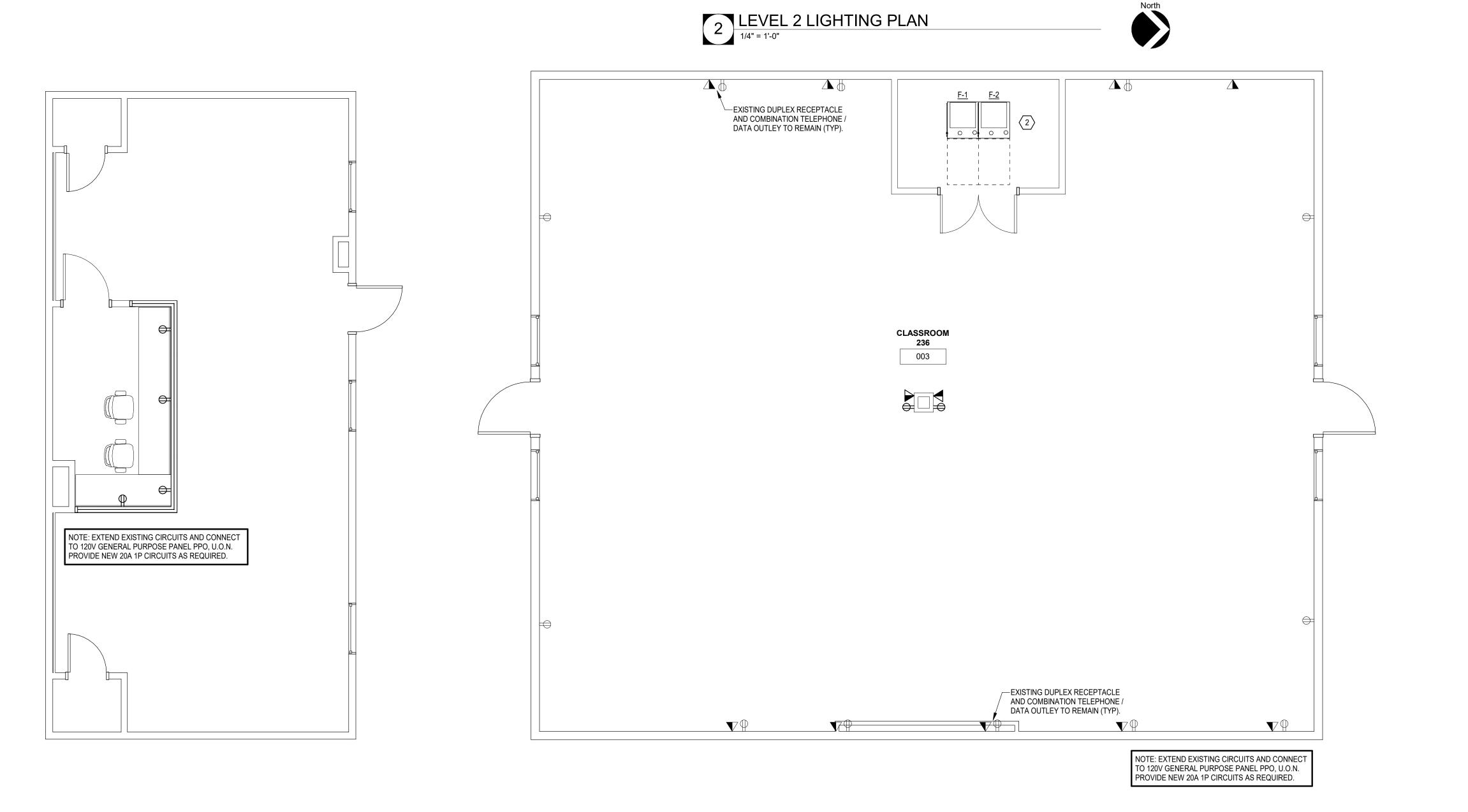
SHEET NUMBER: E003

**ISSUE DATE:** 

05.17.2024

**ELECTRICAL SPECIFICATIONS** 





## **ELECTRICAL NUMBERED NOTES**

1. PROVIDE MANUAL OVER-RIDE SWITCH INTERCONNECTED TO OCCUPANCY SENSOR SYSTEM TO CONTROL LIGHTING IN LOCAL ROOM/AREA. COORDINATE WITH INTERCONNECTION TO OCCUPANCY SENSOR CONTROL SYSTEM. REFER TO OCCUPANCY SENSOR WIRING DIAGRAMS.

2. REMOVE ELECTRICAL SERVICE TO EXISTING MECHANICAL EQUIPMENT TO BE REMOVED AND REPLACED, REFER TO MECHANICAL FOR ADDITIONAL INFORMATION. RECONNECT SERVICE TO NEW UNIT, EXTEND AS REQUIRED. PROVIDE NEW DISCONNECT MEANS AS REQUIRED.



TULSA 110 WEST SEVENTH, SUITE 710 TULSA, OK 74119 T: 918.583.5300 F: 918.585.1967

OKLAHOMA CITY
131 DEAN A McGEE AVE, SUITE 135
OKLAHOMA CITY, OK 73102
T: 405.232.7007

NEW YORK CITY 287 PARK AVENUE SOUTH NEW YORK, NY 10010 T: 917.522.1703

PROJECT NUMBER: 202401

PROJECT: **RSU NURSING CLASSROOMS** RENOVATION

CONSULTANT: Phillips+Gomez •

5 W 6th St., Suite 2510 Tulsa, OK 74119 PH. 918.584.0102 Oklahoma Certificate of Authorization #CA1395 Renewal Date: 06.30.25

ISSUE / REVISION: No Description



100% CONSTRUCTION **DOCUMENTS** 

ISSUE DATE:

05.17.2024

SHEET NUMBER:

E101

LIGHTING AND POWER **PLANS** 









NOTE: CONNECT ALL FIXTURES TO AN AVAILABLE 277V LIGHTING CIRCUIT(S) IN EXISTING PANEL LPP, EXTEND AS REQUIRED,

CONTRACTOR VERIFY EXISTING AVAILABLE BREAKERS AND CAPACITY 13 AMPERES MAXIMUM, PROVIDE NEW 20A 1P CIRCUIT AS REQUIRED CONNECT FIXTURES TO ACCOMPLISH SWITCHING AS INDICATED.