Date Due: March 20, 2019
DUE NO LATER THAN 2:00 P.M.
LOCAL TIME IN HOUSTON, TEXAS
Proposals received later than the above date and time will not be considered.

YES Prep Public Schools

REQUEST FOR PROPOSAL
Cover Sheet

REQUEST FOR PROPOSAL: East End Servery and Cafeteria Updates

NOTE TO PROPOSERS!!! Carefully read all instructions, requirements, and specifications. Fill out all forms properly and completely. Submit your proposal with all appropriate supplements and/or samples and return as instructed in Special Requirements/Instructions.

RETURN PROPOSAL TO:
Cheris Kotalik
Construction Manager
5515 S Loop E, Suite B
Houston, Texas 77033

For additional information, contact Cheris Kotalik at cheris.kotalik@yesprep.org or 346-235-5776 . Bid walk will be held, please contact Cheris Kotalik by March 11 , 2019 to get the location, date, time.

You must sign below in INK; failure to sign WILL disqualify the proposal. All prices must be typewritten or printed in ink.

Vendor Name: _____

Vendor Address: _____

City, State, Zip Code: _____

Taxpayer Identification Number (T.I.N.): _____

Telephone No.: _____ Fax No.: _____

Email: _____

Print Name: _____ Signature: _____

[Your signature attests to your proposal to provide the goods and/or services in this proposal according to the published provisions of this Request for Proposal unless modifications or

alterations are clearly noted in your proposal submission.]

TABLE OF CONTENTS – REQUEST FOR PROPOSAL PACKAGE

The items below represent components which comprise this Request for Proposal (hereinafter "RFP") package. Suppliers are asked to review the package to be sure that all applicable parts are included. If any portion of the package is missing, please notify Cheris Kotalik, Construction Manager, immediately at cheris.kotalik@yesprep.org or 346-235-5776.

It is the Vendor's responsibility to be thoroughly familiar with all Requirements and Specifications. Be sure you understand the following before you return your proposal packet.

1. **Cover Sheet**
   Your company name, address, and your signature (**IN INK**) should appear on this page.

2. **Table of Contents**
   This page is the Table of Contents.

3. **General Requirements**
   You should be familiar with all of the General Requirements.

4. **Special Requirements/Instructions**
   This section provides information you must know in order to make a complete and proper proposal.

5. **Specifications**
   This section contains the detailed description of the products/services sought.

6. **Attachments**
   A. Submittals 1 - 4
   B. Questionnaire
   C. Workers' Compensation Certification
   D. Insurance Coverage Requirements
   E. Financial Statement
   F. Proposed Exceptions, Alterations, Additions, or Modifications to RFP (if any)
   G. Scoring Rubric

INTRODUCTION

YES Prep Public Schools is a free, open-enrollment public school system that serves 6,600 students across thirteen (13) schools in the Houston area. YES Prep has been ranked as among the top 100 public high schools in the nation by Newsweek and U.S. News & World Report. Every year, 100 percent of YES Prep's graduating seniors have been accepted into four-year colleges, including Harvard, Yale, Columbia, Rice, and Stanford. YES Prep combines a highly successful 6th-12th grade model along with high standards for student achievement.

GENERAL REQUIREMENTS

Proposals will be accepted by Yes Prep Public Schools no later than 2:00 p.m. (local time), **March 20, 2019**. Every proposal must be enclosed in an envelope clearly marked "East End Modular Replacement and Removal", and shall include one copy.

All questions, requests, responses, and proposals shall be submitted to:
Cheris Kotalik-Construction Manager
Yes Prep Public Schools
5515 S Loop E, Suite B
Houston, TX 77033
cheris.kotalik@yesprep.org

Questions and responses regarding this RFP will be posted to the Yes Prep Public Schools web site during the RFP phase so all interested parties will have access to the same information. Web site is located at: *http://www.yesprep.org/notices*

The appropriate committee shall review all timely responses, and if necessary, the full Board of Trustees prior to acceptance/bid award. Responses may be hand delivered. Any response or proposal received after the above deadline shall be considered late, and will not be opened or considered.

Time Frame

The timeframe for all responses must be complete and in possession of YES Prep Public Schools by 2:00 p.m. (local time) on **March 20, 2019**. Each submission/proposal must be complete. Any incomplete responses may be rejected. All respondents will comply with this RFP as a basis for the award of the proposal.

Approval

The actual acceptance of any proposal may be delayed. Therefore, all responses must remain valid for a period of no less than one hundred and twenty (120) days. It is intended that proposals will be recommended to the Board of Trustees at an upcoming board meeting. The Board of Trustees reserves the right to reject any and all proposals.

ACCESS TO RECORDS

Proposer (hereinafter "Vendor") may be required to allow duly authorized representatives of YES Prep Public Schools (hereinafter "YES"), and local, state, and federal governments, access to contracts, books, documents, and records necessary to verify the nature, extent, and cost of services provided by the Vendor.

AWARD
YES reserves the right to reject any and all proposals, and reserves the sole right at its discretion to accept any proposal(s) it considers most favorable to the interest of YES and waive any and all minor irregularities in any proposal(s). YES further reserves the right to reject any proposal(s) and seek new proposals through the issuance of a new or amended Request for Proposal (hereinafter "RFP") if such action is deemed in the best interest of YES.

OFFER COMPLETION
Fill out and return to Cheris Kotalik, Construction Manager, one complete proposal form, and one complete copy, as instructed under the Special Requirements section of this document. An authorized Vendor representative should sign the Cover Sheet. Completion of these forms is intended to verify that the Vendor has submitted the proposal, is familiar with its contents, and has submitted the material in accordance with all requirements.

The submission of a response shall be prima facie evidence that the Vendor has full knowledge of the scope, nature, quantity, and quality of work to be performed, the detailed requirements of the project, and the conditions under which the work is to be performed. All terms, conditions, specifications, stipulations, and Vendor requirements stated in the RFP, any attached Appendices to the RFP, and any and all Addenda issued shall become part of the contract entered into between YES and the Vendor.

OFFER RETURNS
Vendors must return all completed proposals to the office of Cheris Kotalik as indicated on the Cover Sheet of this package. Late proposals will not be accepted. It is the responsibility of the responding Vendor to assure that the response is received prior to the date and time indicated on the Cover Sheet of this package.

DIGITAL FORMAT
If Vendor obtained the proposal specifications in digital format in order to prepare a response, ***the proposal must be submitted in hard copy*** according to the instructions contained in this package. If, in its response, Vendor makes any changes whatsoever to the YES published RFP specifications, the RFP specifications ***as published*** by YES shall control. Furthermore, if an alteration of any kind to the RFP specifications as published is discovered after the contract is executed, the contract is subject to immediate cancellation at the sole option of YES.

DISQUALIFICATION OF VENDOR
Upon signing this RFP, Vendor certifies that the proposal has not violated the antitrust laws of this state codified in §15.01, *et seq*., Business & Commerce Code, or the federal antitrust laws, and has not communicated directly or indirectly the proposal made to any competitor or any other person engaged in such line of business. Any or all proposals may be rejected if YES believes that collusion exists among the Vendors. Proposals in which the prices are obviously unbalanced may be rejected.

EVALUATION
In evaluating the proposals submitted, YES will apply the "Best Value" process in selecting the Vendor to be awarded a contract for this project. **Purchase price is not the only criteria that will be used in the evaluation process**. The selection process will include, but not be limited to, the following considerations:

1. The quality and range of goods and/or services the Vendor proposes to

provide;

2. The extent to which the goods and/or services meet YES needs;

3. The Vendor's overall experience, reputation, expertise, stability, and financial responsibility;

4. The Vendor's past relationship, if any, with YES;

5. The experience and qualifications of the Vendor staff (i.e. drivers, supervisors, dispatchers, mechanics, etc.) that will be assigned to service the YES account;

6. The ability to provide service in a safe, reliable, expedient, and efficient manner;

7. Facilities and business processes and practices (computerized information systems, access to industry facilities, quality and range of management reports, etc.) that will be used in servicing the YES account;

8. The Vendor's financial terms offered to YES;

9. The total long-term cost to YES to acquire the Vendor's goods or services; and/or

10. Any other relevant factor(s) specifically listed in the RFP.

YES reserves the right to contact references from the Vendor's client list, or any other persons considered relevant by YES. YES reserves the right to conduct personal interviews of any or all potential Vendors prior to selection.

YES will not be liable for any costs incurred by the Vendor in connection with such interviews or with the submission of any response.

DOCUMENT INTERPRETATION
In the event of any conflict of interpretation of any part of this overall document, the interpretation of YES shall govern.

GOVERNING LAW
Any agreements resulting from this RFP shall be governed by, construed, and enforced in accordance with the laws of the State of Texas applicable to contracts made and wholly performed within such state (without regard to the conflicts or choice of law principles thereof). The parties irrevocably consent to the jurisdiction of the State of Texas, and agree that any court of competent jurisdiction sitting in the County of Harris, State of Texas, shall be an appropriate and convenient place of venue, and shall be the sole and exclusive place of venue, to resolve any dispute with respect to any such agreements.

HOLD HARMLESS AGREEMENT
The successful Vendor(s) shall indemnify, hold harmless, and defend YES, its directors, officers, and employees (paid or volunteer) from and against any and all claims, demands, and

causes of action of whatever kind or nature arising out of error, omission, misrepresentation, negligent act, conduct, or misconduct of the Vendor and its subcontractors, agents, and employees (paid or volunteer) in the provision of goods or the performance of services arising out of the preparation of this proposal and execution and performance of any contracts resulting therefrom. Such indemnification shall also include reasonable attorneys' fees, court costs, and expenses.

INSPECTIONS
YES reserves the right to inspect any item(s) or service location for compliance with specifications, requirements, and needs of YES. If a Vendor cannot furnish a sample of a proposed item, where applicable, for review, or fails to satisfactorily show an ability to perform, YES can reject the Vendor as inadequate.

TESTING
YES reserves the right to test equipment, supplies, materials, and goods proposed for quality, compliance with specifications, and ability to meet the needs of YES. Demonstration units must be available for review. Should the goods or services fail to meet requirements and/or be unavailable for evaluation, the proposal is subject to rejection.

INVOICES AND PAYMENTS
YES standard payment terms are Net 30 days after receipt of invoice.

Invoices should be provided to YES in a timely manner. Vendors are requested to invoice YES within 30 days of providing goods and/or services to YES. Vendors who continuously invoice YES in a manner that is outside of generally accepted business practices may affect their continuing relationship with YES.

In the event a Vendor presents YES with invoices, statements, reports, etc. that are incomplete or inaccurate, YES may be required to perform substantial research which could result in delay of payment. YES will not be responsible for any interest charges and/or late fees as a result of delayed payment due to time delays caused by inadequate, incomplete, or inaccurate information provided in invoices by Vendor.

PRICING
Prices for all goods and/or services shall be negotiated to a firm amount for the duration of this contract or as agreed to in terms of time frame and/or method of determining price escalations, if any, by Vendor. All prices and methods of determining prices must be written in ink or typewritten. Where unit pricing and extended pricing differ, unit pricing prevails.

SCANNED OR RE-TYPED RESPONSE
If in its response, Vendor either electronically scans, re-types, or in some way reproduces the YES-published RFP package, then in the event of any conflict between the terms and provisions of the published RFP package, or any portion thereof, and the terms and provisions of the response made by the Vendor, the RFP package ***as published*** by YES shall control. Furthermore, if an alteration of any kind to the YES-published RFP package is only discovered after the contract is executed, the contract is subject to immediate cancellation at the sole option of YES.

SEVERABILITY

If any section, subsection, paragraph, sentence, clause, phrase, or word of these requirements or the specifications shall be held invalid, such holding shall not affect the remaining portions of these requirements and the specifications, and it is hereby declared that such remaining portions would have been included in these requirements and the specifications as though the invalid portion had been omitted.

SUPPLEMENTAL MATERIALS
Vendors are responsible for including all pertinent product data in the returned offer package. Literature, brochures, data sheets, specification information, completed forms requested as part of the offer package, and any other facts which may affect the evaluation and subsequent contract award should be included. Materials such as legal documents and contractual agreements, which the Vendor wishes to include as a condition of the proposal, must also be in the returned proposal package. Failure to include all necessary and proper supplemental materials may be cause to reject the entire proposal.

TAXES
YES is exempt from federal, state, and local taxes. In the event that taxes are imposed on the goods or services purchased, YES will not be responsible for payment of the taxes. The Vendor shall absorb the taxes entirely. Texas Limited Sales Tax Exemption Certificates will be furnished to Vendors upon written request to YES.

TERM CONTRACTS
The successful Vendor, as determined by YES, shall be required to execute a contract to furnish all goods and/or services and other deliverables required for successful completion of the proposed project. No Vendor shall obtain any interest or right in any award until YES has executed a contract, and any such interest and rights shall be subject to the terms and conditions as contained in such contract.

The successful Vendor may not assign, sell, or otherwise transfer its interest in the contract award, or any part thereof, without prior written consent from the YES.

QUANTITY
There is no guaranteed amount of business, expressed or implied, to be purchased or contracted for by YES. However, the Vendor(s) awarded the contract shall furnish all required goods and/or services to YES at the stated price, when and if required.

CONTRACT TYPE
The preferred contract type to be awarded is a fixed fee contract. However, if a Vendor has reason to believe a better (more cost effective) method is practical, then the Vendor is encouraged to offer that better pricing option as an alternative in its submitted proposal. YES will consider that type of contract as it compares with other recommended contract options.

TERMINATION
YES reserves the right to terminate the contract without cause with 60 days prior written notice for convenience and with 30 days prior written notice for cause if Vendor breaches any of the terms therein, including warranties of Vendor or if the Vendor becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which YES may have in law or equity. Cause may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all services required to YES's satisfaction, and/or to meet all other

obligations and requirements.

If the Vendor breaches any provision of the proposal stipulations, becomes insolvent, enters voluntary or involuntary bankruptcy, or receivership proceedings, or makes an assignment for the benefit of creditors, YES will have the right (without limiting any other rights or remedies that it may have in the contract or by law) to terminate any contract with 30 days prior written notice to the Vendor.

YES will then be relieved of all obligations, except to pay the reasonable value of the Vendor's prior performance (at a cost not exceeding the contract rate). The Vendor will be liable to YES for all costs exceeding the contract price that YES incurs in completing or procuring the service as described in the proposal. YES's right to require strict performance of any obligation in this contract will not be affected by any previous waiver, forbearance, or course of dealing.

FUNDING OUT OPTION
Any contract resulting from this RFP is contingent upon the continued availability of budget appropriations and is subject to cancellation, without penalty to YES, either in whole or in part, if funds are not appropriated by the YES Board of Directors or otherwise not made available to YES.

WARRANTIES
Vendors shall furnish all data pertinent to warranties or guarantees which may apply to items in the proposal. Vendors may not limit or exclude any implied warranties.

ASSOCIATION
Vendors may not use the YES official logo(s), or any phrase associated with YES, without written permission from YES.

DISCLOSURE
All information and documentation related to this RFP submitted by Vendors may be subject to public disclosure under the Texas Public Information Act (Texas Government Code Section 552.001, et seq.).

EXCEPTIONS, ALTERATIONS, ADDITIONS, and MODIFICATIONS
If any exceptions, alterations, additions, or modifications are submitted by Vendor to any portion of this RFP, the Vendor must clearly indicate the exceptions, alterations, additions, and modifications and include a full explanation as a separate attachment to the proposal. The failure to identify exceptions, alterations, additions, or modifications will constitute acceptance by the Vendor of the RFP as proposed by YES. YES reserves the right to reject a proposal containing exceptions, alterations, additions, or modifications.

PROPOSAL PREPARATION COSTS
All costs related to the preparation and submission of this proposal shall be paid by the Vendor. Issuance of this RFP does not commit YES, in any way, to pay any costs in the preparation and submission of the proposal, nor does the issuance of the RFP obligate YES to award a contract or purchase any goods and services stated in the RFP.

RETENTION OF PROPOSAL DOCUMENTATION

All proposal materials and supporting documentation that is submitted in response to this proposal becomes the permanent property of YES.

MODIFICATION/WITHDRAWL OF PROPOSAL
Proposals may be modified in writing at any time prior to the due date. Proposals may be withdrawn in writing, by facsimile written transmission or in person, before the response date.

PAYMENT TERMS
Invoices that are submitted by the awarded contractor are required to provide accurate and current addresses including any discounts for early payment. Payment of undisputed invoices will be paid monthly provided that the invoices are received by dates provided to the winning bid. Disputed portions of invoices will be held until the dispute is resolved.

PROPOSAL REQUIREMENTS

- Vendor is required to provide evidence of a valid State of Texas Business License
- Vendor is required to provide an insurance certificate with Yes Prep named as an additional insured.

The entity legally responsible for fulfilling this agreement shall be identified in the proposal response.

Right to Seek a New Proposal
Yes Prep Public Schools reserves the right to receive, accept, or reject any and all proposals for any or all reasons.
Proposals will be awarded to the best overall respondent as determined to be in the best interests of Yes Prep. In comparing the responses to this RFP and making awards, Yes Prep may consider such factors as quality and thoroughness of a proposal, the record of experience, the references of the respondents, and the integrity, performance and assurances in the proposal in addition to that of the proposal price.

It is the responsibility of the vendor to ensure that the equipment proposed is fully functional with existing two-way radio equipment: handheld radios, base stations and school bus radios.

Applicable Law
The successful Contractor(s) agrees that they shall comply with all local, state and federal laws, statutes, rules, and regulations including, but not limited to, the Rehabilitation Act of 1973 and the Americans with Disabilities Act. In the event that any claims should arise with regards to this contract, for a violation of any such local, state, or federal law, statues, rules, or regulations, the provider will indemnify and hold Huntington County Community School Corporation harmless for any damages, including court costs or attorney fees which might be incurred.

Dispute resolution
It is expected that any conflicts or disagreements can be settled through face-to-face meetings. Unresolved disputes will require mediation before filing litigation. Both parties will split the cost of mediation.

SCORING RUBRIC

SPECIAL REQUIREMENTS/INSTRUCTIONS

EVALUATION AND AWARD
This RFP in no manner obligates YES to the eventual rental, lease, or purchase of any equipment or service described, implied, or which may be proposed, until confirmed by a written contract. Progress toward this end is solely at the discretion of YES and may be terminated at any time prior to the signing of the contract.

YES may initiate discussions with Vendor personnel authorized to contractually obligate the Vendor. Discussions will develop into negotiating sessions with the successful Vendor(s). If YES is unable to agree to contract terms, YES reserves the right to terminate contract negotiations with a Vendor and initiate negotiations with another Vendor. YES reserves the right to select services and products from any number of Vendors if, in its sole discretion, it is in the best interest of YES to do so.

Evaluation will consider the Vendor(s) best meeting the needs and requirements of YES and such evaluation and determination of best value shall be solely at the discretion of YES. **Purchase price is not the only criteria that will be used in the evaluation process.**

Submission of qualifications implies the Vendor's acceptance of the evaluation criteria and Vendor's recognition that subjective judgments can and will be made by those individuals evaluating qualifications.

References, site visits, and product inspections may be used to make judgments directly affecting the award of this contract.

NON-PERFORMANCE BY VENDOR
Performance, before and during the contract term, will be a major consideration of current contract award, renewals, and future award considerations. Failure to perform, in any sense relative to this contract, may result in the probation and/or termination of this agreement by YES on the basis of nonperformance. Non-performance shall be determined as follows:

1. Failure to meet and maintain all qualifications required in this RFQ/RFP;
2. Failure to meet required personnel standards and operating performance standards;
3. Failure to maintain appropriate and/or necessary personnel licenses and certifications;
4. Failure to meet all vehicle inspections and certifications which are needed to comply with federal, state, and/or local requirements;
5. Failure to keep and maintain all required insurance coverage; and/or
6. Failure to cure deficiencies within a reasonable amount of time as stated herein.

INSURANCE
All Vendors must provide evidence of insurance or insurability and a Workers' Compensation Certificate (see Attachments C and D).

GOVERNMENT VIOLATIONS
Vendor shall notify YES of all health and safety violations, OSHA violations, wage and hour violations, or labor violations assessed by any city, state, or federal government department or agency.

NON-COMPLIANCE NOTIFICATION
In the event a Vendor is determined by YES to have failed to perform services in accordance with the requirements listed herein, YES will forward a written notification specifying the violation or the area of non-compliance to the Vendor. The Vendor in non-compliance shall immediately remedy all violations as determined by YES. Any violations not so remedied shall be grounds for termination of the contract, in whole or in part.

OWNERSHIP
YES shall retain ownership rights to all materials or any other product produced in conjunction with the work described herein.

SPECIFICATIONS

YES Prep Public Schools is a free, open-enrollment public school system that serves 6,600 students across eleven (11) schools in the Houston area. YES Prep has been ranked as among the top 100 public high schools in the nation by Newsweek and U.S. News & World Report. Every year, 100 percent of YES Prep's graduating seniors have been accepted into four-year colleges, including Harvard, Yale, Columbia, Rice, and Stanford. YES Prep combines a highly successful 6th-12th grade model along with high standards for student achievement.

YES Prep is seeking a Vendor to renovate the existing servery and cafeteria. This RFP has a base scope and add alternate scope. A complete proposal shall include the following broken down by base or alternate scope; vendor is responsible for all scope items they are bidding as indicated on the drawings or listed below:

BASE SCOPE (SERVERY AREA):

- Make safe of electrical, mechanical and plumbing before any demolition.
- Protection of all existing finishes that are to remain in place.
- Create a temporary barricade for dust control at the division between servery and cafeteria.
- Demolition as indicated on the drawings.
- Drywall, tape/float, painting as indicated on the drawings.
- New VCT flooring and base for the servery area only. Floor float to be included in pricing.
- New ceramic tile behind the water fountain.
- Electrical work as indicated in the drawings; including, sawcut, removal, haul-off excess spoils and pour back for electrical.
- Plumbing work as indicated in the drawings; including, upgraded water fountain as indicated on the drawings.
- All permits required for the scope of work being bid.
- All equipment necessary to perform work.
- Debris removal off-site (Owner will not provide a dumpster).
- Restroom will be provided and contractor must clean at the end of the project.

ADD ALTERNATE SCOPE (CAFETERIA AREA):

- Protection of all existing finishes that are to remain in place.
- Removal and disposal of existing corner guards.
- Drywall, tape/float, painting as indicated on the drawings.
- New microwave table as indicated on the drawings. Rounded corners are required for the finish of the table.
- New wall base throughout the cafeteria.
- Paint ceiling grid and grilles throughout the cafeteria. Replace ceiling tile with new vinyl ceiling tile.
- Electrical work as indicated in the drawings.
- All permits required for the scope of work being bid.
- All equipment necessary to perform work.
- Debris removal off-site (Owner will not provide a dumpster).

- Restroom will be provided and contractor must clean at the end of the project.

REQUIRED SUBMITTALS
(Attachment A)

Submittal 1
Experience in Project Management
Vendor shall provide a statement of its qualifications to provide the specific materials and services requested herein.

Submittal 2
Staffing Plan
Vendor shall submit a staffing plan that provides the qualifications of your employees.

Submittal 3
References
Vendor shall supply a list of three (3) references for which Vendor has experience in the scope of work that the proposal is submitted for.

Submittal 4
Customer Feedback
Vendor shall provide a description of its formal customer feedback system, provide sample tools used to gather data, and describe how results were shared with customers and used to improve service.

All submittals must be included in the RFP package returned on March 20, 2019 by 2:00 PM. It is recommended that each submittal be typed on a separate sheet of paper with the heading "Response to Submittal #___ for YES RFP" at the top and the name of the Vendor underneath.

QUESTIONNAIRE
(Attachment B)

All Vendor must provide answers to the following questions, typed on 8 ½ x 11 inch paper, in the order below. Attachments to the questionnaire answers should reference the question number.

1. Provide the full name and address of your organization.

2. Provide contact person(s) for information concerning this offer: name, title, phone, fax, email address.

3. What form of business is your organization (e.g. proprietorship, partnership, corporation) and is your organization local only, statewide, or nationwide?

4. List all the names under which this Vendor has operated in the last ten (10) years in the State of Texas.

5. Provide a copy of your insurance coverage.

6. Multi-part question:
    a. Do you currently have any investigations pending by or on behalf of a government entity or other licensing entity?
    b. Have you had investigations by or on behalf of a government entity or other licensing entity in the past?
        1. If the answer to either question is yes, please provide copies of relevant paperwork.

7. Do you have any relevant experience or projects in the past with education institutions? If so, please provide a high-level overview of these projects.

WORKERS' COMPENSATION CERTIFICATE
(Attachment C)

YES requires Vendor to provide workers' compensation as per state law requirements. The Vendor shall sign and submit the following certificate with the written proposal:

- Minimum Workers' Compensation and Employer's Liability Limits
    - Each Accident $1,000,000
    - Disease – Each Employee $1,000,000
    - Disease – Policy Limit $1,000,000

_____
Vendor Name

_____
Signature of Authorized Agent

_____
Date Signed

Note: Vendor may attach current certificate of coverage with a signed statement that if awarded the contract, they will obtain said aforementioned coverage if the current coverage does not meet the stated minimum requirements.

INSURANCE COVERAGE REQUIREMENTS
(Attachment D)

General and Excess Liability Minimum Coverages

- General Liability: $1,000,000
- Umbrella Liability: $1,000,000

_____
Vendor Name

_____
Signature of Authorized Agent

_____
Date Signed

YES will be named as Additional Insured on the Certificate of Insurance if the Vendor is awarded a contract.

FINANCIAL REQUIREMENTS
(Attachment E)

Complete this form or provide audited financial statements and include with your proposal package.

FINANCIAL STATEMENT

Condition of Vendor at close of business Month, _____, 2018.

ASSETS

1.	Cash on hand		$_____	
	In Bank		$_____	
	Elsewhere		$_____	$_____
2.	Accounts receivable from completed contracts (exclusive of claims not approved for payment)			_____
3.	Accounts receivable from other sources than above			_____
4.	Amounts earned on uncompleted contracts (not included in Item 3) (Contract price on completed portion of uncompleted contracts less total cost of completed portion.)			_____
5.	Deposits for bids or other guarantees			_____
6.	Notes receivable	Past due	$_____	
		Due 90 days	$_____	
		Due Later	$_____	
7.	Interest earned			_____
8.	Real Estate			
	Business Property, Present value		$_____	
	Other property		$_____	_____
9.	Stocks and Bonds		$_____	
	Listed on exchange		$_____	
	Unlisted		$_____	_____
10.	Equipment, machinery, fixtures		$_____	
	Less Depreciation		$_____	_____
11.	Other Assets			_____
			TOTAL ASSETS	$_____

FINANCIAL REQUIREMENTS
(Attachment E, Cont.)

LIABILITIES AND NET WORTH

1.	Notes Payable	To banks regular	$_____	
		(For certified check)	_____	
		Equip. Obligations	_____	
		Others	_____	$_____
2.	Accounts Payable Current		$_____	
		Past Due	_____	_____
3.	Real Estate Mortgages			_____
4.	Other Liabilities			_____
5.	Reserves			_____
6.	Capital Stock Paid up Common			_____
		Preferred	_____	_____
7.	Surplus			_____
TOTAL LIABILITIES AND NET WORTH				$_____

Proposed Exceptions, Alterations, Additions, or Modifications to RFP (Attachment F)

Vendor should submit as Attachment F, any and all proposed exceptions, alterations, additions, or modifications to the YES RFP for East End Servery and Cafeteria Update.

SCORING RUBRIC
(ATTACHMENT G)

YES will utilize the following RFP Evaluation Rubric for evaluation of all East End Servery and Cafeteria Update Proposals:

1. **Charges/Cost to YES PREP: 30 Points.**
    a. Favorable = 30 Points. Unfavorable = 0 points.
    b. Evaluate the Overall Value of proposed materials and services to be provided.

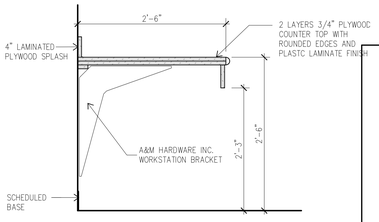
2. **Technical and Education Experience: 17.5 Points.**
    a. Favorable = 17.5 Points. Unfavorable = 0 points.
    b. Proposal demonstrates the Vendor's ability to deliver quality services to schools.
    c. Includes references, Vendor staff, and/or Vendor's or certifications, qualifications, experience, expertise, and resumes.

3. **Proposed Operational Delivery: 17.5 Points.**
    a. Favorable = 17.5 Points. Unfavorable = 0 points.
    b. Proposal defines services and scope in enough detail that YES can confidently determine that the proposed services will be met.

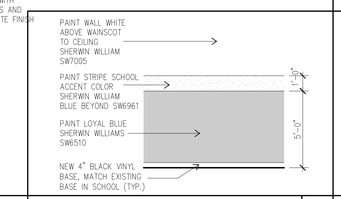
4. **Design and Technical Execution: 17.5 Points.**
    a. Favorable = 17.5 Points. Unfavorable = 0 points.
    b. Proposal includes information about the Vendor's ability to provide an efficient and cost-effective solution. Please include resources available to achieve the project and any concepts or innovations in design that have proven effective in the past that would be applicable to this model.

5. **Project Understanding and Methodology: 17.5 Points.**
    a. Favorable = 17.5 Points. Unfavorable = 0 points.
    b. Proposal addresses the project in terms of the scope of work and substantive issues essential to proper service and care of YES facilities. Proposal includes a detailed description of services to be provided and any constraints as to procedure, time, personnel, or equipment that needs to be communicated to YES for use during contract negotiations.

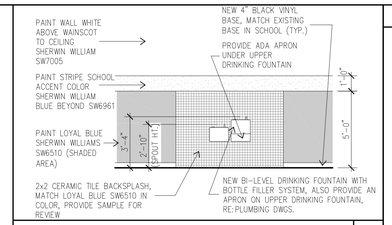
END OF YES RFP PACKAGE FOR
East End Severy and Cafeteria Updates



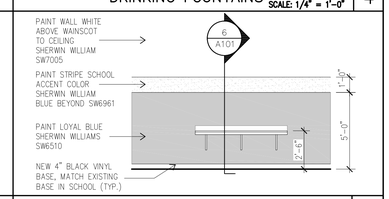
MILLWORK SECTION SCALE: 1" = 1'-0" | 6



WAINSCOT IN CAFETERIA SCALE: 1/4" = 1'-0" | 5



DRINKING FOUNTAINS SCALE: 1/4" = 1'-0" | 4



MICROWAVE TABLE SCALE: 1/4" = 1'-0" | 3

DEMOLITION NOTES:

1. THE ARCHITECT AND ARCHITECT'S CONSULTANTS SHALL HAVE NO RESPONSIBILTY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL, OR DISPOSAL OF, OR EXPOSURE OF PERSONS TO, HAZADOUS MATERIALS IN ANY FORM AT THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO ASBESTOS PRODUCT, POLCHLORNATED BOPHEMYL (PLB) OR OTHER SUBSTANCES.
2. THE ARCHITECT AND ARCHITECT'S CONSULTANTS SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR DEMOLITION OR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTIONS WITH THE WORK PERFORMED BY THE CONTRACTOR. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT HIS WORK IN ACCORDANCE WITH THE SCOPE OF WORK AS DEFINED WITHIN THE CONSTRUCTION DOCUMENTS
3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO PERFORM DEMOLITION WORK WITHIN THE PROPERTY LINE AND IN THE STREET RIGHT-OF-WAY.
4. CONTRACTOR TO INVESTIGATE ALL EXISTING CONDITIONS PRIOR TO REMOVAL OF ANY EXISTING CONSTRUCTION AND PROVIDE ADDEQUATE SUPPORT OR BRACING AS REQUIRED FOR CONSTRUCTION TO REMAIN.
5. EXISTING FLOORS MAY BE REQUIRED TO BE SAWCUT FOR NEW TRENCHES FOR ELECTRICAL, PLUMBING, ETC. NEW FLOORS ARE REQUIRED TO MATCH EXISTING
6. ALL DEMOLITION WORK AND TEMPORARY CONSTRUCTION SHALL BE DONE IN THE SAFEST POSSIBLE MANNER AND IN CONFORMANCE WITH ALL GOVERNMENTAL AUTHORITIES REGULATIONS FOR HEALTH AND SAFETY.
7. REFER TO MEP DRAWINGS FOR INFORMATION RELATED TO DEMOLITION OR RELOCATION OF ANY MECHANICAL, ELECTRICAL AND PLUMBING ITEMS NOT FULLY ADDRESSED THIS SHEET INCLUDING, BUT NOT LIMITED TO, LIGHTING, PLUMB. FIXTURES AND DUCTWORK. CONTRACTOR TO REMOVE ALL MECHANICAL, ELECTRICAL AND PLUMBING ITEMS UNLESS OTHERWISE NOTED ON MEP DRAWINGS.

GENERAL NOTES:

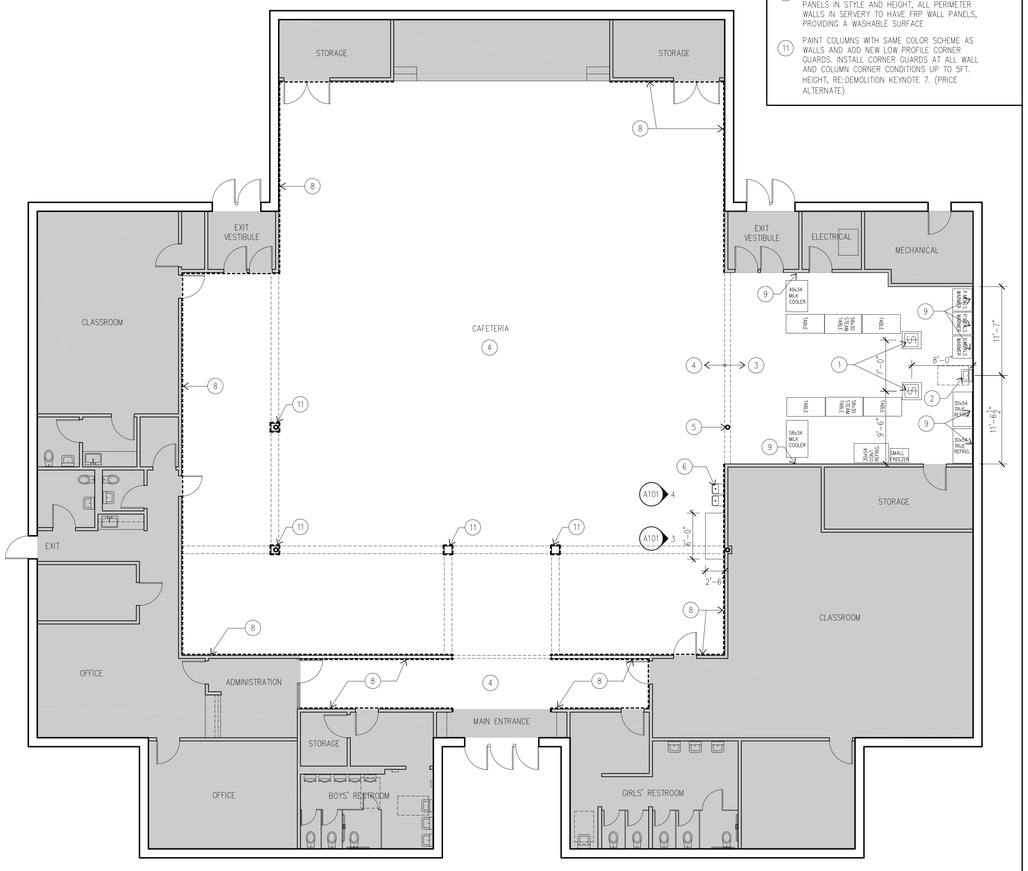
1. DASHED LINES REPRESENT ITEMS TO BE REMOVED
2. REMOVE AND REPLACE ALL LIGHT FIXTURES IN THE SERVERY AREA. INCLUDE THE REPLACEMENT OF ALL LIGHT FIXTURES IN THE CAFETERIA AREA AND FRONT ENTRANCE CORRIDOR AS A PRICE ALTERNATE
3. REMOVE AND REPLACE ALL MECHANICAL SUPPLY AND RETURN AIR GRILLES IN SERVERY AREA. INCLUDE THE REPLACEMENT OF ALL GRILLES IN CAFETERIA AS A PRICE ALTERNATE.
4. KEEP ALL KITCHEN EQUIPMENT – TO BE RE-USED IN NEW SERVERY
5. RELOCATE ALL POWER OUTLETS FOR EXISTING EQUIPMENT TO NEW LOCATIONS AS SHOWN IN PLAN A101. REFER TO ELECTRICAL DWGS.
6. RE-USE ALL EXISTING BLACK VINYL WALL BASE.

DEMOLITION KEYNOTES:

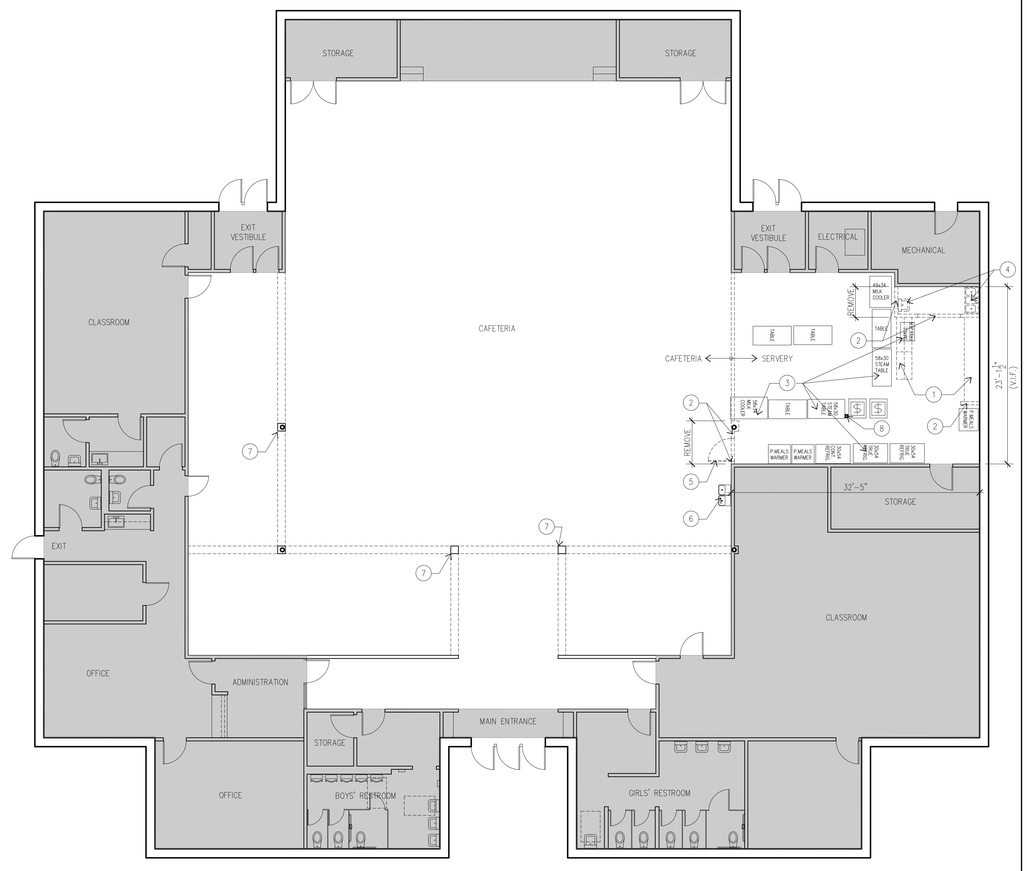
1. REMOVE EXISTING CABINETS AND COUNTERTOPS IN SERVERY AREA.
2. REMOVE EXISTING WALLS INCLUDING ALL FINISHES (SHOWN AS DASHED)
3. RE-USE ALL EXISTING EQUIPMENT INCLUDING WARMERS, REFRIGERATORS, STAINLESS STEEL TABLES AND STEAM TABLES
4. REMOVE EXISTING 3 COMPARTMENT SINK AND WALL-MOUNTED HAND WASH SINK, RE-USE WALL MOUNTED SINK AT NEW LOCATION
5. REMOVE DOOR AND FRAME
6. REMOVE EXISTING DRINKING FOUNTAINS INCLUDING BACKSPLASH AND REPLACE WITH NEW SPECIFIED ELKAY DRINKING FOUNTAINS WITH BOTTLE FILLER SYTEM (PRICING ALTERNATE)
7. REMOVE EXISTING CORNER GUARDS THROUGHOUT AND REPLACE WITH NEW LOW PROFILE CORNER GUARDS UP TO TOP OF WAINSCOT COLOR CHANGE AT 5FT. (PRICING ALTERNATE), WWW.WALLGUARD.COM, 0.75"WINGS, OWNER TO SELECT FROM 70 STANDARD COLORS.
8. REMOVE POWER POLE. POWER TO CASH REGISTERS WILL BE FED THROUGH NEW FLOOR OUTLETS; RE:2/A101

NEW PLAN KEYNOTES:

1. NEW FLOOR RECEPTACLE WITH POWER AND DATA
2. RELOCATED WALL MOUNTED SINK, RE:PLUMBING DWGS.
3. NEW VCT FLOOR TILE IN SERVERY AREA INSTALLED OVER EXISTING FLOORING, EXPRESSIONS BY TARKETT –"CLOUDY DAY"#1786 (WHITE)
4. EXISTING FLOORING – TO REMAIN
5. EXISTING COLUMN, PAINT WHITE AND ADD VINYL BLACK BASE
6. NEW SPECIFIED ELKAY DRINKING FOUNTAINS WITH BOTTLE FILLER SYTEM, PROVIDE ADA APRON BELOW UPPER MOUNTED DRINKING FOUNTAIN
7. NEW MICROWAVE TABLE, PROVIDE (2) DEDICATED DUPLEX OUTLETS FOR MICROWAVES
8. PROVIDE NEW WAINSCOT ON WALLS IN CAFETERIA AS PRICE ALTERNATE (SHOWN DASHED), RE:5/A101
9. ADD WALL POWER OUTLETS FOR EQUIPMENT AS REQUIRED; RE: ELECTRICAL DWGS.
10. INSTALL FRP WALL PANELS IN LOCATIONS WHERE WALLS HAVE BEEN REMOVED, MATCH EXISTING PANELS IN STYLE AND HEIGHT, ALL PERIMETER WALLS IN SERVERY TO HAVE FRP WALL PANELS, PROVIDING A WASHABLE SURFACE
11. PAINT COLUMNS WITH SAME COLOR SCHEME AS WALLS AND ADD NEW LOW PROFILE CORNER GUARDS, INSTALL CORNER GUARDS AT ALL WALL AND COLUMN CORNER CONDITIONS UP TO 5FT. HEIGHT, RE:DEMOLITION KEYNOTE 7. (PRICE ALTERNATE)



NEW FLOOR PLAN SCALE: 1/8" = 1'-0" | 2



EXISTING FLOOR PLAN – DEMOLITION SCALE: 1/8" = 1'-0" | 1

yes prep PUBLIC SCHOOLS

03/01/2019

2007 Ea architects

No.	Description	Date
	ISSUE FOR PERMIT/PRICING	03/01/2019

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

8329 LAWNDALE ST.
HOUSTON, TX 77012

DEMOLITION AND NEW FLOOR PLAN

Project Number	18111
Date	03/01/19
Drawn By	
Checked By	
Scale	

A101

KEYNOTES:

10 IN SERVERY, EXTEND EXISTING CEILING GRID TO WALL IN AREAS THAT HAD A FURR-DOWN OR IN ROOM THAT WAS REMOVED. PAINT EXISTING GRID AND CEILING GRILLES WHITE AND REPLACE ALL CEILING TILES WITH NEW VINYL FACED TILES (USG CLEAN ROOM ACOUSTICAL PANELS, CLIMAPLUS PERFORMANCE, 2'X2'X⅝"UNPERFORATED, SQUARE EDGE.

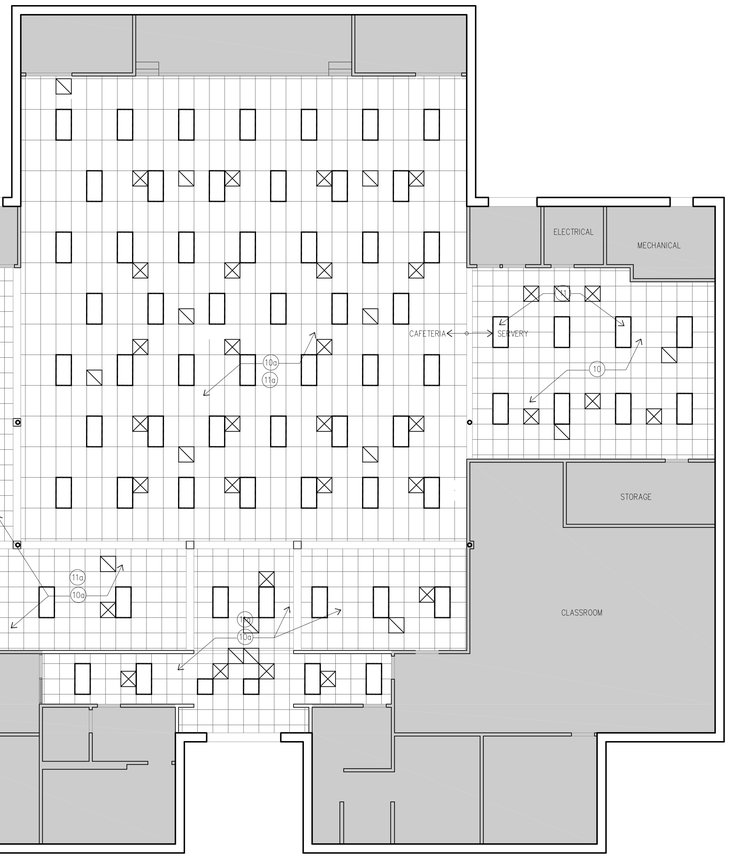
10a PROVIDE A PRICE ALTERNATE FOR CAFETERIA, TO PAINT ALL NEW CEILING GRID AND GRILLES WHITE AND REPLACE ALL CEILING TILES WITH NEW TILES. (USG RADAR ACOUSTICAL PANELS, 2'X2'X⅝", #2210, WHITE, SQUARE EDGE)

11 REPLACE ALL FIXTURES WITH NEW LED FIXTURES, RESPACE LIGHTS AS NEEDED IN SERVERY TO PROVIDE EVEN LIGHTING DISTRIBUTION

11a PROVIDE A PRICE ALTERNATE TO REPLACE ALL FIXTURES IN CAFETERIA WITH NEW LED FIXTURES

SYMBOLS:

- MECHANICAL SUPPLY GRILLE
- MECHANICAL RETURN GRILLE
- EXISTING 2X4 FLUORESCENT LIGHT FIXTURE, NEW 2X4 LED LIGHT FIXTURE (REPLACEMENT)
- EXISTING 2X2 FLUORESCENT LIGHT FIXTURE, NEW 2X2 LED LIGHT FIXTURE (REPLACEMENT)
- EXISTING GYPSUM CEILING



NEW REFLECTED CEILING PLAN SCALE: 1/8" = 1'-0" 2

KEYNOTES:

1 REMOVE GYPSUM FURR-DOWN

2 REMOVE CEILING GRID, TILES AND LIGHTS IN THIS AREA AND EXTEND EXISTING CEILING GRID TO WALL

3 REMOVE GYPSUM CEILING INCLUDING LIGHTS INSIDE THIS AREA

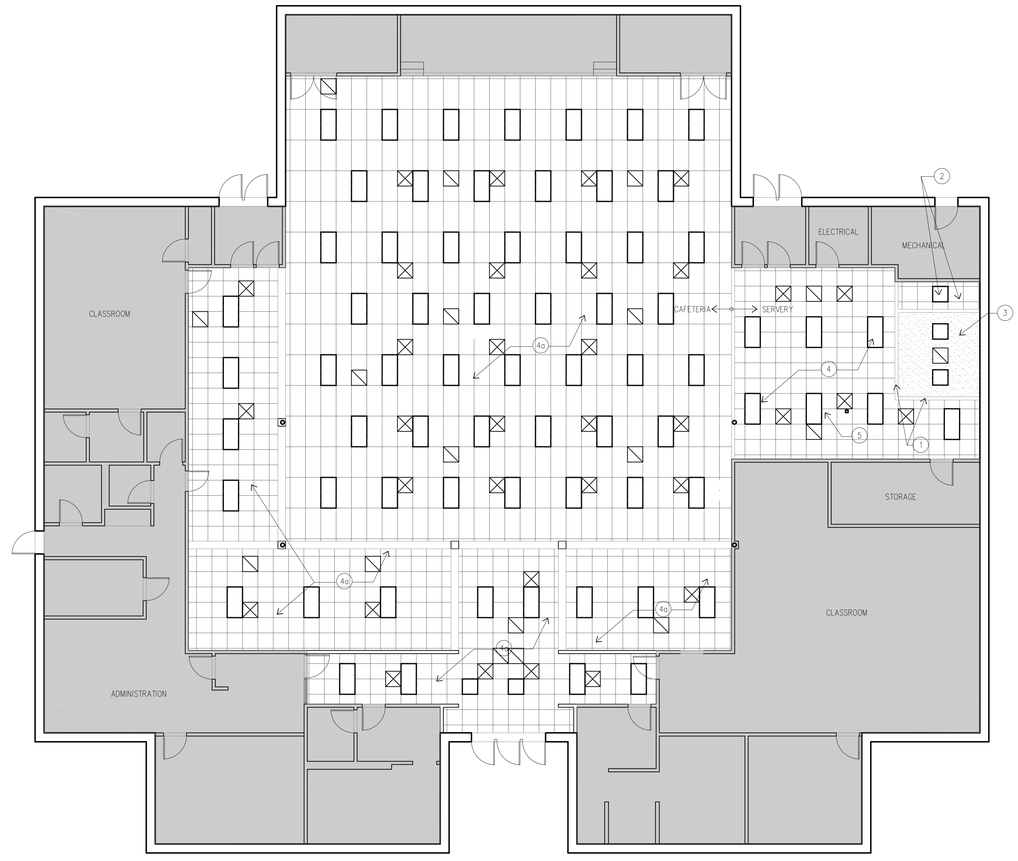
4 IN SERVERY, REMOVE EXISTING LIGHTS AND REPLACE WITH NEW LED FIXTURES. PAINT EXISTING CEILING GRID AND RETURN/SUPPLY GRILLES WHITE, REPAIR GRID AS NEEDED AND INSTALL NEW VINYL COATED TILES.

4a PROVIDE PRICE ALTERNATE IN CAFETERIA TO REMOVE EXISTING LIGHTS AND REPLACE WITH NEW LED FIXTURES. PAINT EXISTING CEILING GRID AND SUPPLY/RETURN GRILLES WHITE, REPAIR GRID AS NEEDED.

5 REMOVE POWER POLE. NEW FLOOR RECEPTACLES WILL BE ADDED FOR POINTS OF SALE.

SYMBOLS:

- MECHANICAL SUPPLY GRILLE
- MECHANICAL RETURN GRILLE
- EXISTING 2X4 FLUORESCENT LIGHT FIXTURE, NEW 2X4 LED LIGHT FIXTURE (REPLACEMENT)
- EXISTING 2X2 FLUORESCENT LIGHT FIXTURE, NEW 2X2 LED LIGHT FIXTURE (REPLACEMENT)
- EXISTING GYPSUM CEILING



EXISTING REFLECTED CEILING PLAN SCALE: 1/8" = 1'-0" 1

yes prep PUBLIC SCHOOLS

03/01/2019

2007 Ea architects

No.	Description	Date
	ISSUE FOR PERMIT/PRICING	03/01/2019

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

8329 LAWNDALE ST.
HOUSTON, TX 77012

DEMOLITION + NEW REFLECTED CEILING PLAN

Project Number	18111
Date	03/01/19
Drawn By	
Checked By	

A102

Scale

ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED HERE ARE NECESSARILY USED IN THE DRAWINGS AND MAY NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED WITHIN THE DRAWINGS.

ELECTRICAL ABBREVIATIONS

A	AMPERE
AC	ABOVE COUNTER
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPACITY
AL	ALUMINUM
AS	AMP SWITCH
AT	AMP TRIP
ARCH	ARCHITECT
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO VISUAL
B	PEDESTAL MOUNTED ON BENCH TOP
BF	BELOW FLOOR
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
C	CONDUIT
CAT	CATALOG
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING MOUNTED
CR	CORROSION RESISTANT
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
CL	CENTERLINE
D	DEDICATED DEVICE
DC	DIRECT CURRENT
DISC	DISCONNECT
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EMT	ELECTRIC METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EX	EXISTING
FLA	FULL LOAD AMPS
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFPE	GROUND FAULT PROTECTION EQUIPMENT
GND	GROUND
GRC	GALVANIZED RIGID CONDUIT
HH	HANDHOLE
HOA	HAND/OFF/AUTOMATIC
HP	HORSEPOWER
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
Hz	HERTZ (cycle) PER SECOND
IG	ISOLATED GROUND
JB	JUNCTION BOX
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT LS LIMIT SWITCH
LTG	LIGHTING
LV	LOW VOLTAGE
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCCB	MOLDED CASE CIRCUIT BREAKER
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	OVER CURRENT
OL	OVERLOAD
P	POLE
PB	PULL BOX
PH	PHASE
PNL	PANELBOARD
PR	PAIR
PRI	PRIMARY
PVC	POLYVINYL CHLORIDE CONDUIT
R	RELAY
REC	RECESSED
SC	SHORT CIRCUIT
SN	SOLID NEUTRAL
SP	SPARE
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
SSRV	SOLID STATE REDUCED VOLTAGE
ST	SHUNT TRIP
STP	SHIELDED TWISTED PAIR
SUSP	SUSPENDED
SW	SWITCH
SWBD	SWITCHBOARD
TC	TELEPHONE CABINET
TCI	TELECOMMUNICATIONS CABLING INSTALLER
TEL/DATA	TELEPHONE/DATA
TEL	TELEPHONE
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UG	UNDERGROUND
UTP	UNSHIELDED TWISTED PAIR
UNO	UNLESS NOTED OTHERWISE
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
Y	WYE

LIGHTING AND CONTROLS

LIGHTING FIXTURES

- SURFACE MOUNTED
- SURFACE MOUNTED DOWNLIGHT
- SURFACE MOUNTED WALL WASHER
- RECESS MOUNTED
- RECESS MOUNTED DOWNLIGHT
- RECESS MOUNTED WALL WASHER
- VOLUMETRIC RECESS MOUNTED
- STRIP
- SCONCE
- EXTERIOR SCONCE
- LOW BAY
- HIGH BAY
- LINEAR WALL MOUNT
- BOLLARD
- POLE MOUNTED (UP TO FOUR HEADS)
- SUSPENDED, PENDENT, OR CABLE HUNG
- CEILING MOUNTED EXIT SIGN
- WALL MOUNTED EXIT SIGN
- CEILING MOUNTED EMERGENCY LIGHTING UNIT
- WALL MOUNTED EMERGENCY LIGHTING UNIT

SHADING INDICATES EMERGENCY LIGHT
XX = TYPE REFERENCE FIXTURE SCHEDULE
x = SWITCH LEG

LIGHTING CONTROLS

$ WALL MOUNTED SWITCH
SUBSCRIPTS:
2 = DOUBLE POLE
3 = 3-WAY
4 = 4-WAY
D = DIMMER
K = KEY-OPERATED
P = PILOT LIGHT
T = THERMAL OVERLOAD
V = VACANCY SENSOR
LV = LOW VOLTAGE
O = OCCUPANCY SENSOR

- DAYLIGHT/OCCUPANCY SENSOR
- EXTENDED RANGE SENSOR
- STANDARD RANGE SENSOR
- LINE VOLTAGE OCCUPANCY SENSOR
- OCCUPANCY SENSOR
- PE PHOTOCELL

TELECOMMUNICATIONS

- WALL MOUNTED DATA
- WALL MOUNTED TELEPHONE
- WALL MOUNTED TELEPHONE/DATA
- CEILING MOUNTED DATA
- CEILING MOUNTED TELEPHONE
- CEILING MOUNTED TELEPHONE/DATA
- TV RECESSED TV BOX

2015 COMMERCIAL ENERGY COMPLIANCE COMMISSIONING REQUIREMENTS:

CONTRACTOR SHALL HIRE A THIRD PARTY CERTIFIED COMMISSIONING AGENT TO PERFORM THE COMMISSIONING AND PROVIDE THE PRELIMINARY REPORT OF COMMISSIONING TO THE LOCAL CITY.

A. THE CERTIFICATIONS ACCEPTABLE INCLUDE:
- CBCP - CERTIFIED BUILDING COMMISSIONING PROFESSIONAL- ASSOCIATION OF ENERGY ENGINEERS
- CCP - CERTIFIED COMMISSIONING PROFESSIONAL - BUILDING COMMISSIONING ASSOCIATION
- CPMP - CERTIFIED PROCESS MANAGEMENT PROFESSIONAL - ASHRAE
- CXA - CERTIFIED COMMISSIONING AUTHORITY - AABC COMMISSIONING GROUP
- BSC - BUILDING SYSTEM COMMISSIONING CERTIFICATION - NATIONAL ENVIRONMENTAL BALANCING BUREAU

B. FUNCTIONAL TESTING FOR AUTOMATIC LIGHTING CONTROLS IS REQUIRED PER C408.3. THE CONSTRUCTION DOCUMENTS MUST SPECIFY THAT THE BUILDING OWNER WILL BE GIVEN, WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF CERTIFICATE OF OCCUPANCY, WRITTEN CERTIFICATION THAT THE LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA.

C. OCCUPANCY SENSORS: FOR PROJECTS WHERE FEWER THAN EIGHT OCCUPANCY SENSORS ARE INSTALLED, EACH MUST BE TESTED. IF MORE THAN SEVEN ARE INSTALLED, AT LEAST 10% (AND AT LEAST ONE) WILL BE TESTED FOR EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY. IF 30% OR MORE FAIL THE ACCEPTANCE CRITERIA, ALL REMAINING IDENTICAL COMBINATIONS MUST BE TESTED. VERIFY:
- PROPER LOCATION AND AIMING.
- CORRECTION OPERATION WHERE THE SENSORS INCLUDE STATUS INDICATORS.
- THE LIGHTS TURN ON TO THE PERMITTED LEVEL WHEN THE SPACE BECOMES OCCUPIED (IF AUTO-ON)
- THE LIGHTS TURN ON ONLY WHEN MANUALLY ACTIVATED (IF MANUAL-ON).
- FALSE-ON TRIGGERING DOES NOT OCCUR BY MOVEMENT IN ADJACENT AREAS OR FROM HVAC OPERATION.

D. TIME-SWITCH CONTROLS VERIFY:
- THE TIME-SWITCH CONTROL IS PROGRAMMED WITH ACCURATE WEEKDAY, WEEKEND AND HOLIDAY SCHEDULES.
- THE TIME SWITCH INCLUDES THE CORRECT TIME AND DATE.
- ANY BATTERY BACKUP IS INSTALLED AND ENERGIZED.
- THE OVERRIDE IS SET TO NO LONGER THAN TWO HOURS.
- SIMULATING AN OCCUPIED CONDITION, THAT ALL LIGHTS CAN BE TURNED ON/OFF BY THEIR LOCAL MANUAL SWITCH, AND THAT THE SWITCH ONLY OPERATES THE LOCAL LIGHTING.
- SIMULATING AN UNOCCUPIED CONDITION, THAT THE CONTROLLED LIGHTING TURNS OFF, AND THAT THE MANUAL OVERRIDE ALLOWS ONLY LOCAL LIGHTING TO TURN ON AND REMAIN ON UNTIL THE NEXT TIME SWEEP OCCURS WITHIN TWO HOURS.

ADDITIONAL TESTING MAY BE REQUIRED BY THE AHJ. THE OWNER MUST BE GIVEN DOCUMENTATION INDICATING THE PROGRAMMING (INCLUDING WEEKDAY, WEEKEND AND HOLIDAY SCHEDULES) AND ALL OTHER SETTINGS.

POWER AND COMMUNICATIONS

RECEPTACLES

DUPLEX	SIMPLEX
STANDARD	STANDARD
ABOVE COUNTER	ABOVE COUNTER
EMERGENCY	EMERGENCY
GFI	GFI
WEATHERPROOF GFI	GFI WEATHERPROOF
GFI AC	GFI ABOVE COUNTER
RECESSED	RECESSED
TAMPER RESISTANT	TAMPER RESISTANT
QUADRUPLEX	**MISCELLANIOUS**
STANDARD	SPECIAL
ABOVE COUNTER	ISOLATED GROUND
EMERGENCY RECEPTACLE	HALF SWITCHED
GFI	USB
WEATHERPROOF GFI	HOSPITAL GRADE
GFI ABOVE COUNTER	TR HOSPITAL GRADE
RECESSED	DUPLEX CEILING
TAMPER RESISTANT	QUADRUPLEX CEILING
COMBINATION FLOOR BOX DUPLEX	DUPLEX FLOOR
TELEPHONE/DATA	QUADRUPLEX FLOOR
DATA	PEDESTAL RECEPTACLE
TELEPHONE	CLOCK RECEPTACLE
COMBINATION FLOOR BOX QUADRUPLEX	
TELEPHONE/DATA	
DATA	
TELEPHONE	

OTHER	SENSORS AND SWITCHES
JUNCTION BOX	FLOW
WALL MOUNTED JUNCTION BOX	HAND OFF AUTO SELECTION
THERMOSTAT	FLOAT OR LEVEL
POKE THROUGH	LIMIT OR POSITION
DAMPER CONNECTION	PRESSURE
MOTOR CONNECTION	SOLENOID VALVE
MOTOR RATED SWITCH	TEMPERATURE
CONDUIT UP	
CONDUIT DOWN	
CONDUIT STUBOUT	
SEAL OFF	
POWER POLE	

EQUIPMENT

TRANSFORMER	DISCONNECT SWITCH FUSED
PANEL	DISCONNECT SWITCH NONFUSED
METER	MOTOR STARTER
GENERATOR	MOTOR STARTER INTEGRAL DISCONNECT
CIRCUIT BREAKER	MULTI-SPEED MOTOR STARTER
SHUNT TRIP CIRCUIT BREAKER	SSRV MOTOR STARTER
HH PRIMARY DISTRIBUTION	VARIABLE FREQUENCY DRIVE STARTER
HH SECONDARY DISTRIBUTION	MOTOR CONTROL CENTER
HH COMMUNICATIONS	STARTER FUSED DISCONNECT
PULLBOX	STARTER NONFUSED DISCONNECT
MAIN GROUNDING BRIDGE	MECHANICAL EQIPMENT
GROUNDING BRIDGE	

GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL REPLACE AND/OR REPAIR TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER, ANY ITEMS THAT ARE DAMAGED OR REMOVED BY THE ELECTRICAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. THESE DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE OFF OF THE ELECTRICAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
3. REFER TO THE ARCHITECTURAL PLANS, ELEVATIONS, AND DIAGRAMS FOR LOCATIONS OF FLOOR AND WALL ELECTRICAL DEVICES. ELECTRICAL DEVICES SHALL BE MOUNTED LONG AXIS VERTICAL AT THE FOLLOWING HEIGHTS AFF TO CENTER OF DEVICE: SWITCHES +48", RECEPTACLES +18", VOICE/DATA JACKS +18", UNLESS NOTED OTHERWISE WITHIN THE DRAWINGS.
4. ON NEW FLOOR PLANS: ALL ITEMS SHOWN IN LIGHT LINE WEIGHT ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE. ALL ITEMS SHOWN IN HEAVY LINE WEIGHT ARE NEW OR RELOCATED AS NOTED.
5. ALL 120V BRANCH CIRCUITS SHALL BE 3-WIRE (PHASE, NEUTRAL, GROUND). PHASE, NEUTRAL, AND GROUND CONDUCTORS SHALL BE NO. 12 AWG UNLESS NOTED OTHERWISE. ALL BRANCH CIRCUITS AND FEEDERS SHALL HAVE EQUIPMENT GROUNDING CONDUCTORS INSTALLED IN THE RACEWAY. USE OF THE CONDUIT BODY AS A GROUNDING METHOD IS PROHIBITED.
6. ALL MOUNTING OF ELECTRICAL DEVICES (LUMINAIRES, TRANSFORMERS, PANELS, OUTLETS, CONDUIT RUNS, ETC.) SHALL COMPLY WITH STATE AND LOCAL SEISMIC REQUIREMENTS. ALL LUMINAIRES SHALL BE SUPPORTED INDEPENDENTLY OF THE CEILING SUPPORT HANGERS IN COMPLIANCE WITH IBC AND NEC REQUIREMENTS.
7. ADA COMPLIANCE: ELECTRICAL DEVICES PROJECTING FROM THE WALLS WITH THEIR LEADING EDGES BETWEEN 27" AND 80" AFF SHALL PROTRUDE NO MORE THAN 4" INTO WALKWAYS OR CORRIDORS.
8. BACK TO BACK MOUNTING OF RECEPTACLES OR COMMUNICATION OUTLETS IS NOT PERMITTED. THE MINIMUM SEPARATION BETWEEN DEVICES SHALL BE 6" O.C. IN COMMON WALLS AND 24" O.C. IN SOUND-RATED WALLS.
9. GFCI DEVICES SHALL BE PROVIDED AS NOTED AND SHALL COMPLY WITH NEC AND LOCAL REQUIREMENTS. NO FEED-THRU GFCI PROTECTION SHALL BE PERMITTED FOR DOWNSTREAM DEVICES. GFCI DUPLEX RECEPTACLES SHALL BE UL 943 2006 "LOCK-OUT" ACTION OR "NOTIFICATION" COMPLIANT.
10. ALL RECEPTACLES IN BREAK ROOMS SHALL BE GFCI PROTECTED. PROVIDE REMOTE BLANK FACE GFCI DEVICE IN AN ACCESSIBLE LOCATION AS REQUIRED FOR INACCESSIBLE RECEPTACLES. VERIFY REMOTE BLANK FACE GFCI DEVICE LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
11. ALL ELECTRICAL CABINETS, PANELS, DISCONNECTS, TRANSFORMERS, CONTROLS, RECEPTACLES, J-BOXES, ETC., SHALL BE MARKED, TAGGED AND IDENTIFIED. PROVIDE ADHESIVE FILM LABEL, MACHINE PRINTED, IN BLACK, BY THERMAL TRANSFER OR EQUIVALENT PROCESS, WITH MINIMUM LETTER HEIGHT OF 3/8". THE LABEL SHALL IDENTIFY THE ORIGINATING PANEL AND CIRCUIT NUMBER IN THE FOLLOWING FORMAT: PANEL-CKT. NOTE FEEDER SOURCE WHERE APPLICABLE. REFERENCE SPECIFICATIONS FOR ADDITIONAL LABELING REQUIREMENTS. WHERE THE PROJECT SPECIFICATIONS INDICATE MORE STRINGENT LABELING REQUIREMENTS, THOSE REQUIREMENTS SHALL TAKE PRECEDENCE.
12. THE CONTRACTOR SHALL PROVIDE TYPED, UPDATED PANEL DIRECTORIES FOR ALL PANELS AFFECTED BY THIS SCOPE OF WORK.
13. UPON COMPLETION OF THE PROJECT, ALL CHANGES SHALL BE DOCUMENTED, AND REDLINED. AS-BUILT DRAWINGS SHALL BE TURNED OVER TO THE OWNER BY THE CONTRACTOR.
14. TRANSFORMERS INDICATED TO BE SUSPENDED FROM THE STRUCTURE SHALL BE SUPPORTED BY A UNISTRUT FRAME THAT IS ATTACHED TO THE STRUCTURE.
15. 4" CONCRETE HOUSEKEEPING PADS SHALL BE FURNISHED FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT.
16. COORDINATE THE LOCATIONS AND CONTROLS OF ALL APPLICABLE FIRE/SMOKE DAMPERS WITH THE MECHANICAL CONTRACTOR, PRIOR TO CONSTRUCTION.
17. PROVIDE (1) 3/4"C WITH BUSHING AND PULL STRING FROM EACH TELEPHONE, DATA, COMMUNICATION, AND THERMOSTAT OUTLET TO ABOVE THE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE.
18. COORDINATE THE INSTALLATION OF COMMUNICATIONS CABLING, ROUTING, MOUNTING BOXES, AND TERMINATIONS WITH THE OWNER OR IT MANAGER, PRIOR TO CONSTRUCTION.
19. ALL LOW VOLTAGE AND SYSTEMS CABLING LOCATED ABOVE THE ACCESSIBLE CEILING SHALL BE PROPERLY RATED FOR THE APPLICATION. WITHOUT EXCEPTION, ALL CABLING SHALL BE HUNG FROM BRIDLE-TYPE RINGS OR PLACED IN CABLE TRAYS BY THE ELECTRICAL CONTRACTOR. IN EXPOSED CEILING AREAS, ALL CABLING SHALL BE RUN IN CONDUIT TO THE NEAREST ACCESSIBLE CEILING LOCATION.
20. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO VERIFY EXISTING CONDITIONS. BY SUBMITTING A BID THE CONTRACTOR ACKNOWLEDGES THAT HE HAS VISITED THE SITE AND THE BID IS ADEQUATE TO PERFORM ALL OF THE WORK NECESSARY TO MAKE THE SYSTEMS COMPLETE AND OPERATIONAL. IF THE CONDITIONS AT THE SITE ARE NOT SUCH THAT THE WORK CAN BE INSTALLED AS SHOWN, CONTRACTOR'S BID SHALL INCLUDE COST TO COVER NECESSARY ADJUSTMENTS AND ADDITIONS, BASED UPON SITE CONDITIONS, TO MAKE THE SYSTEMS COMPLETE AND OPERATIONAL. CONTRACTOR SHALL CONTACT ARCHITECT/ENGINEER WITH ANY FIELD DISCREPANCIES.
21. ON DEMOLITION PLANS: ALL ITEMS SHOWN IN LIGHT LINE WEIGHT ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE. ALL ITEMS SHOWN IN HEAVY LINE WEIGHT SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
22. IN REMODEL AREAS WHERE OCCUPANCY SENSING DEVICES ARE SPECIFIED AND ARE REPLACING EXISTING MANUAL SNAP SWITCH CONTROL OF THE LIGHTING, PROVIDE A NEUTRAL CONDUCTOR FROM THE LIGHTING CIRCUIT BEING CONTROLLED TO THE OCCUPANCY SENSING DEVICE (OR SWITCH/POWER PACK, WHERE LOW VOLTAGE SENSORS ARE SPECIFIED). FOR BIDDING PURPOSES, ASSUME THAT THE EXISTING SNAP SWITCHES ARE WIRED WITHOUT A NEUTRAL CONDUCTOR, AND A NEW NEUTRAL CONDUCTOR WILL BE REQUIRED.
23. THE NEW WIRING REQUIRED IN REMODELED AREAS SHALL BE FISHED THROUGH EXISTING WALLS OR CONCEALED IN NEW WALLS OR ABOVE CEILINGS. SURFACE MOUNTED CONDUIT SHALL NOT BE USED IN ANY FINISHED AREAS. CONTRACTOR SHALL NOT ROUTE ANY CONDUIT WITHIN STRUCTURAL OR TOPPING SLABS OF FLOORS UNLESS NOTED TO DO SO.
24. ITEMS THAT ARE SHOWN TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY INCLUDING ALL ASSOCIATED CONDUIT, WIRE, AND HANGERS BACK TO THE POINT OF ORIGIN OR THE NEAREST EXISTING ITEM THAT IS REMAINING, UNLESS NOTED OTHERWISE. WHERE EXISTING DEVICES, SWITCHES, MOTOR CONNECTIONS, ETC. ARE TO BE REMOVED FROM WALLS WHICH ARE REMAINING, WALLS SHALL BE PATCHED TO MATCH ORIGINAL FINISH AFTER CONDUCTORS HAVE BEEN REMOVED. BLANK COVERPLATES OVER EXISTING BOXES ARE NOT ACCEPTABLE. IF EXISTING CONDUITS ARE ROUTED IN CONCRETE FLOOR SLABS, WALLS OR CEILINGS, THEY SHALL BE CUT BACK TO WITHIN CONCRETE AND FILLED WITH GROUT TO ACHIEVE A SMOOTH AND EVEN FINISH FLUSH WITH CONCRETE SURFACE AFTER CONDUCTORS HAVE BEEN REMOVED.
25. MAINTAIN CIRCUIT CONTINUITY FOR EXISTING ITEMS THAT ARE REMAINING OR BEING RELOCATED.

DVO PROJECT – 191035

yes prep PUBLIC SCHOOLS

2007 Ea architects

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REGISTRATION NO. F-8334

No.	Description	Date
	ISSUE FOR PERMIT	03/01/19

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

8329 LAWNDALE ST.
HOUSTON, TX 77012

ELECTRICAL SYMBOLS + ABBREVIATIONS

Project Number	18111
Date	03/01/19
Drawn By	KL
Checked By	JF

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Scale As Indicated

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DIVISION 16 - ELECTRICAL SPECIFICATIONS

Section 16050 - Common Work Results for Electrical

1. Provide all labor, materials, equipment and incidentals for completion of all electrical systems described herein. All electrical equipment and material shall be installed in accordance with requirements, governing authorities, and in a neat and workman like manner by skilled and competent electricians in conformance with the standard practices of the electrical industry. All electrical systems shall be complete and operational to the benefit of the owner.

   A. Good workmanship and appearance are considered equal to proper operation.

   B. The contractor shall provide all foreseeable electrical equipment and accessories necessary, whether specifically stated or not, to make the required electrical systems complete and operational.

2. The electrical contractor shall comply with the requirements of the general conditions, supplemental general conditions of the project specifications, any base building specifications and building criteria, and all contract specifications and documents.

3. Definitions and standards:

   A. "Provide" means contractor is responsible for the furnishing and installation of.

   B. "Exposed" means where it can be seen after the building is completed such as in equipment rooms, unfinished areas, accessible tunnels, etc. where conduit/equipment is accessible.

   C. "Concealed" means where it cannot be seen after the building is completed such as in spaces as chases, trenches, above ceilings, in walls and buried where conduit/wire is inaccessible when building is completed.

   D. Standards for materials: all materials shall be new except as otherwise stated, and shall conform with the current applicable industry standards, NEMA standards and Underwriters Laboratories standards.

4. Coordinate and order the progress of electrical work to conform to the owner's schedule and the progress of the work of the other trades.

5. Apply for and pay for all permits, fees, licenses and inspections for this division of work.

6. Provide temporary lighting and power as required.

7. Visit the project site before submitting a bid as no extras will be allowed for lack of knowledge of obvious existing conditions.

8. Drawings are diagrammatic in nature. Take all dimensions from architectural drawings, certified equipment drawings and from the structure itself before fabricating any work.

9. Comply with the latest federal, state and local codes requirements, and ordinances, with the National Electrical Code of the National Fire Protection Association, and with requirements of the power and telephone companies furnishing services to the project. The following is a brief list of applicable codes:

   A. NFPA No. 70 - National Electrical Code, latest edition

   B. NFPA No. 72 - Fire Alarm, latest edition

   C. NFPA No. 101 - Life Safety Code, latest edition

   D. IBC & UBC, latest edition

   E. Local building codes, latest edition

10. All equipment and materials shall be new unless noted otherwise and acceptable for installation only if labeled or listed as defined in NFPA 70, Article 100, by UL or by a recognized testing laboratory where standards have been established and acceptable to the authority having jurisdiction. Labeled or Listed equipment shall be installed in accordance with any instructions or labeling provided with the equipment.

11. Provide all core drilling, channeling, cutting, patching, sleeves, etc. as required for installation of electrical equipment. Seal holes, providing fireproof sealant where necessary, and refinish all repair work to original condition where damaged by electrical work.

    A. Coordinate core drill locations with structural prior to starting work.

    B. Coordinate underground site utilities with appropriate utility company prior to starting work.

12. Make provisions for safe delivery and secure storage of all materials.

13. Warranties: Provide a written warranty to the owner covering the entire electrical work excluding incandescent and fluorescent lamps, to be free from defective materials, equipment and workmanship for a period of one year after date of acceptance. All equipment or materials that fail during the warranty period shall be replaced or repaired by the electrical contractor in a timely fashion at no cost to the owner.

14. Manufacturers: Subject to compliance with requirements, provide products by the manufacturer(s) specified on the drawings or provide products from manufacturers with similar construction and performance characteristics.

15. Product Alterations and Substitutions: Should the contractor wish to have products considered other than those specified, contractor must submit those items as required in Division 1. Contractor will be required to submit the total savings (anticipated savings) to the owner.

16. Shop Drawings: Submit shop drawings as required in Division 1 for all materials and equipment. Provide manufacturer's standard catalog pages and data sheets including detailed information on product construction, physical dimensions, ratings, listings, power consumption, finishes, mounting requirements, service conditions, and installed accessories; include model number nomenclature clearly marked with all proposed features. Provide separate product data information for each product indicated using Engineer's naming convention. If the shop drawings deviate from the contract documents, advise the engineer of the deviations via written format, accompanying the shop drawings. Include the reason for the deviation(s). Coordinate all required changes with the other trades affected. If the changes are occasioned by the contractor, the contractor shall pay any costs involved.
    Shop drawings shall include but are not limited to the following:

    A. Product data for lighting.
    B. Product data for lighting control devices.
    C. Product data for panelboards.
    D. Product data, calculations and drawings for fire alarm system.

17. Project Record Drawings: At completion of work, deliver completed project record documents to architect/engineer. Project record documents shall be in CAD and shall include any special systems (fire alarm, etc.) and "project record" shop drawings.

18. Operation and Maintenance Manuals: Submit number as required by Division 1, typed and hard bound to architect for approval prior to scheduling any system demonstration for the owner and fifteen (15) days prior to final observation. Books shall be arranged in sequence to match the specification sections.

16051 - Seismic

1. All seismic requirements and design shall be through delegated design. Contractor shall be required to provide all necessary equipment seismic calculations, anchors, supports, etc. as required by A.H.J. for compliance with seismic requirements.

Section 16060 - Grounding and Bonding

1. Conduit systems, supports, cabinets, equipment, transformers, fixtures, the grounded circuit conductor, etc. shall be properly grounded in accordance with the current issue of the National Electrical Code. Provide all bonding jumpers and wire, grounding bushings, clamps, etc. as r required for complete grounding.

   A. Connections shall be either bolted-pressure-type, compression type or exothermic-welded type.

2. Provide a separate equipment grounding conductor in all feeder and branch circuits and all flexible and nonmetallic raceways.

3. Grounding Conductor Material: Copper.

Section 16070 - Hangers and Supports

1. Provide hangers and supports for equipment, raceways and cables, including weight of wire in raceways. All systems cabling shall be supported by bridal rings or similar means.

2. Use hot-dipped galvanized material or nonmetallic, U-channel systems for all damp and outdoor locations.

3. Steel material shall be used for dry locations.

Section 16075 - Electrical Identification

1. Provide labeling for raceways, cables and devices.

2. Color Coding of Phase Conductors:

   A. Conductors No. 8 AWG and smaller shall be factory color coded. Wire No. 6 AWG and larger may be color coded by field painting or color taping a 6-inch length of exposed end.

   B. Wiring for control systems shall be color-coded in accordance with the wiring diagrams furnished with the equipment.

	277/480 volts	120/208 volts
Phase a:	brown	black
Phase b:	orange	red
Phase c:	yellow	blue
Neutral:	gray	white
Ground	green	green
Travelers:	purple	pink

Section 16080 - Electrical Testing

1. Provide testing of all electrical systems and components as required by all applicable building codes and ordinances, UL, NEMA, ANSI, ICEA, NECA, etc., and as recommended by the electrical equipment manufacturers.

Section 16105 - Demolition for Remodeling

1. Field check all existing conditions prior to bidding and include an allowance for the removal and relocation of existing conduits, wires, devices, fixtures, or other equipment as indicated or as required to coordinate and adapt new and existing electrical systems to all other work required on this project. No extras will be allowed for alterations of a foreseeable nature required to achieve the end result as indicated on the drawings.

2. Where the reuse of existing conduits, outlets, junction boxes, etc., is permissible, make certain that the wiring for them is continuous from outlet to outlet and that all splices and insulations are in good condition. Provide modifications to assure that circuits, or system shall not pass through outlets or junction boxes which may be rendered inaccessible by changes to be made to the project. Existing conduits, wire, devices, etc., which shall be removed shall become the property of the owner unless otherwise noted.

3. Connect new work to existing in a manner that will assure proper raceway grounding throughout in conformance with the National Electrical Code.

4. Remodel Work, Cutting and Patching: Electrical contractor shall perform all cutting, channeling, chasing, drilling, etc., as required to install or remove electrical equipment in areas of remodeling. This work shall be performed so as to minimize damage to portions of wall finishes, surfaces, plastering, or the structures which are to be reused, resurfaced, plastered, or painted under other divisions of these specifications.

5. Carefully coordinate with the required remodeling work, cutting and patching etc., performed by other trades. Remove or relocate existing electrical conduits, wires, devices, fixtures and other equipment as necessary.

6. All outages on portions of existing electrical systems shall be minimized and shall be at a time and of a duration as accepted by the owner.

Section 16120 - Conductors and Cables 600-V and Less

1. Minimum size No. 12 AWG except for control or signal circuits, which may be No. 14 AWG or smaller. Increase conductor size as necessary to limit branch circuit voltage drop to 3 percent and service/feeder voltage drop to 2 percent.

2. All wiring shall be as follows:

   A. Branch circuits concealed in ceilings, walls, and partitions, and concealed in concrete or below slabs-on-grade: Type THHN-THWN, single conductors in raceway.

   B. Fire alarm circuits: Type THHN-THWN, in raceway or power-limited, fire-protective, signaling circuit cable, Type NPLFP or PLFP.

   C. Class 1 control circuits: Type THHN-THWN, in raceway.

   D. Class 2 control circuits: Type THHN-THWN, in raceway or power-limited cable, concealed in building finishes.

3. All conductors shall be copper; solid conductor for No.12 AWG and smaller, stranded for No. 10 AWG and larger.

4. Splices for No. 6 AWG and smaller shall be made with twist-on wire connectors.

5. Splices for No. 4 AWG and larger shall be made with solderless or compression type CU/ALR lugs.

6. Wiring for control systems shall be installed in conjunction with mechanical and miscellaneous equipment.

7. Install conductor at each outlet, with at least 6 inches of slack to allow for connection to device.

8. Testing: Perform the following field quality-control testing:

   A. Torque test conductor connections and terminations to manufacturer's recommended values.

   B. Perform continuity test on all power and equipment branch circuit conductors. Verify proper phasing connections.

   C. Insulation Test: Measure the insulation of feeder conductors. Measurements shall be taken between conductors, and conductors and ground. Resistance shall be 1,000,000 Ohms or more when tested at 500 Volts by megger without circuit loads.

Section 16130 - Raceways

1. All conductors shall be enclosed by conduit sized in accordance with Chapter 9, Table 4 of the National Electrical Code. Minimum size 1/2 inch. All conduits shall be concealed in finished areas.

2. Galvanized Rigid Metal Conduit (RMC) and Intermediate Metal Conduit (IMC) shall be utilized for above and below grade applications in accordance with Articles 344 and 342 of the National Electrical Code. All couplings shall be threaded.

3. Electrical Metallic Tubing (EMT) shall be utilized for all dry, above grade or above floor feeders and branch circuit homerun applications in accordance with Article 358 of the National Electrical Code. Couplings shall be steel set screw type.

4. Metal-Clad Cable (MC) with separate ground conductor shall be permitted for all concealed, above grade or above floor branch circuit applications excluding homeruns in accordance with Article 330 of the National Electrical Code. Connectors shall be listed for application of service indicated.

5. Flexible Metal Conduit (FMC) shall be utilized for all connections to vibrating equipment such as motors (minimum of 2'-0", maximum of 6'-0"), connections to lay-in type light fixtures or in remodel areas specifically noted for "fishing" in existing walls or non-accessible ceilings.

6. Surface metallic raceways shall be limited to only areas specifically noted and of size and type specified on the drawings.

7. All exposed conduits shall be installed parallel with or perpendicular to building lines.

8. Provide expansion type fittings for all conduits that cross expansion joints.

9. Conduits and/or circuits that penetrate fire-rated construction shall be sealed fire and smoke tight at the penetration in a manner that maintains the fire-resistance rating.

Section 16137 - Boxes, Enclosures and Cabinets

1. Outlet boxes:

   A. Four inch square or octagonal, zinc-coated sheet steel type.

   B. Outlet boxes shall be located so that transmission of sound through common walls will not occur.

   C. Enclosures exposed to weather or damp locations shall be weatherproof type.

2. Provide covers set to be flush with finished walls.

3. Pull Boxes and Junction Boxes: Junction boxes and pull boxes shall be provided as required. Size of boxes shall be in accordance with the current National Electrical Code requirements.

   A. Enclosures shall be NEMA type suitable for the surrounding area and conditions.

4. Floor Boxes: Floor boxes shall be cast metal, fully adjustable, or as specified on the drawings.

Section 16140 - Wiring Devices

1. Receptacles shall be 20 Amp Hubbell HBL5352 series specification grade, or acceptable. GFCI and exterior receptacles shall be Hubbell GF5352 series, or acceptable and if required provide weatherproof in-use metal type cover, or acceptable. Provide device color as directed by the architect, or to match base building standards, whichever is applicable.

2. Quiet operating type switches shall be 120/277-V, 20 Amp Hubbell 1221 series, or acceptable.

3. Provide special purpose outlets as required for equipment provided by others.

4. Device plates shall be high abuse nylon, color as directed by the architect, or to match base building standards, whichever is applicable.

5. Mount devices in accordance with the following schedule except where otherwise noted on the drawings or in areas with counters, baseboard heaters or in areas of block or brick construction:

Convenience receptacles:	long axis vertical at 1'-6" AFF to center *
Light switches:	latch side of door at 4'-0" AFF to center
Telephone outlets:	long axis vertical at 1'-6" AFF to center *

* Except in areas with counters, baseboard heaters, or in areas of block or brick construction.

Section 16145 - Lighting Control Devices

1. Occupancy Sensors: As specified on the drawings.

2. Multiple Contactors and Relays: Electrically operated and mechanically held, complying with UL 508 and NEMA ICS 2, with current rating for switching as required and control coil voltage to match control power source.

3. Testing: Set and operate devices to demonstrate their functions and capabilities in a methodical sequence that cues and reproduces actual operating functions.

Section 16180 - Equipment Wiring Systems

1. Provide branch circuits to equipment provided by others and to mechanical equipment and make all connections. Temperature control equipment wiring and connections shall be provided by the mechanical contractor.

2. Provide safety switches and/or thermal overload switches as required.

3. Heater units in all motor starters shall be sized for approximately one hundred fifteen percent (115%) of full load motor current. Check and coordinate all thermal protective devices with the equipment they protect.

4. Provide for each motor, one-half (1/2) horsepower and below, a horsepower rated disconnect switch and thermal overload protection unless internally provided with the motor. Thermal overload switches for single phase motors shall be Allen-Bradley Bulletin 600 or acceptable.

5. Carefully coordinate all electrical work with all other applicable divisions.

Section 16442 - Panelboards

1. Provide dead-front, circuit breaker type panels, size, voltage, amperage and number of branches as indicated on the drawings. Breakers shall be thermal magnetic type (bolted) employing quick-make and quick-break mechanism for manual operation as well as automatic operation. Automatic tripping shall be indicated by the breaker handle assuming a distinctive position from the manual "on" and "off" multi-pole breakers shall have a common trip. Tie handles will not be permitted.

2. All spaces shall be fully bussed.

3. Panelboards shall have a grounding bus for the equipment grounding system.

4. Circuit breakers shall have a minimum interrupting capacity as follows, unless otherwise noted:

120/208 Volts:	10,000 amperes
277/480 Volts:	14,000 amperes

5. Panelboards shall be a minimum twenty inches (20") wide.

6. All bussing shall be tin-plated, high strength, electrical grade aluminum alloy and extend entire length of the panelboard.

7. Distribution panelboards shall be provided with a hinged lockable door.

8. Lighting and appliance panelboards shall be provided with front cover screwed to the box.

9. Each panelboard shall be provided with a typed directory card installed in a transparent protective cover on inside of door panel.

10. Enclosure: NEMA type suitable for the surrounding area and conditions.

11. Install floor-mounted panelboards on 4 inch high concrete base extending a minimum of 2 inches beyond enclosure.

12. Testing: Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit. test continuity of each circuit. after installing panelboards and after electrical circuitry has been energized, demonstrate product capability and compliance with requirements. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

13. Upon completion of installation, inspect interior and exterior of panelboards. Remove paint splatters and other spots, dirt and debris. Vacuum dirt and debris; do not use compressed air to assist cleaning. Touch up scratched and marred finishes to match original finish.

14. Panelboards shall be as manufactured by Eaton Corp.; Cutler Hammer, General Electric Co., Siemens Energy and Automation, Inc., or Square D Co.

Section 16460 - Transformers (Low Voltage)

1. Transformers rated 15kVA and larger

   A. Comply with 10 CFR 431 (DOE 2016) efficiency levels.
   B. Marked as compliant with DOE 2016 efficiency levels by an NRTL.

2. Cores: Electrical grade, non-aging silicon steel with high permeability and low hysteresis losses.

   A. One leg per phase.

   B. Core volume shall allow efficient transformer operation at 10 percent above the nominal tap voltage.

   C. Grounded to enclosure.

3. Coils: Continuous windings without splices except for taps.

   A. Coil material: Aluminum or Copper.

   B. Internal coil connections: Brazed or pressure type.

   C. Terminal connections: welded or bolted.

4. Encapsulation: Transformers smaller than 30kVA shall have core and coils completely resin encapsulated.

5. Enclosure: Ventilated.

   A. NEMA 250, Type 2: Core and coil shall be encapsulated within resin compound to seal out moisture and air.

   B. KVA Ratings: Based on convection cooling only and not relying on auxiliary fans.

   C. Wiring Compartment: Sized for conduit entry and wiring installation.

   D. Finish: Comply with NEMA 250, gray weather-resistant enamel.

6. Insulation Class, Smaller Than 30kVA: 180 deg C, UL-component-recognized insulation system with a maximum of 115 deg C rise above 40 deg C ambient temperature.

7. Insulation Class, 30kVA and Larger: 220 deg C, UL-component-recognized insulation system with a maximum of 115 deg C rise above 40 deg C ambient temperature.

8. Grounding: Provide ground-bar kit or a ground bar installed on the inside of the transformer enclosure.

9. Electrostatic Shielding: Each winding shall have an independent, single, full-width copper electrostatic shield arranged to minimize interwinding capacitance.

   A. Arrange coil leads and terminal strips to minimize capacitive coupling between input and output terminals.

   B. Include special terminal for grounding the shield.

10. Transformers shall be as manufactured by Eaton Corp.; Cutler Hammer, General Electric Co., Siemens Energy and Automation, Inc., or Square D Co.

Section 16511 - Interior Lighting

1. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified on the drawings or provide products from manufacturers with similar construction and photometric characteristics.

2. Fluorescent ballasts shall be electronic programmed rapid start type with less than 10 percent of total harmonic distortion, with input power factor above 97 percent, and provided with internal protection in case operating temperatures exceed a safe level of operation. Fluorescent ballasts shall be as manufactured by Advance, Universal, General Electric or Osram/Sylvania.

3. Exit lights shall conform to local code requirements.

4. Interior emergency fluorescent power supply units shall be self-contained, modular, battery-inverter unit, factory mounted within luminaire body, and shall comply with UL 924.

5. Lamps shall be as manufactured by Osram/Sylvania, Phillips, or General Electric.

6. Color temperature for fluorescent lamps shall be as specified in the drawings.

7. Set luminaires level, plumb, and square with ceiling and walls, and secure according to manufacturer's written instructions and approved submittal materials. Install lamps in each luminaire. Do not support luminaries to the work of other trades unless otherwise specified or noted. All luminaires shall be independently supported from structure. Provide all necessary additional supports and hangers to securely fasten and support all luminaires to structure.

8. Inspect each installed luminaire for damage. Replace damaged luminaires and components. Verify normal operation of each luminaire after installation. Interrupt the electrical supply to verify proper operation of the emergency lighting. If luminaires are malfunctioning, then repair or replace components and retest until luminaire operates properly.

9. Clean luminaires internally and externally after installation per manufacturer's Recommendations.

10. Replace any failed lamps in existing fixtures with matching lamp type and CCT.

Section 16620 - Standby Power Generator Systems

1. Performance Requirements

   A. Seismic Performance: Engine generator housing, tank, engine generator, batteries, battery racks, silencers, sound attenuating equipment, accessories, and components shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

   B. Comply with B11.19.

   C. Comply with NFPA 37, NFPA 70, NFPA 99, and NFPA 110.

   D. Comply with UL 2200.

   E. Engine Exhaust Emissions: Comply with EPA requirements and applicable state and local government requirements based upon intended usage Tier.

   F. Noise Emission: Comply with applicable state and local government requirements for maximum noise level at adjacent property boundaries.

   G. Environmental Conditions: Engine generator system shall be rated to withstand the normal environmental conditions for the location in which it will be installed without mechanical or electrical damage or degradation of performance capability. This includes, but is not limited to ambient temperature, relative humidity, and altitude.

Section 16714 - Communication Raceway Systems

1. Provide empty conduit systems with No. 14 AWG pull wire and back boxes. Back boxes shall be 4 inch square galvanized pressed steel with single gang plaster ring. Provide 3/4 inch conduit with pull wire from each back box to 6 inches above nearest accessible ceiling.

2. All equipment, wiring/cable, devices and coverplates shall be provided and installed by the owner.

Section 16721 - Fire Alarm System, Non-coded Addressable

1. Fire alarm device layouts and if applicable one-line diagram are for information only to indicate possible system configuration. The information shown is intended to be used as a guide by the contractor to complete their design and does not include all the necessary items for installation. The contractor shall be responsible for the design and installation of the fire alarm system in compliance with these specifications, NFPA 72, and local codes. The contractor shall prepare fire alarm system drawings sealed by a fire protection engineer for submittal to the authority having jurisdiction and to be used for construction as part of their scope of work.

   A. Relocate existing fire alarm devices and provide new devices as shown.

   B. Provide all necessary conduit and wiring to extend existing base building fire alarm system as necessary.

2. The fire alarm system installation shall comply with NFPA 72, all other code requirements and local authority requirements.

3. Manual pull stations: double-action with station reset to match existing. An integral addressable module shall be provided to communicate with the FACP and if applicable a remote annunciator.

   A. Install such that handle is 48 inches above finished floor.

4. Smoke detectors: photoelectric type with integral led light to match existing .

5. Duct smoke detectors: photoelectric type with air sampling tubes extending the full length of the duct to match existing. Detectors shall be provided with an interface to the air handling unit control for shut down of the unit when smoke is detected.

6. Combination devices: factory-integrated audible and visual devices in a single-mounting assembly to match existing.

   A. Horns to match existing. Horns shall produce the ANSI temporal pattern at a sound-pressure level of 85 db, measured 10 feet from the horn per UL 464. Temporal pattern shall be synchronized.

   B. Visual alarm devices to match existing shall be listed under UL 1971 with clear polycarbonate lens. The word "fire" shall be engraved in minimum 1 inch high letters on faceplate. Strobes shall comply with NFPA 72 requirements for flash frequency and shall be synchronized. Provide candela level as required to suite the space in which it is installed.

   C. Visual devices shall be mounted not less than 80 inches above the finished floor or 6 inches below ceiling, whichever is lower.

7. LED indicating lights with integral test switch shall be provided for detectors that may not be readily visible. Light shall be connected to turn on when the associated device is in an alarm or trouble mode. Device shall mount in a single gang stainless steel plate. A red, laminated, phenolic-resin identification plate at the indicating light shall identify, in engraved white letters, device initiating the signal and room where the device is located.

8. The fire alarm control panel (FACP) and annunciator panel (FAAP): existing to remain.

   A. Upgrade and reprogram existing FACP software to reflect remodel conditions as required through a subcontractor to a factory authorized installer.

   B. Revise FAAP configuration and information to reflect remodel changes.

9. Emergency power supply system existing to remain.

   A. Provide new battery calculations as part of the shop drawing submittal as required by the authority having jurisdiction.

10. Provide control and/or monitor modules for devices such as fire/smoke dampers, etc. as required. Addressable modules shall be located within 3'-0" of the monitored switch or circuit.

11. Digital alarm communicator transmitter existing to remain.

12. Functional description of system.

    A. Control of system: by the FACP.

    B. System supervision: automatically detect and report open circuits, shorts, and grounds of wiring for initiating devices, signaling line, and notification appliance circuits.

    C. Transmission to remote alarm receiving station.

    D. Performance of initiating device circuits: NFPA 72, Style B circuits. Circuits shall be installed in conduit.

    E. Performance of notification appliance circuits: NFPA 72, Style Y. Circuits shall be installed in conduit.

    F. Performance of device monitoring signaling line circuits: NFPA 72, Style 4. circuits shall be installed in conduits.

13. Basic alarm performance requirements: unless otherwise indicated, operation of a manual station, automatic alarm operation of a heat detector, operation of a sprinkler flow device, or verified automatic alarm operation of a smoke detector shall initiate the following:

    A. Notification appliance operation.

    B. Identification at the FACP of the device address originating the alarm.

    C. Provide mechanical unit shut down and control of dampers, etc. as required.

    D. Provide control of door hold-opens or other doors as required.

    E. Released doors locked by security system.

14. Testing: test the system according to procedures outline in NFPA 72.

15. Provide certificate of operation at completion of testing and after any malfunctions have been corrected.

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No.	Description	Date
	ISSUE FOR PERMIT	03/01/19

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

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ELECTRICAL SPECIFICATIONS

Project Number	18111
Date	03/01/19
Drawn By	KL
Checked By	JF

E001

Scale: As Indicated

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GENERAL ELECTRICAL NOTES:

A. LUMINAIRES AND SWITCHES LABELED "(E)" ARE EXISTING TO REMAIN WHERE SHOWN UNLESS OTHERWISE NOTED. MAINTAIN CIRCUIT CONTINUITY FOR THESE DEVICES AS REQUIRED.

B. REMOVED LUMINAIRES AND EXIT SIGNS NOT BEING REUSED SHALL BE RETURNED TO BUILDING OWNER FOR FUTURE USE.

C. ELECTRICAL CONTRACTOR SHALL INSPECT EXISTING AND RELOCATED FIXTURES IN WORK AREA. REPLACE ALL NECESSARY COMPONENTS, RELAMP AND CLEAN AS REQUIRED TO MAINTAIN LIKE-NEW LIGHT FIXTURE APPEARANCE. ENSURE THAT ALL LAMPS HAVE THE SAME COLOR RENDERING INDEX (CRI) AND COLOR TEMPERATURE (KELVIN), AND ARE OF CLIENT APPROVED MANUFACTURER THROUGHOUT THE AREA OF WORK. VERIFY LIGHT FIXTURE AND LAMP REQUIREMENTS WITH CLIENT PRIOR TO BEGINNING ANY WORK.

D. LUMINAIRES SHALL BE FURNISHED AND INSTALLED WITH LAMPS, BALLAST(S), AND MOUNTING HARDWARE. ELECTRICAL CONTRACTOR SHALL SUBMIT FIXTURE CUT SHEETS TO CLIENT AND ARCHITECT FOR THEIR FINAL APPROVAL PRIOR TO ORDERING OF THE LUMINAIRES.

E. ELECTRICAL CONTRACTOR SHALL COORDINATE LIGHTING FIXTURE QUANTITIES, MOUNTING REQUIREMENTS, FINISHES, FIXTURE AVAILABILITY AND LEAD TIME FOR DELIVERY TO SITE.

F. FLUORESCENT AND LED LUMINAIRES THAT CONTAIN BALLAST(S) AND/OR LED DRIVERS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS PER NEC ARTICLE 410.130(G) REQUIREMENTS. DISCONNECTING MEANS IS NOT REQUIRED FOR EMERGENCY ILLUMINATION REQUIRED IN 700.16.

G. COORDINATE LAYOUT AND INSTALLATION OF LUMINAIRES AND MOUNTING MEANS WITH OTHER CONSTRUCTION THAT IS SUPPORTED OR THAT PENETRATES CEILINGS, INCLUDING BUT NOT LIMITED TO HVAC EQUIPMENT, FIRE-SUPPRESSION SYSTEM, AND PARTITION ASSEMBLIES PRIOR TO BEGINNING ANY WORK. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN HVAC EQUIPMENT AND LOCATION OF LUMINAIRES. VERIFY CLEARANCES REQUIRED.

H. ALL LUMINAIRES SHALL BE POSITIVELY ATTACHED TO THE SUSPENDED CEILING SYSTEM BY MECHANICAL MEANS. LISTED SUPPORT CLIPS, LISTED FOR USE WITH THE TYPE OF CEILING GRID MEMBER AND LUMINAIRE, ARE PERMITTED AT EACH FIXTURE CORNER. FIXTURES WEIGHING LESS THAN 50 POUNDS SHALL ALSO HAVE A MINIMUM OF TWO NO. 9 GAUGE WIRES CONNECTED FROM THE OPPOSITE CORNERS OF THE FIXTURE HOUSING TO STRUCTURE. FIXTURES ABOVE 50 POUNDS SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE. FIXTURES OF SIZES LESS THAN CEILING GRID SHALL BE SUPPORTED INDEPENDENTLY WITH AT LEAST TWO 3/4-INCH LISTED METAL CHANNELS SPANNING AND SECURED TO CEILING TEES AND SUPPORTED WITH WIRES OR ROD TO BUILDING STRUCTURE.

I. ALL LUMINAIRES AND FLEXIBLE WIRING WHIPS SHALL BE SUPPORTED INDEPENDENTLY OF THE GRID SUPPORT SYSTEM.

J. ELECTRICAL CONTRACTOR SHALL PURCHASE ANY ADDITIONAL LUMINAIRES REQUIRED, DUE TO DAMAGE OR CLIENT REQUEST. MATCH EXISTING LUMINAIRES IN THE AREA.

K. MOUNT MULTIPLE LIGHT SWITCHES IN A MULTIPLE GANG BOX WITH SINGLE COVER PLATE.

L. MULTIWIRE BRANCH CIRCUITS SHALL BE PROVIDED WITH A SIMULTANEOUS DISCONNECTING MEANS TO DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT OF ORIGIN. DISCONNECTION CAN BE ACCOMPLISHED THROUGH LISTED HANDLE TIES USED WITH SINGLE-POLE CIRCUIT BREAKERS OR MULTI-POLE DEVICES. BRANCH CIRCUIT(S) SERVING EMERGENCY LIGHTING SHALL NOT BE PART OF A MULTI-WIRE BRANCH CIRCUIT.

M. GROUNDED AND UNGROUNDED CONDUCTORS OF EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE GROUPED WITH WIRE TIES OR SIMILAR MEANS AT A MINIMUM OF ONE LOCATION WITHIN THE PANELBOARD OR OTHER POINT OF ORIGIN.

N. SWITCHES CONTROLLING LIGHTING LOADS: WHERE SWITCHES CONTROL LIGHTING LOADS SUPPLIED BY A GROUNDED GENERAL PURPOSE BRANCH CIRCUIT, THE GROUNDED CIRCUIT CONDUCTOR (NEUTRAL WIRE) FOR THE CONTROLLED LIGHTING CIRCUIT SHALL BE PROVIDED AT THE SWITCH LOCATION. EXISTING SWITCHES IN REMODELED SPACES SHALL NOT BE EXEMPT FROM THIS REQUIREMENT.

O. WHERE DIMMING CONTROL IS SPECIFIED AS A PORTION OF A CIRCUIT THAT ALSO HAS SWITCHED LIGHTING IN ADJACENT SPACES, PROVIDE A SEPARATE, DEDICATED NEUTRAL WIRE FROM THE DIMMING DEVICE BACK TO THE ORIGINATING PANEL.

P. IN REMODEL AREAS WHERE OCCUPANCY SENSING DEVICES ARE SPECIFIED AND ARE REPLACING EXISTING MANUAL SNAP SWITCH CONTROL OF THE LIGHTING, PROVIDE A NEUTRAL CONDUCTOR FROM THE LIGHTING CIRCUIT BEING CONTROLLED TO THE OCCUPANCY SENSING DEVICE (OR SWITCH/POWER PACK, WHERE LOW VOLTAGE SENSORS ARE SPECIFIED). FOR BIDDING PURPOSES, ASSUME THAT THE EXISTING SNAP SWITCHES ARE WIRED WITHOUT A NEUTRAL CONDUCTOR, AND A NEW NEUTRAL CONDUCTOR WILL BE REQUIRED.

Q. ALL SWITCHES SHALL BE LABELED WITH DESIGNATED PANEL AND CIRCUIT NUMBER(S) ON THE COVER PLATE.

R. PROVIDE AN UNSWITCHED HOT AT EACH EMERGENCY LIGHT FIXTURE AND EMERGENCY LIGHTING UNIT. EMERGENCY LIGHTING SHALL BE SUPPLIED WITH A BATTERY TO SUPPLY AND MAINTAIN EMERGENCY LIGHTING LEVELS FOR A MINIMUM PERIOD OF 90 MINUTES.

S. SHADED LUMINAIRES, EMERGENCY LIGHTING UNITS, AND EXIT SIGNS SHALL BE CONNECTED TO THE THE NORMAL LIGHTING CIRCUIT IN THE AREA AND CONNECTED AHEAD OF ANY CONTROLS.

T. EMERGENCY LUMINAIRES SHALL WITH SWITCH LEG SUBSCRIPT LETTER SHOWN SHALL BE CONTROLLED ALONG WITH OTHER LUMINAIRES SHARING SWITCH LEG SUBSCRIPT LETTER. ELECTRICAL CONTRACTOR SHALL CONNECT EMERGENCY LIGHT FIXTURE PER MANUFACTURER'S WIRING DIAGRAMS. SWITCHED EMERGENCY BALLAST WIRING CONFIGURATION REQUIRES CONNECTION TO SWITCHED AND UNSWITCHED CONDUCTORS OF SAME LIGHTING CIRCUIT.

U. ALL EXIT SIGNS ARE NEW, UNLESS NOTED OTHERWISE. MATCH NEW EXIT SIGNS WITH EXISTING. LOCATIONS OF EXIT SIGNS SHALL BE COORDINATED WITH LIFE SAFETY DRAWINGS AND LOCAL AUTHORITIES. PROVIDE SIGNS IN ADDITIONAL LOCATIONS, IF REQUIRED, BY LOCAL AUTHORITIES.

V. MOUNT NEW WALL SWITCHES AT 46" TO BOX CENTERLINE ABOVE FINISHED FLOOR (A.F.F.) TO COMPLY WITH ADA STANDARDS.

W. ELECTRICAL CONTRACTOR SHALL TEST BATTERIES IN ALL REUSED OR EXISTING EXIT SIGNS, EMERGENCY LIGHT UNITS, AND EMERGENCY FLUORESCENT LUMINAIRES. REPLACE BATTERIES, UNITS, OR BALLASTS IF REQUIRED.

GENERAL DEMOLITION NOTES:

A. COORDINATE ALL WORK WITH OTHER TRADES, ARCHITECT, CLIENT, GENERAL CONTRACTOR AND OWNER.

B. ELECTRICAL CONTRACTOR SHALL VERIFY THE SCOPE OF DEMOLITION WITH ARCHITECTURAL AND ELECTRICAL DRAWINGS. EXISTING LIGHT FIXTURES, ELECTRICAL DEVICES, EQUIPMENT, AND OTHER RELATED ITEMS SHALL BE CAREFULLY REMOVED, AS REQUIRED, FOR THE WORK UNDER THIS CONTRACT. THESE ITEMS SHALL BE, PROTECTED FROM DAMAGE, LABELED AND/OR STORED FOR FUTURE USE OR DISPOSAL AS DIRECTED BY THE BUILDING MANAGEMENT/OWNER, ARCHITECT OR ENGINEER.

C. EXISTING LIGHT FIXTURES, NOTED ON ELECTRICAL DRAWINGS TO BE RE-USED, SHALL BE CLEANED THOROUGHLY AND/OR REFINISHED TO AS NEW CONDITION.

D. CONTRACTOR SHALL REMOVE ELECTRICAL EQUIPMENT, ELECTRICAL DEVICE DEVICES AND TELECOMMUNICATIONS OUTLETS SCHEDULED FOR DEMOLITION. ALL UNUSED WIRING SHALL BE REMOVED BACK TO JUNCTION BOX(ES) IN CEILING SPACE OR TO ELECTRICAL PANEL FEEDING THE CIRCUIT.

E. ALL SPARE OR UNUSED CIRCUIT BREAKERS SHALL BE SWITCHED TO THE "OFF" POSITION AND NOTED ON PANEL DIRECTORY AS "SPARE" WITH JUNCTION BOX LOCATION IF APPLICABLE.

F. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING CIRCUIT AMPACITY FOR ALL EXISTING CIRCUITS IMPACTED BY THIS PROJECT TO ENSURE CIRCUIT CONTINUITY AND TO PREVENT OVERLOADING CIRCUIT(S). CONTRACTOR SHALL ENSURE THAT CIRCUITS SHARED BETWEEN PROJECT AREA AND EXISTING TENANT SPACES REMAIN INTACT PER ORIGINAL DESIGN INTENT. CORRECTLY LABEL ALL J-BOX COVERS WITH ACCURATE PANEL AND BRANCH CIRCUIT INFORMATION.

G. PROVIDE NEW JUNCTION BOXES, NEW CONDUIT AND WIRING AS REQUIRED FOR CIRCUIT(S) IMPACTED BY PROJECT SCOPE.

H. LOCATIONS OF EXISTING AND DEMOLISHED LIGHT FIXTURES, POWER DEVICES, ELECTRICAL EQUIPMENT, WIRING, ETC., SHOWN ON ELECTRICAL DRAWINGS HAS BEEN TAKEN FROM EXISTING DRAWINGS. ALL EXISTING CONDITIONS SHALL BE VERIFIED IN THE FIELD BY ELECTRICAL CONTRACTOR. DOCUMENT SIGNIFICANT DISCREPANCIES TO EXISTING FIELD CONDITIONS AND MAKE ANY NECESSARY ADJUSTMENTS TO ELECTRICAL DRAWINGS .

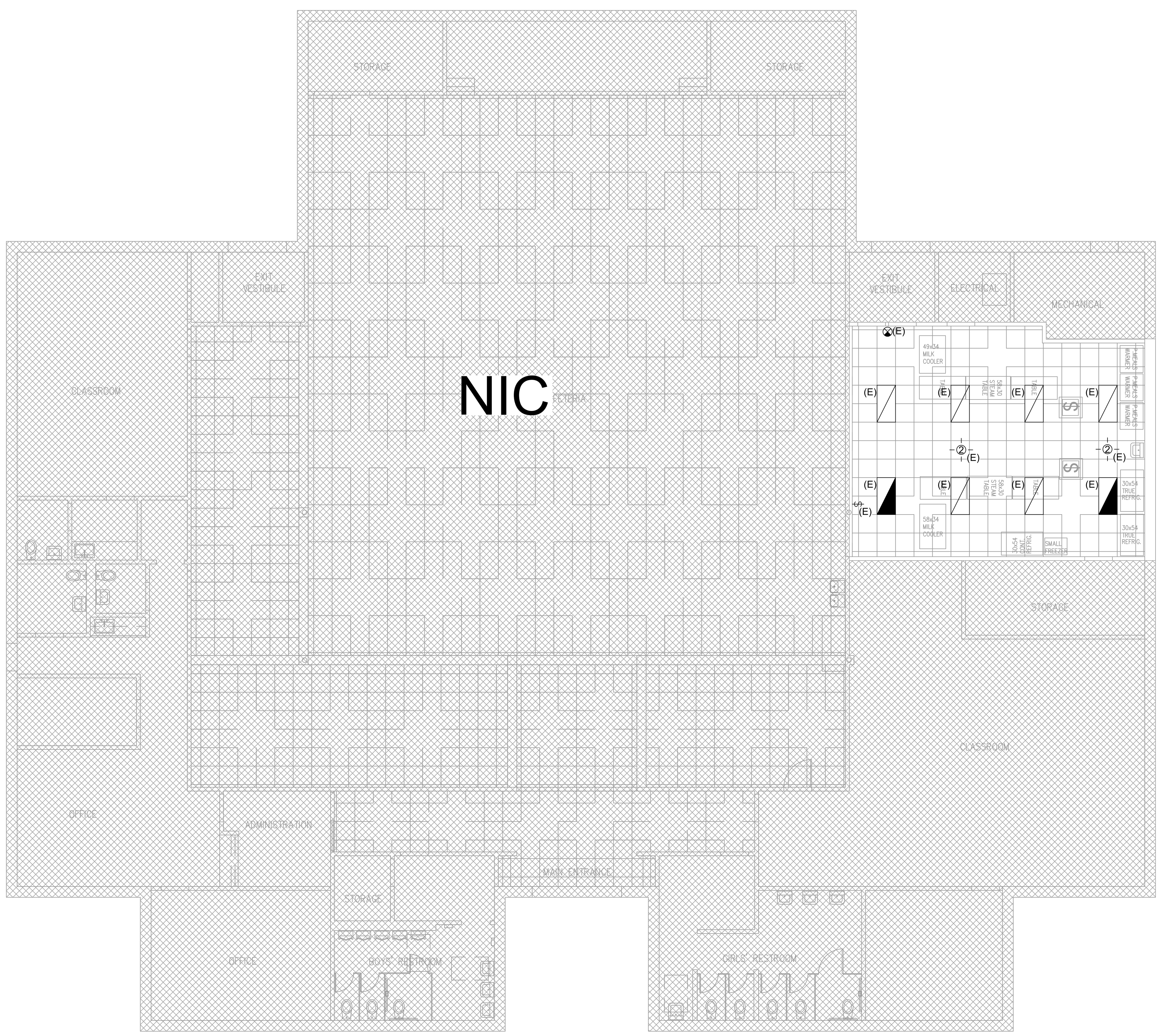
I. IF EXISTING FLOOR MOUNTED POKE-THRU OR FLOOR BOXES DEVICES ARE BEING ABANDONED, REMOVE EXISTING DEVICES, CONDUIT, AND ASSOCIATED WIRING BACK TO POINT OF ORIGIN. MAINTAIN CIRCUIT CONTINUITY FOR ANY AFFECTED DEVICES. PROVIDE A FIRE-RATED PLUG AND FLUSH ABANDONMENT KIT. COORDINATE SCHEDULE WITH BUILDING MANAGEMENT TO INFORM TENANT BELOW PRIOR TO BEGINNING OF DEMOLITION WORK.

J. ELECTRICAL CONTRACTOR SHALL COORDINATE REMOVAL OR RELOCATION OF ANY PLUMBING, MECHANICAL EQUIPMENT OR ADDITIONAL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS IN PROJECT SCOPE. REWORK EXISTING BRANCH CIRCUIT(S) WIRING AND EXTEND TO NEW EQUIPMENT LOCATION AND RECONNECT EQUIPMENT AS EXISTING. RETAIN CIRCUIT CONTINUITY FOR EXISTING EQUIPMENT TO REMAIN IF REQUIRED.

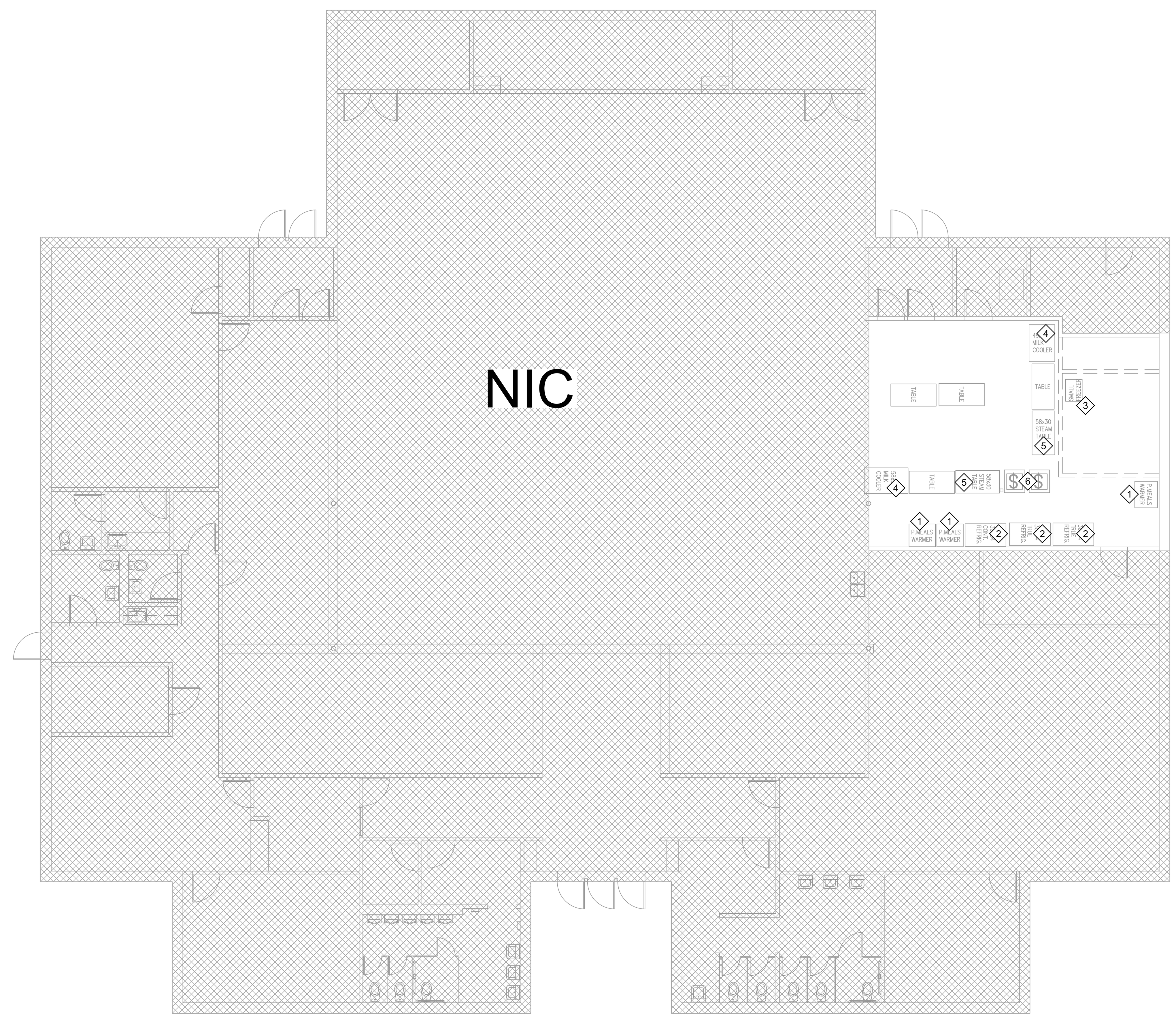
KEYED NOTES:

1. RELOCATE FOOD WARMER RECEPTACLE AND CIRCUIT TO NEW LOCATION SHOWN ON SHEET E102. EXTEND EXISTING CIRCUIT AS REQUIRED.
2. RELOCATE REFRIGERATOR RECEPTACLE AND CIRCUIT TO NEW LOCATION SHOWN ON SHEET E102. EXTEND EXISTING CIRCUIT AS REQUIRED.
3. RELOCATE FREEZER RECEPTACLE AND CIRCUIT TO NEW LOCATION SHOWN ON SHEET E102. EXTEND EXISTING CIRCUIT AS REQUIRED.
4. RELOCATE MILK COOLER RECEPTACLE AND CIRCUIT TO NEW LOCATION SHOWN ON SHEET E102. EXTEND EXISTING CIRCUIT AS REQUIRED.
5. RELOCATE STEAM TABLE RECEPTACLE AND CIRCUIT TO NEW LOCATION SHOWN ON SHEET E102. EXTEND EXISTING CIRCUIT AS REQUIRED.
6. 6. REMOVE POWER POLE. RELOCATE CIRCUITS SERVING CASH REGISTERS TO NEW LOCATION SHOWN ON SHEET E102. EXTEND EXISTING CIRCUITS AS REQUIRED.

ALL LIGHTING IS EXISTING TO REMAIN.



02 LIGHTING FLOOR PLAN
SCALE: 1/8"=1'-0"



01 ELECTRICAL DEMOLITION FLOOR PLAN
SCALE: 1/8"=1'-0"

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No.	Description	Date
	ISSUE FOR PERMIT	03/01/19

YES PREP SCHOOL

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LIGHTING + DEMOLITION FLOOR PLANS

Project Number	18111
Date	03/01/19
Drawn By	KL
Checked By	JF

E101

Scale: As Indicated

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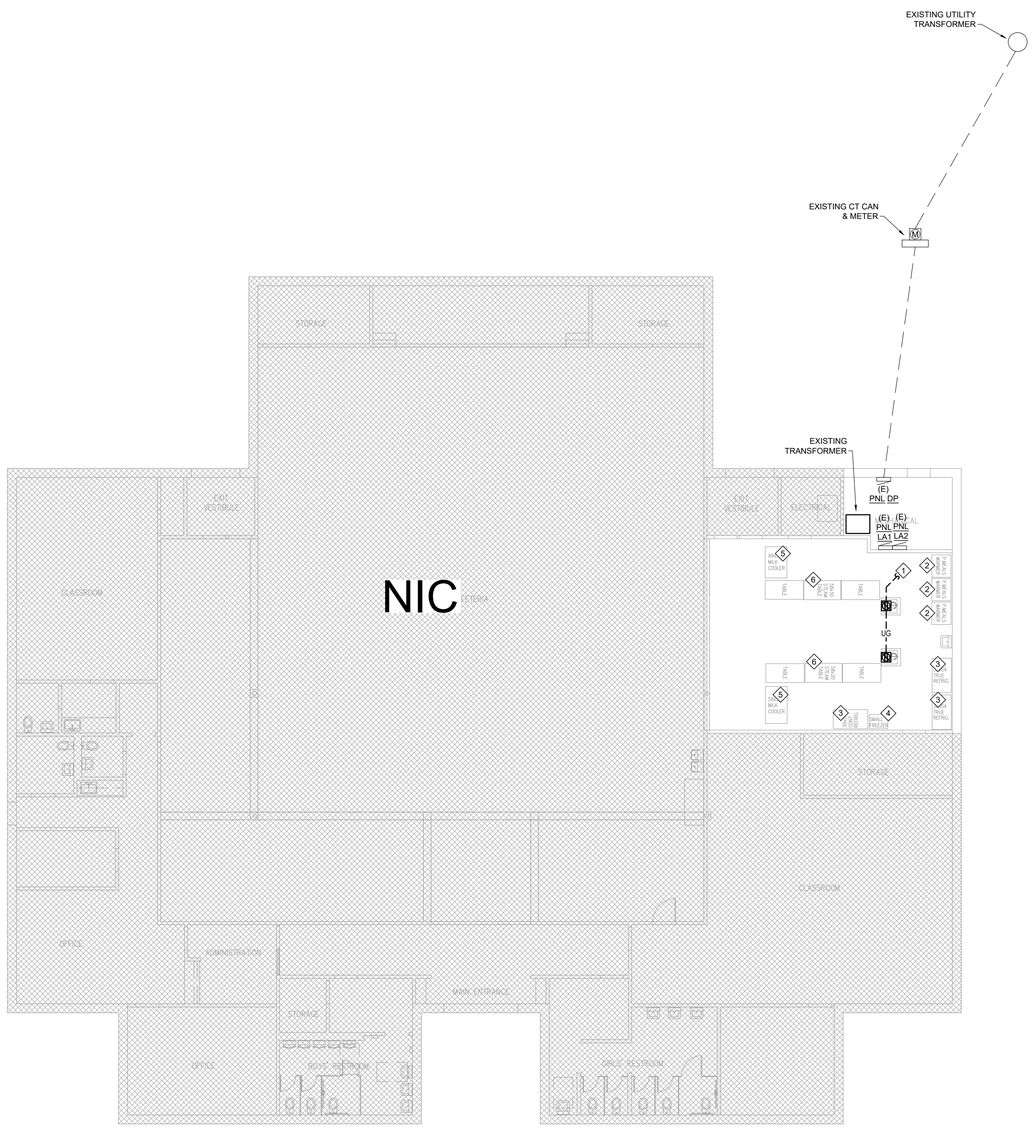

01 POWER FLOOR PLAN
SCALE: 1/8"=1'-0"

GENERAL POWER NOTES:

A. EXISTING POWER AND TELECOMMUNICATIONS OUTLETS LABELED "(E)" ARE TO REMAIN WHERE SHOWN ON PLAN, UNLESS NOTED OTHERWISE (U.N.O.).

B. RETAIN CIRCUIT CONTINUITY FOR ALL DEVICES AFFECTED BY REMODEL WORK THAT ARE TO REMAIN. WHERE EXISTING RECEPTACLES IN EXTERIOR PERIMETER WALL CONFLICT WITH NEW WALL PARTITIONS, REMOVE DEVICE AND REWORK/REWIRE CIRCUIT FOR CONTINUITY AS REQUIRED.

C. ELECTRICAL CONTRACTOR SHALL VERIFY THAT ALL EXISTING AND RELOCATED OUTLETS IN PROJECT SCOPE ARE FUNCTIONING. REPLACE DEVICE WITH NEW IF NECESSARY.

D. NEW WALL MOUNTED RECEPTACLES AND TELECOMMUNICATIONS OUTLETS SHALL BE MOUNTED AT 18" TO CENTERLINE OF BOX ABOVE FINISHED FLOOR (A.F.F.) U.N.O. TO COMPLY WITH ADA REQUIREMENTS.

E. CONTRACTOR SHALL COORDINATE EXACT DEVICE AND EQUIPMENT LOCATIONS WITH OWNER/CLIENT/ARCHITECT OR EQUIPMENT SUBCONTRACTOR.

F. RECEPTACLE OUTLETS AND SWITCHES SHALL BE LABELED WITH DESIGNATED PANEL AND CIRCUIT NUMBER ON THE COVER PLATE. JUNCTION BOXES IN CEILING SPACE SHALL HAVE PANEL DESIGNATIONS AND CIRCUIT NUMBERS MARKED ON THE COVER.

G. ALL 125-VOLT, SINGLE PHASE, 15- AND 20-AMPERE RECEPTACLES INSTALLED IN RESTROOMS, KITCHEN/FOOD PREP AREAS, OUTDOOR, WITHIN SIX FEET OF THE OUTSIDE EDGE OF A SINK, OR IN GARAGES, SERVICE BAYS, AND SIMILAR AREAS WHERE ELECTRICAL HAND TOOLS OR PORTABLE LIGHTING EQUIPMENT ARE TO BE USED SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL PER NATIONAL ELECTRICAL CODE (NEC) ARTICLE 210.8. GFCI DEVICE SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION.

H. MULTIWIRE BRANCH CIRCUITS SHALL BE PROVIDED WITH A SIMULTANEOUS DISCONNECTING MEANS TO DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT OF ORIGIN. DISCONNECTION CAN BE ACCOMPLISHED THROUGH LISTED HANDLE TIES USED WITH SINGLE-POLE CIRCUIT BREAKERS OR MULTI-POLE DEVICES.

I. GROUNDED AND UNGROUNDED CONDUCTORS OF EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE GROUPED WITH WIRE TIES OR SIMILAR MEANS AT A MINIMUM OF ONE LOCATION WITHIN THE PANELBOARD OR OTHER POINT OF ORIGIN.

J. MULTIWIRE BRANCH CIRCUITS SUPPLYING POWER TO PERMANENTLY CONNECTED FREESTANDING PARTITIONS SHALL BE PROVIDED WITH A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANELBOARD WHERE BRANCH CIRCUITS ORIGINATE.

K. SCOPE OF WORK INCLUDES FLEX CONNECTION FROM WALL MOUNTED JUNCTION BOX, POWER POLE OR FLOOR MOUNTED POKE-THRU FITTING TO MODULAR FURNITURE. FURNITURE SYSTEM IS A xx-CIRCUIT, xx-WIRE SYSTEM. COORDINATE CONNECTION LOCATIONS AND ADDITIONAL INSTALLATION REQUIREMENTS WITH FURNITURE SUBCONTRACTOR, TELECOMMUNICATIONS CONTRACTOR AND MANUFACTURER'S SPECIFICATIONS PRIOR TO ROUGH-IN. ELECTRICAL CONTRACTOR SHALL MAKE FINAL ELECTRICAL CONNECTIONS TO FURNITURE SYSTEMS.

L. WHEN INSTALLED ON THE EDGES OF METAL STUDS OUTLET BOXES ARE REQUIRED TO BE SECURED IN PLACE BY BOX-BACK SUPPORTS PER NEC ARTICLE 314.23.

M. PROVIDE SUITABLE FLEXIBLE CORD AND CABLE ASSEMBLY APPROVED FOR EXTRA-HARD USAGE FOR SUSPENDED OUTLET(S). INSTALL STRAIN RELIEF CABLE GRIPS AT THE SUPPLY END AND AT DEVICE PER NEC REQUIREMENTS.

N. ELECTRICAL CONTRACTOR SHALL X-RAY CONCRETE FLOORS AND WALLS PRIOR TO ANY REQUIRED SAW CUTTING OR CORE-DRILLING. COORDINATE SCHEDULING WITH GENERAL CONTRACTOR.

O. TELECOMMUNICATIONS CABLING SHALL BE INSTALLED BY CLIENT'S VENDOR. ELECTRICAL CONTRACTOR SHALL COORDINATE REQUIRED JUNCTION BOXES AND RACEWAY ROUGH-INS WITH APPROPRIATE VENDOR.

P. PROVIDE AND INSTALL 3/4" CONDUIT FOR EACH SINGLE TELECOMMUNICATIONS OUTLET CONTAINING (1) TELECOMMUNICATIONS CABLE. PROVIDE AND INSTALL 1" CONDUIT FOR EACH TELECOMMUNICATIONS OUTLET CONTAINING MULTIPLE TELECOMMUNICATIONS CABLES. CONDUITS TO BE STUBBED A MINIMUM 3" INTO ACCESSIBLE CEILING SPACE. BUSHED. INSTALL INSULATION BUSHING AND PULL STRING. COORDINATE ADDITIONAL INSTALLATION REQUIREMENTS WITH TELECOMMUNICATIONS CONTRACTOR.

Q. BACK-TO-BACK OUTLETS IN THE SAME WALL AND THRU-WALL TYPE BOXES ARE NOT PERMITTED. PROVIDE CHASE NIPPLE FOR ALL OUTLETS SHOWN ON OPPOSITE SIDES OF A COMMON WALL TO MINIMIZE SOUND TRANSMISSION.

R. ELECTRICAL CONTRACTOR SHALL MAINTAIN DEDICATED ELECTRICAL SPACE IN FRONT AND ABOVE ALL ELECTRICAL EQUIPMENT REQUIRING SERVICING WHILE ENERGIZED. THIS INCLUDES CONTROL PANELS AND ELECTRICAL DISCONNECTS FOR HVAC EQUIPMENT ON LOCATED ON ROOFTOPS AND ABOVE OR BELOW CEILING. PENETRATIONS SUCH AS ROOF JACKS FOR ELECTRICAL POWER, LOW VOLTAGE CONTROL POWER, REFRIGERANT LINES, VENT PIPES, ETC., AND INCLUDING GAS LINES, DUCTWORK, ROOF DRAINS, SCREENING WALLS AND OTHER EQUIPMENT OF ANY TYPE, ARE NOT TO INTRUDE INTO DEDICATED ELECTRICAL SPACE. MINIMUM SPACE IN FRONT OF ELECTRIC EQUIPMENT SHALL BE THE WIDTH OF THE EQUIPMENT OR 30 INCHES, WHICHEVER IS GREATER, 36 INCHES OUT FROM ENCLOSURE FRONT AT THE HEIGHT OF 6.5 FEET.

S. HEATING, AIR-CONDITIONING, AND REFRIGERATION EQUIPMENT SHALL BE PROVIDED A 125-VOLT, 15- OR 20-AMPERE RATED RECEPTACLE OUTLET, INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR-CONDITIONING, AND REFRIGERATION EQUIPMENT. THE RECEPTACLE SHALL BE LOCATED WITHIN 25 FEET OF THE EQUIPMENT ON THE SAME LEVEL AND AND SHALL NOT BE CONNECTED TO THE LOAD SIDE OF THE EQUIPMENT DISCONNECTING MEANS. THE RECEPTACLE OUTLET SHALL BE WEATHERPROOF AND GFCI PROTECTED IF INSTALLED OUTDOORS OR IN A WET LOCATION.

T. AN INDIVIDUAL DISCONNECTING MEANS SHALL BE PROVIDED LOCATED IN SIGHT FROM EACH MOTOR OR DRIVEN MACHINERY IN ACCORDANCE WITH NEC ARTICLE 430.

U. MECHANICAL CONTRACTOR SHALL FURNISH STARTERS FOR ALL THREE-PHASE MECHANICAL EQUIPMENT. STARTERS SHALL BE NEMA RATED AND HAVE OVERLOAD PROTECTION WITH MANUAL RESET. ELECTRICAL CONTRACTOR SHALL INSTALL STARTERS EXCEPT WHERE SUPPLIED AS INTEGRAL PART OF MECHANICAL EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE SAFETY DISCONNECT SWITCHES FOR FOR MECHANICAL EQUIPMENT NOT SPECIFICALLY INDICATED TO HAVE MECHANICAL CONTRACTOR PROVIDED DISCONNECTS.

V. PROVIDE 120V CONNECTION FOR SMOKE DAMPER AND COORDINATE ADDITIONAL PROVISIONS TO CLOSE DAMPER UPON FIRE ALARM ACTIVATION. CONNECT TO EXISTING CIRCUIT FOR EXISTING SMOKE DAMPER(S) IN THE AREA. REFER TO MECHANICAL DRAWINGS FOR EXACT EQUIPMENT LOCATION.

W. ROOM CONTAINING INFORMATION TECHNOLOGY EQUIPMENT IS PRESENT IN THE FLOOR AREA SHOWN ON PLAN. ELECTRICAL INSTALLATION SHALL BE PROVIDED PER NEC CHAPTERS 1 THROUGH 4 NOT USING PERMISSIONS AND RULES REGULATED BY NEC ARTICLE 645. NOT ALL CONDITIONS ARE MET AS SPECIFIED IN ARTICLE 645.4 "SPECIAL REQUIREMENTS FOR INFORMATION TECHNOLOGY EQUIPMENT ROOM" AND THEREFORE ROOM DOES NOT MEET THE DEFINITION OF THE "INFORMATION TECHNOLOGY EQUIPMENT ROOM" AS COVERED IN NEC ARTICLE 645.2 "DEFINITIONS" AND NFPA 75 "STANDARD FOR THE PROTECTION OF INFORMATION TECHNOLOGY EQUIPMENT" PARAGRAPH 3.3.9.

X. IF RACEWAYS ARE INSTALLED EXPOSED TO DIRECT SUNLIGHT ON OR ABOVE ROOFTOPS CORRECTIONS NEED TO BE PROVIDED FOR CONDUCTOR SIZES BASED ON AMBIENT TEMPERATURE CORRECTION FACTORS. TEMPERATURE CORRECTION FACTORS SHOWN IN NEC TABLE 310.15(B)(3)(C) SHALL BE ADDED TO THE OUTDOOR TEMPERATURE TO DETERMINE THE APPLICABLE AMBIENT TEMPERATURE FOR APPLICATION OF THE CORRECTION FACTORS IN TABLE 310.15(B)(2)(A) OR TABLE 310.15(B)(2)(B).

KEYED NOTES:

1. NO NEW CIRCUITS REQUIRED FOR POS STATIONS. POS EQUIPMENT IS BEING REPLACED ONE-FOR-ONE AND RELOCATED TO LOCATION SHOWN. ELECTRICAL CONTRACTOR TO CONNECT NEW POS EQUIPMENT TO EXISTING POWER CIRCUIT. INSTALL FLOOR BOXES FOR RELOCATED POWER / DATA. PROVIDE JUNCTION BOXES, CONDUITS, CONDUCTORS, AND ADDITIONAL ELECTRICAL EQUIPMENT TO REWORK/EXTEND EXISTING WIRING IN CONFIGURATION SHOWN. DETERMINE LOAD FOR AFFECTED CIRCUIT(S) AND NOTIFY ENGINEER IF LOAD EXCEEDS 80% OF CIRCUIT AMPACITY.
2. RELOCATED FOOD WARMER. EXTEND EXISTING CIRCUIT AND DEVICES AS REQUIRED.
3. RELOCATED REFRIGERATOR. EXTEND EXISTING CIRCUIT AND DEVICES AS REQUIRED.
4. RELOCATED FREEZER RECEPTACLE. EXTEND EXISTING CIRCUIT AND DEVICES AS REQUIRED.
5. RELOCATED MILK COOLER RECEPTACLE. EXTEND EXISTING CIRCUIT AND DEVICES AS REQUIRED.
6. RELOCATED STEAM TABLE. EXTEND EXISTING CIRCUIT AND DEVICES AS REQUIRED.

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No.	Description	Date
	ISSUE FOR PERMIT	03/01/19

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

8329 LAWNDALE ST.
HOUSTON, TX 77012

POWER FLOOR PLAN

Project Number	18111
Date	03/01/19
Drawn By	KL
Checked By	JF

E102

Scale: As Indicated

DVO PROJECT – 191035

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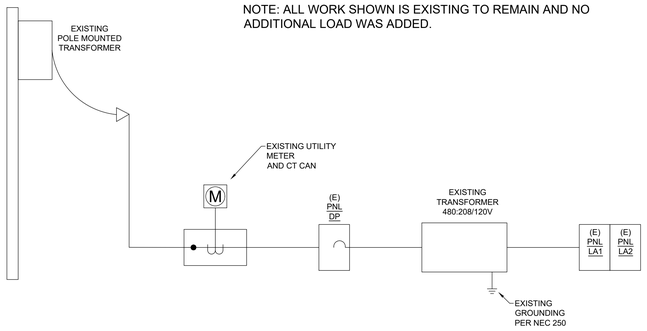
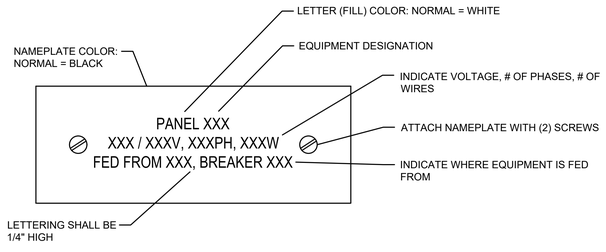
NOTE: ALL WORK SHOWN IS EXISTING TO REMAIN AND NO ADDITIONAL LOAD WAS ADDED.



01 POWER FLOOR PLAN
SCALE: 1/8"=1'-0"

ONE-LINE GENERAL NOTES:

A. A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF THE CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF CALCULATION PER.
B. AVAILABLE UTILITY AIC NOT AVAILABLE AT TIME OF THIS SUBMITTAL, STARTING UTILITY AIC ASSUMES WORST CASE IMPEDANCE OF 1.70% ON 150KVA POLE MOUNTED XFMR OF 48,983 AIC.
C. SHORT CIRCUIT RATING CALCULATED USING POINT TO POINT METHOD
D. CONDUIT TO BUILDINGS SHALL BE DIRECT BURIED 48" BELOW GRADE WITH WARNING TAPE. USE SCH 40 PVC BELOW GRADE AND RIGID GALVANIZED STEEL CONDUIT ABOVE GRADE, UNLESS NOTED OTHERWISE.
E. ALL OUTDOOR ELECTRICAL EQUIPMENT TO BE MOUNTED IN GALVANIZED, WEATHERPROOF, NEMA 3R ENCLOSURES.



02 PANELBOARD NAMEPLATE DETAIL
SCALE: NONE

yes prep PUBLIC SCHOOLS

2007 Ea architects

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No.	Description	Date
	ISSUE FOR PERMIT	03/01/19

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

8329 LAWNDALE ST.
HOUSTON, TX 77012

ELECTRICAL SCHEDULES + DETAILS

Project Number	18111
Date	03/01/19
Drawn By	KL
Checked By	JF

E201

Scale: As Indicated

DVO PROJECT – 191035

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PLUMBING SYMBOLS AND ABBREVIATIONS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED HERE ARE USED IN THE DRAWINGS AND MAY NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED IN THE DRAWINGS.

PLUMBING ABBREVIATIONS

AB	ABOVE
ACC	ACCESS
ADJ.	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ALT	ALTERNATE
AP	ACCESS PANEL
APPROX.	APPROXIMATELY
ARCH	ARCHITECTURAL
ASSY	ASSEMBLY
AVG	AVERAGE
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BOT	BOTTOM
BOP	BOTTOM OF PIPE
BT	BATHTUB
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS PER HOUR
BTW	BETWEEN
CAP	CEILING ACCESS PANEL
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFH	CUBIC FEET PER MINUTE
CFM	CUBIC FEET PER HOUR
CL	CENTERLINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COND	CONDUCTOR
CONT	CONTRACTOR
COP	COEFFICIENT OF PERFORMANCE
CTR	CENTER
CU	COPPER
CW	COLD WATER
CWFU	COLD WATER FIXTURE UNITS
DD	DRAIN DECK
DEG	DEGREES
DET	DETAIL
DFU	DRAINAGE FIXTURE UNITS
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT
DT	DRAIN TILE
DWG.	DRAWING
E	EXISTING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EEW	EMERGENCY EYEWASH
EFF.	EFFICIENCY
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EM	EMERGENCY
EQUIP	EQUIPMENT
ES	EMERGENCY SHOWER
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXP	EXPANSION
EXST	EXISTING
EXT	EXTERIOR
F	FUTURE
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FLA	FULL LOAD AMPS
FLR	FLOOR
FM	FACTORY MUTUAL
FP	FIREPROOF
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
F&T	FLOAT AND THERMOSTATIC
FT	FEET
FTG	FOOTING
FU	FIXTURE UNITS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
HB	HOSE BIBB
HD	HUB DRAIN
HP	HORSE POWER
H.P.	HIGH POINT
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HW	HOT WATER
HWFU	HOT WATER FIXTURE UNITS
HWR	HOT WATER RETURN
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCHES
KO	KNOCK-OUT
L	LAVATORY
LBS.Q.	POUNDS
LB/HR	POUNDS PER HOUR
L.F.	LINEAR FEET
LP	LOW POINT
LTG	LIGHTING
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MB	MOP BASIN
MBH	THOUSANDS OF BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MEP	MECHANICAL, ELECTRICAL AND PIPING
MER	MECHANICAL EQUIPMENT ROOM
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN.	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
MTG	MOUNTING
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NPS	NOMINAL PIPE SIZE
NPSH	NET POSITIVE SUCTION HEAD
NPT	NATIONAL PIPE THREAD
NR	NEAR
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OLP	OVERLOAD PROTECTION
OV	OUTLET VELOCITY
P	PUMP
PC	PLUMBING CONTRACTOR
PCF	POUNDS PER CUBIC FOOT
PD	PRESSURE DROP
PH	PHASE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
POC	POINT OF CONNECTION
PP	POLYPROPYLENE
PPH	POUNDS PER HOUR
PRV	PRESSURE RELIEF VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
PVC	POLYVINYL CHLORIDE
RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REC	RECESSED
RECPT	RECEPTACLE
REQD	REQUIRED
RF	ROOF
RI	ROUGH-IN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE VALVE
RV	RELIEF VALVE
S	SLOPE
SCH	SCHEDULE
SDR	STANDARD DIMENSION RATIO
SH	SHOWER
SHT	SHEET
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SQ	SQUARE
SS	SERVICE SINK
S/S	STAINLESS STEEL
STD	STANDARD
STRU	STRUCTURAL
T&P	TEMPERATURE AND PRESSURE
TBR	TO BE REMOVED
TD	TRENCH DRAIN
TDFU	TOTAL DRAIN FIXTURE UNITS
TEMP	TEMPERATURE
TOB	TOP OF BEAM
TOD	TOP OF DUCT/DECK
TOJ	TOP OF JOIST
TOP	TOP OF PIPE
TOS	TOP OF SLAB
T STAT	THERMOSTAT
TWFU	TOTAL WATER FIXTURE UNITS
TYP	TYPICAL
UNO	UNLESS OTHERWISE NOTED
V	VENT
VEL	VELOCITY
VIB	VALVE IN BOX
VOL	VOLUME
W	WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN
WSFU	WATER SUPPLY FIXTURE UNITS
WG	WATER GAUGE

PIPING SYSTEMS LABELS

WATER PIPING SYSTEMS:

SCW	COLD SOFT WATER
— - —	COLD WATER
F	FIRE PROTECTION
— - - —	HOT WATER
— - - - —	HOT WATER RETURN
NPW	NON-POTABLE WATER
TW	TEMPERED WATER
RO	REVERSE OSMOSIS WATER

GAS AND AIR PIPING SYSTEMS:

A	COMPRESSED AIR
H2	HYDROGEN
G	NATURAL GAS
N2	NITROGEN
VAC	VACUUM (AIR)

WASTE AND VENT SYSTEMS:

CD	CONDENSATE DRAIN
CWV	CLEARWATER VENT
CWW	CLEARWATER WASTE
FM	FORCE MAIN
IW	INDIRECT WASTE
OD	OVERFLOW DRAIN LINE
ST	STORM
SSD	SUBSOIL DRAIN LINE
— — —	UNDERFLOOR FOR WASTE OR SOIL, SUBSOIL, STORM & FORCE MAIN
— — V — —	VENT
SAN	WASTE OR SOIL LINE

SITE PIPING SYSTEMS:

F	FIRE MAIN
FM	FORCE MAIN
SAN	SANITARY SEWER
ST	STORM SEWER
W	WATER LINE

NOTE:
(E) PRIOR TO SYSTEM TYPE DENOTES EXISTING PIPING
(F) PRIOR TO SYSTEM TYPE DENOTES FUTURE PIPING

PIPE FITTINGS

- FLANGE
- UNION
- ANCHOR
- PIPE GUIDE
- ECCENTRIC REDUCER
- CONCENTRIC REDUCER
- TEE BRANCH
- LINE CONTINUATION BREAK
- PLUMBING FIXTURE STOPS
- PIPELINE STRAINER
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- TEE UP
- PIPE CAP
- VALVE IN VERTICAL
- DOUBLE WYE
- WYE
- WYE WITH VENT UP

DRAINS AND CLEANOUTS

- FLOOR DRAIN
- FLOOR SINK
- HUB DRAIN
- FLOOR SINK
- FIXTURE WASTE TRAP
- CO — CLEANOUT
- FCO — FLOOR CLEANOUT
- GCO — GROUND CLEANOUT
- DCO — DOUBLE CLEANOUT

PIPING VALVES AND SPECIALTIES

- ANGLE VALVE
- BALANCING VALVE
- BALL VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- DIAPHRAGM VALVE
- DRAIN VALVE
- FLOAT OPERATED VALVE
- GAS SHUTOFF VALVE
- GATE VALVE
- GLOBE VALVE
- PLUG VALVE
- PIV — POST INDICATOR VALVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- QUICK OPENING VALVE
- SHUTOFF VALVE
- SOLENOID VALVE
- TRIPLE DUTY VALVE
- XX — 2-WAY CONTROL VALVE (VALVE BODY AS SPECIFIED)
- 3-WAY MIXING VALVE
- 4-WAY VALVE WITH ARROW INDICATING FAIL POSITION
- VALVE IN BOX
- AIR VENT, AUTOMATIC
- MV — AIR VENT, MANUAL
- BACKFLOW PREVENTER
- CONSTANT FLOW REGULATOR
- DEMOLITION OF PIPING, DEVICE, ETC.
- DIRECTION OF FLOW
- R — DIRECTION OF PITCH RISE (R) OR DROP (D)
- DRAIN PLUG
- EJ — EXPANSION JOINT
- FLEXIBLE CONNECTION
- FS — FLOW SWITCH
- FM — FLOW SENSING DEVICE
- GAS REGULATOR
- GAS OUTLET
- HOSE BIBB
- PETE'S PLUG
- PRESSURE GAUGE
- PS — PRESSURE SWITCH
- XX — STEAM TRAP
- THERMOMETER
- WH — WALL HYDRANT
- WATER HAMMER ARRESTOR

PLUMBING MATERIALS

COLD WATER PIPING (UNDERGROUND)	COPPER TYPE "K"
COLD WATER PIPING (ABOVE GROUND)	COPPER TYPE "L"
HOT WATER PIPING	COPPER TYPE "L"
SANITARY SEWER (UNDER GROUND)	SCHEDULE 40 DWV PVC
SANITARY SEWER (ABOVE GROUND - PLENUM RETURN)	HUBLESS CAST IRON
SANITARY SEWER (ABOVE GROUND - DUCTED RETURN)	SCHEDULE 40 DWV PVC
SANITARY VENT (PLENUM RETURN)	HUBLESS CAST IRON
SANITARY VENT (DUCTED RETURN)	SCHEDULE 40 DWV PVC

PLUMBING FIXTURES MUST MEET WATER SAVINGS STANDARDS AS REQUIRED BY ANSI, CITY CODE AND SPECIFICATIONS.

WATER CLOSET	2" VENT, 4" WASTE, 1-1/4" COLD WATER
URINAL	2" VENT, 3" WASTE, 1-1/4" COLD WATER
LAVATORY	2" VENT, 2" WASTE, 3/4" HOT & COLD WATER
SINK	2" VENT, 2" WASTE, 3/4" HOT & COLD WATER
KITCHEN SINK	2" VENT, 2" WASTE, 3/4" HOT & COLD WATER
DISH WASHER	WASTE TO K SINK, 3/4 " HOT & COLD WATER
FLOOR DRAIN	2" VENT, 3" WASTE,
MOP SINK	2" VENT, 3" WASTE, 3/4" HOT & COLD WATER

MINIMUM PIPE SIZE TO TAIL PIECE IS 3/4".

GENERAL NOTES

A. ALL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER AND AND SHALL COMPLY WITH ALL ADOPTED LOCAL, STATE, AND NATIONAL CODES.

B. DO NOT SCALE THE DRAWINGS.

C. FIELD VERIFY EXACT LOCATION OF ALL CONNECTION POINTS PRIOR TO CONSTRUCTION.

D. CONTRACTOR SHALL INSPECT SITE THOROUGHLY TO FAMILIARIZE THEMSELVES WITH THE AREA OF WORK. ANY DISCREPANCIES BETWEEN THESE DOCUMENTS AND ACTUAL CONDITIONS SHALL BE REPORTED TO THE ARCHICTECT/ENGINEER FOR RESOLUTIONS PRIOR TO BID PRICING. NO EXTRAS WILL BE ALLOWED DUE TO LACK OF KNOWLEDGE OF EXISTING OR NEW CONDITIONS.

E. PROVIDE BALL VALVES ON ALL BRANCH LINES FOR BUILDING ISOLATION WHETHER SHOWN OR NOT.

F. OFFSET ALL PIPING AS REQUIRED TO AVOID STRUCTURAL MEMBERS, CANTS, FLASHING, MECHANICAL OR ELECTRICAL EQUIPMENT.

G. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF EXISTING WASTE, DIRECTION OF FLOW, DEPTH, ADEQUATE SLOPE AND INTEGRITY OF LINE PRIOR TO INSTALLATION.

H. MAINTAIN A MINIMUM CLEARANCE OF 25 FEET BETWEEN ALL VENT PENETRATIONS AND AIR INTAKES.

I. ALL WATER PIPING (ABOVE CEILING, IN WALLS AND BELOW SLAB, ETC..) SHALL BE INSULATED.

FIRE SPRINKLER GENERAL NOTES

A. BUILDING IS PROTECTED BY AUTOMATIC FIRE SPRINKLER SYSTEM. CONTRACTOR SHALL ADD OR RELOCATED SPRINKLER HEADS RENOVATED AREA AS REQUIRED TO PROVIDE FULL COVERAGE PER NFPA CHAPTER 13.

PRE-CONSTRUCTION CHECK

A. THE PLUMBING CONTRACTOR SHALL PERFORM THE FOLLOWING PRE-CONSTRUCTION CHECK, AFTER THE AWARD OF CONTRACT, AND BEFORE BEGINNING CONSTRUCTION:

B. TEST ALL EXISTING FIXTURES, EQUIPMENT, AND WATER HEATERS TO VERIFY ALL ITEMS ARE FULLY OPERATIONAL AND REQUIRE NO REPAIRS.

C. THE CONTRACTOR SHALL NOTIFY THE BUILDING OWNER IN WRITING OF ANY DEFICIENCIES FOUND AND SHALL OBTAIN WRITTEN INSTRUCTIONS FROM THE BUILDING OWNER PRIOR TO BEGINNING CONSTRUCTION REGARDING ANY ACTION TO BE TAKEN. ITEMS NOT ADDRESSED IN THE PRE-CONSTRUCTION CHECK SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO COMPLETION OF CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.

DVO PROJECT – 191035

yes prep PUBLIC SCHOOLS

2007 Ea architects

STATE OF TEXAS JASON W. DAWSON 108125 LICENSED PROFESSIONAL ENGINEER

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REGISTRATION NO. F-8334

No.	Description	Date
	ISSUE FOR PERMIT	03/01/19

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

8329 LAWNDALE ST.
HOUSTON, TX 77012

PLUMBING SYMBOLS + ABBREVIATIONS

Project Number	18111
Date	03/01/19
Drawn By	EJG
Checked By	WD

P000

Scale: As Indicated

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1.1 15010 PLUMBING GENERAL

A. Reference: All portions of General Conditions apply to Plumbing work.

B. Guarantees: Provide written one year guarantee for all systems and equipment. Compressors shall be guaranteed for five years.

C. Codes: Comply with National, State and City codes and other applicable standards. All portions of the International Energy Conservation Code (IECC) and Current Local AHJ Commercial Energy Conservation Codes must be complied with.

D. Supervision: Provide supervisor in field for each phase of work.

E. Coordination: Coordinate all work with other trades. Provide mechanical and plumbing equipment with electrical characteristics compatible with that shown on the Electrical Drawings and described in the Electrical Division of the specifications. The engineer reserves the right to move services as required to coordinate the work, at no cost to the owner.

F. The drawings are schematic in nature, and should not be scaled, but show the various components of the systems approximately to scale and attempt to indicate how they are to be integrated with other parts of the building. Determine exact locations by job measurements, by checking the requirements of other trades, and by reviewing all Contract Documents. The drawings indicate general routing of the various parts of the systems, but do not indicate all fittings, offsets, and run outs which are required. The Contract shall include all fittings, offsets, and run outs required to fit the system into spaces allotted to them.

G. Shop Drawings and Submittal Data: PAPERLESS SUBMITTAL ONLY TO ENGINEER. All Shop Drawings and Submittal Data shall be an electronic file format only. PDF format is acceptable. All equipment and materials shall be submitted, including piping and equipment changes, as required. Submitted items that deviate from the drawings and specifications shall be highlighted in yellow for easy distinction. Requests for substitutions shall be submitted for review and approval a minimum of 15 business days prior to final bids. Mark all items and show that they comply with the IECC. The Engineer shall issue a letter stating the action taken on the submittal. The letter shall be copied and attached to the submittal, by the contractor, and distributed as required.

H. Record Data: Obtain, at Contractor's expense, a set of prints and keep these on the job site during construction. During construction, mark on these prints any changes that are made, noting particularly locations of those items that will need to be for servicing. Convert record data to an Electronic Format (PDF) and submit to the Architect. Furnish one set of shop drawings and maintenance manuals in brochure form. Record Brochures shall be given to the owner at completion of the work.

I. Permits, Fees: Secure and pay for all fees and charges for the work. Furnish certificates of acceptance at completion of the job from City.

J. Substitutions: No substitutions shall be made without prior approval from the Architect and Engineer.

K. Cutting and Patching: Cutting to be by this section, with patching and furring by General Contractor. Patching required after completion of work shall be paid for by Contractor.

L. Clean Up: Clean and touch-up paint all equipment at completion of work. Protect all equipment from damage during construction. Provide name plates on all equipment.

M. Tests: Tests all piping systems per local code. Sterilize all new water piping per Health Department requirements.

N. Test all equipment and prove performance results to Architect. Modify all drives, balance all systems as shown on the drawings. After Owner has occupied and is using the building, make additional inspections of the system. Correct any Owner's observed temperature imbalances. Check correct operation of equipment and verify by letter to the Architect, on each trip. List in the letter corrections made. At the opposite season of the startup inspect and verify correct operation of all systems. Tests all control systems. Furnish complete copy of all test data to Architect. Instruct owner for one day in operation of all systems. Filters and strainers shall be clean when systems are accepted by the owner. Testing Regulations must meet local City Requirements.

O. Excavating and Backfilling: Excavate to provide minimum 2 feet cover over all piping and conduit. Back fill to original compaction. Saw-cut existing finishes and patch to matching original conditions.

P. Noise and Vibration: All equipment shall operate with minimum of noise and vibration. Contractors shall rectify any objectionable conditions.

Q. Temporary Services: Furnish temporary utility as required for new construction.

R. Equipment Connections: Provide all martial and labor for connecting of all equipment furnished in other sections or by owner. Field verify all equipment for dimensions and roughing-in. Furnish all valves, drain piping, traps, etc., as required to install the equipment.

S. Floor Drains: Final location will be determined by equipment layout and location must be field approved. Provide trap primers to all floor drains.

T. Examination of Site: The contractor is responsible for visiting the job site and confirming the location of existing conditions before bidding. If existing conditions require modification due to elevation, obstruction, size, etc., the contractor will advise in writing before beginning construction.

END OF SECTION 15010

1.2 15030 PLUMBING SPECIFICATIONS

A. Provide all materials and labor for complete plumbing system.

B. Cleanouts "CO":

1. Unfinished Areas and Chases "CO": Smith #4400.
2. Finished Walls "WCO": Smith#4430, With 7" x 7" nickel-bronze plate.
3. Finished Floors "FCO": Smith#4020 with nickel-bronze plate.
4. Equal Cleanouts: Wade, Mifab, Watts, Zurn, or Josam. Install at changes in direction, maximum of 90' spacing, and base on risers and local code.

C. Valves: Valves to be Nibco or equal by Milwaukee: Ball - #T-FP-600A-LF, Globe - #T-211-B Check - #T-413-Y-LF.

D. Pipe Hangers: Securely suspend pipes from building structure.

1. Individual hangers - B-Line #B3100, Standard clevis hanger, pre-galvanized. MSS SP-58 and SP-69, Type 1.
2. Multiple pipes - B-Line #B22SH, 1-5/8" x 1-5/8" pre-galvanized 12 gauge slotted strut trapeze hanger, MSS SP-58 and MSS SP-69 Type 59. Secure with B-Line #B2400 series standard pipe clamps, MSS SP-58 and MSS SP-69 Type 26. Provide B-Line #B199 VibraCushion isolation on copper piping.
3. Wall supports - B-Line #B22SH, 1-5/8" x 1-5/8" pre-galvanized 12 gauge slotted strut anchored to the wall. Secure pipes to strut with B-Line #B2400 series standard pipe clamps. Provide B-Line #B1999 VibraCushion isolation on copper piping.
4. Horizontal Steel Piping shall be supported in accordance with MSS SP-69 Tables 3 and 4.
5. Provide pipe shields in accordance with insulation manufacturers published recommendations per MSS SP-58.
6. Vertical piping floor supports: B-Line #3373, Standard pre-galvanized riser clamps.
7. All materials used in supporting pipe to be pre-galvanized.
8. Provide chrome plated wall, ceiling and floor escutcheons where pipes pass through walls or ceilings in exposed areas.
9. Provide pre-galvanized steel pipe sleeves for pipes through walls, floors, and roofs.

F. Insulation:

1. Insulate hot water piping with MicroLok, fire retardant, white jacketed insulation. All insulation must comply with IECC. Seal all joints with self sealing tape. Fittings shall be pre molded type, sealed as required. Insulate all cold water piping in outside wall chases, or ceilings same as hot water pipe. Exterior piping shall be insulated with water proof-covered insulation and covered with aluminum covers. Provide 18 gauge galvanized saddles at support points as required.

G. Sanitary System (Waste and Vent):

1. Below grade: Schedule 40 solid wall PVC pipe conforming to ASTM D2665 and ASTM D1785 and PVC drainage pattern fittings conforming to ASTM D3311 and ASTM D2665 as manufactured by Charlotte Pipe. Install per manufacturer's recommended installation procedures. Buried PVC pipe shall be installed per ASTM D2321. Cellular (Foam) Core piping conforming to ASTM F891 is NOT acceptable.
2. Above grade: Service weight cast iron bell and spigot pipe and fittings conforming to ASTM A-74 as manufactured by Charlotte Pipe, Tyler Pipe, or equal. Hubless cast iron soil pipe and fittings conforming CISPI 301. All cast iron soil pipe and fittings shall be marked with the Collective Trademark of the Cast Iron Soil Pipe Institute and be listed by NSF International. Install all cast iron soil pipe systems per the Cast Iron Soil Pipe Institute Handbook.

I. Water Systems:

1. Water piping inside the building shall be type "K or L" copper with copper fittings. Underground service lines shall be ductile iron water pipe and fittings or type "K" copper with brazed copper joints. Provide dielectric fittings at points of connection of dissimilar metals.

J. Pipe Installation: Install water piping level. Provide drains at low points of system. Sewers and condensate shall be sloped at not less than 1/8 inch per foot. Provide deep seal traps for all floor drains. Pipe shall run parallel to building lines. Full provision shall be made for expansion and contraction of piping. Provide air chambers at each fixture, full line size 12" high. Vent pipes shall be flashed at the roof with approved roof flashing, extending not less than 12" in all directions in all directions. Turn flashing down in to vent 1 inch. Provide a stop valve at every fixture or equipment. All connection to equipment shall be made with unions. Piping shall not contact an electrical conduit at any point. Access doors or panels shall be furnished by this contractor.

K. Piping Joints:

1. Cast Iron Bell and Spigot - Compression gaskets conforming ASTM C564.
2. Cast Iron No-Hub - Standard Duty hubless couplings conforming to CISPI 310, certified by NSF International, and made in the United States.
3. Cast Iron No-Hub - Heavy Duty hubless couplings conforming to ASTM C1540 and manufactured in the United States.
4. Copper pipe - Press type copper fittings with automatic leak detection as manufactured by Viega or equal by Nibco or solder type copper fittings with Lead free solder.
5. Screw Joints - American standard with Teflon tape.
6. Mechanical joints - ASA S 21.11-53
7. Unions - At each item of equipment. Where copper and steel pipes are connected, make connections with insulated type fittings.

P. Plumbing Fixtures:

1. All plumbing fixtures shall meet the requirements for water conservation as required by ANSI and local code.
2. Fixtures and installation must meet all ADA requirements.
3. Reference drawings for Plumbing Fixture Schedules.
4. Acceptable Manufacturers:
   a. Drinking Fountains/Electric Water Coolers: Elkay, Halsey Taylor, Haws, Murdock, Oasis.
   b. Faucets (Manual): Delta Teck, Chicago, T&S Brass, Symmons, American Standard, Toto.
   c. Stops, Supplies, P-Traps, Tailpieces: Mcguire.

Q. Plumbing Accessories:

1. Water Hammer Arrestors shall be installed at all fixtures. Minimum size shall be 3/4". Mechanical devices designs shall be used as allowed by code. Provide access doors for maintenance as required by manufacturer.

T. Electrical: Contractors shall coordinate electrical characteristics with Electrical Contractor. Before ordering any equipment, submit a list of maximum overload circuits for all equipment to the Electrical Contractor and Engineer. This Contractor shall furnish all disconnects, control instruments and wiring diagrams showing terminal identification numbers. Electrical Contractor will do all the electrical wiring for power supply and control.

V. Demolition: Provide materials and labor required for the removal of all plumbing devices as noted on the drawings. Remove all devices related to the demolition of partitions and ceilings of the existing building.

END OF SECTION 15030

DVO PROJECT – 191035

yes prep
PUBLIC SCHOOLS

2007 Ea architects

STATE OF TEXAS
WILLIAM DAWSON
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PROFESSIONAL ENGINEER

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REGISTRATION NO. F-8334

No.	Description	Date
	ISSUE FOR PERMIT	03/01/19

YES PREP SCHOOL

EAST END CAMPUS CAFETERIA REVISIONS

8329 LAWNDALE ST.
HOUSTON, TX 77012

PLUMBING SPECIFICATIONS

Project Number	18111
Date	03/01/19
Drawn By	EJG
Checked By	WD

P001

Scale As Indicated

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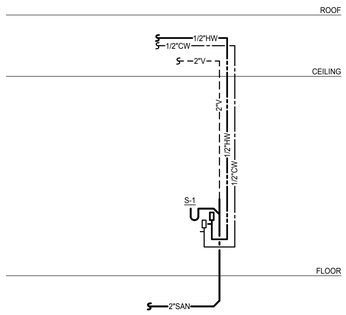
PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION / MANUFACTURER / MODEL	REMARKS
S-1	HAND SINK	FIXTURE: EXISTING TO REMAIN. FAUCET: EXISTING TO REMAIN. TRIM: MCGUIRE #1151AWC, 1-1/2" CHROME PLATED CAST BRASS OFFSET TAILPIECE WITH STAINLESS STEEL BASKET STRAINER. MCGUIRE #8912C CHROME PLATED CAST BRASS P-TRAP AND CLEANOUT PLUG WITH HEAVY BRASS SLIP NUTS. MCGUIRE #111 17GA. CONTINUOUS WASTE. MCGUIRE #LFH2165LK LOOSE KEY ANGLE STOPS WITH CHROME PLATED COPPER RISERS. MIXING VALVE: BRADLEY #S59-4000BY, BELOW DECK THERMOSTATIC MIXING VALVE WITH MOUNTING BRACKET #S45-2456. INSULATION KIT: PLUMBEREX OR TRUEBRO INSULATION ON TAILPIECE, P-TRAP, STOPS AND SUPPLIES.
EWC-1	ELECTRIC WATER COOLER (ADA)	FIXTURE: ELKAY #LZSTL8WSSP, BOTTLE FILLING STATION & VERSATILE BI-LEVEL ADA COOLER, 8GPH, 115V, WALL MOUNT, ADA COMPLIANT. TRIM: MCGUIRE #8872 CHROME PLATED CAST BRASS P-TRAP WITH HEAVY BRASS SLIP NUTS. MCGUIRE #LFH2165LK LOOSE KEY ANGLE STOP WITH CHROME PLATED STEEL ESCUTCHEON AND CHROME PLATED COPPER RISER.



01 PLUMBING RISER DIAGRAM
SCALE: NTS

GENERAL PLUMBING NOTES:

A. REFER TO SHEET P000 FOR ADDITIONAL PLUMBING GENERAL NOTES.

B. REFER TO SHEET P000 FOR ADDITIONAL FIRE PROTECTION GENERAL NOTES.

C. VERIFY ALL DIMENSIONS AT JOBSITE.

D. CONTRACTOR SHALL REMOVE ALL NECESSARY EXISTING SERVICES SUCH AS WATER, WASTE, VENT AND GAS PIPING SERVING FIXTURES TO BE REMOVED AND/OR CONNECTIONS TO EQUIPMENT TO BE REMOVED. REMOVE ANY AND ALL UNUSED SERVICE LINES ABOVE CEILINGS, IN WALLS OR BELOW FLOORS.

E. CONTRACTOR SHALL PATCH AND FILL ALL UNUSED EXISTING FLOOR PENETRATIONS.

F. PLUMBING CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES AND AUTHORITIES HAVING JURISDICTION, AND MAKE FINAL CONNECTIONS TO FIXTURES AND EQUIPMENT.

G. INSULATE HOT WATER LINES WITH 1" MOLDED FIBERGLASS INSULATION.

H. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT LOCATION OF FIXTURES, EQUIPMENT.

I. ALL WALL HUNG PLUMBING FIXTURES ARE TO BE SUPPORTED BY MEANS OF A CARRIER AS MANUFACTURED BY J.R. SMITH, JOSAM, OR ZURN.

J. PLUMBING CONTRACTOR SHALL COORDINATE ALL PIPING AND EQUIPMENT WITH OTHER TRADES PRIOR TO INSTALLATION OF ANY PIPING OR EQUIPMENT.

K. PLUMBING CONTRACTOR SHALL VERIFY THE EXACT SIZE, LOCATION, DEPTH AND PRESSURE OF ALL EXISTING UTILITY LINES BEFORE COMMENCING WORK.

L. VENT PIPING TO BE 2" UNLESS OTHERWISE NOTED.

M. COORDINATE ALL WORK WITH OWNER OR REPRESENTATIVES.

N. ALL PIPING SHALL BE RUN CONCEALED UNLESS OTHERWISE NOTED.

O. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AFFECTING THIS WORK.

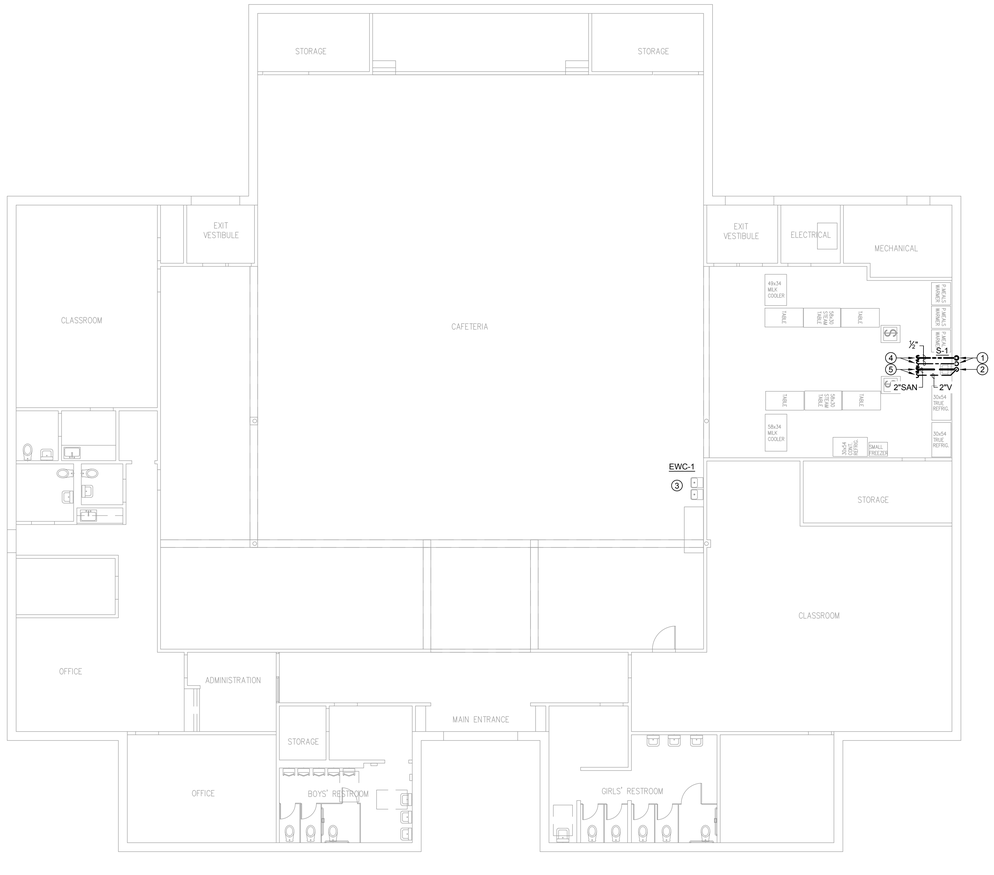
P. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.

ⓔ DEMOLITION KEYED NOTES:

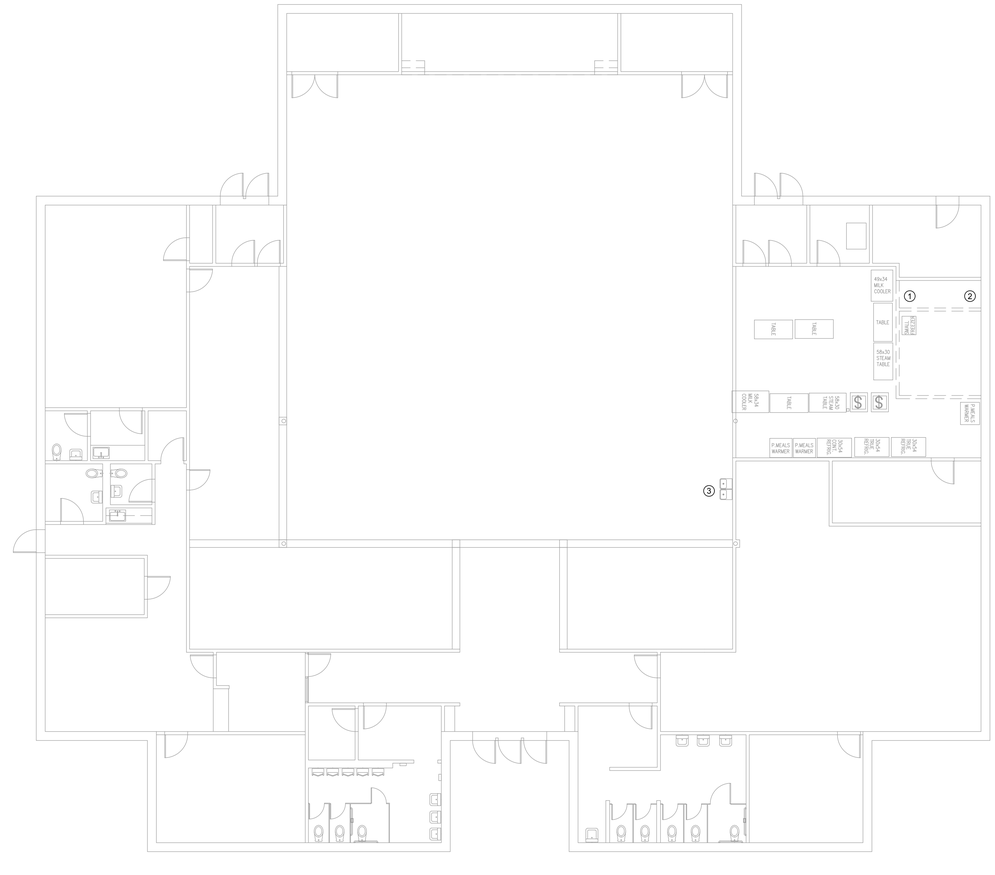
1. EXISTING HAND SINK TO BE RELOCATED. CAP SANITARY PIPING BELOW SLAB. CW, HW, AND SANITARY VENT PIPING SHALL BE REMOVED IN THEIR ENTIRELY.
2. EXISTING 3-COMPARTMENT SINK TO BE REMOVED. CAP SANITARY PIPING BELOW SLAB. CW, HW, AND SANITARY VENT PIPING SHALL BE REMOVED IN THEIR ENTIRELY.
3. EXISTING DRINKING FOUNTAIN TO BE REPLACED WITH NEW FOR ADA COMPLIANCE. COORDINATE WITH ARCHITECT PRIOR TO REPLACING. RECONNECT TO EXISTING SANITARY, CW, HW, AND SANITARY VENT PIPING WITHIN WALL.

ⓟ PLUMBING KEYED NOTES:

1. ½" CW & HW DOWN.
2. 2" SANITARY DOWN TO BELOW SLAB. 2" VENT UP TO ABOVE CEILING.
3. NEW ELECTRIC WATER COOLER RECONNECT TO EXISTING CW, HW, AND VENT PIPING WITHIN WALL. CONTRACTOR VERIFY EXACT LOCATION.
4. ½" CW & HW CONNECT TO EXISTING CW & HW PIPING ABOVE CEILING. CONTRACTOR VERIFY EXACT LOCATION.
5. 2" SANITARY CONNECT TO NEAREST EXISTING SANITARY PIPING UNDERGROUND. 2" VENT CONNECT TO NEAREST VENT PIPING ABOVE CEILING. CONTRACTOR VERIFY EXACT LOCATION.



02 PLUMBING FLOOR PLAN
SCALE: 1/8"=1'-0"



01 PLUMBING DEMOLITION FLOOR PLAN
SCALE: 1/8"=1'-0"

yes prep PUBLIC SCHOOLS

2007 Ea architects

JASON W. DAWSON 108125 LICENSED PROFESSIONAL ENGINEER

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PLUMBING + DEMOLITION FLOOR PLANS

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DVO PROJECT – 191035

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