

INVITATION TO BID

Project:

Warehouse Building
IFB 18-010
Electrical Improvements
1112 Cheyenne
Kansas City, Kansas 66105

Owner:

Kansas City Kansas Public Schools

Engineer

Pearson Kent McKinley Raaf Engineers, LLC
13300 W 98th Street
Lenexa, KS 66215

Sealed proposals for the Kansas City Kansas Public Schools for renovation work in the district will be received at the Purchasing Office, 2010 N. 59th Street, Room 370, Kansas City, KS 66104 **until 2:00 PM., March 8, 2018** at which time and place the bids will be opened and read aloud. Bids received after the time above for the particular project will be returned unopened.

Project Description: The scope of work includes but is not limited to:

Warehouse Building
Electrical Improvements

Contractors shall submit Contractor's Qualification Statement, AIA Document A305 with the sealed bid. This Qualification Statement document is available at the Office of the American Institute of Architects (AIA) at 104 West Ninth Street, Kansas City, Missouri 64105 (816-221-3485). Upon review of the Qualification Statement document, the Owner shall have the right to take such steps as he deems necessary to determine the ability of the Contractor to perform the Work, and the Contractor shall furnish to the Owner such additional information and data for this purpose, as they may request. The right is reserved to reject any Bid after an investigation or consideration of the information and data submitted by such Contractor.

Contractor is responsible for all required permit fees. Verify exact fees with city.

A pre-bid meeting will be held at the Warehouse Building (1112 Cheyenne, Kansas City, Kansas 66105) March 1, 2018 at 10:00AM.

Liquidated Damages of \$500 dollars (two thousand five hundred) per day associated with substantial and \$500 dollars (five hundred) per day final completion are incurred the calendar day following the substantial and final completion dates listed, until substantial and final completion are achieved. The damages for final completion start as stated above or fourteen (14) days after the established substantial completion date.

All Bidders shall visit the site prior to submitting Bids. Site visits, other than the scheduled pre-bid conferences must be coordinated with Owner.

Questions can be directed via email, mike.raaf@pkmreng.com. Refer to bid documents for deadline to submit questions. Questions will not be taken verbally or in person.

The Owner reserves the right to waive any defects and informalities in Bids, to reject any or all Bids, to take any or all Bids under advisement, or to accept any Bid as may be deemed in its interest of meeting the standards of lowest responsible Bid.

Project completion: Construction shall be complete as indicated in the milestone schedule(s) following Specification Section 01010.

KANSAS CITY KANSAS PUBLIC SCHOOLS

Electrical Improvements

at

WAREHOUSE BUILDING
1112 CHEYENNE
KANSAS CITY KANSAS 66105

Bid IFB #18-010

Issue Date

February ??, 2018

Pre-Bid Meeting Date

February ??, 2018 10:00am

Bid Date

February ??, 2018 2:00pm



PEARSON KENT MCKINLEY RAAF ENGINEERS
13300 W. 98TH STREET | LENEXA, KS 66215

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BID IFB 18-010

LUMP SUM PROPOSAL

KANSAS CITY KANSAS SCHOOL DISTRICT

Warehouse Building – Electrical Improvements

General Construction for:

PROPOSAL OF: _____
(Hereinafter called "Bidder"),

A CORPORATON* ORGANIZED AND EXISTING UNDER THE LAWS

OF THE STATE OF _____

A PARTNERSHIP* CONSISTING OF _____

AN INDIVIDUAL* TRADING AS _____

*Complete applicable designation.

TO: KANSAS CITY KANSAS PUBLIC SCHOOLS
PURCHASING OFFICE
2010 N. 59TH STREET, ROOM 370
KANSAS CITY, KS 66104

1. The undersigned, having familiarized itself with local conditions affecting the cost of the work at the place where the work is to be done and with all Bidding Documents, including the Instructions to Bidders, Plans and Specifications, General and Supplementary Conditions, the Standard Form of Agreement and the other Contract Documents, and having examined the location of the proposed work and considered the availability of labor and materials, hereby proposes and agrees to perform everything required to be performed, and to provide and furnish any and all labor, materials, supervision, necessary tools, equipment, and all utility and transportation service necessary to perform and complete in a workmanlike and timely manner all of the work required for the project, all in strict conformance with the Instructions to Bidders and other Contract Documents (including Addenda Nos. _____, through _____, the receipt of which is hereby acknowledged), for the lump sums hereinafter specified.

2. FOR BASE BID

The Lump Sum of _____
_____ Dollars (\$_____).

Additional breakdown requirements are described in Section 01010 Summary of Work, Part 1.11 – Additional Owner Requested Bid Breakdown.

3. TAX EXEMPTION

This project shall be considered Tax Exempt. Federal, State and local taxes shall not be included with the Bid. Subsequent to the award of the construction contract, the School District will obtain from the State of Kansas a sales tax exemption certificate number. The sales tax exemption certificate will permit the Contractor to purchase materials for incorporation into this project without paying sales tax, provided that the Contractor furnishes the certificate number to the material supplier.

4. CHANGES IN THE WORK

Changes in the work shall be as established in the Contract Documents. The following fees shall be used for lump sum pricing and actual cost pricing of additions and deletions to the work included in the Bid, Namely:

	<u>Not to Exceed</u>
A. To Contractor for work performed by his own forces	10%
B. To Contractor for work performed by other than his own forces	5%
C. To Subcontractor for work performed by his own forces	10%
D. To Subcontractor for work performed by other than his own forces	5%

Percentages for overhead and profit will not be allowed on bond premiums.

5. A. In the execution of the Agreement, no person shall on the grounds of race, color, religion, sex, disability, or national origin be excluded from full employment rights, be denied the benefits of, or otherwise subject to discrimination under any program, service or activity under the provisions of any and all applicable Federal and state laws against discrimination. Bidder shall furnish all information and reports required by the rules, regulations, and order of the Secretary of Labor for purposes of investigating to determine compliance with such laws.
- B. Bidder shall observe the provisions of the Kansas Acts Against Discrimination and shall not discriminate against any person in the performance of work under the Agreement because of race, religion, color, sex, physical handicap unrelated to such person's ability to engage in the particular work, national origin or ancestry.
- C. In all solicitations or advertisements for employees, Bidder shall include the phrase, "equal opportunity employer", or similar phrase approved by the Owner.
- D. If bidder fails to comply with the provisions of K.S.A. 441031, bidder shall be deemed to have breached the Agreement and it may be canceled, terminated or suspended in whole or in part, by Owner.
- E. If bidder is found guilty of a violation of the Kansas Acts Against Discrimination under a decision or order of Owner that has become final, bidder shall be deemed to have breached the present Agreement and it may be canceled, terminated, or suspended in whole or in part, by Owner.
- F. Bidder shall include the provisions of paragraphs A through E above in every subcontract or purchase order so that such provisions shall be binding upon all subcontractors and vendors.
8. The undersigned hereby proposes and agrees to substantially and/or finally complete the work or segments of the work on or before the scheduled dates listed in Section 01010-Summary of Work, and to pay as liquidated damages the corresponding amount stipulated in Section 10101-Summary of Work for each consecutive calendar day thereafter that the work or segment of the work remains substantially and/or finally incomplete in accordance with the Contract Documents. This provision shall be applied, and the daily liquidated damages amount(s) shall be calculated separately as to each substantial and/or final complete date stated.
9. Accompanying the Bid is Bid Security of at least 5% of the bid in the form of a Bid Bond in the amount of ____ Dollars (\$ _____), payable without condition to the Owner, which it is agreed shall be retained as liquidated damages for the delay and extra expense caused the Owner, if the undersigned fails to execute the Contract and furnish the bonds required by the Contract Documents, within the time stated in the Contract Documents.

10. In submitting the Bid it is understood that the right to reject any and all bids has been reserved by the Owner and that this bid may not be withdrawn for a period of sixty (60) days from the opening.

Date this day of _____, 201__.

Name of Bidder

Address of Bidder

Authorized Officer

Title

Telephone Number

(Seal)

ATTESTED:

SECTION 01010 - SUMMARY OF WORK

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of the Work.
- B. Work under other contracts.
- C. Products furnished by the owner.
- C. Contractor use of site (and premises).
- D. Code of Conduct.
- E. Existing conditions.
- F. Work sequence, Schedule for Completion and liquidated damages.
- G. Time extensions for adverse weather.
- H. Owner occupancy.
- I. Time extension for factors other than weather.

1.02 DESCRIPTION OF THE WORK

- A. The Contractor shall furnish all labor, materials, facilities, insurance, management, equipment, services, employee training and testing, permits and agreements necessary to perform the work required.
- B. See plans and specifications for complete extent of work.
- C. The bidder must perform the work in its entirety. Transferring or sharing prime responsibility for the work will not be allowed and will be considered cause for termination.
- D. The General Contractor shall be represented full time, at the site, by a competent Superintendent from beginning of the work until final completion unless otherwise approved by the Owner. The superintendent shall oversee and direct the daily construction activities at the work site including scheduling of workers and delivery of equipment and materials to meet the project schedule. The superintendent shall also inspect work in progress to ensure that work conforms to the plans and specifications. The Superintendent shall be dedicated to these duties and shall physically perform work or “wear tools” only on a limited basis.

1.03 WORK UNDER OTHER CONTRACTS.

- B. Items noted ‘NIC’ (Not in Contract), will be furnished and installed by owner.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow owner occupancy and use of the existing building, parking lots, and hard play areas during construction.
- B. The contractor shall coordinate the use of the site and locations for all equipment storage, job trailers, portable lavatory facilities, generators, etc., with the architect and owner. The owner shall have the final approval for all site use by the contractor.

1.05 CONTRACTOR AND VENDOR EMPLOYEES CODE OF CONDUCT

Kansas City Kansas Public Schools requests that all contractor and vendor employees conduct themselves in an acceptable manner while performing work on school district property. The following items are prohibited on school district property:

1. No physical or verbal contact is to be made with students or non-designated staff.
2. No smoking in public or student occupied areas of the building or areas of the site.
3. No drugs and/or alcohol are to be consumed or present on district sites.
4. No firearms, or hunting items, are to be present on the site.
5. Foul and/or abrasive language is not to be used.
6. All workers are to wear clothing on all parts of their body; no shirtless workers. Apparel should be appropriate to a school campus.

Utilize designated areas for vehicle access and parking, material storage, etc.

All workers are to wear a nametag, which identifies the company name and the individual's name.

1.06 EXISTING CONDITIONS

- A. The contract drawings are based on information taken from original construction drawings and from inspections of the site.
- B. Bidders are advised that "as-built" conditions may vary from those shown on the drawings. Bidders shall not later request, nor expect to receive, additional payment for work related to variations which can be determined by examination of the existing building and site, by the date set for receipt of Bids for this Contract.

1.07 WORK SEQUENCE AND SCHEDULING

- A. The Contractor and all Subcontractors, sub-subcontractors and Suppliers shall furnish sufficient forces, supervision, construction plant and equipment, and shall work such hours as may be required to insure the prosecution of the work in accordance with the Progress Schedule stated herein. If in the opinion of the Owner, the Contractor falls behind the Progress Schedule, the Contractor shall take such steps as may be necessary to improve the progress and the Owner may require them to increase the number of shifts, and/or overtime operations, days of work including holidays, Saturdays and Sundays, all without additional costs to the Owner.
- B. Schedule requirements for each Option and Phase are outlined as follows.

Bidding Documents Available:	February 23, 2018
Pre-Bid Meeting:	March 1, 2018 at 10:00 AM
Bids Due:	March 8, 2018 at 2:00 PM
School Board Approval:	March 20, 2018
Pre-Construction:	March 23, 2018
Substantial Completion	April 24, 2018
- C. Liquidated Damages of \$500 dollars (five hundred) per day per building associated with substantial and \$500 dollars (five hundred) per day per building final completion are incurred the calendar day following the substantial and final completion dates listed above, until substantial and final completion are achieved. The damages for final completion start as stated above or fourteen (14) days after the established substantial completion date.

1.08 TIME EXTENSIONS FOR ADVERSE WEATHER

- A. The Contractor shall comply with all provisions of the General Conditions in submitting any request for extension of Contract Time due to unusually severe weather.
- B. Definitions:
 1. Adverse Weather - atmospheric conditions at a definite time and place which are unfavorable to construction activities.
 2. Unusually Severe Weather - weather which is more severe than the adverse weather anticipated for the season, location, or activity involved.

- C. In order for any request of time extension due to unusually severe weather to be valid, the Contractor must document both of the following conditions.
1. The weather experienced at the project site during the Contract period is more severe than the adverse weather anticipated for the project location during any given month.
 2. The unusually severe weather actually caused a delay to the completion of the project. The delay must be beyond the control and without fault or negligence by the Contractor.
- D. The following schedule of monthly anticipated adverse weather delays will constitute the baseline for monthly weather time evaluations. The contractor's progress schedule must reflect these anticipated adverse weather delays in all weather-affected activities:

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY WORK DAYS
BASED ON FIVE (5) DAY WORK WEEK

<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
10	8	7	6	7	7	5	5	5	4	5	9

- E. Upon receipt of the Notice to Proceed, and continuing throughout the contract, the Contractor shall record on their daily construction report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50% or more of contractor's scheduled work day.
- F. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in the previous month), and shall be calculated chronologically from the first to the last day of each month, and be recorded as full work days.
1. If the number of actual adverse weather delay days in a given month exceeds the number of days anticipated in Paragraph D, above, the difference shall be multiplied by 7/5 to convert any qualifying workday delays to calendar days. The resulting number of qualifying lost days shall be added to the contract time.
 2. The determination that unusually severe weather occurred does not automatically mean an extension of time will be granted. The contractor must substantiate the unusually severe weather delayed work activities on the critical path of the Progress Schedule.
- G. Full consideration for equivalent fair weather workdays shall be given. If the number of actual adverse weather delays in a given month is less than the number of days anticipated in Paragraph D, above, the difference shall be multiplied by 7/5 to convert any work day increases to calendar days. The resulting number of qualifying extra days will be accumulated and subtracted from any future month's days lost due to unusually severe weather.
1. The net cumulative total of extra days/lost days shall not result in a reduction of Contract Time and the Date of Substantial Completion shall not be changed as a result of unusually favorable weather.
- H. In converting workdays to calendar days, fractions 0.5 and greater shall be rounded up to the next whole number. Fractions less than 0.5 shall be dropped.
- I. The contractor shall summarize and report all actual adverse weather delay days for each month to the architect by the tenth (10th) of the following month. A narrative indicating the impact of adverse weather conditions on the scheduled critical activities shall be included.
1. Any claim for extension of time due to unusually severe weather shall be submitted to the architect and owner within twenty-one (21) days of the last day of the month in which the delay occurred. Resolution of any claim shall follow the procedures established by the general conditions and as prescribed above.
- J. The contractor shall include and indicate the monthly anticipated adverse weather days, listed in Paragraph D, above, in their progress schedule. (Reference Section 01300 for Progress Schedule requirements.)

1. The contractor shall indicate the actual adverse weather days (whether less or more than the anticipated days) in their monthly progress schedule update.

1.09 OWNER OCCUPANCY

- A. The existing building, parking lots and hard play areas will be used and occupied by the School District during portions of the Contract Time. Occupants will include, but not be limited to: students, faculty, parents, and other groups so authorized to use the building and/or site by the school district.
- B. School will be in session from 8:00 a.m. to 3:30 p.m., Mondays through Fridays, spring and fall semesters, throughout the contract time. In addition, the hours from 7:30 a.m. to 8:30 a.m. and from 3:30 p.m. to 4:30 p.m., Monday through Friday, will be reserved for arrival and departure of the school district occupants and delivery of materials and equipment is to be scheduled outside of these hours. The school is unoccupied for summer recess and will be available for general contractor access.
- C. The work shall be confined to limited areas of the site. The contractor shall work with the Project Team to develop a schedule of areas to receive work. The schedule will identify specific areas of the building and site to receive work at specific times. This schedule shall be submitted by the Contractor to the Architect for approval before the work begins.
- D. The owner will move loose furnishings out of the existing building with his own work forces prior to scheduled demolition. This will include furniture, equipment, wall hangings, books, maps, clocks, and loose educational materials prohibiting work.

1.10 TIME EXTENSION FOR FACTORS OTHER THAN WEATHER

- A. If the contractor incurs a delay due to factors out of his control, the contractor shall submit a claim within twenty-one (21) days after the occurrence for additional time to the architect and project team.
- B. If a proposal request for additional work causes the contractor additional time to perform the original contract requirements the contractor may submit a claim for additional time to the Architect and Project Team. The Contractor shall include in his proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the contract in its entirety.
- A. The determination that delays have occurred beyond the Contractor's control does not automatically mean an extension of time will be granted. The Contractor must substantiate the delay by indicating suspended work activities on the critical portion of the project schedule.

END OF SECTION

SECTION 01020 - CONTRACT CONSIDERATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Cash Allowances.
- B. Schedule of values.
- C. Bid Cost Breakdown.
- D. Application for Progress Payment.
- E. Application for Final Payment
- F. Change Orders and/or Clarifications.

1.02 RELATED SECTIONS

- A. N.A.

1.03 CASH ALLOWANCES

(Architect to include allowances, as applicable.)

1.04 SCHEDULE OF VALUES

- A. The Contractor will submit to the Architect, a Schedule of Values that includes all major categories of work and per building if applicable. The Schedule of Values will annotate a value for the construction schedules and progress meeting notes required by the contract documents. The dollar amounts are to include all labor, material, overhead and profit applicable to each item in the breakdown. As a sub-breakdown, each item is to be separated into an estimated labor and materials line item. The Contractor must submit an estimated total value for the projected cost of supplies, materials, and equipment required. Submit typed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet. Contractor's standard form of electronic media printout will be considered as an alternate form of submission.
- B. Submit Schedule of Values in triplicate within fourteen (14) calendar days after the contract for construction is executed and prior to any submission of an Application for Payment. Schedule shall list the installed value of the component parts of the work, broken down in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Format: At a minimum, use the Table of Contents in this Project Manual to identify each line item with number and title of the major specification section.
- D. Add to the Schedule of Values approved Change Orders, with each Application for Payment. List Change Orders in numerical sequence with each Application for Payment.
- E. Correlate line items in the Schedule of Values with other required additional schedules and forms including:
 - a. Contractor's construction schedule
 - b. Contract payment request form
 - c. List of subcontractors.
 - d. List of products.
 - e. List of principle suppliers and fabrications.
 - f. Schedule of submittals.

- F. Prior to making application for the first progress payment, the Contractor must submit the Schedule of Values. No progress payments will be made until the schedule of values has been received, reviewed, and approved by the Architect and School District. The costs assigned to the breakdown are to total the contract sum. The approved Schedule of Values is to be used by the Contractor on their Application for Payment.

1.05 BID COST BREAKDOWN
(See Bid Form for any applicable requirements)

1.06 APPLICATION FOR PROGRESS PAYMENTS

- A. At a time consistent with the requirements of this section, the General Conditions, and the Owner-Contractor Agreement, and for each calendar month during the progress of the work, submit three (3) copies of a properly notarized itemized Application for Payment prepared in a manner consistent with the Schedule of Values.
- B. The amount shown on the Application for Payment shall be established by the value of work completed through the last day of the application period based upon the Contractor's estimate of labor and materials incorporated in the work and of materials suitably stored in accordance with the contract through the last day of the previous application, less the aggregate of previous payments, and less the retainage as specified in this section.
- C. The form of application for payment shall be the May, 1983 edition of AIA Document G702. "Application and Certificate for Payment", supported by AIA Document G703. "Continuation Sheet", May, 1983 edition.
- D. Provide the following itemized data on Continuation Sheet:
 - a. Format, schedules, line items, and values shall be from the Schedule of Values accepted by Architect.
 - b. Include names, trades and amount for subcontractors.
- 1. Application Form:
 - a. Fill in required information, including that for change orders executed prior to the date of submittal application.
 - b. Fill in summary of dollar values to agree with the respective totals indicated on the continuation sheet.
 - c. Execute certificate with the signature of a responsible officer of the contractor's firm.
- 2. Continuation sheets:
 - a. Fill in total list of all scheduled component items of work, with each number and the scheduled dollar value of each item.
 - b. Fill in the dollar value in each column for each scheduled line item when work has been performed or products stored. Round off values to nearest dollar, or as specified in the Schedule of Values.
 - c. List each change order executed prior to the date of submission, at the end of the continuation sheets. List by change order number, description, and breakdown of costs as for an original component item of work.
- E. Substantiating Data for Progress Payments:
 - 1. Substantiating data is required to verify a payment request. Contractors are to include a cover letter identifying:
 - a. Project.
 - b. Application number and date.
 - c. Detailed list of enclosures.

- d. For stored products: Item number and identification as shown on application, and description of specific material. Include Bill of Sale, Non-Negotiable Bailment Receipt (see form at the end of this section) and applicable insurance certificate.
- 2. Submit one copy of the data cover letter for each of the applications.
- F. Applications for Payment shall be accompanied by cost breakdowns from the contractor, subcontractors and sub-sub-contractors.
- G. The three notarized copies of the application for payment will be transferred to the architect to be certified for payment. Provide a copy (non-notarized) to the owner's representative.

1.07 APPLICATION FOR FINAL PAYMENT

- A. Submit final Application for Payment following the procedures specified above for progress payments.
- B. Before submitting final Application for Payment, forward concurrently to the Architect, the written warranties and guarantees, Record and Information Manuals and other documents required by the contract documents. Place properly in approved storage at the site the extra stock and spare parts specified. Contractor will obtain the signature of the Architect verifying receipt of the extra stock and spare parts.
- C. Properly executed "Final Lien Waiver and Release" and Contractor's "Affidavit" (see applicable forms at the end of this section) shall be submitted to the Architect in duplicate prior to final payment.
- D. Application for Final Payment shall be accompanied by a properly executed "Consent of Surety Company to Final Payment: AIA Document G707, April, 1970 edition.

1.08 CHANGES AND/OR CLARIFICATIONS

- A. Request for Information (RFI)
 - 1. If during the construction of the project, clarification of the documents is required, it shall be brought to the attention of the Architect. The Architect will either provide clarification or the Contractor will issue a Request for Information (RFI) to the Architect. Each RFI will be dated and sequentially numbered. The Architect shall provide his written response to the RFI and return the RFI response to the Contractor for distribution to all effected contractors.
 - 2. Responses to RFI's are not authorization to proceed with work requiring additional compensation. If additional compensation is required, the Contractor shall immediately advise the Architect, and Owner.
- B. Proposal Request (PR)
 - 1. Should the owner contemplate making a change in the work, the architect will issue a Proposal Request (PR) to the Contractor. If the described change impacts cost and/or time, the Contractor will prepare a proposal and submit it to the Architect. The Contractor's proposed cost shall be broken down completely giving quantity and unit costs by each trade of each item, labor cost with hourly rates, allowable overhead and profit (both adds and deducts). The Owner and Architect will review the pricing to determine if a change order will be issued. Contractors are not to proceed with additional work until written authorization has been received. No additional amount will be paid for submittal in this form or for resubmittal should the breakdown be considered inadequate by the Architect and Owner.
- C. Change Orders (CO)
 - 1. If the Owner determines that a Proposal Request will be accepted, the Architect will

- prepare a change order (CO) which will be dated and numbered sequentially. The change order will describe the change or changes, will refer to the Proposal Request and Proposal number and becomes valid when signed by the Owner, the Architect and the Contractor.
2. Where unit prices are not required by the bid documents and value of changes or extra work is determined by estimate and acceptance in a lump sum, by cost and percentages, or by cost and a fixed fee, the percentages for overhead and profit, or commission to be allowed for net increases shall in no case exceed the figures identified on the bid form.
 3. Estimates for material shall be based on reasonable current market value at which materials are available to the Contractor and Subcontractor. Upon request, submit satisfactory evidence of such costs. Labor unit costs shall include associated insurance.
 4. When authorized by the Owner, time and material accounting of a change in work may be used. The Contractor shall maintain an accurate account of labor and material involved in each change. Such time and material records are subject to verification. Notify Architect and Owner when work on each change is to start and when it has been completed. To receive full recognition, labor assigned to Contract changes must, insofar as possible, work continuously on the change, rather than interchanging between contract work and the change.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

FINAL LIEN WAIVER AND RELEASE

Reference that certain Agreement between _____, as Contractor, and _____, as Owner, dated _____, on the project known as _____ located at _____ for work to be performed by said Contractor.

Reference also that certain invoice of Contractor to said Owner in the Amount of \$_____ for work, labor and materials installed in or furnished for said project by and through _____.

The receipt by Contractor of Owner's remittance for the amount said invoice, contingent upon the final clearance and payment of said remittance, shall constitute payment for the full contract amount, including change orders and all other claims or demands of any nature whatsoever which Contractor has or may have in connection with the Project or Contract referenced herein, of \$_____, for which Contractor (a) agrees to and does hereby waive and release said property, project and the Owner and all bond or payment sureties and guarantors from; and (b) does hereby agree to protect, indemnify, defend and hold harmless said property, project, Owner, sureties and guarantors against;

- (1) any and all liens, statutory or otherwise, and
- (2) any or all obligations under any bond or guaranty for payment furnished by or to said Owner, whether pursuant to agreement or requirement of law, and
- (3) any and all other claims whatsoever, statutory or otherwise,

for any and all work, labor and materials furnished by or through said Contractor, its subcontractors and material suppliers for the entirety of said project.

The remittance of the Owner, identified as payment of said above invoice and endorsed by Contractor and marked "paid" or otherwise canceled by the bank against which said remittance was drawn shall constitute conclusive proof that said invoice was paid and the payment thereof was received by the Contractor, and thereupon, this final lien waiver shall become effective automatically and without requirement of any further act, acknowledgment or receipt of the part of said Contractor.

Contractor does further warrant that Contractor has not and will not assign its claims for payment nor its right to perfect a lien against said property and project, and the undersigned representative of the contractor has the right to execute this waiver and release thereof.

The undersigned representative of Contractor does hereby certify under oath that he is fully authorized and empowered to execute this instrument for and in behalf of said Contractor and to bind them hereto and does in fact so execute this final lien release.

Dated this _____ day of _____, 20__.

Contractor:

By:

Title:

Subscribed and affirmed to before me, the undersigned Notary Public within and for the State of _____ and the County of _____, this _____ day of _____, 20__, in the City of _____.

Notary Public within and for said County and State
NON-NEGOTIABLE
BAILMENT RECEIPT

Receipt Number

BAILOR: Owner

BAILEE: Contractor/Supplier

PROJECT: _____

LOCATION OF STORAGE:

The goods and materials described below are held and stored pursuant to the Contract by and between Bailee, as Contractor/Supplier, and Bailer as Owner for Work to be performed at the above referenced Project location. Said goods and materials are to be transferred or delivered to the project site in conjunction with the performance of Bailee's contract referenced above or upon the direction of Bailor or the Architect and no other. The Bailee acknowledges that it has no ownership rights or title in, nor shall claim any lien or interest in or upon, said goods and materials.

QUANTITY DESCRIPTION OF ITEM

Received and Acknowledged
Contractor/Supplier

DATED: _____

BY:

Authorized Signature

The undersigned representative of Contractor does hereby certify under oath that he is fully authorized and empowered to execute this instrument for and in behalf of said Contractor and to bind them hereto and does in face so execute this final lien release.

Dated this _____ day of _____, 20 ____.

Contractor:

By:

Title:

Subscribed and affirmed to before me, the undersigned Notary Public within and for the State of _____ and the County of _____, this _____ day of _____, 20 _____, in the City of _____.

Notary Public within and for said County and State

SECTION 01040 - COORDINATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Coordination.
- B. Coordination Drawings.
- C. Lockout/Tagout Procedures
- D. General Installation Provisions
- E. Cleaning and Protection

1.02 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various sections of specifications to assure efficient and orderly sequence of the project.
- B. Verify that utility requirements for the project have been properly installed and that such water, phone, and electrical hookup is compatible with other construction and demolition operations occurring at the site. Coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of all Work including mechanical and electrical Work that is indicated diagrammatically on drawings prior to initiating Work on site. Bring discrepancies to the attention of the Architect in a timely manner, follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. The Contractor is to coordinate his Work with the Work of the Owner's Contractors.
- F. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with contract documents, to minimize disruption of Owner's activities. This will include off-hour Work to avoid conflict with Owner's activities.
- H. Coordinate construction activities included under various sections of these specifications to assure efficient, safe, and orderly installation of each part of the Work. Coordinate construction operations included under different sections of the specifications that are dependent upon each other for proper installation, connection, and operations.
 - 1. Where installation of one part of the Work is dependent on installation of other components either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
 - 2. Where availability of space is limited, coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
- I. Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

1. Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.
- J. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of schedules.
 2. Installation and removal of temporary facilities.
 3. Delivery and processing of submittals.
 4. Conducting progress meetings.
 5. Orchestrating pre-installation and quality assurance meetings.
 6. Project closeout activities.

1.03 COORDINATION DRAWINGS (Include as specifically applicable to the project.)

- A. Coordination Drawings: Prepare and submit coordination drawings where close and careful coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space availability necessitates maximum utilization of space for efficient installation of different components.
1. Show the interrelationship of components.
 2. Indicate required installation sequences.
 3. Comply with requirements contained in Section "Submittals".
 4. Refer to Division-15 Section "Basic Mechanical Requirements", and Division-16 Section "Basic Electrical Requirements" for specific coordination drawing requirements for mechanical and electrical installations.
 5. In addition to coordination drawings listed in the individual sections, prepare coordination drawings for:
 - a. Mechanical equipment rooms.
 - b. Electrical equipment rooms.
 - c. Elevator equipment rooms.
 - d. Roof plan with ALL penetrations, equipment supports, etc., including mechanical and electrical items.
 - e. Ductwork, piping, electrical conduit.
 6. Submit coordination drawings to the Architects as an "Informational Submittal". The Architect will not take responsive action.

1.04 LOCKOUT/TAGOUT PROCEDURES

- A. Comply with the most recent requirements of OSHA Regulations for the safety of the workers. All equipment shall be locked/tagged out to a zero energy state when new installation, replacement, repair, maintenance or servicing is done on machinery or equipment to protect against accidental or inadvertent operation when such operation could cause injury to personnel.
- B. Contractors are required to lockout/tagout machinery and equipment prior to maintenance or service. Compliance with this policy/procedure is mandatory.
- C. Contractor employees must be able to:
1. Prepare equipment for shut down
 2. Shut down equipment
 3. Isolate equipment
 4. Apply lockout/tagout devices
 5. Control any stored energy
 6. Verify equipment isolation
 7. Remove the lockout
- D. When a lockout is placed on a piece of equipment or a system, it shall have a tag attached with a written warning from the person attaching the lockout.

- E. If the energy source cannot be locked out, the tag should clearly state that there is no lockout on the equipment and that it has been de-energized for service.
- F. Procedures:
 - 1. Preparation

Contractor(s) performing lockouts must verify which switches, valves or other energy isolating devices apply to the equipment being services.
 - 2. Shutdown
 - a) Notify any affected personnel (includes other contractors and/or district staff) of the equipment or machinery being locked/tagged out.
 - b) Shut the equipment down using its normal operating controls.
 - 3. Isolation
 - a) Isolate the equipment or machinery from every power source.
 - b) Insure any secondary power is isolated from the equipment or machinery.
 - 4. Application of Lockout/Tagout
 - a) Lockout the energy isolating device with an assigned lock. Only locks assigned for lockout purposes shall be used. General purpose locks shall not be utilized.
 - 5. Stored Energy
 - a) Insure all moving parts are stopped.
 - b) Release any stored energy from the equipment or machinery. Spring pressure, elevated parts, rotating parts, hydraulics, air, gas, steam, water, etc., must be dissipated or restrained by other methods such as grounding, blocking or bleeding down.
 - 6. Isolation & Verification
 - a) Insure no personnel are exposed to the equipment or machinery.
 - b) Operate the controls of the equipment or machinery to make sure the equipment or machinery will not operate.
 - c) Return the controls to the off position.
 - d) Electrical testing equipment shall be used to verify electrical isolation.
 - 7. Restoring Equipment/Machinery to Operation
 - a) Upon completion of maintenance or service, verify the equipment/machinery is safe to operate.
 - b) Remove all tools from the work area.
 - c) Insure the system is fully assembled.
 - d) Be sure all personnel are clear of the equipment.
 - e) Inform everyone affected by the equipment or machinery that the lockout/tagout is being removed.
 - f) Remove the lockout/tagout devices. Devices are only to be removed by the person that put them on, except in the case of an emergency.

1.05 GENERAL INSTALLATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major Work component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.

- B. Manufacturer's Instructions: Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in contract documents.
 - 1. Where applicable, comply with manufacturer's instructions, including each step in sequence.
 - 2. Should manufacturer's instructions with contract documents, request clarification from Architect before proceeding.
 - 3. Installation must be performed to conform to the requirements of manufacturer's warranty.
- C. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items.
- D. Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.
- E. Visual Effects: Provide uniform joint widths in exposed Work. Arrange joints in exposed Work to obtain the best visual effect. Refer questionable choices to the Architect for final decision.
- F. Recheck measurements and dimensions, before starting each installation.
- G. Install each component during weather conditions and project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.
- H. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.
- I. Mounting Heights: Where mounting heights are not indicated (install individual components at standard mounting heights recognized within the industry for the particular application indicated). Refer questionable mounting height decisions to the Architect for final decision.

1.06 CLEANING AND PROTECTION

- A. Clean and maintain construction area as frequently as necessary throughout the project. Contractor to provide up to and have use of at least one dumpster during the course of the Work. The dumpster to be located as coordinated with the Owner. The Contractor shall be responsible for any damages and shall repair and/or replace grass sod, concrete curbing, sidewalks, paved surfaces or other items if damaged due to the Contractor's activities.
- B. Limiting Exposures: Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 - 1. Excessive static or dynamic loading.
 - 2. Excessive internal or external pressures.
 - 3. Excessively high or low temperatures.
 - 4. Thermal shock.
 - 5. Excessively high or low humidity.
 - 6. Air contamination or pollution.
 - 7. Water or ice.
 - 8. Solvents.
 - 9. Chemicals.
 - 10. Light.
 - 11. Radiation.
 - 12. Puncture.
 - 13. Abrasion.
 - 14. Heavy traffic.
 - 15. Soiling, staling and corrosion.
 - 16. Bacteria.

17. Rodent and insect infestation.
18. Combustion.
19. Electrical current.
20. High speed operation.
21. Improper lubrication.
22. Unusual wear or other misuse.
23. Contact between incompatible materials.
24. Destructive testing.
25. Misalignment.
26. Excessive weathering.
27. Unprotected storage.
28. Improper shipping or handling.
29. Theft.
30. Vandalism.

C. Comply with Environmental Protection Agency Standards for Lead Renovation, Repair, and Painting Program (RRP); 40 CFR Part 745 and Kansas Department of Health and Environment Regulations K.A.R. 28-72-1 to 28-72-54.

1. Conduct pre-renovation education and notification.
2. Supervise construction activities to ensure that lead safe work practices are performed and take proper precautions concerning presumed lead materials.
3. Prevent discharge, dispersal, release or escape of lead dust and debris.
4. Isolate work areas and ensure that renovation dust or debris does not spread beyond contract limits or the project work areas. If latent emissions occur, perform cleaning, recleaning, and subsequent cleaning verifications as necessary. The Contractor shall not leave lead dust hazards in Owner facilities. Lead dust hazard means surface dust that contains a dust-lead loading (area concentration of lead) at or exceeding the levels promulgated by State of Kansas and Federal regulations. The Contractor shall not impair the Owner's ability to occupy work areas under this contract beyond substantial completion dates by leaving lead dust hazards.
5. During construction the Contractor shall perform visual inspections and cleaning verifications and shall weigh and assess the risks presented by the actual or presumed presence of lead-based paint and/or lead-based paint hazards.
6. The Contractor shall comply with State of Kansas and Federal lead safe work practices to clean and reclean each work area for safe post renovation occupancy by unprotected workers, children, and other building occupants.
7. Comply with the US Occupational Safety and Health Administrations's Lead in Construction Rule, 29 CFR Part 1926 et al., 29 CFR Part 1910 et al.
 - a. Communicate information concerning lead hazards according to the requirements of OSHA's Hazard Communication Standard for the construction industry, 29 CFR 1926.59.
 - b. Employee notification: Prior to the commencement of work activities, make available to the affected parties information developed for the hazard communication standard for this purpose.
 - c. The Contractor shall properly clean all areas where suspect or identified lead-based paint products are disturbed prior to project completion.
8. At the Pre-Construction Meeting the Contractor shall submit documents which indicate:
 - d. Contractor and subcontractors are lead certified firms.
 - e. That each firm employees at least one lead certified renovator who is specifically trained to supervise and direct lead safe work practices, post signage, and perform cleaning verifications.
 - f. That individual workers are trained to use lead safe work practices.
9. Product Prohibition: Do not install lead-based paints or coatings. Do not install lead bearing materials. The Contractor shall not install lead or lead-bearing

products as defined by the US Consumer Product Safety Commission's Ban of Lead-Containing Paint and Certain Products Bearing Lead-Containing Paint 16 CFR 1303 et. Al.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01045 - CUTTING AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Summary
- B. Submittals
- C. Quality Assurance
- D. Products
- E. Cleaning
- F. Renovation Supplemental Project Procedures

1.02 SUMMARY

- A. This section specifies administrative and procedural requirements for cutting and patching.
- B. Refer to other sections for specific requirements and limitations applicable to cutting and patching individual parts of the work.
 - 1. Requirements of this section apply to mechanical and electrical installations. Refer to Division-22 sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.03 SUBMITTALS

- A. Cutting and Patching Description: Where approval of procedures for cutting and patching is required before proceeding, submit a description of the procedures well in advance of the time cutting and patching will be performed and request approval to proceed. Include the following information, as applicable, in the proposal:
 - 1. Describe the extent of cutting and patching required and how it is to be performed; indicate why it cannot be avoided.
 - 2. Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
 - 3. List products to be used and firms or entities that will perform work.
 - 4. Indicate dates when cutting and patching is to be performed.
 - 5. List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
 - 6. Where cutting and patching involves addition of reinforcement to structural elements, submit details and engineering calculations signed and sealed by a qualified professional engineer licensed in the State of Kansas to show how reinforcement is integrated with the original structure.
 - 7. Approval by the Architect to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of a part of the work found to be unsatisfactory.

1.04 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.
 - 1. Obtain approval of the cutting and patching description before cutting and patching the following structural elements:

- a. Foundation construction.
 - b. Bearing and retaining walls.
 - c. Structural concrete.
 - d. Structural steel.
 - e. Lintels.
 - f. Structural decking.
 - g. Miscellaneous structural metals.
 - h. Equipment supports.
 - i. Piping, ductwork, vessels and equipment.
- B. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increase maintenance, or decreased operational life or safety.
- 1. Obtain approval of the cutting and patching description before cutting and patching the following operating elements or safety related systems:
 - a. Primary operational systems and equipment.
 - b. Air or smoke barriers.
 - c. Water, moisture, or vapor barriers.
 - d. Membranes and flashings.
 - e. Fire protection systems.
 - f. Noise and vibration control elements and systems.
 - g. Control systems.
 - h. Communication systems.
 - i. Electrical wiring systems.
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace work that has been cut and patched in a visually unsatisfactory manner.
- 1. If possible, retain the original installer or fabricator to cut and patch the following categories of exposed work; or if it is not possible to engage the original installer or fabricator, engage another recognized experience and specialized firm:
 - a. Processed concrete finishes.
 - b. Stonework.
 - c. Ornamental metal.
 - d. HVAC enclosures, cabinets or covers.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 EXECUTION

3.01 INSPECTION

- A. Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.

3.02 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take all precautions necessary to avoid cutting existing pipe, conduit or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them.

3.03 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.
 - 1. In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
 - 4. Comply with requirements of applicable sections of Division-2.
 - 5. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
 - 1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 - 2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

3.04 CLEANING

- A. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

3.04 RENOVATION SUPPLEMENTAL PROJECT PROCEDURES

- A. Materials: As specified in Product Sections; match existing products and work for patching and extending work.
- B. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.

- C. Remove, cut and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original condition.
- D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- E. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work to match existing adjacent work in texture and appearance.
- F. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
- G. Where a change of plane of ¼-inch or more occurs, submit recommendation for providing a smooth transition for Architect review.
- H. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.

Finish surfaces as specified in individual product sections.

END OF SECTION

SECTION 01095 - REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Related documents
- B. Definition
- C. Specification Format and Content Explanation
- D. Industry Standards
- E. Governing Regulations/Authorities
- F. Submittals

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

1.03 DEFINITIONS

- A. Indicated: The term “indicated” refers to graphic representations, notes, or schedules on the drawings, other paragraphs or schedules in the specifications, and similar requirements in the contract documents. Where terms such as “shown”, “noted”, “scheduled”, and “specified” are used, it is to help the reader locate the reference; no limitation on locating is intended.
- B. Directed: Terms such as “directed”, “requested”, “authorized”, “selected”, “approved”, “required”, and “permitted” mean “directed by the architect/consultant”, “requested by the architect/consultant”, and similar phrases.
- C. Approve: The term “approved”, where used in conjunction with the architect/consultant’s action on the Contractor’s submittals, applications, and requests, is limited to the architect/consultant’s duties and responsibilities as stated in General, Supplementary, and Special Provisions.
- D. Regulation: The term “Regulations” includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the asbestos removal, hazardous waste, and construction industries that control performance of the work.
- E. Furnish: The term “furnish” is used to mean “supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations”.
- F. Install: The term “install” is used to describe operations at project site including the actual “unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations”.
- G. Provide: The term “provide” means “to furnish and install, complete and ready for the intended use”.
- H. Installer: An “Installer” is the Contractor or an entity engaged by the Contractor, either as an employee, Subcontractor, or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. The term “experienced” when used with the term “Installer” means having a minimum of five previous projects similar in size and scope to this project, being familiar with the

- precautions required, and having complied with requirements of the authority having jurisdiction.
2. Trades: Use of titles such as “carpentry” is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter”. It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.
- I. Assignment of Specialists: Certain sections of the specifications require that specific construction activities shall be performed by specialists who are recognized experts in the operations to be performed. The specialists must be engaged for those activities, and assignments are requirements over which the Contractor has no choice or option. Nevertheless, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.
 1. This requirement shall not be interpreted to conflict with enforcement of building codes and similar regulations governing the work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.
 - J. Project Site is the space available to the Contractor for performance of activities, either exclusively or in conjunction with others performing other work as part of the project. The extent of the Project Site is shown on the drawings and may or may not be identical with the description of the actual Project Site. All dimensions and locations should be field verified and noted by the Contractor.
 - K. Testing Laboratories: A “testing laboratory” is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.04 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. Specification Format: The specifications are organized into divisions and sections based somewhat on the Construction Inspection Institute’s 16-Division format and MASTER FORMAT numbering system.
- B. Specification Content: This specification uses certain conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
 1. Abbreviated Language: Language used in specifications and other contract documents is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the full context of the contract documents so indicates.
 2. Imperative and streamlined language is used generally in the specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
 - a. The words “shall be” shall be included by inference wherever a colon (:) is used within a sentence or phrase.

1.05 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where the contract documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the contract documents. Such standards are made a part of the contract documents by reference.
- B. Publication Dates: Where the date of issue of a referenced standard is not specified, comply with the standard in effect as of date of contract documents.
- C. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the architect and/or owner for a decision before proceeding.

1. Minimum Quantity or Quality Levels: The quantity level shown or specified shall be the minimum provided or performed. In complying with these requirements, indicated numeric values are minimum or maximum, as appropriate for the context of the requirement. Refer uncertainties to the architect and/or owner for a decision before proceeding.
 - D. Copies of Standards: Each entity engaged in activities on the project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the contract documents.
 1. Where copies of standards are needed for performance of a required activity, the Contractor shall obtain copies directly from the publication source.
 - E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the specifications or other contract documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations", published by Gale Research Co., available in most libraries.
- 1.06 GOVERNING REGULATIONS/AUTHORITIES
- A. As applicable, the architect and/or engineer has contacted authorities having jurisdiction to obtain information necessary for preparation of contract documents. Contact authorities having jurisdiction directly for information and decisions having a bearing on the work.
- 1.07 SUBMITTALS
- A. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Pre-Construction Conference
- D. Pre-Installation Conference
- E. Progress Meetings

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 specification sections, apply to this section.

1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for project meetings including, but not limited to:
 - 1. Preconstruction conference.
 - 2. Preinstallation conferences.
 - 3. Coordination meetings.
 - 4. Progress meetings.
- B. Construction schedules are specified in another Division-1 section.

1.04 PRECONSTRUCTION CONFERENCE

- A. The Contractor shall schedule a preconstruction conference and organizational meeting at the project site or other convenient location within fourteen (14) days of contract execution, and at least seven (7) days prior to commencement of any construction activities. The Contractor shall conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: School District, the Architects/Consultants, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the work.
- C. Agenda: Discuss items of significance that could affect progress, including such topics as:
 - 1. Tentative construction schedule.
 - 2. Critical work sequencing.
 - 3. Designation of responsible personnel.
 - 4. Procedures for processing field decisions and change orders.
 - 5. Procedures for processing applications for payment.
 - 6. Distribution of contract documents.
 - 7. Submittal of Shop Drawings, Product Data and Samples.
 - 8. Preparation of record documents.
 - 9. Use of the premises.
 - 10. Office, work and storage areas.
 - 11. Equipment deliveries and priorities.
 - 12. Safety procedures and compliance with Lock Out/Tag Out procedures.
 - 13. Lead safe work practices and lead hazard prevention procedures.

14. First aid.
15. Security.
16. Housekeeping.
17. Working hours.
18. Testing agencies and procedures.
19. Temporary utilities; water, electric, phone.
20. Temporary lavratory facilities.
21. Quality control.

- D. The Contractor shall record meeting minutes and distribute copies to everyone in attendance and to others affected by decisions of actions resulting from the meeting.

1.05 PREINSTALLATION CONFERENCES

- A. The General Contractor shall convene a preinstallation conference at the site before each construction activity that requires coordination with other construction. The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the architect and owner of scheduled meeting dates.

- B. Review the progress of the construction activities and preparations for the particular activity under consideration at each preinstallation conference, including requirements for:

1. Contract documents.
2. Options.
3. Related Change Orders.
4. Purchases.
5. Deliveries.
6. Shop drawings, product data and quality control samples.
7. Possible conflicts.
8. Compatibility problems.
9. Time schedules.
10. Weather limitations.
11. Manufacturer's recommendations.
12. Compatibility of materials.
13. Acceptability of substrates.
14. Temporary facilities.
15. Space and access limitations.
16. Governing regulations.
17. Safety and application of associated Lock Out/Tag Out procedures.
18. Inspection and testing requirements.
19. Required performance results.
20. Recording requirements.
21. Protection.
22. Punchlist procedures and Architect/Engineer responsibilities limitations.

- C. Notify architect and owner four days in advance of meeting date when their attendance is required by individual section.

- D. The Contractor shall prepare agenda, preside at the conference and record significant discussions and agreements and disagreements of each conference, along with the approved schedule. The Contractor shall distribute the record of the meeting to everyone concerned, promptly, including the owner and architect.

- E. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of work and reconvene the conference at the earliest feasible date.

1.06 PROGRESS MEETINGS

A. Conduct progress meetings at the Project Site at a minimum of bi-monthly intervals or as directed by the Architect. Notify the Owner and Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.

B. Attendees: In addition to representatives of the Owner and Architect, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meeting by persons familiar with the Project and authorized to conclude matters relating to progress.

C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the project.

1. Contractor's Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's schedule, whether on time or ahead or behind schedule. Determine how operations behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed with the contract time.

2. Produce and review a two-week "look ahead" schedule outlining planned construction activities for the next two weeks (or the period of time until the next progress meeting).

3. Review the present and future needs of each entity present, including such items as:

- a. Interface requirements.
- b. Time.
- c. Sequences.
- d. Deliveries.
- e. Off site fabrication status.
- f. Access.
- g. Site utilization.
- h. Temporary facilities and services.
- i. Hours of work.
- j. Hazards and risks.
- k. Housekeeping.
- l. Quality and work standards.
- m. Change orders.
- n. Documentation of information for payment requests.
- o. Outstanding items; submittals, proposal requests, RFIs.
- p. Quality assurance.
- q. Safety and application of necessary Lock Out/Tag Out procedures.
- r. Performance of lead safe work practices.

D. Reporting: No later than three days after each progress meeting date, the Contractor is to distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and reports.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Related Documents.
- B. Summary.
- C. Submittal Procedures.
- D. Contractor's Construction Schedules.
- E. Submittal Schedule.
- F. Daily Construction Reports.
- G. Preexisting Conditions Video Survey.
- H. Shop Drawings.
- I. Product Data.
- J. Samples.
- K. Communications Facilitating Contract Administration.
- L. Architect's Action.
- M. Contractor's Action on Returned Submittals.

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this section.

1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for submittals required for performance of the work, including:
 - 1. Submittal procedures.
 - 2. Contractor's construction schedule.
 - 3. Submittal schedule.
 - 4. Daily construction reports.
 - 5. Construction photographs.
 - 6. Shop drawings.
 - 7. Product data.
 - 8. Samples.
 - 9. Informational submittals.
 - 10. Communications.

- B. Administrative Submittals: Refer to other Division-1 sections and other contract documents for requirements for administrative submittals. Such submittals include, but are not limited to:
 - 1. Permits.
 - 2. Applications for payment.
 - 3. Performance, payment bonds, and statutory bond.
 - 4. Insurance certificates.
 - 5. List of subcontractors.
- C. The “Schedule of Values” submittal is included in Division-1 Section “Applications for Payment.”
- D. Inspection and test reports are included in Division-1 Section “Quality Control Services.”
- E. The “Product List” submittal is included in Division-1 Section “Materials and Equipment.”

1.04 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related activities to avoid delay and to allow sufficient review time.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received. Such action shall not be grounds for an extension of time or delay by the Contractor.
 - 3. The Architect may request submittals in addition to those indicated in the technical sections when deemed necessary to adequately describe the work covered in the respective section.
 - 4. Units of weights and measurements used on all submittals shall be the same as used in the contract documents.
 - 5. Processing: Allow sufficient review time so that the work will not be delayed as a result of the time required to process submittals, including time for resubmittals.

The Architect shall be responsible for reviewing and certifying that submittals are in compliance with the contract requirements. The approving authority on submittals is the Architect unless otherwise specified for the specific submittal.

 - a. Allow at least seven (7) working days in Architect’s office for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittal being processed must be delayed for coordination with work by others.

- b. If an intermediate submittal is necessary, process in the same manner as the initial submittal.
 - c. Allow at least four (4) working days for reprocessing each submittal.
 - d. No extension of contract time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the work to permit processing.
 - B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 - 1. Provide a space approximately 4" x 5" on the label or beside the title block on shop drawings, product data and samples to record the Contractor's review and approval markings and the action taken.
 - 2. Include the following information on the label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Number and title of appropriate specification section.
 - i. Drawing number and detail references, as appropriate.
 - C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect including the information below. Submittals received by Architect from sources other than the Contractor will be returned without action.
 - 1. Record relevant information and requests for data on the transmittal. On the form, or separate sheet, record deviations from contract document requirements, including minor variations and limitations. Include Contractor's signed certification that information complies with contract document requirements.
 - 2. Submit to Architect at business address.
- 1.05 CONTRACTOR'S BAR CHART CONSTRUCTION SCHEDULES (Alternate to CPM Schedule)
- A. The Contractor shall provide Critical Path Method (CPM) scheduling services, including planning, evaluating and reporting; subcontractors shall participate in scheduling.
 - 1. Standards: Comply with procedures contained in "CPM in Construction-A Manual for General Contractors" published by The Associated General Contractors of America, Inc.
 - B. Interim Schedules: The Contractor, within ten (10) calendar days after execution of the contract, shall submit an interim construction schedule to the Owner's representative and Architect. The schedule shall be in the form of a bar chart or a Critical Path Method (CPM) schedule. The schedule shall include as many activities as necessary to sufficiently detail the work to be performed during the first thirty (30) working days of the construction. The interim schedule shall also detail, in general, the balance of the construction work past the first thirty (30) work days.

- C. CPM Construction Schedule: The Contractor, within thirty (30) calendar days after execution of contract, shall submit a detailed construction schedule to the Owner's representative and Architect. The schedule shall be in the form of a Critical Path Method (CPM) schedule. The CPM shall be in the arrow diagram method where the activity and duration is represented on the arrow. The CPM schedule shall include logic drawings and corresponding computer printouts. The CPM schedule shall be updated monthly. A narrative report shall be submitted with each update. In addition, the Contractor will provide a time scaled summary chart.
- D. Scope: The CPM schedule as a minimum, shall provide for 1) work sequence as identified in Section 01010 Summary of Work; 2) provisions for adverse weather as identified in the General Conditions; and, 3) the following:
1. Long lead time procurement activities.
 2. Contractor phasing activities.
 3. Activation and testing activities.
 4. Milestone dates for contract phasing requirements.
 5. Owner furnished equipment activities.
 6. Logic restraints reflecting the flow of manpower.
 7. Utility tie-in activities.
 8. Clean-up and punchlist activities and Owner move-in activities.
 9. Activity durations in working days.
 10. The project shall be broken down into logical building areas by floor levels, elevations, functional spaces, and addition or renovation, and as required.
 11. Work activities performed by subcontractors.
 12. Concurrent work activities under separate contract.
 13. Shop drawing, submittals and approval.
 14. Weather constraints.
 15. Change orders.
- E. Logic Drawings: The CPM logic drawings shall be 30" x 42" and shall, as a minimum, include:
1. The activity description.
 2. Activity duration.
 3. Marked critical path.
 4. Marked complete activities.
 5. Highlighted milestone dates.
 6. Update number and date.
- F. Computer Printouts: The CPM computer printouts shall, as a minimum, include:
1. The activity I-J designation.
 2. The activity description.
 3. The activity duration (in working days).
 4. Activity early state date.
 5. Activity late start date.
 6. Activity early finish date.
 7. Activity late finish date.
 8. Slack or total float.
 9. Subcontract or trade designation.

- G. Developing the Schedule. The Contractor shall meet jointly with the subcontractors, suppliers, and the Architect when developing the CPM schedule.
- H. Owner's Review: Within five (5) working days after receipt of the Contractor's schedule, the Owner and Architect shall meet with the contractor for the final review of the schedule. Review of the schedule by the Owner does not relieve the Contractor's responsibility for the schedule's accuracy or the ability of the Contractor to meet the dates set forth therein, nor does such review constitute an acknowledgement or admission by the Owner of the reasonableness of durations or logic of the schedule.
- I. Update Schedule Submittals: An updated schedule submittal, including a written schedule recovery statement if required, shall accompany the Contractor's Application for Payment. The Contractor's Application for Payment will not be processed until the update schedule has been received by the Owner.
- J. Narrative Report: The Contractor shall prepare a narrative report as a part of each schedule update, in a form agreed upon by the Architect. The narrative report shall include a description of the current status of the work, problem areas, current and anticipated delaying factors and their estimated impact on performance of other activities and completion dates; and an explanation of corrective action taken or proposed.
- K. Schedule Slippage: Whenever the current schedule update reflects that the project is five (5) or more working days behind schedule, the Contractor shall submit a written statement to the Architect describing the cause of the slippage and the actions being considered by the Contractor to recover the time slot. The written schedule recovery statement shall be submitted with the monthly schedule update.
- L. The progress schedule shall indicate the monthly anticipated adverse weather days, if any, pursuant to the Supplemental and General Conditions and indicate the constraints of anticipated adverse weather on planned activities. Update submittals of the progress schedule shall indicate actual adverse weather days and their impact on planned activities.
- M. Any adjustments in Contract Time executed by Change Order shall be included in the update submittals of the project schedule.

1.05 CONTRACTOR'S CPM CONSTRUCTION SCHEDULES

- A. The Contractor shall provide a detailed bar chart or a Critical Path Method (CPM) schedule. The schedule shall include as many activities as necessary to sufficiently detail the work to be performed.
- B. Scope: The schedule as a minimum, shall provide for 1) work sequence as identified in Section 01010 Summary of Work; 2) provisions for adverse weather as identified in the General Conditions; and, 3) the following:
 - 1. Long lead time procurement activities.
 - 2. Contractor phasing activities.
 - 3. Activation and testing activities.
 - 4. Milestone dates for contract phasing requirements.
 - 5. Owner furnished equipment activities.
 - 6. Utility tie-in activities.
 - 7. Clean-up and punchlist activities and Owner move-in activities.

8. Activity durations in working days; including:
 - a. Activity early start date.
 - b. Activity late start date.
 - c. Activity early finish date.
 - d. Activity late finish date.
 - e. Slack or total float.
 9. The project shall be broken down into logical building areas by floor levels, elevations, functional spaces, and addition or renovation, and as required.
 10. Work activities performed by subcontractors.
 11. Concurrent work activities under separate contract.
 12. Shop drawing, submittals and approval.
 13. Weather constraints.
- C. Developing the Schedule: The Contractor shall meet jointly with the subcontractors, and suppliers, when developing the schedule.
- D. Owner's Review: Within five (5) working days after receipt of the Contractor's schedule, the Owner and Architect shall meet with the Contractor for the final review of the schedule. Review of the schedule by the Owner does not relieve the Contractor's responsibility for the schedule's accuracy or the ability of the Contractor to meet the dates set forth therein, nor does such review constitute an acknowledgement or admission by the Owner of the reasonableness of durations or logic of the schedule.
- E. Updated Schedule Submittals: An updated schedule submittal, including a written schedule recovery statement if required, shall accompany the Contractor's Application for Payment. The Contractor's Application for Payment will not be processed until the update schedule has been received by the Owner.
1. Schedule Slippage: Whenever the current schedule update reflects that the project is five (5) or more working days behind schedule, the Contractor shall submit a written statement to the Architect describing the cause of the slippage and the actions being considered by the Contractor to recover the time slot. The written schedule recovery statement shall be submitted with the monthly schedule update.
 2. The progress schedule shall indicate the monthly anticipated adverse weather days, if any, pursuant to the Supplemental and General Conditions and indicate the constraints of anticipated adverse weather on planned activities. Update submittals of the progress schedule shall indicate actual adverse weather days and their impact on planned activities.
 3. Any adjustments in Contract Time executed by Change Order shall be included in the update submittals of the project schedule.

1.06 SUBMITTAL SCHEDULE

- A. After development and acceptance of the Contractor's schedule, prepare a complete schedule of submittals. Submit the schedule within ten (10) days of the date required for establishment of the Contractor's construction schedule.
1. Coordinate submittal schedule with the list of subcontracts, schedule of values and the list of products as well as the Contractor's Construction Schedule.

2. Prepare the schedule in chronological order; include submittals required during the construction. Provide the following information.
 - a. Scheduled date for the first submittal.
 - b. Related section number.
 - c. Submittal category.
 - d. Name of subcontractor.
 - e. Description of the part of the work covered.
 - f. Scheduled date for resubmittal.

- B. Distribution: Following response to initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the project meeting room and field office.
 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in project activities.

- C. Schedule Updating: Revise the submittal schedule after each meeting or activity, where revisions have been recognized or made relating to submittals. Issue the updated schedule concurrently with report of each such meeting.

1.07 DAILY CONSTRUCTION REPORTS

- A. The Contractor's Superintendent shall prepare a daily construction report, recording the following information, in a narrative format, concerning events at the site; and submit original documents to the Architect and/or Owner upon request.
 1. List of subcontractors at the site.
 2. Approximate count of personnel at the site, identifying the number of workers and supervisors.
 3. Lead safe work practices and cleaning verifications.
 4. High and low temperatures, general weather conditions.
 5. Accidents and unusual events.
 6. Meetings and significant decisions.
 7. Stoppages, delays, shortages, losses.
 8. Emergency procedures.
 9. Orders and requests of governing authorities.
 10. Change orders received, implements.
 11. Services connected, disconnected.
 12. Equipment or system tests and start-ups.
 13. Partial completions and occupancies.
 14. Type and usage of major pieces of heavy equipment.

1.08 PRE-EXISTING CONDITIONS VIDEO SURVEY

- A. Submit a pre-existing condition list and/or video with the initial application for payment. Specifically note any pre-existing conditions which may result in a potential dispute with the Owner.

1.09 SHOP DRAWINGS

- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the contract documents. Do not reproduce contract documents or copy standard information as the basis of shop drawings. Standard information prepared without specific reference to the project is not considered shop drawings. Shop drawings' quality is subject to approval.
- B. Shop drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
 - 1. Dimensions.
 - 2. Relationship to building grids or coordinates.
 - 3. Interface with adjacent construction.
 - 4. Identification of products and materials included.
 - 5. Compliance with specified standards.
 - 6. Notation of dimensions established by field measurement.
- C. Sheet Size: Except for templates, patterns and similar full-size drawings, submit shop drawings on sheets 8½" x 11", 11" x 17", or 30" x 42". No other sizes will be accepted.
- D. Submittal: Submit at least two blue-line prints. One of the blue-line prints will be retained by the Architect. The Contractor shall be responsible for making appropriate number of copies for distribution to other affected parties.
- E. Do not use shop drawings without an appropriate final stamp indicating action taken in connection with construction.

1.10 PRODUCT DATA

- A. Collect product data into a single submittal for each specified product. Product data includes printed information such as catalog cuts, Material Safety Data Sheets (MSDS), and other performance information.
 - 1. Mark each copy to show applicable choices and options. Where printed product data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendation.
 - b. Compliance with recognized trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
 - g. Any limitations on warranty or guarantee of manufacturer.
 - 2. Do not submit product data until compliance with requirements of the contract documents has been confirmed.

- B. Submittals: Submit three (3) copies. Submit two (2) additional copies where required for maintenance manuals. The Architect will return one copy marked with action taken and corrections or modifications required.
 - 1. Unless noncompliance with contract documents provisions is observed, the submittal may serve as the final submittal.
- C. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal form.
 - 1. Do not proceed with installation until a copy of the applicable product data is in the Installer's possession.
 - 2. Provide copies for record documents described in Section 01700 – Project Closeout.
- D. Do not permit use of unmarked copies of product data in connection with construction.

1.11 SAMPLES

- A. Submit full-size, full fabricated samples cured and finished as specified (where applicable) and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or container of materials, color range sets, and swatches showing color, texture and pattern.
 - 1. Mount, display, or package samples in the manner specified to facilitate review of qualities indicated.

Prepare samples to match the Architect's sample. Include the following:

 - a. General description of the sample.
 - b. Sample sources
 - c. Product name or name of manufacturer.
 - d. Compliance with recognized standards.
 - e. Availability and delivery time.
 - 2. Submit samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 - a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than three), that show approximate limits of the variations.
 - b. Refer to other specification sections for requirements for samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.
 - c. Refer to other sections for sample to be returned to the Contractor for incorporation in the work. Such samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of sample submittals.

- B. Submittals: Except for samples illustrating details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit three sets: One set will be returned with comments.
- C. Maintain sets of samples, as returned, at the project site, for quality comparisons throughout the course of construction.
 - 1. Unless non-compliance with contract documents provisions is observed, the submittal may serve as the final submittal.
 - 2. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- D. Distribution of Samples: prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the work. Show distribution on transmittal forms.
- E. Field Samples: Field samples specified in individual sections are special types of samples. Field samples are full-size samples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the work will be judged.
 - 1. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.
 - 2. Allow at least seven (7) days after completion and curing (where applicable) of field sample for Architect's review. Notify Architect in writing upon completion of field sample.
 - 3. Where required, give Architect notice and an opportunity to observe field erection or application of field sample.

1.12 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

- A. Except as otherwise provided in the contract documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate through the Architect. Communications by and with subcontractors and material suppliers shall be through the Contractor.
- B. All requests for information regarding or clarification of the plans and specifications shall be made in writing referencing the specification section and statement requiring clarification. Deliver to Architect's business address.

1.13 ARCHITECT'S ACTION

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Architect will review each submittal, mark to indicate action taken, and return promptly.
 - 1. Compliance with specified characteristics is the Contractor's responsibility.

- B. Submittal Stamp: The Architect will stamp each submittal with a uniform, self-explanatory submittal stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
1. Action A – Reviewed: Where submittals are marked “Reviewed”, that part of the work covered by the submittal may proceed provided it complies with requirements of the contract documents.
 2. Action B – Reviewed – Additional Information Required: Where submittals are marked “Reviewed – Additional Information Required”, the information submitted has been reviewed. However, additional information as noted and/or required by contract documents need to be submitted.
 3. Action C – Furnish as Corrected: When submittal is marked “Furnish as Corrected”, that part of the work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the contract documents.
 4. Action D – Revise and Resubmit: When submittal is marked “Revise and Resubmit”, do not proceed with that part of the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
 - a. Do not permit submittals marked “Revise and Resubmit” to be used at the project site, or elsewhere where work is in progress.
 5. Action E – Rejected: When submittal is marked “Rejected”, information submitted is not in compliance with contract documents. Resubmit submittal as required by contract documents.
- D. Meaning of Architect’s Approval: Review is only for conformance with the design concept and for compliance with the information given in the contract documents. Approval does not authorize changes involving additional cost unless stated in separate change order or letter. Contractor is not relieved of responsibility for any deviations in submittals from requirements of the contract documents. Contractor is responsible for dimensions to be confirmed and correlated at the site; for information that pertains solely to the fabrication processes or to means, methods, techniques, sequences and procedures of construction; and for coordination of the work of all trades. Approval of a specific item does not indicate approval of an assembly of which the item is a component.

1.14 CONTRACTOR’S ACTION ON RETURNED SUBMITTALS

- A. The Contractor shall coordinate distribution of all product data and samples for the project.
- B. The Contractor is responsible to reproduce and distribute copies of stamped returned submittals as required for this use in abatement, or in corrections for resubmittal.
- C. The Contractor is responsible to reproduce and distribute copies of stamped returned submittals as required for his use and subcontractor’s use in preparing and submitting other submittals such as, close-out, maintenance manuals, etc., Refer to other sections of the specifications for requirements.
 1. The Contractor shall maintain a current set of abatement plans and specifications which shall be available to the Architect at the job site during the course of the work.

PART 2 -- PRODUCTS

Not applicable.

PART 3 -- EXECUTION

Not applicable.

END OF SECTION

SECTION 01400 - QUALITY CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Contractor's Quality Control
- B. Contractor's Quality Control Program
- C. Pre-Installation Conferences
- D. Initial and Follow-up Inspections
- E. Mock Up
- F. Field Samples
- G. Manufacturer's Field Services and Reports
- H. References
- I. Inspection and Testing Laboratory Services
- J. Quality Assurance and Control of Installation
- K. Safety

1.02 RELATED SECTIONS

- A. Section 01040 - Coordination and Meetings
- B. Section 01300 - Submittals
- C. Section 01700 - Contract Closeout

1.03 CONTRACTOR'S QUALITY CONTROL

- A. The quality of all work shall be the responsibility of the Contractor. Sufficient inspections and tests of all items of work, including that of subcontractors, to ensure conformance to applicable specifications and drawings with respect to the quality of materials, workmanship, construction finish, functional performance, and identification shall be performed on a continuing basis. The Contractor shall furnish qualified personnel, appropriate facilities, instruments and testing devices necessary for the performance of the quality control function. The controls shall be adequate to cover all construction operations both on and off site, shall be keyed to the proposed construction sequence and shall be correlated by the Contractor's quality control personnel.

1.04 CONTRACTOR'S QUALITY CONTROL PROGRAM

- A. The Contractor shall submit to the Architect a copy of the proposed written quality control program prior to submission of the Contractor's first application and certificate for payment. The Contractor's written quality control plan shall include as a minimum:
 - 1. Identification of the project team for this project. Team members include, but are not necessarily limited to, the Owner's Project Manager, Architect, Mechanical Consultant, Electrical Consultant, Site Engineer, Structural Consultant, General Contractor and major subcontractors. List company name, address, contact and telephone number.
 - 2. Name and identification of the Contractor's Quality Control representative (may be the superintendent or other key contract representative). Provide a brief description of

proposed duties and qualifications. The quality control representative must have the authority to make all decisions relating to quality control issues.

3. General summary and mission statement outlining general procedures for implementation of the program.
4. List by specification section the method of performing, documenting and enforcing quality control operations of both prime and subcontract work including proposed and required inspection and testing. Include preinstallation conferences, follow-up inspections, mockups, field samples and manufacturer's inspection, and lead safe work practices and cleaning verifications.
5. The Contractor's quality control program shall be submitted and accepted prior to consideration of the Contractor's first certificate and application for payment.

1.05 PREINSTALLATION CONFERENCES

- A. Pre-installation conferences shall be performed prior to beginning each feature of work for any on-site construction work. Preparatory inspections for the applicable feature of work shall include: review of submittal requirements and all other contract requirements with the foreman or supervisors directly responsible for the performance of the work; check to assure that provisions have been made to provide required field control testing; examine the work area to ascertain that all preliminary work has been completed; verify all field dimensions and advise the project Architect of any discrepancies; and perform a physical examination of materials and equipment to assure that they conform to approved shop drawings or submittal data and that all materials and/or equipment are on hand; review special requirements, review shop drawings and sample construction mockups as appropriate.
- B. The Contractor shall prepare agenda, preside at conference, record minutes, and distribute copies within five (5) days after conference to participants, with copies to the Architect and Owner.

1.06 INITIAL AND FOLLOW UP INSPECTIONS

- A. An initial inspection shall be performed as soon as a representative portion of the particular feature of the work is complete and shall include examination of the quality of workmanship as well as a review of the work for compliance with contract requirements. The initial inspection shall be performed by the Contractor's Quality Control representative and results noted in the Contractor's daily reports. Any deviations from the contract requirements shall be brought to the immediate attention of the Architect.

1.07 MOCK UP

- A. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals and finishes.
- B. Where mock up is specified in individual sections to be removed, clear area after mock up has been accepted by the Architect.

1.08 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications sections for review.
- B. Acceptable samples represent a quality level for the work.
- C. Where field sample is specified in individual sections to be removed, clear area after field sample has been accepted by the Architect.

1.09 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. Submit qualifications of observer to Architect thirty (30) days in advance of required observations. Observer subject to approval of Architect and Owner.
- B. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start up of equipment, and test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.
- C. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.
- D. Submit report within thirty (30) days of observation to the Architect for review.

1.10 REFERENCES

- A. Conform to reference standard by date of issue or current date of contract documents.
- B. Obtain copies of standards when required by contract documents.
- C. Should specified reference standards conflict with contract documents, request clarification from Architect before proceeding.
- D. The contractual relationship of the parties to the contract shall not be altered from the contract documents by mention or inference otherwise in any reference document.

1.11 INSPECTION AND TESTING LABORATORY SERVICES

- A. Architect will appoint, employ, and pay for services of an independent firm to perform inspection and testing, except when a specification section specifically states that testing of that work be provided for by the Contractor.
- B. The independent firm will perform inspections, tests, and other services specified in individual specification sections and as required by the Architect.
- C. Reports will be submitted by the independent firm to the Architect, in duplicate, indicating observations and results of tests and indicating compliance or noncompliance with contract documents.
- D. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
 - 1. Notify Architect and independent firm forty-eight hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- E. Retesting required because of nonconformance to specified requirements shall be performed by the same independent firm on instructions by the Architect. Payment for retesting will be charged to the Contractor by deducting inspection or testing charges from the contract sum.

1.12 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturer's instructions, including each step in sequence.

- C. Should manufacturer's instructions conflict with contract documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality. Work that properly should be done by skilled labor shall not be attempted with common laborers. The Contractor shall have on the job, at all times, ample equipment to carry on the work properly, including such tools as may be necessary to meet emergency requirements.

1.13 SAFETY

- A. Contractors who perform any work under this contract will fully comply with the provisions of the Federal Occupational Safety and Health Act of 1970 and to the rules and regulations promulgated pursuant to this Act.
 - 1. Contractor must submit a safety program to the Architect prior to starting work on the site. This program should indicate the Contractor's plan to comply with OSHA requirements for the various conditions of the project. The Contractor shall appoint a safety representative on site. The safety program and Contractor's representative names must both be posed.
 - 2. The Architect will take no action on the Contractor's safety program, but will forward it to the Owner for information only. The Contractor is responsible for safety on the project site per the contract documents.
- B. Hazardous Material: In the event the Contractor encounters material on the site, reasonably believe to be asbestos or polychlorinated biphenyl (PCB) that has not been rendered harmless, the Contractor shall immediately stop work and notify the Architect and Owner. Such notification shall be documented in writing.
- C. Provide any and all measures of protection required by the applicable local municipality for the protection of the public and employees during excavation operations and at completion of work. Measures taken shall include, but not be limited to, sidewalks, barricades, warning lights and signs/ and shall comply with American Standard Safety Code and all local laws and ordinances. Maintain in good condition during operations.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

END OF SECTION

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Related Documents
- B. Summary
- C. Submittals
- D. Quality Assurance
- E. Project Conditions
- F. Temporary Construction and Support Facilities
- G. Security and Protection Facilities Installation
- H. Operation, Termination, and Removal

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including general and supplementary conditions and other Division-1 Specification sections, apply to this section.

1.03 SUMMARY

- A. This section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.
- B. Temporary utilities that may be required include, but are not limited to:
 - 1. Water service and distribution.
 - 2. Temporary electric power and light.
 - 3. Gas service.
 - 4. Telephone service.
 - 5. Storm sewer.
- C. Temporary construction and support facilities that may be required include, but are not limited to:
 - 1. Temporary heat.
 - 2. Field offices and storage sheds.
 - 3. Temporary roads and paving.
 - 4. Sanitary facilities, including drinking water.
 - 5. Dewatering facilities and drains.
 - 6. Temporary enclosures.
 - 7. Hoists and lifts.
 - 8. Temporary project identification signs and bulletin boards.
 - 9. Waste disposal services.
 - 10. Rodent and pest control.
 - 11. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities required include, but are not limited to:
 - 1. Temporary fire protection.
 - 2. Barricades, warning signs, lights.

3. Environmental protection.

1.04 SUBMITTALS

- A. Temporary Utilities: Submit reports of tests, inspections, meter readings and similar procedures performed on temporary utilities.

1.05 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:
 1. Building Code requirements.
 2. Health and safety regulations.
 3. Utility company regulations.
 4. Police, Fire Department and Rescue Squad rules.
 5. Environmental protection regulations.
- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations:", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical facilities."
 1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.
 2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA temporary electric service. Install service in compliance with National Electrical Code (NFPA 70).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.06 PROJECT CONDITIONS

- A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of the permanent service.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.01 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES

- A. Locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities of ready access within project limit lines.
 1. Maintain temporary construction and support facilities until near substantial completion. Personnel remaining after substantial completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.
 2. Location of all temporary buildings shall be subject to the approval of the Owner and the governing authority.

- B. Provide incombustible construction for offices, shops and sheds located within the construction area, or within 30 feet of building lines. Comply with requirements of NFPA 241.
- C. Temporary Heat: Provide temporary heat required by construction activities, for curing or drying of completed installations or protection if installed construction from adverse effect of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirement to produce the ambient condition required and minimize consumption of energy.
- D. Heating Facilities: Except where use of the permanent system is authorized, provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.
- E. Field Offices: provide insulated, weather tight temporary offices of sufficient size to accommodate required office personnel at the project site. Keep the office clean and orderly for use of small progress meetings. Furnish and equip offices.
- F. Storage Trailers: Place storage trailers, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Trailers are to be fully enclosed and placed on the site with prior approval of the Owner.
- G. Temporary Roads and/or Equipment Access Paths: Construct and maintain temporary roads and/or access paths to adequately support the construction activity, during the construction period. Locate temporary roads, storage areas and parking where the same permanent facilities will be located, if possible.
 - 1. Coordinate temporary road and/or access path development with subgrade grading, compaction, installation and stabilization of subbase, and installation of base and finish courses of permanent paving.
 - 2. Install temporary roads and/or access paths to minimize the need to rework the installations and to result in permanent roads and/or access paths and paved areas that are without damage or deterioration when occupied by the Owner.
 - 3. Extend temporary roads and/or access paths in and around the construction area as necessary to accommodate building structure erection, delivery and storage of materials, equipment usage, administration and supervision.
- H. Sanitary facilities include temporary toilets and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operations and maintenance of fixtures and facilities. All sanitary conveniences shall be satisfactory to the Owner and shall conform to the regulations of the City, County, and State Health Departments.
 - 1. Install where facilities will best serve the project's needs, with prior owner approval.
 - 2. Provide toilet tissue, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.
- I. Toilets: Install well-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted.
- J. Dewatering Facilities and Drains: For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual sections, comply with dewatering requirements of applicable Division-2 sections. Where feasible, utilize the same facilities. Maintain the site, excavations and construction free of water.
- K. Temporary Enclosures: Provide temporary enclosure of protection of construction in progress and completed, from exposure, foul weather, other construction operations and similar activities, and to provide security from vandalism and theft.
 - 1. Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat.

- Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
2. Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25 square feet or less with plywood or similar materials.
 3. Close openings through floor or roof decks and horizontal surfaces with load-bearing wood-framed construction.
- L. Temporary Enclosures for Lead Safe Work Area Isolation.
1. Before beginning the renovation, the Contractor shall isolate the work area so that no dust or debris leaves the work area while the renovation is being performed. Prevent latent dust emissions. Protect other areas of the facility from contamination by fugitive dusts.
 2. In addition, the Contractor shall maintain the integrity of the containment by ensuring that any plastic or other impermeable materials are not torn or displaced, and taking any other steps necessary to ensure that no dust or debris leaves the work area while the renovation is being performed.
 3. The Contractor must also ensure that containment is installed in such a manner that it does not interfere with occupant and worker egress in an emergency.
- M. Temporary Lifts and Hoists: Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered “tools and equipment” and not temporary facilities.
- N. Project Identification and Temporary Signs: The Contractor will not erect free-standing or post any signs on property under the control of the School District without prior approval by the Owner. This includes signs on construction trailers, portable sheds, etc., which might legitimately be temporarily parked on said property by and for the Contractor’s use as part of this project. The Owner may provide and erect one or more project signs as they deem necessary.
- O. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than seven days during normal weather or three days when the temperature is expected to rise above 80 degrees. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.
- P. Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished permanent stairs with a protective covering of plywood or similar material so finish will be undamaged at the time of acceptance.

3.02 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Architect.
- B. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, install and maintain temporary fire protection facilities of the types needed to protect against reasonable predictable and controllable fire losses. Comply with NFPA 10 “Standard for Portable Fire Extinguisher”, and NFPA 241 “Standard for Safeguarding Construction, Alterations and Demolition Operations.”
1. Locate fire extinguisher where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
 2. Store combustible materials in containers in fire-safe locations.
 3. Maintain unobstructed access to fire extinguisher, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
 4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.

- C. Permanent Fire Protection: At the earliest feasible date in each area of the project, complete installation of the permanent fire protection facility, including connected services, and place into operations and use. Instruct key personnel on use of facilities.
- D. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- E. Enclosure Fence: Prior to demolition or excavation, install an enclosure fence with lockable entrance gates. Locate where indicated , or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.
 - 1. Provide an open mesh chain link construction fence and gates, minimum 6'-0" high, with galvanized steel pipe posts.
 - 2. Utilize concrete block or pegged steel pipe stabilizer brackets where fence panels adjoin or end.
 - 3. Upon removal of the fencing, repair any disturbed areas to restore to original condition.
 - 4. Locate the construction fence and gates to facilitate all jurisdictional exit and entry requirements from existing buildings and new construction.
 - 5. If requested by the owner, the gates shall be double locked (lock to lock) with the contractor's lock and the owner's lock to allow owner access.
 - 6. Locate the fence and gates to facilitate owner operations that may be in progress during construction.
 - 7. Maintain the fence and gates throughout construction.
- F. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.
 - 1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- G. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise making tools and equipment harmful to humans so as to minimize complaints from persons or firms near the site.
 - 1. Contractor shall comply with all Federal, state and local laws and regulations relating to environmental protection. Daily clean up of adjacent streets, sidewalks, and public structures due to construction debris shall be required at Contractor's expense.

3.03 OPERATION, TERMINATION AND REMOVAL

- A. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage.
 - 2. Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- B. Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent

facility, or not later than substantial completion. Complete, or if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of the Contractor. The Owner reserves the right to take possession of project identification signs.
2. At substantial completion, clean and renovate permanent facilities that have been used during the construction period, including but not limited to:
 - a. Replace air filters and clean inside of ductwork and housings.
 - b. Replace significantly worn parts and parts that have been subject to unusual operating conditions.
 - c. Replace lamps that are burned out or noticeably dimmed by substantial hours of use.

END OF SECTION

SECTION 01600 - MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Definitions
- D. Submittals
- E. Quality Assurance
- F. Product Requirements and Selection Procedures

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

1.03 SUMMARY

- A. This section specifies administrative and procedural requirements governing the Contractor's selection of products for use on the project.
- B. The Contractor's construction schedule and the schedule of submittals are included under Division 1 Section "Submittals."
- C. Standards: Refer to Division 1 Section "Reference Standards and Definitions" for applicability of industry standards to products specified.
- D. Administrative procedures for handling requests for substitutions made after award of the contract are included under Division 1 Section "Product Substitutions."

1.04 DEFINITIONS

- A. Definitions used in this article are not intended to change the meaning of other terms used in the contract documents, such as "specialties," "systems," "structure," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.
 - 1. "Products" are items purchased of incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - a. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
 - 2. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or utilized to form a part of the Work.

3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.05 SUBMITTALS

- A. Product List Schedule: Prepare a schedule showing products specified in a tabular form acceptable to the Architect. Include generic names of products required. Include the manufacturer's name and proprietary product names of each item listed.
 1. Coordinate the product list schedule with the Contractor's Construction Schedule and the Schedule of Submittals.
 2. Form: Prepare the product listing schedule with information of each item tabulated under the following column headings:
 - a. Related Specification Section Number.
 - b. Generic Name Used in Contract Documents.
 - c. Proprietary Name, Model Number and Similar Designations.
 - d. Manufacturer's Name and Address.
 - e. Supplier's Name and Address.
 - f. Installer's Name and Address.
 - g. Projected Delivery Date, or Time Span of Delivery Period.
 3. Initial Submittal: Within twenty (20) days after date of commencement of the work, submit three (3) copies of an initial product list schedule. Provide a written explanation for omissions of data, and for known variations from contract requirements.
 4. Architect's Action: The Architect will respond in writing to the Contractor within two weeks of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers or product, but does not constitute a waiver of the requirement that products comply with contract documents. The Architect's response will include the following:
 - a. A list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.06 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the project, the product selected shall be compatible with products previously selected products that were also options.
- C. Nameplates: Except for required labels and operating data, do not attached or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces or products which will be exposed to view in occupied spaces or on the exterior.
 1. Labels: Locate required product labels and stamps on a concealed surface or, where required of observation after installation, on an accessible surface that is not conspicuous.
 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

1.07 PRODUCT REQUIREMENTS AND SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
 2. Standard products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and government regulations, not by previous project experience. Procedures governing product selection include the following:
1. Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.
 2. Semi-Proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
 3. Non-Proprietary Specifications: When the specifications list products or manufacturers that are available and may be incorporated in the work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with contract requirements. Comply with contract document provisions concerning “substitutions” to obtain approval for use of an unnamed product.
 4. Descriptive Specification Requirements: Where specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with contract requirements.
 5. Performance Specification Requirements: Where specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
 - a. Manufacturer’s recommendations may be contained in published product literature, or by the manufacturer’s certification of performance.

END OF SECTION

SECTION 01631 - POST-BID PRODUCT SUBSTITUTIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Definition
- D. Submittals
- E. Substitution

1.02 RELATED DOCUMENTS

- a. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for handling requests for substitutions made after award for the contract.

1. Certain materials, products or systems are specified for which no substitutions are allowed. Refer to individual specification sections.

- B. Refer to AIA Document A701 "Instructions to Bidders" for substitution requirements made prior to bid opening.
- C. The Contractor's construction schedule and the schedule of submittals are included under Division-1 Section "Submittals".
- D. Standards: Refer to Division-1 Section "Reference Standards and Definitions" for applicability of industry standards to products specified.
- E. Procedural requirements governing the Contractor's selection of products and product options are included under Division-1 Section "Materials and Equipment".

1.04 DEFINITIONS

- A. Definitions used in the article are not intended to change or modify the meaning of other terms used in the contract documents.
- B. Substitutions: Requests for changes in product, materials, equipment, and methods of constructing required by Contract Documents proposed by the Contractor after award of the contract are considered requests for post-bid product substitutions. The following are NOT considered substitutions:

1. Substitutions requested by Bidders during the bidding period, and accepted prior to award of contract, are considered as included in the contract documents and are not subject to requirements specified in this section for post-bid substitutions.
2. Revisions to contract documents requested by the Owner or Architect.
3. Specified options of products and construction methods included in Contract Documents.
4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.05 SUBMITTALS

- A. Post Bid Substitution Request Submittal: Only one request for post bid substitution will be considered for each product.
1. Submit three (3) copies of each request for substitution for consideration. Submit requests in the form and in accordance with procedures stated herein. Use form depicted at end of this section. Contractor is responsible for reproduction of forms.
 2. Identify the product, or the fabrication or installation method to be replaced in each request. Include related specification section and drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
 - a. Product data, including drawings and descriptions of products, fabrication and installation procedures.
 - b. Samples, where applicable or requested.
 - c. A detailed comparison of significant qualities of the proposed substitution with those of the work specified. Significant qualities may include elements such as size, weight, durability, performance and visual effect. Units of weights and measure shall be the same as used in the contract documents.
 - d. Coordination information, including a list of changes or modifications needed to other parts of the work and to construction performed by the Owner and separate Contractors that will become necessary to accommodate the proposed substitution.
 - e. A statement indicating the substitution's effect on the Contractor's Construction Schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall contract time.
 - f. Cost information, including a proposal of the net change, if any, in the Contract Sum.
 - g. Certification by the Contractor that the substitution proposed is equal to or better in every significant respect to that required by the contract documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.
 3. Architect's Action: Within one week of receipt of the request for substitution, the Architect will request additional information or documentation necessary for evaluation of the request. Within two weeks of the receipt of the request, or one week of the receipt of the additional information or documentation, the Architect will notify the Contractor of acceptance or rejection of the proposed substitution. If a decision on use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name.

PART 2 -- PRODUCTS

2.01 SUBSTITUTIONS

- A. Conditions: The Contractor's post bid substitution request will be received and considered by the Architect when all of the following conditions 1, 2 and 3 and one or more of the following conditions 4, 5, 6, 7, 8 and 9 are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.
1. Extensive revisions to contract documents are not required.
 2. Proposed changes are in keeping with the general intent of contract documents.
 3. The request is timely, fully documented and properly submitted.
 4. The specified product or method of construction cannot be provided within the contract time.
 5. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
 6. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of

- other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
7. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 8. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
 9. The specified product or method of construction cannot provide a warrant required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warrant.
- B. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or sample that related to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

PART 3 – EXECUTION (NOT APPLICABLE)

END OF SECTION

POST-BID SUBSTITUTION REQUEST FORM

ONE ITEM PER FORM
FILL IN ALL BLANKS

Project: _____ Date: _____

We hereby submit for your review the following post-bid substitution for the following specified material for the above project.

Section	Page	Paragraph	Specified Material
_____	_____	_____	_____

PROPOSED POST-BID SUBSTITUTION:

Attach complete technical data, including laboratory tests, if applicable. Include complete information on changes to drawings and/or specifications which proposed substitution will require for its proper installation.

- A. Does the substitution effect dimensions shown on drawings in any way?

- B. Will the undersigned pay for any changes to the building design, including engineering and detailing costs caused by the requested substitution?

- C. What effect does substitution have on schedule or other trades?

- D. What effect does substitution have on cost?

- E. Differences between proposed substitution and specified items are:
_____ Same _____ Different (Explain)

- F. Contractor represents that he has investigated the proposed product and determined that it meets or exceeds the quality of the specified product.

SUBMITTED BY: _____

_____ Accepted _____ Accepted as Noted
_____ Not Accepted _____ Received Too Late

(Firm) _____

(Address) _____ (By) _____ (Date) _____

(Telephone) _____ (Remarks) _____

(Signature) _____

SECTION 01650 - STARTING OF SYSTEMS

PART 1 – GENERAL

1.01 SECTION INCLUDES:

- A. Starting systems.
- B. Demonstration and instructions.
- C. Testing, adjusting, and balancing.

1.02 RELATED SECTIONS

- A. Section 01400 – Quality Control: Manufacturer's field reports.
- B. Section 01700 – Contract Closeout: System operations and maintenance data and extra materials.

1.03 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and Owner fourteen (14) days prior to start up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions that may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start up under supervision of responsible manufacturer's representative in accordance with manufacturer's instructions.

1.04 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of substantial completion. Contractor will prepare and distribute meeting minutes of each demonstration and associated instruction.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season as soon as practical prior to the season. Demonstration shall be performed under applicable seasonal conditions.
- C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate start up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at a scheduled agreed upon time, at designated location.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- F. The minimum amount of time required for instruction on each item of equipment and system may be specified in individual sections. Reference individual sections for requirements.

1.05 TESTING, ADJUSTING AND BALANCING

- A. Contractor will appoint, employ, and pay for services of an independent firm to perform testing, adjusting and balance.
- B. The independent firm will perform services specified in Section 15950.
- C. Reports will be submitted by the independent firm to the Architect indicating observations and results of tests and indicating compliance or noncompliance with specified requirements and with the requirements of the contract documents.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

END OF SECTION

SECTION 01700 - PROJECT CLOSEOUT

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Related documents.
- B. Summary.
- C. Completion of a building and/or phase.
- D. Final completion and final payment.
- E. Record document submittals.
- F. Starting systems.
- G. Operating and maintenance instructions.
- H. Final cleaning.

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.
- B. Refer to Section 01020 for Final Lien Waiver.

1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for project closeout, including but not limited to:
 - 1. Inspection procedures.
 - 2. Project record document submittal.
 - 3. Operating and maintenance manual submittal.
 - 4. Submittal of warranties.
 - 5. Final cleaning.
 - 6. Record vellum drawings.
- B. Closeout requirements for specific construction activities are included in the appropriate sections in Divisions-2 through 16.
- C. Refer to Division-1 Section "Warranties and Bonds" for specific requirements.

1.04 SUBSTANTIAL COMPLETION

- A. Substantial Completion:
 - 1. The Contractor and each Subcontractor shall carefully and regularly check their work for conformance with the contract documents as the Work is being done. Unsatisfactory work shall be corrected as the Work progresses and not be permitted to remain and become a part of the punch list.
 - 2. The Contractor shall conduct a pre-punch list inspection. The written pre-punch list shall be distributed to affected subcontractors, for correction of noted items. The Contractor

- shall provide a copy of the pre-punchlist inspection and advise the Architect of the correction of the pre-punch list. This notification shall so serve to notify the Architect that the work is ready for the Architect's punch list inspection.
3. The Architect shall make arrangements for his punch list inspection at the earliest possible date following Contractor notification of correction of the pre-punch list. Transmittal of the Punch List to the Contractor shall set the date for a reinspection prior to issuance of a Certificate of Substantial Completion. Upon receipt of the Punch List, the Contractor shall, within seven (7) days, bring to the attention of the Architect, in writing, any questions that he or any of his subcontractors may have concerning the requirements of the Punch List.
 4. When advised by the Contractor that the Punch List items have been completed, the Architect shall conduct a reinspection with the Contractor and any needed subcontractors (and the Owner's representative where applicable) to determine whether the Certificate of Substantial Completion can be issued. A Certificate of Substantial Completion will only be issued after codes administration authorities document approval and permit occupancy of the building or phase. Also note Paragraph 12 of this section.
 5. When issued, the Certificate of Substantial Completion shall name the date, triggering the beginning of the warranty period (with any items to have a later starting date specifically noted). The certificate shall also have attached to it any uncompleted Punch List items, and shall name the date for their final completion. The Certificate of Substantial Completion shall also state the responsibilities of the Owner and the Contractor for maintenance, heat, air conditioning, utilities, insurance and building security.
 6. Acknowledgement of the date of substantial completion by the signature of all parties on the certificate implies possession of the premises by the Owner. The subsequent completion of incomplete punch list items by the Contractor and the subcontractors shall occur at the Owner's convenience. The Owner shall cooperate in permitting the Contractor reasonable access to the work for the completion of punch list items.
 7. A Certificate of Substantial Completion for the work, or portion of work as applicable, will only be issued after the requirements for the demonstration and instruction of operation and maintenance procedures as defined elsewhere by the Contract Documents, to the Owner's personnel have been satisfied by the Contractor.
 8. A list of items required for submission at Substantial Completion is listed at the end of this section. This list may include specific maintenance agreements, maintenance manuals, tools, keys, spare parts, extra stock materials, operational instruction to Owner's operating personnel, etc. Any items not here-in specifically listed as required at Substantial Completion shall be submitted at Final Completion.
 9. Substantial Completion Cleaning: At Substantial Completion for each project or portion of the project, clean the entire work area to a level acceptable to the Owner, for finish cleaning by the Owner's custodial personnel. Remove non-permanent protection and labels, polish glass, clean exposed finishes, touch-up minor finish damage, clean or replace filters of mechanical systems, remove debris and broom clean non-occupied spaces, sanitize plumbing/food service facilities, clean light fixtures and replace burned out/dimmed lamps, sweep and wash paved areas, police yards and grounds. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces. Mop VCT or seamless floor surfaces clean. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 10. Lead Safe Project Report: The Contractor shall furnish a single report documenting compliance with recordkeeping and reporting of requirements of 40 CFR Part 745.85 including documentation that a certified renovator was assigned to the project, that the certified renovator provided on-the-job training for workers used on the project, that the certified renovator performed or directed workers who performed all of the tasks described in Part 745.85, and that the certified renovator performed the post-renovation cleaning verification described in Part 745.85. If the renovation firm was unable to comply with all of the requirements of this rule due to an emergency as defined in Part 745.82, the Contractor shall document the nature of the emergency and the provisions of the rule that were not followed. This documentation must include a copy of the certified renovator's

training certificate, and a certification by the certified renovator assigned to that project that:

- a. Training was provided to workers (topics must be identified for each worker).
 - b. Pre-renovation education and hazard communication was performed before and updated during the project.
 - c. Warning signs were posted at the entrances to the work area.
 - d. The work area was contained by:
 - (1) Removing or covering all objects in the work area (interiors).
 - (2) Closing and covering all HVAC ducts in the work area (interiors).
 - (3) Closing all windows in the work area (interiors) or closing all windows in and within 20 feet of the work area (exteriors).
 - (4) Closing and sealing all doors in the work area (interiors) or closing and sealing all doors in and within 20 feet of the work area (exteriors).
 - (5) Covering doors in the work area that were being used to allow passage but prevent spread of dust.
 - (6) Covering the floor surface, including installed carpet, with taped-down plastic sheeting or other impermeable material in the work area 6 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to contain the dust, whichever is greater (interiors) or covering the ground with plastic sheeting or other disposable impermeable material anchored to the building extending 10 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to collect falling paint debris, whichever is greater, unless the property line prevents 10 feet of such ground covering, weighted down by heavy objects (exteriors).
 - (7) Installing (if necessary) vertical containment to prevent migration of dust and debris to adjacent property (exteriors).
 - e. Waste was contained on-site and while being transported off-site.
 - f. The work area was properly cleaned after the renovation by:
 - (1) Picking up all chips and debris, misting protective sheeting, folding in dirty side inward, and taping it for removal.
 - (2) Cleaning the work area surfaces and objects using a HEPA vacuum and/or wet clothes or mops (interiors).
 - g. The certified renovator performed the post-renovation cleaning verification (the results of which must be briefly described, including the number of wet and dry cloths used).
11. Substantial Completion Drain Clearing. At Substantial Completion for each project or portion of the project, perform drain clearing in each building area affected by new construction or renovation work. Clear drains of debris and/or construction materials using methods acceptable to the school district. Test all affected drains to ensure proper operation prior to turn-over to the district. As required, demonstrate proper operation.
12. The Owner has contracted with the Architect/Engineer to perform a limited number of punchlist inspections and reinspections. Typically, the Architect/Engineer is responsible for the initial punchlist inspection and one reinspection. If the Owner incurs additional cost from the Architect/Engineer for the performance of more than one initial punchlist inspection and one reinspection, costs for any necessary additional reinspection will be assessed to the Contractor in the way of a deductive cost change order.

B. Final Completion:

1. Submit executed warranties, workmanship bonds, remaining maintenance agreements, inspection certificates and similar required documentation for specific units of work, enabling Owner's unrestricted occupancy and use.
2. Submit maintenance manuals, tools, keys, spare parts, extra stock materials not required at substantial completion.
3. Complete instruction of Owner's operating personnel with start up of all systems, not previously required at substantial completion.

4. Complete final cleaning and remove temporary facilities.
 - a. Final Cleaning: At closeout time of each building, or applicable portion, reclean the work affected by punch list corrections. Remove non-permanent protection, polish glass, clean exposed finishes, touch-up minor finish damage, remove debris and broom clean non-occupied spaces, sanitize plumbing/food service facilities, clean light fixtures, sweep and wash paved areas, police yards and grounds, and perform similar clean up operations needed to produce a “clean” condition as judged by Architect and Owner.
5. All punch list work must be completed, reviewed and accepted by the Architect.

1.05 FINAL COMPLETION AND FINAL PAYMENT

- A. Provide submittals to Architect that are required by governing or other authorities. Confirm that all submittals required by the construction documents have been transmitted.
- B. Final Completion: For the purpose of determining a date at which the project is finished, final completion may be defined to include, but is not limited to:
 1. Substantial completion.
 2. Submission and acceptance by the Architect of project record drawings.
 3. Operation and maintenance data (including all air and water balance reports).
 4. All applicable Owner training sessions with meeting notes distributed (video tapes, if applicable).
 5. Final cleaning.
 6. Adjusting (hardware, HVAC, etc.)
 7. Warranties submitted by General Contractor and accepted by Architect.
 8. Spare parts and maintenance materials turned over to proper District personnel.
 9. All Punch List work completed, reviewed and accepted by the Architect.
 - a. All of the above items are as required by individual specification requirements as found in the contract documents. These individual requirements shall take precedence over this definition if any conflict should arise.
- C. Upon written notice by the Contractor that the reinspection punch list items are completed, the Architect shall verify this by inspection and shall issue to the Owner a final certificate of payment stating that, to the best of their knowledge, information and belief, the work has been completed in accordance with the terms and conditions of the contract documents, and that the entire balance found to be due the Contractor, and noted in said final certificate of payment, is due and payable. The Owner shall endeavor to make final payment within thirty (30) days.

1.06 RECORD DOCUMENT SUBMITTAL

- A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.
- B. Record Drawings: A set of blue- or black-line drawings of the original bidding documents will be provided by the Architect to the Contractor for the following use:
 1. If the Contractor elects to vary the work from the Contract Documents, and secures prior approval from the Architect, he shall record in a neat, readable manner, all such variances on the blue- or black-line drawings furnished.
 2. For plumbing; heating; ventilating; and air conditioning; electrical and fire protection work, record document drawings shall be maintained by the Contractor as the work progresses and as follows:
 - a. All deviations from the sizes, locations, and from all other features of all

- installations showing the contract documents shall be recorded.
- b. In addition, it shall be possible, using these drawings, to correctly and easily locate, identify and establish sizes of piping, direction etc., as well as all other features of work that will be concealed.
 1. Locations of underground work shall be established by dimensions to column lines or walls, by locating all turns, etc., and by properly referenced centerline or invert elevations and rates of fall.
 2. For work concealed in the building, sufficient information shall be given so it can be located with reasonable accuracy and ease. In some cases this may be by dimension; in others, it may be sufficient to illustrate the work on the drawings in relation to the spaces in the building near which it was actually installed. Architect's decision in this matter shall be final.
 3. Blue- or black-line record drawings shall be kept up to date during the entire course of the work and shall be available upon request for examination by the Architect.
 4. The following requirements apply to all record document drawings:
 - a. They shall be maintained at the Contractor's expense.
 - b. All such drawings shall be done carefully and neatly by a competent draftsman and in an approved form.
 - c. Additional drawings shall be provided as necessary for clarification.
 - d. The record document drawings (both blue- and black-line and reproducible) shall be returned to the Architect upon completion of the work and are subject to the approval of the Architect.
 - d. Delete Architect title block and seal from record document drawings.
- C. Record Specifications: Maintain one complete copy of the project manual, including addenda, and one copy of other written construction documents such as change orders and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and product data.
1. Legibly mark and record at each product section description of actual products installed, including the following:
 - a. Manufacturer's product name and product model number.
 - b. Product substitutions or alternates utilized.
 - c. Changes made by addenda and modifications.
 2. Upon completion of the work, submit record specifications to the Architect for the Owner's records.
 3. Record project manual shall be maintained at the Contractor's expense.
 4. Record project manual shall be maintained in a neat, readable manner. Contract work variations shall be recorded in the correct corresponding technical section of the project manual.
 5. Delete Architect seal from record project manual.
 6. Complete final cleaning and remove temporary facilities.
- D. Record Shop Drawings: Maintain a clean, undamaged set of blue or black line white prints of shop drawings as finally approved. Mark the set to show the actual installation where the installation varies substantially from the work as originally shown. Mark drawings accurately; record a cross reference at the corresponding location on the contract drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the work.
 2. Mark new information that is important to the Owner, but was not shown on shop drawings.
 3. Note related change order numbers where applicable.
 4. Organize record shop drawing sheets into manageable sets, bind with durable paper

cover sheets, and print suitable titles, dates and other identification on the cover of each set.

- E. Record Product Data: Maintain one copy of each product data submittal. Mark these documents to show significant variations in actual work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instruction and recommendations. Give particular attention to concealed products and portions of the work that cannot otherwise be readily discerned later by direct observation. Note related change orders and mark up of record drawings and specifications.
1. Upon completion of mark ups, submit complete set of record product data to the Architect for the Owner's records.
- F. Record Documents and Shop Drawings: Contractor to supply one complete set of approved shop drawings. Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to fine (main) floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenance, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenance concealed in construction, referenced to visible and accessible features of the work.
 4. Field changes of dimension and detail.
 5. Details not on original contract drawings.
- G. Record Sample Submitted: Immediately prior to the date or dates of substantial completion, the Contractor will meet at the site with the Architect and the Owner's representative personnel to determine which of the submitted samples that have been maintained during progress of the work are to be transmitted to the Owner for record purposes. Comply with delivery to the Owner's sample storage area.
- H. Miscellaneous Record Submittal: Refer to other specification sections for requirements of miscellaneous recordkeeping and submittal in connection with actual performance of the work. Immediately prior to the date or dates of substantial completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Architect for the Owner's records.
- I. Maintenance Manuals: Organize operating and maintenance data into suitable sets of manageable size. Submit two sets prior to Substantial Completion or final inspection, as applicable. Bind properly indexed data in individual heavy-duty, three inch, three ring vinyl-covered binders, 8½ x 11 inch test page format, with pocket folders for folded sheet information.
1. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
 2. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
 3. Contents: Prepare a Table of Contents for each volume, with each product or system description identified.
 4. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, subcontractors, and major equipment suppliers where they can be reached for emergency service at all times, including nights, weekends, and holidays.
 5. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions

- g. Emergency instructions.
 - h. Spare parts list.
 - i. Wiring diagrams.
 - j. Recommended “turn around” cycles.
 - k. Inspection procedures.
6. Part 3: Project documents and certificates, including the following:
- a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photo copies of warranties and bonds.
7. Submit one copy of completed volumes in final form fifteen (15) days prior to the applicable submission requirement. This copy will be returned after review, with Architect comments. Revise content of documents as required prior to final submittal for the applicable submission requirement.
8. Submit final volumes revised, within ten (10) days after Architect review and comment.
- J. Record reproducible vellum drawings. Contractor shall submit one copy of all record contract drawings to the Owner in the form of reproducible vellum sheets.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 -- EXECUTION

3.01 STARTING SYSTEMS

- A. Coordinate schedule of start up of various equipment and systems.
- B. Notify Architect and Owner seven (7) days prior to start up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions that may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start up under supervision of responsible manufacturer's representative (Contractor's personnel) in accordance with manufacturer's instructions.
- G. When specified in individual specification sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to start up, and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Section 01400 that equipment or system has been properly installed and is functioning correctly.

3.02 OPERATING AND MAINTENANCE INSTRUCTIONS

- A. General: Arrange for each Installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance, if applicable. If Installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:
 - 1. Maintenance manuals.

2. Record documents.
3. Spare parts and materials.
4. Tools.
5. Lubricants.
6. Fuels.
7. Identification systems.
8. Control sequences.
9. Hazards.
10. Cleaning.
11. Warranties and bonds.
12. Maintenance agreements and similar continuing commitments.

B. As part of instruction for operating equipment, demonstrate the following procedures:

1. Start up.
2. Shutdown.
3. Emergency operations.
4. Noise and vibration adjustments.
5. Safety procedures.
6. Economy and efficiency adjustments.
7. Effective energy utilization.

END OF SECTION

SECTION 01710 - CONSTRUCTION HOUSEKEEPING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Related Documents
- B. Summary
- C. Submittals
- D. Quality Assurance
- E. Project Conditions

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including general and supplementary conditions and other Division-1 Specification sections, apply to this section.

1.03 SUMMARY

- A. This section specifies requirements for maintaining housekeeping of the construction site and facilities during construction operations.

1.04 SUBMITTALS

- A. Submit a written narrative outlining the operational plan that will be employed by the contractor and subcontractors to maintain the construction site and facilities in a clean, safe, and organized condition that is free from recognized hazards that can cause serious physical harm or death to employees or the public.

1.05 QUALITY ASSURANCE

- A. Comply with Occupational Safety and Health Standards for the Construction Industry 29 CFR 1926.25.
- B. Comply with standards of authorities having jurisdiction, including but not limited to:
 - 1. Building Code requirements.
 - 2. Health and safety regulations.
 - 3. Police, Fire Department, and/or Rescue Squad requirements.
- C. Comply with directives issued by the Architect-Engineer and/or Owner. Contractors failing to comply with Architect-Engineer and/or Owner directives to properly maintain construction housekeeping may be subject to the withholding of Payment Applications until proper housekeeping conditions are adhered and maintained.

1.06 PROJECT CONDITIONS

- A. Keep construction areas free of the accumulation of dirt, debris, trash, water, liquids, and or hazards that deter from the safety of the construction site and facilities. Neatly organize and store materials so as to not co-mingle waste materials and construction materials, tools, and equipment.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.01 WORK PRACTICES

- A. Housekeeping occurs constantly on the job, not just once a week or at the end of the project.
- B. Everyone does housekeeping, not just laborers or certain trades.
- C. Trained personnel shall use lead-safe work practices contained in EPA's renovation, repair, and painting rule as applicable.
- D. Workers pick up anything they see lying around that can trip a person or fall on them.
- E. Extension cords, lines, welding leads, hoses, etc. are coiled up when not in use.
- F. Tools are returned to the gang box or tool room.

3.02 HAZARD IDENTIFICATION, REMOVAL, AND CLEANUP

- A. Ensure that trained personnel perform lead safe work practices and take proper precautions concerning presumed lead bearing materials. If latent dust emissions occur, establish containment, post signage, and perform cleaning, recleaning, and subsequent cleaning verifications as necessary. Assess risks presented by the actual or presumed presence of lead-based paint and lead-based paint hazards. The Contractor shall not leave lead dust hazards in Owners facilities. Lead dust hazard means surface dust that contains a dust-lead loading (area concentration of lead) at or exceeding the levels promulgated by State of Kansas and Federal regulations. The Contractor shall not impair the Owner's ability to occupy work areas under this contract beyond substantial completion dates by leaving lead dust hazards.
- B. Debris is cleaned from work surfaces, passages, and stairs.
- C. Ground within 6 feet of a building under construction is free of irregularities.
- D. Storage areas and walkways are reasonably free of dangerous depressions, obstructions, and debris.
- E. All walking and working surfaces are reasonably dry and free from grease or oil.
- F. Spills of oil, grease, and other liquids are removed at once, or covered with sand or other absorbent material until cleaned up.
- G. Sufficient waste or trash containers are provided, used and emptied when appropriate.
- H. Workers wear heavy gloves and heavy soled or safety shoes when handling scrap material.
- I. All walking and working surfaces are free of protruding nails.
- J. Nails or fasteners are removed when opening crates, cartons, kegs, or when stripping small forms.
- K. Nails are bent down or removed before scrap material is discarded.
- L. Scrap and debris are piled neatly.
- M. Materials, waste, or tools are not thrown from buildings or structures to areas where workers may be located.
- N. Any object protruding at head height has been removed or flagged.

- O. Protective caps are used on exposed rebar.
- P. Chutes are used to remove waste and/or debris from above grade floors.
- Q. Hoses, power cords, welding leads, etc. are not laying in heavily traveled walkways or areas.
- R. Structural openings are covered/protected adequately (i.e., sumps, shafts, floor openings, etc.).

3.03 BULK MATERIAL STORAGE

- A. All piled or stacked material is stable and cannot fall, slip, or collapse.
- B. The face of a pile of bags (containing cement or other material) more than 5 feet high is tapered back, or the sacks are tied in horizontal layers to prevent them from falling or collapsing.
- C. Lumber piles are no more than 16' high if handled manually or 20' high if handled by equipment. Headpieces, crosspieces, or other means are used as needed to prevent slipping, tipping, or collapsing.
- D. Piles of bricks, tiles, masonry blocks, and similar materials are stabilized by the use of headers at least every sixth layer.
- E. Brick stacks are not over 7 feet high. Brick stacks over 4 feet high are tapered back.
- F. Masonry stacks over 6 feet high are tapered back.
- G. The way that material is going to be taken off the pile is planned at the time the material is first stored.
- H. Workers and their equipment have room to move material off a pile.
- I. Material is piled on surfaces that will hold its weight.
- J. Material is piled on ground stable enough for a heavy load (not too near an excavation).
- K. Pipe or rod is stored in racks if more than one layer high.
- L. Surplus materials are returned to the stockpile.
- M. Materials are at least 2m (5 ft.) from openings, roof edges, excavations or trenches.

3.04 HAZARDOUS MATERIAL STORAGE AND DISPOSAL

- A. Flammable material is always stored in separate closed containers.
- B. Incompatible chemical products (which may cause a hazardous reaction if they come in contact) are not stored together.
- C. Flammable liquids are not stored near sources of ignition (sparks, electricity, flames, or hot objects).
- D. Where more than 25 gallons of flammable liquids are present, they are kept in a storage cabinet approved by the National Fire Protection Association (NFPA).
- E. Indoor storage areas for flammable liquids are ventilated and have one clear aisle, at least three feet wide.
- F. Flammable liquids stored outdoors are at least 50 feet from the property line and 10 feet from any public way.
- G. Outdoor flammable liquid storage areas are graded to divert spills away from buildings.

- H. Flammable and combustible scrap, debris, and waste are removed promptly from buildings or structures.
- I. Covered metal waste cans are available for oily and paint-soaked waste.
- J. Appropriate cleanup materials are available for leaks or spills of flammables or other hazardous materials.
- K. Leftover hazardous products and waste are properly stored, labeled, and disposed of according to the instructions on the product's Material Safety Data Sheet (MSDS).

3.05 SANITATION

- A. Toilets and washing facilities are clean and sanitary. Toilets are design to ensure user privacy, and are supplied with toilet paper.
- B. Sufficient toilets and washing facilities are available.
- C. Adequate supplies of potable water are available.
- D. Drinking water is stored and dispensed in clearly marked containers that are not used for any other purpose.
- E. All pipes and containers for non-potable water have been clearly labeled, and only potable water is used for washing or drinking.

3.06 ENVIRONMENT

- A. Lighting and ventilation are adequate.
- B. Burned out lights are reported and replaced.

END OF SECTION

SECTION 01711 - CLEANING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Description
- B. Disposal Requirements
- C. Materials
- D. During Construction
- E. Dust Control
- F. Final Cleaning

1.02 DESCRIPTION

- A. Contractor will be responsible to execute daily cleaning, during progress of the Work and at completion of the Work, as required by General Conditions. The Contractor is to daily, broom clean debris and remove all refuse, rubbish, scrap material caused by his operation. The Contractor shall remove all excess spoils.

1.03 CLEANING AND DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with Scope of Work Section 01710 Construction Housekeeping, codes, ordinances, regulations, and anti-pollution laws.

1.04 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by the manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

1.05 DURING CONSTRUCTION

- A. Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations or his subcontractor's operations and ensure that building and grounds are maintained free from accumulations of waste materials and rubbish. Do not allow waste materials, rubbish and debris to accumulate and become an unsightly or hazardous condition.
- B. Transport waste materials in a controlled manner with as few handling as possible; do not drop or throw materials from heights. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces. Sprinkle dusty debris with water.
- C. Burning or burying of rubbish and waste materials on the project site is not permitted. Disposal of volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer systems

is not permitted. Remove waste materials, rubbish and debris from the site and legally dispose of at public or private dumping areas off the Owner's property.

1.06 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and/or other applicable work, and continue cleaning on as as-needed basis until such work is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.
- C. Broom clean interior building areas when ready to receive finish painting and/or other applicable work, and continue cleaning on as-need basis until building is ready for acceptance or occupancy.

1.07 FINAL CLEANING

- A. At completion of construction and just prior to acceptance or occupancy, the Contractor will conduct a final inspection of exposed interior and exterior surfaces. Perform final cleaning and maintain cleaning until building or portion thereof, is accepted by Owner.
- B. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces. Repair, patch and touch-up marred surfaces to match adjacent finishes. Broom clean paved surfaces; rake clean other surfaces of grounds.
- C. Clean all glass and all other finish surfaces, replace all broken and scratched glass; remove stains, spots marks and dirt from decorated work; clean all hardware; remove paint spots and smears from all surfaces, clean all fixtures and wash or vacuum all floors; leaving work in a clean and spotless condition.
- D. Mechanical subcontractor shall replace air conditioning filters if units were operated during construction. Clean ducts, blowers and coils if air conditioning units were operated without filters during construction.
- E. Remove all waste materials and rubbish from and about the Project as well as all tools, construction equipment, machinery and surplus materials.
- F. Use experienced workmen or professional cleaners for final cleaning.
- G. Comply with cleaning instructions contained in the Specifications. In absence of specific cleaning instructions, follow accepted cleaning practices or the recommendations of the manufacturer of the material to be cleaned.

END OF SECTION

SECTION 01732 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
(Architect to provide listing of items affected.)
- B. Related Sections include the following:
 - 1. Division 1 Section "Summary of Work" for use of the premises and phasing requirement.
 - 2. Division 1 Section "Construction Facilities and Temporary Controls" for temporary construction and environmental-protection measures for selective demolition operations.
 - 3. Division 1 Section "Cutting and Patching" for cutting and patching procedures for selective demolition operations.
 - 4. Division 15 Sections for demolishing, cutting, patching, or relocating mechanical items.
 - 5. Division 16 Sections for demolishing, cutting, patching, or relocation electrical items.

1.03 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.04 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.
- B. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.
 - 1. Coordinate with Owner to establish special procedures for removal and salvage.
- C. Specific items may be identified for salvage and turn-over to the Owner at the completion of the project. Any items so identified, are the property of the Owner but shall be protected and maintained by the Contractor for the duration of the construction project. Carefully remove and

salvage each item or object in a manner to prevent damage, and protect such items in a secure location for prompt delivery to the Owner at the conclusion of the project.

1.05 SUBMITTALS

- A. Qualification Data: For firms and person specified in “Quality Assurance” Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- B. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate.
- C. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner’s on-site operations are uninterrupted.
 - 2. Interruption of utility services.
 - 3. Coordination for shutoff, capping and continuation of utility services.
- D. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- E. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.06 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI A10.6 and NFPA 241.
- C. Predemolition Conference: Conduct conference at Project site to comply with requirements in Division 1 Section “Project Meetings.” Review methods and procedures related to selective demolition including, but not limited to, the following:
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

1.07 PROJECT CONDITIONS

- A. Owner will occupy portions of the site/building in and around the demolition area. Conduct selective demolition so Owner’s operations will not be disrupted. Provide not less than 72 hours’ notice to Owner of activities that will affect Owner’s operations.
- B. Maintain access to existing access ways other occupied or used facilities.
 - 1. Do not close or obstruct access way, or other occupied or used facilities without written permission from authorities having jurisdiction.
- C. Owner assumes no responsibility for condition of areas to be selectively demolished.

1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- D. Hazardous Materials: It is expected that hazardous materials, other than lead bearing materials, will be encountered during the work.
1. Hazardous materials will be removed by Owner before start of the Work, except lead based paints and coatings. Contractor shall coordinate locations with owner for piping interconnections in sufficient time for abatement to occur to maintain project schedule.
 2. If other non-lead containing materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Not-lead bearing hazardous materials will be removed by Owner under a separate contract.
 3. The Contractor shall be fully and solely responsible for work involving lead bearing materials.
- E. Storage or sale of removed items or materials on-site will not be permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
1. Maintain fire protection facilities in service during selective demolition operations.

PART 2 – PRODUCTS

- A. Use repair materials identical to existing materials.
1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 2. Use materials whose installed performance equals or surpasses that of existing materials.
- B. Comply with material and installed requirements specified

PART 3 -- EXECUTION

3.01 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.02 UTILITY SERVICES

- A. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.

B. Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction.

1. Provide at least 72 hours (3 working days) notice to Owner if shutdown of service is required during changeover.

C. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utilities serving areas to be selectively demolished.

1. Owner will arrange to shut off indicated utilities when requested by Contractor.

2. If utility services are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary utilities that bypass area of selective demolition and that maintain continuity of service to other parts of the building.

3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

3.03 PREPARATION

A. Dangerous Materials: Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.

3.04 POLLUTION CONTROLS

A. Dust Control: Use suitable methods to limit spread of dust and dirt. Comply with governing environmental protection regulations.

1. Do not use water when it may create hazardous or objectionable conditions, such as ice, flooding, and pollution.

B. Disposal: Remove and transport debris in a manner that will prevent damage to adjacent surfaces and areas.

C. Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.05 SELECTIVE DEMOLITION

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically.

2. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.

3. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire suppression devices during flame-cutting operations.

4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off site.

5. Dispose of demolished items and materials promptly.

6. Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.

B. Existing Facilities: Comply with Owner's requirements for using and protecting walkways, driveways, entries, and other facilities during selective demolition operations.

C. Removed and Salvaged Items: Comply with the following:

1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items to Owner's storage area designated by Owner.
 5. Protect items from damage during transport and storage.
- D. Removed and Reinstalled Items: Comply with the following:
1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 3. Protect items from damage during transport and storage.
 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.
- F. Existing Items to be Abandoned in Place: Fill underground piping systems to be abandoned with sand as required to prevent future collapse.
- G. Concrete: Demolish in small sections. Cut concrete to a depth of at least $\frac{3}{4}$ inch at junctures with construction to remain, using power-driven saw. Dislodge concrete from reinforcement at perimeter of areas being demolished, but reinforcement, and then remove remainder of concrete indicated for selective demolition. Neatly trim openings to dimensions indicated.
- 3.06 PATCHING AND REPAIRS
- A. General: Promptly repair damage to adjacent construction caused by selective demolition operations.
 - B. Patching: Comply with Division 1 Section "Cutting and Patching".
- 3.07 DISPOSAL OF DEMOLISHED MATERIALS
- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on site.
 - B. Burning: Do not burn demolished materials.
 - C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION

SECTION 01740 - WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Related Documents

- B. Summary
- C. Definitions
- D. Warranty Requirements
- E. Submittals

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

1.03 SUMMARY

- A. This section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
 - 1. Refer to the general conditions of the contract for construction of terms of Contractor's warranty of workmanship and materials.
 - 2. General closeout requirements are included in Division-1, Section "Project Closeout".
 - 3. Specific requirements for warranties for the work and products and installations that are specified to be warranted, are included in the individual sections of Divisions-2 through 16.
 - 4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the work that incorporated the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.04 DEFINITIONS

- A. Standard product warranties are reprinted written warranties published by individual manufacturers for particular product and are specifically endorsed by the manufacturer to the Owner.
- B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1.05 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and has been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited from use of the work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law,

nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

- E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.06 SUBMITTAL

- A. Submit written warranties to the Architect prior to the date certified for Substantial Completion. If the Architect's certificate of substantial completion designates a commencement date for warranties other than the date of Substantial Completion of the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
 - 1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within fifteen (15) days of completion of that designated portion of the Work.
 - 2. In all other instances, warranty periods will not begin prior to Substantial Completion, regardless of equipment use prior to dates of Substantial Completion.
- B. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner through the Architect for approval prior to final execution.
 - 1. Refer to individual sections of Divisions-2 through 16 for specific content requirements, and particular requirements of submittal of special warranties.
- C. Form of Submittal: At final completion, compile two copies of each required warranty and bond properly executed by the Contractor, or the Contractor, subcontractor, supplier or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the project manual.
- D. Bind warranties and bonds in heavy-duty, commercial quality, durable three-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½" x 11" paper.
 - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
 - 2. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the project title or name, and the name of the Contractor.
 - 3. When operating and maintenance manuals are required for warranted constitution, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

END OF SECTION

CONTRACTUAL PROVISIONS ATTACHMENT

Important: This form contains mandatory contract provisions and must be attached to or incorporated in all copies of any contractual agreement. If it is attached to the vendor/contractor's standard contract form, then that form must be altered to contain the following provision:

"The Provisions found in Contractual Provisions Attachment (Form DA-146a, Rev. 06-12), which is attached hereto, are hereby incorporated in this contract and made a part thereof."

The parties agree that the following provisions are hereby incorporated into the contract to which it is attached and made a part thereof, said contract being the _____ day of _____, 20_____.

1. **Terms Herein Controlling Provisions:** It is expressly agreed that the terms of each and every provision in this attachment shall prevail and control over the terms of any other conflicting provision in any other document relating to and a part of the contract in which this attachment is incorporated. Any terms that conflict or could be interpreted to conflict with this attachment are nullified.
2. **Kansas Law and Venue:** This contract shall be subject to, governed by, and construed according to the laws of the State of Kansas, and jurisdiction and venue of any suit in connection with this contract shall reside only in courts located in the State of Kansas.
3. **Termination Due to Lack of Funding Appropriation:** If, in the judgment of the Director of Accounts and Reports, Department of Administration, sufficient funds are not appropriated to continue the function performed in this agreement and for the payment of the charges hereunder, State may terminate this agreement at the end of its current fiscal year. State agrees to give written notice of termination to contractor at least thirty (30) days prior to the end of its current fiscal year, and shall give such notice for a greater period prior to the end of such fiscal year as may be provided in this contract, except that such notice shall not be required prior to ninety (90) days before the end of such fiscal year. Contractor shall have the right, at the end of such fiscal year, to take possession of any equipment provided State under the contract. State will pay to the contractor all regular contractual payments incurred through the end of such fiscal year, plus contractual charges incidental to the return of any such equipment. Upon termination of the agreement by State, title to any such equipment shall revert to contractor at the end of the State's current fiscal year. The termination of the contract pursuant to this paragraph shall not cause any penalty to be charged to the agency or the contractor.
4. **Disclaimer of Liability:** No provision of this contract will be given effect that attempts to require the State of Kansas or its agencies to defend, hold harmless, or indemnify any contractor or third party for any acts or omissions. The liability of the State of Kansas is defined under the Kansas Tort Claims Act (K.S.A. 75-6101 et seq.).
5. **Anti-Discrimination Clause:** The contractor agrees: (a) to comply with the Kansas Act Against Discrimination (K.S.A. 44-1001 et seq.) and the Kansas Age Discrimination in Employment Act (K.S.A. 44-1111 et seq.) and the applicable provisions of the Americans With Disabilities Act (42 U.S.C. 12101 et seq.) (ADA) and to not discriminate against any person because of race, religion, color, sex, disability, national origin or ancestry, or age in the admission or access to, or treatment or employment in, its programs or activities; (b) to include in all solicitations or advertisements for employees, the phrase "equal opportunity employer"; (c) to comply with the reporting requirements set out at K.S.A. 44-1031 and K.S.A. 44-1116; (d) to include those provisions in every subcontract or purchase order so that they are binding upon such subcontractor or vendor; (e) that a failure to comply with the reporting requirements of (c) above or if the contractor is found guilty of any violation of such acts by the Kansas Human Rights Commission, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the contracting state agency or the Kansas Department of Administration; (f) if it is determined that the contractor has violated applicable provisions of ADA, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the contracting state agency or the Kansas Department of Administration.

Contractor agrees to comply with all applicable state and federal anti-discrimination laws.

The provisions of this paragraph number 5 (with the exception of those provisions relating to the ADA) are not applicable to a contractor who employs fewer than four employees during the term of such contract or whose contracts with the contracting State agency cumulatively total \$5,000 or less during the fiscal year of such agency.
6. **Acceptance of Contract:** This contract shall not be considered accepted, approved or otherwise effective until the statutorily required approvals and certifications have been given.
7. **Arbitration, Damages, Warranties:** Notwithstanding any language to the contrary, no interpretation of this contract shall find that the State or its agencies have agreed to binding arbitration, or the payment of damages or penalties. Further, the State of Kansas and its agencies do not agree to pay attorney fees, costs, or late payment charges beyond those available under the Kansas Prompt Payment Act (K.S.A. 75-6403), and no provision will be given effect that attempts to exclude, modify, disclaim or otherwise attempt to limit any damages available to the State of Kansas or its agencies at law, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.
8. **Representative's Authority to Contract:** By signing this contract, the representative of the contractor thereby represents that such person is duly authorized by the contractor to execute this contract on behalf of the contractor and that the contractor agrees to be bound by the provisions thereof.
9. **Responsibility for Taxes:** The State of Kansas and its agencies shall not be responsible for, nor indemnify a contractor for, any federal, state or local taxes which may be imposed or levied upon the subject matter of this contract.
10. **Insurance:** The State of Kansas and its agencies shall not be required to purchase any insurance against loss or damage to property or any other subject matter relating to this contract, nor shall this contract require them to establish a "self-insurance" fund to protect against any such loss or damage. Subject to the provisions of the Kansas Tort Claims Act (K.S.A. 75-6101 et seq.), the contractor shall bear the risk of any loss or damage to any property in which the contractor holds title.
11. **Information:** No provision of this contract shall be construed as limiting the Legislative Division of Post Audit from having access to information pursuant to K.S.A. 46-1101 et seq.
12. **The Eleventh Amendment:** "The Eleventh Amendment is an inherent and incumbent protection with the State of Kansas and need not be reserved, but prudence requires the State to reiterate that nothing related to this contract shall be deemed a waiver of the Eleventh Amendment."
13. **Campaign Contributions / Lobbying:** Funds provided through a grant award or contract shall not be given or received in exchange for the making of a campaign contribution. No part of the funds provided through this contract shall be used to influence or attempt to influence an officer or employee of any State of Kansas agency or a member of the Legislature regarding any pending legislation or the awarding, extension, continuation, renewal, amendment or modification of any government contract, grant, loan, or cooperative agreement.

NO BID RESPONSE FORM

If you choose to "No Bid" this Project, Please...

Email this form to: wayne.correll@kckps.org

Fax this Form to: (913) 551-3253

If you choose not to submit a bid, please complete and return only this form, on or before the due date. Thank you for taking this opportunity to help us update and improve our solicitation process.

Bid Number: IFB 18-010

Description: ELECTRICAL IMPROVEMENTS TO NEW STOREROOM

Please check the appropriate response(s). We respectfully submit "No Response" for the following reason(s):

- 1. Are you a certified M/WBE? Yes No
- 2. We are unable to meet the required delivery date.
- 3. We cannot provide a product/service to meet the required specifications.
- 4. We no longer provide the requested product/service.
- 5. We do not represent the required brand name product(s).
- 6. The closing date does not allow adequate time to prepare a response.
- 7. The specifications are too restrictive.
- 8. We have chosen not to do business with the school district.
- 9. Other (*comment below or provide your response on your company letterhead*).

Company Name: _____

Authorized Signature: _____

Print Name: _____

Date: _____

USD 500 STANDARD TERMS AND CONDITIONS

1. SCOPE: The following terms and conditions shall prevail unless otherwise modified by U.S.D. 500 within this bid document. U.S.D. 500 reserves the right to reject any bid which takes exception to these terms and conditions.
2. DEFINITIONS AS USED HEREIN:
 - a. The term "bid request" means a solicitation of a formal sealed bid.
 - b. The term "bid" means the price offered by the bidder.
 - c. The term "bidder" means the offeror or vendor.
 - d. The term "U.S.D. 500" means Unified School District No. 500.
 - e. The term "Board of Education" or "BOE" means the governing body of Unified School District No.500
3. COMPLETING BID: Bids must be submitted ONLY on the form provided in this bid document. All information must be legible. Any and all corrections and /or erasures must be initialed. Each bid sheet must be signed by the authorized bidder and required information must be provided.
4. CONFIDENTIALITY OF BID INFORMATION: Each bid must be sealed and submitted in or under cover of the enclosed envelope to provide confidentiality of the bid information prior to the bid opening. Supporting documents and/or descriptive literature may be submitted with the bid or in a separate envelope marked "Literature for Bid (Number)." Do NOT indicate bid prices on literature. All bids and supporting bid documents become public information after the bid opening and are available for inspection by the general public in accordance with the Kansas Open Records Act.
5. ACCURACY OF BID: Each bid is publicly opened and is made part of the public record of U.S.D. 500. Therefore, it is necessary that any and all information presented is accurate and/or will be that by which the bidder will complete the contract. If there is a discrepancy between the unit price and extended total, the unit price will prevail.
6. SUBMISSION OF BID: Bids are to be sealed and submitted to the Purchasing Department Office, 2010 North 59th Street, Room 370, Kansas City, Kansas, 66104, prior to the date and time indicated on the cover sheet.
7. ADDENDA: All changes in connection with this bid will be issued by the Purchasing Office in the form of a written addendum. Signed acknowledgement of receipt of each addendum must be submitted with the bid.
8. LATE BIDS AND MODIFICATION OR WITHDRAWALS: Bids received after the deadline designated in this bid document shall not be considered and shall be returned unopened.
9. BIDS BINDING: All bids submitted shall be binding upon the bidder if accepted by U.S.D. 500 within sixty (60) calendar days after the bid opening.
10. EQUIVALENT BIDS: When brand or trade names are used in the bid invitation, it is for the purpose of item identification and to establish standards for quality, style and features. Bids on equivalent items of substantially the same quality, style and features are invited unless items are marked "No Substitute." Equivalent bids must be accompanied by descriptive literature and/ or samples may be required and shall be supplied at no charge to the school district.
11. NEW MATERIALS, SUPPLIES AND EQUIPMENT: Unless otherwise specified, all materials, supplies or equipment offered by a bidder shall be new, unused, of recent manufacture, first class in every respect, and suitable for their intended purpose. All equipment shall be assembled and fully serviced, ready for operation when delivered.
12. WARRANTY: Supplies or services furnished as a result of this bid shall be covered by the most favorable commercial warranties, expressed or implied, that the bidder and/or manufacturer gives to any customer. The rights and remedies provided herein are in addition to and do not limit any rights afforded to U.S.D. 500 by any other clause of this bid reserves the right to request from bidders a separate manufacturer certification of all statements made in the Proposal.
13. METHOD OF AWARD AND NOTIFICATION: Bids will be analyzed and the award made to the lowest and best, responsive and responsible bidder(s) whose bid conforms to the specifications and whose bid is considered to be the best value in the opinion of U.S.D. 500.
14. U.S.D. 500 reserves the right to reject any or all bids and any part of a bid: to waive informalities, technical defects, and minor irregularities in bids received: and to award the bid on an item by item basis by specified groups of items or to consider bids submitted on an "all or nothing "basis if the bid is clearly designed as such or when it is determined to be in the best interest of U.S.D. 500.
15. The signed bid shall be considered an offer on the part of the bidder: such offer shall be deemed accepted upon the issuance by U.S.D. 500 of a Purchase Order or other contractual document.
16. DELIVERY TERMS: All deliveries shall be F.O.B. Destination and all freight charges shall be included in the bid price.
17. DAMAGED AND/OR LATE SHIPMENTS: U.S.D 500 has no obligation to accept damaged shipments and reserves the right to return at the vendor's expense damaged merchandise even though the damage was not apparent or discovered until after receipt of the items. The Vendor is responsible to notify U.S.D. 500 Purchasing Office of any late or delayed shipments. U.S.D. 500 reserves the right to cancel all or any part of an order if the shipment is not made as promised.
18. CREDIT TERMS: Bidder shall indicate all discounts for full and/or prompt payment. Discounts shall be considered as a cost factor in the determination of award, except discounts offered for payment within less than ten (10) calendar days. Discounts offered shall be computed from date of receipt of correct invoice or receipt and acceptance of products, whichever is later.
19. SELLER'S INVOICE: Invoices shall be prepared and submitted in duplicate to address shown on the Purchase Order. Invoices shall contain the following information: Purchase Order number, contract number, item number, description of supplies or services, sizes, unit of measure, quantity, unit price and extended totals.
20. TAX EXEMPT: U.S.D. 500 is exempt from Federal, State and local taxes by KS-FZLEKBLQ. Sites of all transactions under the order(s) that shall be derived from this bid request shall be deemed to have been accomplished within the State of Kansas.
21. SAFETY: All practices, materials, supplies and equipment shall comply with the federal Occupational Safety and Health Act, as well as any pertinent Federal, State and/or local safety or environmental codes.
22. DISCLAIMER OR LIABILITY: U.S.D. 500 will not hold harmless or indemnify any bidder for any liability whatsoever.
23. TERMINATION RIGHTS: KCKPS shall have the right to terminate/cancel the Agreement for its convenience and without penalty upon thirty (30) days prior written notice to the contractor.
24. HOLD HARMLESS: The contractor agrees to protect, defend, indemnify and hold the Board of Education, its officers, employees and agents fee and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees or other expenses or liabilities or every kind

and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings or causes of action of every kind and character in connection with or arising directly or indirectly out of this agreement and/or the performance hereof. Without limiting the generality of the foregoing, any and all such claims, etc., relating to personal injury, infringement of any patent trademark, copyright (or application for any thereof) or of any other tangible or intangible personal or property right, or actual or alleged violation of any applicable statute, ordinance, administrative order, rule or regulation, or decree of any court, shall be included in the indemnity hereunder. The contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, etc., at his/her sole expense and agrees to bear all other costs and expenses related thereto, even if such claim is groundless, false or fraudulent.

NO MUTUAL INDEMNIFICATION:

K.S.A.72-8201a: Contracts; indemnification or hold harmless provisions, void.

(a) It is the public policy of the state of Kansas that all contracts entered into by the board of education of a school district, or any officers or employees thereof acting on behalf of the board, provide that the school district and board of education shall be responsible solely for the district's or board's actions or failure to act under a contract.

(b) The board of education of a school district or any officers or employees thereof acting on behalf of the board shall not have the authority to enter into a contract under which the school district or board agrees to, or is required to, indemnify or hold harmless against damages, injury or death resulting from the actions or failure to act on the part of any party to a contract other than the board or district.

(c) The provisions of any contract entered into in violation of this section shall be contrary to the public policy of the state of Kansas and shall be void and unenforceable.

25. **INSURANCE:** Upon receipt of award, Contractor shall provide Certificate of Insurance as required within three (3) days after notification issued by the Purchasing Department.

A. The following general insurance requirements apply to any and all work under this contract by all Contractors and subcontractors of any tier.

(1) Any and all insurance required by this contract with each and any and all insurance required by this contract shall be maintained during the entire length of this contract, including any extensions thereto, and until all work has been completed to the satisfaction of the Kansas City Kansas Public Schools. Any and all insurance must be on an occurrence basis.

(2) No Contractor or subcontractor shall commence work under a contract until all insurance requirements contained within the solicitation have been complied with and until evidence of all insurance requirements in each and every contract with each and every subcontractor of any tier and shall require the same to comply with all such requirements.

(3) The Kansas City Kansas Public Schools shall be covered as an Additional Insured under any and all insurance required by this contract. Confirmation of this shall appear on all certificates of insurance and on any and all applicable policies. The title of the awarded contract shall also appear on any and all applicable policies.

(4) The Kansas City Kansas Public Schools shall be given no less than thirty (30) days' written notice of cancellation. The Kansas City Kansas Public Schools shall be given not less than thirty (30) days' prior written notice of material changes of any insurance required under this contract. The Kansas City Kansas Public Schools shall be given written notice of renewal of coverage not less than thirty (30) days prior to the expiration of any particular policy.

(5) Each and every agent shall warrant when signing the certificate of insurance that he is acting as an authorized representative on behalf of the companies affording insurance coverage under the contract and that he is licensed by the State of Kansas to conduct insurance business in the State of Kansas and that the companies affording insurance coverage are currently licensed by the State of Kansas and are currently in good standing with the Commissioner of Insurance for the State of Kansas.

(6) Any and all companies providing insurance required by this contract shall meet the minimum financial security requirements as set forth below. The rating for each company must be indicated on the certificate of insurance.

For all contracts, regardless of risk, companies providing insurance under this contract must have a current:

- (a) Best's Rating not less than A, and
- (b) Best's Financial Size Category not less than Class VII

(7) In the event the Contractor neglects, refuses, or fails to provide insurance required by the contract documents, or if such insurance is canceled for any reason, Kansas City Kansas Public Schools shall have the right, but not the duty, to procure the same, and the cost thereof shall be deducted from monies then due or thereafter to become due to the Contractor or Kansas City Kansas Public Schools shall have the right to cancel the contract.

B. **Worker's Compensation and Employer's Liability Insurance**

The Contractor shall procure and maintain Worker's Compensation and Employer's Liability Insurance in the following limits. Such insurance is to cover each and every employee who is or may be engaged in work under this contract.

Worker's Compensation.....Statutory

Employer's Liability

Bodily Injury by Accident.....\$1,000,000 each accident
Bodily Injury by Disease.....\$1,000,000 each employee
Bodily Injury by Disease.....\$1,000,000 policy limit

C. **Comprehensive General Liability Insurance**

The Contractor shall procure and maintain Comprehensive Insurance in an amount not less than \$1,000,000 for bodily injury and property damage combined single limit. The following specific extensions of coverage shall be provided and indicated on the certificate of insurance:

- (1) Comprehensive Form
- (2) Contractual Insurance
- (3) Personal Injury
- (4) Broad Form Property Damage

(5) Premises – Operations

(6) Completed Operations

This coverage shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under this contract. Policy coverage must be on an occurrence basis.

D. Automobile Liability Insurance

The Contractor shall procure and maintain Automobile Liability Insurance in an amount not less than \$1,000,000 for bodily injury and property damage combined single limit. The following extensions of coverage shall be provided and indicated on the certificate of insurance.

(1) Comprehensive Form

(2) Owned, Hired, Leased and non-owned vehicles

If the Contractor does not own any vehicles in the corporate name, non-owned vehicles coverage shall apply and must be endorsed on either the Contractor's personal automobile policy or the Comprehensive General Liability coverage required under this contract.

E. Commercial Crime insurance (when applicable)

The Contractor shall procure and maintain Commercial Crime/Fidelity insurance in an amount not less than \$1,000,000.00, including coverage for theft or loss of KCKPS property.

26. LAW GOVERNING: All contractual agreements shall be subject to, governed by, and construed according to the laws of the State of Kansas.

27. ANTI-DISCRIMINATION CLAUSE: No bidder on this request shall in any way, directly or indirectly, discriminate against any person because of age, race, color handicap, sex, national origin, or religious creed.

28. BID BOND/PERFORMANCE BOND (Applicable to Construction/Remodel/Repair Projects, Unless Waived by the District)

A. Each proposal must be accompanied by a certified or cashier's check, or a bid bond in the amount of five percent (5%) of the contractor's total bid.

B. A Performance Bond and a Material and Labor Payment Bond in amounts equal to one hundred percent (100%) of the contract price shall be furnished by the successful bidder. Bonds shall be issued by a surety acceptable to the Board.

29. DISQUALIFICATION:

A. The Director of Purchasing may, at her/his sole discretion, disqualify a bidder for one or any combination of the following reasons:

1. Bidder's product does not meet the specifications or bid conditions of the solicitation;

2. Bidder's tendered bid is not received on the District's bid form;

3. Bidder's tendered bid is not signed;

4. Required bid bond is not furnished at time of bid opening;

5. Failure to comply with bid instructions, terms and conditions that are judged to be essential to the competitive process and in the best interests of the District.

B. Disqualification of bidders on future bids may be considered for any one or combination of the following reasons:

1. Refusal of the bidder to complete a contract or bid;

2. Bidder's past history of late deliveries or partial/incomplete shipments,

3. Bidder's products or services have proven unreliable, unworkable or have not accomplished the result requested in the District's specifications.

30. SUPPLIER DIVERSITY: The Kansas City Kansas Public Schools encourages supplier diversity and participation of MBE/WBE/DBE designated businesses.

However, such participation will not result in any selection or scoring advantage in the bid evaluation process.

ELECTRICAL SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

CIRCUITING

HOME RUN (2#12 1#12G UNO)
 INDICATES 2 PHASE, 1 N, & 1 GRD CONDUCTOR
 HOME RUN: INDICATES SHARED CIRCUIT
 HOME RUN: INDICATES #10 CONDUCTORS ENTIRELY

UTILITIES

UG --- UNDERGROUND ELECTRICAL
 OHE --- OVERHEAD ELECTRICAL
 TEL --- TELECOMMUNICATIONS CONDUIT
 UGT --- UNDERGROUND TELECOMMUNICATIONS CONDUIT

LIGHTING

FLOU --- FLUORESCENT LIGHT FIXTURE
 FLS --- FLUORESCENT STRIP FIXTURE
 [] --- SURFACE/RECESSED LIGHT FIXTURE
 [] --- WALL-MOUNTED LIGHT FIXTURE
 [] --- POLE-MOUNTED LIGHT FIXTURE
 [] --- EXIT LIGHT
 [] --- BATTERY-OPERATED EMERGENCY LIGHT (WALL MTD)
 [] --- BATTERY-OPERATED EMERGENCY LIGHT (CEILING MTD)
 [] --- WALL-MOUNTED COMBINATION EXIT LIGHT/
 [] --- BATTERY-OPERATED EMERGENCY LIGHT
 [] --- LIGHT SWITCH - SINGLE POLE
 [] --- LIGHT SWITCH - 3-WAY
 [] --- LIGHT SWITCH - 4-WAY
 [] --- LIGHT SWITCH - KEY
 [] --- LIGHT SWITCH - DIMMER
 [] --- LIGHT SWITCH - PILOT LIGHT
 [] --- LIGHT SWITCH - 2 POLE
 [] --- LIGHT SWITCH - 3-WAY DIMMER
 [] --- WALL-MOUNTED MOTION SWITCH
 [] --- CEILING-MOUNTED MOTION SWITCH
 [] --- SWITCHBANK - REFER TO DETAILS
 [] --- DIMMER BOARD
 [] --- REMOTE CONTROL SWITCH AS SCHEDULED
 [] --- TIMECLOCK - REFER TO PLANS / DETAILS

EQUIPMENT

[] DISCONNECT SWITCH. RE: PLANS FOR INFORMATION.
 [] MAGNETIC MOTOR STARTER
 [] COMBINATION DISCONNECT SWITCH / MOTOR STARTER
 [] TOGGLE-TYPE DISCONNECT. FURNISH WITH THERMAL
 MOTOR PROTECTION WHERE SERVING FANS/PUMPS.
 [] SURFACE PANELBOARD
 [] RECESSED PANELBOARD
 [] DISTRIBUTION PANELBOARD
 [] SWITCHBOARD, FEEDER/MAIN CIRCUIT BREAKER
 SECTION AND DISTRIBUTION SECTION.

GENERAL SYMBOLS

[] INDICATES CONNECT TO EXISTING
 [] INDICATES ELEVATION

POWER DEVICES

[] DUPLEX RECEPTACLE
 [] LINE THRU DEVICE INDICATES ABOVE COUNTER
 [] SPECIAL DUPLEX RECEPTACLE (GFCI, ISOLATED GROUND, ETC.)
 [] QUADPLEX RECEPTACLE
 [] SIMPLEX RECEPTACLE W/NEMA CONFIG AS NOTED
 [] MULTI-POLE RECEPTACLE W/NEMA CONFIG AS NOTED
 [] CEILING MOUNTED RECEPTACLE
 [] RECEPTACLE/DEVICE MOUNTED IN "TOMBSTONE"
 [] POKE-THRU WITH POWER
 [] POKE-THRU WITH TELECOMMUNICATIONS
 [] POKE-THRU W/POWER AND TELECOM
 [] SINGLE GANG FLOOR BOX (2, 3, 4 GANG SIMILAR)
 [] CEILING MOUNTED POLE
 [] CLOCK RECEPTACLE
 [] PLUG MOLD / WIRE MOLD AS SPECIFIED
 [] JUNCTION BOX
 [] THERMOSTAT - ELECTRIC
 [] PUSH BUTTON
 [] MOTOR

TELEPHONE/DATA

[] TELEPHONE OUTLET (SINGLE-GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING)
 [] LINE THRU DEVICE INDICATES ABOVE COUNTER
 [] DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CEILING)
 [] TELEPHONE/DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CLG.)
 [] PHONE OUTLET WITH NUMBER OF PHONE JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO.
 [] DATA OUTLET WITH NUMBER OF PHONE JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO.
 [] PHONE/DATA OUTLET WITH NUMBER OF PHONE/DATA JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO.
 [] WALL-MOUNTED WIRELESS INTERNET TRANSMITTER
 [] CEILING-MOUNTED WIRELESS INTERNET TRANSMITTER

AUDIO/VISUAL

[] TELEVISION OUTLET (SINGLE GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING)
 [] REVERSE TELEVISION OUTLET - CABLE TO HEAD END
 [] TEACHER'S DESK CONNECTIONS - RE: DETAILS
 [] WALL SPEAKER
 [] CEILING SPEAKER
 [] WALL SPEAKER - HORN TYPE
 [] CEILING SPEAKER - HORN TYPE
 [] CEILING SPEAKER - SUBWOOFER
 [] CEILING SPEAKER - SOUND SYSTEM
 [] VOLUME CONTROL
 [] INTERCOM CALL STATION
 [] INTERCOM HANDSET
 [] SOUND SYSTEM AUDIO JACK
 [] REMOTE MICROPHONE CONTROL
 [] PUBLIC ADDRESS SYSTEM AMPLIFIER
 [] INTERCOM MASTER STATION

FIRE ALARM

[] MANUAL PULL STATION
 [] CEILING SMOKE DETECTOR
 [] DUCT SMOKE DETECTOR
 [] HEAT DETECTOR
 [] WATERFLOW SWITCH
 [] TAMPER SWITCH
 [] VISIBLE NOTIFICATION DEVICE WITH CANDELA RATING, 15c/d RATING UNLESS OTHERWISE NOTED ON PLANS.
 [] AUDIBLE/VISIBLE NOTIFICATION DEVICE WITH CANDELA RATING, 15c/d UNLESS OTHERWISE NOTED ON PLANS.
 [] HORN
 [] CEILING-MOUNTED STROBE LIGHT WITH CANDELA RATING. MINIMUM OF 15c/d RATING.
 [] CEILING-MOUNTED COMBINATION HORN/STROBE WITH CANDELA RATING. MIN. OF 15c/d RATING.
 [] CEILING-MOUNTED HORN
 [] RELAY
 [] FIRE ALARM CONTROL PANEL
 [] FIRE ALARM ANNUNCIATOR PANEL
 [] REMOTE ANNUNCIATOR PANEL
 [] FIRE ALARM EXTENDER CABINET
 [] DOOR HOLDER
 [] SINGLE / MULTI-STATION 120V SMOKE ALARM
 [] ZONE ADDRESSABLE MODULE
 [] INDIVIDUAL ADDRESSABLE MODULE
 [] KITCHEN HOOD FIRE SUPPRESSION SYSTEM PANEL
 [] KITCHEN HOOD REMOTE PULL STATION
 [] AREA OF RESCUE ASSISTANCE STATION
 [] AREA OF RESCUE ASSISTANCE MASTER STATION

SECURITY

[] FIXED CAMERA
 [] PAN/TILT/ZOOM CAMERA
 [] PROXIMITY TYPE CARD READER
 [] SWIPE CARD READER
 [] BREAK GLASS DETECTOR
 [] ELECTRIC STRIKE
 [] SECURITY MOTION DETECTOR
 [] KEYPAD / MAG LOCK
 [] BUTTON / MAG LOCK

COORDINATION NOTES

- COORDINATE REQUIREMENTS FOR INSTALLATION OF SYSTEMS AND EQUIPMENT WITH ALL OTHER TRADES.
- THE CONTRACTOR SHALL COORDINATE THE ROUTING AND PATH OF ALL SYSTEMS, CONDUITS, PIPES, DUCTS, ETC WITH THE POSITION AND LAYOUT OF THE STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY OFFSETS, TURNS, RISES AND DROPS FOR SYSTEMS AND COMPONENTS AS NEEDED TO INSTALL THE MEP SYSTEMS TO CLEAR STRUCTURE, CEILINGS, ETC AND OTHER SYSTEMS IN POTENTIAL CONFLICT WITH ROUTING.
- COORDINATE WORK WITH OTHER TRADES TO INSTALL SYSTEMS ABOVE CEILING HEIGHTS INDICATED ON ARCHITECTURAL PLANS.
- CHECK SPACE REQUIREMENTS WITH OTHER TRADES AND STRUCTURE/CONSTRUCTION TO ENSURE THAT ALL MATERIALS AND EQUIPMENT CAN BE INSTALLED IN THE SPACE ALLOTED INCLUDING FINISHED SUSPENDED CEILING AND OTHER SPACES, CHASES, ETC WITHIN THE BUILDING. MAKE MODIFICATIONS THERETO AS REQUIRED AND APPROVED.
- TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION.
- WHEREVER WORK INTERCONNECTS WITH OTHER TRADES, COORDINATE WITH THOSE TRADES TO ENSURE THAT ALL SUBCONTRACTORS HAVE THE INFORMATION NECESSARY SO THAT THEY MAY PROPERLY INSTALL ALL CONNECTIONS AND EQUIPMENT. IDENTIFY ALL ITEMS OF WORK THAT REQUIRE ACCESS SO THAT THE CEILING TRADE WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.
- COORDINATE, PROJECT AND SCHEDULE WORK WITH OTHER TRADES IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE.
- DRAWINGS SHOW THE GENERAL RUNS OF CONDUITS, PIPING AND DUCTWORK AND APPROXIMATE LOCATION OF OUTLETS. ANY SIGNIFICANT CHANGES IN LOCATION OF ITEMS NECESSARY IN ORDER TO MEET FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER AND RECEIVE HIS APPROVAL BEFORE SUCH ALTERATIONS ARE MADE. ALL SUCH MODIFICATIONS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND REPAIR OF SURFACES, AREAS AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- ADJUST LOCATION OF PIPING, DUCTWORK, ETC. TO PREVENT INTERFERENCE, BOTH ANTICIPATED AND UNEXPECTED. DETERMINE THE EXACT ROUTE AND LOCATION OF EACH ITEM PRIOR TO FABRICATION. MAKE OFFSETS, TRANSITIONS AND CHANGES IN DIRECTION IN SYSTEMS AS REQUIRED TO MAINTAIN ADEQUATE CLEARANCES AND HEADROOM.
- WHEREVER THE WORK IS OF SUFFICIENT COMPLEXITY, PREPARE ADDITIONAL COORDINATION DRAWINGS AND ORGANIZE ON-SITE MEETINGS WITH ALL RELATED SUBCONTRACTORS TO COORDINATE THE WORK BETWEEN TRADES. DRAWINGS SHALL CLEARLY SHOW THE WORK AND ITS RELATION TO THE WORK OF OTHER TRADES, AND BE SUBMITTED FOR REVIEW PRIOR TO COMMENCING SHOP FABRICATION OR ERECTION IN THE FIELD.
- COORDINATE WITH LOCAL UTILITY PROVIDERS FOR THEIR REQUIREMENTS FOR SERVICE CONNECTIONS AND PROVIDE ALL NECESSARY PAYMENTS, MATERIALS, LABOR AND TESTING TO ACCOMPLISH THE WORK.

GENERAL ELECTRICAL NOTES

- COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
- COORDINATE LOCATIONS OF RECEPTACLES, SWITCHES, ETC. WITH ARCHITECTURAL CASEWORK AND ELEVATIONS.
- REFER TO MOUNTING HEIGHTS DETAIL FOR MOUNTING HEIGHTS OF ALL DEVICES NOT INDICATED OTHERWISE.
- PROVIDE ALL EMPTY CONDUITS WITH PULL STRINGS AND BUSHED ENDS.
- CONTRACTOR SHALL CONCEAL ALL CONDUIT, FITTINGS, AND DEVICES FROM VIEW WHERE REASONABLY POSSIBLE.

GENERAL NOTES

- SOME ROOM NAMES MAY NOT BE SHOWN FOR PURPOSE OF CLARIFYING PLAN. REFER TO ARCHITECTURAL PLANS FOR REFERENCE TO ROOM NAMES NOT SHOWN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND KEEP AT THE JOB SITE, AN UP TO DATE SET OF "RECORD DRAWINGS" SHOWING ALL CHANGES FROM THE ORIGINAL PLANS. THE CONTRACTOR SHALL DELIVER THE "RECORD DRAWINGS" TO THE ENGINEER AT THE CONCLUSION OF THE PROJECT ELECTRONICALLY.
- THESE DRAWINGS ARE DIAGNOSTIC. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS (NEW AND EXISTING), DIMENSIONS, AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK AND SHALL INCLUDE ALL COSTS, EQUIPMENT, MATERIAL, ACCESSORIES, ETC. REQUIRED FOR A FULLY COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION.
- FINAL LOCATIONS OF ALL DEVICES, LIGHT FIXTURES, EQUIPMENT ETC SHALL BE INDICATED ON THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM ARCHITECTURAL PLANS. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM MEP DRAWINGS.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, APPROVALS, LICENSES, ETC. AS NEEDED FOR THE COMPLETE INSTALLATION AND PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL FEES AND DATA NEEDED FOR THIS.

SHEET INDEX

E001	Electrical - Cover Sheet
E100	Electrical - Demolition Plan
E101	Electrical - Lighting, Power, Special System - Floor Plan
E102	Electrical - Riser Diagram, Panelboard Schedules
E103	Electrical - Details, Lighting Fixture Schedule

GEN. RENOVATION NOTES

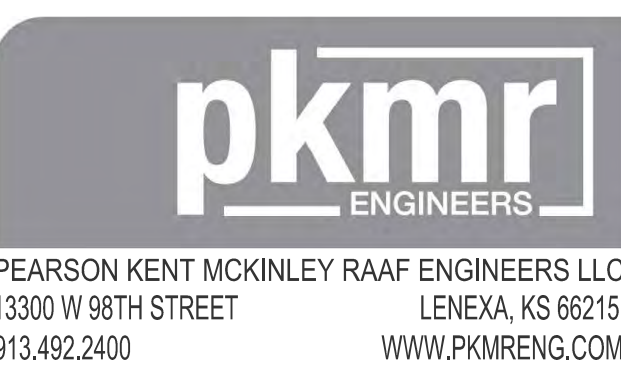
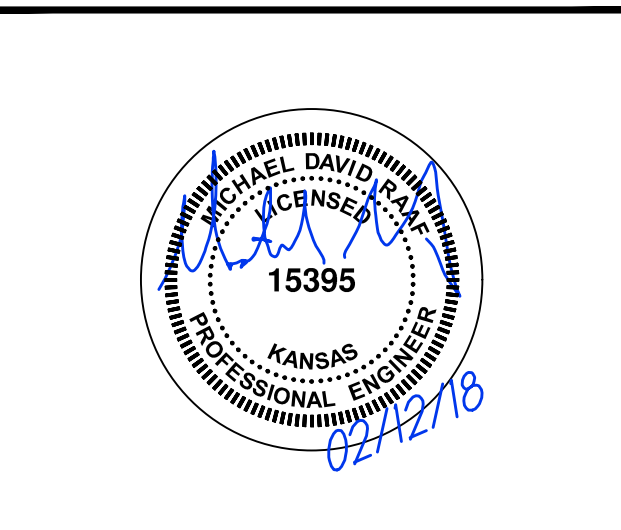
- DISCONNECT AND REMOVE ANY EQUIPMENT, PIPING OR DUCTWORK THAT WAS INSTALLED AS PART OF THE BUILDING SHELL THAT IS NOT NEEDED OR CONFLICTS WITH THIS BUILD OUT.
- EXISTING UNDERGROUND PIPING LOCATIONS ARE ESTIMATED BASED UPON ANTICIPATED ROUTINGS. FIELD VERIFY EXIST LOCATIONS DURING CONSTRUCTION AND PROVIDE ALL NECESSARY MODIFICATIONS.
- SAWCUT GRADE FLOOR SLABS TO INSTALL NEW PIPING, MECHANICAL SYSTEMS, ELECTRICAL FLOOR BOXES AND ALL ASSOCIATED CONDUIT, ETC. PATCH FLOOR TO MAKE LIKE NEW AFTER INSTALLATION. TAKE CARE TO LOCATE EXISTING CONDUIT, ETC AND AVOID CUTTING EXISTING CONDUITS BY NOT OVERCUTTING SLAB DEPTH.
- SAWCUT AND CORE DRILL OPENINGS AS REQUIRED FOR ABOVE GRADE SLAB PENETRATIONS. HEAVY SLABS TO ASCERTAIN STEEL AND EXISTING CONDUIT PENETRATIONS PRIOR TO CUTTING. VERIFY OPENINGS WITH STRUCTURAL ENGINEER PRIOR TO CUTTING.
- HOME RUN CIRCUITS TO 20 AMP SINGLE POLE BREAKERS IN PANELBOARDS INDICATE SPARE BREAKERS MAKE AVAILABLE BY DEMOLITION, IF NO SPARE BREAKER IS AVAILABLE, PROVIDE NEW BREAKER.
- EXISTING CIRCUITING MAY BE RE-USED WHERE POSSIBLE.
- CONCEAL NEW CIRCUITING IN WALLS WHERE POSSIBLE. FOR NEW DEVICES INSTALLED ON EXISTING SOLID WALLS, CONCEAL CIRCUITING IN WIREMOLD. COORDINATE FINISH AND GENERAL ROUTING OF WIREMOLD WITH ARCHITECT TO BE AS CONCEALED AND/OR ROUTED IN A NEAT AND ORGANIZED CONSISTENT MANNER.

GENERAL DEMOLITION NOTES

- ALL WORK SHOWN DARK AND DASHED IS TO BE DEMOLISHED. WORK SHOWN LIGHT IS EXISTING TO REMAIN.
- REFER TO ARCHITECTURAL PLANS FOR FURTHER EXTENT OF DEMOLITION REQUIREMENTS.
- ALL EXISTING PIPING SCHEDULED FOR DEMOLITION THAT ROUTES BELOW SLAB SHALL BE GROUND FLUSH WITH FLOOR, PLUGGED AND THE FLOOR PATCHED TO MATCH SURROUNDING FLOOR.
- COORDINATE ALL DEMOLITION WORK WITH OWNER.
- CONTACT UTILITY LOCATING SERVICE TO LOCATE EXACT LOCATION OF UTILITIES BELOW GRADE.
- MAINTAIN ALL EXISTING DEVICES, EQUIPMENT, ASSOCIATED CIRCUITS ETC. SHOWN AS EXISTING TO REMAIN OR OTHERWISE UNRELATED TO THE SCOPE OF THE PROJECT IN WORKING ORDER.
- CONTRACTOR SHALL REMOVE LAY-IN CEILINGS, LIGHT FIXTURES, ETC. AS REQUIRED FOR CONSTRUCTION WHERE NEEDED PRIOR TO DEMOLITION AND REPLACE SAME AFTER CONSTRUCTION. EXISTING CONDUITS ABOVE CEILINGS SHALL BE RELOCATED AND/OR TEMPORARILY REMOVED TO FACILITATE THE INSTALLATION OF NEW EQUIPMENT.
- THE OWNER SHALL REMOVE ALL ITEMS THEY DESIRED TO SALVAGE PRIOR TO CONSTRUCTION BEGINNING.
- NOTES AND DRAWINGS ARE BASED UPON A FIELD EXAMINATION OF THE SITE AND MAY NOT INDICATE ALL ITEMS. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE SITE AND THE SCOPE OF WORK FOR THE CONTRACT PRIOR TO BID. ANY EXISTING CONDITION WHICH IS APPARENT OR COULD BE REASONABLY INFERRED FROM A VISIT TO THE SITE SHALL NOT BE THE BASIS FOR A CHANGE IN THE CONTRACT AMOUNT.
- REFER TO NEW WORK PLANS FOR ANY ITEMS THAT MAY REQUIRE RELOCATION AFTER DEMOLITION.
- PROPERLY DISPOSE OF ALL DEMOLISHED ITEMS OFF SITE.
- REMOVE ALL MISCELLANEOUS CONDUITS, PIPES, ETC. THOUGH NOT SPECIFICALLY SHOWN ON PLAN, THAT ARE EITHER UNUSED OR WILL BECOME UNUSED DUE DEMOLITION ACTIVITIES, IN ORDER TO PROVIDE A "CLEAN" SPACE FOR THE OWNER.
- PROTECT ALL EXISTING SURFACES AND EQUIPMENT DURING CONSTRUCTION. EXISTING ITEMS TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DEMOLITION AND NEW CONSTRUCTION WORK, AS REQUIRED. ANY ITEMS DAMAGED OR MARRED SHALL BE ADEQUATELY CLEANED OR REPLACED TO THE OWNERS SATISFACTION TO ORIGINAL CONDITION BEFORE CONSTRUCTION.
- PATCH ANY HOLES IN STRUCTURE CREATED BY REMOVAL OF DUCTWORK, CONDUITS, PIPES, ETC.
- REMOVE ALL ITEMS SHOWN IN WALLS TO BE DEMOLISHED. ALL ELECTRICAL CONDUIT AND WIRING SHALL BE REMOVED BACK TO PANELBOARDS AND PROPERLY TERMINATED.
- SAW CUT FLOOR FOR THE INSTALLATION OF NEW SANITARY PIPING. REFER TO PLUMBING PLANS SHOWING NEW WORK.
- SAVE, CLEAN, AND RE-LAMP ALL LIGHT FIXTURES NOTED AS BEING RELOCATED. REFER TO NEW WORK PLANS AND LIGHT FIXTURE SCHEDULE FOR DESCRIPTIONS, QUANTITIES, AND LOCATIONS OF FIXTURES TO BE RE-USED.

ABBREVIATIONS

A/E	ARCHITECT / ENGINEER	ELEV	ELEVATION	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	EM	EMERGENCY FIXTURE/DEVICE	MFA	NET FREE AREA
AFG	ABOVE FINISHED GRADE	EMT	EMERGENCY WATER TEMPERATURE	NL	NIGHT LIGHT
AS	ABOVE GRADE	EX	EXISTING ITEM	OA	OUTSIDE AIR
AHJ	AUTHORITY HAVING JURISDICTION	FTA	FROM FLOOR ABOVE	ORD	OVERFLOW ROOF DRAIN
AHU	AIR HANDLING UNIT	FFB	FROM FLOOR BELOW	P/C	PLUMBING CONTRACTOR
ARCH	ARCHITECT	FFCO	FINISHED FLOOR CLEAN OUT	PSI	POUNDS PER SQUARE INCH
BFP	BACKFLOW PREVENTER	FFOD	FLUSH GRADE CLEAN OUT	PVC	POLYVINYLCHLORIDE
BG	BELOW GRADE	FL	FLOOR LINE	RA	RETURN AIR
BLDG	BUILDING	FLR	FLOOR	RE/REF	REFER / REFERENCE
BMS	BUILDING MANAGEMENT SYSTEM	FP	FIRE PROTECTION	RF	RELIEF FAN
C	CONDUIT	FPM	FEET PER MINUTE	RL	RELOCATED ITEM
CD	CANDELA	FWCO	FLUSH WALL CLEAN OUT	RPZ	REDUCED PRESSURE ZONE
CD	COLD DECK	G	GROUND / GANG	RR	RESTROOM
CLG	COOLING	G/C	GENERAL CONTRACTOR	SA	SUPPLY AIR
CM	COORDINATE MOUNTING HEIGHT	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SPD	SURGE PROTECTIVE DEVICE
CO	CLEAN OUT	GPM	GALLONS PER MINUTE	ST	SHUNT TRIP
CTE	CONNECT TO EXISTING	HD	HOT DECK	TA	TRANSFER AIR
DCVA	DOUBLE CHECK VALVE ASSEMBLY	HTG	HEATING	TFA	TO FLOOR ABOVE
DCW	DOMESTIC COLD WATER	IG	ISOLATED GROUND	TFB	TO FLOOR BELOW
DDC	DIRECT DIGITAL CONTROLS	JB	JUNCTION BOX	TP	TAMPERPROOF
DF	DRINKING FOUNTAIN	LED	LIGHT EMITTING DIODE	TYP	TYPICAL
DHW	DOMESTIC HOT WATER	LWT	LEAVING WATER TEMPERATURE	UNO	UNLESS NOTED OTHERWISE
DHWIR	DOMESTIC HOT WATER RETURN	M/C	MECHANICAL CONTRACTOR	VPF	VARIABLE REFRIGERANT FLOW
DIA	DIAMETER	MA	MADE UP AIR	VTR	VENT THROUGH ROOF
DN	DOWN	MAU	MAKE UP AIR UNIT	WCO	WALL CLEANOUT
E/C	ELECTRICAL CONTRACTOR	MCB	MAIN CIRCUIT BREAKER	WG	WIRE GUARD
EA	EXHAUST AIR	MECH	MECHANICAL	WP	WEATHERPROOF
EDF	ELECTRIC DRINKING FOUNTAIN	MH	MANHOLE		



PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
 13300 W 98TH STREET
 LENEXA, KS 66215
 913.492.2400
 WWW.PKMR.ENG.COM

KANSAS CITY KANSAS PUBLIC SCHOOLS WAREHOUSE BUILDING
ELECTRICAL IMPROVEMENTS 1112 CHEYENNE AVE KANSAS CITY KANSAS 66105

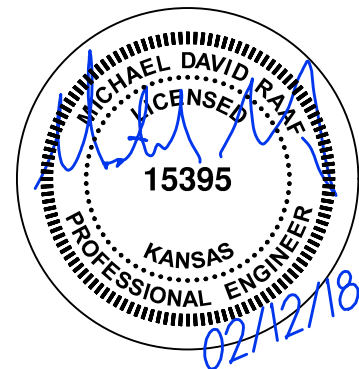
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SHEET TITLE:
Electrical Cover Sheet

DATE: **2/12/2018** PKMR PROJECT: **18.038**
 SHEET NUMBER: **E001**

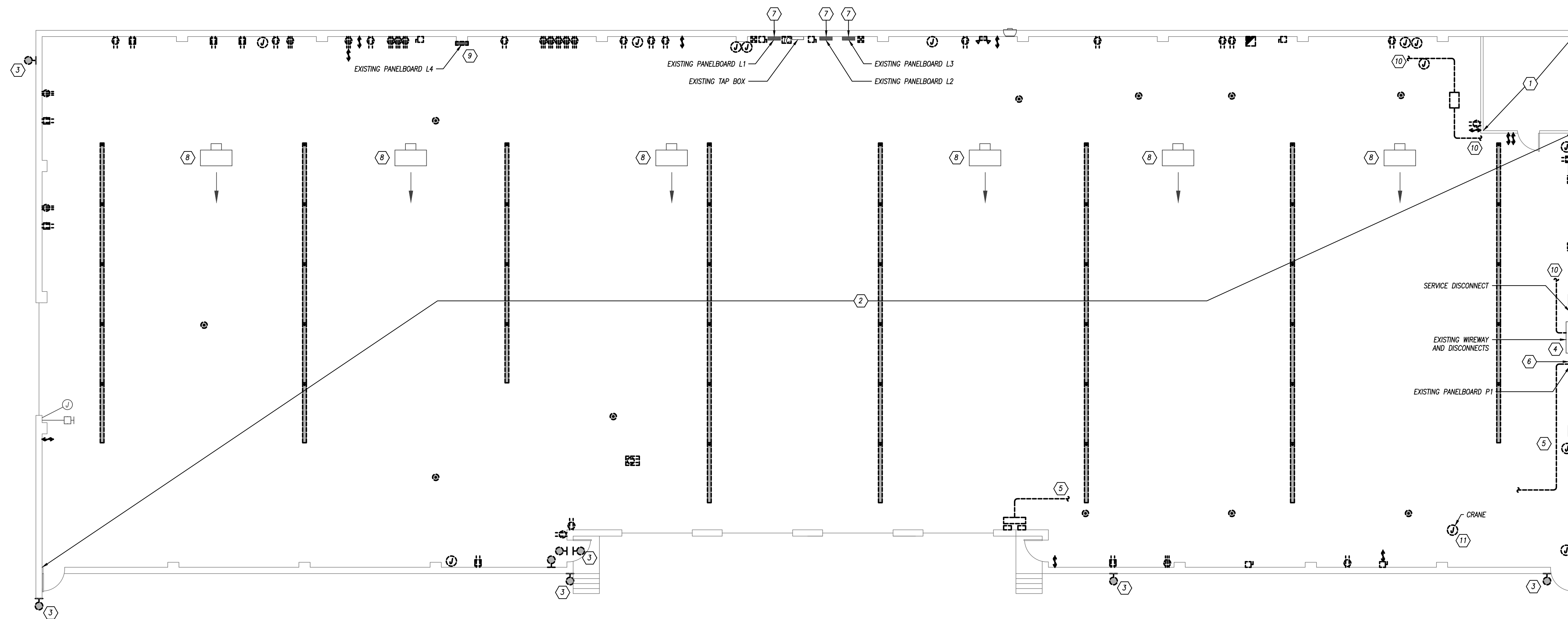


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PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET
LENEXA, KS 66215
913.492.2400
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**KANSAS CITY KANSAS PUBLIC SCHOOLS
WAREHOUSE BUILDING**

**ELECTRICAL IMPROVEMENTS
1112 CHEYENNE AVE
KANSAS CITY KANSAS 66105**



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

GENERAL DEMOLITION NOTES

1. REFER TO GENERAL DEMOLITION NOTES ON E001 COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.

DEMOLITION PLAN KEYED NOTES

- ① REMOVE ALL FIXTURES, DEVICES, PIPING, CONDUIT, AND WIRING, ETC. THIS SPACE.
- ② DISCONNECT AND REMOVE ALL EXISTING LIGHT FIXTURES. NEW FIXTURES TO BE INSTALL - REFER TO NEW WORK PLANS.
- ③ DISCONNECT AND REMOVE ALL EXISTING LIGHT FIXTURES. NEW LIGHT FIXTURES TO BE INSTALL AT THIS LOCATION - REFER TO NEW WORK PLANS.
- ④ REFER TO RISER FOR DEMOLITION OF PANELBOARDS, DISCONNECTS AND ECT.
- ⑤ DISCONNECT AND REMOVE CONDUIT WIRE BACK TO SOURCE.
- ⑥ REMOVE AND REPLACE 200A FEED TO PANELBOARD. SEE RISER.
- ⑦ REMOVE AND REPLACE 200A SINGLE PHASE PANELBOARDS. SEE NEW WORK PLAN.
- ⑧ UNIT HEATER TO REMAIN. MAINTAIN CIRCUITING FOR SAME.
- ⑨ DISCONNECT AND REMOVE PANEL AND ASSOCIATED FEEDER BACK TO SOURCE.
- ⑩ DISCONNECT AND REMOVE RACK. REMOVE ALL CONDUIT AND WIRE NOT REQUIRED TO REMAIN.
- ⑪ CRANE TO BE REMOVED. DISCONNECT AND REMOVE ASSOCIATED ELECTRICAL.

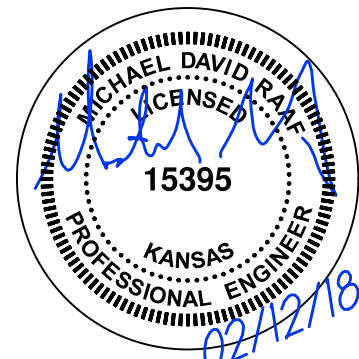
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SHEET TITLE:
**Demolition
Floor Plan**

DATE: **2/12/2018** PKMR PROJECT: **18.038**

SHEET NUMBER:
E100

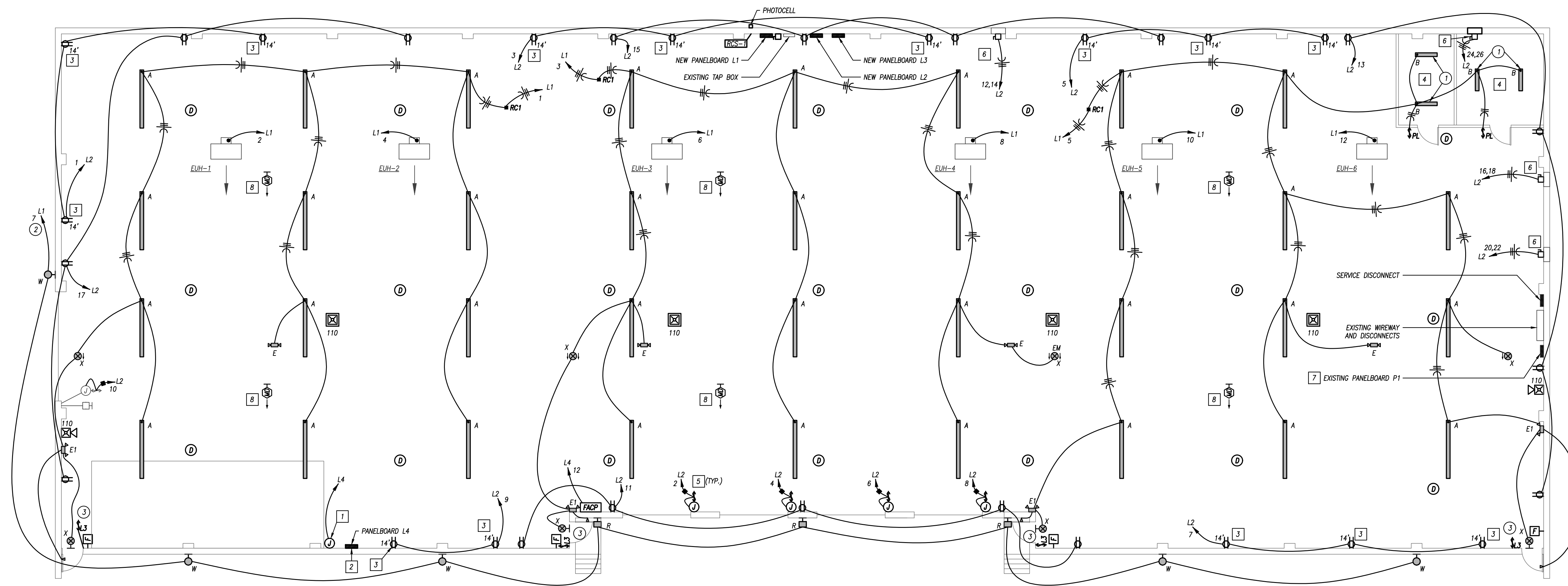


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LENEXA, KS 66215
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**KANSAS CITY KANSAS PUBLIC SCHOOLS
WAREHOUSE BUILDING**

**ELECTRICAL IMPROVEMENTS
1112 CHEYENNE AVE
KANSAS CITY KANSAS 66105**



FLOOR PLAN - ELECTRICAL
1/8" = 1'-0"

LIGHTING CONTROLS

RC1 ROOM CONTROLLER LOW VOLTAGE SWITCHES: PUSHBUTTON SWITCHES WITH LED PILOT LIGHT. SINGLE GANG IN DECORA STYLE FACEPLATE WITH UP TO EIGHT (8) CONTROLS. # REFERS TO QUANTITY OF SWITCHES ON FACE. (WATTSTOPPER LMSW SERIES, OR EQUAL)

MD DIGITAL CEILING-MOUNTED MOTION SENSOR: DUAL TECHNOLOGY (PASSIVE INFRARED AND ULTRASONIC), DIGITAL, CEILING SENSOR. (WATTSTOPPER LMC0-100, OR EQUAL)

MD-1 DIGITAL MOTION SENSOR FOR CORNER MOUNT: DUAL TECHNOLOGY (PASSIVE INFRARED AND ULTRASONIC), DIGITAL CORNER MOUNT SENSOR WITH WALL BRACKET. (WATTSTOPPER LMCX-100)

RC# ROOM CONTROLLER: DIGITAL ON/OFF ROOM CONTROLLER. 120/277V INPUT. # INDICATES NUMBER OF RELAYS (STD 1-2, UNITS SHALL BE CHANGED FOR MORE THAN 2 RELAYS/ZONES) (WATTSTOPPER LMR0-100 SERIES, OR EQUAL)

OWNER TRAINING: PROVIDE FACTORY REPRESENTATIVE TRAINING TO OWNER FOR EACH LIGHTING CONTROL SYSTEM UTILIZED, INCLUDING PROGRAMMING FOR SCHEDULING AND OPERATION OF EACH ROOM PER OWNER DIRECTION. PROVIDE RECORD OF TIME DELAY SETTINGS ON ALL SENSOR DEVICES FOR OWNER USE.

SENSOR ADJUSTMENTS AND SETTINGS: SYSTEMS SHALL BE SET/PROGRAMMED TO OPERATE TYPICALLY IN MANUAL ON/AUTO OFF MODE. SET WALL MOUNTED MOTION SENSOR TO MANUAL ON MODE. SET POWER PACKS CONTROLLED BY CEILING MOTION SENSORS TO MANUAL ON AND CONTROL WITH MOMENTARY WALL SWITCH. PROVIDE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS. LOW VOLTAGE WIRING NOT SHOWN ON PLANS FOR CLARITY. PROVIDE FINAL SETTINGS/ADJUSTMENTS PER OWNER'S DIRECTION.

GENERAL LIGHTING NOTES

- REFER TO GENERAL NOTES ON E001 COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- LIGHT FIXTURES INDICATED AS EMERGENCY FIXTURES ARE TO FUNCTION AS NIGHT LIGHTS UNLESS SPECIFICALLY SHOWN SWITCHED.
- ALL CIRCUITING SHOWN ON THIS PLAN IS DIAGRAMMATIC.
 - ALL FIXTURES SHALL BE FED FROM JUNCTION BOXES WITH LIGHT FIXTURE WHIPS (<6'). DAISSY-CHAINING OF FIXTURES IS NOT ALLOWED.
 - SWITCH BOX LOCATIONS SHALL BE WIRED SO THAT A NEUTRAL WIRE IS AVAILABLE AT THE SWITCH BOX LOCATION, EITHER IN THE BOX OR AVAILABLE TO BE ADDED VIA RACEWAY OR AN ACCESSIBLE WALL CAVITY.
 - WALL SWITCHES FOR SEPARATE LOAD TYPES (EM/NORMAL, 120/277V, ETC.) SHALL NOT BE IN A SINGLE BOX.
 - REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

LIGHTING PLAN KEYED NOTES

- COORDINATE ALL WORK THIS AREA WITH THE OWNER.
- ROUTE THRU RCS-1 THEN HOMERUN.
- 3-BUTTON SWITCH FOR SEPARATE CONTROL OF WEST, CENTER, AND EAST ZONE OF LIGHTS.

GENERAL POWER NOTES

- REFER TO GENERAL NOTES ON E001 COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- COORDINATE EXACT NEMA CONFIGURATIONS OF RECEPTACLES SERVING EQUIPMENT WITH EXACT EQUIPMENT BEING FURNISHED.
- EXACT MECHANICAL EQUIPMENT LOCATIONS MAY NOT BE SHOWN FOR CLARITY. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT, DUCT DETECTORS, ETC. WITH MECHANICAL DRAWINGS AND CONTRACTOR.
- COORDINATE EXACT LOCATIONS OF SMOKE DETECTORS WITH CEILING FANS, HVAC DIFFUSERS, SPRINKLER HEADS, ETC. PER NFPA REQUIREMENTS.

POWER PLAN KEYED NOTES

- PROVIDE ALL NECESSARY RIGS-IN AND CONNECTIONS FOR OWNER PROVIDED MODULAR OFFICE. REFER TO PANELBOARD SCHEDULE.
- COORDINATE LOCATION WITH OWNER.
- FOR OWNER PROVIDED WALL MOUNTED FANS. COORDINATE EXACT HEIGHT AND LOCATIONS WITH OWNER.
- COORDINATE ALL WORK THIS AREA WITH THE OWNER.
- POWER CONNECTION FOR FUTURE GARAGE DOOR.
- POWER FOR EXHAUST FAN BY OTHERS. PROVIDE 30A, 2-POLE DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.
- PROVIDE UPDATED TYPED CIRCUIT DIRECTORY IN EXISTING .
- FIELD VERIFY EXACT LOCATION AND MOUNTING (TYPICAL).

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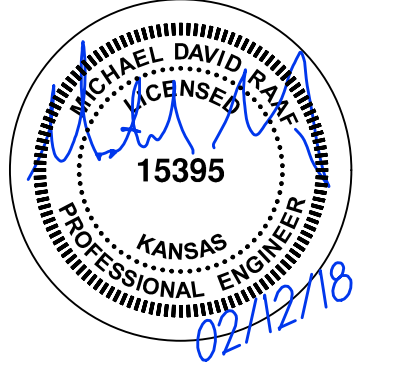
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SHEET TITLE:
**Electrical
Floor Plan**

DATE: **2/12/2018** PKMR PROJECT: **18.038**

SHEET NUMBER:
E101



PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM

SINGLE-SECTION PANELBOARD SCHEDULE

DESCRIPTION	PHASE			C/B	TRIP	POLE	CIRCUIT #			DESCRIPTION				
	A	B	TRIP				A	B	TRIP					
	PANEL DESIGNATION: L1							MAIN LUG AMPS: 225 MAIN BREAKER: 200 VOLTAGE: 240/120 PHASE WIRE: 1Ø, 3W			CIRCUIT #			
LTS: WEST	1276		20	1	1	2	1	20	750			UNIT HEATER EUH-1		
LTS: MIDDLE		1291	20	1	3	4	1	20		750		UNIT HEATER EUH-2		
LTS: EAST, HAZARD STORAGE	1180		20	1	5	6	1	20	750			UNIT HEATER EUH-3		
LTS: EXTERIOR		548	20	1	7	8	1	20		750		UNIT HEATER EUH-4		
SPACE				1	9	10	1	20	750			UNIT HEATER EUH-5		
SPACE				1	11	12	1	20		750		UNIT HEATER EUH-6		
SPACE				1	13	14	1					SPACE		
SPACE				1	15	16	1					SPACE		
SPACE				1	17	18	1					SPACE		
SPACE				1	19	20	1					SPACE		
SPACE				1	21	22	1					SPACE		
SPACE				1	23	24	1					SPACE		
SPACE				1	25	26	1					SPACE		
SPACE				1	27	28	1					SPACE		
SPACE				1	29	30	1					SPACE		
SPACE				1	31	32	1					SPACE		
SPACE				1	33	34	1					SPACE		
SPARE								20	1	35	36	1	20	SPARE
SPARE								20	1	37	38	1	20	SPARE
SPARE								20	1	39	40	1	20	SPARE
SPARE								20	1	41	42	1	20	SPARE
TOTALS							2456	1839		2250	2250	TOTALS		

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	4,295	1.25	5,369
RECEPTACLES	0	1ØKVA + 50% REST	0
MOTORS	0	1.25 * LARGEST + SUM OF REST	0
AIR CONDITIONING	0	0.00	0
SPACE HEATING	4,500	1.00	4,500
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
MISC. LOADS 2	0	1.00	0
SIZING LOAD:			9,869
SIZING LOAD (AMPS):			41

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	4,706	39.2
B	4,089	34.1
TOTALS	8,795	36.6

REMARKS:
1. CUTLER HAMMER POW-R-LINE 1A OR EQUAL
2. MINIMUM 22 KVIC EQUIPMENT RATING

SINGLE-SECTION PANELBOARD SCHEDULE

DESCRIPTION	PHASE			C/B	TRIP	POLE	CIRCUIT #			DESCRIPTION				
	A	B	TRIP				A	B	TRIP					
	PANEL DESIGNATION: L2							MAIN LUG AMPS: 225 MAIN BREAKER: 200 VOLTAGE: 240/120 PHASE WIRE: 1Ø, 3W			CIRCUIT #			
RECEPT: FAN	1500		20	1	1	2	1	20	1000			GARAGE DOOR		
RECEPT: FAN		1500	20	1	3	4	1	20		1000		GARAGE DOOR		
RECEPT: FAN	1500		20	1	5	6	1	20	1000			GARAGE DOOR		
RECEPT: FAN		1500	20	1	7	8	1	20		1000		GARAGE DOOR		
RECEPT: FAN	1000		20	1	9	10	1	20	1000			EXISTING GARAGE DOOR		
RECEPT: GARAGE DOORS		900	20	1	11	12				2	20	750	EXHAUST FAN	
RECEPT: EAST WALL	720		20	1	13	14				750		SPACE		
RECEPT: NORTH WALL, RCS		750	20	1	15	16				2	20	750	EXHAUST FAN	
RECEPT: WEST WALL	720		20	1	17	18				750		SPACE		
SPACE				1	19	20				2	20	750	EXHAUST FAN	
SPACE				1	21	22							SPACE	
SPACE				1	23	24							SPACE	
SPACE				1	25	26				2	20	750	EXHAUST FAN	
SPACE				1	27	28							SPACE	
SPACE				1	29	30							SPACE	
SPACE				1	31	32							SPACE	
SPACE				1	33	34							SPACE	
SPARE								20	1	35	36	1	20	SPARE
SPARE								20	1	37	38	1	20	SPARE
SPARE								20	1	39	40	1	20	SPARE
SPARE								20	1	41	42	1	20	SPARE
TOTALS							5440	4650		6000	5000	TOTALS		

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	0	1.25	0
RECEPTACLES	3,090	1ØKVA + 50% REST	3,090
MOTORS	18,000	1.25 * LARGEST + SUM OF REST	18,375
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
MISC. LOADS 2	0	1.00	0
SIZING LOAD:			21,465
SIZING LOAD (AMPS):			89

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	11,440	95.3
B	9,650	80.4
TOTALS	21,090	87.9

REMARKS:
1. CUTLER HAMMER POW-R-LINE 1A OR EQUAL
2. MINIMUM 22 KVIC EQUIPMENT RATING

SINGLE-SECTION PANELBOARD SCHEDULE

DESCRIPTION	PHASE			C/B	TRIP	POLE	CIRCUIT #			DESCRIPTION				
	A	B	TRIP				A	B	TRIP					
	PANEL DESIGNATION: L3							MAIN LUG AMPS: 225 MAIN BREAKER: 200 VOLTAGE: 240/120 PHASE WIRE: 1Ø, 3W			CIRCUIT #			
SPARE			20	1	1	2	1	20				SPARE		
SPARE			20	1	3	4	1	20				SPARE		
SPARE			20	1	5	6	1	20				SPARE		
SPARE			20	1	7	8	1	20				SPARE		
SPARE			20	1	9	10	1	20				SPARE		
SPARE			20	1	11	12	1	20				SPARE		
SPARE			20	1	13	14	1	20				SPARE		
SPACE				1	15	16	1					SPACE		
SPACE				1	17	18	1					SPACE		
SPACE				1	19	20	1					SPACE		
SPACE				1	21	22	1					SPACE		
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SPACE				1	31	32	1					SPACE		
SPACE				1	33	34	1					SPACE		
SPACE				1	35	36	1					SPACE		
SPACE				1	37	38	1					SPACE		
SPACE				1	39	40	1					SPACE		
SPACE				1	41	42	1					SPACE		
TOTALS							0	0		0	0	TOTALS		

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	0	1.25	0
RECEPTACLES	0	1ØKVA + 50% REST	0
MOTORS	0	1.25 * LARGEST + SUM OF REST	0
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
MISC. LOADS 2	0	1.00	0
SIZING LOAD:			0
SIZING LOAD (AMPS):			0

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	0	0.0
B	0	0.0
TOTALS	0	0.0

REMARKS:
1. CUTLER HAMMER POW-R-LINE 1A OR EQUAL
2. MINIMUM 22 KVIC EQUIPMENT RATING

SINGLE-SECTION PANELBOARD SCHEDULE

DESCRIPTION	PHASE			C/B	TRIP	POLE	CIRCUIT #			DESCRIPTION				
	A	B	TRIP				A	B	TRIP					
	PANEL DESIGNATION: L4							MAIN LUG AMPS: 225 MAIN BREAKER: M.L.O. VOLTAGE: 240/120 PHASE WIRE: 1Ø, 3W			CIRCUIT #			
LTS: MODULAR OFFICE	500		20	1	1	2	1	20	1000			RECEPT: MODULAR OFFICE		
LTS: MODULAR OFFICE		500	20	1	3	4	1	20		1000		RECEPT: MODULAR OFFICE		
LTS: MODULAR OFFICE	500		20	1	5	6	1	20	1000			RECEPT: MODULAR OFFICE		
LTS: MODULAR OFFICE		500	20	1	7	8	1	20		1000		RECEPT: MODULAR OFFICE		
SPARE			20	1	9	10	1	20	1000			RECEPT: MODULAR OFFICE		
SPARE			20	1	11	12	1	20		350		FIRE ALARM CONTROL PANEL		
SPARE			20	1	13	14	1	20				SPACE		
SPARE			20	1	15	16	1	20				SPACE		
SPARE			20	1	17	18	1	20				SPACE		
SPARE			20	1	19	20	1	20				SPACE		
SPACE				1	21	22	1					SPACE		
SPACE				1	23	24	1					SPACE		
SPACE				1	25	26	1					SPACE		
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SPACE				1	33	34	1					SPACE		
SPACE				1	35	36	1					SPACE		
SPACE				1	37	38	1					SPACE		
SPACE				1	39	40	1					SPACE		
SPACE				1	41	42	1					SPACE		
TOTALS							1000	1000		3000	2350	TOTALS		

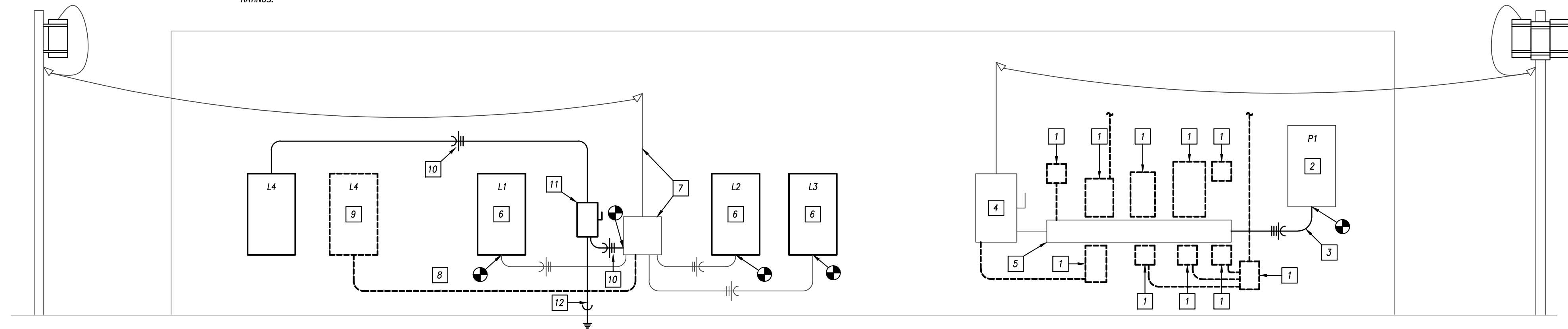
PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	2,000	1.25	2,500
RECEPTACLES	5,000	1ØKVA + 50% REST	5,000
MOTORS	0	1.25 * LARGEST + SUM OF REST	0
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	350	1.00	350
MISC. LOADS 2	0	1.00	0
SIZING LOAD:			7,850
SIZING LOAD (AMPS):			33

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	4,000	33.3
B	3,350	27.9
TOTALS	7,350	30.6

REMARKS:
1. CUTLER HAMMER POW-R-LINE 1A OR EQUAL
2. MINIMUM 22 KVIC EQUIPMENT RATING

PANELBOARD REPLACEMENT

EXISTING PANELBOARDS L1, L2 AND L3 TO BE REPLACED. REFER TO PANEL SCHEDULES THIS SHEET. DISCONNECT AND REMOVE EXISTING PANELS AND ANY BRANCH CIRCUITS NOT REQUIRED TO REMAIN. INSTALL NEW PANELS IN PLACE OF EXISTING AND CONNECT TO EXISTING FEEDER. RECONNECT BRANCH CIRCUITS TO BE MAINTAINED. MAINTAIN EXISTING GROUNDING. MAINTAIN EXISTING EQUIPMENT RATINGS.



ELECTRICAL RISER DIAGRAM
NOT TO SCALE

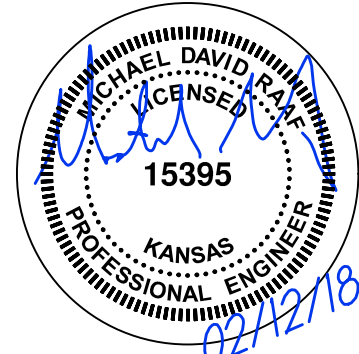
RISER DIAGRAM KEYED NOTES

- DISCONNECT AND REMOVE ELECTRICAL EQUIPMENT AND ALL ASSOCIATED CONDUIT, WIRE BOXES, ECTS. NOT REQUIRED TO REMAIN. VERIFY EQUIPMENT TO BE REMOVED WITH OWNER PRIOR TO BEGINNING WORK.
- EXISTING 3-PHASE PANELBOARD TO REMAIN.
- (4)-#3/0 WIRE AND (1)-#6 GROUND IN 2" CONDUIT. EXISTING FEEDER TO BE REPLACED.
- SERVICE DISCONNECT TO REMAIN.
- WIRING TO REMAIN.
- EXISTING SINGLE PHASE PANELBOARDS TO BE REPLACED. SEE NOTE THIS SHEET.
- EXISTING TAP BOX AND RISER TO REMAIN.
- DISCONNECT AND REMOVE EXISTING FEEDER.
- DISCONNECT AND REMOVE PANELBOARD AND ASSOCIATED CONDUIT AND WIRE BACK TO SOURCE.
- (3)-#3/0 WIRE AND (1)-#6 GROUND IN 2" CONDUIT.
- 200A, 3-POLE, HEAVY-DUTY FUSED DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. FUSE AT 200 AMPS. SERVICE ENTRANCE RATED.
- #2 GROUNDING ELECTRODE CONDUCTOR TO EXISTING GROUNDING ELECTRODE SYSTEM.

KANSAS CITY KANSAS PUBLIC SCHOOLS
WAREHOUSE BUILDING

ELECTRICAL IMPROVEMENTS
1112 CHEYENNE AVE
KANSAS CITY KANSAS 66105

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DRAWN BY:	--
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SHEET TITLE: Electrical Riser/ Schedules	
DATE: 2/12/2018	PKMR PROJECT: 18.038
SHEET NUMBER: E102	



LIGHT FIXTURE SCHEDULE

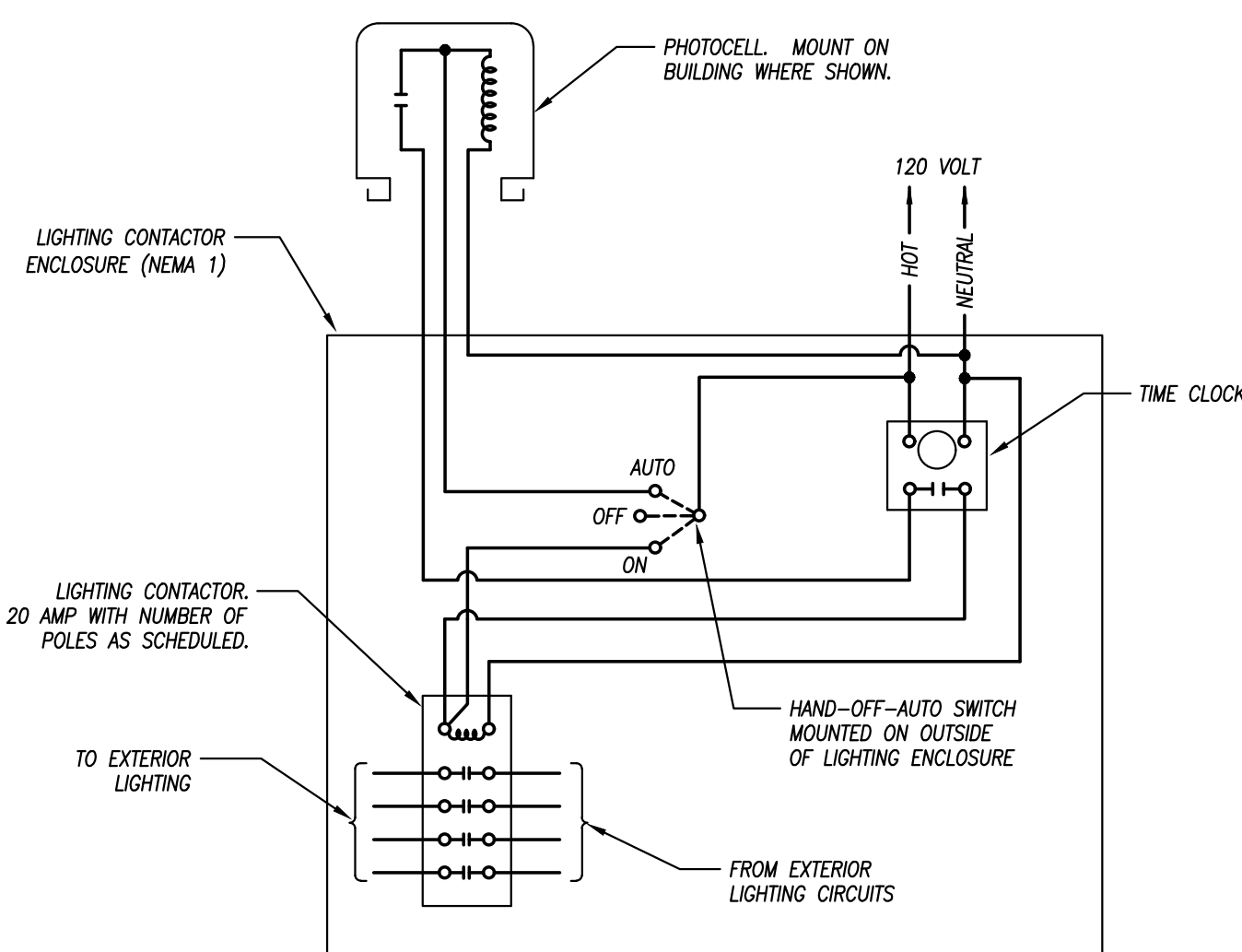
FIXTURE TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LAMP NUMBER / DESCRIPTION	VOLTAGE	REMARKS
A	WILLIAMS	SERIES 80	8'-0" LONG CEILING-MOUNTED STANDARD INDUSTRIAL FIXTURE. STEEL HOUSING WITH 92% REFLECTANCE WHITE POWDER COAT FINISH. ALL PARTS PAINTED AFTER FABRICATION. INTEGRAL LED DRIVER PRE-WIRED FOR NON-DIMMING APPLICATIONS.	ONE (1) 104 WATT, 12600 LUMEN, L126 LUMEN PACKAGE, 4000K CCT.	277/120	1,3
B			4" LED WALL-MOUNTED FIXTURE TO BE SELECTED BY OWNER. PROVIDE \$250 ALLOWANCE			4
E	DUAL-LITE	EVMC SERIES	LOW-PROFILE HIGH LUMEN EMERGENCY LIGHTING UNIT. FLAME-RATED, UV-STABLE THERMOPLASTIC HOUSING. TWO (2) SEMI-RECESSED, ADJUSTABLE "EYEBALL" HEADS WITH GLASS LENS. WHITE FINISH. MAINTENANCE-FREE BATTERY FOR 90 MINUTE OPERATION OF LAMPS. INTEGRAL TEST SWITCH AND AC-ON INDICATOR.	TWO (2) 12 WATT 6W LED LED.	277/120	1
E1	DUAL-LITE	EV SERIES	LOW-PROFILE EMERGENCY LIGHTING UNIT. FLAME-RATED, UV-STABLE THERMOPLASTIC HOUSING. TWO (2) SEMI-RECESSED, ADJUSTABLE "EYEBALL" HEADS WITH GLASS LENS. WHITE FINISH. MAINTENANCE-FREE BATTERY FOR 90 MINUTE OPERATION OF LAMPS. INTEGRAL TEST SWITCH AND AC-ON INDICATOR.	FOUR (4) 2 WATT 1W LED LED (INCLUDING REMOTE HEAD).	277/120	1
R	LUMARK	CROSSSTOUR XTOR SERIES	OUTDOOR REMOTE WITH 2 HEADS. BLACK FINISH. LOW-PROFILE EXTERIOR WALL-MOUNTED FIXTURE. ONE-PIECE, DIE-CAST ALUMINUM HOUSING. IMPACT-RESISTANT, TEMPERED GLASS LENS. FORWARD THROW OPTICS. INTEGRAL LED DRIVER WITH HEAT SINK. POWDER COAT FINISH DARK BRONZE - COORDINATE WITH ARCHITECT/BUILDING OWNER. UL LISTED WET LOCATION.	ONE (1) LED ARRAY. 26 WATTS, 2575 LUMENS. 3000K CCT.	277/120	1,3
W	MCGRAW-EDISON	TALON LED TLM SERIES	WALL-MOUNTED AREA LIGHT. ARCHITECTURAL, ONE-PIECE DIE-CAST ALUMINUM HOUSING AND DIE-CAST ALUMINUM DOOR. FLAT TEMPERED GLASS LENS WITH ONE-PIECE SILICONE GASKETING. LED ARRAY WITH ACCUED OPTICS. IES TYPE IV DISTRIBUTION. INTEGRAL NON-DIMMING LED DRIVER. DIE CAST ALUMINUM MOUNTING ARM.	FOUR (4) LED LIGHT BARS. TOTAL OF 97 WATTS, 12068 LUMENS. 3000K CCT.	277/120	1,3
X	WILLIAMS	EXIT	COMPACT, LOW-PROFILE EXIT SIGN. THERMOPLASTIC HOUSING. END, TOP, OR WALL MOUNTED IN SINGLE/DOUBLE FACE CONFIGURATION WITH DIRECTIONAL ARROWS AS INDICATED ON PLANS. AC-ONLY.	FOUR (4) HIGH-OUTPUT LEDS - TOTAL POWER CONSUMPTION = 3.2 WATTS.	277/120	1,3

- REMARKS:
- FURNISH WITH AND INSTALL ALL NECESSARY HARDWARE AND MOUNTING BRACKETS.
 - WHERE FIXTURE IS LABELED "EM", PROVIDE WITH IOTA LB-CP10 (10W CONSTANT POWER EMERGENCY BATTERY PACK) OR APPROVED EQUAL.
 - FURNISH FIXTURE WITH WIRE GUARD.
 - FIXTURE IS OWNER-PROVIDED, CONTRACTOR INSTALLED. COORDINATE EXACT ROUGH-IN REQUIREMENTS PRIOR TO CONSTRUCTION.

SCHEDULE OF REMOTE CONTROL SWITCHES

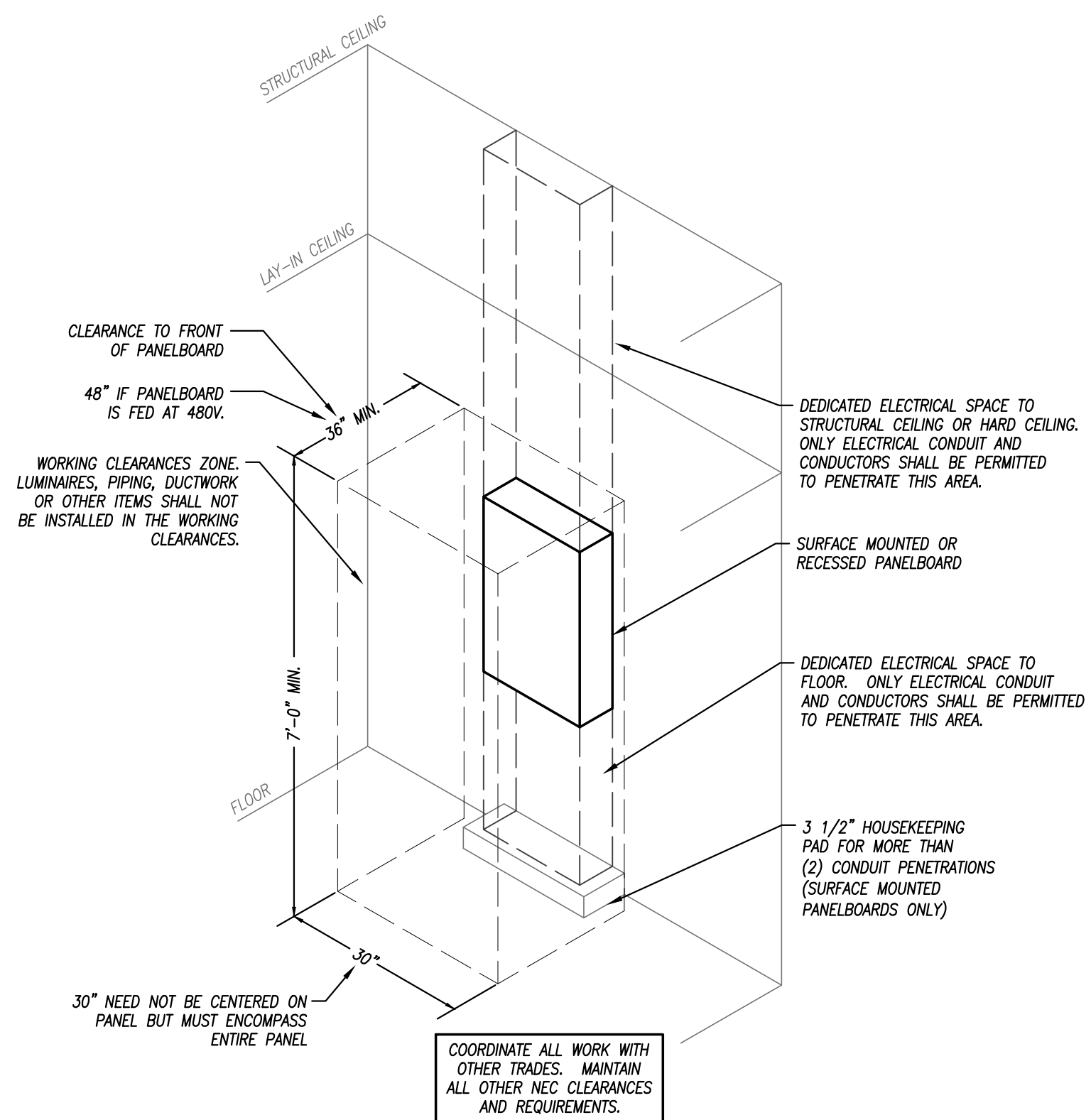
RCS NUMBER	NUMBER OF POLES	CONTROL DATA			LOAD DATA		CONTROL	NOTES	
		VOLTAGE	CIRCUIT #	PANELBOARD	VOLTAGE	PANEL & CIRCUITS CONTROLLED			
RCS-1	2	120	15	L2	548	120	PANEL: L1, CIRCUIT: 7	PHOTOCELL ON / TIME CLOCK OFF	1,2

- REMARKS:
- INSTALL IN NEMA 1 ENCLOSURE WITH MANUAL HOA SWITCH IN HINGED FRONT COVER.
 - REFER TO DETAIL ON SHEET E103.



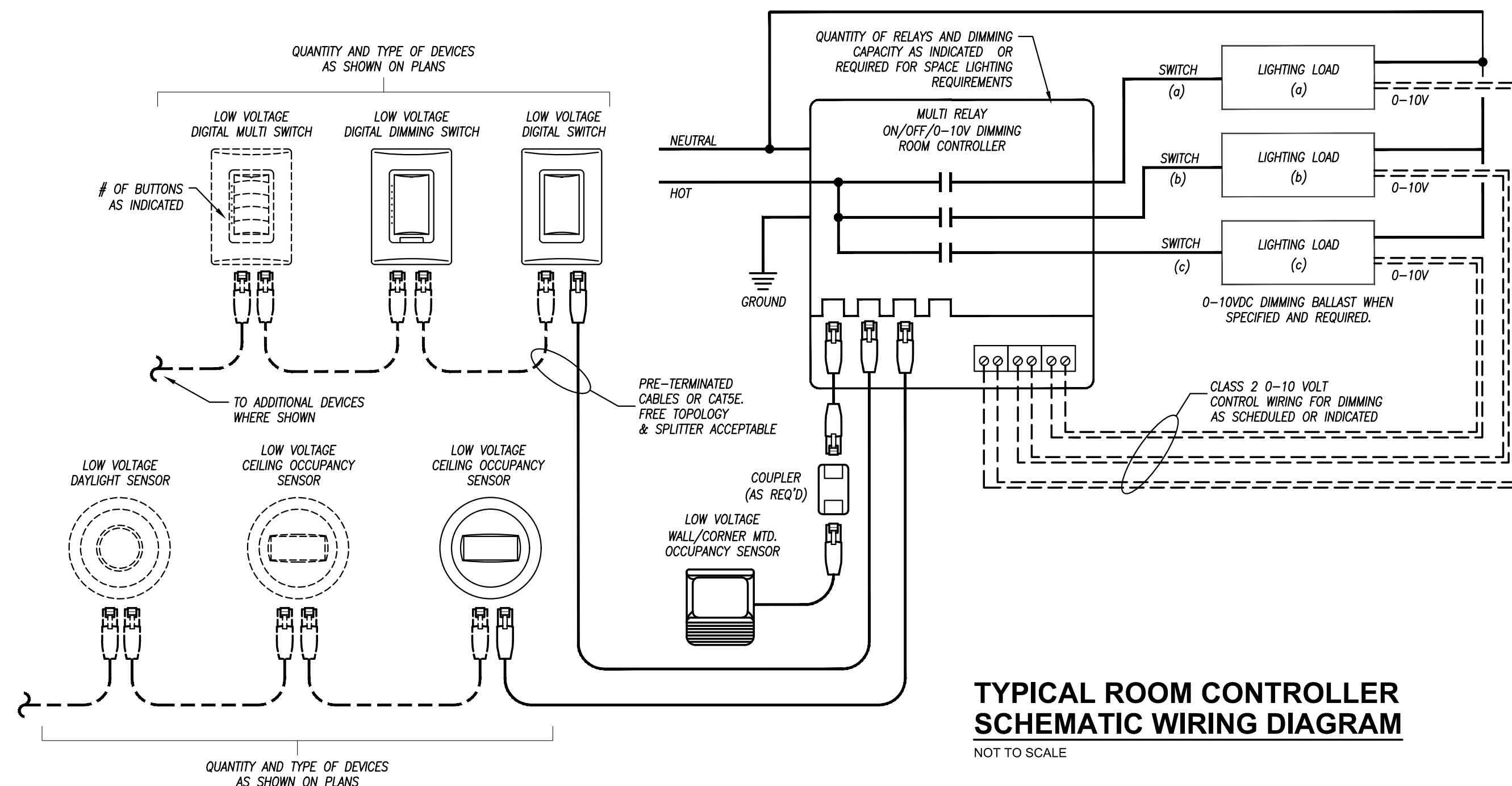
EXTERIOR LIGHTING CONTROL

NOT TO SCALE



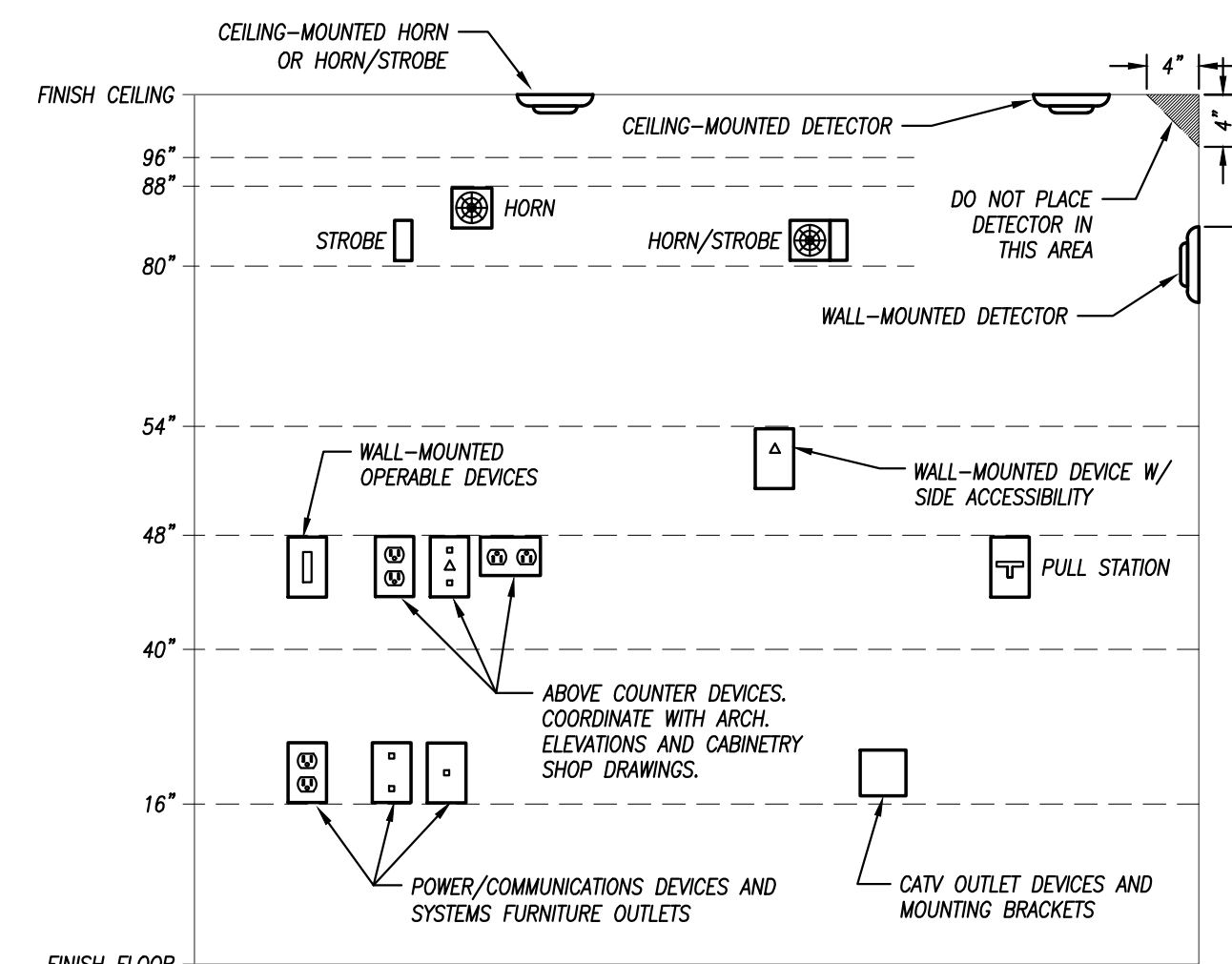
TYPICAL PANELBOARD INSTALLATION DETAIL

NOT TO SCALE



TYPICAL ROOM CONTROLLER SCHEMATIC WIRING DIAGRAM

NOT TO SCALE



- GENERAL NOTES:
- MOUNTING HEIGHTS SHOWN IN THIS DETAIL ARE TYPICAL UNLESS OTHERWISE NOTED ON THE PLANS.
 - SEE ARCHITECTURAL ELEVATIONS FOR SPECIAL CONDITIONS. NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS.
 - ALL INSTALLATIONS SHALL COMPLY WITH ADA.
- VISUAL FIRE ALARM NOTIFICATION DEVICES (STROBE)
LOCATE DEVICE SO THE BOTTOM OF THE DEVICE IS BETWEEN 80" AND 96" A.F.F. (NFPA) OR 6" BELOW CEILING, WHICHEVER IS LOWER (ADA 2010).
- AUDIBLE FIRE ALARM NOTIFICATION DEVICES (HORN)
LOCATE DEVICE SO THAT THE TOP OF UNIT IS NOT MORE THAN 90" A.F.F. AND NOT LESS THAN 6" BELOW CEILING (NFPA)
- FIRE ALARM ACTIVATION DEVICES (PULL STATION)
LOCATE FRONT-APPROACH DEVICES SO THAT THE HIGHEST OPERABLE PORTION OF THE DEVICE IS NOT MORE THAN 48" A.F.F. (ADA 2010) AND NOT LESS THAN 42" A.F.F. (NFPA).

- POWER/COMMUNICATION DEVICES:
OUTLETS SHALL BE LOCATED AT 16" A.F.F. TO THE BOTTOM OF THE BOX. ABOVE COUNTER DEVICES SHALL BE LOCATED AT 2" ABOVE THE BACKSPASH OF THE COUNTER TO THE BOTTOM OF THE DEVICES. VERIFY WITH ARCHITECTURAL DETAILS.
- WALL-MOUNTED OPERABLE DEVICES:
OPERABLE DEVICES SHALL BE LOCATED AT 48" A.F.F. TO THE TOP OF THE OPERABLE PORTION OF THE DEVICE.
- WALL-MOUNTED OPERABLE DEVICES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
LIGHT SWITCHES, DIMMERS, CONTROLS, ETC.
PUSH BUTTONS
NURSE/PATIENT CALL DEVICES (INCLUDING THOSE FOR STAFF USE)
OTHER CONTROL OR "CALL" DEVICES

MOUNTING HEIGHTS FOR WALL-MOUNTED DEVICES

NOT TO SCALE

KANSAS CITY KANSAS PUBLIC SCHOOLS WAREHOUSE BUILDING

ELECTRICAL IMPROVEMENTS
1112 CHEYENNE AVE
KANSAS CITY KANSAS 66105

ISSUED FOR:	DESCRIPTION	DATE
1	--	--
2	--	--
3	--	--

© PEARSON KENT MCKINLEY RAAF ENGINEERS, LLC
DRAWN BY: --
CHECKED BY: --

SHEET TITLE:
Electrical Schedules/Details

DATE: **2/12/2018** PKMR PROJECT: **18.038**

SHEET NUMBER:
E103

**ADDENDUM NUMBER 1
BID NUMBER IFB 18-010**

ELECTRICAL IMPROVEMENTS 1112 CHEYENNE (NEW STOREROOM)

ISSUED: March 6, 2018

**PURCHASING DEPARTMENT
UNIFIED SCHOOL DISTRICT 500
2010 N. 59th STREET, ROOM 370
KANSAS CITY, KANSAS 66104
(913) 551-3200**

Note the following changes to the above-mentioned bid. This information is to be taken into consideration when responding to the original bid document.

- 1. Schedule Change:** The bid due date is hereby extended to: **March 15, 2018 at 2:00 PM**. Bids received will be publicly opened and read aloud at that time.
- 2. No Other Changes:** No other changes or modifications are intended by this Addendum. All other terms and conditions of the solicitation remain in effect.

WE HEREBY ACKNOWLEDGE AND UNDERSTAND THE ABOVE NOTED CHANGES TO THE ORIGINAL BID DOCUMENT AND AGREE TO FURNISH THE ITEMS ON WHICH PRICES ARE QUOTED IN ACCORDANCE WITH ALL TERMS AND CONDITIONS PREVIOUSLY LISTED AND ANY ATTACHED SPECIFICATIONS AND AMENDMENTS.

BY: _____ DATE: _____
TITLE: _____ PHONE: _____
FIRM _____