

INVITATION TO BID Leon County School Board Purchasing Department

Release Date:	March 28, 2017
TB No.:	5462-2017
	James S Rickards High School
TB Title:	Auditorium Theatrical Lighting
	Controls Replacement
Contact:	June Kail
hone:	(850) 488-1206

The Leon County School Board ("School Board") solicits your company to submit a bid on the above referenced goods or services. All terms, specifications and conditions set forth in this request are incorporated by this reference into your response. This sealed bid must be submitted to <u>The Leon County School Board</u>, <u>Purchasing Department</u>, <u>3397 W. Tharpe St</u>, <u>Tallahassee</u>, <u>Florida 32303</u>, no later than <u>**2:00 p.m.**</u> EST on <u>April 25, 2017</u> and plainly marked <u>ITB No. 5462-2017</u>. Bids are due and will be opened at this time.

REQUIRED SUBMITTAL CHECKLIST - For each item below, insert bidder Authorized Agent initials verifying that forms are accurately completed, signed by an officer of the business and returned with the bid. Failure to provide all requested documents may result in your proposal being declared non-responsive.

- Bidder Acknowledgement Form page 1
- Dispute Resolution Contact pg. 6, item 22
 Cost Proposal Form pg. 135
- Conflict Of Interest Certificate (Exhibit A)
- Vendor Application (Exhibit B)
 - Request for Taxpayer ID Number & Certification (Exhibit C)
 Customer References (Exhibit D)
- Vendor Questionnaire (Exhibit E)

Authorized Representative's Signature

Telephone Number

City

Telephone Number

- Drug Free Workplace Certification (Exhibit F)
- Certification Regarding Debarment (Exhibit G)
- Sworn Statement / Jessica Lunsford Act (Exhibit H)
 Affidavit For Claiming Local Purchasing Preference (Exhibit I)
- Copy of Current Certificate of Prequalification with the Leon County School Board
- THE FOLLOWING MUST BE COMPLETED, SIGNED AND RETURNED AS PART OF YOUR BID. BIDS WILL NOT BE ACCEPTED WITHOUT THIS FORM, SIGNED BY AN AUTHORIZED AGENT OF THE BIDDER.

Authorized Representative's Name/Title
--

Company's Name

Address

Area Representative

Federal Employer's Identification Number (FEIN)

Email

Signature of Authorized Officer/Agent:

Typed or Printed Name

(Bid **must** be signed by an officer or employee having authority to legally bind the bidder)

I certify that I have not divulged, discussed, or compared this proposal with any other Proposers and have not colluded with any other proposer in the preparation of this proposal in order to gain an unfair advantage in the award of this contract. I acknowledge that all information contained herein is part of the public domain as defined in the Public Records Act, Chapter 119, F.S. By signing and submitting this proposal, I certify that I am authorized to sign this bid for this vendor and further certify unconditional acceptance of the contents of this ITB, all Attachments, Worksheets, Appendices, Supplemental Materials, and the contents of any Addendum released hereto.

NO RESPONSE – I HEREBY SUBMIT THIS AS A "NO RESPONSE" FOR THE REASON(S) CHECKED BELOW

Remove our name from this bid list only		Insuf	ficient
Our product schedule would not permit us to perform		We d reque	o not ested.
Keep our company on bid list for future bi	ds		Othe

ent time to respond to the ITB not offer the product or service

Could not meet insurance requirements

Date

Zip Code

FAX Number

State

FAX Number

Could not meet specificati	ons
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BID IDENTIFICATION LABEL

NOTICE TO ALL BIDDERS: A label has been provided to properly identify your bid. Place the bid in a sealed envelope, type the name and address of the bidder on the label and affix the label to the front of the envelope.

The School Board Purchasing office is open from 8:00 a.m. - 5:00 p.m. Monday through Friday. If you are hand delivering a proposal, a Purchasing representative will be available to time/date stamp your submittal during these hours.

Cut out the label below and attach it to your envelope.

Seal	ed Bid – DO NOT OPEN	Sealed Bid – DO NOT OPEN
Bid Title:	JAMES S RICKARDS HIGH SCHOO CONTROLS REPLACEMENT	DL AUDITORIUM THEATRICAL LIGHTING
Bid No.:	5462-2017	
Bids Due:	APRIL 25, 2017 @ 2:00 P.M.	
From:		
Address:		
Deliver To:	Leon County Schools Purchasing Department 3397 West Tharpe Street Tallahassee, Florida 32303	
Seal	ed Bid – DO NOT OPEN	Sealed Bid – DO NOT OPEN
	3	

I. GENERAL TERMS AND CONDITIONS

1. INTRODUCTION. The purpose and intent of this Invitation to Bid (ITB) is to identify qualified vendors and secure a firm price for the auditorium lighting controls replacement at James S Rickards High School.

In accordance with S.R.E.F., 2014, Chapter 4, Section 4.1, Prequalification of Contractors for Educational Facilities Construction: ONLY contractors who are currently prequalified by the Leon County School Board may submit a bid for this project. Instructions are available at: <u>http://www.leonschools.net/Page/4815</u>.

<u>A Pre-Bid walk-through</u> will be held on Tuesday, April 11, 2017 at 2:00 p.m., at James S. Rickards High School, 3013 Jim Lee Rd., Tallahassee FL. All bidders or their representatives are encouraged to meet at the site in the front office and document attendance on the conference "sign-in" sheet. Attendees and District representatives will inspect the site and answer questions at that time.

2. SCHOOL BOARD CONTACT: All questions for additional information regarding this ITB must be directed to the designated Purchasing Agent noted on the title page.

All contact and requests for clarifications should be submitted via e-mail to: <u>kailj@leonschools.net</u> no later than <u>April 12, 2017</u>. Responses will be distributed no later than <u>April 13, 2017</u>.

Prospective bidders shall not contact any member of the Leon County School Board, Superintendent or staff regarding this bid prior to posting of the final tabulation and award recommendation on the website and in the Purchasing Office. Any such contact shall be cause for rejection of your bid

3. DEFINITIONS: The term "Bidder" as used within this Invitation to Bid (ITB) refers to the person, company or organization responding to this ITB. The Bidder is responsible for understanding and complying with the terms and conditions herein. The term "School Board" refers to the School Board of Leon County, Florida.

4. BIDDER'S RESPONSIBILITY: It is the responsibility of the bidder to obtain all pages of the ITB package and all attachments thereto, together with any addenda to the ITB package that may be issued prior to the ITB due date. ITB package and addenda as well as general information can be found at <u>www.leonschools.net/Page/4411</u>.

Before submitting their Bid, each bidder is required to carefully examine the ITB specifications and to completely familiarize themselves with all of the terms and conditions that are contained within this request. Ignorance on the part of the bidder will in no way relieve them of any of the obligations and responsibilities which are a part of this ITB.

5. AWARD: In the event of contract award, this contract shall be awarded all or none to the responsible and responsive bidder whose bid is determined to be the most advantageous to the School Board, taking into consideration price and other requirements as set forth in this ITB. Any or all award(s) made as a result of this ITB shall conform to applicable School Board Rules, State Board Rules and State of Florida Statutes.

Once bids are evaluated, the Purchasing Department will post a Notice of Intent to Award by electronic posting at

<u>www.leonschools.net/Page/4411</u> on or about <u>May 1, 2017</u> for a period of 72 hours or three business days, whichever is later. Failure to file a protest within the time prescribed in section 120.57 (3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under chapter 120, Florida Statutes.

It is anticipated that a recommendation for award will be presented to the School Board for consideration at its **May 9, 2017** meeting.

6. ORIGINAL AND RENEWAL TERM The award resulting from this bid shall be in effect on or about February 28, 2017 with the work to be completed no later than March 18, 2017 upon Board approval. The awardee will be notified when the recommendation has been acted upon by The School Board. The Bidder agrees to these conditions by signing its bid.

7. RESERVATION FOR REJECTION OR AWARD: The School Board reserves the right to reject any or all bids, to waive irregularities or technicalities, and to request rebids. The School Board reserves the right to award on an individual item basis, any combination of items, total low bid or, if an alternate bid is accepted, on such terms as are specified for the alternate bid, whichever manner is in the best interest of the School Board.

8. CONTRACT: The submission of your bid constitutes a firm offer by the bidder. Upon acceptance by the School Board, the Purchasing Department will issue a notice of award and purchase order(s) for any supplies, equipment and/or services as a result of this ITB. The Invitation to Bid and the corresponding purchase order(s) will constitute the complete agreement between the successful bidder and the School Board. Unless otherwise stipulated in the bid documents or agreed to in writing by both parties, no other contract documents shall be issued or accepted.

9. FIRM OFFER: Any bid may be withdrawn until the date and time set for the opening of the bids. Any bid not so withdrawn shall constitute an irrevocable offer to provide the School Board the services/products set forth in this ITB. Such offer shall be held open for a period of sixty (60) days from ITB opening date or until one of the bids has been awarded by the School Board.

10. CONFIDENTIALITY: Bidders shall be aware that all submittals provided with a bid are subject to public disclosure and will not be afforded confidentiality with the exception of "sealed" financial statements.

11. PUBLIC RECORDS LAW: Pursuant to Florida Statutes Chapter 119.071(1), proposals received as a result of this ITB will not become public record until thirty (30) days after the date of opening or until posting of a recommendation for award, whichever occurs first. Thereafter, all proposal documents or other materials submitted by all bidders in response to this ITB will be open for inspection by any person and in accordance with Chapter 119, Florida Statutes. To the extent a Bidder asserts any portion of its proposal is exempt or confidential from disclosure under Florida's public records, the burden shall be on the bidder to obtain a protective order from a jurisdictional court protecting such information from disclosure under Florida's public records laws and also timely provide a certified copy of such protective order to the School Board's release of such information into the public domain.

12. USE OF OTHER CONTRACTS: The School Board reserve the right to utilize any other District contract, any State of Florida Contract, any contract awarded by any other City or County governmental agencies, any other School Board, any other Community College/State University system, any cooperative bid agreement, or to directly negotiate/purchase per School Board policy and/or State Board Rule 6A-1.012(6) in lieu of any offer received or award made as a result of this bid, If it is in the best interest to do so. The School Board also reserves the right to separately bid any single order or to purchase any item on this bid if it is in its best interest to do so.

13. JOINT-BIDDING, COOPERATIVE PURCHASING AGREEMENT: All bidders submitting a response to this ITB agree that such response also constitutes a bid to all State Agencies and Political Subdivisions of the State of Florida under the same conditions, for the same prices and for the same effective period as this bid, should the bidder(s) deem it in the best interest of their business to do so. This agreement in no way restricts or interferes with any state agency or political subdivision of the State of Florida to rebid any or all items.

State agencies wishing to make purchases from this agreement are required to follow the provisions of s. 287.042(16) (a), F.S. This statute requires the Department of Management Services to determine that the requestor's use of the contract is cost-effective and in the best interest of the State.

Pursuant to their own governing laws, and subject to the agreement of the Contractor, other entities may be permitted to make purchases at the terms and conditions contained herein. Non-Customer purchases are independent of the agreement between Customer and Contractor, and Customer shall not be a party to any transaction between the Contractor and any other purchaser.

The purchasing agreements and state term contracts available under s. 287.056 have been reviewed.

14. BID PREPARATION COSTS: Neither the School Board nor its representatives shall be liable for any expenses incurred in connection with the preparation of a response to this ITB.

15. BID BONDS AND PERFORMANCE BONDS: Bid bonds, <u>when required</u> shall be submitted with the bid in the amount specified in the detailed specifications. Bid bonds will be returned to unsuccessful bidders. After Acceptance of a bid, the School Board will notify the successful bidder to submit a recorded payment and performance bond in the amount specified in the detailed specifications.

16. BID OPENING AND FORM: Bid openings will be public on the date and time specified on the Bidder's Acknowledgement Form. All Bids received after the time indicated will be rejected as non-responsive and returned unopened to sender. Bids by Email, fax, telegram, or verbally by telephone or in person will not be accepted. The School Board is not responsible for lost or late delivery of Bids by the U.S. Postal Service or other delivery services used by the Bidder.

17. CLARIFICATIONS AND INTERPRETATIONS: The School Board reserves the right to allow for clarification of questionable entries, and for the bidder to withdraw items with obvious mistakes. In the event of a conflict between the General Bid Terms and Conditions and any Special terms and Conditions attached hereto, the Special Terms and Conditions shall have precedence. Any questions concerning terms, conditions or specifications will be directed to the designated Purchasing Agent referenced on the ITB Acknowledgement. Any ambiguities or inconsistencies shall be brought to the attention of the designated Purchasing Agent in writing at least seven workdays prior to the opening date of the Bid. Failure to do so, on the part of the bidder will constitute an acceptance by the bidder of consequent decision. An addendum to the ITB shall be issued and posted for those interpretations that may affect the eventual outcome of this bid. It is the bidder's responsibility to assure the receipt of all addendum issued. No person is authorized to give oral interpretations of, or make oral changes to the Bid. Therefore oral statements given before the bid opening date will not be binding. The School Board will consider no interpretations binding unless provided for by issuance of an addendum. Addenda will be made available at least five workdays prior to the opening date at www.leonschools.net/Page/4411. The bidder shall acknowledge receipt of all addenda by signing and enclosing said addenda with their proposal.

18. EVALUATION CRITERIA: Primary factors used to decide the award hereunder will be price, availability and responsiveness. Other factors that may be used in the evaluation of this bid will be: (1.) administrative costs incurred by the School Board in association with the discharge of any subsequent award; (2.) alternative payment terms; (3.) Bidder's past performance. The School Board reserves the right to evaluate by lot, by partial lot, or by item, and to accept or reject any bid in its entirety or in part, and to waive minor irregularities if the bid is otherwise valid. In the event of a price extension error, the unit price will be accepted as correct. The School Board has sole discretion in determining testing and evaluation methods.

19. DEFAULT: In the event that the awarded bidder should breach this contract, the School Board reserves the right to seek all remedies in law and/or in equity.

20. FUNDING OUT/CANCELATION OR TERMINATION WITH OR WITHOUT CAUSE:

A. WITH CAUSE: In the event any of the provisions of the Contract are violated by the bidder, the Superintendent or designee shall give written notice to the bidder stating the deficiencies and unless the deficiencies are corrected within ten days, recommendation will be made to the School Board or its designee for immediate cancellation. Upon cancellation, hereunder the School Board may pursue any and all legal remedies as provided herein and by law. In the event that it is subsequently determined that a cancellation under this paragraph was incorrect, the termination shall be converted to a termination for convenience pursuant to the next paragraph.

B. WITHOUT CAUSE: The School Board or its designee reserves the right to terminate any contract resulting from this Invitation to Bid at any time and for no reason whatsoever, upon giving 30 days prior written notice to the bidder. If the Contract should be terminated for convenience as provided herein, the School Board shall be relieved of all obligations under said Contract. The School Board or its designee shall only be required to pay to the successful bidder that amount of the Contract actually performed to the date of termination.

C. FUNDING OUT: Florida School Laws prohibit the School Board or its designee from creating obligations on anticipation of budgeted revenues from one fiscal year to another without year-to-year extension provisions in the contracts. It is necessary that fiscal funding out provisions be included in all bids in which the terms are for periods of longer than one year. Therefore, the following funding out provisions are an integral part of this Invitation to Bid and must be agreed to by all bidders:

The School Board or its designee may, during the contract period, terminate or discontinue the items covered in this bid for lack of appropriated funds upon the same terms and conditions. Such prior written notice will state:

(1). That the lack of appropriated funds is the reason for termination, and

(2). School Board agrees not to replace the equipment or services being terminated with equipment and services with functions similar to those performed by the equipment covered in this bid from another vendor in the succeeding funding period.

"This written notification will thereafter release the School Board of Leon County, Florida of all further obligations in any way related to such equipment covered herein". **21. TIE BID:** According to FS 287.087, tie bid preference shall be awarded to Bidders with Drug Free Work Place programs. Whenever two or more are equal with regard to price, quality, and service, a bid received from a business that certifies that it has implemented a Drug Free Work Place program shall be given preference in the award process. In the event both Bidders have a Drug Free Work Place, preference shall be awarded in the following order: Local Vendors as specified in School Board Policy 6450, SBE certified as specified in School Board Policy 6325. If both Bidders meet all requirements, according to standard purchasing practice, the Director of Purchasing will flip a coin to break the tie. Bidder's company name closest to the letter "A" will always be assigned heads in the coin toss.

22. DISPUTE: In case of any doubt or difference of opinion as to the items to be furnished hereunder, the decision of the School Board shall be final and binding on both parties. In the event a dispute occurs, or a clarification of contract terms becomes necessary, please indicate your company representative for arbitration proceedings.

Representative's Name:

Telephone Number:

Our School Board Representative will be: Mr. Jeff Wahlen Ausley & McMullen (850) 224-9115

23. PROTESTING BID SPECIFICATIONS: Any person desiring to protest the conditions/specifications in this Bid or any Addenda thereto, shall file a written notice of protest within 72 hours after receipt of the Bid or Addendum and shall file a formal written protest within ten days after the date the notice of protest was filed. Saturdays, Sundays and legal holidays or days during which the School Board administration is closed shall be excluded in the computation of the 72-hour period. If the tenth calendar day falls on a Saturday, Sunday or legal holiday, the formal written protest must be received on or before 4:30 p.m. of the next calendar day that is not a Saturday, Sunday, legal holiday, or day during which the School Board administration is closed.

Failure to file a protest within the time prescribed in section 120.57 (3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under chapter 120, Florida Statutes and School Board Policy 6320.02. Failure to follow any other requirements in the bid protest procedures established by the School Board of Leon County, Florida shall constitute a waiver of all protest rights.

24. PROTESTS TO CONTRACT AWARD: The School Board shall provide notice of a decision or intended decision concerning a solicitation, contract award, or exceptional purchase by electronic posting which can be accessed at the Purchasing Department's website at www.leonschools.net/Page/4411. Any person desiring to protest the intended decision shall file a written notice of protest, within 72 hours after the official posting in the Purchasing Department office of the Notice of Intent to Award concerning this ITB, and shall file a formal written protest within ten days after filing the notice of protest. Saturdays, Sundays, legal holidays and days during which the School Board administration is closed shall be excluded in the computation of the 72hour period. If the tenth calendar day falls on a Saturday, Sunday or legal holiday, the formal written protest must be received on or before 4:30 p.m. of the next calendar day that is not a Saturday, Sunday, legal holiday or day during which the School Board administration is closed. Section 120.57(3) (b), Florida Statutes, states that "the formal written protest shall state with particularity the facts and law upon which the protest is based."

Any person who files an action protesting an intended award shall post with the Purchasing Department, at the time of filing the formal written protest, a bond payable to the Leon County School Board consistent with F.A.C. Rule 28-110.005(2), and School Board Policy 6320.02. The bond shall be conditioned upon the payment of all costs which may be adjudged against protester in an Administrative hearing in which the action is brought and any subsequent appellate court proceeding. Failure to file a notice of protest within the time prescribed by Section 120.57(3), Florida Statutes, shall constitute a waiver of proceedings under Chapter 120, Florida Statutes and School Board Policy 6320.02.

25. GOVERNING LAW AND VENUE: All legal proceedings brought in connection with this contract shall only be brought in a state or federal court located in the state of Florida. Venue in state court shall be in Leon County, Florida. Venue in federal court shall be in the United States District Court, Northern District of Florida, Tallahassee division. Each party hereby agrees to submit to the personal jurisdiction of these courts for any lawsuits filed there against such party arising under or in connection with this contract. In the event that a legal proceeding is brought for the enforcement of any term of the contract, or any right arising there from, the parties expressly waive their respective rights to have such action tried by jury trial and hereby consent to the use of non-jury trial for the adjudication of such suit. All questions concerning the validity, operation, interpretation, construction and enforcement of any terms, covenants or conditions of this contract shall in all respects be governed by and determined in accordance with the laws of the State of Florida without giving effect to the choice of law principles thereof and unless otherwise preempted by federal law.

26. COMPLIANCE WITH STATE/FEDERAL REGULATIONS: All contracts involving federal funds will contain certain provisions required by applicable sections of CFR 34, Section 80.36(I) and Part 85.510, Florida Statute 257.36, or Florida Administrative Code Chapter 1B. The bidder certifies by signing the bid that the bidder and his/her principals are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in federally funded transactions and may, in certain instances, be required to provide a separate written certification to this effect.

During the term of any contract with the School Board, in the event of debarment, suspension, proposed debarment, declared ineligible or voluntarily excluded from participation in federally funded transactions, the Bidder shall immediately notify the Director of Purchasing, in writing. Bidders will also be required to provide access to records, which are directly pertinent to the contract and retain all required records for three (3) years after the School Board makes final payment.

For all contracts involving Federal funds in excess of \$10,000, the School Board reserves the right to terminate the contract for cause, as well as for convenience, by issuing a certified notice to the Bidder.

27. COMPLIANCE WITH SCHOOL CODE: Bidder agrees to comply with all sections of the Florida K-20 Education Code, Title XLVIII, Florida Statutes as it presently exists and further as it may be amended from time to time. Further, Contractor agrees that failure to comply with the Florida K-20 Education Code shall constitute a material breach of this Contract and may result in the termination of this Contract by the School Board.

28. NONDISCRIMINATION CONTACT INFORMATION: No person shall on the basis of gender, marital status, sexual orientation, race, religion, national origin, age, color, pregnancy or disability be denied employment, receipt of services, access to or participation in school activities or programs if qualified to receive such services, or otherwise be discriminated against or placed in a hostile environment in any educational program or activity including those receiving federal financial assistance, except as provided by law." No person shall deny equal access or a fair opportunity to meet to, or discriminate against, any group officially affiliated with the Boy Scouts of America, or any other youth group listed in Title 36 of the United States Code as a patriotic society.

An employee, student, parent or applicant alleging discrimination with respect to employment, or any educational program or activity may contact:

Dr. Kathleen Rodgers, Equity Coordinator & Title IX Compliance Officer, 2757 W. Pensacola Street, Tallahassee, FL 32304; (850) 487-7306; rodgersk@leonschools.net.

A student or parent alleging discrimination as it related to Section 504 of the Rehabilitation Act May contact:

Dr. Alan Cox, 504 Specialist, Leon County School District. 2757 W. Pensacola St, Tallahassee, FL 32304; (850) 487-7190 coxa@leonschools.net

29. SBDO PROGRAM: The School Board established the Small Business Development Office to support innovative race and gender neutral strategies to promote qualified small business participation as specified in School Board Policy 6325.

30. LOCAL PREFERENCE: This ITB is subject to the local preference provisions as specified in School Board Policy 6450.

31. FLORIDA PREFERENCE: This ITB is subject to §287.084 Florida Statutes, which requires, among other things, the following: "A vendor whose principal place of business is outside this state must accompany any written bid, proposal, or reply documents with a written opinion of an attorney at law licensed to practice law in that foreign state, as to the preferences, if any or none, granted by the law of that state to its own business entities whose principal places of business are in that foreign state in the letting of any or all public contracts." Any bidder, regardless of whether its principal place of business is located inside or outside of this state, who submits any written bid, proposal or reply documents is responsible for understanding and complying with the requirements of §287.084 Florida Statutes.

32. CHARTER SCHOOLS: Items or services awarded under this contract shall be made available to Charter Schools approved by the School Board. The School Board is not responsible or liable for purchases that may be made by Charter Schools.

II. LICENSURE, INSURANCE AND LIABILITY

1. OCCUPATIONAL LICENSE: The contractor shall be responsible for obtaining and maintaining throughout the contract period any required occupational license and other licenses required pursuant to the laws of Leon County, the City of Tallahassee, or the State of Florida.

2. WORKER'S COMPENSATION: Bidders shall obtain and maintain during the life of the contract Workers' Compensation Insurance in compliance with Chapter 440, Florida Statutes for all of his employees employed on the project. In case any work is sublet, bidder shall require subcontractors similarly to provide Workers' Compensation Insurance.

3. LIABILITY: Where bidders are required to enter or go onto School Board property to deliver materials, perform work or provide services as a result of a bid award, the bidder assumes full duty, obligation and expense of obtaining all necessary licenses, permits and insurance, and shall be fully responsible for its own negligent or willful acts or omissions.

4. INSURANCE AND INDEMNIFICATION: This General Condition is NOT subject to negotiation and any bid that fails to accept these conditions will be rejected as "non-responsive", unless bidder is entitled to sovereign immunity by action of the Florida Legislature. Each party agrees to be fully responsible for its acts of negligence or its agents' acts of negligence when acting within the scope of their employment and agrees to be liable for any damages resulting from said negligence. Nothing herein is intended to serve as a waiver of sovereign immunity by the School Board. Nothing herein shall be construed as consent by the School Board to be sued by third parties in any matter arising out of any contract. Bidder shall hold harmless and defend the School Board and its agents and employees from all suits and actions, including attorney's fees and all costs of litigation and judgments of any name and description arising out of or incidental to the performance of this contract or work performed there under. This provision shall also pertain to any claims brought against the School Board by an employee of the named Bidder, any Subcontractor, or anyone directly or indirectly employed by any of them. The bidder's obligation under this provision shall not be limited in any way by the agreed upon contract price as shown in this Contract or the bidder's limit of, or lack of, sufficient insurance protection. Each party shall be responsible for liability, damages, and expenses arising from their own negligent acts or omissions, to the extent allowable pursuant to Section 768.28, Florida Statutes.

5. RISK OF LOSS: The bidder assumes the following risks: (1.) all risks of loss or damage to all goods, work in process, materials and equipment until the delivery thereof as herein provided; (2.) all risks of loss or damage to third persons and their property until delivery of all goods as herein provided; (3.) all risks of loss or damage to any property received by the bidder or held by the bidder or its suppliers for the account of the School Board, until such property has been delivered to the School Board; (4) all risks of loss or damage to any of the goods or part thereof rejected by the School Board, from the time of shipment thereof to bidder until redelivery thereof to the School Board.

7. PUBLIC ENTITY CRIMES: Pursuant to Florida Statute 287.133 a Bidder, person, or affiliate who has been placed on the convicted Vendors list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida State Statute, Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

8. PATENTS AND COPYRIGHTS: Bidders agree to indemnify and save harmless the School Board, its officers, employees, agents, or representatives using the goods specified herein from any loss, damage or injury arising out of a claim or suit at law or equity for actual or alleged infringement of letters of patent by reason of the buying, selling or using the goods supplied under this bid, and will assume the defense of any and all suits and will pay all costs and expenses thereto.

9. AUDITS, RECORDS, AND RECORDS RETENTION: The School Board or its representative reserves the right to inspect and/or audit all the Bidder's documents and records as they pertain to the products and services delivered under this agreement. Such rights will be exercised with notice to the bidder to determine compliance with and performance of the terms, conditions and specifications on all matters, rights and duties, and

obligations established by this agreement. Documents/records in any form shall be open to the School Board's representative and may include but are not limited to all correspondence, ordering, payment, inspection and receiving records, and contracts or sub-contracts that directly or indirectly pertain to the transactions between the School Board and the Bidder.

A. To establish and maintain books, records, and documents (including electronic storage media) in accordance with generally accepted accounting procedures and practices, which sufficiently and properly reflect all revenues and expenditures of funds provided by the School Board under this contract.

B. To retain all contractor records, financial records, supporting documents, statistical records, and any other documents (including electronic storage media) pertinent to this contract for a period of five (5) years after termination of the contract, or if an audit has been initiated and audit findings have not been resolved at the end of five (5) years, the records shall be retained until resolution of the audit findings or any litigation which may be based on the terms of this contract.

C. Upon completion or termination of the contract and at the request of the School Board, the Contractor will cooperate with the School Board to facilitate the duplication and transfer of any said records or documents during the required retention period as specified in paragraph 1 above.

D. To assure that these records shall be subject at all reasonable times to inspection, review, or audit by Federal, state, or other personnel duly authorized by the School Board.

E. Persons duly authorized by the School Board and Federal auditors, pursuant to Title 45, Code of Federal Regulations, Part 92.36 (I) (10), and Title 34, Section 80.36(i), shall have full access to and the right to examine any of provider's contract and related records and documents, regardless of the form in which kept, at all reasonable times for as long as records are retained

F. To include these aforementioned audit and record keeping requirements in all approved subcontracts and assignments.

III. GOODS AND SERVICES

1. WARRANTY: All goods and services furnished by the bidder, relating to and pursuant to this ITB will be warranted to meet or exceed the Specifications contained herein. In the event of breach, the bidder will take all necessary action, at bidder's expense, to correct such breach in the most expeditious manner possible.

2. PRICING: All pricing submitted will include all packaging, handling, shipping charges and delivery to any point within Leon County, Florida to a secure area or inside delivery. <u>The School Board is exempt and does not pay Federal Excise and State of Florida sales taxes.</u>

3. PRICE ESCALATION: In the event of unforeseen circumstances that directly impact the pricing and/or servicing of this contract, the School Board reserves the right to negotiate the established bid price with the contractor at any time during the duration of this contract after completion of the initial contract term. Price negotiations will be at the sole discretion of the School Board.

The School Board may consider pricing increases of the bid item(s) if the following conditions occur:

A. There is a verifiable price increase of the bid item(s) to the contract supplier.

B. The contractor submits to the School Board, in writing, notification of price increases.

C. The price increase shall be comparable to documented manufacturers' or distributors' price changes or changes in industry related indices.

D. The contractor shall submit the above information to the Director of Purchasing thirty (30) calendar days prior to the effective date of the price increase. Requests for price increases may only be made after the first term of the contract.

When the contractor complies with the abovementioned conditions, the Director of Purchasing will review the information to determine if it is in the best interest of the School Board to adjust the pricing on the products bid, in conjunction with the contractor's effective date of price increase. The School Board reserves the right to deny any requests for price increases. The contractor must receive written notification from the Director of Purchasing that the School Board is in acceptance of the new prices before processing any orders with the new costs.

4. QUANTITIES: Quantities listed in the bid are estimates provided for bidder information purposes only. No guarantee is given or implied as to the exact quantities, which will be purchased from this bid. The School Board reserves the right to increase or decrease all estimated quantities during the term of this contract or to delete any item or items as it deems appropriate, without affecting the bid pricing or the terms and conditions of the bid.

5. MOST FAVORED CUSTOMER STATUS: The awarded bidder shall afford the School Board the most favored customer status for all items herein. Accordingly, if during the term of this contract, the contractor offers more favorable promotional or contract pricing to another entity for the same specification with similar quantities and conditions, the price under this contract shall be immediately reduced to the lower price. Additionally, if a current state of Florida contract or other viable piggyback contract contains more favorable pricing for the same specification with similar quantities and conditions, the contract shall be afforded an opportunity to adjust its contract price to match that of the state of Florida contract. Should the contractor decline, LCSB reserves the right to purchase the item(s) from the state of Florida or alternate piggyback contract.

6. TERMS OF PAYMENT / INVOICING: The normal terms of payment will be Net 30 Days from receipt and acceptance of goods or services and contractor's invoice. Itemized invoices, each bearing the Purchase Order Number must be mailed on the day of shipment. Invoicing subject to cash discounts will be mailed on the day that they are dated.

7. PURCHASING CARDS: The School Board may choose to use a "Purchasing Card" for ordering of goods and materials or payment of invoices under this contract. The bidder, by submitting a proposal, agrees to accept this manner of payment and may not add additional handling charges or service fees to purchases made with the School Board's Purchasing Card(s). Refusal to accept this condition may cause the proposal to be declared non-responsive, or result in revocation of the contract, if already awarded. No third party payment, i.e. Pay pal will be considered

8. TRANSPORTATION AND TITLE: (1) Title to the goods will pass to the School Board upon receipt and acceptance at the destination indicated herein. Until acceptance, the Bidder retains the sole insurable interest in the goods. (2) The shipper will prepay all transportation charges. The School Board will not accept collect freight charges. (3) No premium carriers will be used for the School Board's account without prior written consent of the Director of Purchasing.

IV. BIDDER REQUIREMENTS

1. REFERENCES: Each Bidder is required to submit a list of three (3) customer references using the format on the attached "Customer Reference Form" Exhibit D. The Bidder must be the prime contractor for each customer/contract referenced. All references shall be for work performed over the last year at commercial, multi-residential developments and/or institutional complexes for contracts of comparable size. Newly formed companies, corporations, joint ventures; etc. may use an incorporator as a referenced entity. At least one contract/customer shall have been serviced for a minimum of one year. Failure to provide verifiable references may result in the bidder not being considered for award.

2. LEVEL 2 SCREENING REQUIREMENTS: The following provisions, which implement the requirements of School Board Policy 8475, Florida Statute Sections 1012.315, 1012.32, 1012.465 (Jessica Lunsford Act), 1012.467 and 1012.468 are included as additional terms and conditions of the contract:

Finger Printing and Background Check:

The bidder/contractor agrees to comply with all requirements of School Board Policy 8475 and Florida Statute Sections 1012.315, 1012.32, 1012.465 (Jessica Lunsford Act), 1012.467 and 1012.468 by certifying that any/all employees have completed the mandatory background screenings as required by the referenced policy and statutes and shall provide the School Board with proof of compliance. These certifications will be provided to the Leon County School Board, Safety & Security Department in advance of the Bidder/contractor providing any/all services as required herein. The Bidder/contractor will bear the cost of acquiring the background screening required and any/all fees imposed by the Florida Department of Law Enforcement and or the School Board to maintain the fingerprints provided with respect to Bidder/contractor and its employees. Contractor agrees to indemnify and hold harmless the School Board, its officers, agents and employees from any liability in the form of physical injury, death, or property damage resulting from the Contractor's failure to comply with the requirements of these cited policies and statutes. The Bidder/contractor will follow procedures for obtaining employees background screening as established by the Leon County School Board, Safety & Security Department.

Where: Leon County School Board –Safety & Security Department

2757 W. Pensacola St. Tallahassee, Florida 32304 When: Monday-Friday 8:00 a.m. – 5:00 p.m. Point of Contact: Donald Kimbler @ 850-487-7293

LCSB Policy 8475 is subject to review and change. As a provision of this contract, if awarded, any changes made to this policy will automatically become a part of and be incorporated in this contract. It is the responsibility of the awardee(s) to be aware of any changes that may occur.

3. RECIPROCITY OF FLORIDA SCHOOL I.D. BADGES: If contractor has a Level II clearance registered with another Florida School Board, they may be able to obtain a Leon County School Board vendor I.D. badge. Contractor should check with the Safety & Security Department Fingerprint Services office to verify clearance and obtain a vendor I.D. badge.

4. IDENTIFICATION: All personnel employed by the bidder, including any subcontractor and subcontractor's employees when applicable, shall display at all times an identification badge which shall include the employee's name, the employer's name and either a physical description or a photograph of the employee. Employees without proper

identification shall not be permitted to work under the terms of this Agreement.

5. CONTACT WITH STUDENTS: No employees or independent contractors, material men, suppliers or anyone involved in any manner with projects resulting from this proposal shall have direct or indirect contact with students at project sites. A violation of this provision shall result in immediate termination of the offender and issuance of a trespass notice from the School Board. Bidder/Proposer shall be responsible for insuring compliance by all employees, independent contractors and subcontractors or other persons involved in any manner with projects resulting from this proposal.

6. WEAPONS AND FIREARMS: The School Board prohibits any contractor from possessing, storing, making, or using a weapon, including a concealed weapon, on School Board property and any setting that is under the control and supervision of the School Board as specified in School Board Policy 7217. Violations will be subject to the immediate termination of the contract.

7. SMOKING AND TOBACCO PRODUCTS: Smoking and the use of tobacco products are prohibited on school property, including all buildings and grounds. A fine of \$500.00 may be assessed for the first offense and termination of the Agreement may be imposed for any second or additional offense.

8. ATTIRE: Proper attire shall be worn at all times.

- **a.** Shirts shall be worn awhile on school property at all times. (No tank tops or undershirts will be permitted).
- **b.** Clothing displaying nudity, obscene language, obscene symbols or pro-drug slogans is prohibited.
- c. Proper shoes to insure the individual's safety shall be worn at all times.

9. INSPECTIONS AND TESTING: The School Board will have the right to inspect and test any of the goods or services covered by this ITB. All goods or services are subject to the School Board's inspection and approval upon arrival or completion. If rejected, goods will be held for disposal at the bidder's risk. Such inspection, or the waiver thereof, however, will not relieve the bidder from full responsibility for furnishing goods or services conforming to the requirements of this Bid or the Bid Specifications, and will not prejudice any claim, right, or privilege the School Board may have because of the use of defective or unsatisfactory goods or service. All deficiencies noted by the School Board will be submitted to the contractor for correction within ten (10) calendar days after submission of deficiencies to the contractor. An additional inspection of the goods or service may be conducted to insure corrective action was taken.

10. STOP WORK ORDER: The School Board may at any time, by written notice to the Bidder stop all or any part of the work for this Bid award. Upon receiving such notice, the bidder will take all reasonable steps to minimize additional costs during the period of work stoppage. The School Board may subsequently either cancel the stop work order resulting in an equitable adjustment in the delivery schedule and/or the price, or terminate the work in accordance with the provisions of the Bid terms and conditions.

- **a.** Materials or work are not in conformance with applicable codes, standards, School Board specifications and/or accepted practices.
- **b.** The contractor's activities result in damage to School board property.
- **c.** The contractor's activities interfere with the normal operation of the facility.
- **d.** Contractor's personnel are not properly licensed to perform the work or as it pertains to school facilities, the contractor's

personnel have not received their Level II background clearances.

e. Any other condition, situation, or circumstance, which in the opinion of the School Board Authorized Representative would be a detriment to the best interests of the School Board if allowed to persist.

11. SAFETY: The bidder shall be responsible for instructing their employees in all safety measures. All equipment used by the bidder shall be free from defects or wear that may in any way constitute a hazard to any person or persons on School Board property. At no time shall equipment be operated without guards, shields, or other manufactures recommended safety accessories in place and functioning as intended by the manufacturer. All current OSHA safety standards shall be reinforced including, but not limited to, the following rules:

a. All OSHA and Federal required safety equipment shall be installed and functioning on all equipment.

b. All equipment shall be in sound working condition and must meet all OSHA Safety Standards. All workers shall be aware of and trained in the operation of all safety equipment required for this project.

c. The Bidder shall ensure that employees are equipped with proper safety items such as glasses, hard hats, gloves, etc.

d. All incidents on campus involving School Board property or personnel shall be reported to the Director of Maintenance Services Department and the Campus Administrator immediately upon occurrence.

e. All debris shall be removed to an environmentally approved landfill or recycling center.

12. EMERGENCIES: In any emergency affecting the safety of persons and property, the awarded contractor shall act immediately to prevent threatened damage, injury or loss. Any emergency must be reported to an authorized School Board representative immediately and no later than twenty-four (24) hours from the time that the emergency is discovered by the contractor.

13. DAMAGE TO SCHOOL BOARD OWNED PROPERTY: Any damage to property, equipment, grounds, buildings, etc. that is caused by the awarded contractor will be reported to the School Board within twentyfour (24) hours of discovery. The awarded contractor will have ten (10) working days after report to present its written response to the claimed damages. The awarded contractor, upon approval by an authorized School Board representative, may make repairs that are deemed within its capability. The School Board reserves the right to make immediate repairs to correct damages that are safety hazards or that pose a detrimental effect to the School Board's operations. Costs of any replacement or repairs made by the School Board for damages caused by the awarded contractor shall be deducted from any monies due to the contractor. This shall not prevent the School Board from seeking damages should replacement/repair costs exceed the amount of monies owed to the awarded contractor. When requested, Bidder shall cooperate with any ongoing School Board investigation involving personal injury, economic loss or damage to The School Board's facilities or personal property therein.

14. SUBCONTRACTING: The awarded contractor(s) shall be the primary service provider(s) and shall perform all requested inspections and repairs. Subcontracting for these base services is not allowed.

a. The School Board, for work where the contractor(s) are requested to perform additional services, may allow subcontracting.

b. Any work or service to be performed by a subcontractor must have the prior approval of the School Board. The School Board reserves the right to reject any subcontractor. Rejection of any subcontractor shall not entitle the contractor to adjustment of bid prices. The contractor shall inform the School Board Authorized Representative prior to scheduling any subcontractor's visit to any School Board facility.

c. Failure by the contractor to have a subcontractor approved by the School Board will not relieve the contractor of the responsibility to meet, comply with, and fulfill all of the terms and conditions of this Agreement.

4. The contractor(s) shall be held fully responsible and liable for the supervision and performance of all work performed by subcontractors. The School Board shall not be responsible for resolution of disputes between the Bidder and any subcontractor.

5. The personnel of all subcontractors shall meet all of the requirements as stated herein to include, but not limited to LCSB Policy 2.021 and the Jessica Lunsford Act.

15. ON-CAMPUS DIRECTIVES

a. Upon arrival and departure onto any School Board school campus, the contractor's employees shall enter their company information into the School Log Book provided in the Administrative office of each campus.

b. Contractor shall strictly limit its operations to the designated work areas and shall not permit any employees to enter any other portions of School Board property without School Board's expressed prior written consent.

c. All employees shall enter and leave School Board facilities only through the ingress and egress points designated, from time to time, by The School Board.

d. The contractor shall be responsible for the removal of all trash and debris occasioned by this contract. Failure to adhere to this requirement will result in the costs of the performance of this work by others being charged to the contractor.

e. Any existing surface or subsurface improvements, including, but not limited to, pavements, curbs, sidewalks, pipes, utilities, footings, structures, trees and shrubbery, not indicated in the contract documents to be removed or altered, shall be protected by contractor from damage during the prosecution of any project. Any such improvements so damaged shall be restored by contractor to condition at least equal to that existing at the time of contractor's commencement of any project.

f. Proper safety barricades, protective, and covering devices shall be used to divert traffic and protect personnel. Normal safety signs, necessary lighting and temporary fencing/barricades around work areas shall be installed and maintained in accordance with OSHA requirements while the work is in progress. Materials must be secured in accordance with OSHA regulations when not in use.

16. BIDDER ACCESSIBLITY: The successful bidder shall provide a liable and responsible representative to be accessible by a Leon County toll free local telephone call during regular business hours. Local off-hours answering service for emergencies shall be available for bidder notification twenty-four (24) hours a day, seven (7) days per week, all year, including holidays.

17. CONTACT PERSON: The successful Bidder shall be notified of the name and phone number of the School Board contact person. Only the School Board contact person may authorize changes to the scope of work.

<u>V. SCOPE OF WORK AND INSTRUCTION TO BIDDERS</u>: Bid forms, specifications and drawings may be obtained by calling the LCSB Purchasing Department at (850) 488-1206, or may be downloaded from the district website at: http://www.leonschools.net/Page/4411

LEON COUNTY SCHOOLS JAMES S RICKARDS HIGH SCHOOL AUDITORIUM THEATRICAL LIGHTING CONTROLS REPLACEMENT LCS NO. 33007

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL:

- 1. WORK COVERED BY CONTRACT DOCUMENTS
 - A. The work of this Contract comprises the replacement of existing theatrical lighting controls, control cables, and associated devices. and installation, programming and commissioning of new at the James S Rickards High School Auditorium.
 - B. Work to be performed shall be in accordance with drawings and specifications prepared by McGinniss & Fleming Engineering.
 - C. The Contractor shall lay out the work with appropriately qualified personnel from the information shown on the drawings.
- 2. RELATED REQUIREMENTS
 - A. I. Bidding Conditions
 - B. II. Contractual Conditions

3. CONTRACT WORK

The Construction base bid shall generally include, but not be limited to the following work:

4. CONTRACT TIME

All work shall be substantially complete within 90 days and the requirements under them on or before August 1, 2017.

- 5. WORK BY OTHERS
 - A. Work on the project which will be executed prior to the start of work on this contract, and which is excluded from this contract, as follows:

1. None.

- 6. CONTRACTOR'S USE OF PREMISES
 - A. Coordinate use of premises under direction of Architect/Engineer. Locate construction staging area adjacent to the building.
 - B. Assume full responsibility for the protection and safekeeping of Products under this Contract, stored on site.
 - C. Move any stored Products, under Contractor's control, which interfere with operation of the Owner or any separate Contractor.
 - D. Protect all existing site vegetation and improvements not specifically noted to be demolished.
- 7. OWNER OCCUPANCY
 - A. Contractor shall at all times conduct his operations as to insure the safety of and least inconvenience to the students and staff of the school.

MCGINNISS & FLEMING ENGINEERING, INC MFE-P1640 – Summary of Work 3/17/17

- B. Owner may take beneficial occupancy of any portion of the building so agreed and arranged between Owner, Contractor and Architect/Engineer.
- 8. OWNER FURNISHED EQUIPMENT PRODUCTS

None.

9. RIGHT OF ACCESS

The Contractor agrees that representatives of the Owner and Architect/Engineer will have access to the work wherever it is in preparation or progress and that the Contractor will provide facilities for such access.

10. SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION

The Contractor shall be solely responsible for all applicable obligations prescribed as employer obligations under any and all governmental regulations.

- 11. PROTECTION OF EXISTING GROUNDS
 - A. Turfs, irrigation systems, shrubbery, etc. shall be protected from any and all damage by construction vehicles or work activities. The Contractor shall be responsible for restoring same to equal or better conditions.
 - B. Trees are a valuable natural resource and shall be protected to at least their drip lines with wood fencing acceptable to the Architect/Engineer. Construction vehicles and activities shall in no case, except as specifically shown on the Contract Documents, violate the drip lines of existing trees.
 - C. The Contractor's fenced staging and construction areas may or may not include existing trees and shrubs; these shall receive protection. The entire staging and construction area shall be re-sodded as required.
 - D. Coordinate with Section 01760.
- 12. GROWTH MANAGEMENT REQUIREMENTS ENVIRONMENTAL
 - A. The Contractor shall comply with all requirements of the City of Tallahassee or Leon County Environmental Management Ordinance, as specifically set forth in the Owner's Environmental Management Permit.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01010.

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SECTION 01027 - APPLICATION FOR PAYMENT

PART 1 - GENERAL:

1. REQUIREMENTS INCLUDED

Procedures for preparation and submittal of Application for Payment.

- 2. RELATED REQUIREMENTS
 - A. Part I. Bidding Conditions
 - B. Part II. Contractual Conditions
 - C. Section 01340 Submittals: Submission Requirements
 - D. Section 01370 Schedule of Values
 - E. Section 01700 Contract Closeout: Final Application for Payment
- 3. FORMAT

Application for Payment Form - AIA Standard G702.

- 4. PREPARATION OF APPLICATIONS
 - A. Submit applications for payment to Architect/Engineer in accordance with the schedule established by conditions of the Contract and agreement between Owner and Contractor.
 - 1. Type required information, or use media-driven printout.
 - 2. Execute certification by signature of authorized officer.
 - B. Submit Schedule of Values for review and acceptance by the Architect/Engineer and Owner per Section 01370. Schedule of Values shall be broken down for each Work item and shall indicated both materials and labor.
 - C. Use data on accepted Schedule of Values. Provide dollar value in each column for each line item for portion of Work performed.
 - D. Initial progress payment shall not be made until Contractor has established a Contractor's site office, with telephone service, and a temporary field office for the Project Representative.
 - E. Prepare Application for Final Payment as specified in Section 01700.
 - F. Submit Application for Payment in rough format (percentages complete) for Owner and Architect/Engineer review five (5) days prior to submittal of Application.

5. SUBMITTAL PROCEDURES

A. Submit seven (7) copies of each Application for payment at times stipulated.

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B. Contractor shall submit to Architect/Engineer not later than the first working day of each month an application for payment completed and signed by the Contractor.

6. SUBSTANTIATING DATA

- A. When Architect/Engineer requires substantiating information, submit data justifying line item amounts in question.
- B. Submit suitable information for each copy of application with a cover letter identifying:
 - 1. Project
 - 2. Application number and date
 - 3. Detailed list of enclosures
- C. Submit one copy of data and cover letter for each copy of application.
- D. Submit with each copy of application continuation sheet providing the following:
 - 1. Fill in total list of all schedule component items of work, with item number and scheduled dollar values for each item.
 - 2. Fill in dollar value in each column for each schedule line item when work has been performed or materials stored.
 - 3. list each change order executed prior to date of submission, at the end of the continuation sheets.
- E. Submit data and applicable insurance as required by Owner to establish Owner's title to material and equipment suitably stored at the site.
 - 1. The Contractor shall be responsible for all expenses of the Architect/Engineer to verify the quantity of stored materials off of the site.

PART 2 - PRODUCTS:

Not used.

PART 3 - EXECUTION:

Not used.

END OF SECTION 01027.

MCGINNISS & FLEMING ENGINEERING, INC. MFE-P1640 – Application for Payment 3/17/17

SECTION 01030 - ALTERNATES

PART 1 - GENERAL:

1A DESCRIPTION OF REQUIREMENTS

"Alternates" are defined as alternate products, materials, equipment, systems, methods, units of work or major elements of the construction which may, at Owner's option and under terms established by Instructions to Bidder, the Contract or Agreement, be selected for the work in lieu of corresponding requirements of Contract Documents. Selection may occur prior to Contract Date or may, be deferred for possible selection at a subsequent date. Alternates may or may not change scope and general character of the work substantially. Requirements of this section may be related to but must not be confused with requirements of contract documents related to "allowances", "unit prices", "change orders", "substitutions" and similar provisions.

Refer to the Contract or "Owner-Contractor Agreement" and subsequent modifications thereof (if any) for determination of which of several scheduled "alternates" herein have been accepted and therefore are in full force and effect as though included originally in the contract documents for the base bid.

Immediately following the award of Contract, prepare and distribute to each entity to be involved in performance of the work, a notification of the status of each alternate scheduled herein. Indicate which alternates have been: 1) Accepted, 2) Rejected, and 3) Deferred for consideration at a later date as indicated. Include full description of negotiated modifications to alternates, if any.

1B GENERAL ALTERNATE REQUIREMENTS

The description herein for each alternate is recognized to be incomplete and abbreviated but implies that each change must be complete for the scope of work affected. Refer to applicable specification section (Division 2 through 16) and to applicable drawings for specific requirements of the work. Coordinate related work and modify surrounding work as required to properly integrate with the work of each alternate. It is recognized that descriptions of alternates are primarily scope definitions and do not necessarily detail full range of materials and processes needed to complete the work as required.

PART 2 - PRODUCTS: Not used.

PART 3 - EXECUTION: Not used.

END OF SECTION 01030.

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SECTION 01040 - COORDINATION

PART 1 - GENERAL:

- 1. WORK INCLUDED
 - A. Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills as may be necessary to perform the work in accordance with the Contract Documents.
 - B. Contractor shall be solely responsible for all means, methods, techniques, sequences and procedures of construction, and for providing adequate safety precautions and coordinating all portions of the work under the Contract Documents.
 - C. Contractor shall be responsible to see that the finished work complies accurately with the Contract Documents.
 - D. Contractor shall be responsible for all project coordination.
- 2. RELATED REQUIREMENTS
 - A. Section 01010 Summary of Work
 - B. Part I. Bidding Conditions
 - C. Part II. Contractual Requirements
 - D. Section 01200 Project Meetings
 - E. Section 01410 Special Testing/Inspection Requirements
 - F. Section 01700 Contract Closeout
- 3. DESCRIPTION
 - A. Coordinate scheduling, submittals, and work of the various sections of specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.
 - 1. Maintain reports and records at job site:
 - a. Daily log of progress of work and other pertinent data. Maintain log accessible to Owner, Architect/Engineer and his representative.
 - b. Assemble documentation for handling of any claims or disputes which may arise.
 - 2. Inspections and Testing:
 - a. Inspect the work to assure that it is performed in accordance with the requirements of the Contract Documents.
 - Arrange with the Architect/Engineer and/or owner as applicable for special inspections or testing required by Section 01410 or other

MCGINNISS & FLEMING ENGINEERING, INC. MFE-P1640 – Coordination 3/17/17

specification sections.

- c. Reject work which does not conform to requirements of the Contract Documents.
- B. Coordinate sequence of work to insure proposed completion dates are met.
 - 1. Construction Schedule:
 - a. Prepare detailed schedule of Contractor's operations and for all subcontractors on the project.
 - b. Monitor schedules as work progresses.
 - 1. Identify potential variances between scheduled and probable completion date.
 - 2. Recommend to Architect/Engineer any adjustments in schedule to meet required completion date.
 - 3. Provide monthly summary reports of each monitoring.
 - c. Observe work to monitor compliance with schedule.
 - 1. Verify that labor and equipment are adequate to meet and maintain the schedule for the work.
 - 2. Verify that product deliveries are adequate to meet and maintain the schedule for the work.
 - 3. Report any non-compliance to Architect/Engineer, with recommendations for remedy.
 - 4. Verify that adequate services are provided to comply with requirements for work and climatic conditions.
 - 5. Verify proper maintenance and operation of temporary facilities.
 - Administer traffic and parking controls for construction workers. Construction traffic shall not interfere with surrounding traffic movement.
 - 2. Coordination of Subcontractors:
 - a. Coordinate work of all subcontractors and relationship between them.
 - b. Establish on-site lines of authority and communication. Schedule and conduct progress meetings among Owner and Architect/Engineer representatives and subcontractors.
 - c. Ensure that specified cleaning is done during progress of the work and at completion of contract.

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- 4. MEETINGS
 - A. In addition to progress meeting specified in Section 01200, hold coordination meetings and pre-installation conferences with personnel and subcontractors to assure coordination of work.
- 5. COORDINATION OF SUBMITTALS
 - A. Schedule and coordinate submittals specified in Section 01340.
 - 1. Administer processing of shop drawings, product data, and samples.
 - B. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
 - 1. Coordinate Testing Laboratory Services:
 - a. Notify laboratory of test schedule.
 - b. Verify that required personnel are present.
 - c. Verify that specified tests are made as scheduled.
 - d. Verify compliance of the test results with specified criteria. Determine need for retesting and submit recommendations to Architect/Engineer. Administer and pay for required retesting.
 - 2. Coordinate with Sub-contractors as required:
 - a. Provide temporary utilities (electric, water) required by the Subcontractors in the performance of their work.
 - b. Provide designated location where the Subcontractors may place construction debris for removal by the Contractor.
 - C. Coordinate requests for changes to assure compatibility of space, of operating elements, and effect on work of other sections.
 - 1. Recommend necessary of desirable changes to Architect/Engineer.
 - 2. Review subcontractor's requests for changes and substitutions. Submit recommendations to Architect/Engineer.
 - 3. Process Change Orders in accord with General Conditions and Change Order Procedures.

6. COORDINATION OF SPACE

A. Coordinate use of Project space and sequence of installation of subcontractor work which is indicated diagrammatically on Drawings. Follow routings shown for pipes, ducts, and conduits as closely as practicable, with due allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

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B. In finished areas, except as otherwise shown, conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

7. INTERPRETATION OF CONTRACT DOCUMENTS

- A. Consult with Architect/Engineer to obtain interpretation or clarifications for any portions of the contract documents which are unclear or ambiguous. Transmit all requests for interpretation in writing.
- B. Assist in the answering of any questions which may arise.
- C. Transmit written interpretations to Sub Contractors, Suppliers and Others who's work may be affected by the clarification.
- D. Interpretations shall be based on the Architect/Engineers review of the Contract Documents. In case of conflicting data, assumption shall be made that the item of greater quality, cost of quantity was bid.
- 8. START-UP
 - A. Direct the check-out of utilities, operational systems, and equipment.
 - B. Assist in initial start-up and testing.
 - C. Record dates of the start of the operations of systems and equipment.
 - D. Submit to Architect/Engineer written notice of the beginning of warranty period for equipment put into service.

9. COORDINATION OF CONTRACT CLOSEOUT

- A. Substantial Completion:
 - 1. Coordinate completion and cleanup of work of separate sections in preparation for Substantial Completion.
 - 2. Upon determination of Substantial Completion of work or portion thereof, prepare for the Architect/Engineer a list of incomplete or unsatisfactory items.
- B. Final Completion:
 - 1. Upon determination that work is at final completion:
 - a. Submit written notice to Architect/Engineer that the work is ready for final inspection.
 - b. Secure and transmit to Architect/Engineer required closeout submittals.
 - 2. Turn over to Architect/Engineer.
 - a. Operations and maintenance data.
 - b. Spare parts and maintenance materials.

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- c. Warranties and other data as required for these specifications.
- d. Owner file copies of all submittals, changes, etc.
- C. After Owner occupancy of premises, coordinate access to site by various sections for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.
- D. Assemble and coordinate closeout submittals specified.

PART 2 - PRODUCTS:

Not used.

PART 3 - EXECUTION:

Not used.

END OF SECTION 01040.

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SECTION 01042 - COORDINATION DRAWINGS

PART 1 - GENERAL:

The Contractors are expected to accommodate site conditions and coordinate as necessary to avoid conflicts. Coordination Drawings are not specifically required, though they may be needed. The level of formal coordination effort is left to the CM.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01042

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SECTION 01045 - CUTTING AND PATCHING

PART 1 - GENERAL:

1A DESCRIPTION OF WORK

 "Cutting-and-Patching" is hereby defined to include, but is not necessarily limited to, the cutting and patching of nominally completed and previously existing work in order to accommodate the coordination of work or the installation of other work or to uncover other work for access or inspection.

Restoring or removing and replacing non-complying work is specified separately from cutting-and-patching, but may require cutting-and-patching operations as specified herein.

2. Refer to other sections of these Specifications for specific cutting-and-patching requirements and limitations applicable to individual units of work.

Refer to Division 16 Sections, for additional requirements and limitations on cutting-andpatching of electrical work. The requirements of this section apply to mechanical and electrical work, unless otherwise indicated.

1B QUALITY ASSURANCE

Requirements for Structural Work:

Do not cut-and-patch structural work in a manner resulting in a reduction of load-carrying capacity of load/deflection ratio.

Prior to cutting-and-patching the following categories of work, obtain Architect's/Engineer's written direction to proceed with cutting-and-patching as proposed in submittal by Contractor:

Structural steel. Bearing walls. Miscellaneous structural metals, including lintels, equipment supports, stair systems and similar categories of work.

Operational and Safety Limitations:

- 1. Do not cut-and-patch operational elements and safety related components in a manner resulting in a reduction of capacities to perform in the manner intended, including energy performances, or resulting in decreased operational life, increased maintenance, or decreased safety.
- Prior to cutting-and-patching the following categories of work and similar categories where directed, obtain Architect's/Engineer's written direction to proceed with cutting-and-patching as proposed in submittal by Contractor:

Primary operational systems and equipment Control, communication, conveying, and electrical wiring system.

Visual Requirements:

 Do not cut and patch work which is exposed on exterior (or exposed in occupied spaces of the building) in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of cut-and-patch work both as judged solely by Architect/Engineer. Remove and replace work

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judged by Architect/Engineer to be cut-and-patched in a visually unsatisfactory manner.

- 2. Engage recognized expert entities to perform cutting-and-patching of exposed work including, but not limited to:
 - Roofing Plaster Stucco Gypsum drywall Acoustic ceilings

1C SUBMITTALS

Proposals for Cutting-and-Patching:

Where prior written direction of cutting-and-patching is required, submit proposal well in advance of time work will be performed and request written direction to proceed. Include description of why cutting-and-patching can not (reasonably) be avoided, how it will be performed, products to be used, forms and tradesmen to perform the work, approximate dates of the work, and anticipated results in terms of variations from work as originally completed (structural, operational, visual and other qualities of significance). Where applicable, include cost proposal, suggested alternatives to cutting-and-patching procedure proposed, and a description of circumstances which lead to need for cutting-and-patching.

Written direction by Architect/Engineer to proceed with proposed cutting-and-patching does not waive the right to later required complete removal and replacement of work found to be cut-and-patched in an unsatisfactory manner.

PART 2 - PRODUCTS:

2A MATERIALS

Provide materials for cutting-and-patching which will result in equal-or-better work than work being cut-andpatched, in terms of performance characteristics and including visual effect where applicable. Comply with requirements, and use materials identical with original materials where feasible and where recognized that satisfactory results can be produced thereby.

2B PREPARATION

Temporary Support:

Provide adequate temporary support for work to be cut to prevent failure. Do no endanger other work.

2C PROTECTION

1. Provide adequate protection of other work during cutting-and-patching to prevent damage and provide protection of the work from adverse weather exposure.

2. At the close of every work day all openings into secure areas and interior spaces left exposed due to cutting and patching activities shall be secured by the contractor to prevent entry or vandalism.

PART 3 - EXECUTION:

3A CUTTING AND PATCHING

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- 1. Employ skilled tradesmen to perform cutting-and-patching. Except as otherwise indicated, proceed with cutting-and-patching at earliest feasible time in each instance and complete work without delay.
- 2. Cut work by methods least likely to damage work to be retained and work adjoining. Review proposed procedure with original Installer where possible, and comply with recommendations therefrom.
 - a. In general, where physical cutting action is required, cut work with sawing and grinding tools, not with hammering and chopping tools. Core drill openings for pipe and conduit through concrete and masonry.
 - b. Comply with requirements of applicable sections of Division 2 where cutting-and-patching requires excavating and backfilling.
- 3. Patch with seams which are durable and as invisible as possible. Where feasible, inspect and test patched areas to demonstrate integrity of work.
- 4. Restore exposed finishes of patched areas and where necessary extend finish restoration onto retained work adjoining in a manner which will eliminate evidence of patching and refinishing.
- 5. Where patch occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing patch after patched are has received prime and base coats.
- 6. All penetrations through fire-rated construction shall be fire stopped as per NEC 300-21 using a through penetration fire-stop system (XHEZ) listed in the Underwriters Laboratory Fire Resistance Directory.

END OF SECTION 01045

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SECTION 01050 - FIELD ENGINEERING

PART 1 - GENERAL:

Provide field engineering when specified by the drawings or site conditions warrant it.

PART 2 - PRODUCTS:

Not used.

PART 3 - EXECUTION:

Not used.

END OF SECTION 01050

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SECTION 01090 - DEFINITIONS AND STANDARDS

PART 1 - GENERAL:

- RELATED DOCUMENTS: Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification sections, apply to work of this section.
- 2. DEFINITIONS:
 - A. General Explanation: A substantial amount of specification language constitutes definitions for terms found in other Contract Documents, including drawings which must be recognized as diagrammatic in nature and not completely descriptive of requirements indicated thereon. Certain terms used on Contract Documents are defined generally in this article. Definitions and explanations of this section are not necessarily either complete or exclusive, but are general for the work to extent not stated more explicitly in another provision of Contract Documents.
 - B. General Requirements: The provision or requirements of Division 1 section. General Requirements apply to entire work of contract and, where so indicated, to other elements which are included in project.
 - C. Indicated: The term "indicated" is a cross reference to details, notes or schedules on drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in Contract Documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for purpose of helping reader locate cross-reference, and no limitation of location is intended except as specifically noted.
 - D. Directed, Requested, etc.: Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted" mean "directed by Architect/Engineer", "requested by Architect/Engineer", etc. However, no such implied meaning will be interpreted to extend Architect's/Engineer's responsibility into Contractor's area of construction supervision.
 - E. Reviewed: Where used in conjunction with Architect's/Engineer's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "reviewed" will be held to limitations of Architect's/Engineer's responsibilities and duties as specified in General and Supplementary Conditions. In no case will "review" by Architect/Engineer to be interpreted as a release of Contractor from responsibilities to fulfill requirements of Contract Documents.
 - F. Project Site: The space available to Contractor for performance of the work, either exclusively or in conjunction with others performing other work as part of the project. The extent of project site is shown on the drawings, and may or may not be identical with description of land upon which project is to be built.
 - G. Furnish: Except as otherwise defined in greater detail, term "furnish: is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.
 - H. Install: Except as otherwise defined in greater detail, the term "install" is used to describe operations at project site including unloading, storage, unpacking, assembly, erection, placing, anchoring, applying, work to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.

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- I. Provide: Except as otherwise defined in greater detail, the term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
- J. Installer: The entity (person or firm) engaged by Contractor or its subcontractor or subcontractor for performance or a particular unit or work at project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in operations they are engaged to perform.
- K. Testing Laboratory: An independent entity engaged to perform specific inspections or tests of the work, either at project site or elsewhere; and to report and (if required) interpret results of those inspections or tests.
- L. Owner Furnished Contractor Installed: Equipment or components of a system that are purchased by the Owner and furnished to the Contractor for installation in the project. The Contractor shall receive, store, protect, install, connect and test each time unless otherwise indicated.
- M. Contractor Furnished Contractor Installed: Equipment or components of a system that are purchased, furnished, and installed by the Contractor.
- N. Owner Furnished Owner Installed: Equipment or components of a system that are purchased, furnished and installed by the Owner or his vendors.
- 3. FORMAT AND SPECIFICATION EXPLANATIONS:
 - A. Specification Production: None of these explanations will be interpreted to modify substance of requirements. Portions of these specifications have been produced by Architect's/Engineer's standard methods of editing master specifications, and may contain minor deviations from traditional writing formats. Such deviations are a normal result to this production technique, and no other meaning will be implied or permitted.
 - B. Format Explanation: The format of principal portions of these specifications can be described as follows; although other portions may not fully comply and no particular significance will be attached to such compliance or noncompliance.
 - 1. Sections and Divisions: For convenience, basic unit of specification text is a "section", each unit of which is named and numbered. These are organized into related families of sections, and various families of sections are organized into "divisions", which are recognized as the present industry consensus on uniform organization and sequencing of specifications. The section title is not intended to limit meaning or content of section, not to be fully descriptive or requirements specified therein, not to be an integral part of text.

Each section of specifications has been subdivided into 3 (or less) "parts" for uniformity and convenience (Part 1 - General, Part 2 - Products, and Part 3 - Execution). These do not limit the meaning or and are not an integral part of text which specifies requirements.

- 2. Underscoring: used strictly to assist reader of specification text in scanning text for key works in content (for quick recall). No emphasis on or relative importance of text is intended where underscoring is used.
- 3. Imperative Language: Used generally in specifications. Except as otherwise

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indicated requirements expressed imperatively are to be performed by the Contractor. For clarity of reading at certain locations, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by the Contractor, or when so noted, by others.

- 4. Section Numbering: Used to facilitate cross-references in Contract Documents. Sections are placed in Project Manual in numeric sequence; however, numbering sequence is not complete, and listing of sections at beginning of Project Manual must be consulted to determine numbers and names of specification section on Contract Documents.
- Page Numbering: Numbered independently for each section' recorded in listing of sections (Index or Table of Contents) in Project Manual. Section number is shown with page number at top right of each page, to facilitate location of text in Project Manual.
- C. Specification Content: Because of methods by which this project specification has been produced, certain general characteristics of content, and conventions in use of language are explained as follows:
 - Specifying Methods: The techniques or methods of specifying to record requirements varies throughout text, and may include "prescriptive", "open generic descriptive", "compliance with standards", "performance", "proprietary", or a combination of these. The method used for specifying one unit of work has no bearing on requirements for another unit of work.
 - 2. Overlapping and Conflicting Requirements: Where compliance with 2 or more industry standards or sets or requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels or quality, most stringent requirement (which is generally recognized to be also most costly) is intended and will be enforced, unless specifically detailed language written into contract documents (not by way of reference to an industry standard) clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently-equal-but-different requirements, and uncertainties as to which level of quality is more stringent, to Architect/Engineer for a decision before proceeding.
 - a. Contractor's Options: Except for overlapping or conflicting requirements, where more than one set of requirements are specified for a particular unit of work, option is intended to be Contractor's regardless of whether specifically indicated as such.
 - 3. Minimum Quality/Quantity: In every instance, quality level or quantity shown or specified is intended as minimum for the work to be performed or provided. Except as otherwise specifically indicated, actual work may either comply exactly with that minimum (within specified tolerances), or may exceed that minimum within reasonable limits. In complying with requirements, indicated numeric values are either minimums or maximums as noted or as appropriate for context of requirements. Refer instances of uncertainty to Architect/Engineer for decision before proceeding.
 - 4. Specialists; Assignments: In certain instances, specification text requires (or at least implies) that specific work be assigned to specialists or expert entities, who must be engaged for performance of those units of work. These must be recognized as special requirements over which Contractor has no choice or

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option. These assignments must not be confused with (and are not intended to interfere with) normal application of regulations union jurisdictions and similar conventions. One purpose of such assignments is to establish which party or entity involved in a specified unit of work is recognized as "expert" for indicated construction processes or operations. Nevertheless, final responsibility for fulfillment of entire set of requirements remains with Contractor.

- 5. Trades: Except as otherwise indicated, the use of title such as "carpentry" in specification text, implies neither that the work must be performed by an accredited or unionized trades person of corresponding generic name (such as "carpenter"), nor that specified requirements apply exclusively to work by trades persons of that corresponding generic name.
- 6. Abbreviations: The language of specifications and other contract documents is of the abbreviated type in certain instances, and implies words and meanings which will be appropriately interpreted. Actual work abbreviations of self-explanatory nature have been included in texts. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with coordination of specification requirement with notations on drawings and in schedules. These are frequently defined in section at first instance of use. Trade association names and titles of general standards are frequently abbreviated.

Singular works will be interpreted as plural and plural words will be interpreted as singular where applicable and where full context of the Contract Documents so indicates.

D. Drawing Symbols:

General: Except as otherwise indicated, graphic symbols used on drawings are those symbols recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., seventh edition.

M/E Drawings: Graphic symbols used on mechanical/electrical drawings are generally aligned with symbols recommended by ASHRAE, supplemented by more specific symbols where appropriate as recommended by other recognized technical associations including ASME, ASPE, IEEE and similar organizations. Refer instances of uncertainty to Architect/Engineer for clarification before proceeding.

- E. Industry Standards:
 - General Applicability of Standards: Applicable standards of construction industry have same force and effect (and are made a part of contract Documents) as if published copies were bound herewith.
 - a. Referenced Standards: (referenced directly in Contract Documents or by governing regulations) have precedence over non-referenced standards which are recognized in industry for applicability to work.
 - b. Non-referenced standards are hereby defined to have not particular applicability to the work, except as a general measurement of whether work complies with standards recognized in construction industry.

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2.	Publication Dates: Except as otherwise indicated, where compliance with an industry standard is required, comply with the latest edition of the standard in effect as of date of Contract Documents.
3.	Copies of Standards: Provide as needed for proper performance of the work; obtain directly from publication sources. Architect/Engineer may specifically required the Contractor to obtain copies of certain standards.
4.	Abbreviations and names: The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Both names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up-to-date as of date of Contract Documents.
AA	Aluminum Association 818 Connecticut Avenue NW; Washington, D.C. 20006; 202/862-5100
AAMA	Architectural Aluminum Manufacturers Association 35 E. Wacker Dr.; Chicago, IL 60601; 312/782-8256
AAN	American Association of Nurserymen 230 Southern Bldg.; Washington, D.C. 20005; 202/737-4060
AASHTO	American Association of State Highway & Transportation Officials 444 N. Capital; Washington, D.C. 20001; 202/624-5800
AATCC	American Association of Textile Chemists and Colorists P.O. Box 12215; Research Triangle Park, N.C. 27709; 919/549-8141
ACI	American Concrete Institute P.O. Box 19150; Detroit, MI 48219; 313/532-2600
ACIL	American Council of Independent Laboratories 1725 K Street, NW; Washington, D.C.; 20006; 202/659-3766
ADC	Air Diffusion Council 230 N. Michigan Avenue; Chicago, IL 60601; 312/372-9800
AGA	American Gas Association 1515 Wilson Blvd.; Arlington, VA 22209; 703/841-8400
AI	Asphalt Institute Asphalt Institute Building; College Park, MD 20740; 301/277-4258
AIA	American Institute of Architects 1735 New York Avenue, NW; Washington, D.C. 20006; 202/626-7474
A.I.A.	American Insurance Company 85 John Street; New York, NY 10038; 212/699-0400
AISC	American Institute of Steel Construction 400 North Michigan Avenue; Chicago, IL 60611; 312/670-2400

AISI	American Iron and Steel Institute 1000 16th Street, NW; Washington, D.C. 20036; 202/452-7100
AITC	American Institute of Timber Construction 333 W. Hampden Avenue Englewood, Colorado 80110; 303/761-3212
AMCA	Air Movement and Control Association 30 W. University Dr. Arlington Heights, IL 60004;312/394-0150
ANSI	American National Standards Institute 1430 Broadway New York, New York 10018; 212/354-3300
APA	American Plywood Association Post Office Box 11700 Tacoma, Washington 98411;206/565-6600
ARI	Air Conditioning & Refrigeration Institute 1815 North Fort Myer Dr. Arlington, Virginia 22209;703/524-8800
ASC	Adhesive and Sealant Council 1600 Wilson Boulevard Arlington, Virginia 22209;703/841-1112
ASHRAE	American Society of Heating, Refrigeration & Air-Conditioning Engineers 1791 Tullie Circle, NE Atlanta, Georgia 30329; 404/636-8400
ASME	American Society of Plumbing Engineers 345 E. 47th Street New York, New York 10017; 212/644-7722
ASPE	American Society of Plumbing Engineers 15233 Ventura Boulevard Sherman Oaks, California 91403;213/783-4845
ASSE	American Society of Sanitary Engineering Post Office Box 9712 Bay Village, Ohio 44140; 216/835-3040
ASTM	American Society for Testing and Material 1916 Race Street Philadelphia, PA 19103; 215/299-5400
AWI	Architectural Woodwork Institute 2310 South Walter Reed Dr. Arlington, Virginia 22206; 703/671-9100
AWPA	American Wood-Preservers' Association 7735 Old Georgetown Road Bethesda, Maryland 20014; 301/652-2109

AWPB	American Wood-Preservers Bureau 2772 South Randolph Street Arlington, Virginia 22206; 703/931-8180
AWS	American Welding Society 550 LeJune Road Miami, Florida 33135; 305/642-7090
AWWA	American Water Works Association 6666 W. Quincy Avenue Denver, Colorado 80235; 303/794-7711
ВНМА	Builder's Hardware Manufacturer's Association (c/o TGAM) 60 EAst 42nd St. Rm. 1807 New York, New York 10017; 212/682-8142
BIA	Brick Institute of America 1750 Old Meadow Rd. McLean, Virginia 22101; 703/893-4010
CDA	Copper Development Association 405 Lexington Avenue
CE	New York, New York 10017; 212/953-7300 Corps or Engineers (U.S. Dept. of the Army) Washington, D.C. 20315
CISPI	Cast Iron Soil Pipe Institute 1499 ChainBridge Rd. McLean, Virginia 22101; 703/827-9177
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street Chicago, Illinois 60601; 312/372-5059
CS	Commercial Standard of NBS (U.S. Dept. of Commerce) Government Printing Office Washington, D.C. 20402
DHI	Door and Hardware Institute 1815 N. Ft. Meyer Dr. Arlington, Virginia 22209; 703/527-2060
EIA	Electronic Industries Association 2001 Eye Street, NW Washington, D.C. 20006; 202/457-4900
FAA	Federal Aviation Administration (U.S. Dept. of Transportation) 800 Independence Avenue, SW Washington, D.C. 20590
FCC	Federal Communications Commission 1919 M Street, NW Washington, D.C. 20554; 202/632-7000

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FCI	Fluid Controls Institute Post Office Box 3854 Tequesta, Florida 33458; 407/746-6466
FGMA	Flat Glass Marketing Association 3310 Harrison Topeka, Kansas 66611; 913/266-7013
FHA	Federal Housing Administration (U.S. Dept. of HUD) 451 7th Street, SW Washington, D.C. 20201
FM	Factory Mutual Engineering Corp. 1151 Boston-Providene Turnpike Norwood, MA 02062; 617/762-4300
FS	Federal Specification (General Services Administration) Building 197, Washington Navy Yard, SE Washington, D.C. 20407
FTI	Facing Tile Institute Box 8880 Canton, Ohio 44711; 216/488-1211
GA	Gypsum Association 1603 Orrington Avenue Evanston, Illinois 60201; 312/491-1744
НРМА	Hardwood Plywood Manufacturers Association Post Office Box 2789 Reston, Virginia 22090; 703/435-2900
IES	Illuminating Engineering Society of North America 345 E. 47th Street New York, New York 10017; 212/644-7926
ILI	Indiana Limestone Institute of America Stone City Bank Building Bedford, Indiana 47421; 812/275-4426
IRI	Industrial Rick Insurers 85 Woodland Street Hartford, CT 06102; 203/525-2601
MCAA	Mechanical Contractors Association of America 5530 Wisconsin Avenue Washington, D.C. 20015; 202/654-7960
MIA	Marble Institute of America 33505 State Street Farmington, MI 48024; 313/476-5558
MIL	Military Standardization Documents (U.S. Dept. of Defense) Naval Publications and Forms Center 5801 Tabor Avenue

Philadelphia, PA 19120

MLSFA	Metal Lath/Steel Framing Association 221 N. LaSalle Street Chicago, IL 60601; 312/346-1600
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry 5203 Leesburg Pike Falls Church, Virginia 22041; 702/998-7996
NAAMM	The National Association of Architectural Metal Manufacturers 221 N. LaSalle Street Chicago, Illinois 60601; 312/346-1600
NAPF	National Association of Plastic Fabricators 1701 N. Street, NW Washington, D.C. 20036; 202/656-8874
NBGOA	National Building Granite Quarries Association 202 South Third Avenue Cold Spring, MN 55107
NBS	National Bureau of Standards (U.S. Dept. of Commerce) Gaithersburg, Maryland 20234
NCMA	National Concrete Masonry Association Post Office Box 781 Herndon, Virginia 22070; 703/435-4900
NEC	National Electric Code (by NFPA)
NECA	National Electric Contractors Association 7315 Wisconsin Avenue Washington, D.C. 20014; 202/657-3110
NEII	National Elevator Industry, Inc. 600 Third Avenue New York, New York 10016; 212/986-1545
NEMA	National Electrical Manufacturers Association 2101 L Street, NW Washington, D.C. 20037; 202/457-8400
NFPA	National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210; 617/482-8755
N.F.P.A.	National Forest Products Association 1619 Massachusetts Avenue, NW Washington, D.C. 20036; 202/797-5800
NHLA	National Hardwood Lumber Association Post Office Box 34518 Memphis, Tennessee 38104; 901/377-1818

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NPA	National Particleboard Association 2306 Perkins Place Silver Spring, Maryland 20910; 301/587-2204
NRCA	National Roofing Contractors Association One O'Hare Center 6250 River Road Rosemont, Illinois 60018; 312/318-6722
NSF	National Sanitation Foundation 3475 Plymouth Rd. Ann Arbor, Michigan 48106; 313/769-8010
NSSEA	National School Supply & Equipment Association 1500 Wilson Boulevard Arlington, Virginia 22209; 703/524-8819
NTMA	The National Terrazzo and Mosaic Association 3166 Des Plains Avenue Des Plains, Illinois 60018; 312/635-7744
NWMA	National Wood Manufacturer's Association 205 W. Touhy Avenue Park Ridge, Illinois 60068; 312/823-6747
OSHA	Occupational Safety Health Administration (U.S. Dept. of Labor) Government Printing Office Washington, D.C. 20402
PCI	Prestressed Concrete Institute 20 N. Wacker Dr. Chicago, Illinois 60606; 312/346-4071
PDI	Plumbing and Draining Institute 5342 Boulevard Place Indianapolis, Indiana 46208; 317/251-5298
PEI	Porcelain Enamel Institute 1911 N. Fort Myer Arlington, Virginia 22209; 703/527-5257
PS	Product Standard of NBS (U.S. Dept. of Commerce) Government Printing Office Washington, D.C. 20402
RFCI	Resilient Floor Covering Institute 1030 15th Street, NW Washington, D.C. 20005; 202/833-2635
RIS	Redwood Inspection Service (Grading Rules) 627 Montgomery San Francisco, California 94111
SAMAS	Scientific Apparatus Makers Association 1101 16th Street, NW

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Washington, D.C. 20036; 202/223-1360

SDI	Steel Deck Institute Post Office Box 3812 St. Louis, MO 63122; 314/965-1741
S.D.I.	Steel Door Institute 712 Lakewood Center, N. Cleveland, Ohio 44107; 216/226-7700
SHLMA	Southern Hardwood Lumber Manufacturers Association 805 Sterick Boulevard Memphis, Tennessee 38103; 901/525-8221
SIGMA	Sealed insulating Glass Manufacturers Association 111 E. Wacker Dr. Chicago, Illinois 60601; 312/644-6610
SJI	Steel Joist Institute 1703 Parham Rd. Richmond, Virginia 23229; 804/288-3071
SMACNA	Sheet Metal & Air Conditioning Contractors' National Association Post Office Box 70 Merrifield, Virginia 22116
SPIB	Southern Pine Inspection Bureau (Grading Rules) 4709 Scenic Highway Pensacola, Florida 32504; 904/434-2611
SSPC	Steel Structures Painting Council 4400 5th Avenue Pgh, PA 15213; 412/578-3327
ТСА	Tile Council of America Post Office Box 326 Princeton, New Jersey 08540; 609/921-7050
ΤΙΜΑ	Thermal Insulation Manufacturers Association 7 Kirby Plaza Mt. Kisco, New York 10549; 914/241-2284
TPI	Truss Plate Institute 100 W. Church St. Frederick, Maryland 21701; 301/694-6100
UL	Underwriters Laboratories 333 Pfingsten Rd. Northbrook, Illinois 60062; 312/272-8800
WCLIB	West Coast Lumber Inspection Bureau (Grading Rules) Post Office Box 2315 Portland, Oregon 97223; 503/649-0651
WIC	Woodwork Institute of California

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1833 Broadway Fresno, California 93773; 209/233-9035

Portland, Oregon 97204; 503/224-3930

- WRIWire Reinforcement Institute
8900 Westpark Drive
McLean, Virginia 22101; 703/790-9790WSFIWood and Synthetic Flooring Institute
2400 E. Devon
Des Plaines, Illinois 60018; 312/635-7700WWPAWestern Wood Products Association (Grading Rules)
1500 Yeon Building
- W.W.P.A. Woven Wire Products Association 108 W. Lake Street Chicago, Illinois 60601; 312/332-6502
- F. Governing Regulations/Authorities:

General: The procedure followed by Architect/Engineer has been to contact governing authorities where necessary to obtain information needed for the purpose of preparing Contract Documents; recognizing that such information may or may not be of significance in relation to Contractor's responsibilities for performing the work. Contract governing authorities directly for necessary information and decisions having a bearing on performance of the work.

G. Submittals:

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, judgements, and similar documents, correspondence and records established in conjunction with compliance with records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

Not applicable.

END OF SECTION 01090

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SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL:

- 1. REQUIREMENTS INCLUDED:
 - A. Contractor shall attend a Pre-Construction meeting administered by the Architect/Engineer.
 - B. Contractor shall schedule and administer monthly progress meetings and specially called meetings throughout progress of work.
 - 1. Prepare agenda for meetings.
 - 2. Distribute written agenda of each meeting four days in advance of meeting date.
 - 3. Make physical arrangements for meetings.
 - 4. Preside at meetings.
 - 5. Record the minutes; include significant proceedings and decisions.
 - 6. Reproduce and distribute copies of minutes within three days after each meeting.
 - a. To participants in the meeting.
 - b. To parties affected by decisions made at the meetings.
 - c. Furnish three copies of minutes to Architect/Engineer.
 - C. Representative of Contractors, Subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
 - D. Owner and Architect/Engineer shall be invited to all such meetings and may attend to ascertain that Work is expedited consistent with Contract Documents and construction schedules.
- 2. RELATED REQUIREMENTS:
 - A. I. Bidding Conditions.
 - B. II. Contractual Conditions.
 - C. Shop drawings, product data and samples.
 - D. Section 01010 Summary of Work
 - E. Section 01040 Coordination.

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- 3. PRECONSTRUCTION MEETING:
 - A. Location: A site designated by owner.
 - B. Attendance:
 - 1. Owner's Project Manager.
 - 2. Architect/Engineer and/or his professional consultants.
 - 3. Contractor's Superintendent.
 - 4. Major Subcontractors.
 - 5. Others as Appropriate.
 - C. Suggested Agendum:
 - 1. Distribution and discussion of:
 - a. List of major subcontractors and suppliers.
 - b. Projected Construction Schedules.
 - 2. Critical work sequencing.
 - 3. Major equipment deliveries and priorities.
 - 4. Project Coordination:

Designation of responsible personnel.

- 5. Procedures and processing of:
 - a. Field decisions.
 - b. Proposal requests.
 - c. Submittals.
 - d. Change Orders.
 - e. Applications for Payment.
- 6. Adequacy of distribution of Contract Documents.
- 7. Procedures for maintaining Record Documents.
- 8. Use of Premises:
 - a. Office, work and storage areas.
 - b. Owner's requirements.
- 9. Construction facilities, controls and construction aids.

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- 10. Temporary Utilities.
- 11. Safety and first-aid procedures.
- 12. Security procedures.
- 13. Housekeeping procedures.
- 4. PROGRESS MEETINGS:
 - A. Contractor shall schedule regular periodic meetings at least monthly or more often if deemed appropriate by the Architect.
 - B. Hold called meetings as required by progress of work.
 - C. Location of the meetings: Project field office of Contractor.
 - D. Attendance:
 - 1. Owner and Architect/Engineers and his professional consultants as needed.
 - 2. Subcontractors as appropriate to the agenda.
 - 3. Suppliers as appropriate to the agenda.
 - 4. Others.
 - E. Suggested Agendum:
 - 1. Review, approval of minutes of previous meetings.
 - 2. Review of work progress since previous meetings.
 - 3. Field observations, problems, conflicts.
 - 4. Problems which impeded Construction Schedule.
 - 5. Review of off-site fabrication, delivery schedule.
 - 6. Corrective measures and procedures to regain projected schedule.
 - 7. Revisions to Construction Schedule.
 - 8. Progress, schedule, during succeeding work period.
 - 9. Coordination of schedules.
 - 10. Review submittal schedules; expedite as required.
 - 11. Maintenance of quality standards.
 - 12. Pending changes and substitutions.
 - 13. Review proposed changes for:

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- a. Effect on Construction Schedule and on completion date.
- b. Effect on other contracts of the Project.

PART 2 - PRODUCTS Not used.

PART 3 - EXECUTION Not used.

END OF SECTION 01200.

MCGINNISS & FLEMING ENGINEERING, INC. MFE-P1640 – Project Meetings

SECTION 01210 - PROCEDURES AND PERFORMANCES

PART 1 - PROCEDURES

1. Observation: The Architect/Engineer may review all the work including Architectural, Civil, Structural, Plumbing, Electrical and Mechanical on this project.

PART 2 - PERFORMANCE

1. Measurements and Dimensions: Before ordering materials or doing work which is dependent for proper size, or installation upon coordination with building conditions, the Contractor shall verify all dimensions by taking measurements at the building and shall be responsible for the correctness of same. No consideration will be given any claim based on the difference between the actual dimensions and those indicated on the drawings. Any discrepancies between the drawings and/or the specifications and the existing conditions shall be referred to the Architect/Engineer for adjustment before any work affected thereby is begun.

PART 3 - EXECUTION

Not used.

END OF SECTION 01210.

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SECTION 01310 - CONSTRUCTION SCHEDULE

PART 1 - GENERAL

- 1. The progress schedule required under the General Conditions shall be prepared using the critical path method as described in the Supplementary General Conditions and herein.
 - A. The critical path schedules requirement will consist of a two-part network submittal (interim schedule, and detailed schedule), along with monthly progress status reports (Monthly Report), quarterly progress forecast reports (Quarterly Report), and monthly update to the networks and analysis. The planning, scheduling, management, and execution of the Work is the sole responsibility of the Contractor. The progress schedule requirement is established to allow Owner to review Contractor's planning, scheduling, management and execution of the work; to assist owner in evaluating work progress and make progress payments; and to allow other contractors to cooperate and coordinate their activities with those of the Contractor.
 - B. Review of the schedule of submittals shall not relieve Contractor from responsibility for any deviations from the Contract Documents unless Contractor has, in writing, submission and received written concurrence to the specific deviations, nor shall any concurrence by Owner and Architect/Engineer relieve Contractor from, responsibility for errors and omissions in the submittals.
- 2. INTERIM SCHEDULE SUBMITTALS
 - A. Submittal set shall include a time-scaled graphic arrow diagram, a detailed schedule of values incorporating shop drawing submittals, and interim status reports. The initial submittal shall be delivered within fourteen (14) calendar days of the effective date of the Agreement and shall use the Notice to Proceed as the data date. The submittal shall be submitted on time, be completed, comply with all contract conditions, and represent realistic approach to the Work. No progress payments for work performed shall be made until this submittal set is submitted and accepted.
 - B. The graphic arrow diagram shall show one (1) detailed activity for all work to be performed during the first 120 calendar days after Notice to Proceed, and two (2) summary activities for the remainder of the contract.
 - C. Interim status reports shall be revised and submitted monthly following the initial preliminary schedule submittal, and continue through the first 60 calendar days.
- 3. DETAILED SCHEDULE SUBMITTAL
 - A. Submittals shall include a time-scaled (day after Notice to Proceed) graphic arrow diagram showing all contract activities, computer printout reports, and a supporting narrative. The initial detailed schedule submittal shall be delivered within 10 calendar days after the Notice to Proceed, and shall use the Notice to Proceed as the data date. The submittal shall be on time, complete, comply with all Contract conditions, and represent a reasonable approach to the Work. No progress payments shall be made for work performed after the first 60 days of the Contract until the detailed schedule submittal is submitted and accepted.
 - B. The graphic arrow diagram shall be formatted in accordance with the paragraph 2A above. The diagram shall include all detailed activities included in the interim schedule submittal grouped by major areas of work and detailed activities, as shown on the Schedule of Values.

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- 4. SUBMISSIONS
 - A. Submit initial schedules within 14 days after award of Contract.
 - 1. Architect will review schedules and return review copy within 10 days after receipt.
 - 2. If required, resubmit within 7 days after return of review copy.
- B. Submit revised and/or updated progress schedules with each application for payment.
- 5. DISTRIBUTION
 - A. Distribute copies of the reviewed schedules to:
 - 1. Architect/Engineer
 - 2. Owner's Representative
 - 3. Subcontractors
 - 4. Other concerned parties
 - B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.
- 6. COMPLIANCE

See the Supplementary General Conditions for consequences of non-compliance.

PART 2 - PRODUCTS Not used.

PART 3 - EXECUTION Not used.

END OF SECTION 01310.

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SECTION 01340 - SUBMITTALS

PART 1 - GENERAL

1. REQUIREMENTS INCLUDED:

Submit Shop Drawings, Product Data and Samples required by Contract Documents.

Submittals may include, but are not limited to the following:

See individual Specification Sections – Submit for each section that mentions submittal requirements and for all scheduled mechanical/electrical equipment.

- 2. RELATED REQUIREMENTS:
 - A. Definitions and Additional Responsibilities of Parties: General Conditions of the Contract.
 - B. Designate in the Construction Schedule, Application for Payments, or in a separate coordinated schedule, the dates for submission of Shop Drawings, Product Data and Samples.
 - C. II Contractual Conditions
- 3. SHOP DRAWINGS:
 - A. Drawings shall be presented in a clear and thorough manner.

Details shall be identified by reference to sheet and detail, schedule or room numbers shown on Contract Drawings.

- B. Shall be <u>original drawings</u>, prepared by Contractor, Subcontractor, Supplier or Distributor, which illustrate some portion of the work, showing fabrication, layout, setting or erection details. **DUPLICATION OF CONTRACT DOCUMENTS FOR ANY SUBMITTAL SHALL NOT BE ACCEPTABLE.**
 - 1. Prepared by a qualified detailer.
 - 2. Identify details by reference to sheet and detail numbers shown on Contract Drawings.
 - 3. The contractor may, at his expense, purchase a limited set of electronic files of the Contract Documents from the Architect/Engineer to assist in the production of the Shop Drawings. The file set shall be limited to the specific area of interest to the Contractor. All fee schedules for the files shall be set by the Architect/Engineer. The Architect/Engineer reserves all rights to the files under copyright laws and reserves the right to not release any electronic files.
- C. Shop Drawing transmittal letter shall be submitted separate for each required section as provided at the end of this section. Submittal shall note any and all deviations from Contract Documents.
- 4. PRODUCT DATA:
 - A. Preparation

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- 1. Clearly mark each copy to identify pertinent products or models.
- 2. Show performance characteristics and capacities.
- 3. Show dimensions and clearances required.
- 4. Show wiring or piping diagrams and controls.
- 5. Note deviations from Contract Documents.
- B. Manufacturer's standard schematic drawings and diagrams:
 - 1. Modify drawings and diagrams to delete information which is not applicable to the work.
 - 2. Supplement standard information to provide information specifically applicable to the work.
 - 3. Note deviations from Contract Documents.
- 5. SAMPLES:
 - A. Office samples shall be of sufficient size and quantity to clearly illustrate materials, equipment or workmanship, and to establish standards by which completed work is to be judged.
 - 1. Functional characteristics of the product, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
 - 3. After review, samples shall be used for comparison in construction of project.
 - 4. Note deviations from Contract Documents.
 - B. Field samples and mock-ups.
 - 1. Erect at project site at location acceptable to Architect/Engineer.
 - 2. Construct each sample or mock-up complete, including work of all trades required in finished work.
 - 3. Note deviations from Contract Documents.
- 6. CONTRACTOR RESPONSIBILITIES:
 - A. Review Shop Drawings, Product Data and Samples prior to submission.

Check and stamp submittal with his approval.

- B. Determine and verify:
 - 1. Field measurements.
 - 2. Field construction criteria.

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- 3. Catalog numbers and similar data.
- 4. Conformance with specifications.
- 5. Note deviations from Contract Documents.
- C. Coordinate each submittal with requirements of the work and of the Contract Documents.
- D. Notify the Architect/Engineer in writing, at time of submission, of his review and approval of submittal and of any deviations in the submittals from requirements of the Contract Documents.
 - Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Architects/Engineers review of submittals, unless specific deviations are called to the attention of the Architect/Engineer in writing and the Architect/Engineer gives written acceptance of specific deviations.
 - 2. Contractor's responsibility for errors and omissions in submittals is not relieved by Architect's/Engineer's review of submittals.
- E. Begin no fabrication or work which requires submittals until return of submittals with Architect/Engineer review.
- F. Submittals not reviewed and approved by the Contractor will be rejected.
- 7. SUBMISSION REQUIREMENTS:
 - A. Make submittals promptly in accordance with accepted schedule, and in such sequence as to cause no delay in the work or in the work of any other Contractor. Use transmittal format included herein.
 - B. Number of submittals required:
 - 1. Shop Drawings: Submit sufficient quantity of prints of shop drawing for the Contractor's use and two (2) copies to be retained by the Architect.
 - 2. Product Data: Submit sufficient quantity of Product Data for the Contractor's use and two (2) copies to be retained by the Architect.
 - 3. Samples: Submit the number stated in each specification section. Provide two (2) samples if not indicated.
 - C. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The project title and number.
 - 3. Contract identification.
 - 4. The names of Contractor, Supplier and Manufacturer.
 - 5. Identification of the product, with the specification section number.
 - 6. Field dimensions, clearly identified as such.

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- 7. Relation to adjacent or critical features of the work or materials.
- 8. Identification of revisions on re-submittals.
- 9. Applicable Standards (such as ASTM or Federal Specification numbers).
- 10. An 8 inch x 3 inch blank space for contractor and Architect/Engineer or provide review status cover page.
- 11. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the work and of Contract Documents.

D. RE-SUBMISSION REQUIREMENTS:

- A. Make any corrections or changes in the submittals required by the Architect/Engineer and resubmit until accepted.
- B. Shop drawings and product data:
 - 1. Revise initial drawings of data, and resubmit as specified for the initial submittal.
 - 2. Cloud any change which has been made.
 - 3. Indicate shop drawing is being resubmitted, use Architect's/Engineer's shop drawing identification number if provided.
- C. Samples: Submit new samples if requested by Architect.

9. DISTRIBUTION

Distribute reproductions of Shop Drawings and copies of Product Data which carry the Architect/Engineer stamp of acceptance to:

- 1. Job site file.
- 2. Subcontractors.
- 3. Supplier or Fabricator.
- 4. Project close-out documents (Section 01700).

10. ARCHITECT/ENGINEER DUTIES

- A. Review submittals; allowing Architect/Engineer a period of 14 calendar days for review and return of Shop drawings.
- B. Affix stamp and initials or signature and indicate requirements for resubmittal or approval of submittal.
- C. Return submittals to Contractor for distribution of for re-submission.

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D. Forward copy of submittal for Owner's use and information. This shall not relieve contractor's requirements in other sections to provide the Owner with a complete record copy at job close-out.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

- 1. Shop Drawing Submittals shall be reviewed in accord with the following:
 - A. Review by Architect/Engineer of Record of submittals is for general conformance with the design concept as presented by the Contract Documents. No detailed check of quantities or dimensions will be made.
 - B. The General Contractor/Construction Manager is responsible for assuring that all submittals comply with the latest project plans, specifications, governing codes and regulations and is solely responsible for confirming all quantities, dimensions, fabrication techniques and coordinating work with all trades.
 - C. Shop drawings are to be submitted in a timely manner allowing adequate time for processing. An average submittal is reviewed by the Architect/Engineer of Record within 14 calendar days of receipt.
 - D. Submit shop drawings for specific components, such as columns, footings, etc., in their entirety. Shop drawings for similar floors shall be submitted in the same package.
 - E. All submittals are to be accompanied by a letter of transmittal. Do not combine different submittals on the same transmittal.
 - F. All shop drawings must bear evidence of the Contractor's approval prior to submitting to the Architect/Engineer of Record.
 - G. Submit quantities per Part 1; 7.B.
 - H. All changes and additions made on re-submittals must be clearly flagged and noted. The purpose of the re-submittals must be clearly noted on the letter of transmittal. Architect/Engineer of Record review is limited to those items causing the resubmission.
 - I. For criteria applicable to shop drawings requiring engineering input by a specialty engineer, see below.
 - J. Shop drawings not meeting the above criteria or submitted after fabrication will not be reviewed.
 - K. The Contract Documents are not to be reproduced for use as shop drawings.
- 2. Shop Drawings requiring input by Specialty Engineer shall be reviewed in accord with the following:
 - A. Specialty Engineer:
 - 1. Definition A Florida registered professional engineer, not the structural engineer

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of record, who specializes in and who undertakes the design of structural components or structural systems included in a specific submittal prepared for this project.

- 2. Shall be:
 - a. An employee or officer of a fabricator.
 - b. An employee or officer of an entity supplying components to a fabricator.
 - c. An independent consultant retained by the fabricator of his supplier.
- B. Shop Drawings requiring a specialty engineer are fabrication and erection drawings prepared for, but not limited to the following items:

Aluminum or light gage steel exterior wall systems, prefabricated steel stairs, handrails, precast concrete components, post-tensioning systems, prefabricated wood components, open web steel joists, formwork and falsework shoring and reshoring.

- C. Submittals shall clearly identify the specific project, applicable codes, list the design criteria, and shall show all details and plans necessary for proper fabrication and installation. Calculations and shop drawings shall identify specific product utilized. Generic products will not be accepted.
- D. Shop drawings and calculations must be prepared under the direct supervision and control of the specialty engineer.
- E. Shop drawings and calculations require the impressed seal, date and signature of the specialty engineer. Computer printouts are an acceptable substitute for manual computations provided they are accompanied by sufficient descriptive information to permit their proper evaluation. Such descriptive information shall bear the impressed seal and signature of the specialty engineer as an indication that he has accepted responsibility for the results. Architect/Engineer of Record will retain one signed and sealed print for record.
- F. Drawings prepared solely to serve as a guide for fabrication and installation (such as reinforcing steel shop drawings or structural steel erection drawings) and requiring no engineering input do not require the seal of a specialty engineer.
- G. Catalog information on standard products does not required the seal of a specialty engineer.
- H. Review by the Architect and Structural Engineer of record of submittals is limited to verifying the following:
 - 1. That the specified structural submittals have been furnished.
 - 2. That the structural submittals have been signed and sealed by the specialty engineer.
 - 3. That the specialty engineer has understood the design intent and has used the specified structural criteria. (No detailed check of calculations will be made.)
 - 4. That the configuration set forth in the structural submittals is consistent with the contract documents. (No detailed check of dimensions or quantities will be

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made.)

- I. List of drawings shall be prepared and maintained for all shop drawings requiring participation of a specialty engineer. The list shall contain project name, name of General Contractor/Construction Manager, name of subcontractor, name of specialty engineer, drawings number, drawing title and latest revision number and date. For partial submittals, the list shall contain all anticipated drawing numbers and titles required to complete the contract. The General Contractor/Construction Manager is responsible for submitting the latest updated list of drawings with each submittal.
- J. Upon the completion of the submittal process for the project, the Contractor shall submit to the Architect/Engineer of Record a notarized affidavit stating the following:

"This is to certify that the undersigned as General Contractor/Construction Manager for the referenced project has furnished to and has received acceptance from the Architect/Engineer of Record for all structural submittals requiring participation of a specialty engineer. These submittals were prepared for work performed by the following subcontractors: (name of subcontractors)..." The final lists of shop drawings shall be attached to the affidavit.

- K. Submittals not meeting the above criteria will not be reviewed.
- L. Submit quantities per Part 1; 7.B.

END OF SECTION 01340.

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SECTION 01370 - SCHEDULE OF VALUES

PART 1 - GENERAL

GENERAL REQUIREMENTS:

- A. Related requirements specified elsewhere.
 - 1. Progress Meetings: Section 01200.
 - 2. Construction Schedule: Section 01310.
- B. Submit to the Architect/Engineer a Schedule of Values, **no later than** 14 calendar days after date of Notice to Proceed.
- C. Upon request by Architect/Engineer, support values given with data that will substantiate their correctness.
- D. Use Schedule of Values only as basis for Contractor's Application for Payment.

FORM OF SUBMITTAL:

- A. Submit Typewritten Schedule of Values on AIA form G702, and G703. Computer generated formats of this form are acceptable.
- B. Use table of Contents of this specification as a <u>minimum</u> basis for format for listing cost of Work. Additional breakdowns shall be as determined and required by the Architect/Engineer and Owner. Work shall be broken into labor and material costs.
- C. Identify each line item with number and title as listed in Table of Contents of this Specification.

PREPARING SCHEDULE OF VALUES:

- A. Itemize separate line item cost for each of the following general cost items as applicable.
 - 1. Performance and Payment Bonds.
 - 2. Field Supervision and Layout.
 - 3. General Conditions.
 - 4. Temporary Facilities and Controls.
 - 5. Other items as deemed appropriate.
 - 6. Mobilization
 - 7. De-Mobilization
- B. Itemize separate line cost for work required by each section of this Specification. Quantities should be sufficiently detailed and subdivided as necessary to describe all of the labor and materials incorporated into the work to accurately measure the Contractor's progress for periodic payments.
- C. Round off figures to nearest dollar.

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D. Make sum of total cost of all items listed in each schedule equal in total Contract Sum.

REVIEW AND RESUBMITTAL:

- A. After review by owner and Architect/Engineer, revise and resubmit Schedule of Values as required.
- B. Resubmit revised Schedule of Values in the same format.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTIONS

Not used.

END OF SECTION 01370.

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SECTION 01410 - SPECIAL TESTING & INSPECTION REQUIREMENTS

PART 1 - GENERAL

REQUIREMENTS INCLUDED:

Owner will employ and pay for the services of an independent testing laboratory to perform specified testing. Testing to be provided by Owner includes, but is not limited to, construction materials, soil compaction, subsurface improvements, concrete, mortar, grout, steel, roofing and HVAC test and balance.

- 1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
- 2. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the work of the Contract.
- 3. RETESTS DUE TO FAILURE FOR ANY AND ALL REASONS SHALL BE AT THE EXPENSE OF THE CONTRACTOR. Costs of retests shall be recovered by deducting the costs of same from the Contract amount by Change Order.

RELATED REQUIREMENTS:

- A. General Condition of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders of approvals of public authorities.
- B. Respective sections of specifications: Certification of products.
- C. Each specification section where required: laboratory tests required, and standards for testing.

LABORATORY DUTIES:

- A. Cooperate with Architect/Engineer and Contractor; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specific standards.
 - 2. Ascertain compliance of materials with requirements of Contract Documents.
- C. Promptly notify Architect/Engineer and Contractor of observed irregularities or deficiencies of work or products.
- D. Promptly submit written report of each test and inspection; two (2) copies each to Architect/Engineer and Contractor, and one (1) copy to Owner's Representative. Each report shall include:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing Laboratory name, address and telephone number.
 - 4. Name and signature of laboratory inspector.

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- 5. Date and time of sampling or inspection.
- 6. Record of temperature and weather conditions.
- 7. Date of test.
- 8. Identification of product and specification section.
- 9. Location of sample or test in the project.
- 10. Type of inspection or test.
- 11. Results or tests and compliance with Contract Documents.
- 12. Interpretation of test results, when requested by Architect/Engineer.
- E. Perform additional tests as required by Architect/Engineer or the Owner.

LIMITATIONS OF AUTHORITY OF TESTING LABORATORY:

Laboratory is not authorized to:

- 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
- 2. Approve or accept any portion of the work.
- 3. Perform any duties of the Contractor.

CONTRACTOR'S RESPONSIBILITIES:

- A. Contractors requesting inspections shall provide UBCI a minimum of 24 hour notice in written format. Inspection will not be conducted under normal circumstances on Saturdays, Sundays, or observed holidays. If required due to extenuating conditions, an inspection may be requested on these days with 3 working days written notice. The UBCI reserves the right to approve or deny such requests.
 - 1. The following information is to be included in ALL submitted requests:
 - Permit number
 - Job location
 - Contractor requesting inspection
 - Contact number of requesting party
 - Type of inspection requested
 - Date and time when the item will be ready for inspection
- B. Cooperate with laboratory personnel, provide access to work, or to manufacturer's operations.
- C. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- D. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other material mixes which require control by the testing laboratory.
- E. Furnish copies of Products test reports as required.

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- F. Furnish incidental labor and facilities:
 - 1. To provide access to work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.

G. Notify the appropriate persons sufficiently in advance (24 hr. minimum) of operations to allow for laboratory assignment of personnel and scheduling of tests.

When tests or inspections cannot be performed in a timely manner by no fault of the Owner after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to contractor's negligence.

- G. Make arrangements with laboratory and pay for additional samples and tests required for Contractor's convenience.
- H. Maintain a log at the site of all inspections and tests performed. The log shall indicate the date, time and type of inspection and/or test and shall be initialed by the person who performed the same.
- I. At the A/E's or UBCI's discretion, uncover any work concealed by subsequent construction that was not inspected and/or tested by the appropriate persons. The uncovering shall be performed at the Contractor's expense without change in the Contract time.

PROJECT INSPECTION ITEMS:

Items requiring inspection or notification by the Contractor include, but are not limited to the list below using the following key:

- A. Items for which inspection by the UBCI is mandatory.
- B. Items for which the Contractor shall provide notification. The UBCI shall inspect the item or waive the inspection or the A/E may perform the inspection in the UBCI's stead.

General:

-	Any inspections performed incorporated	l by	Manufacturer's	Representative	for	any	products
	in the work					В	
Sitework:							
-	Soil removal for over-excava	tion		В			
1000	Soil compaction			В			
150	Soil compaction testing			В			

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14200	Subsurface preparation for all landscaping		В	
8	Placing piles for foundations		В	
Concrete (Note	: Each occurrence, regardless of size, requires notification):			
æ	Footings immediately prior to placing concrete (dewatered with rebar in place)	А		
-	Concrete slabs immediately prior to placing concrete (reinforcing, vapor barrier and utilities in place)	A		
-	Rebar placement and formwork for all structural concrete elements		А	
191	Structural concrete placement		А	
Masonry (Note	e: Each occurrence, regardless of size, requires notification):			
-	CMU cells with reinforcing in place prior to filling with grout		A	
-	Placing grout in CMU cells		В	
Steel:				
-	Structural steel erection	В		
-	Testing of structural steel connections	А		
-	Structural steel members and connections prior to concealment by subsequent construction	A		
Thermal & Moi	sture Protection:			
-	Inspect deck condition prior to commencement of roofing	А		
-	Commencement of roof insulation installation	В		
-	Application of roofing membrane plys (orcap sheet)		В	
-	Installation of metal roofing		В	
177	Inspection of finished roof by Manufacturer's Representative		А	
120	Insulation placement prior to concealment		А	
Windows:				
25	Inspection of finished installation by Window Manufacturer's Representative	В		
Finishes:				
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1007	Metal stud walls prior to application of Gypsum Panel Products	A	
-	"Screw Inspection" prior to commencing taping and finishing of Gypsum Panel Products	В	
-	Installation of ceramic tile, carpet, VCT or other building finishes	В	
Buried Pipe:			
7 <u>10</u> 3	Before insulation		А
-	Prior to any pour of anchors or other underground concrete over pipes, including foundations		A
-	Prior to backfill (Insulation Inspection)	А	
	Witness pressure tests		А
Ductwork:			
	Prior to external insulation		В
-	Blower leak test	В	
-	Above gypsum ceilings - before ceiling installed	А	
Above Ground	d Pipe:		
-	Prior to any concrete pour around pipe penetration		А
2-0	Prior to insulation		В
Gas Pipe, Buried:			
-	Under slab-inspect before installation in sleeves		A
-	Inspect all gas pipe in sleeves or not, prior to burial		А
-	Witness pressure test		А
Underground Tanks:			
8	Inspect steel in deadmen or slabs prior to pour	А	
8	Inspect pit and tank prior to lowering tank		В
8	Inspect tank and tie-down prior to backfill		А
Domestic Water Pipe Below Slab:			
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			-

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-	Inspect and witness pressure test before backfill	А
Electrical:		
127	Testing of all electrical systems (intercom, clocks, power, etc.)	А
1920	Installation of electrical conduit, wiring and equipment	В
-	Inspect underground conduits prior to backfilling	А

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01410.

SECTION 01510 - TEMPORARY UTILITY CONNECTIONS

PART 1 - GENERAL

<u>REQUIREMENTS</u>: Furnish, install and maintain temporary utilities required for construction, remove on completion of work. These may include, but are not limited to, the following:

- A. Temporary lighting and power for all construction activities, including extension of temporary electrical service into building.
- B. Temporary heat and ventilation.
- C. Temporary telephone.
- D. Temporary water for construction, including all distribution systems.
- E. Temporary sanitary facilities for construction personnel.
- F. Temporary fire protection system as required by local authorities.
- G. Provide and make available for use by Subcontractors temporary light, power and water required in the performance of their Work as part of the Work of this Section.

RELATED REQUIREMENTS:

- A. Section 01010, Summary of Work.
- B. Section 01590, Field Offices and Sheds.

REQUIREMENTS OF REGULATORY AGENCIES:

- A. Comply with National Electric Code.
- B. Comply with Federal, State and local codes and regulations and with utility company requirements.

PART 2 - PRODUCTS

<u>MATERIALS</u>: may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions and must not violate requirements of applicable codes and standards.

TEMPORARY ELECTRICITY AND LIGHTING:

A. Contractor may use the Owner's power provided the privilege is not abused.

- B. Install circuit and branch wiring, with are distribution boxes located so that power and lighting is available throughout the construction by the use of construction type power cords.
- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate for Work and for areas accessible to the public.
- D. Provide and maintain temporary feeders to permanent mechanical equipment requiring service, including ventilation, until permanent feeds are connected and energized.
- E. When directed by Architect/Engineer after permanent power has been switched over, remove

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those portions of temporary light and power installation which are the responsibility of the Contractor.

F. Provide temporary site security lighting to maintain 3 fc measured minimum light level.

TEMPORARY HEAT AND VENTILATION:

Not Required

TEMPORARY TELEPHONE SERVICE:

Not Required

- A. Arrange with local telephone service company, provide direct line telephone service at the construction site for the use of personnel and employees. Service required:
 - 1. One direct line instrument in Contractor's Field Office.
 - 2. Other instruments at the option of the Contractor or as required by regulations.
 - 3. One direct line instrument in Architect/Engineer's Field Office.
- B. Pay all costs for installation, maintenance and removal and service charges for local calls. Toll charges shall be paid by the party who places the call unless preapproved by the Contractor.

TEMPORARY WATER:

Not Required

B. Install branch piping with taps located so that water is available throughout the construction by the use of hoses. Protect piping and fittings against freezing.

TEMPORARY SANITARY FACILITIES:

- A. Provide sanitary facilities in compliance with laws and regulations.
 - 1. Since no services will be available for temporary toilets, provide, maintain and remove when directed, portable chemical toilets for construction personnel.
 - 2. Provide quantity and location of temporary toilets as required by authorities having jurisdiction, including, but not limited to OSHA, and subject to further directions by the Engineer. Temporary toilets shall be located as accepted by the Owner and Architect/Engineer.
- B. Service, clean and maintain facilities and enclosures.
- C. Field office trailer toilet may be provided with temporary connections into existing sanitary gravity drains.

TEMPORARY FIRE PROTECTION SYSTEM:

Provide temporary fire protection systems for the project in accord with NFPA Standard #241.

PART 3 - EXECUTION

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GENERAL:

- A. Comply with applicable requirements specified in Division 15 Mechanical and in Division 16 Electrical.
- B. Maintain and operate systems to assure continuous service.
- C. Modify and extend systems as work progress requires.

REMOVAL:

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore existing facilities used for temporary services to specified, or to original condition.
- D. Restore permanent utilities used for temporary services to specified condition. Prior to Final Inspection, remove temporary lamps and install new lamps.

END OF SECTION 01510

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SECTION 01580 - PROJECT IDENTIFICATION SIGN

PART 1 - GENERAL

REQUIREMENTS:

No Project Identification Sign Required

<u>NON-PERMISSIBLE SIGNAGE</u>: Contractors and subcontractors shall not erect nor maintain any graphic signage of any and all types including that on temporary facilities or trailers.

PERMISSIBLE SIGNAGE:

- A. Directional signage.
- B. Signage related to safety.
- C. Signage in above may not include any graphical or text other than that directly related to the conveyed message and is subject to acceptance by the Architect/Engineer and Owner.

END OF SECTION 01580

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SECTION 01590 - FIELD OFFICES AND SHEDS, AND TEMPORARY BARRIERS

PART 1 - GENERAL

REQUIREMENTS:

NOT REQUIRED

END OF SECTION 01590

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SECTION 01600 - MATERIAL AND EQUIPMENT

PART 1 - GENERAL

REQUIREMENTS:

Material and Equipment Incorporated into the Work:

- 1. Conform to the applicable specifications and standards.
- 2. Comply with size, make, type and quality specified, or as specifically accepted in writing by the Architect/Engineer.
- 3. Manufactured and Fabricated Products:
 - a. Design, fabricate and assemble in accord with the best engineering and shop practices.
 - b. Manufacturer like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - c. Two or more items of the same kind shall be identical, by the same manufacturer.
 - d. Products shall be suitable for service conditions.
 - e. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically accepted in writing.
- 4. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

RELATED DOCUMENTS:

- A. II. Contractual Conditions
- B. Section 01010 Summary of Work
- C. Section 01300 Submittals
- D. Section 01710 Cleaning

MANUFACTURER'S INSTRUCTIONS:

A. When Contract Documents require that installation of Work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two (2) copies each to Owner and Architect/Engineer.

Maintain one set of complete instructions at the job site during installation and until complete.

- B. Handle, install, connect, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
 - 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Architect/Engineer for further instructions.

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- 2. Do not proceed with work without clear instructions.
- C. Perform Work in accord with manufacturer's instructions, unless otherwise specified. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

TRANSPORTATION AND HANDLING:

- A. Arrange deliveries of Products in accord with construction schedules, coordinate to avoid conflict with Work and conditions at the site.
 - 1. Deliver Products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and submittals, and that Products are properly protected and undamaged.
- B. Provide equipment and personnel to handle Products by methods to prevent soiling or damage to Products or packaging.

STORAGE AND PROTECTION:

- A. Store products in accord with manufacturer's instructions, with seals and labels intact and legible.
 - 1. Store products subject to damage by the elements in weather-tight enclosures.
 - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.
- B. Exterior Storage.
 - 1. Store fabricated products above the ground, on blocking or skids, prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
 - 2. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
 - 3. All storage means and methods are subject to acceptance by the Owner and Architect/Engineer.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored Products to assure that Products are maintained under specified conditions, and free from damage or deterioration.
- D. Protection After Installation:
 - Provide substantial coverings as necessary, to protect installed products from damage from traffic, water and subsequent construction operations. Remove when no longer needed.
 - 2. All protection means and methods are subject to acceptance by the Owner and Architect/Engineer.

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SUBSTITUTIONS AND PRODUCT OPTIONS:

A. Products List:

Within 30 days after Contract Date, submit to Architect, a complete list of major products proposed to be used, with the name of the manufacturer and the installing subcontractor.

- B. Product Options:
 - 1. For Products specified only by reference standard, select any product meeting that standard.
 - 2. For Products specified by basis for design and naming several acceptable manufacturers, select any one of the acceptable manufacturers named, which complies with the specification.
 - 3. For Products specified by naming only one Product and manufacturer, there is no option.
- C. Substitutions
 - 1. Substitutions after bidding are not acceptable except as indicated in C.2 below.
 - 2. Substitutions of products will be considered after bids are opened <u>only</u> under the following conditions:
 - a. The Contractor shall place orders for specified materials and equipment promptly upon award of contract. No excuse or proposed substitution will be considered for materials and equipment due to unavailability unless proof is submitted that firm orders were placed ten days after review by the Architect/Engineer of the item listed in the specifications.
 - b. The reason for the unavailability is beyond the control of the Contractor; unavailability will be construed as being due to strikes, lockouts, bankruptcy, discontinuance of the manufacture of the product, or acts of God.
 - c. Requests for such substitution shall be made all in writing to the Architect after the award of a contract and within 10 days of the date that the Contractor ascertains that he cannot obtain the material or equipment specified.
 - d. Requests shall be accompanied by a complete description of the material or equipment which the contractor wishes to use as a substitute. Substitutions must be recommended by the Architect/Engineer to the Owner who will accept in writing.
 - e. Contractor's Representative:

A request for substitution constitutes a representation that Contractor:

- 1. Has investigated the proposed product and determined that it is equal to or superior in all respects to that specified.
- 2. Will provide the same warranties or bonds for the substitution as for the Product specified.

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- 3. Will coordinate the installation of an accepted substitution into the Work, and make such other changes as may be required to make the Work complete in all respects.
- 4. Waives all claims for additional costs, under his responsibility, which may subsequently become apparent.
- f. Architect/Engineer will review request for substitutions with reasonable promptness and notify Contractor, in writing, of the decision to accept or reject the requested substitution.
- g. Submit a separate request for each Product, supported with complete data, with drawings and samples as appropriate, including:
 - 1. Comparison of the qualities of the proposed substitution with that specified. Provide data of specified product for comparison.
 - 2. Changes required in other elements of the work because of the substitution.
 - 3. Effect on the construction schedule.
 - 4. Cost data comparing the proposed substitution with the Product specified.
 - 5. Any required license fees or royalties.
 - 6. Availability of maintenance service, and source of replacement materials.
 - 7. Submit a sample of the basis for design and the requested substitution; samples will not be returned. Should basis for design not be available, submit product by listed acceptable manufacturer.
- h. Architect/Engineer shall be the sole judge of the acceptability of the proposed substitution.
- i. Review of substitutions shall be at Contractor's expense. Architect/Engineer shall charge the Contractor his standard hourly rates.
- j. Modification of Contract Documents to accept such substitutions shall be at Contractor's expense. Architect/Engineer shall charge the Contractor his standard hourly rates.
- 3. Substitutions of products will be considered during bidding <u>only</u> under the following conditions:
 - a. Submit a separate request for each Product, supported with complete data, with drawings and samples as appropriate, including:
 - 1. Comparison of the qualities of the proposed substitution with that specified. Provide data of specified product for comparison.
 - 2. Changes required in other elements of the work because of the substitution.
 - 3. Effect on the construction schedule.

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- 4. Cost data comparing the proposed substitution with the Product specified.
- 5. Any required license fees or royalties.
- 6. Availability of maintenance service, and source of replacement materials.
- 7. Submit a sample of the basis for design and the requested substitution; Samples will not be returned.
- b. Architect/Engineer shall be the sole judge of the acceptability of the proposed substitution.
- c. Modifications of contract Documents to accept such substitutions accepted during bidding, should same be used by the Contractor in his bid and presented during the submittal process, shall be charged to the Contractor at the Architect's standard hourly rates.
- d. Substitutions must be presented to the Architect 15 days prior to the date set for the receipt of bids; telephone requests shall not be accepted. persons requesting substitutions will be notified only by mail, whether request is acceptable; all bidders holding plans during bidding will receive addenda incorporating acceptable substitutions.

REUSE OF EXISTING MATERIAL:

Except as specifically indicated or specified, materials and equipment removed from an existing structure shall not be used in the completed work.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01600

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SECTION 01700 - CONTRACT CLOSEOUT

PART 1 - GENERAL

REQUIREMENTS:

A. Closeout is hereby defined to include general requirement near end of Contract Time in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner and similar actions evidencing completion of the Work. Time of closeout is directly related to "Substantial Completion" and therefore may be either a single time period for entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

PREREQUISITES TO SUBSTANTIAL COMPLETION:

- A. Prior to requesting Architect's/Engineer's inspection for certification of substantial completion for either entire Work or portions thereof, complete the following and list known exceptions in request:
 - 1. In progress payment request, show either 100% completion for portion of work claimed as "substantially complete" or list incomplete items, value of incompletion and reasons for being incomplete.
 - 2. Include supporting documentation for completion as indicated in these Contract Documents.
 - 3. Submit statement showing accounting of changes to the Contract sum.
 - 4. Advise Owner of pending insurance change-over requirements.
 - 5. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.
 - Obtain and submit releases enabling Owner's full and unrestricted use of the Work and access to services and utilities, including (where required) occupancy permits, operating certificates and similar releases.
 - 7. Deliver tools, spare parts, extra stocks of materials and similar physical items to Owner.
 - Complete start-up testing of systems and instructions of Owner's operating/maintenance personnel. Discontinue (or change over) and remove from project site temporary facilities and services, along with construction tools and facilities, mock-ups and similar elements.

9. Deliver original, fully executed hard PERMIT Card with all appropriate signatures indicating each applicable Division is finally completed and signed off by the appropriate tradesperson.

B. Upon receipt of Contractor's request, Architect/Engineer will either proceed with inspection or advise contractor of prerequisites not fulfilled. Following initial inspection, Architect/Engineer will either prepare certificate of substantial completion or advise the contractor of work which must be performed prior to issuance of certificate; and repeat inspection when requested and assured that work has been substantially completed. Results of completed inspection will form initial "punchlist" for final acceptance.

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PREREQUISITES TO FINAL ACCEPTANCE

- A. Prior to requesting Architect's/Engineer's final inspection for certification of final acceptance and final payment as required by General Conditions, complete the following and list known exceptions (if any) in request:
 - Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 - 2. Submit updated final statement accounting for additional (final) changes to Contract Sum.
 - 3. Submit certified copy of Architect's/Engineer's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, endorsed and dated by Architect/Engineer.
 - 4. Asbestos: [Reference: State Requirements for Educational Facilities, Section 4.2(3)(e) Asbestos: The federal Asbestos Hazard Emergency Response Act (AHERA) of October 22, 1986, requires the architect or engineer of record to sign a statement that NO asbestos-containing building materials were specified, or, to the best of his/her knowledge, were used as a building material in the project. The contractor should certify to the board that to the best of his/her knowledge, no asbestos containing building materials were used as a building material in the project. Section 255.40, F.S. prohibits the use of asbestos-containing materials in the construction of new public buildings.
 - Submit final meter readings for utilities, measured record of stored fuel and similar data as of time of substantial completion or when Owner took possession of and responsibility for corresponding elements of the work.
 - 5. Submit original Consent of Surety.
 - 6. Submit final liquidated damages settlement statement, acceptable to Owner.
 - 7. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, property survey and similar final record information.
 - 8. Complete final cleaning up requirements, including touch-up of marred surfaces.
 - 9. Touch-up and otherwise repair and restore marred exposed finishes.
 - 10. Revise and submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 11. Certificates of elevator inspection.
 - 12. Mechanical:
 - a. Air System Test and Balance (prepared by Owner's independent agent)
 - b. Piping pressure tests and certificates
 - c. Project certification
 - 13. Electrical:

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- a. System tests
- b. Project certification
- B. Reinspection Procedure:

Upon receipt of Contractor's notice that work has been completed including punch-list items resulting from earlier inspections, and excepting incomplete items delayed because of acceptable circumstances, Architect/Engineer will reinspect work. Upon completion of reinspection, Architect/Engineer will either prepare certificate of final acceptance or advise Contractor of work not completed or obligations not fulfilled as required for final acceptance. If necessary, procedure will be repeated.

If re-inspections of above referenced items are required by the Architect/Engineer due to the failure of any of the Work t comply with the claims made by the Contractor as to the status of their completeness, the Owner will deduct the costs incurred by such re-inspections from the Contract amount.

RECORD DOCUMENT SUBMITTAL:

A. Specific requirements for record documents are indicated in individual sections of these specifications. Other requirements are indicated in General Conditions. General submittal requirements are indicated in Section 01340. 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 Architect's/Engineer's reference during normal working hours.

At time of final acceptance, submit complete sets of all required record documents to the Architect/Engineer for Owner's records.

B. As-Built Record Drawings:

Maintain a white-print set of contract drawings and shop drawings in clean, undamaged condition with mark-up of actual installations which vary substantially from the work as originally shown. Mark whichever drawings are most capable of showing "field" condition fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at corresponding location on working drawings. Mark-up new information which is recognized to be of importance to Owner but was for some reason not shown on either contract drawings or shop drawings. Give particular attention to concealed work which would be difficult to measure and record at a later date. Note related change order numbers where applicable.

Upon completion of the Work, this data shall be recorded to scale, by a competent draftsman on transparent paper of the Contract Drawings. Where changes are to be recorded, the prints shall be erased in such a way as to properly represent the work as installed. Where the work was installed exactly as shown on the Contract drawings, the prints shall not be disturbed. In showing the changes, the same legend shall be used to identify piping, etc., as was used on the Contract Drawings.

The Contractor shall review the completed record drawings and ascertain that all data furnished on the drawings are accurate and truly represent the Work as actually installed. When manholes, boxes, underground conduits, plumbing, hot or chilled water lines, etc., are involved as part of the Work, the Contractor shall furnish true elevations and locations, all properly referenced for the site. Information for reference data can be obtained from the office of the Architect/Engineer. Upon completion, the subcontractor involved shall date and sign the drawings, signifying compliance with the requirements set forth herein prior to submission of prints required.

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The Contractor shall sign all pages to certify completeness of the **As-Built** Record Set of Drawings. Contractor shall submit the **marked-up** of prints to the Architect/Engineer for the Owner.

In addition to the marked-up as-built record drawings, the Contractor shall submit two (2) sets of, bound white prints, of the complete record drawings to the Architect/Engineer; which shall be carefully checked and transmitted to the Owner.

C. Electronic Files of Record Drawings

If the Construction Documents were created by Computer Aided Drafting (CAD) then upon the receipt of the final record drawings from the Contractor, the Architect/Engineer shall revise the electronic files to reflect the as-built conditions. The CAD files shall be in a file format that can be read by Autocad version 2000 and above.

A copy of the electronic files shall be recorded onto compact disk media. Two (2) copies of the disk shall be submitted to the Owner at time of transference of the Record Drawings. Each disk shall be labeled with:

- Name of Project
- Name of General Contractor and or Construction Manager at Risk
- Name of Architect, or Engineer, and their Address
- Description of software used to create files

D. As-Built Record Specifications:

Maintain one copy of specifications including addenda, change orders and similar modifications issued in printed form during construction and mark-up variations (of substance) in actual Work in comparison with text of specifications and modifications as issued. Give particular attention to substitutions, selection of options and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation. Note related record drawing information and product data where applicable.

Upon completion of the Record Specifications, the Contractor shall submit two (2) bound and printed copies to the Architect/Engineer; which shall be carefully checked and transmitted to the Owner.

E. Record Shop Drawings and Product Data:

Maintain one copy of each product data submittal and mark-up significant variations in actual work in comparison with submitted information. Include both variations from manufacturer's instructions and recommendations for installation. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned at a later date by direct observation. Note related change orders and mark-up or record drawings and specifications.

F. Record Sample Submittal:

Immediately prior to date(s) of substantial completion, Architect/Engineer (and including Owner's personnel where desired) will meet with Contractor at site and will determine which (if any) of submitted samples maintained by Contractor during progress of the work are to be transmitted to Owner for record purposes. Comply with Architect's/Engineer's instructions for packaging, identification marking and delivery to owner's sample storage space.

G. Miscellaneous Record Submittals:

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Refer to other sections of these specifications for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to date(s) of substantial completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference.

H. Operation and Maintenance Data:

See section 01730

I. Warranties and Bonds:

See section 01740

J. Spare Parts and Maintenance Materials:

See section 01750

FINAL CLEANING

- A. Special cleaning for specific units of work is specified in sections of Divisions 2 through 16. General cleaning during progress or work is specified in General Conditions and as temporary service in "Temporary Facilities" section of this Division. Provide final cleaning of the work at time indicated, consisting of cleaning each surface or unit of Work to normal "clean" condition expected for a first-class building cleaning and maintenance program. Comply with manufacturer's instructions for cleaning operations. The following are examples of cleaning levels required:
 - 1. Remove labels which are not required as permanent labels.
 - 2. Clean transparent materials including mirrors and window or glass to a polished condition removing substances which are noticeable as vision-obscuring materials. replace broken glass and damaged transparent materials.
 - Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of dust, stains, films and similar noticeable distracting substances. Avoid disturbance of natural weathering of exterior surfaces. Restore reflective surfaces to original reflective condition.
 - 4. Wipe surfaces of mechanical and electrical equipment clean; remove excess lubrication and other substance.
 - 5. Remove debris and surface dust from limited-access spaces including roofs, plenums, shafts, trenches, equipment vaults, manholes and similar spaces.
 - 6. Clean concrete floors in non-occupied spaces broom clean.
 - 7. Vacuum clean carpeted surfaces and similar soft surfaces.
 - 8. Clean plumbing fixtures to a sanitary condition free of stains including those resulting from water exposure.
 - 9. Clean light fixtures and lamps so as to function with full efficiency.
 - 10. Clean project site (yard and grounds) of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petro-chemical spills and other foreign

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deposits. Rake grounds which are neither planted nor paved, to a smooth, even-textured surface.

- 11. Vacuum clean and sanitize all cabinetwork, equipment, etc. for a move-in condition.
- B. Removal of Protection:

Remove temporary protection devices and facilities which were installed during course of the Work to protect previously completed Work during remainder of construction period.

C. Compliances:

Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at site or bury debris or excess materials on Owner's property or discharge volatile or other harmful or dangerous materials into drainage systems; remove waste materials from site and dispose of in a lawful manner.

Where extra materials of value remaining after completion of associated Work have become Owner's property, dispose of these to Owner's best advantage as directed.

CLOSEOUT DOCUMENTS CHECKLIST

All items listed below, with the exception of Item No. 1 and Item No. 2 shall be bound in individual heavy duty 3-ring vinyl covered binders. Mark appropriate identification on front and spine of each binder.

All items shall be submitted in triplicate within fifteen day of Substantial Completion for the project.

- 1. Application and Certification for Payment (Final). Four copies with original signatures and seals.
- 2. Final schedule of contract values. Four copies attached to Application and Certification for Payment.
- 3. Contractor's Affidavit of Payment of Debts (AIA G706).
- 4. Contractor's Affidavit of Release of Liens from all Contractors, Subcontractors, and Suppliers (AIA G706A).
- 5. Power of Attorney from Surety to make Final Payment.
- 6. Consent of Surety to Final Payment (AIA G707).
- 7. Contractor's Guarantee and Warranties as specified under Division 01740.
- 8. Fully executed Roof Warranty in the name of the Owner.
- 9. Special warranties as required by the specifications, in the name of the Owner.
- 10. Provide a list summarizing the various guarantees and warranties and stating the following with respect to each:
 - a. Character of work affected.
 - b. Name, address and telephone number of each Subcontractor.
 - c. Name, address and telephone number of each local firm designated to provide warranty service for an out-of-town firm. Copy of agreement between the firms.

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- d. Period of guarantee and effective date.
- e. Statement of guarantee in the following form.

"If within any guarantee period, repairs or changes are required in conjunction with the guarantee work, which in the opinion of the Architect or Engineer is rendered necessary as the result of the use of materials, equipment or workmanship, which are defective or inferior, or not in accordance with the terms of the Contract, the Contractor shall, upon written notice from the Owner, and without expense to the Owner, proceed within twenty four (24) house to place in satisfactory condition in every particular all of such guaranteed work, correct all defects therein; and make good all damages to the structure or site or equipment or contents thereof disturbed in fulfilling any such guarantee work.

- 11. Verification that the Owner's personnel has been trained in the use of their new equipment. Submit attendance lists and videotape record of all training sessions.
- 12. Operation and Maintenance Manuals.
- 13. Equipment Inventory List A list of the following equipment furnished for the project, to include drawings code designation, location (FISH number) description, manufacturer, full model number, serial number, warranty period and warranty expiration date.
 - a. All HVAC equipment.
 - b. Any plumbing equipment which carries a serial number (water heaters, compressors, electric water coolers, etc.)
 - c. Emergency generator.
 - d. Contractor furnished appliances.
- 14. Notarized Affidavit of all Subcontractor payrolls, bills for materials/equipment and other indebtedness paid and satisfied.
- 15. As-built drawings. Provide in accordance with other specification sections.
- 16. Energy management system programming, operation, maintenance, and parts service manuals. Guaranteed parts price list.
- 17. Date certain schedule for LCS personnel to be trained at Energy Management Supplier's training facility.
- 18. Punch lists signed off by Owner's Representatives.

Note: A/E shall use the enclosed "Leon County School Board Documents Receipt" form during contract close-out performance.

LEON COUNTY SCHOOL BOARD DOCUMENTS RECEIPT PROJECT: ______ SUBSTANTIAL COMPLETION DATE: ______

Note:

- 1. Receipt or Waiver of all of the following documents must be signed by the A/E and by LCS staff person prior to final payment. Fill in last name in receipt blocks. When this form with documents is received by LCS, having been received by the A/E, then A/E reviewed and accepted it. Acceptance must be signed off by a LCS person within 10 days after receipt, or the A/E must be notified in writing that a document is not acceptable. If no correspondence is received from LCS within 10 days, acceptance is automatic.
- 2. See specifications for specific requirements.

DESCRIPTION	T	Dessire	- d	Acconted
	Date	Receiv LCS	Date	_ Accepted (LCS)
AIA G706 (Payment of Debts)		1		
AIA G706A (Release of Lien)				
Surety Power of Attorney				
Consent of Surety				
		del e		
All Required Guarantees & Warranties				
List-Various Guarantees/Warranties				
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Verification of Training				
				, г т
Operation & Maintenance Manuals				
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Equipment Inventory List				
Certificate-NO Asbestos-materials GC Certificate-No Asbestos-materials A/E				
As-Built Drawings				
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EMCS Manuals	Γ Γ		1 1	Ĩ
EMCS Training Dates				
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As-Built Certification to DER				
Punch List Corrections Complete				
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Approved Submittals Package				
Control Key and Key Code	եղե	т I.		
Control Ney and Ney Code		_!	-1]]
Termite Control	t y t		000	1
Fire Alarm Certification				
Stormwater Operating Permit				
Cert. Occupancy & Cert. Final Inspect.				
Fiber & /Copper Test Results				
M/WBE Utilization Report				
HARD COPY PERMIT TO BUILDING DEPARTMENT				
Updated September 9, 2005				

Revised November 10, 2005 - Asbestos Certificate.

END OF SECTION 01700.

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SECTION 01730 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

REQUIREMENTS:

- A. Format and content of manuals.
- B. Instruction of Owner's personnel.
- C. Schedule of submittals.

RELATED REQUIREMENTS:

- A. Shop Drawings, Product Data, and Samples.
- B. Testing, Adjusting, and Balancing of Systems: Test and balance reports.
- C. Section 01700 Contract Closeout
- D. Warranties and Bonds
- E. Individual Specification Sections: Specific requirements for operation and maintenance data.

FORMAT:

- A. Prepare data in the form of an instructional manual.
- B. Binders: Commercial quality, 8-1/2 x 11, three-ring binders with hardback, cleanable, vinyl covers.
- C. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; list title of Project; use volumes as needed.
- D. Arrange content by systems, process flow, under section numbers and sequence of Table of Contents of this Project Manual.
- E. Provide tabbed fly leaf for each separate project and system, with typed description of product and major component parts of equipment.
- F. Text: Manufacturer's printed data, or typewritten data.
- G. Drawings: Provide with reinforced pocket folders. Bind in with text; fold drawings; insert into pocket folders.

CONTENTS OF EACH VOLUME:

- A. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect/Engineer and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.

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- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- E. Warranties and Bonds: Bind in copy of each.

MANUAL FOR MATERIALS AND FINISHES:

- A. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, color and texture designations. Provide information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture-protection and Weather-exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation; delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- E. Warranties and Bonds: Bind in copy of each.

MANUAL FOR MATERIALS AND FINISHES:

- A. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Provide information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture-protection and Weather-exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: As specified in individual Specifications sections.

MANUAL FOR EQUIPMENT AND SYSTEMS:

- A. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Give function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number or replaceable parts.
- B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications.
- C. Include as-installed color coded wiring diagrams.

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- D. Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. provide servicing and lubrication schedule, and list of lubricants required.
- G. Include manufacturer's printed operations and maintenance instructions.
- H. Include sequence of operation by controls manufacturer.
- I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Provide as-installed control diagrams by controls manufacturer.
- K. Provide Contractor's coordination drawings, with as-installed color coded piping diagrams.
- L. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Include test and balancing reports as specified.
- O. Additional Requirements: As specified individual specifications sections.
- P. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

INSTRUCTION OF OWNER PERSONNEL:

- A. Before final inspection, instruct Owner's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems, at agreed upon times.
- B. Use operation and maintenance manuals as basis of instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- C. Prepare and insert additional data in Operation and Maintenance Manual when need for such data become apparent during instruction.

SUBMITTALS:

- A. Submit one (1) copy of completed volumes in final form 15 days prior to final inspection. Copy will be returned after final inspection, with Architect/Engineer comments. Revise content of documents as required prior to final submittal.
- B. Submit three (3) copies of revised volumes of data in final form within ten days after final inspection.

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PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01730

MCGINNISS & FLEMING ENGINEERING, INC. MFE-P1640 – Operation and Maintenance Data 3/17/17

SECTION 01740 - WARRANTIES AND BONDS

PART 1 - GENERAL

REQUIREMENTS:

- A. Preparation and submittal of warranties and bonds.
- B. Schedule of submittals.

RELATED REQUIREMENTS:

- A. Section of 01700 Contract Closeout
- B. Individual Specifications Sections: Warranties and bonds required for specific Products or work.

Warranties and Bonds may include, but are not limited to the following:

See Individual Specification Sections

FORM OF SUBMITTALS:

Bind with operation and maintenance manuals specified in Section 01730.

PREPARATION OF SUBMITTALS:

- A. Obtain warranties and bonds, executed in triplicate (3) by responsible subcontractors, suppliers, and manufacturers within ten days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

TIME OF SUBMITTALS:

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
- B. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

WARRANTY SERVICE

A. The Contractor shall proceed with warranty repair or replacement within 24 hours of being notified that a warranty deficiency exists.

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B. In order to insure prompt and effective correction of warranty deficiencies, the Contractor shall, if he or any of his Subcontractors do not maintain fully staffed service organizations within Leon County, designate firms within Leon County authorized to perform warranty work on the Contractor's behalf. The name, addresses, and phone numbers of these designated firms shall be included within the closeout documents, along with affidavits signed by officers of the designated firms stating that they have been retained and will perform required warranty service.

END OF SECTION 01740.

MCGINNISS & FLEMING ENGINEERING, INC. MFE-P1640 – Warranties and Bonds 3/17/17

SECTION 01750 - SPARE PARTS AND MAINTENANCE MATERIALS

PART 1 - GENERAL

REQUIREMENTS:

- A. Products required.
- B. Storage and delivery of products.

RELATED REQUIREMENTS:

- A. Materials and Equipment: Storage and protection.
- B. Contract Closeout.
- C. Individual Specifications Sections: Specific spare parts and materials required.

Spare Parts and Maintenance Materials may include, but are not limited to the following:

See Individual Specification Sections

PRODUCTS REQUIRED:

- A. provide quantity of products, spare parts, maintenance tools, and maintenance materials specified in individual sections to be provided to Owner, in addition to that required for completion of Work.
- B. Products: Identical to those installed in the Work. Include quantities in original purchase from supplier or manufacturer to avoid variations in manufacture.

STORAGE AND MAINTENANCE:

- A. Store products with products to be installed in the Work, under provisions of Section 01600.
- B. Maintain spare products in original containers with labels intact and legible, until delivery to Owner.

DELIVERY:

A. Coordinate with Owner: Deliver and unload spare products to Owner at Project site and obtain receipt prior to final payment.

PART 2 - PRODUCTS:

Not used.

PART 3 - EXECUTION:

Not used.

END OF SECTION 01750

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SECTION 01760 - PROJECT PHOTOGRAPHS

PART 1 - GENERAL

Not used.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01760

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SECTION 16010 ELECTRICAL - GENERAL PROVISIONS

PART 1 - GENERAL

APPLICATION

<u>The work described hereunder</u> shall be installed subject to the Contractual Conditions for the entire Specifications.

<u>These provisions apply to all sections of Division 16 of this project except as specified otherwise in each individual section.</u> Codes, standards, policies and requirements contained in this Section are applicable to all contract documentation.

CORRELATION

<u>This Section of the Specifications</u> and its accompanying Drawings are made separate for the convenience of the Construction Manager in preparing his bid and in no way relieves the Construction Manager of his responsibility to correlate the work under this Section with that of all other trades as regards the items to be furnished by various Subcontractors, the exact location of all equipment and materials and the necessity of planning the work of all trades to avoid interference.

DESCRIPTION OF WORK

<u>Furnish all labor, materials, equipment and incidentals</u> required to complete all electrical work as specified in this Division and as shown on the Contract Drawings. Division 16 work shall include the installation of a complete and properly operating electrical system. This system required consists basically of, and is not limited to, the following:

Extend the distribution system for power including the necessary feeders, branch circuits, installation of and connection to devices, panelboards, transformers, switches, and all other equipment shown, and the connection to other power loads that are existing or new, provided by other contracts or the owner.

Extend the building ground system and provide special grounds as indicated.

Install all raceways, wiring, supports, bracing, hangers, etc. Required to complete the installation. The contractor is responsible for all physical components and labor required to complete the work.

Furnish and install and test all software, firmware, and any special coding or programming required. The contractor is responsible for all efforts in this area up to and including final acceptance by the owner. All programming modifications and adjustments required will be included in the contractor's basic price.

Perform all demolition work indicated.

<u>Refer to other Divisions of this specification</u> for electrical requirements of factory installed controllers, power supplies, etc. Electrical connections to equipment furnished as specified in other sections of these Specifications or shown on other than the Electrical Drawings shall be governed by this Division of the Specifications.

<u>The bidder shall inspect the present jobsite conditions</u> before preparing his bid. The submission of a bid will be considered evidence that such a visit and inspection was performed by the bidder and that he takes full responsibility for all factors governing his work.

<u>The electrical work shall be complete</u>, fully operational, and suitable in every way for the service required. Drawings are generally diagrammatic in nature and do not show all details, devices and incidental materials necessary to accomplish their intent. Therefore, it shall be understood that such devices and incidental materials required shall be furnished at no cost to the Owner.

RELATED WORK

<u>Drawings and general provisions of Contract</u>, including General Conditions, Supplementary General Conditions, and Special Conditions sections apply to work specified in Division 16.

<u>The Contractor shall be aware</u> that other divisions of these Specifications may apply to related work required to perform Division 16 requirements. All related work shall be performed in accordance with those divisions.

CONFORMANCE

If the Contractor takes no exceptions to these Specifications in the Submitted Bid, the Contractor will be held totally responsible for failure to comply.

Any exception to the Specification shall reference the affected paragraph(s), subject(s), and list benefit to the Owner.

<u>The Owner reserves the right</u> to have the Contractor replace installed material or equipment which does not comply with these Specifications at the Contractor's expense.

SUBMITTALS

Obtain approval before procurement, fabrication, or delivery of items to the job site. Submit manufacturers' data on the equipment listed below and as directed in other Sections of Division 16. Follow the procedures required in Division 1 of this specification. Data shall be in the form of manufacturer's descriptive data sheets and engineering drawings and will be reviewed by the Architect/Engineer before materials and equipment are delivered to the work site. Review of the submittal by the Architect/Engineer is to check for general conformance to the design intent and will not relieve the Contractor of the responsibility for the correctness of all dimensions, conformance and the proper fitting of all parts of the work.

Panelboards and Circuit Breakers Disconnect Switches Plugs and Receptacles Lighting Fixtures Lamps and Ballasts Theatrical Lighting Controls and Installation Drawings*

* prepared by Manufacturer or System Supplier

Submit manufacturers' names and catalog numbers for the following materials:

Conduit, Fittings, and Couplings Boxes and Fittings 600 Volt Wire and Cables

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Low voltage Wire and Cables Grounding Equipment

<u>The Contractor shall thoroughly check the submittal</u> for accuracy and compliance with the contract requirements. Shop drawings and data sheets shall bear the date checked and shall be accompanied by the Contractor's statement that they have been checked for conformity to the Specifications and Drawings. Submittals not so checked and noted will be returned without review.

Deliver the entire electrical submittal to the Architect/Engineer complete and in one package. An incomplete submittal will be returned to the Contractor without review.

CODES, INSPECTION AND FEES

<u>Comply with the indicated edition</u> of the following codes and ordinances. Where specific edition is not indicated, comply with the latest published edition.

American National Standards Institute - ANSI C2 - 1994 - The National Electrical Safety Code ANSI/IEEE C37.90.1 2012 Surge Withstand Capability (Swc) Tests For Relays And Relay Systems Associated With Electric Power Apparatus C62.41 - 1980 Transient Voltage Surge Suppressors (2nd revision) American Society for Testing and Materials - ASTM National Fire Protection Association - NFPA NFPA 70 - 2011; The National Electrical Code NFPA 72 - 2010; The National Fire Alarm Code NFPA 101 - 2012; The Life Safety Code NEMA ICS 1 and 2, and Florida Building Code FBC-B 2014; The Florida Building Code 5th Edition FPC 2014; The Florida Fire Prevention Code 5th Edition FBC-M 2014; The Florida Mechanical Code 5th Edition FBC-P 2014; The Florida Plumbing Code 5th Edition Electronic Industries Association/Telecommunications Industries Association - EIA/TIA 568C - Commercial Buildings Telecommunications Cabling Standards – 3rd Revision 569 - Commercial Buildings Standard for Telecommunications Pathways and Spaces 606 - Administrative Standard for Telecommunications Infrastructure of Commercial **Buildings** 607B - Commercial Building Grounding and Bonding Requirements for Telecommunications Federal Communications Commission - FCC Insulated Cable Engineers Association - ICEA Institute of Electrical and Electronic Engineers - IEEE 383 Vertical Flame Test 446 Recommended Practice for Emergency and Standby Power Systems for Industrial and **Commercial Applications** 587 Transient Voltage Surge Suppressors 802 Specifications for Local Area Networks National Electrical Manufacturers Association Serving Utility Company Policies State and Municipal Codes and Requirements Underwriters Laboratories - UL 5 Surface Raceway 444 Communications Cable 467 Electrical Grounding and Bonding Equipment 506 Enclosures 514A Outlet Boxes and Fittings

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514C Non-metallic Outlet Boxes and Fittings 869 Electrical Service Equipment 1449 Transient Voltage Surge Suppressors 1863 Communications Devices

Obtain all permits required. Contractor shall pay all fees for permits and inspections.

COMPLIANCE AND REVIEW

<u>Within two weeks of the awarding of the contract</u>, and before any work is commenced, the Contractor shall meet with all legal authorities having jurisdiction, review all materials and details of this project, and agree on any required revisions. A letter shall be forwarded to the Architect/Engineer listing the names, dates and place of such review and the revisions required. A copy of the letter shall also be sent to the reviewing authority.

TEMPORARY LIGHTING AND POWER

<u>Provide temporary lighting and power during construction</u>. The Contractor may utilize existing building distribution power for temporary and construction power. Temporary power shall be 120/240 volt, single phase.

Temporary wiring shall be done in a safe and neat manner. See Article 590 of the NEC.

<u>Provide 30 amp, 120/240 volt single phase power points</u> throughout the construction area such that a power point will be within fifty feet of where any saws, drills, or other electrical tool is being used. Each power point shall have a disconnecting safety switch.

<u>Size temporary power conductors</u> so that voltage drop is kept below 5% at maximum designed load at the delivery point.

RECORD DOCUMENTS

<u>Prepare record documents in accordance with Division 1 requirements</u>. Record documents shall be complete and accurate and clearly show deviations to the Contract Drawings. Additionally, indicate major raceway sizes and routings, locations of all control devices, all equipment and locations to scale, and fuse and circuit breaker ratings and arrangements.

<u>Prepare bound sets of equipment Operation and Maintenance Instructions</u>. These instructions shall include the name and location of the system, the name and telephone number of the Contractor, and all subcontractors installing the system or equipment, and the name and telephone number of each local manufacturer's representative for the system or equipment.

Furnish bound copies of all test results required in other sections of this division.

GUARANTEES

Equipment (excluding lamps): one (1) year from final acceptance by the Owner. Materials and labor: one (1) year from final acceptance by the Owner.

<u>All equipment shall be warranted</u> to be free from defects in workmanship, design and materials. If any part of the equipment should fail during the warranty period, it shall be replaced and the unit(s) restored to service at no expense to the Owner.

In addition to the guarantee of equipment by the manufacturer the Contractor shall also guarantee such equipment for a period of one (1) year from final acceptance by the Owner. The Contractor's one (1) year guarantee shall be for equipment, materials, and labor.

<u>The manufacturer's warranty period</u> shall run concurrently with the Contractor's warranty period. No exception to this provision will be allowed.

<u>Additional guarantee requirements</u> specific to certain parts or assemblies or installations may be in the General and Special Conditions, or other Sections of these Specifications.

PART 2 - PRODUCTS

EQUIPMENT AND MATERIALS

Furnish materials or equipment specified by manufacturers named.

Materials furnished shall be new, undamaged and packed in the original manufacturer's packing.

<u>All equipment and apparatus</u> shall bear the seal of approval of the Underwriter's Laboratory where testing and listing performance criteria has been established for like items.

<u>Protect equipment and materials</u> from mechanical and water damage during construction. Suitable storage facilities shall be provided. Equipment shall not be stored out-of-doors.

<u>All electrical panels, enclosures</u>, raceways, conduit, and boxes shall be fabricated of metal unless indicated otherwise.

EQUIPMENT AND MATERIALS STANDARDS

Design and fabrication of electrical equipment and materials:

The American National Standards Institute (ANSI)

- The American Society of Mechanical Engineers (ASME)
- The American Society for Testing and Materials (ASTM)
- The Institute of Electrical and Electronic Engineers (IEEE)
- The National Electrical Manufacturers Association (NEMA)
- The Occupational Safety and Health Administration (OSHA)
- The Underwriters Laboratories (UL)
- The National Fire Protection Association (NFPA)

Comply with the latest edition and revisions of these codes and standards.

EQUIPMENT RATINGS

<u>Horsepower and wattages of equipment shown on the Drawings</u> are estimated and comply with a certain basis of design. It is the Contractor's responsibility to coordinate with, and furnish proper connections to equipment substituted and accepted as equivalent to the basis of design.

<u>Conduit, wire, disconnects, fuses, and circuit breakers</u> shall be sized to suit the horsepower and wattage of equipment actually furnished. However, conduit, boxes, wire or disconnects shall not be sized smaller than shown on the Drawings.

PART 3 - EXECUTION

QUALITY ASSURANCE

Installer's Qualifications: At least three years of successful installation experience on projects with electrical work similar to that required for this project.

<u>Manufacturer's Qualifications:</u> Manufacturers regularly engaged in the manufacture of electrical components and equipment of the types and sizes required, whose products have been in satisfactory use in similar service for not less than five years.

Electrical work shall be performed by experienced persons skilled in the trade.

Work shall be supervised by a licensed journeyman or master electrician who shall be on the job site at all times while work is in progress.

<u>Work shall be done neatly</u> and in keeping with good practice and conventions of the trade. The electrical installation shall be of high quality, and of the performance level associated with top level commercial electrical installations as determined by the Architect/Engineer and the National Electrical Code.

IDENTIFICATION

<u>Provide laminated plastic nameplates</u> for each panelboard, safety disconnect, equipment enclosure and all other major pieces of equipment installed or modified as part of this contract.

<u>Furnish all starters, disconnect switches and control panels</u> with engraved name plates identifying the equipment served. Attach nameplates to equipment, aligned with structural features of equipment, with two pressure pins or #4 stainless steel screws, nuts, and lockwashers.

Identification of flush mounted panelboards and other cabinets shall be on the inside of the cabinet only.

<u>Panelboards shall have typewritten directories</u> with all loads thoroughly described for each circuit. Update existing panelboards and their directories to reflect new work.

CLEANING AND PAINTING

<u>Clean all equipment and boxes thoroughly</u> inside and outside at the completion of installation. Do not leave dirt and debris inside panelboard and equipment cabinets, device and junction boxes, etc.

All painting shall be done according to the Finishes Section of these specifications.

<u>Paint all exposed conduit and wiremold</u> installed on painted surfaces to match surrounding surface. Paint exposed threads on conduits and touch up all scratches in galvanized pipe and fittings with a high quality cold galvanizing compound.

<u>Touchup scratched or marred surfaces</u> of lighting fixtures, panelboards, motor control centers, switchboards, etc. with paint furnished by the equipment manufacturer specifically for the purpose.

Equipment, raceways, boxes, etc installed on stage shall be painted flat black. Do not cover labels, warnings, identification plates, etc.

<u>TESTS</u>

<u>Contractor shall test all wiring for shorts</u> and all equipment for proper grounding before energizing. Equipment shall be thoroughly checked and adjusted for proper operation. Check motors for proper rotation before energizing and adjust if necessary.

END OF SECTION

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SECTION 16100 BASIC MATERIALS AND METHODS

PART 1 - GENERAL

SCOPE OF WORK

Furnish all labor, materials and equipment and incidentals required to construct and install the complete electrical systems as indicated on the Drawings and as specified in this Section.

STANDARD OF MATERIALS

<u>All materials, equipment and apparatus</u> covered by this specification shall be new, of current manufacture and shall bear the seal of approval of the Underwriters' Laboratories.

<u>All equipment and materials shall have ratings established</u> by a recognized independent agency or laboratory. The Contractor shall apply the items used on this project within the ratings and subject to any stipulations or exceptions established by the independent agency or laboratory.

<u>All conduits and raceways, wire, devices, panelboards, switches, etc.</u> of a given type shall be the product of one manufacturer.

SUBMITTALS

<u>Manufacturer's data and shop drawings</u> for all components, fixtures, assemblies and accessories indicated in this Division. Submit in accordance with Division 1.

PART 2 - PRODUCTS

RIGID CONDUIT, TUBING AND FITTINGS

<u>Rigid steel conduit</u>: zinc coated, threaded type conforming to the requirements of UL 6 and ANSI C80.1 standards. Zinc coating shall be applied to both inner and outer surfaces.

Intermediate metal conduit: hot-dipped galvanized, threaded type conforming to the requirements of UL 1242 and ANSI C80.6 standards.

A fitted thread protector shall protect threaded ends from damage during shipment and handling.

<u>Fittings for rigid steel and IMC conduit</u>: zinc coated, threaded type, conforming to Federal Specification W-F-408.

Electrical Metallic Tubing (EMT): UL 797 and ANSI C80.3 standards.

<u>Fittings for electrical metallic tubing</u>: Federal Specification W-F-408. Steel compression or set-screw type, galvanized or cadmium plated, and suitable for location of installation. Conduit bushings shall be metallic with insulated throats. Insulating grounding type bushings shall be provided where required under "Grounding". EMT connectors shall be similar to T&B "Insuline" with completely insulated throats. Field applied insulated throats are not acceptable.

<u>Plastic conduit for direct burial</u>: UL labeled Schedule 40 PVC manufactured to NEMA TC-2 specifications, and UL 651 specifications.

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<u>Plastic interduct for installation in PVC conduits</u>: UL labeled and listed for installation of inside/outside communication cable.

<u>Couplings</u>, fittings, pipe straps and spacers used with rigid plastic conduit shall be fabricated of plastic.

Fittings for plastic conduit: manufactured to NEMA TC-3 specifications.

Acceptable Metal Conduit and Tubing Manufacturers:

- EMT: Allied Tube & Conduit Co. Wheatland Tube Co. Triangle PWC, Inc.
- Fittings: Steel City Thomas & Betts (T&B) Raco Inc.

FLEXIBLE METAL CONDUIT, COUPLINGS AND FITTINGS

<u>Flexible metal conduit for dry interior applications</u>: Federal Specification WW-C-566 and UL 1, continuous, spiral wound galvanized steel type.

<u>Fittings (connectors) for flexible metal conduit:</u> UL E 23018. Squeeze Type of galvanized steel or malleable iron zinc plated.

<u>Flexible metal conduit for damp or exterior applications</u>: liquid tight, UL listed, spiral wound galvanized steel with PVC outer jacket.

<u>Fittings for liquid tight conduit</u>: Federal Specification W-F-406. Provide cadmium plated, malleable iron fittings with compression type steel ferrule and gasket sealing rings and insulated throats.

Acceptable Metal Conduit and Fittings Manufacturers:

FMC:

Alflex Corp. American Flexible Conduit Co. Anaconda Metal Hose, ANAMET Inc.

- FMC Fittings: Steel City Thomas & Betts (T&B) Raco Inc.
- Wall and Floor Seals: O-Z/Gedney Co. Spring City Electrical Mfg. Co. Chase Technology Corp.

CONDUIT MOUNTING EQUIPMENT

<u>Hangers, rods, backplates, beam clamps etc.</u> shall be hot-dipped galvanized iron or steel. They shall be as manufactured by the Appleton Electric Co., Thomas and Betts Co., Unistrut Corp., or approved equal.

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JUNCTION BOXES

<u>Sheet Steel Outlet Boxes</u>: conform to UL 514A, "Metallic Outlet Boxes, Electrical", UL 514B, "Fittings for Conduit and Outlet Boxes, Covers, and Box Supports", and NEMA OS1, "Sheet Steel Outlet Boxes, Device Boxes, Covers, and Box Supports".

Sheet Steel: Flat-rolled, code gauge galvanized steel.

Acceptable Manufacturers: Sheet-steel boxes shall be manufactured by RACO, Steel City or equal.

<u>All junction boxes and pull boxes</u> shall be sized per NEC requirements and be of the proper NEMA classification for the locations where they are installed. Where boxes occur above other than lift-out ceilings, access panels must be provided.

Wet location covers shall meet NEC wet location requirements (shall comply with NEC 2011 Article 406.9 (B)(1)). Covers shall be "in-use" type and shall mount vertically or horizontally and be of gasketed heavy-duty polycarbonate construction with clear cover with lockable hasp for 1/8" shank lock.

OUTLET BOXES

Switch, receptacle and wall or ceiling mounted junction boxes shall be the 4" X 2 1/8" square type. Tile, dry wall, or flat cover plates for one or two devices shall be furnished for each box as required.

LIGHTING FIXTURE BOXES

Lighting fixture boxes shall be the 4" X 1 1/2" octagonal type.

SYSTEM OUTLETS

Wall outlets shall in general consist of four inch (4") square boxes with single gang switch ring. Conduits shall be supplied turned out of wall above ceiling assembly. Conduits shall be ³/₄" or larger, with insulated bushing installed on all bare ends.

Install finished blank plates on all unused openings.

LOCATION OF OUTLETS

<u>The approximate locations of outlets</u>, etc. are shown on the drawings. The exact locations shall be determined at the building.

It is the responsibility of the Contractor to note the locations and heights of cabinets, counters, shelving units, etc. before the installation of outlets.

WIREWAY

<u>16 gauge galvanized steel with polyester powder coat finish</u> over a phosphate preparation. UL listed as steel enclosed wireway and auxiliary gutter. Conform to NEMA 3R for outdoor locations.

Size: nominal 8" by 8" square cross section.

<u>Fittings and Accessories</u>: Male and female lengths shall be factory constructed. L's, T's, sweeps and other connectors as required. Junction boxes shall be standard and furnished where required or directed.

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CONDUIT BODIES

<u>Conduit bodies shall be constructed of</u> galvanized or cadmium plated malleable iron or copper-free aluminum. Galvanized steel or aluminum covers and gaskets shall be supplied.

LB's 3" and greater shall be mogul type with domed covers.

CONDUCTORS

<u>Compliance:</u> Provide wires, cables and connectors that comply with the following standards as applicable:

UL Standard 83	Thermoplastic Insulated Wires and Cables
UL Standard 486A	Wire Connectors and Soldering Lugs for Use with Copper
	Conductors
UL Standard 854	Service Entrance Cable
NEMA/ICEA WC-5	Thermoplastic Insulated Wire and Cable for the Transmission and
	Distribution of Electrical Energy
NEMA/ICEA WC-8	Ethylene Propylene Rubber Insulated Wire and Cable for the
	Transmission and Distribution of Electrical Energy
IEEE Standard 82	Test procedures for Impulse Voltage Tests on Insulated Conductors

<u>Wire and cable manufactured</u> more than twelve months before delivery to the jobsite shall not be used.

<u>All conductors shall be soft-drawn copper</u> of not less than ninety-eight percent (98%) conductivity, with NEC Type THW, THHN, or THWN for No. 4 and smaller, and Type RHW, THW, or THWN for No. 2 and larger, 600 volt insulation.

<u>Jackets</u>: Factory applied nylon or PVC external jacketed wires and cables for installation in raceways and where indicated.

<u>Color coding of all ungrounded service, feeder, and branch circuits conductors</u> shall be required according to the following convention:

120/208 Volt, 3 phase: black, red, and blue 277/480 Volt, 3 phase: brown, orange, and yellow 120 volt clock cable shall be red, black and yellow.

<u>Ground wires</u> shall be green and neutrals shall be white. Isolated grounding conductors shall be green with yellow stripe or green with applied yellow tape to indicate isolated ground. Green and white shall be used for these purposes only. Where grounded conductors of different systems are installed in the same raceway, box, auxiliary gutter, or other type of enclosure, each grounded conductor shall be individually identified by system. Additional grounded conductors shall be white with a readily distinguishable colored stripe, other than green, running along the insulation.

<u>Conductors No. 12 AWG through No. 10 AWG</u> shall be solid and No. 8 AWG and larger shall be stranded. No conductors smaller than No. 12 AWG shall be used except as otherwise noted.

<u>Acceptable manufacturers</u>: Anaconda Wire and Cable Co., General Electric Co., Okonite Co., Southwire Co., or Rome Cable Co.

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CABLE AND WIRE SPLICES

<u>General</u>: the materials shall be compatible with the conductors, insulations and protective jackets of the respective cables and wires. Use connectors with ampacity and temperature ratings equal to or greater than those of the wires upon which used.

In manholes and other locations where moisture might be present, the splice shall be watertight and submersible.

<u>Connectors</u>: UL 486A. Aluminum and aluminum alloy fittings will not be accepted. Connectors shall be plated with tin or tin alloy.

<u>Conductor Sizes No. 6 AWG and Larger</u>: Splices in conductors shall be made with indenter, crimp connectors and compression tools or with bolted clamp type connectors to insure a satisfactory mechanical and electrical joint.

WIRE AND CABLE MARKERS

Wire and cable markers shall be "Omni-Grip" as manufactured by Brady Worldwide, Inc., or equal.

<u>Wire and cables with diameters exceeding the capacity of the "Omni-Grip" shall be</u> marked with preprinted, self-adhesive vinyl tapes as manufactured by Brady Worldwide, Inc., 3M Co., or equal.

RECEPTACLES

<u>Receptacles shall be furnished and installed</u> where shown on the drawings and shall conform to the following requirements:

<u>Grounding type duplex receptacle</u>: rated 20 amperes, 125 volt, 2 wire, 3 pole with grounded shunt (yoke permanently grounded to third clip), NEMA Configuration No. 5-20R, and conforming to Federal Specification W-C-596F (submit proof of compliance).

All receptacles listed on the drawings shall be specification grade receptacles.

<u>Tamper resistant receptacles</u> shall be in compliance with the intent of the NEC Article 517.18(C). The design of the tamper resistant receptacle shall not incorporate any switching mechanism.

<u>All exterior devices</u> shall be designed for the application and shall be installed in a waterproof enclosure with proper cover.

Acceptable manufacturer: Eagle, GE, Hubbell, Leviton or Pass and Seymour.

SWITCHES

<u>Flush, enclosed type, specification grade</u>, rated at 20 amperes, 120/277 volts, alternating current only, quiet operation, and shall comply with Federal Specification W-S-896F (submit proof of compliance). Switch housing shall be color coded for current rating.

Acceptable manufacturer: Eagle, GE, Hubbell, Leviton or Pass and Seymour.

<u>Motor switches with inherent thermal overload protection</u> shall be Square D, Type F for flush or surface mounting as required by the location of the unit. Units shall be furnished with pilot lights as indicated.

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DEVICE PLATES

<u>All plates for switch, receptacles and telephone outlets</u> located on finished walls shall be UL listed stainless steel with the number of gangs required for the application. All plates for outlets located on unfinished walls or on condulet type fittings shall be zinc coated sheet metal with rounded or beveled edges.

<u>Weatherproof plates shall be of stainless steel</u>, gasketed, sized with twin covers for duplex receptacles, and weatherproof switch for switch plates.

<u>Device plates shall be factory engraved</u> where indicated on the drawings. Letters shall be black filled.

RELAYS

<u>Relays shall be electrically held and operated</u>. Relays shall be mounted in a NEMA-1 enclosure. The contactors shall be capable of switching inductive and resistive loads.

CIRCUIT BREAKERS INSTALLED IN EXISTING PANELS

<u>Circuit breakers installed in existing panels</u> shall have an A.I.C. rating equal to that of the panel in which they are installed.

SAFETY DISCONNECT SWITCHES

<u>Compliance:</u> NFPA 70 National Electrical Code, UL 98, "Enclosed and Dead Front Switches", NEMA Publication KS1, "Enclosed Switches", and NEMA KS 250, "Enclosures for Electrical Equipment (1000 Volts Maximum)".

<u>Safety switches</u> shall be provided for all motors and equipment indicated or required by the National Electrical Code.

<u>Safety switches</u> shall be Type "HD" (heavy duty) unless noted otherwise, fused or non-fusible as indicated with number of poles as shown or required. Safety switches for equipment may be non-fused only if equipment is UL tested with circuit breaker protection.

<u>Fuses:</u> general use, dual element time-delay, current limiting. Manufactured by Bussman, Littlefuse, Edison, or equivalent.

<u>Safety switches</u> for indoor general purpose application shall be NEMA 1 and for exterior application shall be NEMA 3R.

<u>Acceptable manufacturer:</u> provide safety switches manufactured by Cutler-Hammer, Square D, or Siemens.

<u>Construction</u>: Gray baked enamel finish. NEMA 3R enclosures shall be manufactured from galvanized steel. NEMA 4X enclosures shall be manufactured from 304 stainless steel. Corners shall be ground smooth and polished to overall finish quality. NEMA 4X enclosures shall be fitted with a condensate drain at the bottom and a vent at the top that is rated for NEMA 4X service.

Ratings: Fusible disconnects shall be 240 or 600 volt rated depending on the service voltage.

<u>Fusible disconnects</u> shall be furnished with Class R fuses of the indicated ampere rating (up to 600 amps) and be equipped with rejection clips.

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<u>Fusible disconnects</u> shall be UL listed for 200,000 RMS symmetrical ampere short circuit current when equipped with Class R or Class L fuses.

Lugs shall be front removable and be UL listed for aluminum or copper conductors at 60 degrees C or 75 degrees C.

Disconnect switches shall be horsepower rated.

GROUNDING AND BONDING

Conductors: type THW, THHN/THWN, or RHW to match power supply wiring.

<u>Bonding Jumper Braid:</u> copper braided tape, constructed of 30 gage bare copper wires and properly sized for application.

<u>Flexible Jumper Strap:</u> flexible flat conductor, 48,250 circular mils, with copper bolt hole ends sized for 3/8" diameter bolts.

<u>Grounding Electrodes</u>: solid steel core with a heavy uniform covering of electrolytic copper, 5/8" X 10'. Provide sectional rods if required. Threads, on sectional rods, shall be rolled (not cut) into the composite metal after the copper covering has been applied. Sectional rod couplings shall be of a corrosion resistant alloy.

<u>Plate Electrodes</u>: plate electrodes are not permitted. If sufficiently low resistance cannot be obtained with driven rods, the Architect shall be notified and will provide written instruction on grounding methodology.

SURGE PROTECTION DEVICES

<u>General</u>: provide hybrid high-energy filter units utilized for a facility wide protection system. Each unit in the system shall incorporate surge suppression and high frequency electrical line noise filtering. The system shall provide effective high-energy surge voltage suppression, surge current diversion, high frequency attenuation in all environments connected on the load side of the facility's main overcurrent device. Connection shall be parallel, located as shown on the Drawings. System shall feature fast response time and low clamping voltage with high current capability. SPD's shall be manufactured specifically for the intended service by a manufacturer having a least five years continuous experience designing and manufacturing power conditioning equipment of the type specified.

<u>Manufacture units using redundant metal oxide varistors (MOV)</u> installed in a parallel arrangement. Not less than two MOV's are required per mode regardless of suppression rating.

Standards: Surge Protective Devices shall comply with the following:

1. ANSI/IEEE Std C62.41.1™-2002, IEEE Guide on the Surge Environment in Low- Voltage (1000 V and Less) AC Power Circuits

2. ANSI/IEEE Std C62.41.2[™]-2002, IEEE Recommended Practice on Characterization of

Surges in Low-Voltage (1000 V and Less) AC Power Circuits

3. ANSI/IEEE Std C62.45[™] -2002, IEEÉ Recommended Practice on Surge Testing for

Equipment Connected to Low-Voltage (1000 V and Less) AC Power Circuits

4. ANSI C84.1, American National Standard for Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

5. ANSI/IEEE Standard 1100-2005, IEEE Recommended Practice for Power and Grounding Electronic Equipment (Emerald Book) - Clause 8.6.1

6. National Fire Protection Association (NFPA) 70 (N.E.C.) - 2002 - Article 285

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7. ANSI/UL Standards 1449-2006 Listed (UL 1449 Current Edition), UL 1283 Listed, CUL Listed & CE compliant "low-voltage directive."

8. IEEE Standard C62.72[™] - 2007 – IEEE Guide for the Application of Surge-Protective Devices for Low-Voltage (1000 V or less) AC Power Circuits

<u>The system and each SPD module shall be UL listed</u> for the service and conditions indicated on the Drawings and specified here and shall be enclosed in NEMA 1, 12, or 3R enclosure.

<u>Module shall be tested</u> in accordance with ANSI/IEEE C62.11, C62.41 and C62.45 Categories A, B and C3. Current diverter modules shall withstand one thousand Category C3 surges per IEEE C62.45.

<u>The system shall be protected from fault currents</u> up to 200,000 amperes by suitable integral fuse network. All components shall be protected. High current capacitors shall effectively sink harmonic currents generated by line distortion and shall effectively attenuate line noise (RFI/EMI filtering).

<u>The system shall be equipped with built-in monitoring</u> with status indicators, audible alarm and test switch front panel mounted. Form C dry contacts shall be provided for remote annunciation.

<u>SPD shall be UL labeled with 20kA I-nominal (I-n)</u> for compliance to UL 96A Lightning Protection Master Label and NFPA 780.

UL 1449 Listed Voltage Protection Ratings (VPRs) shall not exceed the following:

System Voltage L-N	<u>L-G</u>	<u>L-L</u>	<u>N-G</u>	
208Y/120	700V	700V	1200V	700V
480Y/277	1200V	1200V	1800V	1200V

Warranty: 10 years.

<u>Service entrance locations</u>: The nominal unit operating voltage shall be coordinated with the service voltage indicated. The maximum continuous operating voltage of all components utilized in the unit shall not be less than 115% of nominal operating voltage. Operating frequency shall be 60<u>+</u>3 hertz. Protection modes shall be (10-mode): line-to-line, line-to-neutral, line-to-ground and neutral-to-ground.

Maximum repetitive surge current capacity per phase, in amps, shall not be less than: 300kA

Minimum line noise attenuation above 10 MHz - 50 dB

Install protective module adjacent to main switchboard as indicated on the Drawings. Provide molded case circuit breaker as indicated for isolating module.

<u>Service Entrance SPDs shall have a built-in surge counter</u> to indicate and totalize all transients in all modes. Counter shall be LCD or LED and shall read in plain Arabic numbers.

<u>Distribution panelboard locations:</u> The nominal unit operating voltage shall be coordinated with the service voltage indicated. The maximum continuous operating voltage of all components utilized in the unit shall not be less than 115% of nominal operating voltage. Operating frequency shall be 60<u>+</u>3 hertz. Protection mode shall be (10-mode): line-to-line, line-to-neutral, line-to-ground and neutral-to-ground.

Maximum repetitive surge current capacity per phase, in amps, shall not be less than: 150kA

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Minimum line noise attenuation above 10 MHz - 50 dB

Install module adjacent to each distribution panelboard as indicated on the Drawings. Provide molded case circuit breaker as indicated for isolating module.

Lighting and appliance (Branch) panelboard locations: The nominal unit operating voltage shall be coordinated with the service voltage indicated. The maximum continuous operating voltage of all components utilized in the unit shall not be less than 115% of nominal operating voltage. Operating frequency shall be 60+3 hertz. Protection mode shall be (10-mode): line-to-line, line-to-neutral, line-to-ground and neutral-to-ground.

Maximum repetitive surge current capacity per phase, in amps, shall not be less than: 100kA

Minimum line noise attenuation above 10 MHz - 50 dB

Install module adjacent to each lighting and appliance (branch) panelboard as indicated on the Drawings. Provide molded case circuit breaker as indicated for isolating module.

<u>Conductors shall be #8AWG, stranded copper, minimum,</u> and shall be as short (less than 24") and as straight as possible. All conductors shall cut to precisely the same length before installation. Conductor requirements apply to grounded conductor. Installer may reasonably rearrange breaker locations to ensure short and straightest possible leads to SPDs.

NAMEPLATES

<u>Nameplates:</u> 0.125 inch thick laminated plastic; white and black finish; rectangular shaped; minimum of 1.0 X 2.5 inches with 0.25 inch high block style engraved lettering.

PART 3 - EXECUTION

RACEWAY INSTALLATION

<u>All interior and above grade exterior wiring</u> shall be installed in a metal conduit and all embedded in concrete or below grade wiring shall be in PVC conduit unless indicated otherwise on the drawings.

Exterior low voltage (less than 50 volts) wiring may be installed in liquid tight, non-metallic flexible conduit ("Sealtite") where installation is above grade and not subject to damage.

No conduit smaller than 3/4 inch electrical trade size shall be used, nor shall any have more than three 90 degree bends in any one run. Pull boxes shall be provided as required or directed.

No wire shall be pulled until the conduit system is complete in all details.

The ends of all conduits shall be tightly plugged to exclude dust and moisture during construction.

Conduit support shall be spaced at intervals of 8 ft. or less, as required to obtain rigid construction.

Single conduits shall be supported by means of two-hole pipe clamps. Multiple runs of conduits shall be supported on trapeze type hangers with steel horizontal members and threaded hanger rods. The rods shall be not less than 3/8 inch diameter. The channel shall be not less than 1 1/2" nominal size.

Conduit hangers shall be attached to structural steel by means of beam or channel clamps.

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<u>All conduits on exposed work shall be run at right angles</u> to and parallel with the surrounding walls and shall conform to the form of the ceiling. No diagonal runs will be allowed. Bends in parallel conduit runs shall be concentric. All conduit shall be run straight and true.

Conduit terminating in sheet steel boxes shall have double locknuts and insulated bushings.

<u>Flexible metal conduit</u> shall be used for all motor terminations and other equipment where vibration is present. Flexible conduit length shall not exceed 1'-6" in length for this application.

<u>Provide expansion coupling every 100 feet for long runs of conduit</u> and at concrete expansion joints. Provide ground bonding jumpers around expansion couplings, used on metallic conduit, sized according to Table 250-122 of the NEC.

<u>Transitions from below grade to above grade</u> shall be with rigid galvanized steel long sweep nineties with a bituminous coating where in contact with earth or concrete. Area of transition shall not be subject to standing puddles of water.

Seal all wall penetrations to watertight condition. Finish as applicable to location.

Approval by the Architect shall be required to install conduit in structural members.

In general, the conduit installation shall follow the layout shown on the plans. This layout is, however, diagrammatic only, and where changes are necessary due to structural conditions, other apparatus or other causes, such changes shall be made without additional cost to the Owner. It is recognized that branch circuit routing shown on the drawings may not always be the most economical or the most feasible method. Routing may be changed by the Contractor subject to the following provisions:

Conduits shown routed overhead may not be installed in or below slabs or in walls.

Not more than three circuits may be installed in any one conduit. Care must be taken to provide the appropriate number of neutrals where two or three circuits are on the same phase.

All conduit shall be concealed unless otherwise noted on the drawings.

Exposed conduit will be permitted only as shown on the drawings. Exposed conduit shall be run parallel with or at right angles to the building walls.

All empty conduits shall be provided with a plastic pull wire rated for a minimum of 200 lbs.

Conduit stub-ups at panels shall be secured in place by use of Unistrut and clamps.

<u>Conduit and tubing</u> shall be kept at least twelve (12) inches from parallel runs of flues, steam pipes or hot water lines.

<u>Telephone and data raceways</u> shall be 1" minimum. This includes conduits stubbed up into ceiling cavity.

Where exposed connections to motors and equipment from overhead conduits are made without benefit of a wall for conduit mounting, the connection shall consist of vertical conduit (minimum size 1") from Type "LL", "LR" or "TT" Unilet to floor flange. Connection to equipment shall be with flexible liquid-tight from Type FDT boxes located in the vertical conduit.

Flexible conduit in all areas subject to moisture shall be liquid-tight flexible conduit.

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All electrical connections to vibration isolated equipment shall be made with flexible conduit.

All conduit entering the building shall be suitably sealed to prevent the entrance of moisture.

<u>All conduit passing through a structural expansion</u> joint shall be provided with a UL approved expansion joint fitting and bonded as required by the National Electrical Code.

<u>Conduit in hazardous locations</u> (as defined and classified by the National Electrical Code) shall be sealed with sealing fittings. Where hazardous locations exist, all conduit, fittings and installation shall comply with Article 500 of the NEC.

<u>Any wiring in a finished area which cannot be concealed</u> in conduit shall be installed in a surface metal raceway system as manufactured by Wiremold or equal. Utilization of surface metal raceway, if not indicated as such on the plans, will be accomplished only with the written approval of the Architect. Surface metal raceway shall be two-piece construction with base and cover, and shall be sized accordingly for proper fill.

<u>Conduit run in areas with hung ceilings</u> shall be installed in the space above the hung ceiling as close to the structure as possible. Conduits shall be supported from the structure.

Where flex conduit is used from junction box to light fixture it shall be supported such that it does not touch ceiling tiles or interfere with their placement.

<u>Flexible metal conduit connections to light fixtures</u> shall be at least 4 feet but not more than 6 feet in length per NEC 410-117(c).

Where raceways are indicated installed under slabs, they shall be placed not less than 2" below surface of prepared fill. Under no circumstances shall raceways be laid directly on vapor barrier or in or on reinforcing.

<u>Raceways concealed in ground outside building shall be a minimum of 2 feet below</u> grade and topped with a two inch concrete cap before backfilling. Install plastic warning tape 12 inches above raceway, buried in backfill.

RACEWAY INSTALLATION - CONDITIONS

<u>Conduit raceways shall be installed as indicated herein</u>. Where more than one type of raceway is listed under one condition, the Contractor may exercise his option of the raceway used. Conditions of raceway installation are as follows:

Exposed Raceway Below 8'-0" from Finish Floor and in Areas Subject to Moisture: Rigid galvanized steel conduit.

<u>Raceway Concealed Overhead, or in Walls</u>: Rigid galvanized steel conduit, intermediate metallic conduit or electrical metallic tubing (EMT).

<u>Raceway Concealed in Ground Outside Building</u>: Schedule 40 PVC or rigid steel. Rigid steel conduits installed below slab-on-grade or in the earth shall have a factory-applied PVC coating, two coats of a coal-tar system, or shall be field-wrapped with 0.010 inch thick pipe-wrapping plastic tape applied with a 50-percent overlay.

<u>Final Raceway Connection to Recessed Fixtures in Accessible Locations</u>: Flexible steel conduit maximum of 6'-0" long.

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Final Raceway Connection to Pumps, Motors, Transformers, Etc.: Liquid-tight flexible steel conduit maximum of 1'-6" long.

<u>Raceway That Extend Through the Slab or Above Finish Grade</u>: 90° elbows, nipples and couplings of rigid galvanized steel or IMC shall be used where any raceway extends through the slab or above finished grade. In general PVC conduit shall not be allowed above finished slab inside the building or within 1 1/2' of finished grade outside the building.

METAL SURFACE RACEWAY

<u>Prior to and during installation</u>, refer to system layout drawing containing all elements of the system. Installer shall comply with detailed manufacturer's installation instruction sheets, which accompany system components, as well as, system instruction sheets, whichever is applicable.

<u>All raceway systems shall be mechanically continuous</u> and connected to all electrical outlets, boxes, cabinets, in accordance with manufacturer's installation sheets.

<u>All metal raceway shall be electrically continuous and bonded</u> in accordance with the National Electric Code for proper grounding.

Work shall include fastening all raceway and appropriate fittings and device plates to install a complete aluminum surface raceway system as indicated on the electrical, communication and/or laboratory equipment drawings and in the applicable specifications.

<u>All raceway systems shall be installed complete</u>, including wire clips and grommets where required by manufacturer's installation sheets.

WIRING

All conductors shall be carefully handled to avoid kinks or damage to insulation.

<u>All wires, cables and each conductor of multi-conductor cables</u> shall be uniquely identified at each end by color or with wire and cable markers. Lighting and receptacle wiring shall be distinctly differentiated and junction boxes marked.

<u>Lubrications shall be used, if required, to facilitate wire pulling</u>. Lubricants shall be UL approved for use with the insulation specified.

<u>Neutral wires shall be pigtailed to receptacles</u> so that a receptacle can be removed for replacement without the neutral connection to other receptacles on the circuit being disconnected.

<u>Tighten electrical connectors and terminals</u>, including screws and bolts, in accordance with manufacturer's published torque tightening values. Where manufacturer's torqueing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL 486A.

<u>All 600 Volt wire insulation shall be tested with a "megger" after installation</u>. Tests shall be made at not less than 500 Volts.

OUTLET BOXES

<u>Outlet boxes for flush mounted lighting fixtures</u> shall be accessible. If lighting fixture is in a nonaccessible ceiling the box shall be accessible when the fixture is removed.

Set boxes plumb and such that their device mounting plane is within 1/8" of the finished wall.

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Surface mounted boxes and wiremold boxes, both new or existing, shall be painted to match surrounding surfaces.

<u>Above ceiling sub-system boxes</u> shall be labeled and color coded. Junction box covers shall be color coded. The following conventions shall be used:

Emergency Power	YELLOW
Fire alarm	RED

<u>The location of boxes on the electrical plans is approximate</u>. Review architectural drawings for specific location or if not shown center and align within architectural detail. The Architect shall reserve the right to move boxes during rough in.

DEVICES

<u>Unless indicated otherwise on the drawings</u> all light switches shall be mounted with the centerline of the device 48" above the finished floor.

<u>Unless indicated otherwise on the drawings</u> or in the specifications all receptacles shall be mounted with the centerline of the device 18" above the finished floor.

<u>Receptacles shall be installed with the grounding contact at the top.</u> Where receptacles are required to be mounted horizontally they shall be installed with the neutral contact at the top.

<u>Receptacles above counters</u> shall have major axis horizontal to counter surface and device centerline 6" above counter surface or backsplash (if present).

Mount all devices so that the cover plate edges are in contact with the wall and are parallel to building features.

DISCONNECTS

Motor circuit disconnects shall be mounted within fifty feet and in sight of the load being served.

Disconnects shall be labeled in accordance with Section 16010.

<u>Safety disconnects for fire alarm service shall be factory painted red</u>, with engraved phenolic nameplate identifying the circuit.

<u>Starters on air handler units shall be interlocked to fire alarm panel</u> to shut down air handler on alarm as shown on drawings.

GROUNDING

<u>Ground all non-current carrying metal parts of the electrical system</u> to provide a low impedance path for ground fault current. Route ground connections and conductors to ground and protective devices in shortest and straightest paths as possible.

Insulated grounding bushings shall be required for all raceways, service entrance panels, distribution panels, all raceways one inch and larger and any raceway entering a concentric knock-out.

In general a ground wire shall be installed in every conduit. The conduit installation itself shall serve as an additional grounding means.

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Where there are parallel feeders installed in more than one raceway, each raceway shall have a ground conductor.

<u>Where conduits terminate without mechanical connection</u> (i.e., locknuts and bushings) to panelboards, and for all terminations of conduit sizes one inch and larger; and for all sizes of metallic conduit (rigid or flexible) terminating in concentric knockouts, the following procedure shall be followed: Each conduit shall be provided with an insulated grounding bushing and each bushing connected with a bare copper conductor to the ground bus in the electrical equipment. The ground conductor shall be in accordance with Article 250 of the NEC.

<u>Grounding conductors shall be attached to equipment</u> with a bolt-on lug or approved tapered screw used for no other purpose. Use crimp-on spade lugs for stranded conductors.

IDENTIFICATION

<u>Equipment</u>

Equipment identification shall be made using engraved laminated plastic plates (indented tape labels will not be permitted). Characters shall be white on a black background and 1/4" high minimum. Plates shall be secured to the panels by means of screws or metal pressure pins. Cement, by itself, will not be acceptable. All nameplates shall be mounted on the outside surface of the piece of equipment.

<u>Individually enclosed safety switches</u>, circuit breakers, and motor starters, pull boxes, control cabinets and other such items shall be identified indicating load, electrical characteristics, and source. For example, a disconnect switch for a 7-1/2 horsepower, 208 volt, 3 phase air handling unit, Number 8 feed from Panel "MDP", Circuit Number 2 shall be labeled as follows:

AHU-8 7-1/2 HP, 208V, 3Ø Cir: MDP-2

<u>Service entrance panel, distribution panels, panelboards, and transformers</u> shall be identified indicating panel designation from the drawings, electrical characteristics and source. For example, a 277/480 volt 3 phase panel "LPA" feed from "MDP" Circuit No. 3 shall be labeled as follows:

LP-A 277/480V, 3Ø (Feeder: MDP-3)

<u>Service entrance panel and distribution panels</u> shall also have each circuit identified as to circuit number, load, and electrical characteristics of load. For example, a 5 HP, 208 volt, 3 phase hot water pump Number 6 feed from panel MDP, Circuit No. 4 would be labeled as follows with the plate attached adjacent to the circuit:

MDP-4 HWP-6 5 HP, 208V, 3Ø

<u>All enclosures containing energized components</u> shall be marked with mylar labels identifying hazards. Such warning messages as "WARNING-HAZARDOUS VOLTAGE", "480 VOLTS", "240 VOLTS", etc. are acceptable. Labels shall be EZ-Code by Thomas & Betts or similar product.

Junction Box Identification: Each junction box cover shall be labeled with a permanent "magic" marker or other means to identify the circuits within. For example, a junction box containing lighting

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circuits 21, 23, 25 from Panel L2A would be labeled "L2A-21,23,25". Telephone junction boxes shall be labeled "T". Fire alarm system junction boxes shall be labeled "FA". Public address, intercom, and other system junction boxes shall be labeled accordingly.

<u>Conductor Identification: All cables and wires shall be color coded as to phase per convention.</u> See color coding above.

<u>Raceway Identification: All raceways leaving the service entrance panel and distribution panels</u> shall be clearly marked as to their circuit number. For example, a conduit containing conductors for Panel MDP, Circuit No. 5 would be marked MDP-5. Empty conduits shall be marked "empty".

Device Identification: When it is not clear what a wall switch or what a receptacle is dedicated for then the device plate shall be engraved appropriately. Blank plates for future devices shall be engraved "FUTURE". All plates shall be factory-engraved.

<u>Ungrounded Conductor Identification within Panelboards:</u> All panelboards shall have a label indicating the ungrounded conductors color schedule as noted below. Labels shall be at least 2" x 4", laminated in plastic, and affixed to the inside of the equipment door.

For 120/208 Volt, 3 phase panels: AØ Conductors – Black BØ Conductors – Red CØ Conductors – Blue

For 277/480 Volt, 3 phase panels: AØ Conductors – Brown BØ Conductors – Orange CØ Conductors – Yellow

<u>Warranty Signage Identification</u>: Provide equipment tags to identify equipment and warranty information on all electrical equipment including panelboards, motor control centers, transformers, starters, etc. See sample format below. Labels shall be at least 2" x 4", laminated in plastic, and affixed to equipment in conspicuous location.

Equipment Information Tag Unit ID: PANEL 'N1A' Manufacturer: Siemens Model No. : CDP-7 Serial No. : 56742 OG1 Warranty Period Ends: December 12, 2013 Warranty Contact: Short Circuit, Inc. 123.456.7890

FIREPROOFING

<u>All conduit and boxes passing through or installed within fire walls</u> and smoke walls shall be installed so as to maintain the integrity and rating of the wall through which it passes. Boxes shall be installed within 1/8" of wall surface. Conduits penetrating rated floors shall be installed to maintain the fire rating of the floor using UL approved sealing materials.

END OF SECTION

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SECTION 16115 ELECTRICAL – SELECTIVE DEMOLITION

PART 1 - GENERAL

RELATED DOCUMENTS

<u>Drawings and general provisions of the Contract</u>, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

SUMMARY

This Section includes all labor, material, equipment and services necessary and incidental to complete all the demolition and removal of electrical work as shown on the Drawings or as required.

<u>The demolition drawings do not necessarily indicate</u> all the conditions, details, or work required. The Contractor shall examine the building to determine the actual conditions and extent of the work. Any details not clear to this Contractor shall be referred to the Engineer for clarification prior to bidding.

<u>The Contractor shall be responsible for demolition and removal</u> of all existing electrical systems where shown for demolition. No portion of electrical systems shown for demolition may be abandoned in place.

SUBMITTALS

Shop Drawings: Indicate demolition and removal sequence and location of salvageable items.

<u>Schedules:</u> Submit schedule showing time and detailed sequence of demolition, removal of materials and arranged coordination of anticipated electrical interruptions.

1. Schedule demolition and removal work to ensure uninterrupted progress of Owner's onsite operations.

Project Record Documents: Submit in accordance with Section 16010.

1. Accurately record actual locations of abandoned or dead ended utilities.

QUALITY ASSURANCE

<u>Contractor shall verify the extent of the demolition work.</u> Any questions as to which systems are to be removed versus which systems are to remain shall be referred to the Engineer for clarification prior to commencing demolition work.

The demolition work shall be a phased operation and shall comply with the construction sequence schedule.

Do not close or obstruct egress width of fire exits or access.

Do not disable or disrupt building fire or life safety systems without written permission from the Owner. In all cases, permission shall have been granted not less than ten (10) working days prior to the intended interruption.

PROJECT CONDITIONS

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Owner will vacate demolition area prior to start of demolition work.

Owner will continuously occupy areas of building immediately adjacent to selective demolition areas.

<u>Conduct selective demolition work</u> in manner that will minimize need for disruption of Owner's normal operations.

<u>Provide minimum of ten (10) working days advanced notice</u> to Owner of demolition activities which will severely impact Owner's normal operations.

Maintain free and safe passage to and from Owner occupied areas.

<u>Condition of Structures:</u> Owner assumes no responsibility for actual condition of areas to be demolished.

Traffic and Passageways: Maintain accessibility for fire fighting apparatus.

1. Conduct demolition operations and debris removal to avoid interference with adjacent occupied facilities.

2. Obtain written permission from authorities having jurisdiction prior to closing or obstructing adjacent occupied facilities.

3. Provide alternate routes when closing or obstructing traffic ways when required by governing authorities.

4. Ensure safe passage of persons around area of demolition. Provide and maintain temporary covered passageways; comply with requirements of governing authorities.

<u>Protection:</u> Perform work in manner to eliminate hazards to persons or property and avoid interference with adjacent areas.

1. Maintain existing utilities that are to remain in service and protect from damage during demolition operations.

2. Do not interrupt existing utilities serving occupied facilities, except when authorized by Owner in writing. Provide temporary services during interruptions.

3. Coordinate in advance with Owner electrical interruptions.

4. Protect existing floors with suitable coverings when necessary.

COORDINATION

<u>The Contractor shall be responsible for coordinating demolition</u> of all affected electrical systems to prevent disruption to the Owner and minimize downtime.

<u>The Contractor shall be responsible for coordinating demolition</u> by other Divisions of the Specifications to prevent disruption to the Owner and minimize downtime.

PART 2 - PRODUCTS

Not used.

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PART 3 - EXECUTION

EXAMINATION

Beginning alterations to existing building systems means the installer accepts existing conditions.

PREPARATION

<u>Provide, erect, and maintain temporary barriers</u>, warning notifications (signs) and other security devices as may be required for personnel safety.

Inventory each panelboard where circuits are indicated to be reused. Sequentially consolidate existing circuits within each panelboard with regard to area served. Maximize capacity for service to the project area by including existing spares with the group of circuits breakers to be disconnected as a result of this selective demolition. Prepare a current directory, post demolition, for each panelboard as the base upon which the final directories will be compiled.

Temporarily tag every circuit breaker serving systems outside the demolition area. The tag shall be an OSHA compliant, commercially preprinted, 3¼ inch by 5-5/8 inch, accident prevention card with write on matte finish plastic surface, ¼ inch reinforced grommet and attachment string loop. The message on the card front shall read: "DANGER, DO NOT OPEN" and the message on the reverse side shall read: "DANGER, DO NOT REMOVE THIS TAG. NECESSARY DISCIPLINARY ACTION WILL BE TAKEN IF THESE ORDERS ARE DISREGARDED. SEE OTHER SIDE." The tags shall remain in place until the demolition and renovation are complete.

TEMPORARY CONDITIONS

<u>The Contractor shall include all temporary connections</u> necessary to permit the Owner to occupy areas of the building during the various construction phases.

SALVAGEABLE MATERIAL AND EQUIPMENT

<u>Carefully remove, store and protect</u> the salvage materials and equipment shown on the Drawings for Owner's use. Deliver to location directed by Owner.

<u>Carefully salvage, remove and store, and protect</u> for re-installation the materials and equipment shown on the Drawings.

Materials Retained by Contractor:

1. Items of salvageable value not indicated as Owner salvaged or scheduled for reinstallation may be removed as work progresses.

2. Salvaged items must be removed from site as they are removed. Storage or sale of salvaged items on site will not be permitted.

REMOVAL OF DEMOLITION MATERIAL

<u>Contractor shall remove existing systems</u>, shown or specified, necessary or reasonably inferred, for completion of his/her work. Owner will have the option of retaining any item of material removed under this contract. Item or materials not retained by Owner will become the property of the Contractor, removed from the premises and legally disposed off-site.

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<u>Contractor shall dispose of fluorescent lamps</u>, ballasts, and other hazardous materials in accordance with all Local, State and Federal regulations.

<u>Contractor shall remove all wiring determined to be disconnected and abandoned</u>, and remove all conduit and junction boxes determined to be empty and not intended to be used during the reconstruction phase.

Remove abandoned wiring to source of supply.

<u>Remove all exposed abandoned conduit</u>, including abandoned conduit above accessible ceiling finishes. Remove all junction boxes and conduit supports associated with conduit being removed.

Repair adjacent construction and finishes damaged during demolition and extension work.

Maintain continuity of circuits, which remain in service.

<u>Remove all existing luminaires, switches, receptacles</u>, and other electrical equipment and devices and associated wiring from walls, ceilings floors, and other surfaces scheduled for demolition unless specifically shown as retain or relocate on drawings.

<u>Remove auxiliary and signal systems</u> (IE: fire alarm, security, telephone, data, sound/paging and the like) not scheduled for reuse or relocation. Remove associated devices, appliances and cabling complete.

<u>Remove electrical systems associated with equipment</u> (IE: Elevators, motorized doors/shades/gates/ dampers, mechanical HVAC and plumbing equipment, landscape, civil, kitchen and other equipment served by the electrical systems) not scheduled for reuse or relocation on the drawings. Remove switchboards, motor control centers, panelboards, busway, electrical junctions boxes, pull boxes, conduit, raceway systems (IE: bus gutter, cable tray, plugmold), wiring, safety switches, enclosed circuit breakers, control panels, Energy management systems, relays and contactors associated with equipment scheduled for removal.

PERFORMANCE

<u>Perform drilling, cutting, block-offs, and demolition work</u> required for removal of necessary portions of electrical system. Do not cut joists, beams, girders, trusses, or columns without prior written permission from Architect/Engineer.

CLEANING

<u>Broom clean demolition areas</u> of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing prior to start of work.

Remove temporary work and protection when no longer needed.

<u>Unless noted otherwise, existing fixtures that are to remain</u> shall be cleaned and lamps and ballasts replaced with new lamps and ballasts.

END OF SECTION

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SECTION 16500 LIGHTING

PART 1 - GENERAL

SCOPE OF WORK

Lighting fixtures shall be furnished and installed as shown on the plans and as specified here.

SUBMITTALS

<u>Submit product data for each type of lighting fixture and emergency lighting unit specified.</u> Assemble and bind with separate sheet for each fixture type with all specifications of the fixture, including all accessories clearly indicated on each sheet. As a minimum include the following data and requirements for approval:

- 1. Complete photometric data.
- 2. A description of construction details of the fixture.

PART 2 - PRODUCTS

LIGHTING FIXTURES

<u>Compliance:</u> NFPA 70, NFPA 101, NEMA LE1 and LE2, and UL 486A. Comply with applicable local codes and regulations for emergency lighting and exit signage.

Lighting fixture types shall be as shown on the Drawings.

<u>Acceptance</u>: Provide complete product data and wiring diagrams in accordance with Section 16010 and Division 1. Provide manufacturer's prepared CAD shop drawings clearly showing devices to be used, location and near-field/far-field coverage.

Acceptable Manufacturer: ETC

PART 3 - EXECUTION

INSTALLATION QUALITY ASSURANCE

<u>All fixtures shall be left in a clean condition</u>, free of dirt and defects, before acceptance by the Architect.

<u>All fixtures shall operate properly</u>, with no noticeable noise, flicker or other difficulty, and all lamps shall operate properly and with no color shift before acceptance by the Architect.

<u>Demonstrate proper operation of emergency lighting units</u> by interrupting electrical energy to each lighting circuit in the area of operation. Demonstration by disconnection of the main service is not acceptable.

END OF SECTION

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SECTION 16555 - STAGE LIGHTING

PART 1 - GENERAL

RELATED DOCUMENTS

<u>Drawings and general provisions of the Contract</u>, including General and Supplementary Conditions, apply to this Section.

SUMMARY

<u>This Section includes equipment for stage lighting systems</u> including power supplies, dimmers, controls, distribution components, cables, plugs, and software.

SUBMITTALS

Product Data: For each type of product indicated.

<u>Shop Drawings</u>: Show fabrication and installation details for dimmer racks showing arrangements, characteristics, and circuit assignments of various modules. Include elevation views of front panels indicating devices and controls. Include illustrations and dimensioned outline drawings.

- 1 Wiring Diagrams: Power, signal, and control wiring. Show connections and circuit and channel assignments.
- 2 Equipment Legend: Show a unified system of designations for lighting instruments, panels, dimmers, circuits, and equipment.

Qualification Data: For Installer and manufacturer.

<u>Coordination Drawings</u>: Floor plans showing dimensioned layout, required working clearances, and required area above and around dimming equipment where piping and ducts are prohibited. Show rack layout and relationships between components and adjacent structural and mechanical elements.

<u>Operation and Maintenance Data</u>: For distribution components, software operating manuals, and controls to include in emergency, operation, and maintenance manuals. Operation and Maintenance Data shall include the following:

- 1. Control-Console Introduction:
 - a. Descriptions of controls and features.
 - b. Software instruction manuals.
 - c. Setup requirements for unit and related equipment.
 - d. Default settings.
 - e. Maintenance procedures and schedules.
- 2. Control-Console Operation:
 - a. Elementary on-off operation.
 - b. How to set cues manually.
 - c. How to patch dimmer to channels electronically.
 - d. How to operate two-scene presets manually.
 - e. How to operate fundamental memory.
 - f. How to set and record simple cues.

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- g. How to recall, playback, and revise cues and scenes.
- How to use submasters, split cues, store and recall programs, set up special effects, and print out cues.
- i. How to set up and run system for a typical event or performance.
- j. How to get help.
- 3. Dimmer Bank:
 - a. Descriptions of features, functions, and safety and security precautions.
 - b. Descriptions of dimmer module features, dipswitches, non-dim functions, and racking systems.
 - c. How to check loads against dimmer capacity ratings.
 - d. How to set basic power-in and power-out connections.
 - e. Basic maintenance requirements including need for qualified electrician for internal maintenance; basic maintenance schedule; techniques for keeping terminals properly tightened, filter screens clean, and overheat sensors checked; and techniques for performing other required servicing.
 - f. How to adjust control cards.
 - g. How to get help.
 - h. Description of warranty.
- 4. System Troubleshooting: Procedures for common software, programming, control console, dimmer bank, and distribution system problems; include information on how to get help.

QUALITY ASSURANCE

Installer Qualifications: An employer of workers trained and approved by manufacturer.

<u>Dimming Equipment Manufacturer Qualifications</u>: Maintain, within 200 miles of project site, a service center capable of providing training, parts, and emergency maintenance repair support within 24 hours' maximum response time.

<u>Electrical Components, Devices, and Accessories</u>: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

Comply with NECA 1.

Comply with NFPA 70.

PART 2 - PRODUCTS

MANUFACTURERS

In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

<u>Available Manufacturers</u>: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

<u>Manufacturers</u>: Subject to compliance with requirements, provide products by one of the manufacturers specified.

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<u>Power Wire and Cable: Building Wire in Raceways:</u> Comply with Division 16 Section "Conductors and Cables." Portable Power Cable: UL listed; flexible stage and lighting power cable; Types SC, SCE, or SCT; 600 V; multi-conductor; 60 deg C temperature rating.

LIGHTING CONTROL SYSTEM

Manufacturer: Provide the following

1. Electronic Theatre Controls (ETC) Sensor3.

<u>Description</u>: Microprocessor-based modular system consisting of dimmer and control modules operated from remote-control stations and a control console.

1. Comply with UL 508.

<u>Dimmer Boards</u>: Dead-front, UL-labeled, front-access, freestanding board for mounting modular dimmers; formed-steel or extruded-aluminum structural members, completely enclosed with steel or aluminum panels. Painted with manufacturer's standard corrosion-resistant primer and finish coats and the following features:

- 1. Primary Circuit Breaker: Fault-current withstand rating of the board; not less than 10,000 A, symmetrical.
- 2. Hinged, locking front door, with openings to allow air intake across the face of all dimmer modules.
- 3. Individual board sections shall not exceed 84 inches high by 25 inches deep by 30 inches wide.
- 4. For each module position, provide support rails and control-pin configurations, constructed for precise alignment of dimmer modules into power and signal connector sockets.
- 5. Forced-air cooling of each board for maintaining operating temperature at each dimmer, assuming full load, in ambient temperature not to exceed 40 deg C. Exhaust rates shall be variable using temperature sensors and fan-speed control electronics. Individual control of multiple fans is acceptable in lieu of fan-speed control. Fan(s) shall start and stop automatically. Fan noise at full load shall be less than 3.1 sones.
- 6. Each board shall have an automatic air-temperature sensor to shut off all dimmers in the board should the internal temperature rise above maximum safe operating limits. In an overheat condition, the fan shall continue operating. When a safe operating temperature is restored, the system shall automatically reset allowing normal user control.

<u>Dimmers</u>: Modular solid-state units that operate smoothly over their operating ranges without audible lamp noise or radio-frequency interference at any setting. Modules shall be dead-front, draw-out type with floating line, load, and control sockets for smooth insertion and withdrawal; with load-side thermal-magnetic circuit breaker, speed-controlled cooling fan, and overtemperature sensor.

- 1. Non-Dim Units: On-off relay control only. Capable of serving inductive loads such as motors or high-intensity-discharge fixtures.
- 2. Surge Protection: Modules shall withstand power-line surges of 6000 V/3000 A according to IEEE C62.41.
- Filter each dimmed circuit to provide a minimum 350-microsecond, current-rise time at a 90-degree conduction angle at 50 percent of rated dimmer capacity. At any load within rating, rate of current rise shall not exceed 30 mA/microsecond, measured from 10 to 90 percent of load current waveform.

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<u>Control System</u>: microprocessor-based control system with a nonvolatile system memory to adjust dimmer channel settings for different scenes, to patch dimmers to channels, and to manually or automatically change dimmer settings from one preset scene to another.

<u>Control Console</u>: Tabletop unit with manual and computer-based programming controls, memory units, indicating devices, and the following features:

- 1. Servicing access through hinged top panel.
- 2. Grand-master level control.
- 3. Blackout switch.
- 4. 48 submaster level controls with overlapping pile-on performance.
- 5. Bump buttons for momentary control of channels or submasters; one for each submaster level control.
- 6. Two cross-fade controls for split dipless fade between scenes, each with its own fade progress indicator.
- 7. One set of scene level controls for each scene when used in two-scene preset mode. Second set of scene level controls to allow setting levels into memory for expanded single scenes when used in multiple single-channel scene mode. Each set shall have same quantity of scene level controls as is used for submaster level controls.
- 8. Multi-button keypad for programming in multi scene memory mode.
- 9. Fade time control for assigning fade time to cues, with individual cue adjustment from 1 to 300 seconds, minimum.
- **10.** Computer monitor cathode-ray tube with associated display controls, for displaying operating menus and memory readout.
- 11. Controls for setting levels into memory.
- 12. Cord and connector for connecting console to outlets for console power and control.

Manufacturer: Provide the following

Electronic Theatre Controls (ETC) ION® Console.

<u>System Operation</u>: Selectable between multichannel two-scene preset and four-channel singlescene memory. Console features include electronic patching of control signals for up to 1024 dimmers and off-line data storage using USB connection. Operational capability includes the following:

- 1. Live and blind programming.
- 2. Special effects programmability for automatic operation of lights in pulsating, sequential dimming and brightening, and other special operating modes. Special effects menu displays operator guidance for programming and individual step levels.
- 3. Signal from fire-alarm control panel that automatically brings selected circuits to fully on or fully bright condition, overriding normal dimming and on-off controls.
- 4. Inserting cues between designated cues without renumbering.
- 5. Out-of-sequence playback of cues.
- 6. Controlling houselights and stage lights from console by assigning their dimmers or non-dim on-off controls to a channel.
- 7. Retaining programmed cues in memory for minimum of one year after power outage.
- 8. Automatic sequential execution of programmed cues.
- 9. Printing cues using USB or WiFi . Cable and printer are not included with this system.

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PART 3 - EXECUTION

INSTALLATION

Set permanently mounted items level, plumb, and square with ceilings and walls.

Indicated mounting heights are to bottom of unit for suspended items and to center of unit for wall-mounted items.

Mount and connect fixtures, and install and connect distribution devices.

- 1. If arrangement is not indicated, install so each fixture, dimmer, house lighting circuit, control channel, and outlet circuit can be operated and complete system demonstrated in all operating modes.
- 2. Install safety cables secured to stage rigging or gridiron for all pipe-mounted electrical fixtures and equipment.

WIRING

Power Wiring:

- 1 Install wiring as specified in Division 16 Section "Conductors and Cables" for hard-wired connections. Install wiring in raceways except cable and plug connections.
- 2 Install power wiring with a separate neutral for each output circuit from main dimmer and for each house and stage lighting circuit.

Signaling, Remote-Control, and Power-Limited Circuits:

- 1. Size conductors according to lighting control device manufacturer's written instructions, unless otherwise indicated. Remote-control circuits associated with emergency lighting control shall be installed complying with Class I Circuit standards per NFPA 70.
- 2. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points.
- 3. Splices, Taps, and Terminations: Make connections only on numbered terminal strips 111 junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures.
- 4. Support lighting fixtures, distribution components, and accessories. Equip all pipe-mounted equipment with safety cables that are secured to supporting pipe.
- 5. Ground equipment.

IDENTIFICATION

Identify components, power, and control wiring according to Section 16010.

Label each lighting outlet, distribution device, and dimmer module with unique designation. Designations on elevated components shall be readable from floor.

FIELD QUALITY CONTROL

<u>Manufacturer's Field Service</u>: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.

Schedule electrical tests and visual and mechanical inspections with at least seven days' advance notice.

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Visual and Mechanical Tests and Inspections:

- 1. Inspect each fixture, outlet, module, control, and device for defects, finish failure, corrosion, physical damage, labeling by nationally recognized testing laboratory, and nameplate.
- 2. Exercise and perform operational tests on mechanical parts and operable devices according to manufacturer's written instructions.
- 3. Check tightness of electrical connections with torque wrench.
- 4. Verify proper protective device settings, fuse types, and ratings.
- 5. Record results of tests and inspections.

Electrical Tests: Perform tests according to manufacturer's written Instructions.

- 1. Continuity tests of circuits.
- 2. Operational Tests: Connect each outlet to a fixture and a dimmer output circuit so each dimmer module, dimmer control and output circuit, outlet, and fixture in a typical operating mode will be sequentially tested. Set and operate controls to demonstrate fixtures, outlets, dimmers, and controls in a sequence that cues and reproduces actual operating functions for a typical system of the size and scope installed. Include operation and control of houselights and stage lights from each control location and station including optional plug-in control-console outlet locations. Record fixture and outlet assignments, control settings, operations, cues, and observations of performance.

<u>Correct deficiencies disclosed by tests and inspections</u>, and retest deficient items. Verify that specified requirements are met.

<u>Test Labeling</u>: After satisfactory completion of tests and inspections, apply a label to tested components indicating test results, date, and responsible organization and person.

<u>Reports</u>: Prepare a schedule of lighting outlets by number; indicate circuits, dimmers, connected fixtures, and control-channel assignments. Prepare a schedule of control settings and circuit assignments for house control channels. Prepare written reports of tests and observations. Report defective materials, workmanship, and unsatisfactory test results. Include records of repairs and adjustments made.

DEMONSTRATION

Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain stage lighting equipment. Refer to Division 1 Section "Demonstration and Training."

END OF SECTION

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Bid Proposal Form

BID NO. 5462-2017 – JAMES S RICKARDS HIGH SCHOOL AUDITORIUM THEATRICAL LIGHTING CONTROLS REPLACEMENT

Vendor Acknowledgment

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm, or person submitting a bid for the same materials, supplies or equipment, and in all respects fair and without collusion or fraud. The following information, including an authorized representative signature is required to be submitted with your bid in order to be considered for evaluation and award. The person signing below acknowledges and agrees with all proposed information as submitted and has the authorization of the said company to enter into a contractual agreement with the School Board of Leon County for the purposes as proposed and as described herein. Please print and sign below where required.

Authorized Representative's Name/Title	Authorized Representative's Signature		Date
Company's Name	Telephone Number		FAX Number
Address	City	State	Zip Code
Area Representative	Telephone Number		FAX Number

		DESCRIPTION		TOTAL BID
	Total Bid for the James S Rickards High School Auditorium Theatrical Lighting Controls Replacement as Specified		\$	
ADDENDA	ACKNOWLEDGMENT:	The undersigned also acknow	ledges the receipt of the fo	llowing Addenda:
ADDENDU	M NO	DATED	ADDENDUM NO.	DATED
ADDENDU	M NO	DATED	ADDENDUM NO.	DATED

EXHIBIT A

CONFLICT OF INTEREST CERTIFICATE

Bidder **must** execute either Section I or Section II hereunder relative to Florida Statute 112.313(12). Failure to execute either section may result in rejection of this bid proposal.

SECTION I

I hereby certify that no official or employee of the School Board requiring the goods or services described in these specifications has a material financial interest in this company.

Signature

Name of Official (Type or print)

Business Address

Company Name

City, State, Zip Code

SECTION II

I hereby certify that the following named Leon County School Board official(s) and employee(s) having material financial interest(s) (in excess of 5 %) in this company have filed Conflict of Interest Statements with the Supervisor of Elections, 315 South Calhoun Street, Tallahassee, Leon County, FL prior to bid opening.

Name	Title or Position	Date of Filing
Signature		Company Name
Name of Official (Type or pr	int)	Business Address
		City, State, Zip Code



SUPERINTENDENT Rocky Hanna

BOARD CHAIRMAN Georgia "Joy" Bowen LEON COUNTY SCHOOLS 2757 West Pensacola Street – Tallahassee, FL 32304-2998 FAX FORM TO: (850) 487-7869 BOARD VICE-CHAIR. Alva Striplin

BOARD MEMBERS Maggie B. Lewis-Butler Dee Dee Rasmussen Rosanne Wood

APPLICATION FOR VENDOR STATUS (IRS W-9 Facsimile)

NEW VENDOR
UPDATE

CONTACT PERSON:		
PHONE NUMBER: ()	FAX NUMBER: ()	
CORRESPONDENCE ADDRESS:		
CITY:	STATE:	
ZIP + 4:		
REMITTANCE: NAME (if different from above):		
ADDRESS:		
СІТҮ:	STATE:	
ZIP + 4:		
EMAIL ADDRESS:	WEBSITE:	
PLEASE CHECK APPROPRIATE BOX: Individua Other	al/Sole Proprietor 🛛 S Corporation 🗇 C Corp	
TAX IDENTIFICATION NUMBER: Federal Employe	OR er Identification Number Social	Security Number
Section 6109 of the Internal Revenue Service Cod are required to file information returns with the I		
PLEASE INDICATE THE FOLLOWING: *Minority Ve	endor? 🗆 Yes 🛛 No Male 🗆 🛛 Female 🗆	
n yes, ceruncauon required –	casian: 🗆 Hispanic: 🗆 African American: 🗆 erican Indian: 🗆 Other:	
Ву:		
SIGNATURE	PRINTED NAME	DATE
LCSB site contact requesting vendor:	NAME	PHONE/EMAIL

EXHIBIT C

Depart	W-9 December 2014) ment of the Treasury Revenue Service	Request for Identification Numbe		cation		Give Form to the requester. Do not send to the IRS.
	1 Name (as shown	on your income tax returnj. Name is required on this line; do	not leave this line blank.			
000 2.	2 Business name/	disregarded entity name, if different from above				
Print or type See Specific Instructions on page	Individual/sok	rшc .	n 🔲 Partnership	Trust/estate	certain enti- Instructions	ons (codes apply only to tiles, not individuals; see s on page 3): yee code (if any)
Print or type Instruction	Note. For a si	y company. Enter the tax classification (C=C corporation, S=3 ingle-member LLC that is disregarded, do not check LLC; che loation of the single-member owner.				from FATCA reporting
žŝ	Other (see ins	-			Applies to acco	curits maintained outside the (U.S.)
pecifi	5 Address (numbe	r, street, and apt. or suite no.)		Requester's name a	nd address	(optional)
8	6 City, state, and 2	ZIP code				
	7 List account nur	nber(s) here (optional)				
Par	t Taxpa	yer Identification Number (TIN)				
backı reside entitle 71N o Note.	p withholding. Fo int alien, sole prop is, it is your emplo in page 3.	propriate box. The TIN provided must match the nam r individuals, this is generally your social security num vietor, or disregarded entity, see the Part I instruction yer identification number (EIN). If you do not have a n n more than one name, see the instructions for line 1 a mber to enter.	ber (SSN). However, f s on page 3. For other umber, see How to ge	ta or	identificatio	-
Par	Certifi	eation				
	penalties of perju					
		on this form is my correct taxpayer identification numb	er (or I am waiting for	a number to be iss	sued to me	e); and
Se	rvice (IRS) that I a	ackup withholding because: (a) I am exempt from bac m subject to backup withholding as a result of a failur backup withholding; and				
3. I a	m a U.S. citizen o	r other U.S. person (defined below); and				
		ntered on this form (If any) indicating that I am exemp		-		
becau Intere gener Instru	ise you have falled st paid, acquisitio ally, payments oth ctions on page 3.	ns. You must cross out item 2 above if you have been a to report all interest and dividends on your tax return n or abandonment of secured property, cancellation of er than interest and dividends, you are not required to	 For real estate trans f debt, contributions t 	actions, Item 2 doe o an Individual retir	s not appl ement arra	ly. For mortgage angement (IRA), and
Sign Here			De	ite 🕨		
Ger	eral Instru	ctions	Form 1098 (home mo (tuttion)	rtgage interest), 1098	-E (student	ioan interest), 1098-T
		he Internal Revenue Code unless otherwise noted.	• Form 1099-C (cancel			
as logi	slation enacted after	smation about developments affecting Form W-9 (such we release it) is at www.its.gov/fw9.		you are a U.S. perso		
An Ind		n W-9 requester) who is required to file an information	provide your correct Til If you do not return F to backup withholding.	orm W-9 to the reque		TIN, you might be subject 7 on page 2.
which	may be your social s r (ITIN), adoption tax	tain your correct taxpayer identification number (TIN) ecurity number (SSN), individual taxpayer identification spayer identification number (ATIN), or employer to second use individual tax much amount call to	By signing the filled-	out form, you:	-	are waiting for a number
уоц, а	Santification number (EIN), to report on an information return the amount paid to ou, or other amount reportable on an information return. Examples of information aturns include, but are not limited to, the following: 2. Certify that you are not subject to backup withholding, or					

2. Carity that you are not subject to backup withholding, U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

Cartify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See What is FATCA reporting? on page 2 for further information.

Cat. No. 10231X

. Form 1099-INT (Interest earned or paid)

· Form 1099-S (proceeds from real estate transactions)

 Form 1099-DIV (dividends, including those from stocks or mutual funds) · Form 1000-MISC (various types of income, prizes, awards, or gross proceeds)

Form 1099-8 (stock or mutual fund sales and certain other transactions by brokers)

. Form 1099-K (merchant card and third party network transactions)



CUSTOMER REFERENCE FORM

BID NO. 5462-2017 – JAMES S RICKARDS HIGH SCHOOL AUDITORIUM THEATRICAL LIGHTING CONTROLS REPLACEMENT

Please provide all requested information for each reference.

Company Name:			
Business Type:			
Contact Person:			
Telephone:			
Email:			
Date Last Supplied	Products or Services:	 	
Company Name:			
Business Type:			
Contact Person:			
Telephone:			
Email:			
Date Last Supplied	Products or Services:		
Company Name:			
Business Type:			
Contact Person:			
Telephone:			
Email:			
	Products or Services:		



VENDOR QUESTIONNAIRE

BID NO. 5462-2017 – JAMES S RICKARDS HIGH SCHOOL AUDITORIUM THEATRICAL LIGHTING CONTROLS REPLACEMENT

Please provide written responses to the following questions. If the answer to any of the questions is `Yes`, Vendor shall describe fully the circumstances, reasons therefore, the current status, and ultimate disposition of each matter that is the subject of this inquiry.

1. Has Vendor bee	en declared in default of any contract?
2. Has Vendor for Yes	feited any payment of performance bond issued by a surety company on any contract? \square No
•	leted contract been assigned by Vendor's surety company on any payment of performance bond issued to om its failure to fully discharge all contractual obligations there under?
4. Within the past bankruptcy statut Ses	three years, has Vendor filed for reorganization, protection from creditors, or dissolution under the es?
	the subject of any litigation in which an adverse decision might result in a material change in the firm's or future viability? □ No
	ntly involved in any state of a fact-finding, negotiations, or resistance to a merger, friendly acquisition, or either as a target or as a pursuer?
7. Within the next	e year, does Vendor plan any personnel reductions? If so, explain by attachment.
8. Within the next	e year, does Vendor plan any divestments? If so, explain by attachment.



DRUG FREE WORKPLACE

Preference shall be given to vendors submitting a certification with their bid/proposal certifying they have a drug-free workplace in accordance with Section 287.087, Florida Statutes. Whenever two or more bids that are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

IDENTICAL TIE BIDS – Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids, which are equal with respect to price, quality, and service, are received by the State or any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedure for processing tie bids shall be followed if none of the tied vendors have a drug-free workplace program.

A business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- **3)** Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee s will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occur ring in the workplace no later than five (5) days after such conviction.
- 5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

VENDOR'S SIGNATURE: _____

EXHIBIT G

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION -LOWER TIER COVERED TRANSACTIONS

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON THE FOLLOWING PAGE)

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Organization Name

Name(s) of Authorized Representative(s)

Signature(s)

Title(s) of Authorized Representative(s)

PR/Award Number or Project Name

Date

INSTRUCTIONS FOR CERTIFICATION OF DEBARMENT

- 1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
- 2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- **3.** The prospective lower tier participant shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- 5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- 6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- 8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- **9.** Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

EXHIBIT H



SWORN STATEMENT – NEW CONTRACTS SWORN STATEMENT PURSUANT TO SECTION 1012.465, FLORIDA STATUTES AS AMENDED BY HB 1877, THE JESSICA LUNSFORD ACT

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

by	(Print individual's name and title)
for	
	(Print name of entity submitting sworn statement)
whose business a	ddress is
	nployer Identification Number (FEIN) is
	nployer Identification Number (FEIN) is
	entity has no FEIN, include the Social Security Number (SSN) of the individual signing this sworn statement and so indicate.
	entity has no FEIN, include the Social Security Number (SSN) of the individual signing this sworn statement and so indicate.
	entity has no FEIN, include the Social Security Number (SSN) of the individual signing this sworn statement and so indicate.
	entity has no FEIN, include the Social Security Number (SSN) of the individual signing this sworn statement and so indicate.
If the e	entity has no FEIN, include the Social Security Number (SSN) of the individual signing this sworn statement and so indicate.
	entity has no FEIN, include the Social Security Number (SSN) of the individual signing this sworn statement and so indicate.

- **3.** I understand that during the 2005 Legislative Session, House Bill 1877, The Jessica Lunsford Act (hereinafter "The Act" or "Act") was passed and approved by Governor Bush on May 2, 2005, with an effective date of September 1, 2005.
- 4. I understand that the Act amends the background screening requirements of section 1012.465, Florida Statutes (2004) for all non-instructional School Board employees or **"contractual personnel"** by requiring all non-instructional School Board employees or contractual personnel who are permitted access on school grounds when students are present to undergo and pass "level 2 background screening," and further I understand the Act defines **"contractual personnel"** to include any vendor, individual, or entity under contract with the School Board.

- 5. I understand that pursuant to section 1012.465, Florida Statutes as amended by the Act, non-instructional School Board employees or <u>contractual personnel who are permitted access on school grounds when students are present, who have direct contact with students or who have access to or control of school funds must meet level 2 screening requirements as described in sections 1012.32 and 435.04, Florida Statutes.</u>
- 6. I understand that as a ______ (eg. a charter bus company) (Type of entity)

all contractual personnel, as defined in section 1012.465, Florida Statutes, must meet Level 2 screening requirements as outlined in sections 1012.32 and 435.04, Florida Statutes in order to do business with the School Board.

- 7. I understand that "level 2 screening requirements" as defined in sections 1012.32 and 435.04, Florida Statutes means that fingerprints of all contractual personnel must be obtained and submitted to the Florida Department of Law Enforcement for state processing and to the Federal Bureau of Investigation for federal processing.
- 8. I understand that the School Board has implemented School Board Policy 2.021 to comply with level 2 screening requirements, as defined in sections 1012.32 and 435.04, Florida Statutes. I understand that my company must comply with these local procedures as they are developed or amended from time to time.
- 9. I understand that any costs and fees associated with the required background screening will be borne by my company.
- 10. I understand that any personnel of the contractor found through fingerprint processing and subsequent level 2 background screening to have been found guilty of, regardless of adjudication, or entered a plea of nolo contendere or guilty to any offense outlined in Section 435.04, Florida Statutes (or any similar statute of another jurisdiction), <u>shall not be permitted</u> to come onto school grounds or any leased premises where school-sponsored activities are taking place when students are present, shall not be permitted direct contact with students, and shall not be permitted to have access to School Board funds.
- **11.** I understand that the failure of any of the company's or my affected personnel to meet level 2 screening standards as required by section 1012.465, Florida Statutes, may disqualify my company from doing business with the School Board.
- **12.** I hereby certify that the foregoing statement is true and correct in relation to the company for which I am submitting this sworn statement. I further certify that this statement is being given knowingly and voluntarily by me on behalf of my company.

The company submitting this sworn statement agrees to be bound by the provisions of SECTIONS 1012.32, 1012.465, AND 435.04 OF THE FLORIDA STATUTES AS AMENDED BY HB 1877, THE JESSICA LUNSFORD ACT 2005.

I CERTIFY THAT THE SUBMISSION OF THIS FORM TO THE SCHOOL BOARD OF LEON COUNTY, FLORIDA ON BEHALF OF THE COMPANY IDENTIFIED IN PARAGRAPH ONE (1) ABOVE BINDS THE COMPANY TO FULLY COMPLY WITH THE BACKGROUND SCREENING REQUIREMENTS OF SECTIONS 1012.32, AND 435.04, FLORIDA STATUTES.

	(Signature)
Sworn to and subscribed before me this	day of 20
	is personally known to me \Box OR produced identification \Box
by showing	(Type of identification)
Notary Public – State of	My commission expires on:
Signature of Notary Public	(Printed, typed or stamped commissioned name of Notary Public)

<u>EXHIBIT I</u>

AFFIDAVIT FOR CLAIMING LOCAL PURCHASING PREFERENCE

BID NO. 5462-2017 – JAMES S RICKARDS HIGH SCHOOL AUDITORIUM THEATRICAL LIGHTING CONTROLS REPLACEMENT

Proposer/Bidder/Quoter/Supplier affirms that it is a local or adjacent county business as defined by Policy #6450 of Leon County Schools and the regulations thereto.

A Leon/adjacent county vendor is a private independent vendor that has been licensed for at least six (6) months preceding the bid or proposal opening, as required by local, State, and Federal law to provide the goods, services, or construction to be purchased. The vendor must have a physical business address, staffed by at least one (1) person, in the geographical boundaries of Leon County or in the adjacent counties of Gadsden, Jefferson, or Wakulla, Florida. The vendor, on a day-to-day basis, should provide to the School Board the needed goods and/or services substantially from the local business address. Post Office boxes are not verifiable and shall not be used for the purpose of establishing said physical address.

Please complete the following in support of the self-certification:

ddress:				
	Phone	Fax	Email	
county:		Length of time at this location:	# of employees at this location	_
s your busin	ness certified as a sm	all business through Leon County Schoo	ols?	-
Signature of Authorized Representative			Date	
tate of	FLORIDA			
County of				
vorn to and	subscribed before m	e, a Notary Public for the above State an	d County, on this	day of
	, 20			
	Notary Pub	lic	My Commission Expires	

EXHIBIT J INDEMNIFICATION AND INSURANCE

In consideration of this Contract, if awarded, the Vendor agrees without reservation to the indemnification and insurance clauses contained herein. These clauses are attached to and form a part of BID NO. 5416-2017 – HIGH SCHOOL ATHLETIC TRACKS REPAIR, RESURFACE AND RESTRIPE

The Vendor shall hold harmless, indemnify and defend the indemnities (as hereinafter defined) against any claim, action, loss, damage, injury, liability, cost or expense of whatsoever kind or nature including, but not by way of limitation, attorneys' fees and court costs arising out of bodily injury to persons including death, or damage to tangible property arising out of or incidental to the performance of this Contract (including goods and services provided thereto) by or on behalf of the Vendor, whether or not due to or caused in part by the negligence or other culpability of the indemnities, excluding only the sole negligence or culpability of the indemnities. The following shall be deemed to be indemnities: The School Board of Leon County, Florida and its members, officers and employees.

INSURANCE

Prior to being recommended for award, the Vendor has five business days after notification to submit proof of insurance as required herein. Failure to submit a fully completed certificate of insurance signed by an authorized representative of the insurer providing such insurance coverage's may cause the Vendor to be considered non-responsive and not eligible for award of the Contract. The insurance coverage's and limits shall meet, at a minimum, the following requirements:

- 1. Commercial General Liability Insurance in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage.
- 2. Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the operation of the Vendor, in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage.
- 3. Workers' Compensation Insurance for all employees of the Vendor as required by Florida Statutes.
- 4. The School Board of Leon County, Florida" must be listed as additional insured on all liability coverage's except Workers' Compensation.

The insurance coverage required shall include those classifications, as listed in standard liability insurance manuals, which most nearly reflect the operations of the Vendor.

All insurance policies shall be issued by companies with either of the following qualifications:

1. The company must be:

- a. authorized by subsisting certificates of authority by the Department of Insurance of the State of Florida or
- **b.** an eligible surplus lines insurer under Florida Statutes. In addition, the insurer must have a Best's Rating of "A" or better and a Financial Size Category of "IV" or better according to the latest edition of Best's Key Rating Guide, published by A.M. Best Company.

or

2. With respect only to the Workers' Compensation insurance, the company must be:

- a. authorized as a group self-insurer pursuant to Florida Statutes or
- b. authorized as a commercial self-insurance fund pursuant to Florida Statutes

Neither approval nor failure to disapprove the insurance furnished by the Vendor to the School Board shall relieve the Vendor of the Vendor's full responsibility to provide insurance as required by this Contract.

The Vendor shall be responsible for assuring that the insurance remains in force for the duration of the contractual period; including any and all option years that may be granted to the Vendor. The certificate of insurance shall contain the provision that the School Board be given no less than thirty (30) days written notice of cancellation. If the insurance is scheduled to expire during the contractual period, the Vendor shall be responsible for submitting new or renewed certificates of insurance to the School Board at a minimum of thirty (30) calendar days in advance of such expiration.

Unless otherwise notified, the certificate of insurance must be delivered to the following address:

Leon County School Board Purchasing Department Attn: June Kail, Director of Purchasing 3397 W. Tharpe St. Tallahassee, Florida 32303

The name and address of Leon County Public Schools, as shown directly above, must be listed as Certificate Holder on the Certificate of Insurance as well as clearly noted as "Additional Insured".

The Vendor may be in default of this Contract for failure to maintain the insurance as required by this Contract. Any questions and/or inquiries should be directed to Janet Maxwell at (850) 487-7113